

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 for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Milwaukee Pierhead Light

other names/site number _____

2. Location

street & number Milwaukee Harbor entry north pier, SE corner of H.W. Maier Festival Park ☐ not for publication

city or town Milwaukee ☒ vicinity

state Wisconsin code WI county Milwaukee code 079 zip code 53202

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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. I recommend that this property be considered significant at the following level(s) of significance:

national statewide X local

Signature of certifying official/Title

Date

United States Coast Guard

State or Federal agency/bureau or Tribal Government

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

Signature of commenting official

Date

State Historic Preservation Officer - WI

Title

State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

☒ entered in the National Register

☐ determined eligible for the National Register

☐ determined not eligible for the National Register

☐ removed from the National Register

☐ other (explain) _____

Signature of the Keeper

Date of Action

Milwaukee Pierhead Light

Name of Property

Milwaukee County, WI

County and State

5. Classification

Ownership of Property

(Check as many boxes as apply.)

☐ private
☐ public - Local
☐ public - State
☒ public - Federal

Category of Property

(Check only **one** box.)

☐ building(s)
☐ District
☐ Site
☒ Structure
☐ Object

Number of Resources within Property

(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		district
		Site
1	1	structure
		Object
1	1	Total

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing)

Light Stations of the United States

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

Transportation

Water-related

Current Functions

(Enter categories from instructions.)

Transportation

Water-related

7. Description

Architectural Classification

(Enter categories from instructions.)

No style

Materials

(Enter categories from instructions.)

foundation: Metal

walls: Metal

roof: Metal

other:

Milwaukee Pierhead Light

Name of Property

Milwaukee County, WI

County and State

Narrative Description

Summary Paragraph

The Milwaukee Pierhead Light is a steel conical tower lighthouse established as a Federal aid to navigation in 1906. It stands atop the offshore end of the north pier at the entry to Milwaukee Harbor from Lake Michigan. Located on the City of Milwaukee lakefront in Milwaukee County, Wisconsin, this property consists of one contributing resource, a lighthouse, and one noncontributing resource, the north pier. The lighthouse is approximately 42 feet tall and includes a slightly tapering conical tower made of steel plates arranged in eight courses. Each successive course from the base is lesser in diameter. The tower is topped with a decagonal (10-sided) lantern surrounded by a circular open-air gallery. The light tower is painted red. The lantern and lantern gallery are painted black. The lantern is equipped with a modern automated optic having a focal plane 45 feet above water level. This beacon signals a red light that flashes once every four seconds and is visible for seven miles in clear weather. The north pier upon which the lighthouse stands is owned by the U.S. Army Corps of Engineers. It is designated as a noncontributing resource because the existing pier is a reconstruction dating to the 1970s. The Milwaukee Pierhead Light is owned by the U.S. Coast Guard. It is identified as number 20670 on the Great Lakes regional light list. This lighthouse is not open to public visitation. It and the north pier are accessible from land by way of the southeast corner of the Henry W. Maier Festival Park on the Milwaukee lakefront.

Narrative Description

(see continuation sheets)

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Narrative Description

Setting

This lighthouse property is situated on the north pier at the place where the Milwaukee River empties into Lake Michigan. The channel adjacent to the lighthouse is the entry to Milwaukee Harbor. This property is situated at the southeast corner of the City of Milwaukee's Henry W. Maier Festival Park in Milwaukee County, Wisconsin. Milwaukee Pierhead Light sits atop the north pier's eastern end, which extends into the waters of Lake Michigan's Milwaukee Bay. The north pier is a Federal government navigation structure owned by the U.S. Army Corps of Engineers (USACE). It is surrounded by the water except for its western end which meets the shore. The lighthouse was constructed in 1906 and has occupied the north pier's offshore end since then. The north pier structure today differs from the early twentieth century north pier, having been reconstructed in the 1970s using steel sheet pile and concrete. The locality in the vicinity of the Milwaukee Pierhead Light has also undergone substantial changes since the property's period of historical significance. During the first half of the twentieth century this setting was characterized by the north pier extending several hundreds of feet from the shoreline as it was then, the nearby Milwaukee waterfront was characterized by industrial facilities and transportation features associated with shipping and railroads, and the area north of the north pier consisted of submerged land beneath the waters of Lake Michigan. Today, the north pier extends a mere 150 feet from shore. Much of the area north of the pier is now a large expanse of late twentieth century man-made land resulting from bulkhead construction and filling. This made-land is presently occupied by the Henry W. Maier Festival Park, Marcus Amphitheater, and Lakeshore State Park. Another change in setting dating to the late twentieth century was construction of the Daniel Hoan Memorial Bridge. Built just 0.2 mile west of the Milwaukee Pierhead Light, the Hoan Bridge carries Interstate 794 across the Milwaukee River. It presently dominates the lighthouse's setting when viewed looking west from Lake Michigan. The Milwaukee Pierhead Light's eastward setting looking towards Lake Michigan remains essentially the same as during the property's period of historical significance. There is an unobstructed view of the Milwaukee Breakwater Light (built in 1926, NRHP # 11000678), which is located approximately 0.7 mile to the east across the waters of Milwaukee Bay.

Contributing Resource: Lighthouse

The Milwaukee Pierhead Light property includes one contributing resource, a lighthouse built in 1906. It is owned by U.S. Coast Guard (USCG) and identified as number 20670 in the Great Lakes regional light list. This lighthouse is approximately 42 feet tall and includes four stories. It has a concrete slab foundation and a slightly tapering conical tower that supports a circular lantern gallery and decagonal (10-sided) lantern. The light tower is painted red. The lantern and lantern gallery are painted black. The lighthouse's foundation is a 2-foot tall rectangular concrete slab approximately 18 feet long on the sides. This slab sits atop the north pier's concrete deck and is not original to the lighthouse. It dates to the north pier's reconstruction during the 1970s.

The light tower is built of eight courses of curved steel plates that are 3/8-inch thick and approximately three feet tall. Each course is made with three adjoining curved plates fastened with rivets. The bottom course has the greatest diameter, approximately 12.5 feet. Each successive course has a slightly smaller diameter than the one below, giving the tower a slightly tapering profile. The tower's entrance is on the western side. It is a rectangular doorway six feet tall by 30 inches wide that is fitted with a metal door. The doorway's threshold is eight inches above the lighthouse's concrete slab foundation. A rectangular sign with the words "Caution USCG Electric Cable" is attached to the tower's exterior on the eastern side. It informs viewers of an underwater power cable running eastward from the north pier to the offshore Milwaukee Breakwater Light. The light tower's upper section is pierced with three circular, one-foot diameter port light openings, one each on the north, south and west sides. An upward-turned pipe elbow for a stove pipe smoke stack extends out from the tower above the port lights on the northwest side. It is non-functioning and its top is capped.

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The tower's first story interior is approximately 10 feet in diameter. The circular floor is concrete with an opening that is presently covered. The ceiling is 9 feet, 8 inches above. A wall-mounted electrical panel is on the eastern side. An original, curving cast iron stairway rises from the floor to a 32-inch wide by 50-inch long crescent-shaped opening in the ceiling. The stairway treads are bolted together and have a raised pattern of small diamond-shapes for traction. There are no risers. Handrails made with 2-inch diameter metal pipe are attached on the stairway's left and right sides. The second story room is approximately nine feet in diameter and has a circular 5-inch thick concrete floor. A circular drain pierces the floor. The ceiling is 8 feet, 3 inches above. An original, curving cast iron stairway rises from the floor to a crescent-shaped opening in the ceiling, providing access to the third story. It is built the same as the stairway between the first and second stories.

The third story is the lighthouse's watch room. It is approximately eight feet in diameter and has a circular metal floor. The ceiling is 11 feet, 2 inches above. The surrounding interior wall has an 8-inch thick coating of concrete inside the steel outer wall. The wall includes 28-inch tall by 32-inch wide rectangular niches on the north, south, and west sides. Each niche is framed with wooden molding and includes a one-foot diameter circular window opening fitted with an original port light. A circular stove pipe opening pierces the upper wall on the watch room's northwest side. It is covered with a metal plate. A metal double-rung ladder rises from the floor to a 24-inch by 32-inch rectangular opening in the ceiling that is fitted with a trap door. This ladder provides access to the lantern room.

The decagonal (10-sided) lantern sits centered atop the tower on a circular platform approximately ten feet in diameter that is made with steel plates. The open-air gallery surrounding the lantern is bounded by a circular guardrail made with flat metal bars supported by rectangular metal bar stanchions. The guardrail's three horizontal tiers are tied together with supplemental flat metal bars oriented diagonally and vertically. A rectangular solar array is attached to the guardrail on the south side. It is used to recharge batteries that power the lighthouse's beacon.

The lantern includes a 3-foot tall parapet wall made with ten cast iron plates supporting mullions that frame ten rectangular window openings that are 3 feet tall by 2 feet wide. Six window openings are glazed with glass panes. The four window openings on the lantern's western side are filled with rectangular metal plates that are painted black on the front and back sides. The parapet's western side is pierced with a metal door measuring 36 inches tall by 21 inches wide providing access to the lantern gallery. The lantern room floor is pierced with a trapdoor. A pedestal attached to the center of the floor supports a modern automated 300-millimeter acrylic optic having a focal plane 45 feet above water level. This optic signals a red light that flashes once every four seconds and is visible for seven miles in clear weather. The lantern's roof springs from a soffit above the glazing. It is made with ten triangular plates that slope upward to a central vent opening capped with a 2-foot tall vent pipe topped with a vent ball. A lightning rod is attached atop the vent ball. The roof and vent are painted black.

Noncontributing Resource: North Pier

The property's noncontributing resource is the north pier at the entry to Milwaukee Harbor. This is a Federal navigation structure owned and maintained by the U.S. Army Corps of Engineers (USACE). The north pier stands in water approximately 20 feet deep and is approximately 150 feet long by 25 feet wide. It extends eastward from shore into the Milwaukee Bay waters of Lake Michigan. Its vertical sides are made with steel sheet piles and the interior space within is filled with concrete. The pier's deck is concrete and steel guardrails extend around the deck's periphery.

The north pier was originally built under USACE supervision in 1857 to stabilize a navigation channel excavated between Milwaukee harbor and Lake Michigan. A pier was also built to stabilize the channel's southern side. This channel superseded the natural mouth of the Milwaukee River which was located to the south. Subsequent Congressional appropriations provided funds to the USACE to maintain and improve these navigation structures. One such project in 1868 extended the north and south piers farther into the waters of Lake Michigan. A Federal aid to navigation designated the Milwaukee Pierhead Light was established on the north pier in 1872.

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The north pier was rebuilt using concrete during the early twentieth century during the Milwaukee Pierhead Light's period of historical significance. A subsequent reconstruction project undertaken by the USACE during the 1970s resulted in the north pier's configuration as it exists today, which is substantially different from the pier's earlier historical character. Because of this, the existing north pier is designated as a noncontributing resource.

Changes in Physical Appearance and Overall Integrity

The Milwaukee Pierhead Light today is very much the same as when it was built in 1906. Changes to its structure have been limited. One change has been the nature of the foundation underlying the lighthouse. It originally stood atop the north pier's concrete deck as it existed in 1906. Today, the existing north pier is the result of reconstruction in the 1970s and the lighthouse stands on a concrete slab foundation that sits atop the existing pier's concrete deck. Another aspect that has changed is that the lighthouse's day mark coloration was originally painted a light grey color with a black lantern. This was changed circa 1914 to a buff-colored tower and a black lantern. The day mark was finally changed to a red tower topped with a black lantern in the 1930s and retains that coloration today.

When the Milwaukee Pierhead Light was constructed in 1906, it was the front range light of a two-light range on the north pier. The rear range light was a taller skeletal tower supporting a beacon and was located several hundreds of feet towards the west along the north pier. A vessel approaching Milwaukee harbor from Lake Michigan sought to align itself with the front and rear range lights oriented vertically. The north pier at that time also included a keeper's dwelling and a steam-powered fog signal house.

The Pierhead Light's original 1906 lantern was cylindrical with helical mullions holding its glazing. It was equipped with a fourth order Fresnel lens that signaled a fixed red light visible for 13 miles. The lighthouse's watch room was equipped with a stove connected to a stove pipe smokestack on the tower's northwestern side.

In 1926, the Milwaukee Breakwater Light was built offshore approximately 0.7 mile east of the Pierhead Light. This construction included the transfer of the Milwaukee Pierhead Light's original cylindrical lantern and fourth order Fresnel lens to the new breakwater lighthouse. In their place, a decagonal lantern and fifth order Fresnel lens were installed atop the Milwaukee Pierhead Light. This replacement lantern remains atop the Pierhead Light today. The north pier's two-light range was discontinued during the early 1930s and the rear range light's skeletal tower was removed. The Pierhead Light continued in operation and was repainted to the red color which it remains today. The Pierhead Light's fifth order Fresnel lens was later removed and replaced with the existing modern automated 300-millimeter acrylic optic. The present whereabouts of this fifth order Fresnel lens is unknown. The Milwaukee Pierhead Light's original fourth order Fresnel lens, which was relocated to the Milwaukee Breakwater Light in 1926, is now on display at the Wisconsin Maritime Museum in Manitowoc, WI.

Other changes in the lighthouse's appearance and integrity have been limited to minor physical modifications and the installation of updated equipment. One change relating to the light's automation was removal of the watch room stove and its exterior smoke stack. Another change is that electric power that was formerly supplied to the lighthouse through a cable from shore has been disconnected. Today, the automated lighthouse's beacon is powered by batteries recharged by a solar array mounted on the lantern gallery.

The overall exterior and interior character of Milwaukee Pierhead Light remain largely unaltered from when the lighthouse's existing decagonal lantern was installed in 1926. The changes that have occurred relate largely to the lighthouse's foundation, day mark coloration, beacon, and power supply. The lighthouse's location at the end of the north pier extending into Lake Michigan remains the same as during the property's period of historical significance, even though the north pier itself has been rebuilt and the surrounding area has changed a great deal since the property's period of significance.

Milwaukee Pierhead Light

Name of Property

Milwaukee County, WI

County and State

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☒ A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☐ B Property is associated with the lives of persons significant in our past.
- ☒ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☐ D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- ☐ A Owned by a religious institution or used for religious purposes.
- ☐ B removed from its original location.
- ☐ C a birthplace or grave.
- ☐ D a cemetery.
- ☐ E a reconstructed building, object, or structure.
- ☐ F a commemorative property.
- ☐ G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions.)

Maritime History

Transportation

Engineering

Period of Significance

1906 to 1966

Significant Dates

1906

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Office of the Engineer, Ninth Lighthouse District,

Milwaukee, Wisconsin

Period of Significance (justification)

The property's period of significance begins with the establishment of Milwaukee Pierhead Light in 1906 and continues to 1966, the year the lighthouse's beacon was automated and no longer maintained by a keeper.

Criteria Considerations (explanation, if necessary)

N/A

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ADDITIONAL DOCUMENTATION

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

Summary Paragraph

The Milwaukee Pierhead Light has marked the north pier at the entry to Milwaukee harbor for more than a century and is significant in the local history of Milwaukee County. It embodies the maritime heritage of Wisconsin's largest port while continuing to serve as an important guide for waterborne traffic. The property's period of historical significance begins with its establishment as a Federal aid to navigation in 1906 and ends in 1966, the year the lighthouse was automated. This lighthouse is eligible for inclusion in the National Register under Criteria A and C. It is significant in terms of Criterion A for its association with the Federal government's establishment of an integrated system of navigational aids throughout the United States. Milwaukee Pierhead Light exemplifies how this was manifested in the Milwaukee County locality. This property is also significant under Criterion C because it represents and embodies early twentieth century lighthouse architecture and engineering. It exemplifies design, construction methods, and materials used in building steel lighthouses on piers at the entry to Great Lakes harbors during that time period. This structure possesses its original location, setting, and design, and embodies historical qualities of integrity in materials, workmanship, feeling and association. The character and appearance of Milwaukee Pierhead Light are largely unchanged from its period of significance. Its existing structural integrity attests to the lasting value of its design, as well as the high quality of materials and construction. Changes that have been made to the lighthouse include repainting the color of the light tower from light grey to buff to red, replacing the lighthouse's original cylindrical lantern with a decagonal one in 1926, and replacing the lighthouse's classical Fresnel lens optic with a modern automated beacon. Despite these changes, the lighthouse's character and appearance remain essentially the same as during its period of significance. The Milwaukee Pierhead Light is a landmark associated with Milwaukee County's maritime history. It continues to guide vessels navigating Wisconsin's Lake Michigan waters, and evokes feelings recalling the dedication to duty that characterized United States lighthouse keepers throughout the country's history.

Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

(see continuation sheets)

Developmental history/additional historic context information (if appropriate)

(see continuation sheets)

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Narrative Statement of Significance

Significance under Criterion A

The Milwaukee Pierhead Light is eligible for listing in the National Register of Historic Places (NRHP) under Criterion A for its local association with the broad historical patterns of Great Lakes maritime transportation and commerce, as well as the Federal government's establishment of an integrated system of navigational aids throughout the United States. It exemplifies how the U.S. government's long-term actions to promote maritime safety have been manifested in Wisconsin state waters and the Milwaukee locality. This lighthouse has been an important aid to navigation since the U.S. Light-House Board constructed it in 1906. Its beacon and day mark have enhanced maritime safety in and around Milwaukee for more than a century and enabled safe passage for thousands of ships. The Milwaukee Pierhead Light remains an operating lighthouse today and is widely recognized as a landmark in Milwaukee County.

Significance under Criterion C

This property also qualifies for the NRHP under Criterion C. It embodies and exemplifies distinctive architectural design and engineering aspects characteristic of steel lighthouses built on crib and pier foundations in the Great Lakes during the first decade of the twentieth century. This property's good state of preservation reflects the durable and weather-resistant character of its materials and construction, as well as the lasting success of its design and appropriateness to this natural setting. The appearance and character of Milwaukee Pierhead Light remain essentially the same as during its period of historical significance, and it retains integrity in terms of location, setting, design, materials, workmanship, feeling, and association. Changes that have been made to the property have been limited and are largely reversible.

Additional Context Information and Developmental History

This NRHP registration form is submitted as an individual listing under the overarching *Light Stations of the United States* multiple property documentation form (MPDF). The specific historic contexts that apply are *Establishment of the U.S. Light-House Board (1852-1910)*, *Bureau of Lighthouses and the U.S. Lighthouse Service (1910-1939)*, and *Lighthouses under the U.S. Coast Guard (1939-present)*. The property type sections of the MPDF relating to this registration are *U.S. Lighthouse Construction Type – Non-Cast-Iron Tower (Steel)*, and *Foundation Type – Crib Foundation*. Information and historic contexts available in the *Light Stations of the United States* MPDF are not repeated here. This submission emphasizes facts and details supporting the historical significance of Milwaukee Pierhead Light as an individual property.

The property's Great Lakes regional setting includes Lakes Ontario, Erie, Huron, Michigan and Superior, along with their connecting waters and the St. Lawrence River. This is one of the largest concentrations of fresh water on earth. It encompasses a waterway system having a total shore length of approximately 11,000 statute miles and a total water surface area of about 95,000 square miles. The property's local setting is characterized by a combination of natural features conducive to the development of commercial activity and maritime trade. These features include the confluence of the Milwaukee River with Lake Michigan, which connects with the other Great Lakes. This provides access between Lake Michigan's open waters and Milwaukee's sheltered harbor where vessels can load and unload cargo and passengers. Milwaukee Harbor includes the lower Milwaukee River as well as two other connecting navigable waterways near its mouth, the Menomonee River and Kinnickinnic River. This area's combination of ample habitable shorelines and waterborne transportation routes made it very favorable for the development of settlement and trade.

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During late prehistoric times, the Milwaukee vicinity was inhabited by various American Indian groups including members of the Menominee, Potawatomi, and Ho-Chunk (Winnebago) tribes. Access to Lake Michigan and the area's three rivers provided opportunities for native groups to converge by water transport and land to meet and trade. The aboriginal name for this area, which is preserved in the place name "Milwaukee," means "pleasant land" or "gathering place." The vicinity's traditional indigenous use and routes of access to interior lands also made it attractive to fur traders and missionaries from French Canada who engaged in exploration, missionary work, and commerce in the western Great Lakes during the seventeenth and eighteenth centuries.

Expansionist rivalry between the empires of France and Great Britain led to warfare during the 1760s that ended French colonial rule in Canada. Under British sovereignty, fur trading activity in the western Great Lakes region continued to grow over time. This included the 1785 establishment of the first trading post at Milwaukee by Alexis Laframboise. Shortly after this, the 1789 Treaty of Paris concluded the American Revolution. This treaty included transferring the Northwest Territory, which encompassed the Lake Michigan area, from British sovereignty to the United States of America. Even so, American settlement of the Milwaukee area did not begin to develop significantly until after the Treaty of Ghent in 1814 marked the end of the War of 1812. The conclusion of international warfare in the region led to lands in Wisconsin becoming available to settlers through treaties between the United States government and resident Native American groups.

The Great Lakes region's historic context was generally characterized by limited settlement and commercial development until the second quarter of the nineteenth century. These aspects began to expand tremendously following completion of the Erie Canal in 1825. This important commercial waterway linked Lake Erie at Buffalo, New York, with the port of New York City via the Hudson River. Its opening marked the beginning of a period of enormous growth in population, commerce, and maritime traffic for the Great Lakes.

Another important man-made waterway, Canada's Welland Canal, opened in 1829. It provided the means for vessels to navigate between Lake Ontario and Lake Erie. The St. Mary's Falls Ship Canal (the Soo Locks) at Sault Sainte Marie, Michigan, opened in 1855. This provided for navigation between Lake Huron and Lake Superior, thus completing one of the last major links in the Great Lakes navigation system. With the opening of the St. Lawrence Seaway in 1959, Great Lakes navigation routes to the industrial and agricultural heartland of North America became accessible to deep-draft oceangoing vessels. In addition, barge and small craft traffic reaches the Great Lakes from the Gulf of Mexico via the Mississippi River and the Illinois Waterway, and also from the Hudson River by way of the New York State Barge Canal System.

Commerce grew rapidly in the Great Lakes region throughout the second half of the nineteenth century and into the twentieth century. The lumber industry accounted for a major part of the early development and expansion of marine traffic. Through time, development of iron ore production in Michigan's Upper Peninsula, northern Wisconsin and Minnesota, as well as grain from farms and flour from mills in the Midwest and northern Great Plains, furnished cargoes carried aboard vessels bound for the lower Great Lakes. These shipments corresponded with the heavy up-bound movement of coal and manufactured goods from ports in the lower lakes. By 1910, the amount of goods shipped annually on the Great Lakes increased to 80 million tons. Most of this was bulk cargo. Shipped freight tonnage reached a record of 217 million tons in 1948. The combined movement of lumber, grain, flour, iron ore and coal, together with limestone cargoes from the Lake Michigan area to centers of steel production, resulted in the greatest bulk freight marine commerce the world had ever seen.

The need for aids to navigation on the Great Lakes increased along with the expansion of shipping and settlement. Seven lighthouses were built in the region between 1818 and 1822, and 32 were completed during the 1830s. From 1841 to 1852, the U.S. Lighthouse Establishment added 33 new lights. Between 1852 and 1860, the total number of aids to navigation increased from 76 to 102. Another construction spurt occurred in the 1890s. By the beginning of the twentieth century, the Great Lakes had 334 major lighted aids, 67 fog signals, and 563 buoys.

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Several distinct designs or types of lighthouses emerged during the nineteenth century. Until circa 1870, the most common design consisted of a wood, stone, or brick keeper's dwelling that exhibited the lighthouse's optic in a lantern on the roof or atop an attached square tower. By the 1870s, taller towers that were connected to a keeper's dwelling by an enclosed passageway became popular. From 1870 to around 1910, lighthouse engineers practiced and perfected the construction of light stations built on isolated islands and on crib structures placed atop submerged reefs and shoals.

Another widespread Great Lakes lighthouse type is the pierhead light, used for guiding vessels into harbors along the lake shores. In the region, pierhead lighthouses are most common on Lake Michigan. Such lights differ from East Coast lights that serve the same purpose in that they are constructed on piers that project from shore into the lakes, rather than being built on land. Nineteenth century and early twentieth century Great Lakes piers consisted of timber cribs that were floated into place and ballasted with rocks or concrete to sink them. A timber superstructure was then built above the water level, including a deck upon which pierhead lights were placed. These timber crib piers did not hold up well to harsh weather, ice, and fire hazards such as cinders from steamers and lightning. The older wooden piers were largely replaced by the U.S. Army Corps of Engineers between 1916 and 1930 using concrete caisson piers surrounded with steel sheet piling.

Early Great Lakes pierhead lighthouses were constructed of wood, which was a readily available building material. This was generally suitable because these structures had to be strong to withstand constant buffeting from wind, waves and vibrations, but not of such great weight that they would overstress the wooden piers that supported them. These wooden lighthouses, however, were problematic to maintain in the harsh Great Lakes marine environment. Beginning in the middle 1850s, wooden pierhead lighthouses began to be replaced with light towers built of cast iron. Metal construction was more suitable because it resisted deterioration and was inexpensive and water-tight. It was also lighter than brick or stone. Elevated walkways were also frequently built along the piers to provide for safe access to the lights. These were configured as catwalks that stood above the waves washing over the pier, as well as above the several feet of ice that accumulated during winter. As piers were extended through time, many pierhead lighthouses were picked up and moved with the extensions. Great Lakes breakwater lights are closely related to pierhead lights, and were usually positioned at the head of a breakwater. Both of these lighthouse varieties are usually tower-like structures constructed of metal plates.

Timber crib foundations were also used from the middle nineteenth century onwards in constructing offshore lights in the Great Lakes region. This involved assembling a rectangular crib on shore that was tall enough to reach the water's surface at the lighthouse's designated offshore site and included several open-top compartments. It was towed to the pre-determined offshore location and sunk using ballast at a position that had been previously leveled. Additional ballast and concrete were added to stabilize and strengthen the structure, and a concrete pier was built on top. This pier supported the lighthouse superstructure, which was normally surrounded by an open-air deck area. The pier usually included one or more interior rooms that served as the lighthouse's basement. These interior spaces could be used as an engine room for motors powering electrical generators and air compressors, as well as for the lighthouse's heating plant.

Offshore lighthouse superstructures in the Great Lakes also underwent a process of design and technological development. The earlier ones were built of masonry using cut stone or brick. During the late nineteenth century, cast iron came into widespread use for U.S. lighthouses. These cast iron structures were commonly built from parts prefabricated to specification at a foundry and sent to the designated site as a kit for onsite assembly. The expansion of mass production steel mills in the United States from the early twentieth century onwards led to a decline in the cost of steel buildings. During the early 1900s, the cost versus benefit ratio for fabricating a structure using steel instead of cast iron led to steel's adoption as the preferred building material for lighthouses. This led to the construction of several lighthouses with steel superstructures, including the 1906 Milwaukee Pierhead Light and the Milwaukee Breakwater Light built in 1926.

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Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

ADDITIONAL DOCUMENTATION

Section number 8, continued Page 4

Milwaukee Pierhead Light Historic Context

In 1818, pioneer developer Solomon Juneau established a frontier settlement named Juneau's Side or Juneau Town on the east side of the Milwaukee River near its mouth. This attracted a number of settlers to the area, including one named Byron Kilbourn who established a second settlement named Kilbourn town on the river's western shore. A third settlement was established a short distance south along the Milwaukee River's west side in 1834 by George H. Walker. Its location came to be called Walker's Point. The three neighboring communities grew over time, reaching a population of approximately 1,700 in 1840. They eventually merged and were incorporated as the City of Milwaukee in 1846.

Milwaukee grew tremendously during the remainder of the nineteenth century, becoming Wisconsin's principal commercial center. Important economic activities included processing and shipping agricultural products, manufacturing, brewing, insurance, and financial services. The city's population reached 285,000 in 1900. From then to 1930, the number of residents doubled to more than 578,000. Much of this increase included large numbers of German and Polish immigrants, along with other European nationalities.

Maritime trade was important to the early growth of Milwaukee and became an essential aspect of its economic expansion through time. The first commercial cargo vessel entered the port in 1835, and the number of vessels calling there increased steadily in the years that followed. While the Milwaukee River's confluence with Lake Michigan provided access for vessels, its natural channel was curved instead of straight and there was a sand bar offshore of the river's mouth. These factors restricted the size of vessels that could enter and depart.

Local commercial interests first petitioned the Federal government in 1843 for aid to improve navigation in the area. In 1852, the U.S. Congress finally approved an appropriation to fund such work. This led to a harbor improvement project directed by the U.S. Army Corps of Engineers (USACE) that began in 1857. It included excavating a channel connecting the Milwaukee River with Lake Michigan. This new channel, called the Straight Cut, was located one-half mile north of the Milwaukee River's natural mouth. The work included construction of wooden piers on the north and south sides of the new channel to stabilize it. The U.S. Lighthouse Establishment built a lighthouse on the north pier's offshore end in 1872 to mark the harbor entry for mariners. Designated the Milwaukee Pierhead Light, it was an official Federal aid to navigation maintained by a keeper. This lighthouse included a one-story skeletal tower supporting a second story enclosed service room that was topped with a lantern.

In 1881, Congress authorized the creation of a Harbor of Refuge at Milwaukee to provide for a protected offshore anchorage where vessels could shelter during inclement weather or while waiting to enter the port. This project included construction of a breakwater in Lake Michigan's Milwaukee Bay that was to extend southward from a point approximately 1.5 miles north-northeast of the Milwaukee Pierhead Light. The breakwater's northern section was completed by 1896. An additional section extending approximately one mile farther south was completed by 1904 with its southern terminus marked by an unmanned two-light (red above white) navigational aid. This signal was changed to a flashing red light by 1912.

Other navigation improvement projects at Milwaukee during the late nineteenth century to early twentieth century included rebuilding and lengthening the north and south piers at the port's entrance channel, and establishing a fog signal station near the head of the north pier. The original Milwaukee Pierhead Light was replaced in 1906 by a pair of range lights. This enabled mariners approaching the port to orient themselves with the entrance channel's axis by setting their course so that the two range lights appeared to align vertically. The 1906 Milwaukee Pierhead Light was equipped with a fourth order Fresnel lens and was the range's front light. The range's rear light was located several hundred feet westward along the north pier. It included a skeletal tower topped with a beacon and was taller than the front light.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

ADDITIONAL DOCUMENTATION

Section number 8, continued Page 5

Other improvements to Milwaukee Harbor were proposed to Congress during the early 1900s. They included a USACE plan for additional breakwaters extending southward from the Harbor of Refuge. With these added structures, the completed overall Milwaukee breakwaters project would be approximately four miles long overall and include multiple entries to the port. Under this plan, the principal entry to Milwaukee Harbor was to be located directly east of the channel where the Milwaukee Pierhead Light was located. The proposed breakwater improvements project was approved by Congress in 1922. The first section built was a dogleg breakwater extending southeast from the original Harbor of Refuge. It terminated at the north side of the proposed principal entry. Work on the entry's south side breakwater began later. The Milwaukee breakwaters project was finally completed in 1930 at a total cost of \$6,250,000.

In 1910, Congress dissolved the U.S. Light-House Board and established the U.S. Bureau of Lighthouses to be responsible for the Federal system of navigational aids. One of the Bureau's subsequent projects was to construct an offshore lighthouse at the southern end of Milwaukee Harbor's new north breakwater to mark the principal entry to the port from Lake Michigan. The Bureau of Lighthouses decided to build this structure using a crib and pier foundation surmounted by a steel superstructure. The new lighthouse was built in 1926. Its construction included removing the cylindrical lantern and fourth order Fresnel lens from atop the 1906 Milwaukee Pierhead Light and installing them at the new lighthouse. In their place, a decagonal lantern and fifth order Fresnel lens were placed atop the Pierhead Light. In order to provide the new Milwaukee Breakwater Light with electricity, an underwater power cable was laid between it and the harbor entry's north pier. When the Breakwater Light was officially established in 1926, its optic had a 61-foot focal plane and signaled a red flash that was visible for 14 miles in clear weather. This lighthouse was originally staffed with a resident crew of four keepers employed by the U.S. Lighthouse Service.

The Milwaukee Breakwater Light's establishment caused the two-light range at the harbor entry to become superfluous because approaching vessels could now use the new lighthouse to set their course. The range's rear light on the north pier was discontinued and dismantled in 1926. The range's front lighthouse (Milwaukee Pierhead Light) remained in operation to mark the north pier. It was repainted to a red tower with black lantern in the early 1930s.

After the Bureau of Lighthouses merged with the U.S. Coast Guard (USCG) in 1939, keepers assigned to Milwaukee's lighthouses were USCG personnel. The Milwaukee Pierhead Light was maintained by the Breakwater Light's resident keepers until 1966 when the Pierhead Light was automated. In 1994, the Breakwater Light's fourth order Fresnel lens was replaced with a modern beacon. This Fresnel lens (originally installed in the Milwaukee Pierhead Light in 1906) is currently on display at the Wisconsin Maritime Museum in Manitowoc, Wisconsin.

The Pierhead Light's fifth order Fresnel lens optic was eventually replaced with a modern automated 300-millimeter acrylic beacon. This existing optic signals a red flash every four seconds and is visible for seven miles in clear weather. Electrical power is supplied to the lighthouse's beacon by batteries that are recharged using a solar array mounted on the lantern gallery.

Today, the Milwaukee Pierhead Light remains standing in its original location atop the eastern end of the harbor entry's north pier, and its basic structure, appearance, and setting remain essentially unchanged from its 1906 to 1966 period of historical significance. This lighthouse property continues to fulfill its original role of aiding mariners by marking the port's entry channel, and is widely recognized as a local landmark. It also serves as a lasting reminder of the City of Milwaukee's historical role as one of Lake Michigan's most important commercial ports.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

ADDITIONAL DOCUMENTATION

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

(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 # _____

Primary location of additional data:

☒ State Historic Preservation Office
☐ Other State agency
☒ Federal agency
☐ Local government
☐ University
☒ Other

Wisconsin Maritime Museum in Manitowoc, WI;
 USCG District 9 Headquarters and USCG Civil Engineering Unit (CEU) Cleveland in Cleveland, OH; USCG Historian's Office and U.S. National Archives in Washington, DC;
 Name of repository: Wisconsin Historical Society, Madison, WI.

☐ recorded by Historic American Engineering Record # _____
☐ recorded by Historic American Landscape Survey # _____

Name of repository: Wisconsin Historical Society, Madison, WI.

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property Less than one acre

(Do not include previously listed resource acreage.)

UTM References

(Place additional UTM references on a continuation sheet.)

1	<u>16</u>	<u>427060</u>	<u>4763860</u>	3	<u> </u>	<u> </u>	<u> </u>
	Zone	Easting	Northing		Zone	Easting	Northing
2	<u> </u>	<u> </u>	<u> </u>	4	<u> </u>	<u> </u>	<u> </u>
	Zone	Easting	Northing		Zone	Easting	Northing

Verbal Boundary Description (Describe the boundaries of the property.)

The lighthouse's boundary is the exterior limit of its concrete slab foundation which sits atop the concrete deck of the Milwaukee Harbor entry north pier. The north pier's boundary is the submerged perimeter of its base which rests upon state-owned submerged land.

Boundary Justification (Explain why the boundaries were selected.)

The property's boundary encompasses the lighthouse and the north pier.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

ADDITIONAL DOCUMENTATION

Bibliography

Browning, Robert. 2009. Lighthouse evolution and typology. U.S. Coast Guard Historian's Office website. Available online at <http://www.uscg.mil/history/web/lighthouses/LHevolution.asp>.

Clifford, Candace. 1994. *Inventory of historic light stations*. Washington, DC: National Park Service.

_____. 2002. Light Stations of the United States, Multiple Property Documentation Form, National Register of Historic Places. On file at the National Register of Historic Places, U.S. National Park Service, Washington, DC.

Hyde, Charles K. 1996. *The northern lights: lighthouses of the Upper Great Lakes*. Reprint. Detroit: Wayne State University Press.

Milwaukee Board of Harbor Commissioners. 1936. *The Milwaukee harbor project*. Milwaukee, January 1936.

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Pepper, Terry. 2005. Seeing the light - Milwaukee Breakwater Lighthouse. Available online at <http://www.terrypepper.com/lights/michigan/milwbreakwtr.htm>.

Roberts, Bruce, and Ray Jones. 2001. *Western Great Lakes lighthouses: Michigan and Superior*. Guilford, CT: Globe Pequot Press.

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United States Coast Guard. 2010. Historic light station information and photography - Wisconsin. U.S. Coast Guard Historian's Office website. Available online at <http://www.uscg.mil/history/web/lighthouses/LHWI.asp>.

_____. 2011. Light list, volume VII, Great Lakes. Washington: U.S. Government Printing Office.

**United States Department of the Interior
National Park Service****National Register of Historic Places
Continuation Sheet**

Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

ADDITIONAL DOCUMENTATION**11. Form Prepared By**

name/title Daniel Koski-Karell, Ph.D., USCG Office of Environmental Management, and Jayne Aaron and Daniel Hart, e2M Inc.

organization United States Coast Guard (COMDT CG-47) date 18 July 2012

street & number 2100 Second Street SW – STOP 7901 telephone 202.475.5683

city or town Washington state DC zip code 20593-7901

e-mail Daniel.A.Koski-Karell@uscg.dhs.gov

Additional Documentation

Submit the following items with the completed form:

- **Map:** A USGS map (7.5 or 15 minute series) indicating the property's location.
- **Continuation Sheets**
- **Additional items:** Photographs

Property Owner:

Name United States Coast Guard

street & number 2100 Second Street SW telephone 202.267.1587

city or town Washington state DC zip code 20593

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

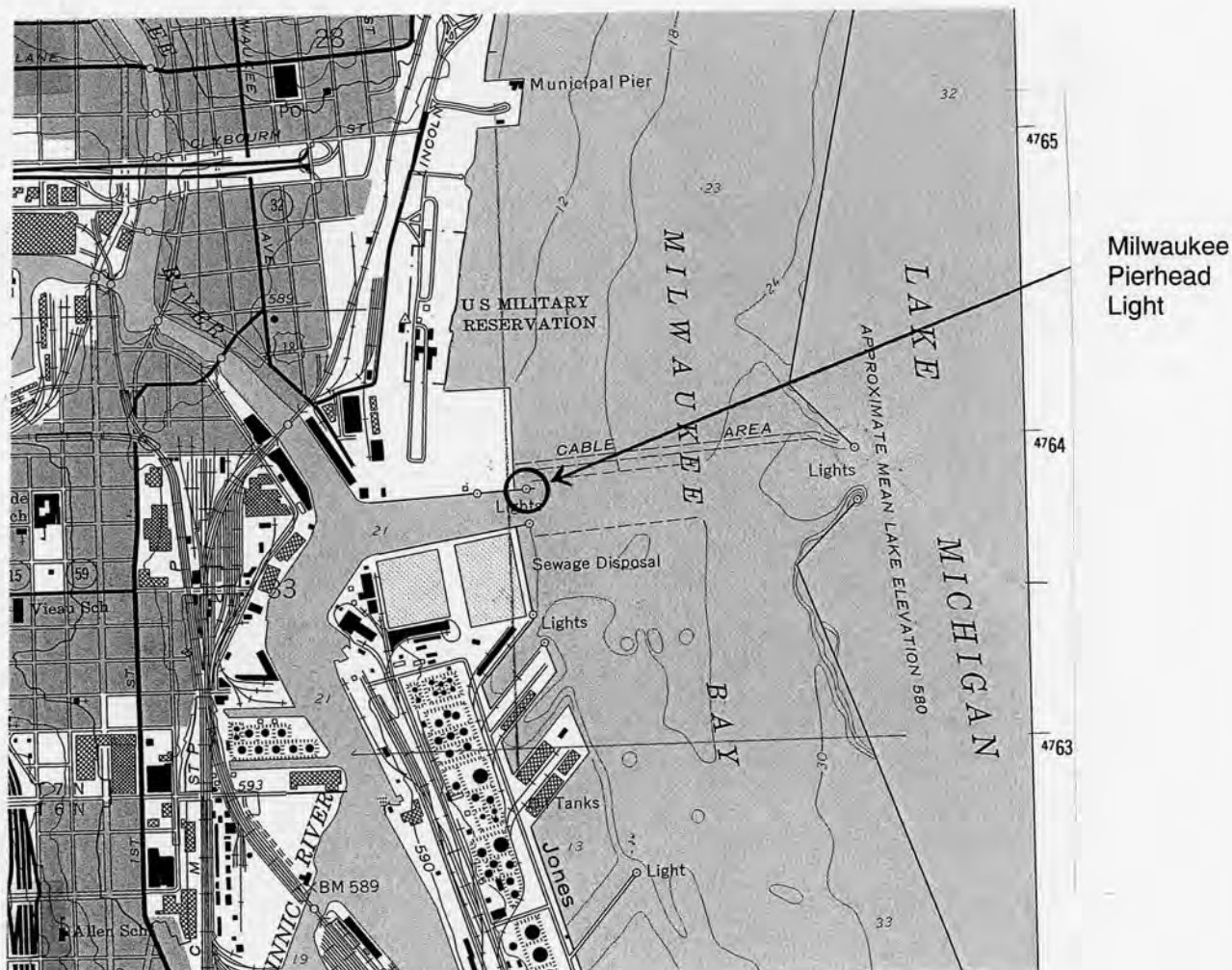
ADDITIONAL DOCUMENTATION

Location Map

This is part of the *Milwaukee, Wis.* 7.5 minute series quadrangle topographic map (U.S. Geological Survey 1958, photorevised 1971).

0 2000
Feet

▲
North



**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Milwaukee Pierhead Light
Name of Property
Milwaukee County, Wisconsin
County and State
Light Stations of the United States MPDF
Name of multiple listing (if applicable)

ADDITIONAL DOCUMENTATION

Photographs

The following information is common to these photographs:

Name of Property: Milwaukee Pierhead Light
 Location: Milwaukee County, Wisconsin
 Photographer: Timothy McGrath
 Date: September 2005
 Location of original negative: U.S. Coast Guard Historian's Office,
 U.S. Coast Guard Headquarters, Washington, DC.

**Photograph
Number**

Description

1. Lighthouse eastern elevation and setting, looking west from Milwaukee Breakwater Light.
2. Lighthouse western elevation, looking east, with Milwaukee Breakwater Light in left background.
3. Lighthouse southeastern elevation, looking northwest.
4. Lighthouse first story interior and stairway, looking east.
5. Lighthouse third story watch room and ladder to lantern, looking southwest.
6. Lantern room interior and modern optic, looking north.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY Milwaukee Pierhead Light
NAME:

MULTIPLE Light Stations of the United States MPS
NAME:

STATE & COUNTY: WISCONSIN, Milwaukee

DATE RECEIVED: 10/05/12 DATE OF PENDING LIST: 11/07/12
DATE OF 16TH DAY: 11/22/12 DATE OF 45TH DAY: 11/21/12
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 12000971

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: Y SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

___ ACCEPT ___ RETURN ___ REJECT ___ DATE

ABSTRACT/SUMMARY COMMENTS: Automatic Lishy
meets Registration Requirements of MPS

RECOM./CRITERIA Automatic Lishy

REVIEWER Jim Labbat DISCIPLINE

TELEPHONE DATE

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

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



MILWAUKEE PIERHEAD LIGHT

MILWAUKEE COUNTY, WI

PHOTOGRAPHER: TIMOTHY MCGRATH

DATE: SEPTEMBER 2005

NEGATIVE AT: U.S. COAST GUARD HISTORIAN'S OFFICE

U.S. COAST GUARD HEADQUARTERS

WASHINGTON, DC

LIGHTHOUSE EASTERN ELEVATION AND SETTING, LOOKING WEST
FROM MILWAUKEE BREAKWATER LIGHT.

PHOTO #1



MILWAUKEE PIERHEAD LIGHT

MILWAUKEE COUNTY, WI

PHOTOGRAPHER: TIMOTHY McGRATH

DATE: SEPTEMBER 2005

NEGATIVE AT: U.S. COAST GUARD HISTORIAN'S OFFICE

U.S. COAST GUARD HEADQUARTERS

WASHINGTON, DC

LIGHTHOUSE WESTERN ELEVATION, LOOKING EAST, WITH
MILWAUKEE BREAKWATER LIGHT IN LEFT BACKGROUND.

PHOTO # 2



MILWAUKEE PIERHEAD LIGHT

MILWAUKEE COUNTY, WI

PHOTOGRAPHER: TIMOTHY McGRATH

DATE: SEPTEMBER 2005

NEGATIVE AT: U.S. COAST GUARD HISTORIAN'S OFFICE

U.S. COAST GUARD HEADQUARTERS

WASHINGTON, DC

LIGHTHOUSE SOUTHEASTERN ELEVATION, LOOKING NORTHWEST,

PHOTO # 3



MILWAUKEE PIERHEAD LIGHT

MILWAUKEE COUNTY, WI

PHOTOGRAPHER: TIMOTHY McGRATH

NEGATIVE AT: U.S. COAST GUARD HISTORIAN'S OFFICE
U.S. COAST GUARD HEADQUARTERS
WASHINGTON, DC

LIGHTHOUSE FIRST STORY INTERIOR AND STAIRWAY,
LOOKING EAST,

PHOTO # 4



MILWAUKEE PIERHEAD LIGHT

MILWAUKEE COUNTY, WI

PHOTOGRAPHER: TIMOTHY McGRATH

DATE: SEPTEMBER 2005

NEGATIVE AT: U.S. COAST GUARD HISTORIAN'S OFFICE
U.S. COAST GUARD HEADQUARTERS
WASHINGTON, DC

LIGHTHOUSE THIRD STORY WATCH ROOM AND
LADDER TO LANTERN, LOOKING SOUTH WEST,

PHOTO #5



MILWAUKEE PIERHEAD LIGHT

MILWAUKEE COUNTY, WI

PHOTOGRAPHER: TIMOTHY McGRATH

DATE: SEPTEMBER 2005

NEGATIVE AT: U.S. COAST GUARD HISTORIAN'S OFFICE

U.S. COAST GUARD HEADQUARTERS
WASHINGTON, DC

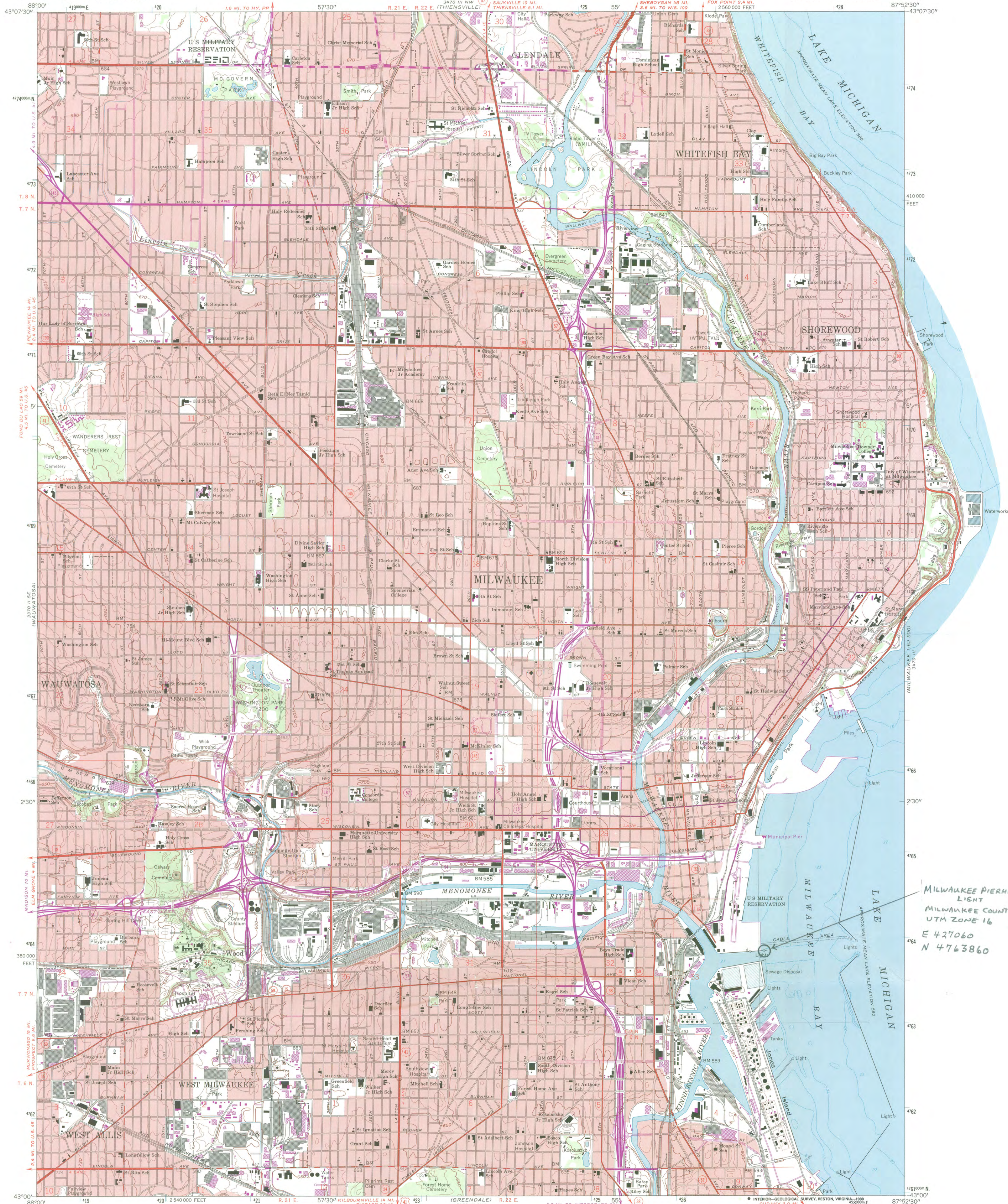
LANTERN ROOM INTERIOR AND MODERN OPTIC, LOOKING NORTH.

PHOTO # 6

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MILWAUKEE QUADRANGLE
WISCONSIN—MILWAUKEE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

SW 1/4 MILWAUKEE 15' QUADRANGLE



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and City of Milwaukee

Topography from aerial photographs by photogrammetric methods

Aerial photographs taken 1954-1955. Field check 1958

Hydrography compiled from U. S. Lake Survey charts 74

and 743 (1957)

Polyconic projection. 1927 North American datum

10,000-foot grid based on Wisconsin coordinate system, south zone

1000-meter Universal Transverse Mercator grid ticks,

zone 16, shown in blue

Red tint indicates areas in which only landmark buildings are shown

Revisions shown in purple compiled from aerial photographs

taken 1971. This information not field checked

SCALE 1:24,000

1 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 2 3 4 5 6 7 8 9 10 KILOMETER

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS 578 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706

A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION

Heavy-duty ——— Light-duty ———

Medium-duty ——— Unimproved dirt ———

U. S. Route ——— State Route ———

Interstate Route ———

MILWAUKEE, WIS.

SW 1/4 MILWAUKEE 15' QUADRANGLE

43087-A8-TF-024

1958

PHOTOREVISED 1971

DMA 3470 III SW—SERIES V861

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2100 Second Street SW - STOP 7901
Washington, DC 20593-7901
Staff Symbol: COMDT (CG-47)
Phone: (202) 475-5687
Fax: (202) 475-5949

16475

Honorable Tom Barrett, Mayor
Office of the Mayor
Milwaukee City Hall
200 E. Wells Street, Room 201
Milwaukee, WI 53203

SUBJECT: NATIONAL REGISTER NOMINATION FOR MILWAUKEE PIERHEAD
LIGHT

Dear Mr. Barrett:

The U. S. Coast Guard (USCG) has determined that Milwaukee Pierhead Light in Milwaukee County, Wisconsin, is a historic property eligible for listing in the National Register of Historic Places (NRHP). We are proposing to nominate this lighthouse for official inclusion in the NRHP. A summary of the NRHP nomination is enclosed for your information (enclosure (1)). This action is being performed pursuant to the authorities contained in Section 110 of the National Historic Preservation Act, the National Historic Lighthouse Preservation Act, and the National Park Service regulations at 36 Code of Federal Regulations Part 60.9.

As part of the nomination process, the USCG is seeking your comments. Please provide any comments within 45 days from the date your office receives this letter. If we receive no response from your office within 45 days, we will assume you have no comments. We have also submitted the NRHP nomination form for Milwaukee Pierhead Light to the Wisconsin State Historic Preservation Officer for review and comment.

Thank you in advance for your assistance in this matter. If you have any questions or desire additional information, please feel free to contact Dr. Daniel Koski-Karell at (202) 475-5683.

Sincerely,

A handwritten signature in black ink, appearing to read "E. F. Wandelt", written over a horizontal line.

E. F. WANDELT

Chief

Office of Environmental Management

U. S. Coast Guard

Enclosure: (1) Summary of NRHP nomination for Milwaukee Pierhead Light

Copy (w/o enclosure): J. Paul Loether, National Park Service
COMDT (CG-0942)
CG SILC
CG CEU Cleveland
CG D9 (DPW)

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2100 Second Street SW - STOP 7901
Washington, DC 20593-7901
Staff Symbol: COMDT (CG-47)
Phone: (202) 475-5687
Fax: (202) 475-5949

16475

Honorable Marina Dimitrijevic, Chairwoman
Milwaukee County Board of Supervisors
Milwaukee County Courthouse
901 North 9th Street, RM 201
Milwaukee, WI 53233

SUBJECT: NATIONAL REGISTER NOMINATION FOR MILWAUKEE BREAKWATER
LIGHT

Dear Ms. Dimitrijevic:

The U. S. Coast Guard (USCG) has determined that the Milwaukee Breakwater Light in Milwaukee County, Wisconsin, is a historic property eligible for listing in the National Register of Historic Places (NRHP). We are proposing to nominate this lighthouse for official inclusion in the NRHP. A summary of the NRHP nomination is enclosed for your information (enclosure (1)). This action is being performed pursuant to the authorities contained in Section 110 of the National Historic Preservation Act, the National Historic Lighthouse Preservation Act, and the National Park Service regulations at 36 Code of Federal Regulations Part 60.9.

As part of the nomination process, the USCG is seeking your comments. Please provide any comments within 45 days from the date your office receives this letter. If we receive no response from your office within 45 days, we will assume you have no comments. We have also submitted the NRHP nomination form for Milwaukee Breakwater Light to the Wisconsin State Historic Preservation Officer for review and comments.

Thank you in advance for your assistance in this matter. If you have any questions or desire additional information, please feel free to contact Dr. Daniel Koski-Karell at (202) 475-5683.

Sincerely,

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E. F. WANDELT

Chief

Office of Environmental Management

U. S. Coast Guard

Enclosure: (1) Summary of NRHP nomination for Milwaukee Breakwater Light

Copy (w/o enclosure): J. Paul Loether, National Park Service
COMDT (CG-0942)
CG SILC
CG CEU Cleveland
CG D9 (DPW)

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2100 Second Street SW - STOP 7901
Washington, DC 20593-7901
Staff Symbol: COMDT (CG-47)
Phone: (202) 475-5687
Fax: (202) 475-5949

16475

Honorable Jon Greendeer, President
Ho-Chunk Nation Tribal Office Building
W9814 Airport Road
Black River Falls, WI 54615

SUBJECT: NATIONAL REGISTER NOMINATION FOR MILWAUKEE PIERHEAD
LIGHT

Dear Mr. Greendeer:

The U. S. Coast Guard (USCG) has determined that Milwaukee Pierhead Light in Milwaukee County, Wisconsin, is a historic property eligible for listing in the National Register of Historic Places (NRHP). We are proposing to nominate this lighthouse for official inclusion in the NRHP. A summary of the NRHP nomination is enclosed for your information (enclosure (1)). This action is being performed pursuant to the authorities contained in Section 110 of the National Historic Preservation Act, the National Historic Lighthouse Preservation Act, and the National Park Service regulations at 36 Code of Federal Regulations Part 60.9.

As part of the nomination process, the USCG is seeking your comments. Please provide any comments within 45 days from the date your office receives this letter. If we receive no response from your office within 45 days, we will assume you have no comments. We have also submitted the NRHP nomination form for Milwaukee Pierhead Light to the Wisconsin State Historic Preservation Officer for review and comment.

Thank you in advance for your assistance in this matter. If you have any questions or desire additional information, please feel free to contact Dr. Daniel Koski-Karell at (202) 475-5683.

Sincerely,

A handwritten signature in black ink, appearing to read "E. F. Wandelt", written over a faint circular stamp.

E. F. WANDELT

Chief

Office of Environmental Management
U. S. Coast Guard

Enclosure: (1) Summary of NRHP nomination for Milwaukee Pierhead Light

Copy (w/o enclosure): J. Paul Loether, National Park Service
COMDT (CG-0942)
CG SILC
CG CEU Cleveland
CG D9 (DPW)

NATIONAL REGISTER OF HISTORIC PLACES NOMINATION
MILWAUKEE PIERHEAD LIGHT
MILWAUKEE COUNTY, WISCONSIN

Milwaukee Pierhead Light is located on the north pier at the mouth of the Milwaukee River in the City of Milwaukee, Milwaukee County, Wisconsin. It is an operating aid to navigation owned by the U.S. Coast Guard (USCG), identified as number 20670 on the regional Light List. This property stands atop the offshore end of the north pier and is accessible on foot.

This property was officially established as a Federal lighthouse in 1906. Based on its historic character, the USCG intends to nominate this property for listing in the National Register of Historic Places (NRHP).

The National Historic Preservation Act of 1966, as amended (NHPA) (16 United States Code 470 *et seq.*) authorizes the Secretary of the Interior to expand and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. Federal agencies are charged with identifying, evaluating, and nominating such properties under their control to the NRHP. The National Historic Lighthouse Preservation Act of 2000 (Public Law 106-355) amended the NHPA for the purpose of establishing a National Historic Lighthouse Preservation Program.

The USCG has prepared a NRHP registration form for Milwaukee Pierhead Light. It has been sent to the Wisconsin State Historic Preservation Officer for review and comment concerning the USCG position that the property is eligible for listing in the NRHP. Pursuant to implementing regulation 36 Code of Federal Regulations 60.9, we are notifying local elected officials who may have an interest in the property and inviting them to comment on the nomination during the 45-day comment period. The property is described below.

Site Name and Location:

- Milwaukee Pierhead Light
- Located at the southeast corner of Henry W. Maier Festival Park, this lighthouse stands atop the offshore end of the north pier at the mouth of the Milwaukee River in the City of Milwaukee in Milwaukee County, WI
- Light List Number 20670

Owner:

- U.S. Coast Guard COMDT (CG-47)
ATTN: Dr. Daniel Koski-Karell
2100 Second Street SW – STOP 7901
Washington, DC 20593-7901

Summary Description:

Milwaukee Pierhead Light is a conical steel lighthouse atop a pier navigation structure that is owned by the U.S. Army Corps of Engineers. It is approximately 42 feet tall from the base of its foundation to the top of its lantern. This property includes a rectangular concrete slab foundation that supports a slightly tapering conical tower that supports a lantern and lantern gallery. This lighthouse is painted red except for the lantern and lantern gallery that are painted black. The lantern is equipped with a modern

automated beacon that has a focal plane 45 feet above water level. It signals a flashing red light that is visible for seven miles in clear weather.

Milwaukee Pierhead Light includes a single entrance on its western side at the base. Inside, the tower includes three stories connected with a spiral stairway. A ladder leads up from the third story watch room to the interior of the lantern. A low doorway in the lantern provides access to the outdoor lantern gallery.

Summary Statement of Historical Significance:

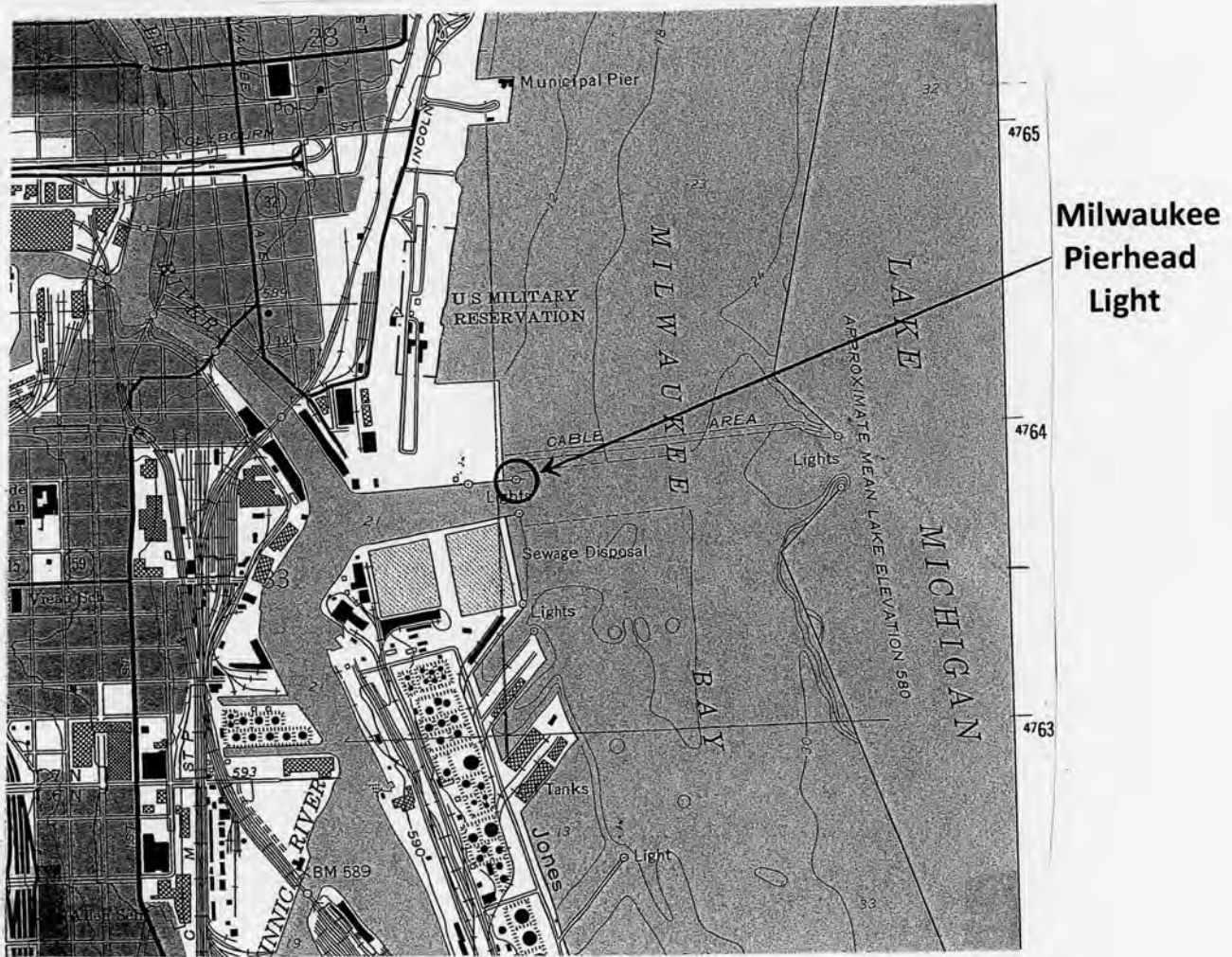
This lighthouse was constructed in 1906 atop the north pier at the mouth of the Milwaukee River. It was built to mark the north pier's offshore end and to serve as the front light of a two-light range showing the proper orientation for a vessel seeking to enter Milwaukee Harbor. Milwaukee Pierhead Light was operated by resident keepers associated with the U.S. Lighthouse Service until 1939 when the U.S. Bureau of Lighthouses merged with the U.S. Coast Guard (USCG). After that, it was staffed by USCG personnel until the lighthouse was automated in 1966.

This lighthouse property is significant in the history of Milwaukee County. It is eligible for National Register of Historic Places listing under Criterion A for its association with the historic Federal government program to establish a nationwide system of aids to navigation in order to promote maritime safety and commerce. Milwaukee Pierhead Light exemplifies how this program was manifested in the Milwaukee County area. This property is also eligible of NRHP listing under Criterion C for its architectural and engineering significance. It exemplifies how characteristics of early twentieth century lighthouse architecture and engineering were applied to the need to mark the entry to the port of Milwaukee. The qualities of this structure's design, materials, and construction methods were applied to overcome difficulties relating to building a lighthouse atop a pier navigation structure in an area subject to adverse environmental conditions. Milwaukee Pierhead Light retains substantial integrity in terms of location, setting, design, materials, and workmanship. It is a well-known landmark in the Milwaukee area.

Map and Photograph:

- Milwaukee Pierhead Light location map
- Milwaukee Pierhead Light, view looking east from shore

Milwaukee Pierhead Light location map



Part of the "Milwaukee, Wis." 7.5-minute series topographic map, Scale 1:24,000 (U.S. Geological Survey, 1958, photorevised 1971).

Milwaukee Pierhead Light, view looking east from shore





Office of the City Clerk

Jim Owczarski
City Clerk

Rebecca N. Grill
Deputy City Clerk

September 19, 2012

Daniel Koski-Karell, Ph.D
United States Coast Guard (COMDT CG-47)
2100 Second Street SW – STOP 7901
Washington, DC 20593-7901

Dear Mr. Koski-Karell:

RE: CLG Review of the National Register Nomination **Milwaukee Pierhead Light**

In accordance with the provisions of the Certified Local Government Agreement between the City of Milwaukee and Wisconsin State Historic Preservation Office, the Milwaukee Historic Preservation Commission has reviewed the National Register nomination of the Milwaukee Pierhead Light. The Commission determined that the building met the Statement of Significance as outlined in the application and voted to support the nomination on September 11, 2012.

In supporting this nomination the commission feels that Milwaukee's maritime heritage is an often forgotten part of Milwaukee's history and it is important to call out buildings and structures of significance along our harbor and lakefront. Efforts should be taken to preserve these unique symbols of government investment in the security, commercial vitality and recreation of Milwaukee as well as other coastal communities. Light stations have a mystique all their own; they are very different from the landlocked structures and buildings that residents encounter every day. Their preservation is all the more important as technology has rendered many of these stations obsolete. The National Register listing for this property, long a visual landmark on Milwaukee's lakefront and a popular subject among local photographers, will enable its preservation for future generations. If you need additional information or have any questions please feel free to contact the Historic Preservation Commission staff at (414) 286-5722.

Sincerely,

Allyson Nemec, Chair
Milwaukee Historic Preservation Commission

C: Jim Owczarski



U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard



2100 Second Street SW, STOP 7901
Washington, DC 20593-7901
Staff Symbol: COMDT (CG-47)
Phone: (202) 475-5687
Fax: (202) 475-5949

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OCT 04 2012

MEMORANDUM

From: *E. F. Wandelt*
E. F. Wandelt, Chief
COMDT (CG-47)

Reply to Dr. Daniel Koski-Karell
Attn of: (202) 475-5683

To: Mr. J. Paul Loether, Chief
National Register of Historic Places and Historic Landmarks Division
National Park Service
1849 C Street NW, Mail Stop 2280
Washington, DC 20240

Subj: MILWAUKEE PIERHEAD LIGHT, MILWAUKEE COUNTY, WISCONSIN

Ref: (a) National Historic Preservation Act Section 110, 16 U.S.C. 470h-2
(b) Programmatic Agreement Regarding Outgranting of Historic Lighthouse Properties

1. The Coast Guard nominates Milwaukee Pierhead Light in Milwaukee County, WI, for listing in the National Register of Historic Places (NRHP). The nomination package is enclosed (Enclosure (1)).
2. The Wisconsin State Historic Preservation Officer's comments on this NRHP nomination were requested and received. They have been incorporated into this property's NRHP registration form where deemed appropriate.
3. Comments from appropriate local officials were solicited and none was received. Copies of this correspondence are included in the enclosure.

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Enclosure: (1) NRHP nomination package for Milwaukee Pierhead Light

Copy: CG SILC (with encl)
CG CEU Cleveland (with encl)
CG D9(DPW) (with encl)