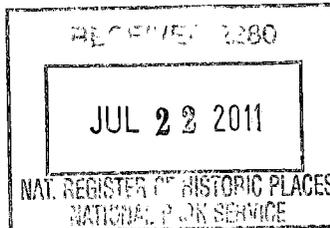


United States Department of the Interior
National Park Service



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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. Place additional certification comments, entries, and narrative items on continuation sheets (NPS Form 10-900a).

1. Name of Property

Historic name M. Armstrong and Company Carriage Factory

Other names/site number N/A

2. Location

street & number See "List of Properties" Section 7 continuation sheet(s).

not for publication

city of town New Haven

vicinity

State Connecticut code CT county New Haven code 009 zip code 06511

3. State/Federal Agency Certification

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

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

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

national statewide local

David Paley
Signature of certifying official/

7.13.11
Date

SHPO
Title

State or Federal agency and bureau

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

Signature of certifying official

Date

Title

State or Federal agency and bureau

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:)

Elson H. Beall
Signature of the Keeper

8.31.11
Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)

- private
- public - Local
- public - State
- public - Federal
- private

Category of Property
(Check only one box)

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

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
1	0	buildings
		sites
		structures
		Objects
		buildings
1	0	Total

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

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

Industry: Manufacturing Facility

Industry: Industrial Storage

Commerce: Business

Commerce: Specialty Store

Current Functions

(Enter categories from instructions)

Commerce: Specialty Store

7. Description

Architectural Classification
(Enter categories from instructions)

Other: Industrial Vernacular - Brick Mill

Materials

(Enter categories from instructions)

foundation: Stone

walls: Brick

roof: Asphalt

other:

M. Armstrong and Company Carriage Factory
Name of Property

New Haven, CT
County and State

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

See continuation sheet(s).

Narrative Description

See continuation sheet(s).

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)

Property is:

- 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.

Areas of Significance

(Enter categories from instructions)

- Architecture _____
- Commerce _____
- Industry _____
- Transportation _____
- _____
- _____

Period of Significance

1882-1963

Significant Dates

1882, 1919, 1927, 1963

Significant Person

(Complete only if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

See continuation sheet(s)

Period of Significance (justification)

See continuation sheet(s).

Criteria Consideratons (explanation, if necessary)

See continuation sheet(s).

Statement of Significance Summary Paragraph (provide a summary paragraph that includes level of significance and applicable criteria)

See continuation sheet(s).

Narrative Statement of Significance (provide at least one paragraph for each area of significance)

See continuation sheet(s).

Developmental history/additional historic context information (if appropriate)

See continuation sheet(s).

9. Major Bibliographical References

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

See continuation sheet(s).

Previous documentation on file (NPS):

_____ preliminary determination of individual listing (36 CFR 67 has been

Primary location of additional data:

_____ State Historic Preservation Office

M. Armstrong and Company Carriage Factory
Name of Property

New Haven, CT
County and State

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 # _____

Other State agency
 Federal agency
 Local government
 University
 Other
Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 0.34
(do not include previously listed resource acreage)

UTM References

(Place additional UTM references on a continuation sheet)

A. 18 674787 4574577
Zone Easting Northing

C. _____
Zone Easting Northing

B. _____
Zone Easting Northing

D. _____
Zone Easting Northing

Additional UTM References on continuation sheet.

Verbal Boundary Description (describe the boundaries of the property)

See continuation sheet(s).

Boundary Justification (explain why the boundaries were selected)

See continuation sheet(s).

11. Form Prepared By

name/title Lucas A. Karmazinas, Consultant
organization FuturePast Preservation date 1/11/2011
street & number 34 Maplewood Avenue #3 telephone 860-429-7982
city or town West Hartford state CT zip code 06119
e-mail FuturePastPreservation@gmail.com

Additional Documentation

Submit the following items with the completed form:

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

Photographs:

Submit clear and descriptive black and white photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: M. Armstrong and Company Carriage Factory

City or Vicinity: New Haven

County: New Haven

State: Connecticut

Photographer: Lucas A. Karmazinas

Date Photographed: 12/09/2010

Description of Photograph(s) and number: See continuation sheet(s).

1 of 15.

South (front) and west (side) elevation of factory from Chapel Street, showing main manufacturing building, 1882.
Camera facing northeast.

2 of 15.

Interior of basement level, showing foundation detail.
Camera facing southwest.

3 of 15.

West (side) elevation of factory from Chapel Street, showing window detail.
Camera facing northeast.

4 of 15.

South (front) elevation of factory from Chapel Street, showing upper-story window details.
Camera facing northeast.

5 of 15.

South (front) elevation of factory from Chapel Street, showing recessed entry details.
Camera facing north.

6 of 15.

North (rear) elevation of factory from rear lot, showing elevator tower, chimney, fire escape, and rear ell details.
Camera facing south.

7 of 15.

North (rear) side of factory from rear lot, showing larger rear ell details.
Camera facing southeast.

8 of 15.

Interior of first floor shop, showing details of enclosed porte-cochere.
Camera facing south.

9 of 15.

Interior of basement level, showing details of the exposed foundation, brick support piers, cross beams, and floor joists.
Camera facing east.

M. Armstrong and Company Carriage Factory
Name of Property

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10 of 15.

Interior of the first floor showroom, showing details of the south (front) elevation fenestration, support posts, and cross beams.
Camera facing southeast.

11 of 15.

Interior of the lesser rear block, showing details of the arched doorway, wood flooring, brick walls, and cross beams.
Camera facing northwest.

12 of 15.

Interior of the stairwell, showing details of one of the fireproof doors.
Camera facing south.

13 of 15.

Interior of the second level, showing typical upper-story details including fireproof floor, brick masonry walls, wooden posts, cross beams, and floor joists above.
Camera facing northeast.

14 of 15.

Interior of the elevator shaft, showing interior and elevator details.
Camera facing northwest.

15 of 15.

Interior of the attic story, showing framing details.
Camera facing northeast.

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 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, PO Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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M. Armstrong and Company Carriage Factory Architectural Description:

The M. Armstrong and Company Carriage Factory sits on 0.34 acres, about one-eighth of the block formed by Chapel, Wallace, and Hamilton Streets, and Ives Place, in the Mill River neighborhood of New Haven, Connecticut. The building's main block, built in 1882, measures 100 feet by 45 feet and is four-and-a-half stories tall. There is a 12-foot by 12-foot, five-story elevator shaft on the north (rear) elevation. Two one-story ells, measuring 17 by 23 feet and 24 by 95 feet respectively, extend perpendicularly from the rear elevation of the building. The main block, elevator shaft, and smaller rear ell are of load-bearing, red brick construction. The larger of the two rear blocks is wood frame and concrete block. Adjacent to the east (side) elevation of the building is the c. 1870 former Yale Ironworks building. Adjacent to the west (side) elevation is the c. 1860 former Durham and Wooster carriage factory. Two Redevelopment-era projects are situated north of the factory building, erected in 1964 and 1967 respectively. The former carriage factory lies at the center of what was New Haven's industrial heart between 1860 and 1950, and a focus of Redevelopment efforts between 1950 and 1970. The building is located just two blocks east of the city's National Register of Historic Places recognized Wooster Square Historic District.

The front, or main block of the building is the oldest part of the factory (Photograph 1). Built in 1882, it is 100 feet wide, 45 feet deep, and four-and-a-half stories tall. The building is of brick mill construction and shows typical features of industrial architecture from the period through its double-hung, multi-pane windows; simple brick dentils; cornice; and side-gabled roof. The block sits one half story above grade and its load-bearing brick masonry walls rest on a below-grade, rough-cut stone foundation laid in irregular course (Photograph 2). A brownstone watertable divides the basement level and first floor of the south (front) elevation. The building is 14 bays wide and 5 bays deep. Fenestration throughout the building consists primarily of 6/6 double-hung sash, with brownstone sills and brick segmental arches above (Photograph 3). Basement level windows on the south (front) elevation are 1/1 double-hung sash with brick sills laid in rowlock course. Six floor-to-ceiling window openings span the first floor of the façade. Each bay is filled with a large multi-pane window divided by aluminum mullions. Each window is two lights wide and three lights high. The four upper panels are fixed while the two below are hopper sash. The window openings in the upper story of the front and rear elevations have brownstone sills and lintels, however the windows themselves have been lost and the openings temporarily boarded up (Photograph 4). The building's front and rear elevations have a simple entablature with brick dentils and cornice. The brownstone lintels of the uppermost-story windows interrupt the dentil course. A recessed entry at the southwest corner of the building is filled with a non-load-bearing wall of glass and aluminum.

A 12-foot by 12-foot, five-story tower centered on the rear elevation of the building houses the elevator shaft and original wood freight elevator (Photograph 6). The tower mimics the construction of the main block including its load-bearing brick masonry construction, 6/6 double-hung sash windows with brownstone sills and brick segmental arches, and simple

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entablature. It has a flat roof. The ground-level opening has a garage-style door with round arch above. To the east of the elevator tower, centered between the former and the building's end wall, is a rectangular brick chimney. This stands approximately one and a half stories above the building's roofline. An iron fire escape, to the east of the chimney, leads from the uppermost story to ground level.

Two one-story ells project north from the rear elevation of the main block. The smaller of the two is situated between the elevator tower and chimney and was built c. 1900. The block measures 17 by 23 feet and has load-bearing brick masonry walls and a shed roof. An entry on the feature's north elevation has a steel door and brick segmental arch above. The larger rear block is 24 feet wide and extends 95 feet from the northeast corner of the building. The wing is of concrete block and frame construction and has 1/1 double-hung sash windows and a shed roof. It was built as an additional storage area c. 1930.

The exterior integrity of the factory building is intact with no major modifications. The most significant alterations were likely made in 1933 when the John P. Smith Company, a wire goods manufacturer and dealer, combined their office, retail, and production facilities in the building. These changes included enclosing the garage at the building's southwest corner and widening the window openings on the first story of the front elevation in order to provide the company with display and retail space. The original brick gable end walls were lost when the front half of the roof was torn off in a mid-twentieth-century hurricane and were replaced with wood framing and vertical board siding (Photograph 1). The original purlins and tongue-and-groove sheathing on the front half of the roof were also lost. Several of the building's original windows have been replaced, however their openings remain intact and unaltered. The building overall is in good structural condition.

The building's interior remains intact and clearly demonstrates its original layout and functionality. Entering at ground level leads into the enclosed garage, a space approximately 12 feet wide and running the depth of the building (Photograph 8). The ceiling is one and a half stories high. This area sheltered the final stages of carriage fitting, before being converted into retail space by the John P. Smith Company. Today it houses a small local bicycle shop. The space's three exterior walls are exposed brick and the fourth is finished with beadboard wainscoting and plaster above. The original wide board flooring is intact. A staircase on the eastern side of the shop leads down to the basement level, an area that originally housed M. Armstrong and Company's blacksmith shop. The basement has a concrete floor and the stone foundation is exposed. The brick masonry walls have been painted as have the five brick piers bracing the floor above (Photograph 9). Thick wooden cross beams support wooden floor joists spaced, roughly, at 12-inch intervals.

A stairwell on the north side of the basement level leads to the first floor. This level was used as office and storage space by M. Armstrong and Company before being converted into a showroom and display area by the John P. Smith Company. Alterations to the first floor fenestration are evident along the south elevation, however the original wooden support posts and cross beams remain intact (Photograph 10). The original wood flooring remains under modern carpeting. An arched brick

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entry on the north side of the showroom leads into the lesser of the two rear blocks, an open rectangular space with wood floors, painted brick walls, and exposed ceiling beams (Photograph 11).

Returning to the rear stairwell and heading to the upper floors one finds heavy, red, metal-clad fireproof doors blocking entry to each of the second, third, and fourth levels (Photograph 12). The upper stories are largely unaltered and their multi-layered, fire-resistant wood floors, exposed brick walls, wooden support posts, cross beams, and floor joists are intact (Photograph 13). These levels housed the heart of the carriage factory with fitting-up and storage taking place on the second floor, woodwork and trimming on the third, and painting and drying rooms located on the fourth floor. Partially constructed and completed carriages, as well as supplies, moved between the upper and lower floors via an open, wood-frame elevator. This remains intact and operable (Photograph 14).

The building's roof structure is clearly visible on the uppermost, or attic, story (Photograph 15). King post rafter trusses, held together with hewn-and-pegged joints, support the common rafters and sheathing above. As noted, the purlins and tongue-and-groove sheathing on the south (front) half of the roof have been replaced with two-by-fours and plywood panels, while the original north (rear) half remains.

Overall alterations to the interior are minimal and do not impact the building's physical or historical integrity. A single retail tenant currently occupies the building; this being the bicycle shop housed on the ground and basement levels.

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Significance: M. Armstrong and Company Carriage Factory

Summary

The M. Armstrong and Company factory is significant because of the important role carriage manufacturing played in the economic development of the City of New Haven and the State of Connecticut (Criterion A). Recognized as a national leader in the industry during the nineteenth century, carriage factories could once be found across New Haven and throughout the state. Nowhere, however, was the business more pervasive than in the "New Township", an area encompassing what is today New Haven's Wooster Square and Mill River neighborhoods. Chapel Street runs through what was once the heart of this bustling industrial district and it was here that Montgomery Armstrong built a new four-and-a-half-story brick carriage factory in 1882. Surrounded by carriage makers, wheel builders, saddlery and harness manufacturers, as well as a litany of other industries, Armstrong operated a business nationally known for quality and skillful design. The M. Armstrong Company factory represents a fine example of brick mill construction and is one of a dwindling number of nineteenth century industrial buildings in the City of New Haven (Criterion C). The building is one of only two extant carriage factories in New Haven, a city that at its peak boasted as many as 50 manufacturers within city limits, and 16 firms within the New Township.¹

Historical Significance

Born in 1822, Montgomery Armstrong came to New Haven from New York City in 1842. He first appears in the New Haven City Directory in 1846 where he is listed as a blacksmith residing at 33 Portsea Street, in what is now the city's Hill neighborhood. After settling in New Haven, Armstrong practiced his trade for 13 years, likely in the employment of one of the city's numerous carriage manufacturers. In 1859, he formed a partnership with George and Thomas Alling, proprietors of a lumberyard and milling business located at the intersection of Olive and East Water Streets, to start his own carriage factory. Armstrong's experience as a blacksmith and the Allings' knowledge of the lumber and milling business made for a logical technical and financial collaboration and likely helped the fledgling carriage manufacturer get off the ground amid strong local competition.²

In 1858, New Haven's carriage output was surpassed only by the entire statewide production of New York, Pennsylvania, and Connecticut, respectively. New Haven remained Connecticut's most prolific carriage producer in 1860, and in that year the firm of M. Armstrong and Company first appeared in city directories. Located in a small shop at 65 Temple Street, M. Armstrong and Company opened its doors to a bustling New Haven carriage industry. The city's 41 factories were

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almost double the number of its closest Connecticut competitor, Hartford, which had 21 carriage makers, and more than three times that of the third most productive city, Bridgeport, which had 13. New Haven's factories were also larger, on average, than those in other Connecticut cities. New Haven carriage shops averaged approximately 44 employees apiece, whereas Hartford and Bridgeport boasted averages of only 10 and 31 employees respectively. The annual value of New Haven's carriage production, \$2,462,057, dwarfed the production value of the aforementioned cities, being four times greater than that of Bridgeport, and 12 times larger than Hartford's. It accounted for nearly two-thirds of the state's total carriage production, valued at \$4,171,804.³

M. Armstrong and Company made a rapid and successful start in 1859 and Armstrong took advantage of the lucrative business environment. The following year he established his new Temple Street factory and purchased a 360' x 70' residential lot on Humphrey Street (now 325 Humphrey Street) from Charles and Caroline Nicoll for \$1,715. On this lot he built a two-and-a-half-story Italianate home where he lived until his death in 1903. The home was located just around the corner from that of George Alling, who resided at 591 Orange Street, and just over a mile from the partners' Temple Street factory. Despite this early spate of profitability, however, it was not long before M. Armstrong and Company faced its first considerable financial challenge, the American Civil War.⁴

Many New Haven carriage builders did not survive the four-years of financial uncertainty caused by, or the recessions that followed, the breakout of hostilities between the Union and the Confederacy in 1861. By 1870 the number of carriage manufacturers in New Haven had dropped to 35, and continued to fall before bottoming out at 33 in 1880. Despite general economic instability and the loss of lucrative southern carriage markets caused by the war, M. Armstrong and Company survived on U.S. Government contracts to build ambulances and other vehicles. Furthermore, the growth of foreign carriage markets also aided many American manufacturers during the war years. As a May 1863 article in the *Scientific American* noted, "Of late years a large foreign trade in carriages has sprung up in this country, principally with Prussia and other portions of Germany... The upholstering and leather work of carriages is now very thoroughly done, and we are informed that in the article of enameled leather our American manufacturers are fast excelling all foreign competitors." To their great benefit, M. Armstrong and Company managed to capture a portion of this strong foreign export business, a niche that helped it to navigate not only the war but also the postwar depressions of the 1870s.⁵

Armstrong's carriage factory flourished during the war years and quickly outgrew its original facilities. In 1865 the company relocated down the block to numbers 3, 5, 7, 8, and 9 Temple Street, between George and Crown Streets. The main section of the factory was a three-story brick building with blacksmith and woodworking shops on the first floor and trimming and hanging rooms on the second. By 1880, smaller detached buildings also belonging to the company included a boarding house, carriage house, several additional blacksmith shops, a repository, painting building, and further storage areas.⁶

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Montgomery Armstrong's relationship with the Allings lasted just two more years. Both George and Thomas Alling retired in 1867 and the former blacksmith bought out his partners' share in the business and continued on his own. At the same time, he brought his son, Edward C. Armstrong, into the business as a bookkeeper. Comfortably established, M. Armstrong and Company remained on Temple Street throughout the 1860s and 1870s. During this period, however, New Haven's carriage industry was experiencing significant centralization. As Carolyn C. Cooper notes in her article, "Building an Industrial District: Carriage Manufacture in New Haven," between 1860 and 1880 the city's carriage factories and related industries increasingly consolidated in the eastern section of the city known as the New Township, an area centered around the current Wooster Square and Mill River neighborhoods. Cooper writes, "By 1860, sixteen of the fifty carriage manufacturers listed in the New Haven business directory and thirteen of the thirty-four listed carriage-parts suppliers were located on State Street or eastward." By 1880, these ratios had risen to 16 of 32, and 19 of 38 firms, respectively. As such, during this 20 year span the percentage of all carriage related firms in the New Township increased from one-third to one-half of all those in New Haven. In 1882 it also became home to M. Armstrong and Company.⁷

By 1880, while most of downtown New Haven was characterized by dense residential and commercial use, the area east of State Street remained less heavily developed. As Cooper notes, "Detailed insurance maps of the area, which began only in 1880, show denser residential occupation nearer to downtown, while on the streets from Olive eastward, two-to-three-story dwellings with deep backyards had checkered the space and were already coexisting with carriage factories and 'heavier' metalworking industries." Notable carriage makers in the area included the Boston Buckboard and Carriage Company and J.F. Goodrich Company on East Street (formerly the site of the Brewster Carriage Company); the firms of Cruttenden and Company and B. Manville and Company on Wooster Street; Henry Hale and Company on Franklin Street; The Henry Killam Company on Chestnut Street; as well as William H. Bradley and Company, the C.B. Demarest Company, the Durham and Wooster Company, and the Kean and Lines Company on Chapel Street. These carriage manufacturers were intermixed with entities such as the W. and E.T. Fitch Company, makers of carriage springs and saddlery hardware, on East Street; O.B. North and Company, makers of carriage and saddlery hardware, on Franklin Street; C. Cowles and Company, a firm specializing in carriage trim, hardware, and lighting, on Water Street; hardware giant Sargent and Company on Water Street; F.C. and A.E. Rowland, boiler makers, and the New Haven Brewing Company on Chapel Street; and L. Candee and Company, at the time the world's largest rubber footwear manufacturer, on East Street. Interspersed with this litany of industrial institutions, as noted, was an array of single- and multi-family housing for all levels of employees.⁸

The heart of the New Township's industrial district was an approximately four-block by four-block square bounded by Chestnut, Greene, East, and Water Streets. It was to the center of this area that M. Armstrong and Company moved in 1882 when it relocated from Temple Street to a new four-and-a-half-story brick building at 51 Chapel Street, later renumbered as 433 Chapel Street. Situated on the northern side of the block between Hamilton and Wallace Streets, the new location placed

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M. Armstrong and Company at the heart of New Haven's carriage district and in the midst of some of the industry's most prominent players. Described as, "...one of the best arranged carriage factories in the city", M. Armstrong and Company's employees were carefully delineated into various departments separated by floor. The building's basement housed the blacksmith shop, while the company's office and repository were located on the first floor. The second level was divided into "fitting-up" and storage areas, and woodworking and trimming shops were located on the third floor. The last steps, painting and drying, took place on the fourth floor.⁹

Like many other New Haven manufacturers, M. Armstrong and Company mainly specialized in one facet of the carriage business. Company advertisements from the 1870s proclaim the firm as, "Manufacturers of fine *Family Carriages*, of every description, including Four and Six Seat Rockaways, Cabriolets, Victorias, Phaetons, Coupes, Landaus and Landaulettes." The aforementioned models tended to be large, heavily detailed, and expensive carriages accessible to only the wealthiest of clients. During the 1870s and 1880s the firm primarily targeted upscale New York hotels. Due to the nature of this market, quality was of the utmost importance. Fortunately, M. Armstrong and Company was well known for the character of its work. A contemporary publication wrote of the firm, "The production of this establishment has for many years been known as the finest and best work made, combining lightness of running, luxuriousness of finish and durability". Significantly, the firm's product line and reputation for quality persisted into the 1890s. In his 1897 history of New Haven manufacturers A.B. Underwood wrote, "The firm produce the heavier grades of work, such as coaches, landaus, coupes, broughams, victorias, cabriolets, hansom cabs, etc., etc. Their work is of a superior grade of excellence and of high standard." It is of little surprise that by the 1890s M. Armstrong and Company's emphasis on maintaining the highest levels of quality products had not only solidified its reputation as one of the foremost firms in the industry, but had also earned the company a national market for its products.¹⁰

M. Armstrong and Company's increasing focus on manufacturing high-quality, expensive products was a common approach among New Haven carriage makers struggling to survive in the postwar period. While the productivity of New Haven builders had been largely unparalleled before the Civil War, the city was not able to reclaim this status after the war. In order to stay competitive with a growing number of western firms New Haven manufacturers opted to produce carriages of a higher level of quality, and value, than that attainable by western builders. In 1877, the October issue of *Carriage Monthly* quoted New Haven's William H. Bradley when he stated that, "New Haven has lost the Western trade for cheap carriages and cannot compete with the Western builders for the Southern trade. New Haven will always be a market for fine, nice carriages; coming down to a cheaper grade, the West will beat us." By 1879, New Haven had fallen behind Amesbury, Massachusetts as the top carriage producer in the east with 13,000 coaches built, compared to the leader's 16,000, and had been dramatically outpaced by the behemoth production centers that had popped up in the Midwest. As the *Scientific American* noted in 1879, "Of the Western cities, Cincinnati, South Bend, Ind., and Columbus O., take the lead in the carriage industry, eight firms in the

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first named city having manufactured 63,000 carriages and buggies last year. The product of South Bend, where the largest carriage manufactory in the United States is located, was less by a few thousand." Regardless of these changes, the value of New Haven's carriage production remained nationally ranked in 1880. In that year the city turned out the fifth most valuable annual inventory, ranked behind only Cincinnati, New York City, Philadelphia, and Chicago, respectively. While New Haven managed to maintain its status as a nationally recognized carriage manufacturer through the 1880s and 1890s, western firms continued to dominate the market. By 1900, the carriage production of the entire state of Connecticut was valued at \$4.5 million, a total only good enough for tenth place nationally.¹¹

Through the first decade of the twentieth century it became increasingly clear that the automobile presented a significant, if not permanent, challenge to the role of horse-drawn transportation. It was necessary that M. Armstrong and Company adapt to the changing technological environment or otherwise be forced to the wayside. As such, due to both social and familial developments, the company experienced a rapid series of substantial changes after the turn of the century. In January 1904, after the death of Montgomery Armstrong, the company incorporated as the M. Armstrong Company with Edward Armstrong as president and his brother Elmer, who had entered the family business in 1876, as treasurer. In 1905, Edward's son, Frank C. Armstrong, joined the firm as secretary. In 1909, the company added high-quality automobile bodies to their line of carriages in order to counter falling demands for the older technology. With Edward Armstrong's death in 1914 Elmer took over as president and his nephew took over duties as secretary and treasurer. In 1919 the M. Armstrong Company discontinued their production of carriages in order to focus solely on auto bodies.¹²

In the first decades of the twentieth century the process of manufacturing auto bodies shared many practices common to the carriage industry. Handwork was pervasive and skilled craftsmen were as important as complicated machinery. Unsurprisingly, the auto bodies produced by the M. Armstrong Company were of as high a standard as their carriages and coaches. Advertised as, "Designers and Builders, High Grade Motor Car Bodies," the company contracted with a number of automobile companies including the Springfield Body Corporation, the Stearns-Knight Company, and the Britton Car Company to manufacture and market high-quality automobiles. A Britton Company advertisement from 1919 emphasized the first-rate character of one of their vehicles and of Armstrong's craftsmanship stating, "In Quality, Style, Finish - this Sedan is unsurpassed. The body was built by M. Armstrong Co., New Haven, and represents the very highest grade of workmanship and material". In addition to building auto bodies, the M. Armstrong Company also offered automobile painting and body repair services, again taking advantage of skills carried over from carriage manufacturing. Despite these creative efforts, however, as domestic centers of auto production shifted to the Midwest, eastern manufacturers were less able to compete and one-by-one were forced to close their doors. For the M. Armstrong Company this came in 1927.¹³

After the departure of the M. Armstrong Company the brick factory building at 433 Chapel Street became home to the John P. Smith Company, manufacturer of wire fencing, cloth, and other goods. Partners John P. Smith and Frank J. Reynolds

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founded the firm in 1905 as "John P. Smith and Company", located at 493 to 501 State Street. The company advertised, "Wire Work of Every Description. Milk Bottle Racks and Carriers, Bank and Office Railings, Window Guards and Wire Cloth, Spark Guards and Fenders a Specialty". In 1922 the firm was reorganized as the John P. Smith Company and in 1927, with the closure of the M. Armstrong Company, the wire manufacturer moved production to Chapel Street while maintaining an office and salesroom on State Street. In 1933 the company combined their office, retail, and production facilities on Chapel Street. The company remained active at 433 Chapel Street until the company folded in 1963.¹⁴

Since the John P. Smith Company's closure, the former carriage factory at 433 Chapel Street has housed a number of small manufacturers and retail businesses, however few with much permanence. Those listed in the 1970 New Haven Directory are illustrative of the diversity of the firms that have called the building home over the last 50 years. Occupants that year included, "Pat's Barber Shop", the "Golia Dress Manufacturing Company", the "Golia Belt and Novelty Company", the "Blue Flame Oil Company", "Beacon Paint Company, Inc.", "Kenny J. Frocks, Inc.", the "La Bella Luncheonette", the "J.E.M. Products Company", the "Chapel Metal Finishing Company", and "Sun Fashion, Inc.". This diversity continues today as the building is home to D'Aniello's Amity Bike, LLC, an independently owned bicycle retailer and repair shop.¹⁵

Architectural Significance

The building at 433 Chapel Street is significant as a typical example of period industrial architecture and as one of the few nineteenth century factories remaining in an area once known for its manufacturing prowess. The building illustrates brick mill construction methods standard at the time of construction and a utilitarian design approach that minimized decorative elements in favor of a functional, low-cost structure. The building's architectural flourishes are limited to its simple brownstone watertable, segmental arched window openings, and simple brick cornice. The building possesses multiple aspects typical of period brick factory design, including: brick-pier, and wood frame construction; multiple stories; long, narrow proportions; plentiful, large, double-hung sash windows; multi-story elevator shaft; fire-resistant, multi-layered wood floor; fireproof doors; and low-pitch gable roof supported by king post rafter trusses held together with hewn-and-pegged joints. These elements provided for open workspaces, ample penetration of natural light, increased fire resistance, and low construction costs.

The aforementioned building methods also allowed factories to be easily adaptable to different uses, as is illustrated by the ease in which the John P. Smith Company converted 433 Chapel Street for its own purposes. The building's open floor plan consisting of a series of bays divided by wooden piers did not require major modification to house the machinery needed by the company in the production of wire goods nor did it need to be extensively altered to accommodate the businesses that

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followed. Although Redevelopment efforts in the area during the 1950s and 1960s resulted in the demolition of many of its contemporaries, the building's flexibility of design and continuity of use has resulted in its preservation.

¹ The other surviving carriage factory is located next door to the M. Armstrong Company factory at 441 Chapel Street.

² Dana, Arnold Guyot, compiler. *New Haven Old and New, 1641-1947, Vol. 127*. MS 1, New Haven Colony Historical Society, 77; *New Haven Directory*, 1846-1859; "New Haven Historic Resources Inventory Phase III: Vol. 5", The New Haven Preservation Trust. New Haven: 1982; "New Haven Historic Resources Inventory Phase III: Vol. 6", The New Haven Preservation Trust. New Haven: 1982; Preston Maynard, Marjorie B. Noyes, Sylvia M. Garfield, and Carolyn C. Cooper, *Carriages and Clocks, Corsets and Locks*. (Hanover and London: University Press of New England, 2004), 149.

³ The annual value of Bridgeport's carriage production in 1860 was \$604,550, Hartford's was \$205,080. Maynard, 47-9; *New Haven Directory*, 1860.

⁴ "New Haven Historic Resources Inventory Phase III: Vol. 5 and 6"; *New Haven Directory*, 1903.

⁵ Maynard, 49; "New Haven Historic Resources Inventory Phase III: Vol. 5 and 6"; "The Manufacture of Carriages", *Scientific American*, May 23, 1863, Vol. VIII, No. 21, pg. 330.

⁶ No title, *Hartford Courant*, June 20, 1879, pg. 1; *New Haven Directory*, 1865; Sanborn Map Company, *Insurance Maps of New Haven, Connecticut*, 1880.

⁷ Dana, 77; *New Haven Directory*, 1866; "New Haven Historic Resources Inventory Phase III: Vol. 5 and 6"; Maynard, 57.

⁸ Maynard, 57, 65; "The Manufacture of Carriages", pg. 330; Sanborn Map Company, *Insurance Maps of New Haven, Connecticut*, 1880; G.M. Hopkins C.E, *Atlas of the City of New Haven, Connecticut*, Philadelphia, 1888; *New Haven Directory*, 1880-83.

⁹ Street renumbering changed the address to 433 Chapel c. 1884. After the departure of M. Armstrong and Company from Temple Street, the former carriage plant was reoccupied by a number of manufacturers, including the Myers and Hertz Shoe Company. *New Haven Directory*, 1882-84; Sanborn Map Company, *Insurance Maps of New Haven, Connecticut*, 1886, 1897; Dana, 88; Maynard, 151.

¹⁰ *New Haven Directory*, 1878; Maynard, 150; *Leading Business Men of New Haven County*, Boston: Mercantile Publishing, 1887 (as quoted in Maynard, 149); A.B. Underwood, "The Manufacturing Interests of New Haven," in *The New England States*, Vol. 2, ed. William T. Davis, Boston: D.H. Hurd, 1897, 889.

¹¹ Comparatively, the leader, Ohio, turned out an inventory worth \$16.5 million. Maynard, 49; "The Manufacture of Carriages", pg. 330.

¹² *New Haven Directory*, 1903, 1904, 1905, 1909, 1919; Maynard, 150.

¹³ *New Haven Directory*, 1917, 1927, 1928; No Title, *Hartford Courant*, October 16, 1919, pg. 1A; Display Ad, *Hartford Courant*, July 18, 1920, pg. 29.

¹⁴ *New Haven Directory*, 1905, 1906, 1922, 1927, 1928, 1963, 1964.

¹⁵ *New Haven Directory*, 1963-80.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property: M. Armstrong Company Carriage Factory

County and State: New Haven, CT

Section number: 9 Page: 1

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Lucas A. Karmazinas, Consultant, State Historic Preservation Office. Connecticut State Register Nomination for "M. Swift and Sons Factory District, Hartford, CT", November 4, 2009.

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New Haven Assessor's Records, parcel 202/0554/00500.

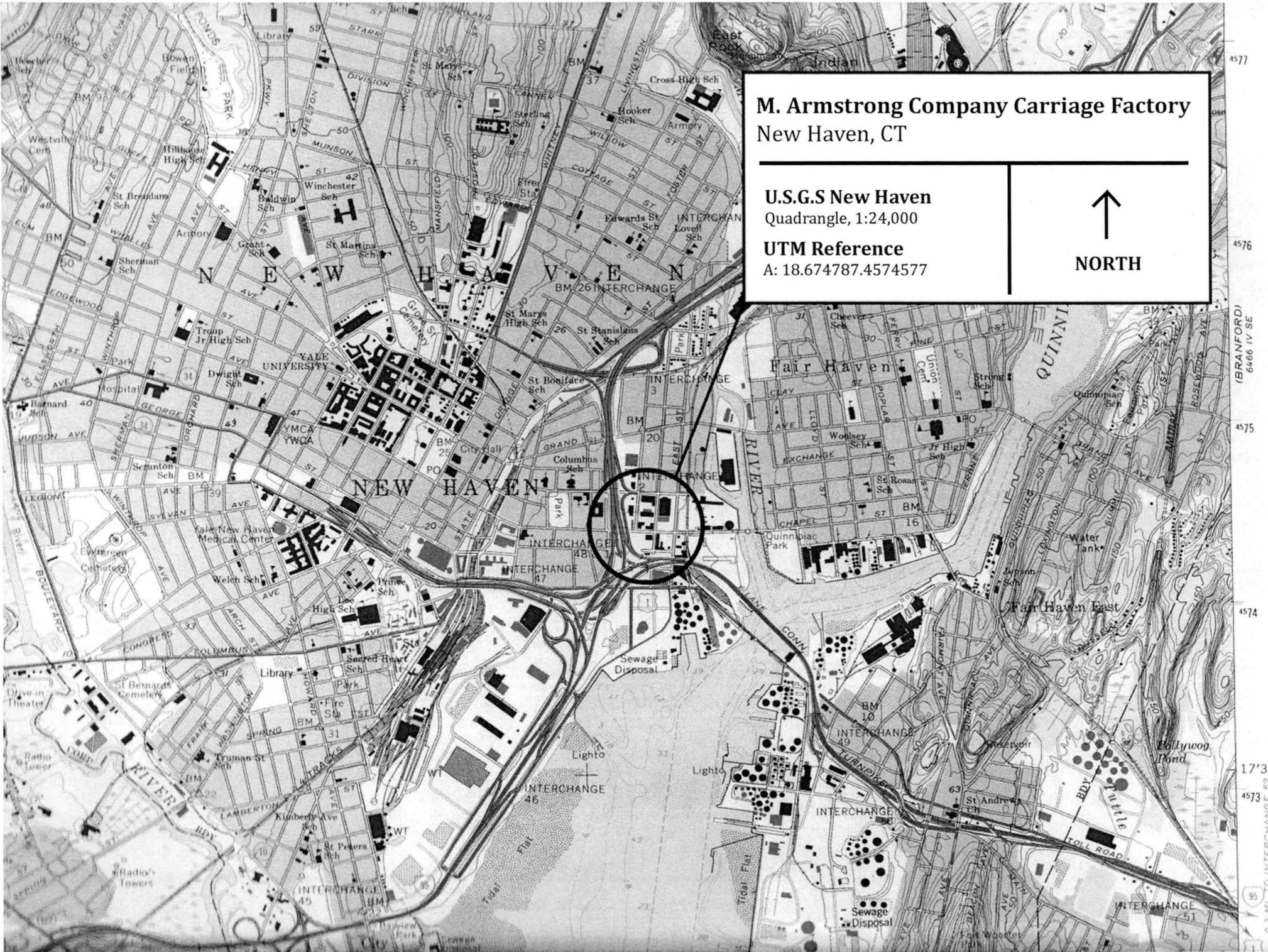
Site Plan:



- A. Main Factory Block, 1882.**
- B. Main Block Elevator Shaft, 1882.**
- C. Secondary Block, c. 1900.**
- D. Tertiary Block, c. 1930.**
- E. Yale Ironworks Building, c. 1870.**
- F. Durham and Wooster Carriage Factory Building, c. 1880.**

Site Plan (with photo positions):





M. Armstrong Company Carriage Factory
 New Haven, CT

U.S.G.S New Haven
 Quadrangle, 1:24,000

UTM Reference
 A: 18.674787.4574577



4577
 4576
 4575
 4574
 17'3
 4573
 95



**South (front) and west (side) elevation of factory from Chapel Street, showing main manufacturing building, 1882.
Camera facing northeast.
Photograph 1 of 15**



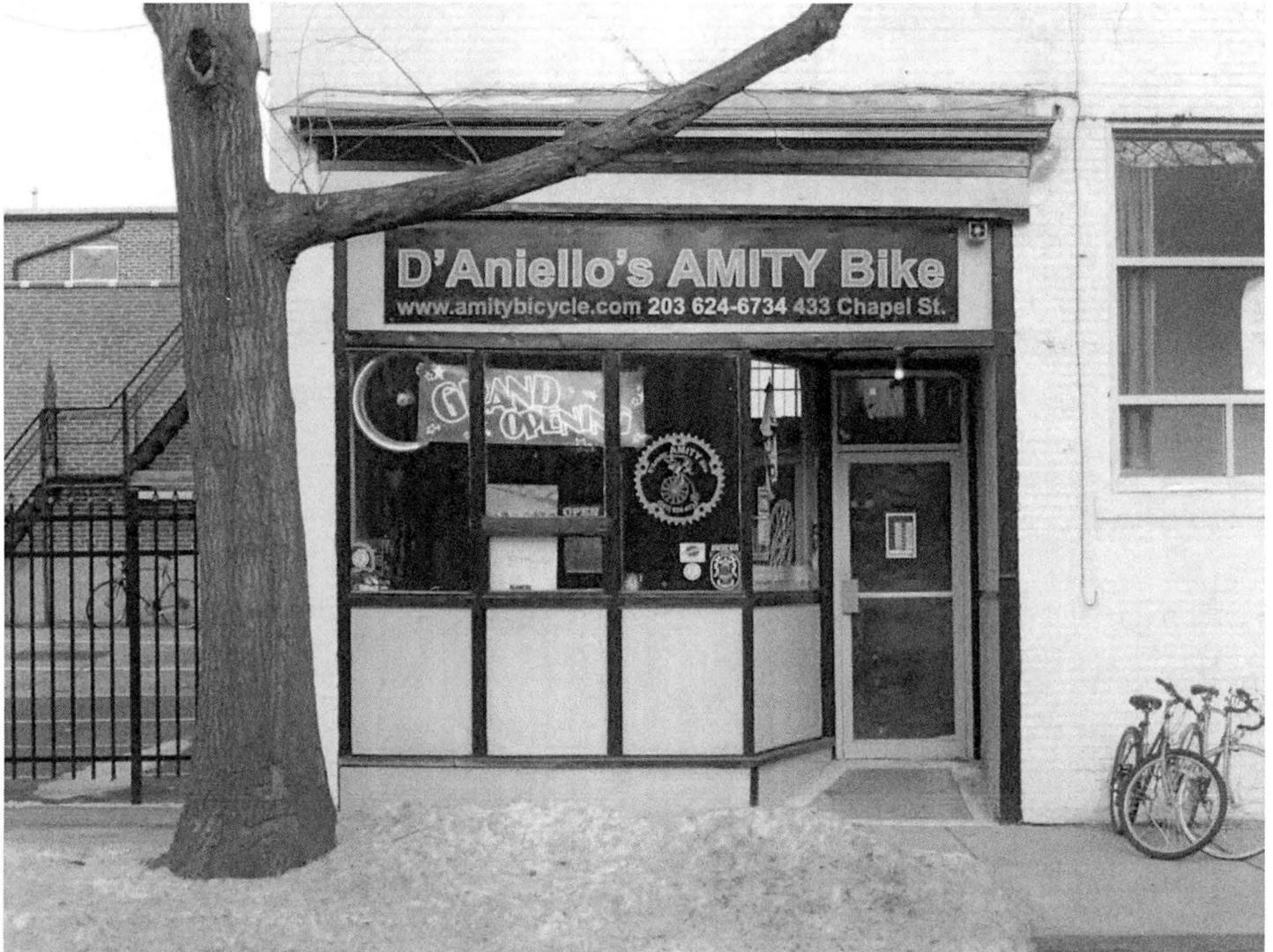
**Interior of basement level, showing foundation detail.
Camera facing southwest.
Photograph 2 of 15**



West (side) elevation of factory from Chapel Street, showing window detail.
Camera facing northeast.
Photograph 3 of 15



**South (front) elevation of factory from Chapel Street, showing upper-story window details.
Camera facing northeast.
Photograph 4 of 15**



**South (front) elevation of factory from Chapel Street, showing recessed entry details.
Camera facing north.
Photograph 5 of 15**



North (rear) elevation of factory from rear lot, showing elevator tower, chimney, fire escape, and rear ell details.

Camera facing south.

Photograph 6 of 15



**North (rear) side of factory from rear lot, showing larger rear ell details.
Camera facing southeast.
Photograph 7 of 15**



**Interior of first floor shop, showing details of enclosed porte-cochere.
Camera facing south.
Photograph 8 of 15**



Interior of basement level, showing details of the exposed foundation, brick support piers, cross beams, and floor joists.

Camera facing east.

Photograph 9 of 15



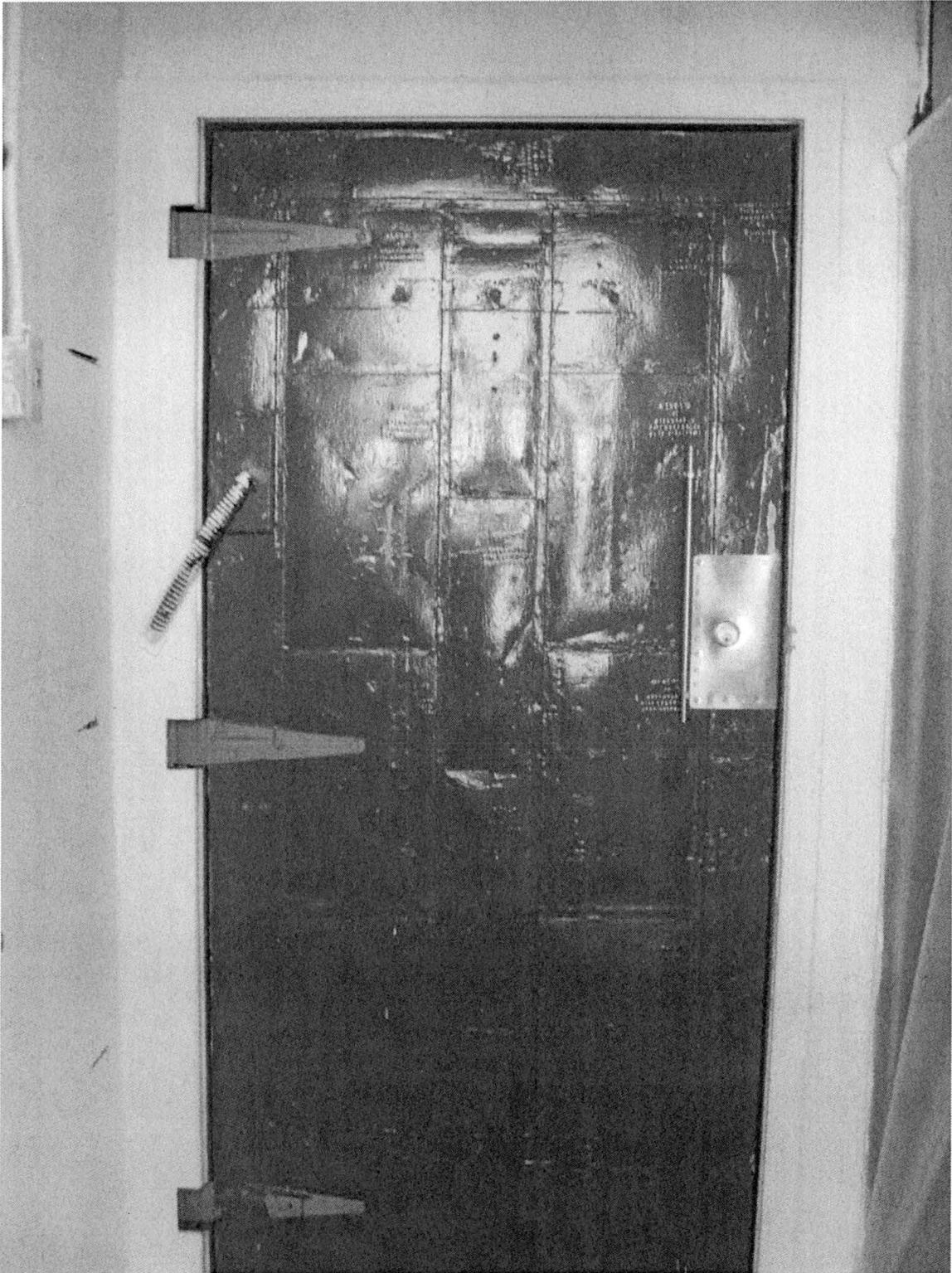
Interior of the first floor showroom, showing details of the south (front) elevation fenestration, support posts, and cross beams.

Camera facing southeast.

Photograph 10 of 15



Interior of the lesser rear block, showing details of the arched doorway, wood flooring, brick walls, and cross beams.
Camera facing northwest.
Photograph 11 of 15



Interior of the stairwell, showing details of one of the fireproof doors.
Camera facing south.
Photograph 12 of 15



Interior of the second level, showing typical upper-story details including fireproof floor, brick masonry walls, wooden posts, cross beams, and floor joists above.

Camera facing northeast.

Photograph 13 of 15



Interior of the elevator shaft, showing interior and elevator details.
Camera facing northwest.
Photograph 14 of 15



Interior of the attic story, showing framing details.
Camera facing northeast.
Photograph 15 of 15

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Armstrong, M. and Company Carriage Factory

MULTIPLE NAME:

STATE & COUNTY: CONNECTICUT, New Haven

DATE RECEIVED: 7/22/11 DATE OF PENDING LIST: 8/15/11
DATE OF 16TH DAY: 8/30/11 DATE OF 45TH DAY: 9/06/11
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 11000612

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: N SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

ACCEPT RETURN REJECT 8.31.11 DATE

ABSTRACT/SUMMARY COMMENTS:

**Entered in
The National Register
of
Historic Places**

RECOM./CRITERIA _____

REVIEWER _____ DISCIPLINE _____

TELEPHONE _____ DATE _____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.









D'Aniello's AMITY Bike

www.amitybicycle.com 203 624-6734 433 Chapel St.

Grand Opening

OPEN













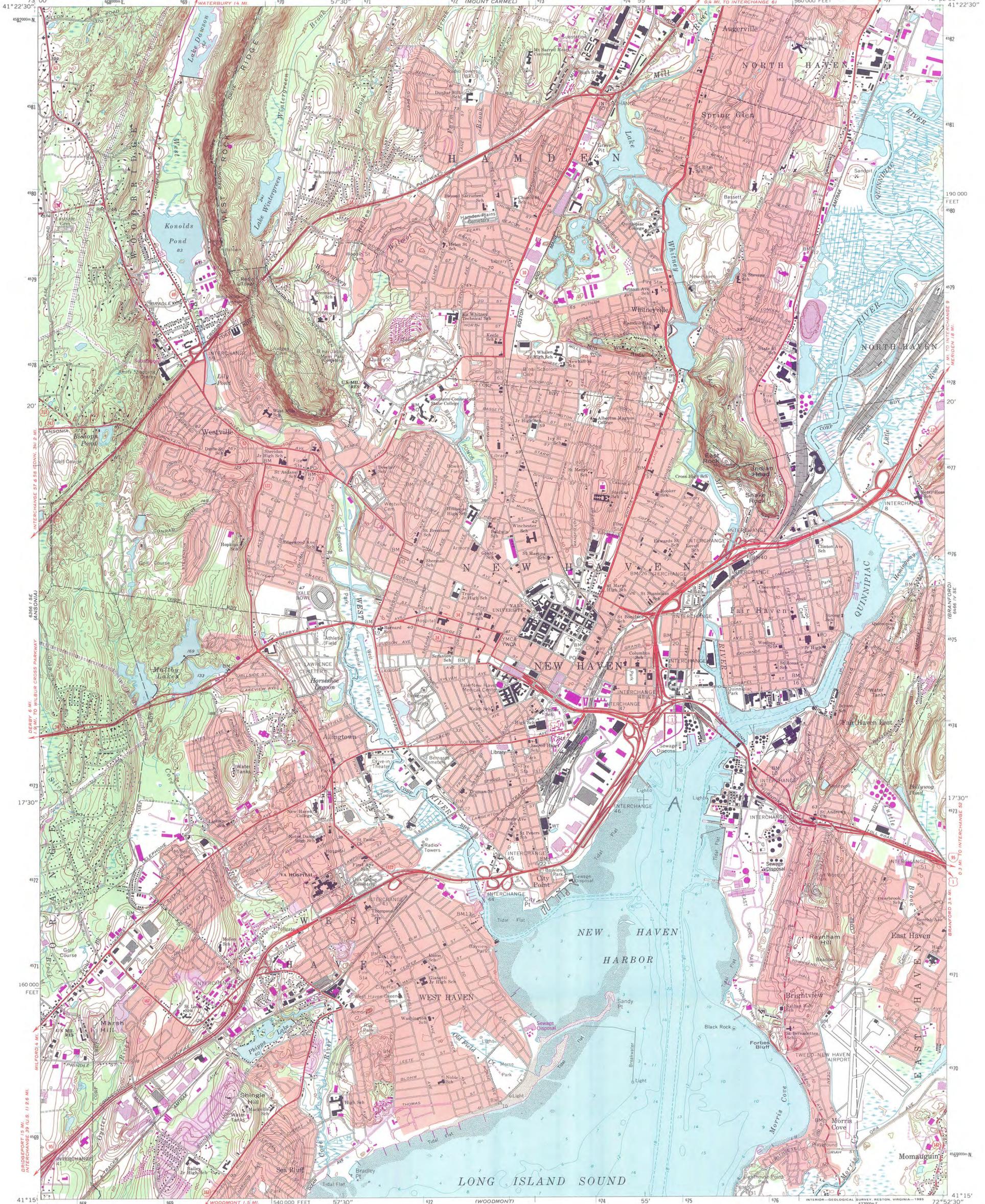




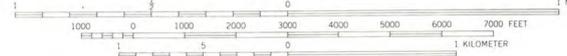
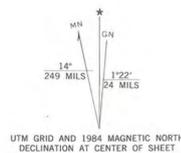








Mapped, edited, and published by the Geological Survey
Control by USGS, NOS/NOAA, and Connecticut Geodetic Survey
Topography by photogrammetric methods from aerial photographs
taken 1949. Field checked 1954. Revised from aerial
photographs taken 1966. Field checked 1967
Selected hydrographic data compiled from NOS chart 218 (1964)
This information is not intended for navigational purposes
Polyconic projection. 10,000-foot grid ticks based on Connecticut
coordinate system
1000-meter Universal Transverse Mercator grid ticks,
zone 18, shown in blue
1927 North American Datum
To place on the predicted North American Datum 1983
move the projection lines 5 meters south and
37 meters west as shown by dashed corner ticks
Red tint indicates areas in which only landmark buildings are shown
There may be private inholdings within the boundaries of
the National or State reservations shown on this map



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 6.2 FEET
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



ROAD CLASSIFICATION

Primary highway, all weather, hard surface	Light-duty road, all weather, improved surface
Secondary highway, all weather, hard surface	Unimproved road, fair or dry weather

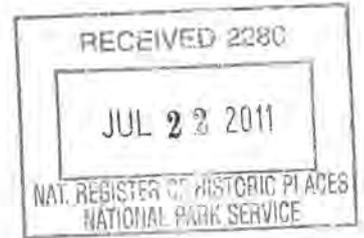
Interstate Route U.S. Route State Route

NEW HAVEN, CONN.
41072-CB-TF-024
1967
PHOTOREVISED 1984
DMA 6466 IV SW—SERIES V816

Revisions shown in purple and woodland compiled in cooperation with State of Connecticut agencies from aerial photographs taken 1982 and other sources. This information not field checked
Map edited 1984
Purple tint indicates extension of urban areas

M. ARMSTRONG CARPENTERS EXCHANGE
NEW HAVEN COUNTY, CT
A: 18. 674787. 4574577





TO: J. Paul Loether, Chief
National Register of Historic Places

FROM: Stacey Vairo, National Register Coordinator

SUBJECT: National Register Nomination

The following materials are submitted on this 20 day of July
2011, for nomination of the M. Armstrong and Company Carriage Factory
New Haven, New Haven County
Connecticut

to the National Register of Historic Places:

- Original National Register of Historic Places nomination form
- Multiple Property Nomination form
- Photographs
- Original USGS maps
- Sketch map(s)/figure(s)/exhibit(s)
- Pieces of correspondence
- Other _____

COMMENTS:

- Please insure that this nomination is reviewed
- This property has been certified under 36 CFR 67
- The enclosed owner objections do _____ do not _____
constitute a majority of property owners.
- Other: _____