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National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information.



New Submission Amended Submission

A. Name of Multiple Property Listing

TEXTILE FACTORY BUILDINGS IN TROY, NEW YORK, 1880-1920

B. Associated Historic Contexts

Historical Overview: Troy's Development, 1630- 1920
The Textile Industry in Troy, 1834-1920
Textile Factory Architecture in Troy, 1880-1920

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August 2013

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

Richard A. Pappant
Signature of certifying official

DSHPO
Title

11/20/13
Date

State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

for Alex Oberstly
Signature of the Keeper

1-15-14
Date of Action

United States Department of the Interior
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TEXTILE FACTORY BUILDINGS IN TROY, NEW YORK, 1880-1920

RENSSELAER COUNTY, NEW YORK

Name of Multiple Property Listing

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E. Statement of Historic Contexts

Outline of Historic Contexts

Historical Overview: Troy’s Development, 1630- 1920
The Textile Industry in Troy, 1834-1920
Textile Factory Architecture in Troy, 1880-1920

Synopsis

This Multiple Property Documentation Form (MPDF)—**Textile Factory Buildings in Troy, New York, 1880-1920**— has been prepared to address the National Register of Historic Places (NRHP) eligibility and designation of a specific property type within a well-defined geographic area; the property type is textile factories, these being principally associated with the cuff and collar industry, and the location is within the municipal boundaries of the City of Troy, Rensselaer County, New York. The nominated resources form a relatively cohesive collection of buildings that chronicle the development of Troy’s textile industry, which was dominated by cuff and collar manufacturing during the 40-year period between 1880 and 1920. It was during this four decade time span that the cuff and collar industry reached its greatest period of development in Troy, which assumed a preeminent position in the manufacture of these products nationally. These large-scale manufacturing facilities, which embody this prosperous period in the industry’s history, offer an important and salient link to the development of what was the principal industry in Troy at the turn of the twentieth century. They are additionally important as examples of period mill architecture, embodying characteristic construction techniques and other features expressive of American factory design and its evolution in the cited forty-year period. The MPDF format has been chosen given the number of buildings potentially eligible for designation (9 have been identified and are itemized at the end of this section); their shared and well-focused historic context; and their location within a geographic area defined by a distinct municipal boundary, the City of Troy.

Historical Overview: Troy’s Development, 1630- 1920

Dutch settlement of this region of New York State began in earnest under the direction of Kiliaen Van Rensselaer, an Amsterdam merchant affiliated with the Dutch West India Company. In 1630 Van Rensselaer secured rights to, and then rented to tenant farmers, a vast expanse of land straddling the Hudson River in the present-day Capital Region of New York, which was known as Rensselaerswyck or Van Rensselaer Manor. This land had previously, prior to the initiation of European settlement, been inhabited by Mohican Indians, who knew the area by the name “Paanpack.” Through a series of purchases and subdivisions, the land which came to constitute the present-day City of Troy came into the ownership of the Vanderheyden family, whose ownership spanned three generations. By the late eighteenth century, three Vanderheyden descendants— Jacob D., Jacob I. and Matthias— owned the exclusive rights to this land, which they subdivided into building lots for the purpose of promoting new development. From this land a village began

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to take form, fortuitously situated at the head of navigation on the east side of the Hudson, or North, River, about five miles north of Albany. The name Troy was officially adopted in 1789, the location having formerly been known as Vander Heyden or Ashley's Ferry. It became part of Rensselaer County at the formation of that entity in 1791, at the time the former was partitioned off from Albany County, and was incorporated as a village in 1801. By 1812 Troy boasted nearly 540 dwellings and over 100 stores and in 1815 its population had exceeded 4,200 inhabitants; in 1816 it successfully petitioned the state legislature for status as a city. A contemporary account, published in a local newspaper, opined that "It may not be too sanguine to expect, at no very distant period, to see Troy as famous for her trade and navigation as many of our first towns."¹

Brick-making operations were established in Troy before the end of the eighteenth century, an important consideration so far as the development of the built environment, and the first paper mill in northern New York was built there as well, on the banks of the Poestenkill, a powerful creek at Troy's southern end which proved ideal for furnishing hydraulic power for industrial enterprises. Other early industrial pursuits, many of which relied on the harnessing of water power, included cotton and woolen mills, tool and agricultural implement factories, nail works, grain mills, distilleries and breweries, a rope works, carriage factories, chair factories, and a gun factory.² The unfolding of the nineteenth century witnessed the expansion of an industry strongly associated with Troy's historic development, the iron industry, which centered on the refinement of iron and its use in the manufacture of stoves, bells, and other such cast products. Abundant water power in the southern part of Troy, where the Wynantskill, much like the Poestenkill, flowed to meet the southward course of the Hudson River, spurred the establishment of large iron factories there as early as the first decade of the nineteenth century. Two companies, in particular, led the growth of Troy's iron manufactories onto the national stage, the Albany Iron Works and the Burden Iron Company. The Albany Iron Works built the metal plating for the U.S.S. "Monitor," deployed in the famous 1862 Civil War naval engagement against the Confederate iron-clad ship "Virginia," while the Burden Iron Company, led by industrious Scottish immigrant Henry Burden, patented machinery which was capable of producing 60 horseshoes per minute and which manufactured millions of horseshoes annually. By the 1860s, Troy boasted the four largest iron mills in the country, in addition to 14 smaller foundries which produced a variety of wares.

Troy's location on the Hudson River and its proximity to the state canal system helped to sustain its industrial fortunes during the nineteenth century. In 1823 the Champlain Canal was completed, providing a water passage between Lake Champlain and the Hudson River, and two years later the Erie Canal was completed, providing for communication between the Hudson River and western New York and the Great Lakes. Steamboat transportation on the Hudson River linked Troy with Albany and distant New York City,

¹ A.J. Weise, *Troy's One Hundred Years, 1789-1889* (Troy: W. H. Young, 1891); George B. Anderson, *Landmarks of Rensselaer County, New York* (Syracuse: D. Mason & Co., 1897).

² Anderson, *Landmarks*, 243, 254.

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prior to which sloops, dependent in some measures on the vagaries of the wind, plied the river for commercial and other purposes. Troy inaugurated the completion of the Erie Canal in 1825 by launching a barge laden with Troy-manufactured goods for Rochester, and for many years the city served as a gateway for both the Erie and Champlain canals, receiving and shipping tons of materials such as lumber, grain and the products of its industry. The canal system made possible the importation of pig iron and iron ore to Troy from distant refining operations, where it was processed and could in turn be shipped to the New York City and other distant markets.³ The success of Troy's iron industry was in some measure shaped by the shipping opportunities afforded by the canal system. Contemporary documents indicate that canal traffic peaked in 1872, when freight totaled 6,673,370 tons. By 1895, tonnage had dropped to 3,500,314 tons, as competition with railroads was increasingly felt.

At New York State's 1894 Constitutional Convention, it was reported that the amount of railroad freight eclipsed canal freight by 1,000,000 tons. The state worked to limit this erosion by investing in the canal system and in 1918 the new Barge Canal system was put into service. However, by the later nineteenth century, the railroad had already seriously impaired canal shipping business. The rail lines which serviced Troy, in 1876 and as noted on the F.W. Beers map of Troy from that year, were the Troy & Boston Railroad, the Rensselaer & Saratoga Railroad, and the New York Central & Hudson River Railroad.

The collar and cuff industries located along the Hudson River in the north part of Troy had a shipping interest in seeing the canal deepened and the terminal facilities that served Troy's manufacturers improved. Troy's manufacture of collars and cuffs—made independent of the shirt and a fashion standard for men and women of the nineteenth century—reached world-wide dominance by the turn of the twentieth century. Bolts of cloth came to Troy and left as collars and cuffs via shipping on the Hudson River. F.F. Peabody, a partner in what would be the largest collar and cuff industry located on River Street, lobbied the United States Army Corps of Engineers to ensure that the canal expansion reached Troy's headwaters. Still, the railroads prevailed. By 1905 the Delaware & Hudson Railroad listed 25 collar and cuff makers, 14 shirt manufacturers and two makers of “shoddy”—cotton and wool waste reconstituted as cloth and batting—as shippers. The New York Central and Boston & Maine railroads also served Troy at this date, making the city a major rail distribution hub from which outlying markets could be accessed.

Troy's population grew from a mere 50 people in 1789 to a peak of nearly 78,000 residents in 1916, during the First World War, by which time it had developed from a provincial Hudson River hamlet to a major New York State manufacturing center. Immigration had in large measure helped to swell the city's population; in Troy, much like other manufacturing centers, people of foreign extraction made up a majority of the city's population by the last quarter of the nineteenth century. Earlier immigrant groups, such as the Irish—many of whom worked in the iron mills in the south part of Troy—were followed in subsequent periods by Italians, Poles and Russians, who came seeking similar opportunity for work, often times in less-

³ Don Rittner, *Troy: A Collar City History* (Charleston, SC: Arcadia Publishing, 2002), 87.

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than-ideal conditions.⁴ Troy's growth came to surpass its once prosperous neighbor to the north, Lansingburgh, itself an early commercial center, and along with nearby Albany it emerged as a leading center of industry and commerce in the region during the second half of the nineteenth century. Lansingburgh, which in the early nineteenth century benefitted from its position as the terminus of the Northern Turnpike on the Hudson River, was subsumed by Troy in 1900.

The Textile Industry in Troy, New York, 1834-1920

Although by the mid-nineteenth century Troy was home to a broad range of manufacturers, its industrial history was largely dominated by two principal manufacturing concerns, the iron and steel industry and the collar and cuff industry. The latter industry came to dominate textile manufacturing locally, particularly after the introduction of the sewing machine in the 1850s, though some companies continued to manufacture other items, such as shirts, in addition to cuffs and collars. Although local iron magnates had capitalized on the Bessemer technology necessary to convert iron into steel, labor unrest, in addition to competition from Andrew Carnegie's steel interests in Pennsylvania, caused the local iron industry to peak, then decline, in the third quarter of the nineteenth century.⁵ It was at this time that the manufacture of collars and cuffs blossomed as the main industrial enterprise in Troy and a principal employer of city residents; at the height of its production, in 1916, Troy manufactured ninety percent of the nation's collars and cuffs. A precipitous decline in the industry's fortunes unfolded after 1920.

It is Troy resident Hannah Lord Montague, a daughter of the Revolutionary War officer William A. Lord and wife of blacksmith Orlando Montague, who is generally credited by historians for inventing the concept of the detachable collar in 1827. Montague, who had grown tired of scrubbing her husband's shirts when only the collars were soiled, experimented with removing the collar from the shirt, washing it independently, and then reattaching it. Shortly thereafter the Reverend Ebenezer Brown, a former Methodist Minister and local store owner, expanded upon Montague's idea and worked towards developing it as a viable business enterprise. In 1834 Orlando Montague, for whom the first detachable collar was made, established a partnership with Austin Granger under the name Montague & Granger and commenced operation of a collar factory on River Street, thus beginning the strong association of this industry with this important Troy thoroughfare. During the next half century new advancements were made as this industry expanded and related enterprises were born, notably laundries needed to wash and dry detachable collars, both for manufacturers and consumers. By 1900 some 15,000 people were employed in the cuff and collar industry in the city and by 1901 there were some 26 cuff and collar factories and 38 laundries located there.

Many of the companies that produced cuffs and collars were also engaged in the manufacture of shirts and other textiles; however, cuff and collar production was the principal pursuit of Troy textile operations in the

⁴ Thomas Phelan, *The Hudson Mohawk Gateway* (Northridge, CA: Windsor Publications, 1985), 78.

⁵ *Ibid*, 64.

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second half of the nineteenth century and the first decades of the twentieth century. The shirt factory founded in 1845 by Lawrence Van Valkenburgh was, by historian N.B. Bartlett's account, the first of any consequence in Troy so far as the manufacture of shirts was concerned. During the early 1870s the fortunes of the local shirt industry had been damaged by labor unrest; however, a decade later it was enjoying renewed success.⁶ Troy's textile industry, which came to center on detachable cuffs and collars, began to assume greater importance as the 1850s unfolded.

The Production of Cuffs and Collars

Troy's first cuff and collar manufacturers established themselves in the 1830s, following the lead of Montague & Granger; among them were Independence Starks, Lyman Bennett, Wood Babcock and John W. White, all of whom founded businesses before 1840. However it was not until the advent of the sewing machine, in the mid-nineteenth century, that the industry was catapulted to the forefront of local textile manufacturing. The sewing machine developed by Wheeler, Wilson & Company revolutionized the American textile industry. Nathaniel Wheeler, of that firm, came to Troy in the winter of 1851-52 to demonstrate this new device; however, most Troy textile manufacturers who saw it in operation gave it a lukewarm reception and believed it would ultimately prove impractical for cuff and collar production. Among those who were shrewd enough to embrace the sewing machine at this time was Jefferson Gardner, who successfully implemented it in manufacturing operations in 1852; by 1879, some 1,600 machines were being used by Troy's cuff and collar manufacturers. The Wheeler & Wilson sewing machine, established locally with its use by Gardner, remained the preeminent make employed by Troy's textile manufacturers during the nineteenth century. In 1855 the firm of Bennett, Hicks & Edson adapted it to for use with steam power at their factory on Union Street, using power provided by the establishment of W. & L. E. Gurley.⁷ The sewing machine not only dramatically boosted production but it additionally increased the wages of the largely female force, raising pay from 50 cents to \$2.50 a day.⁸

Much of the laundering required in the manufacture of cuff and collars, however, was still done by hand, and by women, in independent laundry facilities that took in business from the factories; these laundries washed the goods prior to distribution. Before automation, laundry women spent some 12 to 14 hours daily, often in less-than-favorable conditions, working with solutions of bleach, diluted sulfuric acid, soap and bluing, which were employed in the washing process before the collars were starched and ironed.⁹ The collar worker typically was a single female under the age of 25, a profile that fit most working women in American cities in the post-Civil War era. These young women were not just dependents under the protection of their immediate families, as some were self-supporting or otherwise supported their family.

⁶ N.B. Sylvester, *History of Rensselaer Co., New York* (Philadelphia: Everts & Peck, 1880), 229.

⁷ Ibid, 226.

⁸ Weise, *One Hundred Years*, 176.

⁹ *Kate Mullany: A True Labor Pioneer*. This synopsis of Mullany's life was a tribute to her pioneering union efforts on behalf of women and was posted at the Public Employee Federation's (PEF) website.

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Widows composed a third of the workforce.¹⁰

The “laundress” of the 1860s was usually of Irish extraction, while American-born women tended to occupy the position of “sewer.” Irish-born workers soon caught up, though, so that by the 1880s they filled both of these occupations equally. Troy had, by the 1880s, emerged as the so-called “Collar City,” with upwards of 8,000 women working in factories and hundreds more sewing in their homes to satisfy the demands for detachable cuffs and collars. The white collar became *de rigueur* and at the same time created a somewhat informal class distinction that still finds expression today, separating people of relative means— the “white collar” class— from so-called “blue collar” workers. In 1907 alone, Troy textile manufacturing interests produced 50,000 twelve packs of collars.

Even though the American textile industry became increasingly mechanized as the nineteenth century progressed, the process of manufacturing collars still depended on the abilities of a skilled work force, so much so that one manufacturer cited the lack of skilled labor as the preeminent reason why collar and cuff start-ups failed in other communities. He also implied that these skills were exhibited mainly by the native born, as opposed to immigrants.¹¹

The production of a detachable collar required 24 distinct operations from start to finish. The manufacturing started with pre-shrinking the material, to ensure uniformity among the various bolts of what was mainly cotton cloth, which was then cut by hand or otherwise by using power presses that followed die patterns. The collars were then stamped to identify their size, make, quality and style. Turning, more and more done by machine, involved creating an edge that could then be stitched. The final product would be washed again in a rotary machine capable of laundering from 200 to 1,200 collars at a time, which were then rinsed, dried, starched and ironed. Collars came in a wide range of weights, such as soft and semi-rigid, weaves and styles, with names like “Civic” and “Critic” and the “Mark Twain”; the latter name had to be approved by the author himself. There was a “collar for every occasion,” or so proclaimed Van Zandt, Jacobs & Company, one of the prominent manufacturers in Troy.¹²

The Manufacturers

The buildings which are the subject of this MPDF form represent the last period of development for an industry the roots of which date to the second quarter of the nineteenth century. These buildings, built in the period 1880-1920, portray the ascendancy of the cuff and collar industry in Troy and represent the response made by the major companies to meet the growing national demand for their products. While the

¹⁰Carole Turbin, *Working Women of the Collar City: Gender, Class and Community in Troy, New York, 1864-1886*. (Chicago: University of Illinois, 1992), 5.

¹¹U.S Department of Commerce, Bureau of Foreign and Domestic Commerce, *The Shirt and Collar : Report on the Cost of Production of Men’s Shirts and Collars in the United States*, no. 36 (Washington, DC: Government Printing Office, 1916).

¹²“Collars Help Wanted Signs Out in Troy,” *The Clothier and Furnisher*, January 1922, 71.

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history of the cuff and collar industry in Troy dates to the 1830s, it was not until the 1850s that the emergence of new technology spurred further investment and expansion in this manufacturing field locally. A list of the individuals and companies directly associated with textile manufacturing in Troy during the period ca. 1834-1879, and specifically with the manufacture of cuffs and collars, is provided at the end of this section.¹³ While the industry came to be centered on River Street, where some of the earliest associated businesses were located, factories associated with Troy's cuff and collar manufacturing were also at one time located on King Street, Union Street, Fulton Street, State Street, and Fourth Street, among other locations.

Van Zandt, Jacobs & Company, the maker of the Triangle brand shirt collar, was among the largest collar and cuff manufacturers in Troy as the twentieth century approached, and as such required suitable facilities to house hundreds of workers and the heavy machinery that they needed to perform their work. The company was established in 1890 by Clarence Van Zandt and John E. Jacobs for the manufacture of collars and cuffs; the firm was subsequently reorganized, in 1904. While it had modest beginnings, by 1910 Van Zandt, Jacobs & Company employed some 1,500 people. Van Zandt served as the president of the company and additionally served as vice-president of the Albia Box Company, treasurer of the Burt Shirt Company, and director of the National State Bank of Troy.

In 1891, Miller, Hall & Hartwell erected an addition to its factory, which had been built in 1880, expanding the space there to some 95,000 square feet. The much-heralded factory expansion was built to the designs of the Troy-based architect Edward W. Loth, a prominent architectural practitioner in the area during this period. Miller, Hall & Hartwell, at one time associated with Miller & Bingham, were one of the largest establishments of their kind in the nation; they produced detachable cuffs and collars in addition to shirts. Among the principals of this business were Justus Miller and John E. Miller. The company manufactured textiles at this location on River Street from 1880 until 1943, at which time it ceased operations. One block north of this location was the factory of Van Zandt, Jacobs & Company, ca. 1895.

Also nearby to Miller, Hall & Hartwell and Jacobs, Van Zandt & Company was the factory of Wilbur, Campbell, Stephens Company, ca. 1899. They produced collars, among them those by the brand name "Wilbur's Collars," which they advertised in periodicals of that era such as *Pearson's Magazine*. Later known as the Wilbur-Stephens Company, this firm dissolved ca. 1911. Among those affiliated with this business was Frederick E. Draper, who, in addition to serving as a vice president and director of this company, was among the organizers of the National City Bank of Troy, 1903, and director of the Troy Trust Company. He was further involved with Polk & Calder, engaged in the wholesale drug business, and served as president of Boutwell Milling & Grain Company.

Searle, Gardner & Company erected its factory two blocks from this location ca. 1899. The principal partners of this firm were Willard W. Searle, the senior partner and an experienced textile manufacturer, and

¹³This list was generated from Sylvester, *Rensselaer Co.*, 226-229.

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George E. Gardner, who acted principally as a salesman and business agent. During the company’s 17 years at this location it rented out space within the building to other collar and cuff companies, among them Holmes & Ide, a firm originally organized in 1869 by Stephen Parks, John C. Ide and Henry Holmes under the name Parks, Ide & Holmes. In 1899, when that company moved to the nominated building, it had reorganized and was known as Holmes & Ide. They rented the third through fifth floors of the building from Searle, Gardner & Company before dissolving in 1902 under mutual consent. Henry Holmes purchased Charles Ide’s interest in the business, at which time the firm took the name Henry Holmes & Son, and continued to rent space at the River Street location until 1914.

Cluett, Peabody & Company, which in 1917 erected a new state-of-the-art facility, traces its roots back to Maullin & Blanchard, established in 1851 and reorganized several times before its dissolution in 1862. At that date a new partnership was formed between Joseph Maullin and George B. Cluett; Maullin died the following year, at which time the company assumed the name George B. Cluett, Brothers & Company. In 1891 the company merged with Coon & Company, around which time Frederick F. Peabody joined the firm. In 1899 the company took the name Cluett, Peabody & Company. Prior to about 1920, the firm’s principal interest was in the manufacture of detachable cuffs and collars. It was, at the turn of the twentieth century, one of Troy’s preeminent companies.

Other major companies engaged in this line of textile work in the last quarter of the nineteenth century and first decades of the twentieth century included Ball Brothers; C.H. McClellan; the Cooperative Collar & Cuff Company; Corliss, Coon & Company; Earl & Wilson; Fellows & Company; Gardner & White; H.C. Curtis & Company; the United Shirt & Collar Company; and Wood & Lewis.¹⁴

While, in spite of declining economic fortunes, some Troy collar makers continued to operate into the 1960s, the fashion shift in favor of full shirts, without detached collars and cuffs, nevertheless marked the end of collar and cuff manufacturing in Troy. This change was already becoming evident during the 1920s. Cluett, Peabody & Company was among those local businesses which wisely paid heed to consumer demand for full shirts, and the company enjoyed continued success until the 1980s, during which time they manufactured the Arrow brand shirt. The original Arrow advertisement campaign, which ran between 1905 and 1931, used the iconic “Arrow Collar Man” to tout the company’s wares, and proved highly successful. The Arrow brand gradually developed into a larger product line that included shirts, handkerchiefs, cravats, pajamas, and underwear for men and boys.

¹⁴Rittner, *Collar City History*, 99.

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Textile Factory Architecture in Troy, 1880-1920

Fundamental changes were underway in American mill construction during the forty years between 1880 and 1920. At the beginning of this time span, load-bearing masonry buildings, with interior wood framing of the so-called “mill construction” type—in essence large, slow-burning wood timbers meant to retard the rapid spread of fire, and configured in such a way so as to prevent the collapse of the masonry walls they transmitted their loads to—was the characteristic solution for factory architecture. The availability of large quantities of brick masonry, the product of any number of regional Hudson River brickyards, undoubtedly spurred its use; it offered a more durable and fireproof alternative to wood, which was seldom favored for larger textile factories after the early nineteenth century. By the end of this period, reinforced concrete had largely supplanted load-bearing masonry, and the so-called “daylight factory,” built in large measure with reinforced concrete, had been established as an industrial typology. The period in question, 1880 to 1920, provides a bridge between the Late Victorian and Modern eras of architecture. The buildings dating from the earlier period display exterior attributes which link them to prevailing architectural styles of that day, principal among them the Romanesque Revival style. By contrast, the Cluett, Peabody & Company factory, 1917, shows the advances which had occurred during this period for factory construction; built with reinforced concrete, this eight-story edifice represented a radical departure from the older factory type and is representative of the daylight factory type.

In Troy, collar and cuff manufacturing facilities ranged in size from small factories, strictly concerned with cutting and sewing operations, to massive plants that performed the entire operation and had their own laundries and box-making and packing facilities. The largest of these were founded in somewhat quick succession along the east bank of the Hudson River, on River Street, in the northern part of Troy, and represented the ascendance of this industry to the forefront of local business. The buildings which are addressed in this documentation are of this larger-scale type.

Architecturally the earlier masonry buildings were often cast with details linking them to the Romanesque Revival style, no doubt in some measure inspired by the work of the architect Henry Hobson Richardson. His design for the Marshall Fields Wholesale Store in Chicago, completed in 1887, while not a factory per se, nevertheless showed the effective use of Richardson’s personal interpretation of this style for large-scale commercial purposes. Many of its attributes proved well suited to mill design. As noted by the architectural historian Leland Roth:

The Field Wholesale Store appeared to be a single huge block. Since the interior consisted of open loft spaces, Richardson maintained an uninterrupted rhythm of arcades along each side... Simple though it appears, the Marshall Field Wholesale Store demonstrated clearly that a large commercial block could be expressed as a single integrated unit of great force and authority. No longer were meretricious historical ornament or a ponderous roof obligatory. Large-scale coherent forms, graced with plain walls, could be effective. Though structurally the Field building was conservative, with bearing walls

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and cast iron and wooden columns for internal supports, the visual expression was highly advanced and pointed in a new direction which many critics and architects, both in the United States and Europe, interpreted as being distinctly American.¹⁵

Van Zandt, Jacobs & Company's ca. 1895 edifice, designed by the architectural office of Marcus F. Cummings & Son, offers itself as a preeminent example of Romanesque Revival factory design, the composition including a prominent castellated tower. The windows of the second, third and fourth stories are set between vertical piers that culminate, above the fourth-story level, in a round-arched arcade. The Searle, Gardner & Company building, ca. 1898-99, while it employs more limited Romanesque design vocabulary than the Van Zandt, Jacobs & Company building, nevertheless presents itself as a monumental block more in keeping with the example of Richardson's Marshall Fields. The overall effect is one of imposing character. The Cummings's office design for the Troy Waste Manufacturing building, 1909, was expressive of the move away from Romanesque forms to those of simplified Classical inspiration, representative of the renewed interest in Roman and Greek architecture in America that characterized the turn of the twentieth century. Its exterior is expressive of the coming trend towards astylar, more functionally designed factories, and the move away from historical ornamentation for this building type.

It bears noting that both the Cummings office, responsible for the design of two of the factory buildings cited in this MPDF form, and Edward W. Loth—who designed the Miller, Hall & Hartwell factory—were foremost among the architectural offices active in Troy at that date. Clearly some leaders within the cuff and collar business were intent on seeking the services of the city's most skilled architectural practitioners to develop plans for their new facilities and carry them to fruition. Marcus Fayette Cummings (1836-1905) was the principal figure of the Cumming office, which was carried on after his death by his son Frederick. Born in Utica, New York, the elder Cummings worked for a time in architectural offices located in the cities of St. Louis, Baltimore, and Buffalo. After returning briefly to his native Utica he established a practice in Troy in the early 1860s, distinguishing himself over the ensuing decades as a skilled architect and author of three influential architectural sourcebooks, *Designs for Street Fronts, Suburban Houses and Cottages* (1865), *Modern American Architecture* (1872), and *Cummings' Architectural Details* (1873). As for Loth (1857-1938), born in Bridgeport, Connecticut and the son of German immigrant parents, he is credited with the designs for a number of buildings in the area, principal among these churches, including St. Patrick's Church in Watervliet, the Church of St. Paul the Apostle in Troy, and St. Stanislaus Church in Amsterdam. He additionally served on the Troy Planning Commission and was affiliated with the New York State Association of Architects and the New York State Society of Architects.

Towers, sometimes offset or otherwise centrally placed or used as an engaged corner feature, formed a conspicuous exterior feature of Troy factory buildings and were a feature of New England textile mills since

¹⁵Leland Roth, *A Concise History of American Architecture* (New York: Harper & Row, 1979), 169-70.

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the early nineteenth century. These were employed to satisfy basic functional requirements, typically as a location for stair wells, or in some instances to house large water tanks that fed automatic sprinklers, which had been invented in 1879. Tower stair wells could also be isolated from the remainder of the building, in the event of a fire, by means of large fireproof doors. In the case of the towers on the Van Zandt, Jacobs & Company and Searle, Gardner & Company's factories, the towers were embellished so as to provide architectural interest; little such effort was made on the Troy Waste Manufacturing Company's building, where the central tower received little in the way of decoration. The attached tower of the textile mill may have had its earliest expression in the 1816 mill constructed by the Boston Manufacturing Company in Waltham, Massachusetts, and was in general use by the 1830s, used to house stairs and in some instances toilets. By removing the stairs from the main section of the building, more floor space could also be reserved to house machinery.¹⁶

The 1899 Searle, Gardner & Company building's interior is characteristic of the Troy textile factory at the turn of the twentieth century. The 1903-04 Sanborn Fire Insurance map offers vital information about how it functioned at this early date in its history. Cutting operations and box storage were contained in the basement; the stamping, packing and printing processes, along with the factory office, were housed on the first floor; and the stitching and turning shop was located on the second floor. The third floor contained additional storage and office space, while the fourth floor housed cutting and turning operations. Stitching and banding were done on the upper floor, while the two-story rear wing contained facilities for laundry, starching and ironing. The southwest tower contained a 10,000 gallon water tank, which was linked to the automatic sprinkler system, while the opposite northeast tower contained stairs and could be separated from the main block by means of fire doors. The building used steam power, was heated by a hot air furnace and had electric lighting. The redundancy in some functions is accounted for by the notation that the third, fourth and fifth floors were rented to Henry Holmes. Steam was generated in a rear boiler house.

The building was noted on the Sanborn map as being of mill construction, whereby the open floors of each level contained a system of exposed posts and beams. The massive ceiling beams, used in lieu of a smaller system of joists, were more effective in retarding the spread of fire, their edges being chamfered to further hinder the spread of flames. Cast-iron connectors are employed where two beams meet above a post, again to discourage fire from taking hold. Perhaps most importantly, the ends of the beams, where they met the walls, were configured in such a way that they could fall away from the wall in the event of a fire, and not bring the entire wall down with them during the process of collapse. The 1912 *Cyclopedia of Architecture, Carpentry and Building* offered the following description:

¹⁶William H. Pierson, *American Buildings and Their Architects: Technology and the Picturesque, the Corporate and Gothic Styles* (Garden City, NY: Anchor Press/Doubleday, 1980), 46-47.

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Mill Construction, as its name denotes, should properly belong to the particular methods of construction which have been devised for resistance of fire, and the sustaining of the loads and shocks of machinery, to which manufacturing buildings are particularly subjected. This requires primarily the disposition of the timber and plank in solid masses exposing the least number of corners to the action of fire, of separating the floors by fireproof stops, and automatic arrangements of closing hatchways or elevator openings, and of enclosing stairways in incombustible partitions.

The typical construction employed for the mills of New England, and the only form acceptable to the insurance companies of that section, consists of posts at least 10 x 10 inches, spaced about eight feet apart in the length of the mill and twenty-four or twenty-five feet across. Instead of a line of girders running lengthwise over the line of posts, the floor beams are laid across the mill on the tops of the posts. These beams are usually 12 x 14 inches, or two pieces of 6 x 14 inches, bolted together with an air space between. The wall end of these timbers should rest on iron plates and the ends be beveled off and secured only at the bottom, so that they may fall out easily if burned, and not pull down the wall.¹⁷

As might be expected, this construction method had its roots in the textile mills of New England; Zachariah Allen is generally credited with introducing elements of slow-burning construction with the erection of his cotton mill in Providence, Rhode Island, in 1822. One source, however, posited that the method instead spread in New England in the 1830s, during which decade it was used for the Boott Mills in Lowell, Massachusetts. This type of construction proliferated, in part and as noted in the 1912 account, because it was expected by insurers, given the constant threat of fire.

Troy textile manufacturers and their employees were undoubtedly well acquainted with the disastrous effects of fire and their impact on commercial operations. In 1862, a vast expanse of Troy was destroyed by fire when a spark from a steam locomotive ignited a wooden bridge. In February 1896, amid the boom in River Street factory construction, a large fire ripped through the Burdett Building, which housed textile operations affiliated with J. Stetthimer & Company and Van Zandt & Jacobs, in addition to some adjacent structures. This six-story building, a textile factory of what was described as “ordinary wooden beam and floor construction,” was inadequately designed for this scenario, leaving many of the hundreds of workers therein trapped as the fire spread. Efforts to quell the blaze were hampered by the severe winter conditions, and a vast network of overhead wires hindered the fire department’s attempts to get ladders onto the building. Four female workers died as a result of the fire, three of whom jumped from upper-story windows to escape the fire and smoke. In 1907, the building which the Troy Waste Manufacturing Company had previously occupied on River Street burned, leaving its cloth scrap contents to smolder for two months. The current building, of mill construction, replaced it in 1909.

Despite the advent of steel frame construction, and the promising technological advancement of reinforced concrete, experts at the turn of the century were still touting slow-burning or mill construction as the best

¹⁷Cyclopedia of Architecture, Carpentry and Building, *Slow-burning and Mill Construction*, volumes 1-3, James C. Plant et al. (American Technical Society, 1912).

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deterrent against fire. In 1900, the *Journal of the Franklin Institute* touted the virtues of mill construction over more progressive construction methods, and reinforced its warning by using the example of the 1899 fire at The Washburn & Moen Manufacturing Company's Quinisigamon Works in Worcester, Massachusetts. That facility was built with a "cage" or steel frame, and its exposed columns and beams lasted only 15 to 25 minutes before bending. Rather than concentrating solely on emergency measures such as fire extinguishers, the journal suggested that manufacturers would do well to spend more time considering factory design.

Arrangement of the interior space to minimize draft and contain fire was of paramount concern. The journal advised the erection of fire walls to separate the building into sections, isolating stairs in protective towers and using fire doors. Two insurers, The Factory Mutual Insurance Company and the Boston Manufacturers' Mutual Fire Insurance Company, employed engineers to define fire-resistant construction, plans of which were supplied to factory owners who received reduced premiums if they followed the recommendations. The Troy factories apparently served as good models of factory design. In 1905, the National Board of Fire Underwriters, in an exhaustive survey of city resources, described the risk of fire in the "congested district," or downtown, as fairly high, given poor construction. But the investigation also found that the River Street factories had good private fire protection and did not add to fire risk.

The new construction which was attending the cuff and collar industry in Troy during this period did not go unnoticed, and both the aesthetics and the functional nature of the new factories were garnering admiration locally. *The Troy Press*, while making note of details, such as the red mortar and bluestone trim of the 1891 Loth-designed addition to the Miller, Hall & Hartwell building, was equally impressed with the building's construction:

Three rows of columns and girders extend longitudinally, making the spans of the beams about eighteen feet instead of having two rows of columns with spans of beams twenty-five feet, as is usual in many similar buildings. This was done for additional strength.¹⁸

The newspaper also emphasized the efforts undertaken to make the building safe and comfortable, citing the ample light, generous fire escape, and the sprinkler system. "It is a most substantial evidence of the progress and prosperity of one of the largest industries in the city," that source noted. "There is no reason why, now that we are adding so much architecturally to the beauty of our city, our factories should not follow correspondingly."

Newspapers and national trade journals devoted considerable ink to describing the evolution of industrial architecture and the link between worker health and safety and productivity. A 1918 article in the monthly

¹⁸"A Notable Addition to the Industry and Architecture of Troy," *The Troy Press*, November 9, 1891.

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magazine *Architecture*, entitled “Modern American Factories,” noted the following:

Time was when the average factory, to say the least, was an abominable place to work in ... all considerations of light and air were practically ignored, and as to sanitary conditions, they were simply vile.

It has now been proven beyond a shadow of a doubt, scores, yes, hundreds of times, that a better quality of work and more of it can be done and is being done in bright, sunny, well-heated and ventilated rooms than in those that are dark, dingy and smelly.

Moreover, under such conditions, the health and morale of the workers is vastly improved and the relations between employees and employers bettered in every way.

There has gradually developed a more humane attitude by the latter toward the former, as they have come to the understanding that they obtain far more satisfactory results if they house their workmen in the best possible way and also contribute to their comfort and entertainment during non-working hours.¹⁹

The writer of this account, architect Warren R. Briggs, attributed this progressive mindset largely to the awakened business owner and the skilled architect. He left out a likely third factor, the watchdog presence of organized labor. Troy’s union activity, centered on better wages and improved working conditions, was considerable in the mid-nineteenth century. The nation’s first all-female union, the Collar Laundry Union, was founded by laundry worker Kate Mullany in 1864.²⁰ To illustrate his points, Briggs provided examples, among them the 1917 Cluett, Peabody & Company plant in Troy; the group also including a woolen mill in Mishewaka, Indiana, recently built to the designs of architect Albert Kahn.

The scale and progressive architecture of the Cluett, Peabody & Company building was not lost on Troy’s citizens, as it promised to position the city as what one source noted as the “queen in the collars and shirt world” and quell rumors that Cluett was planning to leave Troy. Priced at two million dollars, the building was designed by the engineering firm Westinghouse, Church, Kerr & Company. The eight-story building’s reinforced concrete walls and floors required significant logistical considerations, so far as the delivery of the concrete, which was noted in an issue of *Contractor* magazine. Daniel Tattrie served as superintendent of construction with E.E. Koehler as his principal assistant; R.S. Peck served as engineer.²¹ Buildings such as the new Cluett & Peabody factory, relying on the developing technology of concrete, required the expertise of engineers familiar with the principles of this material.

¹⁹W.R. Briggs, “Modern American Factories,” in *Architecture: The Professional Architectural Monthly* (September 1918), vol. XXXVIII, no. 3.

²⁰The Mullany house in Troy is a National Historic Landmark (NHL).

²¹“Rehoist Tower on Top of Building Chutes to Building Adjoining” in *Contractor* (1917) vol. 24, no. 21.

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The development of a new approach to factory design, as exemplified in Troy by the 1917 Cluett, Peabody & Company facility, is expressive of a new phase of factory design, among the pioneers of which was architect Albert Kahn (1869-1942). The son of immigrants, Kahn and his family settled in Detroit in 1880, where he began his architectural career as a draftsman in 1885. After a series of partnerships, in 1903 Kahn began practicing independently, and was commissioned by the Packard car company to build a new factory building. The work called for a new way to accommodate automobile production, eliminating closely spaced columns and fire-prone, oil-soaked wood floors in favor of reinforced concrete construction. Packard Building number 10 was the first reinforced concrete factory in Detroit and made Kahn a favored architect to automobile manufacturers, and his Packard design was quickly followed by other large commissions. In 1910 he provided the design for Ford's Highland Park plant, which was eventually fitted out to accommodate Ford's innovative assembly line. Kahn was confident of the advances in industrial architecture, and stated "Who would question that the entire field of architecture has been influenced by today's common sense solution of the factory building?"²²

Westinghouse, Church, Kerr & Company, responsible for the design of the new Cluett, Peabody & Company building which introduced a new approach to industrial architecture in Troy, was part of a large international conglomerate consisting of 26 companies with some 30,000 people. The principal figure, George Westinghouse (1846-1914), was an engineer and entrepreneur responsible for the invention of the railway air brake and a pioneering figure in the history of electricity. Westinghouse is perhaps best known for his work with alternating current (AC), which allowed high voltage current to travel far distances, as opposed to the low-voltage, but presumably safer, direct current (DC). He was, along with Thomas Edison, the principal figure in the so-called "War of the Currents." Westinghouse, Church, Kerr & Company was established to install Westinghouse Machine's steam engines in factories and power plants. By 1905 the company boasted a long resume which included providing electrification and equipment for major railroad lines and stations. In 1906, the company collaborated with McKim, Mead & White to design the Long Island City power station for the Long Island & Pennsylvania Railroad. Westinghouse, Church, Kerr & Company also designed the 1910 addition to another Westinghouse affiliate, the American Brake Company, located in St. Louis. The company was, in essence, an engineering firm; its design of the Troy factory signaled a shift away from the traditional arrangement by which local textile factories were designed, in the prevailing architectural vein and using long-established building systems, by local architects.

The new building signaled the end of factories of the so-called mill construction type in Troy. Load-bearing masonry walls and heavy internal wood framing gave way to the new possibilities of reinforced concrete, which had been pioneered by Ernest Ransome. During the third quarter of the nineteenth century, Ransome developed a strong, fire retardant structural system which employed concrete reinforced with steel rods, which was well-suited to multistoried industrial architecture, as it allowed for the creation of

²²Hawkins W. Ferry, *The Legacy of Albert Kahn* (Detroit: Wayne State University Press, 1970), 27.

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unobstructed floor space. It additionally allowed for expanses of large windows, which filled the spaces between the exposed concrete frame, thereby providing for natural light and air circulation.

Associated Resources

The following buildings are associated with this MPDF and noted contexts:

1. Searle, Gardner & Company Factory, 701-15 River Street. This ca.1898-99 Romanesque Revival style five-story brick building housed Searle, Gardner & Company and Henry Holmes's collar and cuff manufacturing operations. The building has been vacant for approximately 17 years.
2. Van Zandt, Jacobs & Company Factory, 621 River Street. Another collar and cuff maker, Van Zandt, Jacobs & Company commissioned the prominent Troy architectural firm of M. F. Cummings & Son to design this 1895 factory. The five-story brick masonry building is of Romanesque Revival design and features a central tower, and was erected in two phases. The building is presently for sale.
3. Wilbur, Campbell, Stephens Company Factory, 599 River Street. This 1899 brick masonry building mimics some of the features of its neighbor, including the rows of round arched windows and pronounced metal cornice. Arched windows with raised archivolt are employed for the third and fifth floors of the east (main) façade. The building is presently for sale.
4. Miller, Hall & Hartwell Factory, 547 River Street. A ca.1880 five-story collar factory, the 1891 north addition was designed by well-known Troy-based architect Edward W. Loth. The fourth floor is emphasized by rusticated stone arches which span pairs of arched windows. Within the spandrels are ornamental stone globes.
5. Cluett, Peabody & Company Factory, 433 River Street. In 1917 this Troy collar and cuff firm contracted for the construction of an eight-story reinforced concrete factory to replace its brick complex. Designed by the engineering firm of Westinghouse, Church, Kerr & Company, the factory was a radical departure from the load-bearing brick and heavy-timber brick factories along River Street built to that time. An example of daylight factory design, it has been adaptively reused as office space.
6. Troy Waste Manufacturing Company Factory, 444 River Street. This five-story brick masonry building, erected ca. 1909, has bays marked by vertical series of paired one-over-one windows. Built in multiple phases, it sits on a triangular lot, with its southwest corner gently curving at the 90-degree angle created at the intersection of Jacob and River streets. Ornamentation is confined to a terra cotta belt course incised with fretwork above first-story level, a second belt course above fourth-

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floor level, and terra cotta medallions at the roofline. The firm built this brick-walled factory to replace the one that burned two years before; it was erected to the designs of M.F. Cummings & Son. It is presently being sold for a planned residential reuse.

7. The International Shirt & Collar Company Factory, Adams and River streets. This company was organized in 1893 and immediately moved into this large brick factory, where 48,000 collars and cuffs and 6,000 shirts were manufactured daily. The north part of the factory incorporated sections of a malt house formerly owned by Charles Conkey. After International Shirt ceased operations in 1906, the factory was occupied by the Troy Underwear Company.

8. C.W. Ferguson Collar Company Factory, 387 Third Avenue. This factory was built for C.W. Ferguson by contractor George Spencer Jr. Ferguson began as an office boy with the Miller, Hall & Hartwell collar company in 1888. In 1899 he entered into partnership with E.H. Brown to form Brown, Ferguson & Company, which became the C.W. Ferguson Collar Company. When Ferguson moved to this building in 1906, he was in partnership with J.J. Child and George Oliver.

9. Lion Factory, James K.P. Pine Company, 724 Second Avenue, One of the largest shirt and collar shops in the world, the Lion factory was constructed in several stages between 1884 and 1897 for James K.P. Pine, one of the most outstanding figures in Troy’s collar industry. Pine began in 1862 as a partner in the firm of Cole, Dyer & Pine and was a partner in five firms before 1880 when he founded the James K.P. Pine Company. In 1890, he consolidated five firms to form the United Shirt & Collar Company, which operated until 1922, three years after his death.

Troy Cuff & Collar Manufacturers, 1834-1879

The name of the firm and date of establishment are given, and where grouped together represent the reorganization of previously existing business interests.

Montague & Green, 1834

Independence Starks, 1835

Lyman Bennett, 1835; Bennett, Hicks & Edson, 1853; Bennett & Edson, 1855; Bennett, Edson & Strickland, 1860; Bennett, Strickland & Fellows, 1861; Bennett & Fellows, 1866; Bennett, Fellows & Co., 1868; Fellows & Curtis, 1871

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Wood Babcock, 1838

John W. White, 1839; White & Gardner, 1840

Holdridge & Corliss, 1838; Corliss & White, 1840; Corliss & House, 1846; Corliss, House & Co., 1855; Corliss & House, 1857; J. M. Corliss & Son, 1868

Earl & Blanchard, 1857; Earl & Wilson, 1867

Maulin & Blanchard, 1851; Maulin & Bigelow, ca. 1856; Maulin, Bigelow & Co., 1862; Maulin & Cluett, 1863; George B. Cluett, Brother & Co., 1864

S.A. House, 1853; S.A. House & Sons, 1865; S.A. House's Sons, 1878

Gunnison, Stewart & Co., 1856; Gunnison & Stewart, 1858

Cole & Coon, 1856; Cole, Coon & Co., 1859; Coon & Van Valkenburgh, 1861; Coon, Reynolds & Co., 1878.

R.H. Gardiner & Co., 1858; George H. Churchill, 1862; George Churchill & Co., 1875; D.W. Churchill, 1878

Cole, Dyer & Pine, 1863; Pine & Miller, 1868; Pine, Miller & Dunham, 1870; Pine & Hamlin, 1878

J. Stettheimer, Jr., 1863; J. Stettheimer, Jr. & Co., 1869.

Gallup & Tucker, 1864; S.D. Tucker, 1868; S.D. Tucker & Flack, 1876; F.M. Flack & Dennison, 1879

Hamlin, Miller & Co., 1866; Miller & Wheelock, 1867; Miller, Wheelock & Co., 1874; Miller & Bingham, 1875

Day, Robinson & Bradshaw, 1866; Sanford & Robinson, 1867

Ide & Ford, 1865; Ide Brothers & Ford, 1867; Ide Brothers & Bruce, 1873; George P. Ide, Bruce & Co., 1878.

Parks, Ide & Holmes, 1869; Holmes & Ide, 1877

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Pine, Adams & Dunham, 1877; Patton & Dunham, 1878

Tim & Co., 1871

Davis & Co., ca. 1870

Beiermeister & Son, 1875

Brust & Allendorph, 1875; Brust, Allendorph & Le Boeuf, 1876; Wheeler, Allendorph & Le Boeuf,
1877

Klein & Hoexter, 1875

Clark & King, 1876

Douglas Corning, 1876

Marshall & Briggs, 1876

Wright, Mambert & Seymour, 1876; Travell & Mambert, 1877

Joseph Bowman, 1877

Huestis & Dusenberry, 1877

Hitchcock & Simms, 1878; George A. Hitchcock, 1878

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Section F. Outline of Property Types

I. Name of Property Type

Troy Textile Factories, 1880-1920

II. Description

The above historic resource group includes two principal building types. Those of the so-called mill construction type—which employ load-bearing masonry walls in concert with heavy interior wood framing upon which the floors are sustained—are the predominant architectural form and represent the standard design solution for textile factories in Troy during most of the 1880-1920 period. There is additionally one example of reinforced concrete factory construction, representative of the so-called daylight factory type, which represented a departure from the established typology. Both types are large, multi-story edifices, designed to accommodate open floor plans and to house various aspects of the textile refinement and production process.

III. Significance

The factories which are associated with this MPDF are significant under NRHP Criterion C, in the area of Architecture, as intact, representative examples of large-scale textile factory architecture in Troy built during the four-decade period between 1880 and 1920. The majority of these buildings are structurally representative of the mill construction type, a staple of American factory architecture in the second half of the nineteenth century, and they portray, in varying degrees, the prevailing architectural styles of the period in which they were erected. Some have designs which are directly affiliated with important architectural practitioners active in Troy at the time, notably the architectural offices of Marcus Cummings and Edward Loth. The former Cluett & Peabody building, 1917, offers itself as an important representation of reinforced concrete construction and the work of the engineering firm of Westinghouse, Church, Kerr & Company; its construction signaled a departure from a long-established local typology. Additional significance is warranted in association with Criterion A, in the area of Industry, for their direct association with textile production in Troy. The city, which earned the well-known nickname “The Collar City,” was preeminent in the national production of cuffs and collars, an industry of paramount importance to its economy in the decades immediately before and after the turn of the twentieth century.

IV. Registration Requirements

To meet the registration requirements for this MPDF the property in question must be located within the municipal boundaries of the City of Troy and it must have been erected in the four-decade period between 1880 and 1920. This date range was defined based on a survey of the existing building stock and reflects the rise of the textile industry in Troy, the need for new facilities to accommodate

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expanding operations and production, and the steady decline of the cuff and collar industry after the terminal date. Further, a property under evaluation must satisfy the specific requirements outlined below.

In order to qualify for listing under NRHP Criterion A, in the area of Industry, resources associated with textile manufacturing must retain the distinctive characteristics of the property type:

- A. The building must have a substantive and well-documented association with the textile industry in Troy and be identified with a company which manufactured, produced, or otherwise processed textiles during the period 1880-1920;
- B. The building must be an industrial-type building and should reflect characteristics of one of the two typologies identified in this study, either a building of the mill-construction type or of the reinforced concrete, daylight factory type;
- C. The building should retain interior spaces that illustrate its industrial use, such as large, open workspaces with numerous windows for good ventilation and natural illumination;
- D. The building may have additions that reflect the growth of the industry, and could also incorporate sections that pre-date 1880.

In order to qualify for listing under NRHP Criterion C, in the area of Architecture, the buildings must exhibit distinctive features which define their relationship to the mill-construction or reinforced concrete types discussed in Section E, Textile Factory Architecture in Troy, 1880-1920, and retain the following:

- A. A significant and justifiable portion their original architectural fabric, illustrating the design, layout, materials, decorative elements, functional features, and other aspects representative of their industrial nature.

Associated resources need not still function as manufacturing facilities if their original use can be understood.

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Section G. Geographic Data

The boundaries for this multiple resource area are the municipal boundaries of the City of Troy, Rensselaer County, New York. Troy, the seat of Rensselaer County, is located on the western edge of Rensselaer County and on the eastern bank of the Hudson River, and shares close ties with the nearby cities of Albany and Schenectady, forming a region known popularly as the Capital District. At the time of the 2010 census, Troy’s population was 50,129.

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Section H: Summary of Identification and Evaluation Methods

This MPDF is based on the results of research and survey work undertaken by Michael Lopez of TAP, Inc., in 2012-13. The emphasis of this work was the identification of large-scale textile factory buildings, generally concentrated in the northern part of Troy along River Street, for the purposes of National Register of Historic Places (NRHP) designation and the pursuit of tax incentives through the Federal Investment Tax Credit program. A historic district approach was first considered but subsequently dismissed as unfeasible. The buildings did not represent a cohesive group and were instead erected in a north-south industrial corridor that also included dwellings and other building stock. The factories are found primarily along this north-south route, River Street, in addition to Second and Third avenues. The ensuing MPDF documentation has been developed by Lopez and William E. Krattinger of the New York State Division for Historic Preservation. The survey and research work identified nine major textile manufacturing buildings, which are noted in Section E, pages 15-16.

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