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Book 1

Number	Name	Survey Number	Negative Number
1	Diamond Island Light	0105-50	3:15, 16, 17, 18

STATE OF VERMONT Division For Historic Preservation Montpelier VT 05602 HISTORIC SITES & STRUCTURES SURVEY Individual Structure Survey Form	SURVEY NUMBER: 0105-50
	NEGATIVE FILE NUMBER: 3:15, 3:16, 3:17, 3:18
	UTM REFERENCES: 18.633030.4899280
	U.S.G.S. QUAD. MAP: Westport, NY 1:24,000
COUNTY: Addison	PRESENT FORMAL NAME: Diamond Island Light
TOWN: Ferrisburgh	ORIGINAL FORMAL NAME: Diamond Island Light
LOCATION: 1.5 miles northwest Fort Cassin Point in Lake Champlain	PRESENT USE: Navigational Aid
COMMON NAME: Diamond Island Light	ORIGINAL USE: Navigational Aid
PROPERTY TYPE: Navigational Aid	ARCHITECT/ENGINEER: U.S. Bureau of Lighthouses
OWNER: United States Coast Guard ADDRESS: 300 Metro Center Boulevard, Warwick, RI 02886	BUILDER/CONTRACTOR: U.S. Bureau of Lighthouses
ACCESSIBILITY TO PUBLIC: Yes <input type="checkbox"/> No <input type="checkbox"/> Restricted <input checked="" type="checkbox"/>	PHYSICAL CONDITION OF STRUCTURE: Excellent <input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>
LEVEL OF SIGNIFICANCE: Local <input type="checkbox"/> State <input checked="" type="checkbox"/> National <input type="checkbox"/>	STYLE: n/a
DATE BUILT: ca. 1930	
GENERAL DESCRIPTION: Structural System 1 Foundation: Stone <input type="checkbox"/> Brick <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Concrete Block <input type="checkbox"/> 2. Wall Structure a. Wood Frame: Post & Beam <input type="checkbox"/> Balloon <input type="checkbox"/> b. Load Bearing Masonry: Brick <input type="checkbox"/> Stone <input type="checkbox"/> Concrete <input type="checkbox"/> Concrete Block <input type="checkbox"/> c. Iron <input type="checkbox"/> d. Steel <input type="checkbox"/> e. Other: Bolted sheet steel 3: Wall Covering: Clapboard <input type="checkbox"/> Board & Batten <input type="checkbox"/> Wood Shingle <input type="checkbox"/> Shiplap <input type="checkbox"/> Novelty <input type="checkbox"/> Asbestos Shingle <input type="checkbox"/> Sheet Metal <input type="checkbox"/> Aluminum <input type="checkbox"/> Asphalt Siding <input type="checkbox"/> Brick Veneer <input type="checkbox"/> Stone Veneer <input type="checkbox"/> Bonding Pattern: Other: 4. Roof Structure a. Truss: Wood <input type="checkbox"/> Iron <input type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> b. Other: Bolted sheet steel 5. Roof Covering: Slate <input type="checkbox"/> Wood Shingle <input type="checkbox"/> Asphalt Shingle <input type="checkbox"/> Sheet Metal <input type="checkbox"/> Built Up <input type="checkbox"/> Rolled <input type="checkbox"/> Tile <input type="checkbox"/> Other: 6. Engineering Structure: bolted structural steel tower 7 Other: Appendages: Porches <input type="checkbox"/> Towers <input checked="" type="checkbox"/> Cupolas <input type="checkbox"/> Dormers <input type="checkbox"/> Chimneys <input type="checkbox"/> Sheds <input type="checkbox"/> Ells <input type="checkbox"/> Wings <input type="checkbox"/> Bay Window <input type="checkbox"/> Other: Roof Styles: Gable <input type="checkbox"/> Hip <input checked="" type="checkbox"/> Shed <input type="checkbox"/> Flat <input type="checkbox"/> Mansard <input type="checkbox"/> Gambrel <input type="checkbox"/> Jerkinhead <input type="checkbox"/> Saw Tooth <input type="checkbox"/> With Monitor <input type="checkbox"/> With Bellcast <input type="checkbox"/> With Parapet <input type="checkbox"/> With False Front <input type="checkbox"/> Other: Number of Stories: n/a Entrance Location: East elevation Number of Bays: 1 X 1 Approximate Dimensions: 5' X 5' at tank house base, approximately 30' high	
SIGNIFICANCE: Architectural <input type="checkbox"/> Historic <input checked="" type="checkbox"/> Archeological <input type="checkbox"/>	
Historic Contexts: Water transportation and commerce	Level of Significance: Local <input type="checkbox"/> State <input checked="" type="checkbox"/> National <input type="checkbox"/>

ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

See attached continuation sheets

RELATED STRUCTURES: (Describe)

See attached continuation sheets

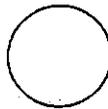
STATEMENT OF SIGNIFICANCE:

See attached continuation sheets

REFERENCES:

See attached continuation sheets

MAP: (Indicate North in Circle)



See attached continuation sheets

SURROUNDING ENVIRONMENT:

Open Woodland Woodland
Scattered Buildings
Moderately Built Up
Densely Built Up
Residential Commercial
Agricultural Industrial
Roadside Strip Development
Other: Rock ledge surrounded by open water

RECORDED BY: Matthew A. Kierstead and Kirk Van Dyke

ORGANIZATION: PAL, 210 Lonsdale Avenue, Pawtucket, RI 02860

DATE RECORDED: 6/21/2000

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ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

Diamond Island Light is an active navigational aid located on Diamond Island, a small rock ledge 1½ miles northwest of Fort Cassin Point in Lake Champlain, in Ferrisburgh, Addison County, Vermont. The structure consists of three major components, a poured concrete base supporting a bolted sheet steel tank house which in turn supports a bolted structural steel light tower. The tank house/tower structure is approximately 30' high. The concrete base is footed in the water, is square in plan with slightly sloping sides, and measures approximately 8' on a side. The tower is located at the center of the base.

The tank house resembles an obelisk in form, with a square plan, tapering sides, and a slightly-pitched, almost flat hipped roof. The walls and roof are built up with steel plates joined at the corner edges by threaded nuts and bolts. Each wall measures 5' wide at the base, and rises 7', tapering to 4' in width at the top. The roof is topped by a small conical metal vent hood. The tank house is mounted to the concrete base with cast-iron L-brackets bolted to the corners. The bottom edges of the side walls begin approximately 3" above the top of the concrete base, leaving a gap affording ventilation to the interior. The entrance consists of an outward-swinging, hinged steel door with cast iron hardware located on the south elevation. The tank house is painted white.

The tank house supports the tower, which is painted white. The tower is built up using bolted structural steel L-channels and flat bar stock. The vertical steel corner members of the tower are bolted to and rise directly from the upper corners of the tank house. The tower is divided into five panels stiffened by X-braces. The beacon is accessed by a steel ladder running up the center of the north elevation of the tower. An original circular bent steel rod safety grab loop is located at the top of the ladder. The beacon is a modern replacement unit with a white plastic lens located 37' above mean high water level. The beacon is powered by electricity supplied by a small, south-facing solar panel mounted to the top of the tower.

STATEMENT OF SIGNIFICANCE:

Diamond Island Light was erected by the U.S. Board of Lighthouses about 1930 to mark Diamond Island, a small exposed rock ledge off shore from Ferrisburgh, Vermont.

Prior to the arrival of European explorers, Lake Champlain was a natural boundary between the Iroquois and Algonquin nations. In 1609 the Lake was discovered by French explorer Samuel De Champlain. The earliest European settlement in the Champlain Valley was associated with fur trapping and Christian missionary activity. During the eighteenth and early nineteenth century the lake was a strategic corridor in the French and Indian War, Revolutionary War, and the War of 1812. After the Revolution, Americans began to settle in the Champlain Valley, which became an important transportation route for agricultural and timber goods. Steamboat lines began to operate after 1809. The construction of the Champlain Canal in 1823 and the Chambly Canal in 1843 greatly increased shipments of timber, iron ore, and agricultural products, requiring the construction of new ports and associated infrastructure. The increase in shipping led to an increase in loss of life and cargo and shippers successfully lobbied Congress for a system of navigational aids on the lake. In 1825 the first lighthouse was built on Juniper Island, and by the 1870s there were ten manned lighthouses on the lake. By the 1870s Lake Champlain ports were handling record quantities of lumber, but the canals had become clogged with traffic. By 1875 an all-rail route was completed between

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New York City and Montreal, and the steamboat lines began to operate as a tourist and excursion attraction. In 1893 a duty was placed on Canadian lumber and the Lake Champlain lumber trade disappeared almost overnight. In 1916 the Champlain Canal was enlarged as part of the New York State Barge Canal system, which helped retain some freight traffic. At the turn of the nineteenth century there were fewer passenger steamboats on the lake, but several new, large steel-hulled excursion boats were built, culminating in the 1903 *Vermont III*, which, at 262 ft long, was the largest of the Lake Champlain steamboats. By the 1920s the automobile began to dominate tourist transportation, and in 1929 the Crown Point bridge linked the east and west sides of the lake. In 1932 the last New York—Montreal steamboat run took place. During the Great Depression the east-west ferries survived, but north-south traffic on the lake continued to decline. Between 1950 and 1990 several excursion boats were built for lake Champlain service. The last significant freight traffic on Lake Champlain consisted of fuel barges bound for the U.S. Air Force Base at Plattsburgh, NY which ended in the early 1990s (Bellico 1992; Hill 1976).

Since the Lighthouse act of 1789, navigational aids have been under U.S. government control. By the 1860s most lighthouses had been replaced with durable structures with the latest illuminating technology. By 1900 the U.S. Lighthouse Board had established an navigational aid system on lake Champlain that included ten manned, masonry or prefabricated iron lighthouses, 36 buoys, and 15 post beacons. In 1910 the Bureau of Lighthouses, a smaller organization manned by civilians under the Commerce Department, was formed to take responsibility for lighthouses. This organization converted many manned illuminated navigational aids to automated devices. In more populated areas these navigational aids were powered by electricity, and in more remote, or water-bound locations, they were powered by other sources of illumination. Between 1923 and 1954 the U.S. Bureau of Lighthouses upgraded and augmented the navigational aid system on Lake Champlain with new acetylene gas-powered beacons on steel towers. Similar series of towers were incorporated in navigational aid systems on Lake Memphremagog, the Hudson River, and other U.S. rivers and coastal waterways. In 1939 the Bureau of Lighthouses and other maritime agencies were amalgamated into the United States Coast Guard. The USCG Burlington, VT Station currently maintains almost 150 ATON, including 50 beacons and 100 buoys (Delgado and Foster, n.d. Clifford 1999).

The acetylene gas mechanism in the Diamond Island Light has subsequently been replaced with a modern, solar-powered unit. The structure is otherwise unmodified, retains its outward appearance, and still functions as a navigational aid. It is assigned United States Coast Guard Light List Number 39825 and displays a white light located 37 ft above mean high water level that flashes at four second intervals and is visible for six miles (USCG 2000:334).

NATIONAL REGISTER STATEMENT

Diamond Island Light is eligible for listing in the National Register of Historic Places at the state level under Criterion A for its association with the history of waterborne commerce and navigation in Vermont. It is also eligible for listing under Criterion C at the state level as it is an active component of a historic navigational aid system deployed by the U.S. Bureau of Lighthouses on Lake Memphremagog and is evidence of the technological evolution of navigational aids. Although the light no longer retains its original illuminating equipment it retains its historic function through continuity of use as an active navigational aid. It retains its historic qualities of location, setting, workmanship, feeling, and association; and retains its outward

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appearance in its design and materials, and is therefore eligible for listing in the National Register of Historic Places.

SOURCES OF INFORMATION

Bellico, Russel P.

1992 *Sails and Stem in the Mountains: A Maritime and Military History of Lake George and Lake Champlain*. Purple Mountain Press, Fleischmanns, NY

Clifford, George

1999 *Lake Champlain Lighthouses: An Illustrated Guide*. Cumberland Head Tomorrow, Plattsburgh, NY

Delgado, James P. and Kevin J. Foster

n.d. *National Register Bulletin No. 34: Guidelines for Evaluating and Documenting Historic Aids to Navigation to the National Register of Historic Places*. National Park Service, Washington, D.C.

Hill, Ralph Nading

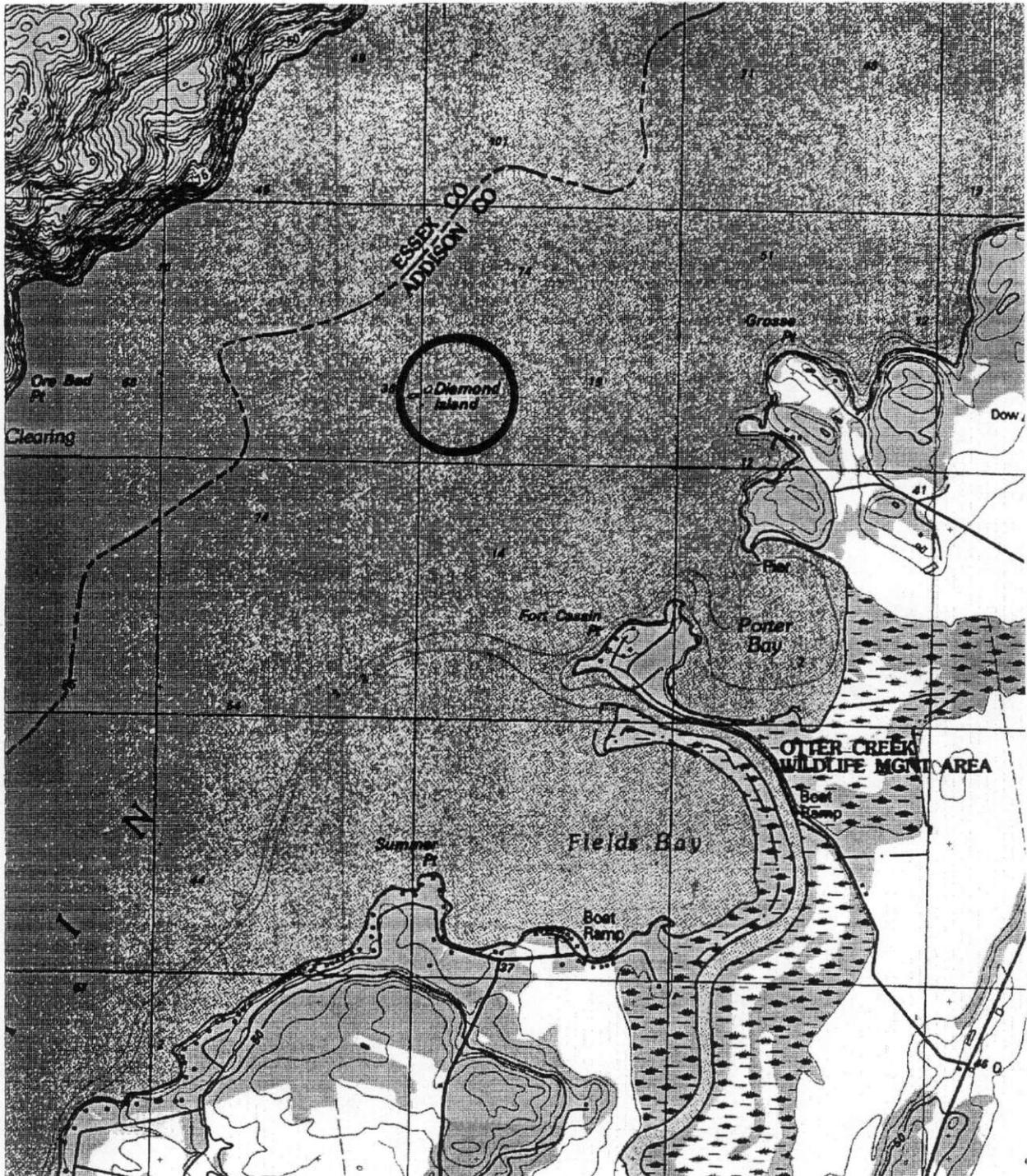
1976 *Lake Champlain: Key to Liberty*. The Countryman Press, Woodstock, VT

United States Coast Guard

2000 *Light List, Volume 1, Atlantic Coast, St. Croix River, Maine, to Shrewsbury River, New Jersey*. U.S. Department of Transportation, Washington, D.C.

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USGS QUADRANGLE LOCATION MAP





State of Vermont
Division for Historic Preservation
Photo Sheet

Inventory #
Town: Ferrisburgh
County: Addison
Sheet 1 of 2

Date of Photographs: June, 2000
Negatives stored at: PAL

PHOTO # 1
Subject: Diamond Island Light

Photographer facing: West
Roll # 3 Frame # 15

PHOTO # 2
Subject: Diamond Island Light

Photographer facing: Southeast
Roll # 3 Frame # 17



PHOTO # 3
Subject: Diamond Island Light – Detail of Tank House

Photographer facing: Southeast
Roll # 3 Frame # 18



State of Vermont
Division for Historic Preservation
Photo Sheet

Inventory #
Town: Ferrisburgh
County: Addison
Sheet 2 of 2

Date of Photographs: June, 2000
Negatives stored at: PAL

PHOTO # 4
Subject: Diamond Island Light – Detail of Tower

Photographer facing: Southeast
Roll # 3 Frame # 16