

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 National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any 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.

1. Name of PropertyHistoric name: Arctic Mill Historic District

Other names/site number: _____

Name of related multiple property listing: N/A

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

2. LocationStreet & number: 12, 15, 21, 33, and 40 Factory StreetCity or town: West Warwick State: RI County: KentNot For Publication: ☐ Vicinity: ☐**3. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this x nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property x meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

 national statewide x local

Applicable National Register Criteria:

 x A B x C D_____
Signature of certifying official/Title:**Date**_____
State or Federal agency/bureau or Tribal Government

In my opinion, the property meets does not meet the National Register criteria.

Signature of commenting official:**Date**_____
Title :**State or Federal agency/bureau
or Tribal Government**

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4. National Park Service Certification

I hereby certify that this property is:

- ☐ entered in the National Register
☐ determined eligible for the National Register
☐ determined not eligible for the National Register
☐ removed from the National Register
☐ other (explain:) _____

Signature of the Keeper

Date of Action

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 ☐

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>5</u>	<u>1</u>	buildings
<u> </u>	<u> </u>	sites
<u>3</u>	<u>1</u>	structures
<u>1</u>	<u> </u>	objects
<u>9</u>	<u>2</u>	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

INDUSTRY/manufacturing facility

COMMERCE/specialty store

TRANSPORTATION/road-related

Current Functions

(Enter categories from instructions.)

DOMESTIC/multiple dwelling

INDUSTRY/manufacturing facility

COMMERCE/specialty store

TRANSPORTATION/road-related

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7. Description

Architectural Classification

(Enter categories from instructions.)

LATE VICTORIAN/Italianate

MID-19TH CENTURY/Greek Revival

Materials: (enter categories from instructions.)

Principal exterior materials of the property: BRICK, STONE/Granite, WOOD, CONCRETE

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Arctic Mill Historic District (the District) is comprised of 16.22 acres on the South Branch of the Pawtuxet River in the central part of West Warwick, Rhode Island, approximately seven miles southwest of Providence. It contains all the extant historic resources associated with the Arctic Mill's textile production, including the mill, the water power system, and two storehouses, as well as the company store. The water privileges near present-day Factory Street on the South Branch of the Pawtuxet River were initially developed for textile production in the early nineteenth century and powered significant manufacturing enterprises in this location for more than 141 years, continuing into the 1990s. Originally constructed in 1852–1854 and rebuilt in 1865 after a devastating fire, the Arctic Mill complex produced cotton cloth for the A. & W. Sprague Manufacturing Company and B. B. & R. Knight, Inc., two of the largest textile companies in Rhode Island and the United States during the late nineteenth and early twentieth centuries. Although B. B. & R. Knight, Inc. and its successor firm went bankrupt in the 1920s and 1930s and were forced to sell the property in 1935, the Arctic Mill complex continued to produce fabric under Westover Fabrics through the 1950s and to house manufacturing under American Tourister and the Natco Corporation until 1993. The nine contributing resources within the District consist of the Arctic Mill, which occupies a 6.4-acre parcel between Border Street and the South Branch of the Pawtuxet River, the Arctic Mill Company Store, two large storehouses, an office, four concrete gateposts (counted as one object), the Arctic Mill Dam, the tail race, and the Senator Francis J. LaChapelle Bridge, which carries Factory Street over the river. The District also encompasses two non-contributing resources: the head race, which has been filled in, and the West Warwick Police Youth Services building, built in 2006–2007 on the site of the Arctic Mill boiler house (not extant). In 2022–2023, the Arctic Mill and office were converted to a residential reuse with the financial assistance of federal historic tax credits. Although the complex underwent alterations at various times in the late nineteenth, early twentieth and early twenty-first centuries, it retains sufficient integrity to convey its significance as a textile manufacturing facility.

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Narrative Description

Setting

The Arctic Mill Historic District occupies 16.22 acres in the central part of West Warwick in Kent County, Rhode Island, approximately seven miles southwest of Providence. It is bisected by the South Branch of the Pawtuxet River and is bounded on the north by Factory Street and the rear property lines of 12 and 40 Factory Street, on the east by Border Street, on the south by the rear property line of 33 Factory Street, and on the west by the Washington Secondary Trail, which occupies the former Hartford, Providence & Fishkill Railroad right-of-way. Within the District, the elevation slopes gently down toward the river. Immediately west of the District is a dense mix of commercial, institutional, and civic buildings, primarily located along Main Street, interspersed with single- and multi-family dwellings. To the east is a collection of two-family dwellings, erected in the mid- to late nineteenth century as mill worker tenements, set on narrow, rectangular lots and arranged on a street grid. The John Deering Middle School, the West Warwick High School, and the West Warwick Civic Center are clustered to the northeast of the District. Parking lots and driveways abut the buildings in the District, but the areas to the south of the Arctic Mill and near the tailrace are densely forested with mature deciduous trees.

The Arctic Mill Historic District presents a compact industrial complex, with the Arctic Mill at its center. The Mill, a large, five-to-six-story, L-shaped, granite building, sits on the east bank of the South Branch of the Pawtuxet River and to the south of Factory Street, set back approximately 35 feet from the road. Ancillary buildings surround the Arctic Mill: the office is located immediately to the east, the two storehouses are located just across the river, and the company store is to their north, on the other side of Factory Street. The water power system is readily apparent, with the Arctic Mill Dam spanning the river approximately 100 feet south of Factory Street; the entrance to the headrace (now filled in, but demarcated) just south of the dam, on the river's east bank; and the tailrace emerging from the north side of the Arctic Mill and then traveling under Factory Street.

All resources within the District are described in the inventory and listed in the data sheet that follows.

Inventory

Arctic Mill, 33 Factory Street (1852–1854, 1865, 1885)

Photos 1–12; one contributing building

The Arctic Mill occupies the northwest corner of its lot, with Factory Street to the north and the South Branch of the Pawtuxet River to the west. A modern metal fence partially encloses the mill property, running on the south side of Factory Street and the east riverbank. An asphalt drive extends west from the intersection of Border and Second streets and wraps around the south and west elevations of the mill building. A large two-level asphalt parking lot occupies the northeast corner of the property at the intersection of Factory and Border streets. The parking lot is banked into a hill that slopes down to the west towards the river along Factory Street, and the upper level is supported by a concrete-block retaining wall topped by a wood split rail fence. A concrete staircase flanked by two original concrete gateposts installed by B. B. & R. Knight, Inc. in 1917 provides pedestrian access from the parking lot to the front entrance, which is centered on the east elevation. The flat area behind the mill building along the river is paved with concrete blocks, with the location of the head race (described below) demarcated by different colored

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blocks. The concrete blocks were installed when the mill building was converted to residential use in 2022–2023. A large overflow asphalt parking lot is southeast of the mill building along Border Street, while the remainder of the property is densely forested with mature deciduous trees.

The Arctic Mill was constructed in 1852-1854 and rebuilt in 1865 after a fire, though the original exterior walls were used in the reconstruction. It is a large, L-shaped building with walls composed of rough-cut ashlar granite blocks. Due to the topography of the site, the building is five stories on the east elevation and six stories on the west. The main block of the building measures approximately 70 feet wide, with four bays, and 312 feet long, with 33 bays. It is oriented to Border Street along a north-south axis perpendicular to Factory Street. A five-to-six-story, 8-bay-by-3-bay ell, measuring approximately 92 feet long and 50 feet wide, extends from the north end of the main block's rear (west) elevation. Both the main block and the ell are topped with nearly flat roofs covered with rubber membranes with deep, overhanging eaves and bracketed wood cornices. Fenestration consists of regularly spaced, rectangular window openings with hammered granite lintels and sills on all floors on all elevations, with the exception of the lower two floors on the west elevation of the ell. They are filled with replacement twelve-over-twelve aluminum sash. The lower two floors on the west elevation of the ell are blank, except for a single fixed eight-light window on the first floor at the southeast corner of the ell. As evidence by discoloration and differences in the stone and mortar, a two-story, flat-roof addition once extended from the southeast corner of the west elevation of the ell. This addition was demolished in 2009–2010 (Figures 16 and 20). Diamond-shaped anchor plates are present on every elevation, with the exception of the west elevation of the ell.

The principal entrance to the Arctic Mill is located in the east elevation of the stair tower (described below). A secondary entrance is recessed within the fifth bay of the north elevation. It contains a six-panel wood door framed by plain pilasters and surmounted by a plain triangular pediment. This entrance was not original to the building's construction and was likely installed within an original window opening sometime during the late 20th century (see Figure 16). The concrete staircase that once accessed this entrance has been removed. The entrance is no longer viable, and the six-panel wood door has been fixed in place. There are several other entrances to the building, on the east, north, and west elevations. They contain a mix of historic paneled wood doors; replacement half-light, paneled metal doors; and overhead garage doors.

An eight-story, flat-roof, square-plan stair tower is centered on the east elevation of the main block. The lower six stories of the tower have walls composed of rough-cut ashlar granite blocks, while the upper two stories have wood-frame walls clad with wood shiplap siding. Granite band coursing divides the fifth story from the sixth, and the sixth story from the seventh. The ground-floor level of the tower contains a replacement half-light, single-leaf, paneled metal door in its east elevation, while original double-leaf, half-light, paneled wood doors, which are fixed in place, remain at the second through fifth stories, recessed within openings that are trimmed with hammered granite. The north side of the tower contains single, rectangular window openings at the first through fifth stories, while the south side is blank. At the sixth story, there is a small oculus window on the north, south and east elevations. Each side of the upper two stories features a pair of round-arched openings, filled with wood louvers and surmounted by wood, Italianate-style drip molding.

A full-height, flat-roof, ashlar granite privy tower is centered on the west (rear) elevation of the main block, facing the river. It features a single, rectangular window opening with replacement four-over-two aluminum sash at each story on the north and south elevations. On the west elevation of the tower, each floor has a pair of replacement four-over-two aluminum-sash windows set within an arched opening. A small, one-story, flat-roof, ashlar granite former blacksmith shop extends off the north elevation of the privy tower. A

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one-story modern loading dock addition on a raised concrete-block addition clad with composite clapboard siding extends from the west elevation of the building.

Office, 33 Factory Street (ca. 1885)*Photos 1 & 23; one contributing building*

A one-and-one-half-story, three-bay-by-five-bay office stands approximately 35 feet to the east of the Arctic Mill, immediately adjacent to Factory Street. The building was constructed ca. 1885 by B. B. & R. Knight, Inc. as part its large-scale improvements to the Arctic Mill complex. Measuring 24 feet wide and 40 feet long, the building has a slate-shingled, gable-front roof with overhanging eaves, a wide molded wood cornice, and gable-end cornice returns. The walls are composed of rough-cut ashlar granite blocks. The building is oriented to Factory Street, and the primary entrance occupies the easternmost bay on the north elevation. It contains a replacement half-light paneled composite door surmounted by a three-light transom. A secondary entrance, which is recessed and centered on the east elevation, contains a composite paneled door. A set of concrete stairs leads to a replacement six-panel composite door in the center bay of the west elevation, at the basement level. The entrances have hammered granite sills and lintels. Windows are evenly spaced across each elevation, and, at the first floor, consist of rectangular openings with replacement six-over-six aluminum sash and hammered granite sills and lintels. The segmental arched attic-level window on the north elevation contains replacement six-over-six aluminum sash and has a hammered granite sill. The basement-level windows on the west elevation are covered with beadboard wood panels. The building rests on a granite foundation.

Concrete Gateposts, 33 Factory Street (1917)*Photo 24, one contributing object*

Four poured concrete gateposts installed by B. B. & R. Knight, Inc. as part of fence upgrades to the Arctic Mill complex in 1917 are extant. Two gateposts sit at the north boundary of the complex immediately abutting the sidewalk along Factory Street. The two other gateposts are located approximately 88 feet east of the stair tower, flanking a concrete staircase that connects the two levels of the large asphalt parking lot at the northeast corner of the property and provides access to the first-floor entrance on the east elevation of the Arctic Mill. Each square-plan gatepost stands approximately six feet tall; has a simple, molded base; and has a simple, molded capital with recessed panels and a ball top post cap. The words "ARCTIC MILL" and the date of installation – 1917 – are impressed within the recessed panels.

Arctic Mill Dam (1852)*Photos 15-16; one contributing structure*

The Arctic Mill Dam was constructed in 1852 by the A. & W. Sprague Manufacturing Company. This stone-faced dam replaced a smaller stone dam built for an earlier mill on the site. The Arctic Mill Dam extends approximately 240 feet across the South Branch of the Pawtuxet River, with an approximately 110-foot-wide spillway at its center. The face of the dam is constructed of stepped granite blocks and its abutments are constructed of granite and packed earth. The dam provides a head of 29.5 feet and supplied enough hydromechanical energy to power the substantial industrial improvements made to the property under the A. & W. Sprague Manufacturing Company and, later, the B. B. & R. Knight, Inc. The east abutment of the Dam forms part of the side wall of the headrace.

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Constructed in 1852, the headrace was a roughly 28-foot-wide channelized waterway that extended off the east riverbank, about 55 feet south of the Arctic Mill Dam. From the riverbank, the headrace headed east, then turned north and through a sluiceway, providing feedwater for the mill's hydromechanical power system. It then ran beneath the rear ell of the Arctic Mill. The headrace was enclosed by walls composed of wet-laid rough-cut ashlar granite blocks. These walls were removed and the headrace channel was infilled during the residential rehabilitation of the Arctic Mill and Office in 2022–2023, its former path demarcated by colored concrete pavers. Stone from the walls was reused to construct a retaining wall with an inset drain that separates the former headrace from the river.

Tailrace (1852), 40 Factory Street*Photo 14, one contributing structure*

The tailrace was constructed in 1852. A channelized waterway, the tailrace emerges from the north wall of the Arctic Mill's ell with a width of approximately 15 feet and runs north under the Factory Street bridge. It widens to approximately 28 feet on the north side of the road and retains this width for the rest of its length, rejoining the South Branch of the Pawtuxet River about 310 feet north of Factory Street. Wet-laid rough-cut ashlar granite retaining walls enclose the tailrace.

Storehouse A¹ (c. 1885), 15 & 21 Factory Street*Photos 18–19, one contributing building*

Storehouse A stands on the west side of the South Branch of the Pawtuxet River near the Arctic Mill Dam. The building was constructed around 1885 by B. B. & R. Knight, Inc. It is a rectangular-plan, four-story, 3-bay-by-6-bay building with walls composed of rough-cut ashlar granite blocks topped by a low-pitched, side-gable roof sheathed in rubber membrane. The building measures approximately 140 feet long and 60 feet wide and parallels Factory Street to the north. Diamond-shaped anchor plates are evenly spaced across each elevation between each story. Due to the topography of the site, the building is four stories on its east end, while the west elevation is only one story tall.

Storehouse A has eight entrances. Two are located on the west elevation in the middle and northmost bays. The entrance in the center bay is filled with modern double-leaf, full-light metal doors surmounted by a transom. The entrance in the northmost bay is filled with a modern flush wood or metal door. Both entrances are set within a quoined brick surround and are accessed by a poured concrete ramp and loading dock with wood picket railings, erected in 1919. The east elevation includes three entrances, one on the first and two on the second floor. They are set within segmentally arched openings with quoined brick surrounds and brick lintels, and they have been infilled with wood. There was at one time a wood-frame bridge (not extant) that ran over the Arctic Mill Dam, connecting the Arctic Mill to Storehouse A, via the entrance that is centered on the second floor. The north elevation has two entrances set within segmentally arched openings with quoined brick surrounds: one at the west end of the building at the first floor, and one at the east end on the third floor of this elevation. Both entrances are filled with modern double-leaf metal doors. A loading bay entrance was inserted on the second story, roughly centered on the elevation. It is filled with double-leaf paneled wood doors and accessed by a concrete loading dock.

¹ This name appears on a 1921 fire insurance survey of the Arctic Mill property (The Underwriters' Bureau of New England 1921).

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Fenestration consists of regularly spaced, rectangular window openings framed with hammered granite sills and lintels and filled with eight-light, wood awning sash. Several windows have been infilled with brick and wood or contain sliding modern replacements. A couple of window openings on the north and east elevations have been enlarged to accommodate modern one-over-one, double-hung vinyl sash, as evidenced by the differences in the sills and lintels. The enlarged window openings on the north elevation have hammered granite sills matching the original window openings, but they have smooth stone or concrete lintels and quoined brick surrounds. The enlarged third-floor window opening on the east elevation has a brick sill and brick lintel.

No. 1 Storehouse² (1889–1895), 21 Factory Street

Photo 20; one contributing building

The No. 1 Storehouse sits approximately 45 feet north of and runs perpendicular to Storehouse A. It is a two-story, 4-bay-by-2-bay, rectangular-plan, wood-frame building measuring approximately 90 feet long and 26 feet wide and is banked into the hill to the west. A stone retaining wall that is flush with the east elevation extends south from the building. The building rests on a poured concrete foundation and is clad with vertical wood plank siding that has been installed over wood shingles. It has a low-pitched shed roof covered in rubber membrane. Two entrances filled with board-and-batten wood doors occupy the west elevation, while the north elevation contains one opening with a modern, full-light metal door. Four loading bay entrances containing modern paneled overhead metal garage doors are evenly spaced across the east elevation. The building does not have any windows.

Arctic Mill Company Store (1852), 12 Factory Street

Photos 21–22; one contributing building

The Arctic Mill Company Store was constructed in 1852 by the A. & W. Sprague Manufacturing Company. It stands on the north side of Factory Street, across from the No. 1 Storehouse and near the intersection with Providence Street. The Greek Revival-style, two-and-one-half-story, 5-bay-by-3-bay, rectangular-plan building faces south and measures approximately 60 feet by 40 feet. It has walls composed of rough-cut ashlar granite blocks, and diamond-shaped anchor plates are spaced across the south and north elevations, between the first and second stories. The building has an asphalt-shingle, side-gable roof with moderately overhanging eaves above a molded wood cornice with partial gable returns. A one-story, 2-bay-by-2-bay, wood-frame garage addition (built by 1895) clad with vinyl siding extends from the east elevation, and a small, one-story, 1-bay-by-1-bay, concrete-block addition (date unknown) extends off the rear (north) elevation.

The principal entrances to the Arctic Mill Company Store occupy the second and fourth bays of the five-bays-wide south elevation, creating a symmetrical facade. The western entrance contains a modern metal door with a panel light, and the eastern entrance contains a replacement paneled wood door. The west elevation of the building has two door openings: one centered on the first story, filled with a half-light paneled wood door, and one centered on the second story, which has been filled with a modern window sash and vertical wood plank siding. All of the door openings have granite surrounds. Window openings are evenly spaced across each elevation of the building and are filled with a mix of six-over-six, double-hung wood sash and replacement one-over-one, double-hung replacement sash framed by granite sills and

² This name appears on a 1921 fire insurance survey of the Arctic Mill property (The Underwriters' Bureau of New England 1921).

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lintels. One second-story window opening on the north elevation has been converted into a door, accessed by a metal fire escape.

Senator Francis J. LaChapelle Bridge (1956–1957), Factory Street

Photo 17, one contributing structure

Constructed in 1956–1957 by the Westcott Construction Company and designed by Daniel O. Cargill (1898–1981), the Rhode Island state bridge engineer from 1926 to 1959, the Senator Francis J. LaChapelle Bridge is a single-span, open-spandrel, concrete arch bridge. It is constructed of reinforced concrete and consists of two vertically curved slabs with vertical columns supporting the floor beams and deck slab. The two vertically curved slabs are supported by reinforced concrete abutments with rough-cut granite ashlar block wingwalls that survive from an earlier semi-thru truss bridge that crossed the river at the same location. The Senator Francis J. LaChapelle Bridge was constructed after the abutments supporting the approach to the bridge on the west side of the river collapsed March 11, 1956. The Senator Francis J. LaChapelle Bridge measures approximately 110 feet long and carries Factory Street (a two-lane, asphalt-paved road) and two concrete sidewalks over the South Branch of the Pawtuxet River. The bridge has reinforced concrete picket balustrades with square posts.

West Warwick Police Youth Services Building (2006–2007), 40 Factory Street

one non-contributing building

The West Warwick Police Youth Services building was constructed between 2006 and 2007 and occupies the former site of the Arctic Mill boiler house, which was demolished in 1956; it shares a lot with the Arctic Mill tailrace. It is a one-story, L-shaped, building with polychrome concrete-block walls topped by a hip roof covered with asphalt shingles. A two-story, square-plan tower located at the southwest corner of the main block contains the primary entrance. Rectangular window openings containing a mix of one-over-one, double-hung metal sash with metal sills and lintels and metal awning sash are evenly spaced across each elevation. A basketball court is located immediately south of the building and an asphalt-paved parking lot is located to the west.

Statement of Integrity

The Arctic Mill Historic District possesses integrity of location, design, setting, materials, workmanship, feeling, and association. The resources in the District retain their historic spatial arrangement and the majority of their original design, materials, and workmanship. The Arctic Mill experienced some alterations during the twentieth and twenty-first centuries: the conical hip roof on the stair tower and the cupola on the rear ell, both dating to ca. 1885, were removed sometime prior to 1937 and the ca. 1885 annex was demolished between 2009 and 2010. The Mill was converted to residential use in 2022–2023. Nonetheless, the building retains its massing, design, materials and architectural character. Other alterations to the Arctic Mill, Office, Storehouse A, No. 1 Storehouse, and Arctic Mill Company Store are largely limited to door and window replacements, replacement cladding, and minor modern additions. Water-related structures associated with the mill's operations, most notably the Arctic Mill Dam and the Tailrace, are also extant and intact. Although the Arctic Mill boiler house was demolished in 1956 and replaced with the West Warwick Police Youth Services Building in 2006–2007, the new building is set far back from Factory Street and obscured by a dense row of mature trees. As such, it has minimally impacted the District's integrity of setting, feeling, and association. The Francis J. LaChapelle Bridge, erected in 1956–1957, replaced an earlier bridge that had carried Factory Street across the South Branch of the Pawtuxet River since the nineteenth century and incorporates this bridge's granite ashlar abutments as wingwalls. It served as a vital

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link connecting the Arctic Mill and Office on the east side of the river to the Storehouses and Store on the west side of the river. In short, the District as a whole continues to convey strong feeling and association with its long history of industrial activity.

District Data Sheet

Assessor's Parcel I.D.	Historic Name	Address	Est. Date	Resource Type	Contributing/ Non-contributing	Photo Number
016-0105	Arctic Mill	33 Factory Street	1852–1854; 1865; 1885	Building	Contributing	1–12
016-0105	Office	33 Factory Street	ca. 1885	Building	Contributing	1, 23
016-0105	Concrete Gateposts	33 Factory Street	1917	Object	Contributing	24
N/A	Arctic Mill Dam	N/A	1852, 1879	Structure	Contributing	15–16
N/A	Headrace	N/A	1852, filled 2022–2023	Structure	Non-contributing	12–13
017-0003	Tailrace	40 Factory Street	1852	Structure	Contributing	14
017-0008, 016-0130	Storehouse A	15 & 21 Factory Street	ca. 1885	Building	Contributing	18–19
017-0008	No. 1 Storehouse	21 Factory Street	1889–1895	Building	Contributing	20
017-0123	Arctic Mill Company Store	12 Factory Street	1852	Building	Contributing	21–22
N/A	Senator Francis J. LaChapelle Bridge	N/A	1956–1957	Structure	Contributing	17
017-0003	West Warwick Police Youth Services Building	40 Factory Street	2006–2007	Building	Non-contributing	N/A

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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 is 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 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 the 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 old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

INDUSTRY

ARCHITECTURE

Period of Significance

1852–1993

Significant Dates

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

William Sprague III (architect, 1852 mill)

Henry T. Potter (construction manager, 1852 mill)

John M. Money (architect, 1865 mill)

Horace Foster (builder, 1852 and 1865 mill)

David M. Thompson (engineer and superintendent, 1884 expansion/renovations to mill)

Daniel O. Cargill (Rhode Island state bridge engineer, Senator Francis J. LaChapelle Bridge)

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Arctic Mill Historic District is eligible for listing in the National Register of Historic Places under Criteria A and C. Under Criterion A, it is eligible at the local level in the area of Industry for its association with textile manufacturing in West Warwick, Rhode Island, which was a major industrial center by the mid-nineteenth century. The mill was associated with two of the largest textile manufacturers in the United States: the A. & W. Sprague Manufacturing Company, which constructed the mill in 1852, and B. B. & R. Knight, Inc., which owned the property from 1884-1935. The Arctic Mill remained in industrial use until the late 20th century, far longer than most other textile and manufacturing concerns in Rhode Island. The Arctic Mill Historic District is also eligible under Criterion C at the local level in the area of Architecture as an exceptional and well-preserved example of a mid- to late-nineteenth-century textile manufacturing complex. It embodies the distinctive characteristics of mill architecture and engineering from that period in Rhode Island, including long and narrow construction to maximize light and floor space, modified waterways to capture hydrological power, “slow-burning” construction techniques, local stone masonry construction, exterior stair towers, associated storehouses, and a company store. The Arctic Mill Historic District retains integrity of location, design, setting, materials, workmanship, feeling, and association. The period of significance for the Arctic Mill Historic District begins in 1852, when the mill building was constructed, and ends in 1993, when the Natco Corporation ceased manufacturing activities at the site.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

CRITERION A – INDUSTRY

The Arctic Mill played a vital role in Rhode Island’s industrial economy for over 140 years. Built beginning in 1852 by the A. & W. Sprague Manufacturing Company, which operated there for 32 years, the mill was owned by B. B. & R. Knight, Inc. from 1884 to 1935. Both companies were among the largest textile manufacturers not just in Rhode Island, but nationally. The Arctic Mill was later home to Westover Fabrics, American Tourister, and Natco Products Corporation, remaining in industrial use into the 1990s.

The Textile Industry in West Warwick

Present-day West Warwick was part of a large tract of land acquired from the Narragansett Indians by Samuel Gorton and eleven followers, who collectively became known as the proprietors, in 1643. Encompassing 107 square miles of land, the tract extended from Warwick Neck to the Connecticut state line and would come to be called Warwick. Initial settlement remained concentrated in the east along Greenwich Bay until the late seventeenth century, when it began to spread north and west, in what had been considered the hinterlands (RIHPHC 1987:3). The western part of Warwick split off in 1841 to form the town of Coventry. In 1913, after decades of discussion, what remained of Warwick was divided in two: the historically agrarian and increasingly suburban eastern portion would continue to be known as Warwick, while the mill villages in the more heavily industrialized west were joined together to form the new town of West Warwick (RIHPHC 1981:3; RIHPHC 1987:23).

The proprietors and settlers of present-day West Warwick recognized the industrial potential of the Pawtuxet River in the late seventeenth century; one of the first sawmills was constructed at present-day

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Centreville in 1677, near the falls on the South Branch of the Pawtuxet River. Manufacturing remained small-scale well into the eighteenth century, focused on processing the materials produced by local farmers. For example, Joseph Edmonds was operating a saw and grist mill on present-day Main Street on the site of the Lippitt Mill by 1737, and William Holden had constructed a grist mill at present-day Natick prior to 1771 (RIHPHC 1987:5; Spencer 1888:123). Sustained efforts at industrial development in West Warwick did not begin until the late eighteenth and early nineteenth centuries (RIHPHC 1987:3–4). In 1794, Job Greene and several partners built the first cotton mill in present-day West Warwick at Centreville to manufacture cotton thread. This came four years after Samuel Slater introduced the English Arkwright system of cotton spinning machinery to the United States and a year after he erected the first water-powered cotton mill (the Slater Mill) in the country at Pawtucket, Rhode Island. By introducing the English Arkwright system of cotton spinning machinery and building the Slater Mill (NRDIS 11/13/1966, NHL 11/13/1966, NRIS 660000001), Slater launched the American textile industry, which remained the dominant industry and drove the economic and physical growth and development of West Warwick, Rhode Island, and New England into the early twentieth century (Kierstead and Fields 2005:8–2; RIHPHC 1987:5). Greene’s mill failed to turn a profit, and Providence entrepreneurs William Almy and Obadiah Brown, who had partnered with Samuel Slater in Pawtucket, formed a new company in 1799 and subsequently acquired the business. Together Almy and Brown transformed the small stone mill into a profitable enterprise, which remained in operation into the nineteenth century (RIHPHC 1987:5).

The cotton textile industry expanded rapidly in West Warwick and throughout Rhode Island during the early nineteenth century. In 1807, three new mills opened in West Warwick: a second mill was constructed at Centreville by Almy and Brown’s Warwick Manufacturing Company, the Providence Manufacturing Company (later the Crompton Company) built a stone mill in Crompton (a contributing resource to the Crompton Mill Historic District, NRDIS 6/10/2005, NRIS 06000577), and the Natick Reel Mill began production in Natick. The War of 1812 (1812–1815) spurred the growth of the textile industry throughout Rhode Island by closing the American market to British goods and increasing the domestic availability of raw cotton through the institution of heavy import duties on raw materials. Between 1810 and 1815, seventy-five new cotton mills were constructed in the state. Some of the most intensive activity occurred in West Warwick, where the Roger Williams Manufacturing Company erected the Phenix Mill (not extant) in 1810 and the Caleb Atwood and Sons Mill and the Greene Manufacturing Company’s Riverpoint Mill (currently occupied by the Royal Mill Complex, NRDIS 4/29/2004, NRIS 04000377) opened in 1813 (Kierstead and Fields 2005:8–2, 8–3; Kierstead and Matos 2004:8–1; Kulik and Bonham 1978:5; RIHPHC 1987:5–8).

Rhode Island’s textile industry experienced a brief downturn following the end of the War of 1812, but quickly rebounded thanks to the imposition of a federal tariff of 25 percent on imported cotton and woolen goods in 1816 and the invention of the power loom, which increased production capacity and efficiency, in 1817. As a result, the construction of new textile mills and the expansion of existing ones resumed in the early 1820s. By 1829, Warwick housed 20, or roughly 14 percent, of the 139 textile mills in Rhode Island (Bicknell 1920:837) and had earned a reputation as “one of the principal manufacturing towns” in the United States (Darby and Dwight 1833:584). The vast majority of these textile mills stood in the western part of the town. i.e., present-day West Warwick (Fields and Olausen 2007; Stevens 1831). Indeed, all of the sites along the North and South branches of the Pawtuxet River suitable for waterpower had been developed by textile manufacturers by 1840 (Fields and Olausen 2007).

As was true elsewhere in Rhode Island, mill owners and corporations in West Warwick, which remained remote and sparsely developed into the 1860s, established mill villages to attract and retain workers. A typical mill village might include dozens of single- and multi-family tenements for workers, a house for the

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mill superintendent, a company store, a farm, a school, churches, and community buildings. This combination of small-scale manufacturing and a self-contained mill village, known as the “Rhode Island system,” distinguished the cotton textile industry in Rhode Island from that in Massachusetts, New Hampshire, and Maine. In these states, corporations typically either located their mill near existing villages and erected factories, worker housing, commercial blocks, and a hotel or established holding companies to plan, lay out, and develop industrial cities consisting of multiple factory sites and mills, worker housing, and vacant lots that could be sold for private commercial and residential development and public construction (Candee 1982:32–33; Fields and Olausen 2007).

As the American cotton textile industry matured during the mid-nineteenth century, West Warwick’s mills and mill villages grew dramatically. Whereas the earliest mills operated at a small scale, typically employing dozens or perhaps hundreds of workers and fewer than 1,000 spindles, those established in the mid- to late-nineteenth century operated at a large scale and increasingly formed part of massive companies that controlled all stages of production. While the number of individual cotton factories in Rhode Island dropped beginning in the 1850s and 1860s, the number of people employed by the industry increased, as did production output. In West Warwick, the rapid growth of the firms of A. & W. Sprague and B. B. & R. Knight, Inc. illustrate these trends (see below) (Fields and Olausen 2007; Kierstead and Fields 2005:8–3; RIHPHC 1987:8).

Rhode Island’s cotton industry reached its zenith in the 1880s and the 1890s, but it declined rapidly during the early twentieth century as new fabrics, such as silk and rayon, became increasingly popular with American consumers. Changes in women’s fashion, which began to favor these other materials over cotton, forced Rhode Island and New England cotton companies to shift production to other textiles, and eventually led many of them to close. The industry’s decline accelerated after World War I due to competition from textile mills in the South, which benefited from lower wages, cheaper electricity, lower taxes, lower freight rates, and longer labor hours. To compensate for these disadvantages and to compete with southern mills, New England textile producers cut employee wages and practiced overproduction to recoup declining profits. This required employees to work longer hours at faster speeds, a practice known as “speed-ups” and “stretch-outs.” Beginning in 1920, these conditions manifested themselves in West Warwick, and workers increasingly turned to organized labor strikes to protest difficult working conditions. A particularly significant strike began at the Royal Mill, approximately one-half mile upstream from the Arctic Mill, in January 1922 and quickly spread to other mills in West Warwick, including the Arctic Mill, and throughout the Pawtuxet River and Blackstone River valleys, crippling production for almost nine months. Few of these mills fully recovered from the strike, and many failed in the 1930s during the Great Depression (1929–1939). Although World War II (1941–1945) and the need to manufacture a variety of cloth for the war effort briefly revived the textile industry in West Warwick and Rhode Island, the industry’s systemic problems persisted. As a result, textile manufacturing in West Warwick had dropped to a fraction of its pre-World War II level by the 1960s. While some of the town’s nineteenth-century mills continued to produce textiles, including fine lace goods and synthetic fabrics, during the ensuing decades many were converted to other industrial uses or to storage (Carroll 1932:863; Connors 1997:8–24, 8–25; Fields and Olausen 2007; Kierstead and Fields 2005: 8–4; RIHPHC 1987:24–25; Young 1928:14, 19).

Arctic Mill

1834-1851: Early Development of the Arctic Mill Privilege

The Arctic Mill privilege was the last in West Warwick to be developed, due to its physical isolation. Located on the South Branch of the Pawtuxet River, it stood within a heavily forested wilderness

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originally known as Rice Hollow that contained only a handful of scattered homesteads in the early nineteenth century and was largely bypassed by West Warwick's major transportation routes (Olausen and Fields 2007; RIHPHC 1987:7, 32).

Manufacturing in the general location of the Arctic Mill began in 1834 with Rufus Wakefield (1783–1838). A native of Charlton, Massachusetts, Wakefield eventually moved to Warwick, where he married Ruth Atwood (1787–1833) on October 11, 1811 (Arnold 1891:10, Wakefield 1897:164). Wakefield worked as a stone mason and a contractor for heavy stone and earthwork and managed a sawmill belonging to his father-in-law Nehemiah Atwood. In this capacity, he reportedly supplied lumber used in the construction of the Lippitt Mill (NRDIS 1/11/1974, NRIS 74000053), erected approximately one mile northeast of the Arctic Mill in 1809–1810 and expanded in 1830, which piqued his interest in cotton manufacturing (Harpin 1961:15; *Providence Daily Journal* 1860:1). Accordingly, he purchased a couple acres of land on the west side of the South Branch of the Pawtuxet River from Dr. Stephen Harris for \$450 on February 19, 1834, where he constructed a small stone mill using building materials from a quarry located on present-day Wakefield Street in West Warwick. Wakefield's mill rose three stories, had a monitor roof and measured 60 feet long and 40 feet wide (Fuller 1875:202–203; Harpin 1961:15; *Providence Daily Journal* 1860:1). A simple dam consisting of stones laid across the river supplied water to the mill, which operated entirely off the power generated by the natural fall of the river over the dam (D'Amato 1985; Fuller 1875:203). The area around the mill came to be known as Wakefield (RIHPHC 1987:32).

Rufus Wakefield never himself engaged in textile manufacturing at his mill. Instead, he rented the building to a variety of cotton and woolen cloth manufacturers. Harris O. Brown and Philip Aldrich of Scituate leased the basement, where they “manufactured a coarse kind of cloth, used principally by the southern slaves” (Fuller 1875:202; RIHPHC 1987:13). Wakefield's mill was one of numerous factories operating in Rhode Island in the mid-nineteenth century that produced textiles sold to Southern enslavers to clothe the Black people that they held in bondage. Known alternatively as “Negro cloth” or “kersey,” these textiles consisted of “a cheap, coarse, blended cotton-wool material manufactured especially to reduce the cost of clothing” enslaved people (Clark-Pujara 2016:90). In fact, the rapid industrial expansion and economic prosperity enjoyed by West Warwick, indeed Rhode Island as a whole, during the first half of the nineteenth century relied upon the supply of affordable cotton from Southern states grown by enslaved people and the demand for cheap textiles for their use. As historian Christy Clark-Pujara (2016:90) notes in *Dark Work: The Business of Slavery in Rhode Island*, “more than eighty ‘negro cloth’ mills opened in Rhode Island” between 1800 and 1860 and “79 percent of all Rhode Island textile mills manufactured slave clothing” by the mid nineteenth century. In 1845, at least 17 of the 40 textile factories in Rhode Island listed in *Statistics of Woolen Manufactories in the United States* produced “Negro cloth.” This count, which likely fell well below the actual number of “Negro cloth” factories in Rhode Island because many manufacturers did not specify it as a product, “was more than any other state and more than all the southern states combined” (Goulding 1845:33–39; Shaw 2017). In short, Rhode Island's, and by extension West Warwick's, industrial revolution rested squarely on the backs of enslaved people.

1852-1884: A. & W. Sprague Manufacturing Company

In March 1852, the A. & W. Sprague Manufacturing Company purchased the Wakefield Mill with its associated dwellings and outbuildings from William and Joseph Wakefield, the sons and heirs of Rufus and Ruth Atwood Wakefield, for \$11,400. Around the same time, the company also acquired several tracts of land on the east side of the river from Reverend Jonathan Brayton and Dr. Stephen Harris and the right

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of flowage from the heirs of John Greene. The company subsequently embarked on a series of extensive improvements to the property between 1852 and 1854 that helped transform the tiny hamlet created by Rufus Wakefield into a thriving village. The most significant of these improvements was the erection of a large granite cotton mill (the **Arctic Mill**) on the east side of the river. Constructed between 1852 and 1854, the Arctic Mill rose four stories, measured 312 feet long and 70 feet wide, and had a gable roof, a prominent stair tower, and a privy tower. A three-story ell measuring 50 feet by 92 feet extended from the rear elevation toward the river and housed a machine shop and dressing and lapper rooms. Construction of the mill involved the excavation of a rock quarry to accommodate the building's foundation and wheel pit. William Sprague III (1799–1856) designed the building, which incorporated a stair tower with Italianate style influences, and Henry T. Potter (1821–1897) supervised and completed its construction (Find A Grave 1999, 2012b; Harpin 1961:58; *Providence Daily Journal* 1860:1; *Providence Journal* 1855:2). The Sprague company obtained the granite used to build the Arctic Mill from quarries in Oneco, Connecticut, approximately 18 miles to the southeast, and furnished the mill with two water wheels with diameters of 34 feet to power the textile machinery (Harpin 1976:146; *Manufacturers' and Farmers' Journal* 1868:1; *Providence Daily Journal* 1860:1).

The improvements undertaken by the A. & W. Sprague Manufacturing Company also included the construction of the **Arctic Mill Dam**, a substantial new dam that provided a fall of water of 29.5 feet, and the **Headrace** and **Tailrace**; the conversion of the Wakefield Mill into a storehouse; and the erection of a stone retaining wall (not extant) on the river to protect these structures (Find A Grave 2016; Fuller 1875:204–205; *Providence Daily Journal* 1860:1). The A. & W. Sprague Manufacturing Company also built the **Arctic Mill Company Store** on the west side of the river and the first rows of worker tenements on the hill east of the new factory site along present-day Border and Earl streets (Kelly 1987; Walling 1855). The Sprague family renamed the village “Arctic,” reportedly after residents described it as a frost pocket and the coldest place in the region (Harpin 1961:16).

The A. & W. Sprague Manufacturing Company was one of Rhode Island's largest family firms. The Sprague family's manufacturing interests began in the first decade of the nineteenth century. In 1808, William Sprague II (1773–1836), a farmer from Cranston and the progenitor of his family's industrial empire, converted his grist mill in the town into a small cotton mill for carding and spinning cotton yarn, thereby becoming one of the first manufacturers of cotton cloth in Rhode Island (Harpin 1976:143; Kelly 1987:8–2; Knight 1881:6). He expanded his cotton manufacturing business in the 1820s with the purchase of one-half of the water privilege and the construction of three new mill buildings at Natick in West Warwick and the conversion of his Cranston mill into a print works (Harpin 1976:143; Kelly 1987:8–2; Knight 1881:10–12). In doing so, he became the first calico printer in Rhode Island and one of the first in the country (Kelly 1987:8–2). The Cranston mill subsequently served as the center of the Sprague family's calico printing business for decades. William Sprague II's sons, Amasa Sprague (1798–1843) and William Sprague III (1799–1856), joined the family business, with William III serving as superintendent at Natick and Amasa learning the financial side of the textile industry from their father in Cranston. After their father's death in 1836, Amasa and William III formed a new firm to manufacture cotton goods and calico prints. Incorporated as the A. & W. Sprague Manufacturing Company, the firm began acquiring land and constructing new cotton mills to supply the Cranston print works (Harpin 1961:53, 1976:143–145; Kelly 1987:8–2; Knight 1881:18–19).

Under the leadership of Amasa and William III, the Sprague mills continued to prosper and expand in the 1830s and 1840s. During this period, Amasa oversaw the firm's daily operations and supervised the Cranston print works, while William III pursued a career in politics. He served as a representative in the

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Rhode Island State Legislature and the United States House of Representatives, was elected governor of Rhode Island, and became a United States senator in 1842. The murder of Amasa near the Sprague print works in Cranston on December 31, 1843, derailed his brother's political career, and William III returned to Rhode Island to take over management of the A. & W. Sprague Manufacturing Company. His nephews, Amasa Sprague II (1828–1902) and William Sprague IV (1830–1915), joined him as partners in the firm. Both Amasa II and William IV were leading figures in Rhode Island politics; each was elected to the state legislature, and William IV, like his uncle, served as a congressman, the governor of Rhode Island, and a United States senator (Knight 1881:37–55; RIHPHC 1987:15).

With William III at the helm, the A. & W. Sprague Manufacturing Company aggressively expanded its textile business during the 1840s and 1850s. It systematically “moved up the Pawtuxet, buying mills or tearing them down and rebuilding and changing the names of them” (Harpin 1976:145). The Sprague family built the Quidnick Mill in Coventry in 1848, acquired the Rhodes Manufacturing Company mill in Natick (not extant), erected the Arctic Mill between 1852 and 1854, and began construction of the Baltic Mill (listed as part of the Baltic Historic District, NRDIS 8/3/1987, NRIS 87001247) in Sprague, Connecticut, in 1856. Conveniently, and possibly purposefully, the names of all four mills rhymed (Harpin 1961:16; Kelly 1987:8–2). William III died intestate of typhoid at the age of 57 on October 19, 1856 (Find A Grave 1999; Knight 1881:33). After their uncle's death, Amasa II and William IV assumed primary responsibility for managing the Sprague textile empire with their cousin, Bryon Sprague, forming a new partnership with their aunt (Mary Sprague), cousin (Susan Sprague), mother (Fanny Sprague), and sisters (Almyra [also spelled Elmira] and Mary Anna [also spelled Maryanna] Sprague) but retaining the A. & W. Sprague Manufacturing Company name (Knight 1881:40).³ In addition to their political power, Amasa

³ It appears that the partnership between the men in the Sprague family (Amasa II, William IV, and Byron) and the women in the Sprague family (Mary, Susan, Fanny, Almyra, and Mary Anna) was established to address inheritance issues associated with the deaths of Amasa I and William III and to settle their estates. Both Amasa I and William III died intestate, which created a complicated legal and financial situation with multiple heirs entitled to shares in their estates of various sizes. In addition to the family members listed above, William III's four grandchildren (Sarah, Susan, William, and Edwin) inherited shares of his estate after the death of their mother (Susan Sprague Hoyt) in 1853.

While Mary and Fanny were appointed as the administrators of their husbands' estates after their deaths, ownership and control of the majority of the property encompassed by their estates belonged to the A. & W. Sprague Manufacturing Company. William III had brought Amasa II, William IV, and Byron into the A. & W. Sprague Manufacturing Company as partners shortly before his death in 1856, and they continued to operate the business as it had under Amasa II and William III. According to available primary sources, active management of the company, its financial affairs, and its real estate passed solely to Amasa II, William IV, and Byron after the death of William III. While Mary and Fanny served as the administrators of their husbands' estates and, as such, were officially required to consent to the continued operation of the A. & W. Sprague Manufacturing Company under the purview of Amasa II, William III, and Byron, they do not appear to have ever been directly involved in the company's day-to-day operations or management of its property and finances. As the *Providence Daily Journal* reported, their administration “was almost purely formal and practically the entire property of both estates [of Amasa II and William III] remained under the control and management of the firm of A. & W. Sprague” (*Providence Daily Journal* 1882:9).

By 1862, all of Amasa I's and William III's heirs, except for Mary and Fanny and the Hoyt children, had sold their shares of and interest in the A. & W. Sprague Manufacturing Company and its assets to Amasa II and William IV. In 1865, Amasa II and William IV incorporated the A. & W. Manufacturing Company as a corporation and officially transferred title to all of the business's property and assets to the corporation with the consent of Mary, who had been appointed as the guardian of the Hoyt children, and Fanny. Following the formation of the

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II and William IV exercised considerable economic power, not only in the Pawtuxet River valley, but throughout Rhode Island and New England. The Sprague family owned ten cotton mills, a streetcar company, a steamboat line, seven metal factories, five banks, timberlands, and railroads. They also operated a firm, Hoyt, Sprague & Company,⁴ in New York City to promote the sale of Sprague goods and invested in a water company in South Carolina, a bread company in Boston, the Narragansett Trotting Park, and several insurance companies (Harpin 1961:59, 1976:145–147; Knight 1881:21–33; *Norwich Aurora* 1871:2; RIHPHC 1987:15).

At the time of its completion in 1854, the Arctic Mill, which the *Providence Journal* described as “new and splendid,” was reportedly the largest cotton mill in Rhode Island (*Providence Journal* 1855:2). In 1860, the mill contained 560 looms and 22,144 spindles, employed 300 workers, and produced 400,000 yards of print cloth every month (*Providence Daily Journal* 1860:1). In contrast, the two mill buildings that the A. & W. Sprague Manufacturing Company owned at Quidnick housed a total of 26,880 spindles and 654 looms, while the company’s four mill buildings in Natick held a combined 40,608 spindles and 975 looms (*United States Economist and Dry Goods Reporter* 1867:6). A fire severely damaged the Arctic Mill on March 17, 1865, approximately one decade after its completion (Harpin 1961:58). The fire, which started in the machine shop when naphtha spontaneously ignited, raged for several hours and was visible 12 miles away in Providence. It caused at least \$330,000 (\$5,664,563.74 in 2021) in damages and left only the granite walls of the mill standing (*Evening Bulletin* 1865a:1; Fuller 1875:205; *Providence Journal* 1865a:2, 1865b:2).

Although their insurance only covered \$225,000 of the fire damage to the Arctic Mill, Amasa II and William IV decided to rebuild it. The reconstructed building incorporated the walls from the 1852–1854 structure, which consisted of “square granite blocks of unequal size from the Oneco ledge” (*United States Economist and Dry Goods Reporter* 1867:6; *Manufacturers’ and Farmers’ Journal* 1868:1). As such, the Arctic Mill retained its original size and configuration with a four-story main section, a three-story rear ell, and a rectangular stair tower (Figures 1–3b). The stair tower measured 21 feet deep, 24 feet wide, and 150 feet tall and housed the main entrance to the mill and “wide stairways leading to each story, built of solid oak, chestnut and black walnut” (*Manufacturers’ and Farmers’ Journal* 1868:1). The interior walls of the stair tower were finished with varnished chestnut, while the interior of the main section contained oak, chestnut, and black walnut woodwork and “rooms finished handsomely as parlors, and filled with new and improved machinery” (*Manufacturers’ and Farmers’ Journal* 1868:1). Construction was completed and operations resumed at the reconstructed Arctic Mill, which housed approximately 1,000 more spindles than the 1852 structure, by January 1868 (*Evening Bulletin* 1865b:3; *Manufacturers’ and Farmers’ Journal* 1868:1). With 23,000 spindles and 567 looms, it produced 100,000 yards of cotton cloth for the Sprague print works in Cranston each week and employed 325 workers (*Manufacturers’ and Farmers’ Journal* 1868:1). Shafting occupied the basement of the main block, while the first story contained carding machines, speeders, and spooling machines. Weaving and spinning occurred on the second and third floors of the main block, and the fourth floor housed mule spinning. The attic was used for spooling, warping, and dressers. The rear ell contained a machine shop on the first floor, a picker room

corporation, Amasa II, William IV, Mary, Fanny, and the Hoyt children all received stock in the new A. & W. Manufacturing Company corporation in equal proportions to their share of the estates of Amasa II and William IV (Knight 1881:37–55; *Providence Daily Journal* 1882:9; West Publishing Company 1897:421–428).

⁴ Hoyt, Sprague & Company was established by Amasa III and William IV with their cousin-in-law, Edwin Hoyt (1804–1874), in 1859. Hoyt had married their cousin, Susan Sprague Hoyt (1822–1853) in 1843 (Find a Grave 2013; *Providence Daily Journal* 1882:9).

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on the second floor, a weave room on the third floor, and a roller shop and supply room in the attic (Barlow Company ca. 1882).

Unsurprisingly, the reconstruction of the Arctic Mill incorporated new fire safety measures. These included the erection of a separate two-story granite boiler house (demolished in 1956) on the north side of Factory Street opposite the mill to supply steam for heat and other purposes, the placement of hydrants around the exterior of the mill, and the positioning of “perforated iron pipes or ‘sprinklers’” and water tanks throughout the mill’s interior (*Manufacturers’ and Farmers’ Journal* 1868:1). John W. Money (also spelled Mooney) (1821–1902), superintendent of the Arctic Mill for A. & W. Sprague & Co., designed and oversaw its reconstruction (*Evening Bulletin* 1867:6; Find A Grave 2014; *Manufacturers’ and Farmers’ Journal* 1868:1). The company hired Peleg Spencer for the carpentry work and Horace Foster for the masonry. Reflecting the economic might of the Sprague family, which reached its zenith in the 1860s and early 1870s, the reconstruction of the Arctic Mill cost approximately \$500,000 (\$9,864,390.01 in 2021) (*Fall River Daily News* 1868:2; *Manufacturers’ and Farmers’ Journal* 1868:1; RIHPHC 1987:15). Contemporary observers lauded the reconstruction, describing the Arctic Mill as “the most perfect and complete cotton mill ever constructed” (*Manufacturers’ and Farmers’ Journal* 1868:1).

By 1873, the A. & W. Sprague Manufacturing Company operated nearly 280,000 spindles and employed 10,000 people, over half of whom worked at their New England textile mills (Fuller 1875:254; Lamphier 2003:33). Of the roughly 5,300 workers in New England, 3,600 lived and worked in Rhode Island, with 500 of these workers employed at the Arctic Mill (Fuller 1875:254). The combined payroll for A. & W. Sprague Manufacturing Company’s textile businesses sometimes reached \$25,000 per day (Fuller 1875:254; Lamphier 2003:33). The company “was, quite simply, the largest calico-printing mill system in the world” (Lamphier 2003:33). At its peak, the Sprague family’s textile business reportedly produced more goods than any other American textile company, manufacturing a combined total of 800,000 yards of cloth and 1.4 million yards of calico per week (Lamphier 2003:33). The overwhelming dominance of the A. & W. Sprague Manufacturing Company led contemporaries to observe that “whenever you saw smoke in Rhody it belonged to the Spragues” (Lamphier 2003:33; Sprague 1913:389).

The vast majority of workers employed at the Sprague family’s textile mills occupied company-owned tenements and boardinghouses near the mills. This was common throughout Rhode Island’s textile industry, which developed as a patriarchal system in which mill owners and textile companies required workers to live in company-owned housing as a condition of their employment and commonly paid them in “script” that was only redeemable at the company store. Due to its economic and political influence, the Sprague family played a large role in perpetuating and popularizing this model, commonly known as the Rhode Island system. In fact, the family’s “mills and villages in Natick and Arctic . . . were the prototype for many of the others” in the Pawtuxet River valley (D’Amato 1992:74). At Arctic, the company built and owned three rows of tenements located on the hill to the east of the mill to house their employees. These tenements consist of 35 one-and-one-half story, wood-frame duplexes with side-gable roofs located along Border and Earl streets (RIHPHC 1987:14).

Although the A. & W. Sprague Manufacturing Company employed Irish, Scottish, and English immigrants in their mills, it favored French Canadian workers because, as historian Mathias P. Harpin wrote, it believed they were “docile and readily proved efficient at the loom or spinning frame” (Harpin 1976:151). The Sprague company even reportedly sent agents to Quebec province during the Civil War (1861–1865) to recruit workers for its mills, many of whom settled in Arctic and Natick (D’Amato 1992:64; Harpin 1976:151). The number of French-Canadian immigrants continued to rise in the 1870s

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and 1880s, and by 1900, they comprised a significant portion of the population living and working in and around Arctic and throughout present-day West Warwick (Harpin 1976:151; RIHPHC 1987:22; U.S. Census 1900).

The Sprague family's 50-year-old empire dramatically imploded during the Financial Panic of 1873. At the time, the A. & W. Sprague Manufacturing Company, which had expanded rapidly in the 1860s and invested heavily, and sometimes unwisely, in new businesses under William IV's leadership, possessed assets valued at \$19 million (\$416,658,539.09 in 2021) and debts totaling between \$11 million (\$241,223,364.74 in 2021) and \$14 million (\$307,011,555.12 in 2021) (Chafee 1936:277; D'Amato 1992:64; Fuller 1875:255; Harpin 1976:154; Kelly 1987:8–5). The failure of the company sent shock waves throughout Rhode Island and the United States due to the economic and political influence of William IV and Amasa III (RIHPHC 1987:15). Following the bankruptcy of the A. & W. Sprague Manufacturing Company, it placed its properties in a trust controlled by Zechariah Chafee (1859–1943) and officially transferred ownership of its textile mills, including the Arctic Mill, to the Quidnick Company, which operated the Quidnick Mill in Coventry, the only Sprague mill that remained solvent. The Quidnick Company provided the necessary means, stock, and supplies to continue the operation of the Sprague cotton mills and Cranston print works, and the A. & W. Sprague Manufacturing Company manufactured and sold cloth under its name. Although this arrangement was initially profitable, financial difficulties precipitated by the economic depression that followed the Financial Panic of 1873 and a legal dispute between the Sprague family and Chafee forced him to liquidate their mills in 1882–1884 (Chafee 1936:283–291; Harpin 1976:155; Kelly 1987:8–5, 8–6).

Despite his efforts to sell the Sprague mills together, Chafee was eventually forced to sell them separately at prices far below their estimated value. In January 1884, he sold the Arctic Mill to the Union Company for \$100,000 (\$2,921,086.97 in 2021), or about one-third of its estimated value (*Fall River Daily Evening News* 1884a:3, 1884b:2; Kelly 1987:8–6). According to an advertisement published in the *Providence Journal* in 1884, the Arctic Mill property encompassed 99.5 acres of land on both sides of the South Branch of the Pawtuxet River and consisted of the mill building, which held 28,752 spindles, a pump house, a boiler house, two barns, and 45 wood tenement houses containing 87 units (*Providence Journal* 1884:5). The property also included the Arctic Mill Dam, which had been extensively repaired in 1879 (*Pawtuxet Valley Gleaner* 1879a:3, 1879b:3). The Union Company retained ownership of the Arctic Mill for approximately one month, and then sold the property to Lucius Briggs, a manufacturer from Connecticut for \$175,000 (\$5,111,902.20 in 2021) (*Fall River Daily News* 1884b:2). Briggs likewise maintained ownership of the Arctic Mill for only a month, selling it to B. B. & R. Knight, Inc. in March of 1884 (*Boston Evening Transcript* 1884:8).

1884-1935: B. B. & R. Knight, Inc.

After acquiring the Arctic Mill property, B. B. & R. Knight, Inc. quickly undertook large-scale improvements to the mill complex (Figures 4–8). The company removed the mill's original steeply-pitched, side-gable roof and trap-door monitor and raised the height of both the main block and the ell to five stories, from four-and-one-half and three-and-one-half stories, respectively. The company also constructed a two-story annex at the southwest corner of the ell, which was demolished in 2009–2010. It installed the current low-pitched, side-gable roof, projecting eaves, and bracketed cornice and added a one-story stone cupola with a low-pitched hip roof and blind arch windows (demolished between 1995 and 2002) at the west end of the ell. B. B. & R. Knight, Inc. also raised the height of the stair tower from seven to eight stories, removed the original domed roof, and replaced it with a conical hip roof with flared eaves topped by a

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weathervane. The weathervane and hip roof were removed prior to 1937 (Figure 15) (Federal Writer's Project 1937). On the interior of the mill, the company installed new boilers, automatic sprinklers, and new machinery. This enabled B. B. & R. Knight to significantly increase the capacity of the Arctic Mill, which operated 1,039 looms and 35,824 spindles by the late 1880s (*Evening Bulletin* 1884:6; Kelly 1987:8–8; Kulik and Bonham 1978:262). The company also constructed new tenement houses to the north, increasing the number of housing units to 103, and, immediately adjacent to the mill, a one-and-one-half-story, Italianate-style **Office** with a front-gable roof and walls composed of granite ashlar blocks (RIHPHC 1987:21) (Figures 5 and 7). Finally, the company built a new, large, four-story, rectangular storehouse (**Storehouse A**) with a side-gable roof and walls composed of granite ashlar blocks on the west side of the river, immediately south of the former Wakefield Mill, which had been converted into a storehouse by the A. & W. Sprague Manufacturing Company. These large-scale improvements to the Arctic Mill property were designed and overseen by David M. Thompson (1839–1906), B. B. & R. Knight, Inc.'s general manager (*American Wool and Cotton Reporter* 1906:897; Brown 1911:392; *Fall River Globe* 1919:1; *Providence Journal* 1906:14). A relatively well-known and successful mill engineer and architect in New England by the early 1880s, Thompson left his independent architectural and engineering practice in 1883 and joined B. B. & R. Knight, where he assumed responsibility for “the engineering work and reconstruction of their 21 mills and bleachery and print work” (*American Wool and Cotton Reporter* 1906:897).

B. B. & R. Knight, Inc. was founded in 1852, when Benjamin Brayton Knight (1813–1898) bought a one-half interest in the Pontiac Mill and bleachery belonging to his brother Robert Brayton Knight (1826–1912). Natives of Cranston, the brothers came from a modest working-class background and grew to become two of the wealthiest men in the United States and to own the “largest cotton textile chain of factories in the world” (Harpin 1976:157). Their father, Stephen Knight, worked as a farm hand for William Sprague II and Elisha Harris, a former governor of Rhode Island and the owner of the Harris Mill (NRDIS 7/27/2007, NRIS 07000761) in Coventry. Benjamin and Robert both briefly worked for the Sprague family at their Cranston print works, Benjamin as an operative from 1831 to 1833 and Robert as a tier boy in 1833. The brothers subsequently pursued careers as merchants and industrialists. Benjamin entered the grocery business in 1835, operating a store near the Sprague print works for three years before establishing a wholesale grocery business with Olney Winsor and L.E. Bowen in Providence in 1838. After purchasing Bowen's share of the business in 1842, Benjamin retained ownership of it until 1849. Robert worked as a clerk at his brother's Providence grocery store from 1843 to 1845 and attended the Pawcatuck Academy from 1845 to 1846. In 1846, he accepted a position as a clerk at John Clark's factory store in Pontiac. Shortly thereafter, he entered the textile manufacturing business, establishing a partnership with mill superintendent Zacariah Parker and leasing the Pontiac mill from Clark. The partners purchased the mill in 1850 and operated it together for a year. Robert purchased Parker's share of the business in 1851 and sold it to Benjamin, who had owned a successful flour and grain business in Providence since 1847. Benjamin, in turn, sold a one-half interest in the flour and grain business to Robert, thereby cementing a partnership that endured for over 40 years (Fields and Olausen 2007; Harpin 1976:157–158).

After its formation in 1852, B. B. & R. Knight, Inc. expanded to replace the A. & W. Sprague Manufacturing Company as the preeminent textile concern in the Pawtuxet River Valley and one of the largest manufacturers in New England. The company acquired two mills in Attleboro, Massachusetts in 1854 – the Hebronsville Mill and the Dodgeville Mill – and the Grant Mill in Providence in 1871. It developed its famous Fruit of the Loom brand of woven muslin cloth during this period. The label, the “first ever pasted on a bolt of cotton goods,” reportedly originated with Robert in the 1850s. It evolved

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from a hand-painted tag depicting a Swaar apple to a standardized set of printed labels, of which there were four versions, by the early 1890s (Kelly 1987:8–7).

The Knight company expanded steadily during the late nineteenth and early twentieth centuries, purchasing the Manchaug Mills (listed as part of the Manchaug Village Historic District, NRDIS 1/16/2018, NRIS 100002026) in Sutton, Massachusetts in 1872, the White Rock Mills in Westerly, Rhode Island, in 1874, and the Fiskeville Mill in Scituate, Rhode Island, in 1877. It acquired its first Sprague factory in 1882 with the purchase of the family's four mill buildings at Natick. It subsequently bought the Arctic Mill for \$175,000 (\$5,111,902.20 in 2021) in 1884 and the Riverpoint Mill (listed at the Royal Mill Complex, NRDIS 4/29/2004, 04000377) in 1885 (Fields and Olausen 2007; Grieve and Fernald 1891:130; Warwick Digital History Project n.d.). Benjamin oversaw the company's finances, including the purchase of raw cotton and the sale of finished goods, while Robert focused on production and supervised the enlargement and modernization of the factories and mill villages it acquired (D'Amato 1992:66; Harpin 1976:158). B. B. & R. Knight, Inc. also owned two mills on the North Branch of the Pawtuxet River: the Lippitt Mill (NRDIS 1/11/1974, NRIS 74000053) in West Warwick and the Jackson Mill in Scituate. Benjamin died in 1898, and Robert subsequently bought out his brother's heirs and continued the expansion of B. B. & R. Knight, Inc. With its acquisition of the Centreville Mill (NRDIS 6/10/2005, NRIS 05000582) in 1903, the company became the "the largest individual cotton manufacturer in the world, with an unbroken line of mills and buildings for over four miles in the Pawtuxet Valley alone" (*PBTJ* 1903:317).

When it bought the Centreville Mill in 1903, B. B. & R. Knight, Inc. already owned and operated, under various corporate names, 21 cotton mills with a total capacity of over 11,000 looms and 500,000 spindles and employed approximately 7,000 people (Fields and Olausen 2007; Hall 1901:42; Kelly 1987:8–8). The company produced a variety of products, including fine sheetings, cambrics, twills, sateens, shirtings, and book cloths, which it sold directly to consumers at Knight stores in Boston, Providence, Hartford, New York, Philadelphia, and Baltimore (Fields and Olausen 2007). At the Arctic Mill, B. B. & R. Knight manufactured print cloths and wide sheetings under its Fruit of the Loom brand. It was the only one of the Knight mills in the Pawtuxet River Valley engaged in the manufacture of print cloths (*Providence Journal* 1899:8). At the turn of the twentieth century, the Arctic Mill housed 178 carding machines, 1,040 looms, and 37,000 spindles operated by 425 employees and produced over 5,200 50-yard pieces of cloth per week (Davison Publishing Co. 1901:163). These numbers changed slightly each year, but they remained relatively steady during the ensuing decades. In 1910, the Arctic Mill employed 688 looms, 37,552 spindles, and 400 workers (Davison Publishing Co. 1910:184). By 1920, the number of looms in the building had risen to 722, while the number of spindles and employees had decreased, respectively, to 32,976 and 340 (Davison Publishing Co. 1920:372).

After enlarging the Arctic Mill ca. 1885, B. B. & R. Knight, Inc. undertook few additional alterations to the building. According to a newspaper article published in the *Providence Journal* in January 1899, the Arctic Mill largely retained its mid-nineteenth-century appearance at the turn of the twentieth century. It reported that the "slant roof has been replaced by a flat one, and the ell raised . . . but otherwise, the mill remains as it was originally built" (Figure 7) (*Providence Journal* 1899a:8). Most notably, however, the *Providence Journal* described the Arctic Mill and Arctic Village as the quintessential New England textile factory and town, shown in public school textbooks throughout Rhode Island:

For nearly a generation, one of the standard geographies used in Rhode Island schools has contained a picture of a typical New England factory village. Few, however, of the

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countless thousands of boys and girls who have thumbed their geographies during the past 30 years were aware of the location of the “typical village” thus depicted with its huge stone factory, rows of tenement houses and team of horses drawing their load of cotton over the wooden bridge, under which ran the river, which supplied the power that turned the mill wheels. Pawtuxet Valley boys and girls knew where it was, however, and doubtless many a traveller [sic] on the trains that run between Providence and Willimantic has recognized the picture as the train sped past the village of Arctic, the prettiest of the villages built and named by the Spragues in the heyday of their prosperity and power (*Providence Journal* 1899a:8).

Despite the changes made to the Arctic Mill by B. B. & R. Knight, the *Providence Journal* noted that they “have been fewer and less noticeable than at any of the other villages along the Pawtuxet Valley, and the passing traveller [sic], whose memory retains the impressions made by his school-book pictures, will easily recognize it” (*Providence Journal* 1899a:8). The only documented exterior alterations to the Arctic Mill property undertaken by B. B. & R. Knight, Inc. involved the construction of a new coal and wood yard on the west side of the river, adjacent to the storehouse; the enclosure of the mill yard with a wood picket fence, which spanned both sides of the river, in 1887; and the erection of the **No. 1 Storehouse** between 1889 and 1895 (Figure 8) (Everts & Richard 1895; *Pawtuxet Valley Gleaner* 1887). In 1917, the company upgraded the fence, adding poured concrete **Gateposts** with round ball top post caps, four of which remain extant at their original locations on the Arctic Mill property (see Photo 24).

The presence of the Arctic Mill fostered rapid growth and development in Arctic Village and helped to transform it into central Rhode Island’s major regional commercial center during the late nineteenth and early twentieth centuries. As one of the largest employers in West Warwick, the Arctic Mill attracted thousands of new residents and dozens of new businesses to the area. While Natick was the largest village in West Warwick at the turn of the century, with a population of over 3,000 people, Arctic’s population exploded under the ownership of B. B. & R. Knight, Inc. Between 1875 and 1895, the population of Arctic nearly tripled, rising from approximately 1,000 to almost 3,000 people (RIHPHC 1987:16). Arctic also developed a thriving commercial core in the 1880s and 1890s. Located on the west bank of the river, opposite the Arctic Mill, the village housed a post office, a hotel, two churches, a school, and multiple commercial blocks surrounded by a dense network of two- and three-story tenements for workers set along the roads closest to Main Street. These factors, coupled with the large-scale improvements undertaken by B. B. & R. Knight, Inc. to the Arctic Mill ca. 1885, established Arctic as “the busiest and largest village in West Warwick” and signaled its “emergence as the town’s civic center” (RIHPHC 1987:33). By the 1920s, Arctic “had surpassed all other West Warwick villages in population” and represented a major manufacturing and commercial center “whose department and specialty stores drew shoppers from all of central Rhode Island” (RIHPHC 1987:22).

According to historian Mathias P. Harpin, Robert Knight possessed a reputation as a “master of employee relations,” but the Arctic Mill, along with other Knight factories in the Pawtuxet River Valley, experienced at least three labor strikes in the late nineteenth and early twentieth centuries (Harpin 1976:160). All of the mule spinners and ten carders employed at the Arctic Mill went on strike to demand higher wages on March 15, 1886. At the time, mule spinners earned between \$7.50 (\$219.08 in 2021) and \$8.00 (\$233.69 in 2021) per week, and carders earned \$5.50 (\$160.66 in 2021) per week. The strike spread to other departments at the Arctic Mill, including the weaving department, and briefly brought textile production to a standstill, but it ultimately failed in less than two weeks (*Evening Bulletin* 1886:3; *The New York Times* 1886:7). *The New York Times* reported that half of the machinery had been restarted on March 27,

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1886, and that most workers had informed the superintendent they would return to work at their pre-strike pay rates (*The New York Times* 1886:7).

On April 11, 1899, a second strike brought operations at the Arctic Mill to a standstill, when its 400 weavers, carders, and spinners walked off the job to protest wage reductions implemented the prior year. It is unknown from available documentation if the strike originated at the Arctic Mill, but it did involve all of the Knight textile factories in the Pawtuxet River Valley, including the Royal, Valley Queen (NRDIS 11/19/1983, NRIS 84001880), Pontiac (NRDIS 6/5/1972, NRIS 72000019), and Natick (not extant) mills, and approximately 2,400 mill operatives. While employees at the Arctic Mill returned to work less than a week later, after B. B. & R. Knight, Inc. agreed to return wages to pre-1898 levels, the strike continued at the other Knight mills. This left 2,000 workers unemployed, which represented “the greatest number that have been idle in the Knight mills since the strike began” (*Providence Journal* 1899b:2). Operatives employed in the mule room at the Arctic Mill initiated a third strike in the early fall in 1912, when they “left their work and went out” (*Providence Journal* 1912:15). In contrast to the two previous strikes, the 1912 strike involved a labor union. The Arctic Mill operatives belonged to the Industrial Workers of the World (IWW), a labor union founded in Chicago in 1905, and sought to recruit other Pawtuxet Valley textile workers because, in the pro-business words of the *Providence Journal*, they wanted “to prevent other operatives from taking their places” (*Providence Journal* 1912:15). These efforts ultimately proved to be unsuccessful. A representative of the IWW addressed a mass meeting of Pawtuxet Valley operatives held in Arctic in September, “and while many avowed a willingness to become affiliated with a union, the numbers were so limited in each department represented that nothing of a definite nature was accomplished” (*Providence Journal* 1912:15).

The largest and most devastating strike involving the Arctic Mill, however, occurred ten years later. Known as the Textile Strike of 1922, it began at the Royal Mill on January 23, 1922, when calls from a handful of employees for a strike to protest a wage cut of 20 percent and longer working hours evolved into a general walkout in which approximately 250 weavers left the mill, thereby forcing the mill to suspend operations. The new wage reductions came one year after B. B. & R. Knight, Inc. had instituted a cut of 22.5 percent. In staging their walkout, the weavers of the Royal Mill began “what was to become one of the most protracted and bitter labor stoppages in Rhode Island’s history” (Fields and Olausen 2007). During the ensuing days, the strike spread to all but two of the Pawtuxet River Valley’s textile mills and involved approximately 4,700 operatives, or 80 percent of the valley’s textile workforce. The Arctic Mill and the Knight Mill at Centreville closed on January 24, 1922, one day after the Royal, Valley Queen, Natick, and Pontiac mills had ceased to operate (*Evening Bulletin* 1922a:1). By February, the strike involved more than 28 textile factories in the Pawtuxet and Blackstone River valleys and approximately 15,000 textile workers in Rhode Island, including about 420 from the Arctic Mill (*Evening Bulletin* 1922b:1).

The strike also expanded into New Hampshire, Massachusetts, and Maine, with textile workers in those states staging a massive walkout in February to protest wage reductions of up to 20 percent. These walkouts brought production at many factories, including the massive Amoskeag Mills in Manchester, New Hampshire, to a standstill and broadened the significance of the Textile Strike of 1922 “to a regional level” and “crippled textile production in New England” (Fields and Olausen 2007). The strike continued into September 1922, but production at most mills in Rhode Island and all of B. B. & R. Knight, Inc.’s factories, including the Arctic Mill, had returned to pre-strike levels by mid-July. Although the Textile Strike of 1922 ultimately failed to achieve its immediate goals, it had long-lasting political implications in Rhode Island. Many of the textile operatives who organized and participated in the strike, including

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those employed at the Knight mills in Natick, Riverpoint, Arctic, and Centreville, were of Italian descent (*Evening Bulletin* 1922a:1; Fields and Olausen 2007). Recognizing the power of organized direct participation in the political process, which included the establishment of permanent industrial unions and voting for Democratic candidates running on pro-labor platforms, Rhode Island's immigrant textile worker population, most notably the Italian-American community, developed into a powerful voting bloc and played a large role in shifting control of the State Legislature, which had long been held by the Republican Party, to the Democratic Party (Fields and Olausen 2007).

By the time the Textile Strike of 1922 occurred, the Knight family was no longer involved in the textile industry. After Robert Knight died in 1912, control of B. B. & R. Knight, Inc. passed to his sons Webster Knight (1854–1933) and Clinton Prescott Knight (1861–1933). They retained ownership and control of the firm for eight years. Likely sensing the imminent decline of the textile industry in New England and the associated problems of widespread wage cuts and labor unrest, they sold B. B. & R. Knight, Inc. to Frank K. Rupprecht, president of the Consolidated Textile Company of New York, for \$20 million (\$263,111,784.50 in 2020) on September 17, 1920. The sale included all of the company's mills, tenements, and company farms in Rhode Island. The Consolidated Textile Company, which also owned textile mills in North Carolina, Virginia, Massachusetts, Texas, Kentucky, and Georgia, continued to operate the Knight mills under the name of B. B. & R. Knight, Inc. and to produce the Fruit of the Loom brand. During the summer of 1921, the company undertook a massive modernization of the former Knight textile empire. It sold off almost all of the outside assets belonging to B. B. & R. Knight, most notably the farms and company stores (though not the Arctic Mill store), and replaced all of the cotton machinery in each of the mills, including the Arctic Mill. Apart from reconstructing the Royal Mill (NRDIS 4/29/2004, NRIS 04000377) in Riverpoint, which had been destroyed by fire in 1919, the Consolidated Textile Company did not make any significant physical changes to the former Knight mills (Fields and Olausen 2007). The Arctic Mill complex retained its ca. 1885 configuration, with the five-story, L-plan factory, an attached two-story picker house (not extant), the office, a boiler house (not extant, demolished in 1956), the company store, and the two storehouses. Other ancillary structures, none of which are extant today, included a waste house, a lumber shed, and a garage (Figure 9).

The year 1921 was one of B. B. & R. Knight, Inc.'s most profitable, due to high production rates and the 22.5 percent wage cuts instituted that year. In 1921, the company produced over 21 million yards of Fruit of the Loom cloth and employed over 3,600 textile operatives in Rhode Island (Davison Publishing Co. 1922; Fields and Olausen 2007; *PBTJ* 1922:16). The newly rebuilt Royal Mill was the company's flagship facility, and one of its largest, with 109,000 spindles, 2,910 looms and over 900 employees (Fields and Olausen 2007; *PBTJ* 1922:16). Other B. B. & R. Knight, Inc. factories – including the Centreville Mill (NRDIS 6/10/2005, NRIS 05000582), the Pontiac Mill (NRDIS 6/5/1972, NRIS 72000019), the White Rock Mill, the Clinton Mills in Woonsocket, and the Arctic Mill – operated at a smaller scale. Arctic Mill employed 178 carding machines, 719 looms, 32,976 spindles, and 340 workers (Davison Publishing Co. 1922:363-4, 370, 376).

B. B. & R. Knight, Inc. experienced economic hardships soon after its acquisition by the Consolidated Textile Company. In 1924, the company defaulted on interest payments on its bonds, and the bondholders assumed control of its mills. A new corporation known as the B. B. & R. Knight Corporation of Rhode Island was established on March 24, 1926, for the "purpose of reorganization and was authorized to issue 112,805 shares of common stock" (*Providence Journal* 1926 as cited in Fields and Olausen 2007). The B. B. & R. Knight Corporation purchased the assets of B. B. & R. Knight, Inc., including the Arctic Mill, all of the tenements, and miscellaneous village properties, for \$1,400,000 (\$20,844,263.36 in 2021) at a

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public auction in Fall River, Massachusetts, in July 1926 (Fields and Olausen 2007; Harpin 1976:169; *Providence Journal* 1926). The only bidder at the auction was Samuel H. Swint, the president of the B. B. & R. Knight Corporation. The Arctic Mill and the other former Knight mills remained in operation during the transition (Fields and Olausen 2007; *Providence Journal* 1926).

Despite its reorganization, problems associated with the decline of New England's textile industry and the Great Depression (1929–1939) continued to plague the Arctic Mill and the B. B. & R. Knight Corporation. By the end of 1932, the mill's workforce "had shrunk by a third from what it had been in the early 1920s" (D'Amato 1985). The B. B. & R. Knight Corporation manufactured textiles at the Arctic Mill until 1935, when it entered bankruptcy and liquidated its assets. The company subsequently subdivided the Arctic Mill property, which spanned both sides of the South Branch of the Pawtuxet River at the time, and sold off most of the buildings. Between 1934 and 1937, the company sold its former tenement houses on Earl, Factory, First, Second, and Third streets to various private individuals. In 1935, the B. B. & R. Knight Corporation subdivided the former Arctic Mill Company Store from the Arctic Mill property and sold it to Krawchuk & Carey, Inc. The Arctic Mill temporarily ceased to operate in February 1935 (Fields and Olausen 2007; *Providence Journal* 1935a). At the time, it only employed between 80 and 90 people (*Providence Journal* 1935b:5). It was inactive through December 1935, when the B. B. & R. Knight Corporation sold the last of the machinery from the factory (*Providence Journal* 1935c:3).

1936-1959: Westover Fabrics, Inc. and American Luggage, Inc.

One year after the B. B. & R. Knight Corporation ceased to operate the Arctic Mill, the factory reopened under the ownership of Westover Fabrics, Inc. The company also owned, and presumably utilized, the office, boiler house (demolished in 1956), and storehouses on the west side of the river. On February 9, 1936, the *Providence Journal* announced that the company had occupied and begun to produce fabric at the factory (*Providence Journal* 1936:22). Established in 1936 by Weston Howland, Westover Fabrics, Inc. manufactured "rayon fabrics for the underwear and dress goods trade" (*Providence Journal* 1936:22). Howland was president of Warwick Mills, a textile manufacturing company founded in 1896 and based in Centreville Village in West Warwick, approximately three-quarters-of-one-mile southwest of the Arctic Mill and Arctic Village, that began manufacturing rayon fabric in the late 1920s and early 1930s. In February 1936, Westover Fabrics ran approximately 100 looms and employed approximately 75 operatives at the Arctic Mill (*Providence Journal* 1936:22). Another new firm, the Standard Manufacturing Co., briefly occupied the factory with Westover Fabrics, Inc. in 1937. The Standard Manufacturing Co. manufactured "ladies' garments" using "cloth finished at the Pontiac bleachery of the B. B. & R. Knight Corporation" using "the entire upper floor of the Arctic Mill" (*Providence Journal* 1937:21). The Standard Manufacturing Co., however, likely occupied the factory's fifth floor for only one year. Between 1936 and 1939, Westover Fabrics, Inc. quickly expanded its operations. By 1939, it employed 350 people in the manufacture of rayon fabrics at the Arctic Mill, which matched the number of employees working at the mill under B. B. & R. Knight, Inc. in the 1920s (*Providence Journal* 1939:5).

Like many Rhode Island textile companies, Westover Fabrics, Inc. manufactured fabric for the American military during World War II. In January 1941, approximately 11 months before the United States officially entered the war, Westover Fabrics, and several other New England textile manufacturers, signed a contract with the War Department to produce \$59,875-worth of wool bunting (*Providence Journal* 1941:16). After the United States formally entered World War II following the Japanese attack on Pearl Harbor on December 7, 1941, Westover Fabrics, Inc. produced rayon and acetate fabric for the American military. In 1943, the company operated 400 looms at the Arctic Mill with 165 operatives engaged in

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“weaving, warping, winding, spinning, and slashing” (*Providence Journal* 1943:10; War Production Board 1943:374). Westover Fabrics, Inc. also reportedly manufactured trench coats at the Arctic Mill during World War II (RIHPHC 1987:36).

Although new owners acquired Westover Fabrics, Inc. in 1943, the company continued to own the Arctic Mill and manufacture rayon fabric there into the early 1950s. It had further subdivided the former Arctic Mill complex in 1942, when it sold the property containing Storehouse A and the No. 1 Storehouse on the west side of the river to the West Warwick Machine Company, which was owned and operated by Regis L. Derouin (*The Sub* 1943:10; *Textile World* 1943; *Providence Journal* 1951a:2, 1951b:48). The company was apparently renamed in 1951, possibly indicating another change in ownership, for numerous newspaper articles refer to it as “Norman Mills, Inc., formerly Westover Fabrics of West Warwick” (*Providence Journal* 1951a:2, 1951b:48). In 1951, the number of operatives employed at the Arctic Mill, 50 people, was at the lowest point in its history (*Providence Journal* 1951a:2). On November 24, 1952, Westover Fabrics sold the property, comprising 15.7 acres of land on both sides of the river, to Solil Realty Co., Inc. for more than \$150,000 (\$1,485,00.00 in 2021) (*Providence Journal* 1952:17). In the summer of 1953, American Luggage, Inc. moved into the Arctic Mill, where it initially occupied three-and-one-half floors and employed 170 people in the production of “men’s and women’s leather and airplane type luggage,” which it manufactured and sold under the American Tourister brand name (*Providence Journal* 1953:16). Sol Koffler, who founded American Luggage, Inc. in 1932 and served as its president and treasurer, was also treasurer of the Solil Realty Co., Inc., which acted as a real estate corporation on behalf of the luggage company (*Providence Journal* 1953:16, 1960:3).

American Luggage, Inc. grew quickly during the ensuing decade. By 1956, it had expanded to all five floors of the Arctic Mill, which totaled 200,000 square feet of space, and employed 300 people, representing a “100 percent expansion” of its business (Reseigh 1956:64). The number of workers employed by American Luggage, Inc. in 1956 made it the second largest luggage manufacturer in the United States at the time (Reseigh 1956:64). American Luggage, Inc. made few changes to the property apart from the demolition of the boiler house on the north side of Factory Street to accommodate the widening of Factory Street on the east side of the Pawtuxet River and the creation of a parking lot serving American Luggage, Inc. on the north side of Factory Street in 1956 (Figures 10a and 10b) (*Evening Bulletin* 1956:5; *Providence Journal* 1956:3). The Town of West Warwick funded this work, which was undertaken in connection with the construction of the **Senator Francis J. LaChapelle Bridge** in 1956–1957. Named in honor of Senator Francis J. LaChapelle (1913–1979), who represented West Warwick in the Rhode Island State Senate from 1955 to 1971, the reinforced concrete open-spandrel arch bridge was designed by Rhode Island state bridge engineer Daniel O. Cargill (1898–1981). It replaced an earlier semi-thru truss bridge that carried Factory Street across the Pawtuxet River at the same location after the abutments supporting the approach to the bridge on the west side of the river collapsed March 11, 1956 (*Evening Bulletin* 1956:5, 1957:2; *Providence Journal* 1957:3, 1979:26). American Luggage, Inc. may also have demolished the former Wakefield Mill, which had functioned as a storehouse under the ownership of the A. & W. Sprague Manufacturing Company and B. B. & R. Knight, Inc., though it is possible this occurred during the ownership of Westover Fabrics (see Figure 10a). The Wakefield Mill had apparently fallen into dis-use and disrepair by 1941, as evidenced by an aerial photograph published in George B. Haven’s *Industrial Fabrics: A Handbook for Engineers* (Figure 18).⁵

⁵ The building was demolished sometime between 1941 and 1963 (the next available date for aerial imagery at the site), although the exact date of the demolition is unknown.

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American Luggage, Inc. was perhaps best known for its Tri-Taper line of luggage, whose “revolutionary construction” of high-pressure, low-density molded plastic and fiberglass resulted in a “one-piece case” that did not require a frame and was roomy, lightweight, and easy to transport (Reseigh 1956:64). Continued demand for its products and the need for more production space prompted American Luggage, Inc. to relocate to the former Warren Textile and Machinery Supply Co. property on North Main Street in Warren, Rhode Island, in 1959, vacating the Arctic Mill building. At the time, approximately 350 people worked for the company in West Warwick (*Providence Journal* 1958:2, 1959:2).

1960-present: Natco Products Corporation & Post-Period of Significance

Solil Realty Co., Inc. retained ownership of the Arctic Mill for less than a year after American Luggage, Inc. moved to its new facility in Warren. In September 1960, it sold the mill and approximately 16 acres of land to the Arctic Development Corporation for around \$203,000 (\$1,825,468.55 in 2021). Incorporated on August 11, 1960, by Frank W. Sleekow, Saul Hodosh, and Norma D. Margera as a real estate development company, the Arctic Development Corporation acquired the Arctic Mill on behalf of Natco Products Corporation. Arthur S. Galkin, founder of Natco, also served as president of the Arctic Development Corporation and announced plans to relocate his company’s production operations from its plant on Post Road in Warwick to the Arctic Mill on September 3, 1960 (*Providence Journal* 1960a:3, 1960b:68). The Arctic Development Corporation merged with Natco Products Corporation in 1986 (Rhode Island Department of State n.d.).

Natco Products Corporation traces its origins to 1917, when Arthur S. Galkin, a shoe store clerk from Providence, Rhode Island, established a wastepaper business on South Water Street. After a fire destroyed the business’s original facility in 1922, Galkin and his partner, Mayer Levitt, relocated their company, the National Waste Paper Company, to Narragansett Avenue and shifted from recycling wastepaper to other products. The company eventually formed a relationship with the United States Rubber Company, recycling the waste from its plants in Providence and Woonsocket and turning them into usable raw materials. Galkin invented a lock-type of mat composed of wire and die-cut tubes of rubber, and his company began to manufacture flooring, mats and stair treads from recycled materials. By 1949, the company had diversified its business model and begun to manufacture beach and travel bags. Galkin’s two sons, Robert and Warren, joined the business in the 1950s and helped to transform the National Waste Paper Company, which had become known as the Natco Products Corporation, into a national and international company with its products sold by all of the major retail chains in the United States and with factories in three states, including Rhode Island, as well as Canada and China (DuJardin 1997: C-01; MacKay 1984:W-01; *Providence Journal* 1983:B-01). The Natco Products Corporation is currently known as the Natco Home Group, and it continues to manufacture floor coverings in addition to window treatments, pillows, tablecloths and other textile products at their facilities at the former Warwick Mills Company complex in West Warwick, Rhode Island; Sanford, Maine; Concord, Ontario, Canada; and Dalton, Georgia (Natco Home 2021).

Natco Products Corporation relocated to the Arctic Mill shortly after it acquired the building in 1960. By 1966, it employed 250 workers on all five floors of the mill in the manufacture of thousands of overnight bags, link door mats, rubber and vinyl stairs treads and matting, fatigue mats, carpet matting, scatter rugs, cushioned rug grip, and commercial vinyl matting. In 1966, Natco Products Corporation also claimed to be the leading manufacturer of airplane bags⁶, with 20 airlines purchasing the product, and the largest producer of beach bags in the United States. Women, whom the company employed as sewers, comprised a major part of the company’s workforce in 1966 (Anderson 1966). Natco Products Corporation used the Arctic

⁶ Airplane bags are small travel bags made of synthetic materials manufactured specifically for airlines.

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Mill for manufacturing into the late 1980s or early 1990s. In 1984, the Galkin family reopened the headrace and tailrace and restored the use of the turbines at the mill to generate electricity, which was sold to local utility companies to generate additional revenue (Dujardin 1997:C-01; Kelly 1987:4; MacKay 1984:W-01). According to a 1993 article in the *Providence Journal*, it appears that Natco Products Corporation had ceased manufacturing in the mill by that time, as much of the first floor was converted to corporate offices and a showroom for the company's floor-covering subsidiary, and that the upper floors were largely empty (*Providence Journal* 1993:A-01). The Arctic Mill was converted to a storage facility by 2000, when Newco Indoor Self Storage occupied the building (*Providence Journal* 2000:D-02). Natco Products Corporation retained ownership until 2021, when it sold the property – including the Arctic Mill and the Office – to Arctic Mill Realty Partners, LLC, the current owner (WWTC 2021:2486/4108), and it was converted to residential use. Storehouse A is occupied by West Warwick Screw Products Company (formerly West Warwick Machine Company), a manufacturing concern, as it has been since the 1940s. The Company Store remains in commercial use, as the home of Marshalls Domestics, which sells linens.

The Arctic Mill Historic District played a significant role in the development of the textile manufacturing industry in West Warwick and Rhode Island. Constructed in 1852-54 and expanded ca. 1885, the Arctic Mill complex was home to two of the largest cotton manufacturers in the country: the A. & W. Sprague Manufacturing Company (1852-1884) and B. B. & R. Knight, Inc. (1885-1935), the latter producing print cloth and wide sheetings under the famous Fruit of the Loom brand. By 1903, B. B. & R. Knight was the largest textile manufacturing company in the world. The Arctic Mill continued to produce fabrics well into the 20th century, while owned by Westover Fabrics, Inc. from 1936-1952, and remained in industrial use while owned by American Luggage, Inc., which grew to become the second largest manufacturer of luggage in the United States, and the Natco Products Corporation, which manufactured various recycled products on site until around 1993. All totaled, the Arctic Mill was in continuous industrial use for over 140 years. The ancillary buildings and structures, including the former company store, storehouses, office building, and water supply features, contribute to the industrial significance of the Arctic Mill Historic District by visually capturing the financial investments made by the A. & W. Sprague Manufacturing Company and B. B. & R. Knight, Inc. in the property at various points during the mid- to late nineteenth century and the early twentieth century, thereby illustrating the significance of the property to their textile empires and West Warwick and Rhode Island, in general, and showing the evolution of the property and textile manufacturing during this period.

CRITERION C – ARCHITECTURE

The Arctic Mill Historic District is significant under Criterion C at the local level in the area of Architecture. It is as an exceptional and well-preserved example of a mid- to late-nineteenth-century textile manufacturing complex that illustrates the distinctive architectural and engineering characteristics of that resource type. When constructed by the A. & W. Sprague Manufacturing Company between 1852 and 1854, the Arctic Mill complex consisted of the **Arctic Mill** (1852-1854), **Arctic Mill Dam** (1852), **Headrace** (1852), **Tailrace** (1852), and a **Company Store** (1852). The layout of manufacturing facilities constructed during this period “often demonstrate a concern for a public ‘facade’ for the operation,” and loft buildings were often placed along street frontages to shield the yard area and ancillary buildings from public view. This is evident at the Arctic Mill, where the factory was located at the front of the complex, immediately adjacent to the river and oriented toward the tenement houses on Border, Earl, First, Second, and Third streets. This placement addressed multiple practical and design considerations. In addition to creating a large and impressive front yard, which was presumably enclosed by a prominent gate at the main entrance, the placement of the Arctic Mill also effectively shielded the Arctic Mill Dam, Headrace, Tailrace, and former Wakefield Mill – which the A. & W. Sprague Manufacturing Company used as a waste house and

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paint shop – from view from Border Street (The Underwriters' Bureau of New England 1921) (see Figures 1–3, 9).

After purchasing the Arctic Mill in 1884, B. B. & R. Knight, Inc. added a fifth floor to the building, constructed a two-story picker house off the side (south) elevation of the rear ell, and erected two storehouses on the west bank of the river: **Storehouse A** (ca. 1885) and, later, **No. 1 Storehouse** (1889–1898). In so doing, they effectively reoriented the mill's manufacturing operations to the Hartford, Providence & Fishkill Railroad to the west and created a modified linear plan for the complex. By placing buildings in production sequence, linear plans improved efficiency and were therefore commonly employed at larger operations, including textile manufacturing. They typically followed the course of a river or canal in the early nineteenth century and a railroad line in the latter half (Bradley 1999:66). At some complexes, the linear plan eventually changed to be in an L, U, or I shape as buildings were added. At the Arctic Mill, B. B. & R. Knight, Inc. built connectors (or bridges) over the river and the yard to link the former Wakefield Mill (not extant) and Storehouse A on the west bank to the picker house (not extant) and main mill building on the east bank. Although the connectors/bridges have been demolished, the linear arrangement of the buildings remains apparent. The linear arrangement worked well for B. B. & R. Knight, Inc. with raw cotton brought in at the west end of the complex from the Hartford, Providence & Fishkill Railroad through Storehouse A, picked over in the center in the picker house (not extant), processed and woven into textiles at the east end of the complex in the main mill building, and stored and shipped from Storehouse A at the west end (see Figure 9). The company also strategically built Storehouse No. 1, which it used to store coal and “junk,” immediately adjacent to the railroad. This presumably enabled coal to be unloaded directly from train cars into the storehouse before being moved to the boiler house (not extant) via Factory Street (see Figure 9) (The Underwriters' Bureau of New England 1921). B. B. & R. Knight, Inc. also built an **Office** (ca. 1885) immediately adjacent to Factory Street which, typical of freestanding office buildings at industrial complexes in the nineteenth and early twentieth centuries, was designed to be a “highly visible freestanding structure on the street” (Bradley 1999:60).

The buildings that comprise the Arctic Mill Historic District exhibit the typical industrial building techniques, materials, and forms that were popular in the mid- to late nineteenth century. They are utilitarian in design with limited architectural details, but have some Greek Revival and Italianate-style influences as applied to industrial buildings, including arched windows, bracketed and molded cornices, and decorative stonework. The Arctic Mill and the Office are the most ornate, likely because they were public-facing along Border and Factory streets.

The buildings in the Arctic Mill Historic District also represent the evolution of fire-resistive construction methods during this period. With the exception of the **No. 1 Storehouse**, they all utilize fire-resistive construction characterized by timber frames and thick gravity walls composed of mortared stone, which was common for industrial architecture and consistent with textile factories constructed in the Pawtuxet River Valley into the late nineteenth century (Kierstead and Matos 2004:8–6). The Arctic Mill, in particular, is an excellent and well-preserved example of a typical New England industrial loft building. It utilizes fire-resistive construction, characterized by its five-story, thick granite masonry walls; long, narrow layout; exterior stair tower; heavy interior timber framing; and multi-layer wood plank floors. Its low-pitched, side-gable roof speaks to the longevity of the industrial loft building type and how it evolved to meet the changing requirements of the textile industry in the late nineteenth century (Bradley 1999:25, 29–34, 93, 117–121, 126–129, 155; Brooks 1906:50, 54–68; Kierstead and Matos 2004:8–5).

The Arctic Mill was one of at least 49 mills in Rhode Island of stone masonry construction. This method of construction is found throughout Rhode Island and neighboring parts of Connecticut and Massachusetts.

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It is most prevalent, however, in the Pawtuxet River Valley, where it predominates over the brick construction more commonly associated with mid- to late-nineteenth-century New England industrial architecture due to the ample supply of stone in the region. Although all of these mills employ thick gravity walls composed of mortared stone, they exhibit a range of exterior finishes and ornamentation. For walls composed of square-cut ashlar blocks, such as those at the Arctic Mill and the Valley Queen Mill (NRDIS 1/19/1984, NRIS 84001880) in West Warwick, masons typically only employed narrow mortar joints. For walls built with rough-cut ashlar blocks, masons generally used a wide layer of mortar between the joints, which was often scored while still wet to delineate the joint lines beneath, to ensure a smoother appearance. The exterior of mills constructed of uncut rubble or roughly-dressed blocks, such as the Phenix Mill (not extant) in West Warwick, were typically finished with stucco, which was sometimes carefully scored to imitate coursed, square-cut ashlar. In rare cases, most notably at the Anthony Mills (NRDIS 9/20/2010, NRIS 10000770) in Coventry, designed by Stone & Carpenter in 1872–1874, builders and architects added ornamentation, including quoins and brick and stone trim around windows and doors and on the towers (Kierstead and Matos 2004:8–6).

The Arctic Mill is also significant as an early and unusual example of a textile mill with Italianate-style influences in Rhode Island (McCarthy 1940:23; *Providence Journal* 1940:83). With its deeply overhanging eaves, decorative brackets, quoins, square front tower, and the paired arched windows surmounted by hoods on the upper two stories of the front tower, the Arctic Mill, especially the front tower, displays some of the most common character-defining features of the Italianate style. According to a survey of historic Rhode Island mill properties conducted in 1940, with few exceptions, “the ‘Italian’ styles were not used in mill buildings” (McCarthy 1940:23). In fact, only six Rhode Island mill complexes, including the Arctic Mill, exhibit Italianate-style details (Kulik and Bonham 1978). These include the Georgiaville Mill (NR-listed 1985, NRID 85002734), the office buildings at the National Rubber Company complex (NR-listed 1975, NRID 75000053), the stair tower at the Warren Manufacturing Company (NR-listed 1974, NRID 74000035), the stair towers at the Providence Tool Company (NR-listed 2004, NRID 400080), and the Alice Mill (destroyed by fire in 2011). These buildings were constructed between 1853 and 1869 and incorporate varying levels of Italianate-style decorative details, including arched windows and doors, bracketed roofs, and corbelled cornices. The Georgiaville Mill and the National Rubber Company office buildings possess the same heavy granite ashlar masonry walls as the Arctic Mill, while the stair towers at the Warren Manufacturing Company, the Providence Tool Company, and the Alice Mill are brick (Clem 2019; Greenwood 1979; Kierstead and Olausen 2003; Kulik and Bonham 1978:36, 195, 238, 277; Lynch 1973; Warren 1974).

Biographical Information

Following are brief biographies of individuals involved with the design and construction of resources within the Arctic Mill Historic District.

William Sprague III (1799–1856)

William Sprague III, who designed the Arctic Mill in 1852–1854, was born on November 3, 1799, at his family’s home (the Governor William Sprague Mansion, NRIS 2/18/1971, NRID 71000002) in Cranston, Rhode Island. He was the second son of William Sprague II and Anne (née Potter) Sprague. Although his father was a successful farmer and businessman, William III attended common school in Cranston and only received a limited formal education. He began working in the textile mill his father established on the Pocasset River in Cranston, which eventually grew into the Cranston Print Works, the oldest and largest textile printing business in the United States, at a young age. According to the *History of the Sprague*

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Families of Rhode Island, William III possessed a keen technical mind and successfully adapted incomplete designs for water-powered looms brought from England for use in his father's mill, which made it one of the earliest textile manufacturers in Rhode Island to employ water-powered looms (Knight 1881:21–22). After leaving a long career in politics, William Sprague III assumed control of his family's textile business.

Under William III's leadership, the A. & W. Sprague Manufacturing Company drastically expanded its textile business, acquiring existing mills along the Pawtuxet River and constructing several new ones in the 1840s and 1850s. William III designed at least two of the new mills erected by the A. & W. Sprague Manufacturing Company during this period. In addition to the Arctic Mill, the design of the Quidnick Mill in Coventry has also been attributed to him (Manire n.d.). Constructed in 1847–1848, the Quidnick Mill is a four-story, Greek Revival-style granite building with a clerestory roof and thick gravity walls composed of mortared stone. The Quidnick Mill originally had a five-story stair tower topped by a hip roof with flared eaves identical to that at the Arctic Mill centered on its facade. The Quidnick Mill remains extant on the east bank of the Pawtuxet River at the intersection of Washington and Quidnick streets, but the stair tower has been altered. Besides overseeing the A. & W. Manufacturing Company, William III also served as president of the Hartford, Providence, and Fishkill Railroad, the Globe Bank, and the People's Savings Bank (D'Amato 2001:79–80; Find a Grave 1999; Harrington 1970; Jones 1983; Knight 1881:21–33; Manire n.d.; *Newport Mercury* 1856:2).

Henry T. Potter (1821–1897)

Henry T. Potter, who supervised the construction of the Arctic Mill in 1852–1854, was born in Johnston, Rhode Island, on October 1, 1821. He was the son of Reverend Nicholas G. and Anna Frances (née Harris) Potter. After graduating from the Smithfield Seminary in North Scituate, Potter initially engaged in manufacturing machinery for Rhode Island's cotton textile industry. By 1852, the 31-year-old Potter was known as an engineer who specialized in the “construction of mills, dams and machinery and the laying out of mill villages” (Cutter 1913:1681). In addition to overseeing the construction of the Arctic Mill, Henry also reportedly laid out and built the worker housing erected by the A. & W. Sprague Company along Border and Earl streets, and briefly served as the Arctic Mill's first superintendent. In 1856, he moved to Baltic, Connecticut, where he “laid out a village, [and] made the necessary plans and superintended the construction of the big dam” and the Baltic Mill for the A. & W. Sprague Manufacturing Company (Cutter 1913:1861). Completed in 1857, the Baltic Mill was the company's largest textile mill and, at one time, was the largest textile mill in the United States with a workforce of over 1,000 employees, 1,750 looms, and 70,000 spindles (CTHumanities 2021; Roth et al. 1986). The Baltic Mill was listed on the National Register of Historic Places as part of the Baltic Historic District in 1987 (NRDIS 8/3/1987, NRIS 87001247).

Potter left the employment of the A. & W. Manufacturing Company in 1863 and moved to Norwich, Connecticut. He planned and constructed the industrial village of Taftville in Norwich in the 1860s and designed and built a number of dams and canals in Connecticut. In 1878, Potter was appointed to Connecticut's board of engineers, where he supervised the construction of dams and reservoirs throughout the state. He remained in office until shortly before his death in 1897. Potter also worked as a consulting engineer and expert in mill construction during the last decades of his life, and his “advice was often sought, and great confidence was reposed in his judgement” (Cutter 1913:1861). He became an honorary member of the Connecticut Association of Civil Engineers and Surveyors in 1887. Potter married Sarah Barker in 1848, and the couple had four children. He died in Norwich at the age of 75 on September 20, 1897 (Cutter 1913:1861; Find a Grave 2012b; *Providence Journal* 1860:1; Wolf 2011:9).

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Horace Foster (1806–1880)

Horace Foster, the mason who constructed the Arctic Mill complex in 1852, was born on November 19, 1806, in Foster, Rhode Island. He was the second son of John and Polly Foster. He briefly lived with his parents in a Shaker community, but he returned to Foster in 1826 to live with his older brother. In 1833, he apprenticed himself to Nathan Haile to become a mason. He received his first independent commission for a two-story store one year later in 1834. He moved to Anthony in 1838 and constructed his first mill buildings at the Taft Print Works in Quidnick in 1841–1842 (*Pawtuxet Valley Gleaner* 1892:2). During the ensuing decades, Foster constructed numerous textile mills and railroad abutments in Rhode Island and Massachusetts. These included mills in Crompton, East Greenwich, Centreville, Riverpoint, and Pawtucket, Rhode Island, and in Whitinsville and Fiskdale, Massachusetts. Beginning with the Quidnick Mill⁷ in 1847, the A. & W. Sprague Manufacturing Company employed Foster to construct and expand the mill complexes it acquired in the 1850s and 1860s, including the Arctic Mill in 1852–1854, the Baltic Mill in 1856–1857, and the Cranston Print Works in 1866. After a fire destroyed the Arctic Mill in 1865, Foster reconstructed the building. His other notable commissions include the Tiogue Reservoir and dam in Coventry, the Rhode Island State Farm in Cranston, the foundations for the Rhode Island State Prison in Cranston, the Dry Brook Reservoir in Cranston, the Division Street Bridge in Pawtucket, and the Pawtucket Water Works pumping station. Together, these commissions made Foster southeastern Rhode Island’s “most prolific mason” (RIHPHC 1978:24). Foster married Sarah Bachus in Newport in 1837, and the couple had two children. He died at the age of 73 in Pawtucket on August 23, 1880 (Find a Grave 2011b; *Pawtuxet Valley Gleaner* 1883:3, 1892:2).

John W. Money (1821–1902)

The details of John W. Money’s personal and professional life are largely unknown. Based on available primary and secondary sources, he was born on September 22, 1821, to Allen and Penelope (née Westcott) Money. By 1865, he worked for the A. & W. Sprague Manufacturing Company as the superintendent of the Arctic Mill. According to contemporary newspaper articles, he designed and supervised the reconstruction of the mill after it burned on March 17, 1865. Money continued to work as the superintendent of the Arctic Mill through at least 1868. He was married three times to Hannah Segar (1820–1861), Honor Tillinghast, and Carrie L. Davol (1854–1913) and had at least five children. Money died at the age of 80 on August 26, 1902, in Charlestown, Rhode Island (*Evening Bulletin* 1867:6; Find A Grave 2014; *Manufacturers’ and Farmers’ Journal* 1868:1).

David M. Thompson (1839–1906)

David M. Thompson designed and supervised the large-scale improvements to the Arctic Mill complex, including the renovation and expansion of the mill building, undertaken by B. B. & R. Knight, Inc. after it purchased the property in 1884. Born in Somersworth, New Hampshire, in 1839, Thompson was the oldest child of Joseph H. and Lydia B. (née Moulton) Thompson. Inspired by his father, who worked as a frame and mule spinner and mill superintendent for the Great Falls Manufacturing Company, Thompson entered the textile industry at the age of 14 and worked as a back boy, cleaner, frame spinner, and doffer. After graduating from high school, he spent several years working in mills in Manville, Rhode Island, where he studied all aspects of textile manufacturing and became a master mechanic, and as an apprentice carpenter and joiner in Boston. In 1863, Thompson moved to Whitinsville, Massachusetts, where he worked for the

⁷ The Quidnick Mill was established by the A. & W. Sprague Manufacturing Company in 1847–1848 and reportedly constructed on the site of the Taft Print Works, which was presumably demolished to accommodate the new Sprague mill (*Pawtuxet Valley Gleaner* 1892).

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firm of Paul Whitin & Sons (subsequently known as the Whitin Machine Works), which manufactured cotton machinery, for three years. Following a brief stint as the partner in a carpentry and construction firm in Portland, Maine, between 1866 and 1869, Thompson returned to Boston in 1870 and opened an independent architecture and engineering office. During the early 1870s, Thompson became a mill contractor and designed and built a number of large mills, including the No. 3 Mill in Manville, Rhode Island. In 1878–1879, Thompson traveled through Europe and the American South to study cotton and wool textile manufacturing and engineering and mechanical construction. He subsequently returned to New England, where he opened a large mill architecture and engineering office in Providence, Rhode Island. The business expanded quickly and, by 1883, Thompson's firm had become "the leading designer of cotton mills at the South," where it "did a great deal towards the establishment of modern mill buildings in that section" (*American Wool and Cotton Reporter* 1906:897). At the time, the firm employed 37 draughtsman and had commissions for 27 mills throughout New England, the Mid-Atlantic, the American South, and Canada (*Pawtucket Times* 1906:9; *The Providence Journal* 1906:14).

In 1883, Thompson closed his architecture and engineering practice and joined B. B. & R. Knight, Inc. In his role as general manager, Thompson assumed responsibility for managing the company's mills and properties, which included the reorganization and expansion of the Arctic, Natick, and Pontiac mills. At the time, the company's property included 17 mill villages in Rhode Island and Massachusetts, 21 mills, a bleachery, and print works. He remained with B. B. & R. Knight, Inc. for approximately 11 years. Thompson resigned from the company in May 1894 to become the president and treasurer of the newly reorganized Corliss Steam Engine Company, though he remained with B. B. & R. Knight, Inc. in a limited capacity until December 1894 to oversee the completion of the large-scale improvements begun during his tenure as general manager. He also appears to have served as superintendent of the Providence Engineering Works during this period. Thompson briefly rejoined B. B. & R. Knight, Inc. as general manager and superintendent of its mill properties in 1900, but he resigned a second time in 1904 after he was elected president of the F.W. Reynolds Company. In addition to his distinguished career as an industrialist, Thompson was a prominent booster of the City of Providence and advocated for public infrastructure projects, including the improvement of Greenwich Street and the construction of Elmwood Avenue. Thompson and Anna J. Hanners married in Somersworth, New Hampshire, in 1868, and the couple had two children. He died at the age of 67 on June 28, 1906 (*American Wool and Cotton Reporter* 1906:897; *Brown* 1911:392; *Pawtucket Times* 1908:9; *The Providence Journal* 1906:14; *The Providence Sunday Journal* 1894:16).

Daniel O. Cargill (1898–1981)

Daniel O. Cargill, the Rhode Island state bridge engineer who designed the Senator Francis J. LaChapelle Bridge, was born in Cumberland, Rhode Island, to David O. (1850–1928) and Effie Louise Tarbox Cargill (1861–1940). He graduated from the Rhode Island State College (now the University of Rhode Island) with a Bachelor of Science degree in civil engineering in 1919 and joined the Rhode Island Division of Public Works as a junior engineer in 1923. Cargill worked for the Rhode Island Department of Public Works for 46 years, becoming the state bridge engineer in 1926 and the Chief Engineer of the Division of Roads and Bridges in 1959. He retired from the Department of Public Works in 1969. During his tenure with the department, Cargill designed numerous bridges across Rhode Island, "played a major role in developing Rhode Island's interstate highway system, and developed bridge preservation techniques that have been utilized in many states" (Rhode Island Heritage Hall of Fame n.d.). According to the *Evening Bulletin*, Cargill "had a hand in designing at least 350" of the state's approximately 600 bridges (*Evening Bulletin* 1959:18). Cargill received an honorary doctorate from the University of Rhode Island in 1969 and was inducted into the Rhode Island Heritage Hall of Fame in 1972. He married Myrtle L. Golding Cargill (1900–

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1985), and the couple had two children. Cargill died at the age of 83 on December 10, 1981 (*Evening Bulletin* 1959:18; Find a Grave 2011a; *Providence Journal Bulletin* 1981:6; Rhode Island Heritage Hall of Fame n.d.).

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Arctic Mill Historic District
Name of Property

Kent County, Rhode Island
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Arctic Mill Historic District
Name of Property

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Arctic Mill Historic District

Name of Property

Kent County, Rhode Island

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Arctic Mill Historic District

Name of Property

Kent County, Rhode Island

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Arctic Mill Historic District

Name of Property

Kent County, Rhode Island

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Arctic Mill Historic District

Name of Property

Kent County, Rhode Island

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Arctic Mill Historic District

Name of Property

Kent County, Rhode Island

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1855 "New Year's Festival in Warwick." 8 January:2.

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1899a "Arctic Mill." 29 January:8.

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Arctic Mill Historic District

Name of Property

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- 1935c "Grant Mill Goes for \$20,000 Bid." 7 December:3.
- 1936 "In Rhode Island Mills." 9 February:22.
- 1937 "In Rhode Island Mills." 24 January:21.
- 1939 "R.I. Textile Mills Increase Wages." 4 November:5.
- 1941 "R.I. Firms Share in Army Awards." 14 January:16.
- 1951a "Settlements in R.I." 16 March:2.
- 1951b "Imbriglio Renamed by TWUA Local 970." 14 October:48.
- 1952 "Big Arctic Mill Changes Hands." 25 November:17.
- 1953 "Luggage Firm Due to Move." 11 March:16.
- 1956 "\$15,000 Voted for Bridge Traffic Study." 11 July:3.
- 1957 "State Expects 2 Valley Spans to be Ready in 2 Months." 9 March:3.
- 1958 "Luggage Works Plan Expansion, Warren Move." 11 September:2.
- 1959 "Luggage Firm Hires About 50." 19 May:2.
- 1960a "Warwick Firm Plans Move to Arctic Mill." 3 September:3.
- 1960b "R.I. Business Incorporations." 16 October:68.
- 1979 "Franics J. LaChapelle Dies; Colorful Former State Senator." 6 September:26.
- 1983 "One Business Where Nothing Goes to Waste." 3 October:B-01.
- 1993 "Reweaving a Success Story: Valley Hopes to Reweave Success Story in Old Mills." 31 October:A-01.
- 2000 "Notice of Public Sale of Personal Property." 13 July:D-02.

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Arctic Mill Historic District
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Kent County, Rhode Island
County and State

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1943 "House-Warming Banquet Held in W. Warwick Machine Shop." 22 April:10.

United States Economist and Dry Goods Reporter
1867 "The Arctic Mill of the Spragues . . ." 4 May 1867:6. New York, NY.

Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
____ previously listed in the National Register
____ previously determined eligible by the National Register
____ designated a National Historic Landmark
____ recorded by Historic American Buildings Survey # _____
____ recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

____ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other
____ Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreeage of Property 16.22

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

	Latitude	Longitude
A.	41.707894	-71.521446
B.	41.707964	-71.519865

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C. 41.708054	-71.518214
D. 41.704751	-71.519417
E. 41.704940	-71.520537
F. 41.705390	-71.520676
G. 41.705647	-71.521480

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary for the Arctic Mill National Register district corresponds to the legal property boundaries for West Warwick Tax Parcels 016-01050-0-000, 017-0003-0-000, 017-0008-0-000, 016-0130-0-000, and 017-0123-0-000. It encompasses a total area of approximately 16.22 acres, as shown on the attached district map.

Boundary Justification (Explain why the boundaries were selected.)

The district boundary represents the historical extent of the Arctic Mill industrial complex and property, including the mill, office, storehouses, company store, and the associated waterpower system. It encompasses all the extant historic resources associated with the manufacturing activities of the Arctic Mill, first under the A. & W. Sprague Manufacturing Company, then B. B. & R. Knight, Inc., then subsequently Westover Fabrics, Inc. and American Luggage, Inc., and ultimately Natco Products Corporation.

11. Form Prepared By

name/title: Eryn Boyce, Lead Architectural Historian; Alisa Augenstein, Senior Architectural Historian; Devon King, Associate Architectural Historian; Ted Dattilo, Architectural Historian/Archaeologist

organization: The Public Archaeology Laboratory, Inc. (PAL)

street & number: 26 Main Street

city or town: Pawtucket state: RI zip code: 02860

e-mail: eboyce@palinc.com

telephone: (401) 288-6318

date: October 2024

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

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Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property:	Arctic Mill
City or Vicinity:	West Warwick
County:	Kent
State:	Rhode Island
Name of Photographer:	Alisa Augenstein and Eryn Boyce, PAL
Date of Photographs:	August 26, 2024 (Photos #1-13, 15-17, 23-24) May 5, 2021 (Photos #14, 18-22)
Location of Original Digital Files:	Rhode Island Historical Preservation & Heritage Commission, 150 Benefit Street, Providence, RI 02903
Number of Photographs:	24

Photo #1: Arctic Mill from intersection of Factory and Border streets, looking southwest

Photo #2: Arctic Mill from Border Street, looking northwest

Photo #3: Detail of Arctic Mill exterior, stair tower, looking west

Photo #4: Arctic Mill from driveway, looking northwest

Photo #5: Arctic Mill from driveway, looking northeast

Photo #6: Arctic Mill from South Branch-Pawtuxet River, looking southeast

Photo #7: Arctic Mill from Factory Street, looking southeast

Photo #8: Arctic Mill from Factory Street, looking southwest

Photo #9: Detail of Arctic Mill exterior stair tower, looking west

Photo #10: Detail of Arctic Mill exterior stonework and anchor plates, looking north

Photo #11: Detail of Arctic Mill exterior stonework and anchor plates, looking west

Photo #12: Arctic Mill and headrace, filled in and delineated by colored concrete pavers, looking north

Photo #13: Arctic Mill headrace, filled in and delineated by colored concrete pavers, looking southwest

Photo #14: Arctic Mill tailrace, looking north

Photo #15: Arctic Mill Dam, looking southwest

Arctic Mill Historic District

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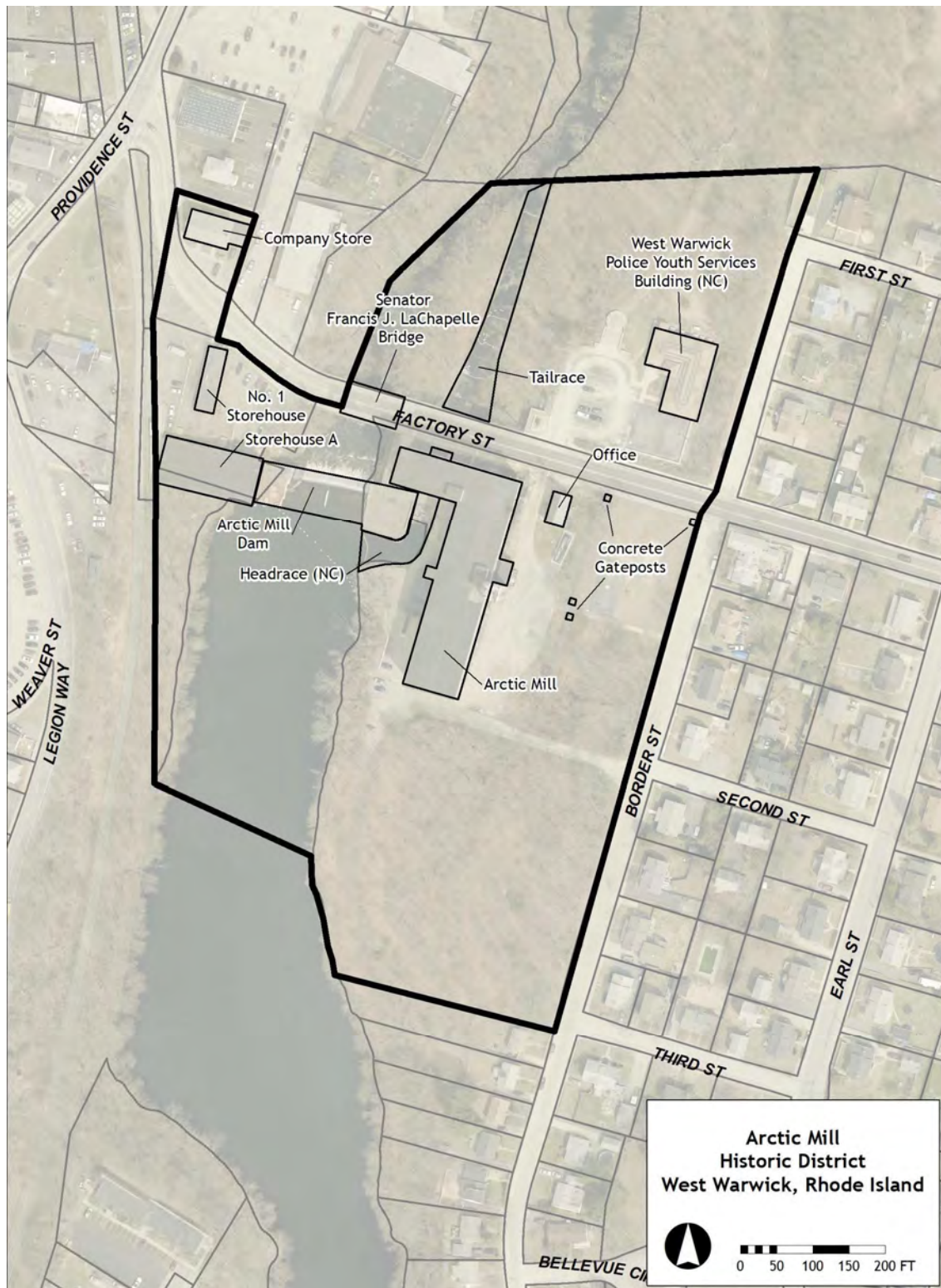
- Photo #16: Arctic Mill Dam, looking south
- Photo #17: Senator Francis J. LaChapelle Bridge, looking northwest
- Photo #18: Storehouse A, looking southwest
- Photo #19: Storehouse A, looking southeast
- Photo #20: No. 1 Storehouse, looking west
- Photo #21: Arctic Mill Company Store, looking north
- Photo #22: Arctic Mill Company Store, looking northeast
- Photo #23: Office, looking southwest
- Photo #24: Gateposts, looking southwest

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.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 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 Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Arctic Mill Historic District
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Sketch map showing Arctic Mill Historic District boundary and resources.

Arctic Mill Historic District
Name of Property

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County and State



Arctic Mill Historic District National Register Coordinate Map.

Arctic Mill Historic District
Name of Property

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Arctic Mill Historic District Factory Street, West Warwick, RI


Photograph Key
Exterior

Photo key (RIGIS, Spring 2024 aerial).

Arctic Mill Historic District
Name of Property

Kent County, Rhode Island
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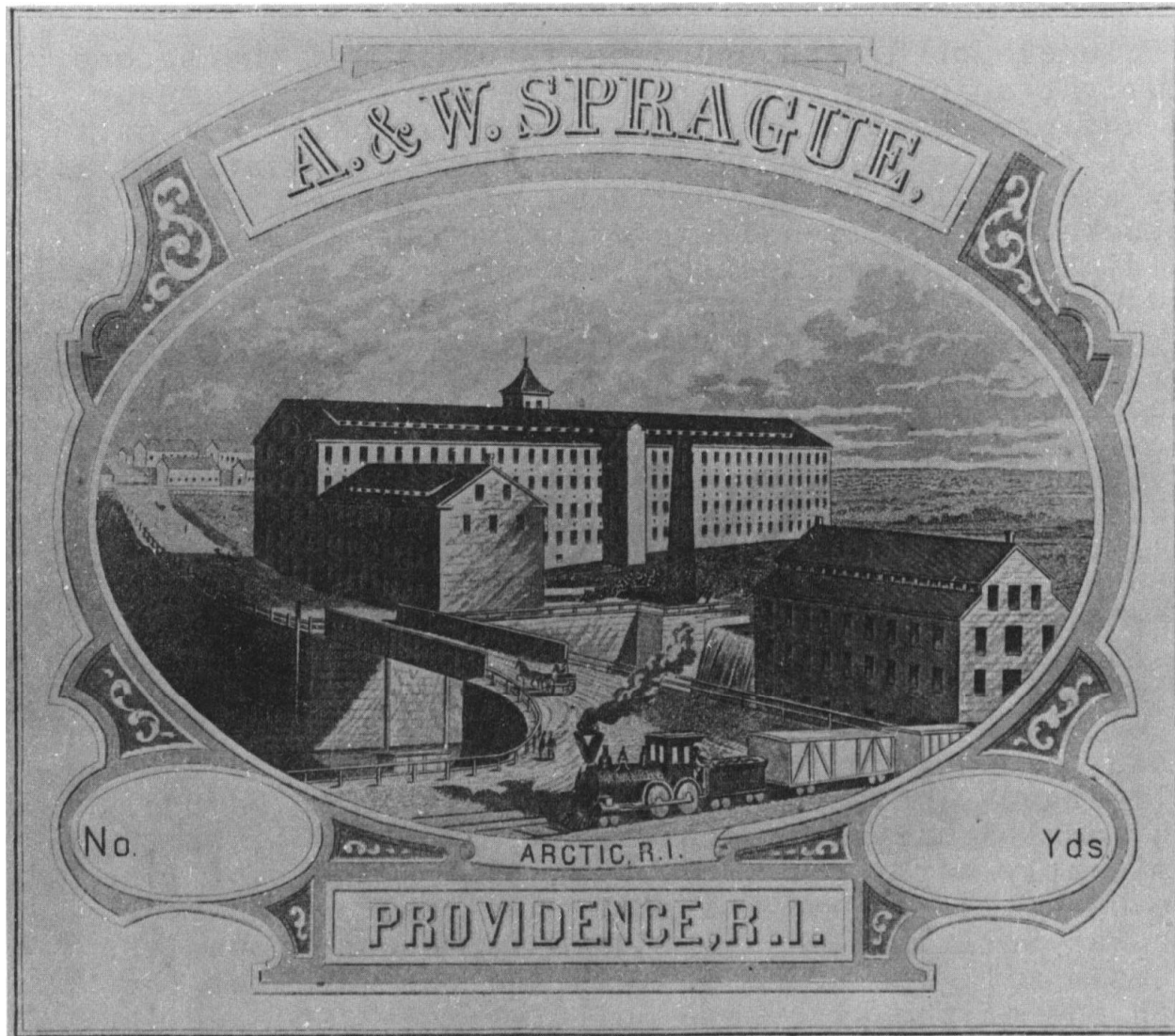


Figure 2. Ca. 1870 view of the Arctic Mill and associated buildings, view looking southeast. The building in the right foreground is the Wakefield Mill (not extant) (Rhode Island Historical Society).

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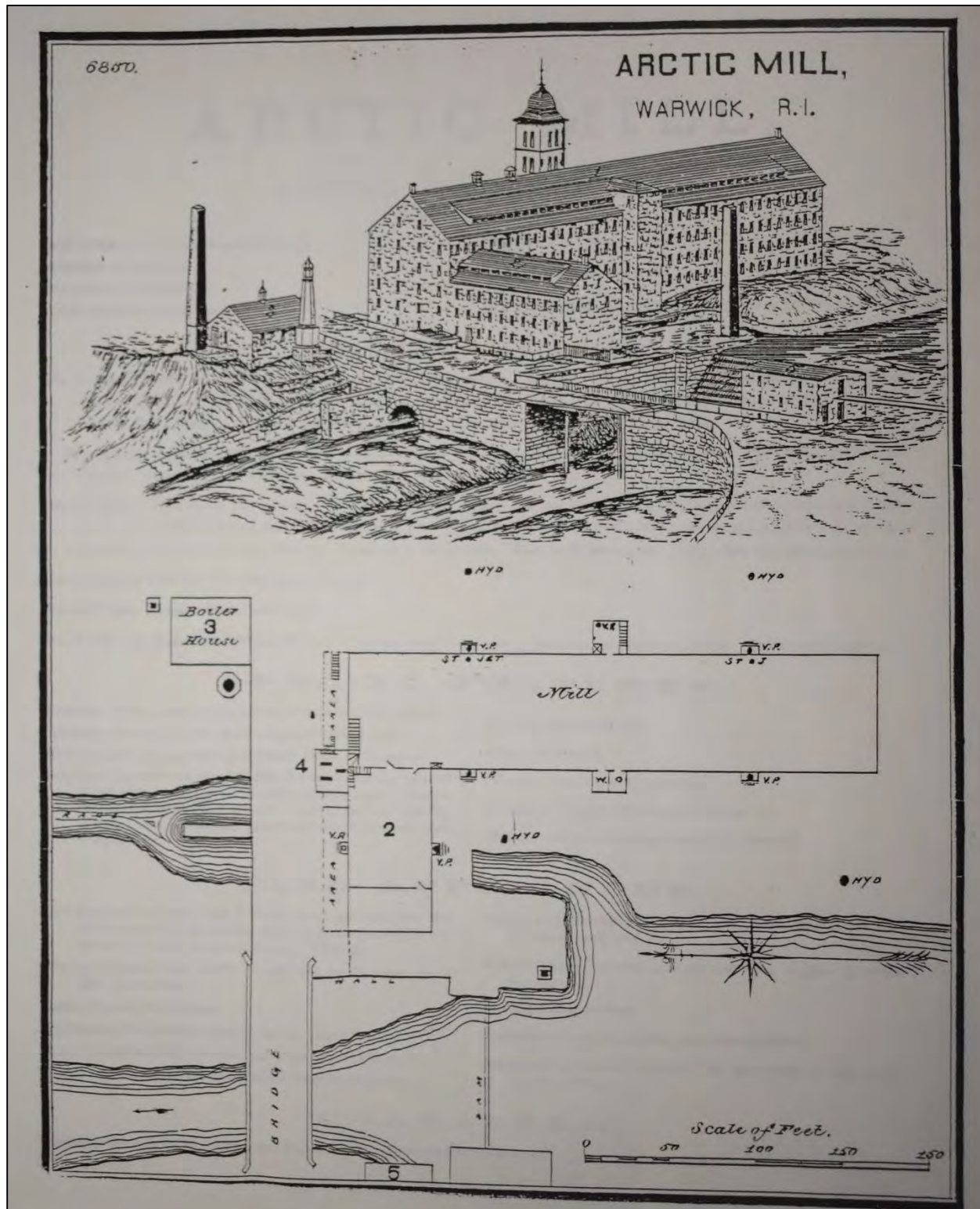


Figure 3a. Ca. 1882 fire insurance map showing the Arctic Mill and associated buildings, view looking southeast (Kelly 1987).

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ARCTIC MILL,
ARCTIC, WARWICK, R. I.

<p>OWNED—By Quidnick Manufacturing Co. GOODS—Print cloths. STOCK—Low middlings. CAPACITY—13,312 spindles.</p>	<p>POWER—Water. EXPOSURE—None near. SURVEYED—September 21st, 1881, by A. H. T.</p>
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DESCRIPTION.

No. 1—MAIN BUILDING—Hxowt—four stories, basement and attic. Size—68x312 feet. Walls—stone; substantial iron and tinned doors to **No. 2**. Roofs—shingle. Cornice—stone. Scuttles—in tower. Ladders—fixed iron ladders. Floors—three and four inch, double. Ceilings—open. Stairs—in tower, also inside, open. Elevator—inside, enclosed, except in attic.

Occupation—Basement, shafting, &c. First story, carding, speeders and spooling. Second story, weaving. Third story, weaving and spinning. Fourth story, mule spinning. Attic, spooling, warping and dressers.

No. 2—Wing—Three stories, basement and attic, 95x50 feet, stone; division wall near west end with iron doors each story; iron doors to mill, in second and third stories and attic. Basement, wheel pit. First story, machine shop; oil room in west end separated by stone wall and iron door; stairs to second story, enclosed. Second story, picker room. Third story, weave room. Attic, roller shop and supply room.

No. 3—Boiler House—One story, stone, slate roof.

No. 4—Pump House—Stone, metal roof.

No. 5—Waste House and Paint Shop—Two stories, stone, gravel roof. First story, paint shop and storage. Second story, waste room.

SPECIAL FEATURES.

<p>Heating—Steam; pipes in some places are loose from the brackets. Lighting—Kerosene in glass lamps suspended by stout wires. Watchman—Day and night; time watch; sperm oil in lantern. Pickers—Lappers are in second of No. 2; communication with mill by tin covered doors; power by shaft; sprinkler pipe; hydrant at vertical pipe; a large cask and good supply of buckets; iron door to opener room in west end; picker room heated by steam; pipes at top of room.</p>	<p>Drying—Slashers in attic. Oils—Lubricating. Waste—Removed every afternoon. Hours of Work—Eleven and a half per day. Boilers—In stone building across street from mill.</p>
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FIRE APPLIANCES.

<p>Fire Pumps—Two large Fales & Jenks pumps, and one good size hydraulic pump in pump house adjoining north side of mill; one medium size steam pump in first story of No. 2. Vertical Pipes—Four outside on mill, and one in tower; one at No. 2, each side. Tank—None for fire purposes. Hydrants—Four outside hydrants; one at steam pump. Hose—Length each floor in tower, and supply for outside pipes. Sprinklers—In lapper and opener rooms, supplied by pumps.</p>	<p>Casks and Buckets—In tower and picker room, also, well distributed each door. Steam Jets—Two, two inch jets each story of No. 1, valves first story. Extinguishers—None. Ladders—Fixed iron ladders, also movable ladders. Auxiliary Aid—An organized fire department at mill; hand engine in village.</p>
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CHARACTER.

Buildings are of good construction, and in good repair. Rooms were neat and orderly. Business apparently very fair.

Figure 3b. Key for ca. 1882 fire insurance map showing the Arctic Mill and associated buildings (Kelly 1987).

Arctic Mill Historic District
Name of Property

Kent County, Rhode Island
County and State

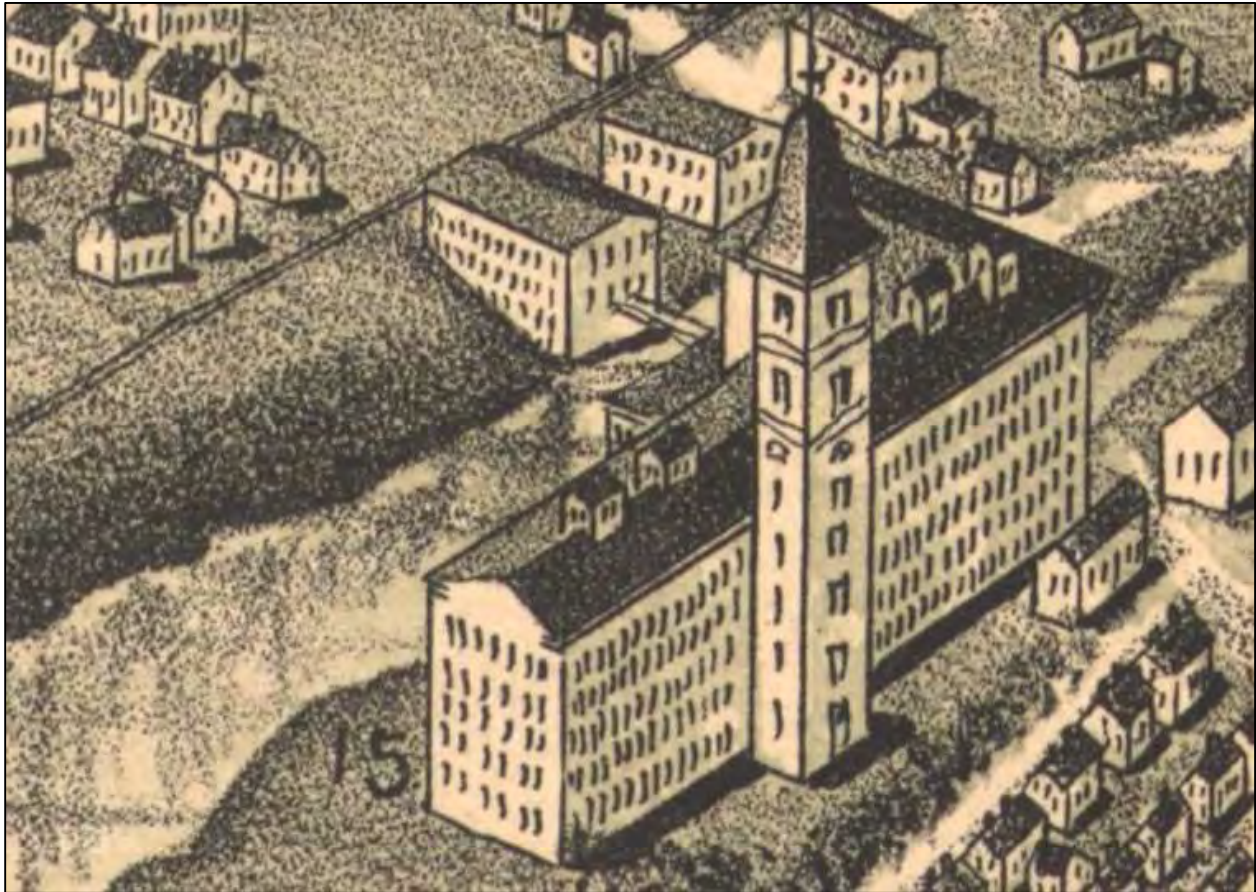


Figure 4. 1889 bird's eye view of the Arctic Mill, associated buildings, and company store, looking northwest (O. H. Bailey & Co. 1889).



Figure 5. 1889 view of the Arctic Mill and associated buildings, looking southeast (O. H. Bailey & Co. 1889).

Arctic Mill Historic District
Name of Property

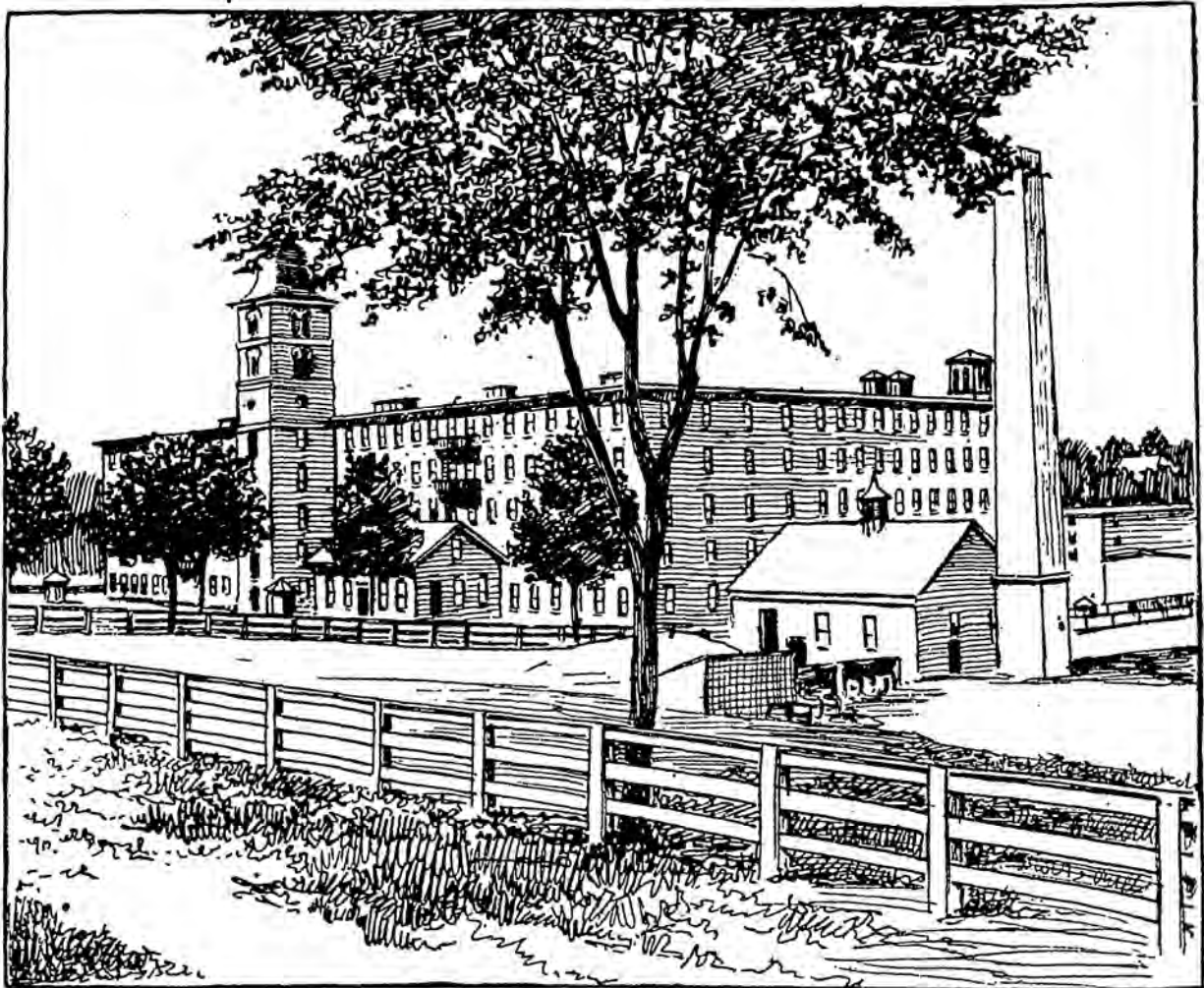
Kent County, Rhode Island
County and State



Figure 6. Ca. 1895 bird's eye view of the Arctic Mill, associated buildings, company store, and worker housing, looking east (Harpin 1961).

Arctic Mill Historic District
Name of Property

Kent County, Rhode Island
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THE BIG KNIGHT MILL AT ARCTIC.

Figure 7. 1899 view of the Arctic Mill and associated buildings, looking southwest. The boiler house (not extant) is at foreground, right (*Providence Journal* 1899).

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Figure 8. 1895 map showing the Arctic Mill Historic District (Everts & Richards 1895).

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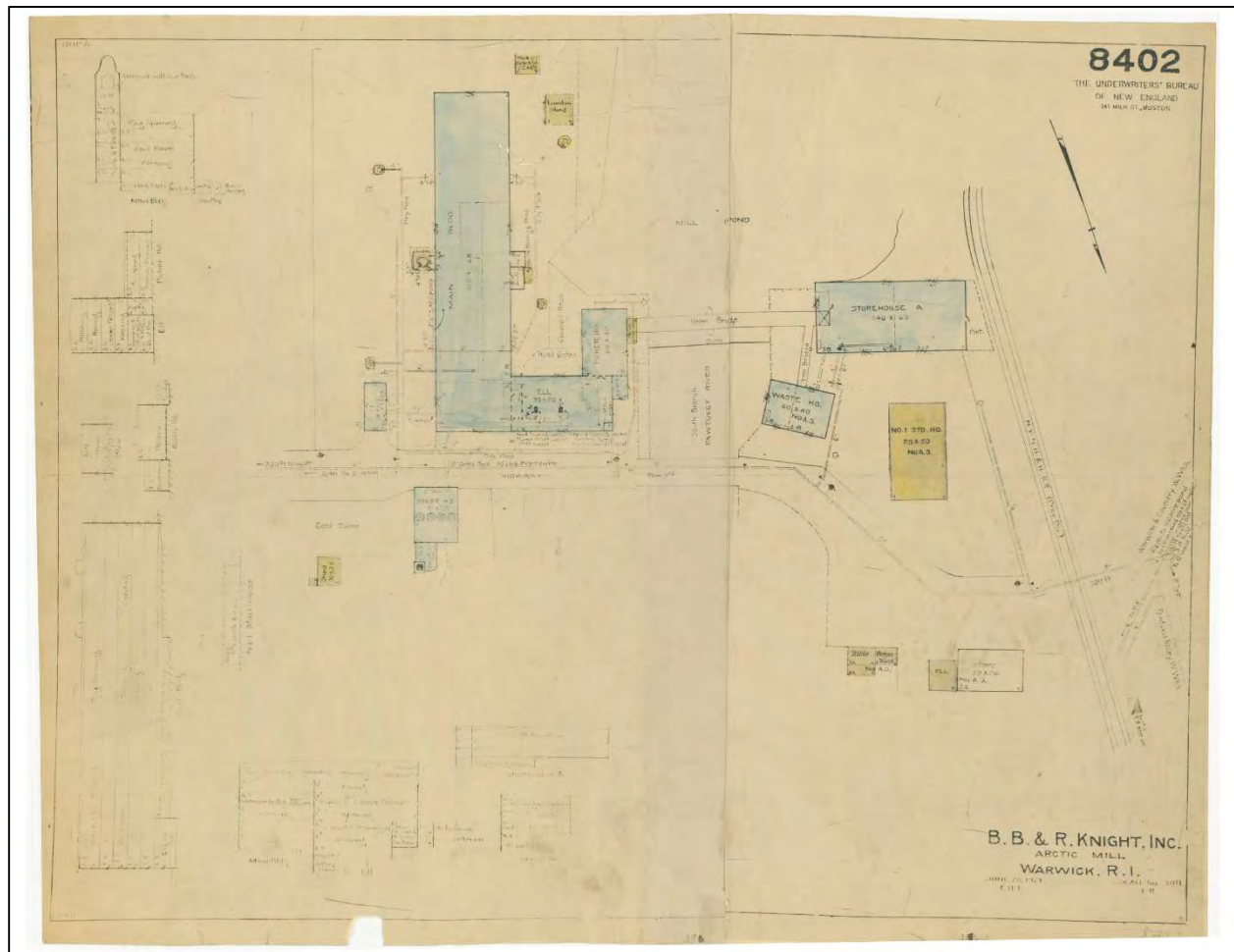


Figure 9. 1921 map showing Arctic Mill and associated buildings (Barlow's Insurance Surveys 1921).

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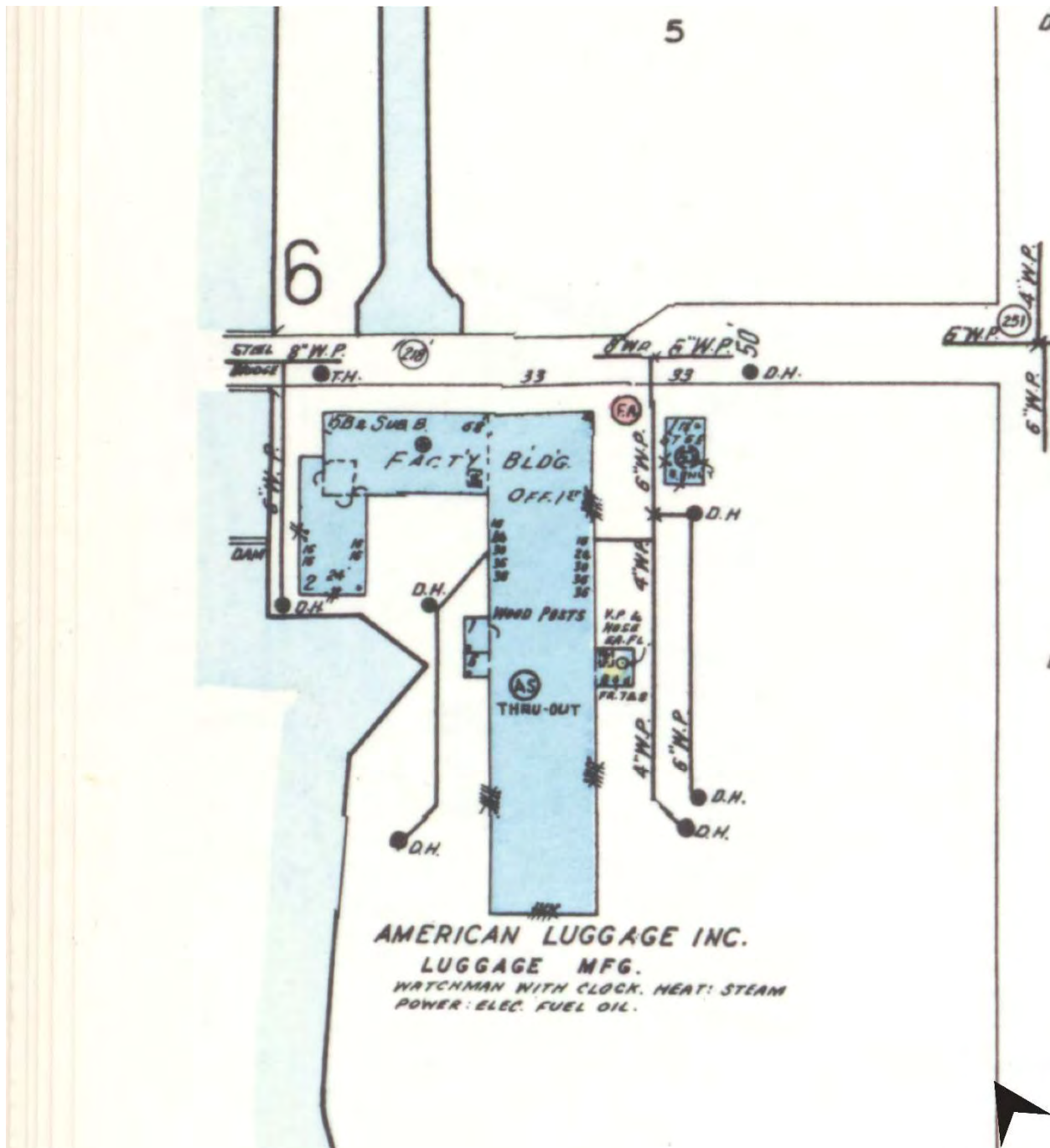


Figure 10a. 1958 detail of fire insurance map showing the Arctic Mill and Office (Sanborn 1958).

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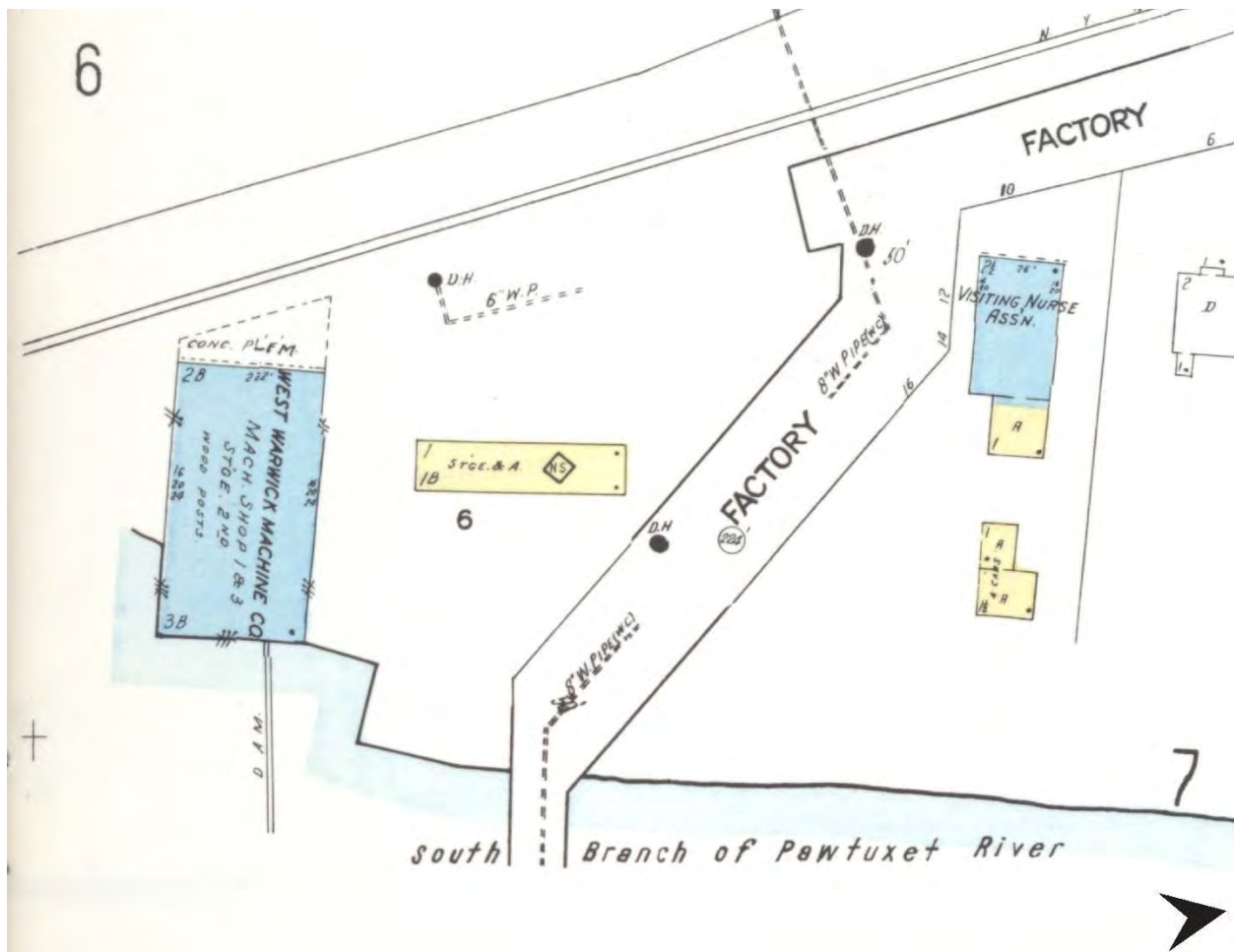


Figure 10a. 1958 detail of fire insurance map showing Storehouse A (labeled “West Warwick Machine Co.”), the No. 1 Storehouse (labeled “Stge. & A.”), and company store (labeled “Visiting Nurse Assn.”) (Sanborn 1958).

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Figure 11. Arctic Mill and Factory Street, ca. 1900s, looking east (Wolf 2011).

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MILLS ESTABLISHED BY B. B. & R. KNIGHT.
 MANUFACTURERS OF
FRUIT OF THE LOOM,
 ALSO,
 FINE SHEETINGS AND SHIRTINGS,
 TWILLS, PRINT CLOTHS AND CAMBRICS.

ARCTIC MILL ARCTIC, R. I.
 CLINTON MILL WOONSOCKET, R. I.
 CRANSTON PRINT WORKS CRANSTON, R. I.
 DODGEVILLE MILL DODGEVILLE, MASS.
 FISKEVILLE MILL FISKEVILLE, R. I.
 GRANT MILL PROVIDENCE, R. I.
 HEBRON MILL HEBRONVILLE, MASS.
 JACKSON MILL FISKEVILLE, R. I.

LIPPITT MILL PHENIX, R. I.
 MANCHAUG MILLS 1, 2 AND 3 MANCHAUG, R. I.
 NATICK MILLS NATICK, R. I.
 PONTIAC MILL PONTIAC, R. I.
 READVILLE MILL READVILLE, MASS.
 ROYAL MILL RIVERPOINT, R. I.
 VALLEY QUEEN MILL RIVERPOINT, R. I.
 WHITE ROCK MILL WESTERLY, R. I.

OFFICES, 3 WASHINGTON ROW, PROVIDENCE, R. I., U. S. A.
Please mention The Journal when you write.

Figure 12. 1902 detail of Arctic Mill in *Board of Trade* advertisement for B. B. & R. Knight, Inc.-owned mills, with the Arctic Mill at top left (PBTJ 1902).

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Figure 13. Mill workers in the Arctic Mill, 1933 (Kos 2001).

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Figure 14. Mill workers in the Arctic Mill, 1933 (Kos 2001).

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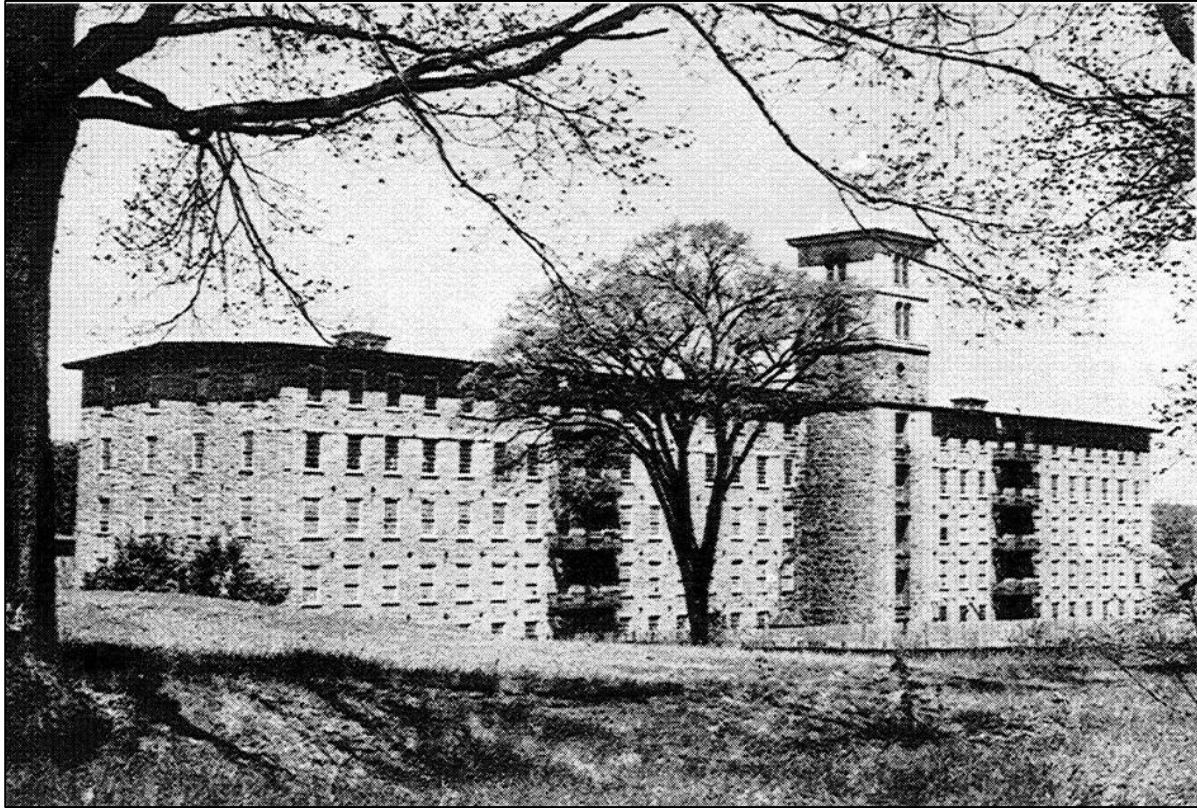


Figure 15. Arctic Mill, ca. 1937, view looking northwest (Federal Writer's Project 1937).

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Figure 16. Arctic Mill, 1940, view looking east on Factory Street. Note that “Artic” is misspelled on the photograph (Providence Public Library).

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Figure 17. Mill workers at the Arctic Mill, 1940 (Pawtuxet Valley Preservation and Historical Society).

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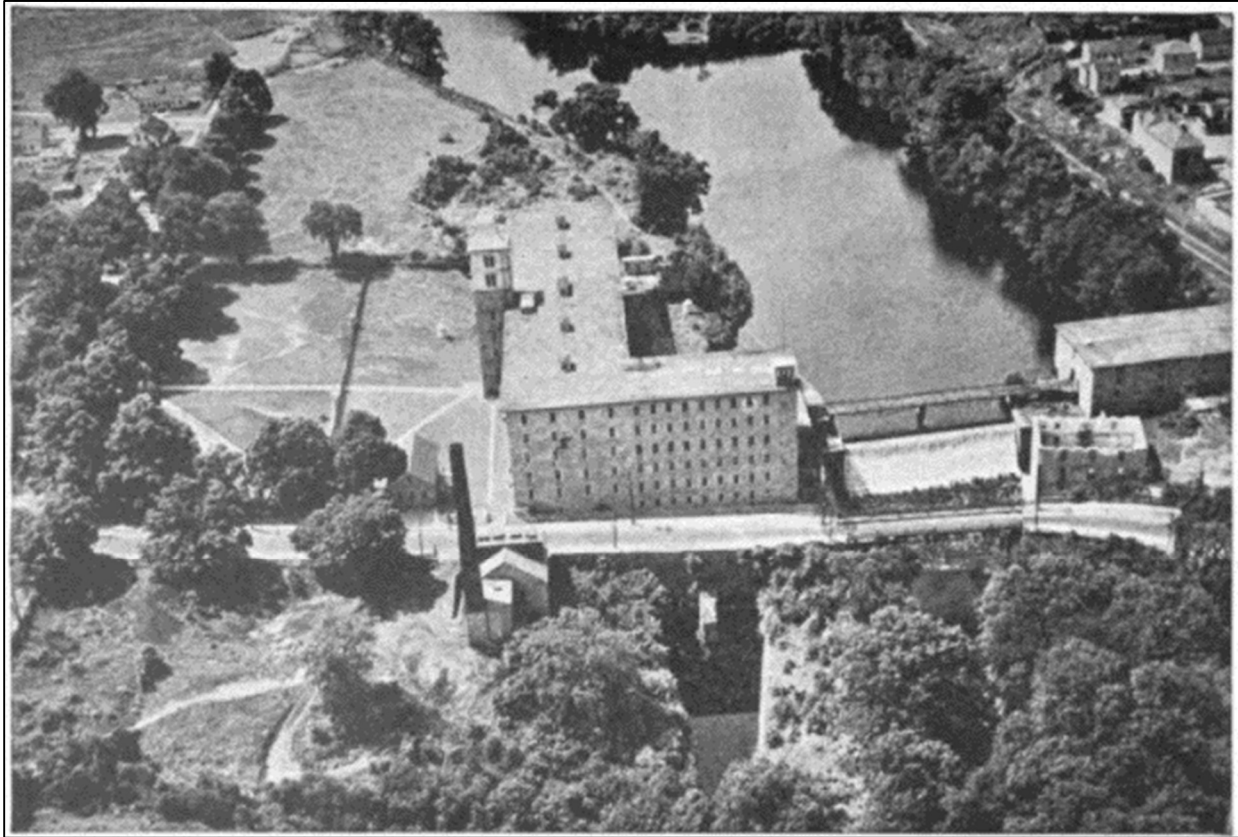


Figure 18. 1941 aerial view of Arctic Mill and associated buildings, looking south. The ruins of the Wakefield Mill are on the right side of the image immediately adjoining the dam and Factory Street (Haven 1941).

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Figure 19. Arctic Mill, date unknown, view looking west (Kos 2001).

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Figure 20. Arctic Mill, late 19th or early 20th century, view looking southeast
(www.milltowndocumentary.org/gallery/).



Photo #1: Arctic Mill from intersection of Factory and Border streets, looking southwest



Photo #2: Arctic Mill from Border Street, looking northwest



Photo #3: Detail of Arctic Mill exterior, stair tower, looking west



Photo #4: Arctic Mill from driveway, looking northwest



Photo #5: Arctic Mill from driveway, looking northeast



Photo #6: Arctic Mill from South Branch-Pawtuxet River, looking southeast



Photo #7: Arctic Mill from Factory Street, looking southeast



Photo #8: Arctic Mill from Factory Street, looking southwest



Photo #9: Detail of Arctic Mill exterior stair tower, looking west



Photo #10: Detail of Arctic Mill exterior stonework and anchor plates, looking north



Photo #11: Detail of Arctic Mill exterior stonework and anchor plates, looking west



Photo #12: Arctic Mill and headrace, filled in and delineated by colored concrete pavers, looking north



Photo #13: Arctic Mill headrace, filled in and delineated by colored concrete pavers, looking southwest



Photo #14: Arctic Mill tailrace, looking north



Photo #15: Arctic Mill Dam, looking southwest



Photo #16: Arctic Mill Dam, looking south



Photo #17: Senator Francis J. LaChapelle Bridge, looking northwest



Photo #18: Storehouse A, looking southwest



Photo #19: Storehouse A, looking southeast



Photo #20: No. 1 Storehouse, looking west



Photo #21: Arctic Mill Company Store, looking north



Photo #22: Arctic Mill Company Store, looking northeast



Photo #23: Office, looking southwest



Photo #24: Gateposts, looking southwest