NPS Form 10-900 USDI/NPS NRHP Registration Form (Rev. 8-86) **GROSSE POINT LIGHT STATION** 

United States Department of the Interior, National Park Service

#### **1. NAME OF PROPERTY**

Historic Name: **GROSSE POINT LIGHT STATION** 

Other Name/Site Number:

# LOCATION

Street & Number: 2601 Sheridan Rd.		Not for publication:				
City/Town: Evanston			Vicinity:			
State: IL	County: Cook	Code: 031	Zip Code: 60201			
3. CLASSIFICATION						

Ownership of Property Private: Public-Local: X Public-State: Public-Federal:	Category of Property Building(s): District: <u>X</u> Site: Structure: Object:			
Number of Resources within Property				
Contributing <u>5</u>	Noncontributing buildings sites structures objects			

Number of Contributing Resources Previously Listed in the National Register. 5

Total

Name of Related Multiple Property Listing:

5

# 4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this \_\_\_\_\_ 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.

Signature of Certifying Official

State or Federal Agency and Bureau

In my opinion, the property <u>meets</u> does not meet the National Register criteria.

Signature of Commenting or Other Official

State or Federal Agency and Bureau

# 5. 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 Keeper

Date of Action

Date

Date

# 6. FUNCTION OR USE

Historic:	TRANSPORTATION	Sub: Water-related
Current:	<b>RECREATION &amp; CULTURE</b>	Sub: Museum/Outdoor recreation

# 7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: LATE VICTORIAN/Italianate

MATERIALS (tower):

Foundation: CONCRETE/wooden pilings

Walls: BRICK/Concrete

Roof: ASPHALT shingle, COPPER sheeting, SLATE

Other:

#### Describe Present and Historic Physical Appearance.

# **INTRODUCTION**

The Grosse Point Lighthouse was constructed in 1873 as the lead navigational marker in waters just north of Chicago Harbor, acting as a vital link in the maritime transportation network of the United States. For 67 years, it functioned to ensure the safe passage of commerce and people over a water-borne route pivotal in connecting the Great Lakes with both the Gulf Coast and Atlantic Seaboard.<sup>1</sup> The light was deactivated in 1941 and has since been under the administration of Evanston's Lighthouse Park District.<sup>2</sup> During daylight hours the site's close proximity to an undeveloped lakefront sets the stage for viewing the lighthouse and adjoining structures. Today, the land and lighthouse buildings form a museum park for educational and recreational purposes.

# THE GROSSE POINT LIGHTHOUSE AS BUILT AND MODIFIED

As built in 1873, the site included a light tower with adjoining above ground passageway and fuel storage room that connected to a spacious keepers' quarters. Modifications to the overall site plan were made in 1880 with the addition of two fog signal buildings and again in 1900 with the construction of an additional fuel supply building. The original 1873 structure retains a high degree of architectural integrity and alterations to the external buildings, constructed at a later date, are few. These alterations are, however, in keeping with the history of the Lighthouse Service. As a form of technology—by their very nature—lighthouses were changed over time. With the exception of the second fuel storage facility, removed by the federal government prior to decommissioning, the basic configuration of the site has not changed since 1880.<sup>3</sup> All of the buildings on site are constructed of brick. The light tower, however, was provided with a facing of concrete for extra protection from the natural elements.<sup>4</sup>

# **LIGHT TOWER**

The primary structure at Grosse Point is the light tower which rests on a foundation of concrete and wooden piles to a depth of 30 feet. The tower consists of two walls with an inner air space between them. The inside wall is 8 inches thick and rises vertically to the top, while the outer wall is 12 inches thick and inclines giving the tower a conical shape. The tower is 22 feet around at the base and tapers to 13 feet, 3 inches at the parapet. The top is surmounted by a lantern constructed of iron and glass with a roof made from copper sheeting and topped by a ventilating

<sup>&</sup>lt;sup>1</sup> Mary Jane Rice, *Chicago: Port to the World* (Follett Pub. Co., 1969) p. 155; Report to the Mayor and Alderman of the City of Chicago (Chicago Harbor Commission, 1909) p. 18; J. Edwin Becht, *Commodity Origins, Traffic & Markets Accessible to Chicago Via the Illinois Waterway* (Illinois River Carriers Assn., 1952) p. 12

<sup>&</sup>lt;sup>2</sup> Chicago Daily Tribune (July 16, 1935)

<sup>&</sup>lt;sup>3</sup> Donald J. Terras, Grosse Point Lighthouse: Landmark to Maritime History and Culture (Windy City Press, 1995)

ball with lightning rod. There are circular galleries around the top of the tower and lantern with supports typical of the Italianate period in American architecture.<sup>5</sup>

From the base of the tower to ventilating ball, the tower rises 113 feet from the ground. The interior of the light tower is accessed from the fuel supply room through original cast iron doors. A 141-step spiral iron staircase inside of the tower provides access to the structure's lantern. The historic integrity of this structure is intact, including the original Fresnel lens optic.

# PASSAGEWAY & ADJOINING FUEL SUPPLY ROOM

The 1873 architectural design also included an above ground passageway that connects the keepers' quarters to the fuel supply facility and light tower. The passageway is built as an extension from the base of the tower and leads first to a fuel supply room and then continues to the keepers quarters. The fuel supply room was traditionally used to store oil and later became an office/work room for the keepers. It is 16 feet wide by 10 feet long with a ceiling height of 9 feet, 6 inches. The interior of this room has wainscotting of pine beadboard 3 feet from the floor on one side of the room and 5 feet from the floor on the other. The exterior crest of the roof is 18 feet in height and projecting from one side is a chimney. The exterior of the structure is distinguished by two windows with corbeled arches at their top. The historic integrity of this facility is intact. Today, its interior has been restored to the period ca. 1900 and is part of Grosse Point's museum exhibit area.

The above ground passageway is 41 feet in length, terminating at two rear entrances to the keepers quarters building. Removed by the federal government upon automation (de-staffing) of the light station in 1935, the passageway was reconstructed in 1984 using the original 1873 specifications. The interior ceiling height is 8 feet and the exterior roof crests at 14 feet and tapers down to 12 feet at the eave. Corbeled window arches and Italianate brackets under the eaves of these structures are common design elements shared with adjoining buildings. Today, this facility is also in use as an exhibit area.<sup>6</sup>

# **KEEPERS' QUARTERS**

This building has retained a high degree of historical integrity over the years and the exterior remains little changed from its 1873 appearance. The keepers' quarters is connected to the fuel supply room and light tower by way of the passageway. This structure is built in a style typical of the Italianate period in American architecture<sup>7</sup> and its design conforms to that of a 2½-story brick duplex containing two distinct living quarters for the light keeper and assistant. Like the exterior of the building, the quarters inside are designed as mirror images of one another, each having a full basement, seven rooms for living space, an attic, and a brick woodshed that also doubled as a root cellar. Carved wooden supports are present under the eaves of the roof and are a consistent

<sup>&</sup>lt;sup>5</sup> Stephen R., Knutson, AIA, 1234 Sherman Ave., Evanston, IL 60202 (847) 869-3850, Consulting Architect, Grosse Point Lighthouse, Personal Communication: Dec. 8, 1997

<sup>&</sup>lt;sup>6</sup> Ibid, p. 74

<sup>&</sup>lt;sup>7</sup> Knutson, Personal Communication: Dec. 8, 1997

design element carried throughout the keepers' quarters, providing continuity with the connecting passageway, fuel supply facility and light tower. These supports, along with the millwork exhibited in the design of the two porches, add ornate details to the building as do the distinctive corbeled brick arches over the windows. The interior configuration of the building is intact and conforms to 1873 specifications.

The first floor of the north side of the building is being used as a small museum and has been made handicapped accessible in compliance with federal ADA guidelines. This was done by providing access to the building through the north woodshed to an electric lift. The lift is concealed by the woodshed, so the exterior integrity of the building has not been compromised. Handicapped access to the second floor washroom facility in the keepers quarters was not required because of the presence of an ADA washroom facility in the north fog signal building. All educational exhibits conform to the interior design of the structure and they do not block or obstruct windows or any other architectural detail that would compromise the integrity of the exterior view of the building. The south side of the keepers quarters is still used for its original intent as living quarters for a keeper.<sup>8</sup> The uses for rooms on this side of the building have remained the same over the years and there has been no alteration to the interior configuration.

# **OUTBUILDINGS - 1880 & 1900**

As an addition to the original 1873 site plan, two single-story brick fog signal buildings were constructed in 1880. These are located immediately east of the adjoining keepers' quarters, passageway, and light tower on the edge of a 22-foot bluff overlooking Lake Michigan. They are made of brick and designed as simple gable-roofed rectangular single-story structures measuring 20 by 12 feet and 15 by 12 feet. Both structures measure 15 feet in height. There have been few exterior modifications to these structures; however, they do not exhibit the corbeled brick archways over windows and doors, or other ornate details, that are a consistent design element in the original 1873 structures. Steam-powered sirens were originally installed in the buildings but gave way to steam whistles in 1892 which were eventually removed from the buildings by the federal government in 1922. Today, the foghorn houses remain and are being adaptively used as interpretive centers with exhibits for educational programming.<sup>9</sup>

Also, a second fuel storage facility was built in 1900. This was a single story gable-roofed rectangular brick structure measuring 8 by 10 by 12 feet in height. Upon electrification of Grosse Point's beacon in 1923, this structure was no longer required and was razed by the federal government.<sup>10</sup>

<sup>10</sup> Ibid

<sup>&</sup>lt;sup>8</sup> Op.cit, Terras, p. 97

<sup>&</sup>lt;sup>9</sup> Ibid

# 8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties: Nationally: X Statewide: Locally:

Applicable National Register Criteria:	A <u>X</u> B_C <u>X</u> D			
Criteria Considerations (Exceptions):	A B C D E FG			
NHL Criteria:	1 and 4			
NHL Theme(s):	Maritime Heritage of the U.S. (Lighthouses)			
Areas of Significance:	Maritime History (1674, 1873-1941) Transportation (1873-1941) Architecture (1873) Engineering (1850, 1935)			
Period(s) of Significance:	1873-1941			
Significant Dates:	1873, 1935, 1941			
Significant Person(s):				
Cultural Affiliation:	N/A			
Architect/Builder:	Orlando M. Poe, Federal Government, U.S. Lighthouse Establishment			
Historic Context	XIV. Transportation B. Ships, Boats, Lighthouse, and Other Structures			

# State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

# **INTRODUCTION**

The 1873 Grosse Point Lighthouse is located on a promontory that thrusts out from the mainland into the waters of Lake Michigan in Evanston, Illinois.<sup>1</sup> These buildings stand at an historically pivotal location where this country's maritime transportation network connected East Coast, Great Lakes, and Gulf Coast shipping interests.<sup>2</sup> In recognition of the importance of this lighthouse to maritime navigation, Grosse Point Lighthouse was fitted with the first second-order Fresnel lens on the Great Lakes. These devices were engineering marvels of their day and Grosse Point has the largest Fresnel lens on the Great Lakes. It is the only one of its kind operating there today (USCG Class 2). For 67 years, Grosse Point Lighthouse helped safely guide lakeborne vessels through one of America's most commercially important and highly travelled corridors over waters north of Chicago's harbor. The history of this structure acts as a tangible reminder of how pioneer exploration and subsequent development of the interior of the United States relied on inland waterways.

The preceding statement of significance is based on the more detailed statements that follow.

# **ROLE IN MARITIME TRANSPORTATION**

Exploration and mapping of North America's interior began in the 17th century as French voyageurs opened trade networks with Native Americans that took them through the Great Lakes. The promontory of land known as Grosse Point (Great Point) was named by these early pioneers. In fact, explorer and Jesuit Missionary Jacques Marquette's diary has a reference to camping on "Grosse Pointe" on Dec. 3 during his 1674 expedition to what would become Chicago. This promontory of land has continued to be called Grosse Point.<sup>3</sup>

Travel through the Lakes increased over the years that followed as settlers moved westward. Most important to this growth and expansion was the completion of the Erie Canal in 1825 and the Illinois and Michigan Canal in 1848. These two waterways created an inland shipping transportation network that connected the Atlantic Seaboard with the Great Lakes and Mississippi River south to the Gulf Coast.<sup>4</sup> The result was a tremendous boom in the shipping industry, which relied on Chicago's harbor and shipping lanes in and out of the city to transport

<sup>&</sup>lt;sup>1</sup> The Grosse Point Light Station was previously documented for the National Register of Historic Places in 1976 by Theodore Hild of the Illinois Historic Preservation Agency.

<sup>&</sup>lt;sup>2</sup> Mary Jane Rice, Chicago: Port to the World (Follet Pub. Co., 1969) p. 155

<sup>&</sup>lt;sup>3</sup> Reuben G. Thwaites, Travels and Explorations of Jesuit Missionaries in New France 1610-1791, Vol. 59 entry under December 3, 1674, (Burrows Bros. Publ. 1900); A.T. Andreas, The History of Cook County Illinois (1884), p. 51; Raphael M. Hamilton, Marquette's Explorations: The Narratives Re-Examined (U. of Wisconsin Press, 1970) p. 144-145

<sup>&</sup>lt;sup>4</sup> T. Karamanski, *Historic Lighthouses and Navigational Aids of the Illinois Shore of Lake Michigan* (Loyola University & Illinois Historic Preservation Agency, 1989) pp. 2-3

goods. The hinterland that surrounds Chicago's port is the most extensive and productive of any serving the Great Lakes. It is the most productive area of large scale commercial agriculture in the world, an area which produces large surpluses for export and which consequently is a tremendous market for manufactured goods directly imported from other parts of the country and overseas.<sup>5</sup> Soon, the western states were transformed into the grain basket of the industrial northeast and Great Lakes sailing ships were a key link in the food chain. By 1870, Chicago rivaled New York, Boston, and San Francisco as the busiest center for maritime commerce in the country.<sup>6</sup> This growth continued over the next decade and by 1888, the Port of Chicago had 20,000 arrivals and departures of major vessels in its weather-shortened eight-month shipping season compared to New York's 23,000 over an entire twelve-month season. Grosse Point lay at the axis of this activity and the waters around its shore came to have some of the most heavily traveled shipping lanes in the country.<sup>7</sup>

Coupled with this heavy ship traffic was the fact that waters around Grosse Point were laden with low lying shoals. The years between 1851 and 1873 were marked by no less than 28 shipwrecks.<sup>8</sup> This total includes the wreck of *Lady Elgin*, a tragedy many maritime historians consider to be the worst on the Great Lakes. A passenger steamer, *Lady Elgin* was chartered from Milwaukee for an excursion to Chicago on September 7, 1860, by a group of political activists attending a rally in support of Stephen A. Douglas for U.S. President. On their return journey home, the ship collided with a lumber carrying schooner *Augusta* heading for Grosse Point from the northern reaches of Lake Michigan. Nearly 300 people died in this tragedy as *Lady Elgin* sank beneath the waves. Shortly after this disaster, the federal government was petitioned for a lighthouse on Grosse Point but the Civil War interrupted progress towards congressional approval.

In 1872, in response to the increase in ship traffic and treacherous natural conditions, the Lighthouse Service ordered the construction of a navigational aid on Grosse Point.<sup>9</sup> When Grosse Point Lighthouse was built in 1873, the federal government assigned its use as the lead navigational marker for vessels entering or leaving these important and busy shipping lanes.<sup>10</sup> In helping ships traverse these waters, the Grosse Point Lighthouse became one of the most commercially valuable navigational aids to the shipping industry in the country.

# **BRIEF OPERATIONAL HISTORY**

After completion of Grosse Point Light Station, a principal keeper and assistant were assigned to duty there. In its 67-year history as a commissioned lighthouse, Grosse Point had ten principal

<sup>5</sup> Harold M. Mayer, The Port of Chicago and St. Lawrence Seaway (U. of Chicago Press, 1957) pp. 120-

<sup>6</sup> Op.cit, Karaman ski, p. 9

<sup>7</sup> Ibid

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<sup>&</sup>lt;sup>8</sup> Mark S. Braun, *Chicago's North Shore Shipwrecks* (Transportation Trails Press, 1992) p. 81

<sup>&</sup>lt;sup>9</sup> Annual Report of the Lighthouse Board, 1870, (Washington D.C., Govt. Print. Office)

<sup>&</sup>lt;sup>10</sup> Charles K. Hyde, *The Northern Lights* (Wayne State University Press, 1987) p. 20

keepers. Of these, the most notable was Edwin J. Moore who served at Grosse Point from 1888 to his death at the age of seventy-three in 1924. A stern and authoritarian man, he assumed the title of "Captain", instead of keeper, which was more descriptive of his leadership style. Initially, there was only one assistant keeper but, with its increasing importance to the shipping industry, Grosse Point came to have two assistant keepers and a day laborer. In addition to maintaining the light and buildings, it was common for these keepers to work in tandem with the U.S. Life Saving Station at nearby Northwestern University. For example, in August of 1885 the schooner Jamaica sprung a leak in the middle of Lake Michigan. Her captain steered the ailing vessel toward Grosse Point but stranded it on the shoals some five miles distant where it was seen from the lighthouse tower. The Life Saving crew was summoned and successfully rescued everyone on board. This kind of dedication to duty is exemplary of the U.S. Lighthouse Service, and Grosse Point Lighthouse had a reputation within the Service as one of the best managed lighthouses on the Great Lakes. Eventually, electrification came to Grosse Point in 1923 and the station was decommissioned (not staffed) and the light automated in 1935. In 1941, the light was extinguished completely when lighted buoys were put in place seven miles offshore. The light was re-lit, however, in February of 1946 and now serves as a private aid to navigation (USCG Class 2).

# CAREER AND SIGNIFICANCE OF ORLANDO METCALFE POE

The architect who designed Grosse Point Lighthouse, Orlando Metcalfe Poe, was a Civil War veteran, superintending engineer, and engineer secretary for the Lighthouse Board. Poe's importance to the history of the United States lay in his service during the Civil War and engineering work on the Great Lakes after the conflict. As General Sherman's Chief Engineer, Poe was instrumental in Union victories in Atlanta and Savannah, Georgia. Through his work with the Lighthouse Service, he was responsible for improvements that resulted in the expansion of maritime transportation routes through the Great Lakes, developing commerce and industry there. As an individual, Poe made significant contributions to a developing country in war and peace.

Born on March 7, 1832, at Navarre, Ohio, Poe entered the U.S. Military Academy in 1852 and graduated sixth in his class in 1856. His first appointment was as assistant topographical engineer on the survey of the northern Great Lakes from 1856-1861 during which time he attained the rank of first lieutenant. At the outbreak of the Civil War, Poe helped organize the Ohio volunteers and later became a member of General McClellan's staff where he assisted in organizing the defenses of Washington D.C. against Confederate forces. Appointed colonel of the 2nd Michigan Volunteers on Sept. 16, 1861, he successfully commanded that regiment during the Peninsular campaign and during the Maryland campaign was commissioned brigadier general Nov. 29, 1862.<sup>11</sup> He later served as chief engineer of the XXIII Army Corps in the capture of Confederate forces occupying Knoxville, Tennessee. Poe then became chief engineer of the Army of the Ohio, successfully directing the defense of Knoxville and repelling Confederate General James Longstreet's assaults on that city.<sup>12</sup> In April, 1864, General W.T.

<sup>&</sup>lt;sup>11</sup> E.J. Warner, *Generals in Blue* (Louisiana State U. Press, 1964) pp. 375-376

<sup>&</sup>lt;sup>12</sup> Battles and Leaders of the Civil War, Vols. 3 & 4, 1884-87, Sentry Magazine, New York, N.Y.

Sherman selected Poe as his chief engineer. With Sherman, he was honored for gallant services in the capture of Atlanta and Savannah, and for gallant and meritorious service in the campaign ending with the surrender of Confederate General Joseph E. Johnston.<sup>13</sup>

Poe's brilliant military career was, however, overshadowed by his accomplishments after the war. First and foremost an engineer, Poe's work on the Great Lakes was instrumental in forging a transportation network that would benefit the development of maritime commerce and industry in the United States. From 1865-70, Poe served as engineer secretary of the Lighthouse Board charged with the supervision and management of building projects.<sup>14</sup> In 1870, he became engineer of the Upper Lakes Lighthouse District and superintendent of all river and harbor work in the Great Lakes region. In 1883, Poe became superintending engineer of improvement of rivers and harbors on Lakes Superior and Huron, where one of his most important projects was the development of the St. Mary's Falls Canal (designated an NHL in 1966) and St. Mary's River between Lakes Superior and Huron. Poe's work here improved these important waterways so that they were navigable to the ever increasing size of ships traversing these waters. He also had charge of improvements made to the Detroit River and the ship channel between Chicago, Duluth, and Buffalo. He designed and superintended construction of the locks at Sault St. Marie, one of which is named "Poe Lock" in his honor.<sup>15</sup> This project, more than any other, was instrumental in the development of the steel industry and commerce on the Great Lakes as it permitted the large iron hulled ore carrying vessels from mining regions bordering Lake Superior to access the lower Great Lakes and Atlantic seaboard. Eight hundred feet long and 100 feet wide, in its time, the Poe Lock was the largest in the world. Orlando Metcalfe Poe died in Detroit on Oct. 2, 1895.16

# **ARCHITECTURAL/ENGINEERING SIGNIFICANCE**

The most significant architectural aspect about Grosse Point Lighthouse is its degree of integrity. The original 1873 structure represents an intact lake coastal light station type, typical of the vernacular from the period.<sup>17</sup> The most common design for lighthouses on the Great Lakes for most of the nineteenth century consisted of a keeper's dwelling made of wood, stone, or brick, with the light exhibited in a lantern built into the roof or mounted on an attached square tower.<sup>18</sup> In later years, taller lake coastal towers, like Grosse Point, were needed as shipping lanes moved away from the shoreline. The most common design for such structures was a conical brick tower, between 80 and 100 feet tall, connected to the keeper's house by an enclosed above ground

<sup>&</sup>lt;sup>13</sup> Ibid

<sup>&</sup>lt;sup>14</sup> G. Weiss, *The Lighthouse Service* (Johns Hopkins University Press, 1926) p. 94

<sup>&</sup>lt;sup>15</sup> D. Malone, ed., *Dictionary of American Biography* (Scribner's, 1935) pp. 28-29

<sup>&</sup>lt;sup>16</sup> Detroit Free Press, Oct. 3, 1895

<sup>&</sup>lt;sup>17</sup> Stephen R. Knutson, AIA, Personal Communication: Dec. 8, 1997

<sup>&</sup>lt;sup>18</sup> Op.cit, Hyde, p. 22

passageway.<sup>19</sup> At 113 feet, Grosse Point is the fourth tallest light on the Great Lakes and is the tallest lake coastal light situated on the mainland of these inland waterways.<sup>20</sup>

Grosse Point Lighthouse has maintained its historic lake coastal architectural integrity and exhibits the complementary details of design and craftsmanship representative of this period. The keepers' quarters, reconstructed passageway, adjoining fuel supply room, and tower, are intact with no change in the number, type, or kind of windows and doorways. The degree of architectural and engineering integrity exhibited at Grosse Point contrasts with other historically important coastal lights on the Great Lakes from this period such as: Big Sable, Michigan (1867); Little Sable, Michigan (1874); St. Helena, Michigan (1873); Thirty Mile Point, New York (1875); Presque Isle, Pennsylvania (1873); and Wind Point, Wisconsin, (1880).<sup>21</sup> None of these lights, for example, has maintained their original optic and Thirty Mile Point has no optic at all.<sup>22</sup> In addition, at Little Sable Light, the keepers quarters has been demolished and at Big Sable Light, the 1867 tower was encased in steel plates in 1900.<sup>23</sup> When the light at Presque Isle was deactivated, the Coast Guard removed the lantern.<sup>24</sup> St. Helena was, until recently, abandoned; the roof of the lanter was missing and the keepers quarters subjected to vandalism since it's deactivation.<sup>25</sup>

Grosse Point Lighthouse is located in an affluent community where the federal government could showpiece the facility to many influential neighbors including former U.S. Vice President (1921-1925) Charles G. Dawes; philanthropist W. Clement Stone, founder of Washington National Insurance Co.; Harley Clark, president of Commonwealth Edison power company; Charles Deering, founder of International Harvester; and various presidents of Northwestern University whose campus home is one block west of the lighthouse.

# **Original Fresnel Lens Optic**

Grosse Point Lighthouse contains the only remaining second-order Fresnel lens on the Great Lakes.<sup>26</sup> Constructed by Henri LePaute in Paris, France, in 1850, this apparatus was used to intensify Grosse Point's beacon of light so that it was visible at ranges close to 20 miles. This

<sup>19</sup> Op.cit, Hyde, p. 23

<sup>20</sup> Ibid

<sup>21</sup> C. Clifford, 1994 Inventory of Historic Light Stations (Washington, D.C., National Park Service, 1994) pp. 167, 182, 203, 255, 279, 355

<sup>22</sup> Ibid

<sup>24</sup> Op.cit, Clifford, p. 279

<sup>25</sup> Michigan Natural Resources Magazine, Summer 1991

<sup>26</sup> Op.cit, Hyde, p. 135

<sup>&</sup>lt;sup>23</sup> Op.cit, Hyde, pp. 121, 118

lens was the largest of its kind ever used on the Great Lakes<sup>27</sup> and it was placed in service at Grosse Point in recognition that this lighthouse was to be "the largest and most important lighthouse in the district."<sup>28</sup> It was the first of five second-order lenses put in service on the Great Lakes,<sup>29</sup> and today is the last second-order lens in operation on these inland waterways.<sup>30</sup> It is rare for an historic lighthouse to contain its original lens in situ. For example, on the Great Lakes, only three others besides Grosse Point have retained their Fresnel lenses in place since being installed: a fourth-order lens at Little Traverse Harbor, Michigan (1884), a third-order lens at Split Rock, Minnesota (1910), and a third-order lens at Presque Isle Light, Michigan (1871).<sup>31</sup>

# Engineering Technology, 1935 & 1944

Grosse Point Lighthouse was staffed with a principal keeper and assistant(s) from 1873 until it was automated in 1935. Advancements in electrical engineering made it possible to use a photoelectric device to turn a lighthouse beacon on and off, and it was at Grosse Point Lighthouse that the federal government first tested this important new technology. Its subsequent adoption would pave the way for its use in light stations all over the United States and permanently change the Lighthouse Service by eliminating the need for keepers.<sup>32</sup>

During World War II, Grosse Point's light tower was used in experiments by the United States National Defense Research Committee. Dr. Bartholomew Spence and Dr. Robert Cashman, physicists from nearby Northwestern University, were a part of this committee who conducted experiments for the Navy centering on the development of photocells that would detect infrared light. In 1944, the two scientists used Grosse Point's tower for sending and receiving infrared emissions, helping to refine these sensing devices for use in advanced radar detection systems that would more accurately monitor the movements of enemy aircraft. Prototypes of these cells were used in the war and their descendants have become important in optical communications systems and in infrared astronomy.<sup>33</sup>

<sup>27</sup> Ibid

<sup>28</sup> Letter from the 9th District to the Lighthouse Board, File 4351, Record Group 26, National Archives, Washington, D.C.

<sup>29</sup> Op.cit, Weiss, p. 94; Op.cit, Hyde, (a) Grosse Point Lighthouse activated March 1, 1874 (p. 134); (b) Spectacle Reef Lighthouse activated June 1, 1874 (p. 100); (c) Stannard Rock Lighthouse activated July 4, 1882 (p. 171); (d) White Shoal Lighthouse activated September 1, 1910 (pg. 104); (e) Rock of Ages Lighthouse activated September 1, 1910 (p. 179)

<sup>30</sup> Op.cit, Clifford

<sup>31</sup> Ibid, Little Traverse, Michigan, p. 182; Presque Isle, Michigan, p. 195; Split Rock, Minnesota, p. 212

<sup>32</sup> Letter from C. Hubbard, Superintendent of Lighthouses, to Commissioner of Lighthouses, March 20, 1934. Record Group 26, File 401E Natl. Archives; *Milwaukee Journal*, March 8, 1934

<sup>33</sup> Dr. Irving Klotz, Professor Emeritus at Northwestern University U.S. National Defense Research Committee Member during W WII, Personal communication: August 18, 1995; Northwestern University Archives: Bartholomew Spence Papers; Jaques Cattell, *American Men of Science* (Arizona State University, 1960); J.P. Baxter III, *Scientists Against Time* (M.I.T. Press, 1968)

#### CURRENT USE

Today, the light station buildings and property are part of a museum/park complex for educational and recreational purposes. It is the only maritime history museum in the Chicago area. The lighthouse buildings have benefitted from a preservation plan, submitted in 1978, that is based on the original 1872 blueprints. Since this time, the Lighthouse Park District has received several awards from the City of Evanston Preservation Commission and Landmark Preservation Council of Illinois for its dedication to preserving and interpreting this historic structure. Recently, restoration activities on site were the focus of a nationally televised report on CNN. The lighthouse benefits from having a broad base of local public support that will ensure its survival for the benefit of future generations.

# 9. MAJOR BIBLIOGRAPHICAL REFERENCES

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Previous documentation on file (NPS):

- Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
- X Previously Listed in the National Register.
- \_\_\_\_ Previously Determined Eligible by the National Register.
- \_\_\_\_ Designated a National Historic Landmark.
- \_\_\_\_ Recorded by Historic American Buildings Survey: #\_\_\_\_\_
- \_\_\_\_ Recorded by Historic American Engineering Record: #\_\_\_\_\_

Primary Location of Additional Data:

- X State Historic Preservation Office
- \_\_\_\_ Other State Agency
- X Federal Agency
- X Local Government
- \_\_\_\_ University
- X Other (Specify Repository):

Evanston Historical Society 225 Greenwood St. Evanston, IL 60201

# **10. GEOGRAPHICAL DATA**

Acreage of Property: 3.5 acres

UTM References:	Zone	Easting	Northing
Α	16	444700	4656860

Verbal Boundary Description:

Area includes all the land bounded by Sheridan Rd. on the west to the lakeshore on the east. The north boundary is delineated by a white "Kentucky" rail fence. The south boundary is delineated by a private driveway. The lot or parcel identification number is 0535408026.

Boundary Justification:

The boundary includes the tower, keeper's quarters, reconstructed passageway, adjoining fuel supply room, and fog signal buildings that have historically been part of the orginal Grosse Point Light Station and that maintain historic integrity.

# **11. FORM PREPARED BY**

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NATIONAL HISTORIC LANDMARKS SURVEY AUGUST 3, 1998