

DUMBO HISTORIC DISTRICT DESIGNATION REPORT



New York City Landmarks Preservation Commission

December 18, 2007

DUMBO Historic District Designation Report

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On the front cover: Water Street between Bridge and Jay Streets (view west).

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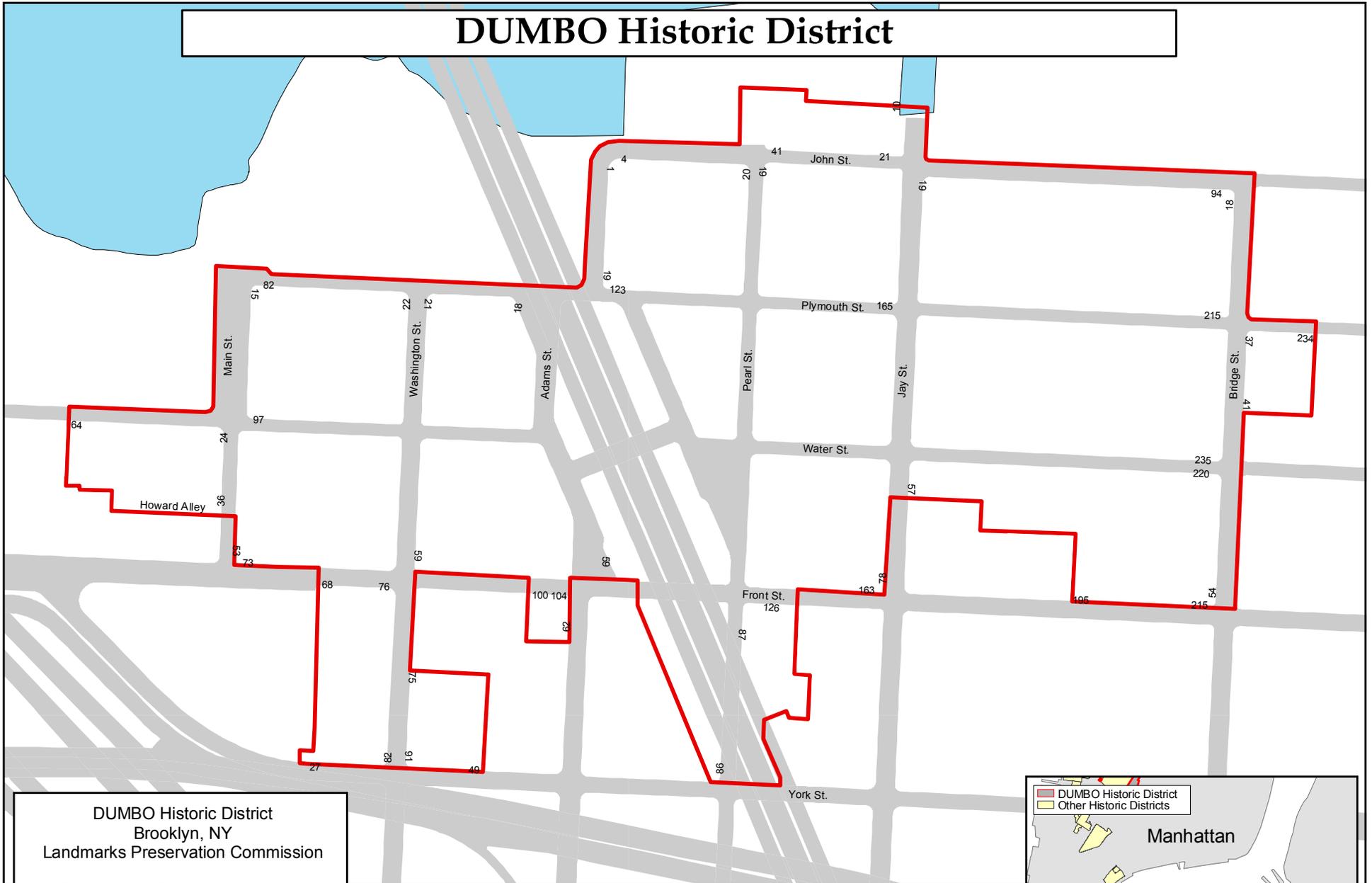
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DUMBO Historic District

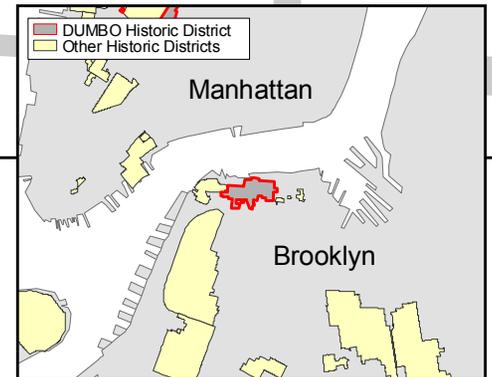


DUMBO Historic District
Brooklyn, NY
Landmarks Preservation Commission

Designated: December 18, 2007

 Historic District Boundary

0.05 Miles 



TESTIMONY AT THE PUBLIC HEARING

On October 30, 2007, the Landmarks Preservation Commission held a public hearing on the proposed designation of the DUMBO Historic District (Item No. 1). The hearing was duly advertised in accordance with the provisions of the law. Thirty-five people spoke in favor of designation, including Councilmember David Yassky, Brooklyn Borough President Marty Markowitz, and representatives of State Senator Martin Connor, Congresswoman Nydia Velasquez, Two Trees Management Company, the DUMBO BID, Brooklyn Community Board 2, the DUMBO Neighborhood Association, the Fulton Ferry Landing Association, the Brooklyn Heights Association, the Vinegar Hill Neighborhood Association, the Metropolitan Chapter of the Victorian Society in America, the Municipal Art Society of New York, the Historic Districts Council, the New York Landmarks Conservancy and several area residents. Several people testified in support of designation while asking that the city support improvements to the area's infrastructure. One owner representative spoke in opposition to designation. Another owner representative spoke in favor of designation, but requested modifications. The Commission also received many letters, post cards and e-mails in support of designation including those from State Assemblymember Joan Millman, District Leader Jo Anne Simon, City Councilmember Tony Avella, the National Trust for Historic Preservation and the Women's City Club.

DUMBO HISTORIC DISTRICT BOUNDARY DESCRIPTION

The proposed DUMBO Historic District consists of the properties bounded by a line beginning at the northwest corner of John Street and Adams Street, extending southerly along the western curbline of Adams Street to the northern curbline of Plymouth Street, then westerly along the northern curbline of Plymouth Street to the northwest corner of Plymouth Street and Main Street, southerly along the western curbline of Main Street to the northwest corner of Water Street and Main Street, westerly along the northern curbline of Water Street to a point in said curbline formed by its intersection with a line extending northerly from a portion of the western building line of 64 Water Street, southerly along said line and southerly along a portion of the western property line of 64 Water Street to a point intersecting with the southern property line of 64 Water Street, easterly along a portion of the southern property line of 64 Water Street, southerly along a portion of the western building line of 66-68 Water Street, easterly along the southern building line of 66-68 Water Street, southerly along the western building line of 70-72 Water Street, easterly along the southern building line of 70-72 Water Street and the southern curbline of Howard Alley to the eastern curbline of Main Street, southerly along the eastern curbline of Main Street to the northern curbline of Front Street, easterly along the northern curbline of Front Street to a point formed by its intersection with a line extending northerly from the western property line of 68-76 Front Street, southerly then westerly then southerly along said property line to the northern curbline of York Street, easterly along the northern curbline of York Street across Washington Street to a point in the northern curbline of York Street formed by its

intersection with a line extending southerly from the eastern property line of 75-91 Washington Street (aka 39-49 York Street), northerly along said line and northerly along the eastern property line of 75-91 Washington Street (aka 39-49 York Street), westerly along the northern property line of 75-91 Washington Street (aka 39-49 York Street) to the eastern curbline of Washington Street, northerly along said curbline and across Front Street to the northeast corner of Washington Street and Front Street, easterly along the northern curbline of Front Street to a point in said curbline formed by its intersection with a line extending northerly from the western property line of 100 Front Street, southerly across Front Street and along the western property line of 100 Front Street, easterly along the southern property lines of 100 and 104 Front Street to the western curbline of Adams Street, northerly along the western curbline of Adams Street and across Front Street to the northwest corner of Adams Street and Front Street, easterly across Adams Street and along the northern curbline of Front Street to a point in said curbline formed by its intersection with a line extending northerly from the western property line of 86 Pearl Street (Block 52, Lot 17), southerly across Front Street and along the western property line of 86 Pearl Street (Block 52, Lot 17) to the northern curbline of York Street, easterly along said curbline and across Pearl Street to a point in the northern curbline of York Street formed by its intersection with a line extending southerly from the eastern property line of Block 53, Lot 1, northerly along said line and northerly along a portion of the eastern property line of Block 53, Lot 1, easterly along a portion of the southern property lines of Block 53, Lot 1, southerly along a portion of the western property line of Block 53, Lot 6, easterly along the southern property line of Block 53, Lot 6, northerly along the eastern property line of Block 53, Lot 6, westerly along a portion of the northern building line of Block 53, Lot 6, northerly along the eastern property line of 126 Front Street (aka 87 Pearl Street) to the northern curbline of Front Street, easterly along said curbline to the northwest corner of Front Street and Jay Street, northerly along the western curbline of Jay Street to a point formed by its intersection with a line extending westerly from the southern property line of 57 Jay Street (aka 178 Water Street), easterly across Jay Street and along the southern property line of 57 Jay Street (aka 178 Water Street), southerly along the western property line of 190 Water Street, easterly along the southern property line of 190 Water Street and the southern building line of 196-204 Water Street (aka 185 Front Street), southerly along the western property line of 206-220 Water Street (aka 195-215 Front Street and 54-70 Bridge Street) to the northern curbline of Front Street, easterly along the northern curbline of Front Street to the northeast corner of Front Street and Bridge Street, northerly along the eastern curbline of Bridge Street and across Water Street to a point in the eastern curbline of Bridge Street formed by its intersection with a line extending westerly from the southern property line of 37-41 Bridge Street (aka 226-234 Plymouth Street), easterly along said line and easterly along the southern property line of 37-41 Bridge Street (aka 226-234 Plymouth Street), northerly along the eastern property line of 37-41 Bridge Street (aka 226-234 Plymouth Street) and across Plymouth Street to the northern curbline of Plymouth Street, westerly along said curbline to the northeast corner of Bridge Street and Plymouth Street, northerly along the eastern curbline of Bridge Street and across John Street to the northern curbline of John Street, westerly along the northern curbline of John Street to the northeast corner of John Street and Jay Street, northerly along the eastern curbline of Jay Street to a point in the said curbline formed by its intersection with a line extending easterly from a portion of the northern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street), westerly across Jay Street and a portion of the northern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street), northerly along a portion of the eastern property line of 10-18 Jay

Street (aka 21-41 John Street and 17 Pearl Street), westerly along a portion of the northern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street) and across Pearl Street to the western curblineline of Pearl Street, southerly along said curblineline to the northwest corner of Pearl Street and John Street, then westerly along the northern curblineline of John Street to the point of the beginning.

SUMMARY

The DUMBO Historic District, located along the East River waterfront in Brooklyn, is one of New York City's most significant extant industrial waterfront neighborhoods. During much of the nineteenth and twentieth centuries, the area was home to some of the largest and most important manufacturing businesses in Brooklyn or New York City, including Arbuckle Brothers, refiner and packager of sugar and coffee; Robert Gair, manufacturer of paper boxes; the Hanan & Son shoe company; the Kirkman & Son soap company; the John W. Masury & Son paint works; the Jones Brothers/Grand Union grocery business; the E. W. Bliss machine works; and the Brillo steel wool firm. These firms employed thousands of local workers, many of them immigrants who flooded into Brooklyn's working-class neighborhoods in the second half of the nineteenth century and early decades of the twentieth century. By the early twentieth century, Brooklyn was the fourth largest manufacturing center in the entire country and a significant portion of this industrial output occurred in DUMBO. Among the manufacturing businesses that were especially prominent in Brooklyn were those producing machinery, paint, sugar, coffee, packaged groceries, paper boxes and shoes, all of which are represented in the buildings in DUMBO.

The approximately 91 buildings in the historic district reflect important trends in the development of industrial architecture in the United States during the nineteenth and twentieth centuries, and embody an important era of Brooklyn and New York City history.

The land that now comprises DUMBO was among the earliest in Brooklyn developed for residential use. By the 1830s the character of the neighborhood began to change as residential structures were replaced by commercial buildings and multi-story factories and warehouses. The owners of these structures were attracted to the area because of its proximity to the East River and the presence of ferry lines providing convenient connections to New York City. Among the earliest commercial structures in the district are the c. 1850 66-72 Water Street and c. 1855 64 Water Street, which both take the form of Greek Revival style counting houses.

The neighborhood became increasingly industrial in the decades following the Civil War. The earliest of these buildings are representative of the slow-burning mill construction popular in the mid-to-late nineteenth century. These buildings typically have simple brick facades with rhythmically placed window openings and large entrances at the ground level for vehicular access. The internal structural system of these buildings is composed of massive wooden columns, beams, and joints, which is very slow to combust and provides a measure of protection against fire. An example of this type of structure is the factory at 22-38 Washington Street, erected in two phases between 1887 and 1891 for industrialist Robert Gair to the designs of Benjamin Finkensieper, who was responsible for several of the buildings in the district.

In the late nineteenth and early twentieth century builders began to use steel frame construction and terra-cotta floor tiles to provide even greater protection from fires. While the internal structure of these buildings differed significantly from their predecessors, their outward

appearance often closely resembled the older buildings. The complex erected for the Jones Brothers' Grand Union grocery business exemplifies this structural evolution. The company's first building at 59-67 Pearl Street was constructed in 1896-97 and employed a slow-burning wooden internal structure. In subsequent years the company expanded their operations and erected several additions to their building. While the exteriors of these additions closely resembled the original building, the internal structure employed steel frames and terra-cotta tiles and, in the 1915 building, steel frame with reinforced concrete floors.

The most radical innovation in DUMBO's industrial architecture occurred at the beginning of the twentieth century, when buildings constructed entirely of reinforced concrete began to appear. These factories, erected by the Gair Company and other firms, were among the earliest large-scale reinforced-concrete factory buildings to be erected in the United States. The first such structure constructed in DUMBO was Robert Gair's factory at 41-49 Washington Street. The building was erected in 1904 by the Turner Construction Company to the designs of architect William Higginson. It was later expanded in 1908 to encompass the entire block. Gair would eventually develop much of the western section of the neighborhood, and many of these buildings were Higginson-designed and Turner-constructed reinforced concrete factories. Gair was such a dominant presence in this area that it eventually came to be known as "Gairville." Both Higginson and Turner became important builders and designers of reinforced concrete industrial buildings.

While the district consists primarily of large, multi-story factory and warehouse buildings, it also contains a number of other building types related to the area's industrial past. At 100 and 104 Front Street is a pair of 1877 twin tenements erected to house workers from the surrounding factories, while the 1912 small foundry building of the Miller & Van Winkle Company is located at 26-28 Bridge Street. The district also includes a modern 1950 daylight factory designed and constructed by Sydney Goldstone with the Turner Construction Company for the Brillo Company at 196-204 Water Street.

The DUMBO Historic District is enhanced by its distinctive industrial streetscapes. Many of the streets and sidewalks retain their original granite Belgian block paving as well as the network of train tracks, running along the streets and in some cases extending into individual buildings, laid out by the Jay Street Connecting Railroad. The Manhattan Bridge, which soars over the area, provides a dramatic backdrop for the neighborhood's industrial architecture. The anchorage and piers of the bridge, with their boldly-detailed arches spanning streets and sidewalks, are a major presence and strongly contribute to the district's sense of place.

DUMBO, an acronym for Down Under the Manhattan Bridge Overpass, assumed its current name when artists began to move into the neighborhood in the late 1970s and convert the industrial spaces into lofts. Little industry is still active in the district, as most buildings have been converted for residential and office use. The DUMBO Historic District is significant as a reminder of Brooklyn and New York City's industrial heritage and its historic factories and warehouses are excellent examples of the development of American industrial architecture from the mid-nineteenth century through the early twentieth.

INTRODUCTION

The DUMBO Historic District is a densely built up industrial area located along the East River waterfront between the Fulton Ferry Historic District on the west and the Vinegar Hill Historic District on the east. To the north and south, the DUMBO neighborhood is distinctly bounded by the East River (north) and the Brooklyn-Queens Expressway (south), erected in the 1940s. The district is also dominated by the Manhattan Bridge which soars over the area and has its Brooklyn anchorage and a support pier within the district. Indeed, the name DUMBO is an acronym for Down Under the Manhattan Bridge Overpass, an appellation that was given to the area in the late 1970s as artists were beginning to move into vacant industrial spaces and sought a distinctive neighborhood name for an area that did not have one. The use of an acronym grew out of the then recent coining of such new neighborhood names as SoHo (South of Houston), NoHo (North of Houston), and Tribeca (Triangle Below Canal) in Manhattan. The DUMBO Historic District, consisting of approximately 91 historically significant buildings, contains one of the finest collections of nineteenth- and early-twentieth-century industrial architecture in New York City. These buildings illustrate the history of industrial design beginning with pre-Civil War brick counting houses, extending through the second half of the nineteenth century and first years of the twentieth century, when most factories were built of slow-burning mill construction, with massive wooden columns and beams and brick facades, into the early twentieth century, when new technologies, including the use of steel and, most prominently, reinforced concrete, became popular for factory construction. Although the fact is largely forgotten today, Brooklyn was a major American industrial center in the second half of the nineteenth century and first decades of the twentieth century. Statistics indicate that Brooklyn was the fourth largest manufacturing center in the country by 1880. Much of this industry was located along the East River waterfront, where transportation of raw materials and finished goods was especially convenient. Among the manufacturing businesses that were especially prominent in Brooklyn were those producing machinery, paint, sugar, coffee, packaged groceries, paper boxes, and shoes, all of which are represented in the buildings in DUMBO. Other products manufactured in DUMBO include metal springs, ale, shoe lasts, soap, handkerchief, meters, kitchenware, and steel wool. DUMBO was home to some of the largest and most important manufacturing businesses in Brooklyn or New York City, including Arbuckle Brothers, refiner and packager of sugar and coffee, and, under the Charles William Stores name, purveyor of a vast array of dry goods; Robert Gair, manufacturer of paper boxes; the Hanan & Son shoe company; the Kirkman & Son soap company; the John W. Masury & Son paint works; the Jones Brothers/Grand Union grocery business; the E. W. Bliss machine works; and the Brillo steel wool firm. These firms employed thousands of local workers, many of them immigrants who flooded into Brooklyn's working-class neighborhoods in the second half of the nineteenth century and early decades of the twentieth century. All of this manufacturing took place on blocks that had been among the earliest in Brooklyn developed for residential use. These residential buildings were displaced as the area attracted industry, beginning in the 1830s. The presence of waterfront docks and two ferry lines (on Main Street and nearby Fulton Street) attracted business in the early years. Later additions to the area's transportation and shipping network, including the opening of the Brooklyn and Manhattan Bridges, the construction of elevated and subway rail service, and the opening of the Jay Street Connecting Railroad, added to DUMBO's popularity as a manufacturing center. The DUMBO Historic District consists of a series of distinctive industrial streetscapes heightened by the presence throughout the district of streets and, in several areas,

sidewalks, paved in granite Belgian blocks, as well as by a network of train tracks, laid out in the early twentieth century by the Jay Street Connecting Railroad, that runs along the streets and, in some cases, extends into individual buildings. Although little industry is still active in the district, as most buildings have been converted for residential or office use, the buildings remain remarkably intact. These structures testify to the quality of industrial design in New York and to the importance of Brooklyn as a major American manufacturing center.

THE HISTORICAL AND ARCHITECTURAL DEVELOPMENT OF THE DUMBO HISTORIC DISTRICT¹

Early History and Development

The DUMBO Historic District, located along the northwestern waterfront of Brooklyn, is comprised of both original land and East River landfill. According to old maps of Brooklyn, the original high water line ran through the center of the blocks between Water and Front Streets, extending from Main Street east across Washington Street to Adams Street. At Adams Street, the waterline extended in a northeasterly direction, cutting across the southeast corner of Water and Adams Streets and the northwest corner of Water and Pearl Streets, continuing diagonally across the block bounded by Water Street, Plymouth Street, Pearl Street, and Jay Street, and then, in an eastwardly direction, splitting the block bounded by Plymouth Street, John Street, Jay Street, and Bridge Street.² Thus, within the historic district, all or part of blocks 1, 18, 19, 20, 26, 27, 28, and 29 was once in the river. The earliest residents of the DUMBO area were Canarsee Indians, members of the Algonquin linguistic group, who had several settlements in western Brooklyn.³ In 1637, the Canarsee sold a large tract of land along the East River to Dutch settler Joris Jansen Rapalje (also spelled Rapalye). The Rapalje family retained ownership and farmed the land until the end of the Revolutionary War. The Rapaljes were loyalists during the war and, in accordance with New York State's 1779 "Act for the Forfeiture and Sale of the Estates of Persons who Have Adhered to the Enemies of this State" their lands were confiscated. In 1784 Comfort and Joshua Sands paid \$12,000 to the Commissioners of Forfeiture for 160 acres of land along the East River. The Sands were an old family, tracing its roots in America to the arrival of James Sands at Plymouth, Massachusetts in 1658 (this fact accounts for the presence of Plymouth Street in the district). Comfort Sands (1748-1834) was born in Cowneck, now Sands Point, Long Island and opened a store on Peck Slip in Manhattan in 1769. He was a supporter of the patriots' cause during the Revolutionary War, serving in several important political offices during the war. In 1783, he established a mercantile business in partnership with his brother Joshua. The firm was involved in foreign trade and land speculation; Comfort was also a founder and director of the Bank of New York and served as president of the New York Chamber of Commerce from 1794-1798. Joshua Sands (1757-1835) served as a captain during the Revolutionary War. He settled in Brooklyn after the war. Sands served as a congressman from 1803-1805 and 1825-1827 and as president of the Board of Trustees of the Village of

¹ The history of DUMBO is based, in part, on material in National Register of Historic Places, *Dumbo National Register Nomination*, nomination prepared by Andrew S. Dolkart (2000) and Marcia Reiss, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001).

² Henry Fulton, *Farm Line Maps of the City of Brooklyn* (New York: J. B. Beers & Co., 1874), plate 1.

³ Much of the early history of the DUMBO area is based on the early history presented in LPC, *Vinegar Hill Historic District Designation Report* (LP-1952) (New York: City of New York, 1997), prepared by Donald Presa.

Brooklyn in 1824.⁴ Both the Rapalje and Sands families owned slaves during their residence in Brooklyn.⁵

Comfort and Joshua Sands were responsible for laying out the grid of streets along the waterfront for a community to be called Olympia.⁶ C. T. Goerck surveyed the property for Sands and his eastern neighbor John Jackson in 1788. Olympia was located just east of the original ferry landing, at the foot of what is now Fulton Street. The area became even more accessible to New York City with the opening of the New or Catherine Street Ferry in 1795, connecting Catherine Street in Manhattan with Main Street in Brooklyn.⁷ Modest residential and commercial buildings were soon being erected within the DUMBO Historic District. These probably closely resembled the modest frame buildings illustrated in the series of paintings that Francis Guy completed of the Fulton Street area in the second decade of the nineteenth century.⁸ Early twentieth-century Brooklyn historian Eugene L. Armbruster examined Brooklyn directories from the 1830s and discovered that by that time many houses were occupied on Adams, Bridge, Front, Jay, Main, Pearl, Washington, Water, and York Streets. Armbruster notes that some addresses were not recorded in the directories, leading him to conclude that the area was not fully developed and that there were lots between houses.⁹ Besides real estate, Joshua Sands was involved with shipping and had his own piers and a ropeworks where he manufactured rigging and cables.¹⁰ The piers may have adjoined the historic district and the ropeworks was in or near the district. Thus, from an early period, the residences in the DUMBO area were mixed with industrial establishments.

The riverfront was converted into filled land in the early nineteenth century. The exact mechanism by which permission was granted to fill the Brooklyn waterfront is not known. Maps record that the filled land was the property of T. H. Smith.¹¹

Commerce and industry flourished to the west of the historic district, in what is now the Fulton Ferry Historic District, as a result of the introduction and expansion of steam ferry service, beginning in 1814. Safe and reliable ferry service resulted in a major expansion of Brooklyn's population, as affluent families moved to Brooklyn, with workers commuting to New York City by ferry. As Brooklyn's population increased, commerce and industry expanded, since Brooklyn now had both an entrepreneurial class that owned and operated industrial plants, and laborers who could work in the new factories. The earliest extant industrial building in the historic district is the former Benson's Sugar Refinery at 66-68 Water Street, known to have been standing by 1850. The 1855 *Perris Atlas of the City of Brooklyn* illustrates how widespread industrial development already was in DUMBO, recording the presence of foundries, factories,

⁴ LPC, *Vinegar Hill Historic District Designation Report*; Henry R. Stiles, ed., *History of Kings County Including the City of Brooklyn* (Brooklyn: W. W. Munsell & Co., 1884), 119-120.

⁵ By the end of the American Revolutionary War, the Rapalje family living on this land owned nine slaves. See Craig Steven Wilder, *A Covenant with Color: Race and Social Power in Brooklyn* (New York: Columbia University Press, 2000), 29. The 1790 United States Census lists Joshua Sands as owning six slaves and Comfort Sands as owning three slaves.

⁶ Olympia is discussed in Eugene L. Armbruster, *The Olympia Settlement in Early Brooklyn, N. Y.* (Eugene L. Armbruster, 1929) and in Stiles, *History of Kings County*, 103-104.

⁷ Stiles, *History of Kings County*, 438.

⁸ Stiles, *History of Kings County* describes some of the modest buildings in the area; see pp. 118-121.

⁹ Armbruster, *Olympia*, 23.

¹⁰ Armbruster, *Olympia*, 7.

¹¹ E. Belcher Hyde, *Miniature Atlas of the Borough of Brooklyn*, vol. 1 (Brooklyn: E. Belcher Hyde, 1912), plates 2-5.

refineries, and various storage yards.¹² In 1855, the Benson's Sugar Refinery on Water Street is labeled as a "coopershop," although the name of the firm using the property is not provided. The Perris atlas also records the close juxtaposition of factories and residential structures. Most of the residential buildings were small frame houses; there were also some second-class brick houses as well. Early twentieth-century photographs of the area surrounding the DUMBO Historic District reveal the character of the residential blocks. A c. 1920 image of Main Street looking north from York Street shows a lively residential community with three-story wooden houses and four-story brick tenements, while a 1938 image of the north side of Front Street between Dock Street and Main Street shows the elegant three-story, Federal style Joshua Sands House at 31 Front Street.¹³ A few early buildings are extant in the neighboring Vinegar Hill Historic District, such as 51 Hudson Street (c. 1840-47) and 70 Hudson Street (c. 1828-41) and an 1835 Federal style, brick house stands at 85 Water Street, in the Fulton Ferry Historic District, immediately across the street from Benson's Sugar Refinery.

The Industrialization of Brooklyn

Until its merger with New York City in 1898, Brooklyn was an independent city. The city experienced extraordinary population growth in the nineteenth century, evolving from a small town with only 7,175 people in 1820 into the third largest city in America by the mid nineteenth century. In 1860, Brooklyn's population was 266,661 and by 1900 it had risen to 1,166,582. Brooklyn was famed for its residential neighborhoods – Brooklyn Heights, Clinton Hill, Bedford, Stuyvesant Heights, Crown Heights, and others – where middle-class families lived. So extensive were these neighborhoods that Brooklyn was often referred to as "the city of homes and churches." While many workers commuted to businesses in New York City, an increasingly large number of Brooklynites commuted locally to the factories that became a major economic and physical presence in the city. Historian Harold Coffin Syrett discussing Brooklyn in the 1890s noted that "for a city known chiefly as a dormitory, Brooklyn continued to be a remarkably large manufacturing center."¹⁴ The owners of these factories lived in rowhouses and mansions in some of Brooklyn's finest neighborhoods, while workers resided in the frame homes and masonry tenements of neighborhoods such as Vinegar Hill, Wallabout, and Williamsburgh, and on the fringes of more exclusive neighborhoods.

Industrialization in Brooklyn initially centered on the waterfront, extending from Red Hook on the southwest, along the East River waterfront in DUMBO, and then eastward to Williamsburgh and Greenpoint. Later, industrial areas developed farther inland, with large factories scattered throughout northern and eastern Brooklyn. The presence of the river permitted manufacturers to easily import raw materials and export finished goods. Throughout Brooklyn's history as an industrial center, factory production was extremely diversified. The United States Census records that in 1860, 1,032 industrial firms in Brooklyn employed 12,758 people. The major industries, at the time, attesting to the diversity of manufacturing, were machinery; hats and caps; cordage; ship and boat building; glassware; marble and stoneworks;

¹² William Perris, *Perris Atlas of Brooklyn*, vol. 1 (New York: William Perris, 1855), plates 4-5. Among the firms recorded as active in the DUMBO Historic District were: L. Lesber Machinist, George G. Johnson Iron Foundry, Columbia Iron Works, R. L. Allen Agricultural Implements, Union White Lead Company, New York and Brooklyn Brass Co., Campbell & Thayers Oil Factory, William Burdon Steam Engine Co., a whitening and putty manufacturer, a sugar refinery, a color works, and several yards for coal, wood, brick and cement, and stone.

¹³ Both images, collection of the Brooklyn Historical Society, V1973.5.1370 and V1974.16.799.

¹⁴ Harold Coffin Syrett, *The City of Brooklyn 1865-1898: A Political History* (New York: Columbia University Press, 1944), 242.

tin, copper, and sheet iron ware; boots and shoes; bread and crackers; gas; and white lead. In 1880, Brooklyn had 5,201 firms, employing 47,587. Only New York City, Chicago, and Philadelphia had a larger output of industrial goods than Brooklyn.¹⁵ In 1890, Brooklyn's 10,623 factories totaled 1/6 of the industrial establishments in New York State and employed 93,275 full-time workers (109,814 workers when piece workers were also counted). By 1900, Brooklyn had 10,713 factories, employing 100,881 people. The leading employers in that year were foundries; men's clothing; boots and shoes; bread; tin; woven cloth; sugar; carpentry; paint; plumber and gas fittings; lumber; lithography; iron; and confectionary. A 1915 article in the magazine *Brooklyn Life* stated that "Anyone who thinks Brooklyn is not a manufacturing center should read these figures and ponder."¹⁶ The article compares statistics from a 1904 and a 1909 industrial census, finding that the number of manufacturing businesses in Brooklyn had grown by fifteen per cent in five years, a figure the article's author stated "was most encouraging, for the period covered by that census was one of business depression and stagnation."¹⁷ The statistics for 1909, a period when manufacturing in DUMBO was thriving, are:

- number of industrial establishments: 5,218
- persons engaged in industries [i.e., all owners and workers]: 145,222
- proprietors and firm members: 5,495
- salaried employees [i.e., office and other white collar workers]: 15,844
- average number wage earners: 123,883
- primary horse power: 147,580
- capital: \$363,337,000
- salaries: \$21,146,000
- wages: \$68,328,000
- cost of materials: \$235,132,000
- value of products: \$417,223,000
- value added by manufacture: \$182,091,000¹⁸

The number of individual factories in Brooklyn had declined dramatically between 1900 and 1909, but overall employment and output had increased, indicating the decline of small shops and the rise of larger industrial concerns, evident throughout the American economy at the turn of the twentieth century.

Henry Isham Hazelton provides statistics for Brooklyn manufacturing a decade later. In 1919, he notes, there were 6,738 industrial establishments in Brooklyn, with 166,724 wage earners, capital investment of \$729,166,203, wages and salaries of \$266,514,179, value of materials at \$670,470,696, and value of products at \$1,184,973,144. By product value, the most important businesses in Brooklyn were boots and shoes, knit goods, bread and bakery products, paints and varnishes, tobacco and cigars, men's clothing, foundry and machine products, women's clothing, confectionery and ice cream, furniture, food products, printing and publishing, copper, tin and sheet metal, automobile repairing, and millinery and lace goods.¹⁹ Of

¹⁵ Ellen M. Snyder-Grenier, *Brooklyn: An Illustrated History* (Philadelphia: Temple University Press, 1996), 152.

¹⁶ "Brooklyn's Manufacturing Industries," *Brooklyn Life* 51 (29 May 1915): 140.

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ Henry Isham Hazelton, *The Boroughs of Brooklyn and Queens Countries of Nassau and Suffolk Long Island, New York 1609-1924*, vol. 3 (New York: Lewis Historical Publishing Co., 1925), 1587.

these, boots and shoes, paints and varnishes, foundry and machine products, food products, and printing and publishing played an important role in DUMBO. The New York State Industrial Commission reported in 1920 that Brooklyn had fifteen per cent of the state's factories and employed 13½ per cent of the state's industrial workers.²⁰

Manufacturing continued to expand in Brooklyn until the 1930s. However, by the mid twentieth century, Brooklyn's industry began a rapid decline, as established firms went out of business or chose to expand in locations outside of Brooklyn and closed their Brooklyn factories. While many small manufacturers survived, large-scale industry virtually disappeared from Brooklyn. Some factories were converted for multiple industrial uses, while others were converted for warehousing or offices. Beginning in the late 1970s, artists began moving into vacant industrial space, converting buildings (often illegally) into live-work spaces. This eventually led to the rejuvenation of formerly industrial neighborhoods such as DUMBO.

Industry in DUMBO

As previously noted, industrial development began in DUMBO before 1850. However, almost all of the industrial buildings in the historic district date from between 1880 and 1930. As is evident in the industrial statistics, this was a period of major expansion of manufacturing in Brooklyn. Some of the factories in the historic district were erected by small firms, but most were commissioned by companies that built substantial complexes over a period of years and employed large numbers of people in their manufacturing. The fact that these complexes were built by accretion reflects the success of the businesses that commissioned the buildings. As Betsy Hunter Bradley notes in her history of American industrial architecture, this accretive method of construction is an important aspect of urban factories.²¹ Not only did these industrial businesses build impressive manufacturing complexes, but they also employed large numbers of workers. Three of the ten industrial establishments in Brooklyn that employed more than one thousand people in 1913 were located in the DUMBO Historic District.²²

The industrial prominence of DUMBO is evident as early as 1884 when L. P. Brockett wrote "The Commerce of Brooklyn" section in Henry Stiles, *History of Kings County and the City of Brooklyn*. Brockett writes:

Next on the river front are cooperage and store yards, Arbuckle's immense coffee and spice warehouses, and behind them, Taylor's foundry and engine works. Bliss' immense press and die works. . . . On Plymouth and Water Streets, immediately behind these establishments are a host of great manufactories, all of them sending immense amounts of their products abroad, from the wharves below and the other piers and wharves of Brooklyn.²³

²⁰ T. I. Jones, *The Industrial Development of Brooklyn* (address given before the Brooklyn Rotary Club, 1921), [4].

²¹ Betsy Hunter Bradley, *The Works: The Industrial Architecture of the United States* (New York: Oxford University Press, 1999), 66-67.

²² *Second Annual Industrial Directory of New York State 1913* (Albany: New York State Department of Labor, 1915). According to this report, the ten firms that employed more than one thousand people were (DUMBO firms in italics): Julius Kayser & Co. (gloves; 2,508), American Manufacturing Company (cordage and bagging; 2,234), American Sugar Refinery (the Havemeyer refinery, a designated landmark; 2,218), *Robert Gair Co.* (paper boxes and printing; 1,702), Mergenthaler Linotype Company (manufacturer of linotype machines; 1,656); *E. W. Bliss Company* (machinery; 1,646), Chelsea Fibre Mills (jute bagging; 1,552); Robins Dry Dock Company (1,148); Ansonia Clock Company (1,147), and *Hanan & Son* (shoes; 1,131).

²³ L. P. Brockett, "The Commerce of Brooklyn," in Stiles, *A History of Kings County*, vol. 2, 635.

DUMBO developed into a major industrial area because of its convenient location and because of the availability of large plots of land. The most important factor in DUMBO's industrial development is the presence of the East River. The East River has deep water that permits ships to tie up at docks directly adjacent to land. Thus raw materials could easily be shipped into the area's factories and finished goods easily shipped out. In addition, the area was close to upland residential neighborhoods where factory owners and, more importantly, factory workers lived. This made it easy for employees to walk to work in the decades before mass transit connected DUMBO to more outlying regions. Although it is impossible to pinpoint exactly where factory workers lived, since their names are not recorded, many probably lived in the frame houses and brick tenements located on nearby blocks. Two such tenements are extant in the historic district, at 100 and 104 Front Street, erected in 1877. From the beginning of industrialization in DUMBO, the area was served by two ferry lines to New York City where much local business was transacted. Both the Fulton Ferry and the Catherine Street Ferry (with its dock at Main Street, just outside the historic district) pre-date industrialization, but both were improved with the addition of steamboats in the early nineteenth century.

In the final decades of the nineteenth century, transportation networks expanded in Brooklyn, adding to the convenience of manufacturing in DUMBO. New transportation made it easier for workers and factory owners to get to work from somewhat more distant neighborhoods. They also improved the transport of raw materials and finished goods. The opening of the Brooklyn Bridge in 1883 and Manhattan Bridge in 1909, physically connecting Brooklyn and Manhattan, had a significant impact on DUMBO. The area is convenient to the Brooklyn portals of both bridges, increasing the accessibility of DUMBO and permitting carts, and later trucks, to efficiently deliver and pick up goods. Both bridges also have a major visual impact on the area – the Brooklyn Bridge visible at a distance from many locations in the historic district, and the Manhattan Bridge with its anchorage and pier located within the boundaries of the district and its roadway flying above the area. In addition to the bridges, an elevated railroad connected DUMBO to other Brooklyn neighborhoods. In 1885, the Main Line of the Brooklyn Elevated Railroad began operations along York Street, with stops at Washington Street and Bridge Street, at the edge of the historic district.²⁴ In 1935, The Independent Subway Line opened service through the neighborhood, with a stop at York and Jay Streets (now the F Train). A 1918 article in the *Real Estate Record and Builders Guide* discussed the convenience of the area:

When one stops to analyze the reasons which have brought these improvements it is not surprising that these concerns have located in this section. All sections of Brooklyn are reached by transportation lines, which spread from the Brooklyn and Manhattan Bridges in fan-like form, with this section as a handle. Consequently, labor of all types is easily obtained. . . . Within a radius of ten blocks of Manhattan Bridge Plaza there are freight terminals having a capacity of more than five hundred freight cars and at which rates are as low as at any point in the city. . . . The fact that the Brooklyn entrances to both the Manhattan and the Brooklyn Bridges are only some four short blocks apart has an added advantage to manufacturers doing trucking to Manhattan and even to New Jersey.²⁵

²⁴ Joseph Cunningham and Leonard De Hart, *A History of the New York City Subway System Part II: Rapid Transit in Brooklyn* (1977), 10-11, 20.

²⁵ "Industrial Activity in Brooklyn," *Real Estate Record and Builders Guide*, 101 (26 January 1918): 100.

While some of the industrial concerns in DUMBO were established in Brooklyn, other firms moved to Brooklyn from Manhattan. In densely built up Manhattan, space was at a premium. As businesses expanded they outgrew their modestly-scaled industrial lofts and sought space for expansion. DUMBO offered both available land and convenient access to Manhattan. Thus, for example, in 1880 the Kirkman soap firm moved from Manhattan to DUMBO, followed in 1881 by John Arbuckle's coffee roasting business, and, in 1888 by Robert Gair's paper box company. Factory owners also lived in Brooklyn, often building large mansions in the city's most prestigious residential neighborhoods. Robert Gair, for example, erected a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished); in 1888, John Arbuckle commissioned a magnificent house from prominent Brooklyn architect Montrose Morris for a site at 315 Clinton Avenue (located within the Clinton Hill Historic District), and John H. Hanan built a magnificent mansion on Eighth Avenue in Park Slope (demolished) designed by C. P. H. Gilbert in 1890.

Besides the transportation network that brought people and goods in and out of DUMBO, a small rail line running on the area's streets transported goods within the neighborhood. The Jay Street Connecting Railroad was established in 1904 by Charles Arbuckle as a means of transporting rail cars from barges to his factories. The barges docked at the Jay Street Terminal, at the foot of Jay Street, just outside the historic district. Arbuckle laid out the line along John Street, extending as far as the Empire Stores, in the Fulton Ferry Historic District (Arbuckle stored coffee and other goods in these warehouses). The small line was initially known as the Jay Street Terminal Railway, but was incorporated as the Jay Street Connecting Railroad in 1909.²⁶ The line was expanded to service adjoining factories. Tracks ran along the streets and often also ran alongside buildings. This was possible in an area that initially had few sidewalks. The tracks were imbedded in the granite Belgian blocks used to pave the streets of DUMBO. A significant amount of trackage remains visible today and there are still several instances where tracks extend right up to a building. In several instances, the tracks also ran inside buildings. This is evident, for example, at the Bliss foundry at 202-206 Plymouth Street and at the Gair Co. building at 41-49 Washington Street. The Jay Street Connecting Railroad was the smallest of several rail lines that ran along Brooklyn's waterfront. It did, however, own several tugboats for pulling the car floats, as well as engines that pulled the rail cars off the barges and dispersed them through the neighborhood.²⁷

Most of the factories within the DUMBO Historic District were commissioned by the businesses that occupied them. However, the Robert Gair Company not only erected buildings for its own extensive paper box and printing business, but also branched into real estate by erecting substantial buildings for lease. In addition, the W. H. Sweeney Manufacturing Company built 30 Main Street for the manufacture of its own metal kitchenware, as well as for rental income from floors that were not needed for its own business.

Among the companies with a major presence in the historic district were:²⁸

- Arbuckle Brothers. Arbuckle Brothers was America's largest coffee roaster and packager and also a sugar refiner. The sugar refinery and several other Arbuckle Buildings are

²⁶ Jay Bendersky, *Brooklyn's Waterfront Railways: A Pictorial Journey* (Mineola: Weekend Chief Publishing Co., 1988), 8.

²⁷ The tugs and engines are illustrated in Bendersky, *Brooklyn's Waterfront Railways*, 9-11.

²⁸ All employment statistics from *Second Annual Industrial Directory of New York State 1913*, 303-359.

within the historic district. In 1913, Arbuckle employed 100 people in its coffee business and 668 in its sugar refinery.

- E. W. Bliss. Manufacturer of machinery located in a complex erected between 1870 and 1901 on Block 18. Also occupied buildings elsewhere in the district. With 1,646 employees, this was the second largest machinery manufacturer in Brooklyn in 1913 (the Mergenthaler Linotype Company employed ten more people).
- Robert Gair Co. The major presence in the historic district. Robert Gair owned a company that manufactured paper boxes and printed labels, stationary, and other items. Gair was also a major realtor, leasing industrial space in his many buildings within the historic district. In 1913, Gair employed 1,702 people.
- Hanan & Son. Shoe manufacturer with a major complex on Bridge Street between Water and Front Streets erected between 1893 and 1905. Hanan, with 1,131 employees in 1913, was, by far, the largest shoe manufacturer in Brooklyn.
- Jones Brothers/Grand Union Company. A grocery packaging business that occupied the entire block bounded by Water Street, Front Street, Jay Street, and Pearl Street. The block consists of six separate structures erected between 1896 and 1915. The firm employed 293 people in 1913.
- Kirkman & Son. A large factory complex on both sides of Bridge Street, erected in eight sections between 1894 and 1915 to manufacture soap. In 1913, Kirkman employed 375 people.
- John W. Masury & Son. One of several large paint companies in Brooklyn, occupying buildings on two blocks within the district. The firm employed 249 people in 1913.
- W. H. Sweeney Manufacturing Company. Manufacturer of metal kitchenware from a large concrete building at 30 Main Street. Sweeney employed 160 people in 1913.

Industrial Architecture in DUMBO

The architecture of the factories in the DUMBO Historic District reflects the character of industrial building in America in the nineteenth and early twentieth centuries. All of the nineteenth-century factories in the district, as well as many dating from the twentieth century, have brick street facades. The earliest buildings in the historic district, 66-72 Water Street (c. 1850) and 64 Water Street (c. 1855), take the form of the Greek Revival style counting houses used for offices, storage, and manufacturing in the New York area beginning in the 1830s. These simple brick buildings with their crisply-cut windows and commercial ground floors, are prevalent in the South Street Seaport Historic District, but are quite rare in Brooklyn.

Most of the factories in the historic district are of slow burning construction, with massive wooden posts and beams and large, evenly-spaced windows.²⁹ This type of construction was first used on New England mills. The idea behind their construction was that the large posts and beams, often twelve inches square, would burn slowly in a fire. In addition, the buildings generally had wood plank floorboards with no air pockets beneath, and flat roofs that did away with attics where fires could spread unnoticed. This type of construction was popular with fire insurance firms, which explains why construction of the type continued long after other technologies for factory construction had been invented. These factories were also highly utilitarian, with their large windows bringing light and ventilation inside, and their widely spaced columns creating relatively open and flexible floors.

²⁹ Slow-burning construction is discussed in Bradley, *The Works*, 127-131.

Most of the factories erected with slow-burning construction were designed in what Bradley refers to as the American round-arch style.³⁰ These buildings have simple facades, often with round- or segmental-arch openings, piers or pilasters, scalloped cornices, horizontal banding, corbelled brickwork, molded surrounds, and projecting window hoods or lintels. Especially fine examples of factories with slow-burning construction are the Hanan & Son shoe company building at 54 Bridge Street (1894), the McNeill shoe last factory at 57 Jay Street (1896), and the earliest Gair factory at 22-38 Washington Street (1887-1891).

By the late nineteenth century new materials, notably steel and terra cotta were beginning to appear in factory construction. The steel skeleton frame, which had been in use on office buildings since the construction of the Tower Building on Broadway in Manhattan in 1888, made its appearance in DUMBO in 1897 when John Arbuckle built his nine- and ten-story sugar refinery at 10 Jay Street. The building has a brick curtain wall. At the major portion of the Bliss factory at 135 Plymouth Street, architect Rudolphe L. Daus combined steel girder and cast-iron columns with a powerful brick facade. In other buildings, a brick facade was employed on a structure with a steel frame and terra-cotta floor tiles (for strength and fireproofing). The buildings erected by Jones Brothers in 1907, at 153-157 Front Street and 58-66 Jay Street, are examples of this type.

A major change in factory construction occurred in the first years of the twentieth century when reinforced concrete began to be used for the exterior and interior structure of various industrial buildings. The DUMBO area is among the earliest in the United States with extensive construction of large reinforced-concrete factories. It was the Robert Gair Company that changed the face of the DUMBO area when the firm introduced reinforced-concrete construction with its 1904 factory at 41-49 Washington Street.

Concrete has a long history extending back to the ancient Romans, but it was only in the early twentieth century that reinforced concrete as a building material became popular, especially for industrial buildings.³¹ As Amy Slaton notes in her history of reinforced concrete, “the development of concrete reflected a long history of technical experimentation and, at the end of the nineteenth century, a remarkable burst of entrepreneurial enthusiasm that brought it into wide use among American buildings.”³² The earliest experiments with reinforcing concrete with iron bars occurred in Europe in the 1840s and 1850s. In the United States, S. T. Fowler received a patent for a reinforced-concrete wall in 1860 and in the early 1870s William E. Ward erected a reinforced-concrete house in Rye Brook, Westchester County, New York. By the 1880s, concrete was in use for piers, walls, footings, and paving, but the material remained a novelty until the late nineteenth century. In 1892, French engineer François Hennebique developed a method of pouring slabs, beams, and columns of reinforced concrete. Hennebique patented a system of bending reinforcing bars to counteract tension at supports. This system was marketed in the United States and there is an exceptional example of a concrete building erected with the Hennebique system in DUMBO (just outside of the historic district), the Thomson Meter Company Building at 102-110 Bridge Street, a designated New York City Landmark.³³

³⁰ Bradley, *The Works*, 235-237.

³¹ The discussion of reinforced concrete is based on Amy E. Slaton, *Reinforced Concrete and the Modernization of American Building, 1900-1930* (Baltimore: Johns Hopkins University Press, 2001) and Christina Lee Wallace, *The Evolution of Reinforced Concrete Technology (1848-1918)*, unpublished Master’s thesis, Columbia University School of Architecture (1987).

³² Slaton, *Reinforced Concrete*, 15.

³³ LPC, *Thomson Meter Company Building Designation Report* (LP-2139) (New York: City of New York, 2004), prepared by Jay Shockley. The report includes a discussion of Hennebique and his system.

In the late nineteenth and early twentieth centuries major advances in reinforced-concrete technology occurred in the United States. In 1884 Ernest L. Ransome, an English immigrant who was working for the Pacific Stone Company in San Francisco, received a patent for a twisted square metal reinforcing bar. Ransome's bar provided a strong, inexpensive, and effective method for building in concrete. By 1900, dozens of patents had been issued for a variety of different reinforcing systems. In 1892, Ransome began construction of two buildings at Stanford University that employed reinforced concrete on the exterior and in 1897 erected a building in Bayonne, New Jersey with the floor slabs poured integrally with the buildings framework; the floor slabs were supported on solid concrete columns supported by stirrups. Finally, between 1900 and 1902, Ransome perfected a system for constructing buildings with concrete floors, and columns with concrete walls that were designed as frames for large expanses of glass. In 1902, Ransome sold the patent rights for the twisted bar to two young engineers in his office, Henry C. Turner and DeForrest Dixon. Turner and Dixon established the Turner Construction Company which was responsible for the construction of most of the reinforced-concrete buildings in the DUMBO Industrial District, including all of those erected for Gair.

The result of the advances made in the use of reinforced concrete in France and in America was that by the first years of the twentieth century, the material was seen as appropriate for factories and its use increased rapidly. Statistics for the use of Portland cement, the major ingredient in concrete bear out the increasing popularity of the material. In 1890, 300,000 barrels of Portland cement were sold in America; in 1895, 900,000 barrels; in 1896, over one million barrels; in 1906, 46 million barrels; and in 1924, 146 million barrels. Reinforced concrete offered factory owners several advantages over other materials. Reinforced-concrete buildings were easy to maintain; the material was extremely strong, with its increased floor loads permitting the efficient use of heavy machinery; the materials needed to erect a concrete building (cement, sand, and aggregate) were easy to acquire, while steel and other finished products frequently were in short supply; it was possible to erect concrete factories with large expanses of windows, thus increasing light and ventilation (thus, the term "daylight factory" to describe these structures); the buildings were vibration resistant; the buildings were sanitary, easy to treat against dust, and vermin proof; the buildings were fire resistant; and it was easy to build relatively tall structures of reinforced concrete. They were also marketed as being inexpensive, but Slaton notes that this was not true.³⁴

The various companies that produced the raw materials for reinforced concrete, especially the Portland cement companies, exploited these advantages in their marketing. As the Atlas Portland Cement Company noted in one of its publications, "Reinforced concrete, through the reduction in price of first-class Portland cement and the greater perfection of the principles of design, has lately become a formidable competition to both steel and slow-burning construction, competition of steel. . .because of its lower cost, shorter time of construction, and freedom from vibration; a competition of slow-burning construction because of its greater fire protection, lower insurance rates, durability, freedom from repairs and renewals, and even in many cases, its lower actual cost."³⁵

When Robert Gair commissioned a design for a new factory building at 41-49 Washington Street, a plot that ran along Water Street to Adams Street, he initially planned to

³⁴ Slaton, *Reinforced Concrete*, 137. Slaton discusses the advantages of concrete on pp. 134-137.

³⁵ Atlas Portland Cement Company, *Reinforced Concrete in Factory Construction* (New York, 1907, 8th edition, 1915), 11; similar arguments for the use of reinforced concrete are made in Portland Cement Association, *Mercantile and Industrial Buildings of Concrete* (n.d.).

erect a structure with traditional brick and timber construction. He sent his nephew, James Beattie, to the south in search of sizable timbers for the building. Beattie could not find suitable timbers, but while visiting in Jacksonville, Florida “he noted that a great deal of concrete was being used to rebuild the city, which had recently been laid waste by fire. He was particularly impressed by the fireproof qualities of these concrete structures.”³⁶ Beattie conveyed his findings to Robert Gair’s son George, who paid a visit to the Turner Construction Company’s offices. George Gair persuaded his father that concrete was the perfect material for their new building. Their architect, William Higginson, was resistant, but eventually agreed to design the building, later going on to become a major proponent of reinforced concrete for factory construction. This was the first multi-story factory erected by the Turner Construction Company and, according to Christina Lee Wallace it was this building “that gave Turner its early reputation in concrete.”³⁷

The construction of 41-49 Washington Street was followed by others built for Gair – 51-59 Washington Street (1908), 70 Washington Street (1910-11), 40-58 Washington Street (1913-14), 1 Main Street (1914), 35-41 Main Street (1916), 27 York Street (1916), and 45 Main Street (1919). Other companies also began to build reinforced-concrete structures in the district. Some, such as the Arbuckle warehouse at 20 Jay Street (1908), were erected by the Turner Construction Company, but others were the work of competing firms. The other major reinforced-concrete structures in the historic district are the Sweeney Company’s factory at 30 Main Street (1908), designed and built by the Moyer Engineering and Construction Company; the John Masury & Son Paint Works factory at 42-44 Jay Street (architect and builder unknown, 1919-21); and the Kirkman & Son factory (1906), designed by Edward N. Stone and built by the Expanded Metal Engineering Company. The Sweeney and Kirkman buildings illustrate the fact that many reinforced-concrete structures were designed by engineering firms and not by architects.³⁸ The early reinforced concrete buildings in the district illustrate the hesitancy among architects and engineers to use concrete in a straightforward manner. Rather, early buildings such as 1 Main Street and the Sweeney Building at 30 Main Street are articulated with piers that imitate rusticated stone resulting in an abstracted classicism. Some DUMBO factories have concrete floor slabs, but exterior walls of brick. This is evident, for example, at Kirkman & Son’s factory at 43-45 Bridge Street (1911), with its concrete frame and brick walls, and at the same firm’s 1915 building at 37 Bridge Street, which combines concrete floors, a steel frame, and brick walls. Later reinforced-concrete buildings, such as the Gair buildings at 27 York Street (1916) and 45 Main Street (1919) and the Masury building at 42-44 Jay Street (1919), abandon the use of brick facades or faux rustication, employing the concrete in a smooth manner that clearly reflects the character of the material.

Since reinforced-concrete buildings are constructed with a frame that permits large expanses of glass for light and ventilation, windows were a major part of each building’s facade. Almost all reinforced-concrete buildings use fireproof metal windows with both fixed and moveable panels. In DUMBO, the typical metal window had moveable pivot panels. Although most of the original windows have been replaced in recent years, at least some original metal windows are extant at Arbuckle’s 20 Jay Street and at Gair’s 40-58 Washington Street.

The industrial buildings in the historic district were designed by various architects, ranging from well-known Brooklyn designers such as William Tubby, Rudolphe L. Daus, and

³⁶ H. Allen Smith, *Robert Gair: A Study* (New York: Dial Press, 1939), 98.

³⁷ Wallace, *The Evolution of Reinforced Concrete*, 43, and Smith, *Robert Gair*, 98-99.

³⁸ Slaton, *Reinforced Concrete*, 139.

George Morse, to little-known designers who appear to have specialized in industrial design. All of the architects are discussed in the Architects Appendix.

The industrial character of the DUMBO Historic District goes beyond just the extraordinary quality of the industrial buildings and streetscapes. The most prominent visual feature of the neighborhood is the Manhattan Bridge. The bridge had a major impact on the district, since its construction resulted in the demolition of buildings and the reshaping of several blocks. The Brooklyn anchorage and support piers are all located within the boundaries of the district. These massive granite structures with their boldly-detailed arches spanning streets and sidewalks are a major presence and provide a series of dramatic views and vistas. Equally important to the character of the district is the presence of an extraordinary amount of original street paving. The streets within the historic district were all once paved with granite Belgian blocks. These remain visible on many streets. On other streets they have been covered with asphalt, but in many cases, as the asphalt has worn away, the blocks have become visible. At the junction of Adams and Plymouth Streets, the granite paving blocks are supplemented by granite slabs marking the crossing. Inset into the Belgian block paving on several streets are the Jay Street Connecting Railroad's tracks. Tracks are visible along John, Jay, Plymouth, Adams, Main, Anchorage, and other streets. The Belgian block paving is also notable on some streets because it stretches to the building line, with no sidewalks; this may be the only place in New York City with this type of urban design. Belgian block streets without sidewalks are evident, for example, on John Street between Pearl and Jay Streets. Other locations in the district use Belgian blocks for sidewalk paving, a feature that is not known to appear in any other New York neighborhood. Belgian block sidewalks are extant, for example, at 55-57 Pearl Street and at 230-242 Water Street. There are also especially unusual sidewalks that combine Belgian blocks and small slabs of granite at 39-45 Jay Street, Belgian blocks with small slabs of bluestone at 51-53 Pearl Street, and Belgian blocks with small slabs of granite and bluestone at 183-185 Plymouth Street.

Post-Industrial DUMBO

The major industries began to leave DUMBO by the 1920s – in 1927, Gair production moved to Piermont, New York; in 1933, the Bliss Company consolidated its manufacturing in Toledo, Ohio; the Hanan & Son shoe company went bankrupt in 1935; Kirkman soap closed in the early 1940s; in 1945 John W. Masury & Son moved its paint manufacturing to Baltimore. Many small businesses rented space in DUMBO's factories and others, such as the Arbuckle sugar refinery, were converted into warehouses (the refinery became a warehouse in 1945). In the late 1970s, artists began moving into DUMBO's factories in large numbers, creating a new community in the area.³⁹ At the same time, social service organizations, such as the drug rehabilitation organization Phoenix House, acquired what were then relatively inexpensive buildings and converted them for their own uses. A major change in the area came in 1981, when David Walentas and his Two Trees Management Company purchased the Gair complex and several other DUMBO factories from Harry Helmsley. Walentas was intent on "fixing up the defunct commercial" properties.⁴⁰ 1 Main Street was initially converted by Walentas into offices for the New York State Department of Labor, but in 1998 the building became one of the

³⁹ "Amid Old Brooklyn Factories, A Shrinking Canvas," *New York Times* (24 July 1995), B1.

⁴⁰ "Will DUMBO Finally Fly?," *Real Estate Weekly* (14 October 1998), 1.

earliest luxury residential conversions in DUMBO.⁴¹ Since 1998, many buildings in the western portion of the neighborhood have been converted into high-end housing and several new residential buildings have been erected in the area. This conversion work has entailed both alteration and restoration of older buildings. Alterations have generally included the replacement of windows, work and new equipment on rooftops to provide additional apartments or amenities and services for residents, a variety of new signage, new access ramps to the buildings, and the conversion of ground floor loading docks, entrances, and other infill between the piers into commercial spaces providing this increasingly residential neighborhood with shops and other amenities. Today, DUMBO is a community with a mixture of uses – residential, office, artist, retail, social service, and industrial, in buildings that remain untouched for decades and in buildings that have undergone expensive conversion projects. This is a diverse neighborhood that retains its industrial character even as uses are dramatically evolving.

⁴¹ “A Neighborhood Called Dumbo Has High Hopes,” *New York Times* (7 August 1998), B8; “SoHo, TriBeCa and Now Dumbo?,” *New York Times* (25 October 1998), sec. 11, 1.

BUILDING PROFILES

Note on Individual Building Entries: Each building in the historic district is discussed and described in an individual entry. Because Buildings Department records for buildings within the DUMBO Historic District are incomplete, dates, architects, original owners, and other basic information has been gleaned from a variety of sources, including new building permits at the Buildings Department, weekly projected building lists published in the *Real Estate Record and Builders Guide*, reports on factory construction published in the *Brooklyn Daily Eagle* and the *New York Times*, and information provided on various atlases of Brooklyn. The specific history of some buildings remains a mystery. Future research finds may answer some of the outstanding questions about the architecture of the DUMBO Historic District.

ADAMS STREET (EAST SIDE) between John Street and Plymouth Street

1-15 Adams Street (southeast corner John Street; 2-10 John Street)
Borough of Brooklyn Tax Map Block 18, Lot 1 (in part)

Date of construction: 1891 (NB 1198-91)

Architect: William Tubby

Original owner: E. W. Bliss

Type: Factory

Style: Romanesque Revival

Stories: 6

Structure/material: Brick with stone trim; slow-burning mill construction with yellow pine columns and girders.

Features: On Adams Street, eighteen-bay facade; rectangular windows with splayed brick lintels on first through fourth stories; single vehicular entrance on first story; round-arch windows on five; sixth story with rectangular windows with stone lintels that continue across facade as a beltcourse; windows separated by brick piers that create appearance of narrow arches on third through fifth stories; cornice with corbelled brickwork above first through fifth and fourteenth through seventeenth bays, rising to a smooth parapet in center; on Adams Street some original 2x2 sash on third, fifth, and sixth stories; at time of construction of 1900 addition at 135 Plymouth Street, one story and parapet added atop southernmost bay on Adams Street; twelve bays of almost identical design on John Street; corbelled cornice but not parapet on John Street; wide segmental-arch loading dock in first and second bays on first story on John Street.

Significant alterations: Many windows replaced; first-story windows bricked in; on John Street, ninth bay on second story enlarged; John Street loading dock filled in.

History: The entire block bounded by Plymouth Street, Adams Street, John Street, and Pearl Street is occupied by the former E. W. Bliss machinery factory (see 135 and 143 Plymouth Street); the company also occupied buildings elsewhere in the DUMBO Historic District (see 39-53 Jay Street, 190-200 Plymouth Street, 202-206 Plymouth Street, and 208-214 Plymouth Street). Eliphalet W. Bliss (1836-1903) began purchasing property on this block in 1879 and by

1891 he owned the entire block. Previously, a portion of the block had been occupied by the George G. Johnson Iron Foundry. Between 1879 and c. 1900, Bliss erected three buildings for the manufacture of a vast array of machinery, cans, and other metal products. Bliss was born in Fly Cree, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of "The Manufacturing Industries of Brooklyn and Kings County" section of Henry L. Stiles's history of Brooklyn, wrote that Bliss "has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet iron, brass or copper, in all the required forms for household and manufacturing use." At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery, cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

The initial portion of the Bliss factory was erected in 1879 at 143 Plymouth Street (see), extending along Pearl Street to Adams Street. A major expansion began in 1891, when this building was erected at 1-15 Adams Street at the corner of John Street to the design of noted Brooklyn architect William Tubby. The building was planned as a machine shop. According to an advertising brochure printed by Cross & Brown in 1923, the building had a single steam freight elevator and one elevator hoist. The main portion of the complex, at 135 Plymouth Street, was erected c. 1900; although the design of 135 Plymouth Street echoes that of 1-15 Adams Street, it was designed by Rudolphe L. Daus.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl's Head Park. Following Bliss's death in

1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 in DUMBO appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an interest in the property (this company's name appears on a 1929 Brooklyn atlas) and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. Painted signs on the building attest to the presence, at an unknown date, of the Waring Envelope Company.

The simple brick facade, articulated by rounded openings, projecting lintels and sills, and corbelled cornice, marks 1-15 Adam Street as an example of the Romanesque Revival style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1891, during a major period of development when manufacturers such as E. W. Bliss were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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Asher & Adams' Pictorial Album of American Industry (New York: Asher & Adams, 1876; reprinted, New York: Rutledge Books, 1976), 64.

Brockett, Dr. L.P., "The Manufacturing Industries of Brooklyn and Kings County," in Henry R. Stiles, ed., *History of Kings County Including the City of Brooklyn, 1683-1883* (Brooklyn: W. W. Munsell & Co., 1884), 688.

Desk Atlas, Borough of Brooklyn, City of New York (New York: E. Belcher Hyde Map Co., 1929), plate 96.

"E. W. Bliss Company Factory," Cross & Brown advertising brochure, 8 June 1923.

E. W. Bliss Company Presses, Dies and Special Machinery (1914; collection New York Public Library).

"Eliphalet W. Bliss," *Dictionary of American Biography*, vol. 1 (1927), 371-72.

"Eliphalet W. Bliss," *National Cyclopaedia of American Biography*, vol. 15 (New York: James T. White, 1916), 20-21.

"James Warren Lane," *National Cyclopaedia of American Biography*, vol 22 (1932), 219-20.

King's Views of Brooklyn (Boston: Moses King, 1904), 32.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 47 (27 June 1891): 1044.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 21.

The Brooklyn Historic Society has a large collection of machinery catalogues for Bliss Company products, including catalogues for power presses, punching presses, and spinning lathes.

17-19 Adams Street

See 135 Plymouth Street

ADAMS STREET (WEST SIDE) between Plymouth Street and Water Street

18 Adams Street (southwest corner Plymouth Street; 118 Plymouth Street)
Borough of Brooklyn Tax Map Block 28, Lot 5 (in part)

Date of construction: 1904 (NB 2858-04)

Architect: W.H. Turner

Original owner: Robert Gair

Type: Factory

Style: American Round Arch

Stories: 2

Structure/material: Brick; slow-burning mill construction

Features: Eccentrically shaped building that generally extends features of 21 Washington Street; ten bays on Adams Street and one bay on Plymouth Street; building angles between first and second bays on Adams Street; segmental-arch openings; stone sills on first story; stone sills continue as beltcourse on second story; brick corbelling at parapet; ocular window on second floor of Plymouth Street bay.

Significant alterations: Windows replaced; third and fourth bays (from left) combined into a vehicular entrance; windows in first-story of fifth and six bays replaced with metal louvered vents; seventh through tenth bays extended to sidewalk for entrances and windows; cloth canopies added above entrances in seventh and eighth bays.

History: In 1887, the site was home to a steam pump factory. By the 1890s, this lot and the adjoining lot to the west were owned by the Dodge & Olcott Chemical Company. Dodge & Olcott was established in 1862 as an outgrowth of a chemical business that had been established in New York in 1798 by Robert Bach (George Olcott was a descendant of Bach). Between 1880 and 1904 the firm opened a distillation plant for producing essences of aromatic herbs and roots on this block. It appears that the Adams Street building was originally a two-story structure since the adjacent building at 21 Washington Street has lot line windows overlooking the Adams Street structure. Dodge & Olcott sold the properties on the south side of Plymouth Street between Washington Street and Adams Street to Robert Gair in two transactions in 1904 and 1911. Gair erected this building in 1904, as soon as he acquired the site. The building became the administration building of the Charles William Stores, housing the firm's general offices, employment and educational divisions, dispensary, and recreation and reading rooms. The company leased this space from Gair.

The Charles William Stores, a mail order supply business, was founded by John Arbuckle, but his name was never associated publicly with it. Arbuckle owned large tracts in DUMBO where he roasted and packaged coffee and refined sugar. The Charles William name was invented for Arbuckle's merchandising business; indeed, in the text of a 1917 advertising brochure ownership is always ambiguous. The only public mention of Arbuckle's interest in this business came in an unsuccessful lawsuit filed in 1930 by Arbuckle's executors who claimed that the Charles William Stores was organized "for the purpose of obtaining a fictitious name so as not to disclose to the trade that Arbuckle Brothers was embarking in the mail order business." Since

Arbuckle was already located in DUMBO, it was logical for the new business to also occupy space in the neighborhood and since John Arbuckle and Robert Gair were friends, it was appropriate for him to rent space in Gair's large buildings. Besides this building, within the DUMBO Historic District, the Charles William Stores occupied the entire block bounded by Washington Street, Main Street, Plymouth Street, and Water Street.

The Charles William Stores was established in 1913 as a general mail order merchandising business. Its first sale was in September 1913, at which time the company occupied a single building in DUMBO, on the north side of John Street, between Jay and Bridge Streets (demolished). The firm grew rapidly, eventually employing, it claimed, 4,000 people in its various DUMBO buildings and sending a wide variety of goods to customers throughout the country. By 1917, it was marketing itself as "The Business that Serves the Nation," one that "brings New York to you." Focusing on the importance and value of New York as a business and fashion center, the company bragged that it gave its customers "values and services that only a business located in the chief market of America could give." Using New York in its marketing was undoubtedly a device to separate this company from competitors such as Chicago-based Montgomery Ward and Sears Roebuck. In 1928, the business was purchased by National Bellas Hess, a company founded by H. Bellas Hess, a mail order merchant. National Bellas Hess was established in 1927 with the consolidation of the National Cloak and Suit Company and the Bellas Hess Company.

A 1929 Brooklyn atlas indicates that by that time this building was a factory for the Commercial Can Company, which occupied the entire block.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, and corbelled cornice, marks 18 Adams Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1904, during a major period of development when manufacturers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and its connection to DUMBO's industrial history.

References:

"Arbuckle Heirs Sue for \$7,993,799 Tax," *New York Times*, 29 May 1930, 10.

The Business that Serves the Nation: The Charles William Stores New York City (pamphlet, 1917).
Desk Atlas, Borough of Brooklyn, City of New York (New York: E. Belcher Hyde Map Co., 1929), plate 96.

"George M. Olcott Dead," *New York Times* 15 September 1917, 11.

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H. Bellas Hess Retires, *New York Times* 22 January 1930, 34.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 74 (10 December 1904): 1340.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 18.

“Rise of Dodge & Olcott Linked to Boro History,” *Brooklyn Daily Eagle* 19 December 1948.

26 Adams Street

See 133 Water Street

ADAMS STREET (EAST SIDE) between Water Street and Front Street

59 Adams Street

Borough of Brooklyn Tax Map Block 39, Lot 1

Date of construction: c. 2000

Architect: unknown

Original owner: New York City

Type: Garage and workshop

Style: Modern

Stories: 1 and 2

Structure/material: concrete block

Features: Concrete block facades; simple entrances.

BRIDGE STREET (WEST SIDE) between John Street and Plymouth Street

18 Bridge Street (southwest corner John Street; 18-20 Bridge Street, 88-94 John Street)

Borough of Brooklyn Tax Map Block 20, Lot 21 (in part)

Date of construction: 1902 (NB 125-02)

Architect: Edward N. Stone

Original owner: Miller & Van Winkle

Type: Factory

Style: American Round Arch

Stories: 4 and basement

Structure/material: Brick; slow-burning mill construction

Features: Six bays on Bridge Street and eight bays on John Street; central, Bridge Street: first-story rectangular opening for loading dock; segmental-arch windows with raised brick lintels supported on corbels; projecting stone sills; corbelled cornice. John Street: wide segmental arch openings with denticulated lintels; stone sills; windows separated by brick piers; low, segmental-arch basement windows; corbelled cornice; sidewalk level pedestrian entrances at either end.

Significant alterations: Street elevations covered with a cementitious coating; windows at west end of John Street elevation now entrances; 6x6 windows replaced; metal railing on roof.

History: The Miller & Van Winkle Company was established in Brooklyn in 1881. The firm manufactured precision steel springs used by many different industries. During World War I, the company manufactured five million springs for gas mask canisters, three million for Browning machine guns, and ten million miscellaneous springs. In 1912, Miller & Van Winkle employed 164 people (153 men, two children, and nine office workers). In 1939, the company moved to Paterson, New Jersey. In 1945, this building was leased to the Peerless Paint and Varnish Company.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, and corbelled cornice, marks 18 Bridge Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1902, during a major period of development when manufacturers such as Miller & Van Winkle were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

"Edward M. Miller" [obituary] *New York Times* 16 February 1942, 17.

"5,000,000 Gas Mask Springs," *Brooklyn Daily Eagle* 27 April, 1919.

Industrial Directory of New York State (Albany: State Department of Labor, 1912).

"Makers of Springs Moving to Jersey," *New York Times* 3 December 1939, 195.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 69 (1 February 1902): 1768.

22-24 Bridge Street

Borough of Brooklyn Tax Map Block 20, Lot 21 (in part)

Date of construction: c. 1880s

Architect: unknown

Original owner: Miller & Van Winkle

Type: Factory

Style: American Round Arch

Stories: 4

Structure/material: Brick; slow-burning mill construction

Features: Six bays; two wide segmental-arch openings on first story with rectangular in center; segmental-arch windows with raised brick lintels supported on corbels; projecting stone sills; denticulated cornice.

Significant alterations: Facade covered with cementitious coating; opening to left on first story mostly enclosed; segmental-arch opening to right replaces two round-arch windows (post-1940); 6x6 windows replaced; doors replaced; metal railing on roof.

History: The Miller & Van Winkle Company was established in Brooklyn in 1881 and is said to have moved to 18 Bridge Street in 1895. The firm manufactured precision steel springs used by many different industries. During World War I, the company manufactured five million springs for gas mask canisters, three million for Browning machine guns, and ten million miscellaneous springs. In 1912, Miller & Van Winkle employed 164 people (153 men, two children, and nine office workers). In 1939, the company moved to Paterson, New Jersey. In 1945, this building was leased to the Peerless Paint and Varnish Company.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, and corbelled cornice, marks 22-24 Bridge Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in c. 1880, during a major period of development when manufacturers such as Miller & Van Winkle were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

"Edward M. Miller" [obituary] *New York Times* 16 February 1942, 17.

"5,000,000 Gas Mask Springs," *Brooklyn Daily Eagle* 27 April, 1919.

Industrial Directory of New York State (Albany: State Department of Labor, 1912).

"Makers of Springs Moving to Jersey," *New York Times* 3 December 1939, 195.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

26-28 Bridge Street

Borough of Brooklyn Tax Map Block 20, Lot 29 (in part)

Date of construction: 1912 (NB 18731-12)

Architect: unknown

Original owner: Miller & Van Winkle

Type: Foundry

Style: Utilitarian

Stories: 1

Structure/material: Brick; semi-fireproof construction

Features: Gable end facing street; originally three openings on facade – large central window flanked by vehicular entrances; brick piers and gable creating three recessed triangular panels; monitor roof extending back into lot; west gable end and western wing visible from Plymouth Street; wing at west lower in height than front building; sign lit by two monitors; wing has two loading bays on south wall, reached via entry at 201 Plymouth Street.

Significant alterations: Vehicular entrances originally had double wooden doors and multi-pane metal frame transoms; central opening, originally with multi-pane metal window frames now bricked up three roll-down metal gates, installed in 2007, hide much of facade; monitors on western wing tarred over.

History: This foundry was built for the Miller & Van Winkle Company. The Miller & Van Winkle Company was established in Brooklyn in 1881 and is said to have moved to 18 Bridge Street in 1895 and later expanded onto nearby lots. The firm manufactured precision steel springs used by many different industries. During World War I, the company manufactured five million springs for gas mask canisters, three million for Browning machine guns, and ten million miscellaneous springs. In 1912, Miller & Van Winkle employed 164 people (153 men, two children, and nine office workers). In 1939, the company moved to Paterson, New Jersey. In 1944, the building was leased to the Peercraft Paint and Varnish Company and a year later to the Peerless Paint and Varnish Company.

The brick construction and unornamented, functional design make 26-28 Bridge Street a representative example of the small-scale utilitarian structures erected to serve the area's growing industries. Built in 1912, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

"Edward M. Miller" [obituary] *New York Times* 16 February 1942, 17.

"5,000,000 Gas Mask Springs," *Brooklyn Daily Eagle* 27 April, 1919.

Industrial Directory of New York State (Albany: State Department of Labor, 1912).

"Makers of Springs Moving to Jersey," *New York Times* 3 December 1939, 195.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

New York City Department of Buildings, Building Information System.

32-34 Bridge Street (northwest corner Plymouth Street; 209-215 Plymouth Street)
Borough of Brooklyn Tax Map Block 20 Lot 29 (in part)

Date of construction: late nineteenth century

Architect: unknown

Original owner: unknown

Type: Factory

Style: Daylight Factory

Stories: 4

Structure/material: Brick; slow-burning mill construction

Features: Bridge Street facade with recessed central bay articulated with horizontal rectangular windows on upper stories and vehicular entrance on first story; flanked on either side by two rectangular windows; bulkhead at northern end of facade; Plymouth Street elevation with five central bays articulated by large rectangular openings, flanked by single end bays with smaller windows; recessed brick panels above fourth story windows; a few multi-pane metal windows with pivot sash extant in end bays on both elevations and on visible west facade; projecting concrete sills; pedestrian entrances at ends of elevation; corner sign on Plymouth Street reads "PEERLESS PAINT AND VARNISH CORP." Sign was extant in 1940. Two signs extant on west facade – at corner of facade, adjacent to Plymouth Street, vertical sign reads "PEERLESS PAINT"; on bulkhead, north of corner, two line horizontal sign reads "PEERLUX PAINTS."

Significant alterations: Most multi-pane metal windows replaced; five roll-down metal gates added to first story on Plymouth Street in 2007.

History: This building may have been erected by the Howard & Fuller Ale Brewing Company, one of the earliest industrial businesses in DUMBO. The building was erected at some time before 1894 when a modest alteration is recorded in building records (Alt. 1136-94). A 1904 Sanborn atlas indicates that the Howard & Fuller Ale Brewery had offices and storage in the basement, fermenting and hops storage on the second story, and a malt room on the third story. It was later owned by the Miller & Van Winkle Company. Miller & Van Winkle was established in Brooklyn in 1881 and is said to have moved to 18 Bridge Street in 1895 and later expanded onto nearby lots. The firm manufactured precision steel springs used by many different industries. During World War I, the company manufactured five million springs for gas mask canisters, three million for Browning machine guns, and ten million miscellaneous springs. In 1912, Miller & Van Winkle employed 164 people (153 men, two children, and nine office workers). In 1939, the company moved to Paterson, New Jersey. In 1944, the building was leased to the Peercraft Paint and Varnish Company and a year later to the Peerless Paint and Varnish Company.

The simple brick facade, articulated primarily by its large window openings, marks 32-34 Bridge Street as an example of the daylight factory. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in the late nineteenth century, during a major period of development when manufacturers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and its connection to DUMBO's industrial history.

References:

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

Sanborn Atlas of the Borough of Brooklyn (New York: Sanborn Map Co., 1904).

BRIDGE STREET (EAST SIDE) between Plymouth Street and Water Street

37 Bridge Street (southeast corner Plymouth Street; 37-41 Bridge Street, 226-234 Plymouth Street)

Borough of Brooklyn Tax Map Block 32, Lot 4

Date of construction: 1915 (NB 5652-15)

Architect: S.A. Moore

Original owner: Kirkman & Son

Type: Factory

Style: Daylight Factory

Stories: 7

Structure/material: Brick; steel frame, curtain wall, reinforced-concrete floors

Features: Four bays on Bridge Street and five bays on Plymouth Street; bays divided by brick piers. Bridge Street: northernmost bay narrow with pedestrian entrance on first story and double-hung, multi-pane, metal windows above; wide rectangular openings in other bays; multi-pane, metal windows; vehicular entrance in second bay; loading dock in front of two southernmost bays; high bulkhead parapet at southern corner. Plymouth Street: corner bay somewhat narrower than large bays to east; loading dock; multi-pane, metal windows; high bulkhead parapets at first, third, and fifth bays (counting from left). Nine rectangular windows with multi-pane metal sash on sixth and seventh stories of south elevation; brick eastern party wall.

Significant alterations: Some windows replaced; some alterations to entrances.

History: This is the final building erected by Kirkman & Son in the DUMBO Historic District. It was constructed for the storage of fat used to make soap. In 1894, Alexander S. Kirkman began purchasing property on the west side of Bridge Street between Plymouth and Water Streets. The company erected a factory on this property in several phases. Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm's growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated "BEWARE of persons offering to buy our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only." This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The simple brick facade, articulated primarily by its large window openings, marks 37 Bridge Street as an example of the daylight factory. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1915, during a major period of development when manufacturers such as Kirkman & Son were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

“Kirkman’s Borax Soap” [advertisement], *New York Times* 13 November 1910, 55.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 96 (14 August 1915): 292.

43-45 Bridge Street

Borough of Brooklyn Tax Map Block 32, Lot 4

Date of construction: 1911

Architect: Arthur G. Stone

Original owner: Kirkman & Son

Type: Factory

Style: Industrial Neo-Classical

Stories: 3

Structure/material: Brick; reinforced concrete floors

Features: Three bays; bays separated by brick piers; first story with large central loading dock and entrance flanked by large windows, all with stone lintels (covered by roll-down gate housing) and sills; loading dock entrance with tripartite transom; large windows with stone sills on second story; small rectangular windows on third story; stone beltcourse at sill level on third story; multi-pane metal sash on second and third stories; brick panels between third story windows and as spandrels beneath second story windows; raised brick bands and corbelling above second story and at cornice; first- and second-story metal windows on south elevation.

Significant alterations: Windows replaced.

History: This building was constructed by Kirkman & Son as a glycerin plant. Glycerin was an important component of soap. In 1894, Alexander S. Kirkman began purchasing property on the west side of Bridge Street between Plymouth and Water Streets. The company erected a factory on this property in several phases. Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm’s growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated “BEWARE of persons offering to buy our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only.” This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-

Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The austere brick facade, articulated by large window openings and abstracted, classically-inspired detail, marks 43-45 Bridge Street as an example of the Industrial Neo-Classical style. This, together with its brick and reinforced concrete floor construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1911, during a major period of development when manufacturers such as Kirkman & Son were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

"Kirkman's Borax Soap" [advertisement], *New York Times* 13 November 1910, 55.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

BRIDGE STREET (WEST SIDE) between Plymouth Street and Water Street

36-40 Bridge Street (southwest corner Plymouth Street); 218-224 Plymouth Street)
Borough of Brooklyn Tax Map Block 31, Lot 7501 (formerly Lot 27)

Date of construction: 1882 (NB 75-82)

Architect: Robert Dixon

Original owner: Patrick Cassidy

Type: Factory

Style: American Round Arch

Stories: 5

Structure/material: Brick; slow-burning mill construction

Features: Base of brick and stone laid in random ashlar; base capped by bluestone beltcourse; building follows westward slope of site with basement on Plymouth Street with rectangular windows; six bays on Bridge Street and ten bays on Plymouth Street; round-arch openings on first story and segmental-arch openings above; wide, segmental-arch loading dock occupies two central bays on Bridge Street and central two bays on Plymouth Street; denticulated arches and beltcourses with recessed bricks on first story; beltcourses and lintels with recessed bricks on second and third stories; brick drip lintels with projecting caps on fourth story; simple lip lintels with projecting caps on fifth story; iron tie rods on Bridge Street; basement entrance at western end of Plymouth Street elevation.

Significant alterations: Windows of central two bays on Plymouth Street bricked in and bulkhead constructed on roof; window converted to loading dock in seventh bay from left on

first story along Plymouth Street; windows replaced; railing constructed on roof; paint on corner bays of second through fifth stories.

History: Although it is not clear what industry occupied this building in the nineteenth century, by 1904 it was the machine shop of the Foster Pump Works, manufacturers of steam, electric, and power pumps. In 1913, the firm employed forty people – thirty-six men in the factory and four people in the office. Part of the building may also have been used by the Kirkman & Son soap company (see 50-52 Bridge Street).

The simple brick facade, articulated by segmental and rounded openings and projecting lintels and sills, marks 36-40 Bridge Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1882, during a major period of development when manufacturers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, its role in the area's development as an industrial neighborhood.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 29 (18 February 1882): 158.

Sanborn, *Atlas of the Borough of Brooklyn* (New York: Sanborn Map Co., 1904.).

42 Bridge Street

Borough of Brooklyn Tax Map Block 31, Lot 29

Date of construction: 1895 (NB 2019-95)

Architect: F. H. Hutton

Original owner: Kirkman & Son

Type: Factory

Style: None

Stories: 1

Structure/material: Brick

Features: Large vehicular entrance with steel lintel tied into 36-40 and 44 Bridge Street; second level with band of multi-pane metal windows with fixed and pivot sash; steel lintel tied into 36-40 and 44 Bridge Street; brick parapet.

Significant alterations: Steel vehicular door.

History: The Kirkman Company (see 44-48 Bridge Street) acquired most of this lot in 1895. The new building permit noted that this building would be a factory. A 1904 Brooklyn Sanborn atlas notes that the building was used as a glycerin plant.

References:

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 56 (14 December 1895): 879.

Sanborn, *Atlas of the Borough of Brooklyn* (New York: Sanborn Map Co., 1904).

44 Bridge Street

Borough of Brooklyn Tax Map Block 31, Lot 7502 (in part)

Date of construction: 1894 (NB 1787-94)

Architect: Kirkman & Son

Original owner: Kirkman & Son

Type: Stable

Style: None

Stories: 1

Structure/material: Brick

Features: Central entrance; rectangular windows; segmental;-arch basement windows.

Significant alterations: Building has been cut down from a two-story structure to a one-story structure; basement windows bricked in; deck constructed on roof with bridge connecting to 44-48 Bridge Street.

History: This building is the two-story brick stable that the *New York Times* announced Kirkman & Son (see 46-48 Bridge Street) would build on the northwest corner of Bridge and Water Streets in 1894 (this site was part of a larger plot at the corner owned by the Kirkman firm).

References:

“Brooklyn Realty Matters,” *New York Times* 29 November 1894, 15.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

46-48 Bridge Street (now known as 50 Bridge Street)

Borough of Brooklyn Tax Map Block 31, Lot 7502 (in part)

Date of construction: 1904 (NB 635-04; Note: a similar new building permit was issued in 1903 – NB 1311-03)

Architect: Edward N. Stone

Original owner: Kirkman & Son

Type: Factory

Style: American Round Arch

Stories: 5

Structure/material: Brick; slow-burning mill construction

Features: Building is northern extension of 50-52 Bridge Street and closely resembles its design; six windows wide; windows arranged in pairs; segmental-arch openings with brick lintels and projecting stone sills; pedestrian entrance in southernmost two bays on first story; cornice with raised bands; iron shutter supports at windows; north wall with segmental-arch windows and rectangular windows (probably later).

Significant alterations: Modern brick entrance enframing on first story; vehicular entrance cut into two northernmost bays on first story leaving lintels intact; windows replaced; two additional stories set back on roof; iron railing on roof; facade painted.

History: In 1894, Alexander S. Kirkman began purchasing property at the eastern end of block 31. The Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm's growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated "BEWARE of persons offering to buy our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only." This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The simple brick facade, articulated by segmental openings, radiating brick lintels and projecting sills, and raised-band cornice, marks 46-48 Bridge Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1904, during a major period of development when manufacturers such as Kirkman & Son were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

"Kirkman's Borax Soap" [advertisement], *New York Times* 13 November 1910, 55.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 72 (1 August 1903): 235; 73 (9 April 1904): 847.

50-52 Bridge Street, northwest corner Water Street (229-236 Water Street)
Borough of Brooklyn Tax Map Block 31, Lot 2502 (in part)

Date of construction: 1894-95 (NB 1146-94)
Architect: William Tubby
Original owner: Kirkman & Son
Type: Factory
Style: American Round Arch
Stories: 5
Structure/material: Brick; slow-burning mill construction

Features: Six bays on Bridge Street and twelve bays on Water Street; segmental-arch openings; brick lintels and stone sills; on Bridge Street, wider openings for pedestrian entrances at ends; vehicular entrance in center; cornice with raised brick bands; iron tie rods on Water Street; iron shutter supports at windows.

Significant alterations: Two additional stories set back on roof; iron railing on roof; windows replaced; concrete block bulkhead at west end of Water Street elevation; facade painted.

History: In 1894, Alexander S. Kirkman began purchasing property at the eastern end of block 31. The site at the corner of Bridge and Water Streets housed a cooperage at the time it was purchased by Kirkman. The building at the corner of Bridge and Water Street is the first structure erected by Kirkman & Son on this block. In April 1895, in celebration of the completion of the factory, Kirkman & Son held a banquet on the second floor of the building for its 84 employees. Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm's growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated "BEWARE of persons offering to buy our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only." This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The simple brick facade, articulated by segmental openings, radiating brick lintels and projecting sills, and raised-band cornice, marks 50-52 Bridge Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1894-95, during a major period of

development when manufacturers such as Kirkman & Son were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

"Brooklyn Realty Matters," *New York Times* 14 April 1894, 12.

"Churchman's Borax Soap" [advertisement], *New York Times* 13 November 1910, 55.

"Dined in a Soap Factory," *Brooklyn Daily Eagle* 16 April 1895, 4.

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 54 (1 September 1894): 313.

BRIDGE STREET (WEST SIDE) between Water Street and Front Street

54 Bridge Street (southwest corner Water Street and northwest corner Front Street; 54-70 Bridge Street, 220-228 Water Street, 205-215 Front Street).

Borough of Brooklyn Tax Map Block 41, Lot 17 (in part)

Date of construction: 1893 (NB 480-93)

Architect: F.P. Sheldon & Co.

Original owner: Hanan & Son

Type: Factory

Style: American Round Arch

Stories: 4 and basement

Structure/material: brick; slow-burning mill construction

Features: Nineteen bays on Bridge Street, nine bays on Water Street, and nine bays on Front Street; large segmental-arch openings separated by brick piers; end bays on Bridge Street narrower than other bays; building reflects slight slope of site, with the basement only partially above sidewalk level on Front Street rising to a full story on Water Street; multi-pane metal windows with operable awnings; iron tie rods; corbelled cornice; pedestrian entrance in westernmost bays on Front Street and Water Street; bluestone stairs at pedestrian entrance on Water Street; three fire escapes on Bridge Street.

Significant alterations: Two corner bays on Front Street partially filled in and converted into loading docks on first floor; eighth bay on Water Street partially filled in and converted into vehicular entrance.

History: The western portion of this block was home to the Union White Lead Works (later the National Lead Company) which began purchasing property on the block as early as 1837. The lead company's property was sold to James and John H. Hanan in 1893. Although already occupied by a factory, James Hanan and his son John chose to demolish the existing buildings

and replace it with a new factory for the manufacturing of shoes. Hanan initially announced construction of a seven-story structure; he actually built a five-story factory. Even before purchasing the DUMBO property, James Hanan was a resident of Brooklyn, living in a large mansion at 45 Eighth Avenue (demolished) in Park Slope. James Hanan (1819-1897) was born in Ireland and learned the shoe trade from his father. In 1849 he moved to America and in 1854 established a small shoemaking business in New York City. In about 1865, his son, John Henry Hanan (1849-1920), entered his father's firm, and in 1882 the company became Hanan & Son. The Hanan Company was among the first to stamp the firm's name on every shoe, a daring idea at a time when most people still sought shoes handmade by the dealer. The firm was successful and in 1888 Hanan began opening retail stores to sell the factory's product directly to consumers. The inauguration of retail stores by Hanan & Son was discussed in the *New York Times* in May 1888:

The well-known show house of Hanan & Son, corner of Centre and White streets, makes a departure this season. The house has been established for 40 years, and up to the present season, has distributed exclusively through retail dealers. But the house, making a specialty of men's and boy's fine shoes, and turning out 1,000 pairs per day, has found that its line was so extensive that the average retailer could not afford to carry stock in quantities to insure the consumer a choice of fit and style, and that consequently the firm has been obliged to open retail stores to supply the direct demand upon it for its shoes. . . . These stores they have opened at 297½ Broadway, New-York, 365 Fulton-street, Brooklyn, and branch houses in Boston, Chicago, and Milwaukee.

In 1894, the company had stores in New York, Brooklyn, Boston, Philadelphia, Cleveland, Milwaukee, New Haven, Buffalo, Chicago, and St. Paul. By 1914 the firm had thirteen retail stores in the United States and Europe (apparently in London and Paris).

Shoe manufacturing was a major industry in Brooklyn in the late nineteenth century, with 65 factories doing a combined business of \$2,300,000 in 1894; one-third of that business was done at the Hanan factory. The manufacture of a pair of shoes began on the upper floor of the factory where thin leather uppers were cut from patterns; women then stitched the uppers together on sewing machines; boys then took the uppers and smoothed the seams. The uppers were then moved to the third floor where lasters worked. The uppers were tacked to lasts and leather attached to the last mold to create the form of the bottom of the shoe. The bottom and upper were sewn together and then the shoes proceed to men who inserted the insoles, largely by machine. Then glue was placed on the insole and another employee added the heavy sole, again by machine. The shoes now moved down to the next floor where heels were nailed on by machine and where soles and heels were trimmed. Finally the shoes moved to the lower floor where they were washed, cleaned, and boxed. On this lower floor, machines also stamped out the soles. The company's offices were on the first floor facing Front Street.

In 1894, when the description of the manufacturing process was written, there were between three and four hundred employees in the factory, although the article notes that there was capacity for 600 people. In 1913 the company employed 1,131 people in its Brooklyn factory (871 men, 210 women, and 50 office workers). John Hanan also owned shoe companies in other cities and served as president of the National Boot and Shoe Manufacturers' Association. He

was also the founder of the United Shoe Machinery Corporation, which manufactured machines for use in shoe factories. After John Hanan's death, the firm was taken over by his sons Herbert Wilmer Hanan (1872-1933) and Addison Garthwaite Hanan (1876-1923) and grandson Robert Wilmer Hanan (1903-1933). The company went bankrupt in 1935. Old signs extant on the building in 2000 recorded some of the complex's later occupants: Starlite Lamp Shade Company, Fashion Decor Lamp Shade Company, Washington Garter Corporation, National Leather Manufacturing Company, Gotham Furniture Frame Company, Modern Box Company, Star Fastener Company, Embassy Archives Center, Melcon Design Company, Shaw Television Corporation, Deluxe Novelty Company (DLX Industries), and Latex Specialties.

The simple brick facade, articulated by large segmental openings, simple brick piers, and corbelled cornice, marks 54 Bridge Street as a significant example of transition from the American Round Arch style to the daylight factory. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1893, during a major period of development when manufacturers such as Hanan & Son were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Addison Garthwaite Hanan, *National Cyclopaedia of American Biography*, vol. 34 (New York: James T. White, 1948).

"Death of James Hanan," *Brooklyn Daily Eagle* 12 January 1897, 14.

"The Hanan Shoe Factory," *Brooklyn Daily Eagle* 18 March 1894.

"Hanan Shoes" [advertisement], 23 April 1894, 8.

"Herbert Wilmer Hanan," *National Cyclopaedia of American Biography*, vol. 24 (New York: James T. White, 1935).

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

"James Hanan" [obituary], *New York Times* 13 January 1897, 5.

John Henry Hanan, *National Cyclopaedia of American Biography*, vol. 19 (New York: James T. White, 1926).

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Retailing to Please Customers," *New York Times* 9 May 1888, 8.

Robert Wilmer Hanan, *National Cyclopaedia of American Biography*, vol. 24 (New York: James T. White, 1935).

"To Build a Large Factory," *Brooklyn Daily Eagle* 15 November 1892, 10.

FRONT STREET (NORTH SIDE) between Main Street and Washington Street

73-81 Front Street

See 45 Main Street

83-95 Front Street

See 40-58 Washington Street

FRONT STREET (SOUTH SIDE) between York Street and Washington Street

68-76 Front Street

See 60-72 Washington Street

FRONT STREET (NORTH SIDE) between Washington Street and Adams Street

97-119 Front Street

See 51-59 Washington Street

FRONT STREET (SOUTH SIDE) between Washington Street and Adams Street

100 Front Street (100-102 Front Street)

Borough of Brooklyn Tax Map Block 51, Lot 18

Date of construction: 1877

Architect: Carl Eisenach

Original owner: John G. Meyer

Type: Tenement

Style: transitional Italianate/Neo-Grec

Stories: 4

Structure/material: Brick; load-bearing construction

Features: Store on ground floor with apartments above; brick facade, four bays wide; segmental-arch windows with cast-iron lintels; stone beltcourse at sill level on second story; cast-iron sills supported by brackets on third and fourth stories; wood cornice with incised brackets, modillions, and paneled frieze; fire escape.

Significant alterations: Windows replaced; original storefront removed and replaced with stucco front.

History: This tenement and its twin at 104 Front Street are among the only residential buildings extant in the DUMBO Historic District. They were erected at the time when the old residential neighborhood, primarily comprising run-down wooden houses, was beginning its transformation into an industrial area.

The brick facade of 100 Front Street is ornamented with cast iron lintels and sills typical of the Italianate style, and its projecting wood cornice displays the incised details typical of the Neo-Grec style. Built in 1877, at the beginning of the neighborhood's transition into an industrial

neighborhood, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

Brooklyn Tax Assessments, Block 51 (1877).

National Register of Historic Places, Dumbo National Register Nomination, report prepared by Andrew S. Dolkart (2000).

104 Front Street (southwest corner Adams Street, 58-62 Adams Street)
Borough of Brooklyn Tax Map Block 51, Lot 19

Date of construction: 1877

Architect: Carl Eisenach

Original owner: John G. Meyer

Type: Tenement

Style: Transitional Italianate/Neo-Grec

Stories: 4

Structure/material: Brick; load-bearing construction

Features: Store on ground floor with apartments above; brick facade, four bays wide on Front Street; segmental-arch windows with cast-iron lintels; stone beltcourse at sill level on second story; cast-iron sills supported by brackets on third and fourth stories; wood cornice with incised brackets, modillions, and paneled frieze; Adams Street facade with five windows – one near corner and four to south; fire escape.

Significant alterations: Windows replaced; original storefront removed and replaced with stucco front.

History: This tenement and its twin at 100 Front Street are among the only residential buildings extant in the DUMBO Historic District. They were erected at the time when the old residential neighborhood, primarily comprising run-down wooden houses, was beginning its transformation into an industrial area. In 1936, the building was upgraded from a tenement to flats. As part of this alteration, hall toilets were removed and new toilets installed in the apartments. This work was planned by architect Irving Brooks for owner Angelo Mazzio (alt. 9996-36).

The brick facade of 104 Front Street is ornamented with cast iron lintels and sills typical of the Italianate style, and its projecting wood cornice displays the incised details typical of the Neo-Grec style. Built in 1877, at the beginning of the neighborhood's transition into an industrial neighborhood, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

Brooklyn Tax Assessments, Block 51 (1877).

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

FRONT STREET (NORTH SIDE) between Adams Street and Pearl Street

121-139 Front Street

See 59 Adams Street

FRONT STREET (NORTH SIDE) between Pearl Street and Jay Street

141-151 Front Street

See 69-79 Pearl Street

153-157 Front Street

Borough of Brooklyn Tax Map Block 40, Lot 1 (in part)

Date of construction: 1907

Architect: Edward N. Stone

Original owner: Jones Brothers

Type: Factory

Style: American Round Arch with Queen Anne Style Elements

Stories: 8

Structure/material: Brick; steel frame with terra-cotta tile floors.

Features: Built as a taller expansion of 69-79 Pearl Street and almost identical to 58-66 Jay Street; three bays, each bay with two segmental-arch windows; bays separated by brick piers; ornate iron tie rods; projecting denticulated brick lintels; sills; sill on second and fifth stories continue as beltcourses; recessed rectangular brick panels above windows on fifth story; accordion brick panels on piers above fourth story; similar panels on piers above seventh story capped by stone band; brick panels capped by stone band between seventh-story windows, aligned with accordion panels on piers; long vertical brick panel at eighth story on each pier; corbelled brickwork below seventh story; corbelled brick cornice; vehicular entrance on ground floor; iron shutter supports; brick bulkhead above third bay.

Significant alterations: Windows replaced; vehicular entrance converted into storefront; central bay on second story altered into large window, retaining lintels of two original windows.

History: The entire block bounded by Pearl Street, Jay Street, Water Street, and Front Street was built and occupied by the Grand Union Tea Company (also known as the Jones Brothers Tea Company). Construction occurred between 1896 and 1915. Frank S. and Cyrus D. Jones began buying property on the block in 1896; the family held the property until 1930 when the Jones's heirs sold it. The Jones brothers were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According

to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores, many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

Wizardry in business was never better exemplified in these modern times than in the case of Jones Bros. Tea Company, Inc., which in less than half a century, has grown from a "Two by Four" retail store with \$900 capital to a many-sided organization worth many millions of dollars, with more than 250 stores, close to 4,000 employees and doing a business of better than \$1,000,000 per month. In addition to this merchandising feat, the Jones Bros. organization manufactures the greater portion of the goods it sells.

Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily. Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm. After the sale of the Brooklyn plant, the large buildings housed many other manufacturers. Those identified include Advance Battery Company, Empire Spring Company, Paralax Scale Manufacturing Company, Triangle Steel Products, Triangle Mechanical Laboratories, American Automatic Venetian Blind Company, Goodman Products Corporation, United Mineral and Chemical Company, Automatic Range Company, and Titan Plastics.

The brick facade, articulated by segmental openings, projecting lintels and sills, ornate tie rods, accordion brick panels, corbelled brick work, and corbelled cornice, marks 153-157 Front Street as one of the more ornate examples of the American Round Arch style. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1907, during a major period of development when manufacturers such as the Grand Union Tea Company were making DUMBO into one of the city's most important industrial

neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

- "Cyrus D. Jones Dead," *New York Times* 30 September 1929, 21.
Industrial Directory of New York State (Albany: State Department of Labor, 1912, 1913).
"Frank S. Jones" [obituary], *New York Times* 14 May 1927, 19.
"Frank Smith Jones," *National Cyclopaedia of American Biography*, vol. 25 (New York: James T. White, 1936).
"Jones Bros. Tea Co. to Acquire Boston Chain of Stores," *Brooklyn Daily Eagle* 7 February 1923.
"Jones Bros. Tea Completes Deal With John T. Connor," *Boston Globe* 9 February 1923, 19.
"Jones Brothers – Business Wizards," *Earning Power* March 1917, 7-8.
"Jones Brothers Tea," *Wall Street Journal* 8 December 1916, 7.
"Jones Tea Control Passes to Group Led By Bankers," *Brooklyn Daily Eagle* 2 February 1928.
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159-163 Front Street

See 68-72 Jay Street

FRONT STREET (SOUTH SIDE) between Pearl Street and Jay Street

126 Front Street (southeast corner Pearl Street; 126-132 Front Street, 87 Pearl Street)
Borough of Brooklyn Tax Map Block 53, Lot 9

Date of construction: 1888/1906 (Alt. 8346-06)

Architect: Parfitt Brothers/Frank H. Quinby

Original owner: E. W. Bliss

Type: Factory

Style: Vernacular

Stories: 4/6

Structure/material: Brick; probably slow-burning mill construction

Features: Brick factory with four visible elevations, following odd shape of lot; Front Street elevation, nine bays wide; pedestrian entrance in second bay from left and another in ninth bay with bluestone stair; round-arch vehicular entrance in sixth and seventh bays from left; rectangular windows with flat stone lintels and projecting stone sills; cornice with corbelled courses and pattern created by recessed header bricks; iron tie rods; fire escape; windows in seventh through ninth bays on second floor with original 6x6 double-hung wood sash; three-bay wide, flat transitional section at corner along Pearl Street; main Pearl Street facade eleven bays;

tenth bay with arched loading dock opening; at left end of Pearl Street elevation between first and second stories, faint painted sign for Knickerbocker Feather Co.; east side with 13 bays of rectangular window openings on third through sixth stories, with flush stone lintels and projecting stone sills; iron shutter supports on east elevation; south elevation a brick wall.

Significant alterations: Most windows replaced; third bay on first story on Front Street converted into a door; Belgian block wall along Pearl Street; brick and concrete block bulkhead at southwest corner of building; four small rectangular windows cut into east wall on second story; some windows on east elevation filled in; two rectangular windows cut into south wall on sixth story.

History: This building probably includes part of a factory erected by E. W. Bliss in 1888 and designed by the noted Brooklyn architectural firm Parfitt Brothers. Bliss was a major manufacturer in the DUMBO area (see 135 Plymouth Street). The block was cut in half diagonally in the early twentieth century when the Manhattan Bridge was constructed. In 1906, architect Frank H. Quinby was commissioned by Bliss to undertake a substantial alteration for what was and would continue to be a building for pattern storage. The alteration application (Alt 8346-06) notes a five story building on the site that is to receive a one-story addition as well as the addition of a six-story extension. The application notes at “76’ of wall facing Pearl Street and 36’7” of rear wall to be cut off by city for new bridge approach. The side wall to be rebuilt on new building line.” In 1924, the building was owned and occupied by the Knickerbocker Feather Company.

The austere brick facade, articulated primarily by its rhythmic openings and simple stone lintels and sill, marks 126 Front Street as an example of the vernacular factory building erected during DUMBO’s growth as an industrial neighborhood. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1888, during a major period of development when manufacturers such as E. W. Bliss were making DUMBO into one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

References:

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FRONT STREET (NORTH SIDE) between Jay Street and Bridge Street

195-203 Front Street

See 208 Water Street

205-215 Front Street

See 54 Bridge Street

JAY STREET (WEST SIDE) between East River and John Street

10 Jay Street (northwest corner John Street and northeast corner Pearl Street; 10-18 Jay Street, 21-41 John Street, 17 Pearl Street)
Borough of Brooklyn Tax Map Block 1, Lot 1

Date of construction: 1897-98 (NB 501-97)

Architect: George M. Newhall Engineering Co.

Original owner: Arbuckle Brothers

Type: Factory (sugar refinery)

Style: Altered American Round Arch

Stories: 9 and 10

Structure/material: Steel frame; brick curtain wall (later stuccoed); brick floor arches on first floor; tile arches on upper floors.

Features: Ten stories along Jay Street, with nine-story section at western four bays of building; Crisp arrangement of single and paired, segmental-arch windows; six pairs of windows on Jay Street; twelve pairs and a single window on John Street; six pairs of windows on western elevation; pairs separated by projecting piers at first through fourth stories on both street elevations and on western elevation; large loading docks on ground floor along Jay and John Streets; two segmental arches at north end of first story on Jay Street; five large vehicular entrances on western elevation; third and eleventh bays on Pearl Street with paired windows set beneath single segmental arches; brick corbelling; north elevation, facing river, appears to have originally been blank with projecting piers.

Significant alterations: Facade covered with cementitious material; windows replaced; loading docks on John Street filled in; entrance cut into second bay on Jay Street, metal awning added; pair of windows in third bay on Jay Street filled in; eight bays of rectangular windows cut into north elevation; new column of windows on John Street added; bridge connecting building with 20 Jay Street removed.

History: This building was erected on landfill by Arbuckle Brothers, a key figure in the marketing of coffee in America during the nineteenth century and, eventually also a sugar refiner. This was not the first industrial building on the block. In the 1880s, Arbuckle was already active on the block, and there was also a hardware factory, a coal yard, a dye works, and a fur hatter in other buildings. John Arbuckle (1838-1912) was born in Allegheny City, Pennsylvania. He and his brother Charles (d. 1881) began roasting coffee in Pennsylvania in the 1850s, before moving their business to New York in 1871 and to Brooklyn in 1881. In 1888, several years after moving his business to Brooklyn, Arbuckle had prominent Brooklyn architect Montrose Morris design a large Romanesque Revival style house at 315 Clinton Avenue, now in the Clinton Hill Historic District. The major invention of the Arbuckle firm was a machine that efficiently packed roasted and ground coffee – filling, weighing, sealing, and labeling the packages so that they could be efficiently shipped throughout the world and sold in small packages to consumers. The coffee was marketed under the name “Ariosa” or “Arbuckle Ariosa.” Arbuckle was the largest coffee roasting and shipping firm in North America and his

dominance led to control over the world price of coffee beans. The Arbuckle firm also owned most of the ships that transported coffee from Latin America to the United States. In 1884, L. P. Brockett, writing in Henry Stiles's *History of Kings County*, described the Arbuckle business:

They have always dealt in coffees, teas and spices; but, in 1883, they added a general wholesale groceries department. They employ 500 hands, 48 roasting cylinders in operation each day, and 32 all night, each cylinder of copper, with 300 lbs. capacity, and taking 35 minutes to roast; 2,500 sacks of coffee, of 130 lbs. each are roasted, and 12 car-loads of ground goods shipped per day.

The Arbuckle firm was a master at advertising – using large-scale newspaper ads and pioneering in offering collectable trade cards that would induce consumers to continue buying the product. All of Arbuckle's production took place in DUMBO, including roasting and packaging the coffee, and printing the packages and many of the collectable cards. The firm occupied many buildings in DUMBO (some have been torn down), as well as the Empire Stores in the Fulton Ferry Historic District.

Arbuckle was determined to expand his business into sugar, using the same packaging techniques he had perfected for coffee. He purchased his coffee from the Havemeyer family's refinery in Williamsburg, Brooklyn. Since he purchased large amounts of sugar in bulk, Arbuckle requested a discounted price from Havemeyer. However, despite extensive sales, Henry O. Havemeyer considered Arbuckle to be a threat and refused to grant a discount. As a result, in 1896, Arbuckle announced that he would build his own sugar refinery. The refinery was built in 1897 on the corner of Jay and John Streets. The refinery was planned for the production of 3,000 barrels of sugar per day, much of which would be packaged into two-pound paper bags. In response to Arbuckle's announcement that he would build a sugar refinery, Havemeyer's American Sugar Refining Company bought the Woolson Spice Company of Toledo, Ohio, a major coffee roasting business. Thus began what became known as the "sugar and coffee war." The war lasted for years and resulted in depressed prices for both commodities. Eventually a truce was reached whereby Arbuckle limited his sugar production. Despite limiting production, in 1913, Arbuckle's sugar business employed 668 people (470 men and 36 women in the refinery, and 162 office workers; in contrast, the Havemeyer's American Sugar Refining Company employed 2,218 in 1913). In that year, Arbuckle's coffee roasting business employed 100 people – 68 men, thirty women, and two office workers. Late in his career, Arbuckle's business dealings were investigated by the United States Treasury Department, which accused him of customs fraud. Although he denied the charges, in 1909 he paid the Treasury \$695,573. In 1913, Arbuckle founded the Charles William Stores, a general mail order merchandiser. He was careful not to have his name associated with this business, which occupied many buildings in the Gair complex (see 22-24 Washington Street). Besides his factory buildings in DUMBO and his house in Clinton Hill, Arbuckle was also responsible for the construction of the Arbuckle Memorial, a major addition to Plymouth Church in the Brooklyn Heights Historic District, erected with funds provided in his will. In 1945, the sugar refinery became a warehouse.

The simple brick facade, articulated primarily by its segmental openings, marks 10 Jay Street as an example of the American Round Arch style. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1897-98, during a

major period of development when manufacturers such as the Arbuckle Brothers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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"To Fight the Trust," *Brooklyn Daily Eagle* 3 December 1896, 14.

JAY STREET (EAST SIDE) between John Street and Plymouth Street

19 Jay Street (southeast corner John Street; 19-27 Jay Street and 46-58 John Street)
Borough of Brooklyn Tax Map Block 20, Lot 6

Date of construction: 1892 (NB 1953-92)

Architect: Flemer & Koehler

Original owner: Joseph Le Comte

Type: Factory

Style: Romanesque Revival

Stories: 5

Structure/material: brick with stone trim

Features: Brick street facades; curved corner; stone trim as beltcourses at base and above first story, as lintels on rectangular windows, and as sills; Jay Street facade slightly asymmetrical with (from left to right) two single windows, four wide triple windows, and a single window; John Street facade (from left to right) with two single windows, seven triple windows, and two single windows; openings on first, third, and fifth stories with segmental arches; flat arches on two and four.

Significant alterations: Facade painted; windows replaced; cornice removed; some window openings bricked in or covered.

History: History: The history of this building remains somewhat ambiguous. It is likely that this was originally a three-story structure erected by Joseph Le Comte whose Joseph Le Comte Manufacturing Company was incorporated a year later. The Le Comte Company manufactured plate, tin ware, sheet iron, metal, and stamped ware. In 1895, it was still in use by the Le Comte Company, since in that year architect Albert Ulrich added an elevator shaft and new street entrance to the building for that firm (Alt. 40-95). In 1897, the site was sold to John Arbuckle and others involved with the Arbuckle coffee and sugar business. This sale may have been a result of the fact that Joseph Le Comte died at his home at 276 Decatur Street in Bedford-Stuyvesant in June of that year. Either Arbuckle erected an entirely new structure on the site (for which no records have been located) or planned an addition of two stories. Arbuckle was a key figure in the history of coffee in America during the nineteenth century and eventually also a sugar refiner. John Arbuckle (1838-1912) was born in Allegheny City, Pennsylvania. He and his brother Charles (d. 1881) began roasting coffee in Pennsylvania in the 1850s, before moving their business to New York in 1871 and to Brooklyn in 1881. In 1888, several years after moving his business to Brooklyn, Arbuckle had prominent Brooklyn architect Montrose Morris design a large Romanesque Revival style house at 315 Clinton Avenue, now in the Clinton Hill Historic District. The major invention of the Arbuckle firm was a machine that efficiently packed roasted and ground coffee – filling, weighing, sealing, and labeling the packages so that they could be efficiently shipped throughout the world and sold in small packages to consumers. The coffee was marketed under the name “Ariosa” or “Arbuckle Ariosa.” Arbuckle was the largest coffee roasting and shipping firm in North America and his dominance led to control over the world price of coffee beans. The Arbuckle firm also owned most of the ships that transported coffee from Latin America to the United States. In 1884, L. P. Brockett, writing in Henry Stiles’s *History of Kings County*, described the Arbuckle business:

They have always dealt in coffees, teas and spices; but, in 1883, they added a general wholesale groceries department. They employ 500 hands, 48 roasting cylinders in operation each day, and 32 all night, each cylinder of copper, with 300 lbs. capacity, and taking 35 minutes to roast; 2,500 sacks of coffee, of 130 lbs. each are roasted, and 12 car-loads of ground goods shipped per day.

The Arbuckle firm was a master at advertising – using large-scale newspaper ads and pioneering in offering collectable trade cards that would induce consumers to continue buying the product. All of Arbuckle’s production took place in DUMBO, including roasting and packaging the coffee, and printing the packages and many of the collectable cards. The firm occupied many buildings in DUMBO (some have been torn down), as well as the Empire Stores in the Fulton Ferry Historic District.

Arbuckle was determined to expand his business into sugar, using the same packaging techniques he had perfected for coffee. He purchased his coffee from the Havemeyer family’s refinery in Williamsburg, Brooklyn. Since he purchased large amounts of sugar in bulk, Arbuckle requested a discounted price from Havemeyer. However, despite extensive sales, Henry O. Havemeyer considered Arbuckle to be a threat. As a result, in 1896, Arbuckle

announced that he would build his own sugar refinery. The refinery was built in 1897 on the corner of Jay and John Streets. The refinery was planned for the production of 3,000 barrels of sugar per day, much of which would be packaged into two-pound paper bags. In response to Arbuckle's announcement that he would build a sugar refinery, Havemeyer's American Sugar Refining Company bought the Woolson Spice Company of Toledo, Ohio, a major coffee roasting business. Thus began what became known as the "sugar and coffee war." The war lasted for years and resulted in depressed prices for both commodities. Eventually a truce was reached whereby Arbuckle limited his sugar production. Despite limiting production, in 1913, Arbuckle's sugar business employed 668 people (470 men and 36 women in the refinery, and 162 office workers; in contrast, the Havemeyer's American Sugar Refining Company employed 2,218 in 1913). In that year, Arbuckle's coffee roasting business employed 100 people – 68 men, thirty women, and two office workers. Late in his career, Arbuckle's business dealings were investigated by the United States Treasury Department, which accused him of customs fraud. Although he denied the charges, in 1909 he paid the Treasury \$695,573. In 1913, Arbuckle founded the Charles William Stores, a general mail order merchandiser. He was careful not to have his name associated with this business, which occupied many buildings in the Gair complex (see 22-24 Washington Street). Besides his factory buildings in DUMBO and his house in Clinton Hill, Arbuckle was also responsible for the construction of the Arbuckle Memorial, a major addition to Plymouth Church in the Brooklyn Heights Historic District, erected with funds provided in his will. In 1945, the sugar refinery became a warehouse.

Arbuckle Brothers began purchasing property on the western end of block 20 in 1884 and eventually owned the entire Jay Street frontage. The building was probably erected after a fire destroyed the Columbia Chemical Works in 1891. According to a 1904 Sanborn atlas, the first story was used by Arbuckle's printing department, the second story as a machine shop and for the sheet metal department, and the upper floors housed the "premium department," probably a reference to the cards given out as premiums with each purchase. In 1912, 25 Jay Street is provided as the address of the Smyser Machine Works, employing 100 people.

The simple brick facade, articulated by segmental openings, marks 19 Jay Street as an example of the Romanesque Revival style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1892, during a major period of development when manufacturers such as the Arbuckle Brothers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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"Arbuckle's New Refinery," *Brooklyn Daily Eagle*, 14 July 1898, 2.

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“Sugar and Coffee War,” *New York Times* 19 December 1896, 10.

“To Fight the Trust,” *Brooklyn Daily Eagle* 3 December 1896, 14.

33 Jay Street (northeast corner Plymouth Street; 29-37 Jay Street and 167-181 Plymouth Street)
Borough of Brooklyn Tax Map Block 20 Lot 1 (in part)

Date of construction: 1975-77 (NB 169-75)

Architect: unknown

Original owner: unknown

Type: Warehouse

Style: None

Stories: 1 and 2

Structure/material: Brick walls

Features: unarticulated brick facade; ribbon band of metal, multi-pane, fixed and pivot windows beneath roofline; vehicular entrances at north end of Jay Street facade and east end of Plymouth Street facade; small pedestrian entrance on south end of Jay Street facade and in center of Plymouth Street facade.

History: This site was purchased by Arbuckle Brothers in the 1880s.

JAY STREET (WEST SIDE) between John Street and Plymouth Street

20 Jay Street (20-40 Jay Street, 145-165 Plymouth Street, 19-37 Pearl Street, 22-44 John Street)
Borough of Brooklyn Tax Map Block 19, Lot 1

Date of construction: 1909 (NB 8472-09)

Architect: William Higginson

Original owner: Arbuckle Brothers
Type: Warehouse
Style: Industrial Neo-Classical
Stories: 11
Structure/material: reinforced concrete

Features: Building occupies entire block and has four street fronts; nine bays on Jay and Pearl Street elevations and twelve bays on John and Plymouth Street elevations, all with similar detail; smooth concrete walls; loading docks on first story; three-story base capped by massive projecting cornice; cornice above eight; heavier cornice above nine; tapered, paneled piers on nine visually supported by corbel block below eighth-story cornice; deep cornice with paneled blocks at roofline; on Jay Street, projecting entrance pavilion between third and fourth bays with Doric pilasters dividing into a door, a blind panel, and a window; on Jay and Pearl Streets, bays one, two, four, five, seven, and nine, from second floor up, with rectangular openings, each with three windows with individual windows separated by narrow concrete pier; windows in these and other similar openings around building, double-hung, 3x3, metal, horizontal pivots with vertical mullions; keystones above windows of two end bays from fourth through ninth stories on Jay and Pearl Streets and from third through tenth stories on Plymouth and John Streets; from third floor to top, bays three and six with four vertical pivot windows, each with four lights, set above metal panels, all arranged in a pattern of 1-2-1; on second story of third and sixth bays, triple windows as seen elsewhere; on Jay and Pearl Streets, between bays three and seven, and on John and Plymouth Streets, between bays four and nine, windows with paneled spandrels and projecting lintels; paneled pilasters articulate fourth through eighth stories; two end bays on Plymouth and John Streets with two 3x3 windows and center openings with three windows, each separated by concrete piers; keystones at end windows as on Jay and Pearl Streets; sixth bay on first story along Plymouth Street is three windows; small metal ventilators between floors on John and Plymouth Streets.

Significant alterations: Some loading docks filled in or converted into store fronts; bays four and five on Jay Street entirely filled in and capped with bulkhead on roof; new entrance with enframingent created between bays three and four on Jay Street; new garage entrance on Jay Street; some windows replaced—at time of designation a building-wide window replacement underway; two large vehicular entrances created at east end along John Street; some windows along John Street filled in; bridge connecting building with 10 Jay Street removed; new access ramps; new mechanical equipment on roof; new signage and lighting; new billboards on roof.

History: This building was erected on landfill by Arbuckle Brothers, a key figure in the marketing of coffee in America during the nineteenth century and eventually also a sugar refiner. This was not the first industrial building on the block. In the 1880s, Arbuckle was already active on the block, and there was also a hardware factory, a coal yard, a dye works, and a fur hatter in other buildings. John Arbuckle (1838-1912) was born in Allegheny City, Pennsylvania. He and his brother Charles (d. 1881) began roasting coffee in Pennsylvania in the 1850s, before moving their business to New York in 1871 and to Brooklyn in 1881. In 1888, several years after moving his business to Brooklyn, Arbuckle had prominent Brooklyn architect Montrose Morris design a large Romanesque Revival style house at 315 Clinton Avenue, now in the Clinton Hill Historic District. The major invention of the Arbuckle firm was a machine that efficiently

packed roasted and ground coffee – filling, weighing, sealing, and labeling the packages so that they could be efficiently shipped throughout the world and sold in small packages to consumers. The coffee was marketed under the name “Ariosa” or “Arbuckle Ariosa.” Arbuckle was the largest coffee roasting and shipping firm in North America and his dominance led to control over the world price of coffee beans. The Arbuckle firm also owned most of the ships that transported coffee from Latin America to the United States. In 1884, L. P. Brockett, writing in Henry Stiles’s *History of Kings County*, described the Arbuckle business:

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The Arbuckle firm was a master at advertising – using large-scale newspaper ads and pioneering in offering collectable trade cards that would induce consumers to continue buying the product. All of Arbuckle’s production took place in DUMBO, including roasting and packaging the coffee, and printing the packages and many of the collectable cards. The firm occupied many buildings in DUMBO (some have been torn down), as well as the Empire Stores in the Fulton Ferry Historic District.

Arbuckle was determined to expand his business into sugar, using the same packaging techniques he had perfected for coffee. He purchased his coffee from the Havemeyer family’s refinery in Williamsburg, Brooklyn. Since he purchased large amounts of sugar in bulk, Arbuckle requested a discounted price from Havemeyer. However, despite extensive sales, Henry O. Havemeyer considered Arbuckle to be a threat. As a result, in 1896, Arbuckle announced that he would build his own sugar refinery. The refinery was built in 1897 on the corner of Jay and John Streets. The refinery was planned for the production of 3,000 barrels of sugar per day, much of which would be packaged into two-pound paper bags. In response to Arbuckle’s announcement that he would build a sugar refinery, Havemeyer’s American Sugar Refining Company bought the Woolson Spice Company of Toledo, Ohio, a major coffee roasting business. Thus began what became known as the “sugar and coffee war.” The war lasted for years and resulted in depressed prices for both commodities. Eventually a truce was reached whereby Arbuckle limited his sugar production. Despite limiting production, in 1913, Arbuckle’s sugar business employed 668 people (470 men and 36 women in the refinery, and 162 office workers; in contrast, the Havemeyer’s American Sugar Refining Company employed 2,218 in 1913). In that year, Arbuckle’s coffee roasting business employed 100 people – 68 men, thirty women, and two office workers. Late in his career, Arbuckle’s business dealings were investigated by the United States Treasury Department, which accused him of customs fraud. Although he denied the charges, in 1909 he paid the Treasury \$695,573. In 1913, Arbuckle founded the Charles William Stores, a general mail order merchandiser. He was careful not to have his name associated with this business, which occupied many buildings in the Gair complex (see 22-24 Washington Street). Besides his factory buildings in DUMBO and his house in Clinton Hill, Arbuckle was also responsible for the construction of the Arbuckle Memorial, a major addition to Plymouth Church in the Brooklyn Heights Historic District, erected with funds provided in his will. In 1945, the sugar refinery became a warehouse.

Block 19, close to the waterfront, was one of the earliest in DUMBO redeveloped with industry. In 1887, industrial firms on the block were Campbell & Thayer, a linseed oil manufacturer; Smith Brothers Boiler Works; De Brun Kindling Wood Factory; Empire Vinegar Works; and a cooperage. In 1897, John Arbuckle began to purchase property on the block and he owned the entire block by 1906. Although Arbuckle cleared the block, he only constructed a one-story building, used for iron storage, syrup storage, and bag drying, on a portion of the block. In 1908, Arbuckle applied for a permit to build a ten story warehouse on the block (NB 2886-08), but this application appears to have been superseded by another permit application in 1909 (NB 8472-09) in 1909-11, Arbuckle erected this monumental reinforced-concrete warehouse and freight station with offices on the top floor. In the construction of this concrete building, Arbuckle was undoubtedly inspired by his friend Robert Gair, who had already erected several concrete warehouse and factory structures are nearby blocks. After Arbuckle's death, the building was used by other companies. A minor 1945 alteration (Alt. 3142-45) by William Higginson's son, Clarence Higginson, indicates that at least a portion of the structure was a bonded liquor warehouse; the following year, a permit was issued to Kinsey Distilling Company of Philadelphia for use as a bonded whiskey warehouse. By 1948, the building was owned by the Metropolitan Life Insurance Company which leased it in that year to A&S, Brooklyn's leading department store. A&S had its major warehouse facility in the building for several decades. At some point in the 1950s or 1960s, the real estate firm of Cushman & Wakefield published an advertising brochure for the rental of the ninth and tenth floors of what it called the "Abraham & Straus Industrial Building," noting that the structure was suitable for "warehousing and manufacturing." Among the amenities marketed were 100% sprinklered, 200 pounds per square inch floor load; excellent light; 12'10" ceilings; one passenger elevator; two freight elevators of 8,000 pound capacity; one freight elevator of 10,000 pound capacity; and two interior rail sidings.

The austere concrete facade, articulated by large window openings, vertical piers, projecting cornice, and abstracted, classically-inspired detail, marks 20 Jay Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1909, during a major period of development when manufacturers such as the Arbuckle Brothers were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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“To Fight the Trust,” *Brooklyn Daily Eagle* 3 December 1896, 14.

JAY STREET (EAST SIDE) between Plymouth Street and Water Street

39 Jay Street (southeast corner Plymouth Street and northeast corner Water Street; 39-53 Jay Street, 176-186 Plymouth Street, 189-199 Water Street)

Borough of Brooklyn Tax Map Block 31, Lot 1

Date of construction: 1913 (NB 3592-13)

Architect: Frank H. Quinby

Original owner: E. W. Bliss

Type: Factory

Style: Daylight Factory

Stories: 3

Structure/material: Brick; fireproof steel construction

Features: Jay Street: Ten bay facade; bays one through seven on first story bays with large rectangular openings; eighth, ninth, and tenth bays with loading docks; long rectangular windows on second story and large windows on third story; concrete lintels and sills; lintels very tall on third story; original, multi-pane metal windows on second and third stories; projecting steel beams above second bay on first story; corbelled brick parapet with terra-cotta coping. Plymouth Street: Ten bays; two bays to east are wide and others narrow separated by brick piers; first bay to east with vehicular entrance on first story, second bay to east with smaller pedestrian entrance, pairs of rectangular windows with concrete sills on second story, and long horizontal rectangular window with concrete lintel and sill on third story; second bay with pedestrian entrance set within larger bay with concrete lintel on first story; raised corbelled parapet and terra-cotta coping above these bays; eight additional bays with tall rectangular windows on first and third stories and smaller rectangular windows on second story; concrete lintels and sills; original, small-pane, metal windows on second and third stories; raised corbelled parapet and terra-cotta coping. Water Street: Ten bays massed in same manner as Plymouth Street with eight narrow and two wide bays; wide bays with large openings on first story, (pair of pedestrian entrances in bay nine), rectangular strip openings on second story, and larger rectangular openings on third story; corbelled parapet, raised in two locations, with terra-cotta coping; party wall to east with nine rectangular windows on third story with metal sash.

Significant alterations: Second story windows on Water Street and three southern bays on Jay Street replaced with aluminum double hung windows; second and sixth bays on ground floor on Jay Street bricked up; window in fifth bay on third floor removed and boarded up on Jay Street; vents cut through windows in third and fifth bays on second floor and in window in sixth bay on third floor on Jay Street; fourth bay on first story on Water Street bricked in; pedestrian entrance in seventh bay on Water Street with aluminum surround; pair of pedestrian entrances cut into ninth bay on Water Street and subsequently filled in; first-story windows infilled with glass block; window in seventh bay (from corner) on second floor of Plymouth Street removed and sealed with metal panels; steel roll-down gate in vehicular entrance on Plymouth Street; pedestrian entrance on Plymouth Street replaced with steel door and frame; vents cut through windows in first and third bays (from corner) on third floor on Plymouth Street.

History: This building was erected as a machine and erecting shop for the E. W. Bliss Company and replaces an earlier Bliss foundry on the site. The building was probably originally two stories and was expanded to three stories in 1930 for the Pittsburgh Plate Glass Company (Alt. 11055-30). Eliphalet W. Bliss (1836-1903) was born in Fly Creek, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of "The Manufacturing Industries of Brooklyn and Kings County" section of Henry L. Stiles's history of Brooklyn, wrote that Bliss "has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet iron, brass or copper, in all the required forms for household and manufacturing use." At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery, cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

The main Bliss manufacturing building in DUMBO occupies the street bounded by Plymouth, John, Adams, and Pearl Streets. At its height in the early years of the twentieth century, Bliss also occupied most of the western half of block 31.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl's Head Park. Following Bliss's death in 1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an interest in the property and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. A painted sign on Adams Street at the corner of Plymouth Street, records the presence of the Waring Envelope Company in the building.

In 1930, this building was sold to the Pittsburgh Plate Glass Company. Later in the twentieth century, it was home to the metal stamping firm of Ben Forman & Sons.

The simple brick facade, articulated primarily by its large window openings and concrete lintels and sills, marks 39 Jay Street as an example of the daylight factory. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1913, during a major period of development when manufacturers such as E. W. Bliss were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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"Eliphalet W. Bliss," *Dictionary of American Biography*, vol. 1 (1927), 371-72.

"Eliphalet W. Bliss," *National Cyclopaedia of American Biography*, vol. 15 (New York: James T. White, 1916), 20-21.

"James Warren Lane," *National Cyclopaedia of American Biography*, vol 22 (1932), 219-20.

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New York City Department of Buildings, Certificate of Occupancy, 1931.

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 92 (5 July 1913): 64.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 21.

JAY STREET (WEST SIDE) between Plymouth Street and Water Street

42-44 Jay Street (southwest corner Plymouth Street; 164-174 Plymouth Street)
Borough of Brooklyn Tax Map Block 30, Lot 12 (in part)

Date of construction: 1919-21

Architect: unknown

Original owner: John W. Masury & Son

Type: Factory

Style: Daylight Factory with Arts and Crafts Style Elements

Stories: 7 and basement

Structure/material: Reinforced concrete

Features: Two bays on Jay Street and six bays on Plymouth Street; large almost square openings on first story; rectangular basement windows along Plymouth Street; large rectangular openings on second through sixth stories; seventh story with each bay articulated by four rectangular windows separated by concrete piers; raised beltcourses with horizontal incised ornament above second and sixth stories; raised parapet with incised rectangular panels and shield-like forms; western wall unfenestrated concrete with raised horizontal bands.

Significant alterations: Multi-pane metal windows with pivot sash replaced; panels below horizontal strip windows on first story stuccoed over; loading docks on Jay Street removed and some ground floor openings seem to be partially filled in; new entrance stair on Jay Street; railing on roof.

History: Most of the block bounded by Pearl, Jay, Plymouth, and Water Streets is associated with the Masury Paint Works, one of the most important paint manufacturing companies in the United States in the late nineteenth and early twentieth centuries. John W. Masury and the firm of John W. Masury & Son assembled property on this block between 1879 and 1894. Born in Salem, Massachusetts, John Wesley Masury (1820-1895) was one of many young New Englanders who migrated to the New York City area in the pre-Civil War period as the economy of New York grew rapidly. Masury settled in Brooklyn in 1842 and worked as a clerk in the paint store of John D. Prince. Following Masury's suggestion, Prince began manufacturing ground dry colors. Masury soon became a partner in the firm of John D. Prince & Company. Eventually he became sole proprietor of what became the John W. Masury Company and, after 1871, John W. Masury & Son (his son-in-law F. L. Miller became a partner). Masury's greatest invention was a metal paint can that would securely hold the paint, but which had a thin lid that could easily be opened. His patents of 1857 and 1859 permitted Masury to market ready-made paints. Since Masury had a monopoly on the paint can invention for twenty-one years, the firm grew very rapidly. Masury also patented various methods of grinding colors. The firm manufactured a wide variety of different paint and varnish products. A trade catalogue from c. 1915 reports that "The Masury Line is a complete one, including high grade products for the painting trades, specialties for manufacturing concerns, as well as sundries for household and other purposes."

The Masury firm advertised its products extensively, in trade catalogues and advertisements. An advertisement from September 1901, for example, states that John W. Masury & Son of

Brooklyn “manufacturers Japan colors for coach works, house painters’ colors, ready mixed paints, carriage and architectural varnishes,” and also noted that the firm’s factory occupied over an acre of ground and “gives employment steadily to 220 hands.” In 1913, the paint works employed 249 people – 146 men and sixty women – in its factory buildings on this block and on Block 20. A 1911 advertisement describes the factory complex:

The great factories of Masury & Son, on Jay Street, occupy the major portion of a city block. On the first floor is the shipping room, holding thousands of cans of paint to be sent to all parts of the world. Outside, lines of wagons and auto trucks await. Another floor is devoted to the grinding department, where the mills of the paint gods grind slowly but exceedingly fine the earth-coloring, chemical colors and pigments. It is due to the repeated grinding of colors for automobile and coach paint and the care of its preparation that after the many coats are applied the fine, satin gloss appears.

John Masury died in 1895 and was succeeded as head of the firm by John Dohse (1857-1902) who entered Masury’s employ in 1880. In 1906, John Masury’s twenty-five year old son, John W. Masury, Jr. (1881-1931), became president – he was said to have been the youngest corporate head of an important American company. The younger Masury expanded the company’s marketing nationally, opening plants in Chicago, Kansas, and Minneapolis, and eventually began sales in Europe, Japan, and Australia as well. The concrete building erected by the Masury firm in 1919-21 replaced a one-story brick shed erected by the company in 1891 (NB 1907-91). The 1919 building included facilities for the manufacture of flat white paints and enamels, a chemical laboratory, a floor for making sample cards, and, on the top floor, executive offices. In 1942, the Masury Company left Brooklyn, transferring its manufacturing to Baltimore. The Brooklyn Varnish Manufacturing Company purchased the property and occupied the site for many years.

The simple concrete facade, articulated primarily by its large window openings and decorative incised Arts and Crafts style cornice, marks 42-44 Jay Street as an example of the daylight factory. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1919-21, during a major period of development when manufacturers such as John W. Masury & Son were enhancing DUMBO’s status as one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

References:

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“John W. Masury,” *National Cyclopaedia of American Biography*, vol. 5 (New York: James T. White, 1907), 155-56.

“John W. Masury & Son” [advertisement], *New York Times* 18 September 1901, JS27.

“John W. Masury & Son” [advertisement], *Brooklyn Daily Eagle* 20 May 1911.

“John W. Masury Dies Suddenly,” *New York Times* 17 August 1931, 15.

“John Wesley Masury,” *Dictionary of American Biography*, vol 6 (New York: Charles Scribner’s Sons, 1933), 384-385.

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“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 48 (17 October 1891): 491.

“Wonders of Brooklyn: John W. Masury & Son (Makers of Paint),” *Brooklyn Daily Eagle*, 23 October 1920.

46-50 Jay Street

Borough of Brooklyn Tax Map Block 30, Lot 12 (in part)

Date of construction: 1891 (NB 1300-91 and 1306-91)

Architect: P. Faust

Original owner: John W. Masury & Son

Type: Storehouse

Style: American Round Arch

Stories: 5

Structure/material: Brick; slow-burning mill construction

Features: Five bays divided by brick piers; pairs of segmental-arch windows in each bay; raised denticulated brick lintels; projecting stone sills; recessed corbelled brick spandrel panels between second and third stories; central round-arch entrance with denticulated surround; sunken basement with segmental-arch openings; corbelled brick above fifth story in each bay; pressed-metal bracketed cornice; unfenestrated brick south wall.

Significant alterations: Windows replaced; recessed entry created in arch; three basement windows to north of entrance filled in and one converted to a door; modern areaway railing; cornice may be modern.

History: Most of the block bounded by Pearl, Jay, Plymouth, and Water Streets is associated with the Masury Paint Works, one of the most important paint manufacturing companies in the United States in the late nineteenth and early twentieth centuries. John W. Masury and the firm of John W. Masury & Son assembled property on this block between 1879 and 1894. Born in Salem, Massachusetts, John Wesley Masury (1820-1895) was one of many young New Englanders who migrated to the New York City area in the pre-Civil War period as the economy of New York grew rapidly. Masury settled in Brooklyn in 1842 and worked as a clerk in the paint store of John D. Prince. Following Masury’s suggestion, Prince began manufacturing ground dry colors. Masury soon became a partner in the firm of John D. Prince & Company. Eventually he became sole proprietor of what became the John W. Masury Company and, after 1871, John W. Masury & Son (his son-in-law F. L. Miller became a partner). Masury’s greatest invention was a metal paint can that would securely hold the paint, but which had a thin lid that could easily be opened. His patents of 1857 and 1859 permitted Masury to market ready-made paints. Since Masury had a monopoly on the paint can invention for twenty-one years, the firm grew very rapidly. Masury also patented various methods of grinding colors. The firm manufactured a wide variety of

different paint and varnish products. A trade catalogue from c. 1915 reports that “The Masury Line is a complete one, including high grade products for the painting trades, specialties for manufacturing concerns, as well as sundries for household and other purposes.”

The Masury firm advertised its products extensively, in trade catalogues and advertisements. An advertisement from September 1901, for example, states that John W. Masury & Son of Brooklyn “manufacturers Japan colors for coach works, house painters’ colors, ready mixed paints, carriage and architectural varnishes,” and also noted that the firm’s factory occupied over an acre of ground and “gives employment steadily to 220 hands.” In 1913, the paint works employed 249 people – 146 men and sixty women – in its factory buildings on this block and on Block 20. A 1911 advertisement describes the factory complex:

The great factories of Masury & Son, on Jay Street, occupy the major portion of a city block. On the first floor is the shipping room, holding thousands of cans of paint to be sent to all parts of the world. Outside, lines of wagons and auto trucks await. Another floor is devoted to the grinding department, where the mills of the paint gods grind slowly but exceedingly fine the earth-coloring, chemical colors and pigments. It is due to the repeated grinding of colors for automobile and coach paint and the care of its preparation that after the many coats are applied the fine, satin gloss appears.

John Masury died in 1895 and was succeeded as head of the firm by John Dohse (1857-1902) who entered Masury’s employ in 1880. In 1906, John Masury’s twenty-five year old son, John W. Masury, Jr. (1881-1931), became president – he was said to have been the youngest corporate head of an important American company. The younger Masury expanded the company’s marketing nationally, opening plants in Chicago, Kansas, and Minneapolis, and eventually began sales in Europe, Japan, and Australia as well. In 1942, the Masury Company left Brooklyn, transferring its manufacturing to Baltimore. The Brooklyn Varnish Manufacturing Company purchased the property and occupied the site for many years.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, and projecting cornice, marks 46-50 Jay Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1891, during a major period of development when manufacturers such as John W. Masury & Son were making DUMBO into one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

References:

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“John W. Masury & Son” [advertisement], *New York Times* 18 September 1901, JS27.

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“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 48 (11 July 1891): 67 and 48 (18 July 1891): 99.

“Wonders of Brooklyn: John W. Masury & Son (Makers of Paint),” *Brooklyn Daily Eagle*, 23 October 1920.

52 Jay Street

Borough of Brooklyn Tax Map Block 30, Lot 19

Date of construction: early twentieth century

Architect: unknown

Original owner: unknown

Type: Commercial

Style: Neo-Renaissance with Arts and Crafts Style Elements

Stories: 2

Structure/material: Brick

Features: Four bays wide; second story facade faced with brick laid in Flemish bond; four bays wide; facade divided into two groups of two windows, each with paired lintel and sill and capped by projecting denticulated cornice supported by console brackets; vertical, stone, incised panel with central diamond between windows of each pair; beltcourse above second story supporting brick parapet with central segmental arch capped by finial; ornate, stone, foliate panel within arch advertising “MARTENS CAFÉ”; horizontal, stone panels with central diamond flank panel; ornamented stone end piers capped by finials.

Significant alterations: Modern ground floor storefront; window sash replaced with 6x6 sash.

History: The history of this building remains unclear. In 1890 a new building application was filed for a three-story brick stable on the west side of Jay Street, fifty feet north of Water Street. This building was designed by Thomas B. Jackson, a Manhattan architect who specialized in commercial buildings and was commissioned by Waterbury & Force. It is possible that the present building is an alteration of the 1890 building, undertaken early in the twentieth century, or it could be a completely different structure. In 1902, an alteration permit was issued for a two-story brick extension measuring 25'x38.4'; the architect was Lawson & Field, the owner W. McGowan, and the cost of this extension \$2,000. It is not clear exactly what this extension entailed; it could be the new facade, although stylistically, the new facade may date from approximately ten years later.

The lively brick facade, articulated by bracketed stone lintels and a brick parapet with Arts and Crafts details, marks 52 Jay Street as an example of the Neo-Renaissance style. Built in the early twentieth century, the structure contributes to the district through its architectural expression.

References:

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“Projected Alterations Brooklyn,” *Real Estate Record and Builders Guide* 69 (18 January 1902): 149.

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 45 (7 June 1890): 870.

54 Jay Street

Borough of Brooklyn Tax Map Block

Date of construction: c. 2000

Architect: unknown

Original owner: unknown

Type: Residential with store

Style: None

Stories: 3

Structure/material: Brick

Features: Store on first story; three bays on second story; third story setback creating a terrace; central sliding doors on third story.

56 Jay Street (northwest corner Water Street; 183-187 Water Street)

Vacant lot

JAY STREET (EAST SIDE) between Water Street and Front Street

57 Jay Street (southeast corner Water Street; 55-59 Jay Street, 178-188 Water Street)

Borough of Brooklyn Tax Map Block 41, Lot 7

Date of construction: 1896 (NB 270-96)

Architect: Benjamin Finkensieper

Original owner: Robert S. McNeill

Type: Factory

Style: American Round Arch

Stories: 6

Structure/material: Brick; slow-burning construction

Features: Five bays on Jay Street and nine bays on Water Street; brick piers separate bays and create segmental arch frames for window bays; segmental-arch windows with denticulated brick lintels and projecting stone sills; stone beltcourse below first story windows; corbelled cornice with band of accordion brick; bulkhead above southernmost bay on Jay Street; one-story, single-bay extension on Water Street; east wall with four bays articulated with segmental-arch openings separated by brick piers; on Water Street sidewalk, two cast-iron and glass vault covers manufactured by Tice & Jacobs, 510 Pearl Street, New York and 67 Centre Street, New York, set within cast-iron frames manufactured by a firm located at 353 Adams Street (name of firm is partially rubbed away: ___ringer & Sch_m_n).

Significant alterations: Windows replaced on upper floors; windows on first story mostly filled with brick and glass block; pedestrian entrance doors in third and fourth bays on Jay Street.

History: This corner factory was erected by Robert S. McNeill, manufacturer of shoe lasts (lasts are forms used to shape shoes). In 1913, the company employed fifty people in its factory at 57 Jay Street and also leased space to the Edwin D. Burt Company, manufacturers of ladies' shoes, which employed 154 people. E. D. Burt was an old Brooklyn company, established in 1865. According to the *Historical and Descriptive Review of the City of Brooklyn and Her Manufacturing*, published in the 1883, the firm manufactured shoes to order and also sold ready-to-wear shoes from an elegantly-appointed store on Fulton Street. McNeill sold the building in 1933.

The simple brick facade, articulated by segmental openings, radiating lintels and projecting sills, vertical piers, and corbelled cornice, marks 57 Jay Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1896, during a major period of development when manufacturers such as Robert S. McNeill were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 57 (7 March 1896): 419.

JAY STREET (WEST SIDE) between Water and Front Streets

58-66 Jay Street (southwest corner Water Street; 174-176 Water Street)
Borough of Brooklyn Tax Map Block 40, Lot 1 (in part)

Date of construction: 1907

Architect: Edward N. Stone

Original owner: Jones Brothers

Type: Factory

Style: American Round Arch with Queen Anne Style Elements

Stories: 8

Structure/material: Brick; steel frame with terra-cotta tile floors.

Features: Built as a taller expansion of 59-67 Pearl Street with similar features; seven bays on Jay Street at three bays on Water Street, each bay with two segmental-arch windows; bays separated by brick piers; ornate iron tie rods; projecting denticulated brick lintels; stone sills; sills on second and fifth stories continue as beltcourses; recessed rectangular brick panels above windows on first and fifth stories; accordion brick panels on piers above fourth story; similar panels on piers of seventh story capped by stone band; brick panels capped by stone band between eighth-story windows, aligned by panels on piers; long vertical brick panel at eighth story on each pier; corbelled brickwork below seventh story; corbelled brick cornice; rectangular first-story windows with flat stone lintels and projecting stone sills; vehicular entrance on first story; vehicular entrance in second bay on Water Street with iron lintel; iron shutter supports.

Significant alterations: Windows replaced; vehicular entrance in second bay on Water Street filled in; storefronts in vehicular entrances on Jay Street.

History: The entire block bounded by Pearl Street, Jay Street, Water Street, and Front Street was built and occupied by the Grand Union Tea Company (also known as the Jones Brothers Tea Company). Construction occurred between 1896 and 1915. Frank S. and Cyrus D. Jones began buying property on the block in 1896; the family held the property until 1930 when the Jones's heirs sold it. The Jones brothers were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores, many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

Wizardry in business was never better exemplified in these modern times than in the case of Jones Bros. Tea Company, Inc., which in less than half a century, has grown from a "Two by Four" retail store with \$900 capital to a many-sided organization worth many millions of dollars, with more than 250 stores, close to 4,000 employees and doing a business of better than \$1,000,000 per month. In addition to this merchandising feat, the Jones Bros. organization manufactures the greater portion of the goods it sells.

Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily.

Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm. After the sale of the Brooklyn plant, the large buildings housed many other manufacturers. Those identified include Advance Battery Company, Empire Spring Company, Paralax Scale Manufacturing Company, Triangle Steel Products, Triangle Mechanical Laboratories, American Automatic Venetian Blind Company, Goodman Products Corporation, United Mineral and Chemical Company, Automatic Range Company, and Titan Plastics.

The brick facade, articulated by segmental openings, projecting lintels and sills, ornate tie rods, accordion brick panels, corbelled brick work, and corbelled cornice, marks 58-66 Jay Street as one of the more ornate examples of the American Round Arch style. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1907, during a major period of development when manufacturers such as the Grand Union Tea Company were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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- "Jones Bros. Tea Completes Deal With John T. Connor," *Boston Globe* 9 February 1923, 19.
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- "Jones Tea Control Passes to Group Led By Bankers," *Brooklyn Daily Eagle* 2 February 1928.
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68-72 Jay Street (northwest corner Front Street; 159-163 Front Street)
Borough of Brooklyn Tax Map Block 40, Lot 1 (in part)

Date of construction: 1915 (NB 3886-15)

Architect: William Higginson

Original owner: Jones Brothers

Type: Factory

Style: Daylight Factory with Transitional American Round Arch Style Elements

Stories: 10

Structure/material: Brick; steel frame with reinforced concrete floors

Features: Seven bays on Jay Street and three bays on Front Street; bays separated by brick piers; corner bay on Jay Street and end bays on Front Street each with a pair of rectangular windows on floors one and two, with single stone sills, and paired segmental-arch windows with projecting brick lintels and stone sills on other stories; other bays with large rectangular openings divided into two windows; single, flat, stone lintels on floors three through ten; projecting stone sills on all floors except nine; sills at three continue as beltcourse; cornices above eight and ten; accordion brick panels on piers above second story and above tenth story; vertical recessed panels on piers at eight; horizontal recessed brick spandrels above second and tenth stories; some original 3x3, 4x4 and 6x6, metal, pivot windows, largely on fifth story along Front Street and first two bays on Jay Street and on all floors in last two bays on Jay Street; corbelled brick cornice.

Significant alterations: Most windows replaced; storefronts on first floor, largely replacing vehicular entrances and loading docks; granite around entrance in northernmost bay on Jay Street.

History: The entire block bounded by Pearl Street, Jay Street, Water Street, and Front Street was built and occupied by the Grand Union Tea Company (also known as the Jones Brothers Tea Company). Construction occurred between 1896 and 1915. Frank S. and Cyrus D. Jones began buying property on the block in 1896; the family held the property until 1930 when the Jones's heirs sold it. The Jones brothers were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores,

many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

Wizardry in business was never better exemplified in these modern times than in the case of Jones Bros. Tea Company, Inc., which in less than half a century, has grown from a "Two by Four" retail store with \$900 capital to a many-sided organization worth many millions of dollars, with more than 250 stores, close to 4,000 employees and doing a business of better than \$1,000,000 per month. In addition to this merchandising feat, the Jones Bros. organization manufactures the greater portion of the goods it sells.

Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily. Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm. After the sale of the Brooklyn plant, the large buildings housed many other manufacturers. Those identified include Advance Battery Company, Empire Spring Company, Parallax Scale Manufacturing Company, Triangle Steel Products, Triangle Mechanical Laboratories, American Automatic Venetian Blind Company, Goodman Products Corporation, United Mineral and Chemical Company, Automatic Range Company, and Titan Plastics.

The brick facade, articulated by large rectangular openings flanked by smaller segmental openings with projecting lintels and sills, and corbelled cornices, marks 58-66 Jay Street as an example of a Daylight Factory with transitional American Round Arch style elements. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1915, during a major period of development when manufacturers such as the Grand Union Tea Company were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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“Jones Bros. Tea Co. to Acquire Boston Chain of Stores,” *Brooklyn Daily Eagle* 7 February 1923.

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JOHN STREET (SOUTH SIDE) between Adams and Pearl Streets

2-10 John Street

See 1-15 Adams Street

12-20 John Street

See 143 Plymouth Street

JOHN STREET (NORTH SIDE) between Pearl Street and Jay Street

21-41 John Street

See 10 Jay Street

JOHN STREET (SOUTH SIDE) between Pearl Street and Jay Street

22-44 John Street

See 20 Jay Street

JOHN STREET (SOUTH SIDE) between Jay Street and Bridge Street

46-58 John Street

See 19 Jay Street

60 John Street (60-62 John Street; 183-185 Plymouth Street)
Borough of Brooklyn Tax Map Block 20, Lot 12

Date of construction: c. 1900

Architect: unknown

Original owner: Arbuckle Brothers

Type: Stable and storage

Style: Vernacular

Stories: 4

Structure/material: Brick; slow-burning mill construction

Features: On both John Street and Plymouth Street facades: five bays wide; segmental-arch windows; tall windows on second and third stories, shorter windows on fourth story; projecting stone sills; corbelled brick cornice; on Plymouth Street, centrally-located, segmental-arch, entrance, with segmental-arch window to right and rectangular pedestrian entrance to left; brick side walls; east wall with fourth-story windows with double-hung, 6x6, metal sash; Brillo sign painted onto east facade adjoining John Street; iron shutter supports at windows.

Significant alterations: Most ground floor on John Street replaced with large vehicular entrance, capped with a metal security grill; windows replaced; both street elevations painted.

History: This building was erected as a stable for Arbuckle Brothers and is one of several Arbuckle-related buildings in the DUMBO Historic District. The building had hay storage on the third story and general storage on the third and fourth stories.

This building was erected on landfill by Arbuckle Brothers, a key figure in the marketing of coffee in America during the nineteenth century and eventually also a sugar refiner. John Arbuckle (1838-1912) was born in Allegheny City, Pennsylvania. He and his brother Charles (d. 1881) began roasting coffee in Pennsylvania in the 1850s, before moving their business to New York in 1871 and to Brooklyn in 1881. In 1888, Arbuckle had prominent Brooklyn architect Montrose Morris design a large Romanesque Revival style house at 315 Clinton Avenue, now in the Clinton Hill Historic District. The major invention of the Arbuckle firm was a machine that efficiently packed roasted and ground coffee – filling, weighing, sealing, and labeling the packages so that they could be efficiently shipped throughout the world and sold in small packages to consumers. The coffee was marketed under the name “Ariosa” or “Arbuckle Ariosa.” Arbuckle was the largest coffee roasting and shipping firm in North America and his dominance led to control over the world price of coffee beans. The Arbuckle firm also owned most of the ships that transported coffee from Latin America to the United States. In 1884, L. P. Brockett, writing in Henry Stiles’s *History of Kings County*, described the Arbuckle business:

They have always dealt in coffees, teas and spices; but, in 1883, they added a general wholesale groceries department. They employ 500 hands, 48 roasting cylinders in operation each day, and 32 all night, each cylinder of copper, with 300 lbs. capacity, and taking 35 minutes to roast; 2,500 sacks of coffee, of 130 lbs. each are roasted, and 12 car-loads of ground goods shipped per day.

The Arbuckle firm was a master at advertising – using large-scale newspaper ads and pioneering in offering collectable trade cards that would induce consumers to continue buying the product. All of Arbuckle’s production took place in DUMBO, including roasting and packaging the coffee, and printing the packages and many of the collectable cards. The firm occupied many buildings in DUMBO (some have been torn down), as well as the Empire Stores in the Fulton Ferry Historic District.

Arbuckle was determined to expand his business into sugar, using the same packaging techniques he had perfected for coffee. He purchased his coffee from the Havemeyer family’s refinery in Williamsburg, Brooklyn. Since he purchased large amounts of sugar in bulk, Arbuckle requested a discounted price from Havemeyer. However, despite extensive sales, Henry O. Havemeyer considered Arbuckle to be a threat. As a result, in 1896, Arbuckle announced that he would build his own sugar refinery. The refinery was built in 1897 on the corner of Jay and John Streets. The refinery was planned for the production of 3,000 barrels of sugar per day, much of which would be packaged into two-pound paper bags. In response to Arbuckle’s announcement that he would build a sugar refinery, Havemeyer’s American Sugar Refining Company bought the Woolson Spice Company of Toledo, Ohio, a major coffee roasting business. Thus began what became known as the “sugar and coffee war.” The war lasted for years and resulted in depressed prices for both commodities. Eventually a truce was reached whereby Arbuckle limited his sugar production. Despite limiting production, in 1913, Arbuckle’s sugar business employed 668 people (470 men and 36 women in the refinery, and 162 office workers; in contrast, the Havemeyer’s American Sugar Refining Company employed 2,218 in 1913). In that year, Arbuckle’s coffee roasting business employed 100 people – 68 men, thirty women, and two office workers. Late in his career, Arbuckle’s business dealings were investigated by the United States Treasury Department, which accused him of customs fraud. Although he denied the charges, in 1909 he paid the Treasury \$695,573. In 1913, Arbuckle founded the Charles William Stores, a general mail order merchandiser. He was careful not to have his name associated with this business, which occupied many buildings in the Gair complex (see 22-24 Washington Street). Besides his factory buildings in DUMBO and his house in Clinton Hill, Arbuckle was also responsible for the construction of the Arbuckle Memorial, a major addition to Plymouth Church in the Brooklyn Heights Historic District, erected with funds provided in his will. In 1945, the sugar refinery became a warehouse.

The building was acquired by the Brillo Manufacturing Company in c. 1941 and occupied as storage and offices by this firm in 1942 (C of O No. 104074, 8 January 1942). The Brillo Company, with several factories around the world, manufactured its famous soap pads and industrial abrasives across the street at 188-200 John Street. The Brillo Company was incorporated in 1913 by Milton B. Loeb, a lawyer. According to Loeb’s obituary, one of Loeb’s clients was jewelry manufacturer who had devised a method of combining steel wool and a special reddish soap that was an excellent means of cleaning aluminum cooking utensils. After trying the product, Loeb invented the name “Brillo” and incorporated the Brillo Manufacturing Company. He soon became president of the company and expanded its reach from the United States to Great Britain, Ireland, and Canada. In 1963, the Brillo Manufacturing Company became a part of the Purex Corporation of California.

The austere brick facade, articulated primarily by its rhythmic openings and simple brick lintels and sill, marks 60 John Street as an example of the vernacular factory building erected during DUMBO's growth as an industrial neighborhood. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built c. 1900, during a major period of development when manufacturers such as the Arbuckle Brothers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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64 John Street

Borough of Brooklyn Tax Map Block 20 Lot 14 (in part)

Date of construction: c. 2007

Architect: unknown

Original owner: unknown

Type: Garage

Style: None

Stories: 1 or 2 (under construction at time of designation)

Structure/material: concrete block

Features: Concrete blocks; large vehicular entrance.

History: This building appears to have replaced a brick factory designed by A. G. Stone in 1900 (NB 352-00) for J. W. Masury & Son, the paint and varnish company that occupied much of the block bounded by Plymouth, Water, Pearl, and Jay Streets.

References:

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 65 (31 March 1900): 575.

68 John Street (66-70 John Street)

Borough of Brooklyn Tax Map Block 20, Lot 14 (in part)

Date of construction: c. 1992

Architect: unknown

Original owner: unknown

Type: Factory

Style: None

Stories: 2

Structure/material: concrete block

Features: Concrete block facade; three vehicular and one pedestrian entrance on first story; vehicular entrance at east end of facade leading down to basement; eight almost square window openings on second story.

History: Prior to the construction of the present building, this site was occupied by a one-story factory designed in 1899 by E. H. Stone for J. W. Masury & Son, the paint and varnish company that occupied much of the block bounded by Plymouth, Water, Pearl, and Jay Streets.

Significant alterations: Windows replaced.

References:

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 64 (28 October 1899).

78 John Street (74-78 John Street; now known as 70 John Street)

Borough of Brooklyn Tax Map Block 20, Lot 14 (in part)

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Factory

Style: None

Stories: 2

Structure/material: Brick

Features: First story with one vehicular entrance, two pedestrian entrances, and one segmental-arch window with a stone sill; second story with two rectangular, horizontal openings, each with

three windows and a concrete sill; brick beltcourses with pulled vertical headers and bands of stretchers and headers between stories and above second story.

Significant alterations: Multi-pane metal windows replaced; segmental-arch of entry to right of vehicular entry enclosed.

History: The date of construction for this building is not known. It replaces a one-story factory erected in 1899 by J. W. Masury & Son, the paint and varnish company that occupied much of the block bounded by Plymouth, Water, Pearl, and Jay Streets. The 1899 factory was designed by E. H. Stone.

References:

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 64 (28 October 1899).

82 John Street

Borough of Brooklyn Tax Map Block 20, Lot 21 (in part)

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Garage

Style: None

Stories: 1

Structure/material: Brick

Features: None

Significant alterations: Cementitious coating on facade.

84-86 John Street

Borough of Brooklyn Tax Map Block 20, Lot 21 (in part)

Date of construction: 1909 (Alt. ?-09)

Architect: Ed Glacken

Original owner: William Miller

Type: Factory

Style: Daylight Factory

Stories: 5

Structure/material: Brick

Features: Two bays; wide rectangular openings; entrance in left bay.

Significant alterations: Cementitious coating on facade; windows replaced; entrance not original; iron railing on roof.

History: Built as an addition to the Miller & Van Winkle factory at 18 Bridge Street (see). The alteration permit was issued for a four-story building. It is not known if the fifth story was erected as part of the 1909 addition, or if it was added at a later date.

The simple brick facade, articulated primarily by its large window openings, marks 84-86 John Street as an example of the daylight factory. Built in 1909, during a major period of development when manufacturers were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and its connection to DUMBO's industrial history.

References:

"Projected Alterations Brooklyn," *Real Estate Record and Builders Guide, Brooklyn and Long Island Edition* 10 (27 November 1909): 624.

88-94 John Street

See 18 Bridge Street

MAIN STREET (EAST SIDE) between Plymouth Street and Water Street

1 Main Street (southeast corner Plymouth Street and northeast corner Water Street; 1-33 Main Street, 82-90 Plymouth Street; 97-111 Water Street)

Borough of Brooklyn Tax Map Block 27, Lot 7501

Date of construction: 1914

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 12 and 16

Structure/material: Reinforced concrete

Features: Eleven bays on Main Street, six bays on Plymouth Street, and seven bays on Water Street; wide segmental-arch openings on ground floor; central three bay entrance on Main Street with two rectangular openings flanking a segmental-arch window and two blind segmental arches; segmental arches at second story level; abstracted keystones and brackets above arches; concrete bays to either side of entrance poured in imitation of rusticated stone blocks on lower two stories; concrete smooth above; cornice above second story; narrow central bay on Main Street flanked by wide rectangular bays, each with three windows; paneled incised spandrels beneath windows; facade reads as a series of eleven-story segmental arches; impost blocks above entrance; segmental-arch windows on eleven flanked by raised panels; raised roundels flanking tower; four-story, free-standing, central tower with round arches at the fifteenth story on all four facades; four restored round clock faces set into ornate foliate frames on sixteen; hip roof on tower; Water Street, segmental-arch vehicular entrances in third, fifth, and sixth bays; narrow fourth bay with two windows; seventh bay divided by horizontal concrete pier with recessed panel into entrance to left and two smaller recessed panels to right; seventh bay on upper floors

with two rectangular windows divided by concrete pier; two-story extension to east on Water Street with very wide segmental arch on first story and recessed rectangular panel on second story incised with "ROBERT GAIR COMPANY POWER HOUSE"; sixth bay on Plymouth Street with two rectangular windows separated by concrete pier; one-story, two-bay extension to east with rusticated concrete, segmental-arch openings, raised basement with two pairs of horizontal rectangular windows; above full floor is open concrete framework with two rectangular openings, piers, and cornice; modest cornice above eleventh story on all street facades and bolder cornice above twelfth story (except at tower); brackets support cornice at either side of tower; E-shaped eastern elevation arranged with long single openings with five windows in end branches, single openings with three windows in central branch, and three openings, each with three windows, in intermediate areas; single windows facing north and south in branches.

Significant alterations: Windows replaced; loading docks and other openings on first story along Main Street, two westernmost bays on Water Street, and five bays on Plymouth Street converted to storefronts; some loading docks cut down to grade; iron cresting atop tower removed; new roof with skylights and gutter on tower; new canopy at entrance; new mechanical equipment on roof.

History: 1 Main Street is the most visually dominant building in DUMBO due to its height, massing, and clock tower, and it is the dominant building in "Gairville," the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair (1839-1927). Gair was born in Edinburgh, in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair's inventions relating to the manufacture of corrugated paper boxes that resulted in his firm's growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World's Metropolis*, Gair "revolutionized the folded box business" by arranging "pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks." The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair's choice of a site on the northwest corner of Washington Street and Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers' Industrial Exposition* claimed that the firm was a "manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases,

advertising displays, etc.” The 1901 Gair publication *What We Do and How We Do It* commented that “the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration.” Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneeda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called “Gairville.” The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair’s sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied. However, much of the space in “Gairville” was leased. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith’s book about Gair, noted historian and architectural critic Lewis Mumford notes that “in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine.” Mumford also stated that “more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront.” 1 Main Street was considered to be the tallest reinforced concrete building in the world at the time of its construction. It has 275,000 square feet of space and was supplied with three freight elevators and two passenger elevators.

By the second decade of the twentieth century, the major tenant in Gair’s buildings was the Charles William Stores, a mail order supply business. The Charles William Stores was established by local coffee magnate John Arbuckle (see 10 Jay Street) in 1913 as a general mail order merchandising business. Arbuckle invented the name “Charles William” expressly so that his name would not be associated with the business. In 1930, a lawsuit by Arbuckle’s heirs stated that the Charles William name was invented “for the purpose of obtaining a fictitious name so as not to disclose to the trade that Arbuckle Brothers was embarking in the mail order business.” Since Arbuckle was already located in DUMBO, it was logical for the new business to also occupy space in the neighborhood and since John Arbuckle and Robert Gair were friends, it was appropriate for him to rent space in Gair’s large buildings. The company’s first sale was in September 1913, at which time it occupied a single building in DUMBO, on the north side of John Street, between Jay and Bridge Streets (demolished). The firm grew rapidly, eventually employing, it claimed, 4,000 people on the entire block bounded by Washington Street, Main Street, Plymouth Street, and Water Street, as well as in seven other buildings in DUMBO (not all extant or in the historic district). The firm sent a wide variety of goods to customers throughout the country. By 1917, it was marketing itself as “The Business that Serves the Nation,” one that “brings New York *to you.*” Focusing on the importance and value of New York as a business and fashion center, the company bragged that it gave its customers “values and services that only

a business located in the chief market of America could give.” Using New York in its marketing was undoubtedly a device to separate this company from competitors such as Chicago-based Montgomery Ward and Sears Roebuck. In 1928, the business was purchased by National Bellas Hess, a company founded by H. Bellas Hess, a mail order merchant. National Bellas Hess was established in 1927 with the consolidation of the National Cloak and Suit Company and the Bellas Hess Company.

1 Main Street was known as Charles William Stores Building No. 5, the Executive Building. The offices of the company’s president and other executives were located here, as well as general office departments, and the firm’s stocks of wearing apparel. The first and second stories housed the firm’s shipping department. Packages reached this department down iron chutes from the upper floors. Other departments in the building assembled orders, chose and ordered merchandise, inspected goods, and tested products in a laboratory. Hundreds of people worked in the general office writing letters, sending bills, opening mail, and completing other office tasks.

The austere concrete facade, articulated by large window openings, vertical piers, rusticated base projecting cornice, prominent clock tower, and abstracted, classically-inspired detail, marks 1 Main Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1914, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO’s status as one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

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MAIN STREET (EAST SIDE) between Water Street and Front Street

35-41 Main Street (southeast corner Water Street; 88-98 Water Street)

Borough of Brooklyn Tax Map Block 37, Lot 1 (in part)

Date of construction: 1916

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 12

Structure/material: Reinforced concrete

Features: Reinforced concrete frame with smooth piers rising to tenth story; recessed spandrels; from third story up, corner bays on both Main and Water Streets and easternmost bay on Water Street articulated with pairs of single rectangular windows with recessed frames and projecting sills; four additional wide bays on Main Street and three on Water Street divided into four windows; westernmost bay on Water Street longer, with five windows, a concrete pier, and an additional single window; concrete lintels; double-height first-story space; upper stories with wide rectangular openings with projecting lintels and sills; projecting corner entrance pavilion with piers supporting full entablature; entrance architrave supported by shield-like brackets; similar entrance in eastern bay on Water Street; modest cornices above tenth and twelfth stories; tracks of Jay Street Connecting Railroad entered building on Water Street at corner of Main Street.

Significant alterations: Original metal pivot windows replaced; loading docks, entrances, and other ground-floor openings converted into commercial space; some loading docks cut down to grade; modern storefronts and entrance doors; windows punched through south side façade of eleventh and twelfth stories; new mechanical equipment and elevator bulkheads on roof; new signage.

History: 35-41 Main Street is a significant part of “Gairville,” the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags

with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair's inventions relating to the manufacture of corrugated paper boxes that resulted in his firm's growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World's Metropolis*, Gair "revolutionized the folded box business" by arranging "pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks." The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair's choice of a site on the northwest corner of Washington Street Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers' Industrial Exposition* claimed that the firm was a "manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc." The 1901 Gair publication *What We Do and How We Do It* commented that "the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration." Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called "Gairville." The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair's sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. A 1917 map of the DUMBO area published in a catalogue for Gair's largest tenant, the Charles William Stores, identifies the buildings on block 37 as being occupied by Gair and his business. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith's book about Gair, noted historian and architectural critic Lewis Mumford notes that "in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine." Mumford also stated that "more than any other personality, except that of

Roebing, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront.”

The Main Street frontage of block 37 remained largely residential long after the Washington Street side had become industrialized. Robert Gair began purchasing property on this block in 1909 and by 1918 had acquired all lots. In 1913, Gair began construction on this block with the building at 40-58 Washington Street (see). The building at 35-41 Main Street was his second construction project on the block. A 1929 Brooklyn atlas indicates that at that time the building housed the American Tea Company. As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

The austere concrete facade, articulated by large window openings, rusticated piers, projecting cornice, and abstracted classically-inspired detail, marks 35-41 Main Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1916, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO’s status as one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

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45 Main Street (northeast corner Front Street; 43-53 Main Street and 73-81 Front Street)
Borough of Brooklyn Tax Map Block 37, Lot 1 (in part)

Date of construction: 1919

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 10

Structure/material: Reinforced concrete

Features: Reinforced concrete frame with rusticated piers rising to eighth story; recessed spandrels; wide rusticated corner bay on both Main and Front Streets; from second story up, corner bay on Main Street articulated with a pair of single rectangular windows with recessed frames and projecting sills; similar single rectangular window on Front Street corner; four additional wide bays on Main Street and five on Front Street; wide rectangular openings with four windows; projecting lintels and sills; main entrance on Front Street with paneled pilasters supporting full entablature with projecting cornice; frieze with raised horizontal rectangular panel flanked by raised roundels; vehicular entrances in second through fourth bays on Main Street; cornices above eighth and tenth stories; tenth-story cornice supported by shield-like brackets; raised parapet above corner bay facing Front Street.

Significant alterations: Original metal pivot windows replaced; loading docks and other ground-floor openings on Front Street and end bays on Main Street converted into commercial space; entrance to commercial space created in corner bay of Main Street; loading bay and parking garage entrance created in second and third bay from left on Main Street; some loading docks cut down to grade; modern storefronts and entrance doors; new signage.

History: 43-53 Main Street is a significant part of “Gairville,” the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair’s inventions relating to the manufacture of corrugated paper boxes that resulted in his firm’s growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World’s Metropolis*, Gair “revolutionized the folded box business” by arranging “pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks.” The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair’s choice of a site on the northwest corner of Washington Street

and Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers' Industrial Exposition* claimed that the firm was a “manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc.” The 1901 Gair publication *What We Do and How We Do It* commented that “the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration.” Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called “Gairville.” The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair’s sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. A 1917 map of the DUMBO area published in a catalogue for Gair’s largest tenant, the Charles William Stores, identifies the buildings on block 37 as being occupied by Gair and his business. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith’s book about Gair, noted historian and architectural critic Lewis Mumford notes that “in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine.” Mumford also stated that “more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront.”

The Main Street frontage of this block remained largely residential long after the Washington Street side had become industrialized. Robert Gair began purchasing property on this block in 1909 and by 1918 had acquired all lots. In 1913, Gair began construction on this block with the building at 40-58 Washington Street (see). The building at 43-53 Main Street was Gair’s third and final construction project on the block. A 1929 Brooklyn atlas indicates that at that time the building housed the Interstate Corrugated Box Company. As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

The austere concrete facade, articulated by large window openings, vertical piers, projecting cornice, and abstracted classically-inspired detail, marks 45 Main Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1919, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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MAIN STREET (WEST SIDE) between Water Street and Howard Alley

30 Main Street (southwest corner Water Street and northwest corner Howard Alley; 24-36 Main Street, 74-86 Water Street)

Borough of Brooklyn Tax Map Block 36, Lot 7501 (formerly Lot 20)

Date of construction: 1908 (NB 2026-08)

Architect: Moyer Engineering and Construction Company

Original owner: W. H. Sweeney Manufacturing Company

Type: Factory

Style: Industrial Neo-Classical

Stories: 11 and basement

Structure/material: Reinforced concrete

Features: Reinforced concrete structure with rusticated piers rising from first through tenth stories; incised paneled spandrels; partially sunken high basement with heavy rounded molding; pipe railing at areaway; seven bays on Main Street and eight on Water Street and Howard Alley; wide rectangular openings on first and third through ninth stories; wide segmental-arch openings on second story, each with three windows; triple round-arch windows in each bay on tenth story with exception of end bays on each facade with single wide segmental-arch window; triple arches supported by brackets; cornices above ninth, tenth, and eleventh stories; crowning cornice with blocks; western bay on Howard Alley with smooth concrete on first five stories and rusticated concrete above; original location of fire escapes with openings group in dogleg with two windows and a door; west elevation visible above sixth story echoes street elevations.

Significant alterations: Eleventh story originally unarticulated with windows, displaying signs, now removed, advertising company and its wares; windows cut in during c. 2000 conversion to apartments; 3x3 metal pivot windows replaced; fire stair removed from Howard Alley facade and bottom of former doorways closed up; new entrance cut to grade in middle bay on Main Street, revolving and single leaf doors and a canopy added; painted blue; bars added to basement windows; new service entry along Howard Alley; new rooftop cabanas; new mechanical equipment and water tank on roof.

History: The W. H. Sweeney Manufacturing Company began purchasing property on the corner of Main and Water Streets in 1898 and by 1904 had acquired the entire site. The Sweeney firm, which manufactured metal kitchenware (brass, copper, nickel, and silver), was established by three brothers from Marysville, Ontario. The firm was established on Water Street in Manhattan before moving to Water Street in Brooklyn and, in 1908, erecting this large concrete factory building. An illustrated catalogue from 1906, in the collection of the Brooklyn Historical Society, advertised tea sets, coffee pots, kettles, cuspidors, trays, pudding dishes, and other items of "High Grade Nickel Ware." In 1913, the New York State Department of Labor referred to the firm as a manufacturer of copper kitchen utensils, employing 160 people. The Sweeney Manufacturing Company did not occupy the entire building at 24 Main Street (originally known as 30 Main Street). According to the 1913 survey, space was also occupied by the Metal Packing Company, which employed 138 people in the manufacture of tin boxes; the Improved Mailing Case Company, employing 26; the Waitzfelder Braid Company, which employed 101 people in the production of braids for dress trimming; the E. B. Kursheedt Apron Company, employing 85; C. S. Davisson & Company, a handkerchief manufacturer employing 90; and the Wilson & Bradbury Company, also manufacturing handkerchiefs, which employed 50 people. While the metal ware companies largely employed men, most of the workers at the braid, apron, and handkerchief companies were women. In 1924, the Sweeney brothers retired from the manufacturing business and formed a realty company, with John J. Sweeney as head.

The austere concrete facade, articulated by large window openings, rusticated piers, projecting cornice, and abstracted classically-inspired detail, marks 30 Main Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural

and historical character of the DUMBO Historic District. Built in 1908, during a major period of development when manufacturers were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and its connection to DUMBO's industrial history.

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MANHATTAN BRIDGE

Borough of Brooklyn Tax Map Block 29, Lot 1 and Block 39, Lot 1

Date of construction: 1901-1909

Architect: Carrère & Hastings/Leon Moisseiff, George Best, and Othneil F. Nichols, engineers

Original owner: New York City

Type: Suspension Bridge

Style: Beaux Arts

Structure/material: Steel bridge; granite anchorage and piers

Features:

Anchorage: Granite cladding. North side facing Plymouth Street: four huge sloping buttresses, high central arch with rusticated voussoirs, base of each buttress with a segmental arch supported on flat brackets with guttae; within each arch is a compound keystone; buttresses rest on massive bases with high pulvinated courses; vacant land immediately north of anchorage. Side facades facing Adams Street and Anchorage Place: massive central arch with rusticated voussoirs and heavy base spans Water Street creating a tunnel connecting Adams Street and Anchorage Place; rusticated end piers – two on each side of arch, with smooth granite infill; above arch are five recessed panels with a rectangular window in several of the recesses; large cove cornice above end pavilions with round arches and recessed, banded, Doric columns and Doric entablature; double colonnade in center with five bays of banded Doric columns; solid granite wall to south of Water Street arch. North side facing Front Street: rusticated piers flanked by smooth granite piers capped by angled brackets that support road bed. Bridge of steel and nickel steel with zinc-coated suspension cables.

Piers: two sets of piers on Pearl Street between Front Street and York Street; each set has pairs of rusticated granite piers flanking Pearl Street; piers support high round arch over street; each pair flanks sidewalk with round arch with rusticated voussoirs over sidewalk; cornice above arch doubles as sill of large segmental-arch opening; rounded engaged bollard at corners of pier bordering street to prevent vehicular collisions.

Significant alterations: Continuous maintenance; stonework remains unaltered.

History: The Manhattan Bridge has a complicated design and building history reflecting the changing winds of local New York City politics. The bridge was initially designed in 1901 by engineer Gustav Lindenthal working with architect Henry Hornbostel. Lindenthal proposed a new eye-bar technology for the bridge. Although the design was approved by the New York City Art Commission, a change in local government to Tammany rule resulted in Lindenthal's design being replaced by a more traditional suspension bridge. A new bridge commissioner, George E. Best, appointed Leon Moisseiff and Othniel F. Nichols as engineers (it is unclear who was responsible for what aspects of the engineering). The bridge was designed as a two-level suspension bridge with a span across the East River of 1,470 feet and side spans of 725 feet. The steel towers rose 336 feet and supported four twenty-one inch diameter cables, each with 9,472 galvanized wires. The bridge was planned for roadway traffic, elevated trains, streetcars, and pedestrians.

Carrère & Hastings became the architect for the bridge and worked closely with Moisseiff on the design. Carrère & Hastings was responsible for the Brooklyn entrance to the bridge (demolished), the triumphal arch at the Manhattan entrance (a designated landmark), and for the design of the Manhattan and Brooklyn anchorages. In a 2006 monograph on Carrère & Hastings, Charles D. Warren describes the anchorages:

As construction advanced, the granite anchorages, with their vast, battered Egyptian mass, began to loom over the crowded city streets below. Street patterns were disrupted and traffic was redirected through arched, cathedral-like tunnels that penetrated the center of each anchorage. The bold quoins at the arched openings in these great masonry piles only served to reinforce the juxtaposition between the seemingly miniature scale of the surrounding 19th-century buildings and the massiveness of this 20th-century colossus. These stone forms are abstract and austere like the west facade of the public library, but larger, bolder, and infused with all the power of the industrial age. (pp. 214-15).

Carrère & Hastings, who were also working on such project as the New York Public Library, the New Theatre, and the Staten Island Borough Hall at the same as they were working on the Manhattan Bridge, designed monumental, French-inspired architectural accents for the far more utilitarian bridge structure. The Brooklyn anchorage creates a focal point in DUMBO, with its massive stonework visible down many streets.

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PEARL STREET (EAST SIDE) between East River and John Street

17 Pearl Street

See 10 Jay Street

PEARL STREET (EAST SIDE) between John Street and Plymouth Street

19-37 Pearl Street

See 20 Jay Street

PEARL STREET (WEST SIDE) between John Street and Plymouth Street

20-38 Pearl Street

See 143 Plymouth Street

PEARL STREET (EAST SIDE) between Plymouth Street and Water Street

39 Pearl Street (southeast corner Plymouth Street; 39-45 Pearl Street, 154-162 Plymouth Street)
Borough of Brooklyn Tax Map Block 30, Lot 7

Date of construction: c. 1880

Architect: unknown

Original owner: John W. Masury & Son

Type: Factory

Style: Altered Vernacular

Stories: 5

Structure/material: Brick; slow-burning mill construction

Features: Ten bays on Pearl Street and twelve bays on Plymouth Street; rectangular windows; vehicular and pedestrian entrances on first story; projecting sills; denticulated red brick cornice.

Significant alterations: Facade covered with cementitious material; some windows filled in; windows replaced; ground-floor openings filled in or covered with rolling shutters; two bays on Plymouth Street partially filled in and articulated with pairs of small rectangular windows; south

elevation with windows on third through fifth stories, iron tie rods, iron shutter supports, and brick bulkhead.

History: Most of the block bounded by Pearl, Jay, Plymouth, and Water Streets is associated with the Masury Paint Works, one of the most important paint manufacturing companies in the United States in the late nineteenth and early twentieth centuries. John W. Masury and the firm of John W. Masury & Son assembled property on this block between 1879 and 1894. Born in Salem, Massachusetts, John Wesley Masury (1820-1895) was one of many young New Englanders who migrated to the New York City area in the pre-Civil War period as the economy of New York grew rapidly. Masury settled in Brooklyn in 1842 and worked as a clerk in the paint store of John D. Prince. Following Masury's suggestion, Prince began manufacturing ground dry colors. Masury soon became a partner in the firm of John D. Prince & Company. Eventually he became sole proprietor of what became the John W. Masury Company and, after 1871, John W. Masury & Son (his son-in-law F. L. Miller became a partner). Masury's greatest invention was a metal paint can that would securely hold the paint, but which had a thin lid that could easily be opened. His patents of 1857 and 1859 permitted Masury to market ready-made paints. Since Masury had a monopoly on the paint can invention for twenty-one years, the firm grew very rapidly. Masury also patented various methods of grinding colors. The firm manufactured a wide variety of different paint and varnish products. A trade catalogue from c. 1915 reports that "The Masury Line is a complete one, including high grade products for the painting trades, specialties for manufacturing concerns, as well as sundries for household and other purposes."

The Masury firm advertised its products extensively, in trade catalogues and advertisements. An advertisement from September 1901, for example, states that John W. Masury & Son of Brooklyn "manufacturers Japan colors for coach works, house painters' colors, ready mixed paints, carriage and architectural varnishes," and also noted that the firm's factory occupied over an acre of ground and "gives employment steadily to 220 hands." In 1913, the paint works employed 249 people – 146 men and sixty women – in its factory buildings on this block and on Block 20. A 1911 advertisement describes the factory complex:

The great factories of Masury & Son, on Jay Street, occupy the major portion of a city block. On the first floor is the shipping room, holding thousands of cans of paint to be sent to all parts of the world. Outside, lines of wagons and auto trucks await. Another floor is devoted to the grinding department, where the mills of the paint gods grind slowly but exceedingly fine the earth-coloring, chemical colors and pigments. It is due to the repeated grinding of colors for automobile and coach paint and the care of its preparation that after the many coats are applied the fine, satin gloss appears.

John Masury died in 1895 and was succeeded as head of the firm by John Dohse (1857-1902) who entered Masury's employ in 1880. In 1906, John Masury's twenty-five year old son, John W. Masury, Jr. (1881-1931), became president – he was said to have been the youngest corporate head of an important American company. The younger Masury expanded the company's marketing nationally, opening plants in Chicago, Kansas, and Minneapolis, and eventually began sales in Europe, Japan, and Australia as well. By 1904, the building at 39 Pearl Street was used by the Masury Company as a tin shop. In 1942, the Masury Company left Brooklyn, transferring

its manufacturing to Baltimore. The Brooklyn Varnish Manufacturing Company purchased the property and occupied the site for many years.

The austere facade, articulated primarily by its rhythmic openings and partially-remaining denticulated cornice, marks 39 Pearl Street as an example of the vernacular factory building erected during DUMBO's growth as an industrial neighborhood. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built c. 1880, during a major period of development when manufacturers such as John W. Masury & Son were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Wonders of Brooklyn: John W. Masury & Son (Makers of Paint)," *Brooklyn Daily Eagle*, 23 October 1920.

47-49 Pearl Street

Borough of Brooklyn Tax Map Block 30, Lot 6

Date of construction: 1971

Architect: unknown

Original owner: unknown

Type: Garage

Style: None

Stories: 1

Structure/material: Brick

Features: None

51-53 Pearl Street

Borough of Brooklyn Tax Map Block 30, Lot 4

Date of construction: c. 1880

Architect: unknown

Original owner: John W. Masury & Son

Type: Factory

Style: Italianate

Stories: 4

Structure/material: Brick; slow-burning mill construction

Features: Seven bays wide; rectangular windows with flat stone lintels and projecting stone sills; iron tie rods; cornice with brick arches and dentils; brick and bluestone sidewalk; pedestrian entrance in southernmost bay; north elevation with windows on fourth and fifth stories, iron tie rods, and flat stone lintels and projecting stone sills; south elevation with projecting end pavilions; central and eastern portions of south elevation articulated by shallow segmental-arch windows with brick lintels; iron tie rods on south elevation; sixth story at eastern end with adjoining mansard with single dormer window.

Significant alterations: Windows replaced; large rectangular central entrance in what was probably originally a loading dock; facade painted; new entrance door; top of pedestrian entrance filled in; some windows on north elevation filled in.

History: Most of the block bounded by Pearl, Jay, Plymouth, and Water Streets is associated with the Masury Paint Works, one of the most important paint manufacturing companies in the United States in the late nineteenth and early twentieth centuries. John W. Masury and the firm of John W. Masury & Son assembled property on this block between 1879 and 1894. Born in Salem, Massachusetts, John Wesley Masury (1820-1895) was one of many young New Englanders who migrated to the New York City area in the pre-Civil War period as the economy of New York grew rapidly. Masury settled in Brooklyn in 1842 and worked as a clerk in the paint store of John D. Prince. Following Masury's suggestion, Prince began manufacturing ground dry colors. Masury soon became a partner in the firm of John D. Prince & Company. Eventually he became sole proprietor of what became the John W. Masury Company and, after 1871, John W. Masury & Son (his son-in-law F. L. Miller became a partner). Masury's greatest invention was a metal paint can that would securely hold the paint, but which had a thin lid that could easily be opened. His patents of 1857 and 1859 permitted Masury to market ready-made paints. Since Masury had a monopoly on the paint can invention for twenty-one years, the firm grew very rapidly. Masury also patented various methods of grinding colors. The firm manufactured a wide variety of different paint and varnish products. A trade catalogue from c. 1915 reports that "The Masury Line is a complete one, including high grade products for the painting trades, specialties for manufacturing concerns, as well as sundries for household and other purposes."

The Masury firm advertised its products extensively, in trade catalogues and advertisements. An advertisement from September 1901, for example, states that John W. Masury & Son of Brooklyn "manufacturers Japan colors for coach works, house painters' colors, ready mixed paints, carriage and architectural varnishes," and also noted that the firm's factory occupied over

an acre of ground and “gives employment steadily to 220 hands.” In 1913, the paint works employed 249 people – 146 men and sixty women – in its factory buildings on this block and on Block 20. A 1911 advertisement describes the factory complex:

The great factories of Masury & Son, on Jay Street, occupy the major portion of a city block. On the first floor is the shipping room, holding thousands of cans of paint to be sent to all parts of the world. Outside, lines of wagons and auto trucks await. Another floor is devoted to the grinding department, where the mills of the paint gods grind slowly but exceedingly fine the earth-coloring, chemical colors and pigments. It is due to the repeated grinding of colors for automobile and coach paint and the care of its preparation that after the many coats are applied the fine, satin gloss appears.

John Masury died in 1895 and was succeeded as head of the firm by John Dohse (1857-1902) who entered Masury’s employ in 1880. In 1906, John Masury’s twenty-five year old son, John W. Masury, Jr. (1881-1931), became president – he was said to have been the youngest corporate head of an important American company. The younger Masury expanded the company’s marketing nationally, opening plants in Chicago, Kansas, and Minneapolis, and eventually began sales in Europe, Japan, and Australia as well. By 1904, the building at 51-53 Pearl Street had a company office located in the southwest corner of the first floor. In 1942, the Masury Company left Brooklyn, transferring its manufacturing to Baltimore. The Brooklyn Varnish Manufacturing Company purchased the property and occupied the site for many years.

The brick facade, articulated primarily by its rectangular openings with flat lintels and sills, iron tie rods, corbelled and denticulated cornice, marks 51-53 Pearl Street as an example of the vernacular factory building erected during DUMBO’s growth as an industrial neighborhood. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built c. 1880, during a major period of development when manufacturers such as John W. Masury & Son were making DUMBO into one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

“John Dohse,” *National Cyclopaedia of American Biography*, vol. 14 (New York: James T. White, 1910).

“John W. Masury,” *National Cyclopaedia of American Biography*, vol. 5 (New York: James T. White, 1907), 155-56.

“John W. Masury & Son” [advertisement], *New York Times* 18 September 1901, JS27.

“John W. Masury & Son” [advertisement], *Brooklyn Daily Eagle* 20 May 1911.

“John W. Masury Dies Suddenly,” *New York Times* 17 August 1931, 15.

“John Wesley Masury,” *Dictionary of American Biography*, vol 6 (New York: Charles Scribner’s Sons, 1933), 384-385.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

“Wonders of Brooklyn: John W. Masury & Son (Makers of Paint),” *Brooklyn Daily Eagle*, 23 October 1920.

55-57 Pearl Street (northeast corner Water Street; 169-175 Water Street)
Borough of Brooklyn Tax Map Block 30, Lot 1

Date of construction: unknown
Architect: unknown
Original owner: John W. Masury & Son
Type: Garage
Style: None
Stories: 1
Structure/material: Brick

Features: Brick building with two vehicular entrances on Pearl Street and two pedestrian entrances on Water Street; brick sidewalk in front of northern bay on Pearl Street.

Significant alterations: Modern rolling steel garage doors.

History: This garage was probably erected by the Masury Company in the early decades of the twentieth century

PEARL STREET (WEST SIDE) between Plymouth Street and Water Street

40-48 Pearl Street
See 142-152 Plymouth Street

50 Pearl Street (through to Anchorage Place)
Borough of Brooklyn Tax Map Block 29 Lot 16 (in part)

Date of construction: c. 2000
Architect: unknown
Original owner: unknown
Type: Garage/warehouse
Style: None
Stories: 2
Structure/material: Stucco; steel

Features: Large vehicular entrances and two levels of windows; four rectangular windows on each level.

56 Pearl Street (northwest corner Water Street; 52-56 Pearl Street, 155-167 Water Street)
Borough of Brooklyn Tax Map Block 29, Lot 16

Date of construction: 1891 (NB 442-91)
Architect: Thomas F. Houghton
Original owner: Edward H. Cole
Type: Factory
Style: American Round Arch
Stories: 6 and basement
Structure/material: Brick; slow-burning mill construction

Features: Seven bays on Pearl Street, four bays on Water Street, five bays on Anchorage Place, and six bays on south elevation; large segmental-arch openings with brick lintels and stone sills on Pearl and Water Streets; rectangular basement windows; keystones in lintels of first-story windows in bays four and seven on Pearl Street and first bay to left on Water Street; entrance in seventh bay on Pearl Street reached by stairs; entrance with original transom with pair of nine-light window panels; stone beltcourse above basement windows; stone beltcourses at sill level at second and fifth stories; slightly raised brick lintels with brick lips; wide brick expanse at west end of Water Street elevation; irregular bay pattern of segmental-arch windows of varying widths and heights on Anchorage Place; beltcourses continue onto Anchorage Place elevation; wide expanse of brick on south end of Anchorage Place elevation; painted sign advertising L. & H. Stern smoking pipes and holders (with crossed pipes and LHS in a diamond) still faintly visible; segmental-arch windows on south elevation on third through sixth stories; brick bulkhead above cornice on Anchorage Place; bluestone sidewalks partially extant on Pearl and Water Streets.

Significant alterations: Windows and entrance door replaced; cornice altered or removed; rolling shutters on all first-story windows on Pearl and Water Streets; basement windows on Water Street and first bay on Pearl Street filled in; first bay on first-story on Water Street extended down to sidewalk level for entrance

History: This was a residential block with the houses slowly displaced by factories. The earliest industrial establishment was William Taylor & Sons's Columbian Iron Works, on Adams and Water Streets. Before the construction of the Manhattan Bridge led to the demolition of much of this block, it housed a brass foundry, a sign making company, a two-story machine shop and storage facility for E. W. Bliss, and Phillips, Doup & Company. Edward Cole manufactured steam fittings in this building. By 1905 he had leased the property to Phillips, Doup & Company. The 1904 Sanborn atlas records that the firm manufactured steam heaters, while in 1912, the New York State industrial survey records the company as a manufacturer of wheelbarrows (employing 24 people). In 1920, the building was sold to L.& H. Stern, manufacturers of smoking pipes and accessories. This company had offices and sales rooms on the lower two floors and manufacturing above.

The simple brick facade, articulated by segmental openings and projecting lintels and sills, marks 56 Pearl Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period

and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1891, during a major period of development when manufacturers such as Edward H. Cole were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 47 (21 March 1891): 457.

PEARL STREET (EAST SIDE) Between Water and Front Streets

59-67 Pearl Street (southeast corner Water Street; 156-164 Water Street)
Borough of Brooklyn Tax Map Block 40, Lot 1 (in part)

Date of construction: 1896-97 (NB 1895-96)

Architect: A. G. & E. N. Stone

Original owner: Jones Brothers

Type: Warehouse

Style: American Round Arch with Queen Anne Style Elements

Stories: 6

Structure/material: Brick; slow-burning mill construction and terra-cotta tile floors

Features: Seven bays on Pearl Street and seven bays on Water Street, each bay with two segmental-arch windows; bays separated by brick piers; ornate iron tie rods; projecting denticulated brick lintels; stone sills; sills on second and fifth stories continue as beltcourses; recessed rectangular brick panels above windows on first and fifth stories; accordion brick panels on piers above fourth story and sixth stories; long rectangular brick panels between piers beneath cornice; piers stepped above fourth story; modest denticulated brick cornice; vehicular entrances and loading docks on ground floor, original in second, fourth, and sixth bays from left on Pearl Street and in fifth bay on Water Street; concrete loading docks at fourth and fifth bays; iron shutter supports; bulkhead above seventh bay.

Significant alterations: Windows replaced; additional loading docks cut into ground floor.

History: The entire block bounded by Pearl Street, Jay Street, Water Street, and Front Street was built and occupied by the Grand Union Tea Company (also known as the Jones Brothers Tea Company). Construction occurred between 1896 and 1915. Frank S. and Cyrus D. Jones began buying property on the block in 1896; the family held the property until 1930 when the Jones's heirs sold it. The Jones brothers were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the

Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores, many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

Wizardry in business was never better exemplified in these modern times than in the case of Jones Bros. Tea Company, Inc., which in less than half a century, has grown from a "Two by Four" retail store with \$900 capital to a many-sided organization worth many millions of dollars, with more than 250 stores, close to 4,000 employees and doing a business of better than \$1,000,000 per month. In addition to this merchandising feat, the Jones Bros. organization manufactures the greater portion of the goods it sells.

Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily. Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm. After the sale of the Brooklyn plant, the large buildings housed many other manufacturers. Those identified include Advance Battery Company, Empire Spring Company, Parallax Scale Manufacturing Company, Triangle Steel Products, Triangle Mechanical Laboratories, American Automatic Venetian Blind Company, Goodman Products Corporation, United Mineral and Chemical Company, Automatic Range Company, and Titan Plastics.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, ornate tie rods, accordion brick panels, and corbelled cornice, marks 59-67 Pearl Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1896-97, during a major

period of development when manufacturers such as the Grand Union Tea Company were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

- "Cyrus D. Jones Dead," *New York Times* 30 September 1929, 21.
Industrial Directory of New York State (Albany: State Department of Labor, 1912, 1913).
"Frank S. Jones" [obituary], *New York Times* 14 May 1927, 19.
"Frank Smith Jones," *National Cyclopaedia of American Biography*, vol. 25 (New York: James T. White, 1936).
"Jones Bros. Tea Co. to Acquire Boston Chain of Stores," *Brooklyn Daily Eagle* 7 February 1923.
"Jones Bros. Tea Completes Deal With John T. Connor," *Boston Globe* 9 February 1923, 19.
"Jones Brothers – Business Wizards," *Earning Power* March 1917, 7-8.
"Jones Brothers Tea," *Wall Street Journal* 8 December 1916, 7.
"Jones Tea Control Passes to Group Led By Bankers," *Brooklyn Daily Eagle* 2 February 1928.
King's Views of Brooklyn (Boston: Moses King, 1904), 33.
National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).
"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 58 (12 December 1896): 910.
"Ratify \$4,000,000 Merger," *Brooklyn Daily Eagle* 16 December, 1916.
Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 19.
"256 Stores United By \$10,000,000 Deal," *New York Times* 8 December 1916, 13.

69-79 Pearl Street (northeast corner Front Street; 141-151 Front Street)
Borough of Brooklyn Tax Map Block 40, Lot 1 (in part)

Date of construction: 1902 (NB 190-02)

Architect: Edward N. Stone

Original owner: Jones Brothers

Type: Factory

Style: American Round Arch with Queen Anne Style Elements

Stories: 6

Structure/material: Brick; slow-burning mill construction with terra-cotta tile floors

Features: Designed as an addition to 59-67 Pearl Street with virtually identical design; Seven bays on Pearl Street and seven bays on Front Street, each bay with two segmental-arch windows; bays separated by brick piers; ornate iron tie rods; projecting denticulated brick lintels; stone sills; sills on second and fifth stories continue as beltcourses; recessed rectangular brick panels above windows on first and fifth stories; accordion brick panels on piers above fourth and sixth stories; long rectangular brick panels between piers beneath cornice; piers stepped above fourth story; modest denticulated brick cornice; vehicular entrances and loading docks on ground floor; concrete loading docks in bays five, six, and seven; iron shutter supports; bulkhead above sixth bay.

Significant alterations: Windows replaced; additional loading docks cut into ground floor.

History: The entire block bounded by Pearl Street, Jay Street, Water Street, and Front Street was built and occupied by the Grand Union Tea Company (also known as the Jones Brothers Tea Company). Construction occurred between 1896 and 1915. Frank S. and Cyrus D. Jones began buying property on the block in 1896; the family held the property until 1930 when the Jones's heirs sold it. The Jones brothers were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores, many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

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Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily. Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm. After the sale of the

Brooklyn plant, the large buildings housed many other manufacturers. Those identified include Advance Battery Company, Empire Spring Company, Paralax Scale Manufacturing Company, Triangle Steel Products, Triangle Mechanical Laboratories, American Automatic Venetian Blind Company, Goodman Products Corporation, United Mineral and Chemical Company, Automatic Range Company, and Titan Plastics.

Department of Buildings information:

The simple brick facade, articulated by segmental openings, projecting lintels and sills, ornate tie rods, accordion brick panels, and corbelled cornice, marks 69-79 Pearl Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1902, during a major period of development when manufacturers such as the Grand Union Tea Company were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

"Cyrus D. Jones Dead," *New York Times* 30 September 1929, 21.

Industrial Directory of New York State (Albany: State Department of Labor, 1912, 1913).

"Frank S. Jones" [obituary], *New York Times* 14 May 1927, 19.

"Frank Smith Jones," *National Cyclopaedia of American Biography*, vol. 25 (New York: James T. White, 1936).

"Jones Bros. Tea Co. to Acquire Boston Chain of Stores," *Brooklyn Daily Eagle* 7 February 1923.

"Jones Bros. Tea Completes Deal With John T. Connor," *Boston Globe* 9 February 1923, 19.

"Jones Brothers – Business Wizards," *Earning Power* March 1917, 7-8.

"Jones Brothers Tea," *Wall Street Journal* 8 December 1916, 7.

"Jones Tea Control Passes to Group Led By Bankers," *Brooklyn Daily Eagle* 2 February 1928.

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"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 69 (22 February 1902): 1771.

"Ratify \$4,000,000 Merger," *Brooklyn Daily Eagle* 16 December, 1916.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 19.

"256 Stores United By \$10,000,000 Deal," *New York Times* 8 December 1916, 13.

PEARL STREET (WEST SIDE) between Water Street and Front Street

80 Pearl Street

See 59 Adams Street

PLYMOUTH STREET (SOUTH SIDE) between Main Street and Washington Street

82-90 Plymouth Street

See 1 Main Street

92-102 Plymouth Street

See 22-24 Washington Street

PLYMOUTH STREET (SOUTH SIDE) between Washington Street and Pearl Street

104-116 Plymouth Street

See 21 Washington Street

118 Plymouth Street

See 18 Adams Street

PLYMOUTH STREET (NORTH SIDE) between Adams Street and Pearl Street

135 Plymouth Street (northeast corner Adams Street; 127-135 Plymouth Street, 15-17 Adams Street)

Borough of Brooklyn Tax Map Block 18, Lot 1 (in part)

Date of construction: 1900-01 (NB 538-00)

Architect: R[udolphe] L. Daus

Original owner: E. W. Bliss

Type: Factory with drafting room on sixth story and offices on seventh story.

Style: Romanesque Revival

Stories: 7

Structure/material: Brick facade with stone trim; steel and cast-iron columns, steel girders, and open joist floors.

Features: Similar in massing and articulation to William Tubby's earlier and adjoining section of the Bliss factory at 1-15 Adams Street; Plymouth Street facade nineteen bays wide; pair of massive, two-story, round-arch vehicular entrances in bays seven through eleven; arches with corbelled voussoirs; rectangular windows with splayed brick lintels on first through fourth stories; round-arch windows with stone imposts on five; sixth story with rectangular windows with stone lintels; seventh story with rectangular windows with stone lintels that continue across facade as a beltcourse; windows separated by brick piers that create appearance of narrow arches on third through fifth stories; sixth bay wider than others with sidewalk-level pedestrian entrance with stone lintel resting on stone imposts; floors two through four of sixth bay combined into three levels with long windows on two and four; corbelled brickwork between first and second stories and beneath arch of fifth story; stone beltcourse at sill level on two and seven; projecting stone sills on three, four, five, and seven; cornice with corbelled brickwork over bays one through five and fifteen through nineteenth, rising to smooth brick parapet in center; design on

upper two floors continues for two bays along eastern elevation; six bay wide Adams Street elevation continues design of Plymouth Street front; vertical painted signs reading “WARING ENVELOPE” on both sides of corner of Plymouth and Adams Streets.

Significant alterations: Four vehicular bays cut into first story on Plymouth Street and one on Adams Street; windows replaced; first bay on Plymouth Street filled in; first-story windows filled in.

History: The entire block bounded by Plymouth Street, Adams Street, John Street, and Pearl Street is occupied by the former E. W. Bliss machinery factory (see 1-15 Adams Street, 143 Plymouth Street); the company also occupied buildings elsewhere in the DUMBO Historic District (see 39-53 Jay Street, 190-200 Plymouth Street, 202-206 Plymouth Street, and 208-214 Plymouth Street). Eliphalet W. Bliss (1836-1903) began purchasing property on this block in 1879 and by 1891 he owned the entire block. Previously, a portion of the block had been occupied by the George G. Johnson Iron Foundry. Between 1879 and c. 1900, Bliss erected three buildings for the manufacture of a vast array of machinery, cans, and other metal products. Bliss was born in Fly Creek, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of “The Manufacturing Industries of Brooklyn and Kings County” section of Henry L. Stiles’s history of Brooklyn, wrote that Bliss “has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet iron, brass or copper, in all the required forms for household and manufacturing use.” At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery, cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

The initial portion of the Bliss factory was erected in 1879 at 143 Plymouth Street (see), extending along Pearl Street to Adams Street. A major expansion began in 1891, when a new structure was erected at 1-15 Adams Street (see) at the corner of John Street to the design of William Tubby. The main Plymouth Street facade is almost identical to that on Adams Street, but was designed by another prominent Brooklyn architect, Rudolphe L. Daus. According to a May 1900 article in the *Brooklyn Daily Eagle*, Daus designed a building that would occupy the entire Plymouth Street frontage, replacing the 1879 building. However, the new building application (NB 538-00) did not include the construction of a new building at 143 Plymouth Street. Daus's design was for a six-story structure. The seventh story was probably added in 1904 when an alteration application (Alt. 944-04) was filed by Daus to "rebuild the top stories." The design and materials of the addition are identical to those of the lower six stories and the parapet resembles that in the design printed in the *Brooklyn Daily Eagle*. Thus the decision to add an additional story was probably made either during construction or soon. An atlas plate confirms the presence of the seventh story in 1912. Daus's design focuses on a pair of massive, round-arch, Romanesque Revival openings. Another 1900 article in the *Eagle* noted that upon completion the factory would be "equipped with the most modern appliances and labor-saving machinery...[to] increase the company's output capacity about one-third." This building was designed with a drafting room on the sixth story and corporate offices on the seventh story. According to an advertising brochure published by Cross & Brown in 1923, these two floors were "fitted for office occupancy with rich mahogany panelling [sic] and partitions." The building had a single electric Otis passenger elevator and an electric Otis freight elevator. Besides the three buildings visible from the street, there are also three buildings within the block described by Cross & Brown in 1923 as a one-story extension to 135 Plymouth Street with a steel roof; a four-story brick building of open joist construction with a power plant on the first story; and a one-story steel roof structure with ovens and an incinerator.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl's Head Park. Following Bliss's death in 1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an interest in the property and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. A painted sign on Adams Street at the corner of Plymouth Street, records the presence of the Waring Envelope Company in the building.

The simple brick facade, articulated by rounded openings, projecting lintels and sills, and corbelled cornice, marks 135 Plymouth Street as an example of the Romanesque Revival style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1900-01, during a major period of development when manufacturers such as E. W. Bliss were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

- Asher & Adams' Pictorial Album of American Industry* (New York: Asher & Adams, 1876; reprinted, New York: Rutledge Books, 1976), 64.
- Brockett, Dr. L.P., "The Manufacturing Industries of Brooklyn and Kings County," in Henry R. Stiles, ed., *History of Kings County Including the City of Brooklyn, 1683-1883* (Brooklyn: W. W. Munsell & Co., 1884), 688.
- "E. W. Bliss Company Factory," Cross & Brown advertising brochure, 8 June 1923.
- E. W. Bliss Company Presses, Dies and Special Machinery* (1914; collection New York Public Library).
- "Eliphalet W. Bliss," *Dictionary of American Biography*, vol. 1 (1927), 371-72.
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- National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).
- "Plant of the E. W. Bliss Company," *Brooklyn Daily Eagle*, 9 April 1900, 12.
- "Plant of the E. W. Bliss Company, Showing New Buildings Contemplated" *Brooklyn Daily Eagle*, 17 May 1900, 7.
- "Projected Alterations Brooklyn," *Real Estate Record and Builders Guide* 73 (4 June 1904): 1367.
- "Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 65 (5 May 1900): 803.
- Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 21.

143 Plymouth Street (northwest corner Pearl Street, extending to southwest corner John Street; 137-143 Plymouth Street, 20-38 Pearl Street, 12-20 John Street)
Borough of Brooklyn Tax Map Block 18, Lot 1 (in part)

Date of construction: 1879 (NB 549-79), c. 1886

Architect: J. Irving Howard

Original owner: E. W. Bliss

Type: Factory

Style: Altered Vernacular

Stories: 4

Structure/material: Brick; mill construction

Features: Brick facades articulated by rectangular windows with projecting sills; six bays on Plymouth Street, 28 bays on Pearl Street, and twelve bays on John Street; multiple vehicular entrances on first story; corbelled brick cornice; some multi-pane wood sash; iron tie rods on John Street; cornice on John Street with angled and corbelled brick bands; iron shutter supports on John Street.

Significant alterations: Facade covered in cementitious coating; many windows closed up (a 1938 photograph of the Plymouth Street facade and a small portion of the Pearl Street facade, in the collection of the New York Public Library, shows many windows already closed up); all vehicular entrances probably not original; most windows replaced; not all vehicular entrances original.

History: The entire block bounded by Plymouth Street, Adams Street, John Street, and Pearl Street is occupied by the former E. W. Bliss machinery factory (see 1-15 Adams Street, 135 Plymouth Street); the company also occupied buildings elsewhere in the DUMBO Historic District (see 39-53 Jay Street, 190-200 Plymouth Street, 202-206 Plymouth Street, and 208-214 Plymouth Street). Eliphalet W. Bliss (1836-1903) began purchasing property on this block in 1879 and by 1891 he owned the entire block. Previously, a portion of the block had been occupied by the George G. Johnson Iron Foundry. Between 1879 and c. 1900, Bliss erected three buildings for the manufacture of a vast array of machinery, cans, and other metal products. Bliss was born in Fly Creek, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of “The Manufacturing Industries of Brooklyn and Kings County” section of Henry L. Stiles’s history of Brooklyn, wrote that Bliss “has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet iron, brass or copper, in all the required forms for household and manufacturing use.” At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery, cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

This building at 143 Plymouth Street is the initial portion of the Bliss factory. The original building faced Plymouth Street and extended two hundred feet along Pearl Street; the portion at

the corner of Pearl and John Streets was apparently added in c. 1886. A 1904 atlas records the use of this building as a machine shop with pattern storage on the fourth story. In that year, Rudolphe Daus, architect of the neighboring building, at 135 Plymouth Street, applied for an alteration permit (Alt. 1077-04) for the construction of a four-story extension. It is not known where this extension was located; it may have been constructed in the inner portion of the block. In 1923, Cross & Brown described a brick building with a concrete floor on the first story and yellow pine columns and girders above, with open joist construction for the roof. The building had one belt driven freight elevator. A major expansion of the Bliss factory began in 1891, when 1-15 Adams Street (see) was erected to the design of William Tubby. The main portion of the complex, at 135 Plymouth Street (see), designed by R. L. Daus, was erected in 1900.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl's Head Park. Following Bliss's death in 1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 in DUMBO appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an interest in the property and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. A painted sign on Adams Street at the corner of Plymouth Street, records the presence of the Waring Envelope Company in the building.

The austere facade, articulated primarily by its rhythmic openings and partially-remaining corbelled cornice, marks 143 Plymouth Street as an example of the vernacular factory building erected during DUMBO's growth as an industrial neighborhood. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1879, during a major period of development when manufacturers such as E. W. Bliss were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Asher & Adams' Pictorial Album of American Industry (New York: Asher & Adams, 1876; reprinted, New York: Rutledge Books, 1976), 64.

Brockett, Dr. L.P., "The Manufacturing Industries of Brooklyn and Kings County," in Henry R. Stiles, ed., *History of Kings County Including the City of Brooklyn, 1683-1883* (Brooklyn: W. W. Munsell & Co., 1884), 688.

Dolkart, Andrew S. *DUMBO National Register Nomination* (2000).

"E. W. Bliss Company Factory," Cross & Brown advertising brochure, 8 June 1923.

E. W. Bliss Company Presses, Dies and Special Machinery (1914; collection New York Public Library).

"Eliphalet W. Bliss," *Dictionary of American Biography*, vol. 1 (1927), 371-72.

"Eliphalet W. Bliss," *National Cyclopaedia of American Biography*, vol. 15 (New York: James T. White, 1916), 20-21.

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“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 24 (19 July 1879): 599.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 21.

PLYMOUTH STREET (SOUTH SIDE) between Anchorage Place and Pearl Street

140 Plymouth Street (southeast corner Anchorage Place)

Borough of Brooklyn Tax Map Block 29, Lot 8 (in part)

Date of construction: 1909 (NB 5998-09)

Architect: Paul Anderson

Original owner: Frederick Welms

Type: Store

Style: None

Stories: 3

Structure/material: Brick

Features: Brick facades; projecting lintels on second story; splayed lintels with keystones on third floor; interlocking bricks at corner; corbelled brickwork on first story.

Significant alterations: cornice removed; facade painted; first-story storefront bricked in; entrance cut on Anchorage place elevation.

History: This heavily altered building has been incorporated into the larger structure at 142-152 Plymouth Street, immediately to the east, which also has a facade immediately to the south on Anchorage Place. An alteration application from 1940 (alt 280-40) for a building at 140 Plymouth Street on the southeast corner of Anchorage Place, notes the presence of a two-story structure that had been used as a garage, but was then vacant. It was to be converted into lofts.

References:

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide, Brooklyn and Long Island Edition* 10 (4 September 1909): 275.

142-152 Plymouth Street (southwest corner Pearl Street; 40-48 Pearl Street; also extends around 140 Plymouth Street to Anchorage Place)

Borough of Brooklyn Tax Map Block 29, Lot 8 (in part)

Date of construction: 1901 (NB 1071-01)/1924

Architect: John Kennedy & Son

Original owner: Robert Gair

Type: Shed and storage
Style: Utilitarian
Stories: 2
Structure/material: Brick

Features: Simple brick building with three street facades. On Plymouth Street, loading docks, vehicular entrances, and segmental-arch windows with projecting stone sills; fourth through sixth vehicular entrances with iron lintels; second story with seventeen segmental-arch windows with projecting stone sills; chimney above bay seven; on Pearl Street, first story with three segmental-arch windows with projecting stone sills, three loading docks, and two pedestrian entrances; second story on Pearl Street with fifteen segmental-arch windows with projecting stone sills; windows arranged in groups on three; on Anchorage place, five vehicular entrances and five large rectangular second-story windows.

Significant alterations: Several vehicular entrances cut into first story; steel windows replaced; some windows on Plymouth and Pearl Streets filled in.

History: This block was home to William Taylor's Columbian Iron Works. In 1901, Robert Gair, manufacturer of paper boxes (see 22-24 Washington Street) erected this building as a wagon shed and for light storage. In the same year, the site was purchased by Eliphalet Bliss (see 135 Plymouth Street) In 1904, Bliss used the site as a machine shop. In 1924, this building was extended westward from 96'6" to 143'5.5". This extension entailed the removal of walls on several existing structures.

The brick construction and unornamented, functional design make 142-152 Bridge Street a representative example of the small-scale utilitarian structures erected to serve the area's growing industries. Built in 1901, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

Brooklyn Department of Buildings, block and lot folder, new building form 1071-01.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 67 (29 June 1901): IX.

PLYMOUTH STREET (NORTH SIDE) between Pearl Street and Jay Street

145-165 Plymouth Street

See 20 Jay Street

PLYMOUTH STREET (SOUTH SIDE) between Pearl Street and Jay Street

154-162 Plymouth Street

See 39 Pearl Street

PLYMOUTH STREET (NORTH SIDE) between Jay Street and Bridge Street

167-181 Plymouth Street

See 33 Jay Street

183-185 Plymouth Street

See 60 John Street

187 Plymouth Street

Borough of Brooklyn Tax Map Block 20, Lot 14

Date of construction: largely c. 2007

Architect: unknown

Original owner: unknown

Type: Storage

Style: None

Stories: 1

Structure/material: Concrete block

Features: Primarily concrete block structure with some earlier brickwork on facade.

Significant alterations: Primarily alteration to earlier brick structure.

191 Plymouth Street

Borough of Brooklyn Tax Map Block 20, Lot 14 (in part)

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Garage

Style: None

Stories: 1

Structure/material: Brick

Features: Wide vehicular entrance and smaller pedestrian entrance to west; small rectangular window with stone lintel and sill above pedestrian entry.

195 Plymouth Street (193-197 Plymouth Street)
Borough of Brooklyn Tax Map Block 20, Lot 29 (in part)

Date of construction: 1892 (NB 866-92)
Architect: Mercein Thomas
Original owner: Mrs. A[nnie] M. Sadlier
Type: Factory
Style: American Round Arch
Stories: 6
Structure/material: Brick; slow-burning mill construction

Features: First story with four openings – two wide segmental-arch entries flank a rectangular entrance; vehicular entrance to right; entry in third bay with iron lintel with rosettes; concrete loading dock in front of central openings; bay to left projects slightly and rises to a tower; tower bay articulated by single segmental-arch window on second through fourth stories and pair of rectangular 2x2 windows on fifth story; tower section with parapet ornamented with corbelling and recessed panels; remainder of building massed in three vertical bays each recessed and capped by brick corbelling; dog-tooth brick band above central bays; bay to left with single segmental-arch windows; pairs of segmental-arch windows in other two bays; iron tie rods; corbelled cornice; projecting stone sills; several segmental-arch windows with wood sash panels ornamented with a central roundel; iron shutter supports at windows; segmental-arch windows on side elevations.; east elevation with one window with 6x6 sash and another with 2x2 sash.

Significant alterations: Windows replaced; first story bay with rectangular opening filled in; sixth story brickwork covered with cementitious material and several windows closed up.

History: Annie M. Sadlier appears to have been a local real estate investor; in 1897, her property near by, on the corner of John and Bridge Streets was auctioned as part of a foreclosure action. She still owned this Plymouth Street site in 1900 when a permit was issued for interior alterations (Alt. 632-00). By 1904, 195 Plymouth Street was occupied by the metal spinning and plating plant of S. Sternau & Company. Sternau's major factory was nearby on Gold Street, where the company manufactured the small burners that have come to be known as "sternaus" or sternos." In 1912, the building was home to the Lightfoot-Schulty Company, manufacturers of shaving soap, which employed 27 people.

The simple brick facade, articulated by segmental openings, radiating lintels and projecting sills, and corbelled cornice, marks 195 Plymouth Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1892, during a major period of development when manufacturers were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and its connection to DUMBO's industrial history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1912).

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

“Projected Alterations Brooklyn,” *Real Estate Record and Builders Guide* 65 (21 April 1900): 715.

Sanborn, *Atlas of the Borough of Brooklyn* (New York: Sanborn Map Co., 1904)

“Supreme Court, Kings County,” *Brooklyn Daily Eagle*, 27 March 1897, 12.

199 Plymouth Street (address of 197 painted on facade)

Borough of Brooklyn Tax Map Block 20, Lot 29 (in part)

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Garage

Style: None

Stories: 1

Structure/material: Concrete block

Features: None

201 Plymouth Street

Borough of Brooklyn Tax Map Block 20, Lot 29 (in part)

Area between 199 and 201 Plymouth Streets is open driveway/lot leading to south elevation of 26-28 Bridge Street (see).

203 Plymouth Street

Borough of Brooklyn Tax Map Block 20, Lot 29 (in part)

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Not applicable

Style: None

Stories: 1

Structure/material: Concrete block; brick

Features: None on concrete block building; at east end of lot is brick entrance, possibly a remnant of an earlier building.

205 Plymouth Street

Borough of Brooklyn Tax Map Block 20, Lot 29 (in part)

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Factory

Style: None
Stories: 2
Structure/material: Brick

Features: Ground floor with vehicular entrance to left and rectangular window and door to right; two pairs of rectangular windows on second story with original 4x4 sash; terra-cotta coping; west elevation with rectangular openings.

Significant alterations: Facade painted.

209-215 Plymouth Street
See 32-34 Bridge Street

PLYMOUTH STREET (SOUTH SIDE) between Jay Street and Bridge Street

176-186 Plymouth Street
See 39 Jay Street

188-200 Plymouth Street (205-213 Water Street)
Borough of Brooklyn Tax Map Block 31, Lot 14 (in part)

Vacant lot, created by 2007 demolition of three-story brick foundry structure.

History: This site was occupied by the E. W. Bliss Company's foundry erected in 1900 by the Berlin Iron Bridge Company. The building was later used by the Brillo Company.

References:
"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 65 (23 June 1900): XI.

202 Plymouth Street (202-206 Plymouth Street)
Borough of Brooklyn Tax Map Block 31, Lot 7502 (in part)

Date of construction: 1903 (NB 773-03)
Architect: unknown
Original owner: E. W. Bliss Company
Type: Foundry
Style: Vernacular
Stories: 1
Structure/material: Brick

Features: Bone-bay wide brick foundry with gable end facing street; peak roof; single large entrance; corbelled brickwork; pediment divided by vertical brick pier into two triangles; iron tie rods; rail tracks enter building.

Significant alterations: Entry partially filled in with concrete blocks and partially covered with two steel rolling gates; segmental-arch pedestrian entrance to left partially filled in.

History: This building was erected as a foundry for the E. W. Bliss Company and replaces an earlier Bliss foundry on the site. The new building permit does not provide the name of an architect. Eliphalet W. Bliss (1836-1903) was born in Fly Creek, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of “The Manufacturing Industries of Brooklyn and Kings County” section of Henry L. Stiles’s history of Brooklyn, wrote that Bliss “has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet iron, brass or copper, in all the required forms for household and manufacturing use.” At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery, cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

The main Bliss manufacturing building in DUMBO occupies the street bounded by Plymouth, John, Adams, and Pearl Streets. At its height in the early years of the twentieth century, Bliss also occupied most of the western half of block 31.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl’s Head Park. Following Bliss’s death in 1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an

interest in the property and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. A painted sign on Adams Street at the corner of Plymouth Street, records the presence of the Waring Envelope Company in the building.

In 1925, this building was sold to the Brillo Company. The Brillo Company was incorporated in 1913 by Milton B. Loeb, a lawyer. According to Loeb's obituary, one of Loeb's clients was jewelry manufacturer who had devised a method of combining steel wool and a special reddish soap that was an excellent means of cleaning aluminum cooking utensils. After trying the product, Loeb invented the name "Brillo" and incorporated the Brillo Manufacturing Company. He soon became president of the company and expanded its reach from the United States to Great Britain, Ireland, and Canada. In 1963, the Brillo Manufacturing Company became a part of the Purex Corporation of California.

The brick construction, featuring corbelled brickwork and a pediment, make 202 Plymouth Street a representative example of the small-scale vernacular structures erected to serve the area's growing industries. Built in 1903, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

Asher & Adams' Pictorial Album of American Industry (New York: Asher & Adams, 1876; reprinted, New York: Rutledge Books, 1976), 64.

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E. W. Bliss Company Presses, Dies and Special Machinery (1914; collection New York Public Library).

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"James Warren Lane," *National Cyclopaedia of American Biography*, vol 22 (1932), 219-20.

"Milton Loeb, Lawyer Who Began Brillo Corporation, Is Dead at 84," *New York Times* 28 January 1972, 40.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 71 (9 May 1903): 972.

"Purex, Brillo Plan Merger, With Purex the Surviving Firm," *Wall Street Journal* 1 August 1963, 2.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 21.

208-214 Plymouth Street

Borough of Brooklyn Tax Map Block 31, Lot 7502 (in part)

Date of construction: 1904 (NB 215-04)

Architect: Wilhelm Bros.

Original owner: E. W. Bliss

Type: Storage building

Style: Vernacular

Stories: 1

Structure/material: Brick

Features: Five bays with wide segmental-arch windows; corbelled cornice; stone sills; header brick lintels.

Significant alterations: Pedestrian entrance cut into part of easternmost window bay.

History: This building was erected as a storage structure for the E. W. Bliss Company and replaces an earlier Bliss foundry on the site. Eliphalet W. Bliss (1836-1903) was born in Fly Creek, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of "The Manufacturing Industries of Brooklyn and Kings County" section of Henry L. Stiles's history of Brooklyn, wrote that Bliss "has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet iron, brass or copper, in all the required forms for household and manufacturing use." At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery,

cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

The main Bliss manufacturing building in DUMBO occupies the street bounded by Plymouth, John, Adams, and Pearl Streets. At its height in the early years of the twentieth century, Bliss also occupied most of the western half of block 31.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl's Head Park. Following Bliss's death in 1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an interest in the property and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. A painted sign on Adams Street at the corner of Plymouth Street, records the presence of the Waring Envelope Company in the building.

In 1925, this building was sold to the Brillo Company. The Brillo Company was incorporated in 1913 by Milton B. Loeb, a lawyer. According to Loeb's obituary, one of Loeb's clients was jewelry manufacturer who had devised a method of combining steel wool and a special reddish soap that was an excellent means of cleaning aluminum cooking utensils. After trying the product, Loeb invented the name "Brillo" and incorporated the Brillo Manufacturing Company. He soon became president of the company and expanded its reach from the United States to Great Britain, Ireland, and Canada. In 1963, the Brillo Manufacturing Company became a part of the Purex Corporation of California.

The brick construction, featuring segmental openings and corbelled cornice, make 208-214 Plymouth Street a representative example of the small-scale vernacular structures erected to serve the area's growing industries. Built in 1904, the structure contributes to the architectural and historical character of the DUMBO Historic District.

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216 Plymouth Street

Borough of Brooklyn Tax Map Block 31, Lot 7502 (in part)

Date of construction: 1892 (NB 1968-92)

Architect: William H. Gaylor

Original owner: J[ames] L. Truslow

Type: Factory

Style: American Round Arch

Stories: 6

Structure/material: Brick

Features: Originally five stories, expanded to six; low basement topped by bluestone beltcourse; first story with three bays; central loading dock with pedestrian entrance to left and rectangular window to right; stone lintels and window sill; upper floors with four windows; central windows paired; rectangular windows with stone lintels and sills on second through fourth stories; round-arch openings on five and six with stone sills; corbelled cornices above five and six; iron shutter supports at windows; iron fire escape.

Significant alterations: Windows replaced; basement windows bricked in.

History: James L. and C. Josephine Truslow owned extensive property on this block and apparently erected this building in 1892. The Truslows were in the cork business and appear to have been connected with the Armstrong Cork Company since in 1898; a Frederick C. Truslow was the manager of the firm. The new building permit is for a five-story structure. The sixth story of the present building is identical to the fifth story and must have either been erected as part of the original construction or shortly thereafter. An alteration permit dating from 1903 (Alt. 90-03) to “raise roof of warehouse” may involve the addition of the sixth story. The alteration was designed by C. H. Richter for J. Robinson. In 1895, the American Cork Company of Pittsburgh became the owner of this site and transferred it to the Armstrong Cork Company. The company may also have occupied the adjacent building at 36-40 Bridge Street.

The simple brick facade, articulated by rounded and rectangular openings, simple stone lintels and sills, and corbelled cornices, marks 216 Plymouth Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1892, during a major period of development when manufacturers were making DUMBO into one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and its connection to DUMBO’s industrial history.

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WASHINGTON STREET (EAST SIDE) between Plymouth and Water Streets

21 Washington Street (southeast corner Plymouth Street; 21-29 Washington Street, 104-116 Plymouth Street)

Borough of Brooklyn Tax Map Block 28, Lot 5 (in part)

Date of construction: 1901 (NB 1114-01)

Architect: William Higginson

Original owner: Robert Gair

Type: Factory

Style: American Round Arch

Stories: 6 and basement

Structure/material: Brick; slow-burning mill construction

Features: Ten bays on Washington Street, eleven bays on Plymouth Street, and ten bays facing east at lot line; segmental-arch openings; brick piers between windows from second through fifth stories; basement set behind areaway with pipe rail; bluestone window sills; sills on second and sixth stories continue across facade as beltcourses; brick corbelling and dentil course above first- and fifth-story windows; corbelling at roofline; high parapet on Plymouth Street; bulkhead on south side of Washington Street facade.

Significant alterations: Parapet with signage removed from Plymouth Street facade; modern parapet railings; windows replaced; first story windows of seventh and eighth bays (from left) on Washington Street extended to sidewalk level to form entrances; several basement windows filled in; new railing around areaway; areaway filled in under last four bays on Washington Street and first bay on Plymouth Street; all windows of first (easternmost) bay on Plymouth Street and last (northernmost) bay on east elevation filled in; mechanical equipment and playground added on roof; at time of designation a permit for a two-story addition had been issued by the Department of Buildings.

History: In 1887, this site was home to a steam pump factory. By the 1890s, this lot and the adjoining lot to the east were owned by the Dodge & Olcott Chemical Company. Dodge & Olcott was established in 1862 as an outgrowth of a chemical business that had been established in New York in 1798 by Robert Bach (George Olcott was a descendant of Bach). Between 1880 and 1904 the firm opened a distillation plant for producing essences of aromatic herbs and roots

on this block. The 1904 Sanborn atlas notes that Dodge & Olcott manufactured “essential oils” in its factory. Conveyance records seem to indicate that Dodge & Olcott sold the properties on the south side of Plymouth Street between Washington Street and Adams Street to Robert Gair in two transactions in 1904 and 1911. However, an 1895 application for a one-story brick storage building at 21 Washington Street indicated that Gair was the owner of the property (NB 1156-95; it is possible that Gair was a lessee). The present building was erected by Gair in 1904 and became the administrative headquarters of the Charles William Stores, housing the firm’s general offices, employment and educational divisions, dispensary, and recreation and reading rooms. The company leased this space from Gair.

The Charles William Stores was established by local coffee magnate John Arbuckle (see 10 Jay Street) in 1913 as a general mail order merchandising business. Arbuckle invented the name “Charles William” expressly so that his name would not be associated with the business. In 1930, a lawsuit by Arbuckle’s heirs stated that the Charles William name was invented “for the purpose of obtaining a fictitious name so as not to disclose to the trade that Arbuckle Brothers was embarking in the mail order business.” Since Arbuckle was already located in DUMBO, it was logical for the new business to also occupy space in the neighborhood and since John Arbuckle and Robert Gair were friends, it was appropriate for him to rent space in Gair’s large buildings. The company’s first sale was in September 1913, at which time it occupied a single building in DUMBO, on the north side of John Street, between Jay and Bridge Streets (demolished). The firm grew rapidly, eventually employing, it claimed, 4,000 people on the entire block bounded by Washington Street, Main Street, Plymouth Street, and Water Street, as well as in seven other buildings in DUMBO (not all extant or in the historic district). The firm sent a wide variety of goods to customers throughout the country. By 1917, it was marketing itself as “The Business that Serves the Nation,” one that “brings New York *to you*.” Focusing on the importance and value of New York as a business and fashion center, the company bragged that it gave its customers “values and services that only a business located in the chief market of America could give.” Using New York in its marketing was undoubtedly a device to separate this company from competitors such as Chicago-based Montgomery Ward and Sears Roebuck. In 1928, the business was purchased by National Bellas Hess, a company founded by H. Bellas Hess, a mail order merchant. National Bellas Hess was established in 1927 with the consolidation of the National Cloak and Suit Company and the Bellas Hess Company.

A 1929 Brooklyn atlas indicates that at that time this building was a factory for the Commercial Can Company, which occupied the entire block.

The simple brick facade, articulated by segmental openings, radiating lintels and stone sills, vertical piers, and corbelled cornice, marks 21 Washington Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1901, during a major period of development when manufacturers such as Robert Gair were making DUMBO into one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

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31-39 Washington Street

See 121 Water Street

WASHINGTON STREET (WEST SIDE) between Plymouth Street and Water Street

22-24 Washington Street (southwest corner Plymouth Street; 92-102 Plymouth Street)

Borough of Brooklyn Tax Map Block 27, Lot 20

Date of construction: 1891 (Alt. 335-91)

Architect: Benjamin Finkensieper

Original owner: Robert Gair

Type: Factory

Style: American Round Arch

Stories: 4 and basement

Structure/material: Brick facade with reinforced concrete structure

Features: Four stories of original six-story mill building; five bays on Washington Street and seven bays on Plymouth Street; bays separated by brick piers; ornate iron tie rods on piers set at lintel level on first through third stories on Washington Street and three bays on Plymouth Street; all windows with segmental arches and projecting corbelled brick lintels; stone sills; accordion brick bands between first and second and third and fourth stories; recessed brick panels between second and third stories; basement on Washington Street with segmental-arch windows and on Plymouth Street with small rectangular windows; concrete, pedimented projection above central bay on Washington Street created (possibly during 1918-19 alteration).

Significant alterations: Original fifth and sixth stories removed (possibly in 1918-19 as part of reconstruction of building into a boiler room); windows replaced; corner entrance reconfigured; basement openings on Plymouth Street altered, new bulkhead added; windows of third and fourth

stories and basement windows on Washington Street closed up; security bars on basement windows along Plymouth Street; new signage.

History: This building was apparently erected as part of an extension to the first factory erected by Robert Gair in DUMBO, located on the northwest corner of Washington and Water Streets (see 26-38 Washington Street). Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair's inventions relating to the manufacture of corrugated paper boxes that resulted in his firm's growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World's Metropolis*, Gair "revolutionized the folded box business" by arranging "pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks." The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair's first building was built on the northwest corner of Washington and Water Streets, although it remains unclear how many bays were erected at that time. A history of the firm, entitled *What We Do and How We Do It* (1901) notes that the first factory was extended three years after it was built. Thus, in c. 1891, the building was expanded to include the entire blockfront between Water and Plymouth Streets. The building at 22-24 Washington Street is a part of that addition. By 1901, the entire Washington Street building was used by Gair for general manufacturing. The fifth and sixth stories were removed from this structure, probably in 1918-19, when the structure was converted into a boiler room. The truncated building is evident in an engraving of the Gairville in 1923, published in William T. Bonner's *New York: The World's Metropolis* (1924).

Gair's decision to transfer his manufacturing to DUMBO was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers' Industrial Exposition* claimed that the firm was a "manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc." The 1901 Gair publication *What We Do and How We Do It* commented that "the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration." Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneeda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved

with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called “Gairville.” The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair’s sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied. However, much of the space in “Gairville” was leased. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith’s book about Gair, noted historian and architectural critic Lewis Mumford notes that “in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine.” Mumford also stated that “more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront.”

By the second decade of the twentieth century, the major tenant in Gair’s buildings was the Charles William Stores, a mail order supply business. The Charles William Stores was established by local coffee magnate John Arbuckle (see 10 Jay Street) in 1913 as a general mail order merchandising business. Arbuckle invented the name “Charles William” expressly so that his name would not be associated with the business. In 1930, a lawsuit by Arbuckle’s heirs stated that the Charles William name was invented “for the purpose of obtaining a fictitious name so as not to disclose to the trade that Arbuckle Brothers was embarking in the mail order business.” Since Arbuckle was already located in DUMBO, it was logical for the new business to also occupy space in the neighborhood and since John Arbuckle and Robert Gair were friends, it was appropriate for him to rent space in Gair’s large buildings. The company’s first sale was in September 1913, at which time it occupied a single building in DUMBO, on the north side of John Street, between Jay and Bridge Streets (demolished). The firm grew rapidly, eventually employing, it claimed, 4,000 people on the entire block bounded by Washington Street, Main Street, Plymouth Street, and Water Street, as well as in seven other buildings in DUMBO (not all extant or in the historic district). The firm sent a wide variety of goods to customers throughout the country. By 1917, it was marketing itself as “The Business that Serves the Nation,” one that “brings New York *to you*.” Focusing on the importance and value of New York as a business and fashion center, the company bragged that it gave its customers “values and services that only a business located in the chief market of America could give.” Using New York in its marketing was undoubtedly a device to separate this company from competitors such as Chicago-based Montgomery Ward and Sears Roebuck. Nos 22-24 and 26-38 Washington Street housed the Charles William Stores’s departments selling books, musical instruments, and sporting goods, as well as its reserve warehouse for shoes. The 1917 catalogue includes a drawing that shows a unified six-story blockfront on Washington Street, with several vehicular loading docks. In 1928, the business was purchased by National Bellas Hess, a company founded by H. Bellas

Hess, a mail order merchant. National Bellas Hess was established in 1927 with the consolidation of the National Cloak and Suit Company and the Bellas Hess Company.

The simple brick facade, articulated by segmental openings, ornate tie rods, vertical piers, accordion brick work, and projecting lintels and sills, marks 22-24 Washington Street as an example of the American Round Arch style. Built in 1891, during a major period of development when manufacturers such as Robert Gair were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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26-38 Washington Street (northwest corner Water Street; 113-119 Water Street)
Borough of Brooklyn Tax Map Block 27 Lot 40

Date of construction: 1887-88; 1891 (NB 1367-87; Alt. 335-91)

Architect: Benjamin Finkensieper

Original owner: Robert Gair

Type: Factory

Style: American Round Arch

Stories: 6 and basement

Structure/material: Brick facade; stone lintels and sills; cast-iron tie rods; pressed-metal cornice; mill construction

Features: Fifteen bays on Washington Street and eight on Water Street; bays separated by brick piers; ornate iron tie rods on piers set at lintel level; wide window openings except at westernmost bay on Water Street; all windows with segmental arches and projecting corbelled brick lintels; stone sills; accordion brick bands between first and second, third and fourth, and fifth and sixth stories; recessed brick panels between second and third and fourth and fifth stories; site slopes downward along Water Street creating a basement with small segmental-arch windows; bracketed, pressed-metal cornice with incised brackets; pediment advertising “ROBERT GAIR BUILDING,” flanked by the dates 1864 and 1888 above fifth and sixth bays from left on Washington Street; westernmost bay on Water Street rises to seventh story tower with ocular opening set within corbelled brick frame; entrance arch in first story of western bay; western elevation with segmental-arch windows and iron tie rods.

Significant alterations: windows replaced; full basement excavated in first five bays on Washington Street and new areaway created; handicapped-access ramp and cloth awning added to entrance on Washington Street; on Water Street, first-story window on fourth bay from right extended to sidewalk level as a doorway and sixth and seventh bays from right combined to create a vehicular entrance; new playground added on roof; new signage.

History: The southern portion of this building is the earliest paper factory erected by Robert Gair in DUMBO. A history of the firm, entitled *What We Do and How We Do It* (1901) notes that the first factory was extended three years after it was built. Building records indicated that the extension dates from 1891 (Alt. 335-91). The addition was at 75 foot wide structure. No. 26-38 Washington Street incorporates the entire original building and part of the 1891 extension. The remainder of the extension is now 22-24 Washington Street. From the placement of the pediment atop 26-38 Washington Street it appears that the original building was the southern ten bays of the present structure and the addition was the ten bays to the north.

Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair’s inventions relating to the manufacture of corrugated paper boxes that resulted in his firm’s growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World’s Metropolis*, Gair “revolutionized the folded box business” by arranging “pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks.” The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. By 1901, the entire Washington Street building was used by Gair for general manufacturing.

Gair's decision to transfer his manufacturing to DUMBO was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished). A new building permit dating from 1887, recorded in a listing in the *Real Estate Record and Builders Guide*, states that Benjamin Finkensieper was the architect. However, H. Allen Smith's book *Robert Gair: A Study*, published in 1939, states that William Higginson was the original architect.

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers' Industrial Exposition* claimed that the firm was a "manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc." The 1901 Gair publication *What We Do and How We Do It* commented that "the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration." Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneeda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called "Gairville." The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair's sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair invested increasingly in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied. However, much of the space in "Gairville" was leased. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith's book about Gair, noted historian and architectural critic Lewis Mumford notes that "in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine." Mumford also stated that "more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront."

By the second decade of the twentieth century, the major tenant in Gair's buildings was the Charles William Stores, a mail order supply business. The Charles William Stores was established by local coffee magnate John Arbuckle (see 10 Jay Street) in 1913 as a general mail order merchandising business. Arbuckle invented the name "Charles William" expressly so that his name would not be associated with the business. In 1930, a lawsuit by Arbuckle's heirs stated that the Charles William name was invented "for the purpose of obtaining a fictitious name so as not to disclose to the trade that Arbuckle Brothers was embarking in the mail order

business.” Since Arbuckle was already located in DUMBO, it was logical for the new business to also occupy space in the neighborhood and since John Arbuckle and Robert Gair were friends, it was appropriate for him to rent space in Gair’s large buildings. The company’s first sale was in September 1913, at which time it occupied a single building in DUMBO, on the north side of John Street, between Jay and Bridge Streets (demolished). The firm grew rapidly, eventually employing, it claimed, 4,000 people on the entire block bounded by Washington Street, Main Street, Plymouth Street, and Water Street, as well as in seven other buildings in DUMBO (not all extant or in the historic district). The firm sent a wide variety of goods to customers throughout the country. By 1917, it was marketing itself as “The Business that Serves the Nation,” one that “brings New York *to you*.” Focusing on the importance and value of New York as a business and fashion center, the company bragged that it gave its customers “values and services that only a business located in the chief market of America could give.” Using New York in its marketing was undoubtedly a device to separate this company from competitors such as Chicago-based Montgomery Ward and Sears Roebuck. Nos. 22-24 and 26-38 Washington Street housed the Charles William Stores’s departments selling books, musical instruments, and sporting goods, as well as its reserve warehouse for shoes. The 1917 catalogue includes a drawing that shows a unified six-story blockfront on Washington Street, with several vehicular loading docks. In 1928, the business was purchased by National Bellas Hess, a company founded by H. Bellas Hess, a mail order merchant. National Bellas Hess was established in 1927 with the consolidation of the National Cloak and Suit Company and the Bellas Hess Company.

The simple brick facade, articulated by segmental openings, ornate tie rods, vertical piers, accordion brick work, projecting lintels and sills, and projecting cornice, marks 26-38 Washington Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1887-88, during a major period of development when manufacturers such as Robert Gair were making DUMBO into one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

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WASHINGTON STREET (EAST SIDE) between Water Street and Front Street

41-49 Washington Street (southeast corner Water Street through to Adams Street; 112-128 Water Street)

Borough of Brooklyn Tax Map Block 38, Lot 1 (in part)

Date of construction: 1904 (NB 2297-04)

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 8

Structure/material: Reinforced concrete

Features: Reinforced concrete frame with rusticated piers; incised paneled spandrels; six bays on Washington Street, eleven bays on Water Street, and six bays on Adams Street; wide rectangular openings divided into three windows; entrance located in fourth bay on Washington Street; entrance set in projecting enframing capping by segmental-arch pediment inscribed “Robert Gair Company”; high parapet above the third bay on Washington Street, with a clock (no longer extant) set beneath a pediment supported by triglyphs.

Significant alterations: Original 3x3 metal pivot windows with vertical muntins replaced; loading docks and other ground-floor openings on Washington Street and two western bays on Water Street converted into commercial space; parking garage entrance created on Adams Street; clock face removed; below clock, parapet originally had attached letters reading “ROBERT GAIR COMPANY”; some openings cut into parapet; on Water Street portions of parapet removed and replaced with railing, and portions converted into a full ninth story; two loading docks on Adams Street partially filled in; new signage; new billboards on roof.

History: 41-49 Washington Street is a significant part of “Gairville,” the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair and is the earliest of the group of reinforced concrete factories erected by Gair in DUMBO. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he

reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair's inventions relating to the manufacture of corrugated paper boxes that resulted in his firm's growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World's Metropolis*, Gair "revolutionized the folded box business" by arranging "pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks." The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair's choice of a site on the northwest corner of Washington Street Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers' Industrial Exposition* claimed that the firm was a "manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc." The 1901 Gair publication *What We Do and How We Do It* commented that "the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration." Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called "Gairville." The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair's sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. A 1917 map of the DUMBO area published in a catalogue for Gair's largest tenant, the Charles William Stores, identifies the buildings on block 38 as being occupied by Gair and his business. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith's book about Gair, noted historian and architectural critic Lewis Mumford notes that "in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our

daily routine.” Mumford also stated that “more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront.”

Before it was occupied by Robert Gair, block 38 housed the Brooklyn White Lead Company, later known as the National Lead Company. Gair acquired the block in several purchases between 1901 and 1908. 41-49 Washington Street was the first building erected by Gair on this block. Planning to erect a traditional building on this site, Robert Gair sent his nephew, James Beattie, south in search of timbers strong enough to support an industrial building. Beattie could not find appropriate lumber, but, according to H. Allen Smith, in his biography of Robert Gair, Beattie was impressed with the fireproof concrete that he saw being used to rebuild Jacksonville, Florida following a devastating fire. He conveyed his impressions to Robert Gair’s son George, who contacted the Turner Construction Company to discuss using concrete for the new factory. George persuaded his father that this was the appropriate material and hired William Higginson as architect. Smith states that Higginson was skeptical about using the material. Higginson later became a leading proponent of reinforced concrete. Designs for the building were completed in 1904, but the New York City Department of Buildings would not issue a permit for a tall building of reinforced concrete until substantial tests had been completed relating to fire, water, and load. Construction finally began in 1905.

The building was extended in 1908 to complete the block (see 51-59 Washington Street). According to the *Real Estate Record and Builders Guide* of 9 January 1915, upon its completion, 41-49 Washington Street proved to be so efficient that “steps were taken that same year to erect an addition of the same height and size, thus filling the block.” Also in 1908, an alteration permit was issued for the addition of a ninth story to 41-49 Washington Street, also designed by Higginson; it is not clear exactly what this addition entailed. This building was used by Gair for his paper box and related manufacturing, even after other Gair buildings were leased to the Charles William Stores (see 22-24 Washington Street). The Gair Company had its headquarters on the top floor. A 1929 atlas of Brooklyn indicates that at that time at least a portion of the building was by the A. & P. Products Company. As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

The austere concrete facade, articulated by large window openings, rusticated piers, and abstracted, classically-inspired detail, marks 41-49 Washington Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1904, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO’s status as one of the city’s most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area’s history.

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51-59 Washington Street (northeast corner Front Street through to Adams Street; 97-119 Front Street)

Borough of Brooklyn Tax Map Block 38, Lot 1 (in part)

Date of construction: 1908

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 8

Structure/material: Reinforced concrete

Features: Reinforced concrete frame with rusticated piers; incised paneled spandrels; six bays on Washington Street, fourteen bays on Front Street, and seven bays on Adams Street; entrance located in northernmost bay on Washington Street; wide rectangular openings divided into three windows each; Original, 3x3 metal pivot windows with vertical mullions extant on the fifth story in all windows on Washington Street, the first through third and seventh through fourteenth bays on Front Street, and first through third and fifth through sixth bays on Adams Street; high parapet; parapet capped, above the third bay from corner (counting from right) on Washington Street, with a clock (no longer extant) set beneath a projecting pediment resting on triglyphs;

similar clock on Adams Street set at curve in facade where building adjoins 41-49 Washington Street; curved section comprised of two narrow bays, each with a single rectangular window; two loading bays on Adams Street, in fourth and fifth bays; pedimented entrance with concrete stairs in sixth bay on Adams Street.

Significant alterations: Most original 3x3 metal pivot windows with vertical muntins replaced; bridge connecting building with 40-58 Washington Street removed; most loading docks and other ground-floor openings converted into commercial space; new entrance and canopy added on Washington Street; clock faces removed; windows and openings cut into parapet; raised entrance platforms constructed on all elevations; ventilators in seven of the narrow windows on Adams Street – on the sixth and seventh stories of the sixth bay and the second through fourth, sixth, and eighth stories in the seventh bay; on the first story on Adams Street a pedestrian entrance has been cut into the sixth bay and the seventh bay has been closed with concrete block; new mechanical equipment on roof; new signage; new billboards on roof.

History: 51-59 Washington Street is a significant part of “Gairville,” the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair’s inventions relating to the manufacture of corrugated paper boxes that resulted in his firm’s growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World’s Metropolis*, Gair “revolutionized the folded box business” by arranging “pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks.” The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair’s choice of a site on the northwest corner of Washington Street and Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers’ Industrial Exposition* claimed that the firm was a “manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc.” The 1901 Gair publication *What We Do and How We Do It* commented that “the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration.” Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers,

Uneeda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called “Gairville.” The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair’s sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. A 1917 map of the DUMBO area published in a catalogue for Gair’s largest tenant, the Charles William Stores, identifies the buildings on block 38 as being occupied by Gair and his business. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith’s book about Gair, noted historian and architectural critic Lewis Mumford notes that “in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine.” Mumford also stated that “more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront.”

Before it was occupied by Robert Gair, block 38 housed the Brooklyn White Lead Company, later known as the National Lead Company. Gair acquired the block in several purchases between 1901 and 1908. 51-59 Washington Street was constructed as an extension to Gair’s first reinforced concrete factory, at 41-49 Washington Street (see). This building was used by Gair for his paper box and related manufacturing, even after other Gair buildings were leased to the Charles William Stores (see 22-24 Washington Street). The Gair Company had its headquarters on the top floor. Since the building had to support the weight of Gair’s box machinery and lithographic machines, it was, designed, according to a 1908 article in the *Real Estate Record and Builders Guide*, “to carry a working load of 200 pounds to the square foot, but the engineers claim that in some of the machine rooms this capacity has been stretched to the startling figure of one ton to the square foot.” A 1929 atlas of Brooklyn indicates that at that time at least a portion of the building was by the A. & P. Products Company. As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

The austere concrete facade, articulated by large window openings, rusticated piers, and abstracted, classically-inspired detail, marks 51-59 Washington Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1908, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO’s status as one of the city’s most important industrial neighborhoods, the structure contributes to the district

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WASHINGTON STREET (WEST SIDE) between Water Street and Front Street

40-58 Washington Street (southwest corner Water Street and northwest corner Front Street;
100-110 Water Street, 83-95 Front Street)

Borough of Brooklyn Tax Map Block 37, Lot 1 (in part)

Date of construction: 1913-14 (NB 3473-13)

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 9 and 10

Structure/material: Reinforced concrete

Features: Reinforced concrete frame with rusticated piers rising to eighth story; incised paneled spandrels; ten bays on Washington Street and six bays on Water and Front Streets; Front Street elevation and five bays at south end of Washington Street facade rise to ten stories; wide

rectangular openings divided into four windows; sixth bay (counting from left) on Washington Street is narrower, with two individual rectangular windows flanked by vertical incised panels; sixth bay capped by concrete bulkhead divided into three panels set above horizontal band with three recessed panels; sixth bay on first story on Front Street and sixth bay (counting from left) on Washington Street are narrower, with rectangular openings divided by concrete piers with two windows to either side; wide corner entrance on Washington Street at Front Street with Doric, paneled pilasters supporting full entablature with projecting cornice; top of each pilaster has a cartouche; cartouche to left has date of "1864" and that to right "1914"; frieze with recessed panel and roundel; above entrance doors is panel reading "GAIR BUILDING No. 6"; denticulated cornice above name panel; cornice capped by transom with four small windows; similar entrance on Front Street at corner of Washington, but lacks dates in cartouches; concrete fire balconies with wrought-iron railings, supported on brackets in third bay from corner on both Water Street and Front Street facades; ninth story with triple groups of rectangular windows (except in sixth bay on Washington Street); original 3x3 metal pivot sash with vertical mullions in left window of first bay (counting from left) on third and fourth stories on Front Street, in fifth story of fifth bay and fourth through sixth stories of sixth bay on Front Street, and on first bay (from left) on fourth story and partially on sixth, eighth, and ninth stories on Washington Street; modest cornice supported by flat shield-like brackets above ninth story; tenth story on southern half of building along Washington Street and Front Street with large rectangular openings.

Significant alterations: Most original 3x3 metal pivot windows with vertical muntins replaced; bridge connecting building with 51-59 Washington Street removed; most loading docks and other ground-floor openings converted into commercial space; some loading docks cut down to grade; modern storefronts; access ramp added on right side of east facade, three-quarters of window on third story of fifth bay on Washington Street closed up; first story in sixth bay on Washington Street appears to have been closed up and had service entrance added; fire escapes removed from fire balconies and ground floor openings closed in; three-story addition on roof at west end of Water Street elevation connects to apartments in 35 Main Street; new mechanical equipment on roof; new signage.

History: 40-58 Washington Street is a significant part of "Gairville," the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair's inventions relating to the manufacture of corrugated paper boxes that resulted in his firm's growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World's Metropolis*, Gair "revolutionized the folded box business" by arranging "pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks." The folding box soon became a basic material for the packaging of food (the National

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Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. A 1917 map of the DUMBO area published in a catalogue for Gair's largest tenant, the Charles William Stores, identifies the buildings on block 37 as being occupied by Gair and his business. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith's book about Gair, noted historian and architectural critic Lewis Mumford notes that "in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine." Mumford also stated that "more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront."

The Washington Street frontage of block 37 was the first to be industrialized, with the construction of the Campbell & Thayer Linseed Oil Works, some time prior to 1887. In 1899, Campbell & Thayer transferred the property to the American Linseed Company which sold it to Gair in 1912. A 1904 atlas shows the linseed oil factory used by the Union Lead Works. Robert Gair began purchasing property on this block in 1909 and by 1918 had acquired all lots. In 1913, Gair began construction on this block, replacing the earlier factory with this reinforced concrete structure. By 1919, Gair had expanded onto the entire block. A 1929 Brooklyn atlas indicates

that at that time the northern portion of this building was occupied by the American Tea Company and the southern portion by the Interstate Corrugated Box Company. As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

The austere concrete facade, articulated by large window openings, rusticated piers, projecting cornice, and abstracted, classically-inspired detail, marks 40-58 Washington Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1913-14, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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WASHINGTON STREET (EAST SIDE) between Front Street and York Street

75 Washington Street (75-79 Washington Street)

Borough of Brooklyn Tax Map Block 51, Lot 1 (in part)

Date of construction: 1889 (NB 1207-89)

Architect: Mercein Thomas

Original owner: Ketcham & McDougall
Type: Factory
Style: American Round Arch
Stories: 5
Structure/material: Brick; slow-burning mill construction

Features: Brick facade with three bays separated by brick piers; piers with rusticated pattern on first two stories; two former loading docks on ground floor, each with an iron lintel with rosettes; loading dock to left with stone sill; central, segmental-arch pedestrian entrance; beltcourse above first story with sawtooth brickwork and stone band that doubles as sills of second-story windows; stone sill band below third-story windows as well; windows of upper three floors recessed within shallow panels with corbelled top courses; wide segmental-arch window in each bay of upper stories, divided into two windows with double-hung 9x9 sash; stone sills on fourth and fifth stories; corbelled cornice; visible south elevation with two bays of similar design – paired 9x9 windows, brick piers, corbelled cornice, and iron tie rods; one-story pavilion connects building to 41-43 York Street; iron shutter supports; north elevation with recessed central pavilion and projecting end pavilions; eastern pavilion with single pairs of 9x9 windows; central section with three pairs of 9x9 windows separated by piers with iron tie rods; on first story of central pavilion, two wide segmental-arch openings; end pavilion to west with two pairs of rectangular 9x9 windows with stone sills on second through fifth stories; painted sign for Thomson Meter Company Water Meters on north elevation; at east side, this building and 45-49 York Street create a court with three segmental-arch window bays on south wall separated by piers and supported by iron tie rods.

Significant alterations: Window sash replaced with new 9x9 sash to match original; rectangular windows cut into north elevation (not known if any of these windows are original); loading docks transformed into stores; ground floor openings expanded; east side of court between 75 Washington Street and 41-43 York Street has one-window wide infill; terrace erected in center of north elevation; one-story addition to eastern portion of north elevation; new signage and lighting.

History: The major industrial presence on block 51 is the complex of three factory buildings erected in the 1880s by Ketcham & McDougall (see 81-89 Washington Street and 47-49 York Street). Edward W. Ketcham and Hugh McDougall were manufacturers of jewelry. The firm was founded in Manhattan as Ketcham & Bro. In 1856 Hugh McDougall joined the firm and became a partner a year later. The name of the company was changed to Ketcham, Bro. & Co. and later to Ketcham & McDougall. Hugh McDougall was born in Morgantown, West Virginia. His family moved to Huntington, Long Island when he was a baby. In Huntington, McDougall trained as a thimble maker. He opened his own jewelry store in Huntington before moving to New York to join the Ketcham firm. At the time of his death, McDougall lived at 102 McDonough Street, Brooklyn, a rowhouse located within the Stuyvesant Heights Historic District. The Ketcham & McDougall firm was active in Brooklyn for many decades. In 1913, at a time when the firm's importance was declining, it employed 45 people at 45 York Street. At least part of the complex, probably including this building at 75 Washington Street, was leased by the company to other manufacturers. An advertisement in the *Brooklyn Daily Eagle* in September 1902 records a Ketcham & McDougall building for let with power and fine light. In

1913, the Roy Watch Case Company, manufacturers of gold watch cases, occupied the building, employing ninety-one people – seventy-four men, ten women, and one child between the ages of fourteen and sixteen, and six office workers. At some point the Thomson Meter Company was also a tenant, as is evident from a painted sign located on the building's north elevation. Thomson Meter, a manufacturer of water meters, erected its own factory nearby, at 100-110 Bridge Street, on the corner of York Street, in 1908-09; this building is a designated individual landmark. Robert Gair acquired the entire Ketcham & McDougall complex in several transactions between 1913 and 1926.

The simple brick facade, articulated by segmental openings, radiating lintels and stone sills, and corbelled cornice, marks 75 Washington Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1889, during a major period of development when manufacturers such as Ketcham & McDougall were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

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Industrial Directory of New York State (Albany: State Department of Labor, 1913).

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“To Let,” [advertisement], *Brooklyn Daily Eagle* 9 September, 1902.

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 43 (1 June 1889): 784.

81-91 Washington Street (northeast corner York Street, 39-43 York Street)
Borough of Brooklyn Tax Map Block 51, Lot 1 (in part)

Date of construction: c. 1882

Architect: attributed to Mercein Thomas

Original owner: Ketcham & McDougall

Type: Factory

Style: American Round Arch

Stories: 6 and basement

Structure/material: Brick; slow-burning mill construction

Features: Washington Street elevation eleven bays long; brick piers frame two bays at either end; segmental-arch windows with projecting brick drip lintels connected by brick banding; stone sills; stone beltcourse separates raised basement from main portion of facade; sloping site reflecting in increasing size of basement windows from south to north; areaway with simple iron railing; corbelled and sawtooth cornice; Thomson Meter Co. Water Meters painted sign between third and fourth stories; York Street elevation six bays long with brick piers dividing facade into three groups of two windows; segmental-arch 6x6 windows with raised drip lintels and stone sills; central bay on first story with a single wide segmental-arch opening with pair of 6x6 windows with raised drip lintel; areaway with railing; basement divided from upper floors by

stone beltcourse; iron tie rods in center of each bay on each story (only on York Street); north elevation with four bays divided in half by pier, 6x6 windows, drip lintels, and iron tie rods; east elevation with four bays separated by piers; single narrow 6x6 windows in southern bay, wider 9x9 windows in other bays.

Significant alterations: Window sash replaced with new 6x6 sash to match original; space between 81-91 Washington Street and 47-49 York Street filled in, probably in 1920s, with two-window wide structure; new elevator room and stair access on roof of infill structure; areaway expanded and new railings added, bulkhead replaced; store entrance at north side of facade; new signage.

History: The major industrial presence on block 51 is the complex of three factory buildings erected in the 1880s by Ketcham & McDougall (see 75 Washington Street and 47-49 York Street). Edward W. Ketcham and Hugh McDougall were manufacturers of jewelry. The firm was founded in Manhattan as Ketcham & Bro. In 1856 Hugh McDougall joined the firm and became a partner a year later. The name of the company was changed to Ketcham, Bro. & Co. and later to Ketcham & McDougall. Hugh McDougall was born in Morgantown, West Virginia. His family moved to Huntington, Long Island when he was a baby. In Huntington, McDougall trained as a thimble maker. He opened his own jewelry store in Huntington before moving to New York to join the Ketcham firm. At the time of his death, McDougall lived at 102 McDonough Street, Brooklyn, a rowhouse located within the Stuyvesant Heights Historic District. In 1882, Brooklyn architect Mercein Thomas designed the Ketcham & McDougall factory at 45-49 York Street (see). The York Street facade of 81-91 Washington Street virtually identical to Thomas's York Street building and, therefore, its design has been attributed to Thomas. The Ketcham & McDougall firm was active in Brooklyn for many decades. In 1913, at a time when the firm's importance was declining, it employed 45 people at 45 York Street. At least part of the complex, probably including this building at 75 Washington Street, was leased by the company to other manufacturers. An advertisement in the *Brooklyn Daily Eagle* in September 1902 records a Ketcham & McDougall building for let with power and fine light. Besides Ketcham & McDougall, other companies occupying space in the building in 1913 were the Erbe-Crombie & Lamothe bookbinding firm, which employed 30 people; Thompson-Bonney Company, machinery firm employing 21, and G. H. Harris Company, manufacturers of games and wood cases, which employed 50. At some point the Thomson Meter Company was also a tenant, as is evident from a painted sign located on the building's north elevation. Thomson Meter, a manufacturer of water meters, erected its own factory nearby, at 100-110 Bridge Street, on the corner of York Street, in 1908-09; this building is a designated individual landmark. Robert Gair acquired the entire Ketcham & McDougall complex in several transactions between 1913 and 1926. A 1929 atlas of Brooklyn indicates that at that time the building was occupied by the Shampain, Citron, Clark paper box company. In 1954, the building was occupied by the Shampain, Citron, Clark and the Gutman-Mayer glove company. These firms were featured in a *Brooklyn Daily Eagle* article of that year for sponsoring a women's softball team. The teams practiced during lunch and after work on a field on York Street, in the shadow of the Brooklyn Bridge. As the *Eagle* noted, "one look at the competing teams will make a spectator forget about the Dodgers [since] the teams are composed entirely of girls."

The simple brick facade, articulated by segmental openings, projecting lintels and sills, vertical piers, tie rods, and corbelled cornice, marks 81-91 Washington Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built c. 1882, during a major period of development when manufacturers such as Ketcham & McDougall were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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WASHINGTON STREET (WEST SIDE) between Front Street and York Street

70 Washington Street (southwest corner Front Street; 60-72 Washington Street and 68-76 Front Street)

Borough of Brooklyn Tax Map Block 45, Lot 7501 (formerly Lot 1001; formerly Lot 101 in part; formerly Lot 5)

Date of construction: 1911

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 12

Structure/material: Reinforced concrete

Features: This building and its 1916 addition at 27 York Street (see) read as a single structure; reinforced concrete frame with rusticated piers on first and second and tenth and eleventh stories and smooth piers on other stories; ten bays on Washington Street facade and on west elevation and six bays on Front Street; wide rectangular openings with three windows each on all floors except one and twelve; twelfth story with twenty small rectangular openings separated by triglyphs; modest cornice above second and ninth stories; massive block cornice at roofline; corner windows on Washington and Front Streets and windows in tenth bay from right on Washington Street with keystones

Significant alterations: Original 3x3 metal pivot windows with vertical muntins replaced; loading docks and other ground-floor openings converted into commercial space; loading docks on Front Street cut to grade; sixth and tenth bays on Washington Street cut down to grade for new entrances; new canopy added; new service entrance on Front Street; pairs of individual rectangular windows at corners and in tenth bay combined into single wide window; one-story addition on roof; cabanas, terraces, and mechanical equipment added to roof of addition; terrace on second story along west facade; one story concrete parking garage (outside of district) is attached to west elevation.

History: 60-72 Washington Street is a significant part of “Gairville,” the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair’s inventions relating to the manufacture of corrugated paper boxes that resulted in his firm’s growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World’s Metropolis*, Gair “revolutionized the folded box business” by arranging “pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks.” The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair’s choice of a site on the northwest corner of Washington Street and Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers’ Industrial Exposition* claimed that the firm was a “manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc.” The 1901 Gair publication *What We Do and How We Do It* commented that “the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration.” Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called “Gairville.” The workers in the Gair factory organized into a series of

employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair's sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. The buildings that Gair erected, including several large reinforced concrete structures, created a highly visible complex. In his introduction to H. Allen Smith's book about Gair, noted historian and architectural critic Lewis Mumford notes that "in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine." Mumford also stated that "more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront." As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

Robert Gair acquired block 45 from Alonzo B. See (an elevator manufacturer) and Walter L. Taylor between 1896 and 1916. The block was occupied by old residential structures and A. B. See's lumber yard until Gair erected this building and its addition at 27 York Street/74-82 Washington Street. Gair rented out most of the space in this building. In 1913, tenants included the General Typewriter Exchange, employing 51 people in the rebuilding of typewriters; H. B. Hardenburg & Company, leather specialists, employing 63 people, the Boss Manufacturing Company, makers of cotton flannel gloves, employing 272 people, mostly women; W. B. Conrad & Company, handkerchief manufacturers, employing 145 people, also primarily women; and the Electrose Manufacturing Company, which had 124 people making insulators and insulating parts. Electrose was located on the twelfth floor of the building. According to the *Brooklyn Daily Eagle* in 1920, the company "made all the high frequency insulation for wireless, transformer and magneto work used in the Army and Navy of the United States, besides a large part commercially used all over the world." Electrose insulation, an efficient form of high-tension insulation, was invented by the company's president Louis Steinberger.

The austere concrete facade, articulated by large window openings, vertical piers, rusticated base, projecting cornice, and abstracted, classically-inspired detail, marks 70 Washington Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1911, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Bonner, William T., *New York: The World's Metropolis* (New York: R. L. Polk, 1924), 593.
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What We Do and How We Do It: Historical Sketch of the House of Robert Gair and a Description of the Many Departments That Comprise It (New York: Robert Gair Press, 1901).

"Wonders of Brooklyn: The Electrose Manufacturing Company," *Brooklyn Daily Eagle* 19 June 1920, 21.

74-82 Washington Street

See 27 York Street

WATER STREET (SOUTH SIDE) between Dock Street and Main Street

64 Water Street

Borough of Brooklyn Tax Map Block 36, Lot 14

Date of construction: c. 1855

Architect: unknown

Original owner: unknown

Type: Counting House

Style: Greek Revival

Stories: 4

Structure/material: Brick building with stone lintels and two cast-iron storefront piers

Features: Four-story, four-bay wide structure; ground floor storefront with cast-iron piers to left and in center; brick pier to right; flat stone lintels and projecting stone sills on upper floors; brick parapet with projecting brackets, corbels, and dentils; iron tie rods; iron shutter supports; brick west elevation with two rectangular windows.

Significant alterations: Modern storefront; 4x4 windows replicating what was probably original sash; stone sills replaced in kind; coping replaced; windows punched into west side facade; side elevation painted.

History: The 1855 William Perris atlas of Brooklyn shows a second-class brick residence on this site. By 1887, the present building is standing.

The simple brick facade, articulated primarily by austere stone lintels and sills, marks 64 Water Street as an example of a Greek Revival commercial building. Built in c. 1855, when the neighborhood was beginning to experience commercial development, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

66-72 Water Street

Borough of Brooklyn Tax Map Block 36, Lot 16 (in part)

Date of construction: c. 1850; fifth story, 1903 (Alt. 501-03)

Architect: unknown; fifth story, Axel Hedman

Original owner: unknown

Type: Counting House

Style: Greek Revival/Neo-Grec

Stories: 5

Structure/material: Brick facade with cast-iron storefront and stone trim; metal cornice; slow burning construction

Features: Originally a four story building, expanded to a five-story building in early twentieth century; twelve-bay wide red brick facade; four bays to the east appear to have been erected at a different time and may be an addition to larger structure to west; crisp rectangular window openings with light-hued sandstone lip lintels and projecting sills; sill on second story continues as a beltcourse; 6x6 window sash; cast-iron piers on first story resting on stone sills with brick bases; iron tie rods; iron shutter supports; fifth story with stone lintels and sills similar in form to those above but in a different type of stone; pressed-metal bracketed cornice.

Significant alterations: Fifth story and cornice probably added in early twentieth century (an alteration application dated 1902 discusses changes to the basement and four floors; thus, the fifth floor must have been constructed at a later date); new storefronts and entrance; 6x6 replacement windows; handicap ramp at right; historic cornice replaced with fiberglass replica; stone sill and water table replaced in kind; mechanical equipment added to roof; new signage and lighting.

History: This is probably the oldest industrial building in the DUMBO Historic District. The building may initially have been erected by Mark Spencer and John Benson in the late 1840s or c. 1850. In 1850, a petition was issued substituting Spencer and Benson's names for that of William Scott as owner of the property. In 1851, Benson asked for permission to "conduct a pipe under Water st," indicating that he had need of water for whatever business was taking place on this site. Benson apparently ran a sugar refinery on the site. In April 1853, the *Brooklyn Daily Eagle* notes the presence of "John Benson, sugar refinery, 66 and 68 Water Street, and in 1864, when a fire broke out in the building, the newspaper referred to it as "formerly known as Benson's Sugar Refinery." The 1855 *Perris Atlas of Brooklyn* records a cooper shop at 66-70 Water Street. If this is the case, the easternmost bays (No. 72) would have

been constructed at a later date, as appears evident from a vertical joint on the facade. At the time of the 1864 fire, the *Brooklyn Daily Eagle* noted that the building was occupied by J. E. L. Lindstadt's pianoforte manufactory. By the late nineteenth-century, the building was used for coffee roasting and by the early twentieth century was home to the W. H. Sweeney Manufacturing Company, which later erected the adjoining concrete factory (see 24 Main Street). In 1903, the W. H. Sweeney Manufacturing Company applied to the Department of Buildings to add two stories to the building (Alt. 501-03). Only one story of architect Axel Hedman's proposal was constructed.

The simple brick facade, articulated by austere Greek Revival stone lintels and sills and a Neo-Grec cornice, marks 66-72 Water Street as a significant mid-nineteenth century commercial building. Built c. 1850, when the neighborhood was just beginning to experience commercial development, the structure contributes to the architectural and historical character of the DUMBO Historic District.

References:

Brooklyn Daily Eagle, 17 June 1850, 24 June 1851, 19 January 1853, 19 April 1853, 16 June 1864. National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

Perris, William, *Atlas of Brooklyn*, 6th ward, plate 5.

"Projected Alterations Brooklyn," *Real Estate Record and Builders Guide* 71 (11 April 1903): 752.

74-86 Water Street

See 30 Main Street

WATER STREET (NORTH SIDE) between Main Street and Washington Street

97-111 Water Street

See 1 Main Street

113-119 Water Street

See 26-38 Washington Street

WATER STREET (SOUTH SIDE) between Main Street and Washington Street

88-98 Water Street

See 35-41 Main Street

100-110 Water Street

See 40-58 Washington Street

WATER STREET (NORTH SIDE) between Washington Street and Adams Street

121 Water Street (northeast corner Washington Street; 121-125 Water Street, 31-39 Washington Street)

Borough of Brooklyn Tax Map Block 28, Lot 1

Date of construction: 1894 (NB 491-94)

Architect: Benjamin Finkensieper

Original owner: John Robertson and James Hardie

Type: Factory

Style: American Round Arch

Stories: 6 and basement

Structure/material: Brick; slow-burning mill construction

Features: Six bays on Water street and ten bays on Washington Street separated by brick piers; segmental-arch openings; blind windows filled in with brick that appears to be original in sixth bay on Water Street; stone window sills; iron shutter supports; flat-arch basement openings with stone lintels; stone bands across piers beneath fifth story; accordion- brick spandrels between floors; corbelled brickwork above six; pressed-metal bracketed cornice; loading dock in first bay on Washington Street; brick bulkhead above first bay; ornate wrought-iron fire escape on Washington Street; utilitarian fire escape on Water Street; east elevation clad in less expensive brick than used on street fronts; east elevation articulated with narrow segmental-arch windows from fourth through sixth stories separated by brick piers; slightly tapered square chimney rises on east elevation just south of Water Street.

Significant alterations: Windows replaced; entrance cut into first floor of eighth bay on Washington Street with raised stair; window of second bay on Washington Street extended into sidewalk-level entrance; basement windows of third and fifth bays on Water Street filled in.

History: This building was erected for the Tubal Cain Iron Works established by John Robertson and James Hardie. Robertson was born in Scotland and came to Brooklyn in the mid-nineteenth century. In 1863, he established the Tubal Cain Iron Works. Robertson died in 1896, but the firm continued operating, apparently under the auspices of one or both of his sons, as well as his partner James Hardie. The building was apparently leased to Robert Gair who had his label printing department in this building in 1901. In 1927, the factory was leased to the Commercial Can Company, which occupied all of the buildings on the block.

The simple brick facade, articulated by segmental openings, radiating lintels and stone sills, vertical piers, and projecting cornice, marks 121 Water Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1894, during a major period of development when manufacturers such as John Robertson and James Hardie were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

“John Robertson [obituary], *New York Times* 29 June 1896, 5.

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What We Do and How We Do It: Historical Sketch of the House of Robert Gair and a Description of the Many Departments That Comprise It (New York: Robert Gair Press, 1901).

133 Water Street (northwest corner Adams Street; 26 Adams Street)
Borough of Brooklyn Tax Map Block 28, Lot 23

Date of construction: 2006

Architect:

Original owner:

Type: Apartment building

Style: None

Stories: 2, 8, and 12

Structure/material: Brick, metal

Features: Brick two and eight-story sections; metal facade on taller portion; building shaped and angled in accord with unusual lot alignment; balconies on north elevation.

WATER STREET (SOUTH SIDE) between Washington Street and Adams Street

112-128 Water Street

See 41-49 Washington Street

WATER STREET (NORTH SIDE) between Anchorage Place and Pearl Street

155-167 Water Street

See 56 Pearl Street

WATER STREET (NORTH SIDE) between Pearl Street and Jay Street

169-175 Water Street

See 55-57 Pearl Street

177 Water Street

Borough of Brooklyn Tax Map Block 30, Lot 24

Date of construction: 1880 (NB 606-80)

Architect: George L. Morse

Original owner: John W. Masury & Son

Type: Factory

Style: American Round Arch

Stories: 4

Structure/material: Brick; slow-burning mill construction

Features: Central loading dock on first floor flanked by rectangular pedestrian entrance to left and window to right (possibly originally another door); upper stories four bays wide; segmental-arch windows; header-brick lintels; projecting stone sills; corbelled cornice; iron shutter supports; unfenestrated brick side elevations.

Significant alterations: Windows replaced; loading dock filled in (now with a pedestrian entrance); single small window on east elevation and three small windows on west elevation.

History: Most of the block bounded by Pearl, Jay, Plymouth, and Water Streets is associated with the Masury Paint Works, one of the most important paint manufacturing companies in the United States in the late nineteenth and early twentieth centuries. John W. Masury and the firm of John W. Masury & Son assembled property on this block between 1879 and 1894. Born in Salem, Massachusetts, John Wesley Masury (1820-1895) was one of many young New Englanders who migrated to the New York City area in the pre-Civil War period as the economy of New York grew rapidly. Masury settled in Brooklyn in 1842 and worked as a clerk in the paint store of John D. Prince. Following Masury's suggestion, Prince began manufacturing ground dry colors. Masury soon became a partner in the firm of John D. Prince & Company. Eventually he became sole proprietor of what became the John W. Masury Company and, after 1871, John W. Masury & Son (his son-in-law F. L. Miller became a partner). Masury's greatest invention was a metal paint can that would securely hold the paint, but which had a thin lid that could easily be opened. His patents of 1857 and 1859 permitted Masury to market ready-made paints. Since Masury had a monopoly on the paint can invention for twenty-one years, the firm grew very rapidly. Masury also patented various methods of grinding colors. The firm manufactured a wide variety of different paint and varnish products. A trade catalogue from c. 1915 reports that "The Masury Line is a complete one, including high grade products for the painting trades, specialties for manufacturing concerns, as well as sundries for household and other purposes."

The firm advertised its products extensively, in trade catalogues and advertisements. An advertisement from September 1901, for example, states that John W. Masury & Son of Brooklyn "manufacturers Japan colors for coach works, house painters' colors, ready mixed paints, carriage and architectural varnishes," and also noted that the firm's factory occupied over an acre of ground and "gives employment steadily to 220 hands." In 1913, the paint works employed 249 people – 146 men and sixty women – in its factory buildings on this block and on Block 20. A 1911 advertisement describes the factory complex:

The great factories of Masury & Son, on Jay Street, occupy the major portion of a city block. On the first floor is the shipping room, holding thousands of cans of paint to be sent to all parts of the world. Outside, lines of wagons and auto trucks await. Another floor is devoted to the grinding department, where the mills of the paint gods grind slowly but exceedingly fine the earth-coloring, chemical colors and pigments. It is due to the repeated grinding of colors for automobile and coach paint and the care of its preparation that after the many coats are applied the fine, satin gloss appears.

John Masury died in 1895 and was succeeded as head of the firm by John Dohse (1857-1902) who entered Masury's employ in 1880. In 1906, John Masury's twenty-five year old son, John W. Masury, Jr. (1881-1931), became president – he was said to have been the youngest corporate head of an important American company. The younger Masury expanded the company's marketing nationally, opening plants in Chicago, Kansas, and Minneapolis, and eventually began sales in Europe, Japan, and Australia as well. In 1942, the Masury Company left Brooklyn, transferring its manufacturing to Baltimore. The Brooklyn Varnish Manufacturing Company purchased the property and occupied the site for many years.

The simple brick facade, articulated by segmental openings, radiating lintels and stone sills, and corbelled cornice, marks 177 Water Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1880, during a major period of development when manufacturers such as John W. Masury & Son were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

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“John W. Masury,” *National Cyclopaedia of American Biography*, vol. 5 (New York: James T. White, 1907), 155-56.

“John W. Masury & Son” [advertisement], *New York Times* 18 September 1901, JS27.

“John W. Masury & Son” [advertisement], *Brooklyn Daily Eagle* 20 May 1911.

“John W. Masury Dies Suddenly,” *New York Times* 17 August 1931, 15.

“John Wesley Masury,” *Dictionary of American Biography*, vol 6 (New York: Charles Scribner's Sons, 1933), 384-385.

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“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 26 (28 August 1880): 766.

“Wonders of Brooklyn: John W. Masury & Son (Makers of Paint),” *Brooklyn Daily Eagle*, 23 October 1920.

The rare books collection of Columbia University's Avery Architecture and Fine Arts Library has a collection of Masury trade catalogues.

179 Water Street

Borough of Brooklyn Tax Map Block 30, Lot 23

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Commercial building

Style: None

Stories: 1

Structure/material: Brick

Features: Connected with 181 Water Street; facade almost entirely vehicular entrance with steel rolling shutter.

History: This one-story structure replaces a three-story building that was part of the John W. Masury & Son Paint Works. Building is united with 181 Water Street.

181 Water Street

Borough of Brooklyn Tax Map Block 30, Lot 23

Date of construction: unknown

Architect: unknown

Original owner: unknown

Type: Commercial building

Style: None

Stories: 1

Structure/material: Brick and concrete block

Features: Connected with 179 Water Street; facade almost entirely vehicular entrance with steel rolling shutter.

Significant alterations: Facade largely steel rolling shutters and sign.

History: This one-story structure replaces a three-story building that was part of the John W. Masury & Son Paint Works. Building is united with 179 Water Street.

183-187 Water Street

See 56 Jay Street

WATER STREET (SOUTH SIDE) between Pearl Street and Jay Street**156-164 Water Street**

See 59-67 Jay Street

166-172 Water Street

Borough of Brooklyn Tax Map Block 40, Lot 1 (in part)

Date of construction: 1902 (Alt. 771-02)

Architect: Edward N. Stone

Original owner: Jones Brothers

Type: Factory

Style: American Round Arch with Queen Anne Style Elements

Stories: 6

Structure/material: Brick; frame construction with terra-cotta tile floors

Features: Built as an extension of 59-67 Pearl Street; three bays, each bay with two segmental-arch windows; bays separated by brick piers; ornate iron tie rods; projecting denticulated brick lintels; stone sills; sills on second and fifth stories continue as beltcourse; recessed rectangular brick panels above windows on first and fifth stories; accordion brick panels on piers above fourth and sixth stories; long rectangular brick panels between piers beneath cornice; piers stepped above fourth story; modest denticulated brick cornice; two large vehicular entrances, one pedestrian entrance, and one window with stone lintel and sill on first story; iron shutter supports; brick parapet above first bay.

Significant alterations: Windows replaced; vehicular openings on first story converted to storefronts.

History: The entire block bounded by Pearl Street, Jay Street, Water Street, and Front Street was built and occupied by the Grand Union Tea Company (also known as the Jones Brothers Tea Company). Construction occurred between 1896 and 1915. Frank S. and Cyrus D. Jones began buying property on the block in 1896; the family held the property until 1930 when the Jones's heirs sold it. The Jones brothers were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores, many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

Wizardry in business was never better exemplified in these modern times than in the case of Jones Bros. Tea Company, Inc., which in less than half a century, has grown from a "Two by Four" retail store with \$900 capital to a many-sided

organization worth many millions of dollars, with more than 250 stores, close to 4,000 employees and doing a business of better than \$1,000,000 per month. In addition to this merchandising feat, the Jones Bros. organization manufactures the greater portion of the goods it sells.

Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily. Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm. After the sale of the Brooklyn plant, the large buildings housed many other manufacturers. Those identified include Advance Battery Company, Empire Spring Company, Paralax Scale Manufacturing Company, Triangle Steel Products, Triangle Mechanical Laboratories, American Automatic Venetian Blind Company, Goodman Products Corporation, United Mineral and Chemical Company, Automatic Range Company, and Titan Plastics.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, ornate tie rods, accordion brick panels, and corbelled cornice, marks 5166-172 Water Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1902, during a major period of development when manufacturers such as the Grand Union Tea Company were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

"Cyrus D. Jones Dead," *New York Times* 30 September 1929, 21.

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"Frank S. Jones" [obituary], *New York Times* 14 May 1927, 19.

"Frank Smith Jones," *National Cyclopaedia of American Biography*, vol. 25 (New York: James T. White, 1936).

"Jones Bros. Tea Co. to Acquire Boston Chain of Stores," *Brooklyn Daily Eagle* 7 February 1923.

"Jones Bros. Tea Completes Deal With John T. Connor," *Boston Globe* 9 February 1923, 19.

"Jones Brothers – Business Wizards," *Earning Power* March 1917, 7-8.

"Jones Brothers Tea," *Wall Street Journal* 8 December 1916, 7.

“Jones Tea Control Passes to Group Led By Bankers,” *Brooklyn Daily Eagle* 2 February 1928. *King’s Views of Brooklyn* (Boston: Moses King, 1904), 33.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

“Projected Alterations Brooklyn,” *Real Estate Record and Builders Guide* 69 (17 May 1902): 1783.

“Ratify \$4,000,000 Merger,” *Brooklyn Daily Eagle* 16 December, 1916.

Reiss, Marcia, *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide* (Brooklyn: Brooklyn Historical Society, 2001), 19.

“256 Stores United By \$10,000,000 Deal,” *New York Times* 8 December 1916, 13.

174-176 Water Street

See 58-66 Jay Street

WATER STREET (NORTH SIDE) between Jay and Bridge Streets

189-199 Water Street

See 39 Jay Street

201 Water Street

Borough of Brooklyn Tax Map Block 31, Lot 1

Date of construction: c. 1900

Architect: unknown

Original owner: E. W. Bliss Company

Type: Factory

Style: Vernacular

Stories: 1 and 2

Structure/material: Brick; slow-burning mill construction

Features: Three bays wide; segmental-arch windows; upper story windows with 8x8 metal sash; parapet.

Significant alterations: Parapet rebuilt; windows at lower level bricked up.

History: This building was erected by the E. W. Bliss Company for the storage of patterns. It was probably erected shortly after Bliss purchased property on this block in 1900. Eliphalet W. Bliss (1836-1903) was born in Fly Creek, Otsego County, New York and apprenticed in a local machine shop. He moved to Meriden, Connecticut, a major metalworking center, where he was employed by the Parker gun company. After service in the Civil War, Bliss settled in Brooklyn and in 1867 established a machine works which became the E. W. Bliss Company. In his DUMBO factories, Bliss manufactured machines, tools, presses, dies, and sheet metal. Bliss invented a machine for stamping out sheet-metal cans which were initially used for kerosene and paint. In 1884, Dr. L. P. Brockett, the author of “The Manufacturing Industries of Brooklyn and Kings County” section of Henry L. Stiles’s history of Brooklyn, wrote that Bliss “has built up in a few years an immense business in machinery for drawing and stamping cold plates of tin, sheet

iron, brass or copper, in all the required forms for household and manufacturing use.” At the time, Brockett asserted, the factory building, occupying 27,000 square feet, was the largest of its kind in the world and employed between 300 and 350 people. By the early twentieth century, the factory occupied 186,492 square feet and in 1912 employed 1,646 people in its DUMBO operations – 1,521 men and fifteen women.

A 1912 trade catalogue, *Bliss Drawing Presses and Spinning Lathes*, in the collection of the Brooklyn Historical Society, described the output of the factory:

We build Presses, Dies and Machinery for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pierced, Stamped or Pressed. Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, all kinds of Tin Canisters, Boxes and Packages including Druggists Tinware. We build Punching, Shearing, Forming and Forging Machinery used by Rolling Mills, Locomotive and Car Builders, Automobile Builders, Drop Forging Works, etc.

Among the items advertised by the Bliss Company in its catalogues were machinery and dies for creating agricultural implements, bicycle parts, bird cages, bottle caps, clocks, coins, cutlery, cuspidors, dental equipment, doorknobs, electrical goods, enamelware, gas fixtures, hardware, jewelry, lamps, locks, paint tubes, roofing, shovels, toys, and typewriters.

The main Bliss manufacturing building in DUMBO occupies the street bounded by Plymouth, John, Adams, and Pearl Streets. At its height in the early years of the twentieth century, Bliss also occupied most of the western half of block 31.

Besides the machinery and sheet metal manufactured in DUMBO, Bliss also manufactured armaments, including various shells and torpedoes used by the military; these were largely manufactured at a factory in the Bay Ridge section of Brooklyn. Bliss lived in a large villa in Bay Ridge, on a site that is now incorporated into Owl’s Head Park. Following Bliss’s death in 1903, the firm was run by James Warren Lane. In 1933, the Bliss Company left Brooklyn, consolidating its manufacturing in Toledo, Ohio. The buildings on block 18 appear to have been abandoned by the company even earlier, since in 1926 the Dan W. Feitel Bag Company had an interest in the property and in 1929 a lease was signed with Cosmopolitan Warehouse, Inc. In 1936, the Bridgeport Paper Company leased at least a portion of the property. A painted sign on Adams Street at the corner of Plymouth Street, records the presence of the Waring Envelope Company in the building.

In 1930, this building was sold to the Pittsburgh Plate Glass Company. Later in the twentieth century, it was home to the metal stamping firm of Ben Forman & Sons.

The brick construction, featuring segmental openings with radiating lintels and projecting sills, make 201 Water Street a representative example of the small-scale vernacular structures erected to serve the area’s growing industries. Built c. 1900, the structure contributes to the architectural and historical character of the DUMBO Historic District.

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"Eliphalet W. Bliss," *National Cyclopaedia of American Biography*, vol. 15 (New York: James T. White, 1916), 20-21.

"James Warren Lane," *National Cyclopaedia of American Biography*, vol 22 (1932), 219-20.

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205-213 Water Street

See 188-200 Plymouth Street

215-217 Water Street

Borough of Brooklyn Tax Map Block 31, Lot 7502 in part

Date of construction: 1906-07

Architect: Expanded Metal Engineering Company, engineers

Original owner: Kirkman & Son

Type: Factory

Style: Industrial Neo-Classical

Stories: 6

Structure/material: Reinforced concrete

Features: Three bays; concrete frame with rusticated piers; large rectangular window openings originally filled with three double-hung pivot windows divided by a vertical concrete pier into a single and a double; incised spandrels; one widow and two large loading dock entrances on first story; cornice inscribed with "KIRKMAN & SON"; west elevation, seven bays wide; rusticated piers; window openings with two windows (three on the four northern bays of the sixth story); several second-story windows on west elevation with metal 2x2 pivot windows; parapet on west elevation with horizontal recessed panel.

Significant alterations: One-story, setback rooftop addition; iron railing on roof; original 2x2 windows replaced; loading dock to east replaces a window and pedestrian entrance; facades painted.

History: In 1894, Alexander S. Kirkman began purchasing property at the eastern end of block 31. The site at the corner of Bridge and Water Streets housed a cooperage at the time it was purchased by Kirkman. This is the final addition commissioned by Kirkman on this block. In

1907, a picture of the building was published in a publication of the Atlas Portland Cement Company, the firm that supplied the concrete. Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm's growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated "BEWARE of persons offering to but our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only." This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The austere concrete facade, articulated by large window openings, rusticated piers, and abstracted, classically-inspired detail, marks 215-217 Water Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1906-07, during a major period of development when manufacturers such as Kirkman & Son were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

"Kirkman's Borax Soap" [advertisement], *New York Times* 13 November 1910, 55.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Soap Warehouse of Kirkman & Son, Brooklyn, N. Y.," in *Reinforced Concrete in Factory Construction* (New York: Atlas Portland Cement Co., 1907).

219-221 Water Street

Borough of Brooklyn Tax Map Block 31, Lot 7502 in part

Date of construction: 1903 (NB 477-03)

Architect: E. N. Stone

Original owner: Kirkman & Son

Type: Factory

Style: American Round Arch

Stories: 5

Structure/material: Brick; slow-burning mill construction

Features: Six bays; segmental-arch openings arranged in pairs; bulkhead at west end of elevation; larger opening on first story for loading dock; cornice with raised brick bands; iron shutter supports at windows.

Significant alterations: Two additional stories set back on roof; iron railing on roof; windows replaced; facade painted.

History: In 1894, Alexander S. Kirkman began purchasing property at the eastern end of block 31. The site at the corner of Bridge and Water Streets housed a cooperage at the time it was purchased by Kirkman. This building was the second of two virtually identical additions to Kirkman's original factory located at 50-52 Bridge Street. Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm's growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated "BEWARE of persons offering to but our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only." This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The simple brick facade, articulated by segmental openings, radiating lintels and projecting sills, and raised-band cornice, marks 219-221 Water Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1903, during a major period of development when manufacturers such as Kirkman & Son were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

References:

Industrial Directory of New York State (Albany: State Department of Labor, 1913).

"Kirkman's Borax Soap" [advertisement], *New York Times* 13 November 1910, 55.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 71 (4 April 1903): 696.

223-227 Water Street

Borough of Brooklyn Tax Map Block 31, Lot 7502 in part

Date of construction: 1898 (NB 1181-98)

Architect: Stone Brothers

Original owner: Kirkman & Son

Type: Factory

Style: American Round Arch

Stories: 5

Structure/material: Brick; slow-burning mill construction

Features: Seven bays; segmental-arch openings; openings arranged in pairs with exception of single bay at eastern end; bulkhead at east end of facade; larger opening on first story for loading dock; cornice with raised brick bands; iron shutter supports at windows.

Significant alterations: Two additional stories set back on roof; iron railing on roof; windows replaced; facade painted.

History: In 1894, Alexander S. Kirkman began purchasing property at the eastern end of block 31. The site at the corner of Bridge and Water Streets housed a cooperage at the time it was purchased by Kirkman. This building was the first of two virtually identical additions to Kirkman's original factory located at 50-52 Bridge Street. Kirkman & Son Company traces its history back to 1837 in New York City, but did not move to Brooklyn until 1880. The firm was founded by English immigrant John Kirkman, but it was his son Alexander who opened the Brooklyn factory and was responsible for the firm's growth into a major manufacturer of borax soap, octagon soap (soap shaped like an octagon so that it could easily be held), soap powder, softener, floating soap, and cleanser. Like other DUMBO manufacturers, Alexander Kirkman lived in Brooklyn, at 266 Clinton Avenue. Alexander Kirkman was killed by a trolley while out riding his bicycle in c. 1897. As the firm expanded, it also built on Blocks 32 and 42. Like other firms in DUMBO, including the Grand Union Company and the Arbuckle Coffee Company, Kirkman gave away coupons with each purchase that could be traded in for premiums. A 1910 advertisement stated "BEWARE of persons offering to but our coupons or to exchange them for trading stamps. If you dispose of our coupons to brokers or dealers you do not get full value. It is to your advantage to exchange them for our premiums only." This ad, published in November also noted that Christmas toys were ready for distribution in its premium offices. In 1913, Kirkman & Son employed 375 men in Brooklyn. In 1930, the company was sold to Colgate-Palmolive-Peet. Production in Brooklyn ceased during the 1940s and in 1945 the property was sold.

The simple brick facade, articulated by segmental openings, radiating lintels and projecting sills, and raised-band cornice, marks 219-221 Water Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1898, during a major period of development when manufacturers such as Kirkman & Son were making DUMBO into one of the city's most

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References:

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"Kirkman's Borax Soap" [advertisement], *New York Times* 13 November 1910, 55.

National Register of Historic Places, *Dumbo National Register Nomination*, report prepared by Andrew S. Dolkart (2000).

"Projected New Buildings Brooklyn," *Real Estate Record and Builders Guide* 62 (23 July 1898): 151.

229-235 Water Street

See 50-52 Bridge Street

WATER STREET (SOUTH SIDE) between Jay Street and Bridge Street

178-188 Water Street

See 57 Jay Street

192 Water Street (190-192 Water Street)

Borough of Brooklyn Tax Map Block 41, Lot 11

Date of construction: 1898 (NB 210-98); upper two floors, 1905 (Alt 76-05)

Architect: original building and addition, Edward N. Stone

Original owner: Jones Brothers

Type: Stable

Style: American Round Arch

Stories: 4

Structure/material: Brick; slow-burning mill construction

Features: Seven bays; first floor with central vehicular entrance flanked by pairs of rectangular openings – two doors and two windows; upper floors with segmental-arch windows; denticulated brick lintels; projecting stone sills; paneled corbelled cornice; west elevation with segmental-arch windows and several recessed blind panels; 2x2 sash.

Significant alterations: Windows replaced; left window on first story bricked up and right window converted into an entrance.

History: This building was erected as a stable by the Jones Brothers firm, whose Grand Union Tea Company occupied the entire block bounded by Jay Street, Pearl Street, Water Street, and Front Street, in the DUMBO Historic District. The new building permit of 1898 also notes that the building would be a dwelling, perhaps for the household of an employee who cared for the company's horses. In 1905, Jones Brothers, commissioned a two story addition from the same architect who had designed the original structure. Frank S. and Cyrus D. Jones, founders of the company, were born in Stamford, Connecticut. Frank Jones conceived of the idea of selling tea and coffee directly to consumers, instead of through grocers. He formed a partnership, Jones

Brothers, with Cyrus and Charles Jones (Charles retired in 1893). They began selling tea and coffee door to door in Scranton, Pennsylvania. The brothers established the Grand Union Tea Company and the Jones Brothers Tea Company in 1872. The firm pioneered in the establishment of chain stores which cut down on the costs of purchasing goods. According to the *Wall Street Journal*, Grand Union Tea Company and Jones Brothers Tea Company were the oldest chain store companies in the country. In 1893, Frank and Cyrus organized the Grand Union Tea Company with headquarters in Brooklyn (in 1910 the firm became the Jones Brothers Company). The company developed into one of the largest grocery store chains in America. The 1904 edition of *King's Views of Brooklyn* states that this was the "largest warehouse and factory in the United States for teas, coffees, spices, flavoring extracts, baking-powders and soaps." In 1913, 293 people were employed at the DUMBO factory. By 1917, the company had 262 stores in 33 states and the District of Columbia; ten years later they operated 650 stores, many acquired by the purchase of rival chains. The magazine *Earning Power* reported in March 1917 that:

Wizardry in business was never better exemplified in these modern times than in the case of Jones Bros. Tea Company, Inc., which in less than half a century, has grown from a "Two by Four" retail store with \$900 capital to a many-sided organization worth many millions of dollars, with more than 250 stores, close to 4,000 employees and doing a business of better than \$1,000,000 per month. In addition to this merchandising feat, the Jones Bros. organization manufactures the greater portion of the goods it sells.

Much of the firm's output was manufactured at the large factory in DUMBO with its ten acres of floor space. *Earning Power* indicates that they shipped 32,500,000 pounds of coffee from this plant each year, as well as 4,000,000 pounds of tea. Each day they shipped 120,000 cakes of soap and 20,000 pounds of baking soda; 50,000 cans and 180,000 cartons were needed daily. Jones Brothers pioneered in offering premiums with each sale. The firm established the Anchor Pottery of Trenton, New Jersey to supply many of the premium gifts. In 1916, the firms owned by the Jones's, the Jones Brothers Company, the Grand Union Tea Company, the Anchor Pottery Company, and the Globe Grocery Stores (which operated sixty stores in Manhattan, Brooklyn, and in cities in Pennsylvania) officially merged and formed the Jones Brothers Tea Company. The merger was financed by Merrill, Lynch & Co. The combined company operated 256 stores. In the 1920s, the company expanded dramatically, purchasing large groups of grocery stores from other companies. By February 1923, for example, when the company operated five hundred stores, it agreed to purchase the 360 New England grocery stores of the John. T. Connor Company. The Jones family retained ownership of the chain until 1928 when a banking syndicate headed by Brown Brothers and Company took control of the firm.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, and corbelled cornice, marks 192 Water Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1898, during a major period of development when manufacturers such as the Grand Union Tea Company were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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196-204 Water Street

Borough of Brooklyn Tax Map Block 41, Lot 13

Date of construction: 1950 (NB 546-50)

Architect: Sydney Goldstone; Turner Construction Company, builder

Original owner: Brillo Company

Type: Factory

Style: Daylight Factory

Stories: 4

Structure/material: Brick; steel frame

Features: Five bays; large vehicular entrance on first story, as well as three pedestrian entrances; westernmost bay on upper floors relatively small rectangular opening in contrast to large horizontal rectilinear openings in other bays (western bay of four on second story is smaller; multi-pane metal windows; bulkhead at west end of building

Significant alterations: Narrow openings on first story filled in; originally connected to 205-213 Water Street by a second-story bridge over the street; bridge removed and location filled in.

History: This factory was built by the Brillo Company for the expansion of its Brooklyn plant at 188-200 Plymouth Street (205-213 Water Street) and 202-Plymouth Street, where the firm’s famous soap pads and industrial abrasives had been manufactured since 1925. The building was planned for steel wool manufacturing in the basement, packing and shipping on the first story, and storage on the second and third stories. The Brillo Company was incorporated in 1913 by

Milton B. Loeb, a lawyer. According to Loeb's obituary, one of Loeb's clients was jewelry manufacturer who had devised a method of combining steel wool and a special reddish soap that was an excellent means of cleaning aluminum cooking utensils. After trying the product, Loeb invented the name "Brillo" and incorporated the Brillo Manufacturing Company. He soon became president of the company and expanded its reach from the United States to Great Britain, Ireland, and Canada. In 1963, the Brillo Manufacturing Company became a part of the Purex Corporation of California. The new building was built to be connected to the older factory structures across the street, via a bridge and a tunnel.

The simple brick facade, articulated primarily by its large window openings, marks 196-204 Water Street as an example of the daylight factory. This, together with its steel frame construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1950, the structure contributes to the district through its architecture, structure, and its connection to DUMBO's industrial history.

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208 Water Street (206-218 Water Street; 195-203 Front Street)

Borough of Brooklyn Tax Map Block 41, Lot 17 (in part)

Date of construction: 1905 (NB 1877-05)

Architect: Henry S. Kissam

Original owner: Hanan & Son

Type: Factory

Style: Vernacular

Stories: 4 and basement and 5

Structure/material: Brick; reinforced concrete floors and roof

Features: Building reflects slope of site with raised basement on Front Street and full fifth story on Water Street; fourteen bays on both facades; end bays single; other windows paired; rectangular windows with concrete lintels and projecting sills; multi-pane metal sash with operable awnings; corbelled cornice; on Water Street, eastern bay is vehicular entrance with long concrete lintel; first story on Water Street with a vehicular entrance, two windows, one doorway with bluestone stairs; four windows, four loading docks with concrete lintels, and one entrance with a bluestone stoop; courtyard on west side with windows and lintels as on street elevations; brick party wall on Front Street with blind segmental arches.

Significant alterations: Three windows on first story and one window in basement along Front Street partially bricked up.

History: The western portion of this block was home to the Union White Lead Works (later the National Lead Company) which began purchasing property on the block as early as 1837. The lead company's property was sold to James and John H. Hanan in 1893. Although already occupied by a factory, James Hanan and his son John chose to demolish the existing buildings and replace them with a new factory for the manufacturing of shoes. This large extension to the factory was erected in 1905, immediately west of the original building. It was erected by the Miller-Collins Company, a firm established by S. Fischer Miller and D. C. Newman. Even before purchasing the DUMBO property, James Hanan was a resident of Brooklyn, living in a large mansion at 45 Eighth Avenue (demolished) in Park Slope. James Hanan (1819-1897) was born in Ireland and learned the shoe trade from his father. In 1849 he moved to America and in 1854 established a small shoemaking business in New York City. In about 1865, his son, John Henry Hanan (1849-1920), entered his father's firm, and in 1882 the company became Hanan & Son. The Hanan company was among the first to stamp the firm's name on every shoe, a daring idea at a time when most people still sought shoes handmade by the dealer. The firm was successful and in 1888 Hanan began opening retail stores to sell the factory's product directly to consumers. The inauguration of retail stores by Hanan & Son was discussed in the *New York Times* in May 1888:

The well-known show house of Hanan & Son, corner of Centre and White streets, makes a departure this season. The house has been established for 40 years, and up to the present season, has distributed exclusively through retail dealers. But the house, making a specialty of men's and boy's fine shoes, and turning out 1,000 pairs per day, has found that its line was so extensive that the average retailer could not afford to carry stock in quantities to insure the consumer a choice of fit and style, and that consequently the firm has been obliged to open retail stores to supply the direct demand upon it for its shoes. . . . These stores they have opened at 297½ Broadway, New-York, 365 Fulton-street, Brooklyn, and branch houses in Boston, Chicago, and Milwaukee.

In 1894, the company had stores in New York, Brooklyn, Boston, Philadelphia, Cleveland, Milwaukee, New Haven, Buffalo, Chicago, and St. Paul. By 1914 the firm had thirteen retail stores in the United States and Europe (apparently in London and Paris).

Shoe manufacturing was a major industry in Brooklyn in the late nineteenth century, with 65 factories doing a combined business of \$2,300,000 in 1894; one-third of that business was done at the Hanan factory. The manufacture of a pair of shoes began on the upper floor of the factory where thin leather uppers were cut from patterns; women then stitched the uppers together on sewing machines; boys then took the uppers and smoothed the seams. The uppers were then moved to the third floor where lasters worked. The uppers were tacked to lasts and leather attached to the last mold to create the form of the bottom of the shoe. The bottom and upper were sewn together and then the shoes proceed to men who inserted the insoles, largely by machine. Then glue was placed on the insole and another employee added the heavy sole, again by machine. The shoes now moved down to the next floor where heels were nailed on by machine and where soles and heels were trimmed. Finally the shoes moved to the lower floor

where they were washed, cleaned, and boxed. On this lower floor, machines also stamped out the soles. The company's offices were on the first floor facing Front Street.

In 1894, when the description of the manufacturing process was written, there were between three and four hundred employees in the factory, although the article notes that there was capacity for 600 people. In 1913 the company employed 1,131 people in its Brooklyn factory (871 men, 210 women, and 50 office workers). John Hanan also owned shoe companies in other cities and served as president of the National Boot and Shoe Manufacturers' Association. He was also the founder of the United Shoe Machinery Corporation, which manufactured machines for use in shoe factories. After John Hanan's death, the firm was taken over by his sons Herbert Wilmer Hanan (1872-1933) and Addison Garthwaite Hanan (1876-1923) and grandson Robert Wilmer Hanan (1903-1933). The company went bankrupt in 1935. Old signs extant on the building in 2000 recorded some of the complex's later occupants: Starlite Lamp Shade Company, Fashion Decor Lamp Shade Company, Washington Garter Corporation, National Leather Manufacturing Company, Gotham Furniture Frame Company, Modern Box Company, Star Fastener Company, Embassy Archives Center, Melcon Design Company, Shaw Television Corporation, Deluxe Novelty Company (DLX Industries), and Latex Specialties.

The simple brick facade, articulated primarily by its rectangular openings, concrete lintels and projecting sills, and corbelled cornice, marks 208 Water Street as an example of the vernacular factory building erected during DUMBO's growth as an industrial neighborhood. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1905, during a major period of development when manufacturers such as Hanan & Son were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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220-228 Water Street

See 54 Bridge Street

YORK STREET (NORTH SIDE) between Front Street and Washington Street

27 York Street (northeast corner Washington Street; 27-37 York Street, 74-82 Washington Street)

Borough of Brooklyn Tax Map Block 45, Lot 7501 (in part)

Date of construction: 1916

Architect: William Higginson/Turner Construction Company, builder

Original owner: Robert Gair

Type: Factory

Style: Industrial Neo-Classical

Stories: 11, 11 and basement, and 13

Structure/material: Reinforced concrete

Features: Building erected as an addition to 70 Washington Street and reads as a single structure; six bays on York Street and six bays Washington Street and west elevation; reinforced concrete frame with rusticated piers on first, second, ninth, and tenth stories and smooth piers on third through eighth stories; central bay on York Street lacks pier but is rusticated on same stories as other portions of building; two central bays on first and second stories on York Street articulated by four paneled Doric pilasters with triglyphs above each capital; single rectangular windows are located between end pilasters and pairs of narrow rectangular windows are in center; on York Street, wide rectangular openings with three windows on bays one, two, five, and six; central bays with two windows in recessed frames with keystones; eleventh story with eleven bays of small rectangular openings separated by triglyphs; cornice above second story on York Street and above ninth story on all elevations; massive block cornice above eleventh story; two central bays on York Street rise an additional two stories to create clock tower; round clock face set beneath segmental-arch cornice; Washington Street and west elevations with rectangular openings with three windows except for corner bay with two windows and keystones; small metal “ventilators” below windows; there are small satellite dishes on the roof.

Significant alterations: Original 3x3 metal pivot windows with vertical muntins replaced; loading docks and other ground-floor infill converted into commercial space; individual windows with keystones combined into larger openings in end bays and in center of York Street facade, new pier created between window in center bay of York Street facade; one-story addition on roof; cabanas, terraces, and mechanical equipment added to roof of addition; terrace on second story along west facade; four windows cut into clock tower and new structure constructed behind tower; security bars added to first-floor windows on York Street; one-story concrete garage (outside of district) attached to portion of west elevation.

History: 27 York Street is a significant part of “Gairville,” the complex of factory structures erected in DUMBO by industrialist and real estate developer Robert Gair. Robert Gair (1839-1927) became the dominant industrial presence in DUMBO in the early twentieth century. Gair was born in Edinburgh, Scotland in 1839 and came to America at the age of fourteen. He worked as a clerk in a dry goods store in New York City before serving in the Civil War (he reached the rank of captain). In 1864 he opened a business as a paper jobber in New York and then, in partnership with George West from 1867 until 1876, he began manufacturing paper bags with square bottoms. He also sold a wide variety of paper goods, many of which he also manufactured on machinery that he had constructed. However, it was Gair’s inventions relating to the manufacture of corrugated paper boxes that resulted in his firm’s growth. In 1870, Gair developed a machine for manufacturing corrugated paper and in 1879 patented a machine for creating folding boxes. According to what appears to be a paid advertisement in the 1924 publication *New York: The World’s Metropolis*, Gair “revolutionized the folded box business” by arranging “pliable metal rules, formed into the outlines of a box blank, [that] would cut and crease the cardboard, a number of such dies at each stroke of the press produced a group of blanks.” The folding box soon became a basic material for the packaging of food (the National Biscuit Company was an early client). In 1888, as production grew, Gair moved his production from Tribeca to DUMBO. Gair’s choice of a site on the north corner side of Washington Street and Water Street was influenced by the recent move of his friend, coffee roaster John Arbuckle, to neighboring blocks (see 10 Jay Street). Like other manufacturers, such as Arbuckle, who moved from Manhattan to Brooklyn, Gair moved his family as well, purchasing a mansion on the corner of New York Avenue and Bergen Street in Crown Heights (demolished).

The Gair firm expanded into the design and manufacture of a wide variety of packing products, including lithographed labels for cans and boxes. A 1922 advertisement in the *Catalogue of the Brooklyn Manufacturers’ Industrial Exposition* claimed that the firm was a “manufacturer of materials used by those who distribute in boxes. Labels, folding cartons, shipping cases, advertising displays, etc.” The 1901 Gair publication *What We Do and How We Do It* commented that “the growing favor of canned and preserved food supplies, of boxed biscuits and wafers, has made label printing an object of greater consideration.” Images illustrate labels printed for such well known brand names as Social Tea Biscuits, Saltines, Graham Crackers, Uneda Biscuits, and Arrow Root Biscuits. The publication also notes departments involved with photo engraving, metal plate engraving, color printing, label cutting, lithography, aluminum printing, stamping, embossing, gold leaf embossing, and the manufacture of commercial stationery, doilies, envelopes, and folding boxes. The Gair firm became the largest manufacturer of paper boxes in America; in 1913, Gair employed 1,702 people in a complex of buildings that came to be called “Gairville.” The workers in the Gair factory organized into a series of employee associations, involved in athletics (boxing, running, bowling, golf, tennis, fishing, baseball, etc.) and entertainment (including an annual show). In 1920, management of the Gair Company was taken over by Robert Gair’s sons George and Robert, Jr. In 1927, Gair production moved to Piermont, New York.

Robert Gair increasingly invested in real estate and became a major developer of industrial buildings in DUMBO, some of which his firm occupied and others which were leased. The buildings that Gair erected, including several large reinforced concrete structures, created a

highly visible complex. In his introduction to H. Allen Smith's book about Gair, noted historian and architectural critic Lewis Mumford notes that "in our metropolitan economy, the fabrication of paper bags, cartons, boxes, is little short of a key industry, and the conspicuous bulk of the Gair factories on the East River is an emblem of the part that these paper containers play in our daily routine." Mumford also stated that "more than any other personality, except that of Roebling, the creator of the Brooklyn Bridge, Robert Gair symbolically dominates the Brooklyn waterfront." As with the other reinforced concrete buildings commissioned by Gair, this structure was designed by William Higginson and erected by the Turner Construction Company.

Robert Gair acquired this block from Alonzo B. See (an elevator manufacturer) and Walter L. Taylor between 1896 and 1916. The block was occupied by old residential structures and A. B. See's lumber yard until Gair built 60-72 Washington Street in 1911 and then this addition in 1916. Gair rented out most of the space in this building.

The austere concrete facade, articulated by large window openings, vertical piers, rusticated base, projecting cornice, and abstracted, classically-inspired detail, marks 27 York Street as an example of the Industrial Neo-Classical style. This, together with its reinforced concrete construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1916, during a major period of development when manufacturers such as Robert Gair were enhancing DUMBO's status as one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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YORK STREET (NORTH SIDE) between Washington Street and Fleet Alley

39-43 York Street

See 81-91 Washington Street

45-49 York Street (northwest corner Fleet Alley)

Borough of Brooklyn Tax Map Block 51, Lot 1 (in part)

Date of construction: 1882 (NB 948-82)

Architect: Mercein Thomas

Original owner: Ketcham & McDougall

Type: Factory

Style: American Round Arch

Stories: 6 and basement

Structure/material: Brick; slow-burning mill construction

Features: Facade six bays long, with pairs of windows divided by brick piers; segmental-arch 6x6 windows with raised drip lintels and stone sills; central bay on first story with a single wide segmental-arch window with pair of 6x6 openings and a raised drip lintel; areaway with railing; basement divided from upper floors by stone beltcourse; iron tie rods in center of each bay on each story; corbelled and sawtooth cornice; facade virtually identical to York Street elevation of 81-91 Washington Street (see); east elevation, eleven segmental-arch windows with raised drip lintels; raised basement with small rectangular windows; stone sills; basement entrance in tenth bay; at north, small court created with 75 Washington Street; court with two pairs of segmental-arch windows separated by a pier and ornamented with raised lintels and beltcourse and iron tie rods.

Significant alterations: Window sash replaced with new 6x6 sash to match original; space between 81-91 Washington Street and 47-49 York Street filled in, probably in 1920s, with two-window wide structure; new elevator room and stair access on roof of infill structure; new mechanical equipment on roof.

History: The major industrial presence on block 51 is the complex of three factory buildings erected in the 1880s by Ketcham & McDougall (see 75 and 81-89 Washington Street). Edward W. Ketcham and Hugh McDougall were manufacturers of jewelry. The firm was founded in Manhattan as Ketcham & Bro. In 1856 Hugh McDougall joined the firm and became a partner a year later. The name of the company was changed to Ketcham, Bro. & Co. and later to Ketcham & McDougall. Hugh McDougall was born in Morgantown, West Virginia. His family moved to Huntington, Long Island when he was a baby. In Huntington, McDougall trained as a thimble maker. He opened his own jewelry store in Huntington before moving to New York to join the Ketcham firm. At the time of his death, McDougall lived at 102 McDonough Street, Brooklyn, a rowhouse located within the Stuyvesant Heights Historic District. The Ketcham & McDougall firm was active in Brooklyn for many decades. In 1913, at a time when the firm's importance was declining, it employed 45 people at 45 York Street. At least part of the complex, probably including this building at 75 Washington Street, was leased by the company to other manufacturers. An advertisement in the *Brooklyn Daily Eagle* in September 1902 records a

Ketcham & McDougall building for let with power and fine light. Besides Ketcham & McDougall, other companies occupying space in the building in 1913 were the Erbe-Crombie & Lamothe bookbinding firm, which employed 30 people; Thompson-Bonney Company, machinery firm employing 21, and G. H. Harris Company, manufacturers of games and wood cases, which employed 50. Robert Gair acquired the entire Ketcham & McDougall complex in several transactions between 1913 and 1926. A 1929 atlas of Brooklyn indicates that at that time the building was occupied by the Champain, Citron, Clark paper box company.

The simple brick facade, articulated by segmental openings, projecting lintels and sills, vertical piers, tie rods, and corbelled cornice, marks 45-49 York Street as an example of the American Round Arch style. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District. Built in 1882, during a major period of development when manufacturers such as Ketcham & McDougall were making DUMBO into one of the city's most important industrial neighborhoods, the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history.

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ARCHITECTS APPENDIX

Carrère & Hastings

Manhattan Bridge (1901-09)

John Mervin Carrère (1858-1911) and Thomas Hastings (1860-1929) were amongst the most celebrated architects of their time. Both studied architecture at the École des Beaux Arts in Paris, where the two architects first met. Carrère, whose previous education was in Switzerland, graduated in 1882, while Hastings, who briefly attended Columbia University, graduated in 1884. Both men were hired out of school by the office of McKim, Mead & White, but soon decided to establish their own practice. In 1884 they formed the partnership of Carrère & Hastings.

The firm's first commissions came from Henry M. Flagler, a prominent capitalist who engaged the architects for a series of hotels in Florida designed in a modified form of the Spanish Renaissance style. They continued to grow their practice throughout the 1890s, designing a number of prominent public buildings such as the Congregational Church in Providence, Rhode Island (1891) and the City Hall in Paterson, New Jersey (1894). The firm also helped introduce the French Beaux Arts style townhouse to New York City with the Richard Hoe House (1892; demolished), the Dr. Christian A. Herter House (1892; in the Upper East Side Historic District).

In 1897, the firm gained wide acclaim with their winning design for the New York Public Library (constructed 1902-11). This monumental Beaux Arts style building was a major influence on early twentieth century architecture in New York. They subsequently enjoyed a wide-ranging practice and went on to design many of New York City's most prominent public buildings. In addition to the Main Branch of the New York Public Library, they designed fourteen classically-inspired Carnegie branch libraries throughout the city (1904-1929), the Staten Island Borough Hall (1903-07), the Manhattan Bridge and Colonnade (1905), and Grand Army Plaza (1913), many of which are designated New York City landmarks.

By 1920, Thomas Hastings, the surviving partner of the firm of Carrère & Hastings, had developed a personal, Beaux-Arts-inspired approach to the design of the masonry envelope of steel-framed structures, and was exploring innovative solutions to the massing of tall buildings in response to the setback requirements of the New York City Building Zone Resolution adopted in 1916. Hastings considered the skeleton frame and the exterior sheathing as separate entities with different functions; the first supported the structure while the second enclosed it. Carrère & Hastings designed several tall buildings of note, including the Liggett Building (1919-20; demolished), the Fisk Building (1920-21), and the Standard Oil Building (1920-28). These buildings have distinctive massing with pavilions of uniform setback rising above large bases, and are clad with thin masonry walls detailed to unite the two main portions of the building and add to their pictorial qualities.

Carrère & Hastings were active and influential in the architectural profession; both served as directors of the American Institute of Architects and both were elected Fellows. Carrère was a director of the American Academy in Rome and member of the Beaux Arts Society, the New York City Art Commission, and the Federation of Fine Arts. Hastings was president of the

Architectural League of New York, and was presented the Royal Institute of British Architect's Gold Medal Award and the French Chevalier of the Legion of Honor.

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Daus, Rudolphe L. (1854-1916)
135 Plymouth Street (1900-01)

Rudolphe L. Daus was born in Mexico, and educated in the United States, Berlin, and Paris, where he studied in the Atelier Andre at the École des Beaux Arts. Recognized for his excellent work at the École, Daus received the Achille LeClerc medal as well as several other honors. He returned to this country in 1879 and briefly entered the offices of Richard M. Hunt and George B. Post, before establishing his own practice in 1884. Daus soon became a prominent member of Brooklyn's architectural community. He served on the Executive Committee of the Brooklyn Institute of Arts and Science's Department of Architecture, and was president of the Brooklyn chapter of the American Institute of Architects from 1901-02. Forced by ill health to retire at the age of 54, Daus spent his final years in Paris, where he died in 1916.

Daus worked in a range of styles and on a variety of types of buildings. He designed private residences in Manhattan (his 1901 house for J. Jaros on West End Avenue was cited as being the purest example of French Renaissance design in New York), Brooklyn (residence for Mr. Koechl on Montgomery Place, 1905), and Long Island (including his own vacation house in Arverne-by-the-Sea, built in 1900). Daus worked on numerous public buildings as well, including the façade and entrance hall of the 13th Regiment Armory in Brooklyn (1891), a remodeling and extension of the Kings County Hall of Records (1902-05, demolished), the Wyckoff Heights Hospital (1902, formerly the German Hospital), and the Lincoln Club (1896), all in Brooklyn. A confirmed Francophile, Rudolphe Daus was a member of the Society of Beaux Arts Architects and president of the Brooklyn chapter of the American Institute of Architects. He held many civic positions, such as Surveyor of Buildings for Brooklyn in 1899-1900, as a member of a commission appointed in 1898 to consider buildings codes for the City of New York, and a member of the architects' committee for the Brooklyn Carnegie Libraries. Four of the Brooklyn Carnegie Libraries were designed by Daus, including the Flatbush, Greenpoint, Walt Whitman, and Saratoga branches. He was prominent in Catholic circles and designed or remodeled several Catholic churches and related buildings, including Out Lady of Lourdes (1897), the Monastery of the Precious Block (1895), and the St. Johns Orphan Asylum (1901), all in Brooklyn. Daus' industrial and commercial buildings included those in the DUMBO Historic District, as well as those for the New York County National Bank, the National Lead Company, the American Can Company, and two buildings for the New York and New Jersey Telephone Company (in Brooklyn and Newark, NJ).

LPC, *(Former) New York and New Jersey Telephone and Telegraph Building Designation Report* (LP-2156) (New York: City of New York, 2004), prepared by Virginia Kurshan.

Dixon, Robert (1852-1912)
36-40 Bridge Street (1882)

A native Brooklyn resident, Robert Dixon attended the Brooklyn Polytechnic Institute and later apprenticed as a carpenter with his father, Dominick Dixon. In 1876 he entered the architecture firm of Marshall J. Morrill, and in 1879 he established his own practice.

Dixon was a prolific architect whose buildings were erected throughout Brooklyn. He designed a number of public buildings, including a pair of police stations in the Coney Island and Sheepshead Bay neighborhoods of Brooklyn (c. 1895; both demolished), an extension to the Female Almshouse, a remodeling of the Insane Asylum in Flatbush, and an extension and improvement to the gallery of the 13th Regiment Armory. Dixon's commercial structures include the Tivoli Concert Hall in Park Slope, the Casino and an extension to the Jockey Club in Coney Island (both demolished), and race tracks in Lincoln Park and Guttenberg, NJ. He also designed residences across Brooklyn, including a number in the Clinton Hill, Fort Greene, and Park Slope Historic Districts.

LPC, Architects Index Card Catalogue.
Obituary, *New York Times* (29 June 1912): 11.

Eisenach, Carl F. (dates unknown)
100 Front Street (1877)
104 Front Street (1877)

Little is known about Carl F. Eisenach's early life or education, although by the mid 1870s he had clearly established himself both as an architect and as a prominent member of Brooklyn's German community. Like many of his peers, Eisenach was involved in the early development of the Brooklyn Institute of Arts and Science's Department of Architecture, serving on its advisory committee. He was also president of the Saengerbund social club, and was a member of various committees involved with the development of the German Hospital, the German Academy of Brooklyn, and the Germania Savings Bank.

Amongst Eisenach's known designs are the richly ornamented Romanesque Revival tenement in Manhattan at 251 Water Street (1888, in the South Street Seaport Historic District), and the Germania Savings Bank (c. 1890). He also designed a number of residences around Brooklyn, particularly in the neighborhoods of Bushwick, Bedford-Stuyvesant, and Cobble Hill.

Brooklyn Daily Eagle, various articles from online archive search.
LPC, Architects Index Card Catalogue, prepared by Andrew S. Dolkart.
LPC, *South Street Seaport Historic District Designation Report* (LP-0948) (New York: City of New York, 1977): 35.

Expanded Metal Engineering Company

215-217 Water Street (1906-07)

Little is known about the Expanded Metal Engineering Company except that they were active in New York from approximately the turn of the twentieth century until at least 1980. Manufacturers of expanded wire lathing and expanded metal for fireproof flooring, plastering and other products, the firm was responsible for a wide range of buildings in New York and New Jersey in the early part of the twentieth century. The Directory of American Cement Industries lists the firm as being located at 256 Broadway in Manhattan in 1906 and 1909; by 1940 they had moved to 8 West 40th Street. Charles Stowe Reno (1867-1940) was the president of the Expanded Metal Engineering Company from 1909 until the time of his death in 1940.

Charles Carroll Brown, ed., *Directory of American Cement Industries*, 4th Edition (New York: Municipal Engineering Company, 1906).

Charles Carroll Brown, ed., *Directory of American Cement Industries*, 5th Edition (New York: Municipal Engineering Company, 1909).

Obituary, *The New York Times* (16 November 1940).

Faust, P. (dates unknown)

46-50 Jay Street (1891)

Little is known about the life or work of P. Faust. The *Real Estate Record and Builders Guide* indicates that he worked with the Stone Brothers (see) on 46-50 Jay Street, and he may have been involved with their real estate development business.

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 48 (11 July 1891): 67 and 48 (18 July 1891): 99.

Finkensieper, Benjamin (b. 1859)

57 Jay Street (1896)

22-24 Washington Street (1891)

26-38 Washington Street (1887-88)

121 Water Street (1894)

Benjamin Finkensieper was born in German and was trained in architecture there. He immigrated to the United States in 1881, and by the mid-1880s had established an architecture practice in Brooklyn that he maintained through the first decades of the twentieth century.

Finkensieper specialized in industrial and commercial architecture. In addition to his buildings in the DUMBO Historic District, Finkensieper designed a wallpaper factory for Robert Graves, the Colell Flats building, the E.M. Knox hat factory, Spadne’s machine shop, and several buildings for Simpson’s iron foundry, all in Brooklyn. While Finkensieper is most noted for his industrial and commercial work, he also designed a substantial number of residences throughout Brooklyn and the surrounding areas.

LPC, Architects Index Card Catalogue.

LPC, *Tribeca North Historic District Designation Report* (LP-1714) (New York: City of New York, 1992), prepared by Betsy Bradley.

Flemer & Koehler

19 Jay Street (1892)

Little is known about the early life and education of J.A. Henry Flemer and Victor Hugo Koehler (dates unknown). It appears that Koehler began practicing around 1886, and established a practice with Flemer in 1889. Their association appears to have ended in 1901. Koehler practiced alone from 1902-06, then began an association with James M. Farnsworth from 1907-10. In 1915, the firm was known as Koehler, Speye & Farrington, and a year later was known as Koehler & Spyr. In the 1920s, Koehler was associated with the theater-designer Hugh Tallant, with whom he created a 1921 addition to a 1913 synagogue design by Simeon B. Eisendrath, located in the Prospect Park South Historic District.

Known designs by Flemer & Koehler include the Richmond Hill High School in Queens (1898), the Chaarie Zedek Synagogue in Brooklyn, and a number of rowhouses in the Expanded Carnegie Hill Historic District in Manhattan (1889-90). Koehler also designed a neo-Gothic store and loft building in the NoHo Historic District (1911-12), as well as theaters such as the Lyric Theater, the Lafayette Theater, and the Children's Theater.

Francis, Dennis Steadman, *Architects in Practice New York City, 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1979): 31.

LPC, *Expanded Carnegie Hill Historic District Designation Report* (LP-1834) (New York: City of New York, 1993), prepared by David M. Breiner, et. al.

LPC, *NoHo Historic District Designation Report* (LP-2039) (New York: City of New York, 1999), prepared by Donald G. Presa and Virginia Kurshan.

Ward, James. *Architects in Practice New York City, 1900-1940* (Union, NJ: J & D Associates, 1989): 27.

Gaylor, William H. (1821-1895)

216 Plymouth Street (1892)

William H. Gaylor was born in Stamford, Connecticut. As a young man he moved to Brooklyn and apprenticed with carpenter-architect Edwin Bishop. Three years later he moved to Williamsburg, where he worked for builders Golder & Folk. He began his own practice as an architect at the age of 21, and in 1863 became a Master Builder as well. In 1882, Gaylor was appointed Commissioner of the Department of Buildings by Brooklyn mayor Seth Low.

Gaylor was a prolific architect, designing a wide range of public, commercial, and residential buildings throughout Brooklyn. He is most widely known for his cast-iron-fronted commercial buildings, including 2 Wooster Street in Manhattan (1871-73; in the SoHo Cast Iron Historic District), and a series of three buildings erected for the firm of Smith, Gray & Co.: the Lyceum Building (1873-75), 894-896 Greenpoint Avenue (1877-78; in the Greenpoint Historic District), and 126 Broadway (1884; erected by Thomas and William Lamb, builder). Gaylor also designed

the Bedford Theater (1891), and the Smith, Gray & Company Building at 103 Broadway in Brooklyn (1870; an individual landmark) is attributed to him.

LPC, *Smith, Gray & Company Building Designation Report* (LP-2161) (New York: City of New York, 2005), prepared by Jay Shockley.
Obituary, *The New York Times* (January 9, 1901) 3.

Glacken, Edward F. (b. c. 1874)
84-86 John Street (1909)

Little is known about Edward F. Glacken's early life or education, although it appears he was born into a prominent Irish family. Glacken does not appear to have been an architect by training, as all census records and directories indicate he was a businessman involved in the manufacture of glass bottles.

Brooklyn Daily Eagle, various articles from online archive search.
Ancestry.com, *1910 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).
---, *1920 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).
---, *1930 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).

Goldstone, Sydney (c. 1903-1970)
196-204 Water Street (1950)

Little is known of Sydney Goldstone's early life or education, other than that he was born in Brooklyn to Romanian parents. Census results from as early as 1920 list his profession as draftsman in an architecture office, and it appears that Goldstone was active from the mid-1920s through the 1950s.

The most widely known designs by Goldstein are the series of large Manhattan office buildings that he undertook in association with the office Ely Jacques Kahn and Robert Allan Jacobs—1407 Broadway (1944), the New York Stock Exchange Expansion (1954), and the Union Dime Bank Building (1955). Goldstone's work in DUMBO was commissioned by the Brillo Company, of which he was a director.

Ancestry.com, *1920 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).
---, *1930 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).
"Brooklyn Factory to Cost \$1,000,000," *The New York Times* (August 15, 1950): 43.
Stern, Jewel and John A. Stuart, *Ely Jacques Kahn, Architect*. (W.W. Norton & Co: New York and London, 2006) 210, 232, 235.

Hedman, Axel (dates unknown)

66-72 Water Street (alteration 1903)

Axel Hedman was a prolific designer speculative rowhouses erected throughout Brooklyn. He was listed in directories between 1894 through at least 1936. He was a principal in Hedman & [Magnus] Dahlander in 1894-96, and in Hedman & [Eugene] Schoen from about 1906 to 1918. Hedman was responsible for the Hicks Street and Bridge Street Public Baths (1902-03) and Lorraine Street Fire Station. His rowhouses (c. 1897-1914), include a number found in Crown Heights North, Park Slope, and Stuyvesant Heights Historic Districts.

LPC, *Crown Heights North Historic District Designation Report* (LP-2204) (New York: City of New York, 2007), prepared by Michael D. Caratzas, Cynthia Danza, and Donald G. Presa.

Higginson, William (1867-1943)

20 Jay Street (1909)

68-72 Jay Street (1915)

1 Main Street (1914)

35-41 Main Street (1916)

45 Main Street (1919)

21 Washington Street (1901)

41-49 Washington Street (1904)

51-59 Washington Street (1908)

40-58 Washington Street (1913-14)

70 Washington Street (1911)

27 York Street (1916)

William J. Higginson was born in England in 1867 and immigrated to the United States in 1886. Little is known about his early life or education, although city directories indicate that Higginson had established an architecture practice by 1894. He soon took an office in the same building as the established architect Edward L. Angell (whose work includes a number of rowhouses located within the Upper West Side/Central Park West Historic District and the Manhattan Avenue Historic District), and from 1897-99 it appears the two men practiced together as the firm of Angell & Higginson. Of the designs attributed to Angell & Higginson, the buildings erected for the American Manufacturing Company in the Greenpoint neighborhood of Brooklyn in the late 1890s perhaps best indicates that Higginson had already begun to specialize in industrial architecture.

Around the turn of the twentieth century, Higginson left his partnership with Angell and established his own practice on Park Row in Lower Manhattan. Soon thereafter he received a commission that in many ways would determine the direction of his entire career. In 1901 the Scottish-born industrialist Robert Gair choose Higginson to design the relatively small 6-story brick warehouse at 21 Washington Street. It was located directly across the street from Gair's first building in Brooklyn, 26-38 Washington Street—designed in 1887-88 by Benjamin Finkensieper. Like the earlier building, Higginson's factory was a simple masonry structure of slow-burning mill construction, articulated primarily by segmental-arched window openings and

restrained brick ornamentation. While this building was a modest, if well-executed, factory building not dissimilar to the countless other industrial buildings being erected throughout the city, it must have pleased Gair enough for the industrialist to hire the architect again in 1904—this time to design a much larger structure at 41-49 Washington Street.

In the intervening three years, however, Gair had been introduced to the recently-developed technology of reinforced concrete and was particularly interested in its fire-proofing qualities. Higginson was initially hesitant to adopt the new technology, but eventually agreed to work with the Turner Construction Company in designing the building. When it was completed, the building was the largest reinforced concrete building yet erected in the country.

Higginson's relationship with the Turner Construction Company proved to be highly productive. Over the next fifteen years the two firms joined together in designing and building several more reinforced concrete buildings for Gair. The industrialist was quick to praise his buildings and the architect and engineers who designed them—leading to other major commissions such as the massive Bush Terminal complex in Sunset Park, Brooklyn (1906-1926) and the Loose-Wiles Company Building in Long Island City, Queens (1914).

“A Century of Excellence 1902-2002,” *Turner News* (Turner Construction Company, 2002).

Dolkart, Andrew S., “American Manufacturing Company: A Brief History and Preliminary Analysis of Buildings Construction,” prepared for the Municipal Art Society of New York.

Francis, Dennis Steadman, *Architects in Practice New York City, 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1979): 39.

“Wm Higginson, 76, Architect, is Dead,” *The New York Times* (August 6, 1943): 15.

Houghton, Thomas F. (1842-1913)
56 Pearl Street (1891)

Thomas F. Houghton was born in Ireland and immigrated to the United States as a small boy in 1848. He trained as an architect in the office of his father-in-law, Patrick Charles Keely. Houghton was active from the 1870s through the first decade of the twentieth century.

Following in the footsteps of his father-in-law and mentor, Houghton designed a substantial number of buildings for the Roman Catholic diocese in Brooklyn, including the Sacred Heart Roman Catholic Church complex in Fort Greene (1873-1887), the Our Lady of Victory Roman Catholic Church complex in Bedford-Stuyvesant (1891-95), Transfiguration Roman Catholic Church in Williamsburg (1889-92), St. Francis Xavier Roman Catholic Church in Park Slope (1900-04), and St. Agnes Roman Catholic Church in Boerum Hill (1905). Houghton also designed a number of residences and tenements throughout Brooklyn.

LPC, Architects Index Card Catalogue.

Rispoli, Megan E., “Preserving the ‘Diocese of Immigrants: Strategies for the Continued Use of Brooklyn’s Historic Catholic Churches,” unpublished thesis, Columbia University (New York, 2007).

Howard, James Irving (dates unknown)
143 Plymouth Street (1879)

Little is known about James Irving Howard, although it appears that he practiced architecture from the mid 1860s through the early 1880s.

Francis, Dennis Steadman, *Architects in Practice New York City, 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1979): 41.

John Kennedy & Son
142-152 Plymouth Street (1901)

John Kennedy & Son were a construction firm located at 175 Front Street in Brooklyn, just outside the boundaries of the DUMBO Historic District. They were involved in the construction of a substantial number of buildings within the district—an article in the *Brooklyn Daily Eagle* notes that the firm “erected the principal office and manufacturing buildings along the river front in the neighborhood...[and] their unequaled facilities enable them to put up structures equipped with the most modern appliances.” It appears that John Kennedy & Son were active throughout the 1890s and 1900s.

“Plant of the E. W. Bliss Company, Showing New Buildings Contemplated,” *The Brooklyn Daily Eagle* (17 May 1900): 7.

“Projected New Buildings Brooklyn” (multiple entries from 1890-1900), *Real Estate Record and Builders Guide*.

Kissam, Henry Snyder (1866-1930)
208 Water Street (1905)

Henry Snyder Kissam studied architecture at Columbia University’s School of Mines, graduating in 1886. He then traveled to Paris to study at the École des Beaux Arts, after which he established a professional practice in Tacoma, Washington. He spent a year in 1893 in the New Haven, Connecticut office of Cady, Berg & See, then returned to New York as the General Manager in Ernest Flagg’s office. Kissam established his own practice around the turn of the century and remained active until his death in 1930.

Kissam was the Supervising Architect for the Pan-American Exposition in Buffalo (1899-1900), and also designed the Anthony Home for Working Girls in New York.

“H.S. Kissam is Dead: Leading Architect,” *The New York Times* (27 December 1930): 13.

Withey, Henry F. *Biographical Dictionary of American Architect (Deceased)*, (Los Angeles: Hennessey & Ingalls, Inc., 1970): 349.

Moore, S.A. (dates unknown)
37 Bridge Street (1915)

Little is known about S.A. Moore. An article in the *New York Times* notes that someone by the name of S.A. Moore had been appointed as a draftsman to the Board of Public Improvements in 1901, but it is unclear if this is the same person who designed 37 Bridge Street fourteen years later. The *Real Estate Record and Builders Guide* lists his in 1915 address as 315 New York Avenue in the Flatbush neighborhood of Brooklyn, although it is not clear if this is an architecture office or a private home.

“Mr. Holahan’s Appointments,” *The New York Times* (21 April 1901): 16.

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 96 (14 August 1915): 292.

Morse, George L. (1836-1924)
177 Water Street (1880)

George L. Morse was born in Bangor, Maine. He came to New York at an early age and studied under Jarvis Wheeler. Morse opened his own practice in Brooklyn in 1860, and soon established himself as one of Brooklyn’s most prominent architects. In addition to being president of Brooklyn’s chapter of the American Institute of Architects, Morse was also a founder and the first president of the Brooklyn Institute’s Department of Architecture, whose membership included nearly all of the leading Brooklyn architects of the time.

Morse designed a number of Brooklyn’s most prominent commercial buildings, including the Abraham & Straus Building (1884-85), the Franklin Trust Company Building (1891), the Brooklyn Daily Eagle Building (1892), and the Temple Bar Building (1901). He also designed the First Reformed Church of Brooklyn (1893), as well as numerous residences throughout Brooklyn.

Withey, Henry F. *Biographical Dictionary of American Architect (Deceased)*. (Los Angeles: Hennessey & Ingalls, Inc., 1970): 429.

Moyer Engineering and Construction Company
30 Main Street (1908)

Horace I. Moyer (b. 1859), president of the Moyer Engineering and Construction Company, was born in Pennsylvania and later studied law at Yale University. Census records indicate that he had moved to Brooklyn by 1890 and that his profession at that time was construction. He is listed in directories as early as 1901 as a major user of concrete, and apparently became one of the early specialists in reinforced concrete construction techniques. In 1904—the same year that the first reinforced concrete building was being erected for Robert Gair in the DUMBO Historic District—the Moyer firm was designing a similar, although slightly smaller, factory for the Thompson & Norris Company, which was a direct competitor with Gair in the manufacture of corrugated paper products.

Eventually the Moyer Engineering and Construction Company came to be affiliated with the operations of noted inventor Thomas Edison—who was very interested in concrete construction techniques. It appears that Moyer's firm was either a subsidiary of Edison's company, or that they shared a number of corporate officers. An article in the *New York Times* from 1914 also records Edison's choice of Moyer's firm to rebuild his factories in West Orange, New Jersey after a fire had severely damaged the complex.

Brown, Charles Carroll, *American Cement Industries and Hand-Book for Cement Users* (New York: Municipal Engineering Company, 1901) 487.

"Edison Starting Again," *The New York Times* (12 December 1914): 22.

Twelvetrees, W. Noble, *Concrete-Steel Buildings* (New York: Whittaker & Co.: 1907): 216.

George M. Newhall Engineering Co.

10 Jay Street (1897-98)

George M. Newhall (1880-1915) was born to a prominent Philadelphia family and was likely educated at the Pennsylvania Museum and School of Industrial Arts. He began his professional career as a member of the sugar refining company of McKean, Newhall & Borie, and by 1890 had opened his own engineering and architecture firm. The George M. Newhall Engineering Co. specialized in industrial buildings and was particularly active in designing sugar refineries. In addition to the Arbuckle refinery in the DUMBO Historic District, the Newhall Company designed refineries for the Pennsylvania Sugar Refining Company in Philadelphia (c. 1901), and the Knickerbocker Sugar Refining Company in Edgewater-on-Hudson, New Jersey (1903). Directories indicate the firm's main office was in Philadelphia, although they appear to have maintained an office in New York for a period of time in the late 1890s.

Francis, Dennis Steadman, *Architects in Practice New York City, 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1979): 57.

"George M. Newhall Engineering Co., Ltd.," *Philadelphia Architects and Buildings*, (Philadelphia: The Athenaeum of Philadelphia, 2007): http://www.philadelphiabuildings.org/pab/app/ar_display.cfm/32500.

"New Refinery to Start," *The New York Times* (29 July 1903): 12.

Parfitt Brothers

126 Front Street (1888)

Parfitt Brothers was among the most successful architectural firms in Brooklyn in the final two decades of the nineteenth century. The firm consisted of three brothers, all of whom were English immigrants. Walter E. Parfitt (d. 1925) was apparently the first of the three to arrive in Brooklyn, immigrating in about 1863. In 1869, city directories list Walter's occupation as "real estate." By 1875, when the Parfitt Brothers firm was established, Walter had been joined by his younger brother, Henry D. Parfitt (1848-1888). The third brother, Albert E. Parfitt (1863-1926), arrived in Brooklyn in 1882 and worked as a draftsman in the firm before becoming a junior partner. At the time that the Parfitt Brothers firm was established, most residential construction in Brooklyn consisted of brownstone-fronted rowhouses and flats in either the traditional

Italianate style or the newer neo-Grec variant on this form. Parfitt Brothers designed hundreds of such buildings, including many examples in designated historic districts.

Parfitt Brothers is best known for their residential architecture. The firm excelled in the design of buildings in the Queen Anne style, which it may have introduced to Brooklyn in 1881 with of a pair of red brick buildings with Queen Anne-inspired terra-cotta decoration at 472 and 474 Lafayette Avenue. These flats were soon followed by a series of superb single-family homes in the Queen Anne style, notably the Seth Low House (1882; demolished); the Dr. Cornelius N. Hoagland House (1882; in the Clinton Hill Historic District); the Erastus and Nettie Barnes House (1884; facade stripped); the John S. James House (1887; in the Brooklyn Heights Historic District), and the Truslow House (1887-88). The firm also pioneered in the design of apartment houses for the middle class in Brooklyn, with the Montague, Berkeley, and Grosvenor (all 1885) in the Brooklyn Heights Historic District. In addition to their residential work, Parfitt Brothers was responsible for several Brooklyn civic structures, most notably a landmark firehouse in Bushwick, Engine Company 52 (1896-97; now Engine Co, 252). The firm also designed four prominent Brooklyn churches, the borough's grandest synagogue (Temple Israel, 1890-94; demolished). The four churches are extant—the Nostrand Avenue Methodist Church (1881) in Bedford-Stuyvesant, Grace Methodist Church (1882; in the Park Slope Historic District), St. Augustine's R.C. Church (1888) in Park Slope, and the Embury Methodist Church (1894; now the Mount Lebanon Baptist Church; in the Stuyvesant Heights Historic District). Of the firm's many buildings for important Brooklyn hospitals and philanthropic organizations, all have been demolished.

LPC, *Crown Heights North Historic District Designation Report* (LP-2204) (New York: City of New York, 2007), prepared by Michael D. Caratzas, Cynthia Danza, and Donald G. Presa.

LPC, *John and Elizabeth Truslow House Designation Report* (LP-1964) (New York: City of New York, 1997), prepared by Andrew S. Dolkart.

Quinby, Frank Haviland (1868-1932)
126 Front Street (Alteration 1906)
39 Jay Street (1913)

Frank H. Quinby was born in Armonk, New York, attended the Chappaqua Mountain Institute, and studied architecture with private tutors. Quinby opened his own practice in Brooklyn in 1892, and quickly established himself as a prominent member of that city's architectural community. Quinby was on the Executive Committee of the Brooklyn Institute of Arts and Science's Department of Architecture until 1896, when many of the most prominent members of that group resigned their posts and joined the newly-created Brooklyn chapter of the American Institute of Architects. Quinby eventually became president of the later group, serving from 1905-07. Quinby was also an active member of the Brooklyn Chamber of Commerce, the Long Island Historical Society, and several charitable and social organizations.

Quinby designed a number of suburban and summer residences in Long Branch, New Jersey, Tuxedo Park, New York, and Bar Harbor, Maine. He was also responsible for several public buildings in Brooklyn and Manhattan, including fire houses, park buildings, public baths, and the

King's County Court House (date unknown; demolished)—as well as commercial and industrial structures throughout the city.

Francis, Dennis Steadman, *Architects in Practice New York City, 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1979): 63.

“Frank H. Quinby, Architect, Dead,” *The New York Times* (August 11, 1932): 15.

“Many Officers Resign,” *The New York Times* (May 4, 1896): 9.

Ward, James. *Architects in Practice New York City, 1900-1940* (Union, NJ: J & D Associates, 1989): 63.

Withey, Henry F. *Biographical Dictionary of American Architect (Deceased)*. (Hennessey & Ingalls, Inc.: Los Angeles, 1970): 494.

F.P. Sheldon & Co.

54 Bridge Street (1893)

Frank P. Sheldon (1846-1915) established an engineering firm in Providence, Rhode Island in 1870, specializing in the design of mill buildings for the country's growing textile industry. Over the following decades, the company came to national prominence as one of the most prolific designers of factories in the country. F.P. Sheldon & Co. (later F.P. Sheldon & Sons) designed mill buildings and other industrial structures throughout the United States and Canada—a firm retrospective published in 1921 indicates they had contracts in 20 states and four Canadian provinces. The firm was also active in architectural research and development, and introduced a number of innovations in mill building design—most notably improvements in the placement of windows in sawtooth roofs.

Fields, Jenny R. and Matthew A. Kierstead, “Greystone Mill Village Historic District,” National Register Nomination Form (Pawtucket, RI, 2007): Section 8, 9-10.

Stone, Arthur G. See Stone Brothers

Stone, Edward N. See Stone Brothers

Stone Brothers

18 Bridge Street (1902)

43-45 Bridge Street (1911)

46-48 Bridge Street (1904)

153-157 Front Street (1907)

58-66 Jay Street (1907)

59-67 Pearl Street (1896-97)

69-79 Pearl Street (1902)

166-172 Water Street (1902)

219-221 Water Street (1903)

192 Water Street (1898)

223-227 Water Street (1898)

It appears that the Stone Brothers—Arthur G. (b. 1860) and Edward N. (b. 1868)—were real

estate developers who worked on projects of all sorts throughout Brooklyn. It is likely that the brothers began their professional career under their father, George H. Stone (c. 1830-1900). An obituary for George notes that he was from an established New England family, that he moved with his wife and children to Brooklyn from Providence, Rhode Island around 1860, and that he had been engaged as a builder since around 1880 (when his elder son would have been twenty years old).

Most of the projects developed by the Stone Brothers in the DUMBO Historic District list Edward as the architect and Arthur as the builder, and the 1900 United States Census confirms this by noting Edward's occupation as architect and his brother's as builder (later census records list their occupation simply as "real estate"). They practiced from their own houses in the Crown Heights neighborhood, where Edward assumed the family home at 1364 Dean Street and Arthur settled next door at number 1370.

Among the buildings developed by the Stone Brothers are a number of houses in the Crown Heights North Historic District, including is a row of five Queen Anne style residences (1892; designed by George P. Chappell) and Arthur's own house (1885; designed by G.A. Schellenger). The Liberty Theater in Brownsville (1909) was also developed by the Stone Brothers.

Ancestry.com, *1910 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).

---, *1920 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).

---, *1930 United States Federal Census* [database on-line] (Provo, UT: The Generations Network, Inc., 2005).

LPC, *Crown Heights North Historic District Designation Report* (LP-2204) (New York: City of New York, 2007): 144-45, 200-01, prepared by Michael D. Caratzas, Cynthia Danza, and Donald G. Presa.

Obituary, *The New York Times* (9 October 1900): 7.

Thomas, Mercein (dates unknown)

195 Plymouth Street (1892)

75 Washington Street (1889)

81-91 Washington Street (c. 1882)

45-49 York Street (1882)

Little is known of Mercein Thomas's early life or education. He established his own practice in Brooklyn in 1878, and appears to have practiced into the first decade of the twentieth century. His known designs include a number of Queen Anne and Romanesque Revival style houses in the Clinton Hill Historic District (1885 and 1888), as well as the Brooklyn Methodist Church Home in Crown Heights (1889).

Francis, Dennis Steadman, *Architects in Practice New York City, 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1979): 74.

LPC, *Clinton Hill Historic District Designation Report* (LP-2017) (New York: City of New York, 1981), prepared by Andrew S. Dolkart, et. al.

Tubby, William (1858-1944)

1-15 Adams Street (1891)

50-52 Bridge Street (1894-95)

William B. Tubby was born in Des Moines, Iowa and was sent as a child to Brooklyn to be educated in the city's Friend's School. He later studied at the Brooklyn Polytechnic Institute, from which he graduated in 1875. After a year studying architecture in Europe, Tubby entered the office of Ebenezer L. Roberts—who maintained practices in both New York and Brooklyn. After Robert's death in 1890, Tubby assumed control of the firm and changed the name of the practice to his own name.

Tubby was a prolific architect whose buildings were erected throughout Brooklyn. His public designs include five Carnegie libraries, the South Hall of the Pratt Institute (1889-91; a designated individual landmark), and the 83rd Precinct Police Station and Stable (1894-95; a designated individual landmark). In addition to his work in the DUMBO Historic District, Tubby's industrial and commercial buildings include the Brooklyn Storage & Warehouse Company Building and a factory building for Benjamin Moore & Co (1908; in the Vinegar Hill Historic District). He also designed residences across Brooklyn, including a number in the Brooklyn Heights, Clinton Hill, and Park Slope Historic Districts.

LPC, *83rd Precinct Police Station and Stable Designation Report* (LP-0951) (New York: City of New York, 1977).

---, *Pratt Institute Main Building Designation Report* (LP-2010) (New York: City of New York, 1981), prepared by Marjorie Pearson.

Withey, Henry F. *Biographical Dictionary of American Architect (Deceased)*. (Hennessey & Ingalls, Inc.: Los Angeles, 1970): 608.

Turner, W.H. (dates unknown)

18 Adams Street (1904)

Little is known about the professional career of W.H. Turner. The *Real Estate Record and Builders Guide* indicates that he worked at 11 Broadway, which at the time was also home to the Turner Construction Company, although it is not clear if they were associated.

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 74 (10 December 1904): 1340.

Turner Construction Company

1 Main Street (1914)

35-41 Main Street (1916)

45 Main Street (1919)

41-49 Washington Street (1904)

51-59 Washington Street (1908)

40-58 Washington Street (1913-14)

70 Washington Street (1911)

196-204 Water Street (1950)
27 York Street (1916)

Founded by Henry Chandlee Turner in 1902, the Turner Construction Company was responsible for many of the largest and most important industrial buildings in New York and New Jersey. Trained as a civil engineer, after college he worked with Ernest L. Ransome, the first major American builder to use reinforced concrete. Through an agreement with his former employer, Turner enjoyed exclusive patent rights to the Ransome system in the metropolitan area. This arrangement greatly benefited Turner, who—following minor jobs for the new IRT subway system—built numerous structures for J. B. King & Co., Robert Gair, Irving Bush, and the Great Atlantic & Pacific Tea Company. In subsequent years, Turner was responsible for many important structures, in both reinforced concrete and steel. Notable examples include the United States Army Supply Base (1918-19; designed by Cass Gilbert), the Breakers Hotel in Palm Beach, Florida (1926; designed by Schultz & Weaver), Bloomingdale's Department Store (1930; designed by Starrett & Van Vleck), the General Motors Pavilion at the 1939 New York World's Fair (designed by Norman Bel Geddes), the Chase Manhattan Bank Building (1955-60; designed by Skidmore, Owings & Merrill), Lincoln Center (1960; designed by various architects), and the Hearst Headquarters (2006; designed by Norman Foster). The firm celebrated its centennial in 2002.

LPC, *Austin, Nichols & Co. Warehouse Designation Report* (LP-2163) (New York: City of New York, 2005), prepared by Matthew A. Postal.

Wilhelm Brothers

208-214 Plymouth Street (1904)

Little is known about the firm Wilhelm Brothers. The *Real Estate Record and Builders Guide* indicates that they maintained offices at 11 Broadway, which at the time was also home to the Turner Construction Company, although it is not clear if they were associated.

“Projected New Buildings Brooklyn,” *Real Estate Record and Builders Guide* 73 (20 February 1904): 427.

ROADBED AND SIDEWALK SURVEY

(As of December 18, 2007)

East-West Streets

John Street: Between Adams Street & Pearl Street

Roadbed: asphalt; Belgian block strip along north curblin (curves with road)

Sidewalk: concrete; some bluestone curbing along south side

John Street: Between Pearl Street and Jay Street

Roadbed: asphalt; small strip of Belgian block exposed along south curblin

Sidewalk: Belgian block sidewalk along north side with rail tracks; no sidewalk on south side

John Street: Between Jay Street and Bridge Street

Roadbed: asphalt; some Belgian block exposed along south curblin

Sidewalk: concrete; some bluestone curbing at east half along south side

Plymouth Street: Between Main Street and Washington Street

Roadbed: Belgian block, covered in some areas by asphalt, especially towards west with rail tracks; new granite slabs at crosswalks

Sidewalk: asphalt sidewalk to building line at part of south side

Plymouth Street: Between Washington Street and Adams Street

Roadbed: very intact Belgian block roadbed with rail tracks down center

Sidewalk: concrete

Plymouth Street: Between Adams Street and Anchorage Place

Roadbed: mixture of Belgian block and large asphalt patches with rail tracks in multiple directions

Sidewalk: concrete

Plymouth Street: Between Anchorage Place and Pearl Street

Roadbed: asphalt

Sidewalk: concrete; some bluestone curbing along north and south sides

Plymouth Street: Between Pearl Street and Jay Street

Roadbed: very intact Belgian block

Sidewalk: concrete; some bluestone curbing along south side

Plymouth Street: Between Jay Street and Bridge Street

Roadbed: mix of asphalt and Belgian block; rail tracks down center (splinters towards east of block); asphalt largely south of the tracks with Belgian block mainly north

Sidewalk: western half of north sidewalk largely Belgian block with granite slab details that extend into roadbed at western crosswalk (in front of Block 20, Lots 1 and 12); remaining areas are concrete; some bluestone curbing along north side

Plymouth Street: East of Bridge Street

Roadbed: asphalt; small strip of Belgian block exposed on along north curbline

Sidewalk: Belgian block sidewalk on south side in front of building Block 32, Lot 4

Water Street: West of Main Street

Roadbed: Belgian block roadbed towards west, broken up mix of asphalt and Belgian block towards east

Sidewalk: concrete

Water Street: Between Main Street and Washington Street

Roadbed: mainly asphalt with some Belgian block exposed; rail tracks at crosswalk

Sidewalk: concrete; some granite curbing on south side

Water Street: Between Washington Street and Adams Street

Roadbed: mix of asphalt and Belgian block (though predominantly asphalt); rail tracks down center

Sidewalk: concrete; some bluestone curbing along north side; Belgian block portions of sidewalk; rail tracks to building line at intersection of Water and Adams Streets

Water Street: Between Anchorage Place and Pearl Street

Roadbed: asphalt (area south of Water Street painted green)

Sidewalk: concrete; bluestone slabs towards east corner on north side; bluestone curbing along north side on east half of block

Water Street: Between Pearl Street and Jay Street

Roadbed: mixed area of intact Belgian block and asphalt (intact Belgian block largely along northern half of roadbed)

Sidewalk: concrete; some bluestone curbing along north and south sides

Water Street: Between Jay Street and Bridge Street

Roadbed: mixed area of intact Belgian block and asphalt (intact Belgian block largely towards east half of block)

Sidewalk: concrete; some granite curbing along north side (west half of block); some bluestone curbing along south side (east half of block); new brick and concrete paving to the north (east half of block) in front of Block 31, Lot 7502

Front Street: West of Washington Street

Roadbed: asphalt

Sidewalk: concrete

Front Street: Between Washington Street and Adams Street

Roadbed: asphalt

Sidewalk: concrete

Front Street: Between Adams Street and Pearl Street

Roadbed: asphalt

Sidewalk: concrete; Belgian block sidewalk / driveway on south side; some bluestone curbing along south side

Front Street: East of Pearl Street

Roadbed: asphalt

Sidewalk: concrete; some bluestone curbing on north and south sides

North-South Streets

Main Street: Between Plymouth Street and Water Street

Roadbed: largely Belgian block with patches of asphalt; rail tracks down center; new granite slabs at crosswalks

Sidewalk: concrete

Main Street: Between Water Street and Front Street

Roadbed: broken up mix of asphalt and Belgian block

Sidewalk: concrete; some bluestone curbing along east side (north half of block)

Washington Street: Between Plymouth Street and Water Street

Roadbed: Belgian block with minor patches of asphalt

Sidewalk: concrete; some bluestone curbing along east and west sides

Washington Street: Between Water Street and Front Street

Roadbed: very intact Belgian block with minor patches of asphalt

Sidewalk: concrete; some bluestone curbing along east side (south half of block)

Washington Street: South of Front Street

Roadbed: Belgian block with minor patches of asphalt

Sidewalk: concrete; some bluestone curbing along east side (south half of block)

Adams Street: Between John Street and Plymouth Street

Roadbed: very intact Belgian block with patches of asphalt; fragments of rail tracks; granite slabs at crosswalk (south)

Sidewalk: concrete; bluestone curbing along east side

Adams Street: Between Plymouth Street and Water Street

Roadbed: very intact Belgian block; rail tracks down center

Sidewalk: concrete

Adams Street: Between Water Street and Front Street

Roadbed: mix of Belgian block and asphalt (asphalt mainly on western half of roadbed; Belgian block mainly on eastern half)

Sidewalk: concrete; Belgian block curb cut under bridge

Anchorage Place: Between Plymouth Street and Water Street

Roadbed: mix of asphalt and Belgian block (Belgian block largely intact towards middle of block)

Sidewalk: concrete; Belgian block curb cut under bridge

Anchorage Place: Water Street and Front Street

Roadbed: asphalt; rail track

Sidewalk: concrete; Belgian block curb cut along sidewalk to west

Pearl Street: North of John Street

Roadbed: asphalt with some Belgian block exposed

Sidewalk: none (asphalt roadbed extends to building lines)

Pearl Street: Between John Street and Plymouth Street

Roadbed: asphalt; some patches of Belgian block exposed towards north half of block and along east curblines towards south half of block

Sidewalk: concrete; Belgian block at northeast corner

Pearl Street: Between Plymouth Street and Water Street

Roadbed: asphalt

Sidewalk: concrete with large stretches of Belgian block sidewalk areas featuring bluestone and granite slabs (in front of Block 30, Lots 1, 4 and 7); bluestone slabs towards south corner on west side; bluestone curbing along west side on south half of block

Pearl Street: Between Water Street and Front Street

Roadbed: asphalt; some Belgian block exposed along east curblines

Sidewalk: concrete

Pearl Street: South of Front Street

Roadbed: mix of asphalt and Belgian block (Belgian block more intact towards east half of roadbed)

Sidewalk: concrete

Jay Street: North of John Street

Roadbed: largely asphalt; some Belgian block exposed

Sidewalk: concrete

Jay Street: Between John Street and Plymouth Street

Roadbed: asphalt; some Belgian block exposed along west curblines; fragment of rail tracks

Sidewalk: concrete; some bluestone curbing along east side

Jay Street: Between Plymouth Street and Water Street

Roadbed: asphalt; some Belgian block exposed along west curblines

Sidewalk: concrete; Belgian block sidewalk to east with rail track extending from intersection (northern portion of Block 31, Lot 1)

Jay Street: South of Water Street

Roadbed: asphalt

Sidewalk: concrete

Bridge Street: Between John Street and Plymouth Street

Roadbed: asphalt

Sidewalk: concrete; some bluestone curbing along west curbline

Bridge Street: Between Plymouth Street and Water Street

Roadbed: asphalt; some exposed Belgian block

Sidewalk: concrete; new brick and concrete paving to the west (south half of block) in front of Block 31, Lot 7502

Bridge Street: South of Water Street

Roadbed: asphalt; minor patches of Belgian block

Sidewalk: concrete

Intersections

John Street and Adams Street: asphalt; some Belgian block along curbline (north and west)

John Street and Pearl Street: asphalt; some Belgian block extends into intersection at northeast corner

John Street and Jay Street: Belgian block extends into intersection at southwest corner

John Street and Bridge Street: asphalt

Plymouth Street and Main Street: Belgian block; new granite slabs at crosswalks

Plymouth Street and Washington Street: Belgian block; rail tracks; new granite slabs at crosswalks

Plymouth Street and Adams Street: Belgian block with minor asphalt patches; rail tracks; granite slabs at north crosswalk

Plymouth Street and Anchorage Place: Belgian block with minor asphalt patches; rail tracks

Plymouth Street and Pearl Street: asphalt; Belgian block extends into intersection from east

Plymouth Street and Jay Street: asphalt; rail tracks; Belgian block and granite slabs extend into intersection east sidewalks

Plymouth Street and Bridge Street: largely asphalt with bits of Belgian block exposed

Water Street and Main Street: broken up mix of asphalt and Belgian block; fragments of rail track

Water Street and Washington Street: broken up mix of asphalt and Belgian block

Water Street and Adams Street: Belgian block; rail tracks from north run into building on southwest corner; some asphalt

Water Street and Anchorage Place: asphalt; some Belgian block

Water Street and Pearl Street: asphalt

Water Street and Jay Street: asphalt; some Belgian block extending into intersection from east and west

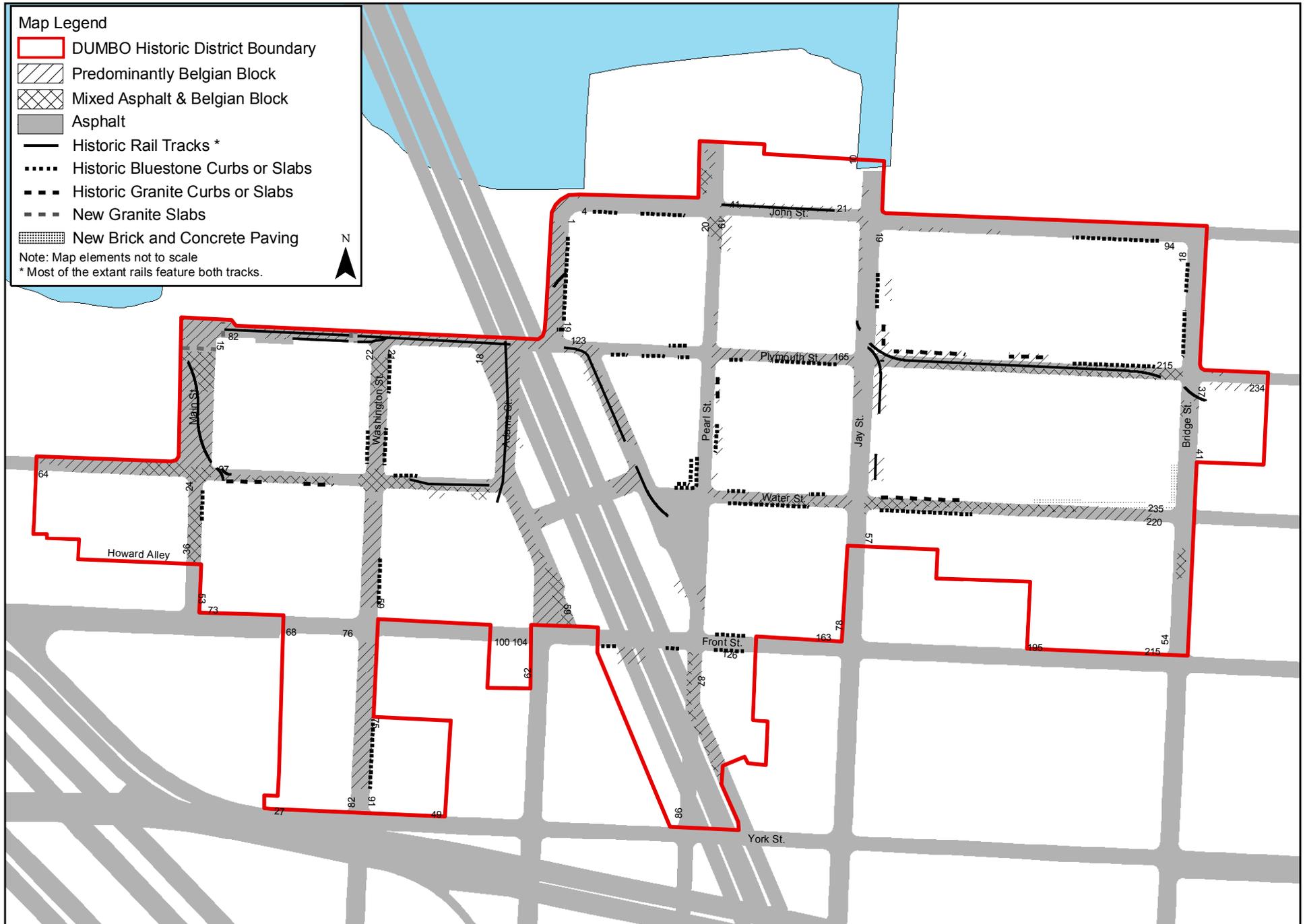
Water Street and Bridge Street: asphalt

Front Street and Washington Street: asphalt

Front Street and Adams Street: asphalt

Front Street and Pearl Street: asphalt

Roadbeds & Sidewalks within the DUMBO Historic District



FINDINGS AND DESIGNATION

On the basis of a careful consideration of the history, the architecture and other features of this area, the Landmarks Preservation Commission finds that the DUMBO Historic District contains buildings and other improvements which have a special character and a special historical and aesthetic interest and value and which represent one or more eras of the history of New York City and which cause this area, by reason of these factors, to constitute a distinct section of this city.

The Commission further finds that, among its important qualities the DUMBO Historic District, located along the East River waterfront in Brooklyn, is one of New York City's most significant extant industrial waterfront neighborhoods; that during much of the nineteenth and twentieth centuries, the area was home to some of the largest and most important manufacturing businesses in Brooklyn or New York City, including Arbuckle Brothers, refiner and packager of sugar and coffee; Robert Gair, manufacturer of paper boxes; the Hanan & Son shoe company; the Kirkman & Son soap company; the John W. Masury & Son paint works; the Jones Brothers/Grand Union grocery business; the E. W. Bliss machine works; and the Brillo steel wool firm; that these firms employed thousands of local workers, many of them immigrants who flooded into Brooklyn's working-class neighborhoods in the second half of the nineteenth century and early decades of the twentieth century; that by the early twentieth century, Brooklyn was the fourth largest manufacturing center in the entire country and a significant portion of this industrial output occurred in DUMBO and that among the manufacturing businesses that were especially prominent in Brooklyn were those producing machinery, paint, sugar, coffee, packaged groceries, paper boxes and shoes, all of which are represented in the buildings in DUMBO; that the approximately 91 buildings in the historic district reflect important trends in the development of industrial architecture in the United States during the nineteenth and twentieth centuries, and embody an important era of Brooklyn and New York City history; that the land that now comprises DUMBO was among the earliest in Brooklyn developed for residential use.; that by the 1830s the character of the neighborhood began to change as residential structures were replaced by commercial buildings and multi-story factories and warehouses; that the owners of these structures were attracted to the area because of its proximity to the East River and the presence of ferry lines providing convenient connections to New York City; that the neighborhood became increasingly industrial in the decades following the Civil War; that the earliest of these buildings are representative of the slow-burning mill construction popular in the mid-to-late nineteenth century typically having simple brick facades with rhythmically placed window openings and large entrances at the ground level for vehicular access, and that the internal structural system of these buildings is composed of massive wooden columns, beams, and joints, which is very slow to combust and provides a measure of protection against fire; that in the late nineteenth and early twentieth century builders began to use steel frame construction and terra-cotta floor tiles to provide even greater protection from fires and that while the internal structure of these buildings differed significantly from their predecessors, their outward appearance often closely resembled the older buildings; that the most radical innovation in DUMBO's industrial architecture occurred at the beginning of the twentieth century, when buildings constructed entirely of reinforced concrete began to appear; that these factories, erected by the Gair Company and other firms, were among the earliest large-scale reinforced-concrete factory buildings to be erected in the United States; that Gair would eventually develop much of

the western section of the neighborhood and that Gair was such a dominant presence in this area that it eventually came to be known as “Gairville;” that many of the reinforced concrete Gair buildings were designed by William Higginson and constructed by the Turner Construction Company and that both Higginson and Turner became important builders and designers of reinforced concrete industrial buildings; that the district also contains a number of other building types related to the area’s industrial past including tenements, foundries, modern factories and other structures; that the DUMBO Historic District is enhanced by its distinctive industrial streetscapes retaining original granite Belgian block paving for several portions of streets and sidewalks as well as the network of train tracks, running along the streets and in some cases extending into individual buildings, laid out by the Jay Street Connecting Railroad; that the Manhattan Bridge, which soars over the area, provides a dramatic backdrop for the neighborhood’s industrial architecture and that the anchorage and piers of the bridge, with their boldly-detailed arches spanning streets and sidewalks, are a major presence and strongly contribute to the district’s sense of place; that DUMBO, an acronym for Down Under the Manhattan Bridge Overpass, assumed its current name when artists began to move into the neighborhood in the late 1970s and convert the industrial spaces into lofts; that little industry is still active in the district, as most buildings have been converted for residential and office use; that the DUMBO Historic District is significant as a reminder of Brooklyn and New York City’s industrial heritage and its historic factories and warehouses are excellent examples of the development of American industrial architecture from the mid-nineteenth century through the early twentieth.

Accordingly, pursuant to the provisions of Chapter 74, Section 3020 (formerly Section 534 of Chapter 21) of the Charter of the City of New York and Chapter 3 of Title 25 of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as a Historic District the DUMBO Historic District consisting of the properties bounded by a line beginning at the northwest corner of John Street and Adams Street, extending southerly along the western curblineline of Adams Street to the northern curblineline of Plymouth Street, then westerly along the northern curblineline of Plymouth Street to the northwest corner of Plymouth Street and Main Street, southerly along the western curblineline of Main Street to the northwest corner of Water Street and Main Street, westerly along the northern curblineline of Water Street to a point in said curblineline formed by its intersection with a line extending northerly from a portion of the western building line of 64 Water Street, southerly along said line and southerly along a portion of the western property line of 64 Water Street to a point intersecting with the southern property line of 64 Water Street, easterly along a portion of the southern property line of 64 Water Street, southerly along a portion of the western building line of 66-68 Water Street, easterly along the southern building line of 66-68 Water Street, southerly along the western building line of 70-72 Water Street, easterly along the southern building line of 70-72 Water Street and the southern curblineline of Howard Alley to the eastern curblineline of Main Street, southerly along the eastern curblineline of Main Street to the northern curblineline of Front Street, easterly along the northern curblineline of Front Street to a point formed by its intersection with a line extending northerly from the western property line of 68-76 Front Street, southerly then westerly then southerly along said property line to the northern curblineline of York Street, easterly along the northern curblineline of York Street across Washington Street to a point in the northern curblineline of York Street formed by its intersection with a line extending southerly from the eastern property line of 75-91 Washington Street (aka 39-49 York Street), northerly along said

line and northerly along the eastern property line of 75-91 Washington Street (aka 39-49 York Street), westerly along the northern property line of 75-91 Washington Street (aka 39-49 York Street) to the eastern curbline of Washington Street, northerly along said curbline and across Front Street to the northeast corner of Washington Street and Front Street, easterly along the northern curbline of Front Street to a point in said curbline formed by its intersection with a line extending northerly from the western property line of 100 Front Street, southerly across Front Street and along the western property line of 100 Front Street, easterly along the southern property lines of 100 and 104 Front Street to the western curbline of Adams Street, northerly along the western curbline of Adams Street and across Front Street to the northwest corner of Adams Street and Front Street, easterly across Adams Street and along the northern curbline of Front Street to a point in said curbline formed by its intersection with a line extending northerly from the western property line of 86 Pearl Street (Block 52, Lot 17), southerly across Front Street and along the western property line of 86 Pearl Street (Block 52, Lot 17) to the northern curbline of York Street, easterly along said curbline and across Pearl Street to a point in the northern curbline of York Street formed by its intersection with a line extending southerly from the eastern property line of Block 53, Lot 1, northerly along said line and northerly along a portion of the eastern property line of Block 53, Lot 1, easterly along a portion of the southern property lines of Block 53, Lot 1, southerly along a portion of the western property line of Block 53, Lot 6, easterly along the southern property line of Block 53, Lot 6, northerly along the eastern property line of Block 53, Lot 6, westerly along a portion of the northern building line of Block 53, Lot 6, northerly along the eastern property line of 126 Front Street (aka 87 Pearl Street) to the northern curbline of Front Street, easterly along said curbline to the northwest corner of Front Street and Jay Street, northerly along the western curbline of Jay Street to a point formed by its intersection with a line extending westerly from the southern property line of 57 Jay Street (aka 178 Water Street), easterly across Jay Street and along the southern property line of 57 Jay Street (aka 178 Water Street), southerly along the western property line of 190 Water Street, easterly along the southern property line of 190 Water Street and the southern building line of 196-204 Water Street (aka 185 Front Street), southerly along the western property line of 206-220 Water Street (aka 195-215 Front Street and 54-70 Bridge Street) to the northern curbline of Front Street, easterly along the northern curbline of Front Street to the northeast corner of Front Street and Bridge Street, northerly along the eastern curbline of Bridge Street and across Water Street to a point in the eastern curbline of Bridge Street formed by its intersection with a line extending westerly from the southern property line of 37-41 Bridge Street (aka 226-234 Plymouth Street), easterly along said line and easterly along the southern property line of 37-41 Bridge Street (aka 226-234 Plymouth Street), northerly along the eastern property line of 37-41 Bridge Street (aka 226-234 Plymouth Street) and across Plymouth Street to the northern curbline of Plymouth Street, westerly along said curbline to the northeast corner of Bridge Street and Plymouth Street, northerly along the eastern curbline of Bridge Street and across John Street to the northern curbline of John Street, westerly along the northern curbline of John Street to the northeast corner of John Street and Jay Street, northerly along the eastern curbline of Jay Street to a point in the said curbline formed by its intersection with a line extending easterly from a portion of the northern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street), westerly across Jay Street and a portion of the northern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street), northerly along a portion of the eastern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street), westerly along a portion of the northern property line of 10-18 Jay Street (aka 21-41 John Street and 17 Pearl Street) and across

Pearl Street to the western curbline of Pearl Street, southerly along said curbline to the northwest corner of Pearl Street and John Street, then westerly along the northern curbline of John Street to the point of the beginning.

Robert B. Tierney, Chair

Stephen F. Byrns, Diana Chapin, Joan Gerner, Roberta Brandes Gratz, Christopher Moore,
Margery Perlmutter, Roberta Washington, Commissioners



Figure 1
Water Street streetscape facing west (Main Street in foreground)
Photo: Carl Forster



Figure 2
Anchorage Place streetscape facing south; Manhattan Bridge piers at right
Photo: Carl Forster



Figure 3
Water Street streetscape facing east
Photo: Carl Forster



Figure 4
Rail tracks and Belgian block paving on Adams Street between Plymouth and Water Streets
Photo: Jennifer L. Most



Figure 5
Rail tracks, Belgian block paving and Manhattan Bridge piers at the intersection of Plymouth and Adams Streets
Photo: Jennifer L. Most



Figure 6
Rail tracks entering building and Belgian block paving on Plymouth Street between Bridge and Jay Streets
Photo: Jennifer L. Most



Figure 7
Washington Street streetscape between Water and Plymouth Streets
Photo: Jennifer L. Most



Figure 8
Intersection of John and Bridge Streets facing south
Photo Credit: NYC Department of Taxes (c. 1939)



Figure 9
Plymouth Street streetscape facing east
Photo Credit: NYC Department of Taxes (c. 1939)



Figure 10
66-72 Water Street
Architect unknown, c. 1850; fifth story addition: Axel Hedman, 1903
Photo: Christopher D. Brazee



Figure 11
66-72 Water Street
Photo Credit: NYC Department of Taxes (c. 1939)



Figure 12
64 Water Street
Architect unknown, c. 1855
Photo: Christopher D. Brazee



Figure 13
104 and 100 Front Street
Carl Eisenach, 1877
Photo: Christopher D. Brazee



Figure 14
26-38 Washington Street, aka 113-119 Water Street
Benjamin Finkensieper, 1887-88
Photo: Christopher D. Brazee



Figure 15
22-24 Washington Street, aka 92-102 Plymouth Street
Benjamin Finkensieper, 1891
Photo: Christopher D. Braze



Figure 16
54 Bridge Street, aka 54-70 Bridge Street, 220-228 Water Street and 205-215 Front Street
F.P. Sheldon & Co., 1893
Photo: Christopher D. Brazee



Figure 17
57 Jay Street, aka 55-59 Jay Street and 178-188 Water Street
Benjamin Finkensieper, 1896
Photo: Christopher D. Brazee



Figure 18
59-67 Pearl Street, aka 156-164 Water Street
Arthur G. and Edward N. Stone, 1896-97
Photo: Christopher D. Brazee



Figure 19
10 Jay Street, aka 10-18 Jay Street, 21-41 John Street and 17 Pearl Street
George R. New & Co., 1897-98
Photo: Christopher D. Brazee



Figure 20
135 Plymouth Street, aka 127-135 Plymouth Street and 15-17 Adams Street
R[udolphe] L. Daus, 1900-01
Photo: Christopher D. Brazee



Figure 21
202 Plymouth Street, aka 202-206 Plymouth Street
Architect unknown, 1903
Photo: Michael D. Caratzas



Figure 22
41-49 Washington Street, aka 112-128 Water Street
William Higginson, 1904
Photo: Christopher D. Brazee



Figure 23
153-157 Front Street
Edward N. Stone, 1907
Photo: Christopher D. Brazee



Figure 24
58-66 Jay Street, aka 174-176 Water Street
Edward N. Stone, 1907
Photo: Christopher D. Brazee



Figure 25
30 Main Street, aka 24-36 Main Street and 74-86 Water Street
Moyer Engineering and Construction Company, 1908
Photo: Christopher D. Brazee



Figure 26
51-59 Washington Street, aka 97-119 Front Street
William Higginson, 1908
Photo: Christopher D. Brazee



Figure 27
20 Jay Street, aka 20-40 Jay Street, 145-165 Plymouth Street, 19-37 Pearl Street and 22-44 John Street
William Higginson, 1909
Photo: Christopher D. Brazee



Figure 28
43-45 Bridge Street
Arthur G. Stone, 1911
Photo: Christopher D. Brazee



Figure 29
70 Washington Street, aka 60-72 Washington Street and 66-76 Front Street
William Higginson, 1911
Photo: Christopher D. Brazee



Figure 30
27 York Street
William Higginson, 1916
Photo: Christopher D. Brazee



Figure 31
70 Washington Street, aka 60-72 Washington Street and 66-76 Front Street; 27 York Street
Photo Credit: NYC Department of Taxes (c. 1939)



Figure 32
26-28 Bridge Street
Architect unknown, 1912
Photo: Christopher D. Braze



Figure 33
26-28 Bridge Street
Photo Credit: NYC Department of Taxes (c. 1939)



Figure 34
40-58 Washington Street, aka 100-110 Water Street and 83-95 Front Street
William Higginson, 1913-14
Photo: Christopher D. Brazee



Figure 35
1 Main Street, aka 1-33 Main Street, 82-90 Plymouth Street and 97-111 Water Street
William Higginson, 1914
Photo: Christopher D. Brazee



Figure 36
37 Bridge Street, aka 37-41 Bridge Street and 226-234 Plymouth Street
Kirkman & Son, 1915
Photo: Christopher D. Brazee



Figure 37
45 Main Street, aka 43-53 Main Street and 73-81 Front Street
William Higginson, 1919
Photo: Christopher D. Brazee



Figure 38
42-44 Jay Street, aka 164-174 Plymouth Street
Architect unknown, 1919-21
Photo: Christopher D. Brazee



Figure 39
196-204 Water Street
Sidney Goldstone, 1950
Photo: Christopher D. Brazee