

Local History: What Might Have Been

by John Vincent (2794 LFPR)

From the time that the Sturgeon Bay and Lake Michigan Ship Canal was first conceived in the 1850s¹, it was always presumed that the route for the canal would follow the existing Portage between the Bay and the Lake. After all, the Indigenous people had carried their canoes along this path for centuries, possibly millennia, thereby establishing a short and practical route connecting these two waterways.

When local politician, newspaperman and canal advocate, Joseph Harris, Sr., shepherded through Congress in 1866 a federal land grant of 200,000 acres of timberland to fund the project,² what had been only a concept became a reality. A company composed of Great Lakes businessmen from Chicago, Milwaukee, Green Bay and points East was incorporated to build the canal³, and construction bids were solicited.⁴ Harris, who was both secretary and treasurer of the new company, raised \$1800 locally to personally fund a preliminary survey of the canal route during the summer of 1867.⁵

To accommodate the surveying engineers, a swath of timber was cut adjacent to the Portage path for the entire 1.4 miles of the anticipated canal.⁶ The elevations above the lake level were precisely measured and recorded. The sandy substrate was probed to a depth of two feet below the planned 13 foot bottom of the canal⁷ to confirm that no escarpment or solid clay was present. This detailed survey culminated in the 1867 Plan and Map prepared for the proposed canal and shown in **Exhibit 1** below.



Exhibit 1: Proposed 1867 Canal Plan and Map

On this 1867 map, the prospective canal commences from the head of Sturgeon Bay, follows a southeasterly line, and enters Lake Michigan just north of the rocky point at what is now Portage Park. This shallow inlet was at the southern end of a larger bay, then known as Portage Bay,⁸ which 60 years later would become the southernmost bay of the new Lake Forest Park residential development. This location was highly sought after for the entrance to the canal, because the rocky point provided a natural shelter from the prevailing storms out on the lake.

Exhibit 2 (below) provides an expanded view of the planned “harbor of refuge” at the Lake Michigan end of the canal. Note that the rocky point is utilized for a good portion of the southern breakwater, while the 1200 foot northern breakwater is built out from the beach to a terminal lighthouse, signaling the entrance to the harbor. The placement of these breakwaters and the narrow harbor entrance (300 feet) were designed to dissipate any wave energy from reaching the mouth of the canal. The dashed lines inside the harbor reflect an option for a larger harbor where smaller vessels could take refuge from the lake without proceeding through the canal.

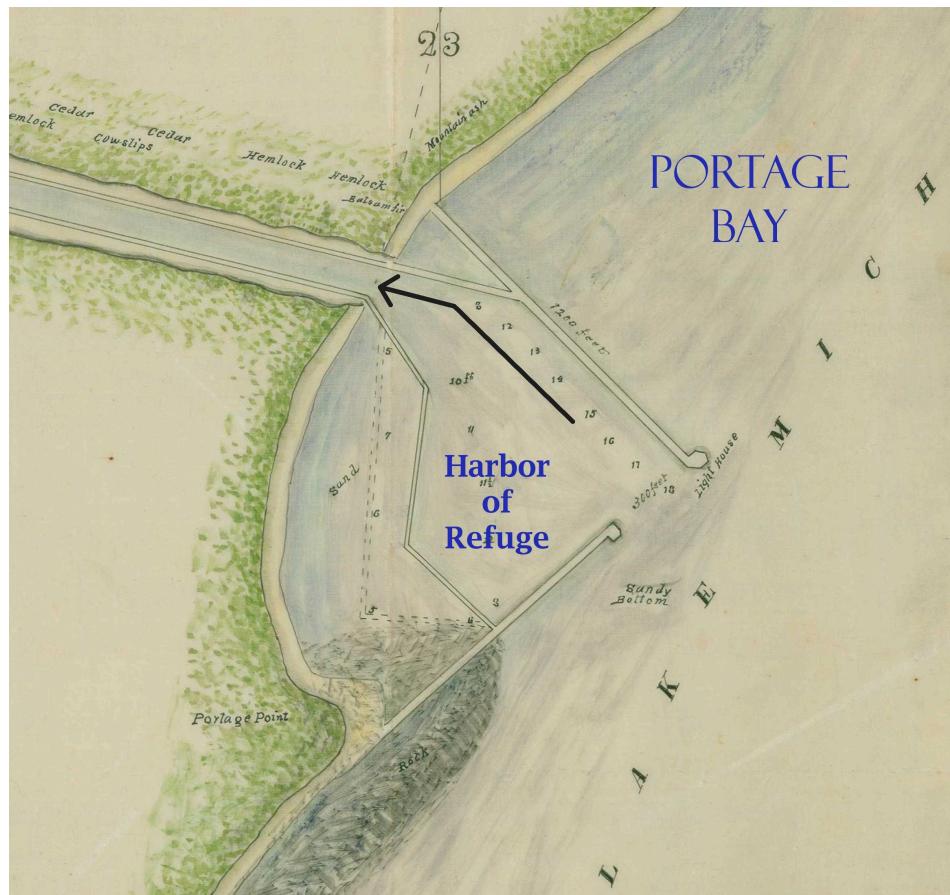


Exhibit 2: Expanded View of Planned 1867 Harbor of Refuge on Portage Bay.

In the years preceding this survey, Joseph Harris began acquiring acreage along the anticipated canal route, not unlike a speculator purchasing land along a prospective railroad route. As early as 1856, Harris acquired parcels at relatively low prices, directly from the State and Federal government through swampland patents⁹, and from the County through delinquent tax auctions¹⁰.

By 1871, he owned virtually all the land along the anticipated canal route, as highlighted in yellow on the **Exhibit 3** canal area map. During the summer following the 1867 survey, the Township “laid out a new road” from the “head of Sturgeon Bay to the Lake shore” providing a dry overland route to “cross the canal route near the Buffalo ridge”.¹¹ The **Exhibit 3** map (below) shows this 1868 road (today’s Buffalo Ridge Trail and Road) accessing the original 1867 canal route (in blue). The project would have likely culminated in a canal at this location, as rendered in **Exhibit 1**, had it not been for obstacles that arose at the national level.

The principal issue was that the 200,000 acre land grant was insufficient to fund the full cost of the project. The engineers who prepared the 1867 survey estimated the project cost at \$658,720¹² while a critical examination of the Federal timberland granted to the State of Wisconsin for the project, most of which was located in Marinette County, yielded estimated values as low as \$125,000.¹³ Even with the \$250,000 of cash authorized to be raised by the charter of the Canal Company,¹⁴ this source of funding fell woefully short.

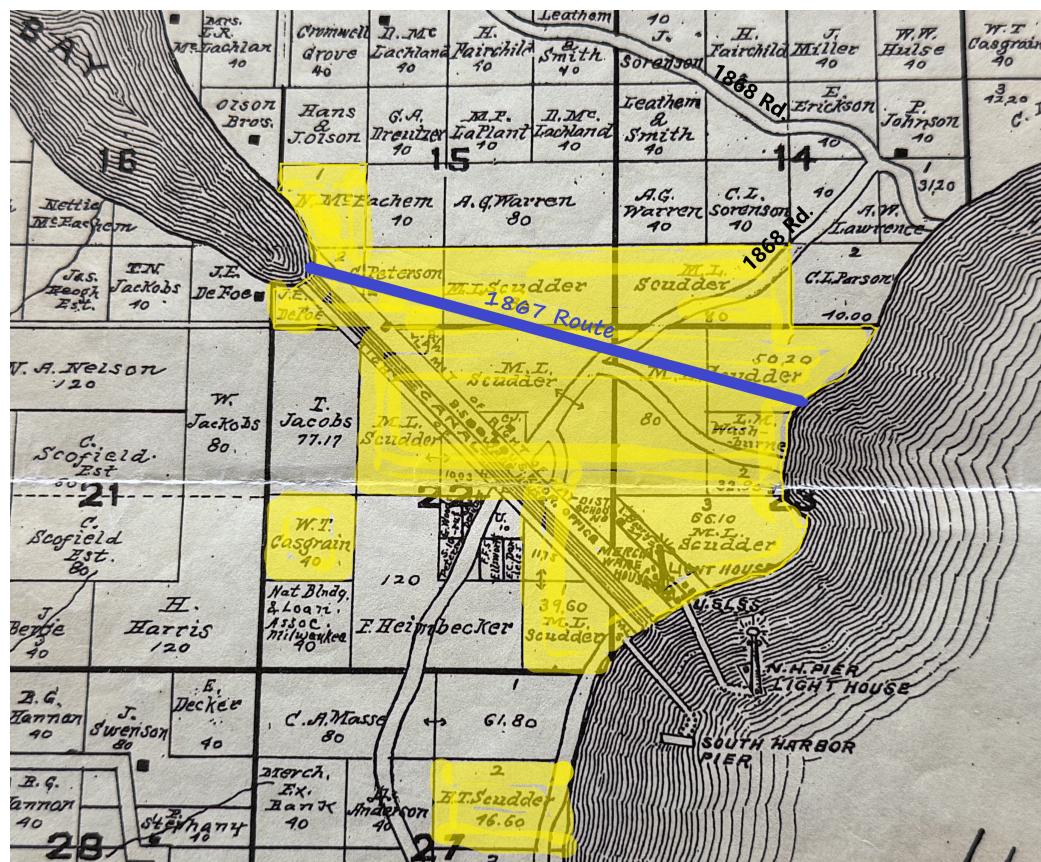


Exhibit 3: Joseph Harris’ canal area land holdings (in yellow) and the new 1868 road, superimposed on the 1899 Township plat map.

Joseph Harris returned to Washington and lobbied for five years to obtain an additional land appropriation but came away empty-handed. What he did obtain was a commitment from the U.S. Government to fund the harbor of refuge component, as was the practice in other Great Lakes ports, and a \$40,000 appropriation for a new Government survey;¹⁵ this time to be performed by the U.S. Engineering Corps.

Lieutenant William T. Casgrain of the Corps conducted an intensive canal survey during the summer of 1871, and then continued on to serve as chief engineer for the project. He measured the elevation and took borings along the original 1867 route, but also along a second route three-quarters of a mile to the south.

Perhaps it was the wisdom of the Indigenous to portage on higher and dryer ground that prompted him to consider this alternative route. The map on **Exhibit 4** (below) shows this second route as a completed canal in 1908 and compares it to the original 1867 route (blue line). The 1871 survey revealed that the southern route was on average 2.1 feet *lower* in elevation, and was some 250 feet shorter in length.¹⁶ This difference resulted in estimated savings of approximately \$65,000 in excavation costs.¹⁷

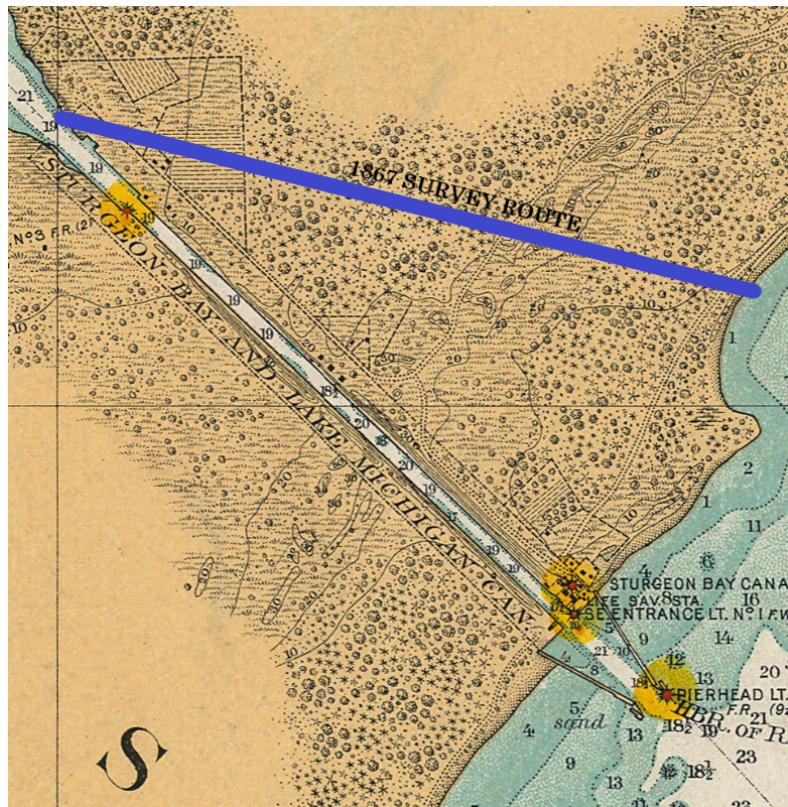


Exhibit 4:
Comparison of the Proposed 1867
Canal Route with the actual Canal, as
shown on the 1908 U.S. Army Corps
of Engineers' Survey Map

Perhaps more compelling was a profound difference in the resulting harbors of refuge at the Lake Michigan entrance to the canal. In **Exhibit 2**, a ship entering the harbor configured in the 1867 plan would need to make a turn to the left in order to enter the canal proper. Upon exiting the canal at the bay end, this same ship would be required to make a second turn to the right in order to align with the dredged channel in Sturgeon Bay. The harbor of refuge shown for the completed canal in **Exhibit 4** does not require any turns for a ship entering the harbor and allows it to proceed on a single bearing through the harbor, canal and into the channel. Casgrain's rationale for the alternative southern route swayed the principals of the Canal Company and the rest was history.

It was not all smooth sailing for the canal project, though. What was expected to be done in three to four years took a decade to complete. Work on the project stopped for three years (1874-1877) due to a mid-decade recession, which rendered the timberlands under the land grant unsaleable. The Canal Company responded by structuring a \$350,000 bond issue,¹⁸ secured by the pledged land and the future revenue of the completed canal, but it could not attract investors.

In October 1874, Joseph Harris sold all of his land holdings in the canal area (800+ acres) and other acreage in the County to M.L. Scudder, the Fiscal Agent and Land Trustee of the Canal Company, for \$15,000, thereby realizing a healthy profit.¹⁹

The work stoppage irritated the locals, precipitating rumors and allegations questioning the intent and integrity of the individuals behind the Canal Company; accusing them of pocketing the land grant.²⁰ The motives of the Company proved honorable, however, and in 1877 its timberlands were released for auction and the digging recommenced. On June 28, 1878, the cut was complete and the waters of Lake Michigan commingled with those of the Bay.²¹ Further dredging and revetment resulted in a fully navigable harbor, canal, and bay by 1882.²²

At the lake end of the new canal, on its harbor of refuge, a lifesaving station was established by the predecessor to the U.S. Coast Guard. A small surrounding settlement with a public schoolhouse supported this “canal station” community, which was then primarily accessible by boat. During the 1920s & ‘30s, a new Canal Road was built and improved, running parallel to the canal, connecting this isolated community to town.

From the perspective of that “passed over” bay a mile to the northeast, apart from the white Ship Canal light poking above the tree line and the breakwater extending behind the rocky point out to the red North Pier light, the shoreline remains as pristine and nearly undisturbed as it was 160 years ago.

Acknowledgements

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Notes

¹ Prospectus for the \$350,000 First Mortgage Gold Bonds of the Sturgeon Bay and Lake Michigan Ship Canal and Harbor Company, 1874, p 6. (the “1874 Bond Prospectus”). This document is available on the Door County Public Library Website under “Genealogy / Local History – Books & Articles – Sturgeon Bay and Lake Michigan Ship Canal (1894)”.

² Hjalmar R. Holand. *History of Door County Wisconsin – The County Beautiful (Volume I)*; pp. 148-149, (Chicago, S. J. Clarke, 1917).

³ *Ibid.*

⁴ A testimonial titled: *Sturgeon Bay, Wis, and Lake Michigan Ship Canal and Harbor of Refuge – Its importance, practicality, and necessity demonstrated*. p. 3, (ca 1869), (the “1869 Testimonial”). This original pamphlet was donated to the Door County Museum and Archives by Charlie Calkins. A copy is on file at the Museum.

⁵ Holand. p. 149

⁶ 1869 Testimonial. p. 2.

⁷ *Ibid.*

⁸ Door County Advocate (“DCA”) 8/1/1867, p. 4, under “The Ship Canal – Progress of the Work”.

⁹ Swampland Patent #6101 of State of WI to Joseph Harris for the NE 1/4-NE 1/4 Sec. 22 Township 27N, Range 26E (40 acres) awarded on 7/25/1856; Vol. B, pp. 477-478; recorded on 8/7/1860 at the Door County Register of Deeds.

¹⁰ Tax Deeds of Door County to Joseph Harris for 10 described parcels of land in Sections 14, 15, 22 & 23 all in Township 27N, Range 26E (476.8 acres) that were for non-payment of taxes sold at public auction on 4/13/1860; Vol. C, pp. 259-260 and Vol. C, pp. 276-277; recorded and conveyed by Tax Deed on 8/7/1863 & 9/9/1863, respectively, at the Door County Register of Deeds.

¹¹ DCA 7/2/1867, p. 4, under “New Road”.

¹² 1869 Testimonial. p. 3.

¹³ 1869 Testimonial. p. 4 (See J.J. Dull 9/13/1867 letter to Jesse Spaulding).

¹⁴ 1869 Testimonial. p. 3.

¹⁵ Holand. p. 150; and 1874 Bond Prospectus. p. 13 (See “The Harbor of Refuge”) & Appendix B-4 on pp. 23-24 of the “Official Reports and Surveys – Sturgeon Bay and Lake Michigan Ship Canal and Harbor (1874)”.

¹⁶ DCA 2/15/1872, p. 3, under “Ship Canal Survey – Report of Wm. T. Casgrain, Assistant United States Engineer, to D. C. Houston, Major of Engineer”.

¹⁷ *Ibid.*

¹⁸ 1874 Bond Prospectus. pp. 3-4.

¹⁹ Warranty Deed of Joseph Harris & Wife to Moses L. Scudder Jr. of substantial Door Co. real estate, including 14 described parcels of land in Sections 14, 15, 22, 23 & 27 all in Township 27N, Range 26E (803 acres); Vol. K, pp. 207-209; recorded on 10/26/1874 at the Door County Register of Deeds.

²⁰ Holand. pp. 151-152.

²¹ DCA 7/4/1878, p. 3, under “Meeting of the Waters”.

²² Holand. pp. 152 & 154.