

NEW HAMPSHIRE HISTORIC PROPERTY DOCUMENTATION
WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA, NH

NH State No. 538-J

LOCATION: West side of Pine Street at junction with Factory Street, Nashua, Hillsborough County, New Hampshire.
USGS Nashua North NH Quadrangle
UTM Coordinates: 19.297608.4737157

BUILDER: Nashua Manufacturing Company

DATE: 1896

PRESENT OWNER: City of Nashua

PRESENT USE: Vacant

SIGNIFICANCE: The Waste House is a contributing resource to the National Register-listed Nashua Manufacturing Company Historic District. The district is significant due to the company's role as Nashua's first major industry and largest textile mill, and is illustrative of the importance of the textile industry to the economic development of southern New Hampshire in the nineteenth and early twentieth centuries. The Nashua Manufacturing Company significantly contributed to the history of the City of Nashua as its largest industry and employer for 125 years. The Waste House and its operation had the important function of collecting, sorting and packing the large quantities of cotton waste generated by the cloth making operation of the mill, prior to its sale and shipment out of the mill yard. The Waste House is a representative and intact example of the small special purpose buildings of brick fireproof mill construction typical of New England textile mill complexes.

**PROJECT
INFORMATION:**

This structure will receive impacts from the Broad Street Parkway Project, which will include the building of a road that will cross the Nashua River via a new bridge and through portions of the former Nashua Manufacturing Company mill yard. The path of the road will pass through the location of the Waste House requiring its removal. This recordation was undertaken in accordance with a Memorandum of Agreement between the Federal Highway Administration, the New Hampshire Division of Historical Resources and the City of Nashua. The historical documentation was completed in October 2013 by Historic Documentation Company, Inc. architectural historians Richard Casella and Philip Pendleton. The large format photographs were taken by Robert Tucher.

DESCRIPTION

The Waste House, constructed in 1896, is a one-story, rectangular, common bond brick building with a centered ridge double pitched roof of very low rise. The building is centrally situated in the Nashua Manufacturing Company complex, standing approximately 60 feet northward of the end of the open portion of the former Power Canal, about 40 feet eastward from Mill No. 5, and about 250 feet to the southwest from the west end of the main multistory mill building that fronts Clock Tower Plaza and dominates the complex (see Figure 1). Factory Street extends eastward from the proximity the Waste House, forming a long open mall area (Clock Tower Plaza) occupied largely by parking spaces. Pine Street closely skirts the front of the Waste House, curves around the north side of the building and continues as Pine Street Extension to the northwest area of the mill complex (now used by a variety of office, warehouse, and retail business entities). The building is surrounded by an asphalt-surfaced parking area that merges continuously with the roadway without curbing (see Figure 2).

The building lacks decorative detailing and can be classified as industrial vernacular in terms of architectural style type. The rectangular plan and the roof ridge are aligned east-west with the front of the building facing east. One of the more diminutive industrial buildings among those composing the mill complex, the Waste House measures approximately 66' long on the sides by 40' wide across the front and back. A fully enclosed wood frame loading dock structure, added to the building during the interval 1920-1947, is located on the north side at the west end.¹ The loading dock measures approximately 20' wide (east-west) by 10' deep.

The first floor of the building is raised roughly 36" above exterior surrounding grade on a crawl space about 42" high. The brick sidewalls continue below grade and are visible in the crawl space but the footings for the walls and brick piers supporting the floor system were not observed. The roof is nearly flat with a pitch of ½" per foot and is covered with built-up asphalt. The eaves overhand the roof by 20" and are supported along the north and south sides by projected roof beams and along the front and back by wood corbels of the same size and same spacing as the real beams. The ends of the beams are scroll-cut, as are the corbels to match.

All window and door openings in the walls of the building, with the exception of the loading dock doors, described later, are headed with the shallow segmental arches built with two courses of brick headers. This is standard brick wall construction to avoid the cost of stone headers and varies only with the addition of more header courses for wider openings. The openings were sized such that the window and door frames (jamb) fit closely in the openings, requiring a minimum of casing, here just narrow 2" wide flat casings. The head jamb of the doors and windows are flat, with the small arched opening remaining covered by the head casing. All window openings

¹ Historic plans of the mill complex through 1920 do not show the added dock, nor does the Sanborn fire insurance map purportedly corrected to 1949; however the loading dock is visible on the earliest available overhead aerial photograph, dating to 1947, accessed via the website www.historicaerials.com. The low-flown circa 1940 aerial photo available at the Nashua Historical Society, probably commissioned by Nashua Manufacturing, does not depict the Waste House due to its being completely obscured by taller buildings.

measure 38" wide by 94" tall, closely fitted with the original wood 9/9 double hung windows. The window sills are cut granite, 44" wide by 4.5" thick. All of the first-floor window openings and windows on the building are identical with the exception of those on the loading dock enclosure, a later addition described below.

The front façade is punctuated with three evenly spaced openings, two windows and the building's single pedestrian entry door. The entry occupies the north opening and consists of a single standard 36"x80" wood door accessed by a poured concrete staircase with four steps. The door and opening is not original; the door and sections of brick wall to either side were inset into a larger opening in which the original loading doors, of unknown design were located. This alteration was apparently done sometime between 1920 and 1947 when the location of the loading doors was moved to the west end of the north wall and the present enclosed loading dock was constructed. The front entry door is typical of the Colonial Revival style, with four small lights in a row at the top of the door over two pairs of long vertical panels. The door is fitted with a reproduction wrought iron thumb-latch handle. The door and its latch hardware is typical of that found in residential construction of the period, but unexpected for an industrial building.

The back (west) wall of the Waste House is solid brick without openings.

The south wall of the building has eight evenly spaced window openings on the first floor. The openings are centered between the 8'-6" structural bays defined by the roof beams. Three crawl-space window openings are located directly below the third, fifth, and seventh first-floor windows as counted from the east end. The crawl-space window openings are 38" wide by 26" high with the sills set at ground level. These openings were in-filled with plywood as of September 2013.

The north wall is of the same design and construction as the south wall except for the presence of the enclosed loading dock. The exposed portion of the north wall has five first-floor windows and two crawl-space basement windows identical to those described on the south wall. Two windows, number 6 and 8 counting from the east end, are now enclosed within the loading dock. The windows are in alignment with those on the opposite wall, their placement also centered on the structural bays. The window formerly in bay number 7 is now occupied by the loading dock door, which consists of a hinged, solid wood double-leaf door, 80" wide by 88" tall, constructed of vertical boarding on the outside and diagonal boarding on the inside. This door replaced one of the original windows as evidenced by an 1898 photograph of the building (see Figure 7).

Loading Dock

The loading dock measures 20'-3" wide by 10'-2" deep. It is supported on brick piers 34" high and is capped with a shallow pitched roof with a centered front-to-back ridge. The front eave is supported by projecting rafters with scroll-cut ends; the side eaves are supported by mimicking corbels. The walls are clad in the original narrow, beaded vertical tongue-and-groove board except in the area of a large former opening on the front (north side) that is in-filled with a wider vertical tongue-and-groove siding. The area of the former opening measures 16'-9" wide by 10'-0" tall. The

interior framing supporting the infill panel identifies it as a later alteration made to reduce the opening size and equip it with a modern wood overhead garage door. The extra-heavy timber header over the original opening, supported with iron brackets at each end, suggests that it may have carried a metal track and a pair of solid wood sliding doors typical of loading docks of the period. Alternatively the opening may not have been equipped with any doors.

The west wall of the loading dock has one wood 6/6 window centered on the wall. The east wall of the dock has one wood 6/6 window near the north side of the wall and an entry door tight against the wall of the main building. The door is a simple vertical plank door composed of narrow tongue and groove bead board with flat board casings. The entry is accessed via an open wooden landing with simple 2x4 wood railing, sheltered by a shed roof supported by posts, and reached by a flight of three wooden steps.

Interior

The Waste House was designed to facilitate its purpose of stockpiling and storing waste cotton bales prior to their transport and disposal off site. The interior was designed as a single open floor space from floor to ceiling interrupted only by a row of timber columns down the middle to support the roof system. The interior walls are unfinished brick with the area above the window sills painted white and the area below painted green. The interior space has since been divided with the addition of a loft area and the addition of wall partitions to create a foyer, two offices, and a lavatory.

The heavy timber floor system was designed for mill and warehouse loading and remains unaltered and observable in the crawl space below. Access to the crawl space is through a heavy wood trap door at the west end of the building. The floor system consists of 10"x14" stringers running the 40' width of the building and spaced 4' apart along the 64' interior length of the building. Every other stringer aligns with the roof beams above. Each stringer is supported on five brick piers, 12"x14" by 42" tall, spaced 8' on center. Every other pier along the center line of the building also carries the direct load of the roof column above. The 3" thick subfloor is overlaid with 1x4" maple flooring.

The roof is supported by seven timber 8"x8" posts 14' tall and spaced 8' apart that run along the center axis of the building (front to back). The posts carry 10"x13" roof beams which project beyond the side walls to carry the roof eaves. The beams define the eight structural bays within the building, reflected on the exterior by the eight window openings between them. The roof posts are chamfered to within a foot of each end, typical of mill construction to prevent injury.

Alterations

The first major alteration of the interior, the construction of a storage loft area equal to about a quarter of the total floor area of the building, evidently occurred ca. 1930 in conjunction with the relocation of the loading door from the front to the northwest corner and the addition of the enclosed loading dock. As previously described, a pedestrian door was installed on the front at that time in place of the loading door. The loft is located on the north half of the building spanning the center 4 bays. It was evidently used for storage based on its heavy construction capable of high floor loading. The floor area measures 24 feet long by 20 feet wide. The floor is carried by 6"x14" timber beams, 20' long, set in beam sockets notched into the outside wall and on heavy steel brackets bolted to the center posts supporting the roof. A steep narrow staircase to the loft is located against the north wall and runs across the 4th window from the front wall. A solid wood railing runs around the loft except for a 5'-wide opening at the west end near the loading doors, apparently left open for the passage of goods to be stored.

The second major alteration, consisting of the addition of wall partitions to create rooms, came perhaps 20 or more years later based on the type of materials utilized. A small toilet room space, measuring roughly 8' by 4', is located in the northwest corner of the main room. A commercial wash sink is mounted on the outside of the long partition wall. Across the front (east end) of the building, the first two structural bays have been divided into three spaces consisting of an entrance foyer in the northeast corner, followed by two office spaces. The area measures 40 feet by 16 feet. Doorways interconnect the rooms and open into the main room. The rooms all have dropped ceilings. The walls of the foyer are modern drywall, those of the middle room have drywall above plywood panel wainscot, and the inner office is lined entirely with plywood paneling.

HISTORICAL BACKGROUND

The Waste House was a relatively small building where cotton waste was gathered, sorted and packed prior to its shipment out of the mill yard. The waste came from the picker houses where the raw cotton was picked clean of impurities and also from nearly all parts of the mill where thread waste, knots, defective thread yarns and bits of cotton were separated from the manufacturing process or thrown off the machinery working it. The accumulation of cotton waste on the floors and elsewhere was a severe fire hazard and therefore it was systematically gathered and transferred to the Waste House where it was sorted, compressed into bales and stored for disposal.

The exact operation of the Nashua Manufacturing Company waste house was not determined, but standard industry practice was to compress the waste with a raw cotton baling machine into bales of about 50 cubic feet (c.f.) and weighing 500 to 600 pounds (like the incoming raw cotton bales) and wrap them with burlap recovered from the raw bales. A machine for making smaller bales of

about 12 c.f. and weighing 125 pounds was also used by cotton mills for packaging waste.²

The waste bales typically would have been shipped off when one or more "loads" was reached, a quantity determined both by the capacity of the vehicle that hauled it away and by the volume by which it was sold. The waste bales were likely rolled and stacked up high against the back wall and the pile worked forward, like hay or other baled material storage. The original loading door was on the front of the building and the back (west) wall was built without openings.

An earlier Waste House building was constructed in 1869 on a site about 200 feet to the east of the present structure.³ It was depicted on the 1875 Barlow's insurance survey plan as a one-story structure sited against an embankment (see Figures 4 and 5). The building was taken down by the company in 1881, apparently to make room for the rail line system then being extended, or soon to be, in association with construction of the Boiler House and other new buildings to the north (see Figure 6).

Until 1896 the cotton waste activity was conducted at some provisional location within the yard; in that year a new Waste House was constructed. A photograph by Frank M. Ingalls of the neighboring portion of the mill yard, evidently taken in 1898 when tall scaffolding was present for the rebuilding of the Boiler House chimney, shows the Waste House as it first stood, before the addition of the loading dock against the north wall (see Figure 7). The Waste House was situated roughly centrally to the overall mill yard, and stood immediately next to the yard rail line, facilitating out-shipment of the waste (see Figures 8, 9 and 10).

At some date between 1920 and the closing-down of the company in 1947, and probably early within that interval, the management decided to build the loading dock, a feature evidently added to enable easy loading of the cotton waste onto trucks, which were becoming increasingly important to the operation of the mill business (see footnote 1).

² Interstate Commerce Commission. *Decisions, November 1906 to December 1907*. No. 916. *Riverside Mills v. Riverside Mills v. Southern Railway Co.*, November 1908, pp. 389-390.

³ Dayl Cohen and Rita Walsh, National Register Nomination Form Update: *Nashua Manufacturing Company Historic District*, 2010, p. 15.

BIBLIOGRAPHY

- Associated Mutual Insurance Company. *Nashua Mfg. Co., Nashua, N.H.* Plan and isometric drawing. 1892. On file at American Textile History Museum, Lowell, MA.
- Associated Mutual Insurance Company. *Nashua Mfg. Co., Nashua, N.H.* Plan. 1920. On file at American Textile History Museum, Lowell, MA.
- Barlow's Insurance Surveys. *Nashua Mfg. Co., Nashua, N.H.* New York: Barlow's Insurance Surveys, 1875. On file at American Textile History Museum, Lowell, MA.
- Cohen, Dayl, and Rita Walsh. National Register Nomination Form Update: *Nashua Manufacturing Form Historic District*. Prepared by Vanasse Hangen Brustlin, Inc. 2010. On file at the New Hampshire Division of Historical Resources, Concord.
- Collins, C. W. *Property of Nashua Mfg. Company, Nashua, N.H.* 1907; revision of 1903 plan. On file at the Nashua Historical Society.
- Ingalls, Frank Munroe. Photograph of south area of Nashua Manufacturing Co. mill yard. Circa 1898. Ingalls Photograph Collection. On file at the Nashua Historical Society.
- Riverside Mills v. Southern Railway Co., Case No. 916. In, *Interstate Commerce Commission Reports, Decisions November 1906 to December 1907*, vol. 12. Washington DC: Government Printing Office, 1908.
- Sanborn Fire Insurance Map Company. *Nashua, New Hampshire*. 1949; depicts architecture as modified since 1912. On file at Nashua Historical Society, Nashua.

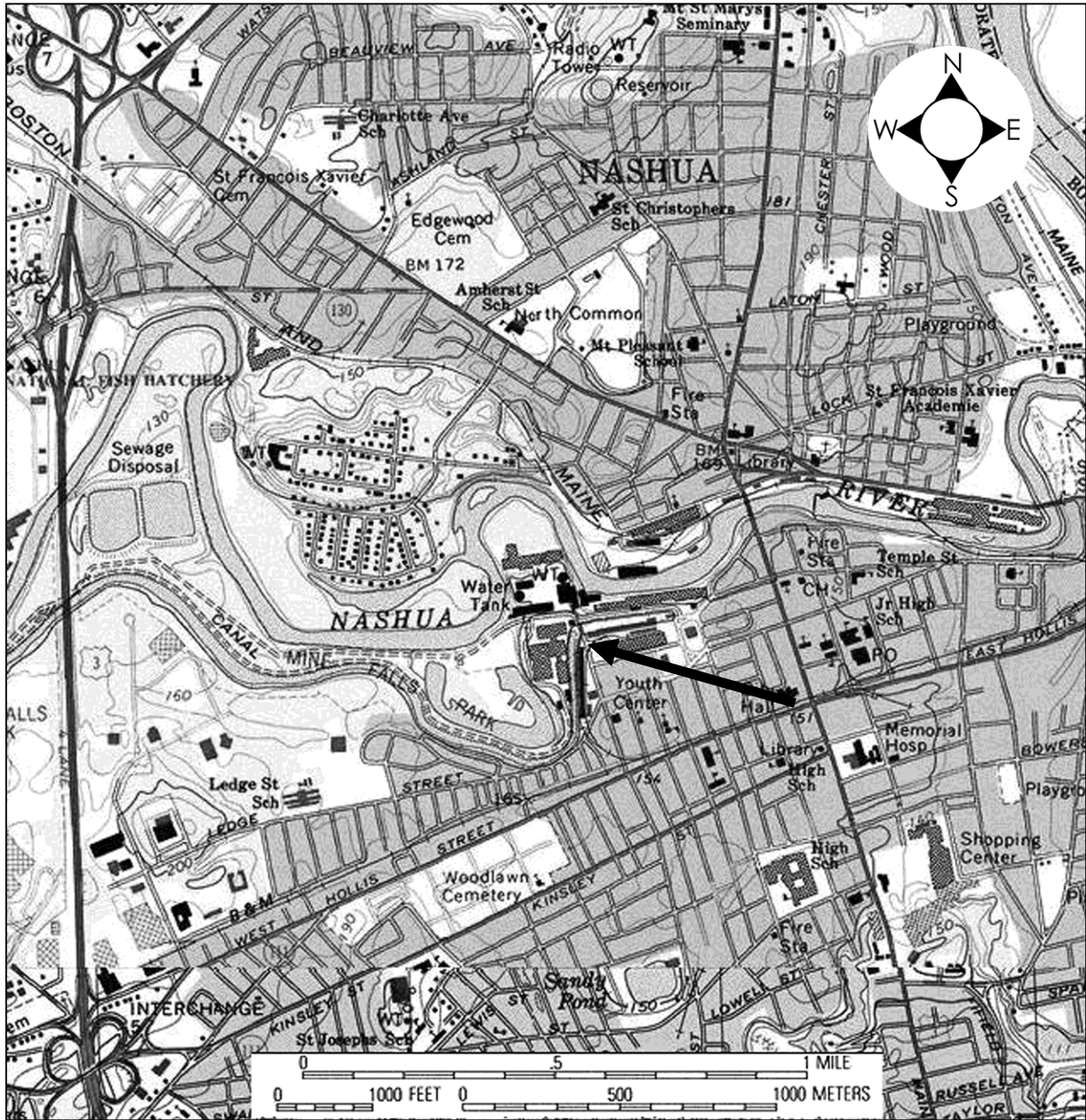


FIGURE 1: Location Map USGS Nashua North, NH 7.5 min. quadrangle, 1985.

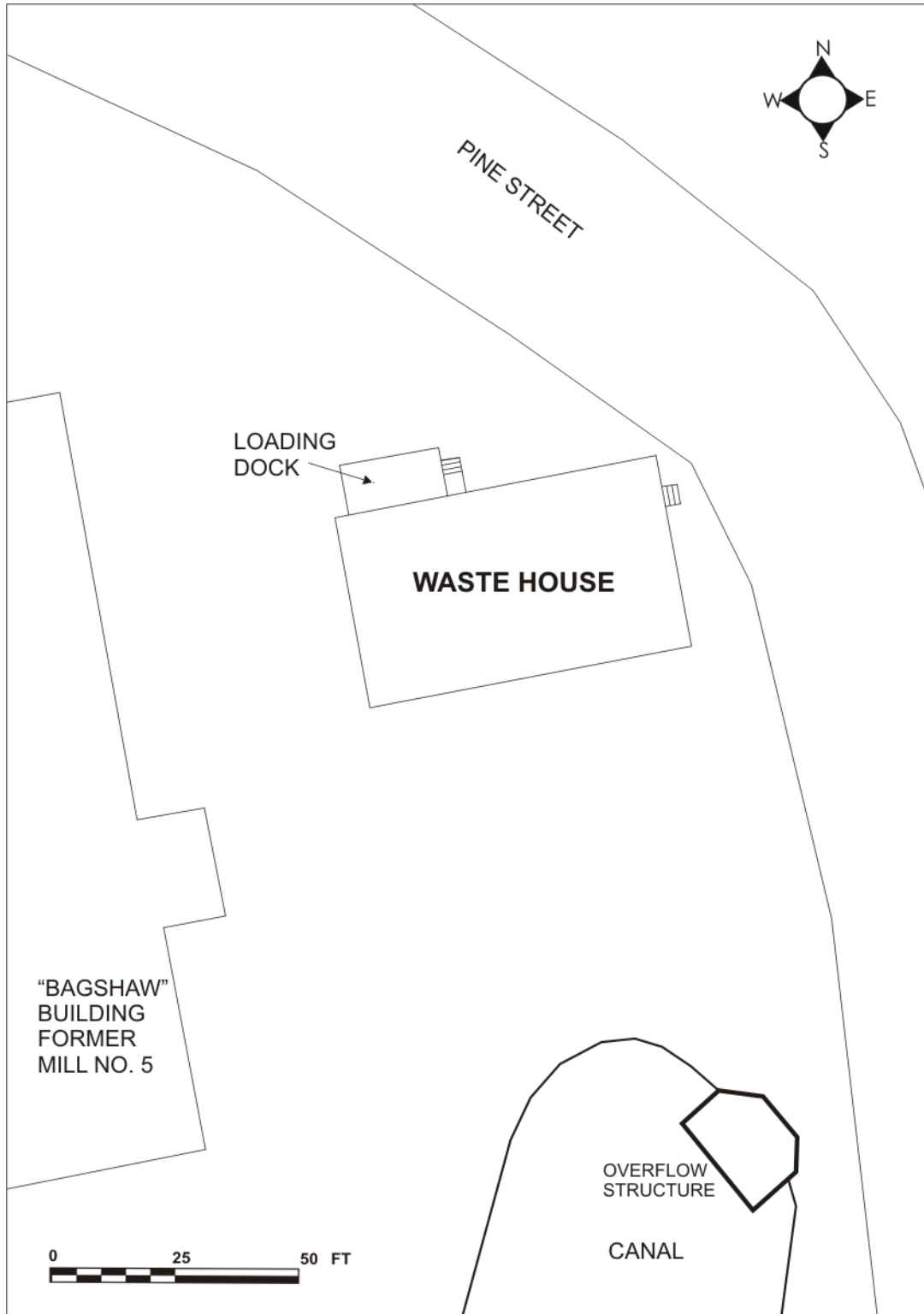


FIGURE 2: Site Sketch.

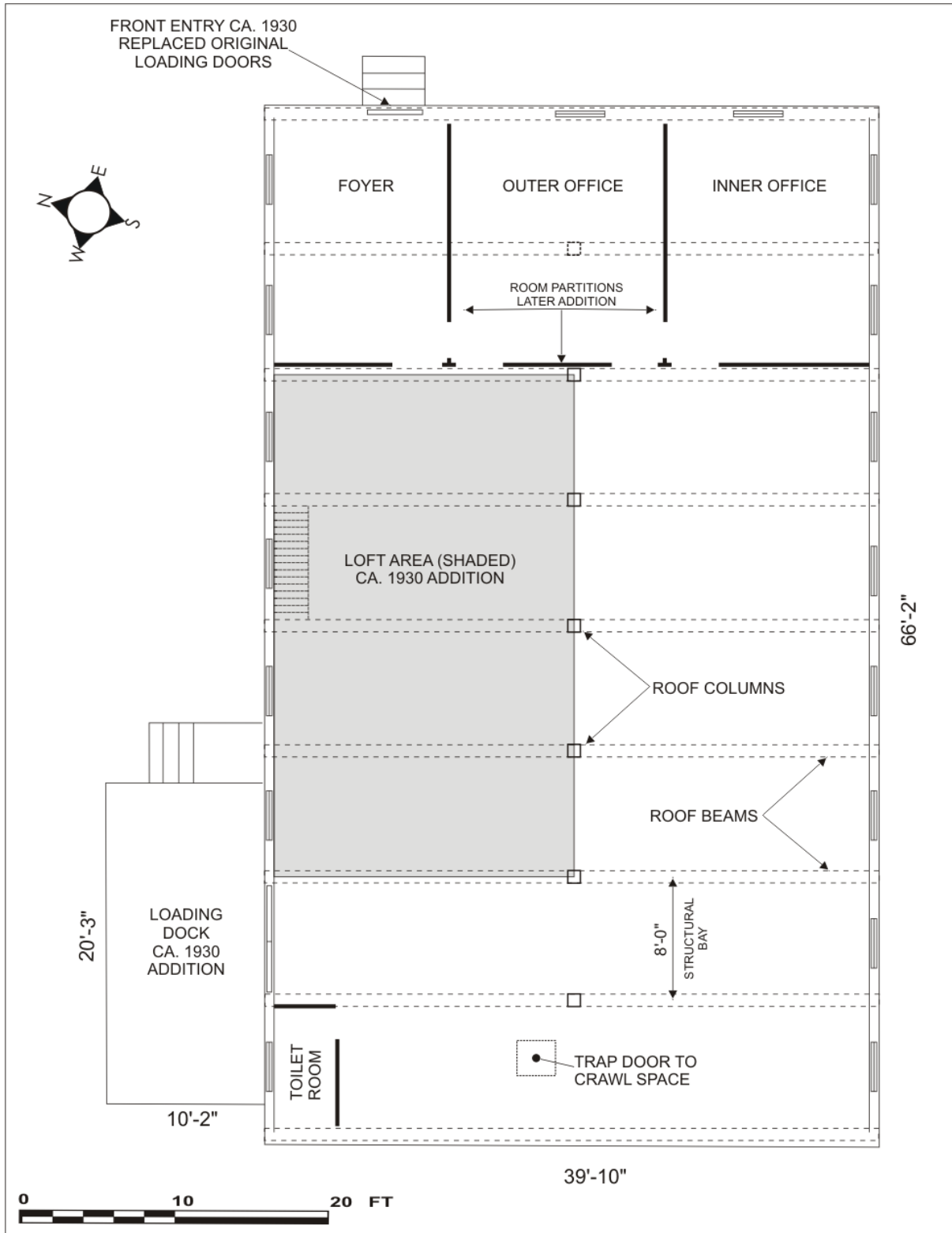


FIGURE 3: Floor Plan drawn to scale.

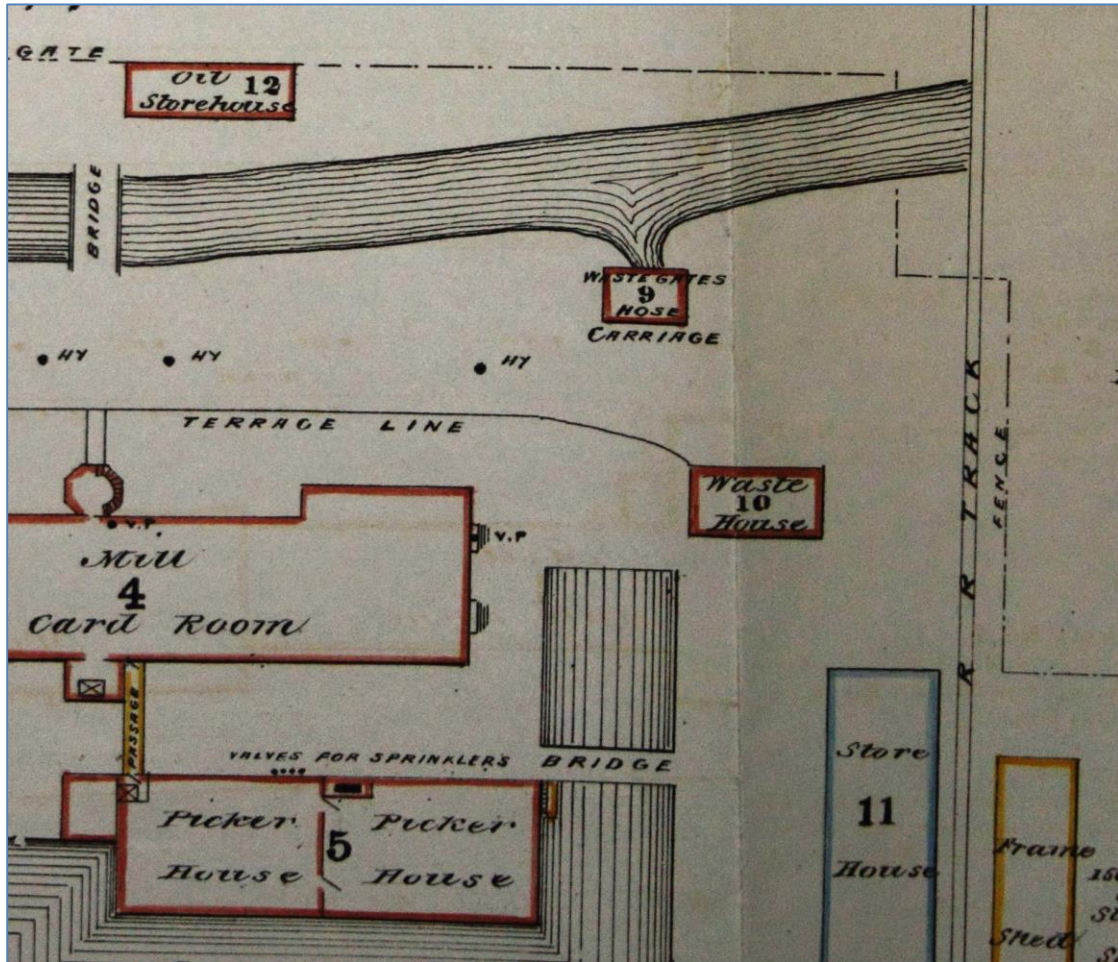


FIGURE 4: Plan of Nashua Manufacturing Co. in 1875 (map oriented north down), showing earlier Waste House built in 1869 (Source: Barlow's Insurance Surveys).

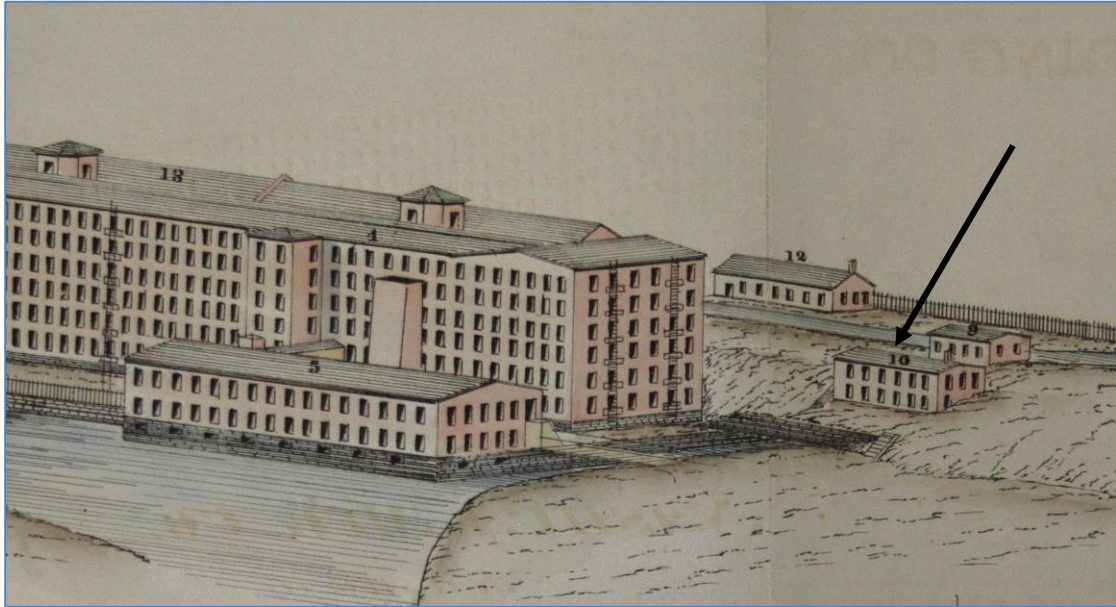


FIGURE 5: Isometric view of Nashua Manufacturing Co. in 1875, looking southeast, with Nashua River in foreground, showing earlier Waste House, building No. 10, built in 1869 (Source: Barlow's Insurance Surveys).

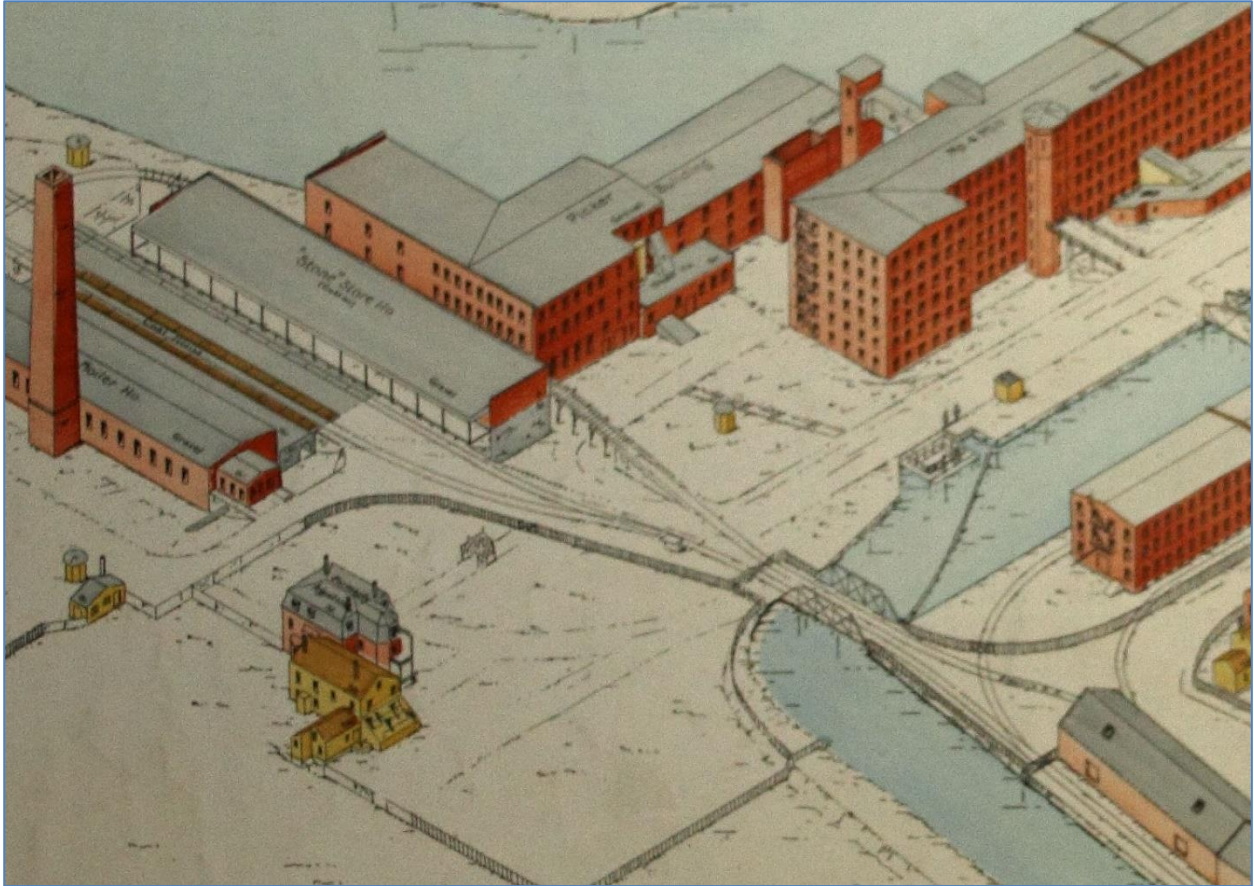


FIGURE 6: Isometric view of Nashua Manufacturing Co. in 1892, between removal of first Waste House and construction of second Waste House (Source: Associated Mutual Insurance Co.)



FIGURE 7: Photograph of Nashua Manufacturing Co. circa 1898, showing Waste House in foreground, built in 1896 (Source: Frank M. Ingalls)

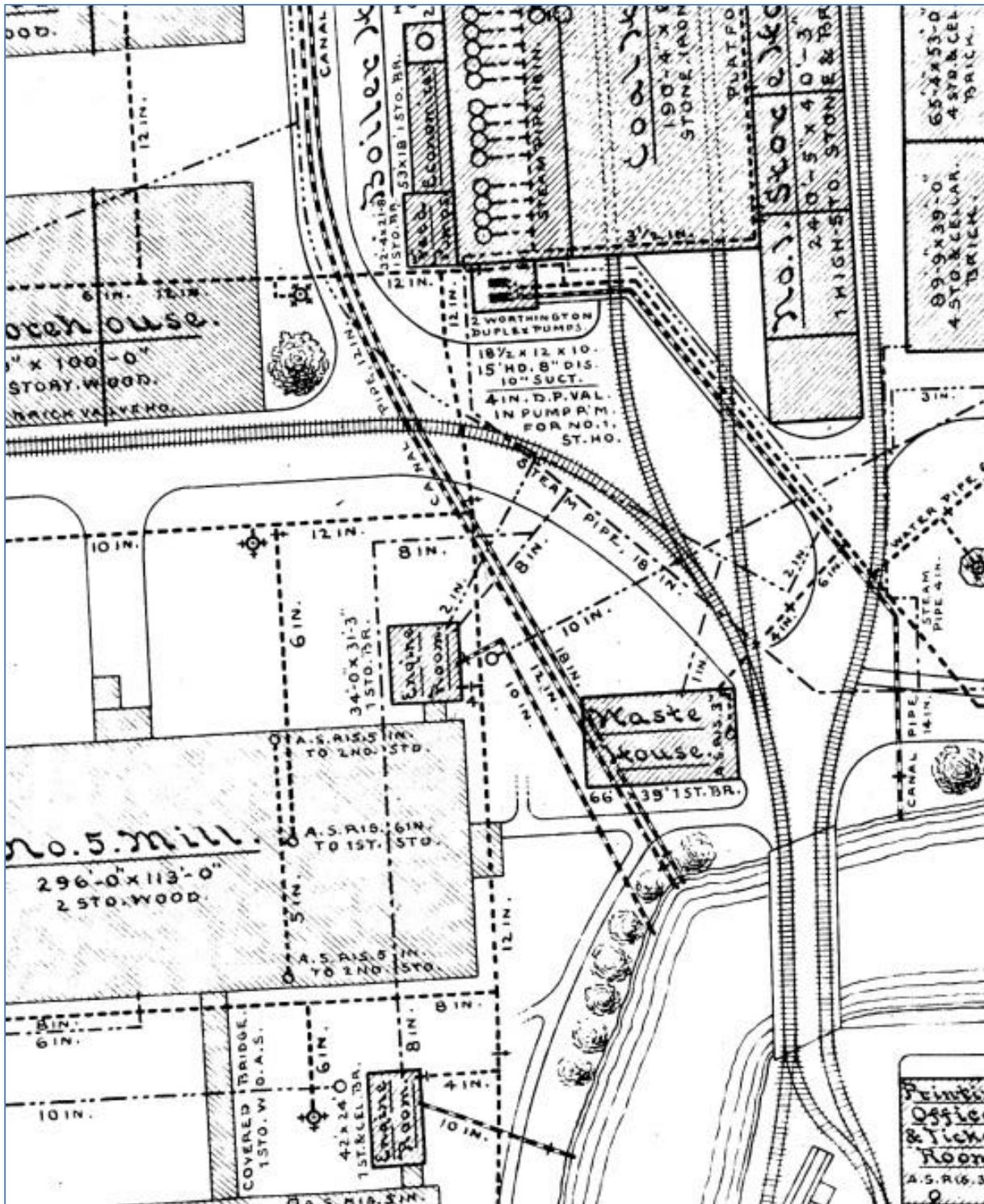


FIGURE 8: Plan of Nashua Manufacturing Co. in 1907 (Source: C. W. Collins).



FIGURE 9: Plan of Nashua Manufacturing Co. in 1912 (Source: Sanborn Map Company).



FIGURE 10: Plan of Nashua Manufacturing Co. in 1920. Waste House has not yet received Loading Dock addition on north side (Source: Associated Mutual Insurance Co).

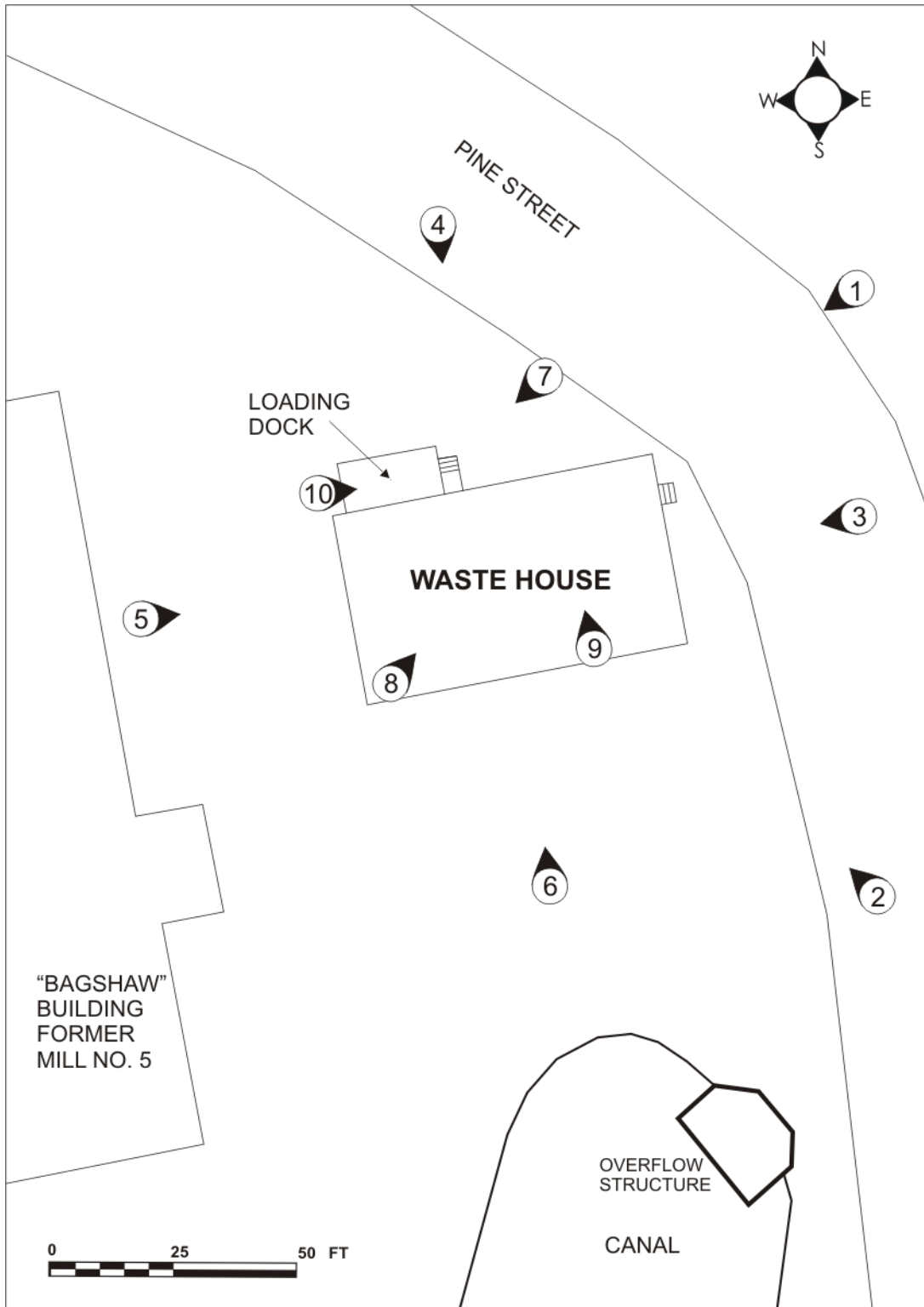
INDEX TO PHOTOGRAPHS

WASTE HOUSE
NASHUA MANUFACTURING COMPANY
PINE STREET
NASHUA
HILLSBOROUGH COUNTY,
NEW HAMPSHIRE.

NEW HAMPSHIRE STATE NO. 538-J
Photographer: Rob Tucher
April-June 2013

- NH-538-J-1: Context with Pine Street. Looking southwest.
- NH-538-J-2: Context, showing Pine Street Extension and Boiler House Smokestack in background. Looking northwest.
- NH-538-J-3: Front elevation (east). Looking west.
- NH-538-J-4: North side elevation, showing loading dock. Looking south.
- NH-538-J-5: Rear elevation (west). Looking east.
- NH-538-J-6: South side elevation. Looking north.
- NH-538-J-7: North side, showing detail of loading dock. Looking southwest.
- NH-538-J-8: Interior view from southwest corner. Looking northeast.
- NH-538-J-9: Interior view from southeast corner. Looking north.
- NH-538-J-10: Interior view of loading dock from west end. Looking east.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
KEY TO PHOTOGRAPHS



WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-1: Context with Pine Street. Looking southwest.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-2: Context, showing Pine Street Extension and Boiler House Smokestack in background. Looking northwest.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-3: Front elevation (east). Looking west.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-4: North side elevation, showing loading dock. Looking south.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-5: Rear elevation (west). Looking east.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-6: South side elevation. Looking north.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-7: North side, showing detail of loading dock. Looking southwest.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-8: Interior view from southwest corner. Looking northeast.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-9: Interior view from southeast corner. Looking north.

WASTE HOUSE
NASHUA MANUFACTURING COMPANY, NASHUA NH
NH STATE NO. 538-J
HAER PHOTOGRAPHS



NH-538-J-10: Interior view of loading dock from west end. Looking east.