

# The Buffalo, New York Outer Harbor as a Cultural Landscape

Report Prepared by: kta preservation specialists

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August 2018

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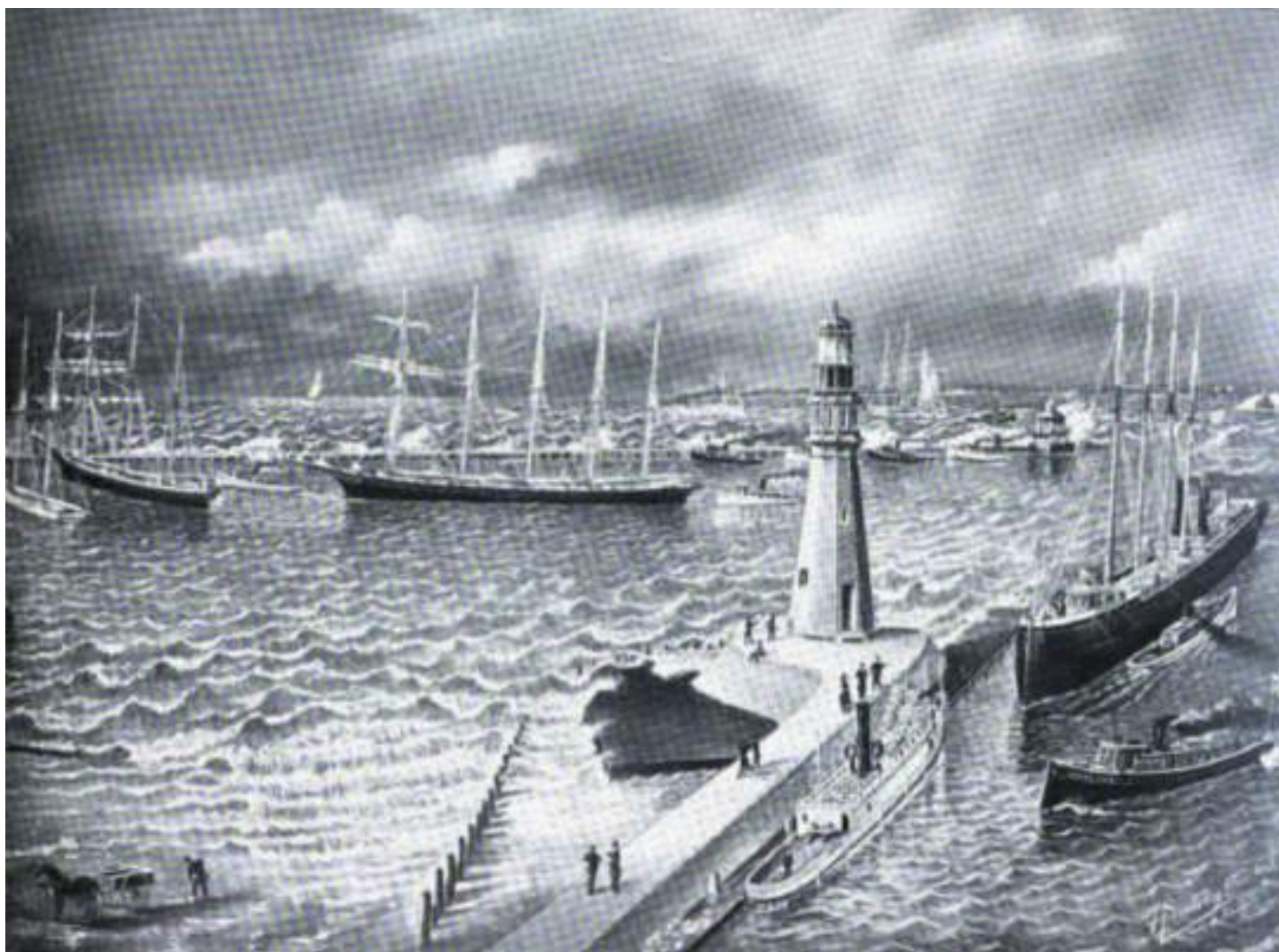
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Cover Photo: Re-ENERGIZE Buffalo 2015.



Buffalo Harbor During a Storm<sup>A</sup>

A Becker, Philip. History of the Germans of Buffalo and Erie County. Buffalo: Verlag und Druck von Reinecke & Zesch, 1898.

# Table of Contents

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Chapter 1: Introduction	1
Project Summary	3
Scope of Work and Methodology	4
Description of Project Boundaries	6
Summary of Findings	7
Chapter 2: Landscape Physical History	9
Prehistory	11
Ellicott, Big Tree Treaty, and Holland Land Company	14
The Shore of Lake Erie	19
Erie Canal, Port of Buffalo, and Transshipment	21
Outer Harbor: Coast Line to Seawall	31
Times Beach	36
Industrial Piers	38
Shoreline Infill	44
Contamination, Abandonment, and Reclamation	47
Chapter 3: Landscape Existing Conditions Documentation	55
Introduction	57
Overview of the Lighthouse and Government Land	60
Overview of Times Beach	61
Overview of the Breakwall and Fuhrmann Boulevard	62
Overview of the Industrial Rail Corridor	63
Overview of the Waterfront Industrial Piers and Landfill	64
Contextual Sub-Area Inventory	66
Chapter 4: Landscape Analysis and Evaluation	77
Introduction	79
National Register Status	80
Statement of Significance	82
Landscape Integrity Overview	83
Bibliography	85



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# 1. Introduction

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# 1. Introduction



## Chapter 1: Introduction

### *Project Summary*

This cultural landscape report primarily focuses on the Buffalo Outer Harbor (Outer Harbor) located in Buffalo, New York, with an understanding that it is part of a much larger context including the Buffalo Inner Harbor (Inner Harbor)<sup>1</sup> and Buffalo Middle Harbor (Middle Harbor) in order to provide context and a holistic understanding of the surrounding landscape. This cultural landscape report investigates and documents the landscape history and the existing conditions within the study area of the Outer Harbor, a site with a long, rich, and evolving history. This document focuses on the development of the area's history, inventories the site's existing conditions, and analyzes the historic and existing conditions in order to evaluate the significance and integrity of the site as a cultural landscape. The Outer Harbor is an artificial harbor created by the Federal Government with the construction of a breakwater system that included three periods of construction: 1869, 1874, and 1896. The breakwater system in the Outer Harbor was completed in 1902 at a cost of over \$4,500,000.<sup>2</sup> When constructed the breakwater system (Inner and Outer Harbor), at 4.8 miles in length and resulting artificial harbor were the longest in the world.<sup>3</sup> Alterations of the Lake Erie coastline through the construction of industrial piers and infill during the 19th and 20th centuries created the current landscape. The artificial harbor and industrial landscape retain a high level of integrity and are significant for their contribution to the industrial and maritime history of the city, and the resulting ecological systems that have established themselves within the Outer Harbor. This cultural landscape report works to set up a basis of knowledge for the potential to create treatment recommendations that will provide guidance in the rehabilitation and preservation of the Outer Harbor.<sup>4</sup>

1 The Inner Harbor was historically defined by four water areas. The Buffalo Creek, City Ship Canal, Erie Basin, and Black Rock Harbor ("The Buffalo Breakwater System." *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14. New York: McGraw Publishing Company, 1903. 343.)

2 F. Howard Mason, "Buffalo," in *Annals of the American Academy of Political and Social Science*, Volume 29, (Philadelphia: American Academy of Political and Social Science, 1907), 127.

3 Ibid.

4 In developing a treatment plan for the Buffalo Outer Harbor Cultural Landscape *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* should be followed when identifying approaches. The current use, historic integrity and future needs of each area identified should be established prior to establishing treatment recommendations for these areas.

### *Description of Project Boundaries*



Due to its geographical location within the Buffalo waterfront, several bodies of water define the northern, eastern, and western boundaries of the study area. The boundaries of the Outer Harbor reflect the historic boundaries established when the breakwater system was completed by the Federal government in 1902. To the north the Outer Harbor is defined by the entry into the City Ship Canal, the U.S. Coast Guard property and the Buffalo Lighthouse; the City Ship Canal marks the eastern boundary to the south, with Fuhrmann Boulevard continuing to the north; Stony Point and the Buffalo-Lackawanna city line mark the southern boundary of the harbor, while the breakwater system encloses and defines the Outer Harbor to the west. The study area is currently comprised of a patchwork quilt of former and current industrial buildings and land; former landfill; nature preserves; extant rail lines and beds; government land, maritime structures, and recreational land including beaches, parks, and a small boat harbor.



INNER  
HARBOR

MIDDLE  
HARBOR

OUTER  
HARBOR

# INNER/MIDDLE/OUTER HARBOR DIAGRAM



1 MILE

## Scope of Work and Methodology



Wayfinding sign located in the Buffalo Outer Harbor.

The scope of work for the project established the need for a cultural landscape report that would be able to provide a historical understanding, analysis, and evaluation to inform treatment strategies for the present and future preservation of resources that contribute to the historic character of the area. Due to the nature of this paper, this report is written in such a way that allows for fluidity and flexibility to serve immediate needs of management, while also providing overarching guidance for issues that arise in the future. The purpose is achieved through the following steps:

- Study the physical evolution and history of the study area. This includes changes to the natural and built environment.
- Document the existing conditions within the cultural landscape, including the identification and examination of the various character defining features that comprise the cultural landscape.
- Analyze the existing landscape to determine a period or periods of significance.
- Create a document that can inform future treatment recommendations which will assist in future efforts to preserve, restore, and enhance the historic character of the area.

This document was created in accordance with *A Guide to Cultural Landscape Reports: Contents, Process, and Technologies* (NPS 1998). The methodology and criteria used to evaluate properties are codified in the *Code of Federal Regulations, Title 36: Part 60* and reprinted in the *National Park Service Publication National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*.<sup>5</sup>

5 The National Park Service “Park Cultural Landscape Program,” <https://www.nps.gov/orgs/1557/index.htm>, provides information on the study and documentation of Cultural Landscapes.

## ***Summary of Findings***

The Buffalo Outer Harbor is a significant cultural resource and cultural landscape. The artificial Outer Harbor embodies Buffalo's industrial and maritime industry, and the resulting changes to the landscape. The shoreline at the Outer Harbor was altered as piers were constructed to accommodate factories and industry, and areas used as a dump by the city and private entities, and Diked Disposal Sites for dredged material were created by the Army Corps of Engineers. As industry left the city and activity at the Port of Buffalo decreased in the middle decades of the 20th century industrial piers were abandoned and factory buildings and elevators were either abandoned, or changed from their use as transshipment and manufacturing facilities. Many of the sites were used as dumping areas for the city of Buffalo and dredging operations have become nature preserves as habitats have reclaimed the landscape.

There are 14 major components of the Buffalo Outer Harbor consisting of the following:

- Breakwater system
  - Old Breakwater: 7608-ft
  - Stone Breakwater: 7261-ft
  - Stony Point Breakwater: 2803-ft
- Buffalo Lighthouse
- U.S. Coast Guard/Government Land
- Seawall/Fuhrmann Boulevard/Hamburg Turnpike
- Times Beach
- Wilkeson Pointe (Name of historic pier – Buffalo Maritime Construction Company)
- Michigan/Municipal Piers
- Bell Slip
- Former Ford Pier and Terminals A & B
- Freezer Queen Pier
- Small Boat Harbor and Buffalo Harbor State Playground
- Gallagher Beach
- Saskatchewan/Pool Cargill Elevator
- Independent Cement Co. Elevator (Great Lakes Portland Cement Co.)



## 2. Landscape Physical History

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## 2. Landscape Physical History



## Chapter 2: Landscape Physical History

### *Prehistory*

Buffalo's waterfront area was originally part of a very productive ecosystem that characterized the southern shoreline of Lake Erie and the changing Niagara and Buffalo river systems. The most recent ice age episode, called the Wisconsin Episode, lasted for one hundred thousand years, between 110,000 and 10,000 years ago. The last, late advance of the Wisconsin glaciations began about 25,000 years ago and lasted approximately 15,000 years. During those glaciations and retreats and subsequently, high water has periodically flooded large sections of the Buffalo region. Major flooding episodes occurred between 11,200 and 10,300 years ago and between 5,500 and 4,000 years ago. This flooding caused numerous lakes that have occupied areas in the Erie and Ontario basins. These lakes changed in size and depth according ice retreats or advances, melt water, and the opening and closing of various outlets.<sup>6</sup>

Glacial Lake Warren developed in the Lake Erie Basin about 13,000 years ago. This lake expanded northeastward following the retreating ice margin. To the north and east, glacial Lake Iroquois was formed at about the same time. As the ice sheets retreated northward, the St. Lawrence River system was created and the giant Lake Iroquois shrunk to what we now call Lake Ontario.

Between the two lakes was Lake Tonawanda. This smaller and much shallower lake stretched eastward from the approximate northeastern end of today's Grand Island, the Tonawandas, Niagara Falls, toward Lockport and Holley, NY. Eventually outlets in the east end of Lake Tonawanda opened up and allowed much of this lake to drain eastward into the Mohawk River Valley and Hudson River systems.

6 History of Times Beach," *The Friends of Times Beach*, Retrieved from <http://www.friendsoftimesbeachnp.org/history.html>.

The original Niagara River, which is actually a strait, flowed from what is now called Buffalo and glacial Lake Erie on its present course, and emptied into glacial Lake Tonawanda. The western most spillway of Lake Tonawanda into Lake Iroquois was located at today's Lewiston. This evolved into the single drainage connection between Lakes Erie and Ontario. Thus was born the powerful and erosional Niagara River and Niagara Falls, which was originally located at the escarpment.

Prior to the arrival of European settlers in the late 1600s and 1700s, Native American tribes occupied what is now Western New York. The major tribes occupying the land were the Seneca, Eries, Wenro and Kahquahs ('Neutral Indians'). The tribes were predominantly located near waterways, such as the Niagara River, Inner Harbor and Outer Harbor, which provided access to fish, fertile land, and opportunities to transport goods to other tribes in the area. The Kahquahs were driven off the land sometime between 1640-1655, and the Eries were also killed or driven off by the Seneca. The Seneca then occupied the land until the late 1700s, although the French continued to visit regularly.<sup>7</sup>

The first white settlements appeared in the area in the late 1700s, but European trappers, noblemen, and explorers, such as LaSalle and Hennepin, had been traveling to the region since the late 1600s. When more permanent European settlers established a community along the waterfront, they coexisted with a native settlement on Smokes Creek (now in Lackawanna), which was under the guidance of "Old Smoke" while a trading post of sorts is said to have existed on Buffalo Creek, near the outlet to the Lake. With few dependable surface roadways, some of which were little more than unpaved trails at the time, ships were the only way to efficiently transport goods and people through the area. The early settlements along Lake Erie and the Niagara River, particularly Black Rock and Buffalo, were concentrated around waterways due to the transportation constraints of the time. While these settlements developed with European influences, it was not the Europeans who originally selected these sites as advantageous, but the Native Americans who already occupied these areas for many years.

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7 Nancy Mingus, *Buffalo: Good Neighbors, Great Architecture* (Buffalo: Arcadia Publishing, 2003),13.

By the time of the Declaration of Independence, the confluence of Buffalo Creek, Lake Erie, and the Niagara River was a desolate frontier outpost. It was inhabited by those willing to make a living amid the harsh conditions along the eastern shores of Lake Erie. This hearty group was made up of a few nomadic Indians, runaway slaves, as well as a few white fur traders and trappers. Several taverns cropped up along this confluence to cater to these early Western New York inhabitants. These were some of the earliest centers of commerce, as deals were often made between traders and tavern keepers who would provide food, drink, and shelter in exchange for goods acquired in travel.<sup>8</sup> This early settlement was along a bluff called “The Terrace”, which provided protection against the floods that would plague the lower lying land between The Terrace and the river.<sup>9</sup>

The waterfront area near the mouth of Buffalo River was the earliest area to be settled in New Amsterdam.<sup>10</sup> By 1800, about six residences were located along the bank of the Buffalo River. By 1805 Buffalo was formerly named a Port of Entry by the United States Congress and developments began along the waterfront to promote trade and settlement.

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8 Dan Murphy, *Nickel City Drafts: A Drinking History of Buffalo, NY* (Buffalobooks.com 2010), 7.

9 Thomas Grasso, *The Erie Canal's Western Terminus Commercial Slip Harbor Development and Canal District* (Buffalo: Erie Canal Harbor Development Corporation, 2008), 3.

10 T. White, *Our Country and It's People: A Descriptive Work on Erie County, NY* (Boston: Boston History Company Publishers, 1898), 119-122.

### ***Ellicott, Big Tree Treaty, and Holland Land Company***

In ca. 1790, thirteen Dutch investors purchased roughly three million (3,000,000) acres in Western New York.<sup>11</sup> As foreign companies were not permitted to own land in the United States the investors utilized the Holland Land Company, incorporated in 1796, as a holding mechanism. The Holland Land Company hoped to sell land after it appreciated in value to generate a massive profit. Over the years, the company made more investments into the land purchased in Western New York, including portions along the Buffalo Harbor. These investments included the platting, surveying, and construction of infrastructure. Infrastructure predominantly included roads and other means of transportation. The Holland Land Company hoped these improvements would make the land more attractive to settlers considering a move into the area.

The Treaty of Big Tree was signed in 1797, which essentially enabled New York State, and eventually the Holland Land Company, to purchase much of the land in Western New York from the Seneca Nation. By the provisions of this treaty, the Seneca relinquished their rights to nearly all of their traditional homeland in New York State, except for twelve small tracts of land they would live on as Reservations, for \$100,000. The Seneca motivations for signing this treaty are complex, and were subject to substantial manipulation and bribes by European settlers at the time. With white settlers infiltrating land all around them, the Seneca were increasingly aware that these settlers would eventually succeed in outnumbering them and would take their land by force. In an attempt to leverage some sort of compensation and peace before these tensions erupted beyond control, the Seneca agreed to sell the majority of their land to the settlers. As historian Norman Wilkinson has asserted, “Their consent to sell their lands was, indirectly, a forced one- it was futile to resist for what the whites could not purchase, they would ultimately take. To be bought out was preferable to being pushed out.”<sup>12</sup>

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11 C.D. Kirby, *The Early History of Gowanda and The Beautiful Land of the Cattaraugus, Gowanda, NY* (Niagara Frontier Publishing Company, Inc./Gowanda Area Bi-Centennial Committee, Inc, 1976).

12 Norman B. Wilkinson, “Robert Morris and the Treaty of Big Tree,” *The Mississippi Valley Historical Review* 40.2 (September 1953), 277.

Shortly after the Big Tree Treaty, the era of widespread land sales and the process of land subdivision in the Buffalo area began when surveyor Joseph Ellicott was contracted by Theophilus Cazenove, agent for the Holland Land Company, to serve as chief surveyor of the Holland Purchase. Ellicott had previously assisted his brother Andrew in surveying and platting the city of Washington, D.C. in 1791–92. During this time, the Mile Strip Reservation along the Niagara River was also surveyed by Ellicott at the expense of the Holland Land Company and its boundaries established and clarified. Along with the assistance of brother Benjamin, Joseph Ellicott completed the survey of the Holland Purchase by 1800.<sup>13</sup> In addition to the survey, Joseph Ellicott carefully organized a report that included notes and the quality of land. Joseph Ellicott was subsequently hired by the Holland Land Company to develop a plan for the City of Buffalo.



1804 Plan of the Village of New Amsterdam

Ellicott secured the ideal site for the new settlement on the Buffalo Creek and took the first steps toward creating the civil vision and commercial wealth that would lead to his vision of Buffalo as a major urban center in decades to follow.<sup>14</sup> Envisioning a community he called “New Amsterdam,” Ellicott laid out what would be the future city of Buffalo and was eager to begin establishing the settlement. Ellicott was also aware of the advantages of the lands held by New York State in the Mile Strip Reservation along the Niagara River, seeing the establishment of a village at Black Rock as “equally or more advantageous for a town than Buffalo.”<sup>15</sup> Fortunately for Ellicott, the state did not survey the Mile Strip until 1803–04, first offering lands for sale in the Village of Black Rock (Upper Black Rock) only in February 1805. Finally, the Holland Land Company authorized Ellicott to commence his survey for “New Amsterdam,” which he completed in 1804.<sup>16</sup>

13 Henry Hill, *Municipality of Buffalo, New York a History, 1720-1923* (New York: Lewis Historical Publishing Company, 1923), 81.

14 H. Perry Smith, *History of the City of Buffalo and Erie County* (New York: Unigraphic, 1884), 79.

15 Hill, 92.

16 Hill, 92-101.

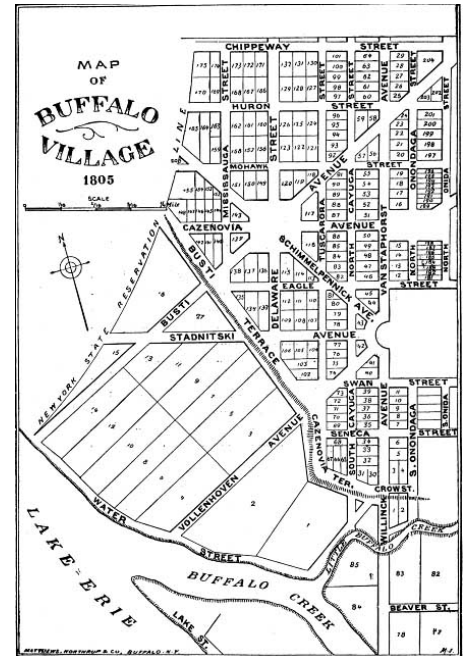
With the grand Baroque-influenced street plan he had helped create for Washington D.C. still fresh in his mind, Joseph Ellicott laid out “New Amsterdam” with a radial street plan overlaid onto a grid pattern, a design that set the stage for the later development of the city. This radial plan was unusual among other early city plans in America created by land companies and developers of this era, as it was easier and cheaper to lay out a simple grid of streets with regular sized lots than it was to plat the angles and curves of Ellicott’s grand design. The state-created Village of Black Rock (Upper Black Rock) to the north of the city reflects this phenomenon, with its regular grid of rectangular lots laid out regardless of the topography or other natural features. Ellicott’s plan for Buffalo reflects its kinship to the ambitious and inspirational plan of the new nation’s capital, as progressive and forward-looking city that aimed beyond the early pioneer era to envision a future city of substance. Its design is intended to stand out as a beautiful, sophisticated community that would attract land sales and encourage settlement, especially in contrast to the mundane grid of Black Rock. The center of Ellicott’s plan was Niagara Square, an open, traditional village square intended to serve as a market place for public gatherings in the tradition of early American village squares. Ellicott located the center of his plan in close proximity to the mouth of the Buffalo River, seeing the harbor and waterfront as the key to the commercial development of the new village. Niagara Square was also sited due to the topography of the landscape, located just north of the Terrace, a drop-off separating a generally flat plain from the lower, swampy areas near the river. From Niagara Square, roads radiated into the countryside. Ellicott gave the roads in the new settlement names in honor of the Dutch investors and patrons, such as Schimelpeninck Avenue (now Niagara Street), Vollenhoven Avenue, and Vanstaphorst Avenue (now Main Street in the city). Other streets were named in honor of Native American tribes, including Chippewa Street (the village’s northern border at the time), Huron Street, and Mohawk Street. Delaware Street, running northward from Niagara Square, was named by Ellicott for one of the Native American groups said to frequent the portage road around Niagara Falls.<sup>17</sup>

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17 Francis R. Kowsky, “Delaware Avenue, Buffalo, New York,” *The Grand American Avenue: 1850 - 1920*, ed. Jan Cigliano (San Francisco: Pomegranate Artbooks, 1994), 36.

Main Street, then called Vanstaphorst Avenue, ran north-south through Ellicott's plan for Buffalo, just to the east of Niagara Square, and terminated at the Buffalo Creek. As the oldest and primary thoroughfare to and from the new settlement, it is surprising that Ellicott did not choose to have Main Street run directly through Niagara Square, the center of his plan. As the primary road between the water routes in Buffalo and Batavia, then the base of the Holland Land Company's operations, and Albany to the distant east, the well-traveled Main Street would naturally evolve into a primary commercial section in the young village.<sup>18</sup> Delaware Street, running north-south through Niagara Square, ran only between Chippewa Street to the north and terminated, not at the Buffalo Creek, but at the Terrace. Cut off from the water and not serving as a major commercial artery, this truncated route encouraged the early growth of a residential sector on Delaware Street and around Niagara Square.<sup>19</sup> It would appear based on Ellicott's plan, that rather than make commercial activity the central focus of his new city, he intentionally encouraged the growth of a fine residential sector in the village of Buffalo in the most elegantly designed portion of his plan. Thus, right from the beginning, Ellicott prioritized the sophisticated character of the new city.

As historian Nancy Mingus has noted, "the same prime waterfront location that made Buffalo an ideal place for settlement also made it a military target."<sup>20</sup> The Buffalo region and shoreline played a major role in the War of 1812, making a significant impact on the physical and cultural landscape of the area. The Burning of Buffalo in 1813 was one of the most major events, resulting in a near total destruction of the settlement at that time. It was after this second "birth" of Buffalo, following the devastation of the War of 1812 and the events of 1813 that the settlement began to flourish.



1805 Joseph Ellicott Plan as adopted for Buffalo.

18 "Our Chief Thoroughfare," *Grosvenor Library Bulletin* 4, no. 1 (September 1921): 18.

19 Kowsky, 36.

20 Mingus, 24.

As the city recovered from the way and Ellicott's plan came to fruition, Buffalo's harbor began a period of tremendous growth in the early 19th century. It was then that the prospect of a Buffalo terminus for the proposed Erie Canal attracted speculators seeking to profit from acquiring land in what would soon become a busy inland port. Ellicott and The Holland Land Company quickly sold parcels to investors as the canal proposal drove prices upward. When the State of New York announced that they planned to construct a "Grand Canal" from the Hudson River to the Great Lakes in 1809, further attention was brought to Buffalo and Western New York. The Village of Buffalo was initially incorporated in April 2, 1813, then reorganized in 1815 and again in 1822, establishing the first official government for the community.<sup>21</sup> This attracted a group of wealthy investors to the region seeking to profit from the commercial activity resulting from the opening of the new trade route. This group of elite newcomers became an influential force that would prove to be the deciding factor in locating the canal terminus in Buffalo instead of upriver in the Village of Black Rock. As the western terminus of the canal was resolved in 1822 in Buffalo's favor, a census taken in January of 1824 found 2,412 residents in the entire township of Buffalo and 1,039 in neighboring Black Rock.

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21 John Homer French, "Buffalo City," *Gazetteer of the State of New York: Embracing a Comprehensive View of the Geography, Geology, and General History of the State, and a Complete History and Description of Every County, City, Town, Village and Locality: With Full Table of Statistics* (Syracuse, NY: R. Pearsall Smith, 1860), 284.



## *The Shore of Lake Erie*

The shoreline of Lake Erie has been significantly altered by human activity and development over the last 200 years. As settlement patterns intensified during the early 1800s, several alterations to the shoreline were made in order to improve shipping access to the harbor front and city of Buffalo. The Buffalo Harbor was hand carved out of the delta of the Buffalo River system as part of the citizen-operated works project that occurred between 1820 and 1822. In 1819, Samuel Wilkeson founded Buffalo Harbor Company, along with five cofounders including Charles Townsend, George Coit and Oliver Forward. The company was given a \$12,000, 12-year loan from New York State to improve the Buffalo Harbor. In 1820, with the company at risk of defaulting on the loan, Townsend, Forward, and Wilkeson each pledged \$8000 from their own finances to back the loans. Their goal was to make Buffalo a more viable port, particularly in competition with Black Rock to the north, as both were petitioning to be the terminus of the Erie Canal. Aiming to create an outlet in the sand spit separating the lake from deeper parts of Buffalo River, they contributed their time and money to improving Buffalo's harbor. Wilkeson took on the role of project manager, and when workers threatened to quit, he, Townsend, and Forward installed temporary bulkheads by themselves. Offering bonuses for working in the rain and cold, the workers eventually completed the construction in 221 days.<sup>22</sup>

22 Mingus, 35.

By 1825 the improvements of the harbor were completed, highlighted by a limestone-timber pier constructed at the mouth of Buffalo Creek that replaced an earlier pier that fell into the lake during a flood. This sheltered the waterway from the lake, and prevented sand from accumulating at the harbor's entrance. This pier remains in place today, still serving its original purpose. Wilkeson's efforts moved the mouth of the Buffalo Creek approximately "60 rods" to the south and constructed a pier that extended into the lake about 80 to 12 feet of water.<sup>23</sup> This was done in order to more easily navigate the creek, and to create a harbor more easily accessible by large shipping vessels. A breakwater was also built, and it is suggested by some that portions of the original breakwater may exist near the eastern river edge of the present day Coast Guard Station. Times Beach is located just south of the present Buffalo River/Buffalo Creek outlet.

Buffalo's harbor is today protected from Lake Erie and the Niagara River by a series of breakwaters. These man-made structures allowed expansion of the harbor by providing areas of sheltered water. The original breakwaters were built as part of the Erie Canal project and are still functional today. These include a stone pier at the mouth of the Buffalo River and the Bird Island Pier, which runs along the Niagara River between Unity Island (formerly Squaw Island) and approximately the present location of the Peace Bridge.

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23 Jerry Malloy, "Samuel Wilkeson, He Built Buffalo by Building its Harbor." Retrieved from [http://www.buffalohistorygazette.net/2013/03/samuel-wilkeson-he-built-buffalo-by\\_19.html](http://www.buffalohistorygazette.net/2013/03/samuel-wilkeson-he-built-buffalo-by_19.html).

### *Erie Canal, Port of Buffalo, and Transshipment*

In February 1808 the subject of internal navigation in the State of New York was presented before the Assembly. The resolution submitted referred to the President of the United States' message to Congress in October 1807 calling for surplus monies the treasury being "appropriated to the great national objects of opening canals and making turnpike roads." The resolution stated that "New-York...possesses within herself the best route of communication between the Atlantic and western waters, by means of a canal between the tide waters of the Hudson river and Lake Erie, through which the wealth and trade of that large portion of the union, bordering on the upper lakes, would forever flow to our great commercial emporium."<sup>24</sup> Because Niagara Falls presented a physical barrier between the Great Lakes and the Atlantic seaboard, goods, specifically grain from the west, were floated down the Mississippi, through the port of New Orleans, and back up along the Atlantic Coast; a costly and time-consuming endeavor. A joint committee was established to study the viability of such a canal with Joseph Ellicott conducting the survey work and, by 1809 it was determined that a canal "from lake Erie to Hudson's river was not only practicable, but practicable with uncommon facility."<sup>25</sup> In 1810 the Canal Commission was established with members "Gouverneur Morris, Stephen Van Rensselaer, De Witt Clinton, Simeon De Witt, William North, Thomas Eddy, Peter B. Porter, ..., Robert Livingston, and Robert Fulton" to further study the viability, method, and expense of constructing a canal between Lake Erie and the Hudson River.<sup>26</sup> Two years prior, New York's Surveyor General Simeon Dewitt enlisted Ellicott to determine the best possible route for the trans-state waterway: along the shores of Lake Ontario, or west of the Genesee River inland. The inland route was chosen.

24 *Laws of the State of New York, In Relation to the Erie and Champlain Canals*, (Albany: E. and E. Hosford, Printers, 1825), 9.

25 *Laws of the State of New York*, 41.

26 *Ibid.*

On April 13, 1816 a bill, entitled “An Act for Improving the Internal Navigation of this State,” was introduced into the Assembly, appointing to the Canal Commission De Witt Clinton, Stephen Van Rensselaer, Townsend M’Coun, Melancton Wheeler, Henry Seymour, Joseph Ellicott, Jacob R. Van Rensselaer, Philip I. Schuyler, Samuel Young, John Nicholas, William Bayard, George Huntington and Nathan Smith. The task of the commission was “to consider, devise and adopt such measures as may or shall be requisite to facilitate and effect the communication by means of canals and locks, between the navigable waters of the Hudson river and Lake Erie, and the said navigable waters and Lake Champlain.”<sup>27</sup> Further, the bill directed the commissioners to begin construction of the canal. This bill was passed into law on April 17, 1816.<sup>28</sup> Construction of the Erie Canal began in 1817 and was completed by 1825. In February 1817, the Commissioners recognized that “it would be expedient to connect the west end of the great canal with the waters of Lake Erie, through the mouth of Buffalo creek. In adopting this determination, they were influence by the following considerations: It is important to have, at that end, a safe harbor, capable, without much expense, of sufficient enlargement for the accommodation of all boats and vessels that a very extensive trade may hereafter require to enter and exchange their lading there.”<sup>29</sup> Although a survey and plan for a harbor at Buffalo Creek was made in 1819, and determined to be practicable, “the contest was then waging between Buffalo and Black Rock for the privilege of possessing the terminus of the canal, [and] nothing more was done.”<sup>30</sup> Where to locate the terminus of the canal was the subject of much discussion and debate. There were pros and cons at both locations. The shores of the proposed Buffalo harbor had no protection from Lake Erie, and was subject to the “gales of great violence” that came off the lake. Further, a fifteen-twenty foot deep sand bar stretched across the entrance of Buffalo Creek. The rapids at Black Rock, direction of the prevailing winds, and narrowness of the channel making it difficult for ships to “beat against it,” provided hindrances there.<sup>31</sup>

27 *Laws of the State of New York*, 165 - 170.

28 *Ibid*, 164.

29 *Ibid*, 198.

30 Noble E. Whitford, *History of the Canal System of the State of New York, Vol. 1.* (Albany: Brandow Printing Company, 1906), 558.

31 *Laws of the State of New York*, 487-88.

Joseph Ellicott lobbied for the terminus at Buffalo Creek, arguing that it was the best location for a safe and commodious harbor. Ellicott had attracted investors to his numerous Holland Land Company properties, which were sold at inflated prices to meet the demand of the anticipated economic boom the canal would bring.<sup>32</sup> Prominent Buffalonians including Samuel Wilkeson, William Peacock, and Ebenezer Johnson also lobbied for the Buffalo terminus; however they were motivated out of a desire to maximize their investments. Improvements at the Buffalo Harbor began, and the prominent Buffalonians lobbied the Erie Canal Commission and the Holland Land Company. In the summer of 1822 a meeting with the Canal Commission was held in Benjamin Rathbun's Eagle tavern on Main Street, and Samuel Wilkeson "presented the claim of Buffalo ... drawing with prodigious effect on his thorough knowledge of the action of the winds, currents and waves on all the water connected with both proposed termini."<sup>33</sup> Canal Commissioner De Witt Clinton, "in the name and authority of the State, decided in favor of Buffalo."<sup>34</sup> By 1825 the improvements to the Buffalo Harbor were complete, including a limestone-timber pier breakwater constructed at the mouth of Buffalo Creek, sheltering the waterway from the lake and preventing sand from accumulating at the harbor's entrance. The pier remains extant, still serving its original purpose.



1851 Surveyor General Buffalo Map (above). Note, the 1849 map (below) shows "Contemplated" improvements.



32 Buffalo Historical Society, *The Holland Land Company and Canal Construction in Western New York*, (Buffalo-Black Rock Harbor Papers Journals and Documents Library of The University of California, 1910), 162.  
 33 Smith, 686.  
 34 Ibid.

Based on historic maps and research, development on the peninsula, outside of the Coast Guard lighthouse station, was minimal until the mid-1800s when the seawall was fully constructed. Lots had been subdivided and purchased beginning in the early 1800s but no development was possible until filling was completed and the wall was erected to protect the newly created surfaces.<sup>35</sup> As traffic increased in the harbor, the need for a lighthouse was recognized in the early 1800s, although the present remaining one was not built until 1833-1836. The city approved one to be built in 1811, but this was postponed because of the War of 1812. In 1817, plans to build a lighthouse resurfaced, and Oliver Forward purchased some land at the mouth of the Buffalo Creek, likely with his own funds.<sup>36</sup> By 1818, a 30-foot conical stone lighthouse was standing at the mouth of the creek. Unfortunately, the placement of the lighthouse and its proximity to the village often kept it hidden by the smoke the village produced. Eventually a new lighthouse was constructed in 1833-1836, near the end of a long stone pier that was laid down by Samuel Wilkeson in 1820. It created a sheltered harbor along the previously untamed shore. In 1857, the stone tower of this lighthouse was raised “a few feet, so that a lens of the necessary power could be placed in it.”<sup>37</sup> This lighthouse is still in operation today at the foot of the Coast Guard Station.

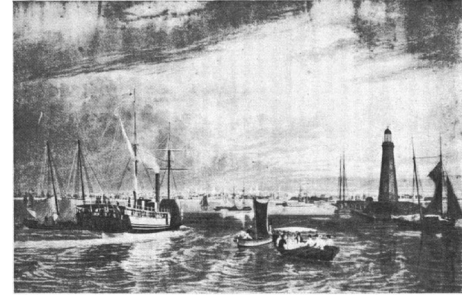
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35 Ryan Austin, Douglas Perelli, and Carol Weed, *Phase I Archaeological Investigations, First Buffalo River Marina Property, 32 Fuhrmann Boulevard* (Buffalo: University at Buffalo, 2011), 7.

36 Mingus, 30.

37 Carol Miller, “Buffalo Main Light,” *National Register of Historic Places* 90NR01228 (Albany: National Register of Historic Places, 1976), 2.

With the opening of the Erie Canal in 1825, and the improvements to the Buffalo Harbor complete, the Port of Buffalo was positioned to become one of the most, if not the most, significant inland ports in the country. The city was situated on a new, water-borne trade route linking the Midwest, via the Great Lakes, and the Eastern Seaboard. Construction of the canal and, in the 1840s a vast network of rail lines, resulted in an industrial and commercial boom for the city. The dominant product shipped through Buffalo was grain; however, other industries relied on dock space adjacent to the water and rail transportation network. A number of public and private slips, or canals, were constructed that connected to the main waterway; however, soon after the completion of the Erie Canal, “it became apparent that increased facilities were required to accommodate the transshipment of property between the canal and lake navigation and to provide stations of harbors at the City of Buffalo where vessels might remain when not in transit.”<sup>38</sup> The demand for dock space and congested waterways resulted in the enlargement of the harbor area with the construction of a series of canals feeding off the Buffalo River. A number of canals were constructed beginning in 1831 and, by 1840 through “private, municipal and State enterprise, there was built an important system of short street canals or slips, connecting the Erie canal with Buffalo creek and Lake Erie”<sup>39</sup> These canals were the Main and Hamburg Canal, the Clark and Skinner Canals, the Ohio Slip and Basin, the Prime, Commercial and Coit slips, the Evans Ship Canal, the Erie Basin slips 1, 2, and 3, and the City Ship Canal.<sup>40</sup>



BUFFALO, FROM LAKE ERIE, 1832.  
PAINTED AND ENGRAVED BY W. J. BENDIS; FROM A SKETCH BY J. W. WELLS. SIZE OF ORIGINAL (IN COLORS) 44 BY 18 INCHES.  
 TO S. JOHNSON, N. PRATT, S. WILKINSON (WILKESON), S. BATHURST AND COL. ROBERT TITCHEL OF NEW YORK.

Frank H. Severence, ed., *The Picture Book of Earlier Buffalo*, (Buffalo: Buffalo Historical Society Publications, Vol. 16, 1912), 24.

38 Whitford, 589.

39 *Ibid.*

40 *Ibid.*

The City Ship Canal, originally designated as the E.R. Blackwell Canal, was laid out by the city on the west side of the Buffalo Creek, bounded by the lake and seawall by 1836; however no action was taken until 1847, when title to the necessary parcels was initiated. Canal commissioners, in conjunction with the Buffalo Common Council made surveys and estimates to determine the cost and design of the proposed canal.<sup>41</sup> The project was awarded to E.R. Blackwell; however, early in 1850 it became apparent that the estimate for the work, at \$61,000, was too low, with “construction of the southern half of the canal alone had necessitated an outlay of about \$73,000.”<sup>42</sup> Although Blackwell’s name remained associated with the canal, his contract was cancelled, estimates revised and the canal was completed and put into use in the spring of 1852.<sup>43</sup> The canal was renamed from E.R. Blackwell canal, to the City Ship Canal in 1853. The canal, which commenced adjacent to the Buffalo River at the mouth of the harbor, extended to the south channel and was connected with the Buffalo Creek by a number of short slips. “Being two hundred feet wide and twelve feet deep, it proved to be a very important acquisition to the Erie canal.”<sup>44</sup> The canal did not extend as far as indicated on the 1849 Map of Buffalo Harbor Improvements, which illustrates the proposed Ship Canal Map. As illustrated on the c. 1853 Map Showing slips and adjuncts of the Erie Canal at Buffalo and the 1872 Hopkins Map the canal originally ended at Ohio Street. In 1883 the city approved a request made by the Buffalo Creek Railway to expand the canal south, where it would be used by the Lehigh Valley Railroad for coal docks.

Construction of the Port of Buffalo and Erie Canal resulted in an immense period of growth as the tiny village of Buffalo was transforming into one of the largest trading and transshipment cities in the nation. Ships from the Midwest entered the Port of Buffalo through an opening in the breakwater, which protected the harbor, and then entered the Buffalo River. As revealed by historic maps, grain mills, elevators, warehouses, lumber yards and coal yards were established along the shores of the Buffalo River, but development became more common along the Outer Harbor after the breakwater system was completed.

41 Whitford, 599, Whitford references the “southerly” side of the Buffalo Creek as the Ship Canal’s location.

42 Ibid, 599-600.

43 Ibid, 600.

44 Ibid, 599.



As the Erie Canal and harbor became congested from the steady growth of traffic, a vast railroad network was constructed further expanding Buffalo's transshipment capacity. Several railroad companies, including Delaware Lackawanna and Western, Erie, and New York Central, established passenger and freight rail hubs in close proximity to Buffalo's waterfront. The rail system dramatically increased Buffalo's capacity to handle cargo by providing a more efficient mode of transit. Moreover, the rail lines were able to continue service throughout the year, while the canal had to be closed during the winter months. The added capacity brought about by the railroads enabled Buffalo's harbor front to emerge as both a center for shipping and manufacturing. Raw materials could now be shipped into Buffalo during all four seasons, processed by local manufacturers into finished products, and then be shipped to locations across the country.

The first railroad line to reach Buffalo did so in 1842, the same year that Joseph Dart erected the world's first grain elevator in Buffalo's harbor. The early rail lines to reach Buffalo placed their stations and depots near the busiest section of town, the canal and harbor district. Freight depots such as the Delaware Lackawanna and Western (DL&W), which opened for freight service to Buffalo in 1883, and the New York and Erie depot, which can be seen as early as 1872 in the Hopkins Atlas (Hopkins Atlas map), still stand along Buffalo's waterfront.<sup>45</sup> Initially the rail lines focused on passenger rail, since New York State placed restrictions on freight service out of fear the railroads would compete with the Erie Canal. In 1851 those restrictions were lifted, and rail traffic expanded. In order to better serve the growing demand, the independent lines that spanned New York State were consolidated in 1853 into the iconic New York Central Railroad (NYCRR).<sup>46</sup>

45 Taber III, 180.

46 Dunn, 40.

The first two lines were constructed by 1850. The Buffalo-Niagara Falls Railroad ran from Niagara Falls, along the Niagara River, to the junction of the Commercial Slip and Erie Canal. The Attica-Buffalo Railroad stretched from Attica, NY to Buffalo with the mainline ending at the Main-Hamburg Canal with a spur running south to the Buffalo River (Buffstate.edu/1850). By 1866 two more lines were added. The New York-Erie line, connecting New York City and Buffalo, terminated along the Main-Hamburg Canal, parallel to Attica-Buffalo terminus (New Topographical Atlas of Erie County 1866). The Buffalo-Erie line spanned from Chicago to Buffalo, terminating with the other lines along the Main-Hamburg canal (New Topographical Atlas of Erie County 1866). By 1894, DL&W constructed a line connecting Buffalo and Binghamton, giving Buffalo merchants another route to the Southern Tier and East Coast (1894 Buffalo Atlas). These three lines opened up larger markets along the East Coast and Midwest to Buffalo based shippers. By the end of the century, branches were added to the Buffalo-Erie Railroad, later known as the Erie Railroad, to connect Buffalo with coal producing regions in Pennsylvania and West Virginia.

In addition to the interstate rail lines, several smaller spurs and railroad yards were constructed to carry finished goods from factories and transshipment facilities to the main lines. The outer harbor contained a network of lines built by multiple railroad companies servicing factories and warehouses along the lakeshore. Ganson Street had several lines running along its right of way servicing the grain elevators along the City Ship Canal and Buffalo River between Michigan Avenue and Ohio Street. The Lehigh Valley Railroad constructed a series of canals at the end of the City Ship Canal, which were used to transfer coal shipments between lake and rail. The Burrows Lot was constructed by the Buffalo Creek Railroad company to service elevators on the Buffalo River between Ohio and Katherine Streets. There were also lines servicing the Main-Hamburg Canal, Ohio Basin, and Erie Canal Terminus. These were often built in clusters by several competing railroad companies.

With rail lines spread along Buffalo's waterfront and the harbor, grain elevators began to truly take on the role of transfer elevators. These facilities could now transfer raw materials and finished products to multiple modes of transit. All the elevators along Buffalo's harbor were soon flanked by rail lines, and had the ability to import and export grain via lake vessel, canal barge, and rail car. Railroad companies, witnessing the rapid growth of the grain transport industry, began to purchase or lease grain elevators and consolidate their operations. In fact Buffalo's oldest extant elevator, the Great Northern, was built and operated by the Great Northern Railway.

New York Central Railroad, whose most noticeable influence on Buffalo is the towering Central Terminal complex on Buffalo's east side, had a significant impact on Buffalo's grain shipping industry. Concrete-Central Elevator, the enormous complex furthest upstream of the Buffalo River, was built by the Eastern Grain, Mill and Elevator Corporation. Eastern Grain was founded by Nisbet Grammer, son of the vice president of New York Central, and the corporations maintained close relations. Extensive NYCRR lines and yards appeared on land adjacent to Concrete-Central, and the elevator both imported and exported grain by rail. When Concrete-Central was completed in 1917 the elevator serviced five rail tracks with enough space for 160 cars (HAER NY-243).

The Lehigh Valley Railroad Company had a significant impact on Buffalo's harbor area as well. Though Lehigh Valley's primary freight shipments included coal, cement, and iron, the railroad serviced the Saskatchewan Cooperative Elevator, Buffalo's only true lakefront elevator, which handled great amounts of Canadian grain (Dunn, p.334). Rail became such a dominant shipping method that later elevators were constructed along the various rail lines and yards. These elevators include the existing Allied Mills, Kriener Malting, Perot, and Cooperative GLF annex. These also include since demolished elevators HO Oats, Wollenberg, and Armour Grain.

These lines put Buffalo's harbor at the center of a continental transshipment network of lake, rail, and canal transit extending in all directions. The access to coal, combined with iron ore shipped over the lakes, and hydro-electricity from Niagara Falls, enabled steel producers to locate factories in the Buffalo area. The railroad infrastructure, and electricity also enabled other manufacturers to locate in the harbor region. Grain elevators constructed during this period often had attached processing mills, enabling manufacturing of grain based products, as well as storage and transshipment. The earlier of these buildings were typically one or two-story, wood-framed structures located where water access was possible.

As land on the waterfront became more expensive, and new rail lines made interior property accessible to shipping, these companies began to locate away from the water. Elevators, warehouses, and factories could now be built along rail lines and rail yards to handle their shipping needs. These properties were typically constructed of reinforced concrete or steel framing with brick and tile curtain walls. These improvements coupled with the increased availability of land allowed these structures to be built on a much larger scale as some were upwards of ten stories tall, and occupied entire city blocks. The companies that dealt with large scale bulk transshipments, which were still more efficiently shipped by lake, remained on the waterfront, but also utilized the rail network to supplement lake transit.

This industrial development had a tremendous impact on the economic development of the city, attracting new populations of residents. Waves of immigrants came to Buffalo to work on constructing the Erie Canal, and then as laborers at the port and in grain elevators. Buffalo's population grew and diversified as thousands of immigrants from Ireland, Germany, Poland, Italy, and the rest of the United States came to Buffalo seeking employment and business opportunities on the waterfront. The frontier village, which in 1810 had a population of 1,500 people had, by 1830, shortly after opening the canal, grown to 8,000 people, and by 1860 surged to a densely populated port city of over 81,000 people.

### *Outer Harbor: Coast Line to Breakwater*

The slips and basins in place “amply and well subserved the purposes for which they were constructed.”<sup>47</sup> Shortly after their construction many of the canals were viewed as a “nuisance” and had become locations to empty sewage and became stagnant bodies of water. By 1901 the State had abandoned the Hamburg canal, and the portion of the Ohio slip north of Elk Street. Similarly, the Clark and Skinner Canal were abandoned. The City Ship Canal, Evans Ship Canal, and the Commercial and Coit slips remained open.<sup>48</sup>

Historic maps document the changes to Buffalo’s harbor, specifically the development west of the City Ship Canal and the seawall. The ca. 1810 map showing the condition of the coast along Lake Erie adjacent to Buffalo and the 1849 map showing the “contemplated” improvements to the Buffalo Harbor illustrate the relationship between the proposed Ship Canal, seawall and shore of Lake Erie in 1847. In response to a growing need for dock space, the land to the west of the Ship Canal was considered prime for development.

Built between 1838 and 1867 along what is now Fuhrmann Boulevard the seawall protected the lake front from encroachment of Lake Erie. Even after the earliest stage of construction on the wall began, storms on Lake Erie continued to effect the development of Buffalo, bringing natural disasters that created a sense of urgency for further remediation. In 1844, for instance, a storm known as a seiche occurred without warning. Acting like a tsunami that is caused by air pressure and wind on the lake, the seiche brought a massive wall of water over the seawall and flooded the waterfront area, destroying all of the ships and buildings in its path. Newspapers from the time indicate that about 53-78 people drowned in the seiche, as well as destroying the part of the seawall that had previously been under construction.<sup>49</sup>

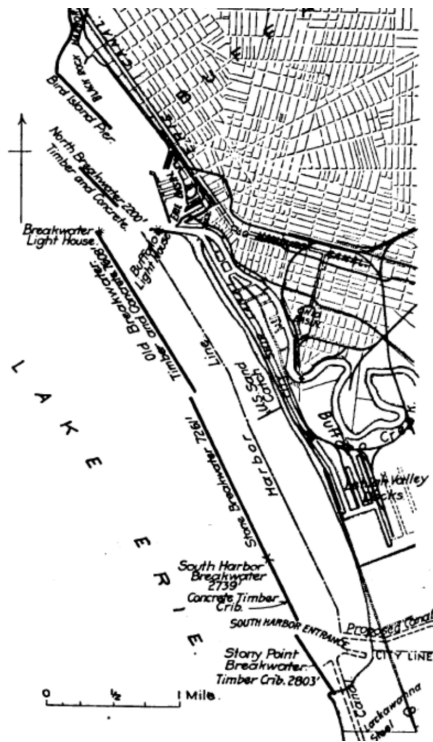


Storm on Lake Erie. Becker, Philip. History of the Germans of Buffalo and Erie County. Buffalo: Verlag und Cruck von Reinecke & Zesch, 1898.

47 Whitford, 600.

48 Ibid, 606.

49 “Tremendous Gale!” The Buffalo Morning Express (October 21, 1844), 1.



Map of Buffalo Harbor showing Breakwall Construction. "The Buffalo Breakwater System," *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 343.

In 1845, 4,500 vessels had entered and cleared Buffalo's harbor; by 1862, that number had exceeded 16,000.<sup>50</sup> By 1854 a section of breakwater was constructed just north of the canal terminus sheltering the Erie Basin. The 1866 Emslie Map of the City of Buffalo illustrate industrial development along the Buffalo River, specifically to the east of the City Ship Canal, and the opportunity for development to the west of the canal. By 1867 Buffalo had so expanded its maritime commerce that it had outgrown its harbor facilities. The seawall, which by 1867 stretched 5,400 feet along the shore of Lake Erie, became obsolete by 1869 when construction on the outer breakwater began.<sup>51</sup>

Expansion into the Outer Harbor could only be accomplished by constructing a breakwater system further out in Lake Erie to break the force of the waves heading towards the shore. Provisions were made in 1864 "to grant to the United States the right to occupy and possess said land, or any part thereof, as a public ground for the purpose of erecting and maintaining thereon a sea wall or breakwater."<sup>52</sup> In 1868 a breakwater, known as the "Old U.S. Breakwater," extending from the Buffalo light-house 2,500 feet lakeward and south 4,000 was proposed and adopted. In 1874 it was extended to a total length of 7,608 feet, with the final length being constructed in 1893.<sup>53</sup> This breakwater, noted as the "Old Breakwater" was constructed out of timber cribwork, filled with stone, with a concrete superstructure. The breakwater runs parallel to, and approximately 3,000 feet from the shore.

A plan to extend the breakwater to the south to Stony Point, with a single 600-foot harbor entrance near the southern end was recommended and adopted by the U.S. Army Corps of Engineers in 1895.

50 Historical Marker Project, "Development of the Outer Harbor," Retrieved from [https://www.historicalmarkerproject.com/markers/view.php?marker\\_id=HM1M9G](https://www.historicalmarkerproject.com/markers/view.php?marker_id=HM1M9G).

51 United States Congress, *United States Congressional Serial Set, Annual Reports of the War Department, 1898*, (Washington: Government Printing Office, 1898), 2781.

52 Ibid.

53 "The Buffalo Breakwater System," *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 343.

The River and Harbor Act of 1896 appropriated the funds for this project and lengthening the sand-catch pier to the established pierhead line, for a total of 1,147 feet.<sup>54</sup> This portion of the breakwater system was made up of the 7261-foot “Stone Breakwater;” the concrete timber crib “South Harbor Breakwater” that extended 2,739 feet before being interrupted by the South Harbor Entrance, and the “Stony Point Breakwater,” a 2803-foot timber crib.<sup>55</sup> The total cost to the United States government on improvements to the Buffalo harbor up to June 30, 1902, not including the cost of the North Breakwater, was \$4,549,819.08.<sup>56</sup>

Although not part of the Outer Harbor, breakwater construction at the Inner Harbor, including Bird Island Pier, constructed constructed to protect the upper end of Black rock Harbor and the North Breakwater, constructed to protect the Erie Basin complete the breakwater chain needed to protect the entire Buffalo waterfront. The Stony Point section of breakwater, and the harbor it provided, helped influence the Lackawanna Steel Company to move their steel works plant from Scranton, Pennsylvania, to vacant land just south of Buffalo.

The land along the coast of Lake Erie in the Outer Harbor developed as a result of the protection provided by the breakwater system. The 1889 Sanborn Map notes the Connecting Terminal Rail Road Company Elevator A, Warehouses A & B and rail road lines, with a beach and water’s edge located 150-feet from the rails. The Sanborn Map published in 1899 and the Aslop Map, published in 1900 provides an excellent illustration of the Outer Harbor, and the development of the land between the Ship Canal and Lake Erie at the beginning of the 20th Century. Industrial development, with Frank Williams & Company Coal Yard, the Cox Brothers & Company Coal Yard and Connecting Terminal’s rail yard, elevator and warehouses neighboring shanties on Times Beach, and some commercial retail businesses, specifically adjacent to intersecting streets, such as Michigan Avenue. To the south, at the end of the Ship Canal, are lumber yards and property owned by Lehigh Valley Rail Road.



ROUNDING OFF THE END OF THE STONE BREAKWATER.

Rounding off the end of the Stone Breakwater. “The Buffalo Breakwater System,” *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 345.



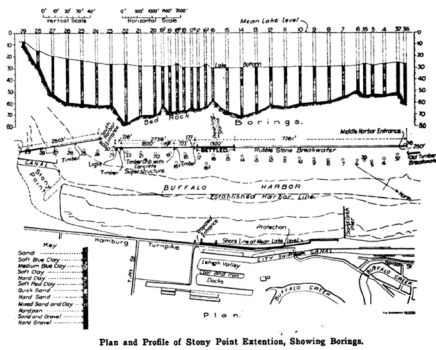
SOUTH HARBOR BREAKWATER, STAGES OF CONSTRUCTION.

South Harbor Breakwater, Stages of Construction. “The Buffalo Breakwater System,” *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 345.

54 “The Buffalo Breakwater System,” *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 343.

55 Ibid.

56 Ibid., 346. The cost for construction of the North Breakwater, including construction and maintenance was \$238,436.81, which was the responsibility of the State of New York.



Breakwater Borings. "The Buffalo Breakwater System," *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 346.

It was not until the early decades of the twentieth century that the Outer Harbor was fully developed. Prior to that time businesses and industrialists utilized existing land west of the Ship Canal and Seawall. Development of the Outer Harbor was hindered in the late 1800s by the presence of five different railroads, who each owned parcels of land with rail rights on the strip at that time and the lack of road access. The City of Buffalo also had a claim to the land, as "the city acquired the seawall strip, which is 130 feet wide, in 1865 on which to erect a seawall to protect the harbor. After the US government constructed the big breakwater, legislation was procured to enable the municipality to use the strip as a street."<sup>57</sup> By 1898 the "congested condition of commerce at the docks and wharves in Buffalo Creek and the City Ship Canal causes a demand for more commodious docks."<sup>58</sup> With the extension of the breakwater to Stony Point the entire lake front along the seawall strip became available for commercial purposes.<sup>59</sup> The State of New York passed a bill authorizing and permitting the City of Buffalo to use the seawall strip for highway purposes, in order to connect the entire Outer Harbor to the Lackawanna Steel Plant to the south and the city of Buffalo to the north. Laid out from 1898-1900, this road was initially named the Hamburg Turnpike, and eventually became Fuhrmann Boulevard.

Table Showing Unit Costs of Buffalo Breakwaters (below). "The Buffalo Breakwater System," *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14, (New York: McGraw Publishing Company, 1903), 345.

When the Hamburg Turnpike was laid out, there were still major issues in obtaining sufficient rights to the strip of land along the Outer Harbor. During the 1910s, Mayor Louis P. Fuhrmann was instrumental in creating connectivity along the road in order to encourage further commercial development on the outer harbor.

Table Showing Unit Costs of Buffalo Breakwaters.

	Whole structure per lin. ft.	Super-structure per lin. ft.	Filling stone per ton.	Concrete blocks per cu. yd.	Concrete in place per cu. yd.
Old U. S. Breakwater (original).....	\$100.00	..	..	..	..
	to 160.00				
Old U. S. breakwater (solid concrete superstructure, 1889)	..	\$110.19	..	..	\$9.19
Old U. S. breakwater (solid concrete superstructure, 1891)	..	108.32	..	..	8.21
Old U. S. breakwater (concrete shell superstructure)....	..	72.26	\$0.66	\$6.64	6.64
North breakwater (36 ft. section).....	131.58	56.34	.69	7.10	5.65
North breakwater (24 ft. section).....	70.99	46.02	.69	7.10	5.65
Rubble Mound breakwater.....	125.00	..	..	..	..
South Harbor, timber crib, including riprap (original)...	166.00	..	..	..	..
South Harbor (concrete shell superstructure).....	..	108.49	.80	10.00	9.40

57 "Railroads at Last Agree on Seawall and Turnpike Questions 40 Years Old," Buffalo Courier April 23, 1910, 6.  
 58 United States Congress, United States Congressional Serial Set, Annual Reports of the War Department, 1898, (Washington: Government Printing Office, 1898), 2781.  
 59 Ibid.



Land disputes between the city and the railroad were further complicated by the erosion of land on the strip, where “In the course of time much of the shore land, especially toward the southern end, was slowly washed away by the waves of the lake. This erosion not only placed under water the outlying land owned by some of the railroad companies, but large sections of the seawall strip in which railroad land was under water.”<sup>60</sup> A 1910 newspaper article highlighted some of the issues faced in obtaining the necessary land rights on the strip, stating: “Mayor Fuhrmann received an agreement from the railroads regarding the mutual use of tracks on the seawall strip and the settlement of other differences which have long retarded the development of the outer harbor and prevented the city from using the seawall strip as a highway.”<sup>61</sup> Once this agreement was finalized, the Hamburg Turnpike became an essential road connection between the city of Buffalo and areas south such as Hamburg, as well as providing easy access to the new commercial and industrial developments along the Outer Harbor.



1925 Sanborn Map showing Seawall Highway.

The Hamburg Turnpike was recognized as, “One of the City’s most important thoroughfares, a public highway extending from the Buffalo River in the southerly part of the city to the town of Hamburg. Along this thoroughfare great industries have been springing up. Steel plants and iron plants and other plants, employing thousands of hands, lie adjacent to it.”<sup>62</sup> Industrial development along the Outer Harbor was greatly increased due to the completion of the Hamburg Turnpike, enabling large companies such as the Ford Motor Company to be established at the crucial juncture the area provided between land, rail and water shipping routes. In 1934, the Hamburg Turnpike was renamed Fuhrmann Boulevard in memoriam of the Buffalo Mayor that is credited with its formation, extension and improvement in decades prior. Once the seawall was completed and the Hamburg Turnpike was established, industrial developments occurred along the Turnpike (Fuhrmann Boulevard) in the early-to-mid-twentieth century.

60 “Railroads at Last Agree on Seawall and Turnpike Questions 40 Years Old,” Buffalo Courier April 23, 1910, 6.

61 Ibid.

62 Michael Rizzo, *Through the Mayor’s Eyes: Buffalo, New York, 1832-2005* (Lulu.com, 2005), 208.

## *Times Beach*



1902 Aslop Map.



Looking from south pier harbor entrance toward beach area (NARA).



A view westward of the houses along the shore of Lake Erie in an area called the Beach in the 1910s. Close to 1,000 residents lived in this community until Mayor Louis Fuhrmann ordered them to 1917. (Source: [www.friendsoftimesbeachnp.org](http://www.friendsoftimesbeachnp.org))

View of shanties along the shore of Times Beach on Lake Erie. Close to 1,000 residents were evicted in 1917 by Mayor Louis Fuhrmann.

The 55-acre area of land known today as Times Beach did not form until the mid-nineteenth century as a result of human intervention. In 1867, the Buffalo River was dredged to eliminate sediments that had made navigation difficult and the south breakwater was constructed for additional navigation protection from harsh lake conditions. As a result of this dredging and breakwater construction, mud and sand no longer congested the river but instead began piling up against the seawall. This subsequently formed the land that later became known as Times Beach.

This land became home to a shanty-town known as “Seawall Beach” or simply the “Beach,” where a group of working class residents lived as “Beachers.” Historic maps show irregularly spaced dwellings on each of the parcels south and east of the Coast Guard stations. These shanties would have been developed on fill layers.<sup>63</sup> Populated primarily by Irish and other immigrant port workers, grain scoopers and tavern workers, the area became known as “a rowdy and nearly lawless neighborhood, with harsh living conditions and high death rates due to storm surges.”<sup>64</sup> By 1910, over 1250 people were known to live on this land, although exact numbers are difficult to obtain given the unregistered nature of these residences.<sup>65</sup> As the Outer Harbor continued to develop alongside Buffalo’s growing shipping and grain industries, the shanty-town was razed in 1917 so that the space could be utilized for industrial development and shipping lines. A rail line was built along part of the sandbar in the 1920s to service grain elevators and docked ships along the seawall.

By 1925, historic maps confirm that the shanties no longer existed, but three commercial buildings south of the perimeter fence area and larger commercial buildings and grain elevators further south. The Phase I Archaeological Investigation Report (2011) indicated that “discrete features, architectural piers or pilings, or deposits dating to the shanty era (1867-1917) may remain, particularly in proximity to Fuhrmann Boulevard where they may have been less subject to impacts from commercial operations.”<sup>66</sup>

63 Austin et al, 7.

64 “Times Beach Nature Preserve,” *NYFalls.com*, Retrieved from <http://nyfalls.com/lakes/erie/times-beach/>

65 “History of Times Beach,” *The Friends of Times Beach*, Retrieved from <http://www.friendsoftimesbeachnp.org/history.html>

66 Austin et al, 8.

When Buffalo's shipping industry began to wane during the Great Depression, industrial activity diminished along the Outer Harbor and much of it went unused. As a result, a new proposal emerged in the Buffalo Times newspaper in 1931 to transform the former shanty-town land into a municipal beach for swimming and sunbathing. Later that year, it was reopened as 'Times Beach' in honor of the newspaper that first proposed the idea. Times beach functioned as a beach for swimming from 1931 into the 1940s, when industrial pollution concerns closed the area due to hazardous conditions.



Bathers at Times Beach c. 1931.

Times Beach was generally abandoned until the late 1950s, when it became a dumping ground. The land was appropriated by the U.S. Army Corps of Engineers around this time. The Army Corps of Engineers began using it to dump soil dredged from the Inner Harbor, Buffalo River and Black Rock Canal. Dikes were built to enclose the beach and contain the dredging waste. For the next several years, over 550,000 cubic yards of sediment was dumped on Times Beach.<sup>67</sup> The dumping was stopped in 1976, when it was discovered that the dredged materials were highly contaminated. During this time and through the 1970s, a unique wetland ecosystem developed on Times Beach as a result of the introduction of these new materials.

67 "Times Beach Nature Preserve," *NYFalls.com*. Retrieved from <http://ny-falls.com/lakes/erie/times-beach/>

## *Industrial Piers*

Extension of the breakwater to Stony Point provided a strip of land available for commercial development between the City Slip and the lakefront. As illustrated on the 1899 Sanborn Map and 1902 Aslop Map of Buffalo, the coastal edge had not been altered. Rail lines and industries that had been located to the west of the seawall remained; however, aside from shanties constructed by squatters and frame bathhouses, the beach had not been developed. The only pier visible along the water's edge is the sand-catch pier located to the south, constructed as part of the breakwater extension, and opened on November 30, 1896.<sup>68</sup>

Manmade interventions along the Outer Harbor encouraged industrial development, reshaping the land in order to suit construction needs. Taking advantage of its strategic location along protected waterways that enabled easy access to shipping and rail lines, factories and grain elevators were constructed at this time. The municipal government of Buffalo constructed a new harbor line in 1899, it ceded "underwater lands" along the coast to private landholders, allowing them to fill portions of the Outer Harbor in to the new harbor line. Areas affected by this new ruling included the future Fuhrmann Boulevard area. Previously, the area was a poorly drained swampland that was regularly inundated by periodic storms.<sup>69</sup>

By 1925, several major piers had been constructed along the Outer Harbor coast line and industrial facilities were constructed around this time in order to capitalize on their advantageous location. Moving from south to north, these piers are historically associated with industrial development such as the Saskatchewan Cooperative Elevator (known also as the Cargill Pool Elevator), the Freezer Queen building, the Ford Motor Company building and the Buffalo Marine Construction Company grounds. City-owned land located between some of these piers was used primarily as a dumping ground for dredged sediments at this time as well.

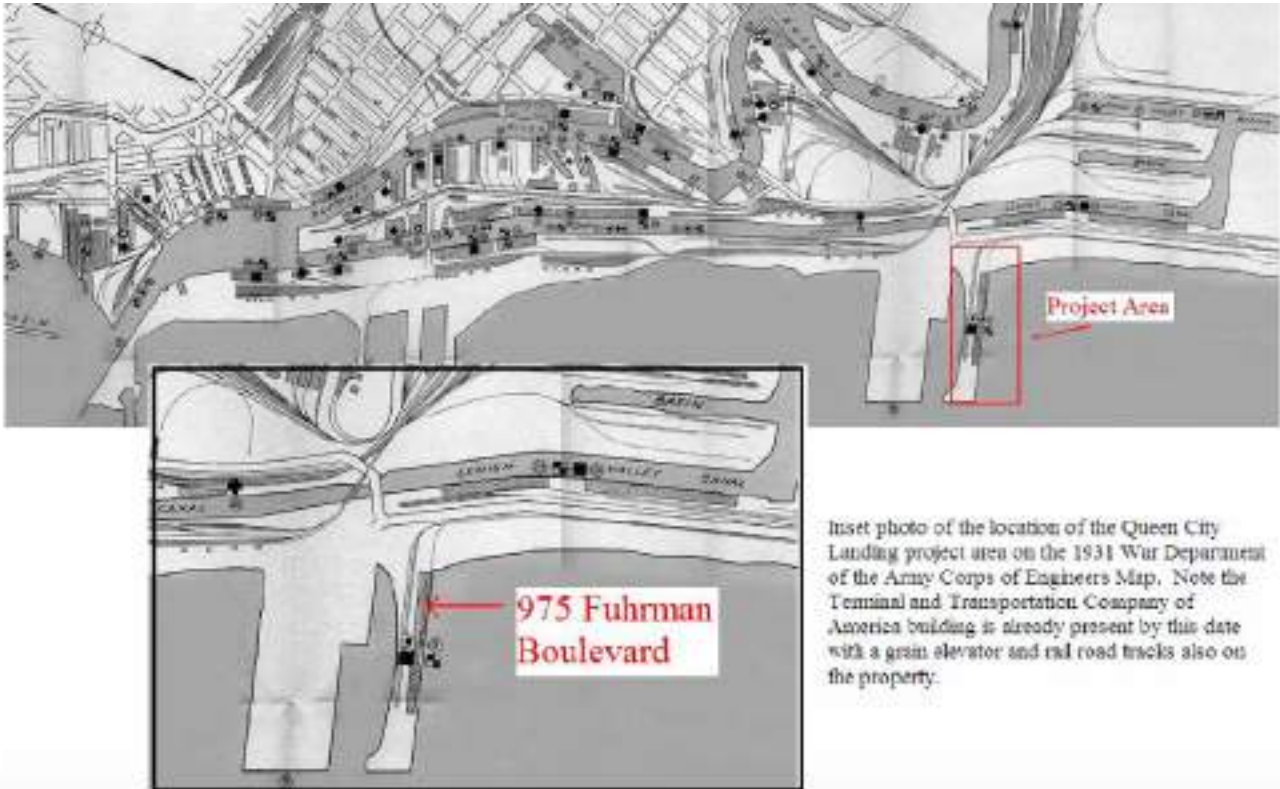
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68 United States War Department, *Annual Reports of the War Department, Part 4*, (Washington: U.S. Government Printing Office, 1897), 3113.

69 White, 364.

The Saskatchewan Cooperative Elevator, known today more commonly as the Cargill Pool Elevator, anchors the south end of the Outer Harbor. Constructed on a pier produced by dredged infill, the grain elevator was completed in 1925 and is the only grain elevator located directly on the Outer Harbor. Able to hold a capacity of over 2 million bushels of grain, this elevator was strategically located to take advantage of the juncture of shipping lines and rail networks that the Outer Harbor provided by the 1920s. With two lakeside marine legs, the elevator was equipped to unload grain directly from lake vessels, bypassing the need to enter the busy and narrow Buffalo River. With rail lines leading directly to the building, the elevator could directly unload grain onto boxcars and ship products across the country inland via railroad networks. In 1945 the elevator was purchased by the Pillsbury Company and operated under that name until the downturn of Buffalo's grain industry sent many elevators into decline after the opening of the St. Lawrence Seaway in 1959. The Cargill Company later purchased the elevator in 1964, using it primarily for storing its excess grain. The elevator stood vacant in the following decades, until it was placed on auction and purchased, more recently, in 2013.

1931 War Department of the Army Corps of Engineers Map of the Grain Elevators of the Buffalo Harbor.



Inset photo of the location of the Queen City Landing project area on the 1931 War Department of the Army Corps of Engineers Map. Note the Terminal and Transportation Company of America building is already present by this date with a grain elevator and rail road tracks also on the property.

The pier to the north of the Cargill Pool Elevator was owned and developed by the Terminal and Transportation Company in the 1920s. In 1926, this pier was created by infill with construction material, slag, and soils dredged from the nearby canals and harbor. The developed pier first appears on the 1931 War Department of the Army Corps of Engineers Map of the Grain Elevators of Buffalo Harbor. This map contains a detailed view of Buffalo's Inner and Outer Harbors and an enlarged image of this pier. The pier itself was constructed by the Terminal Transportation Company of America around 1926. This company created this pier by dumping alternating layers of historic fill and soils dredged from nearby canals over natural lacustrine and clay deposits. An illustration created by the International Railway Company Map of the City of Buffalo in 1940, indicates the fully-developed pier. The pier also appears to still be owned by the Terminal Transportation Company of America at this time.

On the Terminal Transportation Company pier, the National Register Eligible building at 975 Fuhrmann Boulevard, known more recently as the Freezer Queen building, was constructed between 1927 and 1931. The building was originally constructed for one of Buffalo's commercial shipping businesses, the Terminal Transportation Company, and utilized the nearby Lehigh Valley canal and railroad companies. Between 1940 and 1958, ownership of 975 Fuhrmann Boulevard passed to Merchant Refrigerator. Paul Snyder Sr, founder of Freezer Queen Incorporated, bought the six-story, 32,516 square meters (350,000 sq ft) Merchant Refrigerator building and associated acreage in the early 1950s. By 1958, Snyder successfully opened the Freezer Queen factory. The Freezer Queen factory remained in use until July 2006. Freezer Queen Inc. produced and packaged a variety of prepared frozen foods. In 2004, Freezer Queen merged with Home Market Foods Incorporated; shortly after the merger, Home Market Foods Incorporated closed their Buffalo operation at 975 Fuhrmann Boulevard and relocated production to Norwood, Massachusetts (ACBJ, 7 July 2006). Since the structure was closed by Home Market Foods Inc. in 2006, the lot and former Freezer Queen Factory have remained vacant, and plans to redevelop the site with four phases of new construction are already underway.

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70 Doug Perelli, *Phase IA Literature Search and Sensitivity Assessment for the Queen City Landing Building Project* (Buffalo: State University of New York at Buffalo, 2008), 12.

The construction of the Ford Motor Company Plant at 901 Fuhrmann Boulevard was made possible by filling in the water-logged land adjacent to the southernmost pier, across a shared slip, around the same time. In 1930, the Ford Motor Company purchased “94 acres of land lying under water next to Fuhrmann Boulevard from the state and the Buffalo Creek Railroad. A year later, the swampland had been miraculously transformed into an important cog in operations of the gigantic Ford Motor Company.”<sup>71</sup> After filling in several acres of land at the waterfront that were formerly submerged in water, Ford also hired the D.E. Horton Construction Company and Great Lakes Dredge and Dock Company to construct three concrete docks on the property.<sup>72</sup> Once the site had been transformed, the Ford Motor Company Plant was constructed in 1930-1931, designed by notable architect Albert Kahn.



Ford Motor Company Plant, aerial view, c. 1948.

The steel-reinforced factory exemplifies Kahn’s characteristic approach to industrial architecture as a method of enabling large-scale assembly lines for the mass-production of automobiles. From its opening in 1931 till its closing in 1958, it is estimated that nearly 2 million automobiles were assembled at the plant.<sup>73</sup> The building was designed to accommodate the assembly line production method popularized by Kahn and Ford in the 1910’s, where each worker would have a highly specialized task that would contribute to the overall manufacturing of an automobile. The Ford Motor Company Plant manufactured an average of 40-50 automobiles an hour by 1954.<sup>74</sup> By 1956, a newly finished car or truck would leave the assembly line about every 2.5 minutes, resulting in an average of 200-300 units every 24 hours, sometimes even more on days when production ran in double shifts.<sup>75</sup> Automobiles made at the Ford Company Motor Plant were sold across the city, as well as in more distant locations such as Pittsburgh, Cleveland and New Jersey. Providing over one thousand jobs in the area until the plant closed in 1958, the building remains an important contribution to the architectural, industrial and cultural history of Buffalo. It was designated as a Local Landmark by the Buffalo Preservation Board in early 2018.



View looking northwest at Ford Motor Company Plant, aerial view, c. 1948.

71 Assembly Line Miracles are Routine at Ford Plant,” *Buffalo Courier-Express* (August 26, 1951), 16-D.  
 72 “Contracts Let for Foundation of Ford Plant,” *Buffalo Courier Express* (June 10, 1930), 9.  
 73 “Ford Plant to Close February 14,” *Buffalo Evening News* (Jan 14, 1958), 34.  
 74 “Ford Plans Boost at Fuhrmann Unit,” *Buffalo Courier-Express* (Dec 22, 1954), 11.  
 75 “Assembly Line Miracles...,” 16-D.

The building's location also provides a unique glimpse into the history of Buffalo's early-twentieth-century industrial activity in relation to the Outer Harbor. The Ford Motor Company factory was specifically designed to take advantage of the site's waterfront access for shipping and receiving products. Oriented in relation to the Outer Harbor as well as the adjacent railroad networks and streets, the Ford Motor Company Plant exemplifies the intricate relationship between the Outer Harbor and industrial production. Local newspapers marveled at the new potential for increasing industrial facilities in the Outer Harbor in 1930, stating "There can be no doubt that the establishment of the huge new Ford plant on the Turnpike [now Fuhrmann Boulevard] encourages the possibility of other industries locating along the harbor at a future date."<sup>76</sup> The Ford Motor Company Plant provided a boost of confidence for other industries looking to build within reach of the Outer Harbor, where "Buffalo is awakening to the possibilities of the harbor and the city now appears anxious to develop the district."<sup>77</sup> At the time, many claimed "the opening of the plant means the first development of an industry other than lake shipping on the Buffalo harbor. It means the realization of the dream of pioneers in Buffalo that the lake front should be more than a mere shipping center."<sup>78</sup> In this way, the construction of the Ford Motor Company Plant in this location was essential to the physical and economic growth of the Outer Harbor, and is therefore integral to the industrial heritage and development of the area.

To the north of this land, another pier was constructed in the early 1920s, and was occupied by the Buffalo Marine Construction Company during these years. The 1925 Sanborn Fire Insurance Map illustrates the presence of several industrial buildings by this time, including a machine shop, blacksmith, warehouse and woodworking shop. As one of the largest shipbuilding interests in the city, the Buffalo Marine Construction Company occupied this pier in order to take advantage of its easy access to the shipping networks along the Outer Harbor and the lake, as well as connecting a rail line to the mainland in order to receive supplies. The pier immediately adjacent to the south on this map, the Municipal Pier, was owned by the City of Buffalo, as well as land adjacent that was used as a city dump. This pier and dumping ground was constructed in the early 1920s as well.

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76 "An Important Announcement," *Erie County Independent* (Hamburg: Dec 11, 1930), 4.

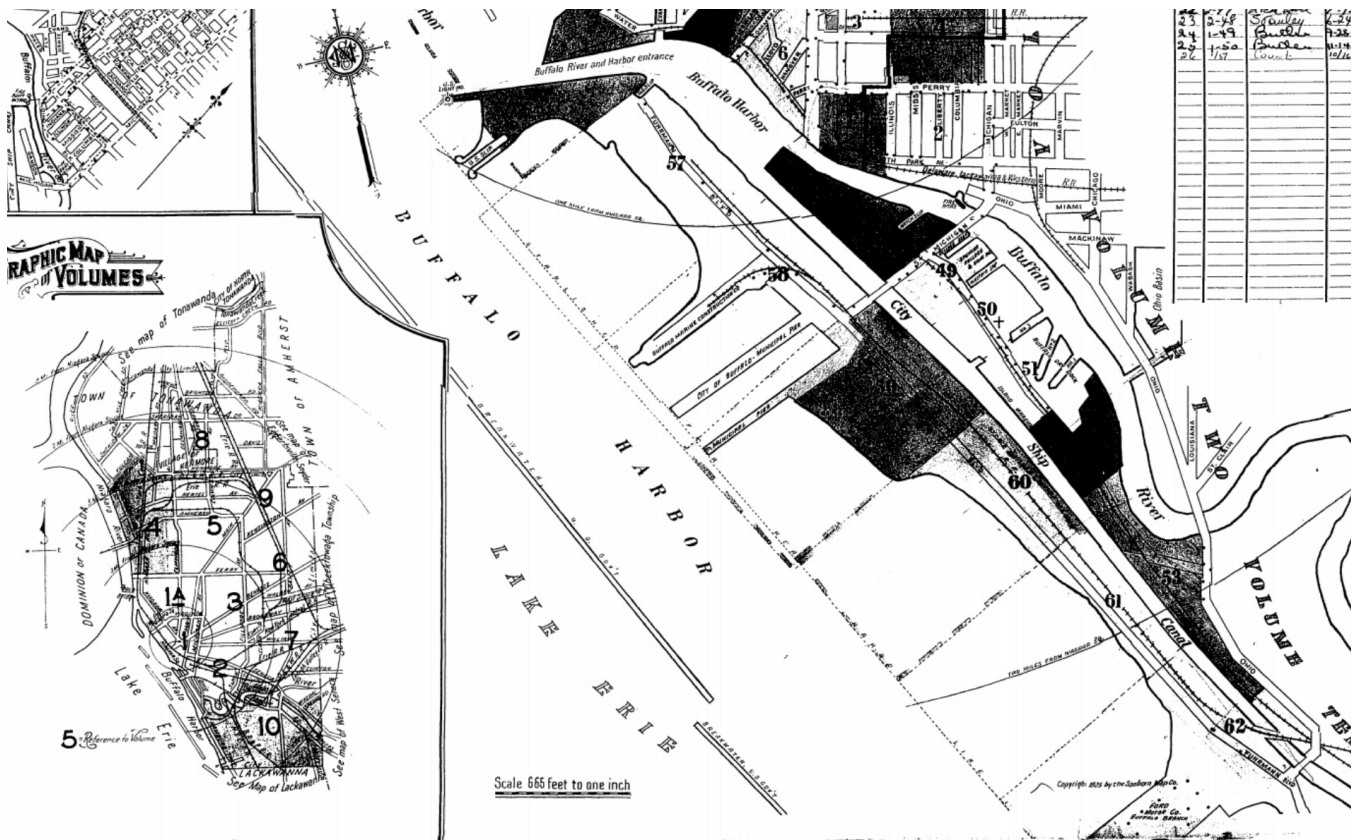
77 *Ibid.*

78 "Giant Lake Shore...," 13.



The 1950 Sanborn Fire Insurance Map indicates McCarthy Marine Terminal, Inc occupied the buildings and land on the pier formerly associated with the Buffalo Marine Construction, utilizing the site as a Marine Construction Company in much the same way. At this point the City of Buffalo still owned the pier immediately adjacent to the south and dredged another slip to the south as well. Through the 1950s and 1960s, this city-owned land served as a dumping ground, primarily for polluted soil that emerged as a result of dredging the Buffalo River and the harbor.

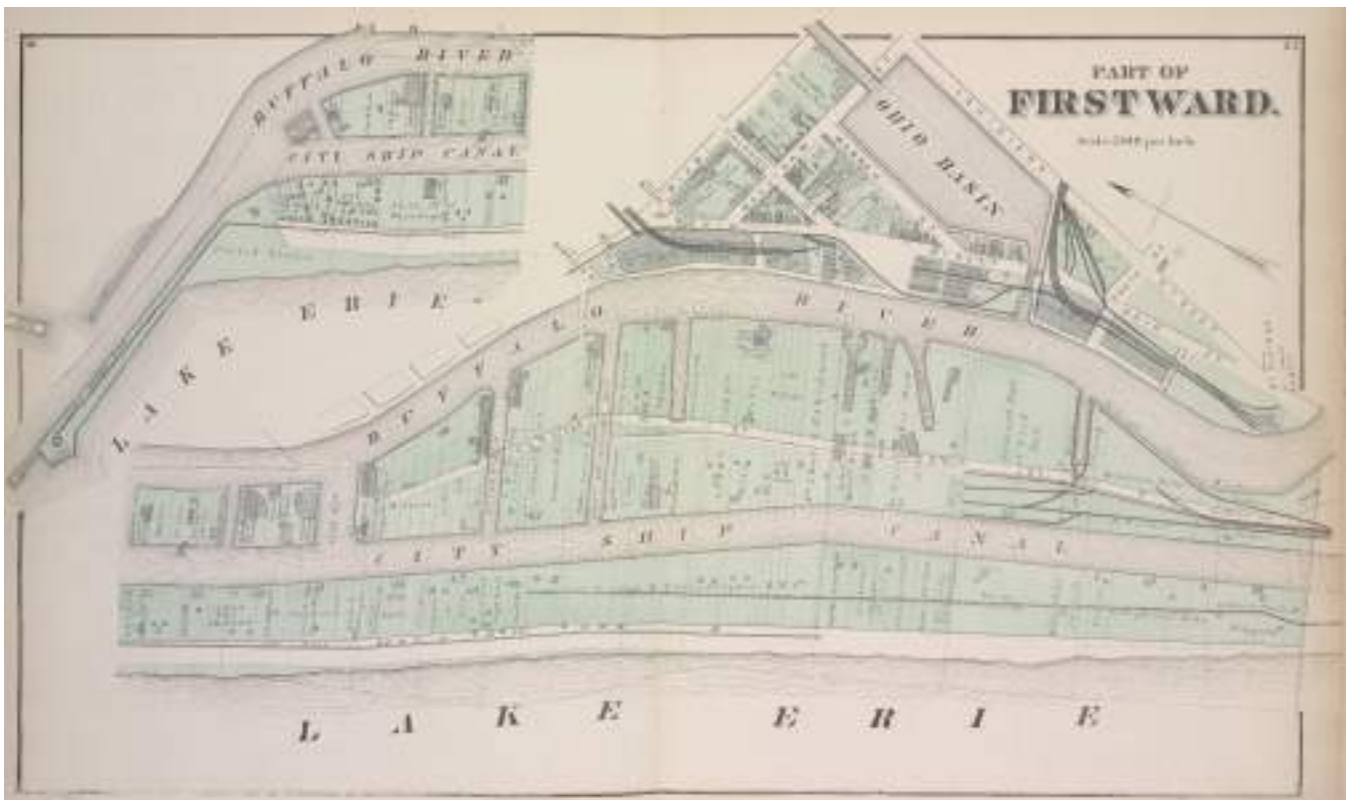
1951 Sanborn Map Key depicting piers along the Buffalo Outer Harbor.



### ***Shoreline Infill***

The Outer Harbor is an artificial harbor created in 1902 by the Federal government by the construction of a breakwater system, that included three periods of construction: 1868; 1874; and 1896 (See Outer Harbor: Coast Line to Breakwater Section). At this time the shore of Lake Erie along the outer harbor had not been developed, with the exception of shanties constructed by the “Beachers.” As illustrated on the 1872 Hopkins Map there was some development on the parcels to the west of the City Ship Canal, including the Salt Co. of Onondaga, small storage facilities, and the Lehigh Coal Docks. A line of the Buffalo New York & Philadelphia R.W. Co. ran north-south across the parcel. Beyond the sea wall was 150-feet of beachfront as noted on the map. In 1874 a sand catch pier was constructed, and then extended to the established pier-head line in the 1896 construction period for a total of 1,147-feet.<sup>79</sup>

1872 Hopkins Map showing development of parcels.



With the construction of the breakwater system the Outer Harbor shoreline was altered as piers were constructed, and an industrial landscape composed of “dredge spoils from the Buffalo River and other canals and docking areas, dumped off-spec solid and hazard wastes associated with the major industries in the area, and various City of Buffalo wastes, primarily incinerator ash.”<sup>80</sup>

General filling along the shoreline occurred between 1935 and 1951, with filling along the southern shoreline occurring between 1951 and 1960, and along the northern portion of the site between 1960 and 1965.<sup>81</sup> In the 1950s the U.S. Army Corps of Engineers dredged the Buffalo Outer Harbor Shipping Channel and diked the area north of Terminal Building A. The 1951 Aerial Photo of Buffalo shows areas that have been filled and shadows in the water where fill is being added. Spoil dredged from the vicinity of the Union and Lackawanna canals was placed in the southern portion of the Outer Harbor, and the dredging and filling operations completed in 1964.<sup>82</sup> In 1965 the Bell Slip, located between Terminals A & B and the Municipal Pier was created.

The Corps of Engineers established a number of diked disposal sites in the Outer Harbor. Following the Niagara Frontier Transportation Authority’s (NFTA) acquisition additional filling operations at Diked Disposal Site 1 were conducted between 1965 and 1979.<sup>83</sup> Diked Disposal Site 1, located to the south of the NFTA Small Boat Harbor, approximately 2.5 miles from the mouth of the Buffalo River, was used to contain approximately 1,133,000 cubic yards of polluted materials dredged from July 1967 through September 1976.<sup>84</sup>

80 Edward, Edward O., *Southtowns Connector/Buffalo Outer Harbor Project: Environmental Impact Statement*, (Buffalo: Watts Engineering, 2005), 3-2.

81 *Ibid.*, 3-7.

82 *Ibid.*, 3-8.

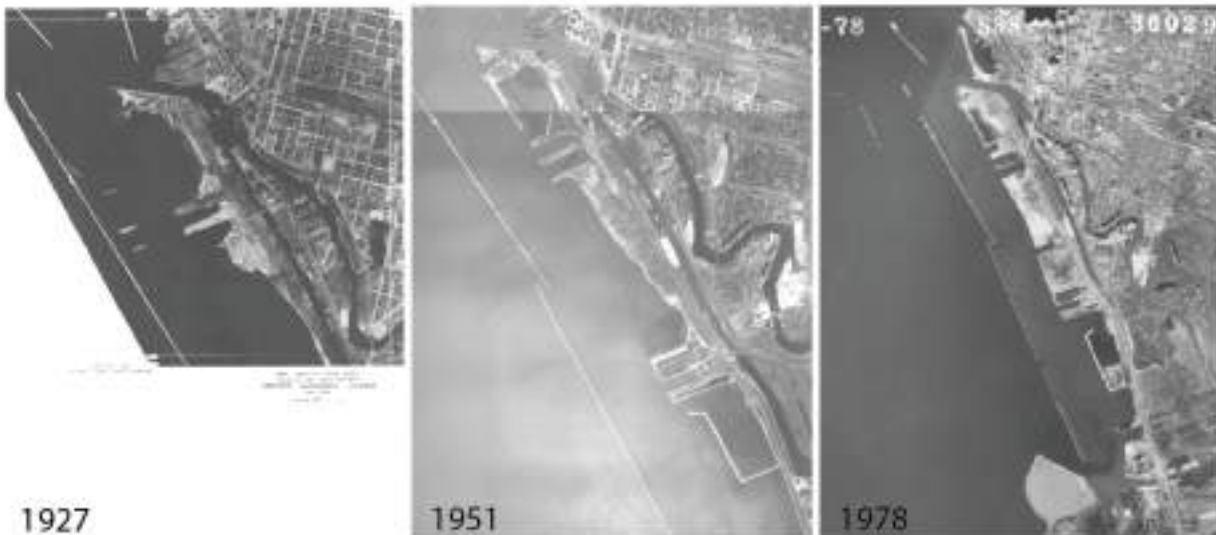
83 The State of New York and United States Congress, under Public Law 834 Chapter 758 created the Niagara Frontier Port Authority in 1956. The Port Authority purchased the Ford Terminal Complex from the Ford Motor Company in 1962. In 1967, the Niagara Frontier Transportation Authority (NFTA) was created un Public Authority’s Law, defining the Niagara Frontier Port Authority as a subsidiary corporation of the NFTA and all of the Port Authority’s properties were now controlled by the NFTA.

84 U.S. Army Engineer District, Buffalo, “Dredged Material Disposal at Diked Disposal Site 4, Buffalo, New York Section 404(b)(1) Evaluation,” *Buffalo Harbor, NY Operations and Maintenance Supplemental Information Report*, (Buffalo: US Army Corp of Engineers, 1983), 1.

An additional diked disposal area was constructed at Times Beach, designated Site 2 by the Corps of Engineers, and was filled with approximately 544,000 cubic yards of materials dredged from September 1971 through August 1973. This site was abandoned when an “ecologically valuable wetland plant community had established on the dredgings and the area was used extensively by waterfowl and other wildlife commonly associated with freshwater wetlands.”<sup>85</sup> The area known as Bell Slip was formed when the area between Terminals A & B to the north and Municipal/Michigan Street Pier was infilled. In June 16, 1977 Diked Disposal Site 4 was completed south of the south entrance to the Buffalo Outer Harbor. After this time “all bottom sediment dredged by the Federal Government from navigation channels in the Buffalo, NY, area have been placed at this site.”<sup>86</sup> Between August 1977 and November 1981, 1,402,356 cubic yards were deposited with dredging occurring in the Buffalo River, Black rock channel Ship Canal, and Buffalo Harbor. In addition to material dredged by the Federal Government, private interests would also use the site.

A small boat harbor was constructed to the south of the Freezer Queen Pier in late 1940s by the Division of Ports, which, at the time, had “proven an extremely popular recreation facility in Buffalo.”<sup>87</sup>

The 1978 Aerial Photo illustrates the coastal shoreline of the Outer Harbor as a result of industrial development, infill and the construction of the small boat harbor.



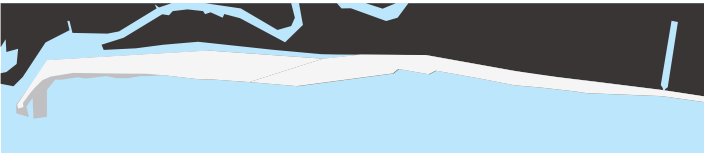
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85     ibid.  
86     ibid. 2.  
87     American Association of Port Authorities, *World Ports*, Volumes 16-17, (Washington: Amundsen Publications, 1953), 25. The Division of Ports is located within the U.S. Department of Commerce, Office of Ports and Intermodal Systems.

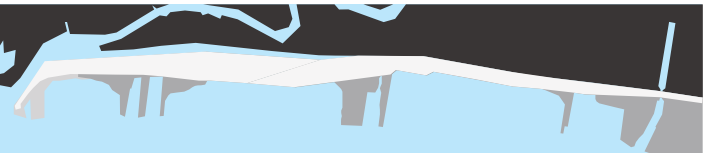
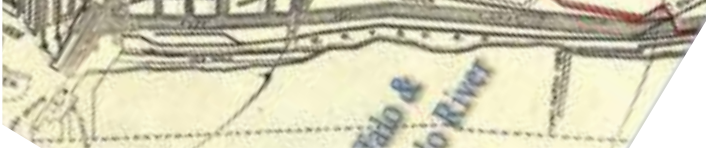
### Evolution of the Buffalo Outer Harbor Shoreline



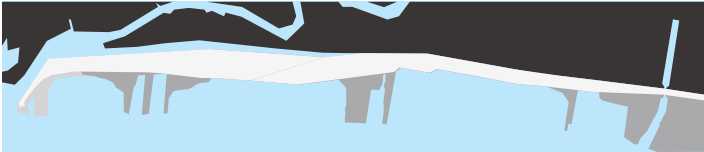
1880 Stone and Stewart Map of Buffalo



1914 Buffalo Research Map of Buffalo



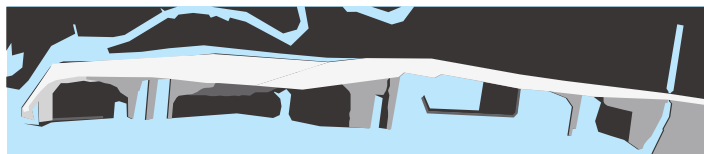
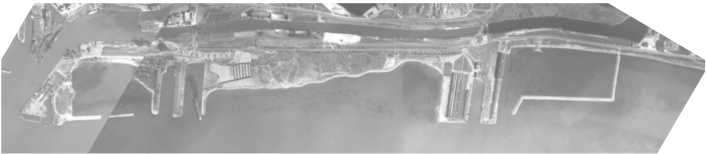
1930 Map of Buffalo



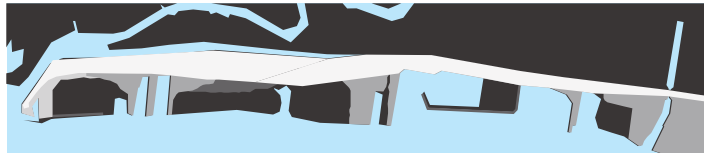
1940 Dept. of Public Works Map of Buffalo



1951 Aerial Map of Buffalo



1978 Aerial Map of Buffalo



2018 Google Earth Aerial Map of Buffalo



### ***Contamination, Abandonment, and Reclamation***

Years of industrial development and resulting “improvements” to the shores of Lake Erie and Buffalo River created a landscape that was contaminated. Grain elevators and lumber mills, coal, iron, steel and petroleum manufacturing facilities once thrived along the river, utilizing the water supply for cooling, shipping and waste disposal. Industrial decline set in during the 1960s, after the opening of the St. Lawrence Seaway provided alternative routes that allowed many shipments to bypass Buffalo’s extensive waterfront and railroad networks. Even though the parcels along the Outer Harbor were abandoned by the 1990s, the contamination they introduced still remains. As Buffalo Niagara Riverkeeper, now known as Buffalo Waterkeeper, has reported, “this manufacturing activity resulted in contamination of sediments by metals, pesticides, polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), and industrial organic materials. Remnants of Buffalo’s industrial heritage, including abandoned grain elevators, brownfields, and inactive hazardous waste sites, still dominate the landscape along the Outer Harbor and Buffalo River.”<sup>88</sup>

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88 Buffalo Niagara Riverkeeper, *Buffalo River Remedial Action Plan* (Buffalo: Buffalo Niagara Riverkeeper, 2005), 35.

Despite this contamination, many of the sites along the Outer Harbor have been reclaimed by nature and have become important ecosystems. Times Beach was one of the most contaminated areas in the late twentieth century, and later became an important wetland conservation area in the twenty-first century. Prior to 1967, bottom sediments dredged from the Buffalo area by the U.S. Army Corps of Engineers were disposed of by open-lake dumping in Lake Erie. Several diked disposal facilities were constructed and utilized by the Buffalo District in an effort to confine the polluted sediments. These diked disposal areas included Times Beach and an area at the south end of the Outer Harbor. At that time, the U.S. Army Corps of Engineers announced its plans to use the 51 acres on Times Beach for disposal of dredging from the Buffalo River. Assistant city corporation counsel Abraham Birnbaum said, "They feel any property of the federal government should be put to its best use and that the best use for this property would be for the storage of dredging material from the Buffalo River."<sup>89</sup> 5,400 cubic yards of material was dredged from 1971-1973, and dumped on Times Beach. Although additional capacity still remained at that time, disposal was discontinued since an ecologically valuable wetland plant community had established on the dredging and the area was used extensively by waterfowl and other wildlife commonly associated with freshwater wetlands.<sup>90</sup>

Once Times Beach was no longer used for dumping, the Army Corps of Engineers utilized a second disposal site at the south end of the Outer Harbor, "generally bounded on the north by the Buffalo South Entrance Arm Breakwater, on the east by the Stoney Point Breakwater, on the south by the Lake Erie shoreline at the Bethlehem Steel Lackawanna plant, and on the west by a rubblemound containment structure."<sup>91</sup> Covering a total surface area of about 107 acres, this disposal site contains many of the same contaminants as Times Beach.

89 "The Dream of Times Beach," Retrieved from [http://www.wnyhistory.org/portfolios/more/times\\_beach/times\\_beach.html](http://www.wnyhistory.org/portfolios/more/times_beach/times_beach.html).

90 U.S. Army Engineer District of Buffalo, "Diked Disposal Area," *Environmental Impact Statement: Buffalo River, Buffalo Harbor, Erie County, 1973-1982* (Buffalo: United States Army Engineers, 1983), 1.

91 U.S. Army Engineer District of Buffalo, 4.

In 1973, sediment sampling of the Buffalo Harbor determined that these sediments were “grossly polluted,” although the levels of pollution had decreased since 1969. The Outer Harbor was found to have slightly lower pollution levels than the Buffalo River at the time. By 1981, sampling data indicated that the area was “heavily polluted with respect to metals and nutrients. Elutriate tests indicated that there was some release of manganese, mercury, iron, ammonia, and phenol.”<sup>92</sup>

By 1978, the Times Beach dredging site had become an important site for migrating and breeding birds. At a public hearing, the Buffalo Ornithological Society urged the city to carefully proceed with dividing the Times Beach area to allow a wildlife habitat to continue to evolve. A planner for the Community Development Department called for active recreation instead. The NYS Department of Environmental Protection said that the Society’s plans were in keeping with the intent of the Freshwater Wetlands article of the state Environmental Conservation Law.<sup>93</sup> In 2004, Times Beach was officially designated a manmade wetland conservation area. Today it is host to a number of trails, vista points and informational signs regarding this ecosystem and its unique history of contamination and reclamation.

Development was relatively stagnant during the late twentieth century, with the notable exception of a nightclub on the former city dumping land and pier. In the 1980s, the NFTA leased a portion of these lands for a private waterfront nightclub called “Shooters” (and later known as “Breakers” and finally “The Pier”). This establishment closed in 2004 and was demolished by the NFTA in 2010 as part of implementation of a clean-up remedy for contaminated soils in the fill materials that in part formed the land in this area.

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92 U.S. Army Engineer District of Buffalo, 3.

93 “The Dream of Times Beach,” Retrieved from [http://www.wnyhistory.org/portfolios/more/times\\_beach/times\\_beach.html](http://www.wnyhistory.org/portfolios/more/times_beach/times_beach.html).



Efforts to reclaim Buffalo's Outer Harbor have continued with renewed vigor in recent years, with several organizations such as RiverKeeper/WaterKeeper ensuring that the area can be cleaned of contaminants in order to encourage natural conservation and/or future development. In 2002, the Outer Harbor was part of a site that was accepted into the Department of Environmental Conservation's (DEC) Environmental Restoration Program (ERP), which provides grants to local governments to reimburse cleanup activities. The DEC provided \$12.1 million in ERP funding to the Niagara Frontier Transportation Authority (NFTA), who owned much of the contaminated land along the Outer Harbor, for the cleanup project. Following this, "Under DEC oversight, the NFTA remediated contaminated soils along the shoreline and stabilized the shoreline slope with a heavy stone embankment to prevent erosion. The project also included ecological improvements along the shoreline and within the Bell Slip, such as the construction of shallow-water fish habitat that is conducive to spawning for local fish species."<sup>94</sup> These remediation efforts, in addition to planting vegetation along both sides of the pathway to attract local wildlife, marked the first major stage of cleaning the land along the Outer Harbor to a significant degree. This enabled the future transformation of land into public park space, natural conservation areas, and land ripe for redevelopment.

From 2003-2004, the DEC and NFTA "worked closely together to turn a previously unusable and inaccessible stretch of shoreline into a clean and scenic trail for public use along a prime section of the Outer Harbor waterfront."<sup>95</sup> The result of this remediation was the Outer Harbor Greenway Nature Trail, also called the Greenbelt. Stretching about 6,400 feet along Lake Erie's shoreline from Bell Slip to the former Port of Buffalo, this pathway connects to the already existing bike path along Fuhrmann Boulevard. Built with \$13.5 million in environmental bond act funding, the pedestrian walkway extended public access to the shoreline along the Outer Harbor from Bell Slip to what later became Wilkeson Pointe. Heralded as a success in the early stage of remediation and redevelopment, the site "has gone through a transformation- from an environmental wasteland to a spectacular green space and recreational resource."<sup>96</sup>

94 Niagara Frontier Transportation Authority, "Outer Harbor Development," Retrieved from <http://www.nfta.com/About/OuterHarbor.aspx>.

95 Ibid.

96 Ibid.

Remediation efforts and redevelopment initiatives gained traction through the early 2000s, with several new parks, public spaces and pathways established along the Outer Harbor as sites were cleaned up at this time. One of the most successful efforts includes the establishment of Wilkeson Pointe on the former Power Authority pier in 2013. Prior to that time, this infill land had become overgrown and generally unused, except as a storage area for salt and the Niagara River ice boom. Efforts to transform this land began in fall 2012, when the Power Authority agreed to move the ice boom to a new location at 41 Hamburg Street in the Old First Ward. Spearheaded by the Erie Canal Harbor Development Corporation (ECHDC), the subsequent transformation of the land included shoreline enhancements, the removal and disposal of concrete slabs and foundations, the installation of a soil cap over the entire site, the installation of site utilities and site lighting, and the rehabilitation of an existing building into a comfort station.<sup>97</sup> With construction and new landscaping completed in less than one year, the new 21-acre park was opened in June 2013. Renamed for Samuel Wilkeson, the nineteenth century Mayor of Buffalo was largely responsible for the early stages of infill along the Buffalo Harbor and River, Wilkeson Pointe features a sand beach made from the former slip, pedestrian trails, a gazebo, volleyball court, public art and architectural salvage from the former city dumpsite nearby.

Similar efforts have been underway at the Bell Slip preserve, where the habitat now “resembles what may have been part of a long lost complex of wetlands, sand dunes, and shorelines that once characterized the whole area from Hamburg to Grand Island and beyond. Migrating and resident birds, pollinators, rare and unusual species of insects and an incredible diversity of native plants help to characterize this area.”<sup>98</sup> Through remediation and new vegetation, “natural succession is helping to reclaim rare shoreline grasslands, supporting a spectacular copse of cottonwoods, and is the location of an unusual sand habitat complex.”<sup>99</sup>

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97 “New Outer Harbor Park, Wilkeson Pointe, Now Open,” Buffalo Rising (June 1, 2013), Retrieved from <https://www.buffalorising.com/2013/06/new-outer-harbor-park-wilkeson-pointe-now-open/>.

98 “The Bell Slip,” Our Outer Harbor, Retrieved from <http://www.ourouterharbor.org/bell-slip-preserve.html>.

99 Ibid.

In 2014, the ECHDC officially acquired approximately 350 acres of property owned by the NFTA on Buffalo's Outer Harbor, with assistance from the Buffalo Billion program.<sup>100</sup> This enabled the establishment of several more areas for redevelopment, with a particular emphasis on public access to parks and the shoreline. For instance, in May 2014, Governor Andrew Cuomo designated the former NFTA land that extends from Gallagher Beach to the Small Boat Harbor as the new Buffalo Harbor State Park. With \$15 million in funding from the Governor's Buffalo Billion and New York Works initiatives, the land was remediated and transformed with new sod and soil cover, landscaping elements and public facilities such as bike racks.<sup>101</sup> This 190-acre site became the first State Park in Buffalo when it was completed in 2014-2015.

The City of Buffalo was also awarded a grant through NYSDOS and NYSDEC to establish a Buffalo Harbor Brownfield Opportunity Area (BOA) in 2014. This grant provides resources to plan for the revitalization of underutilized, vacant, and brownfield sites; and enables the city to establish a vision for the redevelopment of these lands, and to develop strategies to return the sites to productive use. The 1,000 acre BOA includes the Lake Erie waterfront, the Inner and Outer Harbors, and a portion of the city's Central Business District. As the resulting report states,

It contains a large concentration of brownfields, vacant, and underutilized parcels; a legacy from previous industrial users that were located on the waterfront. Previous efforts to revitalize these areas have been met with limited success. Past experiences have identified a need for a coordinated plan that addresses incompatible land uses, community desires, productive re-use options, and environmental conditions at the earliest possible stage. Redevelopment of the BOA will provide opportunities for land redevelopment and habitat restoration, utilizing existing assets such as access to major highways and rail lines, a bi-national bridge, and an environmentally rich setting including Lake Erie and the Buffalo River.<sup>102</sup>

100 "Erie Canal Harbor Development Corporation Projects," *Empire State Development*, Retrieved from <https://esd.ny.gov/erie-canal-harbor-development-corporation-projects>

101 Mark Sommer, "Buffalo's First State Park to Start Taking Shape on Outer Harbor," *Buffalo News* (Aug 17 2014).

102 City of Buffalo, "Buffalo Harbor Brownfield Opportunity Area" (Buffalo: City of Buffalo, 2014), 4.

Efforts to remove contaminants from brownfield sites have resulted in the remediation of large swaths of land along the shoreline of the Outer Harbor, leading to multiple new developments in the area.

More recently, the remediation of the former Freezer Queen site and pier towards the south end of the Outer Harbor has been underway since 2017 in preparation for the anticipated development and construction of 23-story residential tower. The former Freezer Queen building was demolished in anticipation of the new development. Although construction has been put on hold due to legal blockades at this time, the remediation is still underway. Environmental reports indicate that these cleanup efforts include “the removal of 5000 tons of ‘petroleum impacted’ soil and the excavation of three underground storage tanks in 2017 as part of an ‘interim remedial measure’ to address a known oil spill area.”<sup>103</sup> Additionally, these plans “call for digging up and disposing of additional soil and fill from three areas found to have high levels of metals and various hydrocarbons. Crews would then install a ‘cover system’ over the site, which would include the new building, asphalt paving, concrete walkways and a two-foot layer of new soil.”<sup>104</sup> Despite the uncertainty of new development on the site, the environmental remediation will assist in the preparation of this portion of the Outer Harbor for redevelopment in the near future.

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103 Jonathan Epstein, “Queen City Landing Cleanup Plan for Review,” *Buffalo News* (Feb 17 2018).

104 *Ibid.*

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# 3. Existing Conditions

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# 3. Existing Conditions

## Chapter 3: Landscape Existing Conditions Documentation

### *Introduction*

This chapter of the cultural landscape report inventories the existing conditions of the site using a combination of contemporary photographs, maps, and narrative descriptions.

The Outer Harbor is an artificial construct that includes a breakwater system constructed by the Federal government between 1869 and 1902, commercial piers, land created by fill. The boundaries of the Outer Harbor Cultural Landscape are defined by the breakwater system to the west and Fuhrmann Boulevard to the east, extending approximately 3 miles between the Coast Guard Station and Buffalo Lighthouse to the north and Stony Point and the Buffalo-Lackawanna city line to the south. The Buffalo Skyway, which opened in 1955, connects Interstate 190 to the north with Route 5 to the south, above and parallel to Furhmann Boulevard.

In addition to the Coast Guard Station and lighthouse to the north, are Times Beach and Wikeson Pointe (formerly Buffalo Maritime Construction Company), both nature preserves. The Municipal Pier to the south is vacant. The Bell Slip is a preserve, often referred to the Sand Barren Preserve featuring the Greenway Nature Trail that runs along the water's edge and Outer Harbor Drive, running north-south through the middle of the site. The northern edge of the former Ford Motor Company Plant pier continues as green space to the north where fill was added. Prior to the acquisition of these lands by Erie Canal Harbor Development (ECHD) in 2014, much of these lands, in the northern part, were more recently owned by Cargill and the New York Power Authority (NYPA) and used for bulk storage of road salt and the ice boom from about 1968-2000. The Small Boat Harbor retains its historic maritime function and former Diked Disposal Site 1 is a playground.

The Freezer Queen property is owned by a private developer and the factory building was demolished in the fall 2016 and the pier remains vacant. The Cargill Pool Elevator site to the south retains its industrial function as does the Great Lakes Portland Cement site, which is now owned by Oldcastle Materials Cement. Today, remediation efforts are underway and during the last two decades multiple formerly vacant and contaminated industrial lands have been cleaned up and transformed into passive recreational parks, pedestrian pathways and public spaces providing access to the Lake Erie shoreline. The Outer Harbor Greenway is a comprehensive network of pedestrian and bicycle path that runs along the shoreline unifying the Outer Harbor.



**Key**

-  Lighthouse and Government Land
-  Times Beach
-  Industrial Piers / Nature Preserve
-  Dump and Landfill Area
-  Industrial Rail Corridor
-  Fuhrmann Blvd (Seawall)

# MAP OF CONTEXTUAL SUB AREA INVENTORY



1 MILE

## *Overview of the Lighthouse and Government*

### *Land*

Located on the west side of the Buffalo River and east side of the Outer Harbor, the Lighthouse is located on the U.S. Coast Guard Station peninsula, owned by the United States government. Today's Fuhrmann Boulevard runs southeast to northwest up the spine of the peninsula, terminating at the station entrance. The peninsula is a natural sand spit that has been enhanced by fill beginning in the 1800s. The Coast Guard station is located at the foot of Fuhrmann Boulevard and the mouth of the Buffalo River, abutting the Lighthouse on its south side. This military base has been in existence since 1877 and was a critical piece of infrastructure in developing Buffalo's early harbor.

The Buffalo Main Lighthouse is the oldest building on Buffalo's waterfront and one of the oldest lighthouses on the Great Lakes. It is located on government owned land, on the grounds of the U.S. Coast Guard Station at 1 Fuhrmann Boulevard. The lighthouse was listed on the National Register in 1984 (90NR01228). The base, up to the cornice, dates from 1833, while all above it dates from 1857. The lighthouse is constructed of cut ashlar limestone and bluestone, and is one year younger than Buffalo itself (chartered as a city in 1832). The tower is 68 feet tall and tapers from a 20-foot diameter at the base, where the walls are nearly four feet thick, to a 12-foot diameter at the top, where the walls are two feet thick. Inside, a circular stone stairway leads to the watchroom, which features deeply recessed sash windows. In 1914 the lens was taken from this tower to one built just behind the outer harbor breakwater. The breakwater light then became the principal, or third, Buffalo light. A fourth light, a 71-foot white tower on the breakwater itself, has been the main light since 1963. Unused and deteriorating, the 1833 light was almost demolished in the late 1950's. After a proper hue and cry it was saved and restored by 1961. Further restoration in the late 1980's resulted in floodlighting of the tower's shaft and illumination of the cupola. The Buffalo North Breakwater South End Light, erected in 1903 as a beacon in the Buffalo Harbor was moved to Coast Guard Station site in 1985. It was listed on the National Register in 1983.

## ***Overview of Times Beach***

The 55-acre area of land known today as Times Beach consists primarily of infill that was added in stages over 100 years, beginning with the construction of the seawall in 1867 and continues through the dumping of dredging waste in the 1970s. As a result, this area developed a unique wetland ecosystem. In 1987, the New York Department of State recognized Times Beach as a significant coastal fish and wildlife habitat. Times Beach has since been protected and improved with trails and signage, and is now owned by the City of Buffalo and operated as a nature preserve by the city and Erie County.

Today Times Beach Nature Preserve is a beautiful place designed to conserve birds, pollinators, native plants, and other wildlife. It's location directly across from downtown's Canalside, is adjacent to the historic 1813 Lighthouse. The preserve is located at the confluence of the eastern end of Lake Erie, and the Buffalo and Niagara River. It can be accessed by Furhmann Blvd, and in season, a ferry service that crosses from Canalside. One of the significant features of the Nature Preserve is its importance to migrating and breeding birds. Times Beach Nature Preserve and Buffalo's entire Outer Harbor is the Gateway to the Niagara River Globally Significant Important Bird Area. In addition thousands of migrating Monarch Butterflies use Times Beach as a fall roost during their perilous journey to Mexico.

## ***Overview of the Breakwall and Fuhrmann Boulevard***

The Outer Harbor is protected from Lake Erie by a breakwater that was constructed in multiple stages, mostly from 1869 and 1902, to protect the lakefront from violent storms. The breakwater retains a high level of integrity and retains the function for which it was built over 100-years ago. Fuhrmann Boulevard runs southeast to northwest up the spine of the peninsula, terminating at the Coast Guard Station entrance. Historically this road followed the seawall that protected the ship channel and the entrance to the Buffalo River from the waters of the Lake Erie prior to the construction of the breakwater system and Outer Harbor. A survey conducted in 2005 reported that “the land that forms the northern one-third of the Fuhrmann Boulevard corridor was historically reclaimed (built up) from Lake Erie from the deposition of incinerator ash and dredge spoils. These investigations indicate that fill materials are present up to and beneath Fuhrmann Boulevard to a depth of 10 meters (32.8 feet) or more.”<sup>105</sup> Fuhrmann Boulevard links nearly all of the properties situated along the Outer Harbor, beginning at the Coast Guard Station in the north and continuing to the city line. The New York State Department of Transportation recently reconfigured Route 5 to provide improved access to Fuhrmann Boulevard and the Outer Harbor. To accomplish this, a new interchange was installed south of the Skyway and an underpass constructed beneath Route 5, connecting Fuhrmann Boulevard and Route 5. Improvements to the southern portion of Route 5 include a newly constructed interchange with Ohio Street. NYSDOT has also undertaken improvements to Fuhrmann Boulevard, transforming the existing two-lane road into a two-lane, two-way, boulevard between Tiff Street and Michigan Avenue. The boulevard has on-street parking and a new roundabout interchange, connecting Route 5 with Fuhrmann Boulevard. Along most of the route the boulevard also includes a treed median with decorative light fixtures.<sup>106</sup>

A parking area at the Bell Slip provides a connection between the Greenway and the Fuhrmann Boulevard.

105 Edward Watts, *Southtowns Connector/Buffalo Outer Harbor Project: Environmental Impact Statement* (Buffalo: Watts Engineering, 2005), 3-23.

106 *Ibid.*, 35.

## ***Overview of the Industrial Rail Corridor***

A number of standing structures, and forgotten remnants are indicative of the impact of the railroads on industrial Buffalo. A half of the twin-span CP Draw Bridge has been permanently affixed to the upright position rendering it impassable for rail service. Inactive rail lines, once part of the Erie system, dead end alongside the Kreiner Malting Elevator along Elk Street. Apparently dormant lines still cross Ohio Street to approach the original New York and Erie Freight House. Small weed covered mounds remain where DL&W rail lines were elevated to cross local streets such as Miami and Chicago, between their former passenger terminal at the foot of Main Street, to the now vacant Republic Steel property. Abandoned rail sheds flank elevators such as Concrete-Central, Superior, Saskatchewan Cooperative, and Great Northern, while currently operating sites such as Archer Daniels Midland's Standard Elevator and the Pillsbury Mill, along with the General Mills Complex, still receive shipments by rail. A network of unkempt tracks sits along both sides of the southern portion of the City Ship Canal, with a spur connecting the former Ford property on Fuhrmann Boulevard. Faint dirt paths and a pair of rails buried beneath South Park Avenue protruding the asphalt, are all that remain of a busy rail corridor that once connected the Main Hamburg Canal and the Ohio Basin. There are several other rail segments visible through deteriorated pavement along Ohio Street reflecting a period when heavy rail traffic resulted from activity along the nearby riverfront.

There are several other rail properties in the vicinity of the harbor that remain in use. The Burrows Lot and Republic Street rail yards are operational, servicing the Lake and Rail and Standard elevators. The rail yard directly behind the Cargill Superior elevator is used regularly as part of CSX's rail network. The active half of the CP Draw Bridge, and a second CSX bascule bridge crossing the river at Smith Street remain heavily trafficked. These bridges are part of a national corridor that still connects Buffalo with freight service between the East and West. The tracks along the former Main Hamburg right of way are still in use for passenger service by Amtrak's Empire and Maple Leaf lines. Ganson Street, home to General Mills and ADM's storage and processing facilities, has a series of busy rail lines running along its west side. There is also an active line running along Katherine Street servicing a handful of compressed gas manufacturers.

## ***Overview of the Waterfront Industrial Piers and Landfill***

The industrial piers to the south of the Outer Harbor remain industrial with their landscape remaining essentially unchanged since the 1930s. The Saskatchewan/Cargill elevator and Great Lakes Portland Cement elevator are both National Register eligible. The former Freezer Queen factory pier retains its original relationship with the water; however the factory was demolished in 2016 and the site remains vacant. Despite the demolition of the factory, the pier has not been altered, as have others along the waterfront, by later infill. The pier that was constructed for the Ford Motor Company was altered with the addition of fill from dredging in the 1960s. The Terminal Building A has been determined National Register eligible and is a local landmark site in the city. The building is surrounded by pavement, with a parking lot located to the north. The pier retains its historic relationship to the water to the south and west. The portion of the site to the north is vacant featuring trees and grassed areas. The Greenway Nature Trail runs along the site to the north and west connecting to the Bell Slip to the north.

The Small Boat Harbor retains its historic function and consists of boat docks and slips. The area to the south that was Dike Disposal 1 is an open grassland with a playground. To the south, north of the Saskatchewan/Cargill elevator is Gallagher Beach, a small strip of sandy beach that retains the original relationship of the shoreline with Lake Erie.

The Bell Slip to the south is a large, vacant parcel of land and natural conservation area and preserve, with a “dune” forest created by time and natural succession. Much of the Bell Slip is reclaimed habitat. Fish and shoreline habitat have been restored. To the north of the Bell Slip inlet are rare shoreline grasslands, cottonwoods and a sand habitat complex. In addition to this system of wetlands, sand dunes, and shorelines, this area is characterized by migrating and resident birds, and a diversity of native plants and insects.

The Municipal/Michigan Pier to the north retains its relationship with the Outer Harbor and remains vacant, with some trees and grassland.

Wilkeson Pointe to the north is located on what was the Buffalo Marine Construction Company pier and fill added in the 1950s and 60s. The area has evolved into a park and recreational space. The pier area to the west retains its relationship with the water and has been developed with a series of paths and gardens. The gardens included sculptural gardens, rain gardens, and natural habitat along the waterfront to promote regeneration of lakeshore vegetation. A kayak launch, The portion of the site that formed by fill remains an open grassed field.

### ***Contextual Sub-Area Inventory***

Within the six overview zones (previously discussed) the ten sub-areas are inventoried and documented on the accompanying maps. Some sub-areas shared several characteristics with one another, lending them to being categorized together. Those that share similar characteristics may benefit from similar management strategies being undertaken for their benefit.

The following sub-areas are analyzed and evaluated:

- Lighthouse
- Times Beach
- Industrial Rail Corridor
- Fuhrmann Boulevard (Seawall)
- Industrial Pier A
- Dump and Landfill Area A
- Industrial Pier B
- Dump and Landfill Area B
- Industrial Pier C
- Dump and Landfill Area C





# LIGHTHOUSE CONTEXTUAL SUB AREA





# TIMES BEACH CONTEXTUAL SUB AREA

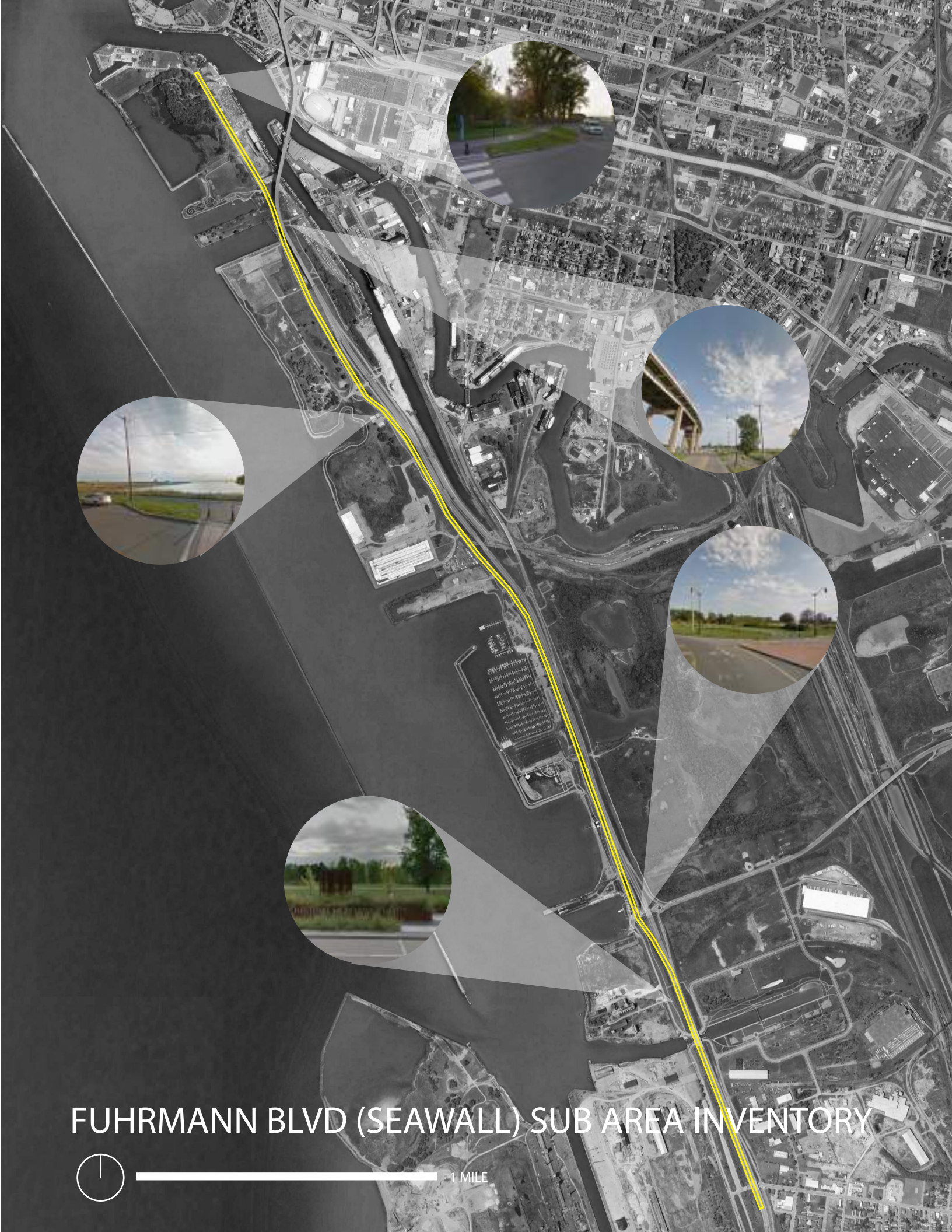




# INDUSTRIAL RAIL CORRIDOR CONTEXTUAL SUB AREA



0.5 MILES



# FUHRMANN BLVD (SEAWALL) SUB AREA INVENTORY





# INDUSTRIAL PIER A CONTEXTUAL SUB AREA





# DUMP AND LANDFILL AREA A CONTEXTUAL SUB AREA



1,000 FT



# INDUSTRIAL PIER B CONTEXTUAL SUB AREA



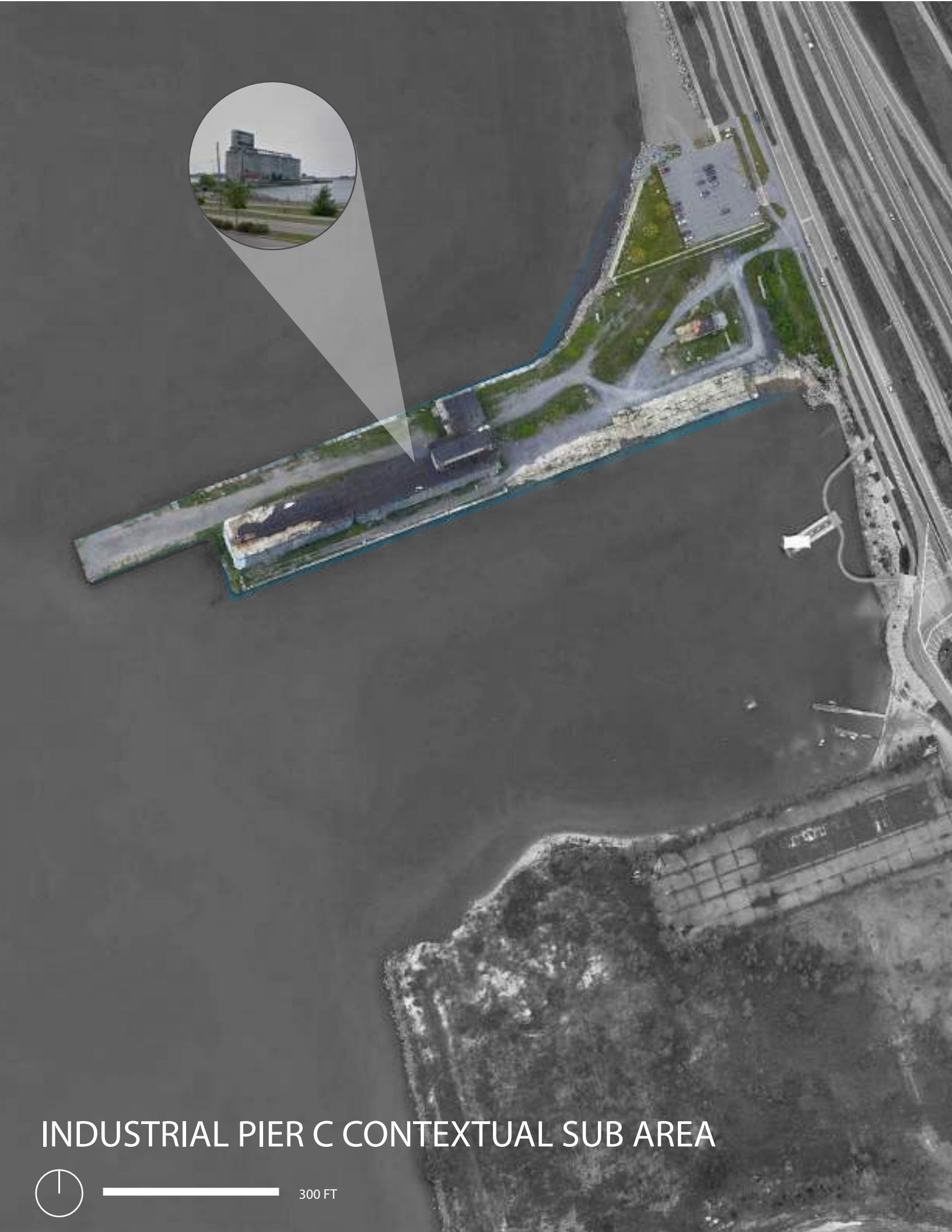


# DUMP AND LANDFILL AREA B CONTEXTUAL SUB AREA



500 FT





# INDUSTRIAL PIER C CONTEXTUAL SUB AREA



300 FT



# DUMP AND LANDFILL AREA C CONTEXTUAL SUB AREA



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# 4. Landscape Evaluation

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# 4. Landscape Evaluation

## Chapter 4: Landscape Analysis and Evaluation

### *Introduction*

This chapter provides an analysis of the integrity and physical character of the landscape associated with the study area at the Buffalo Outer Harbor. Using the methodology and criteria developed by the National Register of Historic Places, this analysis discusses the status of the Outer Harbor as a cultural landscape, including a review of the physical and historic integrity of the landscape features that contribute to the historic significance of the site. By comparing the history of the site with the existing conditions, discussed in previous chapters, the evaluation of integrity identifies features that continue to convey their historic significance. Because a cultural landscape is an accumulation of features that individually or in combination contribute to the historic significance of a property, the evaluation of integrity benefits from considering a landscape as a continuum through history.

### ***National Register Status***

The National Historic Preservation Act of 1966 authorized the National Register of Historic Places, which is the official list of the nation's historic places worthy of preservation. The National Register of Historic Places coordinates and supports public and private efforts to identify, evaluate, and protect America's historic and archeological resources. To achieve national register status, a property must meet the national register criteria for evaluation. This evaluation examines a property's age, integrity, and significance. For the national register to consider a site as historic, a property generally should be at least 50 years old. To possess integrity, a property needs to appear the way it did in the past, and it must be associated with important historical events, activities, or developments. The national register evaluates a property's significance based on the following criteria:

- A. Association with events that have made a significant contribution to the broad patterns of our history; or
- B. Association with the lives of persons significant in our past; or
- C. Embodiment of the distinctive characteristics of a type, period, or method of construction, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Yielding or potential to yield information in history or prehistory.

Some of the properties in the proposed Buffalo Outer Harbor Cultural Landscape have been listed, or are eligible for listing on the National Register. The Buffalo Main Lighthouse (90NR01228) was listed in July 1984, the Buffalo North Breakwater South End Light, was listed in 1983 and the Buffalo Harbor South Entrance Light (07NR05735) was listed in July 2007. There are three elevators located in the Outer Harbor. They are all National Register eligible: Connecting Terminal Elevator, located to the north along the City Ship Canal; the Saskatchewan/Pool Cargill Elevator, and Independent Cement Co. Elevator (Great Lakes Portland Cement Co.), both located to the south in the Outer Harbor. The Ford Motor Assembly Plant, Port Terminal Building A is also National Register eligible, and is a local landmark site. The Buffalo North Breakwater South End Light, erected in 1903 as a beacon in the Buffalo Harbor was moved to Coast Guard Station site in 1985. It was listed on the National Register in 1983.

### ***Statement of Significance***

The Buffalo Harbor is composed of three separate, but interrelated portions: The Inner Harbor, Outer Harbor and Middle Harbor. While these portions are related, their historic development and current use is unique. The Outer Harbor is significant under Criterion A for its contribution to an understanding of the development of a landscape that was “manufactured” as a commercial waterfront; “improved” as required to facilitate growing needs for commercial land; abandoned with the decline of Buffalo’s industrial economy, and reclaimed by natural habitats. In addition to the importance of the physical history of the landscape, the Outer Harbor is significant for its contribution to the history of the development of city of Buffalo, industry, commerce, and maritime history. The period of significance begins with the initial construction of the breakwater system in the Outer Harbor in 1869 and ends in 1977 when Diked Disposal Site 4 was completed.



## *Landscape Integrity Overview*

The National Register of Historic Places specifies seven defining qualities of integrity. These include location, design, setting, materials, workmanship, feeling, and association. For inclusion in the National Register list, a property's historic identity will be evident because of the survival of physical characteristics dating from the period of significance. This section evaluates the physical integrity of landscape features by comparing the historic condition of features dating to the periods of significance with the current condition of these features. The section classifies features as either contributing or noncontributing to the overall historic significance of the study area at the Buffalo Outer Harbor.

The Outer Harbor landscape and existing industrial buildings and maritime structures retain a high level of integrity. By the early twentieth century, the landscape had been manufactured to function as a busy inland port. The Outer Harbor, with the construction of the breakwater, conversion of the seawall to Fuhrmann Boulevard, construction of piers to accommodate industries, development of a rail system, and the necessary addition of infill to provide "land" on which to build remain extant, and have not been significantly altered. The relationship between the industrial piers and the harbor water retains sufficient integrity for an understanding of the industrial history, and the infill that occurred throughout the twentieth century. When constructed the breakwater system at Buffalo Harbor, including the Outer Harbor was the largest system in the world, and resulted in the largest artificial harbor in the world. The Outer Harbor breakwater retains an extremely high level of integrity, and continues to function as it did historically, protecting the harbor and shorefront from the potentially violent waters of Lake Erie.



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# Bibliography

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# Bibliography

## Bibliography

American Association of Port Authorities. *World Ports*, Volumes 16-17. Washington: Amundsen Publications, 1953.

“An Important Announcement.” *Erie County Independent* (Hamburg: Dec 11, 1930): 4.

“Assembly Line Miracles are Routine at Ford Plant.” *Buffalo Courier-Express* (August 26, 1951): 16-D.

Austin, Ryan and Douglas Perelli and Carol Weed. *Phase I Archaeological Investigations, First Buffalo River Marina Property, 32 Fuhrmann Boulevard*. Buffalo: University at Buffalo, 2011.

Becker, Philip. *History of the Germans of Buffalo and Erie County*. Buffalo: Verlag und Druck von Reinecke & Zesch, 1898.

The Buffalo Breakwater System. *The Engineering Record, Building Record and the Sanitary Engineer*, Vol 47, No. 14. New York: McGraw Publishing Company, 1903.

Buffalo Historical Society. *The Holland Land Company and Canal Construction in Western New York*. Buffalo: Black Rock Harbor Papers Journals and Documents Library of The University of California, 1910.

Buffalo Niagara Riverkeeper, *Buffalo River Remedial Action Plan*. Buffalo: Buffalo Niagara Riverkeeper, 2005.

City of Buffalo. “Buffalo Harbor Brownfield Opportunity Area.” Buffalo: City of Buffalo, 2014.

“Contracts Let for Foundation of Ford Plant.” *Buffalo Courier Express* (June 10, 1930): 9.

Dunn, E.T. *A History of Railroads in Western New York*. The Heritage Press: Western New York Heritage Institute, 1996.

Eck, Susan J. “The Dream of Times Beach.” WNY History. 2016. Accessed March 05, 2018. [http://www.wnyhistory.org/portfolios/more/times\\_beach/times\\_beach.html](http://www.wnyhistory.org/portfolios/more/times_beach/times_beach.html).

- Ellicott, Joseph. *Plan of the Village of New Amsterdam*, 1804. Holland Land Company.
- Epstein, Jonathan. "Queen City Landing Cleanup Plan for Review." *Buffalo News* (February 17, 2018).
- "Erie Canal Harbor Development Corporation Projects," *Empire State Development*. Retrieved from <https://esd.ny.gov/erie-canal-harbor-development-corporation-projects>.
- "Ford Plans Boost at Fuhrmann Unit." *Buffalo Courier-Express* (Dec 22, 1954): 11.
- "Ford Plant to Close February 14." *Buffalo Evening News* (Jan 14, 1958): 34.
- French, John Homer. "Buffalo City." *Gazetteer of the State of New York: Embracing a Comprehensive View of the Geography, Geology, and General History of the State, and a Complete History and Description of Every County, City, Town, Village and Locality: With Full Table of Statistics*. Syracuse, NY: R. Pearsall Smith, 1860.
- Gerber, David A. *The Making of an American Pluralism Buffalo, New York 1825-60*. Chicago: University of Illinois Press, 1989.
- Grasso, Thomas. *The Erie Canal's Western Terminus Commercial Slip Harbor Development and Canal District*. Buffalo: Erie Canal Harbor Development Corporation, 2008.
- Hill, Henry. *Municipality of Buffalo, New York a History, 1720-1923*. New York: Lewis Historical Publishing Company, 1923.
- Historical Marker Project, "Development of the Outer Harbor." Retrieved from [https://www.historicalmarkerproject.com/markers/view.php?marker\\_id=HM1M9G](https://www.historicalmarkerproject.com/markers/view.php?marker_id=HM1M9G)
- "History of Times Beach." *The Friends of Times Beach*. Retrieved from <http://www.friendsoftimesbeachnp.org/history.html>
- Holder, R. *The Beginnings of Buffalo Industry*. Adventures in Western New York History vol. V. Buffalo, N.Y.: Buffalo and Erie County Historical Society, 1960.
- Kirby, C.D. *The Early History of Gowanda and The Beautiful Land of the Cattaraugus*. Gowanda, NY: Niagara Frontier Publishing Company, Inc., 1976.

- 
- Leary, T., and Scholes, E. *Industrial Crossroads; Buffalo and the Niagara Frontier: A Guidebook for the Society for Industrial Archeology*. New York: Society for Industrial Archaeology, 1992.
- Kowsky, Francis R. "Delaware Avenue, Buffalo, New York," in *The Grand American Avenue: 1850 - 1920*, ed. Jan Cigliano. San Francisco: Pomegranate Artbooks, 1994.
- Laws of the State of New York, In Relation to the Erie and Champlain Canals*. Albany: E. and E. Hosford, Printers, 1825.
- Malloy, Jerry M. "Happy New Year! - January 1st MCMXI." *Buffalo History Gazette*. January 01, 1970. Accessed February 05, 2018. <http://www.buffalohistorygazette.net/2010/12/happy-new-year-january-1st-mcmxi.html>.
- Malloy, Jerry. "Samuel Wilkeson, He Built Buffalo by Building its Harbor." Retrieved from [http://www.buffalohistorygazette.net/2013/03/samuel-wilkeson-he-built-buffalo-by\\_19.html](http://www.buffalohistorygazette.net/2013/03/samuel-wilkeson-he-built-buffalo-by_19.html).
- The Matthews-Northrum New Map of the City of Buffalo*. Buffalo: J.N. Matthews Co., c 1916.
- Mingus, Nancy Blumenstark. *Buffalo: Good Neighbors, Great Architecture*. Buffalo: Arcadia Publishing, 2003.
- Miller, Carol. "Buffalo Main Light." *National Register of Historic Places* 90NR01228. Albany: National Register of Historic Places, 1976.
- Murphy, Dan. *Nickel City Drafts: A Drinking History of Buffalo, NY*. Buffalobooks.com 2010.
- "New Outer Harbor Park, Wilkeson Pointe, Now Open." Buffalo Rising (June 1, 2013). Retrieved from <https://www.buffalorising.com/2013/06/new-outer-harbor-park-wilkeson-pointe-now-open/>
- Niagara Frontier Transportation Authority. "Outer Harbor Development." Retrieved from <http://www.nfta.com/About/OuterHarbor.aspx>
- "Our Chief Thoroughfare." *Grosvenor Library Bulletin* 4. 1 (September 1921): 18.
- Perelli, Doug. *Phase IA Literature Search and Sensitivity Assessment for the Queen City Landing Building Project*. Buffalo: State University of New York at Buffalo, 2008.

- “Railroads at Last Agree on Seawall and Turnpike Questions 40 Years Old.” *Buffalo Courier* (April 23, 1910): 6.
- Rizzo, Michael. *Through the Mayor’s Eyes: Buffalo, New York, 1832-2005*. Lulu.com, 2005.
- Severence, Frank H. ed. *The Picture Book of Earlier Buffalo*. Buffalo: Buffalo Historical Society Publications, Vol. 16, 1912.
- Smith, H Perry. *History of the City of Buffalo and Erie County*. New York: Unigraphic, 1884.
- Sommer, Mark. “Buffalo’s First State Park to Start Taking Shape on Outer Harbor.” *Buffalo News* (Aug 17 2014).
- Surveyor General, New York State. *Village of Buffalo, 1804 & 1851*. Albany: Secretary of State: Surveyor General, 1851.
- Taber III, T.T. *The Delaware, Lackawanna, and Western Railroad in the Nineteenth Century: 1828-1899*. New York: T.T. Taber, 1977.
- “The Bell Slip,” *Our Outer Harbor*. Retrieved from <http://www.ourouterharbor.org/bell-slip-preserve.html>.
- “Times Beach Nature Preserve.” NYFalls.com. Retrieved from <http://nyfalls.com/lakes/erie/times-beach/>
- “Tremendous Gale!” *The Buffalo Morning Express* (October 21, 1844): 1.
- United States Army Engineer District of Buffalo. “Diked Disposal Area.” *Environmental Impact Statement: Buffalo River, Buffalo Harbor, Erie County, 1973-1982*. Buffalo: United States Army Engineers, 1983.
- United States Congress. *United States Congressional Serial Set, Annual Reports of the War Department, 1898*. Washington: Government Printing Office, 1898.
- United States War Department. *Annual Reports of the War Department, Part 4*. Washington: U.S. Government Printing Office, 1897.



Watts, Edward O. *Southtowns Connector/Buffalo Outer Harbor Project: Environmental Impact Statement*. Buffalo: Watts Engineering, 2005.

Whitford, Noble E. *History of the Canal System of the State of New York*, Vol. 1. Albany: Brandow Printing Company, 1906.

White, T. *Our Country and It's People: A Descriptive Work on Erie County, NY*. Boston: Boston History Company Publishers, 1898.

Wilkinson, Norman B. "Robert Morris and the Treaty of Big Tree." *The Mississippi Valley Historical Review* 40.2 (September 1953): 257-278.