

MP-1883



United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

1. Name of Property

historic name KREINER MALT HOUSE AND GRAIN ELEVATOR

other names/site number Buffalo Malting Corporation

name of related multiple property listing Historic and Architectural Resources of the Buffalo Grain and Materials Elevator Multiple Property Submission

2. Location

street & number 50 Elk Street [] not for publication

city or town Buffalo [] vicinity

state New York code NY county Erie County code 029 zip code 14210

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination [] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements as set forth in 36 CFR Part 60. In my opinion, the property meets [] does not meet the National Register criteria. I recommend that this property be considered significant [] nationally [] statewide locally. ([] see continuation sheet for additional comments.)

Roger Daniel Murr
Signature of certifying official/Title

10/20/17
Date

DSHPO
State or Federal agency and bureau

In my opinion, the property [] meets [] does not meet the National Register criteria. ([] see continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification

- I hereby certify that the property is:
 - entered in the National Register [] see continuation sheet
 - [] determined eligible for the National Register [] see continuation sheet
 - [] determined not eligible for the National Register
 - [] removed from the National Register
 - [] other (explain) _____

[Signature]
Signature of the Keeper

12/8/17
date of action

KREINER MALT HOUSE AND GRAIN ELEVATOR

Erie County, New York

Name of Property

County and State

5. Classification

Ownership of Property

(check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1	0	buildings
-	-	sites
-	-	structures
-	-	objects
1	0	TOTAL

Name of related multiple property listing

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

Historic and Architectural Resources of the Buffalo
Grain and Materials Elevator Multiple Property Submission

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions

(enter categories from instructions)

INDUSTRY/ manufacturing facility/ malt house

AGRICULTURE/SUBSISTENCE/ storage/ silo

Current Functions

(Enter categories from instructions)

VACANT

7. Description

Architectural Classification

(Enter categories from instructions)

no style

Materials

(Enter categories from instructions)

foundation Concrete

walls Brick

Concrete

roof

other

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets)

KREINER MALT HOUSE AND GRAIN ELEVATOR

Erie County, New York

Name of Property

County and State

8. Statement of Significance

Applicable National Register Criteria

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

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

Criteria Considerations

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

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

Areas of Significance:

(Enter categories from instructions)

Industry _____

Architecture _____

Period of Significance:

1894-1971 _____

Significant Dates:

1894, 1925, 1926, 1936, 1960, 1968 _____

Significant Person:

N/A _____

Cultural Affiliation:

N/A _____

Architect/Builder:

H.R. Wait (Second Grain Elevator) _____

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested. **NPS #35,227**
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by historic American Building Survey # _____
- recorded by Historic American Engineering Record

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal Agency
- Local Government
- University
- Other repository: _____

HABS #NY-239

KREINER MALT HOUSE AND GRAIN ELEVATOR
Name of Property

Erie County, New York
County and State

10. Geographical Data

Acreege of Property .42 acres

UTM References

(Place additional UTM references on a continuation sheet.)

1 17 675491 4785594 3 17
Zone Easting Northing Zone Easting Northing

2 17 4 17

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Matthew Shoen, Derek King, Kelsie Hoke, M.Arch, Caitlin Moriarty, Ph.D. [Edited by Jennifer Walkowski, NYSHPO]

organization Preservation Studios date 7/20/16

street & number 60 Hedley Place telephone (716) 725-6410

city or town Buffalo state NY zip code 14216

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location
A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(Check with SHPO or FPO for any additional items)

Property Owner (Complete this item at the request of the SHPO or FPO)

name _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*)

Estimated Burden Statement: public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, D.C. 205

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 1

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Narrative Description

The Kreiner Malt House and Grain Elevator is an early industrial malt production facility located at 50 Elk Street, in the Old First Ward neighborhood of the City of Buffalo, Erie County, New York. The building is located on a rectangular site between Elk Street to the south, Van Rensselaer Street to the west, Fulton Street to the north, and the right-of-way for the former New York Central Rail Road to the east. Although the streets immediately to the north and east are residential in nature, the Niagara Thruway/I-190 is just two blocks to the north and the facility is located in a primarily industrial part of town. The industrial/mixed-use Hydraulics/Larkin neighborhood is three blocks to the north, while the core of Buffalo's industrial facilities, including numerous grain elevators, are located just a quarter of a mile south along the Buffalo River.

The facility itself is located in a large field, though historically houses surrounded the building. Today, the property's tax parcel encompasses former residential lots to the north and west which are all vacant land. East of the building, the remains of the former railroad spur directly abut the building, forming the site's eastern boundary, and running from Elk Street to the loading dock at the base of the Work House. An asphalt parking area is present between the two arms of the building to the southwest and extends south to Elk Street. The remainder of the site to the north and west is flat grassy space with a large mature tree west of the building. There are residences east of the rail right-of-way, as well as on the north side of Fulton Street.

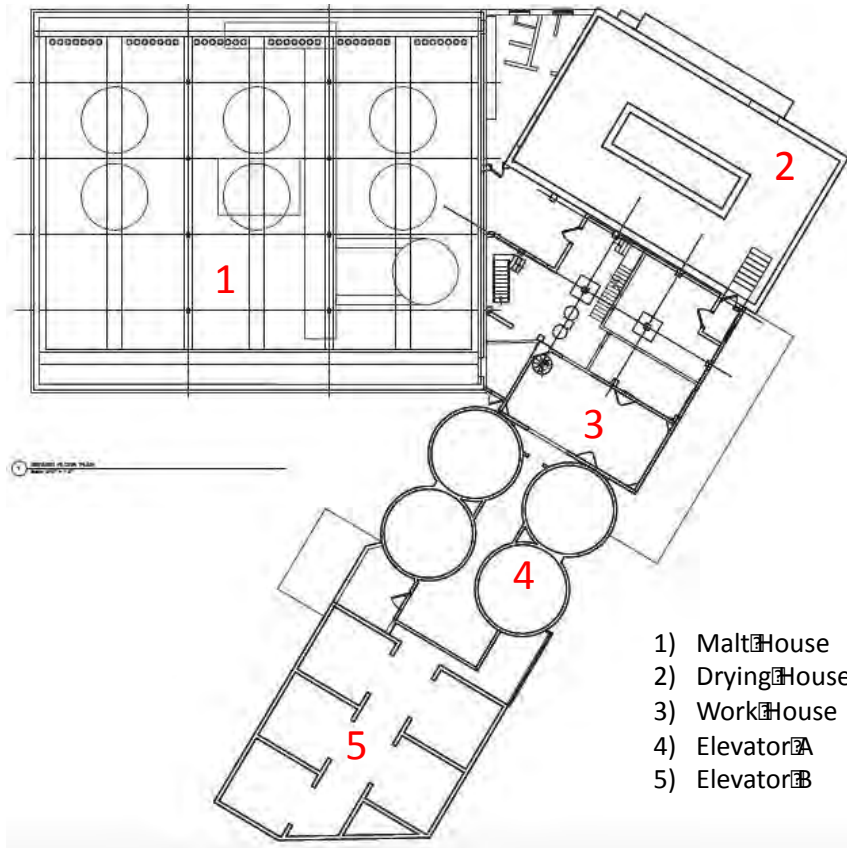
The Kreiner Malt House and Grain Elevator Facility is a single building containing five sections, each with distinct volumes, specific designs, and particular functions related to the malting process. It is composed of a Malt House, Drying House, Work House, Elevator A, and Elevator B. While nearly the entirety of the facility was constructed in 1925, the Drying House dates to the original Frank A. Dole Malt house that was constructed in 1894, and Elevator B was added in 1936 when the facility was expanded.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 2

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State



Site Plan

In plan, the building is V-shaped and oriented to the southwest. The south-facing Malt House makes up the western arm of the V; it is a two-story, eighty-seven-foot square volume with a flat roof. At the crux of the V and facing southwest is the circa-1894 Drying House. This volume is fifty feet wide by twenty-eight feet deep and fifty-seven-feet tall with a steel headhouse at the northeast end. Both the Drying House and the Malt House are of steel-framed brick construction with concrete floors.

Making up the eastern arm of the facility are the Work House and Elevators A and B. The Work House, twenty-nine feet wide by seventeen feet deep and one-hundred-and-eighty feet high, rises like an enormous chimney twenty feet southeast from the Drying House and is connected by a single-story volume at the base. Elevator A sits at the center of the eastern arm and is composed of four cylindrical bins twenty feet in diameter and one-hundred-and-forty-five feet tall, ranked two-by-two. Abutting Elevator A is the 1936 Elevator B. This elevator is rectangular in shape with a chamfered edge at the southern corner to accommodate the existing roadway of Elk Street. Elevator B measures forty-five feet wide by forty feet deep and one-hundred-fifty-five feet tall.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 3

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

The Work House, Elevator A, and Elevator B are each constructed of slip-formed, reinforced concrete. On top of and in between the elevators and Work House are some minor additions, each clad in corrugated metal.

Apart from the construction of Elevator B, the only major modifications to the building footprint since 1925 have been the addition of bathrooms and breakrooms on the first and second floors at the center of the building and the western loading dock for trucks. These modifications occurred between 1925 and 1950, likely proximate to the construction of Elevator B.

Though the building has not expanded a great deal since the Kreiner company sold it in 1971, the next tenant, the Buffalo Malting Company, made several modifications to the building. Though some of the modifications included bricking in original and historic window openings, other changes—such as the introduction of several heat recovery systems on the Malt House and Drying House—were intended to modernize the building for continued use. The full-height metal framing along the northern elevation of the Drying House, as well as the large ducts and boiler shed on the roof of the Malt House were added to make the complex more efficient and competitive as malting and grain facilities around Buffalo shuttered and closed their doors for good. These modifications, though highly visible (and ultimately unable to create long-term viability), do not detract from the historic integrity of the building. The Kreiner Malt House and Grain Elevator facility is highly intact to its 1894-1971 period of significance, and the changes do not impede an interpretation of the historic functions of the building.

The Kreiner Malt House and Grain Elevator—Drying House (1894; modified 1925), Malt House, Work House, Elevator A (1925) and Elevator B (1936)

The Kreiner Malt House and Grain Elevator consists of five interconnected units: the Drying House constructed in 1894, the Malt House, Work House, and one of the elevators constructed in 1925 and the second elevator (B) constructed eleven years later, in 1936. The main entrance of the building is located at the corner of the Malt House and Work House on the western elevation, in the forty-five-degree crux between Malt House and grain elevators. This entrance leads into a large hallway and circulation area between all five units of the building and includes breakrooms and bathrooms. The elevators and Work House are constructed in concrete, while the Drying House and Malt House are constructed in brick with steel beams and concrete floors and foundations. Portions of the second floor of the Work House are sheathed in corrugated iron siding, as is the stair tower that ascends six floors between the Drying House and Work House. A corrugated iron-clad tower containing elevator equipment is located between Elevator A and Elevator B.

On the interior, each of the units has a largely open volume at each floor with machinery and equipment distributed throughout. The Work House act as the primary means of circulation through the facility as it is centrally located and connects to the Malt House, the Drying House, and the accessible portions of the elevators

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 4

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

at the basement. In the Work House, a stair at the west side of the first floor and at the center of the second floor provide the vertical circulation throughout the first three floors. From the third floor of the Work House, one can access an exterior, but now enclosed, metal stair on the west exterior wall of the Drying House that communicates with the second through fourth floors and roof of the Drying House. A second, enclosed exterior stair is present on the north wall of the Work House and provides access to its fourth through seventh floors. From the upper floors of the Work House, stairs descend to the roof of Elevator A and a catwalk is present connecting this roof to Elevator B. (The remainder of the interior volumes of the Elevators are wholly occupied by vertical bin storage and so are not accessible.)

Barley and grain arrived at Kreiner via the rail lines along the eastern elevation of the building, where it was dumped onto basement-level conveyors that that traveled underneath the elevators. This grain would be stored in a silo, traveling up via the Work House or the second tower attached to Elevator B. Grain and barley would then travel back to the Work House, travelling to the top of the tower before being sent to the Malt House, where it was stored in the large tower atop of the building. Conveyors atop the building dropped the grain into the large steeping tanks on the second floor where they would steep for a period of two days in order to reach the proper moisture content, before dropping into the long Saladin-box germinating troughs on the first floor below. Here, large augers churned the germinating barley for a period of two to four days, whereupon it traveled back to the Work House via a basement conveyor. The lift carried the germinated grains up to the top floor of the Work House, before sending it down a hopper to the Drying House. In the Drying House, it descended through two different floors where augers travelled back and forth along large metal slats that could turn to drop drying grain to the floor below, ultimately ending up at the basement, where it traveled back to the Work House for storage before shipping out.

Drying House (1894)

The Drying House, also known as the kiln, is a tall brick volume with four floors, including a double-height first floor. The exterior of the building, as well as the kiln at the very center of the ground floor date to 1894, but underwent major modifications in 1925 when Kreiner took over the site. The original kiln is intact at the center of the first floor, but the original coal shoots and doors are bricked in, with a large swinging metal door on the northern side, and industrial hoppers and conveyers installed that bring the dried malt back to the elevators. There are bricked-in original arched window and door openings along the northern and eastern elevations, on the first and ground floors, but any original openings on the upper floors are obscured by the large metal air duct system added circa 1971. One original arched lintel and bricked in opening can be seen just below the doorway cut into the top floor. The circa 1971 air duct housing goes all the way to the roof, where the glass tubes that contained drying and heat retention equipment for the Drying House are visible. The building contains a large kiln room, two drying deck floors, and the hoppers which spread the grain out evenly along the top floors. Germinating malt would arrive, travel from the Malt House up a conveyor in the Work House, move

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 5

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

to the fourth floor via a hopper and shoot, drop each floor (remaining on the drying decks for pre-determined amounts of time) until roasted, and finally, land on conveyors heading to the elevators.

Drying House Exterior

The three visible sides of the Drying House are solid brick, with few original windows visible at all. At the northern end of the western wall, a shed-roofed, staircase clad in corrugated metal rises above the Malt House. A shallow metal heat retention system containing three wide chutes occupies the majority of the north elevation with a metal pipe railing and steel headhouse located above it at the roofline. Centered at the top of the eastern elevation is a single square window opening with a missing sash, the only visible opening, though there are bricked in openings below. The southeast corner of the Drying House is badly deteriorated and failing, with many of the corner missing bricks, and in several sections, with gaps large enough to see through.

Drying House Interior

On the interior, the Drying House is a single open volume at each level with a kiln at the double-height first floor and drying decks and machinery at the center of the remaining floors. It connects to the first floor of the Work House at its southeastern corner via a short flight of steps. Circulation to the upper floors is provided by an exterior metal stair on the outside of the west wall of the building, once an exterior stair but now enclosed in corrugated metal. Most of the first floor is taken up by a large kiln at the center and a kiln room that includes a large furnace, conveyors, and large hoppers that catch and funnel the dried malt as it falls from the floors above. The furnace contains original doors and coal shoots, though bricked in, with modern heavy metal doors installed along the northern wall. There are bricked in original window and door openings with arched lintels on the northern and eastern walls, and a doorway at the eastern end of the building that led to a stairwell that no longer exists.

The upper three floors are reached by the west stair, which is accessed from the third floor of the Work House along a hallway on the roof deck to the west. The second and third floors of the Drying House are identical, with a concrete platform along the full width of the northern wall and a deck of metal slats that could be shifted to drop malt to the floor below. Along the western walls, large auger equipment similar to that on the germinating floor are fixed in place. The fourth floor contains the exhaust fan as well as conveyor equipment, with a large opening along the eastern wall and a fire-door along the southern wall that accesses the main staircase again.

Malt House (1925)

The Malt House is located at the northwest corner of the building and is constructed of brick and structural steel with concrete floors. The building is two stories in height, square in shape, and originally had windows on the north and south elevations; these are now bricked in. On the interior, it has an open volume at the first floor and

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 6

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

a large central space at the second floor flanked by a narrow room to the north and south. Doorways on its eastern wall at the first and second floors connect it to the Work House and so to the rest of the facility, but it does not have its own staircase and vertical circulation is provided by the central Work House stair. The first floor contains five long germinating bins that span the entire width of the building. The bins have tracks along the floor and are separated by five-foot tall brick walls with applied smooth concrete finish. The original augers, which would churn the germinating malt, are still present along the northern wall. The second floor contains large vats where barley and water were mixed over a period of two days to achieve the proper oxidation and moisture levels for the germination process.

Malt House Exterior

The Malt House is a simple brick and steel structure with no architectural embellishments. It sits on a raised basement of granite, approximately twelve inches in height, and is capped by a camel-back clay-tile coping. The southern face is its primary façade and a double-door opening (currently filled in with plywood) at the center provides the primary access to the building. Evidence in the brickwork and some remaining sills indicate that the first floor originally had four windows, two flanking the entry and one more at either end of the building, but the openings are now bricked in. Three large openings centered on the third floor once contained large, daylight-factory, multi-paned windows; however, the windows are no longer present and the openings have been filled with plywood.

The west elevation of the Malt House presents a brick wall without any openings. At the rear of the building, there were once six regular window openings at the ground floor and three large window openings at the second floor, as indicated by remaining sills in a mix of concrete and rock-faced stone. Each of these openings has been filled in with red brick. Three segmentally arched window openings with rock-faced stone sills, now filled in with brick, are present at the basement level. On each face of the Malt House, the brick has been visibly patched, repointed, and regouted with a variety of brick and mortar types.

At the eastern edge of the Malt House, a two-bay portion of the wall turns slightly and joins the edge of the Malt House with the Drying House. The brick here is a different shade from the remainder of the Malt House and the two-bay portion has two glass-block windows centered at both the ground and second floors. Originally an open, wedge-shaped space existed between the edge of the Malt House and the pivoted volume of the Drying House. Sanborn Maps indicate that the space was enclosed as part of the building between 1925 and 1950, although it most likely occurred in 1936, when the facility was expanded with the addition of Elevator B.

Malt House Interior

The Malt House is accessed at the southeast corner, through a door into the main hallway. The entirety of the first floor is dedicated to the germinating bins, five long troughs that run the entire width of the building. The walls are painted brick, with the large painted steel beams highly visible along the ceiling. Above each trough,

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 7

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

large spouts protrude from the ceiling, some in various stages of decay, with a funnel shape opening towards the large vats in the floors above.

The bins, roughly ten-to-twelve feet wide, are at floor level. They are formed by five-foot brick walls that are clad with smooth concrete, with tracks to move the auger back and forth (north-south) through each trough. There is a three-foot catwalk between each bin, level with a platform that runs along the southern wall. The mixing augers are located at the northern end, with six augers to each machine, with long axels extending downward from a rectangular box with gears protruding above and a treaded wheel at each end to drive the device along the trough.

The second floor contains the large vats used for soaking barley at the center of the floor, with a room at the north and south. The five cylindrical vats are each twelve-to-fifteen feet in height and at least that in width, with a funnel-shaped interior and flat top. They open to the floor below. A large hole in the floor shows where a sixth vat was once present. The second floor of the Malt House has steel columns and some beams, but the ceiling is wood frame with exposed wooden joists.

The room to the south is rectangular, with doors at the eastern and western end leading into the vat room. This room has wooden floors, unlike the vat room which has concrete in very poor condition. Along one wall, historic sanitary tile is still present. The room to the north is also rectangular and runs the full length of the building behind the large vat room. It is separated from the vats by a thick speed tile wall. Historic window openings are bricked in along the northern wall. Several balconied pits along the wall look down at a conveyor belt that transported germinated malt from the Malt House to the Drying House, with some of the conveyor equipment still visible.

The roof of the Malt House contains a small boiler shed added after 1971, as well as a small water tower and a series of conveyor belts and pipes for water and malt. Much of the equipment is rusted and in disrepair. Though much of this equipment looks historic and demonstrates the progression of the malt and other materials through the building, one large duct used for heat retention was likely added by the Buffalo Malting Company after 1971.

Work House, Elevator A (1925), Elevator B (1936)

The Work House and Elevator A were built in 1925 with the rest of the Kreiner facility, and Elevator B was designed and constructed by Monarch Engineering in 1936. At 180 feet tall, the Work House is the tallest section of the building, a narrow rectangle at the heart of the Kreiner Malt House and Elevator. The Work House contains cleaning and conveyor equipment, though another tower exists between Elevators A and B. Elevators A and B, though both constructed in concrete, have very different appearances, with Elevator A

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 8

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

featuring the cylindrical silo design, while Elevator B is more rectangular in shape. The basement of the Work House and both elevators contain a series of conveyors and hoppers.

Work House and Elevators Exterior

The tall, utilitarian, concrete volumes of the Work House and Elevators abut one another. The cylindrical volumes of the 1925 Elevator A, grouped two-by-two around a fifth interspace bin, are flanked on either side by the rectangular volumes of the Work House and the 1936 Elevator B. The northern face of the Work House has regular square windows along its height just west of center with a corrugated metal shaft containing staircases attached at the western edge.

On the east elevation, there are three windows in line at the upper portion of the Work House, while a deteriorated loading dock and metal awning stretch across its base and a portion of Elevator A. Between Elevator A and B, a corrugated metal enclosure is present at the ground floor with a large metal cylindrical shaft rising above it and connected to a corrugated metal penthouse atop Elevator B. Each of these metal elements is non-original and dates to post-1971.

The south elevation is composed of just the solid surface of Elevator B. The west elevation comprises the solid sides of Elevators A and B. At the ground floor, a metal awning stretches from the center of Elevator A to the Center of Elevator B and is secured with steel cables.

Work House, Elevator A and Elevator B Interior

The Work House has four additional floors of varying heights occupying its tower. The main staircase to the building is outside the Work House's envelope and accesses each room by the northern wall, although the topmost floor is reached by means of an interior steel ladder. Each of the floors is concrete at the floor, walls, and ceiling and contains either holding bins or transfer machinery for the grain with limited space for circulation.

The elevators have only one accessible room, located at the basement level. These are filled entirely with conveyors that run the full length of the building as well as hoppers from each silo that have large metal-funnels above. The remaining portion of the elevators is composed of the concrete cylindrical volumes of the storage silos. At the roof of each, there is a concrete deck and a steel headhouse to access the tops of the silos, along with conveying equipment connected to the Work House tower to distribute the grain.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 1

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Summary

The Kreiner Malt House and Grain Elevator is significant as a good, representative, intact example of a malting facility and elevator associated with Buffalo's thriving grain, malting, and brewing tradition. The facility, which includes portions that date to the 1894 Frank A. Dole malting operations, is primarily composed of buildings constructed and operated by the Kreiner & Sons malting company between 1925 and 1936. The Kreiners purchased the site in 1925, expanding and updating Dole's malting and drying houses and constructing a modern workhouse and silo. They added additional silos in 1936 and operated out of the building until 1971. The facility is not only an excellent example of the building type, with intact malting, drying, silos and elevator equipment, but demonstrates Buffalo's role in the malting and grain industries.

The Kreiner Malt House and Grain Elevator at 50 Elk Street in Buffalo, New York, is locally significant under Criterion A in the area of Industry for its association with the Kreiner family, a locally important malting family whose company supplied malt to local brewers for much of the twentieth century. The Kreiner Malt House and Grain Elevator is also locally significant under Criterion C in the area of Architecture as an intact representative example of an early twentieth century concrete grain elevator and malt house utilizing slip-formed reinforced concrete construction. Slip-formed reinforced concrete construction came to prominence in Buffalo through the erection of grain elevators like the silos in the Kreiner facility. Giant grain elevators built with slip-formed reinforced concrete, such as the American Grain Complex (1905 NR 2012) and Concrete-Central (1915 NR 2003), dominated Buffalo's waterfront and helped shape the city's identity as a great freshwater grain port. While the vast majority of Buffalo's grain elevators faced the water, several, including the Kreiner Malt House and Grain Elevator, were connected to Buffalo's port by a rail spur. As a building type, the resource is a good example of a concrete grain elevator with two silos that had the capacity to store up to 280,000 bushels of grain. Attached to the grain elevator is a large malting facility containing a Work House, Drying House, and Malt House interconnected with the elevators to facilitate industrial malting.

The Kreiner Malt House and Grain Elevator was identified as eligible for National Register listing according to the criteria outlined in the *Historic & Architectural Resources of the Buffalo Grain & Materials Elevator Multiple Property Submission*.¹ The facility meets the following criteria outlined in the MPDF:

- It retains a high degree of integrity from its 1925 and 1936 construction dates, which is within the period of 1842-1954 outlined by the MPDF;
- It exemplifies the exposed reinforced concrete multiple silo elevator style;
- It is an inland silo located on a railroad line.²

¹ Francis Kowsky, "Historic and Architectural Resources of the Buffalo Grain and Materials Elevator Multiple Property Submission," National Register of Historic Places Inventory/Nomination Form, Preservation Consultant, Buffalo, March 18, 2003, Section F, G, and H, Page 3.

² Ibid., Section E, Page 4.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 2

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

The period of significance for this building is 1894-1971. The period of significance begins with the construction of the drying house by Frank A. Dole in 1894 and encompasses the modernization of the drying house, construction of the current malt house and first grain elevator by the Kreiners in 1925, and the expansion of the facilities in 1936. The period of significance ends in 1971, when the Kreiner Malt Co. closed and the building remained vacant until 1975. Although the building continued to house malting operations from 1975 to 1986 under the ownership of the Buffalo Malt Corporation, the facility was completely vacant from 1971-1975, and experienced decreased operations from 1975-1986 before ultimately remaining vacant for the following thirty-years.

Buffalo's Grain and Malting Industries

Shipping and Grain Elevators in the Nineteenth Century³

When the Erie Canal opened in 1825, it dramatically altered the system of grain transfer of grain in New York State and throughout the United States. Prior to canal's opening, the vast majority of American grain traveled down rivers and canals to the Mississippi River and New Orleans, where it was shipped abroad or to Eastern ports. Utilizing the Mississippi River was the most cost efficient method for farmers to ship their grain. Overland transportation was slow and could cost over \$100 per ton of product.

The Erie Canal created a new route for grain, connecting farmers all around the Great Lakes to the port of New York City. After the Erie Canal's opening, wheat from the Northwest was loaded onto boats, taken across the Great Lakes and offloaded in Buffalo. From Buffalo, it traveled 363 miles on the Erie Canal and then 150 miles down the Hudson River until it reached New York City. Unlike the slow and unpredictable Mississippi, the Erie Canal was easily regulated and at only fifteen dollars a ton, shipping grain along the canal was cost efficient. Grain from the breadbasket states of Michigan, Minnesota, and Wisconsin started coming to Buffalo, taking advantage of the canal. By 1831, over 57,000 barrels of flour and more than 173,000 bushels of wheat passed through Buffalo's port and by 1846 Buffalo had surpassed New Orleans as the top grain port in America.

The development and expansion of America's railroad network solidified Buffalo's status as a great inland port and grain-shipping center. Starting in the 1830s, railroad tracks began connecting major population centers across New York State and the United States. In New York, many early railroads were absorbed into the New York Central Railway, which became almost as important as the Erie Canal in shipping grain across the state and to wider markets in the East. With the Erie Canal and the railroads providing two inexpensive ways of transporting grain once it reached Buffalo's port, a method to offload grain and then store it for later

³ The following section was synthesized from pages 1-9 of Section E in Francis Kowsky's, "Historic and Architectural Resources of the Buffalo Grain and Materials Elevator Multiple Property Submission," National Register of Historic Places Inventory/Nomination Form, Preservation Consultant, Buffalo, March 18, 2003.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 3

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

transportation was necessary. Businessmen and engineers developed the grain elevator in response to these problems.

Prior to the development of the grain elevator, grain was taken from ships in barrels or sacks and moved by hand, primarily by Irish immigrants. The process, inefficient and exhausting, was unsustainable once Buffalo began receiving significant shipments of Midwest grain. Offloaded by hand, a single ship's cargo could take up to a week to unload. In 1842, entrepreneur Joseph Dart and engineer Robert Dunbar built the first steam-powered grain elevator. Rather than carry heavy barrels of wheat and barley, men shoveled grain onto a conveyor belt that ran up into the grain elevator, where it was stored until the time came to ship, mill, or malt the grain. Soon, wooden grain elevators lined Buffalo's waterfront, giving the city one of its names, the City of Grain Elevators.

By 1861, Buffalo was home to twenty-seven grain elevators and did an annual business totaling over 50,000,000 bushels of grain. In the 1870s, Chicago emerged as an alternative collection point for Midwest grain, challenging Buffalo's status as a primary grain-shipping destination. However, by the mid-1880s an increased cultivation of winter wheat across northern Minnesota and the Dakotas revived Buffalo's fortunes. Duluth, Minnesota, became a major collection center and flour-milling city in the Midwest, and Buffalo was a more convenient transfer location than Chicago. While traveling from Duluth to Buffalo by water was equidistant to travelling the Great Lakes to Chicago, shipping to Buffalo bypassed Chicago's crowded freight yards. As a result, Buffalo reclaimed its status as the premier grain port on the Great Lakes. Buffalo maintained its position as the top grain transshipment city until 1959, when the St. Lawrence Seaway was completed, allowing boats to completely bypass Buffalo and travel up the St. Lawrence River to the ocean.

Malting in Buffalo

In addition to being recognized as an important grain hub and milling center, Buffalo was also a major site for brewing and malting in the Northeast. Many factors contributed to this designation, but one of the most significant was Buffalo's large German population and the breweries and malt houses they owned.

German immigration to Western New York began in the 1840s, not long after the opening of the Erie Canal. Thousands of Germans from the states of Bavaria, Prussia, Hesse, and Baden-Wuerttemberg came, bringing their cultural traditions to Buffalo.⁴ A number of political and economic factors pushed Germans into immigrating. In the 1820s, Prussian King Frederick William III persecuted Lutherans, driving many from the country. In the 1840s, a potato blight wreaked havoc on the German countryside. At the same time, the German states were unable to compete with English industry, which flooded the continent with cheap products, leaving

⁴ Andrew P. Yox, "Bonds of Community: Buffalo's German Element, 1853-1871," *New York History* 66, no. 2 (1985): 143.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 4

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

many urban Germans without money, work, and increasingly without food. By the mid-nineteenth century, German immigrants composed the largest foreign-born group in Buffalo, accounting for over 30 percent of the city's entire population.⁵ By 1875, this number had again risen and Germans accounted for 49 percent of the city's population.⁶

German immigrants brought technical knowledge of brewing and malting to Buffalo. While much of the grain transported to Buffalo went on to other ports, the grain that stayed in the city was frequently used to produce malt. By 1863, there were thirty-five different breweries in Buffalo owned and operated primarily by Germans and by 1881, there were sixty malt houses in Buffalo producing over 3,000,000 bushels of malt each year for the city's breweries.⁷ One of the companies producing malt for Buffalo's thriving breweries was the Kreiner and Lehr Malting Company, which began operations in 1878 at 476 Spring Street in Buffalo and would become the William E. Kreiner & Sons Malting Company.⁸ In 1919, many of Buffalo's maltsters and brewers were wiped out by the passage of the Eighteenth Amendment. Without beer and liquor there was almost no demand for malt and many companies went bankrupt. When the amendment was repealed in 1933, Buffalo's surviving maltsters and brewers spent over \$5,000,000 to reopen malt houses and recommence brewing operations in the city.⁹ Malting, however, had been completely altered by fourteen years of Prohibition. From the nineteenth century up to 1918, malting operations were smaller, often family run companies and utilized traditional methods to convert cereal grains into malt. Prohibition bankrupted many of Buffalo's family run malting companies and in the 1930s, those malting interests that remained began pursuing malting on a much more intensive, industrialized scale.

While Kreiner and Lehr began operations in 1878, during the height of German malting in Buffalo, Kreiner continued the business with his sons, incorporating the firm William E. Kreiner & Sons in 1925 to "manufacture, sell, [and] deal...in all grains, malt, and related materials."¹⁰ The company engaged in industrial malting in the twentieth century and became one of Buffalo's most significant malting interests.

⁵ Richard C. Brown and Bob Watson, *Buffalo: Lake City in Niagara Land* (Woodland Hills: Windsor Publications, 1981), 184-185.

⁶ Yox, "Bonds of Community," 151.

⁷ William Thurstone, *...Five Minutes Talk About the Commerce, Industries and resources of Buffalo, State of New York: Its Advantages as a Manufacturing and Commercial Centre* (Buffalo: The Courier Company, 1882), 6.

⁸ Michael Rizzo and Ethan Cox, *Buffalo Beer: The History of Brewing in the Nickel City* (Charleston: The History Press, 2015), 58.

⁹ Nathaniel Gorham, "Buffalo Brewers Ready to Spend \$5,000,000," *Buffalo Courier-Express*, July 17, 1932, 1.

¹⁰ Thomas E. Leary, John R. Healey, and Elizabeth C. Sholes, Historic American Engineering Record (HAER), *Kreiner Malting Grain Elevator* (Washington D.C: United States Department of the Interior, 1991), 3.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 5

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

William E. Kreiner & Sons Malting Company

William Edward Kreiner Sr. was born in Buffalo in 1857. He worked in his father's shoe store until 1878, when he and Peter Lehr formed the Kreiner & Lehr malting company.¹¹ Prior to partnering with Kreiner, Lehr worked as the brewmaster and foreman for William W. Sloan's brewery on Carroll Street in Buffalo (not extant), and he brought his brewing and malting expertise to the new company.¹² The pair constructed its first malt house at 476 Spring Street in 1878 (not extant).

Kreiner Sr. married Lehr's daughter, Louisa, in 1883 and the couple had four children. Peter Lehr died in 1897 and Kreiner Sr. continued the business, operating out of the Spring Street malt house, which was just up the street from his personal residence at 459 Spring Street.¹³ Kreiner's sons, William Jr. (b. 1883) and Howard (b. 1895), joined the firm in 1907 and 1922, respectively.¹⁴

After Kreiner Sr. and his sons reincorporated as William E. Kreiner & Sons in 1925, they purchased the site at 652 Elk Street (now 50 Elk Street). Multiple maltsters had previously used the premises: Frank A. Dole occupied the site in 1894, the Zwickel Malting Company operated there from 1903 to 1915, and the Curtiss Grain Corporation ran a plant at 652 Elk Street until it filed for bankruptcy in 1921.¹⁵ Upon purchasing the land, the Kreiners commissioned a new \$30,000 concrete grain elevator.¹⁶ In 1934, a massive fire and explosion, likely caused by grain chaff, engulfed the Spring Street malt house; it completely destroyed the building, killed one firefighter and injured fifteen people.¹⁷ The fire caused an estimated \$125,000 in damage, including the loss of 35,000 bushels of malted grain, plant machinery, and grain bags.¹⁸ Following the fire, the Spring Street malt house was rebuilt, but the Elk Street facility became the firm's primary malting site. In 1936 a second concrete grain elevator was erected at the Elk Street site under the guidance of Harry Waite and the Monarch Engineering Company, one of Buffalo's most significant architectural engineering firms. The new grain elevator measured forty-five by forty feet and utilized slip formed reinforced concrete construction.¹⁹ Once completed, the new elevator provided the Kreiners with 180,000 additional bushels of storage in nine rectangular fourteen by twelve foot bins.²⁰

¹¹ Rizzo & Cox, *Buffalo Beer*, 58.

¹² *Ibid.*

¹³ *Ibid.*, 90.

¹⁴ "The Kreiners: Deans of Buffalo Maltsters," *Buffalo Business* 2 (1952): 13.

¹⁵ "Another Elevator," *The Buffalo Courier*, September 15, 1894, 7; "Stoops to Catch Reins, Over Dashboard He Goes, Wheels Going Over Him," *The Buffalo Courier*, November 17, 1909, 5; "Curtiss Grain Corp. Becomes Bankrupt," *The Buffalo Courier*, December 6, 1921, 5; "Changes in Corporations, Firms and Agencies," *American Brewers' Review: A Monthly Journal Devoted to the Science and Practice of Brewing* 29 (1915): 437.

¹⁶ "\$30,000 Elevator in \$62,242 Permits," *The Buffalo Courier*, June 2, 1925, 10.

¹⁷ "1 Killed, 14 Hurt as Blast Trails Buffalo Blaze," *Binghamton Press*, January 24, 1934, 1.

¹⁸ "Fire Commissioner Plans Investigation of Malthouse Blaze," *Buffalo Courier-Express*, January 25, 1934, 5.

¹⁹ Leary, Healy, and Sholes, *Kreiner Malting Grain Elevator*, 3.

²⁰ *Ibid.*

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 6

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

The ability to store over 180,000 bushels of grain in a single elevator demonstrates the technological advancement in both grain elevators and malting that occurred between the nineteenth and twentieth centuries. For instance, a malt house operated by the Schaefer & Brother Malting Company in the 1880s on Buffalo's West Side had the capacity to malt 100,000 bushels of grain per eight months season and was considered one of the largest and most significant malting companies in Buffalo.²¹ By 1936, thanks to slip form concrete construction and an industrial revolution in malting techniques, the Kreiners had a capacity several times that of even the most robust nineteenth-century maltsters. The Kreiner company is a rare example of a nineteenth-century business that adapted to modern industrialized malting techniques. An article in *Buffalo Business* chronicled the company:

With the exception of Meyer and Kreiner, the malting names of the turn of the century are gone today. The Kreiners have seen a revolution in plant operations producing malt. Scientific controls of temperature and humidity have taken the place of 'rule-of-thumb' practices of fifty years ago and the secrets which have been passed down from generation to generation. The Kreiner business presently produces more than a million bushels of malt annually. Much of this is sold locally but some is also shipped throughout the East. Sales are almost exclusively in the brewing and distilling trades.²²

Whereas nineteenth-century maltsters viewed 100,000 bushels of malt per season as impressive, the industrialized malting the Kreiners were capable of produced ten times that volume in a season, dominating the market in Buffalo and Western New York.

Although William Kreiner Sr. died in 1947, his sons, William Jr. and Howard, continued to run the business under the family's name. In addition to running the business, the brothers were active in several industrial organizations. In 1946, Howard Kreiner served as treasurer of the Western New York District of the Master Brewer's Association, while William Jr. headed up the Barley & Malt Institute between 1948 and 1960.²³ William Jr. also served six years as president of U.S. Brewers Association and was a member of Master Brewer's Association for fifty years.²⁴ In 1960, the William E. Kreiner & Sons Malting Company was reorganized as the Kreiner Malt Company Partnership. William Jr. and Howard Kreiner operated the company until 1968, when William Jr. died.²⁵ Howard continued the business until 1971, when he retired and sold the malting complex at 50 Elk Street to the Buffalo Malting Corporation.²⁶ Howard Kreiner died in 1974.²⁷

²¹ Henry Perry Smith, *History of the City of Buffalo and Erie County Vol. 27* (Syracuse: D. Mason & Co. Publishers, 1884), 250.

²² "The Kreiners: Deans of Buffalo Maltsters," 51.

²³ "New Officers Chosen by Master Brewers," *Buffalo Courier-Express*, January 20, 1946, 11-A.

²⁴ "W.E. Kreiner Dies at 81; Firm Owner," *Buffalo Courier-Express*, February 1, 1968, 8.

²⁵ Historic American Engineering Record, *Kreiner Malting Grain Elevator*, 4.

²⁶ *Ibid.*

²⁷ *Ibid.*

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 7

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

The Buffalo Malting Corporation operated out of the Kreiner Malt House and Grain Elevator from 1975 to 1986. In 1987, the company was dissolved. The Kreiner Malt House and Grain Elevator has been vacant since.²⁸

Industrial Malt Houses and the Malting Process

The Malting Process

Malting is the process of allowing cereal grains, normally barley, to partially germinate and release stored sugars and complex carbohydrates, the two components necessary for fermentation and brewing. To stimulate germination, grains are soaked in warm water in a process known as steeping. Over roughly two days, the malt is submerged and drained periodically until the moisture content of the grain kernels raise from 12 percent to 44 percent.²⁹ Allowing the grain to absorb moisture stimulates embryo development and the excretion of enzymes that open the grain seed's starch reserves and initiate growth of the sprout.³⁰ The steeping process is finished when a significant percentage of the grains have begun to show their 'chit,' the start of the rootlets. The development of a chit indicates that starches and proteins have broken down enough that the steeping process can halt. After steeping, grain is moved to the germination compartment where the germination process continues for four to five more days. Finally, the grains are dried, ending the germination process before the starch reserves are depleted. In the drying process, malt is exposed to high heat inside a kiln where it is roasted for several hours to develop its flavor.³¹ Once dried, malted grains are ready to be brewed and consumed as beer.

Saladin Box Malting

Malt houses such as the Kreiner Malt House and Grain Elevator were specifically designed to execute the process of malting and to provide easy access for transporting finished malt products to local brewing interests. The company's Malt House utilized Saladin boxes to modernize the floor malting process of converting barley and other cereals to malt. Floor malting is the oldest method of making malt, but it is inefficient for large-scale malting enterprises like Kreiner, which prompted maltsters to develop mechanized equipment to improve the malting process.³²

²⁸ "Buffalo Malting Corporation," *Business Lookup*, http://www.businesslookup.org/BUFFALO_MALTING_CORPORATION.

²⁹ "Malting-A Three-Step Process," *Briess Processes*, Briess Malt & Ingredients Co., <http://www.briess.com/food/Processes/malttmp.php>.

³⁰ *Ibid.*

³¹ *Ibid.*

³² D.E. Briggs, and J.S. Hough, *Malting and Brewing Science: Malt and Sweet Wort*, 5th ed. (New York: Kluwer Academic/Plenum Publishers, 1981), 145.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 8

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Floor malting remained popular from the nineteenth to mid-twentieth centuries and became increasingly mechanized as the twentieth century advanced. Maltsters believed floor malting produced the most uniform, attractive and well-modified malts.³³ The process involved spreading germinating malt along large, flat, dry surfaces that measured less than a foot in depth and turning the malt by hand rake or, in some cases, simple mechanized devices. Painstaking and labor intensive, this process had an undesirable side effect of allowing grains to sprout, which meant portions of each batch were unusable.

Jules Saladin, working from the oxygenation and germination techniques developed by Nicholas Galland in 1874, developed the "Saladin box," a large trough capable of holding much larger amounts of germinating barley. With vents to continue airflow and large augers to churn the barley, Saladin's inventions in the 1880s allowed for a greater commercialization of the malting process.³⁴ In his mechanized process,

self-emptying steepers and fans are often installed to ventilate the grain between immersions. Elevators and helical-screw-conveyors are used to move grain and malt, in place of the old baskets, hoists and barrows and the malt is turned by mechanical devices, usually either hand-guided or 'ride-on' devices, but in one or two cases the grain on each floor section, or bay, is worked by machines which are supported on rails running each side of the bay. Such machines may be set to turn, thicken or thin a grain piece, or to move it to a conveyor leading to the kiln.³⁵

Much of the malting equipment in the Kreiner Malt House and Grain Elevator is still intact, including several large augers on metal tracks along the Saladin boxes. These augers would have agitated the submerged grain, allowing oxygen to reach the germinating seeds and helped move the grain to the germinating chamber. Workers in the Malt House walked back and forth along a narrow track, pulling augers through the grain as it germinated over the four to five day process.

The Saladin Box and mechanization allowed commercial outfits like Kreiner to meet large-scale commercial demand. Plants such as the Kreiner's, where steeping, germination, and kilning took place in separate vessels, were able to optimize each vessel, something that was difficult to achieve in the floor malting process of the late-nineteenth century.³⁶ Because of this advanced technique, floor malting was nearly completely abandoned by the 1870s and 1880s. As engineers developed further improvements, the mechanized process like that at the Kreiner Malt House and Grain Elevator was replaced by automated malt houses.

³³ Ibid., 146

³⁴ John Mallet, *Malt: A Practical Guide from Field to Brewhouse* (Boulder, CO: Brewers Association, 2014), 32.

³⁵ Briggs, 145-6.

³⁶ Ibid.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 9

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Kreiner Malt House and Grain Elevator

The highly intact spaces and equipment found in the Kreiner malting facility demonstrate the malting process at the turn of the twentieth-century and beyond. From shipping, storage, germination, drying, and deliveries, the malting process can still be read in the rooms of the building. In 1925, barley would arrive at the facility via the New York Central Rail Road lines that ran adjacent to the building's eastern elevation. The barley was dropped into the basement of Elevator A (and joined by Elevator B in 1936), where elevator equipment transported them to the top of the towers for storage. From there, barley passed through the Work House on its way to the Malt House.

Clean barley was stored in the tower atop the building, which looks very similar to a water tower. A conveyor carried the barley along the roof, where it dropped to the second floor of the Malt House into one of six large vats. Here, barley and water mixed for up to two days, with the water drained and added periodically to reach the ideal moisture and oxygenation levels. When the barley reached the ideal germination level of moisture and oxygen, it was dropped into the troughs below on the first floor. These troughs, or "Saladin Boxes," run the full width of the room, with walkways on the southern end and in between each trough. Large auger mechanisms traveled back and forth along the boxes, stirring the germinating barley to prevent it from sprouting.

Once the barley achieved its ideal germination point, it was dropped onto conveyors that ran north to another conveyor that ran east-west along the northern wall of the building, bringing the germinated barley to the Work House. In the Work House, it traveled up conveyors to the top floor, where it was passed down a long pipe to the top floor of the Drying House. Here it was distributed along a conveyor and dropped to the third floor drying racks. The second and third floors are identical with the exception of the auger sizes used to stir drying malt. Along the northern walls of both floors is a concrete walkway about three-feet wide with a three-and-a-half foot concrete railing. The rest of the space is taken up by foot-wide metal slats that rotate, allowing them to create a uniform flat surface for drying malt when horizontal and drop finished malt to the floor below when vertical. As noted, each floor contains augers similar to the Malt House, though the mechanism attached to it is much larger than the machines in the Saladin Boxes. Once finished, malt dropped through the second floor and passed by the kiln on the first floor via several hoppers that fed into basement conveyors, which returned the finished malt to the silos for storage.

Over time, several changes were made to the building, though the process largely remained the same. The introduction of a truck ramp on the western side of the silos between 1925 and 1951 suggests that at least some of the finished malt was intended for local businesses. Similarly, the construction of Elevator B demonstrates the company's growth by nearly doubling its storage capacity, though it is still unclear whether barley and malt were stored in different elevators entirely, or if barley was stored on the eastern half and finished malt on the western half. Lastly, the Buffalo Malt Company's introduction of a glass-tube heat recovery system along the

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 10

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

northern wall of the Drying House and a boiler shed and large heat recovery ducts on the Malt House demonstrate attempts to modernize the facility in the 1970s without detracting from the early-to-mid twentieth century integrity of the Kreiner facility.

Concrete Grain Elevators

In the nineteenth century, Buffalo was one of the most crucial freshwater ports in America, handing grain from across the Midwest and Canada. At the start of the twentieth century, Buffalo became the leading wheat market in the United States. For the first three decades of the new century Buffalo's wheat market grew exponentially, rising from 111,000,000 bushels received in 1900 to 280,000,000 in 1928.³⁷ Not only was Buffalo receiving more wheat and grain, but it was also milling more. Flour milling became a crucial industry in Buffalo during this period and the city surpassed Minneapolis as the largest flour-milling site in the nation.³⁸ With millions of bushels of grain entering Buffalo's port and being converted to flour, engineers needed to reinvent the grain elevator. New elevators needed increased storage capacity and had to be impervious to fire. Nineteenth-century elevators, constructed of wood and later steel and tile, were no longer adequate and a new material, concrete, would be used to build Buffalo's new mammoth grain elevators.

The concrete grain elevator was the culmination of a century of experimentation to create a fireproof grain elevator. The first elevators were constructed of highly flammable wood and were replaced by steel and ceramic constructed elevators. Though they were superior to wood, each material had significant drawbacks and neither offered strong enough fire protection. Concrete, already poured as the foundation of most grain elevators, was first utilized in silo construction in 1899 in Minneapolis by architect C.F. Haglin for the Peavey-Haglin grain elevator.³⁹ Haglin's design utilized a new formwork called 'slip form' that would become the standard building method for concrete grain elevators in Buffalo. As architectural historian Francis Kowsky describes:

[slip form construction] consisted of two rings held apart by sturdy yokes. Once the concrete that had been poured into the formwork had set, the two rings were raised to the next level by means of jacks. Vertical 'jacking rods' built into the system of steel reinforcements in the concrete allowed for the steady rise of the slip form until the full height of the silo was reached. Thus the entire silo would 'grow' as the concrete set and the formwork moved upward.⁴⁰

This method of construction allowed grain elevators to be erected quickly and efficiently throughout Buffalo once companies realized the advantages of concrete and slip form construction. Concrete resolved many of the problems of earlier elevators. The material could not burn and was almost impenetrable to vermin. Further,

³⁷ Kowsky, "Buffalo Grain and Materials Elevator Multiple Property Submission," Section E, Page 14.

³⁸ Ibid., Section E, Page 15.

³⁹ Ibid., Section E, Page 20.

⁴⁰ Ibid., Section E, Page 21.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 11

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

concrete prevented moisture from coming into contact with grain and ensured cereals would not be lost to mold. Because concrete could not be poured in the winter, the building season only lasted from late spring to autumn. Despite the short building season, elevators were consistently finished and made operational by fall, the heaviest grain-shipping season.⁴¹

The advantages of concrete and slip form construction were clear and made a visible impact on Buffalo's waterfront. The Buffalo River and Outer Harbor had previously been lined with wooden and steel grain elevators. Starting in 1906, these elevators were replaced by concrete silos and over the next fifty years, a total of forty-two concrete elevator projects were undertaken along the banks of the river and Outer Harbor.⁴² These elevators were the backbone of Buffalo's grain storage and flour-milling industry in the early twentieth century. Though grain storage and milling dropped significantly following the opening of the St. Lawrence Seaway in 1959, the concrete grain elevators of Buffalo's waterfront remain important architectural and cultural landmarks in the city.

In contrast to many of Buffalo's grain elevators, which served as transfer points in larger systems of raw material transportation, the grain elevator at the Kreiner Malt House and Grain Elevator catered specifically to the malting operation on site. The Kreiner company benefited from the technological improvements spurred by the broader grain industry and erected the modern grain elevator to boost the company's malting capacity. The grain elevators on their premises stored barley prior to the malting process and then stored finished malt before it was transferred to customers, including beer makers in the region and beyond.

Harry R. Wait & Monarch Engineering

The Monarch Engineering Company was incorporated in 1909 with Harry R. Wait as the chief engineer and company president and \$25,000 in capital.⁴³ Within a decade of incorporating, Monarch Engineering was one of Buffalo's most significant engineering companies, building many fireproof concrete grain elevators, concrete warehouses, and manufacturing plants.⁴⁴ The company was responsible for building hulking elevators like the Connecting Terminal Railroad Elevator (1914), the Eastern Grains, Mill & Elevating Company Elevator, (1915), Concrete-Central (1915 NR 2003), and the second elevator in the Kreiner Malt House and Grain Elevator facility (1936).⁴⁵

⁴¹ Ibid., Section E, Page 22.

⁴² Ibid.

⁴³ "Three New Companies," *The Buffalo Courier*, March 17, 1909, 7.

⁴⁴ "Monarch Engineering Co. Handles Many Big Contracts," *The Buffalo Courier*, February 14, 1917, 7.

⁴⁵ "Contract Let in Terminal Elevator," *The Buffalo Courier*, April 25, 1914, 6; "New Concrete Elevator Tested," *The Buffalo Courier*, September 21, 1915, 2; "Buffalo to Have Largest Operating Elevator Extant," *The Buffalo Courier*, August 10, 1916, 2.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 12

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Harry Wait and Monarch Engineering were not only significant for the number of grain elevators they erected, but also for the significant refinements they made to the design of concrete grain elevators. The original design of C.F. Haglin's concrete grain elevator featured a standalone silo. Wait modified this design, grouping many tall silos together to form the characteristic unadorned corrugated exterior that distinguished the modern concrete grain elevator.⁴⁶ Wait also pioneered the raised basement. In Concrete-Central and many of Wait's other elevators,

grain stored in the great concrete bins fell through funnel-like steel bottoms into a system of conveyor belts. The ground floors of Wait's elevators were impressive open spaces overshadowed by the immense steel bottoms of the numerous bins.⁴⁷

Although the 1936 grain elevator at the Kreiner Malt House and Grain Elevator site is one of the smaller elevators Waite and Monarch Engineering erected, it retains many of the characteristics of its more monumental elevators. Further, the slip form and steel reinforced construction of the elevators is typical of both Wait and twentieth-century grain elevator construction.

Subsequent Owners

The Buffalo Malting Corporation utilized the malt house at 50 Elk Street for nine years from before selling the property to the IMC Property Corporation in 1984. Since the building's purchase by IMC, it has remained vacant. In 2016, architects Jerry Young and Shawn Wright took ownership of the building and intend to convert the former malt house into office space.

Summary

The Kreiner Malt House and Grain Elevator is an important architectural reminder of Buffalo's vibrant grain industry and malting past. The malting facility and grain silos are an interconnected industrial machine, designed to produce huge volumes of malt for Buffalo's brewers and distillers. The scale of operations present in the Kreiner facility demonstrate the post-Prohibition industrial malting techniques that replaced more labor intensive nineteenth-century methods. Further, with its slip formed concrete grain elevator silos, the Kreiner Malt House and Grain Elevator helps articulate the development of Buffalo's twentieth-century concrete grain elevator corridor along the Buffalo River and Outer Harbor. These grain elevators, built to store millions of bushels of grain and be completely fireproof, came to symbolize Buffalo in the early twentieth century. The elevators highlighted the city's role as America's premier freshwater port and the most significant flour-milling city in the nation. In 2003 eighteen of the city's remaining grain elevators were evaluated in a National Register

⁴⁶ Kowsky, "Buffalo Grain and Materials Elevator Multiple Property Submission," Section E, Page 22.

⁴⁷ Ibid.

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

**National Register of Historic Places
Continuation Sheet**

Section 8 Page 13

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

of Historic Places Multiple Property Form. The Kreiner Malt House and Grain Elevator meets the three main registration requirements outlined by the Multiple Property Form, namely that it was 1) constructed between 1842 and 1956, 2) contains a exposed reinforced concrete multiple silo elevator, and 3) is sited on an inland location on a railroad line.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Kreiner Malt House and Grain Elevator

Name of Property

Erie County, New York

County and State

Section 9 Page 1

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United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Kreiner Malt House and Grain Elevator

Name of Property

Erie County, New York

County and State

Section 9 Page 2

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United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 1

Kreiner Malt House and Grain Elevator

Name of Property

Erie County, New York

County and State

Verbal Boundary Description

The boundary is indicated with a heavy line on the attached maps with scale.

Boundary Justification

The nomination boundary was drawn to include the property historically associated with the Kreiner Malt House and Grain Elevator. Although the nominated resources now occupy a large empty lot, the original lot boundaries were determined based on historic Sanborn maps. Land on the current lot outside the nominated boundary was once developed with residences and other resources that never had any connection with the historic malt house.



Nomination boundary, shown on 1881 Sanborn map

United States Department of the Interior
National Park Service

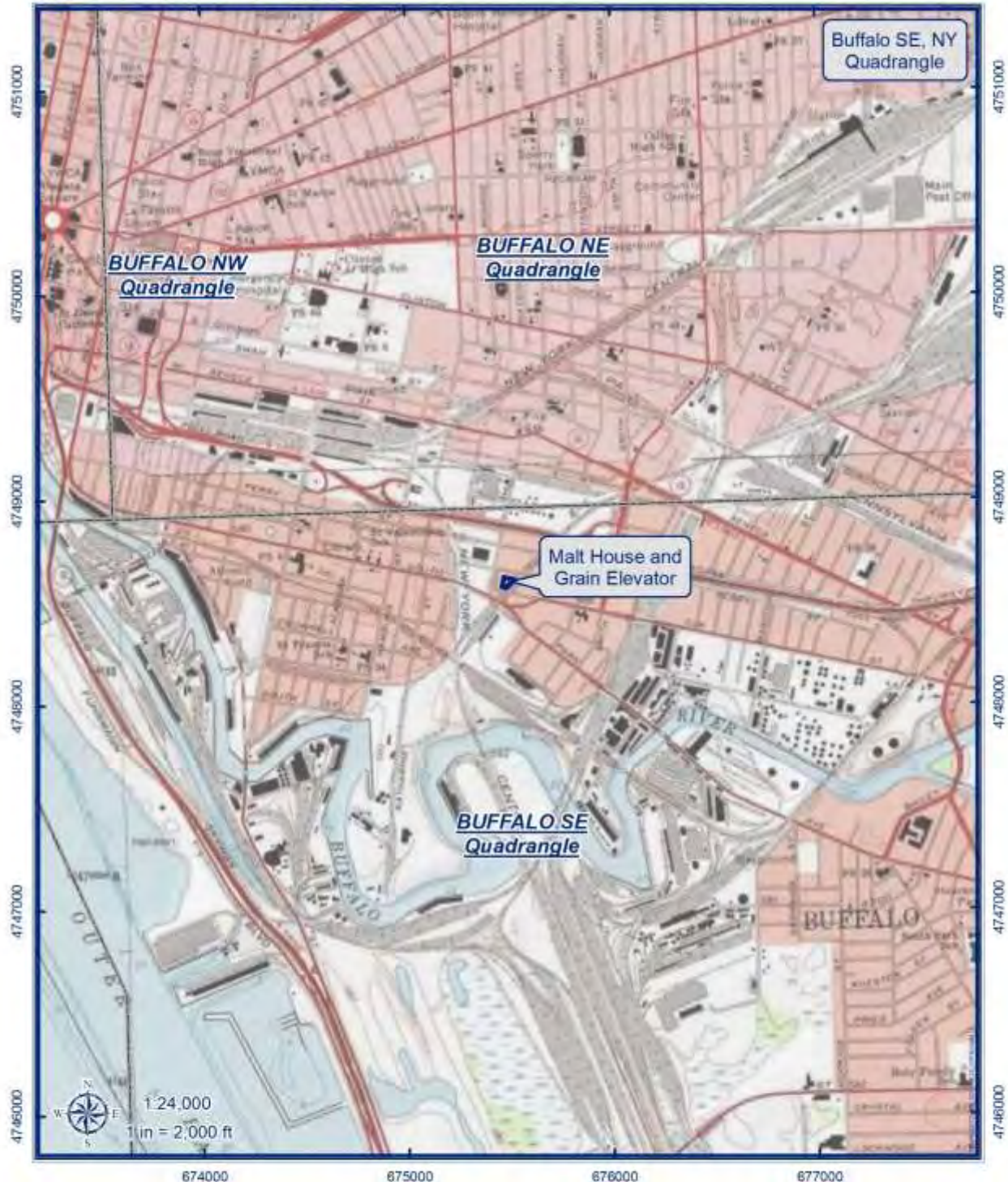
National Register of Historic Places
Continuation Sheet

Section 10 Page 2

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Kreiner Malt House and Grain Elevator
City of Buffalo, Erie Co., NY

50 Elk Street
Buffalo, NY 14210



Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter



Malt House &
Grain
Elevator

NEW YORK
State
Parks, Recreation
and Historic Preservation
Division for Historic Preservation

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 3

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Kreiner Malt House and Grain Elevator
City of Buffalo, Erie Co., NY

50 Elk Street
Buffalo, NY 14210



Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter



Malt House &
Grain
Elevator

NEW YORK STATE
Parks, Recreation
and Historic Preservation
Division for Historic Preservation

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 4

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Kreiner Malt House and Grain Elevator
City of Buffalo, Erie Co., NY

50 Elk Street
Buffalo, NY 14210



United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 5

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Kreiner Malt House and Grain Elevator
City of Buffalo, Erie Co., NY

50 Elk Street
Buffalo, NY 14210



Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter



Malt House &
Grain
Elevator

NEW YORK
State
Parks, Recreation
and Historic Preservation
Division for Historic Preservation

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Kreiner Malt House and Grain Elevator

Name of Property

Erie County, New York

County and State

Section 11 Page 1

Photo Log:

Name of Property: Kreiner Malt House and Gain Elevator
City or Vicinity: Buffalo
County: Erie County
State: NY
Name of Photographer: Michael Puma
Date of Photographs: February 23, 2017

NY_Erie County_Kreiner Malt House and Grain Elevator_0001
Side elevation of malting facility, grain elevators (right), camera facing southeast

NY_Erie County_Kreiner Malt House and Grain Elevator_0002
Rear elevation of malting facility, camera facing southwest

NY_Erie County_Kreiner Malt House and Grain Elevator_0003
Detailed image of the grain elevator, camera facing northwest

NY_Erie County_Kreiner Malt House and Grain Elevator_0004
First floor interior showing malting box, camera facing north

NY_Erie County_Kreiner Malt House and Grain Elevator_0005
First floor interior showing malting spaces, camera facing northwest

NY_Erie County_Kreiner Malt House and Grain Elevator_0006
First floor interior, camera facing southeast

NY_Erie County_Kreiner Malt House and Grain Elevator_0007
First floor interior, corridor space, camera facing east

NY_Erie County_Kreiner Malt House and Grain Elevator_0008
Second floor interior, camera facing west

NY_Erie County_Kreiner Malt House and Grain Elevator_0009
Third floor interior, camera facing southwest

NY_Erie County_Kreiner Malt House and Grain Elevator_0010
Second floor interior, corridor space, camera facing east

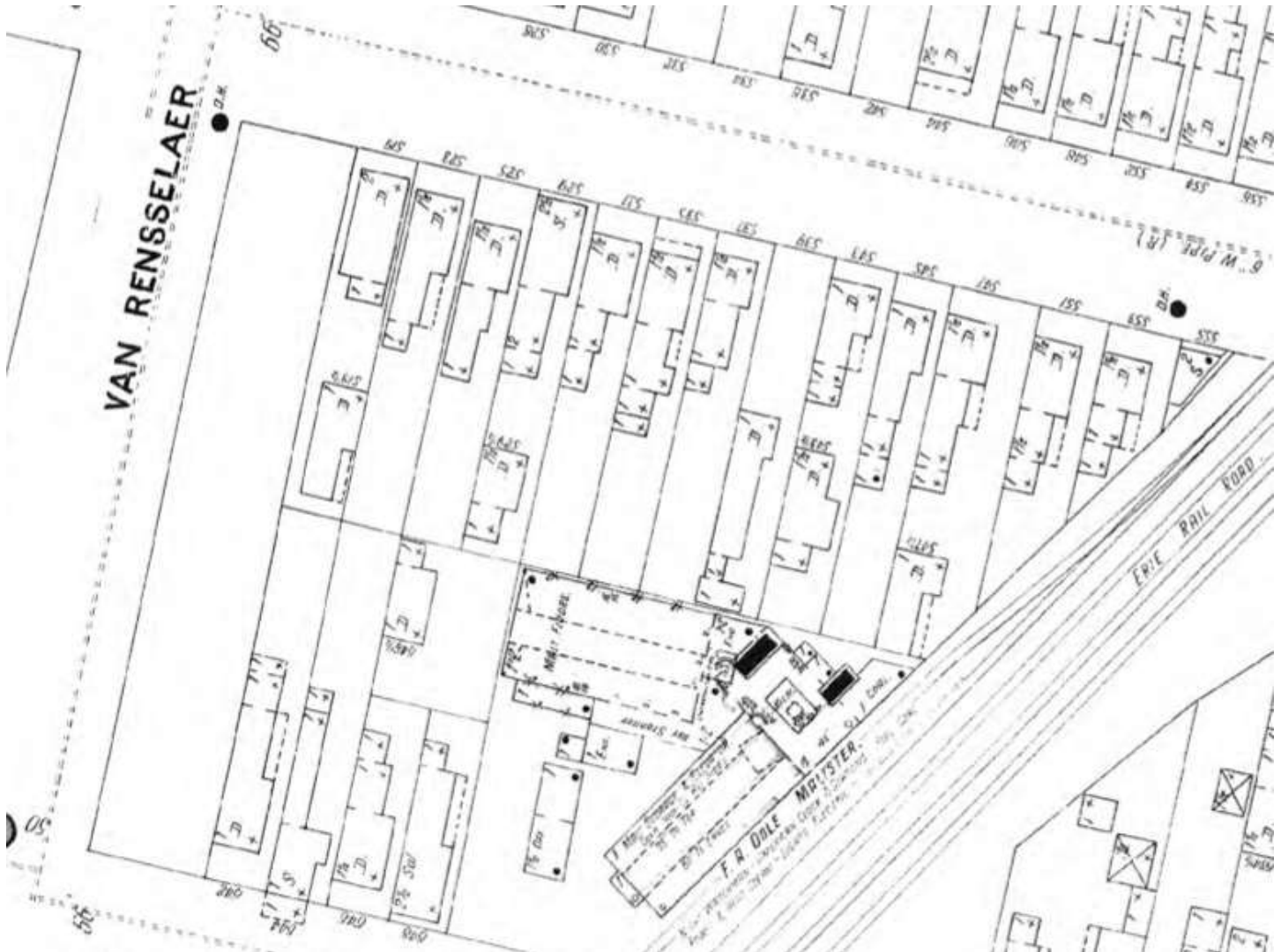
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 2

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State

Additional Information



**F.A. Dole Maltster, on site of Kreiner Malt House and Grain Elevator,
1899 Sanborn Fire Insurance Map.**

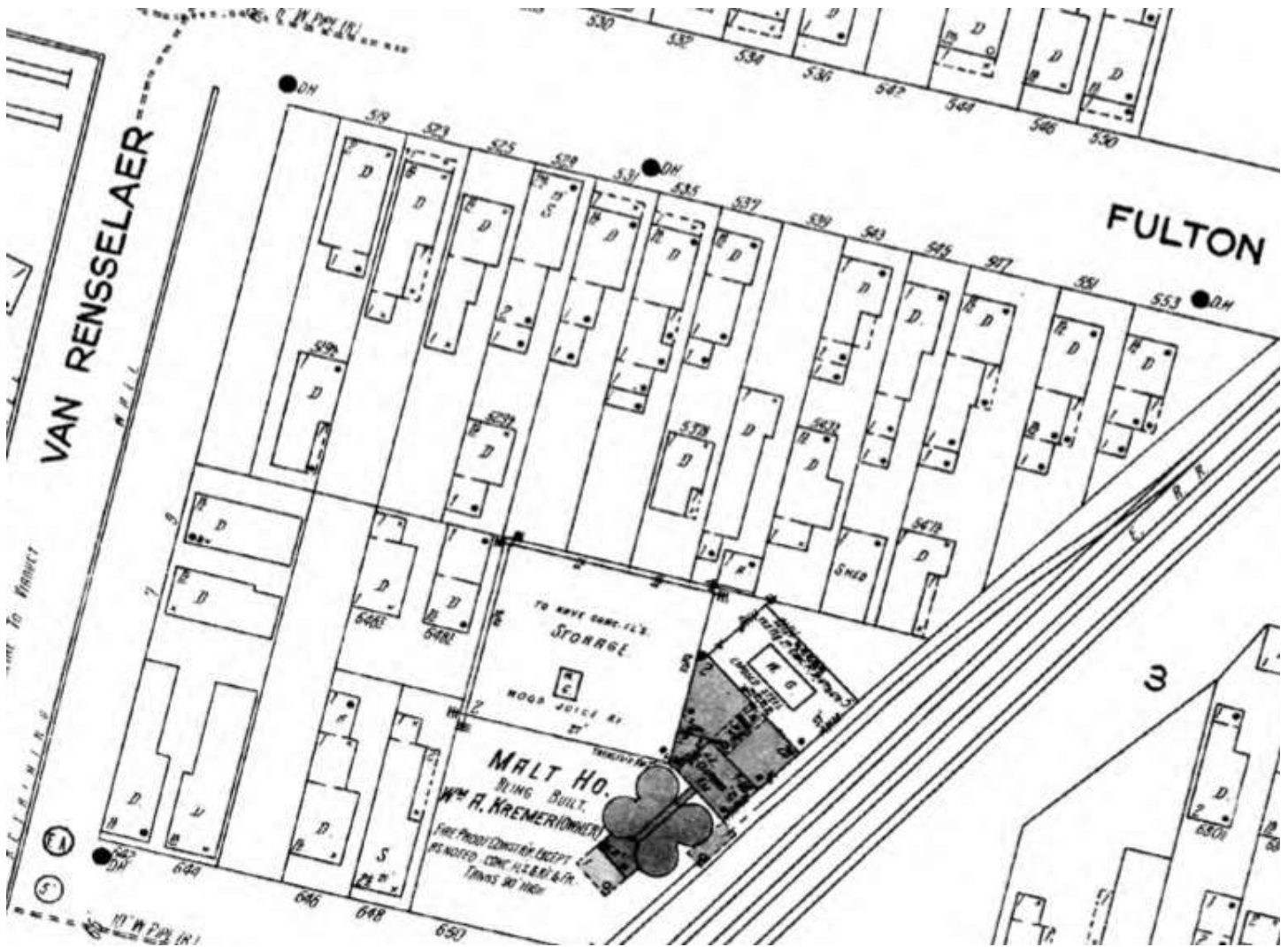
Sanborn map showing the Frank A. Dole facility on the site, including the residential area surrounding the building. Though occupying the same footprint, the only portions of this facility that remain are the exterior of the drying house and the northern wall of the malt house, both of which were modernized by the Kreiners, including new grain elevators (see: 1926 Sanborn).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 3

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State



Kreiner Malt House and Grain Elevator, 1926 Sanborn Fire Insurance Map.

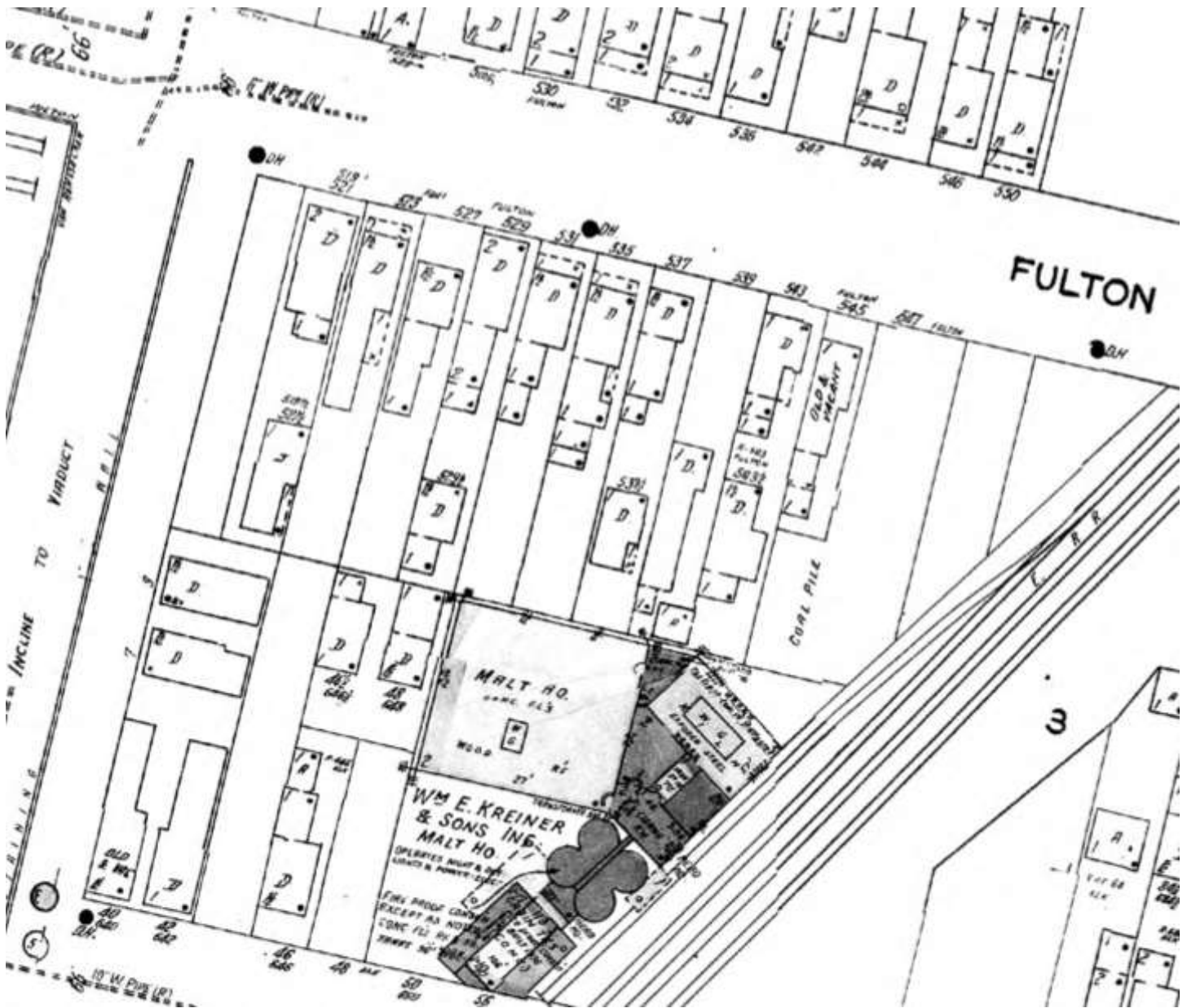
As noted, portions of the malt house (noted as “Storage” on this map) and the drying house date to the Dole facility, but the modernizations and expansions were completed by the Kreiners.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 4

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State



Kreiner Malt House and Grain Elevator, 1950 Sanborn Fire Insurance Map.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 5

Kreiner Malt House and Grain Elevator
Name of Property
Erie County, New York
County and State



Kreiner Malt House and Grain Elevator, 1881 Sanborn Fire Insurance Map.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 6

Kreiner Malt House and Grain Elevator

Name of Property

Erie County, New York

County and State



Historic Image of Kreiner Malt House and Grain Elevator from 1989.

Photo taken from Building Structure Inventory Form, Buffalo Malting Corp., Buffalo, Erie County, New York, December 1989.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 7

Kreiner Malt House and Grain Elevator

Name of Property

Erie County, New York

County and State



Historic Image of Kreiner Malt House and Grain Elevator from 1989.

Photo taken from Building Structure Inventory Form, Buffalo Malting Corp., Buffalo, Erie County, New York, December 1989.



ENME:FOEM!



BUFALO

CRATER



WARNING
CLOSE
CLEARANCE















UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:

Property Name:

Multiple Name:

State & County:

Date Received: 10/27/2017 Date of Pending List: 11/14/2017 Date of 16th Day: 11/29/2017 Date of 45th Day: 12/11/2017 Date of Weekly List: 12/14/2017

Reference number:

Nominator:

Reason For Review:

- | | | |
|---------------------------------------|--|--|
| <input type="checkbox"/> Appeal | <input checked="" type="checkbox"/> PDIL | <input type="checkbox"/> Text/Data Issue |
| <input type="checkbox"/> SHPO Request | <input type="checkbox"/> Landscape | <input type="checkbox"/> Photo |
| <input type="checkbox"/> Waiver | <input type="checkbox"/> National | <input type="checkbox"/> Map/Boundary |
| <input type="checkbox"/> Resubmission | <input type="checkbox"/> Mobile Resource | <input type="checkbox"/> Period |
| <input type="checkbox"/> Other | <input type="checkbox"/> TCP | <input checked="" type="checkbox"/> Less than 50 years |
| | <input type="checkbox"/> CLG | |

Accept Return Reject 12/8/2017 Date

Abstract/Summary
Comments:

Recommendation/
Criteria

Reviewer Alexis Abernathy Discipline Historian

Telephone (202)354-2236 Date _____

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.



**Parks, Recreation
and Historic Preservation**

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

20 October 2017

Alexis Abernathy
National Park Service
National Register of Historic Places

Mail Stop 7228

1849 C Street NW
Washington DC 20240

Re: National Register Nominations

Dear Ms. Abernathy:

I am pleased to submit the following four nominations, all on disc, to be considered for listing by the Keeper of the National Register:

Shea's Seneca Building, Buffalo, Erie County
Kreiner Malt House and Grain Elevator, Buffalo, Erie County
Fairport Public Library, Fairport, Monroe County
Talcottville Cemetery, Talcottville, Lewis County

Please feel free to call me at 518.268.2165 if you have any questions.

Sincerely:

Kathleen LaFrank
National Register Coordinator
New York State Historic Preservation Office