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# GOWANUS CANAL CORRIDOR REZONING PROJECT GOWANUS BROOKLYN, NEW YORK

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## PHASE IA CULTURAL RESOURCE ASSESSMENT

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Prepared For:

**New York City Department of City Planning**  
New York, New York



Prepared By:

**The Louis Berger Group, Inc.**  
New York, New York



and

**Historical Perspectives, Inc.**  
Westport, Connecticut



May 2009

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Prepared For:

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May 2009

## EXECUTIVE SUMMARY

The New York City Department of City Planning (DCP) is proposing zoning map amendments for an area encompassing 25 blocks within the Gowanus neighborhood in the Borough of Brooklyn (Figure 1). The proposed rezoning area is generally bounded by Bond Street to the west, 100 feet (30.5 meters) west of Fourth Avenue to the east, Baltic Street and Sackett Street to the north, and Third Street and First Street to the south. The proposed action would rezone approximately 70 acres of land currently zoned as M1-2 and M2-1 districts to mixed-use zoning districts, in effect, creating a Special Gowanus Mixed-Use District.

As part of this action, the DCP is undertaking a Draft Environmental Impact Statement (DEIS) for the proposed Gowanus rezoning project. Consideration for cultural resources, including both archaeological and historic architectural resources, must be undertaken as part of the City Environmental Quality Review (CEQR) process. The following Phase IA Cultural Resource Assessment establishes Areas of Potential Effect (APEs) for the project, those areas within which the proposed actions may affect potential archaeological and/or historic architectural resources, identifies designated and potential cultural resources that may be affected by the proposed project, and assesses the proposed action's potential effects on those resources. This Phase IA Cultural Resource Assessment is subject to the review of the New York City Landmarks Preservation Commission (LPC) under the CEQR process.

Within the proposed rezoning area, DCP has delineated projected and potential development sites. The proposed rezoning project consists of 26 projected development sites and 40 potential development sites. These development sites are located throughout the 70-acre rezoning area and often encompass multiple tax lots within a single projected or potential site. A total of 74 individual lots comprise the 26 projected development sites; 68 city lots encompass the 40 potential development sites. LPC determined that of the 142 lots slated for rezoning, including those lots within both the projected and potential development sites, 16 had the potential to contain significant and intact nineteenth century archaeological resources which could be impacted by the proposed rezoning project. These 16 lots defined the archaeological APE for this Phase IA Cultural Resource Study. Research was conducted on the ownership, occupation history, and, with respect to most lots, the development of the Gowanus Canal bulkhead; only general background information was obtained for the project area as a whole. As for the historic architectural survey, the historic architectural APE was determined using the CEQR guidelines that recommend a 400-foot (121.92 meters) radius from the borders of the project site as the limits of the study area for architectural resources (*CEQR Technical Manual* 312). Thus, the historic architectural APE was calculated by buffering 400 feet (121.92 meters) from the exterior limits of the proposed rezoning area.

A total of 39 historic properties were identified in the architectural APE that had prior NYSOPRHP determinations of eligibility and/or were designated or eligible as a New York City Landmark, had been previously evaluated and determined not eligible for State, National Register, or LPC listing, or were evaluated as part of this report. Of these 39 historic properties, 16 historic properties were listed or eligible for listing on the State and National Registers and/or designated or eligible as a New York City Landmark and five (5) properties within the APE were previously evaluated by the NYSOPRHP and the New York City Landmarks Preservation Commission and determined not eligible and/or non-contributing resources to the National Register-eligible Gowanus Canal Historic District. In addition, a total of 18 historic properties within the architectural APE were identified by this survey that appeared to be 50 years in age or greater (30 years in age or greater for New York City Landmarks) and that had a potential to meet the eligibility criteria for inclusion in the State and National Registers of Historic Places. Of the 18 historic properties evaluated by this survey, 12 historic properties appear to meet the eligibility criteria and have been recommended State and National Register eligible in this report. The historic architectural APE contains a total of 28 historic properties that are listed and/or eligible for listing as NYC Landmarks and/or the State/National registers.

Of the 28 historic architectural properties within the architectural APE meeting eligibility criteria for NYC Landmark or State/National register listing, 17 buildings, districts, or structures are located on or in close enough proximity to the proposed actions' development sites to potentially lead to direct and/or indirect significant adverse impacts due to the proposed actions. These properties are:

- (#1) The Gowanus Canal Historic District (S/NR eligible; † indicates a contributing resource to the district)
- (#4) American Can Company (S/NR eligible†)

- (#5) Brooklyn Improvement Company Office (S/NR eligible†, NYCL)
- (#6) Brooklyn Rapid Transit Power House (S/NR eligible†, NYCL)
- (#7) Carroll Street Bridge (S/NR eligible†, NYCL)
- (#8) Our Lady of Peace Roman Catholic Church (S/NR eligible)
- (#9) Public Bath No. 7 (S/NR Listed, NYCL)
- (#10) Pumping Station, Flushing Tunnel, and Gatehouse (S/NR eligible†)
- (#11) American Society for the Prevention of Cruelty to Animals (S/NR eligible)
- (#16) Ice House/Brewing Company (S/NR eligible†)
- (#18) Tenements & Store (S/NR eligible)
- (#19) Douglass Street Row Houses, North Side (S/NR eligible)
- (#21) Degraw Street Houses (1), North Side (S/NR eligible)
- (#22) Degraw Street Houses (2), South Side (S/NR eligible)
- (#25) Hildebrand Baking Company (S/NR eligible)
- (#26) Eureka Garage (S/NR eligible)
- (#27) National Packing Box Company (S/NR eligible†)

Two historic architectural properties, the S/NR-eligible† and NYCL eligible Brooklyn Rapid Transit Power House (#6) and the Hildebrand Baking Company (#25) at 530-550 President Street/495-507 Carroll Street, recommended S/NR-eligible, are located on a projected development lot. The Brooklyn Rapid Transit Power House is located on a site expected to be zoned M1-4/R6 (MX 3.6). M1-4/R6 (MX 3.6) is a mixed used district that allows for maximum height of 125 feet on limited portions of the site (after setbacks and subject to floorplate limitations), which could be built on this or adjacent sites. The Hildebrand Baking Company is located on a site expected to be zoned mixed use district M1-4/R6B under the proposed action. The M1-4/R6B zoning would allow for a maximum height of 50 feet, which could be constructed on this site or adjacent sites. Both properties may also be demolished or substantially altered as part of the projected development. As a result, the proposed action could result in a direct significant adverse impact to the Brooklyn Rapid Transit Power House and the Hildebrand Baking Company. As discussed below, the Brooklyn Rapid Transit Power House is also a contributing resource to the Gowanus Canal Historic District, and therefore, direct and indirect adverse impacts to this building would also adversely impact the S/NR eligible historic district.

The Gowanus Canal Historic District (#1) extends through the proposed rezoning area and is adjacent to several projected and potential sites on both sides in the rezoning area. The adjacent proposed actions include M1-4/R6 (MX 3.3), M1-4/R6 (MX 3.6), and M1-4/R6B. In addition, the proposed actions on sites with M1-4/R7A and M1-4/R6B zoning are within the viewshed of the canal on Sackett, Union, President, Carroll, 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Streets. Heights vary from a 50-foot maximum to a possible 125-foot maximum with the potential to greatly change the character associated with the historic district, as well as adversely impact contributing resources to the Gowanus Canal Historic District. The canal itself would not be directly impacted, however, contributing buildings in the historic district, namely the Brooklyn Rapid Transit Power House, which is located on a projected site and could be altered or demolished as a result of the proposed actions, could be directly impacted and therefore result in a direct adverse impact to the Gowanus Canal Historic District. Changes in the use, scale, overall character of the Gowanus Canal Historic District through the loss of associated historic fabric and the industrial buildings that contribute to the overall character of the district could result in adverse impacts. Likewise, the visual component of the Gowanus Canal Historic District and vistas from the crossings and nearby streets may be impacted by the proposed rezoning and could result in a significant alteration in the historic district's associated landscape, thereby creating an adverse impact.

The American Can Company (#4) and the Brooklyn Improvement Company Office (#5), located at the southeast and southwest corners of 3<sup>rd</sup> Street and Third Avenue, respectively, would not be directly impacted by the proposed rezoning actions. Both properties are also contributing resources to the Gowanus Canal Historic District. The rezoning action of Block 972, located on the north side of 3<sup>rd</sup> Street, proposes change to a M1-4/R6 (MX 3.6) zoning district. Under the M1-4/R6 (MX 3.6) zoning, possible construction could be a maximum of 125 feet in height on limited portions of the site, which could result in adverse indirect visual impacts to the both the S/NR eligible† American Can Company complex, the S/NR eligible†, NYCL Brooklyn Improvement Company Office, as well as the Gowanus Canal Historic District.



The Our Lady of Peace Roman Catholic Church (#8), bounded by Carroll Street, Whitewell Place, 1st Street, and Denton Place. Potential and projected sites are located east and west of the Our Lady of Peace complex, along the opposite side of Whitewell Place and Denton Place; both are narrow mid-block streets. Potential and projected sites are also located directly opposite the church, school, and rectory at the north side of Carroll Street. The development sites west and north of the church property are expected to be zoned mixed use district M1-4/R6B with maximum building height of 50 feet after setback. East of the church, between Denton Place and Fourth Avenue, development sites are expected to be zoned mixed use district M1-4/R6B/R8A/C2-4. (There are three proximate projected development sites — W, X and Y — where portions of each site are located in two proposed districts, M1-4/R6B and R8A/C2-4.) The M1-4/R6B/R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on these projected development sites. The historic property would not be physically impacted by the proposed action. The potential significant increase in height and density of nearby sites, especially in the M1-4/R6B/R8A/C2-4 zoning district, could result in potential indirect adverse impacts to the S/NR eligible Our Lady of Peace Church complex.

The Eureka Garage (#26), recommended S/NR eligible in this report, is adjacent to and/or near several development sites at the west side of Fourth Avenue and on Sackett Street. The development sites on Fourth Avenue (projected development site E and potential development site 9) are expected to be zoned mixed use district R8A/C2-4. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on adjacent/proximate development sites. Development sites on Sackett Street are expected to be zoned M1-4/R7A and M1-4/R6B. The M1-4/R7A zoning district would allow for a 40-foot minimum and 65-foot maximum streetwall height and an 80-foot maximum building height with setback. The M1-4/R6B zone would allow streetwall heights of 30 to 40 feet with a maximum building height of 50 feet. Under the proposed actions, development sites on Sackett Street would not result in direct or indirect impacts to the Eureka Garage, as these sites are not directly adjacent to the garage and could be developed in a scale that, while substantially taller than the garage building, is in keeping with the current scale and character of the area. However, under the proposed actions the development and/or alteration of the adjacent buildings/sites along Fourth Avenue could result in direct physical impacts to the Eureka Garage due to their close proximity, and would also result in significant indirect adverse impacts due to the in scale, height, and massing permissible in the R8A/C2-4 district.

Of the 28 historic properties identified in the historic architectural APE, seven (7) of the historic architectural resources are eligible or recommended for listing on the S/NR and could incur significant adverse impacts as the result of the proposed actions. In addition to S/NR eligibility, the Brooklyn Improvement Company Office is a New York City Landmark. Two historic properties are located on projected/potential development sites and would be adversely impacted by the proposed action by alteration and/or demolition. Therefore, as a result of implementation of the proposed actions, development on projected development sites S and U would result in unavoidable adverse impacts to historic architectural resources, including possible demolition of the historic properties. Potential development sites 8 and 9 and projected development sites W, X, and Y could result in significant, indirect impacts to historic properties. The remaining historic properties are located outside of the proposed rezoning and redevelopment area and/or are not within close enough proximity to potential or projected development sites and therefore, would not be impacted by the proposed action.

The documentary study concluded that each of the 16 lots or portions of each of the lots had the potential for intact archaeological deposits. Portions of 13 of the lots, Block 417, 21, Block 424, Lots 1 and 20, Block 431, Lot 17, Block 438, Lots 3 and 7, Block 439, Lot 1, Block 445, Lots 11 and 20, Block 452, Lot 15, Block 453, Lot 1, Block 462, Lot 14, and Block 972, Lot 1 were found to have the potential for intact nineteenth century Gowanus Canal bulkhead deposits. Three lots, Block 405, Lots 7 and 8, and Block 453, Lot 1, were also considered sensitive for mid-nineteenth century domestic deposits including potential shaft features. Block 453, Lot 21 was considered sensitive for historic deposits relating to an eighteenth and early nineteenth century grist mill and a mid-nineteenth century paper mill. Soil boring data could not be obtained for any of the 16 selected-LPC lots during this initial documentary study, nor could a previous underwater inventory of the Gowanus Canal bulkhead be obtained. Given the potential for past undocumented development within each of these areas, conclusions regarding the sensitivity of each lot should be reevaluated if borings or a bulkhead inventory becomes available. The comprehensive support for the conclusions regarding the sensitivity of the lots within the archaeological APE is included in the following report.

**TABLE OF CONTENTS**

<b>CHAPTER</b>	<b>PAGE</b>
EXECUTIVE SUMMARY .....	i
TABLE OF CONTENTS .....	iv
LIST OF FIGURES .....	v
LIST OF PHOTOS .....	vi
LIST OF TABLES .....	viii
1.0 INTRODUCTION AND PROJECT DESCRIPTION .....	1
1.1 Project Description .....	1
1.2 Areas of Potential Effect .....	1
1.3 Scope of Work and Project Personnel .....	5
2.0 ENVIRONMENTAL SETTING .....	9
2.1 Project Area and Current Land Use .....	9
2.2 Geology and Geography .....	9
3.0 BACKGROUND .....	13
3.1 Prehistoric Overview .....	13
3.1.1 Prehistoric Archaeological Site Potential .....	14
3.1.2 Previous Cultural Resource Surveys .....	15
3.2 Historic Background .....	17
4.0 INDIVIDUAL LOT DOCUMENTARY STUDIES .....	43
4.1 Block 405, Lot 7, Projected Development Site A (213 Bond Street) .....	43
4.2 Block 405, Lot 8, Potential Development Site 1 (211 Bond Street) .....	56
4.3 Block 417, Lot 21, Potential Development Site 7 .....	63
4.4 Block 424, Lot 1, Projected Development Site D .....	78
4.5 Block 424, Lot 20, Projected Development Site D .....	86
4.6 Block 431, Lot 17, Projected Development Site D .....	90
4.7 Block 438, Lot 3, Projected Development Site I .....	96
4.8 Block 438, Lot 7, Projected Development Site J .....	108
4.9 Block 439, Lot 1, Potential Development Site 19 .....	117
4.10 Block 445, Lot 11, Projected Development Site I .....	123
4.11 Block 445, Lot 20, Projected Development Site I .....	128
4.12 Block 452, Lot 15, Projected Development Site T .....	132
4.13 Block 453, Lots 1 & 21, Projected Development Site U .....	138
4.14 Block 462, Lot 14, Projected Development Site Z .....	162
4.15 Block 972, Lot 1, Potential Development Site 40 .....	174
5.0 HISTORIC ARCHITECTURAL SURVEY .....	182
5.1 Methodology .....	182
5.2 Identification and Evaluation of Historic Properties within the Architectural APE .....	183
5.2.1 Previously Listed or Eligible Historic Properties within the Architectural APE .....	183
5.2.2 Previously Undocumented Historic Properties within the Architectural APE .....	200
6.0 CONCLUSIONS AND RECOMMENDATIONS .....	237
6.1 Archaeology .....	237
6.2 Historic Architecture .....	241
7.0 REFERENCES CITED .....	247
APPENDIX A CORRESPONDENCE WITH LANDMARKS PRESERVATION COMMISSION	
APPENDIX B LIST OF PROJECTED AND POTENTIAL DEVELOPMENT SITES INCLUDING CORRESPONDING BLOCK AND LOTS	
APPENDIX C OCCUPANCY TABLES FOR BLOCK 453	

**LIST OF FIGURES**

FIGURE	PAGE
Figure 1: Overview of Proposed Gowanus Rezoning Area .....	2
Figure 2: Projected and Potential Development Sites within the Proposed Gowanus Rezoning Area.....	3
Figure 3: Tax Block and Lots within the Projected and Potential Development Sites within the Proposed Gowanus Rezoning Area.....	4
Figure 4: Archaeological APE .....	6
Figure 5: Architectural APE.....	7
Figure 6: View of the Project Area in 1766-1767.....	11
Figure 7: View of the Project Area in 1844 .....	12
Figure 8: Portion of The Map of the Original Plantations within Brooklyn, New York. ....	18
Figure 9: Reproduction of <i>An Ancient Map</i> Showing Early Land Patents Within Gowanus.. ....	20
Figure 10: View of the Project Area During the Revolutionary War .....	22
Figure 11: View of Project Area and Revolutionary War Fortifications .....	23
Figure 12: Illustration of Brower's Mill (Freeke's Mill) and its Associated.....	24
Figure 13: Illustration of Sterling's Retreat from the Cortleyou House. ....	24
Figure 14: View of the Project Area in 1849 .....	26
Figure 15: Plan No. 2 of Major Douglass' Report on the Drainage of Part of the City of Brooklyn.. ....	27
Figure 16: Proposed Gowanus Canal Plan, 1848.....	29
Figure 17: View of the Project Area in 1863 .....	31
Figure 18: View of the Project Area in 1869 .....	33
Figure 19: Bromley's View of the Project Area in 1880 .....	35
Figure 20: Hopkins View of the Project Area in 1880.....	36
Figure 21: View of the Project Area in 1886 .....	37
Figure 22: View of the Project Area in 1898 .....	38
Figure 23: View of the Project Area in 1929 .....	42
Figure 24: 1855 View of Block 405 within the Gowanus Rezoning Project Area .....	46
Figure 25: 1886 View of Block 405 within the Gowanus Rezoning Project Area .....	50
Figure 26: 1904 View of Block 405 within the Gowanus Rezoning Project Area .....	52
Figure 27: 1951 View of Block 405 within the Gowanus Rezoning Project Area .....	53
Figure 28: 2006 View of Block 405 within the Gowanus Rezoning Project Area .....	54
Figure 29: Areas Sensitive for Historic Period Archaeological Resources within Block 405, Lots 7 & 8 .....	55
Figure 30: 1886 View of Blocks 417, 424, and 431 within the Gowanus Rezoning Project Area.....	70
Figure 31: 1904 View of Blocks 417, 424, and 431 within the Gowanus Rezoning Project Area.....	71
Figure 32: 1915 View of Blocks 417, 424, and 431 within the Gowanus Rezoning Project Area.....	72
Figure 33: 1951 View of Blocks 417, 424, 431 within the Gowanus Rezoning Project Area .....	74
Figure 34: 1968 View of Blocks 417, 424, and 431 within the Gowanus Rezoning Project Area.....	75
Figure 35: Areas Sensitive for Historic Period Archaeological Resources within Block 417, Lot 21, Block 424, Lots 1 & 20, and Block 431, Lot 17 .....	77
Figure 36: 2006 View of Blocks 417, 424, and 431 within the Gowanus Rezoning Project Area.....	85
Figure 37: 1886 View of Blocks 438, 439, 445, 452, and 453 Within Gowanus Rezoning Project Area.....	102
Figure 38: 1904 View of Blocks 438, 439, 445, 452, and 453 within Gowanus Rezoning Project Area.....	103
Figure 39: 1915 View of Blocks 438, 439, 445, 452, and 453 within Gowanus Rezoning Project Area.....	104
Figure 40: 1951 View of Blocks 438, 439, 445, 452, and 453 within Gowanus Rezoning Project Area.....	105
Figure 41: 1968 View of Blocks 438, 439, 445, 452, and 453 within Gowanus Rezoning Project Area.....	106
Figure 42: 2006 View of Blocks 438, 439, 445, 452, and 453 within Gowanus Rezoning Project Area.....	107
Figure 43: Areas Sensitive for Historic Period Archaeological Resources within Block 438, 438, Lots 7 & 3, Block 439, Lot 1, Block 445, Lots 11 & 21, and Block 452, Lot 15.....	109
Figure 44: Historic Lot Designations for Block 453, Lots 1 and 21 in 1886.....	144
Figure 45: 1886 View of Block 453, Lots 1 and 21 .....	147
Figure 46: 1904 View of Block 453, Lots 1 and 21 .....	149
Figure 47: 1939 View of Block 453, Lots 1 and 21 .....	151
Figure 48: 1950 View of Block 453, Lots 1 and 21 .....	152
Figure 49: 2006 View of Block 453, Lots 1 and 21 .....	153

Figure 50: Archaeological Sensitivity for Block 453, Lots 1 and 21, with Former Historic Resources Overlaid on 2006 Sanborn Map .....	160
Figure 51: 1886 View of Blocks 462 and 972 within Gowanus Rezoning Project Area.....	168
Figure 52: 1904 View of Blocks 462 and 972 within Gowanus Rezoning Project Area.....	169
Figure 53: 1915 View of Blocks 462 and 972 within Gowanus Rezoning Project Area.....	170
Figure 54: 1951 View of Blocks 462 and 972 within Gowanus Rezoning Project Area.....	171
Figure 55: 1968 View of Blocks 462 and 972 within Gowanus Rezoning Project Area.....	172
Figure 56: 2006 View of Blocks 462 and 972 within Gowanus Rezoning Project Area.....	173
Figure 57: Areas Sensitive for Historic Period Archaeological Resources within Block 462, Lot 14 and Block 972, Lot 1 .....	175
Figure 58: Previously Documented Historic Properties in and adjacent to the Historic Architectural APE.....	185
Figure 59: Historic Properties Surveyed for the Proposed Gowanus Canal Corridor Rezoning Project.....	201
Figure 60: Gowanus Houses .....	234

## LIST OF PHOTOS

PHOTO	PAGE
Photo 1: Bird's Eye View of the Project Area .....	9
Photo 2: "Gowanus Canal -- Storied in 'songs' about Brooklyn and a busy waterway," .....	39
Photo 3: Tugboats and Barges Operating within Gowanus Canal, 1910s. Photograph on file.....	40
Photo 4: Tugboats and Docks Along Gowanus Canal, 1928. Brooklyn Eagle Photograph .....	40
Photo 5: Block 405, Lot 7, View East.....	44
Photo 6: Block 405, Lot 8, View Southeast. ....	56
Photo 7: Block 417, Lot 21. View Northwest.....	64
Photo 8: Block 417, Lot 21. View South. ....	64
Photo 9: Block 417, Lot 21, Bulkhead Frontage. View Northwest .....	65
Photo 10: Sewer Outlet at the Foot of Degraw Street. View East. ....	65
Photo 11: Block 424, Lot 1. View Northeast .....	78
Photo 12: Block 424, Lot 1. View Southeast .....	79
Photo 13: Block 424, Lot 1, Bulkhead Frontage. View West.....	79
Photo 14: Block 424, Lot 20. View Northeast .....	86
Photo 15: Block 431, Lot 17. View Southwest.....	91
Photo 16: Block 431, Lot 17. View Northeast .....	91
Photo 17: Block 431, Lot 17, Bulkhead Frontage. View Northwest .....	92
Photo 18: Block 438, Lot 3. ....	97
Photo 19: Block 438, Lot 3, Bulkhead Frontage. View Southwest .....	98
Photo 20: Block 438, Lot 7. View Southeast .....	110
Photo 21: Block 438, Lot 7. View South. ....	110
Photo 22: Block 438, Lot 7, Bulkhead Frontage. View Southwest .....	111
Photo 23: Block 438, Lot 7, Southern Segment of Bulkhead Frontage. View Southwest.....	111
Photo 24: Block 439, Lot 1. View Southeast .....	118
Photo 25: Block 439, Lot 1, Bulkhead Frontage. View Southeast .....	118
Photo 26: Block 445, Lot 11. View Northeast .....	124
Photo 27: Block 445, Lot 11. View Northeast .....	124
Photo 28: Block 445, Lot 11, Bulkhead Frontage. View Northwest .....	125
Photo 29: Block 445, Lot 11 and Lot 20, Bulkhead Frontage. View Northwest .....	125
Photo 30: Block 445, Lot 20. ....	129
Photo 31: Carroll Street Frontage of Block 452, Lot 15. View South .....	132
Photo 32: Southern Portion of Block 452, Lot 15. View Southeast .....	133
Photo 33: Gowanus Canal South of Carroll Street Bridge. Block 452, Lot 15,.....	133
Photo 34: Block 452, Lot 15, View Southwest.....	134
Photo 35: View of Lot 1, Showing Masonry Warehouse-Type Factory Building Measuring One- Story in the Rear, and Two and Three Stories along its Border with Carroll Street, and Gowanus Canal Bulkhead. View Southeast from Carroll Street Bridge.....	139
Photo 36: View of Paved Parking Area at Northwest Corner of Lot 1, Adjacent to the Canal. View Southwest from	

Carroll Street. ....	139
Photo 37: View of Gowanus Canal Bulkhead, Showing Deteriorating Upper Elements. View Southeast from Carroll Street Bridge.....	140
Photo 38: View of Lot 21, with Rectangular Shaped, One-Story Brick Faced and Concrete Block Building at the Northeast Corner of the Lot, Bordering Carroll Street and Adjacent Lot 26. View South from Carroll Street. ....	140
Photo 39: View of Paved Concrete Surface on Remainder of Lot 21. View South from Carroll Street. ....	141
Photo 40: "Carroll Street Bridge After Planting." View of Block 453, Lot 1 in Background, with Watson & Pittinger Logo on Side of Building. Note also canal bulkhead exposed at low tide. View Southeast. ..	148
Photo 41: "South from Carroll Street." View of Block 453, Lot 1 on Left Showing Existing Three-Story Building on Lot, with Water Tower on Roof. View South.....	150
Photo 42: Block 462, Lot 14. View Northwest.....	163
Photo 43: Block 462, Lot 14, Bulkhead Frontage. View Northwest.....	164
Photo 44: Block 972, Lot 1 .....	176
Photo 45: Block 972, Lot 1, Bulkhead Frontage. View East.....	177
Photo 46: Gowanus Canal. View Southwest.....	187
Photo 47: Burn Brothers Coal Pockets. View South.....	187
Photo 48: Third Avenue Bridge, View Southeast. Source: NR report.....	188
Photo 49: American Can Company (Somers Brothers Decorated Tinware). View South. ....	188
Photo 50: Brooklyn Improvement Company Office. View West. ....	190
Photo 51: Brooklyn Rapid Transit Power House. View North. ....	190
Photo 52: Carroll Street Bridge over Gowanus Canal. View West. ....	191
Photo 53: Our Lady of Peace Roman Catholic Church Complex. View South.....	191
Photo 54: Public Bath No. 7 (Brooklyn Lyceum). View East. ....	193
Photo 55: Gatehouse and Pumping Station. View North.....	193
Photo 56: American Society for the Prevention of Cruelty to Animals. View North.....	194
Photo 57: R.G. Dun & Company, View North. ....	194
Photo 58: Wyckoff Street Rowblock. View Southeast. ....	196
Photo 59: Saint Agnes Church. View East.....	196
Photo 60: Saint Agnes Parish Hall (Saint Agnes Parish Center). View Northeast. ....	197
Photo 61: Saint Vincent's Residence. View East.....	197
Photo 62: Former Saint Agnes Roman Catholic School. View North. ....	198
Photo 63: Second Street Row Houses. View North. ....	198
Photo 64: Empire City Ice Company/Brewing Company. View Southeast.....	199
Photo 65: PS 133 William A. Butler School. View Northeast.....	203
Photo 66: 143-149 Fourth Avenue. View East. ....	204
Photo 67: 355-363 Douglass Street. View Northeast.....	205
Photo 68: 355-365 Douglass Street. View North.....	205
Photo 69: 348A-360 Douglass Street. View South. ....	206
Photo 70: Cast Iron Fences, Newel Posts, and Railings, 354-360 Douglass Street. View Southeast.....	207
Photo 71: 360-370 Douglass Street. View Southeast.....	207
Photo 72: Douglass Street Row Houses. View West. ....	208
Photo 73: 645-651 Degraw Street, North Side. View North.....	209
Photo 74: 651-659 Degraw Street, North Side. View Northeast. ....	209
Photo 75: 661-669 Degraw Street, North Side. View Northeast. ....	210
Photo 76: 671-677 Degraw Street, North Side. View North.....	210
Photo 77: 679-685 Degraw Street, North Side. View North.....	211
Photo 78: 670-678 Degraw Street, South Side. View Southeast. ....	212
Photo 79: 706-714 Degraw Street, South Side. View Southwest. ....	212
Photo 80: Degraw Street Row Houses, South Side. View Southeast. ....	213
Photo 81: Row Houses President Street, North Side. View East.....	214
Photo 82: Row Houses President Street, North Side. View Northeast. ....	214
Photo 83: President Street Row Houses, North Side. View Northeast. ....	215
Photo 84: Tenements President Street, South Side. View South. ....	216
Photo 85: Hildebrand Baking Company, President Street. View South. ....	217
Photo 86: Hildebrand Baking Company, President Street. View West. ....	218
Photo 87: Hildebrand Baking Company, Carroll Street. View North.....	218

Photo 88: Hildebrand Baking Company, Carroll Street. View Northeast .....	219
Photo 89: Eureka Garage, Degraw Street. View Southwest .....	220
Photo 90: Eureka Garage, Sackett Street. View Northeast .....	220
Photo 91: Emblem, Eureka Garage .....	221
Photo 92: "Eureka" Sign .....	221
Photo 93: E. A. Roos Leather Works. View Southwest .....	222
Photo 94: National Packing Box Factory. View North .....	223
Photo 95: National Packing Box Factory Complex. View West .....	224
Photo 96: City of New York Water Supply-Distribution, Gowanus Station. View West .....	225
Photo 97: Detail City of New York Water Supply-Distribution, Gowanus Station. View West .....	225
Photo 98: Frame Dwelling 194 Butler Street. View Southwest .....	226
Photo 99: Cornice Hood over Entrance, 194 Butler Street. View South .....	227
Photo 100: Owen Nolan Building. View Northeast .....	228
Photo 101: 498-490 Warren Street, South Side. View West .....	229
Photo 102: 482-486 Warren Street, South Side. View Southwest .....	229
Photo 103: 474-478 Warren Street, South Side. View Southwest .....	230
Photo 104: 462-470 Warren Street, built 1989. View Southwest .....	230
Photo 105: Former Storefront at 451 Warren Street, North Side. View East .....	231
Photo 106: Warren Street, North Side. View Northwest .....	232
Photo 107: 441-443 Warren Street, North Side. View North .....	232
Photo 108: 445-449 Warren Street, North Side. View Northeast .....	233
Photo 109: Gowanus Houses, Bond and Wyckoff Streets. View Southwest .....	235
Photo 110: Gowanus Houses, Bond Street. View North .....	235
Photo 111: Gowanus Houses, Bond Street. View Southwest .....	236

## LIST OF TABLES

TABLE	PAGE
Table 1: Previously Recorded Prehistoric Archaeological Sites Within One-Mile Vicinity of Project Area .....	14
Table 2: Recorded Land Transfers of Block 405, Lot 7 .....	44
Table 3: Federal Census Data for Block 405, Lot 7 .....	47
Table 4: Brooklyn City Directory Data for Block 405, Lot 7 .....	48
Table 5: Summary of US Federal Census and Directory Research for Block 405, Lot 7 .....	49
Table 6: Recorded Land Transfers of Block 405, Lot 8 .....	57
Table 7: Federal Census Data for Block 405, Lot 7 .....	59
Table 8: Brooklyn City Directory Data for Block 405, Lot 8 .....	60
Table 9: Municipal Tax Assessments for Historic Tax Block 70 (Tax Block 405) .....	61
Table 10: Summary of US Federal Census and Directory Research for Block 405, Lot 8 .....	62
Table 11: Recorded Land Transfers of Block 417, Lot 21 .....	66
Table 12: Recorded Land Transfers of Block 424, Lot 1 .....	80
Table 13: Recorded Land Transfers of Block 424, Lot 20 .....	87
Table 14: Recorded Land Transfers of Block 431, Lot 17 .....	93
Table 15: Recorded Land Transfers of Block 438, Lot 3 .....	98
Table 16: Recorded Land Transfers of Block 438, Lot 7 .....	112
Table 17: Recorded Land Transfer for Block 439, Lot 1 .....	119
Table 18: Recorded Land Transfers for Block 445, Lot 11 .....	126
Table 19: Recorded Land Transfers for Block 445, Lot 20 .....	129
Table 20: Recorded Land Transfers for Block 452, Lot 15 .....	134
Table 21: Recorded Land Transfers for Block 453, Lot 1 .....	143
Table 21: Recorded Land Transfers for Block 453, Lot 1 (con't) .....	145
Table 22: Recorded Land Transfers for Block 453, Lot 21 .....	154
Table 23: Recorded Land Transfers for Block 462, Lot 14 .....	164
Table 24: Recorded Land Transfers for Block 972, Lot 1 .....	177
Table 25: Previously Documented Properties within the Gowanus Rezoning Project APE .....	184

Table 26: Previously Undocumented Historic Properties within the Historic Architectural APE .....	200
Table 27: Archaeological Potential for Each Lot within the Gowanus Rezoning Archaeological APE .....	237
Table 28: Historic Architectural Resources within the Gowanus Rezoning Project .....	241



## 1.0 INTRODUCTION AND PROJECT DESCRIPTION

### 1.1 Project Description

The New York City Department of City Planning (DCP) is proposing zoning map amendments for an area encompassing 25 blocks within the Gowanus neighborhood in the Borough of Brooklyn (Figure 1). The proposed rezoning area is generally bounded by Bond Street to the west, 100 feet west of Fourth Avenue to the east, Baltic Street and Sackett Street to the north, and Third Street and First Street to the south. The proposed action would rezone approximately 70 acres of land currently zoned as M1-2 and M2-1 districts to mixed-use zoning districts, in effect, creating a Special Gowanus Mixed-Use District.

As part of this action, the DCP is undertaking a Draft Environmental Impact Statement (DEIS) for the proposed Gowanus rezoning project. Consideration for cultural resources, including both archaeological and historic architectural resources, must be undertaken as part of the City Environmental Quality Review (CEQR) process. The following Phase IA Cultural Resource Assessment establishes Areas of Potential Effect (APEs) for the project, those areas within which the proposed actions may affect potential archaeological and/or historic architectural resources, identifies designated and potential cultural resources that may be affected by the proposed project, and assesses the proposed action's potential effects on those resources. This Phase IA Cultural Resource Assessment is subject to the review of the New York City Landmarks Preservation Commission (LPC) under the CEQR process.

This study was performed for compliance with the City Environmental Quality Review (CEQR) and the report was prepared in accordance with the *Landmarks Preservation Commission Guidelines for Archaeological Work in New York City* (April 2002). The cultural resource specialists who performed the investigations meet the standards specified in 36 CFR 66.3(b) (2) and 36 CFR 62.

### 1.2 Areas of Potential Effect

Within the proposed rezoning area, DCP has delineated projected and potential development sites. Projected development sites consist of those sites considered most likely to be developed within ten years of the proposed rezoning. Potential sites are those considered less likely to be developed within a ten-year period from the proposed actions. The proposed rezoning project consists of 26 projected development sites and 40 potential development sites (Figure 2). These development sites are located throughout the 70-acre rezoning area and often encompass multiple tax lots within a single projected or potential site. A total of 74 individual lots comprise the 26 projected development sites; 68 city lots encompass the 40 potential development sites (Figure 3; Appendix B). A list of the 142 lots, including those lots within both the projected and potential development sites, was submitted to LPC in order to preliminarily evaluate the potential archaeological sensitivity within the redevelopment area (Zachary Davis, Information Request dated October 14, 2008). LPC completed its initial evaluation of lots to be affected by the proposed rezoning so as to assist DCP in fulfilling its environmental review obligations. After reviewing archaeological sensitivity models, reports detailing previously conducted archaeological studies in the vicinity of the rezoning area, and historic maps, LPC recommended that an archaeological documentary study be conducted for 16 of the 142 affected lots (Gina Santucci, Environmental Review letter dated 11/14/2008; Amanda Sutphin, Environmental Review letter dated 2/27/2009). LPC found that each of these 16 lots had the potential to contain significant and intact nineteenth century archaeological resources which could be impacted by the proposed rezoning project.



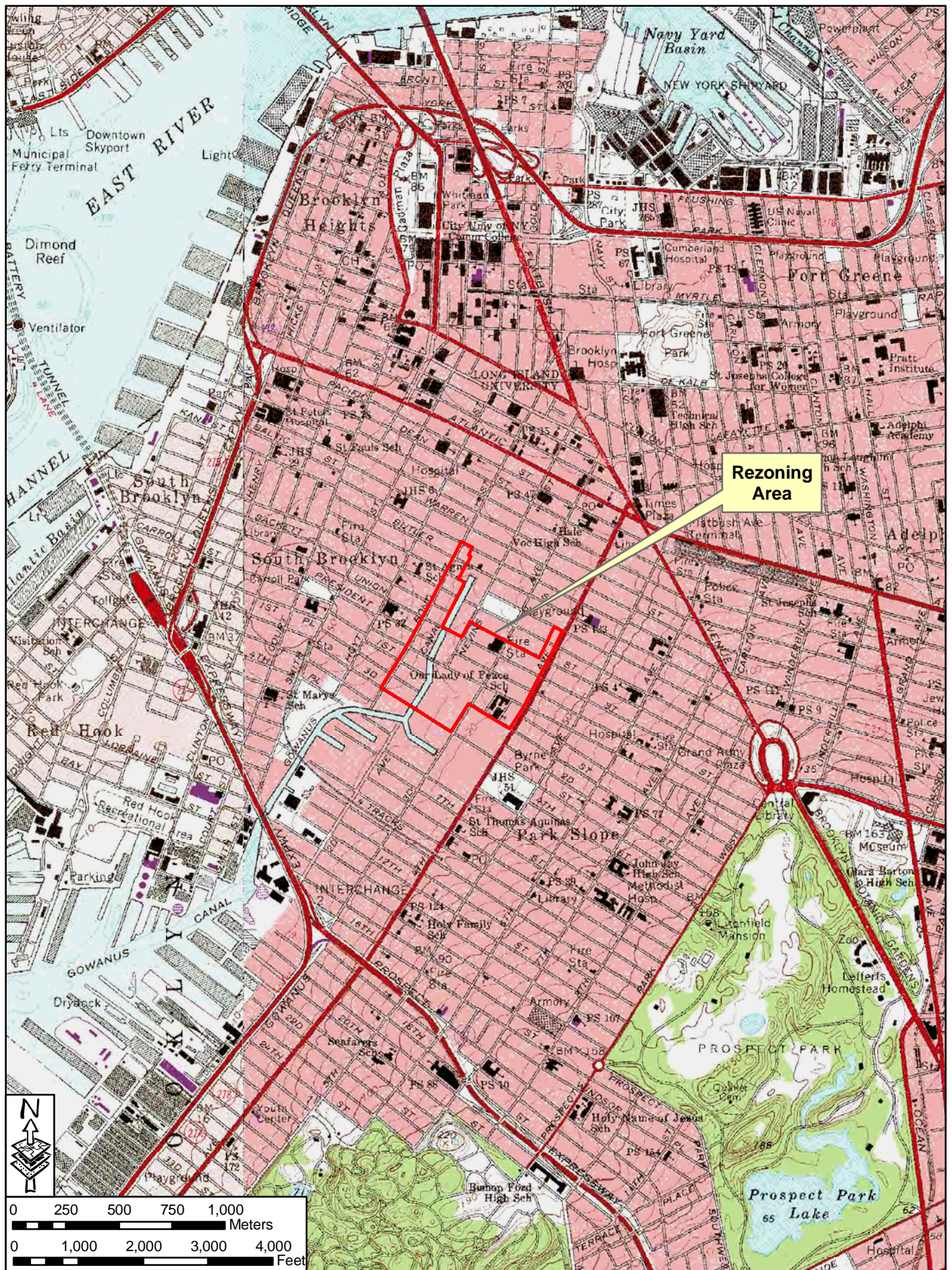
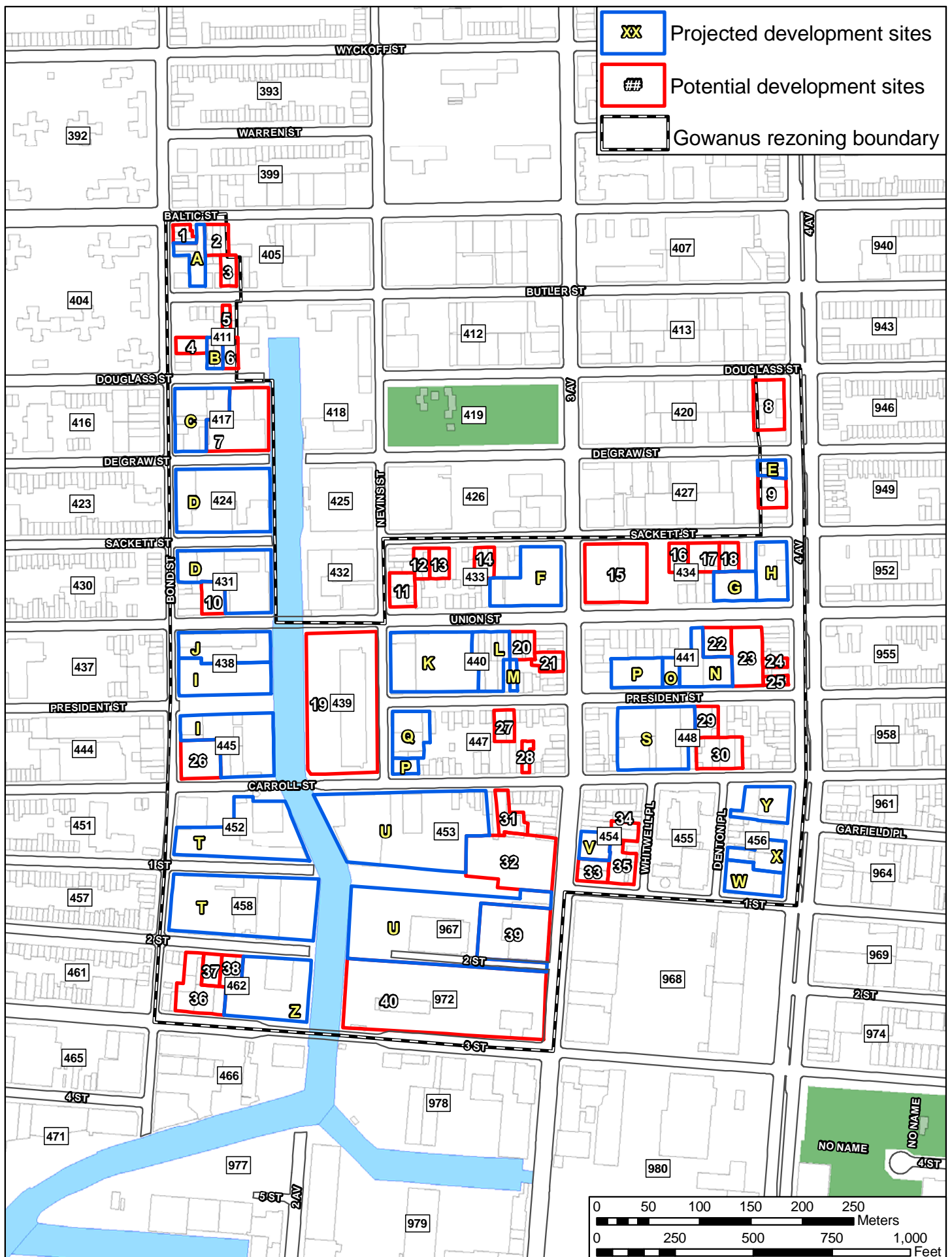


FIGURE 1: Overview of the Proposed Gowanus Rezoning Area

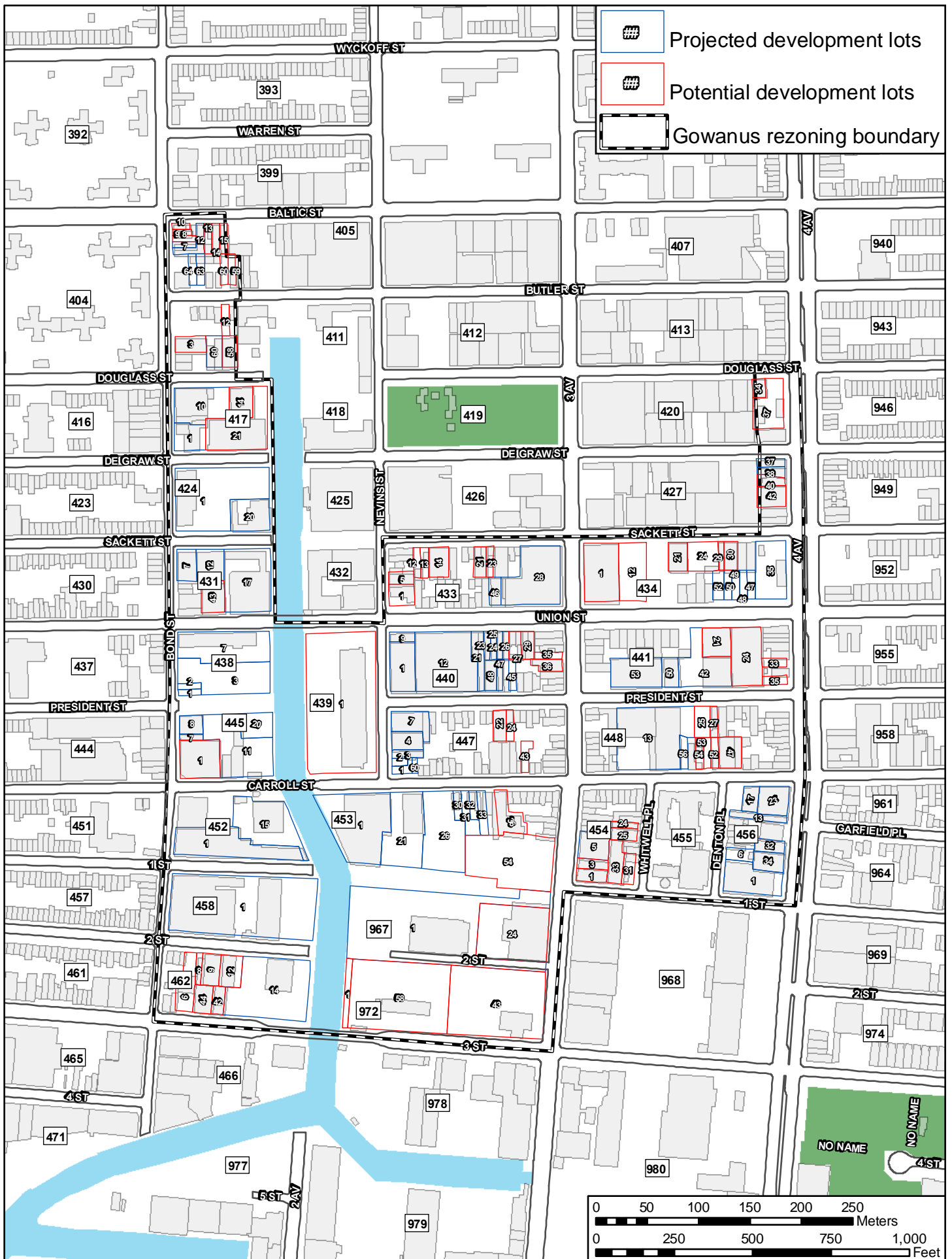
SOURCE: USGS 7.5' Series,  
Jersey City, NJ-NY,  
Brooklyn, NY, 1979





**FIGURE 2: Projected and Potential Development Sites within the Proposed Gowanus Rezoning Area**

SOURCE: NYCE Map GIS, NYC DCP 2009



**FIGURE 3: Tax Blocks and Lots within the Projected and Potential Development Sites within the Proposed Gowanus Rezoning Area**

SOURCE: NYCE Map GIS, NYC DCP 2009

The 16 lots consist of:

Block 405, Lot 7 (Projected Development Site A);  
Block 405, Lot 8 (Potential Development Site 1);  
Block 417, Lot 21 (Potential Development Site 7);  
Block 424, Lot 1 (Projected Development Site D);  
Block 424, Lot 20 (Projected Development Site D);  
Block 431, Lot 17 (Projected Development Site D);  
Block 438, Lot 3 (Projected Development Site I);  
Block 438, Lot 7 (Projected Development Site J);  
Block 439, Lot 1 (Potential Development Site 19);  
Block 445, Lot 11 (Projected Development Site I);  
Block 445, Lot 20 (Projected Development Site I);  
Block 452, Lot 15 (Projected Development Site T);  
Block 453, Lot 1 (Projected Development Site U);  
Block 453, Lot 21 (Projected Development Site U);  
Block 462, Lot 14 (Projected Development Site Z);  
Block 972, Lot 1 (Potential Development Site 40);

These 16 lots which LPC determined as potentially sensitive for historic archaeological resources define the archaeological Area of Potential Effect (APE) for this Phase IA Cultural Resource Study (Figure 4). LPC also found that the remaining 126 lots to be affected by the proposed rezoning had been extensively disturbed by previous development and, therefore, had low potential for intact archaeological deposits.

The historic architectural APE was determined using the CEQR guidelines that recommend a 400-foot (121.92 meters) radius from the borders of the project site as the limits of the study area for architectural resources (*CEQR Technical Manual* 312). Thus, the historic architectural APE was calculated by buffering 400 feet (121.92 meters) from the exterior limits of the proposed rezoning area (Figure 5). The historic architectural APE for this Phase IA Cultural Resource Study encompasses an irregularly shaped area roughly bounded by Wyckoff Street and St. Marks Place to the north, Fifth Avenue to the east, Fifth Street to the south, and Hoyt Street to the west.

### 1.3 Scope of Work and Project Personnel

This Phase IA Cultural Resource Survey consisted of background research on the project area and its immediate vicinity; assessing the potential to encounter archaeological resources within the 16 LPC-selected lots, the archaeological APE; and, a historic architectural survey of the historic architectural APE. The archaeological assessment was designed to determine the prior usage and occupancy of each lot, determine if historical resources and/or their associated features existed within each lot, establish the potential to encounter prehistoric and/or historic archaeological resources within each lot, identify the extent to which prior disturbances (such as grading and construction) would have affected potential archaeological resources, and assess the proposed project's likelihood to affect any areas identified to possess archaeological potential.

The archaeological study attempted to address two primary concerns—the likelihood that potential historic archaeological resources of significance existed within each LPC-selected lot and the potential for such resources to have remained intact and relatively undisturbed. In the case of eighteenth and nineteenth century residential resources, attempts were made to establish the date at which the earliest structures were constructed, the occupancy and ownership of any such structures, and the length of time within which any dwellings stood prior to the availability of public utilities. Documentary research also focused on establishing not only the historical occupancy and use of each lot, but also the extent and nature of impacts from prior construction and development in order to assess the potential for intact archaeological deposits. Any structure built concurrently with or after the availability of piped sewer and water utilities was assumed to lack the potential for associated historic yard features such as privies, cisterns, or wells. The nature and extent of past development within each lot was also evaluated in light of the preexisting topography, natural setting, and previous archaeological studies within the region in order to evaluate the potential, if any, for intact prehistoric archaeological deposits.

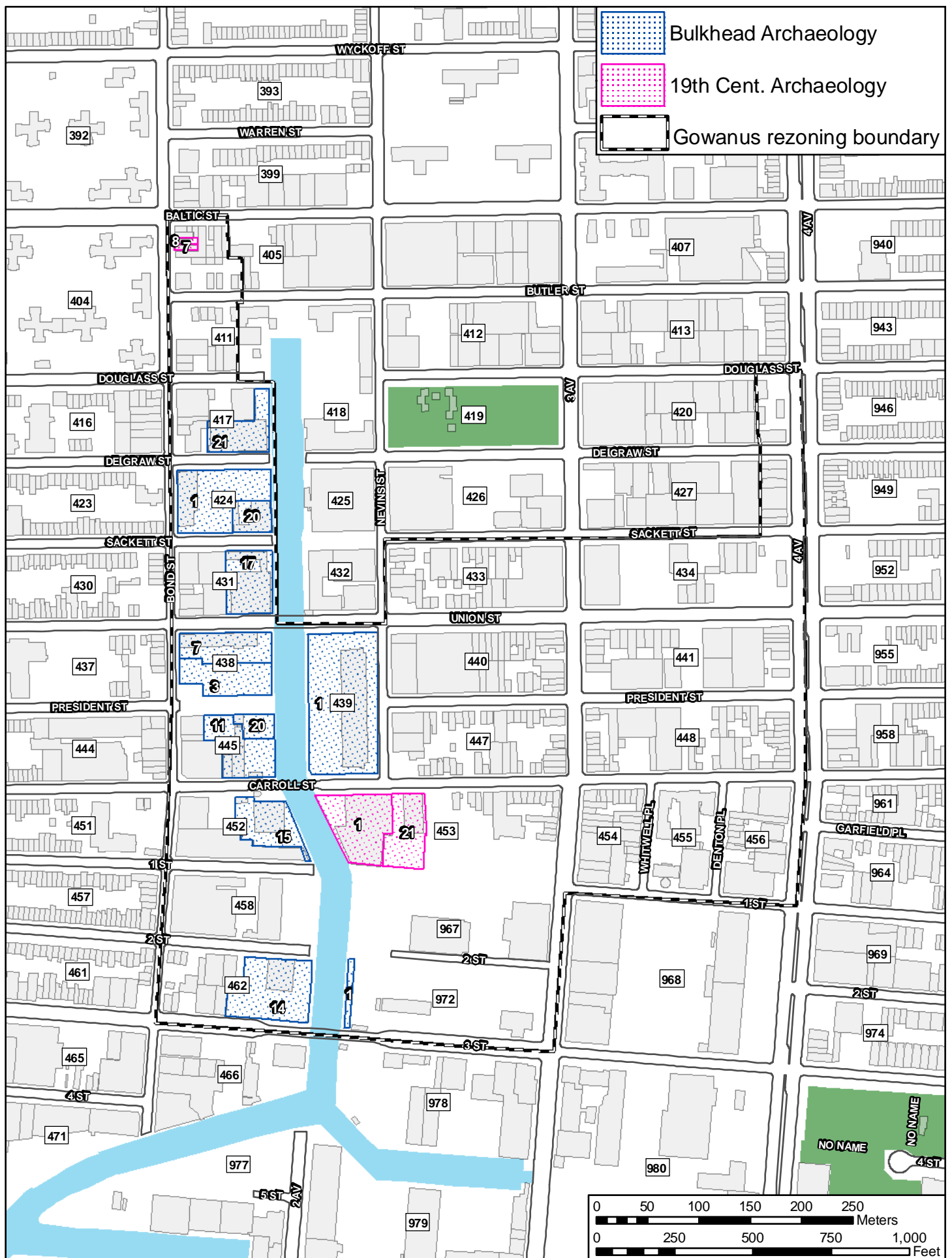


FIGURE 4: Archaeological APE

SOURCE: NYCE Map GIS, NYC DCP 2009;  
 NYC LPC 2008

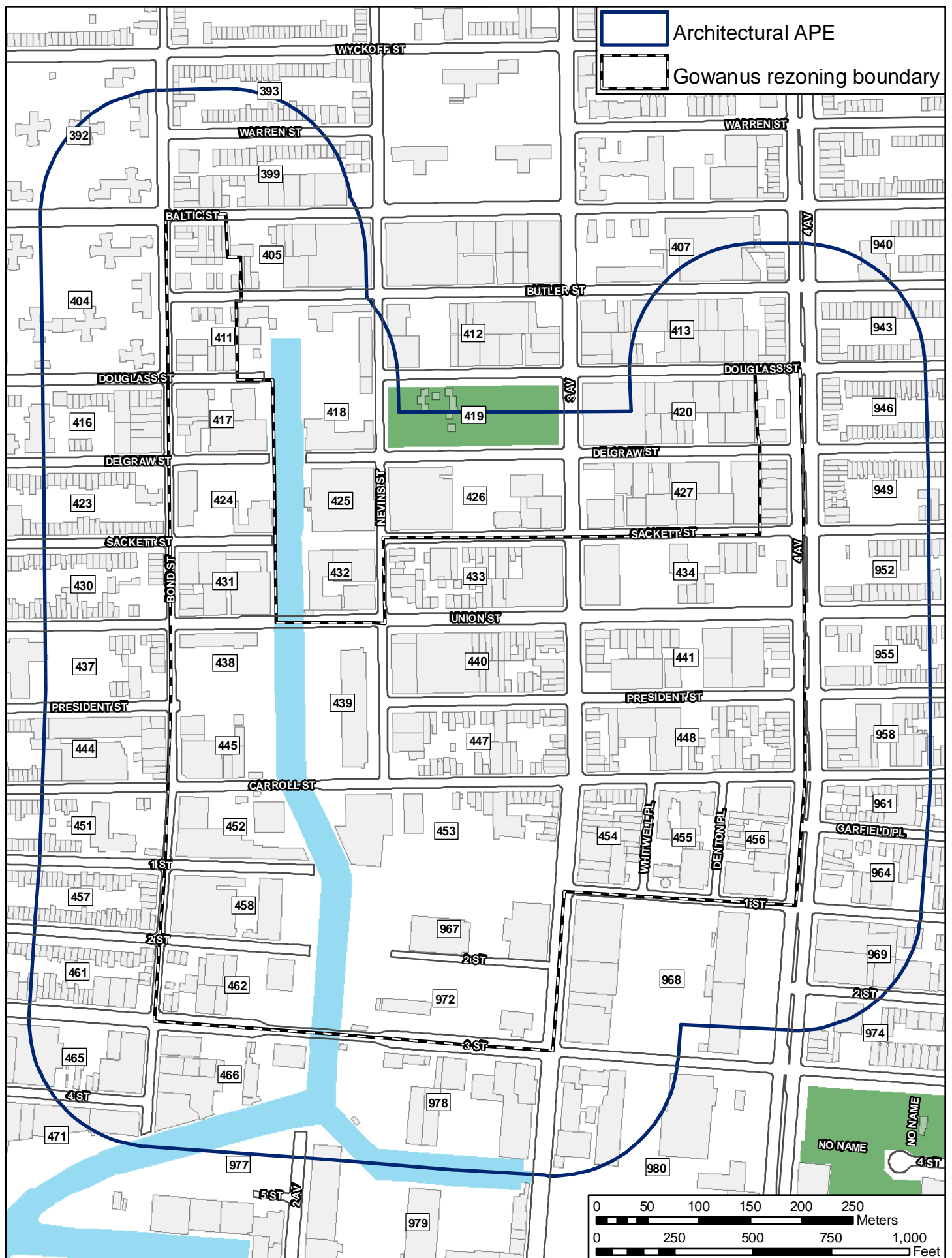


FIGURE 5: Architectural APE

SOURCE: NYCE Map GIS, NYC DCP 2009;  
NYC LPC 2008

To accomplish these goals the Louis Berger Group, Inc. (Berger) in conjunction with Historical Perspectives, Inc. (HPI), performed a documentary and cartographic review of each LPC-selected lot. Research was conducted at various institutions, such as the Brooklyn City Register, the Brooklyn County Clerk, the Brooklyn Department of Buildings (DOB), the Brooklyn Sewer Permitting Office, the New York City Municipal Archives, the City Hall Public Library, the New York Public Library, the Brooklyn Public Library, Long Island Division, and the New York City Landmarks Preservation Commission (LPC). Additional resources were consulted online for historic and cartographic information.

Site file searches were performed at the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), the New York State Museum in Albany (NYSM), and at LPC. In addition to documentary research, field visits were undertaken and resident interviews were conducted as necessary. During these field visits, site photographs were also taken.

Zachary Davis, RPA, Principal Archaeologist, (Berger), served as Project Manager, while historic architectural resources were evaluated by Deborah Van Steen, Architectural Historian (Berger). Archaeologists Tina Fortugno, RPA, (Berger), Lauren Hayden, RPA (Berger), and Christine Flaherty, MA (HPI), along with Senior Archaeologist/Historian, Julie Abell Horn, RPA, (HPI) conducted the background research. Ms. Fortugno (Berger), Ms. Hayden (Berger), Ms. Van Steen (Berger), Mr. Davis (Berger), and Ms. Abell Horn (HPI) authored this report. The report graphics were assembled by Mr. Davis (Berger) and Ms. Abell Horn (HPI). Faline Schneiderman-Fox, RPA (HPI) and Cece Saunders, RPA (HPI) provided editorial and interpretive assistance.



## 2.0 ENVIRONMENTAL SETTING

### 2.1 Project Area and Current Land Use

The proposed rezoning area presently consists of a disparately used area with industrial and manufacturing space, vacant and underutilized former industrial space, and mixed use residential, commercial, and community space existing side by side within and across blocks. The area is located to the east of Carroll Gardens and to the west of Park Slope (Photo 1). Lots within the proposed rezoning area are currently zoned as either light industrial or moderate-intensity industrial space. The proposed rezoning area is characterized by a diverse mix and inconsistency of land use with occupied and abandoned warehouse space, non-conforming residential uses, auto-repair shops, and parking lots.



**Photo 1:** Bird's Eye View of the Project Area (Source: Windows Local Live, 2008)

### 2.2 Geology and Geography

Brooklyn, as part of the Long Island land mass, is situated within the Atlantic Coastal Plain physiographic province (USGS 2003a; Schubert 1968: 9). The Atlantic Coastal Plain extends from the north shore of Long Island along the Atlantic Ocean southward towards Florida and westward to the Piedmont. According to Schubert, the sediments within this province lack a definite coherence, consisting of layers of sand, clay, and marl, "recently emerged sea bottom" (1968: 9). In addition to the coastal plain deposits, sedimentary deposits within Long Island also consist of moraine and outwash, till once deposited by the movement of the Pleistocene glaciers (USGS 2003b).

Two expressions of the Wisconsin glacial terminal moraine—the Ronkonkoma Moraine and the Harbor Hill



Moraine have been identified on Long Island. The Ronkonkoma Moraine, the older of the two, extended from the eastern extent of Long Island to the southern shore. The Harbor Hill Moraine, also trended from east to west across Long Island, and terminated north of the Ronkonkoma terminal extent. The Harbor Hill Moraine represents a single, laterally continuous feature which extends from Brooklyn to Port Jefferson. Within Brooklyn, the moraine ridge is sharply linear and its adjacent outwash plain forms a southward sloping elevated surface (Bennington 2009).

Sediment within the moraine ranges from unsorted till deposits to local deposits of stratified and sorted sand and gravel (New York City Soil Survey 2005). With the retreat of the Wisconsin glacier, streams of melt water carrying sand, gravel, and silt would flow outward from the terminal moraine and the ice front, weaving a complicated pattern of channels within the land in front of the glacier (Schuberth 1968: 187). Schuberth further observes that,

As they flow away from the ice sheet, these streams rapidly lose their velocity and, in so doing, deposit much of their debris. In time an extensive plain, called an *outwash plain*, is formed of these stratified and sorted sediments, a plain that may extend for miles beyond the ice front. The heaviest particles, the sand and gravel, are deposited near the terminal moraine, while the fine sands and silts form a more gentle slope farther to the south [1968: 187-188].

Within Brooklyn, beneath the glacial outwash deposits, the soil profile consists of coastal plain sediments of unconsolidated deposits of Late Cretaceous age eroded New England Upland deposits (New York City Soil Survey 2005).

According to the New York City Soil Survey, soils within the project area and immediate vicinity are classified as *Pavement & Buildings*—wet substratum-Laguardia-Ebbets complex (2005). This soil complex consists of nearly level to gently sloping, urbanized areas “filled with a mixture of natural soils materials and construction debris over swamp, tidal marsh, or water” (New York City Soil Survey 2005). Within this complex, 50 to 80 percent of the surface is covered by pavement and buildings.

Although the project area has seen extensive development throughout the twentieth century, the preexisting topography of the project area can be established from early historic maps. Plotting the project area on the 1766-1767 Ratzer Map indicates that the proposed rezoning project encompassed an area that was previously occupied by tidal creeks, smaller drainages, and surrounding saltwater marshlands all of which drained into the Gowanus Bay to the south (Figure 6). A small tract of cleared land with sparse vegetation had developed within the central and southeastern portion of the project area, to the east of the present-day Gowanus Canal. The 1844 US Coast Survey illustrates that tidal creeks and marshlands continued to predominate the project area into the mid-nineteenth century (Figure 7). Canalization of the Gowanus Creek and dredging of the surrounding marshland began in 1851 (Hunter 2004). This process continued throughout the mid and late nineteenth century.

Elevations in the vicinity of the project area range from 10 feet (3 meters) above sea level in the immediate vicinity of the Gowanus Canal, and rise gradually to 20 feet (6.1 meters) above sea level to the east around Third Avenue and to the north. The incline gradually rises to the west of the project area, cresting along at an elevation of 50 feet (15.2 meters) above sea level along a knoll on Court Street. The slope rises more dramatically to the east and southeast of the project area into Park Slope and Prospect Park. Presently, the Gowanus Canal runs through the western portion of the proposed rezoning area. The Gowanus Bay, into which the canal drains, sits approximately 3361 feet (1024.4 meters) to the south.



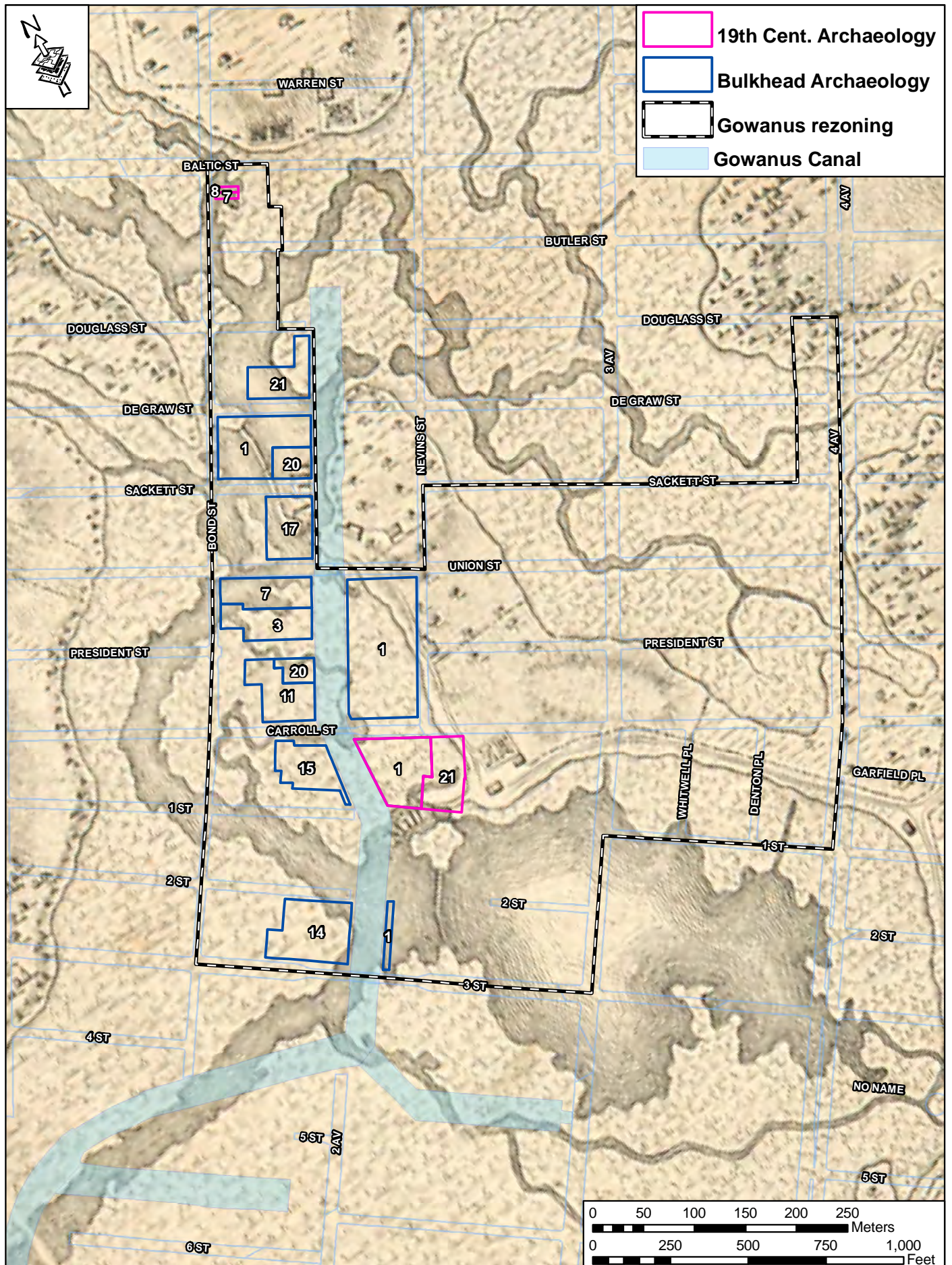


FIGURE 6: View of the Project Area in 1766-67

SOURCE Ratzer 1766/1767



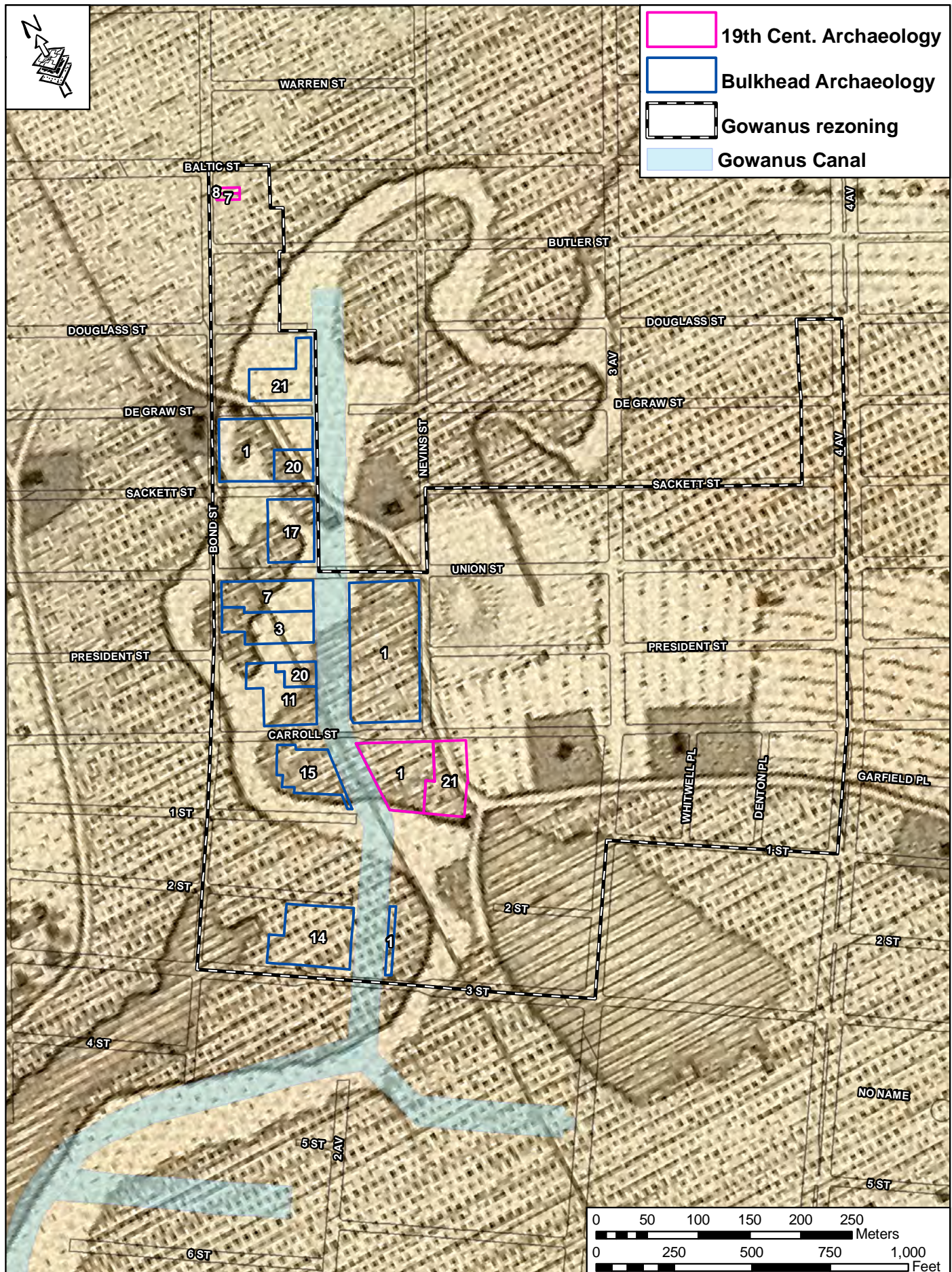


FIGURE 7: View of the Project Area in 1844

SOURCE: USCS 1844



### 3.0 BACKGROUND

#### 3.1 Prehistoric Overview

The earliest documented human occupation of New York occurred about 12,000 years before present (BP) during what is known as the Paleoindian period. Paleoindian lifestyle was organized as mobile hunter-gatherers adapted to periglacial environments of the late Pleistocene and early Holocene. Paleoindian sites are known primarily through distinctive lanceolate fluted points that were usually made of high-quality stone. The Paleoindian economy was dominated by game hunting, an adaptation to the open forest environments and colder climate of the period. Although isolated fluted points have been found on Long Island (Saxon 1973), no Paleoindian habitation sites have been identified. The Port Mobil Site on Staten Island is the closest identified Paleoindian site to the project area (Eisenberg 1978; Funk 1977). At the time of Paleoindian occupation, large portions of the present continental shelf near coastal New York would have been exposed because of the lower sea levels. It is, therefore, possible that former habitation sites on Long Island may have been submerged or destroyed by rising seas following the last glacial retreat (Edwards and Merrill 1977; Newman 1977).

The Archaic period extended from circa 10,000 BP to circa 3300 BP; however, the instability of the coastal environments during the early Holocene epoch may be one reason that evidence of significant Native American occupation of Long Island prior to Late Archaic times (circa 6000 to 3300 BP) is lacking (Wyatt 1977:400). Remains of Early Archaic (circa 10,000 to 8000 BP) occupation are represented by a few scattered points similar to the Kanawha Stemmed and LeCroy Bifurcate Base types (Broyles 1971). Vosburg and Brewerton point types are also known to have come from Long Island, but are relatively scarce (Wyatt 1977:400).

The rate of sea-level rise and isostatic rebound of the continental margins had lessened by Late Archaic times (Edwards and Merrill 1977; Newman 1977; Snow 1980), resulting in the stabilization of marine environments. There is considerable archaeological evidence in the form of shell midden sites concentrated near salt marshes to indicate that marine resources were intensively exploited by Late Archaic populations on Long Island (Wyatt 1977). However, the relationship between the shell midden sites and Late Archaic sites in interior areas, which are characterized by artifact assemblages that include Wading River points, atlatl weights, and celts (Ritchie 1980:142-145), is poorly understood.

The rise in sea-level and changes in drainage patterns during the Holocene also had widespread effects on the terrestrial environment and on vegetation. By 8500 BP, oak and hemlock forests had replaced the predominantly pine forests of the area. The ecological changes brought about by the warmer Holocene climates subsequently encouraged population migrations and the development of new subsistence strategies that characterize the Archaic period. Compared with the Paleoindian period, a wider variety of artifact types was used during the Archaic. This suggests that a greater diversity of subsistence and technological activities was pursued, although hunting still appears to have been the major focus.

The Terminal Archaic or Transitional period (3000 to 2700 BP) is characterized by distinctive technologies that included production of soapstone vessels and a variety of broad-bladed projectile point types. The appearance of soapstone or steatite vessels and artifacts during this period provides evidence of interregional trade and also suggests increased residential stability, since stone bowls are items not easily transportable. Coastal occupation intensified during the Transitional period, which is represented by artifact assemblages that include broad spear points and soapstone vessels. On Long Island, the earliest known Native American burials are associated with Transitional period occupation (Ritchie 1980:164-165).

The appearance of ceramics in cultural assemblages marks the beginning of the Woodland period (circa 2700 BP). Various ware types and distinctive projectile points provide a means of dating sites. Later in the Woodland period (circa 2000 BP), horticulture became a part of subsistence practices, and as the cultivation of plants intensified, Native American settlements became larger and more permanent. In some areas of New York State, competition for land and resources appears to have resulted in conflicts that caused groups to nucleate in larger defensible settlements; late prehistoric occupation of Long Island, however, seems to have been dispersed along the coastline, suggesting that marine and estuarine resources continued to dominate subsistence economies. The majority of Woodland period studies have been conducted primarily along the coast, or along rivers and streams, and it is therefore not surprising that most sites have been found in these locations. More recently, archaeologists have shown that Native Americans conducted many activities in inland areas of Long Island (e.g., Lightfoot and Moore

1985), suggesting that there may have been a range of settlement patterns and more diverse subsistence strategies during the Woodland period.

At the time of European contact, Long Island was occupied by the Canarsee tribe (Bolton 1922: 132; Sanchez 1990: 2). According to Bolton, the Marechkawick or Mareyckawick, a sub-chieftancy of the Canarsee occupied old Brooklyn (132-133). Bolton also alludes to Furman's early nineteenth century observations of the area, contending that, "there were, thus, in all probability, several groups situated within the area occupied by the Marechkawick, settled in favorable situations about the broad waters and marshes of the Wallabout and the Gowanus" (Bolton 1922: 133). This description suggests that prehistoric settlements were located to the south and west of the project area.

At the time of contact, the local indigenous population lived in small bands, fished in the rivers, and pursued primarily corn and tobacco agriculture (Educational Broadcasting Corporation 2008). Initial contact between Europeans and Native Americans was made when early explorers entered the area to engage in trade. The introduction of European material goods, the demands of trading relationships, rapid colonial expansion, and the spread of diseases brought by the Europeans had profound effects on the settlement and subsistence practices of the native populations. Native groups gradually became dependent on trade with the Europeans. Tribal and clan affiliations were quickly affected, and much of the native population was depopulated or displaced (Brasser 1978). Some estimates suggest that between 60 and 90 percent of the native population was lost to European diseases in the seventeenth century in southern New England and New York (Snow 1980:34).

### 3.1.1 Prehistoric Archaeological Site Potential

A search of the archaeological site records on file at the New York State Museum (NYSM) and at the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) revealed a total of four previously recorded archaeological sites either in the survey area or within a one-mile radius of the proposed Gowanus rezoning area (Table 1). Only one of the four sites represented a prehistoric occupation; the remaining sites dated to the historic period.

**Table 1: Previously Recorded Prehistoric Archaeological Sites Within One-Mile Vicinity of Project Area**

NYSOPRHP Site No.	NYSM Site Number	Site Type/Description	Source
04701.014947		Historic—Revolutionary War Mass Grave Site for Colonial soldiers	Hanny 1999
04701.000508		Historic—Nineteenth Century—Stone privy features, brick cisterns, household refuse	Geismar 1992
	3606	Prehistoric—Camp/Village Site	Furman 1865; Parker 1922
04701.013923		Historic—Mid-Nineteenth Century Residential Sites—multiple stone-lined shaft features	Yamin 1995
04701.015456		No additional information	

Parker records a prehistoric *camp site* to the northeast of Gowanus Bay (Parker 1920: 582). This site was identified by Furman as "a barren sand hill in Brooklyn" with "a layer of ashes and cinders with broken clay pipes, coarse pottery, and arrowheads" and appears to correspond with NYSM 3606 (Parker 1920: 582). Information at the NYSM places this site approximately 3401 feet to the east of the project area, at the intersection of Flatbush Avenue and Warren Street. According to McLean and Boesch, Furman and Moore identified another site "containing a distinct layer of ash, cinder with coarse, pottery, arrowheads, and rough clay pipes" at the intersections of Jay, Front, Bridge, and York Streets in the vicinity of the Brooklyn Navy Yard, over a mile to the northwest of the project area (McLean and Boesch 2002: 19; Furman 1865: 99). HPI contends that NYSM 3606 and the Jay Street prehistoric site identified by Furman and Moore represent the same deposit (2006: 6). It is, therefore, unclear as to whether the NYSM 3606 prehistoric camp site was found in the vicinity of the proposed rezoning area.

Bolton also notes the presence of a few prehistoric sites within a one-mile radius of the project area. He identifies the Werpos site to the immediate northeast of the rezoning area, near the intersection of Hoyt and Baltic Streets

(Bolton 1934: 144-145; Grumet 1981). Stiles mentions that a “large Indian burying ground,” whose remains had been exhumed by the city, was located at this site, at the head of the Gowanus Creek (1867: 424; McLean and Boesch 2002: 19). AKRF found no evidence or additional historical references to the presence of a Native American burial ground at the Werpos site (2008: C-1).

Bolton also situates the village site of Marechawik at Gallatin Place and Elm Place, north of the rezoning area (1934: 144-145). However, researchers appear to disagree as to the exact location of this village site, Solecki and Grumet both place this site in slightly different locations within the Fort Greene area (Solecki 1977; Grumet 1981). Prehistoric sites, including shell heaps and burial sites, have also been recorded along the southern coastline of Brooklyn at distances greater than two miles south of the project area.

A potential Revolutionary War grave site, NYSOPRHP 04701.014947, has been identified near 426 Third Avenue, along Third Avenue between Seventh and Eighth Streets. According to the Brooklyn Daily Eagle (Brooklyn Eagle), approximately 250 Continental soldiers, members of a Maryland regiment, were killed in this area during the Battle of Brooklyn 1776 (Brooklyn Eagle 1891). The regiment, under the command of General Lord Stirling, temporarily held back the advancing British line from this location, enabling Continental troops to retreat to the north. The Brooklyn Eagle reports that the soldiers were buried within the farm of Adrian Van Brunt, “who it is said consecrated the spot for the sacred deposit, so that while occupied by him the plow and the axe never desecrated it”. The article further notes that in subsequent years the site was used as a burial ground for African American slaves. In the 1950s, an archaeological excavation near 426 Third Avenue did not uncover any burials or Revolutionary War deposits. However, this excavation may have been in the wrong location (New York Times (NYT) 1998).

### **3.1.2 Previous Cultural Resource Surveys**

A review of previously conducted archaeological surveys indicated that at least eight previous archaeological studies have been conducted within a one-mile radius of the project area. Five of these studies were conducted in the immediate vicinity of the Gowanus Canal, within or adjacent to the project area.

In 1977, Ralph Solecki completed a Stage IA Archaeological Investigation of a parcel to the immediate east of the project area, on Nevins Street from Butler to President Streets. In this report, Solecki discussed the historic development of the area, particularly nineteenth century mill operations and the construction and landfill episodes that accompanied the Gowanus Canal, along with the possibility for prehistoric deposits within the vicinity. He concluded that the proposed actions at Nevins Street would not impact any extant archaeological resources or deposits (Hunter 2004: 1-9). The Army Corps of Engineers commissioned a cultural resources survey of the Gowanus Canal channel in 1978 (Kopper and Black 1978). This study was undertaken in conjunction with a proposed canal dredging project (Hunter 2004: 1-9). The survey concluded that the proposed dredging and disposal actions would not impact any significant cultural resources (Kopper and Black 1978).

McLean Archaeological Consultants, Inc. (McLean) completed a *Phase IA Archaeological Investigation of the Gowanus Facilities Upgrade Project Area* in 2002. This project was located along the northern extent of the Gowanus Canal, between Douglass and Baltic Streets (McLean and Boesch 2002: 1-2). The study documented the history of landfill episodes and construction activities associated with the creation of the Gowanus Canal in the 1850s. McLean found that historic development within the Facilities parcel did not occur until the late nineteenth century, postdating the introduction of municipal sewer and water utilities (2002: i). With respect to potential prehistoric deposits, they concluded that, prior to its development, the parcel was located within an open water channel of the Gowanus Creek and its adjoining wetlands (2002: 36). Therefore, the area was not considered sensitive for prehistoric deposits. Furthermore, given that historic occupancy of the property postdated the installation of municipal utilities, the parcel was not considered sensitive for historic deposits (2002: 37). However, McLean did observe that the extant structures within the area, the Gowanus Canal Flushing Tunnel, the gate house, and the power house (tunnel building) were potential historic architectural resources. They recommended that these structures be surveyed and evaluated by an architectural historian prior to the proposed facility upgrades (2002: 38).

In 2004, Hunter undertook a National Register of Historic Places (NR) Assessment and Evaluation of the Gowanus Canal. This study was taken in association with an ecosystem restoration feasibility study conducted by the US Army Corps of Engineers (2004: 1-1). As a component of this study, Hunter extensively documented the history of the Gowanus Canal and its surroundings. They also surveyed the architectural components and features of the canal, including its bulkhead, the bridges which span it, and its former basin sites. Hunter concluded that the present-day

Gowanus Canal “retains over 90% of its original channel design, locations and widths, including 100% of the original main canal” (Hunter 2004: 3-6). As such, they argued that the Gowanus Canal has retained the integrity of its nineteenth century construction and its early twentieth century upgrades. Given the documented integrity of the canal and its historic importance with respect to the industrial development of Brooklyn and waterborne commerce within the area, Hunter concluded that the Gowanus Canal is eligible for NR under Criteria A and C. Hunter further found that given the integrity of the features and architectural components within the canal, the intact bulkheads and submerged resources, that these resources were also eligible for NR listing under Criterion D. They also concluded that the Gowanus Canal and its associated resources, including its bridges, basins, and adjacent industrial spaces, constituted the Gowanus Canal Historic District (2004: 4-8-4-9). Proposed actions associated with the ecosystem restoration were found to pose adverse effects to the Gowanus Canal and to contributing components within the Historic District. Therefore, Hunter recommended that mitigation measures, including photodocumentation of the canal, avoidance measures, and archaeological monitoring be undertaken in association with the proposed restoration project (2004: 5-1).

In 2008, AKRF prepared a Draft Environmental Impact Statement (DEIS) for the proposed Toll Brothers construction project at 363-365 Bond Street. As part of the DEIS, AKRF evaluated the potential for archaeological and historic architectural resources within the parcel. AKRF determined that the majority of the parcel possessed low sensitivity for intact archaeological resources. However, they found, in consultation with the LPC, that those portions of the parcel which front the Gowanus Canal were potentially sensitive for intact nineteenth century bulkhead deposits and features (2008: 7-7). They also documented multiple historic architectural resources as potentially eligible for listing as a New York City Landmark (NYCL) and/or on the NR (2008: 7-7-7-22).

Two cultural resource studies were conducted within less than one mile to the northeast of the project area. In 2006, Historical Perspectives, Inc. (HPI) completed a *Stage IA Archaeological Documentary Study of the Atlantic Yards Arena and Redevelopment Project*. The proposed Atlantic Yards project encompassed all of the Blocks 927, 1118, 1119, 1120, 1121, 1127, 1129, and portion of City Block 1128 in Brooklyn. LPC offered a preliminary evaluation of the archaeological potential of the Atlantic Yards project and concluded that portions of Blocks 1118, 1119, and 1127 were potentially sensitive for intact cultural resources and, therefore, required a full Stage IA Documentary Study. As a result of their historical and cartographic research, HPI determined that Block 1118 Lot 1 and Lots 48, 50, 55, and 56 within Block 1127 were potentially sensitive for intact nineteenth century domestic or commercial deposits (2006: 39-43). HPI also found that development within Block 1118 postdated the introduction of municipal water and sewer lines. Thus, they concluded that this block was not sensitive for nineteenth century shaft features or other historic deposits. With respect to Block 1119 Lot 1, HPI found historical accounts suggesting that the mid-nineteenth century tenement buildings within a portion of this lot, Historical Lot 4, were occupied by African Americans. Given the current paucity of information relating to the nineteenth century African American community within Kings County, HPI recommended that, if this portion of Lot 1 was determined to be undisturbed by modern activities, additional documentary research including archival research at the Brooklyn Historical Society and a thorough examination of early Brooklyn Directories be undertaken, along with archaeological field testing. They also recommended archaeological field testing within the remaining portions of Block 1119 Lot 1 and Block 1127 Lots 48, 50, 55, and 56 (2006: 42-43).

In 2007, URS Corporation (URS) completed Phase IB Archaeological Investigation of a portion of Block 1119, Lot 1 and Block 1127, Lots 55 and 56. The archaeological fieldwork consisted of the mechanical excavation of eight linear backhoe trenches within two areas of Block 1119 and three trenches in Lots 55 and 56 (URS 2007: i). The mechanical excavations within Block 1127 uncovered the eastern foundation remains of two structures which previously fronted Lots 55 and 56. The interior courtyard between the two structures was also excavated. No intact deposits or features were uncovered within this area. For the most part, the Block 1127 excavations revealed extensive subsurface disturbance associated with the past installation of utilities. Therefore, URS did not recommend any additional testing within this area. Within the northeastern portion of Block 1119 Lot 1, URS used ground penetrating radar (GPR) to assess the extent to which modern development had disturbed the area (2007: 3.1). The GPR identified the location of subsurface gas tanks, along with several utility lines. Given the presence of subterranean modern features throughout Area A, URS concluded that this area was no longer sensitive for intact archaeological deposits. The eight linear trenches excavated within Area B revealed an ash layer deposit associated with the historic carriage factory and coal yard within the area. Several of the trenches also produced extensive nineteenth century brick deposits. A small assemblage of mid to late-nineteenth century ceramic fragments and bottle glass were recovered from these trenches. Based on the nature of the stratigraphic deposit within these trenches, and the presence of late nineteenth-century artifacts, URS concluded that this area reflected past industrial



use and redevelopment (2007: 4.20). Therefore, they concluded that there was little potential for intact structures or primary context deposits within Lots 55 and 56 of Block 1127. No further archaeological investigations were recommended for this area.

Greenhouse Consultants Incorporated (Greenhouse) completed a Phase IB Archaeological Investigation of 188 Atlantic Avenue, approximately 0.65-mile to the northwest of the project area, in 2007. This field investigation followed upon a previous Phase IA Study for 130 Court Street which found that Block 286, Lot 21 was potentially sensitive for intact nineteenth century residential deposits associated with the Spader family. In particular, the lot was considered sensitive for domestic shaft features predating the installation of municipal water and sewer lines (2007: 1). The archaeological fieldwork consisted of the mechanical excavation of three linear trenches (2007: 2). The trench excavations revealed extensive fill deposits across the front and rear portions of the lot. Greenhouse identified the *former location* of a privy within Backhoe Trench 3, placed along the rear lot line. A total of 138 artifacts were recovered from Trench 3 including mid to late nineteenth and early twentieth century ceramic fragments, bottle glass fragments, architectural debris, and other domestic refuse. Given that the recovered material postdated the Spader occupancy, and that there were no identified intact deposits or features associated with the Spader residence, Greenhouse recommended no additional archaeological fieldwork.

### 3.2 Historic Background

In order to document any development and changes to the project area over time, historic maps of the region were scanned and georeferenced to the project location using the software program ArcView 9.3. This software enables the superimposition of the Gowanus rezoning area to historic maps (Pratt 2002). The process of georeferencing historic maps to a contemporary GIS database necessarily involves reconciling resources and information that have been acquired at different times via disparate surveying and cartographic methods. Therefore, discrepancies may appear in the relative location of the project area due to the variability in the historical accuracy of the surveying methods used to create the historic era maps.

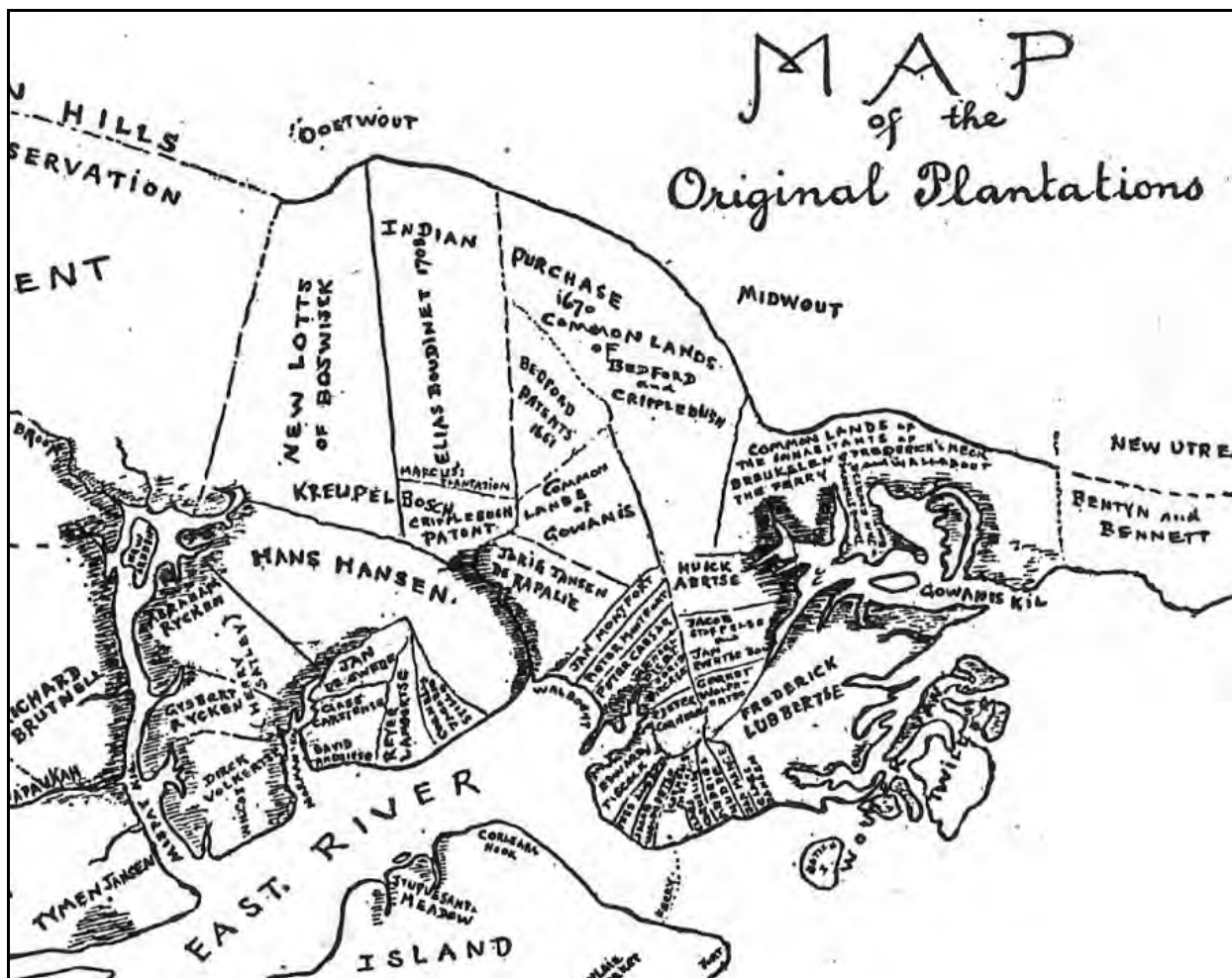
Historical resources indicate that the majority of present-day Brooklyn was once occupied by the Canarsee tribe (Bolton 1922: 132; Sanchez 1990: 2). According to Bolton, the Marechkawick or Mareyckawick, a sub-chieftancy of the Canarsee, occupied old Brooklyn with stations at Flatlands, Canarsie, Bergen Island, and Gerritsen Basin (1922: 132-133). He further observes that there were most likely many small groups within the Marcehkawick area with settlements extending from the marshes of the Wallabout to those of the Gowanus. Bolton also identifies the village site of Werpos at the intersection of Hoyt and Baltic Streets, to the northeast of the proposed rezoning area (1922: 139). According to Bolton, the Werpos site was adjacent to a large Native American burial ground (1922: 138). Stiles also mentions that a Native American burial ground was located at the head of the Gowanus Creek (1867: 424; McLean and Boesch 2002: 19). Although AKRF found no evidence or additional historical references to the presence of a Native American burial ground at the Werpos site, Bolton's observations regarding prehistoric settlement around the Gowanus Creek, suggest that this area was inhabited and farmed prior to European settlement. (AKRF 2008: C-1)

In 1609, Henry Hudson, as an explorer for the Dutch East India Company, arrived on the coast of Long Island with his ship the *Half Moon* (Von Skal 1908: 7). After attempting to enter Jamaica Bay via the Rockaway Inlet, Hudson passed through the Narrows and sailed up the present day Hudson River. After this discovery, the Dutch began to quickly settle Manhattan Island, founding the colony of New Amsterdam. In 1614, Adrian Block became the first European explorer to circumnavigate Long Island and, as a result, ascertain that Long Island was not connected to the mainland (Von Skal 1908: 7). Several years would elapse before colonists settled on Long Island with Dutch settlers coming from the west and English settlers coming from the New England settlements to the east. Long Island became disputed territory with both nations laying claim to it. In fact, the last act of the Plymouth Company of England was to grant "lands in New England and Long Island to Lord Sterling" (Von Skal 1908: 7). Despite the actions of Lord Sterling's land agent, James Farret, who claimed the whole of Long Island and secured a personal claim to Shelter and Robbins Islands, the Dutch authorities appear to have ignored these English ventures. Ultimately, Farret returned to Europe having accomplished little (Von Skal 1908: 8).

During the 1630s, European settlers began to acquire land from the Native American inhabitants on Long Island. In 1636, Jacob Van Corlaer, Wouter Van Twiller, Andries Hudde, and Wolfert Gerritsen purchased "flats" of land totaling 15,000 acres on what later became "New Amersfoort," located in present day Flatlands and Flatbush (Ostrander 1894:26, Feipel 1954:16, Stiles 1867:23). In this same year, William Adriaense Bennet and Jacques



Bentyn purchased 930 acres of land at ‘Gowanus’ from the Native Americans (Stiles 1867: 23). A *Map of the Original Plantations* within Brooklyn indicates that the Bennet and Bentyn patent was located south of the rezoning area, in the vicinity of present-day Twenty-Seventh Street and the Utrecht Line (Figure 8; Stiles 1867: 23-24). According to Stiles, a dwelling was constructed within this patent sometime prior to the Indian Wars between 1862 and 1865. He further observes that this dwelling house may represent the “first step in the settlement of the City of Brooklyn” (1867: 23-24). Following the Bennet and Bentyn’s purchase, settlement along the Brooklyn waterfront from Newtown Creek to the southern side of Gowanus Bay steadily progressed.



**Figure 8: Portion of The Map of the Original Plantations within Brooklyn, New York. (Reproduced from Armbruster 1912.)**

These early land transactions within present-day Brooklyn were, however, acquired without consent from the Dutch India Company. In September of 1638, the Amsterdam Chamber of the West India Company offered free passage and other *inducements* to emigrants who in return signed a pledge of obedience to the officers of the company. Through proclamation emigrant farmers were granted land subject to a quit-rent of a tenth for the West India Company. This new policy instigated increased settlement throughout the area by assuring grantees of their legal estates and potential for inheritance (Ostrander 1894:36-37, Feipel 1954:22, Stiles 1867:27). One of the first settlers to acquire land in the Gowanus area under the new proclamation was a Thomas Bescher who received a patent on November 28<sup>th</sup>, 1639 for a tobacco plantation on the beach “by Saphorakan” which most probably was at Gowanus (Ostrander 1894:37 and Stiles 1869). A patent for all of Red Hook and Governors Island was granted to Van Twiller by the Dutch West India Company in 1643 (Stiles 1867:23).

On May 27, 1640, Frederic Lubbertsen was granted the first patent in the immediate vicinity of the Gowanus Creek (Stiles 1867: 63). From this patent, Lubbertsen acquired “the whole neck of land between the East Rover and Gowanus Creek, northeast of the meadows which formerly separated Red Hook from Brooklyn” (Stiles 1867: 63).

Stiles situates Lubbertsen's farm to the west of the rezoning area with a tract located between present-day Degraw and Harrison Streets to the west of Court Street and, to the east of Court Street, between the East River, Hamilton Avenue, the Gowanus Cove, and Warren Street.

Between 1636 and 1643, small hamlets began to develop around original centers of settlement, including those areas known as *The Gowanus*, *The Waalbogt*, and *The Ferry* (Stiles 1867: 44). According to Stiles, between the Waalbogt and Gowanus settlement "there was a tract spoken of in the early patents as 'Merckawieck, on the Kil (or Kreek) of Gowanus' (1867: 44). Stiles further identifies planting grounds, rich maize lands, in this area. The perceived fertility of this parcel drew the covetous attention of both Native American and European settlers, fueling hostilities and warfare between the two groups from 1842 through 1845. Stiles contends that with the termination of these hostilities, patents to the coveted parcel were quickly granted (1867: 44-45). Governor Kieft granted a land patent to Jan Evertsen Bout on July 6, 1645 (Stiles 1867: 68). Adjacent land grants were made to Gerrit Wolphertsen (van Couwenhoven) and Huyck Aertsen (van Rossum) around in the following years. The land grant for Bout's patent indicates that both he and Jacob Stoffelsen owned this parcel. An 1858 *Ancient Map* drafted by T.G. Bergen provides an indication of the location of Bout and Stoffelsen's patent, along with Wolphertsen and Aertsen's lands (Figure 9).

From this illustration, it appears that the majority, if not all, of the project area was located within the Bout and Stoffelsen patent. Stiles notes that there "is some uncertainty regarding the precise limits of these three patents...which together evidently cover that portion of the city included between Fulton Avenue, Smith and Nevins Streets" (1867: 100). Therefore, it is possible that portions of the rezoning area fell within the Wolphertsen or Aertsen patents.

The earliest recorded development within Bout and Stoffelsen's patent appears to be the Old Gowanus Mill, subsequently known as the Brower Mill and then Freeke's Mill, which was constructed around 1661 (Stiles 1867: 99-100). According to Stiles, this mill represents the earliest mill within the Town of Brooklyn. The mill was initially operated by Isaac DeForest and Adam Brower; subsequently, Brower purchased DeForest's interest (Stiles 1867: 100). The Old Gowanus Mill (later, Freeke's Mill) was a tidal mill resting within a northeastern branch of the Gowanus Creek. The mill is depicted as Brower's Mill on Bergen's *Ancient Map* (Figure 9). Stiles suggests that DeForest and Brower were tenants of Bout, who, in 1667, "gave 'the corn meadows and place whereon the mill is grounded,' to the children of Adam Brower" (Stiles 1867: 100). He also locates the mill pond associated with the Old Gowanus Mill to the immediate north of present-day Union Street, west of Nevins Street, and between Nevins and Bond Streets (1867: 100).

During the following years, many smaller patents were also taken out throughout the Gowanus area in long narrow plots, with settlers filling in marshlands in order to take advantage of the marsh resources. In May 1664, Adam Brower, owner of the Old Gowanus Mill (Freeke's Mill), petitioned the Governor and Council on behalf of the other landowners in Gowanus for permission to dredge the Gowanus Creek, at their own expense, in order to render it more navigable (Stiles 1867:67-69). The petition was granted enabling the residents to construct Graver's Kill, a canal running from the East River to Gowanus Cove, separating Red Hook from the mainland (Stiles 1867: 67-69).

The Gowanus Road was established in 1704. This historic road "ran south toward the present Fifth Avenue, to near Sixth Street, then went southwesterly toward present Third Avenue, by Middle Street, and then merge into a road leading to Yellow Hook" (Bang 1912: 96). Bang further observes that homesteads were scattered along the road. Butt's 1846 map of the area depicts the Gowanus Road running in a circuitous path from the tip of the Gowanus Bay to the north and then northwest across the proposed rezoning area. Later nineteenth century maps identify the northwestern portion of this road as the Road to Freeke's Mill. This suggests that this northwestern segment may not have been an original portion of the Gowanus Road (also known as the Road to the Narrows). Rather the branch may have been added with the development of Freeke's Mill (the Old Gowanus Mill).

In 1709, Denton's Mill, which may have also been known as the *Yellow Mill*, was constructed within Bout's patent. This tidal mill was built by Adam and Nicholas Brower and, as such, was not known originally as Denton's Mill (Stiles 1867: 100). Rather, the Denton association dates to the nineteenth century.



**Figure 9: Reproduction of An Ancient Map Showing Early Land Patents Within Gowanus.**  
(Reproduced from Howard 1893).

Stiles describes the mill complex as follows:

The mill-pond was formed by the damming off a branch of the Gowanus Kil, and the mill was located on the northeast side of the present First Street, about midway between Second and Third Avenues. The dwelling-house, which was burned down about 1852, was in Carroll, midway between Nevins Street and Third Avenue [Stiles 1867: 100].

Stiles situates this mill complex within the boundaries of the proposed rezoning area in Modern Block 453. Freeke's Mill (the Old Gowanus/Brower Mill) and the Denton Mill are both depicted on Ratzer's 1766-1767 map of the area (see Figure 6). Ratzer's map also depicts the trajectory of the Gowanus Road in relation to the project area. The map indicates that the Road to the Narrows, which appears to include the branch to Freeke's Mill, follows a meandering course from the Gowanus Bay to the northeast and then veers to the west in the vicinity of the southern (Denton's) Mill complex. It then branches into the Road to Freeke's Mill (this branch is not labeled) running to the



north alongside Freeke's Mill (the Old Gowanus Mill) complex. The road appears to run across the Gowanus Creek in the vicinity of Freeke's Mill (the Old Gowanus Mill). The historic roadway appears to be the only creek crossing at this time.

During the Revolutionary War, Brooklyn, particularly the Gowanus and Wallabout areas, was the scene of significant fighting and military maneuvers. On August 22, 1776, British troops under the direction of General William Howe landed upon Long Island precipitating the Battle of Long Island (Lossing 1950). This invading force, including British and Hessian soldiers, totaled 10,000 men. In anticipation of a British invasion and attack of Brooklyn and Manhattan via Long Island, the General Greene of the Continental Army supervised the construction of a series of fortifications across Brooklyn (Lossing 1850). The landside fortifications for

Protecting that harbor batteries on Brooklyn Neck ran a mile and half, from the Gowanus in the south to Wallabout Bay in the north (later the site of the Brooklyn Navy Yard). The major emplacements, starting at Gowanus Creek, included the four-gun Fort Bos, which commanded the Port Road. Names for General Greene's brigade major, or senior aide, Major Daniel Box, it was where Carroll Park is today. It was later called Fort Boerum. About three-quarters of a mile (or 300 rods...) to the northeast was Fort Greene with six guns (at State and Schermerhorn Streets), and 150 yards farther to the northeast was a circular battery at what is now the corner of DeKalb and Hudson Avenues [Gallagher 1995: 78].

A line of entrenchment was also "formed from a ditch near the late Toll-House of the Bridge Company at the Navy Yard to Fort Greene, then called Fort Putnam, and from thence to Freeke's mill-pond" (Brooklyn Eagle 1846).

The 1869 Field map depicts the Revolutionary War fortifications within Brooklyn (Figure 10). The map indicates troop movements across the Gowanus Road (Road to the Narrows). The map also shows the location of Fort Box to the immediate west of the proposed rezoning area, west of Block 405, Lots 7 and 8. The limits of Fort Greene are also illustrated to the north of the project area, north of the Gowanus Creek. The Field map appears to depict two mill structures within the area of Denton's Mill. The northern mill fronting the western edge of the Gowanus Road is identified as the Yellow Mill, while Denton's Mill is identified as the southernmost structure sitting between the Gowanus Creek and Denton's Millpond. Freeke's Mill pond is also depicted to the north of the project area. This pond may be associated with the Yellow Mill, suggesting that Freeke's Mill (the Old Gowanus/Brower Mill) may have also been known as the Yellow Mill. Johnson's map of Brooklyn during the Revolutionary War also reflects the presence of Fort Box, a redoubt, to the immediate west of the project area (Figure 11). Johnson appears to depict three mill structures within and adjacent to the rezoning area. Two buildings identified as Mill Neck are located to the northeast of Brower's Late/Denton's Mill Pond. These two structures may represent the Yellow Mill and the Denton Mill reflected on the Field map. Unlike the Field map, Johnson depicts the Denton's Mill alongside the Millpond. Johnson depicts a third structure along the Gowanus Road to the south of Brower's Late/Freeke's Mill Pond. This building may represent Freeke's Mill (the Old Gowanus/Brower Mill). Alternatively, this structure may represent a dam within the Gowanus Creek. If the structure is reflecting a dam, then the northernmost mill building is most likely Freeke's Mill (the Old Gowanus/Brower Mill), and also potentially the Yellow Mill.

During the Battle of Long Island, on August 27, 1776, the Continental troops found themselves outmaneuvered and outmanned within southern Brooklyn (Brooklyn Eagle 1891). In order to allow for the retreat and withdrawal of the Continental Army, the mill dam near Freeke's Mill (the Old Gowanus Mill) had to be protected and controlled by the Continentals (Figure 12). Therefore, General Sterling with a deployment of 400 members of the Maryland regiment held and fought back the British advance at the old Cortleyou house near Fifth Avenue and Ninth Street (Figure 13). The retreating Continental troops attempted to make their way through the Gowanus Cove and its surrounding marshes. "Many were drowned in the waters or perished in the mud" while trying to escape (Brooklyn Eagle 1846). By the time General Sterling had surrendered, 250 of his troops had been killed. The fallen soldiers were reportedly buried within the farm of Adrian Van Brunt; this burial ground may remain intact within the boundaries of Third Avenue, Seventh and Eighth Streets (Brooklyn Eagle 1891). Freeke's Mill (the Old Gowanus/Brower's Mill) and its associated bridge were burned during the retreat (Brooklyn Eagle 1891; Figure 11). Denton's Mill and its associated mill bridge may have also been burned by the retreating Continental troops (McLean and Boesch 2002: 27).

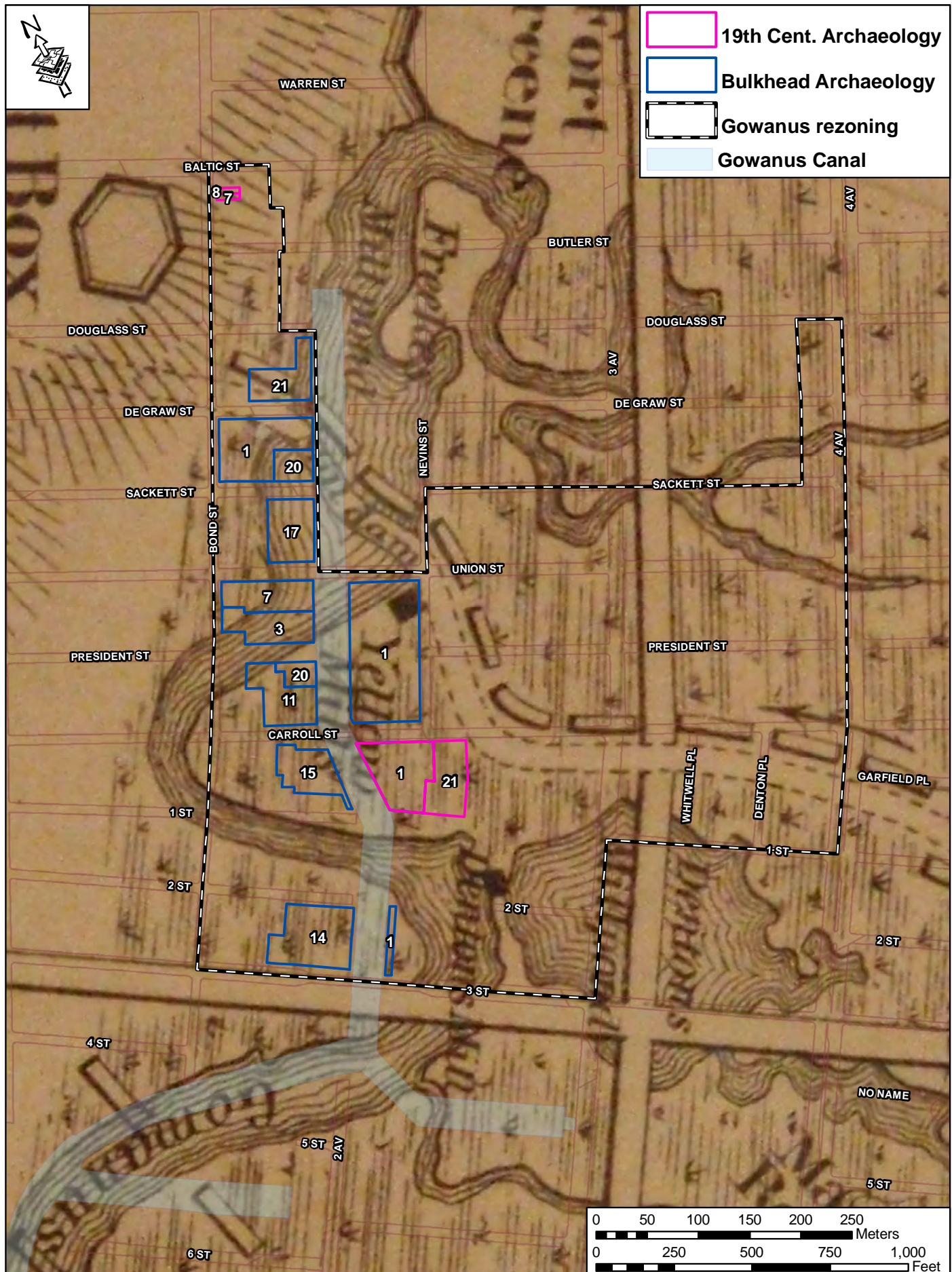


FIGURE 10: View of the Project Area during the Revolutionary Wa

SOURCE Field 1869



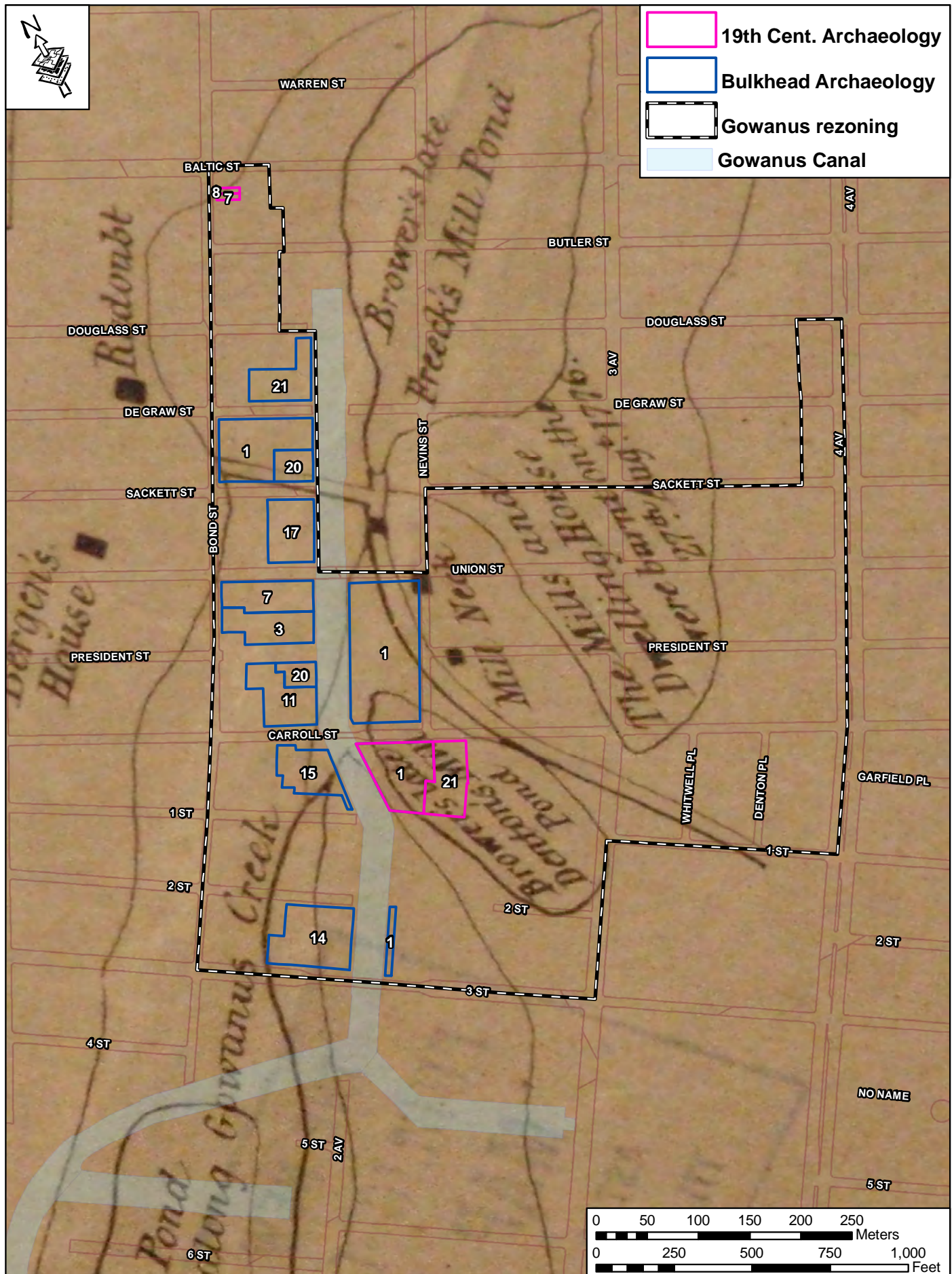
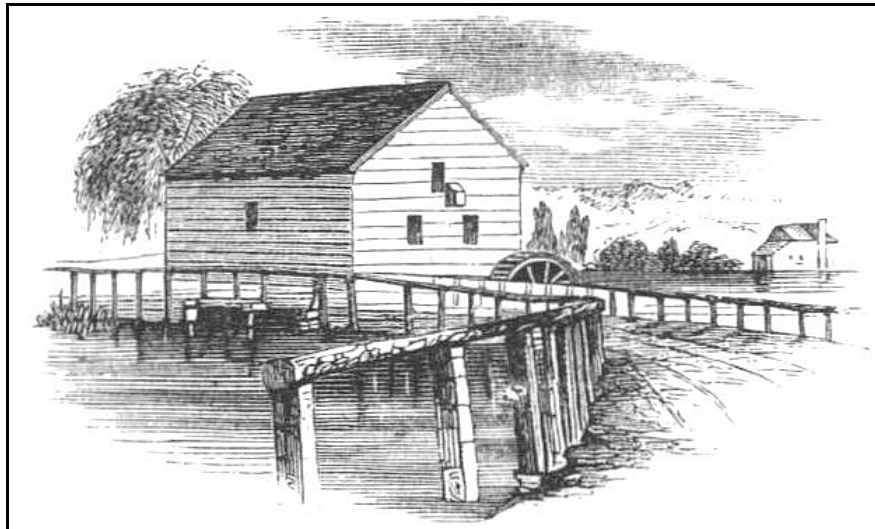


FIGURE 11: View of the Project Area and Revolutionary War Fortifications

SOURCE Johnson c1776



**Figure 12: Illustration of Brower's Mill (Freeke's Mill) and its Associated Dam. Note Yellow Mill or Denton's Mill in the background.**  
(Reproduction from Lossing 1850).



**Figure 13: Illustration of Sterling's Retreat from the Cortleou House.** (Reproduction from Howard 1893).

Sterling's defense of the mill and bridge road near Freeke's Mill (the Old Gowanus/Brower's Mill) enabled the Continental Army to retreat to its Brooklyn Heights fortifications. From this location, the battered army was able to surreptitiously leave Brooklyn and ferry across the East River to New York City. This escape was successfully mounted such that the army was outside of the range of capture by the time that the British were aware of the retreat. Following the Battle of Long Island and the retreat of the Continental Army, the British continued to occupy Brooklyn till the end of the Revolutionary War in 1783 (McLean and Boesch 2002).

After the Revolutionary War, the old Brooklyn settlement grew in size and population. On March 15, 1788, the Brooklyn settlement was recognized by the legislature as a town and divided into seven districts including:



Brooklyn, Bedford, Cripplebush, Gowanus, Red Hook, The Ferry, and Wallabout (Feipel 1954:163). By 1816, a section of the Town of Brooklyn was incorporated as the Village of Brooklyn (Feipel 1954:186). Brooklyn's waterfront became the primary market of agricultural produce from the eastern portion of Long Island (Stiles 1870:558). By 1834, Brooklyn was incorporated into a city. During this time, Brooklyn began to develop into a busy commercial and residential center in tandem with the rise of the Port of New York.

Settlement around the Gowanus Creek and in the vicinity of the project area remained relatively sparse throughout the early and mid-nineteenth century. The 1844 US Coast Survey indicates that the southern and western portions of the rezoning area were primarily undeveloped, being underwater or within the lowland salt marsh (see Figure 7). The eastern portion of the project area appears to have been cleared for agricultural purposes by this time. Several sporadic structures are also depicted along the historic roadway, the Gowanus Road/Road to the Narrows and its branch to Freeke's Mill, which extended across the project area from its southeast corner to its northwestern extent. The majority of the buildings may relate to the historic mill complexes. The two structures within the southeastern corner of the project area may reflect Denton's Mill complex. The assemblage of buildings located in the vicinity of the Road to Freeke's Mill appears to represent the Freeke Mill complex. The 1844 Survey also indicates that the formal street grid system has not been introduced with the area consisting primarily of limited agricultural fields and undeveloped terrain.

Colton's 1849 map of Brooklyn also reflects the undeveloped and unimproved nature of the project area during the mid-nineteenth century (Figure 14). Both the Denton's Mill Pond and the Freeke's Mill Pond are delineated. Stiles, in his description of the historic settlements within Brooklyn, indicates that the "fine houses" of Nehemiah Denton and of John Freeke were located adjacent to their respective tidal mills. He also identifies both mills as flour mills that purchased the majority of the wheat produced within the county (Stiles 1869: 181). Stiles indicates that both Denton and Freeke were wealthy landowners as a result of their previous mercantile ventures. In addition to the tidal mills and the adjacent residential structures, a few additional buildings associated with the millers and coopers for the mills were also located within the mill complexes (Stiles 1869: 181). Colton's map further indicates that a formal street system has been proposed for the area, but the presence of marshlands and the Gowanus Creek and its tributaries indicates that the streets have not been laid out or extended.

In 1847, the State Legislature enacted a revised charter for the City of Brooklyn (Howard 1893). The following year, the southern portions of Brooklyn began to experience rapid growth as result of its proximity to the Atlantic Docks and the enterprising speculative and development efforts of Charles Hoyt. In fact, throughout the 1830s and 1840s, Hoyt began acquiring large tracts of land within the project area and its immediate surroundings (Liber 42: 410; Liber 180: 350). During this period, developers were beginning to view the marshland that dominated the Gowanus Creek area as a hindrance to development (Hunter 2004: 2-16). Initial plans for regarding the marshes called for using them as a "glorified sewer," a drainage for the sewer and water run off produced by the surrounding expanding Brooklyn settlements (Hunter 2004: 2-16). The city government abandoned these early ideas and, in turn, investigated the potential for filling the marshland and canalizing the Gowanus Creek, creating a tidewater canal.

At the request of the Brooklyn Common Council, in 1846 to 1847, Major David B. Douglass proposed the first plan for the construction of the Gowanus Canal (Hunter 2004: 2-16; Brooklyn Eagle 1847). Douglass framed the intention of his proposal as follows:

To admit the tide water, as now, to the head of the meadows:--transforming the present estuary into a receptacle, of sufficient capacity to receive and carry off, by the influx and efflux of the tide, the entire drainages of that portion of the city. The receptacle thus formed could at the same time be organized as a commercial basin, in connexion (sic) with Gowanus Bay, *alone*, or, by cutting through the isthmus of into Wallabout bay, connected with *that* also, so as to form a regular navigable canal, with all the advantages of trade, transport, and wharfage, through the heart of the city, a well as a clear flow of tide from bay, at each return [Brooklyn Eagle 1847].

Douglass proposed two variant plans for the Canal each involving the construction of a large basin at the head of the Canal equipped with sluice gates (Figure 15). The sluice gates within the basin would enable the release of water into an excavated channel such that any deposits sewerage would be flushed out (Hunter 2004: 2-16-2-21). The plan was intended to function as a commercial center for barge traffic. One variation of Douglass' plan called for the sole use of the Gowanus drainage through which two canals, distinct intake and outtake channels would be



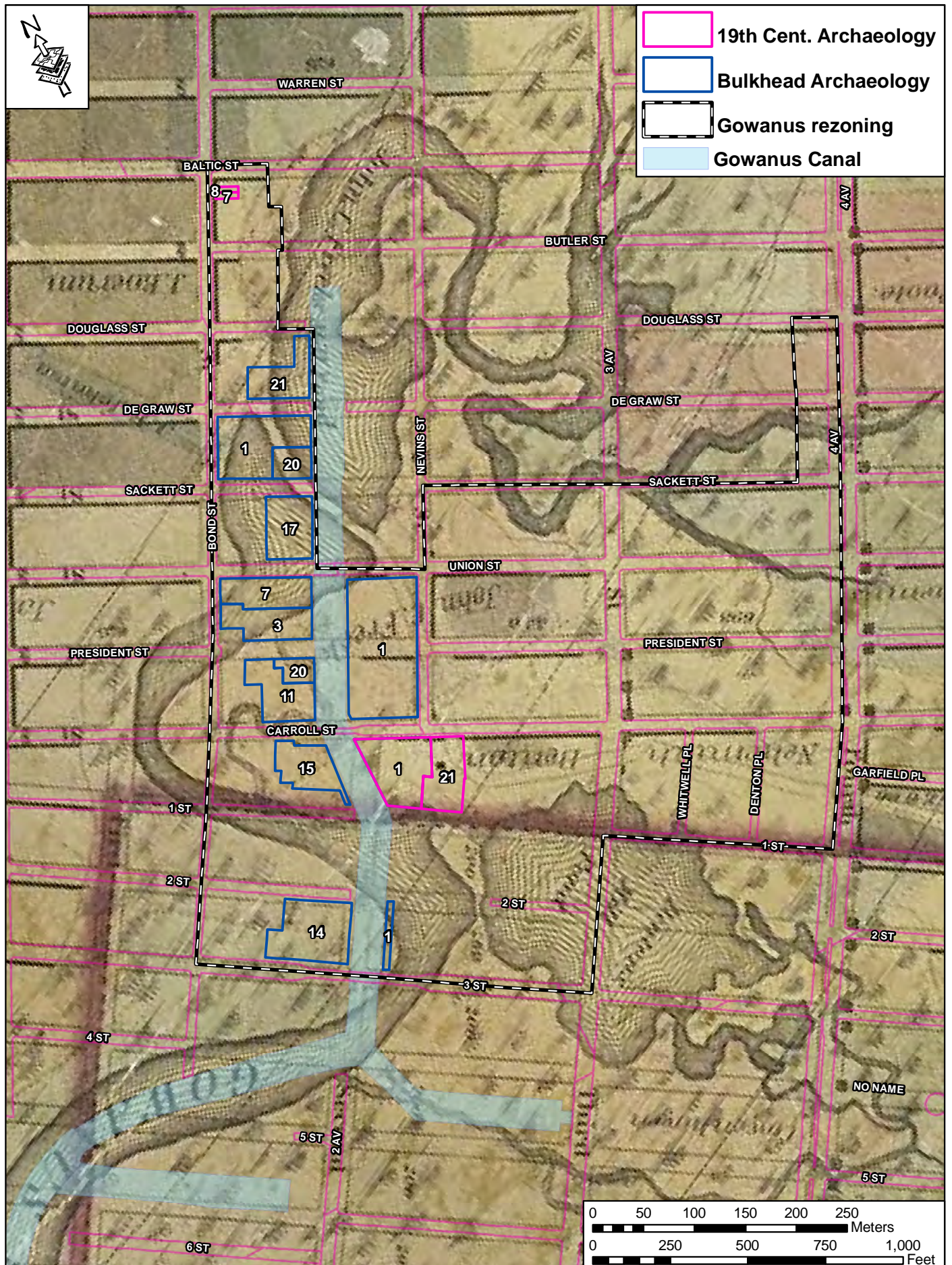


FIGURE 14: View of the Project Area in 1849

SOURCE Colton 1849





**Figure 15: Plan No. 2 of Major Douglass' Report on the Drainage of Part of the City of Brooklyn.** Image shows second proposal for Gowanus Canal with canalization through to Wallabout Bay. Note that Denton's Mill Pond and Freeke's Mill Pond are illustrated to the east of the proposed canal.

constructed. Alternatively, he proposed for the excavation of a “smaller single channel through the meadows and flushing it with water from Wallabout Bay” (Hunter 2004: 2-21). Douglass’ plan also called for lowering the grade of the meadows and creating sloped earthen banks for the Canal. He intended for any wharf or wall construction to be undertaken by private developers. The emphasis on private development and the lowering of the meadow elevation may have resulted in the lack of interest with respect to Douglass’ proposal and the ultimate rejection of his plans.

In 1848, Daniel Richards, a local landowner and developer who had functioned as the chief promoter and builder of the Atlantic Docks, introduced another plan for the canalization of the Gowanus Creek and for draining and filling of the surrounding meadow land (Hunter 2004: 2-21). In 1849, the Brooklyn Common Council adopted Richard’s plans, which proposed a 5,400-foot-long, 100-foot-wide, 14-foot deep canal (Figure 16). His plan for the Canal proposed that it have a depth of five feet below the low water mark and four feet above the high water mark (Brooklyn Eagle 1849). Richards plan for the canal alignment followed a curved, multi-angled course. The southern portion of the Canal, which primarily follows a curved path, may have mirrored the preexisting trajectory of the Gowanus Creek. Conversely, the northern portions of the Canal appeared to conform to the street grid, enabling rectilinear lot development alongside the Canal (Hunter 2004: 2-23). The present-day Canal appears to mirror the primary course and dimensions initially proposed by Richards. As designed, the canal was intended to not only drain the surrounding meadowland, but also to receive waste and storm water runoff from the adjacent developed property.

Richards plan promoted the use of timber sheet piling to create vertical canal walls. Such timber pile constructions would have consisted of cylindrical beams, piles, being driven into the underlying mud and silt deposits in a side by side linear fashion so as to create a continuous wall (Ferrandino & Associates, Inc. 2006: 94). Richards also proposed the construction of multiple basins, both private and public spaces, as offshoots off the main canal. While a large public basin was never constructed at the head of the canal, several private basins were constructed along the Canal during the 1870s (Hunter 2004: 2-21).

To pay for construction of the canal, Richards arranged for the State Legislature to enact legislation “authorizing property assessments of lots along the canal and the approximately 1700 acres to be drained” (Hunter 2004: 2-23). This legislation did not authorize the release of sewage or waste into the canal. Given that neither this state legislation, nor the actions taken by the Common Council, enabled for the funding of this project, implementation of Richards’ proposal and early canal construction relied upon private interests and developers. The earliest and only public project in the vicinity of the Gowanus Creek involved the construction of a drawbridge over the creek at Ninth Street. This bridge was completed in 1849 (Hunter 2004: 2-24).

Beginning in 1853, private landowners undertook construction of the Gowanus Canal and the filling and dredging of adjacent meadowland for development. Edwin C. Litchfield, a lawyer and businessman who specialized in railroads, and Edward W. Fiske, a politician, were two prominent landowners who spearheaded the early Canal work (Jackson 1995). In 1852, Litchfield acquired nearly a square mile of land from the former Cortleou estate including about 1000 feet (304.8 meters) of designated canal frontage between Fifth and First Streets (Hunter 2004: 2-24). His holdings included the far southern extent of the rezoning area. In the early 1850s, Fiske also acquired several large tracts of land adjacent to the Gowanus Creek including a large portion of the rezoning area. Hunter contends that Fiske “funded some or all” of the “initial attempt to improve the waterway” (Hunter 2004: 2-24).

These initial efforts at constructing the canal prompted extensive land speculation along the surrounding streets and created waterfront parcels. An 1854 advertisement for public auction of “350 best lots, those on the places and on the canal” includes 25 water fronts on the canal. Street lots within the auction included Sackett Street, Secor Place, Carroll Place, President Street, Second Avenue, Union Place, Belcher Place, Carroll Street, Hoyt Street, First Street, and Bond Street. Several of these streets are located within the rezoning area suggesting these streets and blocks may have been filled and extended by 1853. The advertisement further reads,

This is some of the best property that has ever been offered for sale in this city. The streets and places are all paved and of good width; one of the lines of the city railroads runs within one block. The canal front is very valuable on account of the facilities fiving for the transportation of merchandise into the heart of the city. The canal is 100 feet wide, and is nearly completed: the entire distance from Gowanus Bay to Butler Street. The front on this property is made with a timber and stone dock, 20 feet thick at the base, and is 16 feet at the top, and finished in a solid

and substantial manner. These lots are valuable for business purposes, while the lots on the streets and places are for building purposes [Brooklyn Eagle 1854].



**Figure 16: Proposed Gowanus Canal Plan, 1848.**

Hunter further observes that the majority of the Canal at this time either lacked finished walls or was lined with timber sheet piling (Hunter 2004: 2-24).

Descriptions of the area in 1853 indicate that Douglass, Carroll, and President Streets had been opened up as far as the Gowanus Creek. Bond Street had also been paved and graded to the foot of Bergen Street (Brooklyn Eagle 1853a). With the paving of this street, within areas to the north and east of the Gowanus Creek, “the swarms of disreputable shantys (sic) which were formerly located there have been cleared off, and their places are now occupied by substantial brick dwellings, and an entirely different class of population” (Brooklyn Eagle 1853a). In this same year, the Brooklyn Eagle heralded the opening of the Gowanus Canal “which has been commenced about a fortnight ago, by Mr. Fisk, the owner of most of the surrounding property” (1853b). The article further describes the construction work as employing forty to fifty laborers “and a powerful dredging machine” which operates when the tide permits (Brooklyn Eagle 1853b).

An 1856 article in the New York Times documents the squatter settlements for Irish laborers that had developed within the Tenth Ward of Brooklyn. Several communities of squatters were recorded within the vicinity of the Gowanus Canal, including Derby’s Patch, The Gowanus Beach at Hamilton Avenue, and Tinkersville at the foot of Columbia Street. The Derby’s Patch settlement appears to have been the closest community to the project area. According to the article,

The shanties [within this community] are only one story high, have but a single room, and the occupants are all Irish. On one side of the streets a row of these huts is situated about eight feet below the curb stone, while the tide rises up to the very door, and frequently during a hard rain the inmates are compelled to take to the beds and tables to keep clear from the water [NYT 1856].

The article notes the existence of 81 tenement houses with a total of 2224 tenants in the Tenth Ward.

From the late 1850s into the 1860s, municipal improvements including the extension of sewer and water lines and the formal creation of streets occurred throughout the Gowanus area. In April 1857, the state legislature enacted legislation for the preparation of a sewage plan for the entire city and the construction of sewers wherever they were needed (Stiles 1869: 591). The Board of Sewer Commissioners began laying out the sewage system in 1858. By 1878, lines had been extended along Bond, Sackett, President, and Centre Streets (Hunter 2004: 2-25). The first water supply system for Brooklyn consisted of wells. In 1858, the Ridgewood Reservoir was also completed enabling the extension of piped water lines across the city (Howard 1893). The Third Street Bridge, a pipe-truss swing structure, and the first Carroll Street Bridge were also completed in the 1860s. By this time, four of the five eventual Canal bridge crossings had been constructed. Hunter notes that all of these early bridges were swing or draw structures so as to enable both pedestrian and canal-related traffic. However, the fact that street grades at these crossing were established prior to later canal improvements would prove to have negative effects on traffic movement in the future (Hunter 2004: 2-25).

Propositions for the extension of streets and the filling of blocks were also made during this period (BDE articles). For instance, in 1858, the Street Commission received proposals for the filling and grading of the blocks bounded by Degraw, Bond, and Douglass Streets, and the Gowanus Canal (2/9/1858). An 1857 ordinance for this work required that these streets be “filled up to within three feet of the grade of the adjoining streets” (12/23/1857). Gerdes 1863 map of the area reflects limited development within the project area (Figure 17). The map indicates that Nevins Street and blocks to the east of Nevins have been filled and somewhat densely developed. However, it appears that the majority of the archaeological APE is still meadowland. The territory to the west of the Gowanus Canal appears to have been developed at a slower pace than the territory to the east, with the only a few structures having been built and limited street extension in this area by 1863. Furthermore, the far northwestern portion of the project area appears to be partially submerged and undeveloped, with only the Bond Street portions of these blocks appearing to have been filled.

The unfinished status of the Gowanus Canal became an increasing concern of the adjacent landowners and developers. Therefore, in 1866, they secured state approval for public and private interests to complete the Canal as designed by Richards. Subsequently, the Gowanus Canal Improvement Commission was created to “create a channel approximately 6000 feet long from Douglass Street at the north to Percival Street about 600 feet outshore of Hamilton Avenue, and was placed in charge of all of the bridges over the canal” (Hunter 2004: 2-25-2-26). The Commission was also empowered to deepen the Canal by dredging to a depth of seven feet at low water at the head of the canal and a depth of 12 feet at low water at the terminus (Brooklyn various). Around this same time, Edwin Litchfield incorporated the Brooklyn Improvement Company for the purpose of building docks and basins along the



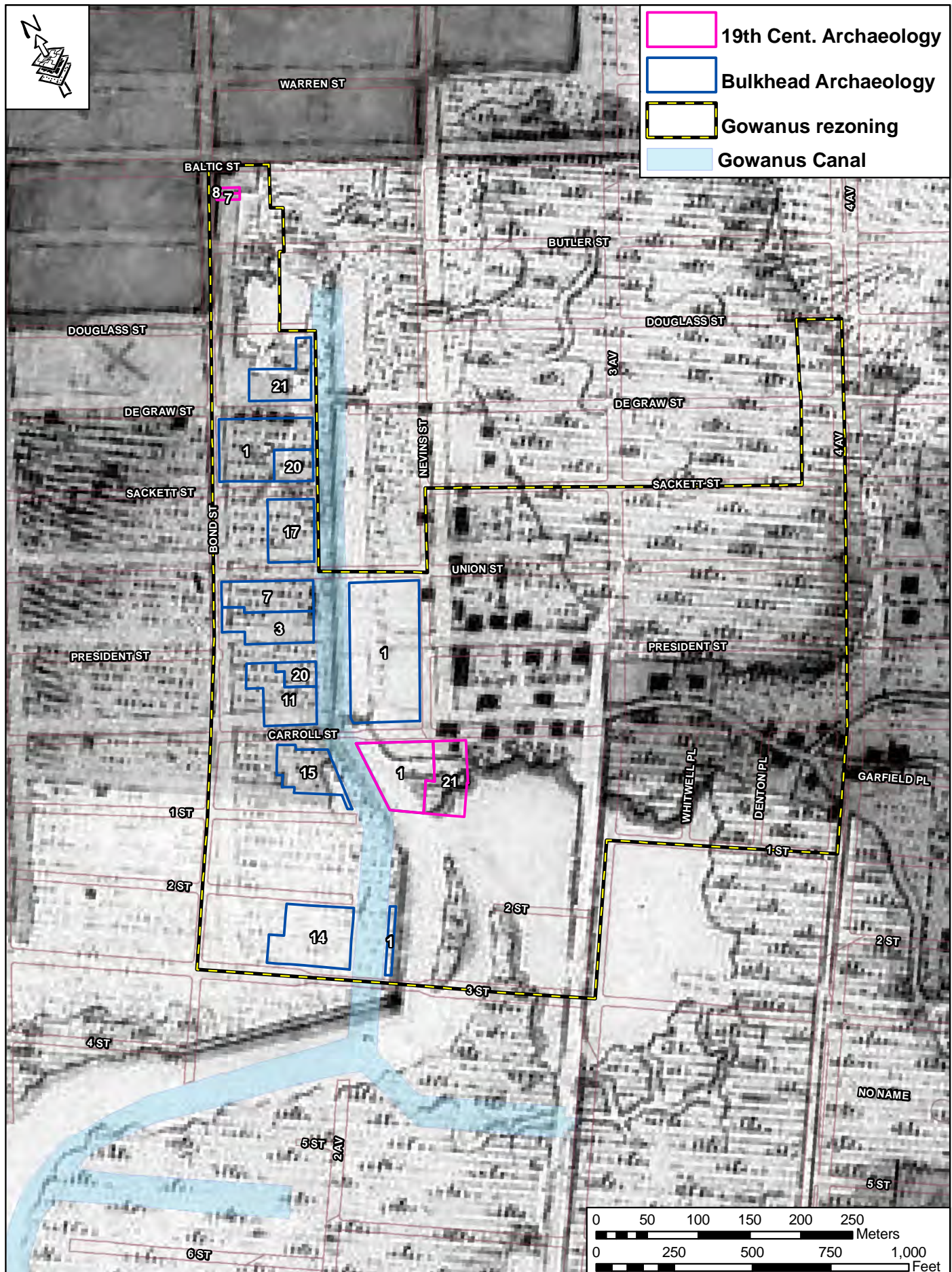


FIGURE 17: View of the Project Area in 1863

SOURCE Gerdes 1863



canal (Brooklyn Eagle 1869a). According to the Brooklyn Eagle, the Brooklyn Improvement Company was constructing three slips or basin canals from the main Canal at Fourth Street, Sixth Street, and Seventh Street. The Fourth Street Basin was 100 feet (30.5 meters) wide and extended 675 feet (205.7 meters) from the Canal, providing 1400 feet (426.7 meters) of wharf space. The basin also had a depth of 12 feet (3.7 meters) at low water and 16 or more feet (4.9 or more meters) at high water. The article further describes the construction process as follows,

The mode of construction is to drive piles all over the meadow, except on the site to be excavated for the canal, at distances of eleven feet from each other. These piles are sunk eighteen feet into the soil, so as to pass through the mud and get a firm bed in the hard clay beneath. Upon these piles a locomotive movable roadway is based, so that dredgers worked by steam can travel to the brink of the canal, and excavating the mud, can convey it back and dump it in any part of the surrounding wharf...The bed of the docks is on the hard clay which underlies the mud. They are closely piled along the sides, and boarded, so they cannot fill up from the mud working in [Brooklyn Eagle 1869a].

Construction of portions of these basins required filling of the remaining portions of Denton's Mill Pond (Hunter 2004: 2-32)

Coincident with the Brooklyn Improvement Company work, the Gowanus Canal Improvement Commission completed construction along the main Canal and of the bridges such that between 1866 and 1870 the Gowanus Canal and four of its basins were completed (Hunter 2004: 2-26). The Gowanus Canal Improvement Commission hired L.N. Vibbard to function as their engineer. J.B. Wood & Company and William Beard were commissioned for docking and dredging the canal (Brooklyn various). In their assessment of the canal, Hunter could find no evidence or reference to the techniques and forms of canal walls that were constructed by the Commission. Given the muddy underlying conditions within the creek, Hunter suggests that the commission most likely constructed timber cribwork bulkheads (Hunter 2004: 2-26). By this time, the earlier sheet pile walls had proven to be insufficient at blocking erosional mud and silt from accumulating into the Canal. On particularly rainy days, these walls would fail and wash enough sediment into the canal to render it useless for several hours (Brooklyn Eagle 1868a). As a result of the inefficiency of these early canal walls, not only did the Commission construct walls in those locations within which a wall was not present, but they also replaced failed or compromised extant walls.

Hunter provides a description of the most likely form of timber cribwork construction employed by the Commission. Specifically, they note that

Cribwork construction of the mid-nineteenth century and later involved spiking together logs in alternating perpendicular rows forming square or rectangular cells. Arranged in lines or grids, these cells commonly measured five to eight feet on a side, and from about seven to eight feet in height. Empty cribwork units could be floated in place and sunk as fill was added. Some cells, probably at the bottoms of cell units, had plank flooring to hold enough fill material to sink the structure; builders added more fill once the cells were in place to form a solid bulkhead...Fill material in cribwork bulkheads extended behind the timbers to the height of the bulkhead, and aside from dredged sand and silt could include demolition debris and stone...Square timbers, spiked or bolted together in a smooth, continuous face and fitted onto notched cribwork logs, formed the outer face of the bulkhead above mean low water in most cases...The upper horizontal surface of the bulkhead varied from packed earth to timber or stone [Hunter 2004: 3-4].

Hunter further observes that in those instances within which a bulkhead is constructed in sand or silt bottoms that piles are driven below the cribwork to form a continuous row of logs across the bottom of the cribwork (Hunter 2004: 3-5). Given the marshy conditions of the Gowanus Canal, they contend that the walls created by the Commission most likely rested upon piles driven into the underlying mud.

The completion of the Gowanus Canal spurred continued development and expansion around the Canal, particularly along its waterfront. Dripps 1869 map reflects the expansion and filling in of city blocks and the growth of industrial and commercial businesses along the Canal (Figure 18). In the blocks adjacent to the Canal, large warehouse spaces and empty yards dominate, while denser residential developments and smaller buildings have developed a few blocks to the east and west of the waterway. In 1870, landowners along First Street obtained permission to construct a private basin "at least 50 feet wide, six feet deep at low water, to a point 50 feet west of

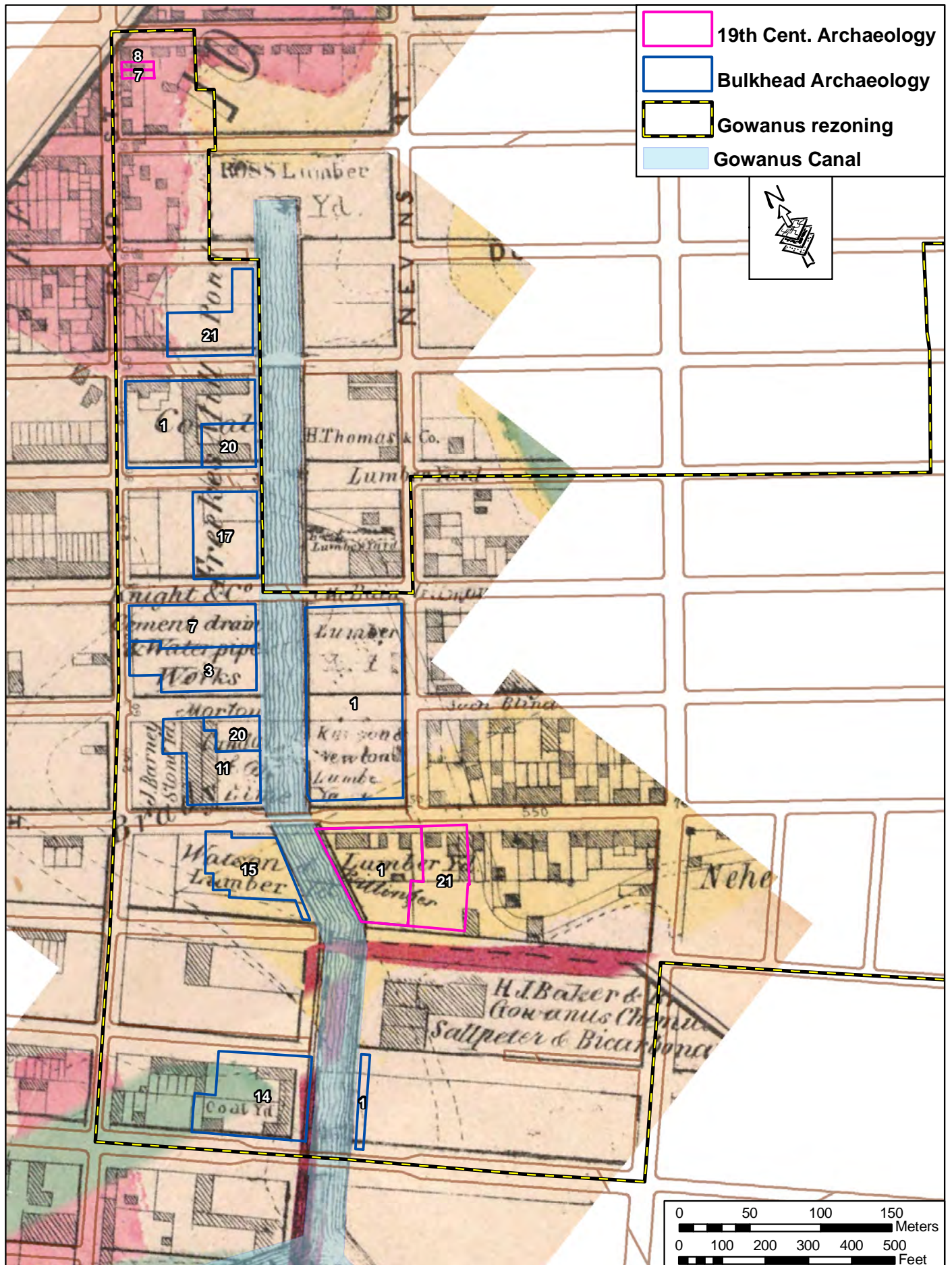


FIGURE 18: View of the Project Area in 1869

SOURCE Dripps 1869



Third Avenue” (Hunter 2004: 2-32). The First Street Basin fell within the rezoning area to the immediate south of Block 453.

By the late nineteenth century the area within the vicinity of the Canal grew at a rapid pace (Figures 19, 20, 21, & 22). Industries including coal, lumber, hay and grain, building materials, glassworks, and chemical fertilizers popped up around the canal (Stiles 1884). Late nineteenth century cartographic resources indicate the growth of coal yards, lumber yards, a paper mill, and chemical works along the waterfront or in the immediate vicinity of the Gowanus Canal. During this time, landowners and officials from the City clashed over the extension and opening of streets to the Canal so as to create public space along the waterfront (Brooklyn Eagle 1868b, 1868c).

The City of Brooklyn took over maintenance of the Gowanus Canal in 1870 (Hunter 2004: 2-40). Within a decade of their control, navigation conditions along the Canal had deteriorated as a result of sewer and stormwater runoff. By the late 1870s, sewers lines had been extended along Bond, President, Sackett, and Centre Streets, each feeding into the Gowanus Canal (Hunter 2004: 2-50). From these sewers, waste, including household privy refuse and the refuse of stables, along with industrial waste and stormwater runoff from the industries along the waterfront, washed into the Canal (Brooklyn Eagle 1877). In particular, the Bond Street sewer, the largest of the four sewer lines, drained almost all of the Third, Tenth, and Twenty-Second Wards. According to a Report of the Sanitary Superintendent, the waste material washed into the Canal at a point at which there was no “current of sufficient velocity to carry it away” (Brooklyn Eagle 1877). As a result of this continual deposition, the Canal had become a barely navigable public nuisance and health hazard which emanated noxious odors.

Complaints regarding the polluted and foul-smelling conditions of the Gowanus Canal were made well into the 1890s. An 1889 Canal Commission offered several recommendations for improving the status of the Canal. These recommendations included the:

Absolute cutting off of all discharges into the canal, from factories and sewers, public and private, and providing an adequate system of sewerage for the vicinity;  
The immediate and thorough repair of the bulkheads along the canal and basins, and sheathing the same;  
The thorough dredging to hard bottom and greater depth, required for commercial purposes, at the present time and whenever necessary hereafter...[Brooklyn Eagle 1889].

Given that complaints regarding the status of the Gowanus Canal were still being published in the 1890s, it appears that no measures were taken after the Commission’s report and recommendations. By 1892, a Report of the Committees to the Brooklyn Sanitary League observed that “there is a depth of from four to six feet of these vile accumulations of many years which now form the bottom of the canal” (Brooklyn Eagle 1895). Several recommendations for improving the state of the Canal were made by the Committee on Water and Drainage to the Common Council in 1895 (Brooklyn Eagle 1895). Dr. Nelson Bell, editor of the *Sanitarian*, recommended that the wooden walls of the Canal be removed and replaced with stone. This suggestion indicates that timber constructions comprised the majority of the Gowanus Canal bulkhead up until the turn of the twentieth century.

Between 1891 and 1899, The City of Brooklyn undertook only one measure to alleviate the sewage and pollution problem within the Gowanus Canal (Hunter 2004: 2-50). The Greene Street Sewer project included the construction of a large outlet basin at the head of the Canal. This basin was designed so as to drain the stormwater runoff from the north and then funnel that water into the Canal so as to flush it out. It was designed so as to only receive water in the case of an undue rise within the main system (Howard 1893). Ultimately, the culmination of the project revealed that there were few storms of significant enough force to produce sufficient runoff such that that Canal could be flushed.

Municipal maintenance of the Canal was almost exclusively focused upon the Canal bridges. Four of the five Canal bridges have been completely rebuilt and replaced several times. The Carroll Street Bridge is the only bridge to have retained historical significance. The original bridge was replaced by an iron swing bridge in 1872. In 1889, the iron structure was replaced with the present-day Carroll Street Bridge, a retractile steel-plate girder-type construction. This bridge has been identified as a New York City Landmark (NYCL) and has been found eligible for listing on the National Register of Historic Places (NR) (Hunter 2004: 2-35).





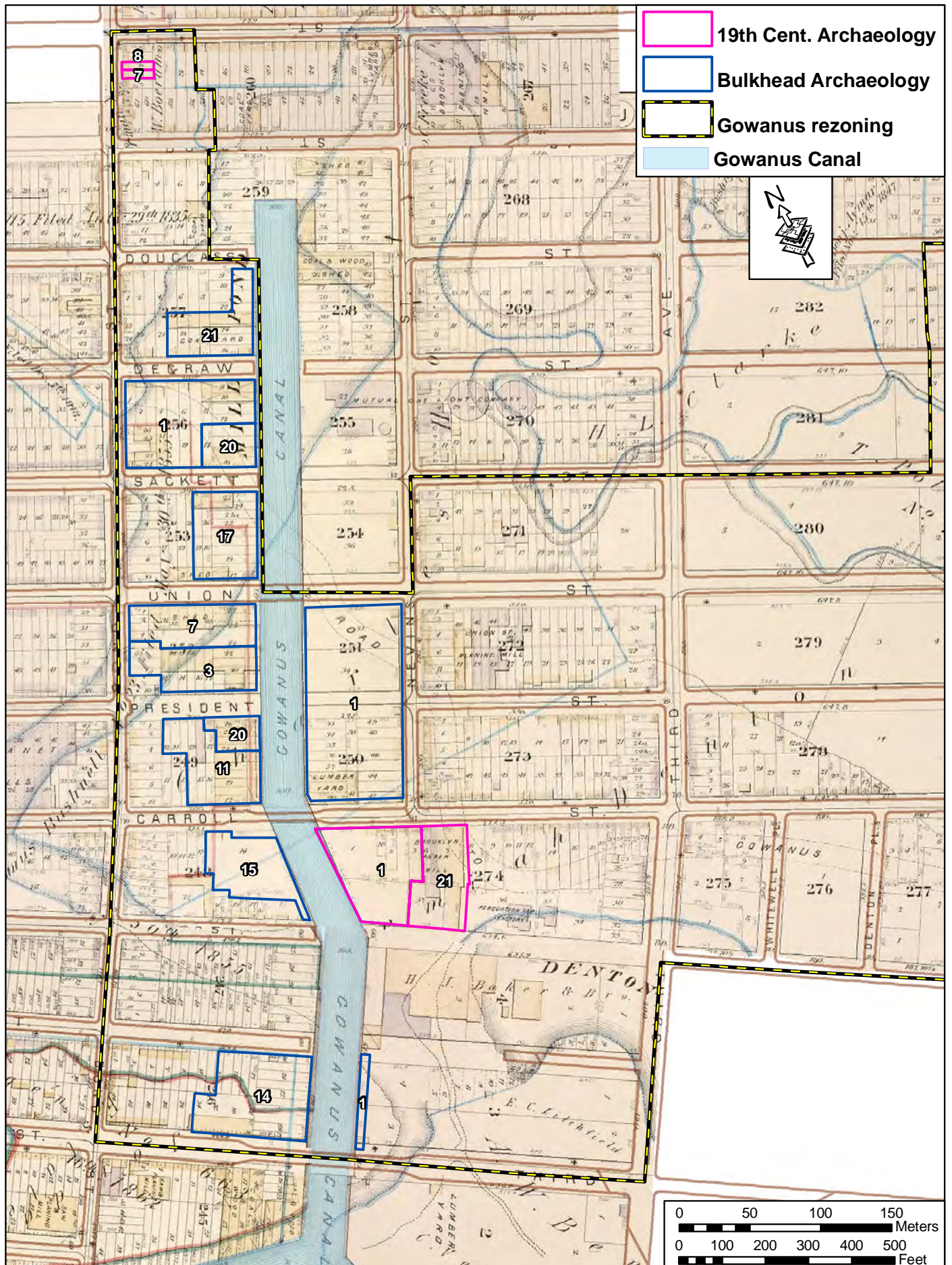


FIGURE 20: Hopkins's View of the Project Area in 1880

SOURCE Hopkins 1880







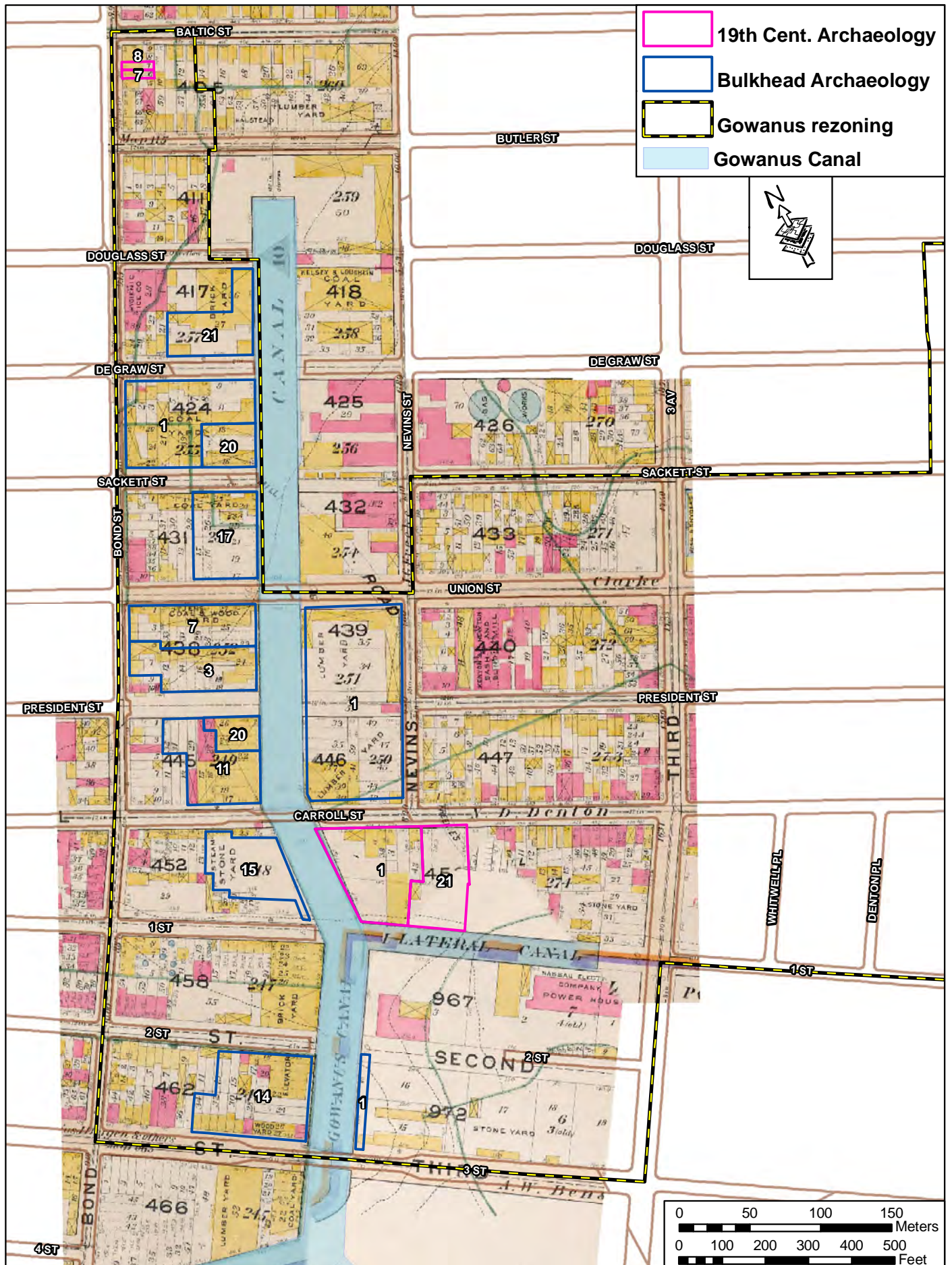


FIGURE 22: View of the Project Area in 1898

SOURCE Hyde 1898

On January 1, 1898, Kings County was consolidated into the Greater City of New York (Merlis 2005). With the consolidation, Brooklyn became the most populous borough within New York City.

Between 1902 and 1904 alterations were made to the Greene Street sewer and a brick sewer with 13 cast-iron discharge pipes was installed at Degraw Street (Hunter 2004: 2-50). A silt and trap basin was also rebuilt at the head of the canal. This construction along with the installation of additional discharge pipes required the reconstruction of the bulkhead wall in concrete (Hunter 2004: 2-53). Despite the pollution, in 1906, nearly 26,000 passages entered the Gowanus Canal (Brooklyn Historical Society 2000: 14).

Despite the efforts taken in 1904 to use stormwater runoff to flush the pollution out of the Gowanus Canal, the Canal remained noxious. This prompted the City to propose creation of a flushing system. Between 1905 and 1911, the flushing system was constructed. This system included the excavation of a 12 foot (3.7 meter) tunnel at the head of Canal at Butler Street. The tunnel ran under Degraw Street for more than a mile to the Buttermilk Channel. A steam-powered propeller was installed to suck the water out of the Canal and expel it in the channel. In effect, the force of the propeller reversed the Canal's natural water flow and pulled cleaner water from the Gowanus Bay into the Canal (Brooklyn Historic Society 2000: 165). The Flushing Tunnel opened in June of 1911. Along with the Flushing Tunnel, the City also built several pumping stations throughout the Brooklyn. These auxillary stations enabled the City to pump sewage away from the Canal and funnel it directly into the Buttermilk Channel. The Flushing Tunnel operated continuously until the propeller broke in 1960. Despite the operation of the Tunnel and the smaller pumping stations, pollution and siltation problems continued to plague the Canal.

Industrialization and residential growth continued to a peak in the early twentieth century. Industrial use of the canal peaked at the turn of the twentieth century. From 1900 to 1930, approximately 50 to 60 operations used the waterway as the primary means for shipping their products (Photos 2-4). According to Hunter, 65 to 75% of these companies worked with bulked goods.



**Photo 2: "Gowanus Canal -- Storied in 'songs' about Brooklyn and a busy waterway," 1940.** Brooklyn Eagle Photograph on file at the Brooklyn Public Library.





**Photo 3: Tugboats and Barges Operating within Gowanus Canal, 1910s.** Photograph on file at the Brooklyn Public Library.



**Photo 4: Tugboats and Docks Along Gowanus Canal, 1928.** Brooklyn Eagle Photograph on file at the Brooklyn Public Library.

Hyde's 1929 map reflects continued industrial settlement along the waterfront (Figure 23). Denser residential and commercial settlement was still evident immediately outside of the Canal frontage. Between 1939 and 1941, the Gowanus Expressway was constructed (Eastern Roads 2009). The parkway was constructed on top of the former elevated platform for the Third Avenue BMT Elevated line. The Gowanus Expressway runs to the west of the project area. In August of 1942, the Hamilton Avenue Drawbridge, which consists of two side-by-side bascule spans over the Gowanus Canal, was opened to traffic (Eastern Roads 2009). The Hamilton Avenue Bridge provided a direct connection from the northern terminus of the Gowanus Expressway to the Red Hook section of Brooklyn and points north. The Expressway was also widened and altered in 1964.

After World War II, the water-dependent industries within Gowanus began to leave (Brooklyn Historical Society 2000: 31). Hunter notes that the number of active waterway sites dropped in half after the close of the war (Hunter 2004: 2-40). With the breakdown of the Flushing Tunnel in the 1960s, the Canal waters became stagnant and pollution resumed. The completion of the Gowanus Expressway in 1964 provided highway access to canalside industries (Hunter 2004: 2-40). By 1965, traffic on the canal had diminished to 5000 passages (Brooklyn Historical Society 2000: 14).

During the 1960s, the stagnant Canal waters were tested for environmental contaminants. These tests revealed high levels of toxicity including evidence for typhoid and cholera (Brooklyn Historic Society 2000). Given the evident safety hazard posed by the Gowanus Canal, Mayor Lindsay proposed the construction of the Red Hook Waste Water Treatment Plant. Unfortunately, the Treatment Plant was not completed until 1987 (Hunter 2004: 2-57). During this time, the Canal continued to be plagued by pollution and foul odors while the surrounding industrial neighborhood continued to decline.

In 1998, the City Department of Environmental Protection dredged 2000 tons of contaminated material from the Gowanus Canal (Brooklyn Historical Society 2000: 21). In May 1999, the Flushing Tunnel was repaired "and began to pull 300 million gallons of cleaner water from Buttermilk Channel into the canal each day (Brooklyn Historical Society 2000: 21). With stormwater runoff still draining into the Canal from sewer lines on Degraw and Baltic Streets, the Canal is periodically skimmed for debris (Hunter 2004: 2-57). Two months after the reopening of the Tunnel, oxygen levels had increased within the Gowanus Canal attracting and sustaining crab and other marine life (Brooklyn Historical Society 2000: 21). In 1999, the South Brooklyn Lower Development Corporation counted 450 companies doing business within a 40-block industrial corridor along the east and west sides of the Canal. These businesses include coffee plants, truck sales, publishers, and smaller mercantile operations. While it is still not safe to eat the fish and other marine life within the Canal, the cleaner waterway has become the scene for waterbourne recreation including canoes, kayaks, and tour boats.

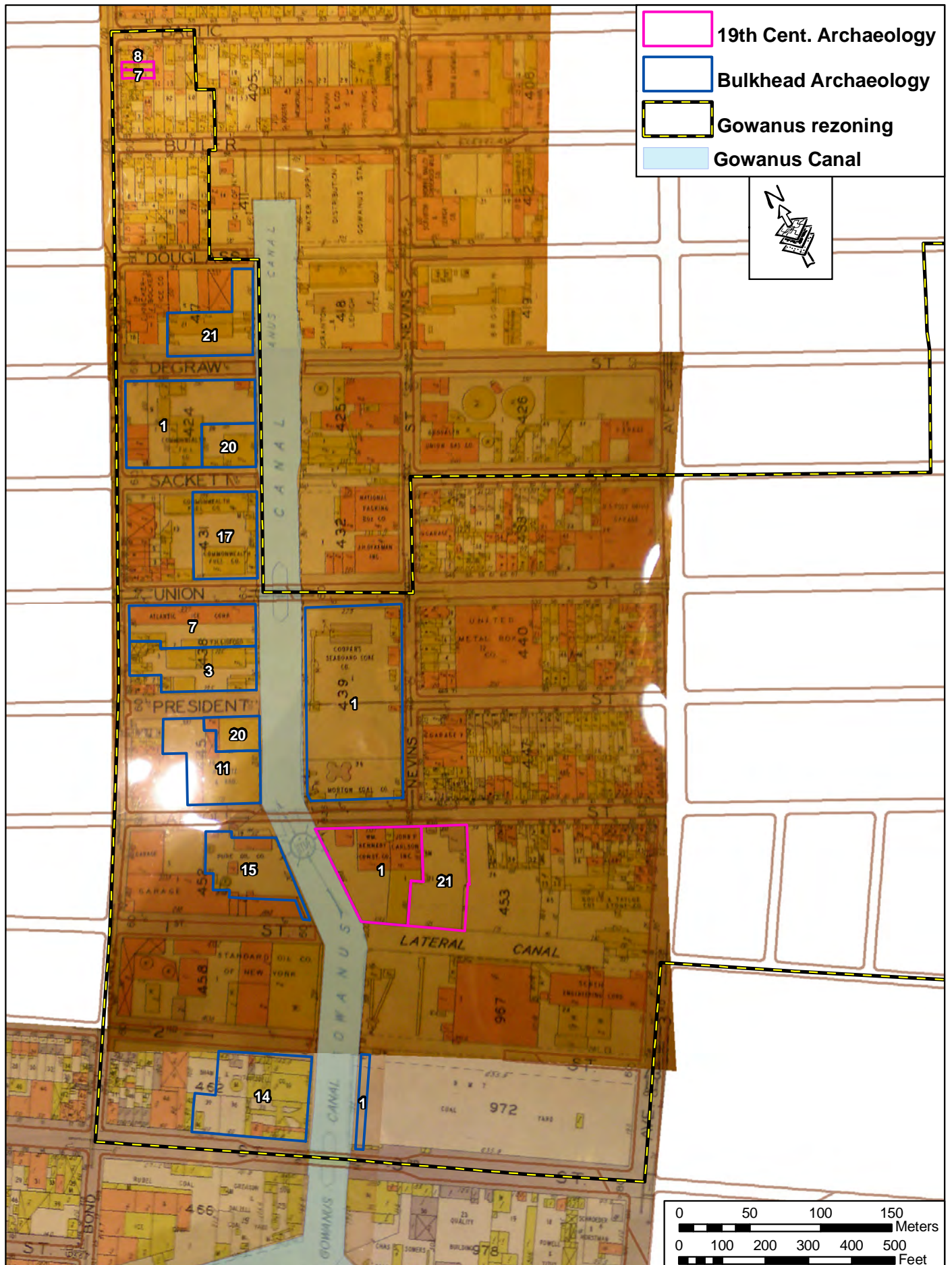


FIGURE 23: View of the Project Area in 1929

SOURCE Hyde 1929



#### 4.0 INDIVIDUAL LOT DOCUMENTARY STUDIES

As a function of the DEIS for the proposed Gowanus Canal Corridor Rezoning, a letter detailing all of the projected and potential development sites and the respective lots within each development site was submitted to LPC for their review (Zachary Davis, Information Request dated October 14, 2008). Of the total 26 projected development sites, representing 74 lots, LPC determined that twelve lots had the potential to contain intact historic archaeological resources. Ten of these lots were found potentially sensitive for nineteenth century deposits relating to the construction of the Gowanus Canal bulkhead; three of the lots were also found potentially sensitive for nineteenth century residential, commercial, or industrial deposits. (Gina Santucci, Environmental Review letter dated 11/14/2008; Amanda Sutphin, Environmental letter dated 2/27/2009). From the total 40 potential development sites, representing 68 lots, LPC determined that four lots had the potential to possess nineteenth century archaeological resources, with three of these lots being sensitive for deposits associated with the construction of the Gowanus Canal bulkhead and one lot being sensitive for residential nineteenth century deposits. In accordance with CEQR guidelines, this review letter from LPC established the Area of Potential Effect (APE) for archaeological resources that may be adversely impacted by various components of the proposed action. The archaeological APE, defined by LPC's first-level review, includes 16 lots on 11 different tax blocks within the proposed rezoning area. Per LPC's request, a documentary study was undertaken for the following blocks and lots, constituting the archaeological APE, as part of the proposed rezoning action:

The 16 lots consist of:

Block 405, Lot 7 (Projected Development Site A);  
Block 405, Lot 8 (Potential Development Site 1);  
Block 417, Lot 21 (Potential Development Site 7);  
Block 424, Lot 1 (Projected Development Site D);  
Block 424, Lot 20 (Projected Development Site D);  
Block 431, Lot 17 (Projected Development Site D);  
Block 438, Lot 3 (Projected Development Site I);  
Block 438, Lot 7 (Projected Development Site J);  
Block 439, Lot 1 (Potential Development Site 19);  
Block 445, Lot 11 (Projected Development Site I);  
Block 445, Lot 20 (Projected Development Site I);  
Block 452, Lot 15 (Projected Development Site T);  
Block 453, Lot 1 (Projected Development Site U);  
Block 453, Lot 21 (Projected Development Site U);  
Block 462, Lot 14 (Projected Development Site Z);  
Block 972, Lot 1 (Potential Development Site 40);

In order to document any development and changes within these lots over time, historic maps of the region were scanned and georeferenced to the modern lot boundaries using the software program ArcView 9.3. This software enables the superimposition of the project's archaeological APE to historic maps (Pratt 2002). The process of georeferencing historic maps to a contemporary GIS database necessarily involves reconciling resources and information that have been acquired at different times via disparate surveying and cartographic methods. Therefore, discrepancies may appear in the relative location of each lot due to the variability in the historical accuracy of the surveying methods used to create the historic era maps.

##### 4.1 Block 405, Lot 7, Projected Development Site A (213 Bond Street)

###### Existing Conditions

Block 405 is bounded by Baltic Street to the north, Nevins Street to the east, Butler Street to the south, and Bond Street to the west. Lot 7 is located on the western frontage of Block 405. The lot measures 20 feet (6.1 meters) along Bond Street, commencing 60 feet (18.3 meters) south of the southwest corner of Bond and Butler Streets, and has a width of approximately 75 feet (22.9 meters). As of July 2007, the lot was owned by 231 Bond Street, Inc., who mortgaged the property to J.P. Morgan Chase in 2007 and 2009 (New York City Department of Finance 2008). The lot, which sits at 213 Bond Street, currently consists of a vacant lot encircled by metal fencing (Photo 5).



**Photo 5:** Block 405, Lot 7, View East.

#### Lot History

According to the 1844 US Coast Survey, Lot 7 was undeveloped in the mid-nineteenth century (see Figure 7). At this time, the lot was situated within the lowland salt marsh bordering the Gowanus Creek and its tributaries; the formal street grid had yet to be extended across this portion of Brooklyn. Throughout the early and mid-nineteenth century, the parcel was frequently speculated with its ownership changing several times (Table 2).

**Table 2: Recorded Land Transfers of Block 405, Lot 7**

Grantor	Grantee	Date Recorded	Liber: Page	Description
Van Brunt, Jacob (Heir of)	Martense, Helen	5/25/1824	14: 428	Includes Lots 7 & 8
Van Brunt, Jacob (Widow of)	Martense, Helen	4/20/1833	35: 432	Includes Lots 7 & 8
Martense, George Martense, Helen	Carman, Richard	11/28/1834	47: 46	Includes Lots 7 & 8
Carman, Richard F. Carman, Mary	Hoyt, Charles	4/3/1835	47: 254	
Carman, Richard F. Carman, Mary	Hoyt, Charles	4/3/1835	47: 257	
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	Includes Lots 7 & 8
Hoyt, James J. (as assignee) Hoyt, Charles	Wiegand, Charles T.	11/16/1852	300: 490	Includes Lots 7 & 8
Hoyt, Charles Hoyt, Mary	Wiegand, Charles T.	11/16/1852	300: 493	Includes Lots 7 & 8
Wiegand, Charles T. (Wiegand)	Brown, Charles T.	9/21/1853	336: 182	Includes Lots 7 & 8

Grantor	Grantee	Date Recorded	Liber: Page	Description
<b>Brown, Charles J. Brown, Henrietta</b>	<b>Brown, Augustus J.</b>	<b>11/17/1853</b>	<b>342: 155</b>	<b>Includes Lots 7 &amp; 8</b>
<b>Brown, Augustus J. Brown, Sarah M.</b>	<b>Warren, Henry</b>	<b>9/11/1854</b>	<b>374: 196</b>	<b>Includes Lots 7 &amp; 8</b>
<b>Brown, Augustus J. Brown, Sarah M.</b>	<b>Warren, Henry</b>	<b>11/28/1855</b>	<b>410: 125</b>	<b>Includes Lots 7 &amp; 8</b>
<b>Warren, Henry</b>	<b>Brown, Augustus</b>	<b>5/19/1864</b>	<b>631: 526</b>	<b>Includes Lots 7 &amp; 8</b>
<b>Brown, Augustus J. Brown, Sarah M.</b>	<b>Murnane, William Murnane, Sarah</b>	<b>6/9/1864</b>	<b>634: 104</b>	<b>Includes Lots 7 &amp; 8</b>
<b>Murnane, Sarah</b>	<b>Hayes, John</b>	<b>11/7/1872</b>	<b>1074: 245</b>	
<b>Hays, John Hays, Margaret</b>	<b>Conlon, Margaret</b>	<b>9/29/1874</b>	<b>1176: 376</b>	
<b>Conlon, Margaret Clark, John</b>	<b>Clarke, Hannah</b>	<b>9/2/1892</b>	<b>2134: 545</b>	
<b>Propping, Maurice F. (Referee) Tompkins, Agnes (Plaintiff et al)</b>	<b>Reilly, Michael Reilly, Mary</b>	<b>11/19/1912</b>	<b>3391: 391</b>	<b>Serial Number 62</b>
<b>Reilly, Mary</b>	<b>Reilly, Bernard</b>	<b>11/21/1912</b>	<b>3400: 258</b>	<b>Subject to railroad consent L3:42</b>
<b>Reilly, Michael Reilly, Marguerite Reilly, Bernard Reilly, Mary</b>	<b>Lynaugh, Mary</b>	<b>5/5/1925</b>	<b>4523: 320</b>	<b>Serial number 55576</b>
<b>Lynaugh, Mary</b>	<b>Lynaugh, Evelyn</b>	<b>9/11/1950</b>	<b>7665: 30</b>	
<b>Lynaugh, Evelyn</b>	<b>Torres, Rafael Torres, Carmen</b>	<b>8/30/1951</b>	<b>7824: 473</b>	
<b>Torres, Rafeal Torres, Carmen</b>	<b>Jerez, Battazar C. Jerez, Matilde C.</b>	<b>8/29/1952</b>	<b>7985: 697</b>	
<b>Brown, Asuncion</b>	<b>Federico, Claudio</b>	<b>6/23/1970</b>	<b>418: 1463</b>	
<b>Federico, Claudio</b>	<b>Noemi, Robles</b>	<b>7/16/1974</b>	<b>722: 1484</b>	
<b>Multer, Abraham (Referee)</b>	<b>SEC Housing &amp; Urban Development</b>	<b>9/6/1979</b>	<b>1099: 581</b>	
<b>SEC Housing &amp; Urban Development</b>	<b>Toussaint, Yvrose</b>	<b>12/6/1979</b>	<b>1124: 238</b>	
<b>Commissioner of Finance</b>	<b>City of New York</b>	<b>5/28/1986</b>	<b>1818: 603</b>	
<b>City of New York</b>	<b>Cassano, Michele</b>	<b>7/10/1989</b>	<b>2415: 101</b>	
<b>Mariano, Joseph</b>	<b>Mariano, Joseph</b>	<b>9/15/2005</b>		
<b>Mariano, Joseph</b>	<b>213 Bond Street, Inc.</b>	<b>7/31/2007</b>		

**Bolded entry indicates land transfer most likely involving Block 405, Lot 7. Italicized entry indicates land transfer that may have included Block 405, Lot 7.**

Lot 7 appears to have been developed sometime between 1849 and 1855. From Colton's 1849 map, it appears that the western portion of Block 405, along with the limited extension of Baltic, Butler, and Bond Streets, may have occurred or been proposed by this time (see Figure 14). However, no structures are depicted within the parcel. By 1853, the Brooklyn Daily Eagle (Brooklyn Eagle) reports that Bond Street has been paved and graded to the foot of Bergen Hill (Brooklyn Eagle 1853a). It is unclear from this description whether Bond Street had been extended as far as Block 405. Perris' 1855 Map of Brooklyn represents the first illustration of structures within and in the immediate vicinity of Lot 7 (Figure 24). A square frame dwelling appears to have developed along the northern frontage of the lot.



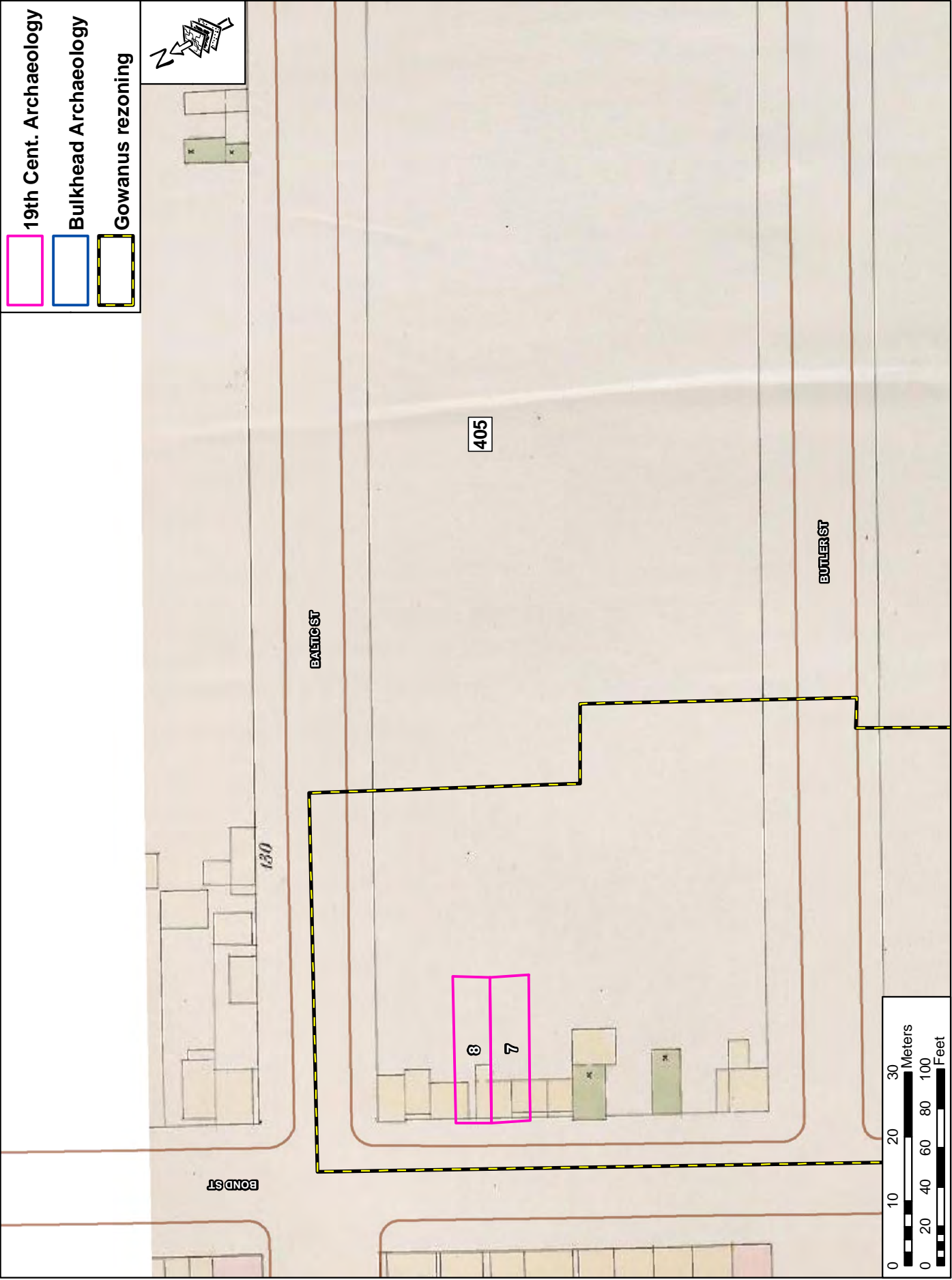


FIGURE 24: 1855 View of Block 405 within the Gowanus Rezoning Project Area

This development suggests that by 1855 the marshlands within which Lot 7 had been situated were sufficiently drained and filled so as to enable limited residential development. The filling-in of streets adjacent to Lot 7, including Block 417 bounded by Bond, Degraw, and Douglass Streets, was proposed in 1857 (Brooklyn Eagle 1857). This proposal called for the streets “to be filled up to within three feet of the grade of the adjoining street.” The proposal suggests that the streets to the north of Block 417, including Blocks 411 and 405, were filled and raised above the preexisting salt meadows. The extent and depth of the filling episodes are, however, unclear. The 1855 occupation predates the installation of municipal water and sewer lines along Bond Street. According to maps on file at the Sewer Permitting Office of Brooklyn, sewer lines were not introduced within the area bounded by Butler, Baltic, and Bond Streets until August of 1874. The Brooklyn Eagle indicates that Butler Street, from Bond to Nevins Streets, may not have been fully opened or graded prior to 1869 (Brooklyn Eagle 1869b). Legislation enacted in 1869 empowered the Common Council to “open, grade, pave, gutter and flag...Butler Street, from Bond to Nevins Street” (Brooklyn Eagle 1869b).

Throughout the nineteenth century, a square frame dwelling is consistently depicted on the western portion of Lot 7 with a frontage on Bond Street (see Figures 18-22). The rear of Lot 7 appears to have been remained undeveloped throughout this period. Robinson’s 1886 map confirms the introduction and extension of municipal water and sewer lines into the area (see Figure 21).

In order to understand the land use history and occupancy of Lot 7 prior to the installation of municipal utilities, US Federal Census data and Brooklyn City Directories spanning the mid-nineteenth century, between 1848 and 1880, were examined. Research was conducted over this thirty-year span, in order to attempt to delineate potential patterns or spans of residential occupation. Furthermore, given that these early directory and Federal Census records lack numbered street addresses, these records were diachronically juxtaposed so as to construct a picture of the potential historic occupancy of Lot 7, 213 Bond Street (see Tables 3-5).

**Table 3: Federal Census Data for Block 405, Lot 7**

Census Year	Family Name	Listed Address
1860	Margaret Burns, head, female, white, 54, Bridget Burns, female, white, 22, William Burns, male, white, 19, hatters apprentice, John Mullville, male, white, 20, painter, Patrick Curley, male, white, 19, mason’s apprentice; Matthew Burke, head, male, white, 30, junk dealer, Mary Burke, female, white, 22, William Burke, male, white, 6, Mary Burke, female, white, 3, Sarah Burke, female, white, 6 months; <b>James Burns, head, male, white 40, laborer,</b> <b>Elizabeth Burns, female, white, 38,</b> <b>Thomas Burns, male, white, 14</b> <b>Mary A. Burns, female, white, 12</b> <b>James Burns, male, white, 8</b> <b>Margaret Burns, female, white, 4;</b> Nicholas Murray, head, male, white, 50, laborer, Mary Murray, female, white, 42, James Murray, male, white, 20, plumber’s apprentice, Julia Murray, female, white, 18, Catharine Murray, female, white, 14 William Murray, male, white, 12, Ann Murray, female, white, 6 Mary Murray, female, white, 3; Margaret Woods, head, female, white, 44; Hugh McGee, head, male, white, 35, peddler; Margaret McGee, female, white, 30; Jno Beatty, head, male, white, 70, laborer Mary Beatty, female, white, 60,	Not provided



Census Year	Family Name	Listed Address
	George Beatty, male, white, 16, plasterer's apprentice, Thomas Beatty, male, white, 20	
1870	Hugh McGee, head, male, white, 45, junkman, Margaret McGee, female, white, 35, keeping house; <i>George Beatty, head, male, white, 69, at home,</i> <i>Catherine Beatty, female, white, 68, keeping home;</i> <i>Sarah Kinney, female, white, 70</i>	Not provided
1880	<b>Matthew Bird, head, male, white, 32, laborer,</b> <b>Margaret Bird, wife, female, white, 28,</b> <b>Annie Bird, daughter, female, white, 2;</b> <b>Joseph McKeon, head, male, white, 28, works in Saw Mill,</b> <b>Kate McKeon, wife, female, white, 25;</b> <b>Jeremiah Conlon, head, male, white, 73, laborer,</b> <b>Mary Conlon, wife, female, white, 68,</b> <b>James Conlon, son, male, white, 25, painter,</b> <b>Thomas Conlon, son, male, white, 20, painter</b>	213 Bond Street

**Bold entry indicates households which most likely fell within Block 405, Lot 7. *Italicized entry indicates households which potentially fell within Block 405 Lot 7 or 8.***

Table 4: Brooklyn City Directory Data for Block 405, Lot 7

Directory Year	Name	Listed Address
1849-1850	<i>Patrick Burns, grocer</i>	<i>Bond c. Baltic</i>
1852-1853	<b><i>James Burns, laborer</i></b> <b><i>John Burns, mason</i></b>	<b><i>Bond n E Baltic</i></b> <b><i>Bond n E Baltic</i></b>
1854-1855	<b><i>John Burns, mason</i></b>	<b><i>Bond n E Baltic</i></b>
1857-1858	<i>Nicholas Murray, laborer</i> <b><i>John Burns, mason</i></b> <i>Patrick Woods, switch tender</i>	<i>h. Bond n. Baltic</i> <b><i>h. Bond c. Baltic</i></b> <i>h. Bond n. Baltic</i>
1858-1859	Hugh McGee, ragman <i>John McGaully, laborer</i> <i>Patrick Woods, laborer</i> <i>George Beatty, laborer</i> <b><i>John Burns, bricklayer</i></b> <b><i>James Burns, laborer</i></b> <i>Mary Murray, laundress</i>	<i>h. Bond c. Baltic</i> <i>h. Bond n. Baltic</i> <i>h. Bond c. Baltic</i> <i>h. Bond c. Baltic</i> <b><i>h. Bond n. Baltic</i></b> <b><i>h. Bond n. Baltic</i></b> <i>h. Bond c. Baltic</i>
1859-1860	<i>George Beatty, laborer</i> <i>Mary Murray, laundress</i> <i>Patrick Woods, laborer</i>	<i>h. Bond c. Baltic</i> <i>h. Bond c. Baltic</i> <i>h. Bond c. Baltic</i>
1864-1865	<i>John Murray, shoemaker</i> <i>Mary Murray, widow, laundress</i> Hugh McGee, junk	<i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i>
1866-1867	Hugh McGee, laborer Patrick Hallihan, carman <i>Thomas Burns, plumber</i> <i>Ann Burns, widow, laundress</i>	<i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i>
1868-1869	Martin Burke, junk Ann Burns, widow	Bond c. Baltic h. 124 Bond
1869-1870	Martin Burke, junk <i>George Battie, laborer</i> Patrick Hallahan, carman	Bond c. Baltic <i>h. Bond n. E Baltic</i> <i>h. Bond n. Baltic</i>
1870-1871	Patrick Kenney Patrick Kenny Hugh McGee, junk	h. 124 Bond h. 122 Bond h. 119 Bond

Directory Year	Name	Listed Address
	John Wright, carman Thomas Purtell, junk	h. 121 Bond h. 123 Bond
1871-1872	Hugh McGee, carman Patrick Kenney, driver Patrick Halerhan, driver	h. 215 Bond h. 239 Bond h. 209 Bond
1875-1876	Patrick Kenny, laborer John Wright, carman Thomas Purtell, junk	h. Bond c. Baltic h. 217 Bond h. 219 Bond
1877-1878	Thomas Bird, laborer Hugh McGee, junk John Wright, carman John Purtill, mason Thomas Purtill, junk	h. r. 215 Bond 215 Bond h. 217 Bond h. 219 Bond h. 219 Bond
1879-1880	<b>Jeremiah Conlon, laborer</b> <i>John Donlon, laborer</i> <i>Michael Flynn, mason</i>	<b>h. 213 Bond</b> <i>h. 211 Bond</i> <i>h. 211 Bond</i>

**Bold entry indicates households which most likely fell within Block 405, Lot 7. Italicized entry indicates households which potentially fell within Block 405 Lot 7 or 8.**

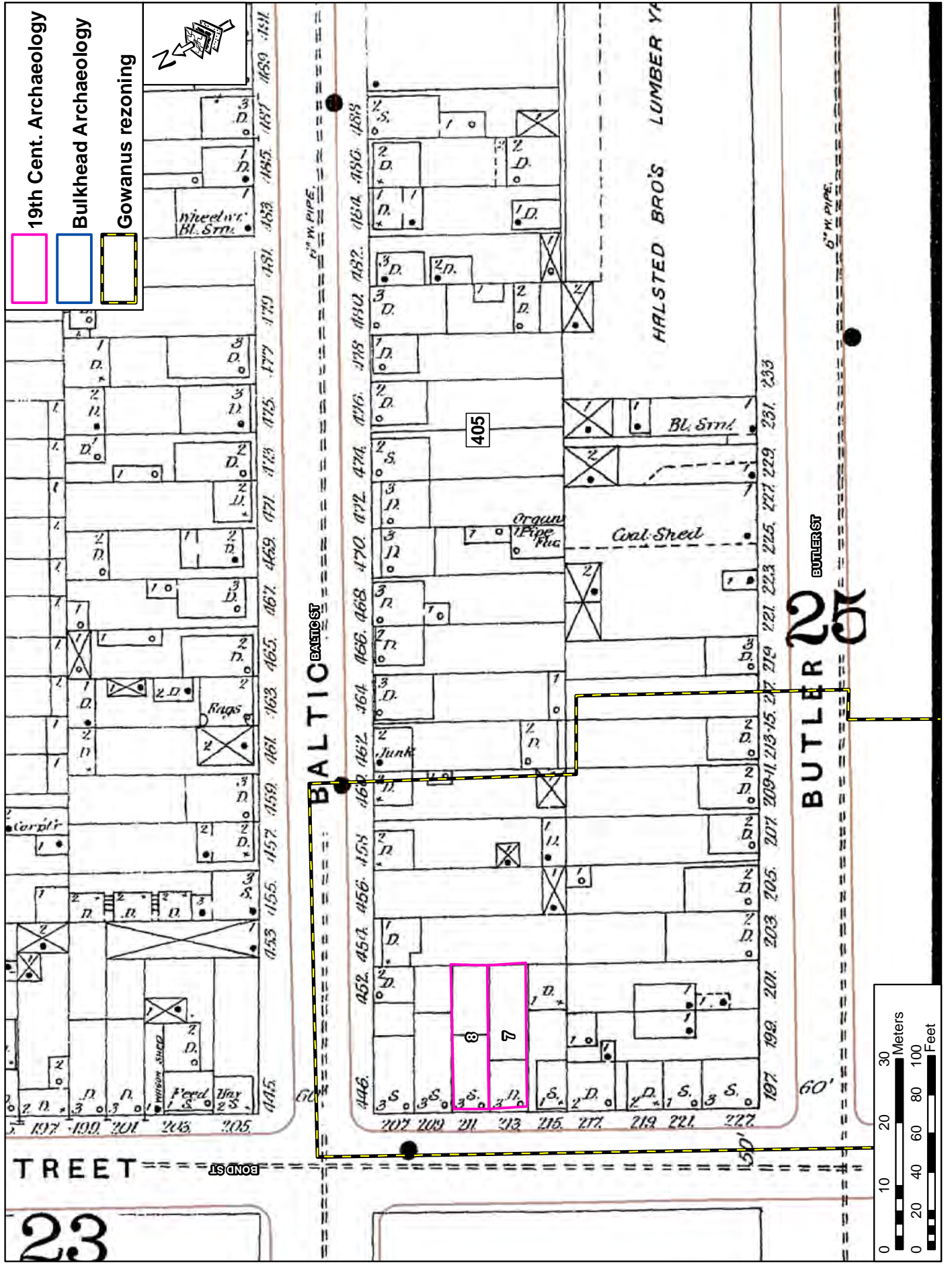
An examination of the Federal Census and city directory research suggests that multiple households may have occupied Lot 7 over time. The data indicates that the historic owners of the property did not occupy it. According to the Federal Census Records, between 1860 and the 1880, it appears that at least three different households resided within the property. The Census Records also suggest that the overall area was marked by high residential mobility, with several households appearing to have moved within or around the block over a ten-year period. Although the occupancy of Lot 7 reflected high mobility, some households adjacent to the parcel experienced a continuous single family occupation, e.g., the McGee and Wright households. A comparison of the Federal Census and city directory data suggests that one household may have occupied Lot 7 for a period of eight years between 1852 and 1860, predating the installation of municipal water and sewer utilities (Table 5).

**Table 5: Summary of US Federal Census and Directory Research for Block 405, Lot 7**

Years	Household Name	Source
1852-1860	John Burns James Burns (Household)	Brooklyn City Directories 1852-1859; US Federal Census 1860
1870	Sarah Kinney	US Federal Census 1870
1879-1880	Jeremiah Conlon (Household)	Brooklyn City Directory 1879-1880; US Federal Census 1880
1880	Matthew Bird (Household) Joseph McKeon (Household)	US Federal Census 1880

From 1852 through 1860, John Burns, a mason, and James Burns, a laborer, are listed at an unnumbered location on Bond Street near East Baltic. In 1860, the US Federal Census contains an entry for the household of James Burns, a laborer, in the Tenth Ward of Brooklyn. A second Burns household, Ann Burns, a widow and laundress, along with Thomas Burns, a plumber, is also listed at a Bond Street address from 1866 to 1869. However, the 1869 Brooklyn City Directory lists Ann Burns at 124 Bond Street (Lain 1869). This historic address appears to have been on the western frontage of Bond Street, outside of the current project parcel.

The 1886 Sanborn map indicates the continued presence of a frame dwelling on the western portion of Lot 7 (Figure 25). This building consists of a three-story structure without a basement. No other structures are depicted within the lot. Tax assessments for the property rose from 250 dollars in 1873 to 2000 dollars in 1874 suggesting that improvements were made to the parcel over this time. It is possible that the preexisting structure was altered between 1873 and 1874 so as to create a three-story building. Alternatively, the preexisting building may have been removed and replaced with a three-story edifice. The listing of several households at this address within the 1880 Federal Census suggests that this structure became a multiple-family dwelling or small-scale apartment





building. The 1886 Sanborn also indicates that modern street numbers had been extended across Bond, Baltic, and Butler Streets.

In August of 1900, an Alteration document was filed with the Brooklyn Department of Buildings (DOB) for the conversion of a three-family dwelling to a two-family building at 213 Bond Street (DOB files). The Alteration permit indicates that the structure was located on the east side of Bond Street and that it occupied the front 26 feet (7.9 meters) of the tax lot. The remaining portions of the lot, approximately 74 feet (22.6 meters), were undeveloped. This permit proposed the addition of a rear extension to the extant structure such that 56 feet (17.1 meters) would be left undeveloped along the rear of the lot. The preexisting building, built by William J. Ryan, lacked a basement. At this time, the lot and building were listed under the ownership of John Clarke. Unlike the nineteenth century maps, the 1904 Sanborn depicts a long rectilinear structure within Lot 7 (Figure 26). While this building is still a three-story frame dwelling, it appears that some alterations, particularly a rear extension, may have been added to the original structure. The 1904 map also indicates that Modern Block numbers had been introduced into the area.

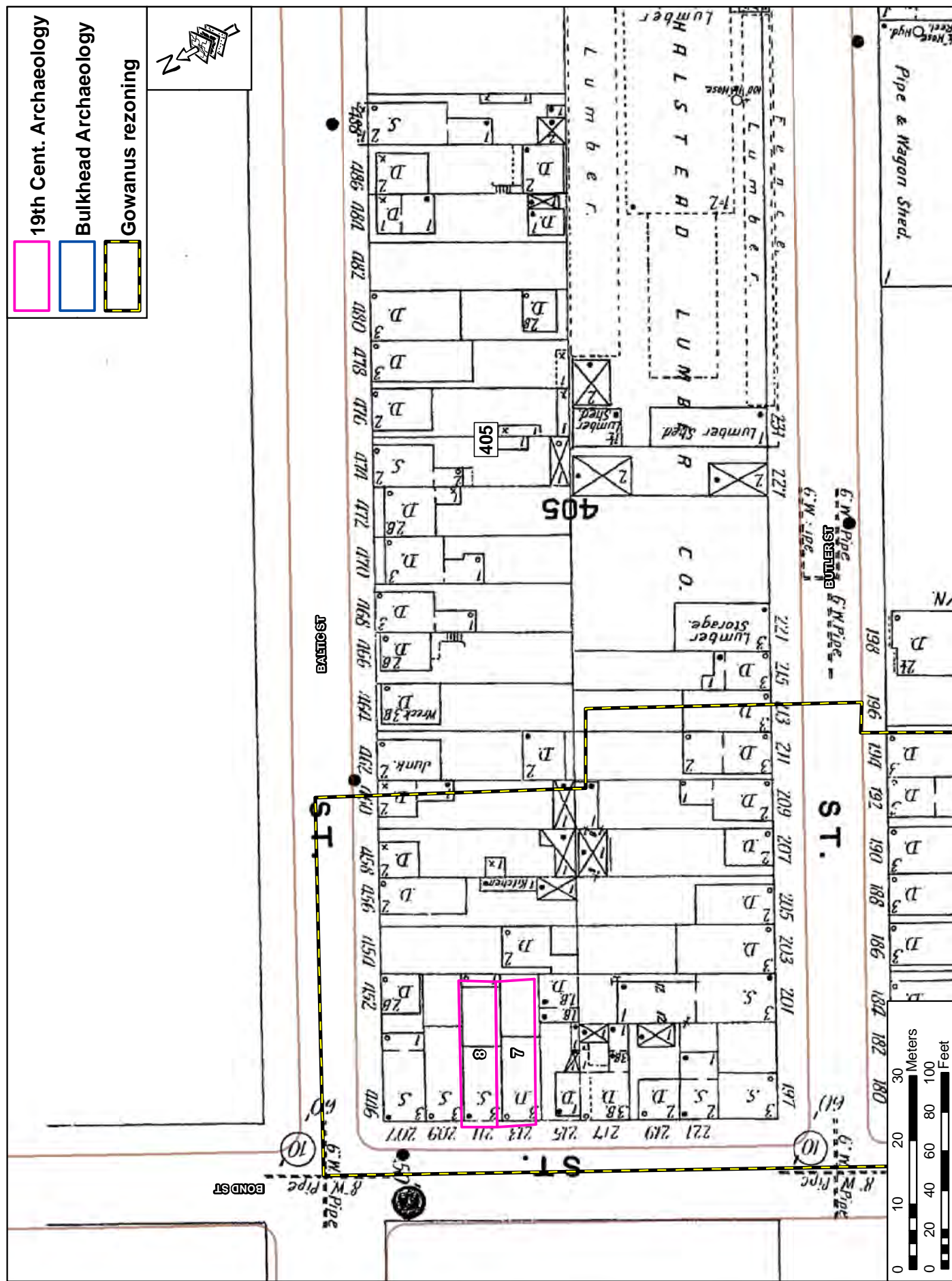
Between 1904 and 1951, development within Lot 7 appears to have remained unchanged (Figure 27). Although ownership of the lot transferred several times over this period, a three-story frame dwelling continued to reside along the eastern frontage of Bond Street. During this period, there appears to have been no development along the rear portion of the lot. The 1968 Sanborn indicates the continued presence of a three-story frame building within the front portion of Lot 7. The outline of the building appears to have changed slightly by this time. The rectilinear structure now appears to have a small box extension along its northeastern extent. Aside from this development, the rear of the lot has remained undeveloped.

By 2006, Lot 7 is depicted as a vacant parcel (Figure 28). The property was acquired by Joseph Mariano in 2005. A search of the DOB Building Information System (BIS) database indicated that no demolition permits have been filed for this lot since 1921. A 2006 building violation for the parcel cited Mariano for the illegal use of a vacant lot as a junkyard within a manufacturing zone (DOB files). Currently, 213 Bond Street continues to remain a vacant lot.

### Summary and Conclusions

Block 405, Lot 7 was situated within the undeveloped salt meadows bordering the Gowanus Creek throughout the early and mid-nineteenth century. A structure appears to have been built along the western portion of the lot, the Bond Street frontage, by 1855. This building predated the introduction and extension of water or sewer lines which were not introduced into the area until 1874. A structure continued to occupy the western frontage of the lot from 1855 to, at least, 1968. A search of the US Federal Census and Brooklyn City Directories for a thirty year period encapsulating the extension of municipal utilities indicates that the household of John Burns and James Burns may have resided within Lot 7 from 1852 to 1859. After 1859, the historic data indicates high residential mobility with respect to the occupancy of the lot. Between 1873 and 1874, it appears that the extant structure was altered to become a three-story building or that the preexisting structure was removed and replaced with a three-story structure which continued to occupy the same blueprint within the lot. An Alteration permit filed at the turn of the twentieth century indicates that a rear extension was added on to the extant structure. This extension appears to be the first recorded development within the rear portion of the lot. The permit indicates that this rear extension did not have a foundation or basement space. According to the permit, the proposed extension would leave 56 feet (17.1 meters) in the rear portion of the lot undeveloped. By 2006, the structure had been removed and Lot 7 became a vacant lot.

Previous archaeological studies of historic period sites located within urbanized areas have illustrated that shaft features, particularly privies, were typically located in the rear and side portions of the urban houselot (Stottman 2000, Geismar 1993). Given that a residential structure was present within Lot 7 prior to the introduction of utilities, that this structure may have remained extant within the lot for over 100 years, and that there is no clear indication of subsurface disturbance to the rear portion of the lot, the eastern portion of Lot 7 is considered sensitive for intact historic period archaeological resources including shaft features associated with this mid-nineteenth century to twentieth century occupation (Figure 29). Furthermore, given that the historical data suggests a single family occupancy of the structure from 1852 to 1860, the rear portion of Lot 7 is considered sensitive for deposits relating to the Burns family. The rear extension added on to preexisting building at the turn of the twentieth century appears to have been a surface structure lacking a significant foundation or basement. Therefore, the portion of Lot 7 which falls within the blueprint of this extension is also considered sensitive for nineteenth century deposits.





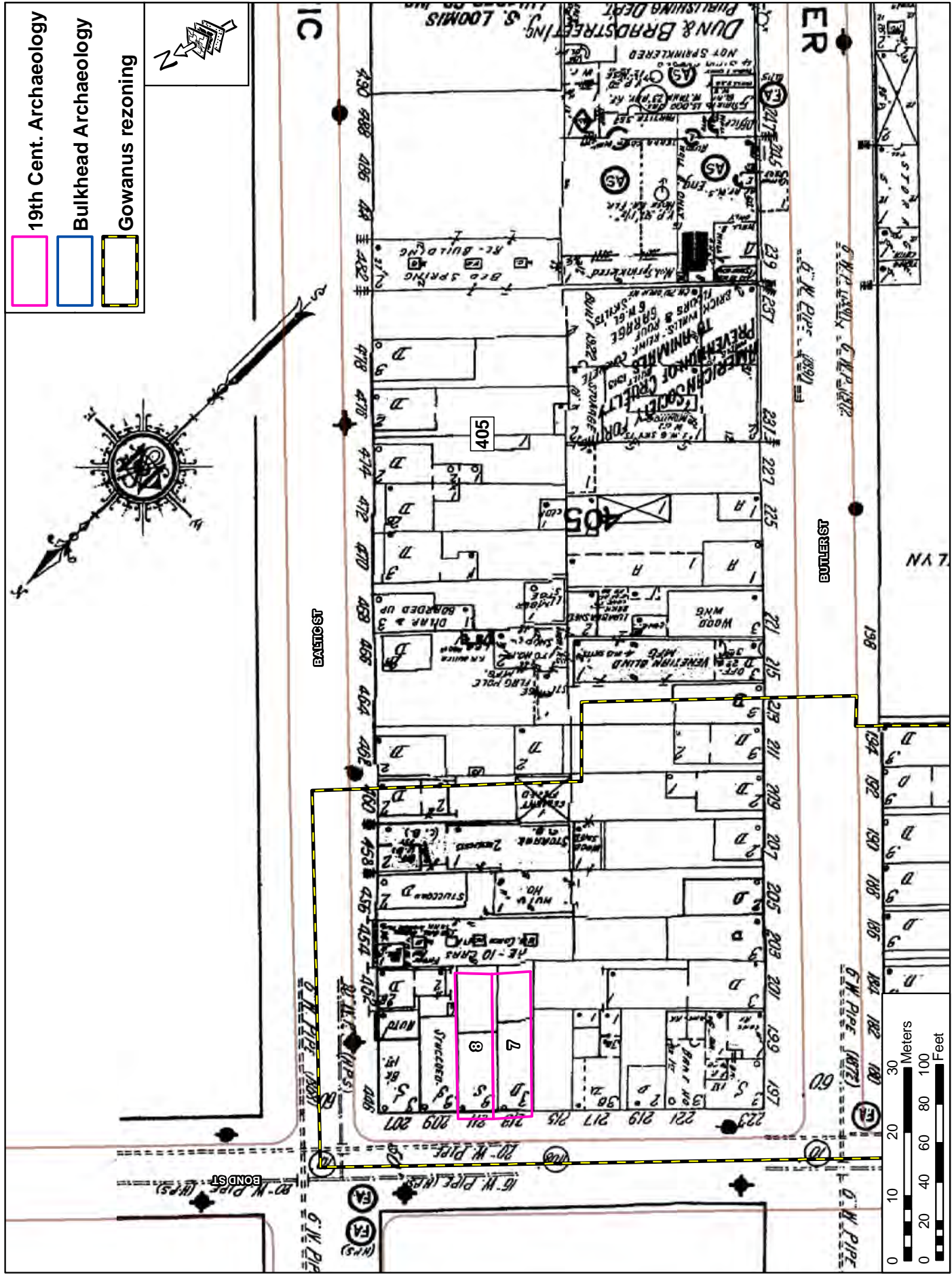
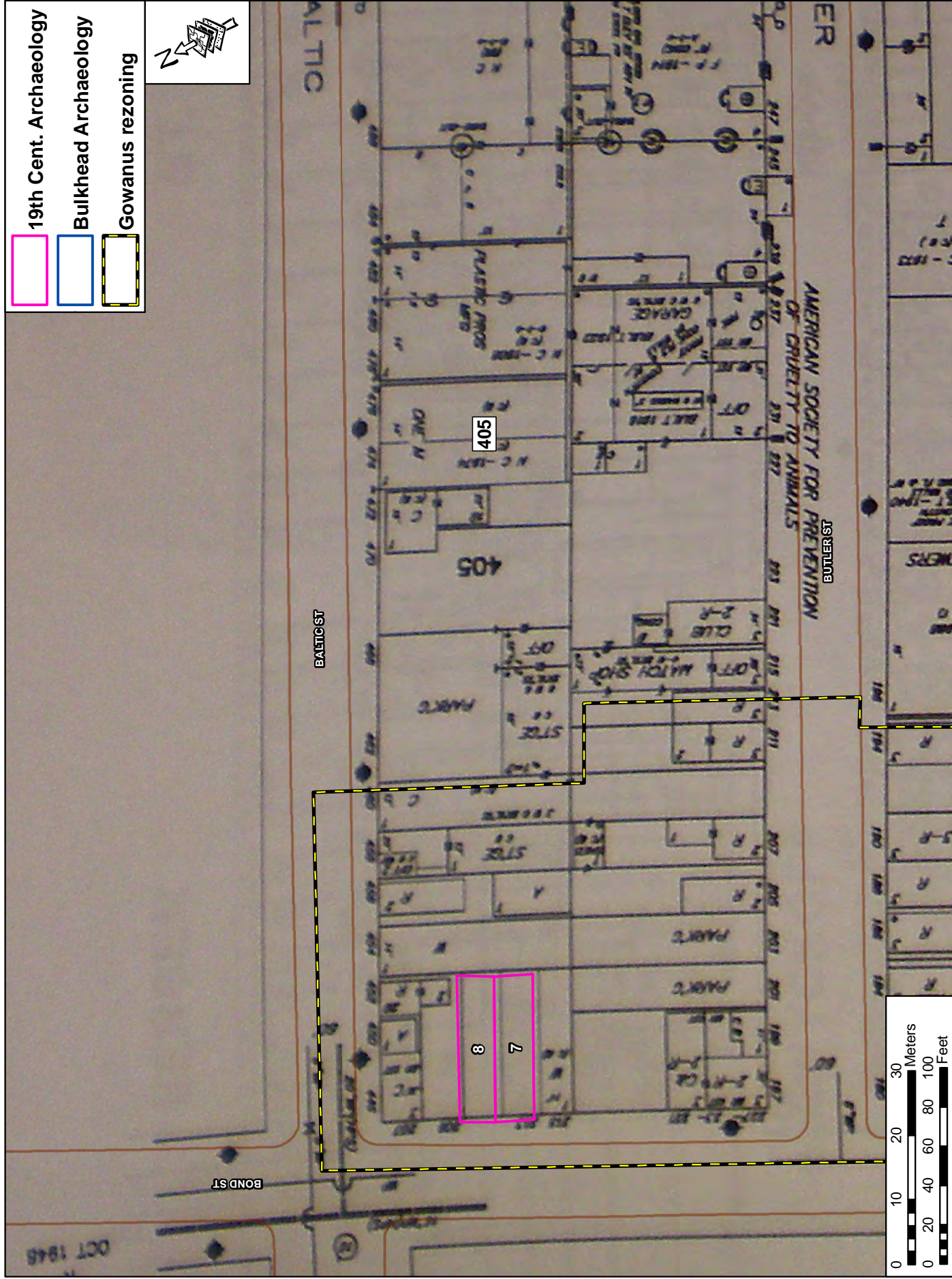
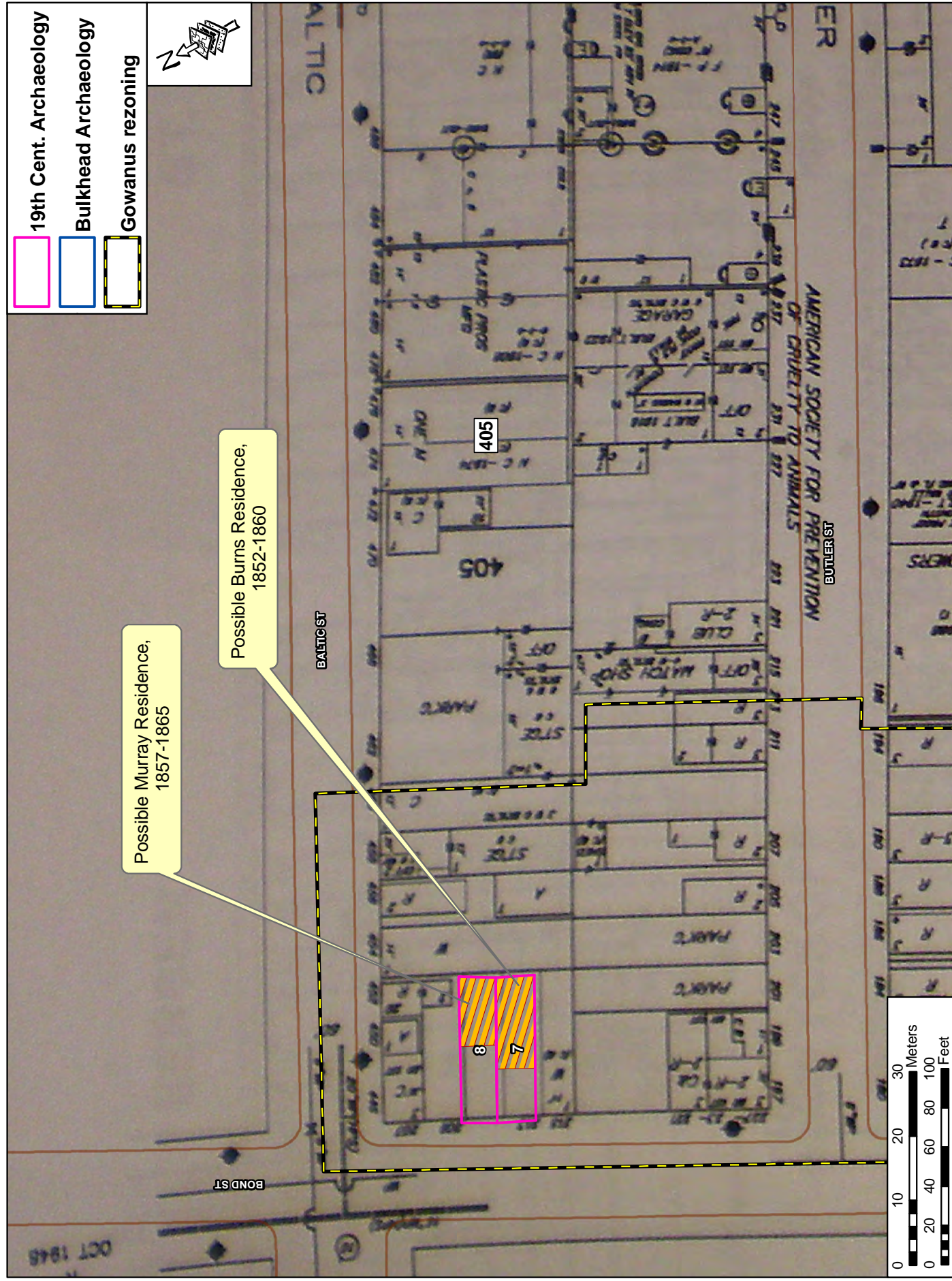


FIGURE 27: 1951 View of Block 405 within the Gowanus Rezoning Project Area









**FIGURE 29: Areas Sensitive for Historic Period Archaeological Resources within Block 405, Lots 7 & 8**

However, in light of the documented evidence of an historic structure along the western frontage of Lot 7, this portion of the lot is not considered sensitive for *significant* historic archaeological deposits.

At present, soil boring data could not be obtained for Block 405, Lot 7. The cartographic history of the lot suggests that the rear portion of the lot has remained undeveloped through time. Therefore, based on the available information, the rear portion of Lot 7, a portion of Projected Development Site A, is considered sensitive for nineteenth century archaeological deposits possibly associated with the 1852 to 1860 Burns occupation. If soil boring data for the lot becomes available, its historic sensitivity should be reevaluated on the basis of this information.

#### 4.2 Block 405, Lot 8, Potential Development Site 1 (211 Bond Street)

##### Existing Conditions

Block 405 is bounded by Baltic Street to the north, Nevins Street to the east, Butler Street to the south, and Bond Street to the west. Lot 8 is located on the western side of the block approximately 40 feet (38.3 meters) south of the southeast corner of Baltic and Bond Streets. The lot measures 20 feet (6.1 meters) in length and approximately 75 feet (22.9 meters) in width. As of November 2006, the lot was owned by Woodbine Estate, Inc. and had a listed address of 211 Bond Street (New York City Department of Finance 2008). A two-story brick building currently occupies Lot 8. This structure with an attached garage space appears to represent a recent construction episode (Photo 6).



**Photo 6:** Block 405, Lot 8, View Southeast.

##### Lot History

According to the 1844 US Coast Survey, Lot 8 was undeveloped in the mid-nineteenth century (see Figure 7). At this time, the lot was located within the lowland salt marsh surrounding the Gowanus Creek and its tributaries. Two early historic roadways, including the Road to Freeke's Mill (Road to the Narrows/Old Gowanus Road), were located to the south of the parcel, with the only development at this time occurring sporadically along the roads.



Ownership of the parcel was frequently transferred throughout the mid-nineteenth century. Henry Warren maintained ownership of Lot 8 and adjacent Lot 7 in 1855 (Liber 374: 196; Liber 410: 125; Table 6).

**Table 6: Recorded Land Transfers of Block 405, Lot 8**

Grantor	Grantee	Date	Liber: Page	Description
Van Brunt, Jacob (Heir of)	Martense, Helen	5/25/1824	14: 428	Includes Lots 7 & 8
Van Brunt, Jacob (Widow of)	Martense, Helen	4/20/1833	35: 432	Includes Lots 7 & 8
Martense, George Martense, Helen	Carman, Richard	11/28/1834	47: 46	Includes Lots 7 & 8
Carman, Richard F. Carman, Mary	Hoyt, Charles	4/3/1835	47: 254	
Carman, Richard F. Carman, Mary	Hoyt, Charles	4/3/1835	47: 257	
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	Includes Lots 7 & 8
Hoyt, James J. (as assignee) Hoyt, Charles	Wiegand, Charles T.	11/16/1852	300: 490	Includes Lots 7 & 8
Hoyt, Charles Hoyt, Mary	Wiegand, Charles T.	11/16/1852	300: 493	Includes Lots 7 & 8
Weigand, Charles T. (Wiegand)	Brown, Charles T.	9/21/1853	336: 182	Includes Lots 7 & 8
Brown, Charles J. Brown, Henrietta	Brown, Augustus J.	11/17/1853	342: 155	Includes Lots 7 & 8
Brown, Augustus J. Brown, Sarah M.	Warren, Henry	9/11/1854	374: 196	Includes Lots 7 & 8
Brown, Augustus J. Brown, Sarah M.	Warren, Henry	11/28/1855	410: 125	Includes Lots 7 & 8
Warren, Henry	Brown, Augustus	5/19/1864	631: 526	Includes Lots 7 & 8
Brown, Augustus J. Brown, Sarah M.	Murnane, William Murnane, Sarah	6/9/1864	634: 104	Includes Lots 7 & 8
Murnane, Sarah	Butler, James Butler, Marthat	11/1/1872	1074: 323	
Riley, Thomas M. (Sheriff)	Long Island Savings Bank of Brooklyn	3/22/1880	1383: 273	
Long Island Savings Bank of Brooklyn	Musson, Ida R.	12/23/1884	1586: 88	
Musson, Ida R. Musson, George T.	Benros, Matilda	3/28/1892	2104: 458	
Benros, Matilda	Schuler, Margaret	8/15/1895	3: 60	
Connolly, William J. Connolly, Jennie V. Connolly, John Schuler, Margaret (heirs of)	Schuler, Louis	1/12/1901	18: 24	
Connolly, William Haggerty, Jennie Connolly (formerly) Connolly, John	Schuler, Louis	10/24/1904	30: 394	
Schuler, Louis	Schuler, Ellen	4/20/1911	3294: 41	
Schuler, Ellen	Pietrantonio, Francesco	1/28/1913	3406: 294	Serial number 267

Grantor	Grantee	Date	Liber: Page	Description
	<b>Pietrantonio, Maria</b>			
<b>Schuler, Ellen</b>	<b>Pietrantonio, Francesco</b> <b>Pietrantonio, Maria</b>	<b>9/9/1913</b>	<b>3442: 498</b>	<b>Serial number 150</b>
<b>Pietrantonio, Francesco</b> <b>Pietrantonio, Maria</b>	<b>Cooney, Elizabeth</b>	<b>1/22/1914</b>	<b>3464: 465</b>	<b>Serial number 212</b>
<b>Cooney, Elizabeth</b>	<b>Reilly, Michael</b>	<b>1/23/1914</b>	<b>3465: 437</b>	
<b>Reilly, Michael</b> <b>Reilly, Marguerite</b>	<b>Reilly, Mary</b>	<b>5/5/1925</b>	<b>4523: 319</b>	<b>Serial number 55575</b>
<b>Reilly, Mary</b>	<b>Lynaugh, Mary</b>	<b>8/27/1942</b>	<b>6223: 82</b>	
<b>Lynaugh, Mary</b>	<b>Lynaugh, Evelyn</b>	<b>9/11/1950</b>	<b>7665: 26</b>	
<b>Lynaugh, Evelyn</b>	<b>Piscitelle, Domenec</b> <b>Bratto, James</b>	<b>3/13/1954</b>	<b>8217: 49</b>	
<b>Piscitelle, Domenik</b> <b>Bratto, James</b>	<b>Bratto, James</b> <b>Bratto, Sarah</b>	<b>8/16/1954</b>	<b>8264: 91</b>	
<b>Bonduke Realty Corp.</b>	<b>Dominicci, Harry</b>	<b>9/8/1971</b>	<b>505: 1971</b>	
<b>Commissioner of Finance, NY</b>	<b>New York City</b>	<b>8/18/1982</b>	<b>1333: 1670</b>	
<b>Dominicci, Harry</b>	<b>Gerena, Laurentio</b>	<b>8/17/2000</b>	<b>4944: 2400</b>	
<b>Gerena, Laurentino</b>	<b>Woodbine Estate, Inc.</b>	<b>11/15/2006</b>		

**Bolded entry indicates land transfer most likely involving Block 405, Lot 8. Italicized entry indicates land transfer that may include Block 405, Lot 8.**

Lot 8 appears to have been developed sometime between 1849 and 1855 (see Figures 14 & 24). While Colton's 1849 map reflects the extension or the proposed extension of Bond Street and the western portions of Baltic and Butler Streets within Block 405, no structures are depicted within the area. The 1855 Perris map appears to be the first cartographic illustration of a structure within Lot 8 (see Figure 24). Georeferencing the modern lot boundaries onto the Perris map suggests that portions of two historic structures may have fallen within the modern lot lines. Development within the area may have coincided with a period of land speculation between 1853 and 1855. According to the Brooklyn Eagle, by 1853, portions of Bond Street have been paved and graded to the foot of Bergen Hill (Brooklyn Eagle 1853a). However, it is unclear from this description whether Bond Street had been extended as far as Block 405.

The Perris map suggests that the marsh lowlands within which Lot 8 had been located were sufficiently drained and filled so as to enable limited residential development. As previously noted with respect to Block 405, Lot 7, the filling-in of streets adjacent to Lot 8, including Block 417 bounded by Bond, Degraw, and Douglass Streets, was proposed in 1857 (Brooklyn Eagle 1857). This proposal called for these streets "to be filled up to within three feet of the grade of the adjoining street" suggesting that the streets to the north of Block 417, including Blocks 411 and 405, were filled and raised above the preexisting salt meadows. The extent and depth of the filling episodes is, however, unclear. The apparent development of Lot 8 by 1855 predates the extension of municipal water and sewer lines into the area. According the maps on file at the Sewer Permitting Office of Brooklyn, sewer lines were not introduced into the vicinity of Block 405 until August of 1874.

Mid and late nineteenth century historic maps uniformly depict a rectilinear frame building within the western portion of Lot 8 with a frontage on Bond Street (see Figures 18-22). This structure and the orientation of the historic lot differ significantly from the 1855 Perris Map. The discrepancies between the Perris map and later cartographic sources may indicate that early development along Bond Street abruptly changed by 1869, with new structures and lot orientations. In this vein, the Brooklyn Eagle indicates that legislation was enacted in 1869 for the paving and grading of Butler Street from Bond to Nevins Streets. This suggests that Block 405 may not have been completely filled and established until 1869 or thereafter. Alternatively, the differences between the Perris map and the later nineteenth century resources may reflect the fact that the Perris map did not employ the same surveying techniques or detail of depiction evidenced by the later eighteenth century maps. If this is the case, the Perris map may represent a general indicator of development and the presence or absence of structures as opposed to an accurate representation of the location and dimensions of historic buildings.



Regardless, the mid and late nineteenth century maps indicate that the rear portion of Lot 8 remained undeveloped over time. Robinson's 1886 map confirms the introduction and extension of municipal water and sewer lines into the area.

In order to compile the land use history and occupancy of Lot 8 prior to the installation of municipal utilities, US Federal Census data and historic Brooklyn City Directories spanning the mid-nineteenth century, between 1848 and 1880, were examined. Research was conducted over this thirty-year span, in order to attempt to delineate potential patterns or spans of residential occupation. Furthermore, given that early directory and Federal Census records lack numbered street addresses, these records were diachronically juxtaposed so as to construct a picture of the potential historic occupancy of 211 Bond Street (Tables 7-8). Given the proximity of Block 405, Lots 7 and 8, and the lack of numbered addresses within the early historic records, research for these two lots overlapped, and, furthermore, in some instances, it was unclear whether a given household may have occupied either of the lots or an adjacent property.

**Table 7: Federal Census Data for Block 405, Lot 7**

Census Year	Family Name	Listed Address
1860	Margaret Burns, head, female, white, 54, Bridget Burns, female, white, 22, William Burns, male, white, 19, hatters apprentice, John Mullville, male, white, 20, painter, Patrick Curley, male, white, 19, mason's apprentice; Matthew Burke, head, male, white, 30, junk dealer, Mary Burke, female, white, 22, William Burke, male, white, 6, Mary Burke, female, white, 3, Sarah Burke, female, white, 6 months; <i>James Burns, head, male, white 40, laborer,</i> <i>Elizabeth Burns, female, white, 38,</i> <i>Thomas Burns, male, white, 14</i> <i>Mary A. Burns, female, white, 12</i> <i>James Burns, male, white, 8</i> <i>Margaret Burns, female, white, 4;</i> <i>Nicholas Murray, head, male, white, 50, laborer,</i> <i>Mary Murray, female, white, 42,</i> <i>James Murray, male, white, 20, plumber's apprentice,</i> <i>Julia Murray, female, white, 18,</i> <i>Catharine Murray, female, white, 14</i> <i>William Murray, male, white, 12,</i> <i>Ann Murray, female, white, 6</i> <i>Mary Murray, female, white, 3;</i> <i>Margaret Woods, head, female, white, 44;</i> Hugh McGee, head, male, white, 35, peddler; Margaret McGee, female, white, 30; Jno Beatty, head, male, white, 70, laborer Mary Beatty, female, white, 60, George Beatty, male, white, 16, plasterer's apprentice, Thomas Beatty, male, white, 20	Not provided
1870	Hugh McGee, head, male, white, 45, junkman, Margaret McGee, female, white, 35, keeping house; <i>George Beatty, head, male, white, 69, at home,</i> <i>Catherine Beatty, female, white, 68, keeping home;</i> <i>Sarah Kinney, female, white, 70</i>	Not provided
1880	<b>Alice Hand, head, white, female, 42,</b> <b>Annie Hand, daughter, white, female, 22, milliner,</b>	211 Bond Street

Census Year	Family Name	Listed Address
	<b>Ellen Hand, daughter, white, female, 10;</b> <b>Michael Flynn, head, white, male, 40, brickmason</b> <b>Kate Flynn, wife, white, female, 40,</b> <b>John Flynn, son, white, male, 13,</b> <b>Delia Flynn, daughter, white, female, 9;</b> <b>Christopher Donlon, head, white, male, 33, carpenter,</b> <b>Annie Donlon, wife, white, female, 30,</b> <b>Mary Donlon, daughter, white, female, 4,</b> <b>Christopher Donlon, son, white, male, 2</b>	

**Bold entry indicates households which most likely fell within Block 405, Lot 8. *Italicized entry indicates households which potentially fell within Block 405 Lot 7 or 8.***

Table 8: Brooklyn City Directory Data for Block 405, Lot 8

Directory Year	Name	Listed Address
1849-1850	<i>Patrick Burns, grocer</i>	<i>Bond c. Baltic</i>
1852-1853	<i>James Burns, laborer</i> <i>John Burns, mason</i>	<i>Bond n E Baltic</i> <i>Bond n E Baltic</i>
1854-1855	<i>John Burns, mason</i>	<i>Bond n E Baltic</i>
1857-1858	<b><i>Nicholas Murray, laborer</i></b> <i>John Burns, mason</i> <i>Patrick Woods, switch tender</i>	<b><i>h. Bond n. Baltic</i></b> <i>h. Bond c. Baltic</i> <i>h. Bond n. Baltic</i>
1858-1859	Hugh McGee, ragman <i>John McGaully, laborer</i> <i>Patrick Woods, laborer</i> <i>George Beatty, laborer</i> <i>John Burns, bricklayer</i> <i>James Burns, laborer</i> <b><i>Mary Murray, laundress</i></b>	<i>h. Bond c. Baltic</i> <i>h. Bond n. Baltic</i> <i>h. Bond c. Baltic</i> <i>h. Bond c. Baltic</i> <i>h. Bond n. Baltic</i> <i>h. Bond n. Baltic</i> <b><i>h. Bond c. Baltic</i></b>
1859-1860	<i>George Beatty, laborer</i> <b><i>Mary Murray, laundress</i></b> <i>Patrick Woods, laborer</i>	<i>h. Bond c. Baltic</i> <b><i>h. Bond c. Baltic</i></b> <i>h. Bond c. Baltic</i>
1864-1865	<b><i>John Murray, shoemaker</i></b> <b><i>Mary Murray, widow, laundress</i></b> Hugh McGee, junk	<b><i>h. Bond n. E Baltic</i></b> <b><i>h. Bond n. E Baltic</i></b> <i>h. Bond n. E Baltic</i>
1866-1867	Hugh McGee, laborer Patrick Hallihan, carman <i>Thomas Burns, plumber</i> <i>Ann Burns, widow, laundress</i>	<i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i> <i>h. Bond n. E Baltic</i>
1868-1869	Martin Burke, junk Ann Burns, widow	Bond c. Baltic h. 124 Bond
1869-1870	Martin Burke, junk <b><i>George Battie, laborer</i></b> Patrick Hallahan, carman	Bond c. Baltic <b><i>h. Bond n. E Baltic</i></b> <i>h. Bond n. Baltic</i>
1870-1871	Patrick Kenney Patrick Kenny Hugh McGee, junk John Wright, carman Thomas Purtell, junk	h. 124 Bond h. 122 Bond h. 119 Bond h. 121 Bond h. 123 Bond
1871-1872	Hugh McGee, carman Patrick Kenney, driver Patrick Halerhan, driver	h. 215 Bond h. 239 Bond h. 209 Bond
1875-1876	Patrick Kenny, laborer John Wright, carman Thomas Purtell, junk	h. Bond c. Baltic h. 217 Bond h. 219 Bond

Directory Year	Name	Listed Address
1877-1878	Thomas Bird, laborer Hugh McGee, junk John Wright, carman John Purtill, mason Thomas Purtill, junk	h. r. 215 Bond 215 Bond h. 217 Bond h. 219 Bond h. 219 Bond
1879-1880	<i>Jeremiah Conlon, laborer</i> <b>John Donlon, laborer</b> <b>Michael Flynn, mason</b>	<i>h. 213 Bond</i> <b>h. 211 Bond</b> <b>h. 211 Bond</b>

**Bold entry indicates households which most likely fell within Block 405, Lot 8. *Italicized entry indicates households which potentially fell within Block 405 Lot 7 or 8.***

An examination of the Federal Census and Brooklyn city directory research suggests that two households may have occupied Lot 8 after its initial development. A review of the nineteenth century tax assessments for Block 405 (Historic Tax Block 70) provides further insights into which household may have historically occupied Lot 8. From 1866 to 1872, Patrick Woods and/or Sarah Woods paid taxes on three adjacent lots within the Tenth Ward (Table 9).

**Table 9: Municipal Tax Assessments for Historic Tax Block 70 (Tax Block 405)**

Name	Address	Ward Number	Dollar Amount Assessed Per Year									
			1866	1867	1868	1869	1870	1871	1872	1873	1874	1875
Patrick Woods	Not Provided	102 ½	300	300	300	400	400	400				
Hud (?) McGeo (?)	215 Bond Street	102 ½							400	400	400	400
Sarah Woods	Not Provided	102	175	250	200							
Patrick Woods	Not Provided	102				250	250	250				
Unknown	213 Bond Street	102							250	250	2000	1500
Sarah Woods	Not Provided	102A	175	200	200							
Patrick Woods	Not Provided	102A				250	250	250				
Unknown	211 Bond Street	102A							250	250	2500	2200

From the Tax Assessments, it appears that one lot, designated Ward Number 102 ½, corresponds with the present-day address at 215 Bond Street. Therefore, it appears possible that the Patrick Woods residence documented in the Brooklyn City Directories from 1857 through 1860, and by the 1860 Federal Census record for Margaret Woods, may correspond to 215 Bond Street, the property adjacent to Lot 8. This would, in turn, suggest that the Murray household, adjacent to the Woods entry in the 1860 Federal Census, corresponds to 213 Bond Street, Lot 8. From the city directory research and the census data, it appears that the Murray household occupied Lot 8 from 1857 to 1865, an occupation preceding the installation of municipal water and sewer lines (Table 10). As noted with respect to Lot 7, the historic records also suggest a degree of mobility within this area, with one family, the Beatty occupation, appearing to have moved at least twice within the block in a ten-year period.



**Table 10: Summary of US Federal Census and Directory Research for Block 405, Lot 8**

Years	Household Name	Source
1857-1865	Nichoals Murray (Household) Mary Murray John Murray	Brooklyn City Directories 1857-1865; US Federal Census 1860
1869-1870	George Beatty (Household)	Brooklyn City Directory 1869-1870; US Federal Census 1870
1879-1880	John Donlon (Household) Michael Flynn (Household)	Brooklyn City Directory 1879-1880; US Federal Census 1880
1880	Alice Hand (Household)	US Federal Census 1880

From 1872 to 1875, it is unclear who was taxed for the property. Similarly, from 1870 to 1879, the residents of 211 Bond Street could not be established. The property was separated from Lot 7 and sold by Sarah Murnane to James and Marthat Butler in 1872 (Liber 1074: 323). Neither Sarah Murnane, nor the Butlers were listed in the Brooklyn City Directory with a Bond Street address. By 1874, the real estate valuation of Lot 8 dramatically increased suggesting substantial alterations or upgrades to the property. It is possible that the preexisting frame structure within the lot was expanded to a three-story building at this time. The presence of multiple families at 211 Bond Street in the 1880 Federal Census further indicates that the initial frame structure had been converted to a multi-family residence or small scale apartment building during the 1870s.

The 1886 Sanborn map indicates the continued presence of a linear rectilinear frame structure on the western portion of Lot 8 (see Figure 25). According to the Sanborn map, the building has been converted into a three-story storefront without a basement. No other structures are depicted within the lot.

Between 1901 and 1904, Louis Schuler acquired the parcel (Liber 18: 24; Liber 30: 394). By 1904, a second structure, a one-story building, was added to the rear of Lot 8 (see Figure 26). There appear to be no other alterations to the property or to the preexisting structure at this time. The 1904 Sanborn also reflects that the adjacent dwelling within Lot 7 has been extended, making it deeper than the structure within Lot 8. Modern block numbers have also been introduced.

Between 1904 and 1951, development within Lot 8 appears to have remained unchanged. Although ownership of the lot transferred several times over this period, two buildings continued to reside within the lot, a three-story frame storefront on the front of the lot and a one-story building along the rear lot line. The 1951 Sanborn indicates that the rear building has been removed (see Figure 27). No other alterations or development appears to have taken place within Lot 8.

By 2006, Lot 8 is depicted as a vacant parcel (see Figure 28). The property was acquired by Laurentio Gerena in 2000 (Liber 4944: 2400). A requested search for the Block and Lot folder for Block 405 Lot 8 at the Brooklyn DB was unsuccessful; the DOB personnel were unable to locate the folder for this particular property (reference). A search of the DOB BIS database indicated that a Demolition Permit sign off was issued for the property on October 27, 1986. This permit application suggests that the historic frame structure may have been demolished in 1986. No other Demolition Permits or Alteration Permits have been issued since that time. In 2006, Woodbine Estate, Inc. acquired the parcel from Gerena (see Table 6). Presently, a new construction, a two-story brick-façade structure, occupies Lot 8. The DOB BIS database does not indicate that a New Building Permit has been filed; no Certificates of Occupancy have been filed for this structure. Therefore, it is unclear when the current structure was constructed, although it postdates the 2006 Sanborn.

### Summary and Conclusions

Block 405, Lot 8 was situated within the undeveloped salt meadows bordering the Gowanus Creek throughout the early and mid-nineteenth century. The 1855 Perris map appears to be the first representation of a structure within the lot. This map depicts portions of two frame buildings within Lot 8. Discrepancies with respect to the georeferencing of the modern lot boundaries on to other nineteenth century maps suggests that the 1855 Perris may be an inaccurate representation of the development within Lot 8. At the very least, by 1869 a rectilinear structure appears to have been built along the western portion of the lot, the Bond Street frontage. This building, whether it

was constructed in 1855 or by 1869, predated the introduction and extension of water and sewer lines which were not introduced into the area until 1874. A structure continued to occupy the western frontage of the lot up until 2006, at the latest. During the early twentieth century, a one-story structure without a basement was built along the rear line of Lot 8. There are no other indications of development within the rear portion of the lot. The one-story building remained within Lot 8 up until 1951.

A search of the US Federal Census and Brooklyn City Directories for a thirty year period encapsulating the extension of municipal utilities indicates that the Nicholas Murray household may have resided within Lot 8 from 1857 to 1865. After 1865, the historic data indicates high residential mobility with respect to the occupancy of the lot. Between 1873 and 1874, real estate valuations for the lot dramatically increased suggesting that the structure may have been altered or improved.

Previous archaeological studies of historic period sites located within urbanized areas have illustrated that shaft features, particularly privies, were typically located in the rear and side portions of the urban houselot (Stottman 2000, Geismar 1993). Given that a residential structure was present within Lot 8 prior to the introduction of utilities, that this structure may have remained extant within the lot for over 100 years, and that there is no clear indication of subsurface disturbance to the rear portion of the lot, the eastern portion of Lot 8 is considered sensitive for intact historic period archaeological resources including shaft features associated with this mid-nineteenth to twentieth century occupation (see Figure 29). Furthermore, given that the historical data suggests that the Murray family may have occupied this parcel from 1857 to 1865, the rear portion of Lot 8 is considered sensitive for deposits relating to this occupation. The one-story structure built along the rear line of the lot during the twentieth century lacked a basement and may have had little to no foundation. Therefore, given the potential that the construction and removal of this structure would have caused minimal subsurface disturbance, the easternmost portion of Lot 8 is also considered sensitive for nineteenth century deposits. However, in light of the documented evidence of an historic structure along the western frontage of Lot 8, this portion of the lot is not considered sensitive for *significant* historic archaeological deposits.

At present, soil boring data could not be obtained for Block 405, Lot 8. The cartographic history of the lot suggests that the majority of the rear portion of the lot has remained undeveloped through time. While the far eastern portion of the lot was developed during the twentieth century, the temporary nature of this construction suggests that it posed minimal subsurface impacts. Therefore, based on the available information, the rear portion of Lot 8, a portion of Potential Development Site 1, is considered sensitive for nineteenth century archaeological deposits possibly associated with the 1857 to 1865 Murray household occupation. If soil boring data for the lot becomes available, its historic sensitivity should be reevaluated on the basis of this information.

### **4.3 Block 417, Lot 21, Potential Development Site 7**

#### Existing Conditions

Block 417 is bounded by Douglass Street to the north, the Gowanus Canal to the east, Degraw Street to the south, and Bond Street to the west. Lot 21 is an L-shaped parcel on the eastern portion of the block with frontages on the south side of Douglass Street and on the north side of Degraw Street. The lot extends 200 feet (61 meters) to the west and 200 feet (61 meters) to the north of the intersection of Degraw Street and the Gowanus Canal. From the intersection of Douglass Street and the Gowanus Canal, Lot 21 extends 48.6 feet (14.8 meters) to the west and then turns south 100 feet (30.5 meters). At this point, the lot extends an additional 151.6 feet (46.2 meters) to the west upon which it runs 100 feet (30.5 meters) to the south and intersects with Degraw Street. The L-shaped lot extends for a length of 200 feet (61 meters) on its eastern edge and a length of 100 feet (30.5 meters) on its western edge. The northern line of Lot 21 extends for a width of 48.6 feet (14.8 meters) with its southern line extending 200 feet (61 meters) along Degraw Street. As of September 1999, the lot was owned by Magnifico Enterprises, Inc. and had a listed address of 479 Degraw Street (New York City Department of Finance 2009). A one-and-a-half-story brick façade warehouse currently occupies Lot 21 (Photo 7). An asphalt paved parking area adjoins the warehouse structure to the north (Photo 8).

On February 6, 2009, a site visit was undertaken to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 417, Lot 21 was observed from the eastern bank of the Gowanus Canal. Along this frontage, the bulkhead consisted of an intact concrete wall (Photo 9). Those portions of the bulkhead which

remained underwater could not be observed at this time. A stormwater sewer outlet with several large conduit openings within a concrete bulkhead wall was observed at the foot of Degraw Street (Photo 10).



**Photo 7:** Block 417, Lot 21. View Northwest.



**Photo 8:** Block 417, Lot 21. View South.





**Photo 9: Block 417, Lot 21, Bulkhead Frontage. View Northwest.**



**Photo 10: Sewer Outlet at the Foot of Degraw Street. View East.**

Lot History

Development in the immediate vicinity of Lot 21 began in the early 1700s with the construction of the historic Road to Freeke's Mill (Road to the Narrows/Gowanus Road) (Bang 1912; see Figure 6). Georeferencing the location of Lot 21 on late eighteenth and early nineteenth century historic maps places this lot to the north of the historic road. Between the early cartographic resources, there appears to be some discrepancy between the location of Lot 21 with respect to the historic roadway. According to Ratzer's 1766-1767 map, Block 424 Lots 1 and 20 were in closer proximity to the road than Lot 21 which lies further to the northeast (See Figure 6). However, the 1844 US Coastal Survey and Colton's 1849 map place Lot 21 to the immediate northeast of the roadway (see Figures 7 & 14). The differences in the placement of Lot 21 on these historic maps may reflect the fact that the trajectory of the roadway was altered over time. Alternatively, the discrepancies may indicate past surveying inaccuracies and inconsistencies or differences in methods of surveying between the eighteenth and nineteenth century. Regardless, during the eighteenth and early nineteenth centuries, Lot 21 appears to have been within the near vicinity of an important historic roadway that functioned as the only historic crossing over the Gowanus Creek. During this period, the lot appears to have been submerged under within the creek. The 1844 US Coastal Survey indicates that a single structure had developed to the southwest of Lot 21, on the western frontage of the historic road (see Figure 7).

From the eighteenth century through the mid-nineteenth century, Lot 21 was sequentially acquired as a parcel within multiple large land transactions that included the rights to the northern extent of Gowanus Creek and the associated mill, Freeke's Mill (Old Gowanus/Brower's) and the Mill Pond that developed around it (Table 11)

**Table 11: Recorded Land Transfers of Block 417, Lot 21.**

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
<b>Brower, Jeremiah (heirs of)</b>	<b>Brower, Adolphus Brower, Abraham Brower, Jeremiah Brower, Antie Brower, William Brower, Mattya Brower, William (Executors of)</b>	<b>11/18/1785</b>	<b>6: 343</b>	
<b>Brower, Adolph (Dolphus) Brower, Altie</b>	<b>Freeke, John C.</b>	<b>2/25/1800</b>	<b>7: 188</b>	
<i>Hall, Matthew</i>	<i>Freeke, John C.</i>	<i>2/28/1801</i>	<i>35: 94</i>	
<i>Williamson, George Williamson, Mary</i>	<i>Hamilton, Alexander</i>	<i>10/24/1833</i>	<i>37: 472</i>	
<b>Freeke, John C. Freeke, Martha</b>	<b>Hoyt, Charles</b>	<b>9/11/1834</b>	<b>42: 410</b>	
<i>Bucknor, William G. Bucknor, Emily A.</i>	<i>Hamilton, Alexander</i>	<i>10/20/1834</i>	<i>43: 289</i>	
<i>Hamilton, Alexander Hamilton, Eliza P.</i>	<i>Carman, Richard H.</i>	<i>10/20/1834</i>	<i>43: 291</i>	
<i>Carman, Richard H. Carman, Mary</i>	<i>Hoyt, Charles</i>	<i>4/3/1835</i>	<i>47: 257</i>	
Hoyt, James	Hoyt, Charles	4/13/1844	118: 299	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Freeke, John C. (Executors of)	Hoyt, Charles	11/11/1846	155: 240	Wrong liber and page
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	

Grantor	Grantee	Date	Liber: Page	Description
Cleaveland, John	Hoyt, James I. (as trustee) Hoyt, Charles	6/13/1848	180: 350	
Radcliff, P. W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	Refers to instruments of declaration
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration
Hoyt, James J. (as assignee) Hoyt, Charles Hoyt, Charles Hoyt, Mary	Brady, James	12/21/1850	232: 204	
Brady, James Brady, Henrietta	Fiske, Edwards W.	11/18/1854	380: 307	
Fiske, Edwards W.	Quinn, Patrick H.	6/5/1866	711: 209	
Quinn, Patrick H. Quinn, Elizabeth	Willits, Charles D.	5/16/1871	997: 338	
Willits, Charles D.	Parrish, Charles	5/17/1876	1241: 312	
Parrish, Charles Parrish, Mary C.	Tillinghast, William H.	4/6/1877	1273: 161	
Tillinghast, William H. Tillinghast, Phoebe (P.W.)	Murtha, Mary E.	1/8/1878	1302: 165	
Lehigh & Wilkesbarre Coal Co.	Murtha, Mary E.	1/8/1878	1302: 167	
Hughes, Catherine A. Hughes, Patrick G. (Heir of)	Hughes, John A.	7/29/1897	8: 235	Historic Lot 18
Maher, Vincent de P. (Guardian of)	Hughes, John A.	8/5/1897	8: 267	Historic Lot 18
Maher, Lawrence R.	Hughes, John A.	8/5/1897	8: 273	Historic Lot 18
Murtha, Mary E. (Executors of)	O'Rourke, John H.	3/22/1898	10: 120	Historic Lot 21
Hughes, John A. Hughes, Mary P.	Castle, Thomas W.A. Castle, Walter L.	6/3/1901	19: 301	Historic Lot 18
Castle, Walter L. Castle, Mary A. Castle, Emily E. Castle, Thomas W.A. (Executors/Devisees of)	Castle Brothers	9/22/1902	23: 238	Historic Lot 18
O'Rourke, James O'Rourke, John (devisees of)	Larney, John E.	3/15/1905	32: 282	Historic Lot 21
O'Rourke, Agnes L.	Larney, John E.	4/28/1905	34: 60	Historic Lot 21
O'Rourke, John H. (Executor of)	Larney, John E.	4/28/1905	34: 61	Historic Lot 21
Castle Brothers	Excelsior Hygienic Ice Co.	1/17/1915	3531: 265	Historic Lot 18; Serial Number 1100
Excelsior Hygienic Ice Co.	Ice Manufacturing Co.	1/5/1916	3589: 262	Historic Lot 18; Serial Number 795
Ice Manufacturing Co.	Knickerbocker Ice Co.	2/2/1918	3694: 516	Historic Lot 18; Serial Number



Grantor	Grantee	Date	Liber: Page	Description
				<b>4200</b>
<b>Knickerbocker Ice Co.</b>	<b>Larney, John E.</b>	<b>7/15/1929</b>	<b>5047: 542</b>	<b>Historic Lot 18; Serial Number 68449</b>
<b>Larney, Gerald F. Larney, Florence M. (Executor of) John E. Larney, John E., Jr.</b>	<b>Vincy Realty Corporation</b>	<b>4/13/1953</b>	<b>8185: 610</b>	
<b>Vincy Realty Corporation</b>	<b>Magnifico Enterprises, Inc.</b>	<b>8/30/1999</b>	<b>4569: 1428</b>	

**Bolded entry indicates land transfer most likely involving Block 417, Lot 21. Italicized entry indicates land transfer that may include Block 417, Lot 21**

Proposals for the development of the Gowanus Canal and draining of the salt marshes adjoining the Gowanus Creek began in 1848 (Douglass 1870; Hunter 2004: 2-20-2-21). By 1849, the Brooklyn Common Council adopted a plan, proposed by Daniel Richards, for the construction of the Gowanus Canal and “for raising adjacent saltmarsh elevations” (Hunter 2004: 2-21). Richards’ initial plan proposed the construction of a large public basin at the head of the canal along Douglass Street (see Figure 16). This basin, which was never constructed, would have intruded into the northeastern corner of Lot 21, a portion of Historic Lot 18. Despite adopting the proposed canal legislation, the city took no actions towards the construction of the canal or the dredging of the adjacent salt marshes.

According to an article within the Brooklyn Eagle, given the lack of action by the City of Brooklyn, landowners controlling the property within and adjacent to the Gowanus Creek began converting it into a canal. As a result of this activity, the creek was extended up to Douglass Street. The article describes the facing of the canal, where docking was undertaken, as *imperfect pilling* which was often flooded by stormwater and mud runoff from the adjacent marshlands (1868a). It is unclear from the article whether such early efforts at canalization occurred along the eastern frontage of Lot 21. The beginning development of the Gowanus Canal prompted real estate speculation in those lots adjoining the creek and its surrounding area. During this period, Edward W. Fiske purchased Lot 21 along with multiple adjoining parcels from James Brady (Liber 302: 380). Hunter attributes Fiske with providing the funding and impetus for construction of the canal between 1853 and 1854 (Hunter 2004: 2-24). Given that Fiske did not acquire his property till 1854, it is unclear whether he invested in canal development prior to acquiring his parcels or whether his participation did not begin until 1854.

An article detailing the opening of the Gowanus Canal indicates that Douglass Street had been opened as far as the Gowanus Creek by June of 1853 (Brooklyn Eagle 1853b). This reference may reflect the earliest development within the vicinity of the Lot 21. This same article attributes Mr. Fiske, owner of the surrounding property, with the opening of the Canal.

The first clear indication of development within Block 417 dates to an 1857 ordinance passed by the Mayor and Alderman of Brooklyn for the filling of the blocks bounded by Degraw, Bond, Douglass Streets, and the Gowanus Canal “up to within three feet of the grade of the adjoining streets” (Brooklyn Eagle 1857). Proposals for the filling of these streets were received in 1858 (Brooklyn Eagle 1858). This suggests that not only was Block 417 not developed until sometime after 1858, but that the waterfront portions of Lot 21 may not have been part of the initial docking and canal development. The 1869 Dripps map appears to reflect the first cartographic depiction of development within Lot 21 (see Figure 18). Specifically, the Dripps map indicates that Degraw and Douglass Streets have been extended to the Gowanus Canal, and that the Canal has been completed. The presence of streets across the parcel reflects the fact that the previously submerged location of Lot 21 had been dredged, filled, and raised above the mean water level of the Gowanus Canal. The Canal, measuring approximately 6000 feet between Douglass Street and Percival Street, was completed between 1866 and 1870 by the combined efforts of the Gowanus Canal Improvement Commission and the Brooklyn Improvement Company (Hunter 2004: 2-26).

Hunter contends that during this final period of canal construction the Gowanus Canal Improvement Commission would have completed construction of those canal walls and docks “inshore of Hamilton Avenue” that were not completed by private landowners during the earlier period of construction. If the bulkhead along Lot 21 was not created by Fiske or an earlier landowner, then the canal walls upon which the lot fronts were most likely constructed

by the Improvement Commission. Furthermore, if the Lot 21 bulkhead was created during the early period of the Gowanus Canal, its preexisting sheet pile walls may have been repaired or replaced by the Improvement Commission in light of proven imperfections and failures with respect to the sheet pile canal walls (Brooklyn Eagle 1868a; Hunter 2004: 2-26). Hunter further contends that while they could find no reference to form of canal wall constructed by the Improvement Commission, based on the existing conditions, the chosen architects for the construction, and the thick mud and marshland underlying the Gowanus stream bed, that the canal walls constructed between 1866 and 1870 were most likely timber cribwork constructions (Hunter 2004: 2-26). Descriptions of both sheet pile and timber cribwork bulkheads are provided in the previous chapter.

By 1880, Block 417 had been divided into individual tax lots within Historic Block 257. The 1880 Bromley and Hopkins maps reflect the fact that a linear frame structure had developed along the northern frontage of Historic Lot 21 (see Figures 19 & 20). A smaller square frame structure has also been built along the southeastern corner of the lot. This complex is part of a coal yard operation. The northern arm of Lot 21, Historic Lot 18, appears to be undeveloped at this time. In 1878, Mary E. Murtha acquired title to Lot 21 (Liber 1302: 165, 167). The 1886 Sanborn map of the area depicts the W.H. Murtha & Son Coal and Wood Yard within Historic Lot 21 (Figure 31). At this time, a complex of frame buildings has developed within the historic lot. In addition to a rectilinear structure with coal pockets along the northern frontage of the lot, smaller frame buildings occupy the southeastern and southwestern portions of the historic lot. A one-story addition extends from the western side of the two-story frame building within the southeast corner. Historic Lot 18 has also been further developed by this time. Several frame buildings, including a two-story office building and a smaller two-story structure, from the P.G. Hughes Lime, Brick, and Lath Yard. None of the structures within Historic Lot 18 fall within the northern arm of Modern Lot 21. The historic deed research indicated that Catherine and Patrick Hughes owned Historic Lot 18 prior to 1897. It is, however, unclear as to when Historic Lot 18 was separated from Historic Lot 21 and as to when the Hughes family initially acquired the lot. Developments across Lot 21 appear to have coincided or just predated the extension of municipal utilities. The 1886 Sanborn illustrates water lines on both Douglass and Degraw Streets.

In 1893, the Brooklyn Common Council ordered repairs to the “bulkhead at the foot of Degraw Street, West side, Gowanus Canal” (Brooklyn various). This ordinance indicates that the Degraw Street bulkhead, which may have been located to the immediate south of Block 417, had been compromised. The failure or perceived failure of the Degraw Street bulkhead suggests that the canal walls within this area were initially constructed using the timber sheet pile technique. Such constructions had been proven ineffective and deficient in light of the mud and silty conditions underlying the Gowanus Canal. Timber cribwork constructions may have replaced preexisting sheet pile walls where such walls had failed.

Robinson’s 1898 map indicates that a large frame structure has developed across the majority of Historic Lot 18 (see Figure 22). This brick yard appears to overlap into the complex within Historic Lot 21. The historic deed research indicates that Lots 18 and 21 were separate during the late nineteenth and early twentieth centuries. It, therefore, appears that the connection of these two lots by the Robinson map incorrectly represents the two properties as one integrated brick yard complex. The 1904 Sanborn map confirms the separate development of the Historic Lots (Figure 32). In 1904, the Murtha Coal Yard had become the John H. O’Rourke Coal Yard. O’Rourke had acquired Historic Lot 21 in 1898 (Liber 10: 120). Several distinct spaces are now distinguished within the rectilinear structure at the northern frontage of the lot. A two-story storage space, a carriage house, two coal sheds, and a coal pocket building form the linear complex. A building is no longer located within the southeastern corner of the lot. The office stands within the southwestern corner. Castle Brothers Cementine Sidewalks resides within Historic Lot 18. A large square building with two additional stories along its southwestern corner occupies the majority of the lot; two smaller office buildings sit along the western portion of the historic lot. The Castle family and subsequently Castle Brothers acquired the property in 1901 and 1902 (Liber 19: 301; Liber 23: 238). The Modern Tax Block designations were been introduced by this time.

John E. Larney acquired Historic Lot 21 in 1905 (Liber 32: 282; Liber 34: 60, 61). The 1915 Sanborn map reflects the presence of John E. Larney Coal Yards across Historic Lot 21 (Figure 32). Several structures have developed along the southwestern corner of the lot, alongside the preexisting office building. The northern portion of the lot contains two large square structures with coal pockets. A conveyer belt appears to extend from the coal pockets to a dock fronting the Gowanus Canal. Castle Brothers continues to occupy Historic Lot 18. There appears to have been no additional development within Historic Lot 18. The arrangement of buildings within the historic lots and their occupations remain unchanged through 1935 (Sanborn 1935).

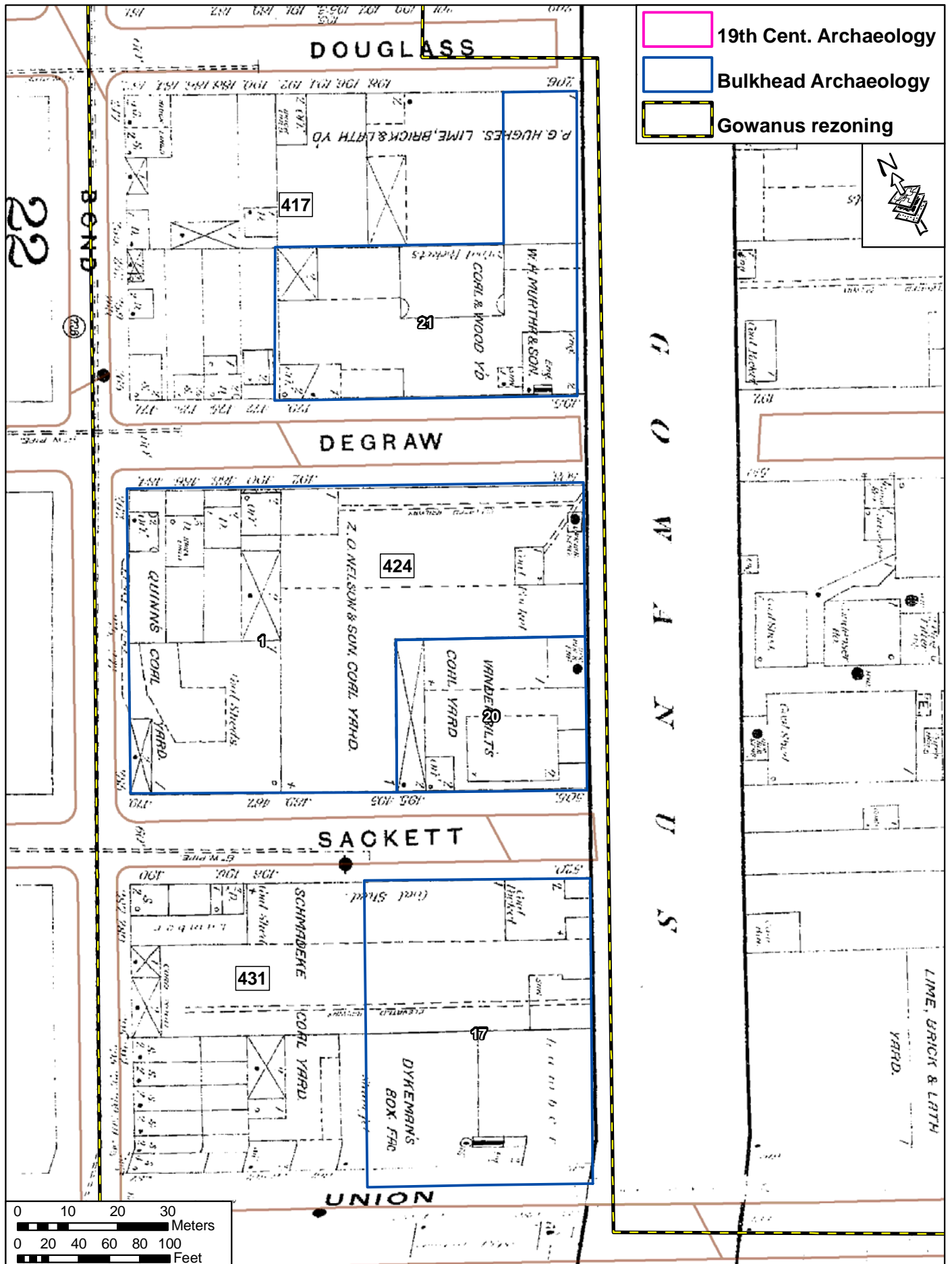


FIGURE 30: 1886 View of Blocks 417, 424 and 431 within the Gowanus Rezoning Project Area

SOURCE: Sanborn 1886









By 1951, the coal yard within Lot 21 is no longer operational (Figure 33). The 1951 Sanborn indicates that between 1935 and 1951, Historic Lot 21 was enlarged to encompass the eastern portion of Historic Lot 18, thereby creating Modern Lot 21. Portions of the Coal Yard operation, including a conveyor belt and two coal silos, had been extended across the northeastern portion of Lot 21. The Knickerbocker Ice Company occupies the remaining portion of Lot 18, to the immediate west of Lot 21. In 1953, the Larney family sold Lot 21 to Vincy Realty Corporation (Liber 8185: 610).

The 1968 Sanborn map indicates that a large brick building was constructed within Lot 21 in 1954 (Figure 34). The building, operated by Plastic Products Manufacturing, occupies almost the entire Degraw frontage of the lot. A parking area is depicted within the northeastern extension of the lot. Magnifico Enterprises, Inc. acquired the parcel in 1999 (Liber 4569: 1428). The large brick warehouse building continues to sit within Lot 21. As of 2008, Eastern Effects, Inc. occupied the building.

During the course of this research, an information request was made at the Brooklyn DOB for the Block and Lot folder for Block 417, Lot 21. The folder for this lot could not be located by DOB staff. The historic cartographic record for Lot 21 does not indicate that any significant alterations were made to the eastern canal frontage of the lot. The lack of any DOB records for this parcel made it further difficult to ascertain whether alterations had been made to the historic bulkhead. The Gowanus Canal Community Development Corporation (GCCDC) commissioned a Gowanus Canal Bulkhead Inventory Survey in 2000 as a component of a larger evaluation of the Gowanus Canal and of future development plans for the Canal and the surrounding neighborhood. At the time that the DEIS was being prepared, the 2000 survey, completed by Adam Brown of Marine Consulting, could not be obtained (Brown 2000). Therefore, in order to assess the present conditions of the bulkhead fronting Lot 21, a pedestrian reconnaissance of the parcel was conducted in February 2009. Existing conditions of the bulkhead as observed during this pedestrian survey were compared to the bulkhead evaluation presented by Hunter within its National Register evaluation of the Gowanus Canal (2004).

According to Hunter's evaluation, which included two pedestrian surveys, a land-based evaluation and a waterside tour of the Canal during low tide, the bulkhead along the eastern frontage of Block 417, Lot 21 consists of a concrete wall (2004: Figure 3.1). Our site visit confirmed Hunter's description of those visible portions of the canal wall (see Photo 9). However, Hunter observed during their survey that, "in some places, low-water surface inspection was inconclusive as to whether visible concrete walls were resting on cribwork foundations or were entirely concrete bulkhead resting on piles" (2004: 3-5). This observation suggests that visible concrete walls within the Canal may rest upon submerged historic timberwork foundations. Hunter describes one manner in which concrete bulkheads have been appended to preexisting timber walls.

In some areas, such as the Brooklyn waterfront south of Fulton Street repaired by the New York Dock Company *circa* 1915-1950, concrete bulkheads were appended to older cribwork in several ways. The new work generally extended beyond the old about 20 feet, and often included riprap in front of the cribwork and among the new piles to preclude cribwork slumping. For cribwork bulkhead repair, there were varied means of actually tying the new work to the old. The new piles could be driven in front of the cribwork, or through it, with some or all of the relieving platform resting on cribwork remains [Hunter 2004: 3-5].

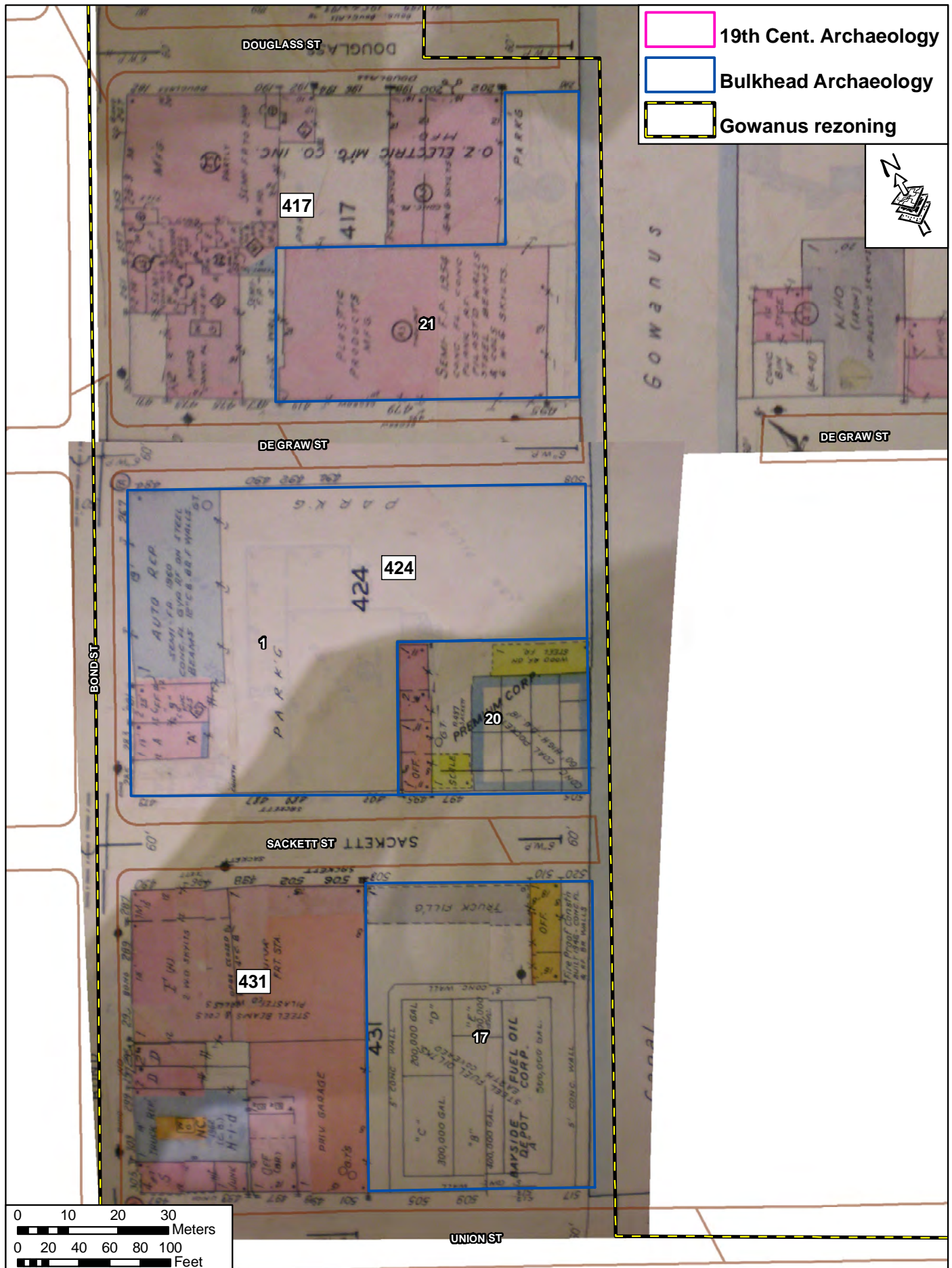
They further observe that while the Gowanus Canal is too narrow to have allowed for the extension of relieving platforms 20 feet beyond the initial bulkhead, it is nevertheless "possible that relieving platform variations were installed on cribwork sections cut down to mean low water" (2004: 3-6). Such variants on the relieving platform technique were observed at the low water mark within the Gowanus Canal. Given that such examples of concrete bulkhead repairs to preexisting timber frameworks exist within the Canal, it seems possible that the visible concrete bulkhead wall along the eastern frontage of Block 417, Lot 21 represents a similar hybrid construction.

### Summary and Conclusions

Initial development around Block 417, Lot 21 began with the development of the Road to Freeke's Mill (Gowanus Road/Road to the Narrows) in the early eighteenth century. Further development within the lot did not occur until the initial construction of the Gowanus Canal. The bulkhead forming the eastern frontage of Lot 21 may have been initially constructed during the early period of the Canal between 1853 and 1854. At this time, private landowners funded the Canal work which generally consisted of the construction of timber sheet walls. It is unclear whether Lot







**FIGURE 34: 1968 View of Blocks 417, 424 and 431 within the Gowanus Rezoning Project Area**

SOURCE: Sanborn 1968

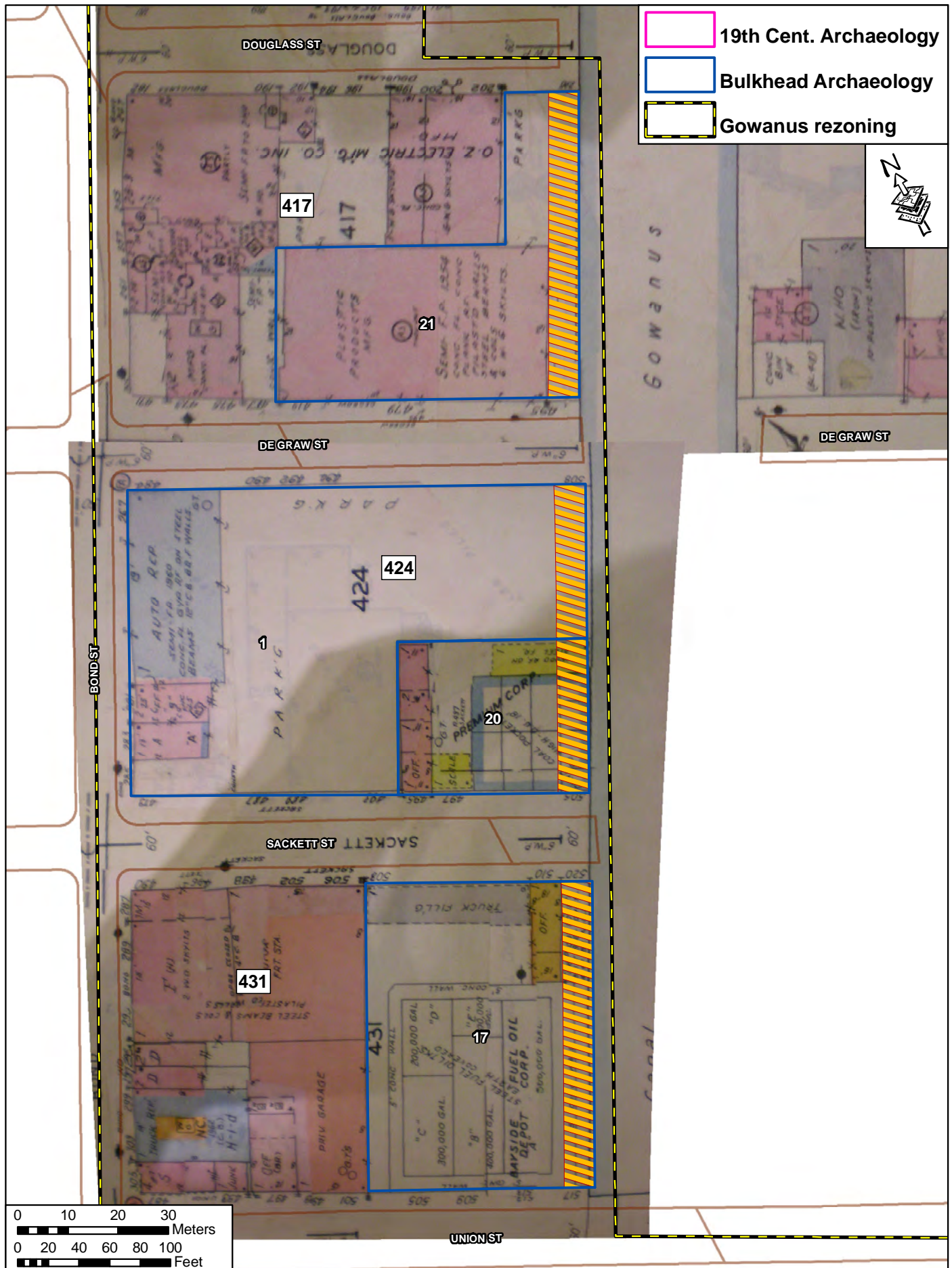
21 was developed at this time. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 21 was constructed, repaired, or replaced by the subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

Development within Lot 21 began during the 1880s when a coal yard was constructed along the southern portion of the lot. Various coal yard operations developed within the southern portion of Lot 21 from 1880 to 1951. The northern portion of the lot was initially occupied in 1886 by P.G. Hughes Lime and Brick Yard. Between 1904 and 1915, the Castle Brothers Cementine Sidewalks operation occupied the northern portion of the lot. Throughout the twentieth century various companies operate within Lot 21 including the Knickerbocker Ice Company and Plastic Products Manufacturing.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 21 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead is a concrete composition. However, the submerged portions of the wall could not be observed during either survey. Therefore, it is unclear whether the present visible concrete wall rests upon an historic timber cribwork foundation. Thus, there is the potential for nineteenth century bulkhead remains to exist beneath the observed concrete canal wall (Figure 35). An underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 21 bulkhead.

Based on the available historic information, Lot 21, a portion of Potential Development Site 7, is considered sensitive for potential nineteenth century bulkhead deposits relating to the two construction phases of the Gowanus Canal. The canal walls in this area may retain evidence of the earliest timber sheet piles construction, as well as of the timber cribwork forms which dominated subsequent canal construction and repair efforts.





**FIGURE 35: Areas Sensitive for Historic Period Archaeological Resources within Block 417, Lot 21, Block 424, Lots 1 & 20, and Block 431, Lot 17**

SOURCE: Sanborn 1968

#### 4.4 Block 424, Lot 1, Projected Development Site D

##### Existing Conditions

Block 424 is bounded by Degraw Street to the north, the Gowanus Canal to the east, Sackett Street to the south, and Bond Street to the west. Lot 1 is an irregularly shaped parcel which occupies the northeastern, northwestern, and southwestern portions of the block. The lot spans the entire northern and western frontages of Block 424, extending 300 feet (91.4 meters) across Degraw Street and 200 feet (61 meters) across Bond Street. From the intersection of Degraw Street and the Gowanus Canal, the lot extends 100 feet (30.5 meters) to the south and then turns 175 feet (53.5 meters) to the west. From this point, the lot runs 100 feet (30.5 meters) to the south, intersecting with Sackett Street. The lot subsequently extends 175 feet (53.5 meters) to the west along the northern frontage of Sackett Street. Lot 1 has a length of 200 feet (61 meters) along its western extent and 100 feet (30.5 meters) along its eastern boundary; it also has a width of 300 feet (91.4 meters) on its northern edge and 175 feet (53.5 meters) along its southern line. As of December 2008, the lot was owned by the Victor Allegritti Credit Trust Shelter (New York City Department of Finance 2009). A multi-story brick building with attached garage spaces currently occupies Lot 1 (Photos 11-12).

On February 6, 2009, a site visit was undertaken to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 424, Lot 1 was observed from the eastern bank of the Gowanus Canal. Along this frontage, the bulkhead consisted of an intact steel sheet pile wall (Photo 13). Those portions of the bulkhead which remained underwater could not be observed at this time. A stormwater sewer outlet with several large conduit openings within a concrete bulkhead wall was observed at the foot of Degraw Street (see Photo 10).



**Photo 11: Block 424, Lot 1. View Northeast.**





Photo 12: Block 424, Lot 1. View Southeast.



Photo 13: Block 424, Lot 1, Bulkhead Frontage. View West.



Lot History

Development within Lot 1 began in the eighteenth century with the creation of the Road to Freeke's Mill (the Road to the Narrows/Gowanus Road) (Bang 1912; see Figure 6). Ratzer's 1766-1767 map illustrates the historic road, at the time the only passable crossing across the Gowanus Creek, running on a north-south trajectory across the central portion of Lot 1. From the late eighteenth century into the early nineteenth, Lot 1 appears to have fallen within the boundaries of the Old Gowanus Mill complex, being first Brower's Mill, and then becoming Freeke's Mill by the 1800s (Table 12). Aside from the historic roadway, Lot 1 was underwater and undeveloped during this early period.

**Table 12: Recorded Land Transfers of Block 424, Lot 1**

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
<i>Bergen, Jacob H.</i> <i>Bergen, Elsie</i> <i>&amp; children of</i>	<i>Hans Bergen</i>	<i>4/23/1750</i>	<i>5: 160</i>	
<b>Brower, Jeremiah (heirs of)</b>	<b>Brower, Adolphus</b> <b>Brower, Abraham</b> <b>Brower, Jeremiah</b> <b>Brower, Antie</b> <b>Brower, William</b> <b>Brower, Mattya</b> <b>Brower, William</b> <b>(Executors of)</b>	<b>11/18/1785</b>	<b>6: 343</b>	
<b>Brower, Adolph (Dolphus)</b> <b>Brower, Altie</b>	<b>Freeke, John C.</b>	<b>2/25/1800</b>	<b>7: 188</b>	
<i>Williamson, George</i> <i>Williamson, Mary</i>	<i>Hamilton,</i> <i>Alexander</i>	<i>10/24/1833</i>	<i>37: 472</i>	
<b>Freeke, John C.</b> <b>Freeke, Martha</b>	<b>Hoyt, Charles</b>	<b>9/11/1834</b>	<b>42: 410</b>	
<i>Bucknor, William G.</i> <i>Bucknor, Emily A.</i>	<i>Hamilton,</i> <i>Alexander</i>	<i>10/20/1834</i>	<i>43: 289</i>	
<i>Hamilton, Alexander</i> <i>Hamilton, Eliza P.</i>	<i>Carman, Richard</i> <i>H.</i>	<i>10/20/1834</i>	<i>43: 291</i>	
<i>Carman, Richard H.</i> <i>Carman, Mary</i>	<i>Hoyt, Charles</i>	<i>4/3/1835</i>	<i>47: 257</i>	
<b>Freeke, John C. (Executors of)</b>	<b>Hoyt, Charles</b>	<b>2/15/1844</b>	<b>116: 437</b>	<b>Portion of Historic Lot 1</b>
Hoyt, James	Hoyt, Charles	4/13/1844	118: 299	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Freeke, John C. (Executors of)	Hoyt, Charles	11/11/1846	155: 240	Wrong liber and page
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	
<b>Cleaveland, John</b>	<b>Hoyt, James I. (as trustee)</b> <b>Hoyt, Charles</b>	<b>6/13/1848</b>	<b>180: 350</b>	
Radcliff, P.W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	Refers to instruments of declaration
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration
<b>Hoyt, James J. (as assignee)</b> <b>Hoyt, Charles</b> <b>Hoyt, Charles</b> <b>Hoyt, Mary</b>	<b>Brady, James</b>	<b>12/21/1851</b>	<b>232: 204</b>	<b>Northwest Corner</b>
<i>Bergen, Jacob (Executors of)</i>	<i>Bergen, Alexander</i>	<i>2/20/1851</i>	<i>237: 238</i>	

Grantor	Grantee	Date	Liber: Page	Description
	<i>J.</i>			
<i>Bergen, Alexander J.</i> <i>Bergen, Eliza V.</i>	<i>Bushnell, Orsamus</i>	<i>8/27/1852</i>	<i>256: 22</i>	
<b>Brady, James</b> <b>Brady, Henrietta</b>	<b>Bushnell,</b> <b>Orsamus</b>	<b>12/1/1852</b>	<b>302: 180</b>	<b>(Historic Lots 1 and portion of Lot 9)</b>
<b>Brady, James</b> <b>Brady, Henrietta</b>	<b>Fiske, Edward W.</b>	<b>11/18/1854</b>	<b>380: 307</b>	<b>Portion</b>
<b>Bushnell, Orsamus</b> <b>Bushnell, Mary (Mary W.)</b>	<b>Bliss, William</b>	<b>7/7/1865</b>	<b>399: 306</b>	
<b>Bliss, William</b>	<b>Kimberly, Dennis</b>	<b>9/2/1856</b>	<b>431: 219</b>	
<b>Kimberly, Dennis</b>	<b>White, Henry D.</b>	<b>8/28/1862</b>	<b>580: 307</b>	
<b>White, Henry D.</b>	<b>New Haven Savings Bank of New Haven</b>	<b>1/6/1863</b>	<b>587: 247</b>	<b>Portions</b>
<b>White, Henry D.</b>	<b>Pardee, Stephen D. (as trustee)</b> <b>St. John, Samuel</b>	<b>1/6/1863</b>	<b>587: 249</b>	<b>Portions</b>
<b>Fiske, Edward D.</b>	<b>Quinn, Patrick</b> <b>Parkinson, John</b>	<b>8/22/1865</b>	<b>674: 142</b>	<b>Partial (Historic Lot 9)</b>
<b>White, Henry D.</b> <b>White, Julia</b>	<b>Pardee, Stephen D. (as trustee)</b> <b>St. John, Samuel (deceased)</b>	<b>3/26/1867</b>	<b>747: 519</b>	<b>Portions</b>
<b>White, Henry D.</b> <b>White, Julia</b>	<b>New Haven Savings Bank</b>	<b>3/26/1867</b>	<b>747: 524</b>	<b>Portions</b>
<b>Brady, James</b>	<b>Quinn, Patrick H.</b>	<b>5/3/1869</b>	<b>894: 32</b>	<b>Partial (Historic Lot 9)</b>
<b>New Haven Savings Bank of New Haven</b>	<b>Quinn, Patrick H.</b>	<b>5/30/1871</b>	<b>999: 488</b>	<b>Southwestern Portion (Historic Lot 1)</b>
<b>Pardee, Stephen D. (as trustee)</b> <b>St. John, Samuel (Deceased)</b> <b>Pardee, John C.</b>	<b>Quinn, Patrick H.</b>	<b>5/30/1871</b>	<b>999: 490</b>	<b>Southern Part (Historic Lot 1)</b>
<b>Stevens, Gerard M. (Referee)</b>	<b>Brooks, Edward S. (Executors of)</b>	<b>4/27/1882</b>	<b>1464: 86</b>	
<b>Stevens, Gerard M. (Referee)</b>	<b>Quinn, Patrick H.</b>	<b>6/29/1883</b>	<b>1515: 446</b>	<b>Northwestern corner (Historic Lot 1)</b>
<b>Brooks, Edward S. (Executors of)</b>	<b>Quinn, Patrick H.</b>	<b>7/9/1883</b>	<b>1517: 99</b>	
<b>Williamson, Mary (Heirs of)</b>	<b>Quinn, Patrick H.</b>	<b>7/9/1883</b>	<b>1517: 101</b>	<b>Northwestern corner (Historic Lot 1)</b>
<b>Lefferts, John L. (Referee)</b>	<b>Cowenhoven, Peter</b>	<b>6/6/1888</b>	<b>1814: 476</b>	
<b>Quinn, Frank J.</b> <b>Quinn, Joseph E.</b> <b>Quinn, Patrick H. (heirs of)</b>	<b>Newman, John H.</b>	<b>7/3/1895</b>	<b>2: 404</b>	<b>Lot 1: All</b>
<b>Cowenhoven, Catherine</b> <b>Cowenhoven, Garret P.</b> <b>Cowenhoven, Rosabel A. (wife)</b> <b>Cowenhoven, Mary E.</b>	<b>Nelson, Zachariah O.</b> <b>Nelson, Walter H.</b>	<b>3/31/1896</b>	<b>4: 369</b>	<b>Lot 9: Part 1</b>
<b>Quinn, Elizabeth (assignees of)</b>	<b>Newman, John H.</b>	<b>8/11/1896</b>	<b>5: 371</b>	<b>Lot 1: All</b>
<b>Quinn, Elise M. (Guardian of)</b>	<b>Nelson, Zachariah O.</b>	<b>7/18/1903</b>	<b>26: 43</b>	<b>Lot 1: Partial</b>

Grantor	Grantee	Date	Liber: Page	Description
<b>Newman, John H. Shaughness, Philomena Quinn (formerly) Quinn, Mary A. Quinn, Henry (Harry)</b>	<b>Nelson, Zachariah O.</b>	<b>7/18/1903</b>	<b>26: 45</b>	<b>Lot 1: Partial</b>
<b>Nelson, Walter H. Nelson, Zachariah O. (Executor of) Nelson, Emma S. Nelson, Edward N. Nelson, Pauline W. Nelson, Kate E.</b>	<b>Nelson Realty Co.</b>	<b>8/2/1907</b>	<b>3022: 406</b>	<b>Degraw Street from Bond Street to Gowanus Canal to Bond Street (100 feet) to Sackett Street 100 feet from Bond Street (75 feet)</b>
<b>Nelson Realty Co.</b>	<b>Jobro Realty Co. Inc.</b>	<b>3/17/1942</b>	<b>6158: 415</b>	<b>No Lot Listed</b>
<b>Johnson Brothers Jobro Realty Co. Inc. (formerly)</b>	<b>267-285 Bond Street Corporation</b>	<b>11/21/1947</b>	<b>7222: 480</b>	<b>No Lot Listed; Serial Number 29475</b>
<b>Ladon Realty Corporation</b>	<b>Castoro, Anthony</b>	<b>9/28/1982</b>	<b>1342: 526</b>	<b>Entire Lot</b>
<b>Castoro, Anthony</b>	<b>Allegretti, Alfred</b>	<b>9/28/1984</b>	<b>1556: 1176</b>	<b>Entire Lot</b>
<b>Allegretti, Alfred, LWT</b>	<b>Allegretti, Linda, FBO</b>	<b>6/7/2002</b>	<b>5660: 2147</b>	<b>Entire Lot</b>
<b>Alfred Allegretti Business</b>	<b>LAA Realty LLC</b>	<b>1/19/2006</b>		<b>Entire Lot</b>
<b>Victor Allegretti Credit Shelter Trust</b>	<b>OAA Realty LLC</b>	<b>1/19/2006</b>		<b>Entire Lot</b>
<b>The Estate of Victor Allegretti</b>	<b>Victor Allegretti Residuary Trust-GST Exempt</b>	<b>1/19/2006</b>		<b>Entire Lot</b>
<b>Victor Allegretti Residuary Trust</b>	<b>OAA Realty LLC</b>	<b>1/19/2006</b>		<b>Entire Lot</b>
<b>OAA Realty LLC</b>	<b>Victor Allegretti Credit Shelter Trust</b>	<b>12/3/2008</b>		<b>Entire Lot</b>

**Bolded entry indicates land transfer most likely involving Block 424, Lot 1. Italicized entry indicates land transfer the may have included Block 424, Lot 1.**

The 1844 US Coast Survey indicates that several structures had developed alongside the historic roadway, including one building to the immediate north of Lot 1, an unlabeled structure which may have been located within the roadbed of present-day Degraw Street (see Figure 7). The US Coast Survey also depicts a few buildings to the west of Lot 1 along the current southwestern corner of Bond and Degraw Streets. In this year, Charles Hoyt began to acquire the majority of Lot 1 through a series of land transfers (Liber 116: 437; Liber 118: 299; Liber 124: 125). The majority of lot appears to have remained submerged and undeveloped by this time.

Colton's 1849 map suggests that dredging and land fill activities may have begun in the vicinity of Lot 1 (see Figure 14). According to this map, it appears that the far western portion of the lot, particularly land along the Degraw and Bond Street frontages of the lot, may have been created. A smaller segment of Lot 1 appears to remain submerged within the Gowanus Creek. No structures are depicted in the vicinity of the lot further suggesting that the western portion of Degraw Street had been filled and potentially paved, possibly removing the 1844 structure which fronted along the historic roadway.

During the 1850s, James Brady acquired Lot 1, and subsequently sold portions of it to Orsamus Bushnell and other portions to Edward Fiske (Liber 302: 180; Liber 380: 307). As previously noted, initial development of the Gowanus Canal was conducted by private landowners from 1851 through 1854. It is possible that the waterfront portions of Lot 1 and adjacent portions of the Gowanus Canal were constructed by Brady, Bushnell, or Fiske during this period. According to the Brooklyn Eagle, private construction along the canal consisted primarily of sheet



piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years, this technique proved to be insufficient and ineffective given the marshland conditions underlying the Canal.

Gerdes 1863 map reflects the first depiction of nineteenth century development within Lot 1 (see Figure 17). By this time, four adjacent structures have been constructed along the northern frontage of the lot. The location of these structures suggests that Bond Street and Degraw Street have been laid out and, furthermore, that previously submerged portions of Lot 1 have been dredged, filled, and graded. The 1869 Dripps map reflects continued development within Lot 1, including the presence of a T-shaped building along the northern portion of the lot and the location of a large C-shaped complex stretching across the eastern portion of Block 424 encompassing Lots 1 and 20 (see Figure 18). The Dripps map also indicates that at least the eastern portion of the lot was part of a large coal complex. The map further indicates that Degraw and Douglass Streets have been extended to the Gowanus Canal, and that the canal has been completed. The Gowanus Canal, from Douglass Street to Percival Street, was completed between 1866 and 1870 (Hunter 2004: 2-26). As previously noted, the Gowanus Canal Improvement Commission completion phase of the canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 1 was constructed during this period, or if canal walls had been previously constructed within this area, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the canal walls along Lot 1 would most likely have been timber cribwork constructions.

Between 1869 and 1883, Patrick Quinn acquired the majority of Modern Lot 1 (Liber 674: 142; Liber 894: 32; Liber 999: 488; Liber 1515: 446; Liber 1517: 99, 101). By 1880, extensive development had occurred across Lot 1, including the designation of Historic Tax Block 257 and the delineation of individual lots within the block (see Figures 19 & 20). Modern Lot 1 encompassed the majority of individual lots within the block. By this time, multiple brick and frame structures had been constructed along the northern and southern frontages of Lot 1. Several large stable buildings had also been built along with a coal structure on the western extent of the lot. The 1886 Sanborn map illustrates continued development within Lot 1 (see Figure 30). Two coal yards appear to be operating within Modern Lot 1. Quinn's Coal Yard is depicted along the western portion of the lot and may include several dwellings located within the northwestern corner. Z.O. Nelson & Son Coal Yard occupies the eastern portion of the modern lot with frontages on the Gowanus Canal and on Sackett Street. A large complex including a one-story building, a conveyer belt, and a coal pocket are depicted within the Nelson & Son Coal Yard. According to the historic deed research, Zachariah Nelson did not acquire Historic Lot 9 (the eastern portion of Modern Lot 1) until 1896 (Liber 4: 369). This suggests that Nelson rented the lot for at least ten years prior to purchasing it.

By 1904, Z.O. Nelson & Son have extended their coal operation across the entirety of Modern Lot 1 (see Figure 31). Nelson had acquired title to the entire lot by 1903 (Liber 26: 43, 45). The Nelson & Son Coal Yard consisted of multiple buildings including a wagon shed, an office building, coal pockets, a horse shed, and several two and three-story structures. Nelson Realty Corporation maintained ownership of Lot 1 up until 1942 (Liber 6158: 415). The coal yard operation appeared to have continued relatively unchanged over this period (see Figure 32; Sanborn 1935). The 1951 Sanborn map indicates that the Nelson & Son Coal Yard was no longer operating (see Figure 33). Burns Brothers and Coal appears to have taken over the majority of the lot. By 1951, it appears that this yard may have also stopped operating. An auto repair building is the only structure appearing to front Bond Street. It is unclear whether this structure was associated with the Burns Coal operation.

The 1968 Sanborn indicates that the entire coal yard complex has been removed (see Figure 34). An information request was submitted to the Brooklyn DOB for the Block/Lot folder for Lot 1. The folder for this lot could not be located by DOB personnel. According to the DOB BIS database, only one demolition permit has been filed for Block 424, Lot 1. This permit was filed in 1925. Given that the 1935 Sanborn maps depict the same configuration of buildings within Lot 1 as illustrated on the 1915 Sanborn, it does not appear that the filed demolition permit represents the demolition of structures within the coal yard complex. It is, therefore, unclear as to when the coal yard buildings were removed.

According to the 1968 Sanborn, a large rectangular auto repair building with two adjacent brick structures occupies the Bond Street frontage of Lot 1 (see Figure 34). According to the Sanborn, this structure was built in 1960. The remaining portion of Lot 1 is designated as a parking area. A 1961 certificate of occupancy for Lot 1 indicates that a one-story motor vehicle repair shop and an adjacent parking area are located within Block 424, Lots 1 and 9 (DOB files). By 2006, Ryder Truck Rental was occupying the auto repair garage and attached brick buildings within the

lot (Figure 36). Currently, Lot 1 consists of a linear garage space with an attached multi-story brick building. Bayside Accurate Meter Corporation appears to operate within the space. The DOB classifies Lot 1 as a garage/gas station.

As previously noted, during the course of this research, an information request was made at the Brooklyn DOB for the Block and Lot folder for Block 424, Lot 1. The folder for this lot could not be located by DOB staff. The historic cartographic record for Lot 1 does not indicate that any significant alterations were made to the eastern canal frontage of the lot. The lack of any DOB records for this parcel made it further difficult to ascertain whether alterations had been made to the historic bulkhead. As discussed in the preceding section, the GCCDC commissioned a Gowanus Canal Bulkhead Inventory Survey in 2000 as a component of a larger evaluation of the Canal. At the time that the DEIS was being prepared, the 2000 survey, completed by Adam Brown of Marine Consulting, could not be obtained (Brown 2000). Therefore, in order to assess the present conditions of the bulkhead fronting Lot 1, a pedestrian reconnaissance of the parcel was conducted in February 2009. Existing conditions of the bulkhead as observed during this pedestrian survey were compared to the bulkhead evaluation presented by Hunter within its National Register evaluation of the Gowanus Canal (2004).

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 424, Lot 1 falls along the border between steel sheet pile technology and concrete sections of the bulkhead (2004: Figure 3.1). Our site visit confirmed that the visible portion of the eastern frontage of Block 424, Lot 1 consists of a steel sheet pile bulkhead (see Photo 13). Hunter identifies steel sheet pile bulkheads as one type of repair that has been made to preexisting canal walls. Specifically, after World War II, steel piling tended to replace "timber pile supports" and subdecks "in the form of inner and outer sheetpile surfaces tied to each other, or an outer surface tied to a new anchor pile" (Hunter 2004: 3-5-3-6). Hunter further observes that such recent visible alterations to the bulkhead may have been installed upon early cribwork portions of the wall. Therefore, it is possible that the steel sheet pile bulkhead visible along the eastern frontage of Block 424, Lot 1 rests upon an early timberwork wall construction.

### Summary and Conclusions

Initial development around Block 424, Lot 1 began with the development of the Road to Freeke's Mill (Gowanus Road/Road to the Narrows) in the early eighteenth century. Further development within the lot did not occur until the initial construction of the Gowanus Canal. The bulkhead forming the eastern frontage of Lot 1 may have been initially built during the early period canal construction between 1853 and 1854. At this time, private landowners funded the Canal work which generally consisted of the construction of timber sheet walls. It is unclear whether Lot 1 was developed at this time. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 1 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

Development within Lot 1 may have begun as early as 1863 with the construction of four buildings along the northern frontage of the lot. By 1869, a coal operation had developed within at least the eastern portion of Lot 1. The earlier structures may have been removed or converted into a large C-shaped building which occupied the eastern portion of the lot. Sequential coal yards appear to have occupied Lot 1 from 1880 to 1951, at the latest. Z.O. Nelson & Son, subsequently the Nelson & Son Coal Yard, functioned and expanded their operation within Lot 1 from 1882 to 1942, at the latest.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 1 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead is a steel sheet pile composition. However, the submerged portions of the wall could not be observed during either survey.

Therefore, it is unclear whether the present visible concrete wall rests upon an historic timber cribwork foundation. Thus, there is the potential for nineteenth century bulkhead remains to exist beneath the observed steel wall (see Figure 35). An underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 1 bulkhead.







Based on the available historic information, Lot 1, a part of Projected Development Site D, is considered sensitive for potential nineteenth century bulkhead deposits relating to the two construction phases of the Gowanus Canal. The canal walls in this area may retain evidence of the earliest timber sheet piles construction, as well as of the timber cribwork forms which dominated subsequent canal construction and repair efforts.

#### **4.5 Block 424, Lot 20, Projected Development Site D**

##### Existing Conditions

Block 424 is bounded by Degraw Street to the north, the Gowanus Canal to the east, Sackett Street to the south, and Bond Street to the west. Lot 20 is a rectangular parcel that occupies the southeastern corner of the block. The lot has a width of 125 feet (38.1 meters) with a southern frontage along Sackett Street. Lot 20 has a length of 100 feet (30.5 meters) with an eastern frontage along the Gowanus Canal. As of January 2006, the lot was owned by the LAA Realty LLC (New York City Department of Finance 2009). Lot 20 is currently a paved asphalt parking area enclosed by a metal fence (Photo 14).

On February 6, 2009, a site visit was undertaken to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 424, Lot 20 was observed from the eastern bank of the Gowanus Canal. Along this frontage, the bulkhead consisted of an intact steel sheet pile wall which extended from Lot 1 to the south across Lot 20 (see Photo 13). Those portions of the bulkhead which remained underwater could not be observed at this time. A stormwater sewer outlet with several large conduit openings within a concrete bulkhead wall was observed at the foot of Degraw Street (see Photo 10).



**Photo 14: Block 424, Lot 20. View Northeast.**

Lot History

Development in the immediate vicinity of Lot 20 began in the eighteenth century with the creation of the Road to Freeke's Mill (the Road to the Narrows/Gowanus Road) (Bang 1912; see Figure 6). Ratzer's 1766-1767 map illustrates this road, at the time the only passable crossing across the Gowanus Creek, running on a north-south trajectory to the immediate west of Lot 20. There appears to be some discrepancy with respect to the location of the historic roadway in relation to Lot 20. Both the 1844 US Coast Survey and Colton's 1849 map of the area place the historic road within Lot 20, running in a diagonal course from the southeastern to the northwestern corner of the lot (see Figures 7 & 14). Such differences with respect to the historic placement of this road may reflect the fact that the course of the roadway was altered over time. Alternatively, the discrepancies may indicate differences between historic surveying techniques between the eighteenth and nineteenth centuries. Given that several nineteenth century resources situate the historic roadway within Lot 20, it appears that, at the very least, the historic road followed this trajectory during the 1800s.

From the late eighteenth into the early nineteenth century, Lot 20 appears to have fallen within the boundaries of the Old Gowanus Mill complex, being first Brower's Mill, and then becoming Freeke's Mill by the 1800s (Table 13). During this early period, it appears that those portions of Lot 20 which did not fall within the historic roadway were submerged within the mill pond associated with the adjacent mill complex.

**Table 13: Recorded Land Transfers of Block 424, Lot 20**

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
<b>Brower, Jeremiah (heirs of)</b>	<b>Brower, Adolphus Brower, Abraham Brower, Jeremiah Brower, Antie Brower, William Brower, Mattya Brower, William (Executors of)</b>	<b>11/18/1785</b>	<b>6: 343</b>	
<b>Brower, Adolph (Dolphus) Brower, Altie</b>	<b>Freeke, John C.</b>	<b>2/25/1800</b>	<b>7: 188</b>	
<i>Williamson, George Williamson, Mary</i>	<i>Hamilton, Alexander</i>	<i>10/24/1833</i>	<i>37: 472</i>	
<b>Freeke, John C. Freeke, Martha</b>	<b>Hoyt, Charles</b>	<b>9/11/1834</b>	<b>42: 410</b>	
<i>Bucknor, William G. Bucknor, Emily A.</i>	<i>Hamilton, Alexander</i>	<i>10/20/1834</i>	<i>43: 289</i>	
<i>Hamilton, Alexander Hamilton, Eliza P.</i>	<i>Carman, Richard H.</i>	<i>10/20/1834</i>	<i>43: 291</i>	
<i>Carman, Richard H. Carman, Mary</i>	<i>Hoyt, Charles</i>	<i>4/3/1835</i>	<i>47: 257</i>	
Hoyt, James	Hoyt, Charles	4/13/1844	118: 299	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Freeke, John C. (Executors of)	Hoyt, Charles	11/11/1846	155: 240	Wrong liber and page
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	
<b>Cleaveland, John</b>	<b>Hoyt, James I. (as trustee) Hoyt, Charles</b>	<b>6/13/1848</b>	<b>180: 350</b>	
Radcliff, P. W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	Refers to instruments of declaration
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration

Grantor	Grantee	Date	Liber: Page	Description
Hoyt, James J. (as assignee) Hoyt, Charles Hoyt, Charles Hoyt, Mary	Brady, James	12/21/1851	232: 204	
Brady, James Brady, Henrietta	Fiske, Edward W.	11/18/1854	380: 307	
Williams, Arias G. (sheriff)	Fiske, Edward W.	7/14/1874	1168: 429	
Fiske, Edward W. (heirs of)	Dwight, Mary W.	4/30/1875	1201: 38	
Dwight, Mary T. Dwight, Mary M. (devises)	Raymond, Sarah M. Dwight, Mary T.	4/13/1888	1801: 481	
Raymond, Sarah Raymond, Rossiter W.	Vanderbilt, William H. Vanderbilt, Joseph W.	7/1/1893	2188: 394	
Vanderbilt, William H. Vanderbilt, Georgeanna P. (trustee of) Vanderbilt, Joseph W. Vanderbilt, Lena T. (wife)	Hill, William B.	4/28/1896	4: 474	
Hill, William B. Hill, Ollie C. (wife)	Offerman, Moquin Heissenbuttel Coal Co.	5/23/1896	5: 94	
Offerman, Moquin Well Coal Co. (formerly Moquin Offerman Heissenbuttel Coal Co.)	Dollard, Albert H.	3/19/1910	3211: 137	
Dollard, Annie L. Dollard, Albert H.	Schmadeke, John F.	7/21/1910	3232: 350	
Kings County Trust Co. (as trustee) Schmadeke (trustee of John) (Dr. for John) (trustee for Herman, R.) Young (trustee for Augusta S.) Kraeling (trustee for Ceclia S.)	Serano, Saverio	7/2/1943	6349: 202	
Sorano, Saverio	Sorano, Saverio Sorano, Vincienza	7/6/1953	8127: 17	
Northville Industries CP	Allegretti, Alfred	11/13/1985	1721: 261	Entire Lot
Allegretti, Alfred, LWT	Allegretti, Linda, FBO	6/7/2002	5660: 2153	Entire Lot
Estate of Victor Allegretti	Victor Allegretti Residuary Trust-GST Exempt	1/19/2006		Entire Lot
Victor Allegretti Residuary Trust-GST Exempt	OAA Realty LLC	1/19/2006		Entire Lot
Alfred Allegretti Business Asset Trust	LAA Realty LLC	1/19/2006		Entire Lot

**Bolded entry indicates land transfer most likely involving Block 424, Lot 20. Italicized entry indicates land transfer which may include Block 424, Lot 20.**

During the 1850s, Lot 20 was acquired as a part of larger land transactions by James Brady and subsequently by Edward Fiske (Liber 232: 204; Liber 380: 307). As previously noted, initial development of the Gowanus Canal was conducted by private landowners from 1851 through 1854. It is possible that those portions of Lot 20 which front the Gowanus Canal were constructed by James Brady or Edward Fiske during this period. According to the Brooklyn Eagle, private construction along the Canal consisted primarily of sheet piling to form the bulkhead walls



(Brooklyn Eagle 1868a). Within a few years, this technique proved to be insufficient and ineffective given the marshland conditions underlying the Canal.

The 1869 Dripps map indicates that development has occurred within Lot 20 including the extension of Sackett Street and the filling and dredging of Block 424 (see Figure 18). The Dripps map indicates that a portion of a large C-shaped building complex extended through the southern portion of Lot 20. It appears that this structure may have been a portion of a coal operation. By 1869, the Gowanus Canal was nearing completion through the efforts of the Gowanus Canal Improvement Commission. The canal, from Douglass Street to Percival Street, was completed between 1866 and 1870 (Hunter 2004: 2-26). As previously noted, the completion phase of the Canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 20 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the canal walls along Lot 20 would most likely have been timber cribwork constructions.

By 1880, development within Lot 20 appears to be distinct from adjacent Lot 1 (see Figures 19 & 20). According to Bromley's 1880 map, a rectangular frame structure has developed along the southern frontage of the lot. A linear brick structure has also been constructed on the western edge of Lot 20. At this point, Mary Dwight has acquired Lot 20 from Edward Fiske (Liber 1801: 481). The 1886 Sanborn map indicates that Winderbilt's Coal Yard is occupying Lot 20 (see Figure 30). The Winderbilt complex consists of a linear stable building along the western edge of the lot. An office building is located to the immediate east of the stable. Two structures are also depicted on the eastern portion of the lot, fronting the Gowanus Canal. The Sanborn map also indicates that municipal water lines have been extended across the area.

The 1904 Sanborn map depicts the Moquin, Offerman, Heisenbuttel Coal Yard within Lot 20 (see Figure 31). The coal yard has a few additional structures along the Sackett Street frontage. A coal pocket and coal shed along with conveyer belts are also delineated within the complex. The historic deed research indicates that the Offerman, Moquin, Heissenbuttel Coal Company acquired the parcel in 1896 (Liber 5: 94). This suggests that the Offerman Coal Yard occupation of the parcel may have dated to as early as 1896. In 1910, the Offerman, Moquin Well Coal Company sold Lot 20 to Albert Dollard who, in turn, sold the property to John Schmadeke (Liber 3211: 137; Liber 3232: 350). The 1915 Sanborn indicates that the Sackett Coal Company occupies the preexisting coal yard (see Figure 32). The coal yard complex appears to have remained unchanged despite the change in ownership.

In 1943, Saverio Serano acquired Lot 20 from the Kings County Trust Company as trustee for John Schmadeke (Liber 6349: 202). The 1951 Sanborn indicates that the coal yard facility was not in operation at this time (see Figure 33). It is unclear whether the operation ceased with the transfer of title in 1943. The 1968 Sanborn depicts the coal yard complex under the ownership of Premium Corporation (see Figure 34). The complex at this time consists of a linear brick multi-story building along its western edge, two frame buildings, and a square concrete structure with coal pockets. By 2006, despite several changes in ownership, Lot 20 continued to be occupied by the Premium Corporation (see Figure 36). The coal complex within the lot also appeared unchanged.

Currently, Lot 20 consists of a paved asphalt parking area (see Photo 14). According to the DOB, the lot is classified as vacant land. During the course of this research a request was made at the Brooklyn DOB for the Block/Lot folder for Block 424, Lot 20. This folder could not be located by DOB personnel. A search of the DOB BIS database indicates that there have been no demolition permits filed for Lot 20. Therefore, it is unclear as to when the previous coal yard complex and its associated buildings were removed. The removal of these structures and conversion of the parcel into a parking area occurred sometime between 2006 and the present.

The historic cartographic record for Lot 20 does not indicate that any significant alterations were made to the eastern canal frontage of the lot. The lack of any DOB records for this parcel made it further difficult to ascertain whether alterations had been made to the historic bulkhead. As discussed previously, the GCCDC commissioned a Gowanus Canal Bulkhead Inventory Survey in 2000 as a component of a larger evaluation of the Canal. At the time that the DEIS was being prepared, the 2000 survey, completed by Adam Brown of Marine Consulting, could not be obtained (Brown 2000). Therefore, in order to assess the present conditions of the bulkhead fronting Lot 20, a pedestrian reconnaissance of the parcel was conducted in February 2009. Existing conditions of the bulkhead as observed during this pedestrian survey were compared to the bulkhead evaluation presented by Hunter (2004).

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 424, Lot 20 is a steel sheet pile wall (2004: Figure 3.1). Our site visit confirmed that the visible portion of the eastern frontage of Block 424, Lot 20 consists of a steel sheet pile bulkhead which appears to extend from Lot 1 to the south across Lot 20 (see Photo 13). Hunter identifies steel sheet pile bulkheads as one type of repair that has been made to preexisting canal walls. From Hunter's historic research, it appears that steel pile walls may have been built on top of early timber cribwork foundations. Therefore, it is possible that the visible wall fronting the eastern portion of Block 424, Lot 20 may rest upon a submerged historic foundation.

### Summary and Conclusions

Initial development around Block 424, Lot 24 began with the development of the Road to Freeke's Mill (Gowanus Road/Road to the Narrows) in the early eighteenth century. Further development within the lot did not occur until the initial construction of the Gowanus Canal. The bulkhead forming the eastern frontage of Lot 20 may have been initially built during the early period of canal construction. At this time, private landowners funded the Canal work which generally consisted of the construction of timber sheet walls. It is unclear whether the eastern frontage of Lot 20 was developed at this time. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 20 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

Development within Lot 20 had begun by 1869 with the extension of a C-shaped building, part of a larger coal operation. Sequential coal yards and coal operations occupied Lot 20 from 1869 to, at least, 1935.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 20 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead is a steel sheet pile composition. However, the submerged portions of the wall could not be observed during either survey. Therefore, it is unclear whether the present visible steel pile wall rests upon an historic timber cribwork foundation. Thus, there is the potential for nineteenth century bulkhead remains to exist underwater beneath the observed steel wall (see Figure 35). An underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 20 bulkhead.

Based on the available historic information, Lot 20, a portion of Projected Development Site D, is considered sensitive for potential nineteenth century bulkhead deposits relating to the two construction phases of the Gowanus Canal. The canal walls in this area may retain evidence of the earliest timber sheet piles construction, as well as of the timber cribwork forms which dominated subsequent canal construction and repair efforts.

## **4.6 Block 431, Lot 17, Projected Development Site D**

### Existing Conditions

Block 431 is bounded by Sackett Street to the north, the Gowanus Canal to the east, Union Street to the south, and Bond Street to the west. Lot 17 is a rectangular parcel that occupies the eastern half of the block. The lot has frontages on Sackett Street, the Gowanus Canal, and Union Street. Lot 17 has a width of 149 feet (45.4 meters) and a length of 200 feet (61 meters) with an eastern frontage along the Gowanus Canal. As of April 2002, the lot was owned by Sackett Street Properties, LLC (New York City Department of Finance 2009). Lot 17 is currently a paved asphalt parking area with a shingled metal roof adjacent to a multi-storied brick structure (Photo 15). Along the Gowanus Canal, Lot 17 consists of an inclined grass and weed-covered surface, an apparent landfill with a cement retaining wall separating the lot from the adjacent canal (Photo 16).

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 431, Lot 17 was observed from the Union Street Bridge. Along this frontage,



Photo 15: Block 431, Lot 17. View Southwest.



Photo 16: Block 431, Lot 17. View Northeast.



the bulkhead consisted of a timber-reinforced intact steel sheet pile wall which extends across the entirety of the lot (Photo 17). Those portions of the bulkhead which were underwater could not be observed at this time.



**Photo 17: Block 431, Lot 17, Bulkhead Frontage. View Northwest.**

#### Lot History

Development in the immediate vicinity of Lot 17 began in the eighteenth century with the creation of the Road to Freeke's Mill (the Road to the Narrows/Gowanus Road) (Bang 1912; see Figure 6). Ratzer's 1766-1767 map illustrates this road, at the time the only passable crossing across the Gowanus Creek, running on an irregular north-south trajectory across the northeastern portion of Lot 17 (see Figure 6). As previously noted, there appears to be some discrepancy with respect to the route of this historic roadway. Both the 1844 US Coast Survey and Colton's 1849 map of the area place the historic road to the immediate east of Lot 17 (see Figures 7 & 14). Such differences with respect to the historic placement of the road may reflect the fact that its trajectory was altered over time. Alternatively, the discrepancies may indicate differences between historic surveying techniques employed in the eighteenth and nineteenth centuries. Given that several nineteenth century resources situate the historic roadway to the immediate east of Lot 17, it appears that, during the 1800s, the road to Freeke's Mill was located to the east of Lot 17.

From the late eighteenth into the early nineteenth century, Lot 17 appears to have fallen within the boundaries of the Old Gowanus Mill complex, being first Brower's Mill, and then becoming Freeke's Mill by the 1800s (Table 14). During this early period, it appears that portions of Lot 17 were submerged within the Gowanus Creek. According to Lott's 1833 survey of Freeke's Mill, those portions of Lot 17 which were not underwater represented *an island of marsh* within the creek.

Table 14: Recorded Land Transfers of Block 431, Lot 17

Grantor	Grantee	Date	Liber: Page	Description
<b>Brower, Jeremiah (heirs of)</b>	<b>Brower, Adolphus</b> <b>Brower, Abraham</b> <b>Brower, Jeremiah</b> <b>Brower, Antie</b> <b>Brower, William</b> <b>Brower, Mattya</b> <b>Brower, William</b> <b>(Executors of)</b>	<b>11/18/1785</b>	<b>6: 343</b>	
<b>Brower, Adolph (Dolphus)</b> <b>Brower, Altie</b>	<b>Freeke, John C.</b>	<b>2/25/1800</b>	<b>7: 188</b>	
<i>Johnson, John</i>	<i>Johnson, Teunis</i>	<i>5/2/1804</i>	<i>8: 108</i>	
<i>Johnson, Teunis F.</i> <i>Johnson, Margaret</i>	<i>Bergen, Jacob</i>	<i>12/22/1832</i>	<i>34: 423</i>	
<b>Freeke, John C.</b> <b>Freeke, Martha</b>	<b>Hoyt, Charles</b>	<b>9/11/1834</b>	<b>42: 410</b>	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	
<b>Cleaveland, John</b>	<b>Hoyt, James I. (as trustee)</b> <b>Hoyt, Charles</b>	<b>6/13/1848</b>	<b>180: 350</b>	
Radcliff, P.W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	Refers to instruments of declaration
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration
<b>Hoyt, James J. (as assignee)</b> <b>Hoyt, Charles</b> <b>Hoyt, Charles</b> <b>Hoyt, Mary</b>	<b>Brady, James</b>	<b>12/21/1851</b>	<b>232: 204</b>	
<i>Bergen, Jacob (Executors of)</i>	<i>Bergen, Alexander J.</i>	<i>2/20/1851</i>	<i>237: 238</i>	
<i>Bergen, Alexander J.</i> <i>Bergen, Eliza V.</i>	<i>Bushnell, Orsamus</i>	<i>8/27/1852</i>	<i>256: 22</i>	
<b>Brady, James</b> <b>Brady, Henrietta</b>	<b>Bushnell, Orsamus</b>	<b>12/1/1852</b>	<b>302: 180</b>	<b>All except northern corner</b>
<b>Brady, James</b> <b>Brady, Henrietta</b>	<b>Bushnell, Orsamus</b>	<b>10/25/1853</b>	<b>339: 351</b>	<b>Northwestern corner</b>
<b>Brady, James</b> <b>Brady, Henrietta</b>	<b>Fiske, Edward W.</b>	<b>11/18/1854</b>	<b>380: 307</b>	<b>Northern corner</b>
<b>Bushnell, Orsamus</b> <b>Bushnell, Mary W.</b>	<b>Bliss, William</b>	<b>7/7/1855</b>	<b>399: 306</b>	
<b>Bliss, William</b>	<b>Kimberly, Dennis</b>	<b>9/2/1856</b>	<b>431: 219</b>	
<b>Kimberly, Dennis</b>	<b>White, Henry D.</b>	<b>8/28/1862</b>	<b>580: 307</b>	
<b>White, Henry D.</b> <b>White, Julia T.</b>	<b>New Haven Savings Bank of New Haven</b>	<b>1/6/1863</b>	<b>587: 247</b>	
<b>White, Henry D.</b> <b>White, Julia T.</b>	<b>Pardee, Stephen D. (as trustee)</b> <b>St. John, Samuel</b>	<b>1/6/1863</b>	<b>587: 249</b>	
<b>White, Henry D.</b> <b>White, Julia</b>	<b>Pardee, Stephen D. (as trustee)</b>	<b>3/26/1867</b>	<b>747: 519</b>	

Grantor	Grantee	Date	Liber: Page	Description
	<b>St. John, Samuel (deceased)</b>			
<b>White, Henry D. White, Julia T.</b>	<b>New Haven Savings Bank</b>	<b>3/26/1867</b>	<b>747: 524</b>	
<b>White, Henry D. White, Julia T.</b>	<b>Glover, John R.</b>	<b>7/12/1867</b>	<b>771: 184</b>	
<b>Pardee, Stephen D. Pardee, Jane C.</b>	<b>Glover, John R.</b>	<b>7/12/1867</b>	<b>771: 186</b>	
<b>New Haven Savings Bank</b>	<b>Glover, John R.</b>	<b>7/12/1867</b>	<b>771: 189</b>	
<b>Brady, James</b>	<b>Loomis, John S.</b>	<b>11/6/1867</b>	<b>787: 322</b>	
<b>Fiske, Edwards W.</b>	<b>Loomis, John S.</b>	<b>11/16/1867</b>	<b>789: 211</b>	
<b>Loomis, John S. Loomis, Sarah M.</b>	<b>Glover, Jane L. Glover, John R.</b>	<b>10/29/1868</b>	<b>854: 129</b>	<b>Pages missing</b>
<b>Glover, John R.</b>	<b>Glover, Sarah A.</b>	<b>5/17/1875</b>	<b>1203: 272</b>	
<b>Laporte, Eliza</b>	<b>Glover, Sarah A.</b>	<b>5/10/1878</b>	<b>1317: 499</b>	
<b>Glover, Sarah A.</b>	<b>Glover, John R.</b>	<b>12/5/1879</b>	<b>1373: 227</b>	
<b>Glover, Estelle M.</b>	<b>Kings County Trust Co. (as Executor and Trustee)</b>	<b>2/9/1926</b>	<b>4648: 168</b>	<b>See Old Lot 7, 11, 13; Serial Number 19288</b>
<b>Kings Country Trust Co. (as trustee) Schmadeke (trustee of) John F. Schmadeke (trustee of) John F. (1/4 interest) Schmadeke (trustee of) Herman R. (1/4 interest) Young, (trustee for) August S. (1/4 interest) Kraeling, (trustee for) Cecelia S. (1/4 interest)</b>	<b>Vincy Realty Corp.</b>	<b>4/13/1944</b>	<b>6501: 288</b>	<b>Serial Number D7526</b>
<b>Vincy Realty Corp.</b>	<b>Supreme Oil Terminal Corp.</b>	<b>4/6/1946</b>	<b>6885: 213</b>	<b>Serial Number D10240</b>
<b>Supreme Oil Terminal Corp.</b>	<b>American Ice Co.</b>	<b>6/4/1954</b>	<b>8242: 197</b>	
<b>Allegretti, Sergio</b>	<b>Bayside Fuel Oil Depot Corporation</b>	<b>9/25/1967</b>	<b>534: 433</b>	<b>Entire Lot</b>
<b>Bayside Fuel Oil Depot Corporation</b>	<b>Sackett Street Properties LLC</b>	<b>4/26/2002</b>	<b>5588: 327</b>	<b>Entire Lot</b>

**Bolded entry indicates land transfer most likely involving Block 431, Lot 17. Italicized entry indicates land transfer which may include Block 431, Lot 17.**

During the 1850s, Lot 17 was acquired as a part of larger land transactions by James Brady and subsequently by Orsamus Bushnell and by Edward Fiske (Liber 232: 204; Liber 302: 180, Liber 339: 351, Liber 380: 307). As previously noted, initial development of the Gowanus Canal was conducted by private landowners from 1851 through 1854. It is possible that those portions of Lot 17 which front the Gowanus Canal were constructed by Brady, Bushnell, or Fiske during this period. According to the Brooklyn Eagle, private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years, this technique proved to be insufficient and ineffective given the marshland conditions underlying the canal.

Portions of Modern Lot 17 were extensively speculated throughout the 1860s. By 1868, John Glover had acquired the majority of Lot 17 through a series of land transactions (Liber 771: 184, 186, 189; Liber 854: 129). The 1869 Dripps map indicates that beginning development has occurred across Lot 17 (see Figure 18). At this time, it appears that Sackett, Union, and Bond Streets have been extended. An 1869 article within the Brooklyn Eagle confirms that streets, including Third Street, Fourth Avenue, and Union Street, were being laid out through the



Gowanus meadows under specific legislative acts (Brooklyn Eagle 1869b). The Dripps map appears to reflect the fact that Modern Block 431 has been created via filling and dredging of the previously submerged area. The map also reflects the presence of a rectangular structure along the northern portion of Lot 17. No other structures are depicted within the lot. The Gowanus Canal has been or is near completed by this time. As previously discussed, completion of the Canal, from Douglass Street to Percival Street, was undertaken by the Gowanus Canal Improvement Commission between 1866 and 1870 (Hunter 2004: 2-26). As previously noted, completion of the canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 17 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the canal walls along Lot 17 would most likely have been timber cribwork constructions.

By 1880, development has increased throughout Lot 17 (see Figures 19 & 20). Historic Block 263, Modern Block 431, was designated by this time; it appears that individual building lots were also delineated across the historic block. Two rectangular frame structures have been developed along the northern and southern frontages of Modern Lot 17. A small brick structure occupies the southeastern corner of the lot. Bromley's 1880 map identifies this complex of buildings as a coal yard.

The 1886 Sanborn map illustrates continued development across Lot 17 (see Figure 30). The northern portion of the lot consists of the eastern extent of Schmadeke's Coal Yard. The eastern portion of this complex includes a conveyer belt, a linear coal shed, a coal pocket, and an unidentified structure. The southern portion of Lot 17 consists of a lumber yard along the Gowanus Canal and Dykeman's Box Factory in the southwestern portion of the lot.

Robinson's 1898 map indicates that Modern Block designations and historic lot configurations have extended into the area (see Figure 22). Robinson's map illustrates the continued presence of coal yard facilities within the northern portion of Modern Lot 17. The buildings previously extant along the southern portion of the lot are no longer present. The 1904 Sanborn map depicts the extension of the J.F. Schmadeke's Coal Yard across the entirety of Block 431, including all of Lot 17 (see Figure 31). By this time, a large coal pocket and a small engineering building have developed along the southern portion of the lot. Lot 17 was owned by John R. Glover during this time period. It appears that the coal yard operation was most likely renting the property during the early twentieth century.

In 1926, Estelle Glover sold the property to Kings County Trust Company (Liber 4648: 168). The property remained unchanged throughout this time period. The 1929 Hyde map indicates that the Commonwealth Fuel Company occupied Lot 17. The buildings within the lot appear to have remained unchanged. The 1951 Sanborn map indicates that Magnet Fuel Corporation occupies Lot 17 (see Figure 33). The complex of buildings within the lot appears to have remained unchanged.

In 1967, the Bayside Fuel Oil Depot Corporation acquired Lot 17. The 1968 Sanborn map reflects the occupation of the Bayside Oil Corporation (see Figure 34). A concrete square structure associated with the Bayside Corporation is depicted within the southern portion of Lot 17. A linear office building and a paved space for vehicles occupies the northern portion of the lot. This assemblage of buildings appears to have remained relatively unchanged up to the present day. During the course of research, an information request was made at the Brooklyn DOB for the Block/Lot folder for Block 431, Lot 17. The folder could not be located by DOB personnel. A search of the DOB BIS database could not identify any demolition permits for Lot 17. Therefore, it is unclear as to when the preexisting coal yard structures were removed and the Bayside Oil buildings were constructed. In 2002, Lot 17 was acquired by Sackett Street Properties, LLC (Liber 5588: 327). The property is currently classified as Miscellaneous Land Use by the DOB.

The historic cartographic record for Lot 17 does not indicate that any significant alterations were made to the eastern canal frontage of the lot. The lack of any DOB records for this parcel made it further difficult to ascertain whether alterations had been made to the historic bulkhead. As discussed previously, the GCCDC commissioned a Gowanus Canal Bulkhead Inventory Survey in 2000 as a component of a larger evaluation of the Canal. At the time that the DEIS was being prepared, the 2000 survey, completed by Adam Brown of Marine Consulting, could not be obtained (Brown 2000). Therefore, in order to assess the present conditions of the bulkhead fronting Lot 17, a pedestrian

reconnaissance of the parcel was conducted in February 2009. Existing conditions of the bulkhead as observed during this pedestrian survey were compared to the bulkhead evaluation presented by Hunter (2004).

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 431, Lot 17 is a steel sheet pile wall (2004: Figure 3.1). Our site visit confirmed that the visible portion of the eastern frontage of Block 431, Lot 17 consists of a timber-reinforced steel sheet pile bulkhead which appears to extend across the entirety of Lot 17 (see Photo 17). Hunter identifies steel sheet pile bulkheads as one type of repair that has been made to preexisting canal walls. From Hunter's historic research, it appears that steel pile walls may have been built on top of early timber cribwork foundations. Therefore, it is possible that the visible wall fronting the eastern portion of Block 431, Lot 17 may rest upon a submerged historic foundation.

### Summary and Conclusions

Initial development in the vicinity of Block 431, Lot 17 began with the development of the Road to Freeke's Mill (Gowanus Road/Road to the Narrows) in the early eighteenth century. Portions of this historic roadway appear to have extended across Lot 17 during the 1800s. Further development within the lot did not occur until the initial construction of the Gowanus Canal. The bulkhead forming the eastern frontage of Lot 17 may have been initially built during the early period of canal construction. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 17 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

Development within Lot 17 appears to have begun by 1869 with the extension of streets across the block. A rectangular building was also constructed within the northern portion of the lot. By 1880, development increased across the lot. By 1886, Schmadeke's Coal Yard began to occupy the northern portion of the lot. The coal yard expanded its operations within Lot 17 up until the 1920s. Several sequential oil and fuel corporations have occupied the lot from 1929 up to the present day. The operation of these fuel depots, along with current land use of the lot, suggests that extensive filling and potential subsurface disturbance has occurred within the majority of the lot (see Photos 15 & 16).

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 17 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead is a timber-reinforced steel sheet pile composition. However, the submerged portions of the wall could not be observed during either survey. Therefore, it is unclear whether the present visible steel pile wall rests upon an historic timber cribwork foundation. Thus, this study concludes that there is the potential for nineteenth century bulkhead remains to exist underwater beneath the observed steel wall (see Figure 35). An underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 17 bulkhead.

Based on the available historic information, Lot 17, a portion of Projected Development Site D, is considered sensitive for potential nineteenth century bulkhead deposits relating to the two construction phases of the Gowanus Canal. The submerged canal walls in this area may retain evidence of the earliest timber sheet piles construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

## **4.7 Block 438, Lot 3, Projected Development Site I**

### Existing Conditions

Block 438 is bounded by Union Street to the north, the Gowanus Canal to the east, President Street to the south, and Bond Street to the west. Lot 3 is an irregularly shaped parcel with frontages on President Street, Bond Street, and the Gowanus Canal. The western edge of the lot begins at a point 40 feet (12.2 meters) north of the intersection of Bond and President Streets. From this point, Lot 3 runs 80 feet (24.4 meters) to the north along Bond Street and

then runs 75 feet (22.9 meters) to the east. From this point, the lot runs 20 feet (6.1 meters) to the south where it turns and extends 225 feet (68.6 meters) to the Gowanus Canal. The parcel runs along the Canal 100 feet (30.5 meters) to the south to the intersection of President Street and the Gowanus Canal. At the intersection, Lot 3 extends 225 feet to the west along President Street. From this point, the lot runs 40 feet (12.2 meters) to the north and then proceeds 75 feet (22.9 meters) to the west intersecting with Bond Street. The lot has a length of 100 feet (30.5 meters) along its eastern frontage and a length 80 feet (24.4 meters) along its western edge. At its maximum depth, Lot 3 has a width of 300 feet (91.4 meters). As of February 1979, the lot was owned by Daniel Tinneney (New York City Department of Finance 2009). Lot 3 is currently a paved asphalt parking area with a temporary linear building along its western edge (Photo 18).

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 438, Lot 3 was observed from the Union Street Bridge. Along this frontage, the bulkhead consists of a poured cement wall resting atop a visible intact timber cribwork foundation (Photo 19). Those portions of the bulkhead which were underwater could not be observed at this time.



**Photo 18: Block 438, Lot 3.**





**Photo 19: Block 438, Lot 3, Bulkhead Frontage. View Southwest.**

#### Lot History

Development within Lot 3 did not begin until the mid-nineteenth century. The 1844 US Coast Survey indicates that the majority of the lot was submerged within the Gowanus Creek (see Figure 7). The western portion of the lot appears to have been lowland marsh adjacent to the creek bed. According to the Brooklyn Eagle, President Street had been opened up to the Gowanus Creek by 1853 (Brooklyn Eagle 1853b). This suggests that at least the southern portion of Lot 3 may have been filled and dredged by the early 1850s. The lot was speculated rather extensively during this period with Orsamus Bushnell having acquired the parcel by 1852 (Liber 256: 22; Liber 302: 180; Table 15).

**Table 15: Recorded Land Transfers of Block 438, Lot 3.**

Grantor	Grantee	Date	Liber: Page	Description
Brower, Jeremiah (heirs of)	Brower, Adolphus Brower, Abraham Brower, Jeremiah Brower, Antie Brower, William Brower, Mattya Brower, William (Executors of)	11/18/1785	6: 343	
Rapalje, John Commissioners of Forfeiture	Johnson, John	6/26/1785	6: 344C	
Brower, Adolph (Dolphus) Brower, Altie	Freeke, John C.	2/25/1800	7: 188	
Johnson, John	Johnson, Teunis	5/2/1804	8: 108	
Johnson, Teunis F.	Bergen, Jacob	12/22/1832	34: 423	

Grantor	Grantee	Date	Liber: Page	Description
<b>Johnson, Margaret</b>				
<b>Freeke, John C. Freeke, Martha</b>	<b>Hoyt, Charles</b>	<b>9/11/1834</b>	<b>42: 410</b>	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	
<b>Bergen, Jacob (Executor of)</b>	<b>Van Mater, Joseph H., Jr.</b>	<b>7/24/1847</b>	<b>166: 272</b>	
<b>Van Mater, Joseph H., Jr. Van Mater, Margaret</b>	<b>Bergen, Alexander J.</b>	<b>7/24/1847</b>	<b>166: 293</b>	
<b>Cleaveland, John</b>	<b>Hoyt, James I. (as trustee) Hoyt, Charles</b>	<b>6/13/1848</b>	<b>180: 350</b>	
<b>Bergen, Alexander J. Bergen, Eliza V.</b>	<b>Secor, Charles A.</b>	<b>11/21/1848</b>	<b>187: 155</b>	
Radcliff, P.W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	Refers to instruments of declaration
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration
<b>Hoyt, James J. (as assignee) Hoyt, Charles Hoyt, Charles Hoyt, Mary</b>	<b>Brady, James</b>	<b>12/21/1851</b>	<b>232: 204</b>	
<b>Bergen, Jacob (Executors of)</b>	<b>Bergen, Alexander J.</b>	<b>2/20/1851</b>	<b>237: 238</b>	
<b>Secor, Charles A. Secor, Lydia</b>	<b>Bergen, Alexander J.</b>	<b>2/20/1851</b>	<b>238: 255</b>	
<b>Bergen, Alexander J. Bergen, Eliza V.</b>	<b>Bushnell, Orsamus</b>	<b>8/27/1852</b>	<b>256: 22</b>	
<b>Brady, James Brady, Henrietta</b>	<b>Bushnell, Orsamus</b>	<b>12/1/1852</b>	<b>302: 180</b>	
<b>Bushnell, Orsamus Bushnell, Mary W.</b>	<b>Bliss, William</b>	<b>7/7/1855</b>	<b>399: 306</b>	
<b>Bliss, William</b>	<b>Kimberly, Dennis</b>	<b>9/2/1856</b>	<b>431: 219</b>	
<b>Kimberly, Dennis</b>	<b>White, Henry D.</b>	<b>8/28/1862</b>	<b>580: 307</b>	
<b>White, Henry D.</b>	<b>Merchants Bank of New Haven, CT</b>	<b>1/6/1863</b>	<b>587: 244</b>	
<b>White, Henry D.</b>	<b>New Haven Savings Bank of New Haven</b>	<b>1/6/1863</b>	<b>587: 247</b>	
<b>Merchants National Bank of New Haven</b>	<b>Merchants National Bank of New Haven</b>	<b>10/11/1865</b>	<b>678: 514</b>	
<b>New Haven County Bank of New Haven, CT</b>	<b>New Haven County National Bank of New Haven, CT</b>	<b>4/11/1866</b>	<b>700: 373</b>	
<b>Bliss, William</b>	<b>Knight, Henry Woodward, James L.</b>	<b>3/26/1867</b>	<b>747: 515</b>	
<b>White, Henry D. White, Julia F.</b>	<b>Merchants National Bank of New Haven</b>	<b>3/26/1867</b>	<b>747: 522</b>	
<b>White, Henry D. White, Julia F.</b>	<b>New Haven Savings Bank</b>	<b>3/26/1867</b>	<b>747: 524</b>	
<b>Merchants National Bank of New Haven</b>	<b>Knight, Henry Woodward, James L.</b>	<b>3/26/1867</b>	<b>747: 536</b>	Lots 3 & 7

Grantor	Grantee	Date	Liber: Page	Description
White, Henry D. White, Julia T. New Haven County National Bank	Knight, Henry Woodward, James L.	3/26/1867	747: 532	
Woodward, James L. (Heir of)	Wilson, Edward F.	11/5/1877	1295: 467	
Knight, Henry Knight, Mary A.	Wilson, Edward F.	3/29/1879	1349: 97	Reel missing
Wilson, Edward F.	Watt, James	3/31/1883	1501: 323	Lots 3 & 7
Wilson, Edward F.	Watt, James	3/31/1883	1501: 320	Lots 3 & 7
Watt, James Watt, Mary C.	Wilson, Julia M.	3/31/1883	1501: 338	Lots 3 & 7
Watt, James Watt, Mary C.	Wilson, Julia M.	3/31/1883	1501: 340	Lots 3 & 7
Wilson, Edward F. Wilson, Julia M.	Knight, Henry	8/29/1879	1349: 100	
Knight, Mary A. Knight, Henry C. Clement, Nathaniel H. As Executives & Trustees Knight, Henry	Knight, Henry C. Lidford, Thomas H.	2/1/1884	1540: 412	
<i>Knight, Henry C. Knight, Anna F.</i>	<i>Lidford, Thomas H. Individually or as a member of the firm of Knight &amp; Lidford</i>	<i>5/11/1885</i>	<i>1609: 150</i>	
Harper, Grace L.	Putnam Coal & Ice Corp.	4/23/1925	4504: 498	Bond Street 80' from Union Street 80' irregular; Serial Number 48301
Putnam Coal & Ice Co.	Rubel Coal & Ice Corp.	8/4/1925	4569: 193	Serial Number 106258
Rubel Coal & Ice Corp	Luzerne Coal Corp.	7/10/1929	5053: 283	Serial Number 70472
Luzerne Coal Corp.	Macpac Realty Corp.	12/10/1943	6441: 162	
Macpac Realty Corp.	Vidan Auto Salvage Corp.	2/14/1979	1053: 1408	Entire Lot
Vidan Auto Salvage Corp.	Tinneny, Daniel	2/16/1979	1054: 646	Entire Lot
City of New York	Tinneny, Daniel	7/7/2004		Entire Lot

**Bolded entry indicates land transfer most likely involving Block 438, Lot 3. Italicized entry indicates land transfer which may include Block 438, Lot 3.**

This period of real estate speculation coincided with the beginning construction of the Gowanus Canal. As previously noted, initial development of the Canal was conducted by private landowners from 1851 through 1854. It is possible that the Gowanus Canal frontage of Lot 3 was constructed by Brady, Bergen, or Bushnell. According to the Brooklyn Eagle, early private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years, the sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

Lot 3 was extensively speculated throughout the 1860s (see Table 15). By 1867, Henry Knight and James Woodward appeared to control the entirety of Lot 3 (Liber 747: 515, 532, 536). The 1869 Dripps map indicates that the lot has been filled and dredged, with Union, President, and Bond Streets having been extended (see Figure 18). An 1869 article within the Brooklyn Eagle confirms that streets, including Third Street, Fourth Avenue, and Union Street, were being laid out through the Gowanus meadows under specific legislative acts (Brooklyn Eagle 1869b). No structures are depicted within the block. However, the Dripps map identifies the entire historic block with the *Cement Drain & Water Pipe Works*.



Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the Canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 3 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the canal walls along Lot 3 would most likely have been timber cribwork constructions.

By 1880, extensive development has occurred throughout Lot 3 (see Figures 19 & 20). By this time, Historic Block 252, Modern Block 438, was designated; it appears that individual building lots were also delineated across the historic block. An L-shaped frame building has been constructed along the northern and eastern frontages of Lot 3. According to Bromley's 1880 map, H. Knight operated this complex (see Figure 19). The 1886 Sanborn map indicates that the lot has become Lidford's Coal & Wood Yard (Figure 37). Several structures, including a linear coal shed and conveyer belt, are depicted within Lot 3. Thomas Lidford, as representative of the Knight and Lidford company, acquired title to Lot 3 in 1884 (Liber 1540: 412).

The 1904 Sanborn indicates that T.H. Lidford Coal & Wood Yard has become more extensive (Figure 38). Several conveyer belts along with multiple structures, including a shed building and a repair shop, are situated throughout Lot 3. The Modern Block designation has been extended into the area by this time. Alterations to the coal and wood yard complex were made by 1915 (Figure 39). Two of the conveyer belts had been removed by this time, and coal bins are situated along the southern frontage of the lot. In 1925, Rubel Coal & Ice Corporation acquired Lot 3 (Liber 4569: 193). The Rubel Corporation sold the lot to the Luzerne Coal Corporation in 1929 (Liber 5053: 283). Despite these land transactions, the complex within Lot 3 remained unchanged. The 1935 Sanborn also indicates that this complex was still under the operation of the T.H. Lidford Coal and Wood Yard.

By 1951, Lot 3 is depicted as a vacant lot (Figure 40). In 1943, Macpac Realty Corporation purchased the parcel from the Luzerne Coal Corporation (Liber 6441: 162). A search of the DOB BIS database indicates that no demolition permits have been filed for Block 438, Lot 3. It is, therefore, unclear when the coal yard structures within the lot were removed. Given the change in lot ownership in 1943, it seems likely that the extant buildings were destroyed sometime between 1943 and 1951.

The 1968 Sanborn map indicates that the majority of Lot 3 has been converted into an Auto Wrecking space (Figure 41). Two frame structures, a shed and an automobile repair shop, are located along the western extent of the lot. Coal piles are also illustrated along the eastern frontage of Lot 3. In 1979, Daniel Tinneney acquired the parcel (Liber 1054: 646). By 2006, Lot 3 remained relatively unchanged. The 2006 Sanborn map indicates that the coal piles along the eastern portion of the lot have been removed (Figure 42). This represents the only discernible change within the lot. The DOB currently classifies Lot 3 as a Garage/Gas Station; it continues to reflect its 2006 formation.

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 438, Lot 3 is "timber cribwork with intact faces about mean low water" (2004: Figure 3.1). Our site visit confirmed that the visible portion of the wall consists of a cement wall resting atop intact timber cribwork (see Photo 19). Hunter's evaluation of the Gowanus Canal found that from the eighteenth century through to 1930, that bulkhead construction across the Port of New York involved primarily timberwork constructions (2004: 3-2). Although finding no direct references to the bulkhead forms created by the Gowanus Canal Improvement Commission, Hunter concluded that given the timing of the construction that these walls were most likely timber cribwork constructions. In the preceding section, as overview of the typical forms of timber cribwork construction was presented. Hunter further observes that it is generally difficult to date cribwork bulkheads without documentary or archaeological evidence. They also argue that given the limited available historic data regarding cribwork construction, particularly within the Gowanus Canal, that "cribwork bottoms should...be regarded as especially important" (2004: 3-5). The seemingly intact timber cribwork along the eastern frontage of Block 438, Lot 3 would represent such a potentially important resource.

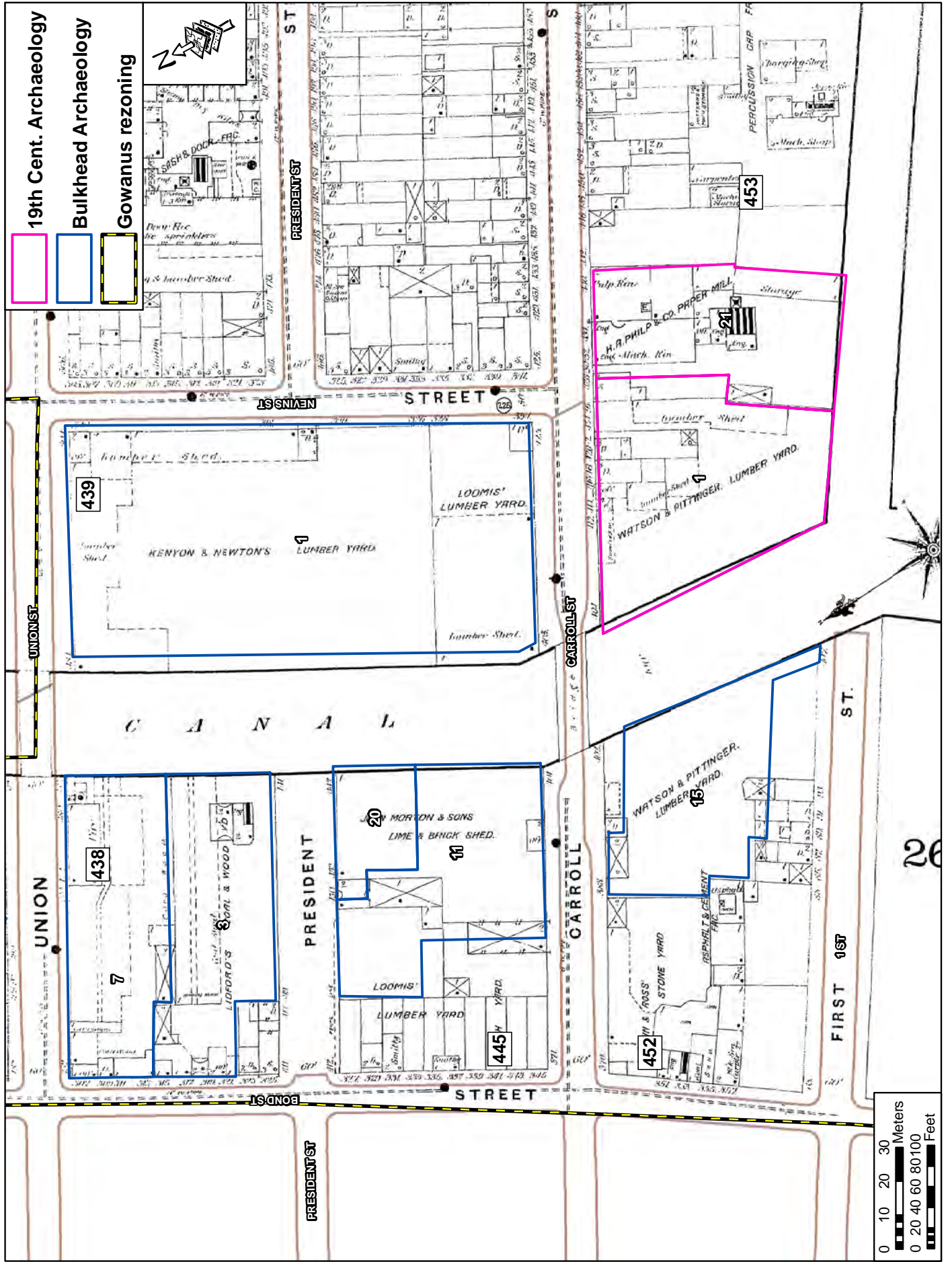


FIGURE 37: 1886 View of Blocks 438, 439, 445, 452 and 453 within the Gowanus Rezoning Project Area



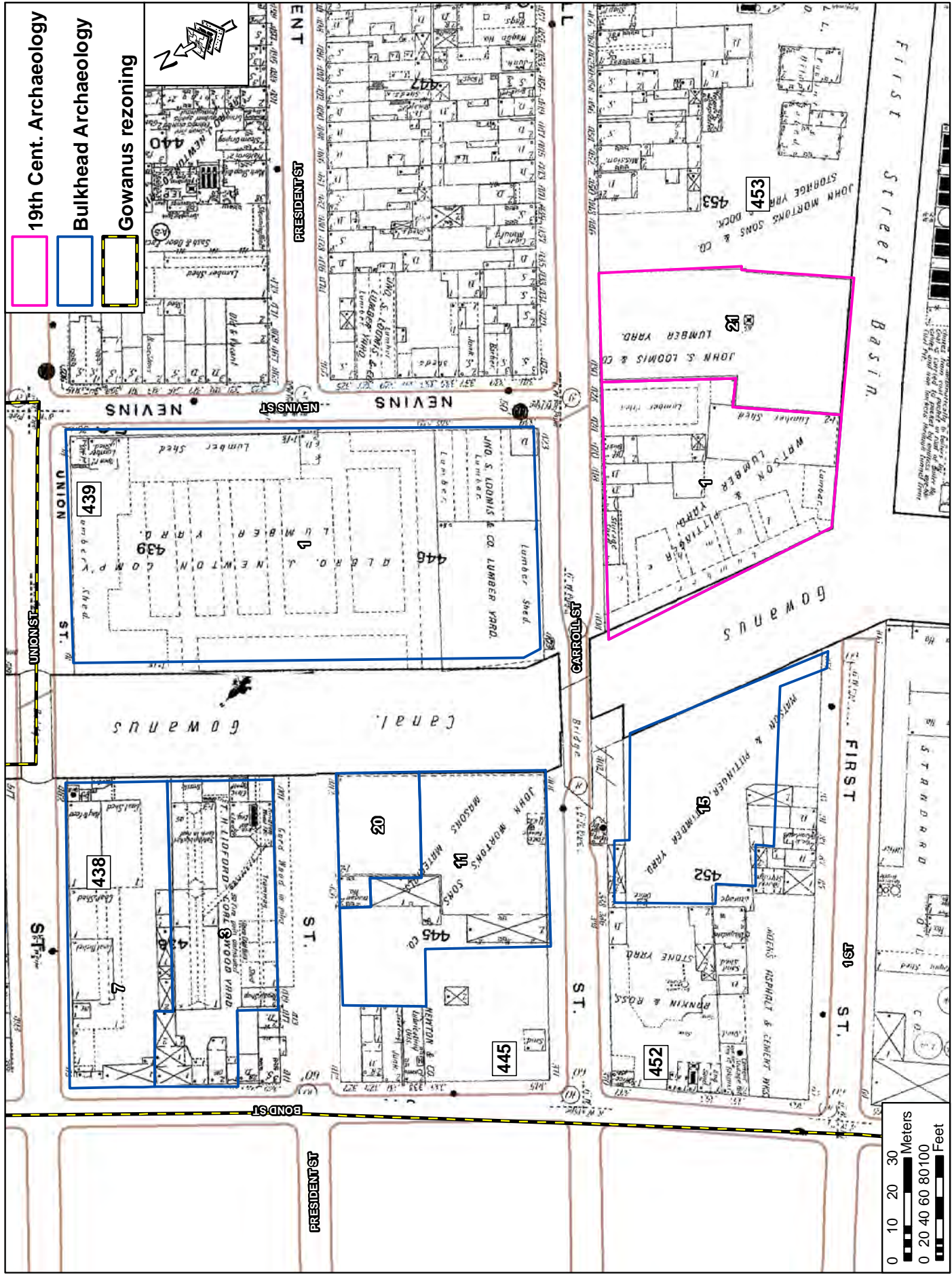
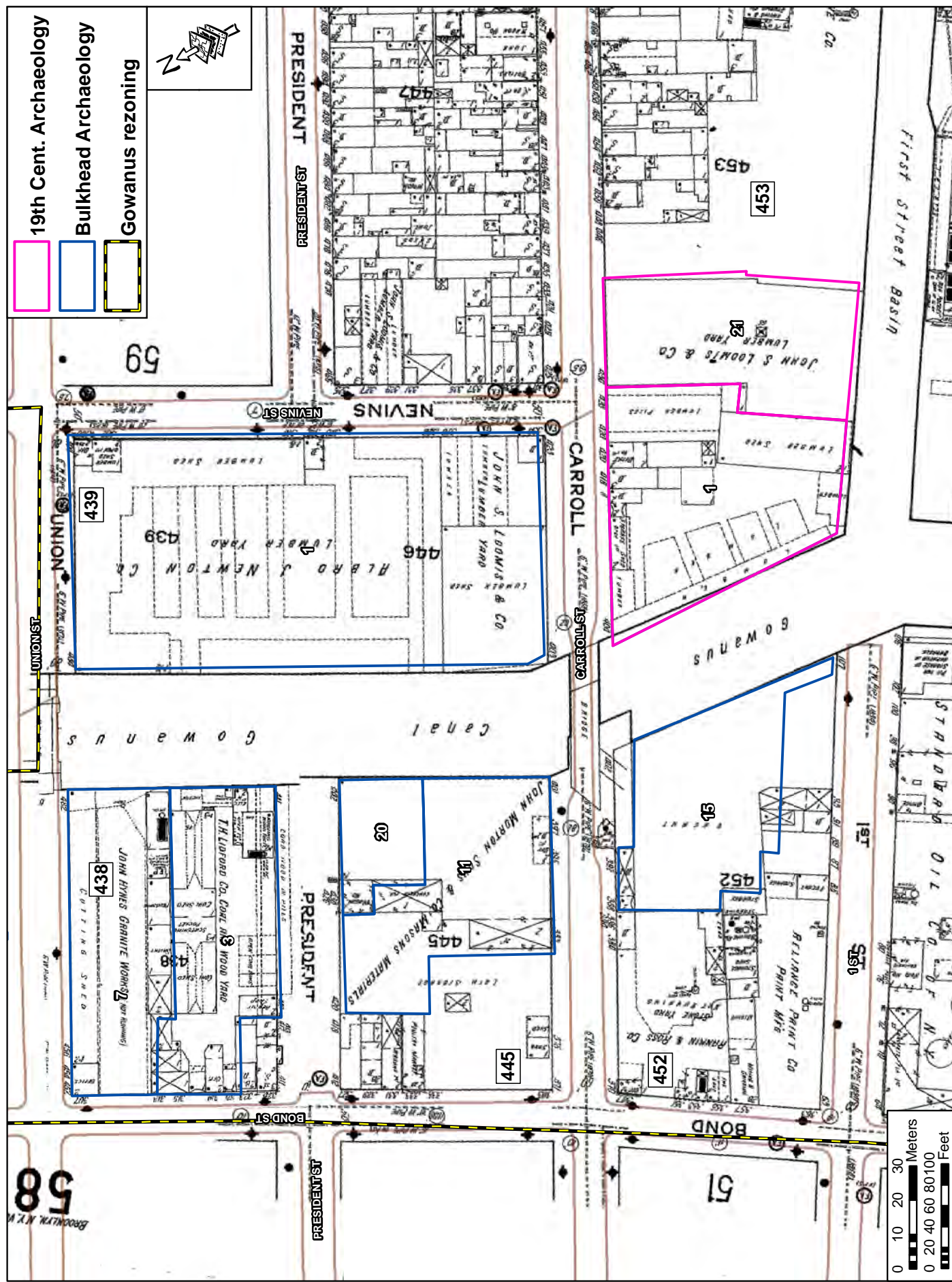
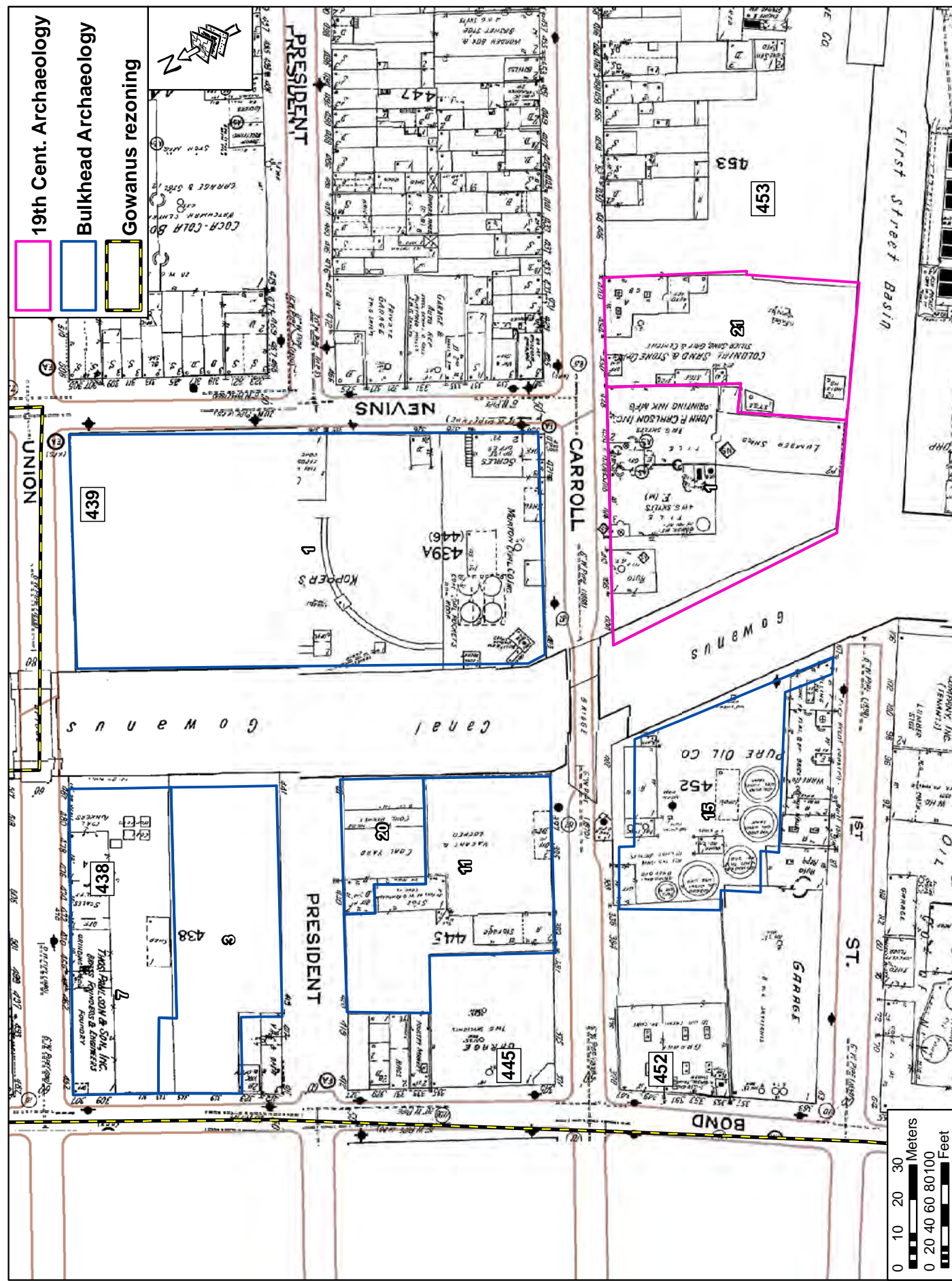


FIGURE 38: 1904 View of Blocks 438, 439, 445, 452 and 453 within the Gowanus Rezoning Project Area









**FIGURE 40: 1951 View of Blocks 438, 439, 445, 452 and 453 within the Gowanus Rezoning Project Area**

SOURCE: Sanborn 1951





FIGURE 41: 1968 View of Blocks 438, 439, 445, 452 and 453 within the Gowanus Rezoning Project Area



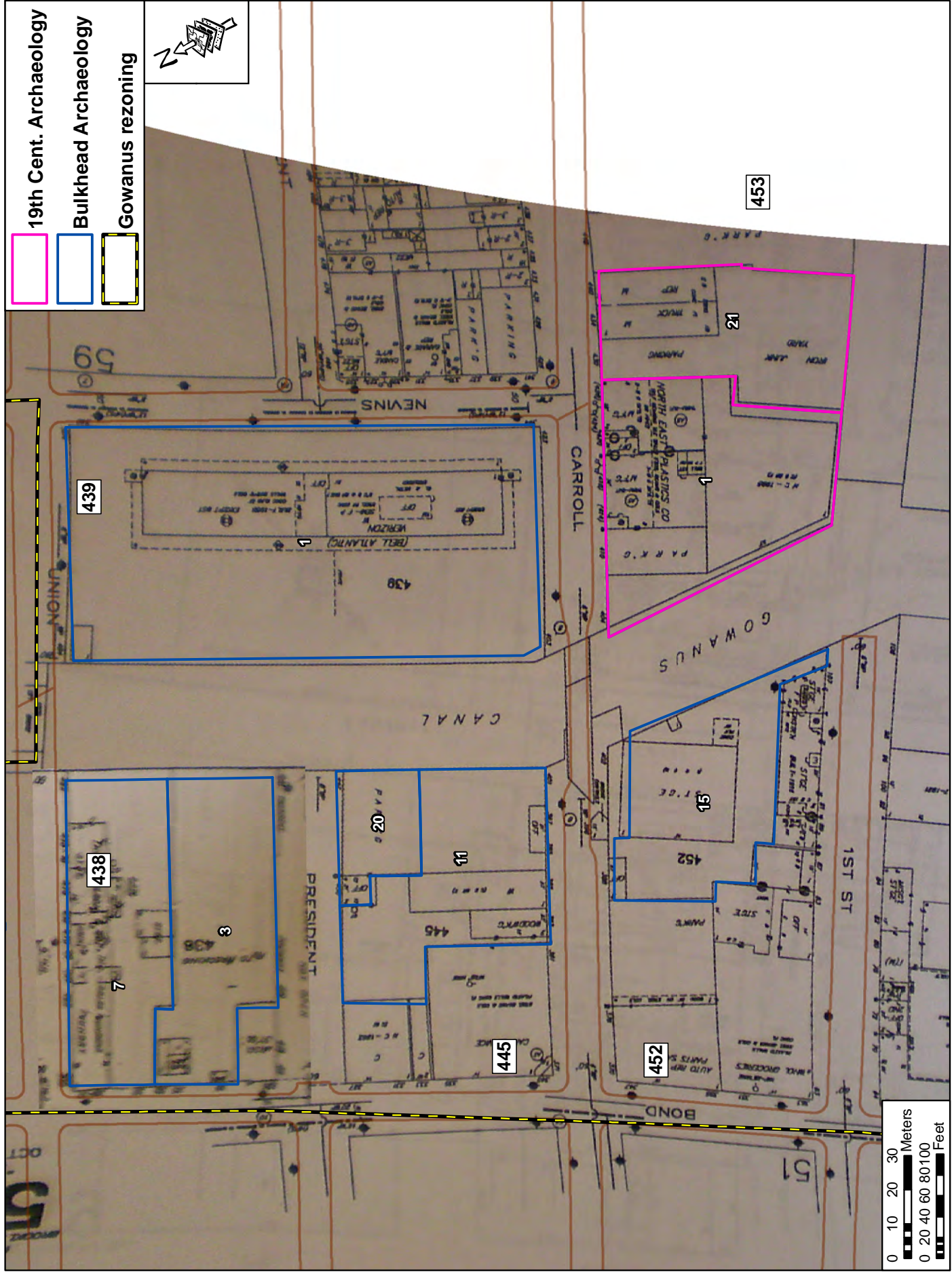


FIGURE 42: 2006 View of Blocks 438, 439, 445, 452 and 453 within the Gowanus Rezoning Project Area

## Summary and Conclusions

Initial development in the vicinity of Block 438, Lot 3 may have begun with the initial construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 3 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

While Lot 3 appears to have been dredged and filled by 1869, structures do not appear within the lot until the 1880s. By 1886, Lidford's Coal & Wood Yard occupied Lot 3. This company occupied Lot 3 from 1886 to, at least, 1915. 1880, development increased across the lot. While ownership of the lot changed several times prior to 1951, it is unclear when the Lidford operation discontinued their use of the property. By 1968, the lot had been converted for an auto wrecking business. This operation continues to occupy Lot 3.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 3 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of a cement wall resting upon an intact timber cribwork foundation. The submerged portions of the wall could not be observed during either survey. The visible evidence of intact cribwork and the potential for submerged cribwork foundations underneath the visible portions of the wall suggests that the eastern frontage of Block 438, Lot 3 has the potential to possess nineteenth or early twentieth century bulkhead remains (Figure 43). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 3 bulkhead.

Based on the available historic information, Lot 3, a portion of Projected Development Site D, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

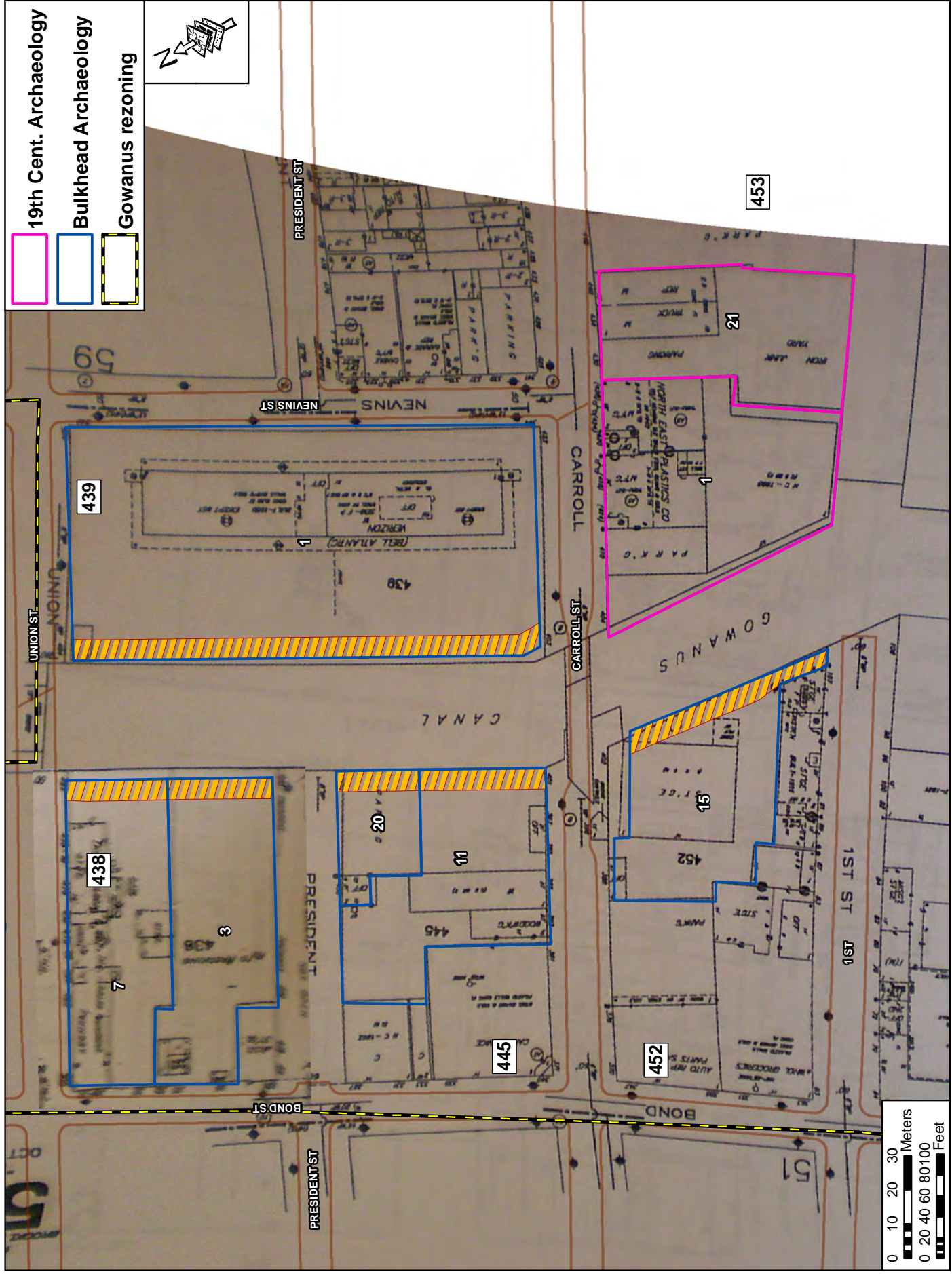
## **4.8 Block 438, Lot 7, Projected Development Site J**

### Existing Conditions

Block 438 is bounded by Union Street to the north, the Gowanus Canal to the east, President Street to the south, and Bond Street to the west. Lot 7 is a slightly irregular rectangular parcel with frontages on Union Street, Bond Street, and the Gowanus Canal. The northern frontage of Lot 7 extends 300 feet (91.4 meters) across Union Street. From the intersection of Bond and Union Streets, the lot runs 80 feet (24.4 meters) to the south where it turns and extends 75 feet (22.3 meters) to the east. At this point, the lot runs 20 feet (6.1 meters) to the south where it again turns to the east and extends 225 feet (68.8 meters) to the intersection with the Gowanus Canal. Lot 3 extends 100 feet (30.5 meters) to the north to the intersection of Union Street and the Gowanus Canal. The lot has a maximum width of 300 feet (91.4 meters) and a length of 100 feet (30.5 meters) along its eastern extent and 80 feet (24.4 meters) along its western edge. As of December 2004, the lot was owned by the Union Street Development, LLC (New York City Department of Finance 2009). Currently, a linear painted green two-story brick facility occupies Lot 7. The building appears to contain both garage and warehouse space (Photos 20 & 21).

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 438, Lot 7 was observed from the Union Street Bridge. Along this frontage, the bulkhead consists of a continuous line of intact timber cribwork. Along the northern portion of the frontage, a cement cinderblock wall rests atop the cribwork; in the southern segment a dirt and grass surface sits on top of the cribwork (Photos 22 & 23). Those portions of the bulkhead which were underwater could not be observed at this time.





**FIGURE 43: Areas Sensitive for Historic Period Archaeological Resources within Block 438, Lots 7 & 3, Block 439, Lot 1, Block 445, Lots 11 & 21, and Block 452, Lot 15**





Photo 20: Block 438, Lot 7. View Southeast.



Photo 21: Block 438, Lot 7. View South.



**Photo 22: Block 438, Lot 7, Bulkhead Frontage. View Southwest.**



**Photo 23: Block 438, Lot 7, Southern Segment of Bulkhead Frontage. View Southwest.**



Lot History

Initial development of Lot 7 did not occur until the mid-nineteenth century. Both the 1844 US Coast Survey and Colton's 1849 map of the area depict Lot 7 as partially submerged within the Gowanus Creek (see Figures 7 & 14). At this time, the western extent of the lot appears to have been a raised island of marshland within the creek. According to the Brooklyn Eagle, Union Street was being laid out and extended across the Gowanus meadows in 1869 (Brooklyn Eagle 1869b). This suggests that at least the northern portion of Lot 7 may not have been filled and dredged before 1869. The lot was extensively speculated throughout the 1850s and 1860s (Table 16).

**Table 16: Recorded Land Transfers of Block 438, Lot 7**

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
<b>Brower, Jeremiah (heirs of)</b>	<b>Brower, Adolphus Brower, Abraham Brower, Jeremiah Brower, Antie Brower, William Brower, Mattya Brower, William (Executors of)</b>	<b>11/18/1785</b>	<b>6: 343</b>	
<b>Rapalje, John Commissioners of Forfeiture</b>	<b>Johnson, John</b>	<b>6/26/1785</b>	<b>6: 344C</b>	
<b>Brower, Adolph (Dolphus) Brower, Altie</b>	<b>Freeke, John C.</b>	<b>2/25/1800</b>	<b>7: 188</b>	
<b>Johnson, John</b>	<b>Johnson, Teunis</b>	<b>5/2/1804</b>	<b>8: 108</b>	
<b>Johnson, Teunis F. Johnson, Margaret</b>	<b>Bergen, Jacob</b>	<b>12/22/1832</b>	<b>34: 423</b>	
Freeke, John C. Freeke, Martha	Hoyt, Charles	9/11/1834	42: 410	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	
<b>Bergen, Jacob (Executor of)</b>	<b>Van Mater, Joseph H., Jr.</b>	<b>7/24/1847</b>	<b>166: 272</b>	
<b>Van Mater, Joseph H., Jr. Van Mater, Margaret</b>	<b>Bergen, Alexander J.</b>	<b>7/24/1847</b>	<b>166: 293</b>	
<b>Cleaveland, John</b>	<b>Hoyt, James I. (as trustee) Hoyt, Charles</b>	<b>6/13/1848</b>	<b>180: 350</b>	
<b>Bergen, Alexander J. Bergen, Eliza V.</b>	<b>Secor, Charles A.</b>	<b>11/21/1848</b>	<b>187: 155</b>	
Radcliff, P.W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration
<b>Hoyt, James J. (as assignee) Hoyt, Charles Hoyt, Charles Hoyt, Mary</b>	<b>Brady, James</b>	<b>12/21/1851</b>	<b>232: 204</b>	
<b>Bergen, Jacob (Executors of)</b>	<b>Bergen, Alexander J.</b>	<b>2/20/1851</b>	<b>237: 238</b>	
<b>Secor, Charles Secor, Lydia A..</b>	<b>Bergen, Alexander J.</b>	<b>2/20/1851</b>	<b>237: 255</b>	
<b>Bergen, Alexander J.</b>	<b>Bushnell, Orsamus</b>	<b>8/27/1852</b>	<b>256: 22</b>	



Grantor	Grantee	Date	Liber: Page	Description
Bergen, Eliza V.				
Brady, James Brady, Henrietta	Bushnell, Orsamus	12/1/1852	302: 180	
Moore, Jane	Orsamus Bushnell	5/30/1855	396: 218	
Suydham, James Pothemus, Abraham As Trustees	Orsamus Bushnell	5/31/1855	396: 359	
Bliss, William	Mathew Gardner	6/1/1855	396: 484	
Bushnell, Orsamus Bushnell, Mary W.	Mathew Gardner	6/1/1855	396: 485	
Bushnell, Orsamus Bushnell, Mary W.	Bliss, William	7/7/1855	399: 306	
Bliss, William	Kimberly, Dennis	9/2/1856	431: 219	
Gardner, Matthew Gardner, Mary	Maxwell, John	6/2/1860	529: 378	
Kimberly, Dennis	White, Henry D.	8/28/1862	580: 307	
White, Henry D.	New Haven County Bank	1/6/1863	587: 241	
White, Henry D.	Merchants Bank of New Haven, CT	1/6/1863	587: 244	
White, Henry D.	New Haven Savings Bank of New Haven	1/6/1863	587: 247	
White, Henry D.	New Haven City Bank of New Haven	1/6/1863	587: 251	
Merchants National Bank of New Haven	Merchants National Bank of New Haven	10/11/1865	678: 514	
New Haven County Bank of New Haven, CT	New Haven County National Bank of New Haven, CT	4/11/1866	700: 373	
White, Henry D. White, Julia F.	New Haven County National Bank of New Haven, CT	4/11/1866	700: 379	
Bliss, William	Knight, Henry Woodward, James L.	3/26/1867	747: 515	
White, Henry D. White, Julia F.	City Bank of New Haven	3/26/1867	747: 517	
White, Henry D. White, Julia F.	Merchants National Bank of New Haven	3/26/1867	747: 522	
White, Henry D. White, Julia F.	New Haven Savings Bank	3/26/1867	747: 524	
City Bank of New Haven	Knight, Henry Woodward, James L.	3/26/1867	747: 527	
Merchants National Bank of New Haven	Knight, Henry Woodward, James L.	3/26/1867	747: 536	Lots 3 & 7
New Haven Savings Bank	Knight, Henry Woodward, James L.	3/26/1867	747: 539	
Maxwell, John Maxwell, Sarah	Knight, Henry Woodward, James L.	3/26/1867	747: 544	
Knight, Henry Knight, Mary A.	Wilson, Edward F.	3/29/1879	1349: 97	Reel missing
Wilson, Edward F.	Watt, James	3/31/1883	1501: 323	

Grantor	Grantee	Date	Liber: Page	Description
Wilson, Edward F.	Watt, James	3/31/1883	1501: 320	
Watt, James Watt, Mary C.	Wilson, Julia M.	3/31/1883	1501: 338	
Watt, James Watt, Mary C.	Wilson, Julia M.	3/31/1883	1501: 340	
Wilson, Julia M.	Peirson, William G.	12/23/1885	1642: 138	
Peirson, William G. Peirson, Martha W.	Itjen, Eibe H,	1/28/1889	1858: 317	
Itjen, Eibe H.	Higgins, William H,	1/25/1901	18: 90	
Higgins, William H.	Itjen, August H.	1/25/1901	18: 91	
Smith, James T. (Referee)	Itjen, Anna M.C.	12/21/1901	21: 145	
Itjen, Anna M.C.	Hynes, John	2/1/1905	31: 548	
Ettnijer, Bertrand (Referee) Hynes, John (Executor) (Defendant et al by Referee)	Kings Co. Trust Co. (as Trustee) Mary L. Lamb (Trustee for)	12/14/1915	3584: 197	Serial Number 64320
Kings County Trust Co. (as Trustee) Lamb, William (Trustee of) Lamb, Mary L. (Trustee for)	Doehler Die Casting Co.	1/17/1917	3643: 427	Serial Number 64320
Doehler Die Casting Co.	Atlantic Ice Corp.	7/13/1923	4271: 393	Serial Number 86982
Hurley, Arthur L. (Referee) Atlantic Ice Corp. (Defendant et al)	McGuire, Bessie A.	3/21/1924	4367: 525	Serial Number 40165
McGuire, Bessie A.	Doehler Die Casting Co.	12/29/1924	4493: 451	Serial Number 184231
Doehler Die Casting Co.	Arizona Lacquer Mfg. Co.	12/29/1924	4493: 153	Serial Number 184232
Arizona Lacquer Mfg. Co.	Jones, Frieda A.	2/10/1925	4473: 471	Serial Number 16867
Jones, Frieda A.	Melinker, Jerome	11/12/1926	4750: 425	Serial Number 163694
Ettinger, Bertrand (Referee) Melinker, Jerome (Defendant et al)	Fisher, Hannah M.	3/1/1928	4904: 533	Serial Number 24709
Fisher, Hannah M.	Nedaim Realty Corp.	10/1/1929	5061: 468	Serial Number 89959
Nedaim Realty Corp.	Thomas Paelson & Son, Inc.	12/17/1929	5083: 423	Serial Number 112131
Thomas Paulson & Son, Inc.	Regency Service Carts Inc.	9/19/1994	3380: 1088	Entire Lot
Regency Service Carts, Inc.	Venetian, LLC	12/23/2003		Entire Lot
Venetian, LLC	Union Street Development, LLC	12/7/2004		Entire Lot

**Bolded entry indicates land transfer most likely involving Block 438, Lot 7. Italicized entry indicates land transfer which may include Block 438, Lot 7.**

This period of real estate speculation coincided with the beginning construction of the Gowanus Canal. As previously noted, initial development of the canal was conducted by private landowners from 1851 through 1854. It is possible that the Gowanus Canal frontage of Lot 7 was constructed by James Brady, Alexander Bergen, or Orsamus Bushnell. According to the Brooklyn Eagle, early private construction along the canal consisted primarily

of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years, the sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

Henry Knight and James Woodward appeared to acquire the entirety of Lot 7 by 1867 (Liber 747: 513). The 1869 Dripps map indicates that the lot has been filled and dredged, with Union, President, and Bond Streets having been extended (see Figure 18). At this time, it does not appear that any structures have been developed within the lot. However, the map does identify the entire historic block with the *Cement Drain & Water Pipe Works*.

Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 7 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 7 would most likely have been timber cribwork constructions.

By 1880, extensive development has occurred throughout Lot 7 (see Figures 19 & 20). By this time, Historic Block 252, Modern Block 438, was designated; it also appears that individual building lots were delineated across the historic block. A linear frame building has been built across the northern frontage of Lot 7. According to the 1880 Bromley map, the parcel was operated by E.F. Wilson (see Figure 19). The historic deed research indicates that Wilson acquired Lot 7 from Henry Knight in 1879 (Liber 1349: 97).

The 1886 Sanborn map indicates that Lot 7 has become enveloped within the Lidford's Coal and Wood Yard (see Figure 37). A linear structure continues to span the northern extent of the lot. Several smaller structures are also depicted along the western frontage. Lot 7 appears to have remained within the Lidford operation through 1904. During this period, the lot was frequently speculated. T.H. Lidford was not listed as one of the owners of the parcel, indicating that the coal yard must have rented this portion of Block 438.

By 1915, the John Hynes Granite Works is depicted within the northern portion of Lot 7 (see Figure 39). The 1915 Sanborn notes that the Granite Works was not operational at this time. The historic deed research indicates that John Hynes owned Lot 7 from 1905 through 1915 (Liber 31: 548; Liber 3584: 197). This suggests that his Granite Works had been in operation during his period of ownership. A linear cutting shed is depicted along the northern extent of the lot. Several buildings are also situated along the southern extent of the lot and appear to remain within the T.H. Lidford complex. The majority of the structures which previously occupied the Bond Street frontage of Lot 7 have been removed.

Ownership of Lot 7 changed frequently throughout the 1920s (Table 16). The 1929 Hyde map indicates that the Atlantic Ice Corporation was operating within the former Granite Works space (see Figure 23). However, the historic deed research reflects the fact that the Ice Corporation had lost its ownership by 1924 (Liber 4367: 525).

Several permits on file at the Brooklyn DOB suggest that Lot 7 continued to be developed throughout the early and mid-twentieth century. A New Building permit filed in September of 1917 indicates a new construction and a demolition within the lot (DOB files). The newly built building was to function as a garage. A 1930 certificate of occupancy indicates that the owner, Thomas Paulson & Son, Inc., intended to convert a standing garage structure into a foundry with attached office space (DOB files). A 1931 building permit also indicates that a structure located on the southeastern corner of Bond and Union Streets was to be converted into a garage, coal yard, and office space. The owner of this building is listed as the Sitron Fuel Corporation. Despite the filing of these various actions reflecting development across Lot 7, the 1935 Sanborn map depicts the lot as it was illustrated in 1915 and identifies the property with the defunct John Hynes Granite Works. It is, therefore, unclear whether the DOB permits reflect enacted changes within the property or proposed alterations.

By 1929, Thomas Paulson (Paelson) & Son, Inc. had acquired Lot 7 (Liber 5083: 423). The 1951 Sanborn reflects their occupancy of the parcel (see Figure 40)). The map indicates that Thomas Paulson & Son, Inc. Brass Founders & Engineers are occupying a linear structure which covers almost the entire Union Street frontage of Lot 7. This building includes a foundry and attached office space. The complex of buildings within the lot appears to conform



with the 1930 certificate of occupancy for the property. This suggests that the 1935 Sanborn map of the area may not represent an updated survey of the parcel. Several coal bunkers and a one-story shed building are also depicted within the lot. The 1968 and 2006 Sanborn maps reflect the same basic configuration of buildings within Lot 7 (see Figures 41 and 42). However, by 1968, it appears that the coal bunkers have been removed. Thomas Paulson & Son, Inc. continued to own and potentially operate their brass foundry up until 1994 (see Table 16; Liber 3380: 1088).

In 2004, the Union Street Development, LLC acquired ownership of Lot 7. Currently, the DOB classifies the lot as Factory/Industrial space. The brick buildings that presently occupy the lot appear to represent the same structures depicted on the 1951 through 2006 Sanborn maps.

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 438, Lot 7 is "timber cribwork with intact faces about mean low water" (2004: Figure 3.1). Our site visit confirmed that the visible portion of the wall consists of an intact timber cribwork above the water line (see Photos 22 and 23). A cement cinderblock retaining wall sits atop the northern portion of the cribwork. As noted in the discussion of Lot 3, Hunter's evaluation of the Gowanus Canal found that from the eighteenth century through to 1930, that bulkhead construction across the Port of New York involved primarily timberwork constructions (2004: 3-2). Hunter concludes that such timber cribwork constructions represented the bulk of the nineteenth century Gowanus Canal bulkhead as constructed by the Gowanus Canal Improvement Commission. Following Hunter's observations and historic resource, it appears that intact timber cribwork bulkheads represent potentially significant sources of historic information (2004: 3-5). The visible cribwork along the eastern frontage of Block 438, Lot 7 would represent such a potentially important resource.

### Summary and Conclusions

Initial development in the vicinity of Block 438, Lot 7 may have begun with the initial construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 7 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

While Lot 7 appears to have been dredged and filled by 1869, structures do not appear within the lot until the 1880s. By 1886, Lidford's Coal & Wood Yard appears to have occupied Lot 7. This company may have occupied Lot 7 from 1886 to 1915, at the latest. From 1929 through 1994, Thomas Paulson & Sons operated a Brass Foundry within Lot 7.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 7 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of a timber cribwork. The northern portion of the wall has a cement cinderblock retaining wall resting on top of the cribwork. The submerged portions of the wall could not be observed during either survey. The visible evidence of intact cribwork and the potential for submerged cribwork foundations underneath the visible portions of the wall suggests that the eastern frontage of Block 438, Lot 7 has the potential to possess nineteenth or early twentieth century bulkhead remains (see Figure 43). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 7 bulkhead.

Based on the available historic information, Lot 7, Projected Development Site J, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

#### **4.9 Block 439, Lot 1, Potential Development Site 19**

##### Existing Conditions

Block 439 is bounded by Union Street to the north, Nevins Avenue to the east, Carroll Street to the south, and the Gowanus Canal to the west. Lot 1 is a large parcel which occupies the entirety of Block 439 with frontages on Union Street, Nevins Avenue, Carroll Street, and the Gowanus Canal. The lot has a width of 225 feet (68.6 meters) at its northern extent, with a slightly truncated width of 216.4  $\frac{3}{4}$  feet (66 meters) along its southern edge. At its maximum length, Lot 1 spans 418 feet (127.4 meters) along the western frontage of Nevins Avenue. The modern lot includes both Historic Lots 1 and 36. As of June 1978, the lot was owned by the Joyce KJellgren (New York City Department of Finance 2009). A large brick warehouse building with adjacent paved asphalt parking areas currently occupies Lot 1 (Photo 24). The facility which is enclosed by a chain link fence is operated by Verizon Wireless.

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The western frontage of Block 439, Lot 1 was observed from the Union Street Bridge. Along this frontage, the bulkhead consists of continuous steel sheet piling which fronts the entirety of the block (Photo 25). Those portions of the bulkhead which were under the waterline could not be observed at this time.

##### Lot History

Initial development in the vicinity of Lot 1 began as early as the eighteenth century with the construction of the Road to Freeke's Mill (Road to the Narrows/Gowanus Road) (Bang 1912). Ratzer's 1766-1767 map situates this roadway running in a north-south trajectory to the immediate east of the parcel (see Figure 6). An unlabeled structure is also depicted along the eastern frontage of the historic road, to the east of Lot 1 and potentially within the intersection of present-day Nevins and President Streets. The 1844 US Coast Survey also situates Lot 1 to the west of the historic mill road (see Figure 7). By this time, no structures are depicted in the immediate vicinity of the lot suggesting that the eighteenth century building may have been removed by this time. The survey indicates that Lot 1 primarily consisted of lowland salt marshes adjacent to the Gowanus Creek. The northwestern corner of the lot appears to have fallen within the creek. Colton's 1849 map places a portion of the historic roadway within the northeastern corner of Lot 1 (see Figure 14). Such discrepancies with respect to the placement of this road between the historic maps may indicate that the course of the road was altered over time. Alternatively, the differences may reflect inaccuracies and inconsistencies with respect to historic surveying techniques. Regardless, it appears that Lot 1 was in the immediate vicinity of the historic road, and that potentially a portion of this road may have fallen within the boundaries of the parcel.

Throughout the early and mid-nineteenth century, Lot 1 appears to have been one of many parcels conveyed in several large land transactions (Table 17). The property was subsequently divided with portions of the modern lot experiencing divergent speculation histories.



Photo 24: Block 439, Lot 1. View Southeast.



Photo 25: Block 439, Lot 1, Bulkhead Frontage. View Southeast.



**Table 17: Recorded Land Transfer for Block 439, Lot 1**

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
<b>Brower, Jeremiah (heirs of)</b>	<b>Brower, Adolphus Brower, Abraham Brower, Jeremiah Brower, Antie Brower, William Brower, Mattya Brower, William (Executors of)</b>	<b>11/18/1785</b>	<b>6: 343</b>	
<b>Brower, Adolph (Dolphus) Brower, Altie</b>	<b>Freeke, John C.</b>	<b>2/25/1800</b>	<b>7: 188</b>	
<b>Freeke, John C. Freeke, Martha</b>	<b>Hoyt, Charles</b>	<b>9/11/1834</b>	<b>42: 410</b>	
Hoyt, Charles Radcliff, Peter W. Clarke, Henry L.	Declaration	10/25/1844	124: 125	
Hoyt, Charles	Hoyt, James I. (as trustee) Hoyt, Charles	3/20/1847	161: 90	
<b>Cleaveland, John</b>	<b>Hoyt, James I. (as trustee) Hoyt, Charles</b>	<b>6/13/1848</b>	<b>180: 350</b>	
Radcliff, P.W. (Executors of) Radcliff, Margaret H.	Hoyt, Charles	8/29/1849	200: 374	
Clarke, Henry L. Clarke, Phebe M.	Hoyt, Charles	9/17/1849	201: 304	Refers to instruments of declaration
<b>Hoyt, James J. (as assignee) Hoyt, Charles Hoyt, Charles Hoyt, Mary</b>	<b>Brady, James</b>	<b>12/21/1851</b>	<b>232: 204</b>	
<b>Brady, James Brady, Henrietta</b>	<b>Jones, Henry A.</b>	<b>10/17/1853</b>	<b>338: 453</b>	<b>Northern half of Historic Lot 1</b>
<b>Jones, Henry A.</b>	<b>Jones, John M.</b>	<b>12/27/1853</b>	<b>346: 353</b>	<b>Northern half of Historic Lot 1</b>
<b>Jones, John M.</b>	<b>Marshman, Benjamin</b>	<b>4/14/1854</b>	<b>359: 11</b>	<b>Northern half of Historic Lot 1</b>
<b>Marshman, Benjamin Marshman, Rachel L.</b>	<b>Jones, John M.</b>	<b>2/28/1855</b>	<b>387: 373</b>	<b>Northern half of Historic Lot 1</b>
<b>Jones, John M.</b>	<b>Rees, John</b>	<b>2/28/1855</b>	<b>387: 376</b>	<b>Northern half of Historic Lot 1</b>
<b>Rees, John Rees, Elizabeth J.</b>	<b>Jones, James H.</b>	<b>4/30/1856</b>	<b>393: 156</b>	<b>Northern half of Historic Lot 1</b>
<b>Ryerson, Jerome (Sheriff)</b>	<b>Jones, James H.</b>	<b>4/22/1856</b>	<b>421: 318</b>	<b>Northern half of Historic Lot 1</b>
<b>Rensen, George (Sheriff)</b>	<b>Fiske, Edward W.</b>	<b>10/2/1858</b>	<b>485: 111</b>	<b>Northern half of Historic Lot 1</b>
<b>Fiske, Edwards W.</b>	<b>Brady, James</b>	<b>8/29/1859</b>	<b>508: 234</b>	
<b>Brady, James</b>	<b>McBain, Thomas H.</b>	<b>10/16/1866</b>	<b>725: 72</b>	<b>Southern portion of Historic Lot 1</b>
<b>Brady, James</b>	<b>McBain, James A.</b>	<b>12/22/1866</b>	<b>735: 132</b>	<b>Southern portion of Historic Lot 1</b>
<b>Brady, James</b>	<b>McBain, Thomas H.</b>	<b>10/9/1867</b>	<b>783: 148</b>	<b>Southern portion of Historic Lot 1</b>
<b>McBain, Thomas H. McBain, Harriet</b>	<b>City of Brooklyn</b>	<b>10/9/1867</b>	<b>783: 150</b>	

Grantor	Grantee	Date	Liber: Page	Description
<b>McBain, Thomas H. McBain, Harriet</b>	<b>McBain, James A.</b>	<b>5/6/1868</b>	<b>822: 113</b>	<b>Far Northern portion of Historic Lot 1</b>
<b>McBain, James A. McBain, Adeline</b>	<b>Young, Peter A.</b>	<b>5/6/1868</b>	<b>822: 115</b>	<b>Northern portion of Historic Lot 1</b>
<b>Brady, James</b>	<b>Kenyon, Whitman Kenyon, Albro J. Newton</b>	<b>1/13/1868</b>	<b>802: 226</b>	<b>Historic Lot 36</b>
<b>McBain, James A.</b>	<b>Thomas, Henry</b>	<b>7/18/1871</b>	<b>1007: 160</b>	
<b>Young, Peter A. Young, Julia McBain, James A.</b>	<b>Thomas, Henry</b>	<b>7/18/1871</b>	<b>1007: 161</b>	<b>Northern portion of Historic Lot 1</b>
<b>Thomas, Henry Thomas, Lucie W. McBain, James A. McBain, Adalene</b>	<b>Loomis, John S.</b>	<b>7/20/1871</b>	<b>1007: 369</b>	<b>Northern portion of Historic Lot 1</b>
<b>Kenyon, Whitman Kenyon, Mary Newton, Albro J. Newton, Delia H.</b>	<b>Loomis, John S.</b>	<b>5/1/1874</b>	<b>1180: 416</b>	<b>Historic Lot 36</b>
<b>Loomis, John S. Loomis, Sarah M.</b>	<b>Kenyon, Whitman W. Newton, Albro J.</b>	<b>11/2/1874</b>	<b>1180: 413</b>	<b>Part of Historic Lot 1</b>
<b>Brower, George W. (Referee)</b>	<b>Kenyon, Whitman W.</b>	<b>7/2/1875</b>	<b>1208: 252</b>	<b>Northern portion of Historic Lot 1</b>
<b>Whitman, Kenyon</b>	<b>Kenyon, Whitman W.</b>	<b>12/7/1892</b>	<b>2151: 284</b>	<b>Whole parcel</b>
<b>Kenyon, Whitman U. Kenyon, Whitman (heir of)</b>	<b>Newton, Albro J.</b>	<b>11/18/1897</b>	<b>9: 119</b>	
<b>Newton, Albro J.</b>	<b>Albro J. Newton Co.</b>	<b>3/5/1898</b>	<b>10: 37</b>	
<b>Albro J. Newton Co.</b>	<b>Keppers Seaboard Coke Co. Inc.</b>	<b>12/1/ 1919</b>	<b>3928: 214</b>	<b>Serial Number 119637</b>
<b>John S. Loomis Co.</b>	<b>Smith, Max Levine, Joseph</b>	<b>3/26/1921</b>	<b>4016: 430</b>	<b>Historic Lot 36; Serial Number 19529</b>
<b>Smith, Max Smith, Theresa Levine, Joseph Levine, Sadie</b>	<b>Brooklyn Nevins Coal Co., Inc.</b>	<b>5/10/1921</b>	<b>4033: 454</b>	<b>Historic Lot 36; Serial Number 33438</b>
<b>Brooklyn Nevins Coal Co., Inc.</b>	<b>Penn-Brook Coal Co., Inc.</b>	<b>7/17/1925</b>	<b>4553: 369</b>	<b>Historic Lot 36; Serial Number 97314</b>
<b>McElreaney, John (Referee) Penn-Brook Coal Co., Inc. (Defendant et al)</b>	<b>Rosenburg, Jerome</b>	<b>7/26/1927</b>	<b>4848: 253</b>	<b>Historic Lot 36; Serial Number 43775</b>
<b>Rosenburg, Jerome Rosenburg, Sarah</b>	<b>Alper Hold Corp.</b>	<b>7/26/1927</b>	<b>4848: 254</b>	<b>Historic Lot 36; Serial Number 43767</b>
<b>Alper Holding Co.</b>	<b>Gee-Em &amp; Em Holding Corp.</b>	<b>4/16/1928</b>	<b>4914: 521</b>	<b>Historic Lot 36; Serial Number 43718</b>
<b>Morton Coal Co., Inc.</b>	<b>Hygrade Magnet Corp.</b>	<b>9/11/1944</b>	<b>6584: 476</b>	<b>Historic Lot 36</b>
<b>Hygrade Magnet Corp.</b>	<b>425 Carroll Street Corp.</b>	<b>7/8/1952</b>	<b>7963: 64</b>	<b>Historic Lot 36</b>
<b>425 Carroll Street</b>	<b>Goldman, Sol (Sal)</b>	<b>10/27/1952</b>	<b>8010: 184</b>	<b>Historic Lot 36</b>
<b>Interboro Transport Terminal Corporation</b>	<b>NY Telephone Company</b>	<b>2/26/1976</b>	<b>831: 1919</b>	<b>Entire Lot</b>
<b>NY Telephone Company</b>	<b>KJellgren, Joyce</b>	<b>6/15/1978</b>	<b>1000: 102</b>	<b>Entire Lot</b>

**Bolded entry indicates land transfer most likely involving Block 439, Lot 1. Italicized entry indicates land transfer which may include Block 439, Lot 1.**

The initial development of the Gowanus Canal was conducted by private landowners from 1851 through 1854. It is possible that, during this early period, the Gowanus Canal frontage of Lot 1 was constructed by James Brady as a

means of improving his property for sale. As previously noted, initial private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years of the canal opening, the early sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

Gerdes 1863 map appears to reflect the first initial structural development within Lot 1 (see Figure 17). The Gerdes map suggests that at least the eastern portions of Block 439 have been dredged and filled. It appears that Nevins Avenue, Union Street, and Carroll Street may have been extended by this time. An unlabeled structure appears to lie along the eastern edge of lot, falling on the western frontage of Nevins Avenue. The 1869 Dripps map further indicates that Block 439 has been filled with the extension of streets across the area (see Figure 18). The Dripps map does not, however, depict any structures within the lot or within its immediate vicinity. The discrepancy between the Gerdes and the Dripps maps may reflect the fact that the unlabeled structure was removed by 1869. Alternatively, the difference between the maps may indicate a past surveying error or an inaccuracy evidenced by georeferencing a modern lot on to an historic resource. It is possible that the unlabeled structure on the Gerdes map was part of the array of buildings aligned along the eastern frontage of Union Street. Regardless, by 1869, it appears that there were no structures within Lot 1. According to the Dripps map, the northern portion of the modern lot was a lumber yard and the southern portion of the lot was part of the Kenyon & Newton Lumber Yard. The historic deed research indicates that Thomas and James McBain had acquired the northern portions of Lot 1, Historic Lot 1, from 1866 through 1868 (Liber 725: 72; Liber 735: 132; Liber 783: 148; Liber 822: 113). Similarly, Whitman Kenyon and Albro Newton purchased the southern portion of the lot, Historic Lot 36, from James Brady in 1868 (Liber 802: 226).

Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the Canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the western frontage of Lot 1 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 1 would most likely have been timber cribwork constructions.

By 1880, extensive development has occurred throughout Lot 1 (see Figures 19 and 20). By this time, the modern block has been delineated into two historic blocks, Block 251 to the north and Block 250 to the south. Individual tax lots also appear to have been designated within both historic blocks. The 1880 Bromley map indicates that the majority of the modern lot is a part of the Kenyon & Newton Lumber Yard, with several associated structures (see Figure 19). Stable buildings and a small brick structure sit along the northern extent of the parcel. Additional stables and another brick building also sit along the eastern extent of the lot with frontages on Nevins Street. A structure affiliated with J.S. Loomis is depicted along the southeastern corner of Lot 1. According to Hopkins 1880 map, this rectangular building was a frame structure associated with a lumber yard (see Figure 20). The historic deed research indicates that John Loomis acquired Historic Lot 36 in 1874 (Liber 1180: 416).

The 1886 Sanborn indicates continued development of both the Kenyon & Newton and Loomis' Lumber Yard (see Figure 37). A large C-shaped complex of buildings has developed along the northern and eastern frontages of Historic Lot 1. Two lumber sheds and attached two-story structures are depicted within the Kenyon & Newton Lumber Yard. A large one-story lumber shed fronting the Gowanus Canal, and a small one-story building in the southeastern corner of Historic Lot 36 are depicted within the Loomis Lumber Yard. The 1904 Sanborn map illustrates continued occupation of Historic Lots 1 and 36 (see Figure 38). By this time, modern block designations have extended into the area, with Historic Lot 1 becoming Block 439 and Historic Lot 36 becoming Block 446. Block 439 is occupied by the Albro J. Newton Company whose lumber yard extends across the parcel. The John S. Loomis & Co. Lumber Yard operates within Block 446. The complex for Loomis' yard appears to be relatively unchanged from 1886.

In 1919, the Albro J. Newton Coal Company sold its parcel to Keppers Seaboard Coke Company (Liber 3928: 214). Similarly, Historic Lot 36 was conveyed several times throughout the 1920s (see Table 17). The 1929 Hyde map reflects the changing ownership of both historic lots (see Figure 23). The Hyde map depicts Copper's Seaboard Coke complex within Historic Lot 1. This complex consists of several brick and frame structures along the eastern portion of the lot. A large rectangular concrete building with an attached conveyer belt is depicted within the central



portion of the parcel. A New Building permit on file at the Brooklyn DOB indicates that a structure for conveying and storing coke and for the loading of coke on to trucks was erected within Historic Lot 1 in 1925. By 1929, the Morton Coal Company operates within Historic Lot 36. The Morton complex consists of several frame dwellings along the southern portion of the lot and four cylindrical concrete coal pockets within the center of the lot.

The 1951 Sanborn map indicates additional development within both the Kopper and the Morton Coal complexes (see Figure 40). By this time, Historic Blocks 439 and 446 have been redesignated Block 439A. The Sanborn depicts an additional conveyer belt and two garage spaces within the Kopper complex. New building permits on file at the Brooklyn DOB suggest that the garage buildings may have been constructed as early as 1929 or 1931 (DOB files). Within the Morton Coal Complex, several coal pockets, an office building with an attached scale facility, and a shed are delineated. According to the historic deed research, the Morton Coal Company sold Historic Lot 36 in 1944 (Liber 6584: 476). The 1951 Sanborn may indicate that the Morton Company continued to occupy and rent this property despite its sale. Alternatively, the Sanborn may not represent an up to date survey of the property.

The 1968 Sanborn reflects extensive changes across Modern Lot 1 (see Figure 41). By this time, the historic lots have been combined to form Block 439, Lot 1. A large linear concrete structure with designated office space now occupies the eastern portion of the lot. No other structures are depicted within Lot 1. A search of the Brooklyn DOB Block/Lot folder for Block 439, Lot 1 failed to identify demolition permits or a new building file for the construction of this facility. According to the DOB BIS database, two demolition permits were filed for the property in 1941 and 1943. It is unclear whether these permits were approved given that they were not present within the folder for Block 439, Lot 1. According to the 1968 Sanborn, the building was constructed in 1958. By 1952, Sal Goldman appears to own at least the southern portion of Modern Lot 1 (Liber 8010: 184). From the historic deed research, it is unclear when and to whom the Kopper's Seaboard Coke Corporation sold the northern portion of the modern lot.

A Miscellaneous permit for the installation of a sprinkler system at Block 439, Lot 1 provides a depiction of the bulkhead wall along this portion of the Gowanus Canal. According to this permit, two walls line the canal along the western frontage of Lot 1. A timber bulkhead is depicted at a distance further from the property intruding into the preexisting canal. This bulkhead appears to postdate a second canal wall located in closer proximity to the lot. This wall is also a timber frame construction.

The 2006 Sanborn map indicates that Verizon now occupies the concrete structure within Lot 1 (see Figure 42). According to the Sanborn, the building was formerly the location of Bell Atlantic. The historic deed research indicates that Joyce JKellgreen acquired the property in 1978 from the New York Telephone Company (Liber 1000: 102). It is unclear when Bell Atlantic and subsequently Verizon acquired ownership of the parcel. According to the DOB, Lot 1 is classified as Factory/Industrial usage.

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 439, Lot 1 is "timber cribwork with intact faces about mean low water" (2004: Figure 3.1). Our site visit revealed that the Block 439, Lot 1 bulkhead consists of continuous steel sheet piling (see Photo 25). The bulkhead as observed appears to contradict the description provided by Hunter as well as the bulkhead depiction provided by a 1978 sprinkler application. The discrepancy between the present bulkhead and the depiction provided by the 1978 buildings permit most likely reflects the fact that the canal wall has been recently altered or repaired. This suggests that the steel sheet piling is a recent addition to the Lot 1 bulkhead. The differences between Hunter's observations and those recorded during our site visit may also reflect the fact that repairs have been made to the bulkhead since 2004. Alternatively, given that Hunter was able to survey the bulkhead from the water at low tide, it is possible that they observed portions of the bulkhead which were underwater during our pedestrian survey. Nevertheless, despite the discrepancies between the surveys, the building permit and the observations made by Hunter, suggest that timber cribwork is present beneath the surface steel sheet piling. As previously noted, Hunter's historic evaluation of the Gowanus Canal indicates that concrete and steel sheet piling bulkhead walls may have been constructed on top of timber cribwork foundations. Therefore, despite the presence of such visible twentieth century bulkhead constructions, there is the potential for submerged historic foundations.

### Summary and Conclusions

Initial development in the vicinity of Block 439, Lot 1 may have begun in the eighteenth century with the construction of the Road to Freeke's Mill (Road to the Narrows/Gowanus Road). Ratzer's map indicates that a structure was located to immediate east of this road. This structure is not represented on the early nineteenth century

maps which may indicate that it was initially surveyed incorrectly or that it had been removed by the turn of the nineteenth century. Regardless, the structure appears to lie outside of Lot 1. A structure may have been located along the eastern edge of the lot in 1863. However, by 1869 no structures are depicted within the lot suggesting that the earlier structure may have been removed or that this structure was inaccurately surveyed in 1863. By 1880, both the Kenyon & Newton Lumber Yard and the J.S. Loomis Yard have developed within Lot 1. Both companies sold their portions of Lot 1 to different interests in the 1920s. The Seaboard Coke complex operated within the northern portion of Lot 1 from 1919 to, at least, 1951. The Morton Coal Company occupied the southern part of Lot 1 from at least 1929 to 1951, at the latest. The lot was vacant in 1968.

Construction of the bulkhead frontage of Block 439, Lot 1 may have occurred with the initial construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the western bulkhead frontage of Lot 1 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 1 bulkhead. The pedestrian survey conducted for the purpose of this study found that the present Block 439, Lot 1 canal wall consists of a continuous steel sheet pile wall. Records from the DOB and observations recorded by Hunter during their survey of the Canal indicated that the frontage was a timber cribwork bulkhead. Given that Hunter observed the bulkhead from the water at low tide, it seems likely that they observed portions of the wall which were underwater during our survey. Thus, it is possible that intact timber cribwork exists beneath the evident steel sheet pile construction. Furthermore, the DOB permit appears to indicate that timber cribwork may not only underlie the visible bulkhead, but may also lie to the east of the current bulkhead and in closer proximity to the lot line. As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000. This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 1 bulkhead.

Based on the available historic information, Lot 1, part of Potential Development Site 19, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal (see Figure 43). Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

#### **4.10 Block 445, Lot 11, Projected Development Site I**

##### Existing Conditions

Block 445 is bounded by President Street to the north, the Gowanus Canal to the east, Carroll Street to the south, and Bond Street to the west. Lot 11 is an irregular shaped parcel with frontages on President Street, the Gowanus Canal, and Carroll Street. The northern frontage of the lot begins at a point 60 feet (18.3 meters) east of the intersection of President and Bond Streets. From this point, the lot extends 95 feet (29 meters) to the east and then turns 30 feet (9.1 meters) to the south. Lot 11 then runs 30 feet (9.1 meters) to the east before turning and running 50 feet (15.2 meters) to the south. At this point, the lot extends 100 feet (30.5 meters) to the east intersecting with the Gowanus Canal. Lot 11 runs 120 feet (36.6 meters) south along the canal to the Carroll Street intersection. At this point, the lot runs 170 feet (51.8 meters) to the west along President Street. The lot then turns and extends 120 feet (36.6 meters) to the north. It then runs 54 feet (16.5 meters) to the east before turning to the north. Lot 11 extends 80 feet (24.4 meters) to the north and forms the northwestern corner of Lot 11. As of July 2004, the lot was owned by the Daniel Tinneney (New York City Department of Finance 2009). A long linear structure spans the entirety of Lot 11. Along Carroll Street, the western portion of the building consists of a two-story brick structure with attached garage space (Photo 26). The eastern portion of the building consists of a two-story brick structure which has been covered with painted aluminum panels (Photo 27).

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 445, Lot 11 was observed from the Carroll Street Bridge. Along this frontage,



Photo 26: Block 445, Lot 11. View Northeast.



Photo 27: Block 445, Lot 11. View Northeast.



the bulkhead consists of a poured cement retaining wall resting atop a continuous intact timber cribwork bulkhead (Photos 28 and 29). Those portions of the bulkhead which were under the waterline could not be observed at this time.



**Photo 28: Block 445, Lot 11, Bulkhead Frontage. View Northwest.**



**Photo 29: Block 445, Lot 11 and Lot 20, Bulkhead Frontage. View Northwest.**

Lot History

Initial development in the vicinity of Lot 11 did not begin until the mid-nineteenth century. The 1844 US Coast Survey indicates that the northwestern portion of lot was submerged within an eastern branch of the Gowanus Creek (see Figure 7). The eastern portion of Lot 11 fell within the lowland salt marsh bordering the creek. During the 1840s and 1850s, this parcel was included within several large land transactions (Table 18).

**Table 18: Recorded Land Transfers for Block 445, Lot 11**

Grantor	Grantee	Date	Liber: Page	Description
Johnson, John	Johnson, Teunis	5/2/1804	8: 108	
Johnson, Teunis T. Johnson, Margaret	Bergen, Jacob	12/22/1832	34:423	
Bergen, Jacob (Executioners of)	Van Mater, Joseph H.	7/27/1847	166:272	
Van Mater, Joseph H. Jr.	Bergen, Alexander	7/24/1847	166:293	
Bergen, Alexander	Secor, Charles A.	11/21/1848	187:155	
Secor, Charles	Bergen, Alexander	2/20/1851	237:255	
Bergen, Alexander	Bushnell, Orsamus	5/15/1851	256:22	
Bushnell, Oramus Bushnell, Mary	Bliss, William	7/7/1855	399:306	
Bliss, William	Kimberly, Dennis	9/2/1856	431:219	
Kimberly, Dennis	White, Henry D.	8/28/1862	580:307	
White, Henry D. White, Julia J.	Phoenix National Bank of Hartford	4/1/1867	749:74	
Phoenix National Bank of Hartford	Phoenix National Bank of Hartford	4/1/1867	749:77	
Phoenix National Bank of Hartford	Morton, John Canda, John M.	4/1/1867	749:82	
Morton, John	Canda, John M.	3/9/1877	1270:98	
Canda, John M. Canda, Lizzie	Morton, John	3/9/1877	1270:140	
Morton, John	Morton, Albert Morton, John C.	1/27/1892	2088:110	
Canda, John M. Canda, Lizzie	Morton, Albert Morton, John C.	2/2/1892	2091:145	
Diemert Michael (referee)	Carroll-Preseident St. Realty Corp	2/27/1936	5482:488	
Carroll-Preseident St. Realty corp.	Sternshuss, Minnie	4/6/1942	6205:23886	
Sternhuss, Minnie	Macpac Realty corp.	5/17/1942	6179:145	
Carroll-Preseident St. Realty corp.	Johnson, Gustav A.	7/9/1942	6205:23886	
S. Alexander & Co., Inc.	Vidan Auto Salvage Corporation	4/6/1978	986: 1124	
Vidan Auto Salvage Corporation	Tinney, Daniel	12/15/1978	1041: 857	
City of New York	Tinney, Daniel	7/7/2004		

**Bolded entry indicates land transfer most likely involving Block 445, Lot 11. *Italicized entry indicates land transfer which may include Block 445, Lot 11.***

This period of real estate speculation coincided with the initial development of the Gowanus Canal between 1851 and 1854. It is possible that, during this early period, the Gowanus Canal frontage of Lot 11 was constructed by Orsamus Bushnell as a means of improving his property for sale. As previously noted, initial private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years of the canal opening, the early sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

According to the Brooklyn Eagle, President and Carroll Streets had both been opened as far as the Gowanus Creek by 1853 (Brooklyn Eagle 1853b). Dripps 1869 map represents the first indication of development within Lot 11 (see Figure 18). By this time, it appears that President, Carroll, and Bond Streets have been extended across the area. Lot 11 also appears to have been dredged and filled. Two adjacent linear structures span the western extent of Lot 11. The map identifies these structures with the Morton and Canda Lime Yard. According to the historic deed research, John Morton and John Canda purchased the lot in 1867 (Liber 749: 82).

Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 11 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 11 would most likely have been timber cribwork constructions.

By 1880, extensive development has occurred throughout Lot 11 (see Figures 19 and 20). Historic Block 249, Modern Block 445, has been introduced by this time. Individual tax lots were also delineated across the historic block. Bromley's 1880 map indicates the presence of several buildings throughout the lot (see Figure 19). Two rectangular brick structures are located along the western portion Lot 11. A stable building borders the two brick structures. A large stable has developed along the eastern extent of the lot extending into the northeastern corner of Block 445, Lot 20. This large structure is identified with a Lime and Brick Yard. During this time, John Morton and John Canda continued to own this parcel.

The 1886 Sanborn indicates continued development within the John Morton & Sons Lime and Brick complex (see Figure 37). A two-story office building is depicted on the northern frontage of Carroll Street. Several one-story stable structures are also depicted within Lot 11. The far eastern portion of the lot may have fallen within the Loomis Lumber Yard. By 1904, Modern Tax Block 445 has been defined (see Figure 38). The 1915 Sanborn map indicates limited changes within the Morton complex (see Figure 39). Two adjacent shed structures have developed along the northern frontage of Carroll Street. The Loomis Lumber Yard is no longer operational within Block 445. By this time, Lot 11 is occupied by the John Morton & Sons Company Masons Material. The 1935 Sanborn reflects little additional development within the lot; the lot is still operated by the John Morton & Sons Company.

The 1951 Sanborn depicts the Morton complex as a vacant and abandoned coal yard (see Figure 40). A storage building and office building are depicted within the defunct yard. Gustav Johnson may have owned the parcel by this time. By 1968, a large frame warehouse has developed within the southeastern corner of Lot 11 (see Figure 41). A brick woodworking building has been built adjacent to the warehouse fronting Carroll Street. The northwestern portion of the lot has become truck parking. A search of the Brooklyn DOB BIS database indicates that there were no new building permits or demolition permits filed for Lot 11 between 1951 and 1968. It is, therefore, unclear as to when the defunct coal yard buildings were removed and the new warehouse and woodworking structures were built.

The 2006 Sanborn map indicates that the southeastern portion of the lot has become a designated parking structure with separate office space (see Figure 42). An unidentified structure has also developed in between the parking building and the brick woodworking structure. By 2004, Daniel Tinneney had acquired ownership of Lot 11 (Liber 1041: 857; Table 18). Presently, Lot 11 appears to reflect the same building configuration depicted on the 2006 Sanborn. A 2006 certificate of occupancy for the lot indicates that a structure for manufacturing and display exists within the lot. The certificate also identifies an *Accessory Caretaker's Apartment and Office* within Lot 11.



According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 445, Lot 11 is "timber cribwork with intact faces about mean low water" (2004: Figure 3.1). Our site visit confirmed that the visible portion of the wall consists of an intact timber cribwork above the water line (see Photos 28 and 29). A poured cement retaining wall sits atop the cribwork. As noted previously, Hunter's evaluation of the Gowanus Canal found that from the eighteenth century through to 1930, that bulkhead construction across the Port of New York involved primarily timberwork constructions (2004: 3-2). Hunter concludes that such timber cribwork constructions represented the bulk of the nineteenth century Gowanus Canal bulkhead as constructed by the Gowanus Canal Improvement Commission. Following Hunter's observations and historic resource, it appears that intact timber cribwork bulkheads represent potentially significant sources of historic information (2004: 3-5). The visible cribwork along the eastern frontage of Block 445, Lot 11 would represent such a potentially important resource.

### Summary and Conclusions

Initial development in the vicinity of Block 445, Lot 11 may have begun with the earliest construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 11 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

The first indication of structures within Lot 11 appears to date to 1869 with the Morton and Canda Lime Yard. The Yard appears to have expanded into the 1880s when the occupation was changed to John Morton & Sons Lime and Brick complex. Morton & Sons occupied Lot 11 until at least 1935. By 1951, the lot was vacant. In 1968, a large warehouse was constructed within Lot 11. This building continues to occupy the lot.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 11 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of timber cribwork. A poured cement retaining wall sits atop the cribwork. The submerged portions of the bulkhead could not be observed during either survey. The visible evidence of intact cribwork and the potential for submerged cribwork foundations underneath the visible portions of the wall suggests that the eastern frontage of Block 445, Lot 11 has the potential to possess nineteenth or early twentieth century bulkhead remains (see Figure 43). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000 (Brown 2000). This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 11 bulkhead.

Based on the available historic information, Lot 11, part of Projected Development Site I, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

## **4.11 Block 445, Lot 20, Projected Development Site I**

### Existing Conditions

Block 445 is bounded by President Street to the north, the Gowanus Canal to the east, Carroll Street to the south, and Bond Street to the west. Lot 20 is a rectangular shaped parcel located within the northeastern corner of Block 445 with frontages on President Street and on the Gowanus Canal. Lot 20 has a northern frontage of 130 feet (39.6 meters) across President Street and an eastern frontage of 80 feet (24.4 meters) along the Gowanus Canal. From its southeastern corner along the canal, the lot extends 100 feet (30.5 meters) to the west where it turns to the north for 50 feet (15.2 meters). At this point, the lot runs 30 feet (9.1 meters) to the west and turns and extends 30 feet (9.1 meters) to the north intersecting with President Street and forming the northwestern corner of the lot. Lot 20 has a maximum width of 130 feet (39.6 meters) along its northern extent, and a maximum length of 80 feet (24.4 meters) along its eastern extent. As of July 2004, the lot was owned by the Daniel Tinneney (New York City Department of

Finance 2009). Lot 20 currently consists of a paved asphalt parking area with temporary structures and vehicles (see Photo 30).



**Photo 30: Block 445, Lot 20.**

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 445, Lot 20 was observed from the Carroll Street Bridge. Along this frontage, the bulkhead consists of a poured cement retaining wall resting atop a continuous intact timber cribwork bulkhead (see Photo 29). Those portions of the bulkhead which were under the waterline could not be observed at this time.

#### Lot History

As with Lot 11, initial development in the vicinity of Lot 20 did not begin until the mid-nineteenth century. The 1844 US Coast Survey indicates that the majority of Lot 20 was underwater within an eastern arm of the Gowanus Creek (see Figure 7). The survey depicts the far southeastern extent of the lot as marshland bordering the creek. During the 1840s and 1850s, this parcel was included within several large land transactions in the vicinity of the proposed Gowanus Canal (Table 19).

**Table 19: Recorded Land Transfers for Block 445, Lot 20**

Grantor	Grantee	Date	Liber: Page	Description
Johnson, John	Johnson, Teunis	5/2/1804	8: 108	
Johnson, Teunis T. Johnson, Margaret	Bergen, Jacob	12/22/1832	34:423	
Bergen, Jacob (Executioners of)	Van Mater, Joseph H.	7/27/1847	166:272	
Van Mater, Joseph H. Jr.	Bergen, Alexander	7/24/1847	166:293	
Bergen Alexander	Secor, Charles A.	11/21/1848	187:155	
Secor, Charles	Bergen, Alexander	2/20/1851	237:255	
Bergen, Alexander	Bushnell, Orsamus	5/15/1851	256:22	
Bushnell, Oramus Bushnell, Mary	Bliss, William	7/7/1855	399:306	

Grantor	Grantee	Date	Liber: Page	Description
Bliss, William	Kimberly, Dennis	9/2/1856	431:219	
Kimberly, Dennis	White, Henry D.	8/28/1862	580:307	
White, Henry D. White, Julia J.	Phoenix National Bank of Hartford	4/1/1867	749:74	
Phoenix National Bank of Hartford	Phoenix National Bank of Hartford	4/1/1867	749:77	
Phoenix National Bank of Hartford	Morton, John Canda, John M.	4/1/1867	749:82	
Canda, John M. Canda, Lizzie	Morton, Albert Morton, John C.	2/2/1892	2091:145	
Diemert Michael (referee)	Carroll-Preseident St. Realty Corp	2/27/1936	5482:488	
Carroll-Preseident St. Realty corp.	Sternshuss, Minnie	4/6/1942	6205:23886	
Sternhuss, Minnie	Macpac Realty corp.	5/17/1942	6179:145	
Carroll-Preseident St. Realty corp.	Johnson, Gustav A.	7/9/1942	6205:23886	
Macpak Realty Corp.	Vidan Auto Salvage Corporation	2/4/1979	1053: 472	
Vidan Auto Salvage Corporation	Tinneney, Daniel	2/16/1979	1054: 646	
City of New York	Tinneney, Daniel	7/7/2004		

**Bolded entry indicates land transfer most likely involving Block 445, Lot 20. Italicized entry indicates land transfer which may include Block 445, Lot 20.**

As previously noted, the mid-nineteenth century speculation of Lot 20 coincided with the initial proposal and development of the Gowanus Canal between 1851 and 1854. It is possible that, during this early period, the Gowanus Canal frontage of Lot 20 was constructed by Orsamus Bushnell as a means of improving the lot for sale. Initial private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). Within a few years of the Canal opening, the early sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

According to the Brooklyn Eagle, President and Carroll Streets had both been opened as far as the Gowanus Creek by 1853 (Brooklyn Eagle 1853b). Dripps 1869 map represents the first indication of development within Lot 20 (see Figure 18). By this time, it appears that Modern Block 445 has been filled and dredged enabling development throughout the block. The northern extent of a linear structure within Lot 11 appears to have fallen within the northwestern corner of Lot 20. This structure appears to be associated with the Morton and Canda Lime Yard. According to the historic deed research, John Morton and John Canda purchased the lot in 1867 (Liber 749: 82). No other structures are depicted within Lot 20.

Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 20 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 20 would most likely have been timber cribwork constructions.

By 1880, a single structure has been constructed across Lot 20 (see Figures 19 and 20). This frame stable structure extends across the eastern extent of Lot 11 into and across Lot 20. The building is associated with a Lime and Brick Yard. During this time, John Morton and John Canda continued to own the parcel. A small portion of an adjacent brick structure also falls within the northwestern extent of Lot 20.



The 1886 Sanborn indicates continued development within the John Morton & Sons Lime and Brick complex (see Figure 37). Lot 20 falls within the northeastern extent of this operation. Between 1904 and 1951, Lot 20 continues to be included within the John Morton occupation and development within the lot appears to have remained unchanged (see Figures 39, 40, and 41). The 1951 Sanborn indicates that the Morton Lime and Brick yard was no longer in operation (see Figure 41). A coal pocket and a linear structure are depicted within Lot 20. By 1968, the coal pocket remained within the central portion of Lot 20 (see Figure 42). A brick office building is also located within the lot. The 2006 Sanborn indicates that the coal pocket has been removed, and the lot has been converted into a parking area with the attached office space (see Figure 43). The parking lot extends from Lot 20 into the eastern portion of Lot 11. A search of the DOB BIS database indicated that there have been no building actions or permits filed for this Lot 20. Therefore, new building permits or demolition permits for the construction and removal of the coal pocket and other buildings could not be identified. Thus, it is unclear as to when the lot was converted from a coal yard into a designated parking area. Since 2004, Lot 20 has been owned by Daniel Tinneney (see Table 19).

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 445, Lot 20 is "timber cribwork with intact faces about mean low water" (2004: Figure 3.1). Our site visit confirmed that the visible portion of the wall consists of intact timber cribwork above the water line (see Photo 29). A poured cement retaining wall sits atop the cribwork. As noted in the discussion of Lot 11, Hunter's evaluation of the Gowanus Canal found that from the eighteenth century through to 1930, that bulkhead construction across the Port of New York involved primarily timberwork constructions (2004: 3-2). Hunter concludes that such timber cribwork constructions represented the bulk of the nineteenth century Gowanus Canal bulkhead as constructed by the Gowanus Canal Improvement Commission. Following Hunter's observations, it appears that intact timber cribwork bulkheads represent potentially significant sources of historic information (2004: 3-5). The visible cribwork along the eastern frontage of Block 445, Lot 20 would represent such a potentially important resource.

### Summary and Conclusions

Initial development in the vicinity of Block 445, Lot 20 may date to the earliest construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 20 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

The first indication of structures within Lot 20 appears to date to 1869 with a structure associated with the Morton and Canda Lime Yard extending into the lot. The Yard appears to have expanded into the 1880s when the occupation was changed to John Morton & Sons Lime and Brick complex. Morton & Sons occupied Lot 20 until at least 1935. By 1951, a coal pocket and a linear structure had developed within Lot 20. The coal pocket had been removed by 2006 and the lot had been converted into a parking lot.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 20 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of timber cribwork. A poured cement retaining wall sits atop the cribwork. The submerged portions of the bulkhead could not be observed during either survey. The visible evidence of intact cribwork and the potential for submerged cribwork foundations underneath the visible portions of the wall suggests that the eastern frontage of Block 445, Lot 20 has the potential to possess nineteenth or early twentieth century bulkhead remains (see Figure 43). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000 (Brown 2000). This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 20 bulkhead.

Based on the available historic information, Lot 20, a portion of Projected Development Site I, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile

construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

#### 4.12 Block 452, Lot 15, Projected Development Site T

##### Existing Conditions

Block 452 is bounded by Carroll Street to the north, the Gowanus Canal to the east, First Street to the south, and Bond Street to the west. Lot 15 is an irregularly shaped parcel within the eastern portion of the block with frontages on Carroll Street and along the Gowanus Canal. From the intersection of the Gowanus Canal and First Street, Lot 15 extends 207 feet (63.1 meters) to the north. From the northern terminus of its eastern frontage on the Canal, the lot extends 102 feet (31.1 meters) to the west and then makes a perpendicular turn and runs 15 feet (4.6 meters) to the north intersecting with Carroll Street. Along Carroll Street, the Lot 15 runs 60.08 feet (18.3 meters) to the west. At this point, the lot turns and extends 100 feet (30.5 meters) to the south where it makes a perpendicular turn and runs 20 feet (6.1 meters) to the east. The lot then runs 40.04 feet (12.2 meters) to the south from which it turns and runs an additional 40.04 feet (12.2 meters) to the east. From this point, the lot extends 7.15 feet (2.2 meters) to the south and then runs 155.33 feet (47.3 meters) to the east. Lot 15 then follows a diagonal trajectory paralleling its Gowanus Canal frontage for 50.08 feet (15.3 meters) upon which it intersects with First Street. The lot extends an additional two feet (0.6 meters) to the east intersecting with the intersection of First Street and the Gowanus Canal. As of April 2008, Lot 15 was owned by the Wooden Bridge, LLC (New York City Department of Finance 2009). Presently, a two-story brick structure with an adjacent black metal fence sits along the Carroll Street frontage of Lot 15 (Photo 31). Developed space, including a three-story cylindrical cement building, adjacent paved cement surfaces, and sporadic shrub and grass vegetation, sits to the south of the brick structure along the southern portions of the lot (Photo 32).

A site visit was undertaken on February 6, 2009 to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 452, Lot 15 was observed from the Carroll Street Bridge. Along this frontage, the bulkhead consists of a continuous intact timber cribwork bulkhead (Photos 33 and 34). Those portions of the bulkhead which were under the waterline could not be observed at this time.



Photo 31: Carroll Street Frontage of Block 452, Lot 15. View South.





Photo 32: Southern Portion of Block 452, Lot 15. View Southeast.



Photo 33: Gowanus Canal South of Carroll Street Bridge. Block 452, Lot 15, Bulkhead Frontage. View Southwest.





**Photo 34: Block 452, Lot 15, View Southwest.**

#### Lot History

Lot 15 appears to have remained undeveloped through the mid-nineteenth century. Eighteenth and early nineteenth century maps of the area indicate that Lot 15 was situated within the lowland salt marsh adjacent to the Gowanus Creek (see Figures 6, 7, and 14). Development within the immediate vicinity of the lot appears to have begun during the 1850s with the proposed and initial construction of the Gowanus Canal. As previously noted, early construction of the Gowanus Canal was funded by private landowners and private interests from 1851 to 1854. This period of development contributed to extensive real estate speculation around and adjacent to the proposed Canal. Similarly, Lot 15 was included as a parcel within several large land transactions that were made during the 1850s (Table 20).

**Table 20: Recorded Land Transfers for Block 452, Lot 15**

Grantor	Grantee	Date	Liber: Page	Description
Johnson, John	Johnson, Teunis	5/2/1804	8: 108	
Johnson, Teunis T. Johnson, Margaret	Bergen, Jacob	12/22/1832	34:423	
Bergen, Jacob (Executioners of)	Van Mater, Joseph H.	7/27/1847	166:272	
Bergen, Jacob (Executioners of)	Van Mater, Joseph H.	7/24/1847	166:291	
Van Mater, Joseph H. Jr. Van Mater, Margaret	Bergen, Alexander	7/24/1847	166:293	
Bergen, Alexander Bergen, Eliza	Bushnell, Orsamus	8/27/1851	256:22	
Bushnell, Oramus Bushnell, Mary W.	Benson, Arthur W.	2/9/1854	351:184	
Bliss, William (as assignee & trustee)	Benson, Arthur W.	5/13/1854	363:134	

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
Benson, Arthur W. Benson, Jane A.	Babcock, Henry	9/20/1866	723:29	
Lowell, Sidney (Referee) of Babcock	Jordan, William	8/13/1869	911:294	
Jordan, William Jordan, Julia	Glacken, Edward	9/?/1869	916:143	
Glacken, Edward	Lockitt, John	3/27/1872	1040:499	
Lockitt, John (Executioners of)	Lockitt, John (Executioners of)	10/24/1879	1369:256	
Lockitt, John (Executioners of)	Lockitt, John (Executioners of)	11/1/1879	1370:214	
Lockitt, John (Executioners of)	Lockitt, John (Executioners of)	11/1/1879	1370:215	
Lockitt, John (Executioners of)	Lockitt, John (Executioners of)	11/13/1879	1371:227	
Lockitt, John (Executioners of)	Lockitt, Elizabeth Lockitt, Enoch Lockitt, Charles	3/10/1882	1456:182	
Lamb, Albert E. (Referee) Lockitt, Enoch (Plaintiffs)	Watson, James H. Pittinger, James H.	7/21/1882	1474:425	
Watson, James H. Watson, Mary E. Pittinger, James H. Pittinger, Harriet E.	City of Brooklyn	10/15/1888	1838:200	
Cooper, Leonard (Executioner of)	Watson, James H. Pittinger, James H.	10/15/1888	1838:200	
Mullen, (Executioners of) Ellen	Duffy, Rebecca	2/15/1895	1:284	
Pittinger, James H. Pittinger, Harriet E. Kneeland, Frances W. Otis, Laura R.W. Watson, James H. Watson, Blanche Watson, Marge Watson, Jessie K. Watson, (Heirs of) James H.	Watson & Pittinger	1/21/1901	20:481	
Bushnell, Orsamus Brady, James Benson, Arthur W.	City of Brooklyn	1/20/1909	3113:494	
New York City of (formerly Brooklyn City of)	Holland, Timothy	6/1/1911	3293:253	
Duffy, Rebecca B.	Holland, Eliza M.	9/16/1914	3511: 432	
Hoyt, (As Trustee), Henry R. Pierrepoint, John J. Benson, (Trustee of) Frank S. Benson, Mary	Holland, Timothy	1/14/1914	3470:143	

Grantor	Grantee	Date	Liber: Page	Description
Conlan, Elizabeth Conlan, Mary A. Conlan, John Conlan, (heirs of) Dennis	Pure Oil Co.	1/5/1916	3579:396	
Thomson (As Trustee), Charles B. Watson and Pittinger (Trustee of) (In Bankruptcy)	Pure Oil Co.	1/5/1916	3579:397	
Hoyt, (As Trustee), Henry R. Pierrepont, John J. Benson, (Trustee of) Frank S. Benson, Mary	Holland, Timothy	1/26/1916	3579:399	
Pure Oil Company Dawes, Berman G. Heath, Fletcher S. Higgins, William J. Chamberlain, Harry G. Wright, Edwin C. Koontz, Arthur B. Shinnick, George S. Weber (Director and Trustee), Norton H.	Ohio Cities Gas Co.	3/18/1918	3704:525	
Pure Oil Company Dawes, Berman G. Heath, Fletcher S. Higgins, William J. Chamberlain, Harry G. Wright, Edwin C. Koontz, Arthur B. Shinnick, George S. Weber (Director and Trustee), Norton H.	Ohio Cities Gas Co.	8/30/1918	3741:72	
Pure Oil Company	General Terminals Inc.	6/1/1943	6332: 213	
Admar Industries, Inc.	Zumbo, Frank	5/24/1974	711: 845	Entire Lot
Zumbo, Frank	Costello, John	1/6/1986	1746: 1846	Entire Lot
Costello, John	Costello, Joseph	3/4/1986	1774: 1923	Entire Lot
Costello, Joseph (def)	Wooden Bridge, LLC	4/17/1998	4171: 1548	Entire Lot

**Bolded entry indicates land transfer most likely involving Block 452, Lot 15.**

It is possible that portions of Lot 15, particularly the Gowanus Canal frontage of the lot, may have been developed as part of the early construction of the Canal. Initial private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). If Lot 15 was developed during this period, the canal walls adjoining the lot were most likely originally constructed with sheet piles. Within a few years of the Canal opening, the early sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

According to the Brooklyn Eagle, Carroll Street was opened as far as the Gowanus Creek by 1853 (Brooklyn Eagle 1853b). The 1869 Dripps map appears to represent the first indication of development within Lot 15 (see Figure 18). By this time, it appears that Modern Block 452 has been filled and dredged enabling development throughout the block. A large rectangular lot associated with Watson Lumber is depicted across Lot 15 with portions of the parcel extending outside of the lot boundaries. In 1869, Lot 15 was sold twice, to Henry Babcock and subsequently to William Jordan (Liber 729: 29; Liber 911: 294). Given that Watson Lumber was not a listed owner of the



property during this period, it appears that the lumber company was leasing usage of the lot from Babcock and/or Jordan.

Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 15 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 15 would most likely have been timber cribwork constructions.

By 1880, Modern Block 452 has been designated Historic Block 248. Individual tax lots, including a larger version of Modern Lot 15, have also been delineated across the block. Bromley's 1880 map indicates that several structures had developed within the boundaries of the modern lot (see Figure 19). A linear brick structure is depicted along the northern frontage of the lot. The rear, northern portions of two stable buildings with frontages on First Street are also illustrated within the southeastern extent of Modern Lot 15. The 1886 Sanborn map indicates continued development within Lot 15 (see Figure 37). The lot is identified as the Watson & Pittinger Lumber Yard. A two-story stable building is depicted along the northern extent of Lot 15. Additional structures associated with the lumber yard have developed adjacent to Lot 15. In 1882, James Watson and James Pittinger acquired the lot (Liber 1474: 425).

By 1915, Lot 15 is depicted as a vacant lot (see Figure 39). A two-story structure continues to reside along the northern frontage of the lot. From 1914 through 1916, there were multiple land transactions conveying rights and title to Lot 15 to either Timothy Holland or to the Pure Oil Company (Table 20). In January 1916, the bankrupt Watson & Pittinger sold their title to the Pure Oil Company (Liber 3579: 397). Hyde's 1929 map indicates the occupation of the Pure Oil Company (see Figure 23). Several structures, including two brick buildings, are located within the lot. Two cylindrical buildings have also been constructed within the western portion of the lot. A search of the DOB BIS database indicates that a New Building permit was filed for Block 452, Lot 15 in 1928. During the course of research, an information request for the Block/Lot folder for Block 452, Lot 15 was made at the Brooklyn DOB. The DOB staff could not locate the Block 452, Lot 15 folder. Therefore, it is unclear as to what structure or structures were constructed in 1928. However, it appears that this permit was associated with the Pure Oil Company occupation.

The 1951 Sanborn indicates that the Pure Oil Company complex developed over time (see Figure 40). Five cylindrical gas tanks of differing size are depicted within the southwestern portion of Lot 15. A pump house, a loading structure, an auto garage, and a two-story office building are also located within the lot. The Pure Oil Company sold Lot 15 in 1943 (Liber 6332: 213). Despite the sale of the parcel, the gas building complex continued to occupy Lot 15 through 1968 (see Figure 41).

The 2006 Sanborn indicates that a large storage structure has developed within the central portion of Lot 15 (see Figure 42). A two-story office building continues to occupy the northwestern corner of the lot. A small one-story building is also depicted along the eastern edge of Lot 15. A search of the DOB BIS database did not reveal any demolition permits filed for Lot 15, nor were any new building permits filed for Lot 15 after 1928. It is, therefore, unclear as to when the gas tanks and other gas-related structures were removed and when the large storage building was constructed. In 1998, Wooden Bridge, LLC acquired the parcel. The development within the lot may have coincided with the sale of the property.

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 452, Lot 15 is "timber cribwork with intact faces about mean low water" (2004: Figure 3.1). Our site visit confirmed that the visible portion of the wall consists of intact timber cribwork above the water line (see Photos 33 and 34). As noted previously, Hunter's evaluation of the Gowanus Canal found that from the eighteenth century through to 1930, that bulkhead construction across the Port of New York involved primarily timberwork constructions (2004: 3-2). Hunter concludes that such timber cribwork constructions represented the bulk of the nineteenth century Gowanus Canal bulkhead as constructed by the Gowanus Canal Improvement Commission. Following Hunter's observations, it appears that intact timber cribwork bulkheads represent potentially significant sources of historic information (2004: 3-5). The

visible cribwork along the eastern frontage of Block 452, Lot 15 would represent such a potentially important resource.

### Summary and Conclusions

Initial development in the vicinity of Block 452, Lot 15 may date to the earliest construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 15 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

The first indication of structures within Lot 15 appears to date to 1869 with a large rectilinear lot associated with Watson Lumber. From the 1880s to 1916, the Watson & Pittinger Lumber Yard operated within Lot 15. Pure Oil Company acquired the parcel in 1916 and occupied it up until at least 1968. By 2006, a large storage warehouse had been constructed within the lot.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 15 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of timber cribwork. The submerged portions of the bulkhead could not be observed during either survey. The visible evidence of intact cribwork and the potential for submerged cribwork foundations underneath the visible portions of the wall suggests that the eastern frontage of Block 452, Lot 15 has the potential to possess nineteenth or early twentieth century bulkhead remains (see Figure 43). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000 (Brown 2000). This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 15 bulkhead.

Based on the available historic information, Block 452, Lot 15, part of Projected Development Site T, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

## **4.13 Block 453, Lots 1 & 21, Projected Development Site U**

### Existing Conditions

Lots 1 and 21 are bordered by the Gowanus Canal to the west, Carroll Street to the northeast, First Street (not opened) to the southwest, and Lot 26 to the southeast. Carroll Street continues to the northwest over the canal by way of the Carroll Street Bridge, which is a retractile type iron bridge with a wooden plank surface. The bridge was built in 1889 and was designated a New York City Landmark (NYCL) in 1987 and has been determined eligible for the State and National Registers of Historic Places (NR) from the New York State Historic Preservation Office (NYSOPRHP).

Lot 1 contains a masonry warehouse-type factory building measuring one story in the rear, and two and three stories along its border with Carroll Street (Photo 35). There is a water tower on top of the three-story section of the building. Next to the building, there is a small paved parking area adjacent to the canal (Photo 36). The parking area slopes downward towards the south. The area just west of the parking area marks the boundary with the Gowanus Canal, and the bulkhead here consists of timber cribwork, whose extreme upper elements are deteriorating (Photo 37). There is a stone and brick storm drain that empties into the canal, located under the Carroll Street sidewalk and just off the Lot 1 archaeological APE.

Lot 21 contains a rectangular shaped, one-story brick faced and concrete block building, which is located at the northeast corner of the lot, bordering Carroll Street and adjacent Lot 26 (Photo 38). The remainder of the lot is covered with a paved concrete surface (Photo 39).



**Photo 35: View of Lot 1, Showing Masonry Warehouse-Type Factory Building Measuring One- Story in the Rear, and Two and Three Stories along its Border with Carroll Street, and Gowanus Canal Bulkhead. View Southeast from Carroll Street Bridge.**



**Photo 36: View of Paved Parking Area at Northwest Corner of Lot 1, Adjacent to the Canal. View Southwest from Carroll Street.**





**Photo 37: View of Gowanus Canal Bulkhead, Showing Deteriorating Upper Elements. View Southeast from Carroll Street Bridge.**



**Photo 38: View of Lot 21, with Rectangular Shaped, One-Story Brick Faced and Concrete Block Building at the Northeast Corner of the Lot, Bordering Carroll Street and Adjacent Lot 26. View South from Carroll Street.**



**Photo 39: View of Paved Concrete Surface on Remainder of Lot 21. View South from Carroll Street.**

#### Lot History

The history of Block 453, Lots 1 and 21, is broken down into two sections: the early history of the APE, from the 1600s-ca. 1854, when the APE and surrounding area were owned by the Brower and Denton families and before the modern city grid and the canal were constructed, and from ca. 1854-1900, after the area was divided into blocks and lots and sold to other individuals.

#### Early History

Modern Lots 1 and 21 are within the area patented to Jan Evertsen Bout in 1645 and 1667, described by Stiles as “the neck” and through which the upper end of the Gowanus Creek ran (Stiles 1867:99). There were two tidal grist mills built within Bout’s patents. The older mill, which dated to the 1660s, was called the Gowanus Mill, or Freeke’s Mill, and was located north of Union Street between Nevins and Bond Streets, several blocks outside the APE. This mill initially was operated Isaac DeForest and Adam Brower, later by Brower alone, and last by John C. Freeke, for whom the mill was named. In ca. 1702, sons Adam and Nicholas Brower acquired the lands including the Gowanus Mill and the surrounding area, including the Lots 1 and 21 (Liber 2:266).

In 1709, Adam and Nicholas Brower built a second mill further downstream on the Gowanus Creek, and dammed another branch of the creek to form its mill pond. This mill, more commonly known as Denton’s Mill was, according to Stiles (1867:100), located “on the northeast side of the present First street, about midway between Second and Third avenues.” The mills were linked by a road known as Freeke’s Mill Road, which ran from the Gowanus Road on the east, through the Denton’s Mill area and then northeast to Freeke’s Mill. This road is shown clearly on a number of historic maps, and although the precise alignment varies from map to map, it appears to have run through Block 453, and through the northeast corner of Lot 21 (see Figures 6, 7, 10, 14, 16, 18, 19, 20, 21, 22; also, see Beers 1874; Bromley 1907; Renard 1837). Of note, some historic accounts variously refer to Denton’s Mill as the “Yellow Mill,” but the Field 1869 map (Figure 10) shows a separate mill on Freeke’s Mill Pond with this name, suggesting that there were two separate mills, and that Denton’s Mill was the one within the Block 453 archaeological APE, not the Yellow Mill. Denton’s Mill appears on three historic maps (Figures 6 and 16; Renard

1837) as overlapping the southern edge of Lot 21. There were several structures located on the north side of the mill road, as shown on a number of these maps, corresponding to homes for the proprietors and workers of the mill. These buildings and their associated yards were located off the Lot 1 and 21 archaeological APE, however.

In 1793, a sheriff's sale conveyed a portion of the Brower property, measuring 17 acres with the lower mill, to Hendrick Lefferts (Liber 55:184), whose family the next year sold the property to Hendrick Suydam and Nehemiah Denton (Liber 11:223). Suydam was from Newtown and Denton was from Jamaica, Queens. Denton moved to Kings County to run the mill that then bore his name, living in a house on the opposite or north side of the mill road, which Stiles describes as "in Carroll Street, midway between Nevins and Third Avenue" and which burned down in 1852 (Stiles 1867:100). The house appears to have been located to the east of the APE. In 1798, nearly 90 years after the mill was built, it was still referred to as the "new mill" in a deed that gave sole ownership to Denton (Liber 11:226).

In the 1790s, when Denton first began milling in Kings County, deeds noted him as a "yeoman." However, he appears to have done very well for himself, rising to become one of the foremost millers in the area, as well as a successful merchant of his own goods. City directories in the 1810s and 1820s note that he had a store at Coenties Slip in lower Manhattan, was a "Commissioner of Highways & Fence Viewers," an Assessor, an Elder of the Reformed Dutch Church, and a Director of the Long Island Bank. According to Stiles, he and neighboring miller John C. Freeke were among the first in Brooklyn to use barouches, or coaches, and were both reported to be wealthy (Stiles 1869:181). Denton also made use of modern milling technology, purchasing a license of a cutting-edge, new patent for milling equipment in 1812 (Rakos personal communication 2004, cited in Hunter Research 2004).

Denton and his family appear in all of the federal censuses for Kings County through 1840. His household (presumably residing in the dwelling across the street from the mill, off the archaeological APE) over time consisted of several unnamed white males and females, plus several unnamed blacks, both slaves (through 1820) and free blacks (all years but 1810). Other heads of households, which were listed between Denton and Freeke in these census pages and so presumably were living along the mill road and possibly working at the mills, tended to change from one ten-year period to the next, suggesting a modest turnover of personnel.

When Denton died in December 1844, he was 72 years old. His will is on file with the Surrogate Court of Brooklyn, although the probate inventory that was filed with it is missing. Nonetheless, Denton's will is informative for what it says about his property, his family, and his possessions. In 1844, Denton was survived by his widow, Janet, and his grandson Nehemiah Denton Wilkins, who was a deaf mute and a minor at the time. His will directed money, property (including additional real estate in downtown Brooklyn and Mobile, Alabama, and rents from property in New York City), and goods to each of them, as well as money to several nephews, friends, children of friends, and religious organizations. Additionally, he bequeathed to "my colored woman Jude" \$150 per year and "the house and ground attached thereto as now inclosed (sic) in the occupation of Jacob Kahler of Gowanus containing about 1/4 of an acre more or less, bounded northeasterly by land now or late of Theodorus Polhemus and fronting on the Gowanus Road." This small lot with a house appears to have been located outside the APE. An entry for "Judith Denton," a colored woman, appeared in the 1848 Brooklyn City Directory, with an address simply "near Tide Mills." She is noted as Judith Cornelison in conveyance documents (Liber 350:89). Denton's widow Janet (or Jeanette) had moved out of the family house by the mill and was living on Henry Street by this year.

Denton's will also instructed his executors to sell his property at Gowanus, measuring 17 acres, and which included the Block 453 archaeological APE. Only the land devised to his "colored woman Jude" was to be exempt. The purchaser of Denton's holdings, in 1852, was Arthur W. Benson, a wealthy Brooklynite, who had moved to New York from Maine at age 16 and made a fortune by the time he retired from his first career at 38, in 1849. He then went on to be President of the Brooklyn Gas Company and was at the forefront of introducing gas service to Brooklyn residents and businesses (NYT 1889b).

Benson also speculated in real estate. His intention in purchasing the Denton holdings was to sell off the property in smaller lots, capitalizing on the newly laid street grid in this part of Brooklyn. To that end, in January 1855 he began advertising very heavily in the Brooklyn Eagle with this advertisement, which ran several times a week on and off over the next two years:

LOTS FOR SALE AT PRICES FROM \$250 to \$800 in the 10<sup>th</sup> Ward of the city of Brooklyn, on 3<sup>rd</sup> and 4<sup>th</sup> avenues and President and Carroll streets: if improvements are made all the purchase



money can remain on mortgage for a long term of years. Also water fronts on the Gowanus Creek, suitable for manufacturies, or lumber, coal and stone yards, which will be sold or leased on very favorable terms. Apply from 8 to 9 A.M., and 2 to 3 P.M., to ARTHUR W. BENSON, First Place, 4<sup>th</sup> door East of Court street [Brooklyn Eagle 1855].

Over the next dozen or so years, Benson sold all of the land that comprises the Lots 1 and 21 archaeological APE to individual owners. The history of the archaeological APE continues below, organized by historic lots within the larger modern lots. Of note, the numbering scheme for the historic lots changed multiple times over the nineteenth century, as shown in the tax assessments from 1866-1888. The historic lot boundaries within the archaeological APE during this time generally not change, however. For ease of discussion, the historic lot numbers that were in use in 1886, when the first Sanborn map was made for the archaeological APE, are the ones that are used in the following discussion. Figure 44 illustrates the locations of these historic lots within the archaeological APE.

#### Lot 1

Modern Lot 1 is bounded by the Gowanus Canal on the northeast, Carroll Street on the northwest, the line of First Street (which is no longer opened) on the southwest, and Lot 21 on the southeast. During the nineteenth century, this lot contained six smaller historic lots, which were sold separately. Five of them fronted Carroll Street and one of them fronted First Street. They were known by several different lot numbers over the course of this period. Figure 44 illustrates the locations of these historic lots.

Chains of title using deed index books were compiled for all of the historic lots within the APE from the early 1700s through the present. Table 21 presents the chain of title for Lot 1.

**Table 21: Recorded Land Transfers for Block 453, Lot 1**

Grantor	Grantee	Year	Liber:Page	Description
Briez, Volkert Briez, Elizabeth	Beeckman, Gerardus	3/10/1702-3	2:264	
Beeckman, Gerardus Beeckman, Magdalena	Brower, Abram and Nicholas	3/10/1702-3	2:266	
Many conveyances from Brower family members to each other		1707-1785		
Heirs of Brower, Jeremiah	Brower, Adolphus et al.	11/18/1785	6:343	
Vanderveer, John, Sheriff Brower, Abraham Brower, Jeremiah Brower (Judg't Debtor)	Lefferts, Hendrick	1793 (recorded 11/5/1835)	55:184	
Lefferts, Isaac Lefferts, Agnes	Suydam, Hendrick Denton, Nehemiah	12/22/1794 (recorded 10/26/1814)	11:223	
Suydam, Samuel Heyer, Isaac Heyer, Jane	Denton, Nehemiah	5/1/1798 (recorded 10/26/1814)	11:226	
Denton, Nehemiah (Executors)	Benson, Arthur W.	11/8/1852 (recorded 11/12/1854)	300:275	17 acres



Table 21: Recorded Land Transfers for Block 453, Lot 1 (con't)

Grantor	Grantee	Year	Liber:Page	Description
Denton, Nehemiah (Executors)	Benson, Arthur W.	11/8/1852 (recorded 1/30/1854)	350:89	17 acres
Benson, Arthur W. Benson, Jane A.	Farrell, Nathan	9/11/1854	374:228	Sublot of Lot 1
Benson, Arthur W. Benson, Jane A.	Murphy, Michael	1/27/1857	440:288	
Benson, Arthur W. Benson, Jane A.	Monks, William	5/9/1859	500:311	Sublot of Lot 1
Monks, William Monks, Mary A.	Redding, Thomas	3/18/1864	623:109	Sublot of Lot 1
Benson, Arthur W. Benson, Jane A.	Watson, James H. Pittinger, James H.	5/4/1864	629:415	Excludes two small lots fronting Carroll St. owned by Henry Farrell and William Monks; most of Lot 1
Farrell, Henry Farrell, Margaret	Watson, James H. Pittinger, James	7/21/1875	1210:268	Lot 1, part 2
Watson, James H. Pittinger, James	Farrell, Henry	7/21/1875	1210:268	Lot 1, part 2
Redding, Thomas Redding, Ann	Watson, James H. Pittinger, James	11/28/1898	2015:441	Sublot of Lot 1
Murphy, Timothy et al. (devisees of Michael Murphy)	Watson, James H. Pittinger, James	8/6/1901	19:530	Northeastern 25' frontage of modern Lot 1; Lot 1, part 1
Pittinger, James H. Watson, James H. et al.	Watson & Pittinger	11/12/1901	20:481	Northeastern 25' frontage of modern Lot 1; Lot 1 part 1
Farrell, James	Farrell, John	3/16/1906	36:473	Lot 1, Part 2
Daniel, Katherine B. (ref.) Farrell, Thomas (pltf. et al.)	Watson & Pittinger, Inc.	6/11/1909	3156:46	Lot 1, Part 2
Farrell, James	Watson & Pittinger, Inc.	6/11/1909	3156:46	Lot 1, Part 2
Gallagher, Joseph W. (ref.) Watson & Pittinger (deft. et al.)	Levine, David J. Condax, Julia L. J.	6/29/1917	3677:168	Northeastern 25' frontage of modern Lot 1
Levine, David Levine, Anna	Condax, Julia J.J.	9/11/1917	3684:34	Northeastern 25' frontage of modern Lot 1
Condax, Julia L.J.	Kennedy, William MacDonald, Elizabeth	2/19/1921	4026:19	
Thomson, Charles B. (as tr.) Watson & Pittinger (tr. of)	Condax, Julia L.	2/21/1921		Bankruptcy; Lot 1, part 2
MacDonald, Elizabeth	Kennedy, William	3/16/1921	4023:312	



Grantor	Grantee	Year	Liber:Page	Description
Kennedy, William	Kennedy, Jr., William	4/30/1921	4031:367	
Kennedy, Jr., William	Kennedy, Sr., William. Kennedy, Jr., William	10/10/31	5228:260	Tenants in common
Kennedy, William, Sr. Kennedy, William, Jr.	Property Holding Corp.	4/6/1932	5263:25	
Kennedy, Elizabeth C.	Property Holding Corp.	10/20/1932	5298:330	
Property Holding Corp.	John P. Carlson, Inc.	11/16/1936	5530:146	Lease
Pomeranz, Bernard S., referee Property Holding Corp.	Dime Savings Bank of Brooklyn	4/15/1937	5532:515	Foreclosure
Dime Savings Bank of Brooklyn	Four Twenty Carroll St. Brooklyn Corp.	6/4/1937	5565:250	
420 Carroll St. Brooklyn Corp.	John P. Carlson, Inc.	11/16/1950	7695:89	Lease
420 Carroll St. Brooklyn Corp.	Vogel, Ralph Kraut, Beny	10/4/1962	9054:50	
Vogel, Ralph Kraut, Beny	Barge Realty Corp.	2/6/1963	9089:493	
Barge Realty Corp.	Northeastern Plastics Inc.	10/4/1963	9176:427	
Teledata, Inc.	NPI Plastics, Inc.	10/10/1969	371:1780	

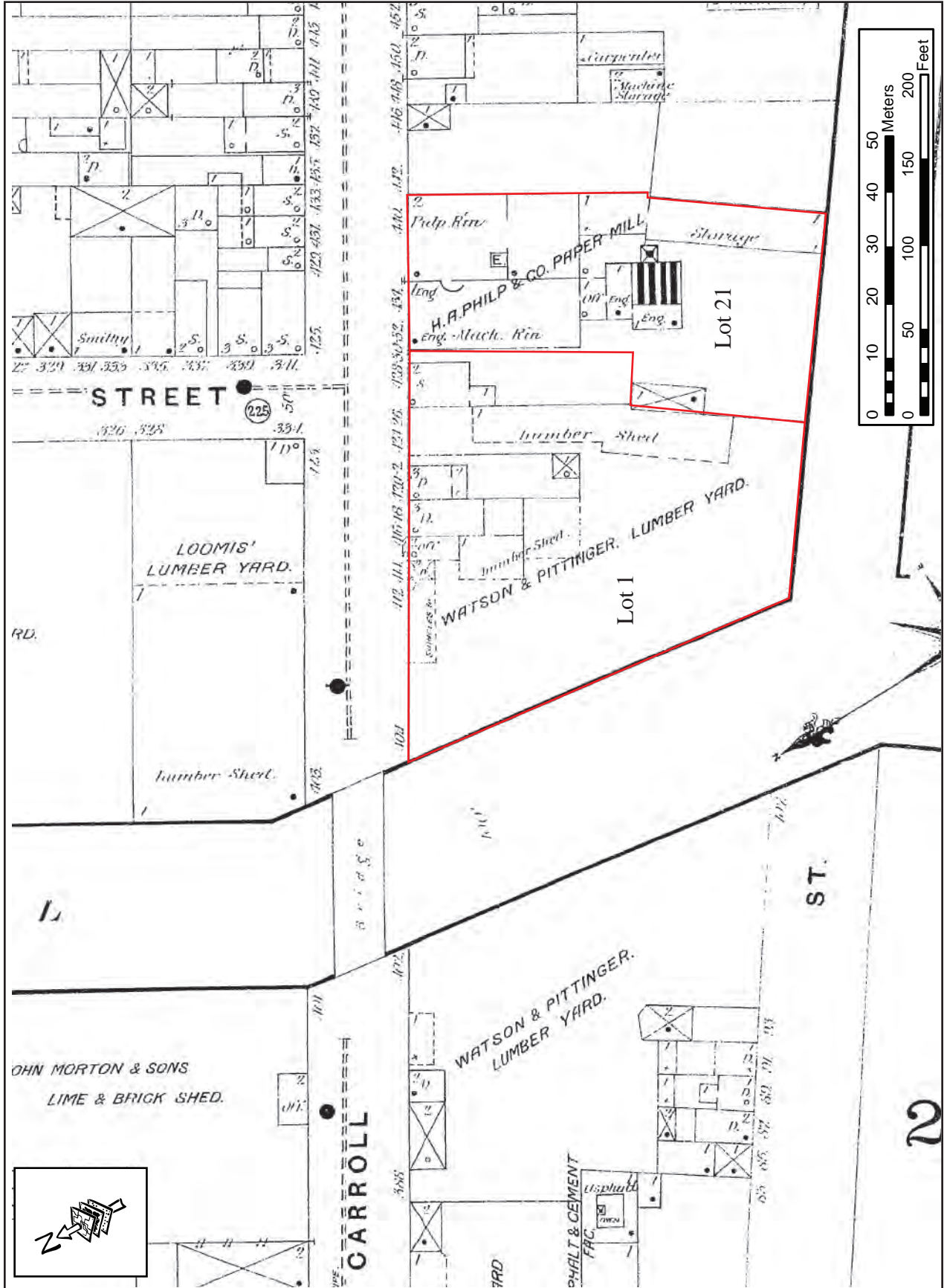
**Bolded entry indicates land transfer most likely involving Block 453, Lot 1.**

The first three historic lots sold by Benson were house lots along Carroll Street. He sold the first lot to Nathan Farrell in 1854 (Lot 38), the second lot to Michael Murphy in 1857 (Lot 43), and the third lot to William Monks in 1859 (Lot 3) (Liber 374:228, Liber 440:288, Liber 500:311). Monks sold his lot to Thomas Redding in 1864 (Liber 623:109). The Farrell house was the furthest west along Carroll Street, the Monks house adjoined on the east, and the Murphy house was two lots east of the Monks house. The Murphy house appears to have been built by 1859, when he is listed as a resident there. The Farrell and Monks houses appear to have been built at least by 1860, when all three families were recorded sequentially in the federal census, suggesting they were residing on adjacent lots. Tax records, which are extant beginning in 1866, note that the houses built on these lots were two or three stories high. Historic maps confirm the data from the tax records (Figure 45). Initially, it appears that these dwellings housed single families, but at least by the 1880s the buildings were home to multiple families (Federal Census 1880). Members of the Farrell, Redding (or Redden), and Murphy families could be traced on the lots through about 1890 (see Appendix C).

The remainder of Modern Lot 1, comprising Historic Lots 1, 39, and 42, was sold in 1864 to James H. Watson and James H. Pittinger (Liber 629:415), who ran a lumber business located on both sides of the canal south of Carroll Street, and whose business was known as Watson & Pittinger. They appear to have begun business on Lot 1 at least by 1861, when they ran an advertisement in the Brooklyn Eagle saying:

WATSON & PITTINGER'S  
NEW LUMBER AND TIMBER YARD  
On Canal, corner of Nevins and Carroll Streets, South Brooklyn [Brooklyn Eagle 1861].

The 1869 Dripps map (see Figure 18) notes the firm's name on both sides of the canal, although not all subsequent nineteenth century maps did so. Many showed the buildings on modern Lot 1 associated with the firm, however,



Map of industrial area showing Lot 1 and Lot 21. Lot 1 contains Watson & Pittinger Lumber Yard and Lot 21 contains H.A. Philp & Co. Paper Mill. Scale bar shows 0 to 50 meters and 0 to 200 feet.

and illustrated a series of frame buildings oriented both north-south and east-west along the lot lines (e.g. Figures 19, 20, 21, 22, and 45). Last, a photograph taken in 1912 (Photo 40) clearly shows the Watson & Pittinger logo on the side of one of the buildings on the lot.

During the period that Lot 1 was occupied by Watson & Pittinger, the firm and a number of neighboring landowners acquired legislative permission to construct a private basin along the line of First Street, from the canal to 50 feet (15.2 meters) east of Third Avenue, and measuring 60 feet (18.3 meters) wide and about six feet (1.8 meters) deep. The basin, known variously as the First Street Basin or the Lateral Canal, was approved in 1872 and completed in about 1874 (Hunter Research 2004: 2-32). The basin was closed and filled back in during the mid-twentieth century.

Despite operation of the lumber yard on much of Modern Lot 1, during the second half of the nineteenth century members of the families who had bought house lots within Modern Lot 1 from Benson continued to own these lots, living in the houses surrounded by the lumber yard. As noted above, members of these families could be traced on these lots through about 1890. These families eventually sold their lots to Watson & Pittinger, but not until the end of the nineteenth century (1898, Redding) or the early twentieth century (1901, Murphy and 1909 Farrell) (Liber 2015:441, Liber 19:530, Liber 3156:45). The firm of Watson & Pittinger appears to have operated its lumber yard on Modern Lot 1 until about 1917, when their holdings were sold by a trustee to another owner (Liber 3677:168).

Twentieth century historic maps show the shift on Lot 1 from a mix of houses and lumber yard buildings to an exclusively commercial and industrial location. The 1904 and 1915 Sanborn maps (Figure 46; Sanborn 1915), and the 1907 Bromley map all show the lumber yard buildings surrounding two remaining dwellings (the former Farrell and Redding houses; the Murphy house had been razed by this time). The 1929 Hyde map (see Figure 23), however, shows that nearly all of the earlier buildings (including the houses and the lumber yard buildings) had been demolished and in their place were three large brick buildings attributed to the “Wm. Kennedy Construction Co.”



**Photo 40: “Carroll Street Bridge After Planting.” View of Block 453, Lot 1 in Background, with Watson & Pittinger Logo on Side of Building. Note also canal bulkhead exposed at low tide. View Southeast.**

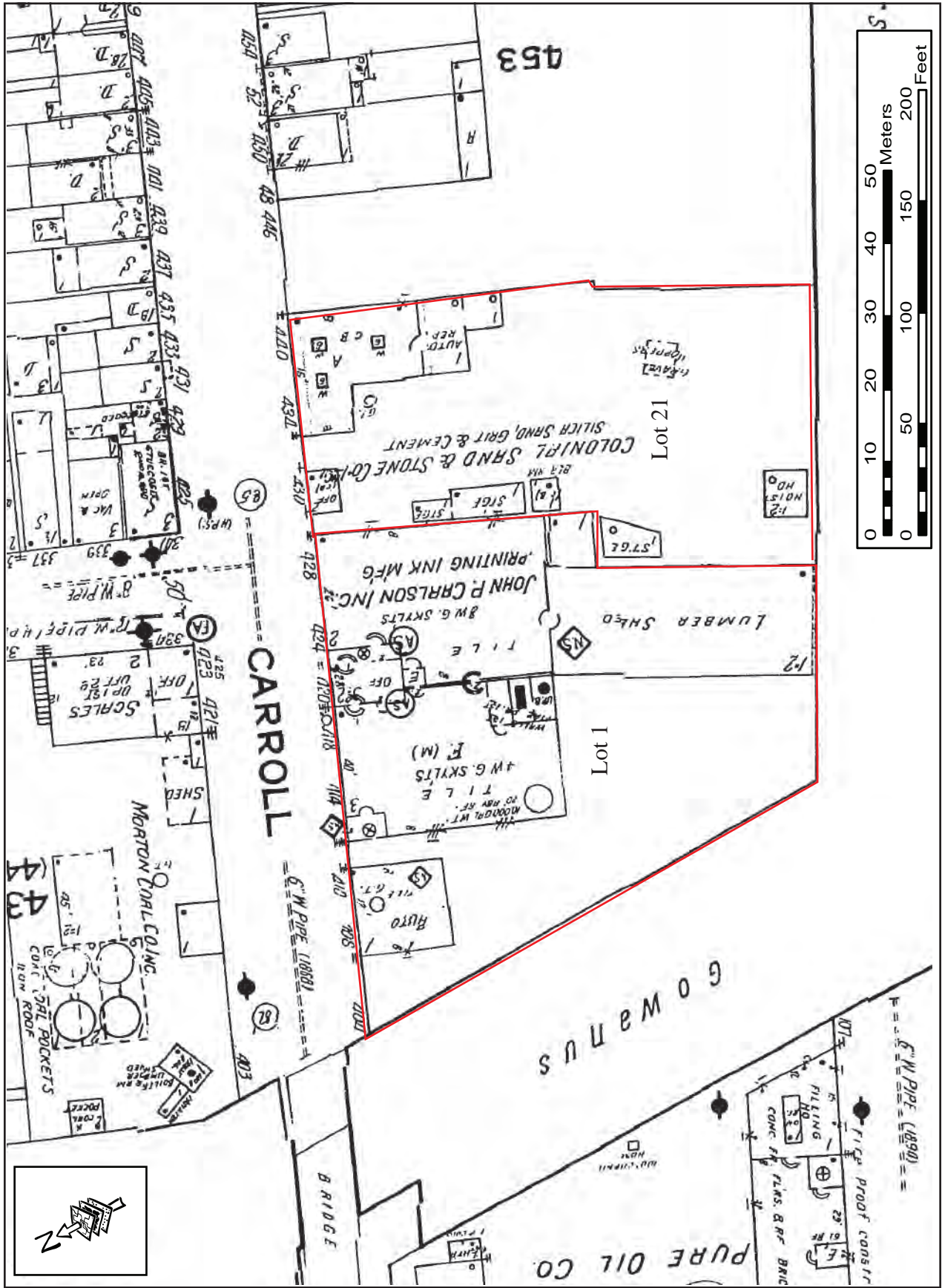




and “John P. Carlson, Inc.” Only one frame lumber shed remained, along the border of Lot 1 with Lot 21. Kennedy had acquired the property in 1921, whereas Carlson was a tenant (Liber 4023:312, Liber 5530:146). A photograph of the canal taken in 1930 shows a portion of the building occupied by Kennedy in the left background (Photo 41). By issuance of the 1939 Sanborn map (Figure 47), the frame lumber shed had been demolished, leaving an open area behind the brick buildings. Kennedy was no longer noted as the owner of the western side of the lot; only Carlson was still listed as an occupant. This reflects the conveyance in 1932 from the Kennedy family to the Property Holding Corporation (Liber 5298:330). In 1950, the Sanborn map (Figure 48) attributes all of the buildings on modern Lot 1 to “John P. Carlson, Inc.,” and noted that the company was a manufacturer of printing ink. The 1968 and 2006 Sanborn maps (Figure 49) both attribute the buildings to the “North East Plastics Co.” In 1996, an addition was built off the rear of the factory buildings on Lot 1, covering most of the remaining lot footprint (DOB records; Figure 49). Only a small corner of the lot, along the canal at Carroll Street, remained open. A brick garage that formerly stood in this location appears to have been demolished between 1968 and 1996 (Sanborn 1968, DOB records).



**Photo 41: “South from Carroll Street.” View of Block 453, Lot 1 on Left Showing Existing Three-Story Building on Lot, with Water Tower on Roof. View South.**



NOT TO SCALE. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT DOES NOT REPRESENT A LEGAL DESCRIPTION OF ANY PROPERTY. FOR A LEGAL DESCRIPTION, SEE THE OFFICIAL RECORDS OF THE COUNTY OF SHERMAN, TEXAS.





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Lot 21

Modern Lot 21 is bounded by Lot 1 on the northeast, Carroll Street on the northwest, the line of First Street (which is not opened) on the southwest, and Lot 26 on the southeast. During the nineteenth century, this lot contained three smaller historic lots. Two of them fronted Carroll Street and one of them fronted First Street. They were known by several different lot numbers over the course of this period. Figure 44 illustrates the locations of these historic lots.

Chains of title using deed index books were compiled for all of the historic lots within the APE from the early 1700s through the present. Table 22 presents the chain of title for Lot 21.

**Table 22: Recorded Land Transfers for Block 453, Lot 21**

Grantor	Grantee	Date Recorded	Liber:Page	Description
Briez, Volkert Briez, Elizabeth	Beeckman, Gerardus	3/10/1702-3	2:264	
Beeckman, Gerardus Beeckman, Magdalena,	Brower, Abram Brower, Nicholas	3/10/1702-3	2:266	
Many conveyances from Brower family members to each other		1707-1785		
Brower, Jeremiah Heirs of	Brower, Adolphus et al	11/18/1785	6:343	
Vanderveer, John, Sheriff Brower, Abraham Brower, Jeremiah (Judg't Debtor)	Lefferts, Hendrick	1793 (recorded 11/5/1835)	55:184	
Lefferts, Isaac Lefferts, Agnes	Suydam, Hendrick Denton, Nehemiah	12/22/1794 (recorded 10/26/1814)	11:223	
Suydam, Samuel Heyer, Isaac Heyer, Jane	Denton, Nehemiah	5/1/1798 (recorded 10/26/1814)	11:226	
Denton, Nehemiah Executors	Benson, Arthur W.	11/8/1852 (recorded 11/12/1854)	300:275	17 acres
Denton, Nehemiah Executors	Benson, Arthur W.	11/8/1852 (recorded 1/30/1854)	350:89	17 acres
Benson, Arthur W. Benson, Jane A.	Hamilton, George A. Donaldson, Robert	10/22/1860	539:340	
Gordon, Thomas as assignee, Hamilton, George A. Donaldson, Robert	Read, Frederick W.	10/11/1861	561:397	
Hamilton, George A. Donaldson, Robert Donaldson, Narcissa J.	Read, Frederick W.	10/11/1861	561:400	
Sidell, Augustus Referee	Hamilton, Margaret M.	2/26/1864	621:9	
Hamilton, Margaret M. Hamilton, Charles K.	Geoghegan, Ambrose	3/28/1865	659:73	
Geoghegan, Ambrose	Carpenter, Miles B.	3/4/1870	937:357	
Geoghegan, Ambrose	Philp, Henry A.	3/4/1870	937:361	
Stegman, Lewis R., Sheriff	Philp, Henry A. Carpenter, Miles B. Firm of H.A. Philp and Co.	3/12/1884	1545:278	
Courtney, John, Sheriff	Tafft, Adela	2/2/1894	2222:156	
Tafft, Adela A.	Loomis, Guy L	1/25/1897	6:434	21



Grantor	Grantee	Date Recorded	Liber:Page	Description
John S. Loomis Co.	McDonagh, Joseph B. McDonagh, Leo A.	6/9/1920	3953:190	21
Prosser, Alfred L. Prosser, Mary B.	Carroll Nevins Realty Co., Inc.	1/5/1929	5001:307	21
Carroll Nevins Realty Co., Inc.	Mahoney and Busch, Inc.	7/9/1930	5132:455	21
Mahoney and Busch, Inc.	City Sand and Gravel Corp.	12/1/1930	5159:425	21
CS Corp., formerly City Sand and Gravel Corp.	Colonial Sand and Stone Co., Inc.	5/21/1934	5390:23	21
Colonial Sand and Stone Co., Inc.	DiFiore, Joseph	10/14/1936	5536:75	21
DiFiore, Joseph	Colonial Sand and Stone Co., Inc.	9/20/1937	5586:124	21
Colonial Sand and Stone Co., Inc.	Robinson, William A.	5/14/1940	5856:502	21
Robinson, William A.	Frank Cantasano, Inc.	4/27/1946	6899:73	21
Frank Cantasano, Inc.	Hygrade-Magnet Corp.	11/7/1947	7214:626	21
Hy-grade Magnet Corp.	425 Carroll St. Corp.	7/8/1952	7963:69	21
425 Carroll St. Corp.	DeMarro, Louis	7/31/1952	7973:171	21
DeMarro, Louis	Goldman, Irving Goldman, Sol	8/1/1952	7974:114	21
Goldman, Irving Goldman, Sol	Klarikiatis, Daniel	2/14/1953	8064:16	21
Klarikiatis, Daniel	Basso Gowanus Group	10/11/1979	1113:282	21

**Bolded entry indicates land transfer most likely involving Block 453, Lot 21.**

Unlike adjacent Lot 1, all three of the historic lots that comprise modern Lot 21 appear to have been sold together over time, rather than individually. In 1860, Benson sold these three lots to George A. Hamilton and Robert Donaldson (Liber 539:340). Hamilton and Donaldson then constructed a paper mill on the lots, with the main factory building along the Carroll Street side of the property. In November 1860, soon after it was constructed, the buildings were destroyed by fire. The fire was reported in both the Brooklyn Eagle and the New York Times, which paraphrased much of the text from the Eagle's account. The more complete article said:

A PAPER FACTORY CONSUMED—Saturday evening, about 5 o'clock, during the heavy storm of wind and rain, the paper factory of Messrs. Hamilton and Donaldson, Carroll street, corner of Nevins, took fire, and although the firemen worked nobly in the face of the most difficult and trying circumstances, their efforts were only so far successful as to prevent the flames extending to the adjoining buildings. The factory consisted of three buildings, viz., the main building 30 feet front by 50 feet deep; another 30 feet front by 100 feet deep, of one story, 25 feet in height, and a third, or rear building, 25 feet in height and 40 in depth. The buildings were all timber framed, and built by Mr. Rogers, the contractor, at a cost of \$30,000. The machinery is estimated at \$55,000, stock \$1,200. The buildings were insured in Brooklyn and New York offices. The fire is supposed to have been caused by spontaneous combustion amongst the straw on the upper floor, as no fire was used on the upper part of the building [Brooklyn Eagle 1860].

The paper mill was rebuilt after the fire. In 1865 ownership of the three lots and the mill passed to Ambrose Geohegan, and in 1870 to Miles B. Carpenter and Henry A. Philp (Liber 659:73, Liber 937:357, 361). The lots were held by Carpenter and Philp until 1894 (Liber 2222:156).

An article published in the Brooklyn Eagle in 1870 about paper making in Brooklyn provides a long history of the paper mill on Lot 21, and is worth transcribing for the detail it gives about the history of Lot 21:

BROOKLYN STEAM PAPER MILLS, H.A. PHILP & CO., CORNER OF CARROLL AND NEVINS STREETS.

We were most fortunate in meeting Mr. Philp, a hearty, genial gentleman, who began at the beginning, and went with us from the rag to the finished roll of paper.

The mill was originally a rough affair, built some ten or twelve years since, by Hamilton and Donaldson. Five years ago, it was burned down, and rebuilt by A. Geohegan, who ran it several years. In 1867 it was run by Mr. Philp; Mr. Geohegan being a special partner. Since March last, the firm has been as stated above. Mr. Philp was brought up a paper maker, and has spent his life in the business. He understands all the machinery, and the properties needed for the production of the best commercial article.

The building is of brick, solid, heavy walls; all below ground laid in cement. In a year more the whole enclosure will be thus laid. The chimney is ninety feet high, and under the engine and boiler house alone there are 150 piles driven 23 feet into the earth. The ground was originally swampy and wet, but has been entirely redeemed. The builder is Hugh J. Connelly, a master of his business, as this building evidently shows.

#### THE BOILER AND ENGINE

The boiler, made at the Atlantic Works, is 240 horse power; and the engine is 150 horse power. Beside the main engine, there are two others, one of 15, and the other of 25 horse power. Herbert & Whittaker are the builders of the engine. The boilers are three plain cylinders.

The steam chest is neatly cased in wood, which adds much to the appearance of the engine. The stroke is 3 ½ feet, and the piston works very quietly. The driving wheel is 30 inches wide, and 16 feet in diameter, carrying a 28 inch band, that drives 137 feet of 5 inch shafting. This description alone will show the immense power of machinery. The band wheel is cased in fireproof brick work. The driving band is 90 feet long.

Alongside the engine is a donkey pump built by Woodruff & Beach, that is constantly in operation, and works smoothly.

#### THE STOCK ROOM

Is 40 by 110 feet, and contains thousands of dollars, worth of foreign and domestic rags. The foreign rags are largely imported from Scotland, where they are abundant, and of excellent quality.

#### THE CELLAR

This is under the Fourdrinier machine room; is 44 by 119 feet, and 8 feet in the clear. The timbers are all 12 by 12 inches, and the walls laid in concrete, and on bases filled with piles.

#### THE WELL

Under the rag engine room is a well, 11 feet in diameter and 50 feet down. The water from this is used for all purposes except for filling the engine.

#### SORTING ROOM

This is a dusty place. Here are employed twenty-five girls, who examine and assort all the rags and other material, placing each in separate piles.

#### THE DEVIL

This is not a very wholesome name for a machine, but it does good service. It devours all the rags given to it.

It is a sort of picker, similar to those used in cotton and rope mills, but provided with very heavy steel blades that cut and tear the rags into more shreds.

#### THE DUSTER

This is a bolt made of coarse wire cloth. It is five feet in diameter and sixteen feet long, open at each end. It is placed on a slight inclination from end to end. It is being constantly filled from the sorting room, and as constantly empties itself at the other end. In passing through this bolt all the dust is shaken out through the openings of the wire cloth, and falls upon the floor beneath. The rags are delivered free from all loose dirt that can be thus shaken out, though they require to be still further cleansed.

#### RAG BOILERS

The rags now pass to the boilers, of which there are six. These are round tubs—wood above and iron below. They are 12 feet in diameter and 8 feet deep. A constant stream of water is falling upon these tubs, and the boiling is done by immense coils of steam piping below. Beside these we were shown the

#### ROTARY BOILERS

These are rolled iron cylinders, 6 feet in diameter and 20 feet long. They rotate continually, are filled with rags, and have steam admitted by means of center tubes. They are

considered far preferable to the tubs described above.

All the boiling is done with alkaline preparations. One we have already mentioned by formula. Different paper makers use different substances, but they all partake of the same nature. The object to be attained is a process that will most effectually and economically remove all the dirt and grease that may be in the rags; for the simple reason that no good paper can be produced unless this is accomplished in the most thorough manner. It is necessary that the pulp when complete should affiliate perfectly with certain sizing substances, and no chemical affinity exists between these and any kind of grease. These boilers are therefore constantly watched, that the process shall be as destructive as possible to everything of the least oily nature.

#### RAG ENGINES

We now entered the rag engine room, where are six rag engines. These are for washing and heating the rags, and thus producing the pulp. A large oval tub contained these washers, one on each side. The washers are octagons, covered with wire cloth, and having central cones, for the escape of material. The rags, now clean, are placed in those machines or engines. As the washers revolve they rub the rags continually, and it is only when reduced to the smallest side that they can pass through the wire cloth to the cones. The tub has a current passing round all the time.

As the fine rags pass to the cone, they are gradually worked by it to the hopper on one side, whence they descend to a receiver below. They are now formed into a pulp, and when properly sized this pulp is ready to be manufactured into paper. We now come to the last process, which is done upon the

#### FOURDRINIER MACHINE

The room in which these machines are placed, is the first that we entered from Carroll Street; but as the process did commence here, we went to the very beginning, and have traveled with the rags. At the end next the Carroll Street door, are the pulp vats, through which the material passes to the wire cloth, known as a Fourdrinier cloth.

This cloth is made of fine brass wire, sixty threads to an inch, and that used by Philp & Co., was made by Mr. McMurray, of North Third Street, Brooklyn, E.D. A lateral trap or feed, worked by a clamp, constantly shakes the pulp as it passes on, so that it can lay evenly upon the surface of the wire cloth or apron. This cloth runs over forty small brass rollers, so that it is kept on a perfect level, otherwise the paper would be of uneven thickness. This cloth is seven feet wide and fifty feet long, and endless. It is kept tight by means of rollers underneath, that can be raised or lowered by screws, so as to regulate the tension. These screws are arranged on upright bars, so that tightening or loosening the apron is the work of a single minute.

After some additional historical notes on papermaking in the United States, the article continues:

The ground occupied by Philp & Company is equal to nine city lots, being 100 feet on Carroll street and 125 feet on First street.

The Company employ twenty-five men, and the weekly bill of wages amounts to between \$700 and \$800.

The capital employed is \$150,000. They produce twenty-five tons of paper every week. They make wall, book, and news paper.

John Duffy is the bookkeeper, a very polite and attentive young man, who is thoroughly acquainted with accounts. Richard Bond is the draughtsman, and produces very neat drawings. Mr. Philp is his own superintendent, and is constantly on hand. Being thoroughly conversant with every portion of the works, he is able to apply remedies when necessary, without waiting the advice of machinists.

The firm have another paper mill at Locust Valley, Long Island, of which Mr. A. Geohegan is superintendent. We may, perhaps, visit that mill at no very distant day.

The paper produced by Philip & Company has a good reputation. When the teams leave the mill in the morning there is not a pound of paper left on the premises. The large capital employed enables them to procure materials in large quantities, and to dispose of the manufactured article at reasonable rates. The neighborhood is improving rapidly, and the day is not far distant when this vicinity will be covered with industrial establishments. The nearness of the canal, the facility of transportation to the river, the easy approach from all quarters, make the place accessible, and will render it popular in a very brief period [Brooklyn Eagle 1870].



The Philp and Company paper mill appears to have operated on Lot 21 through at least 1890. Its configuration is shown in detail on the 1886 Sanborn map (see Figure 45) as well as the 1880 Hopkins and Bromley maps (see Figures 19 and 20), and the 1886 Robinson map (see Figure 21). The Sanborn map shows that the two-story portion of the building fronting Carroll Street was a “pulp room” and had an elevator. The one-story portion of the building fronting Carroll Street was an “engine machine room.” Attached to the rear of these buildings were an office and two engine houses. According to the Sanborn key for 1886, the larger of the two engine houses, which was depicted with several horizontal bars in it, was a horizontal steam boiler. There was a brick chimney adjoining the larger of the two engine houses. Although this copy of the Sanborn map is in black and white and so does not show color coding for building materials, other maps from this period (e.g. Bromley 1880 [see Figure 19]) note that the pulp room and the storage rooms on the rear of it were made of frame and the engine machine room and the engine houses were made of brick. Based on the description of the printing mill from the Brooklyn Eagle article, it appears that the engine machine room was the building that contained the cellar.

Tax records note buildings associated with the mill through at least 1888, and city directories list the firm at least through 1890 (see Appendix C). A New York Times column on “Business Troubles,” published in 1893, noted this about the paper mills:

GEORGE W. PHILP, trading as H.A. Philp & Co., Brooklyn Paper Mill, 428 Carroll Street, Brooklyn, has made an assignment to George Russell. The business was started over thirty years ago by Ambrose Geohegan, and Henry A. Philp became a partner about twenty-three years ago. H.A. Philp & Co. failed in 1876 and compromised, it is said, at 30 cents on the dollar. H.A. Philp died in April, 1886, and his son, George W., took his place in the firm, Miles B. Carpenter being the other partner. The latter died in July, 1889, and his interest was continued for about three years by his estate. They formerly had a salesroom on College Place, this city [NYT 1893].

An obituary published in the New York Times in 1889 noted that local businessman George W. Blanchard had joined the firm of H.A. Philp & Co. in 1876, the year that it ran into financial troubles (NYT 1889a).

In 1894, the Lot 21 property was sold at a sheriff’s sale to Adela A. Taft (Liber 2222:156). The previous year, DOB records note that there had been a fire on the lot, within a two-story frame building measuring 50 by 50 feet square that was used as a factory, and that the damage had been repaired. This appears to correspond to the easternmost building of the paper mill, although at the time there were no other buildings on the lot, suggesting that the paper mill had closed and the other buildings of the complex had been razed prior to this time. A New York Times notice in 1896 gave details about a fire on the property three years later, although erred about the address, the owner, and perhaps the mill name and the number of stories in the building.

Fire was discovered in the three-story frame building at 240 [note: should be 440] Carroll Street, yesterday. It was formerly occupied by the Empire Paper Mills, but had not been in use for two years. The building is owned by Mrs. Gaft [note: deeds have her name as Taft]. She estimates her loss at \$5,000. Owing to the nearness of several lumber yards, two alarms were sent in, but the firemen had the flames extinguished in about twenty minutes [NYT 1896].

It appears that after the fire in 1896, the remains of the damaged building were removed. The 1898 Hyde map (see Figure 22) shows nearly the entire Lot 21 footprint as devoid of structures. The exception was one small frame building along the boundary with Lot 1.

In 1897, Lot 21 was purchased by Guy Loomis (Liber 6:434), and the 1904 and 1915 Sanborn maps (see Figure 46; Sanborn 1915) show Lot 21 attributed to “John S. Loomis and Co. Lumber Yard.” There were no buildings on the lot, just the 65-foot high brick chimney formerly associated with the paper mill that remained in the center of the lot. It is unclear whether the Brooklyn Eagle article describing the paper mill took liberties in describing the height of this chimney (saying it was 90 feet tall), whether the mapmakers erred instead, or if the chimney was rebuilt at a lower height at a later date, but the chimney does appear to be a remnant of the paper mill. The 1907 Bromley map notes the lot as a lumber yard and shows no structures on the lot at all.

After its use as a lumber yard, Lot 21 became a storage facility for various materials. John S. Loomis and Company sold the lot in 1920 (Liber 3953:190), and in that year DOB records indicate a new steel building measuring 40 x 96 feet (12.2 x 29.3 meters) was constructed in the southern corner of the lot and was used to store paints and oils.

Another steel storage shed, measuring 18 x 12 feet (5.5 x 3.7 meters), was constructed in 1923, along the northern side of the lot. In 1925, a third building was constructed along Carroll Street, in the northeast corner of the lot, measuring 65 feet (19.8 meters) along Carroll Street and 55 feet (16.8 meters) deep along the eastern boundary of Lot 21. This building appears on the 1929 Hyde and 1939 Sanborn maps (see Figures 23 and 47). The 1939 Sanborn map shows that the lot was occupied by the Colonial Sand and Stone Company, which processed silica, stone, sand and cement. Several small storage buildings are shown along the periphery of the lot on the 1939 map. The City Sand and Gravel Corp. had purchased the lot in 1930, and it passed to the Colonial Sand and Stone Company in 1934 (Liber 5159:425, Liber 5390:23). The company sold the lot in 1940 (Liber 5856:502).

DOB records show that in the 1940s, the buildings on Lot 21 housed a junk shop and later a metal working shop, owned and operated by Hy-Grade Magnet Corporation. By the early 1950s, the existing buildings on the lot appear to have been demolished and a new structure was erected on the northeast corner of the lot. The 1950 Sanborn map (see Figure 48) shows it as a private garage. DOB records note it as a one-story brick-faced, cement block building, measuring 60 feet (18.3 meters) along Carroll Street and 125 feet (38.1 meters) deep along the eastern edge of Lot 21. There was also a two-story small office building next to the garage, measuring 19 x 19 feet (5.8 x 5.8 meters) in 1950. Identical conditions are shown on the 1968 Sanborn map, although by issuance of the 2006 Sanborn map (see Figure 49) the office had been demolished, leaving only the garage on Lot 21. This building is still standing on the lot today.

#### Disturbance record and archaeological sensitivity

The task of determining archaeological sensitivity across Block 453, Lots 1 and 21 followed a three-step process.

1. The archival research documented dates or approximate dates of initial development on each historic lot, as well as occupancy and use data.
2. This information was then compared with dates when municipal water and sewers were available under Carroll Street to see if occupants or workers would have used wells, privies, cisterns, or cesspools, which could contain archaeological deposits, prior to hookup to these municipal services. As noted above, municipal water and sewer pipes were laid under Carroll Street by the mid-1870s, although not all buildings were hooked up that early.
3. Last, each lot was assessed to see whether subsequent subsurface disturbance would have destroyed potential archaeological resources.

The disturbance record and archaeological sensitivity for each of the modern lots are addressed separately, below. Archaeological sensitivity of Lots 1 and 21 is shown on Figure 50.

#### *Lot 1*

Lot 1 has had multiple episodes of building, demolition, and rebuilding on it. The majority of the structures on the lot over time were on the northern side of the lot, facing Carroll Street. Nineteenth-century buildings here included three multiple-story frame houses, and an assortment of multiple- and one-story frame buildings associated with the lumber yard. All of these structures were demolished during the twentieth century, and new two- and three-story warehouse buildings were constructed in their place. The last episode of building was in the 1990s, when an addition was built off the main warehouse buildings on Carroll Street, stretching to the rear, or southern edge of the lot line. All but a small section of the lot along the canal frontage currently are covered by warehouse buildings.

None of the buildings on Lot 1, either in the nineteenth or twentieth centuries, appear to have had basements, probably due to the high water table associated with marshlands once surrounding the former Gowanus Creek in this location. Although no records addressing depths of foundations for the twentieth century buildings could be found by DOB staff, records for adjacent Lot 21 show foundations for one-story buildings with no basements extended at least 3-4 feet (0.9-1.2 meters) below grade, and it is assumed that similar depths would have been used on Lot 1, and likely a few feet deeper to support higher story buildings. It is also assumed that excavation for these foundations may have destroyed, or at best compromised, the upper reaches of any potential archaeological shaft features, such as privies, wells, and cisterns, that may have been associated with the three historic house lots on Lot 1. However, because the twentieth century buildings on the modern lot do not have full basements, it cannot be assumed that the entire extent of any shaft features has been destroyed. It is possible that truncated shaft features may still exist within the former rear yards of these three historic lots, especially if fill was added to the lot prior to construction of







the warehouse buildings to bring it up to a higher grade. Thus, there appears to be some archaeological sensitivity for the historic house lot locations within Lot 1.

Privies, wells, and cisterns, which are often filled with contemporary refuse related to the dwellings and their occupants, can provide important stratified cultural deposits for the archaeologist and frequently provide the best remains recovered on sites. Since Carroll Street had not been provided with piped water or sewers at the time that the houses were initially constructed in the late 1850s, occupants of the households would have relied on these shaft features exclusively until the houses were hooked up to city services. The Farrell house was hooked up to city sewers in 1874 and the Redding and Murphy houses in 1879, suggesting that privies and/or cesspools would have been used at least until this time (Sewer Permitting Office). As noted in the Brooklyn Eagle article about the paper mill, the fresh water table may have been as deep as 50 feet (15.2 meters) below grade, and it is unclear whether residents would have had the means to install their own deep wells or instead would have relied on communal wells in the neighborhood.

Frequently, wells or cisterns would be located in reasonably close proximity to a house, for use in washing or cooking (additional wells and/or cisterns might be located further away from a house for other uses, such as watering horses). Privies often were situated further away from the house, for sanitary purposes. Portions of these shaft features are often encountered on residential lots because their deeper and therefore earlier layers remain undisturbed by subsequent construction, and in fact, construction often preserves the lower sections of the features by sealing them beneath structures and fill layers. Wells would have been excavated as far as the water table, and cisterns and privies often were dug up to 10-15 feet (3-4.8 meters) below grade. Since historic maps note the elevation of Carroll Street ranging from 8-11 feet (2.4-3.4 meters), depending on the map, it is possible that cisterns and privies may have been excavated to about 10 feet (3 meters) below grade, which would correspond to about sea level and the presumed historic water table associated with the former marshlands surrounding Gowanus Creek.

In contrast to the house lots on modern Lot 1, the former lumber yard on the remainder of the lot generally would not have required subsurface modifications to the property, and therefore likely would not have left a significant archaeological footprint. Archaeological sensitivity for the former lumber yard areas of Lot 1 is low.

Last, according to Hunter (2004: 3-3), the bulkhead of the Gowanus Canal along the northeastern side of Lot 1 consists of “timber cribwork with intact faces above mean low water.” Photographs taken during the field visit for this Documentary Study indicated that some of the very top elements of the cribwork are now deteriorating, but it appears that the lower elements are still intact and in good condition. The stone and brick storm drain that empties into the canal is located under the Carroll Street sidewalk and so off the Lot 1 archaeological APE.

#### *Lot 21*

In contrast to Lot 1, Lot 21 appears to have a high archaeological sensitivity, as shown on Figure 50. Prior to establishment of the Brooklyn city street grid in this area, the southern edge of what would become Lot 21 contained a grist mill, originally built in 1709 by the Brower family and acquired by Nehemiah Denton in 1793. The mill was still standing in ca. 1849, and a number of historic maps illustrate its location. According to Stiles (1867:100), the mill was located “on the northeast side of the present First street, about midway between Second and Third avenues.” Many of the historic maps, when overlaid with the modern city grid, show the mill located off the archaeological APE, probably because of the imprecision of early cartographers. However, three of the historic maps, the Ratzer 1766-67 map (see Figure 6), the Renard 1837 map, and the Richards 1848 map (see Figure 16) do show the mill in the approximate location described by Stiles. The overlay of these three mill locations on the 2006 Sanborn map is shown on Figure 50. Although the locations of the mill are slightly different for each map, they all show that the mill overlapped the southern edge of Lot 21, was located partially within the First Street right-of-way, and may have extended slightly into adjacent Lot 26. Yard areas around the mill where worker’s privies may have been may fall on Lot 21. Furthermore, the portion of Lot 21 where at least a portion of Denton’s Mill appears to have stood appears to have had minimal disturbance to the former ground surface. There was only a one-story frame storage building extending into this area during the nineteenth century, which would not have had a basement and may have only had a shallow foundation, estimated at most to be 3-4 feet (0.9-1.2 meters) below grade. No new buildings were constructed on this part of the lot during the twentieth century.

Lot 21 also appears to have a high archaeological sensitivity for remains of the nineteenth-century paper mill complex, which operated on the lot from about 1860-1894. DOB records indicate that the twentieth-century

buildings on the lot, which replaced the paper mill buildings, may have reused existing foundations, and none had basements. Subsurface structural remains of the paper mill complex may still exist on Lot 21, as may additional archaeological features associated with the mill, such as worker privies or materials discarded in the open yard areas of the lot. Interestingly, the Sewer Permitting office does not have records of a sewer connection to the paper mill; the only notation is for a hookup in 1920, well after the mill closed. Whether this is an oversight is unclear, but the 1870 Brooklyn Eagle article noted a private well on the lot to provide water, and according to the Hunter Research report, the H.A. Philp & Company paper mill was named in 1889 by the Gowanus Commission as “the canal’s sixth greatest polluter” (2004: 3-24), suggesting that they were funneling wastes (perhaps including those from privies or cesspools) directly into the canal.

### Summary and Conclusions

#### *Lot 1*

The research conducted for this Documentary Study revealed that occupants on the three historic house lots within modern Lot 1 could be identified from ca. 1860-1890, including about 15-20 years (depending on the house) predating installation of municipal water and sewers under Carroll Street. Although there is assumed to be some disturbance to the former yard areas of these historic lots from twentieth-century building construction, lower reaches of any former shaft features on these lots may be intact. There appears to be archaeological sensitivity on these portions of Lot 1. If future development of this lot entails any subsurface excavation, it is recommended that archaeological testing be conducted within areas of archaeological sensitivity in advance of this work, in order to ascertain the presence or absence of potential residential remains.

Also, as noted above, the bulkhead of the Gowanus Canal, which comprises the western edge of this lot, generally is in good condition and along with other canal bulkhead resources identified in this Documentary Study, appears to constitute a significant archaeological resource. The Gowanus Canal has been recommended as eligible for inclusion in the National Register of Historic Places as an historic district (Hunter Research 2004). The bulkheads are contributing elements to this district. Therefore, if the canal bulkhead on Lot 1 will be adversely affected by future development, it is recommended that detailed photographic documentation be conducted at low-water conditions to the standards of the Historic American Engineering Record (HAER) or other standards acceptable to the LPC, the NYSOPRHP, and the Army Corps of Engineers.

#### *Lot 21*

Two potentially significant mill resources were documented within and overlapping the Lot 21 boundaries: a grist mill dating from ca. 1709-1850, and a paper mill dating from ca. 1860-1894. Remains of both resources and associated features, which may be located immediately beneath the existing ground surface, could be potentially eligible for the State and National Registers of Historic Places. Additionally, both types of mill resources (eighteenth- and early nineteenth-century grist mills and nineteenth-century paper mills) are underrepresented in the New York City archaeological record, and remains from either mill would constitute an important contribution to local history and archaeological studies. If future development of this lot entails any subsurface excavation, it is recommended that archaeological testing be conducted within areas of archaeological sensitivity in advance of this work, in order to ascertain the presence or absence of potential mill remains.

### **4.14 Block 462, Lot 14, Projected Development Site Z**

#### Existing Conditions

Block 462 is bounded by Second Street to the north, the Gowanus Canal to the east, Third Street to the south, and Bond Street to the west. Lot 14 is a rectangular parcel with an extended southwestern arm on the eastern portion of the block. The lot has frontages on Second Street, Third Street, and along the Canal. Lot 14 occupies the entire eastern frontage of Block 452, spanning 190 feet (58 meters) along the Canal. From the intersection of the Gowanus Canal and Third Street, the lot extends 268.67 feet (81.9 meters) to the west along Third Street. Lot 14 then turns and runs 90 feet (27.4 meters) to the north before turning and extending 70.92 feet (21.6 meters) to the east. At this point, the lot extends 100 feet (30.5 meters) to the north before intersecting with the southern edge of Second Street. Lot 14 runs approximately 219.67 feet (67 meters) to the east along Second Street until it intersects the Gowanus Canal. The lot has a maximum width of 268.67 feet (81.9 meters) along its southern edge, and a maximum length of

190 feet (58 meters) along its eastern edge. The lot was acquired by 155 Third Street LLC in May of 2000 (New York City Department of Finance 2009). Currently, Lot 14 consists of a large one-story warehouse building with attached garage space (Photo 42). A paved asphalt parking area is located to the immediate south of the building.

On February 6, 2009, a site visit was undertaken to assess the condition of the bulkhead as visible within the project area. The eastern frontage of Block 462, Lot 14 was observed from the Third Street Bridge. Along this frontage, the bulkhead consists of partially intact timber cribwork (Photo 43). Those portions of the bulkhead which remained underwater could not be observed at this time.

#### Lot History

Initial development of Lot 14 did not occur until the mid-nineteenth century. Eighteenth and early nineteenth century maps of the area indicate that Lot 14 was situated within the lowland salt marsh adjacent to the Gowanus Creek (see Figures 6, 7, and 14). Development within the immediate vicinity of the lot appears to have begun during the 1850s with the proposed and initial construction of the Gowanus Canal. As previously noted, early construction of the Gowanus Canal was funded by private landowners and private interests from 1851 to 1854. The historic deed research indicated that the earliest definitive land transaction involving Lot 14 dated to 1851 (Liber 253: 150). From 1851 through 1858, the lot was controlled by the Secor family (Table 23).



**Photo 42: Block 462, Lot 14. View Northwest.**





Photo 43: Block 462, Lot 14, Bulkhead Frontage. View Northwest.

Table 23: Recorded Land Transfers for Block 462, Lot 14

Grantor	Grantee	Date	Liber: Page	Description
Balchen, George	Secor, Charles A.	7/26/1851	253:150	
Secor, Charles A. Secor, Lydia	Secor, Zeno	4/28/1852	278:305	
Secor, Charles A. Secor, Lydia	Secor, Zeno	2/16/1858	469:423	
Secor, Zeno Secor, Mary A.	Spencer, Dwight Martin, Daniel French, J. Welsey	6/17/1867	767:462	
French, J. Wesley French, Mary	Spencer, Dwight Martin, Daniel firm of Spencer & Martin	7/8/1876	1246:540 & 539	
Cogswell, William Referee for Dwight Spencer	Rolfe, John P.	3/14/1879	1347:249	

Grantor	Grantee	Date	Liber: Page	Description
Rolfe, John P.	Keeneth, John C. Visel, Charles W. Visel, Augustus J. Firm of Keeneth & Co.	10/1/1886	1692:223	
Shaw, George E. Shaw, Catherine C. Truesdell, William E. Truesdell, Harriet B.	Shaw & Truesdell Co.	6/29/1898	11:58	Historic Lot 19
Visel, Elizabeth Dahn, J. Henry (as tr) Visel (tr of) Charles W.	Keeneth, John C. Visel, Augustus J.	2/8/1904	27:420	Historic Lot 28
NYC of	Cavanagh, Michael	5/11/1909	3137:355	Historic Lot 36
Dean, Samuel	Reilly, Thomas F.	8/29/1913	3444:376	Historic Lots 12 & 36
Reilly, Thomas F.	Shaw & Truesdell Co.	8/29/1913	3444:377	Historic Lot 14
Reilly, Thomas F.	McGarry, Mary R.	5/28/1915	3558:40	Historic Lots 36 & 39
Keeneth, John C. Keeneth, Sarah	Visel, Jacob A.	9/21/1920	3982:336	Historic Lot 28; half interest
Reilly, Thomas F. Reilly, Agnes, M. Mc Garry, Mary R.	Heitner, Abraham	9/29/1920	3982:455	Historic Lot 39
Mc Garry, Mary R. Reilly, Thomas F. Reilly, Agnes, M.	Shaw & Truesdell Co.	1/15/1924	4363:260	Historic Lot 36
Heitner, Abraham	Heitner, Yetta	10/27/1928	4988:58	Historic Lot 39
Visel, Augustus Visel, Ottilia J.	Visel, Jacob A.	9/25/1929	5077:105	Historic Lot 28
Visel, Jacob A. Visel, Georgia P.	Gillen, Thomas A.	3/14/1930	5111:378	Historic Lot 28
Keeneth, John C. Keeneth, Mary I.	Visel, Jacob A.	3/14/1930	5111:377	Historic Lot 28
Gillen, Thomas A. Gillen, Anna L.	Canal Coal Corp Brooklyn	4/7/1930	5121:57	Historic Lot 28
Gillen Thomas A.	Canal Coal Corp Brooklyn	4/24/1930	5120:202	Historic Lot 28; Corr. Deed Ref L-5121 CP57
Heitner, Yetta	Turkus, Dorothy	6/5/1933	5325:522	Historic Lot 39
Turkus, Dorothy	Hanigsberg, Yetta	4/9/1934	5381:311	Historic Lot 39
Brooklyn Union Coal Co. Inc.	Kane, Dominic V. Wieck, Raymond	7/8/1944	6550:627	Historic Lot 28
Hanigsberg, Yetta	Kryzanowski, Joseph	12/16/1947	7236:41	Historic Lot 39
Shaw & Truesdell Co.	Kross, Vincent	6/30/1950	7276:61	Historic Lot 36
Kross, Vincent	Kazyzanowski, Joseph	6/30/1950	7633:240	Historic Lot 36

Grantor	Grantee	Date	Liber: Page	Description
<b>Miller Employment Service, Inc. Kawina Inc. (formerly Brooklyn Union Coal Co. Inc.)</b>	<b>Sarnelli, Jr., Charles</b>	<b>8/14/1951</b>	<b>7817:531</b>	<b>Historic Lot 28</b>
<b>Shaw &amp; Truesdell Co.</b>	<b>Goldman, Sol</b>	<b>5/26/1953</b>	<b>8106:156</b>	<b>Historic Lots 14 &amp; 19</b>
<b>Goldman, Sol</b>	<b>Creamer, Joseph M.</b>	<b>9/24/1953</b>	<b>8159:636</b>	<b>Historic Lots 14 &amp; 19</b>
<b>Creamer, Joseph M.</b>	<b>Scafuri, Anna</b>	<b>11/12/1954</b>	<b>8288:289</b>	<b>Historic Lot 14</b>
<b>Scafuri</b>	<b>Scafuri, Angelo Scafuri, Pasquale Scafuri, Salvatore</b>	<b>11/18/1954</b>	<b>8290:375</b>	<b>Historic Lot 14</b>
<b>Robnick Realty Corp.</b>	<b>A &amp; C Equipment Corp.</b>	<b>10/22/1975</b>	<b>810: 101</b>	<b>Entire Lot</b>
<b>A &amp; C Equipment Corp.</b>	<b>153 Third Street Corp.</b>	<b>12/4/1980</b>	<b>1201: 1855</b>	<b>Entire Lot</b>
<b>153 Third Street Corp.</b>	<b>NYC Industrial DVLPGCY</b>	<b>1/2/1986</b>	<b>1746: 88</b>	<b>Entire Lot</b>
<b>NYC Industrial Development Agency</b>	<b>Lembo, Nicholas</b>	<b>2/22/1996</b>	<b>3657: 1590</b>	<b>Entire Lot</b>
<b>Lembo, Nicholas</b>	<b>155 Third Street LLC</b>	<b>5/2/2000</b>	<b>4860: 1100</b>	<b>Entire Lot</b>

**Bolded entry indicates land transfer most likely involving Block 462, Lot 14.**

It is possible that the eastern portions of Lot 14 may have been developed as part of the early construction of the Gowanus Canal. Charles Secor or Zeno Secor may have undertaken or participated within the early Canal development so as to increase the perceived value of their waterfront parcel. Initial private construction along the canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). If Lot 14 was developed during this period, the canal walls adjoining the lot were most likely originally constructed with this sheet pile technology. Within a few years of the Canal opening, the early sheet pile technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.

The 1869 Dripps map appears to represent the first indication of development within Lot 14 (see Figure 18). By this time, it appears that Modern Block 462 has been filled and dredged enabling development throughout the block. A Coal Yard, including a large C-shaped building along the eastern frontage of the lot and a small building within the southwestern corner, has developed within Lot 14. By 1867, Dwight Spencer, Daniel Martin, and J. Welsey French acquired ownership of the parcel (Liber 767: 462). It is unclear from the Dripps map as to whether these owners managed the coal yard within the property.

Between 1866 and 1870, the Gowanus Canal Commission completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the Canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 14 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 14 would most likely have been timber cribwork constructions.

By 1880, Modern Block 462 has been designated Historic Block 246. Individual building lots have also been delineated across the block. Bromley's 1880 map indicates that several structures had developed within the boundaries of Modern Lot 14 (see Figure 19). A linear frame structure occupies the southwestern corner of the lot. Two smaller brick structures are also depicted along the northern and southern frontage of the lot. A rectangular stable building has developed within the northeastern corner of the lot.



By 1886, extensive development, including growth of several individual interests, has occurred within Lot 14 (Figure 51). Within the northeastern corner of the lot, the Shaw & Truesdell Grain Elevator and Feed Mill has developed. This complex consists of multiple two-story buildings, along with a one-story stable, and a large mill building. In the western portion of the lot, a stone yard has developed with a linear building complex fronting the northern extent of Third Street. Several apparent private interests have also been built along the southeastern corner of the lot including a horse shoer and a Kindling Factory. The historic deed research indicates that George Shaw and William Truesdale had acquired the northeastern corner of Lot 14, Historic Lot 19, before 1898 (Liber 11: 58). It is possible that Shaw and Truesdale were renting the land for their feed mill prior to purchasing the parcel.

The 1904 Sanborn indicates continued expansion and development within Lot 14 (Figure 52). Shaw Truesdale Co. Grain Elevator and Feed Mill maintains the northeastern portion of the modern lot. S. Dean & Brothers Stone Yard has developed within the western portion of the lot. Several additional structures have been added to the stone yard complex. The Gowanus Kindling Wood Works has also been developed and grown within the southeastern corner of the lot. Several structures, including multiple trestles for cut wood, have been constructed within the Wood Works parcel. In 1904, John Keeneth and Augustus Visel purchased Historic Lot 28, the southeastern portion of Modern Lot 14 (Liber 27: 420). It appears that Keeneth and Visel may have been the operators of the Gowanus Kindling Wood Works.

By 1915, the Shaw Truesdell Company has expanded its holding to encompass the northwestern portion of Lot 14 (Figure 53). In 1913, Samuel Dean sold his portion of the modern lot to Thomas Reilly (Liber 3444: 376). Reilly sold his title to Historic Lot 14 to the Shaw Truesdell Company in the same year (Liber 3444: 377). According to the 1915 Sanborn, a one-story linear shed building with a frontage on Second Street represents the only structure within the northwestern corner of the lot, Historic Lot 14 (Figure 53). The southwestern corner of the modern lot appears to be vacant by this time. The Gowanus Kindling Wood Works continues to operate within the southeastern corner of Lot 14. A search of the DOB BIS database indicates that there have been no demolition permits filed for Block 462, Lot 14. However, several new building permits have been filled suggesting the rapid and continuous development of the parcel throughout the early twentieth century. During the course of research for the DEIS, an information request was submitted to the DOB for the Block/Lot folder for Block 462, Lot 14. The DOB staff could not locate the action folder for this parcel. Therefore, the new building permits for this property could not be viewed.

The 1951 Sanborn map indicates additional changes within Lot 14 (Figure 54). The Shaw Truesdell Company complex has expanded with the addition of a steel grain tank and several smaller grain-related buildings within Historic Lot 14. Two coal pocket buildings, a conveyer belt, a coal bin, and office space are depicted within the southeastern portion of the modern lot. In 1930, the Canal Coal Company acquired Historic Lot 28 (Liber 5121: 57). By 1944, the coal company sold its parcel to Dominick Kane and Raymond Wieck (Liber 6550: 627). The Sanborn indicates that the coal yard is no longer operational. It appears that Kane and Wieck may not have continued the coal operation within Lot 14. Several structures are also depicted within Historic Lots 39 and 36. These buildings include a structure for painting and two smaller one-story buildings along the southern and eastern edge of the historic lot.

Between 1950 and 1953, the Shaw Truesdell Company sold its interest in Lot 14 (Liber 7276: 61; Liber 8106: 156). These sales suggest that the Shaw Truesdell Grain operation was no longer operating within the lot. The 1968 Sanborn also reflects extensive changes within Lot 14 (Figure 55). The modern lot may have been configured by this time. A steel freight depot building with an attached canopy is depicted within the northwestern portion of the lot. The remaining majority of the lot has been converted into a parking area. A one-story frame office building is also depicted within the southeastern corner of Lot 14. In 1954, Angelo, Pasquale, and Salvatore Scafuri purchased Historic Lot 14 (Liber 8290: 375). It is possible that the Scafuri's removed the preexisting grain complex and constructed the new buildings within the lot. As previously noted, a search of the DOB BIS database did not reveal any filed demolition permits or any new building permits filed after 1950 for Block 462, Lot 14.

By 2006, Lot 14 has remained relatively unchanged (Figure 56). The only evident change within the lot appears to be the removal of the one-story office building. The entire parcel was acquired by 155 Third Street, LLC in 2000.

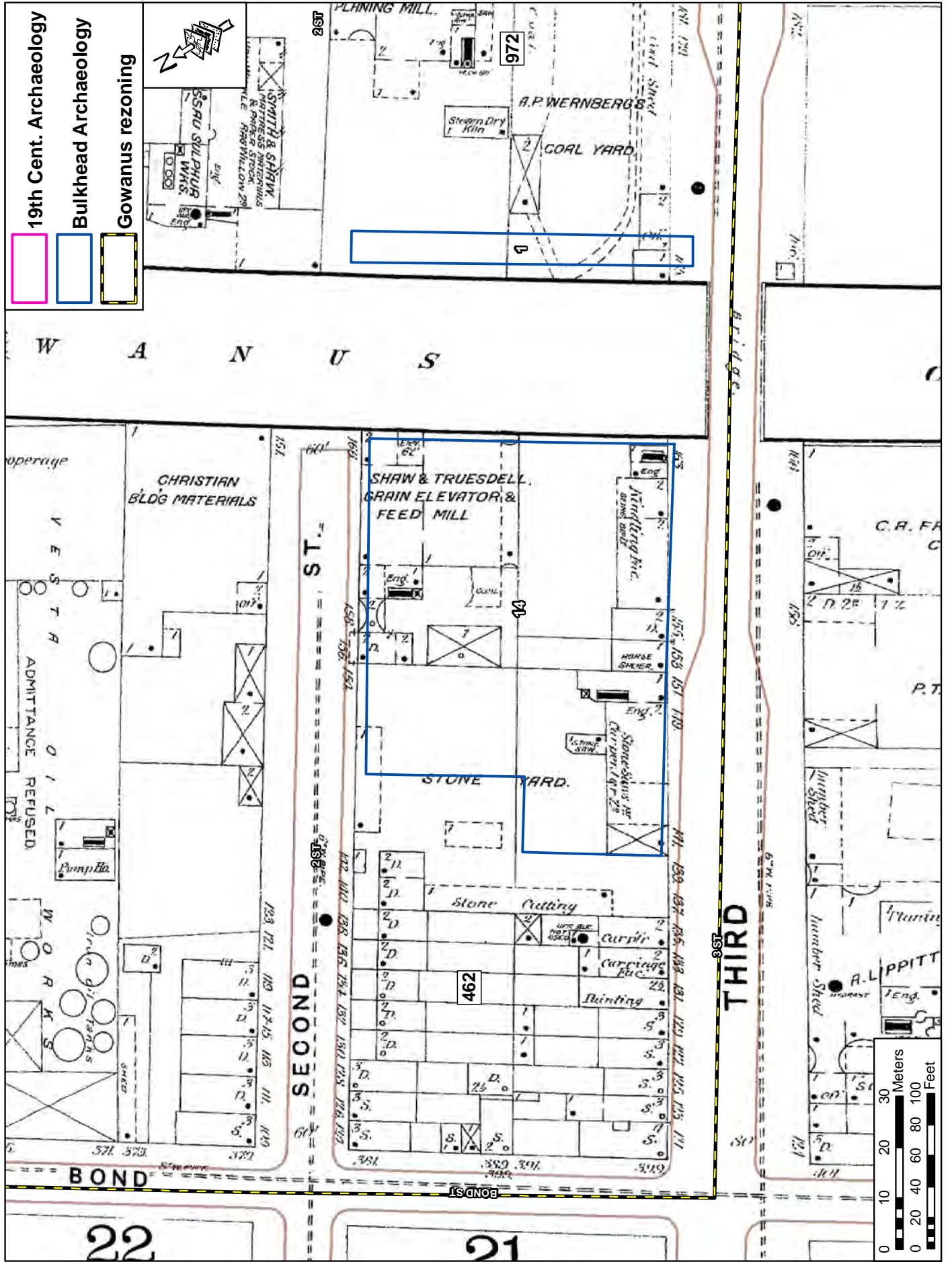
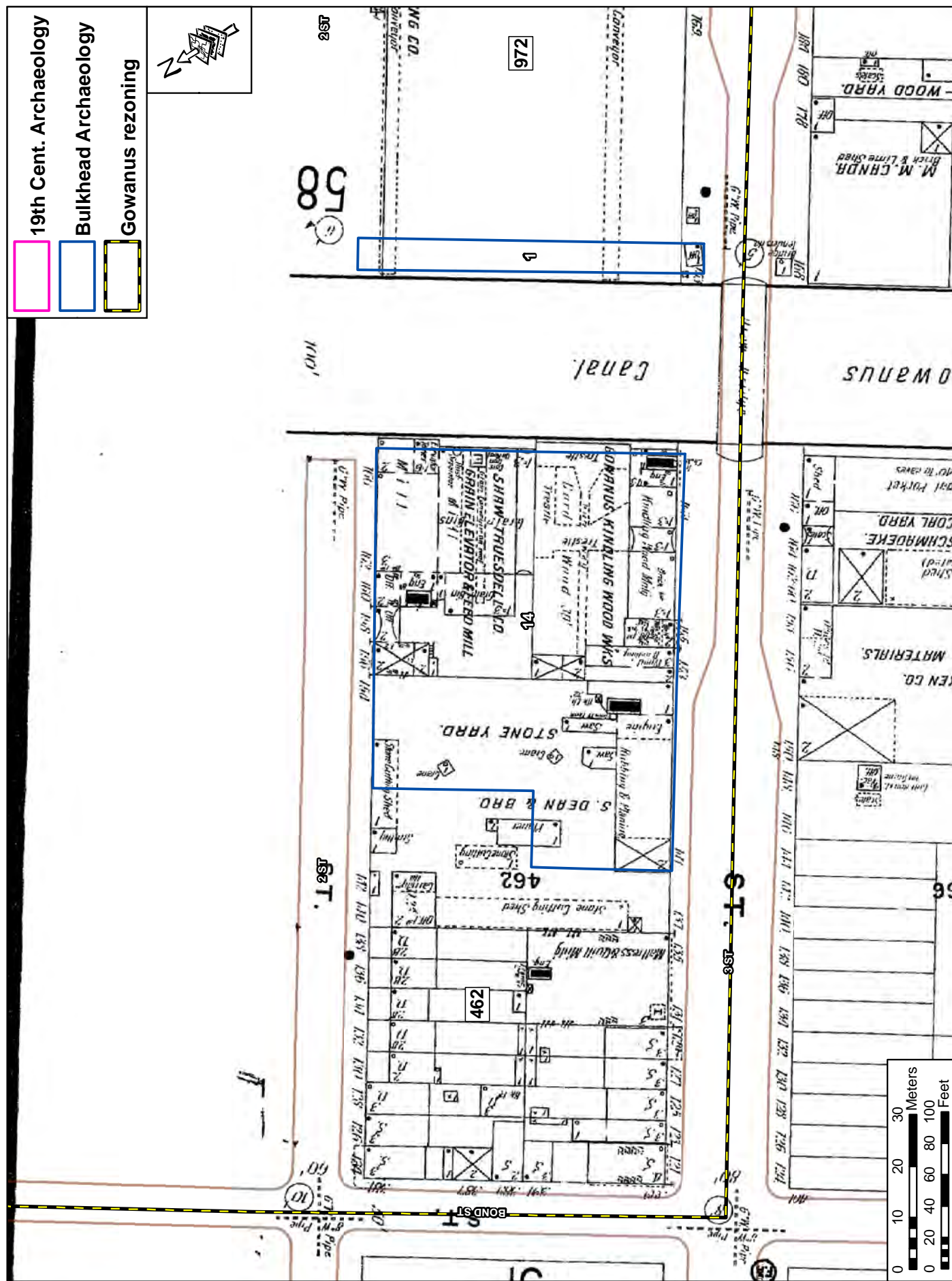


FIGURE 51: 1886 View of Blocks 462 and 972 within the Gowanus Rezoning Project Area





**FIGURE 52: 1904 View of Blocks 462 and 972 within the Gowanus Rezoning Project Area**

SOURCE: Sanborn 1904



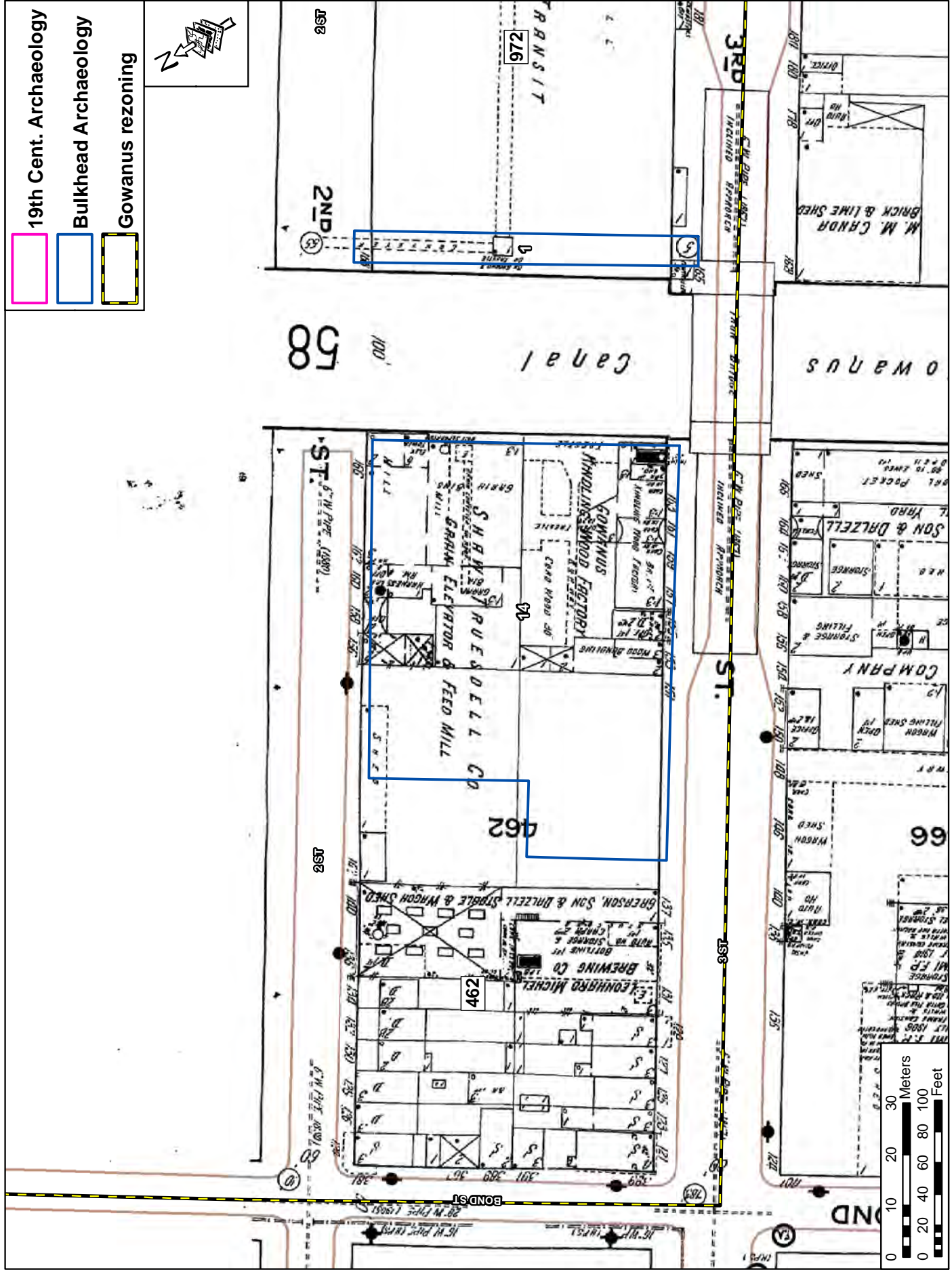


FIGURE 53: 1915 View of Blocks 462 and 972 within the Gowanus Rezoning Project Area





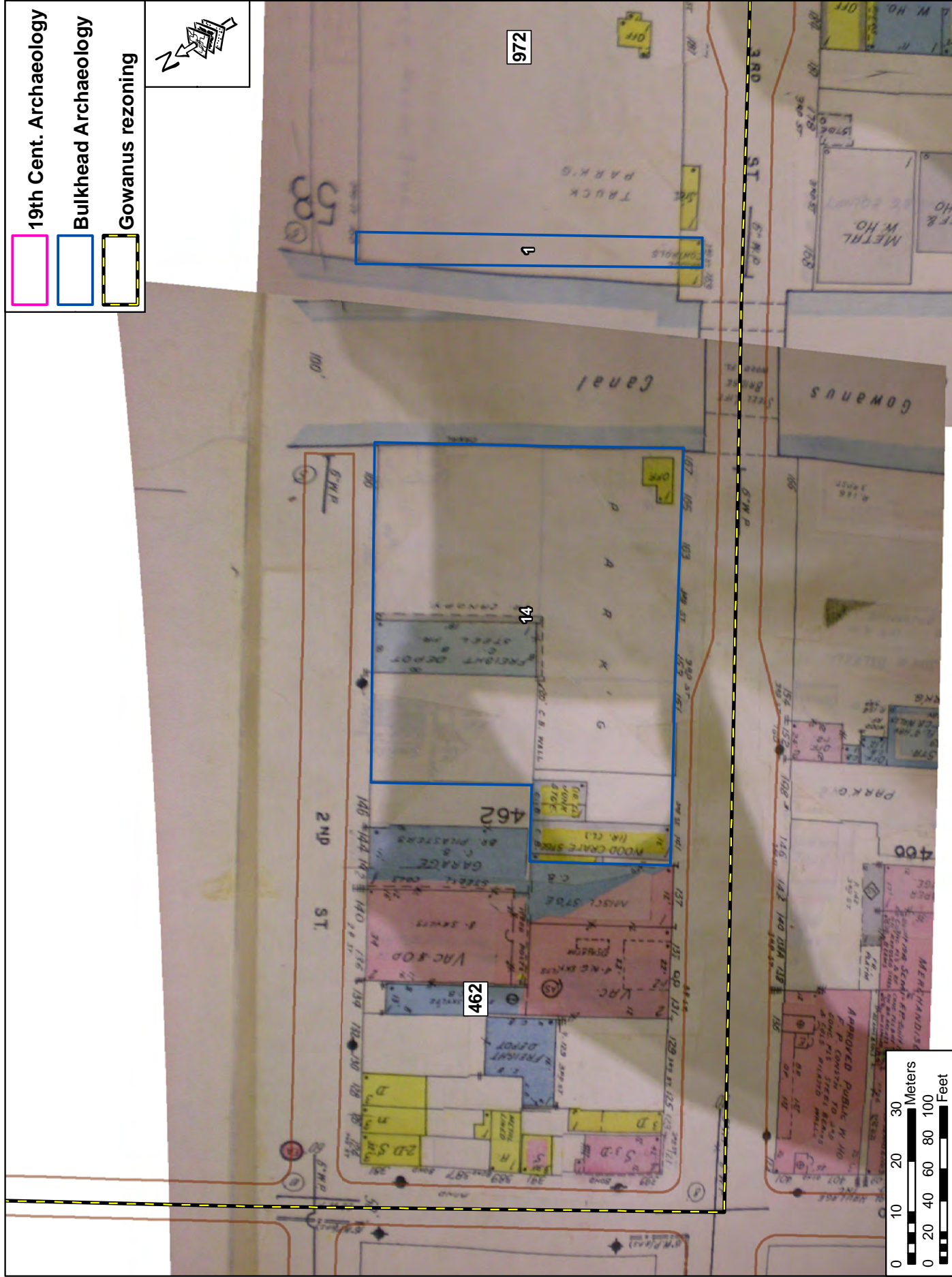


FIGURE 55: 1968 View of Blocks 462 and 972 within the Gowanus Rezoning Project Area

SOURCE: Sanborn 1968



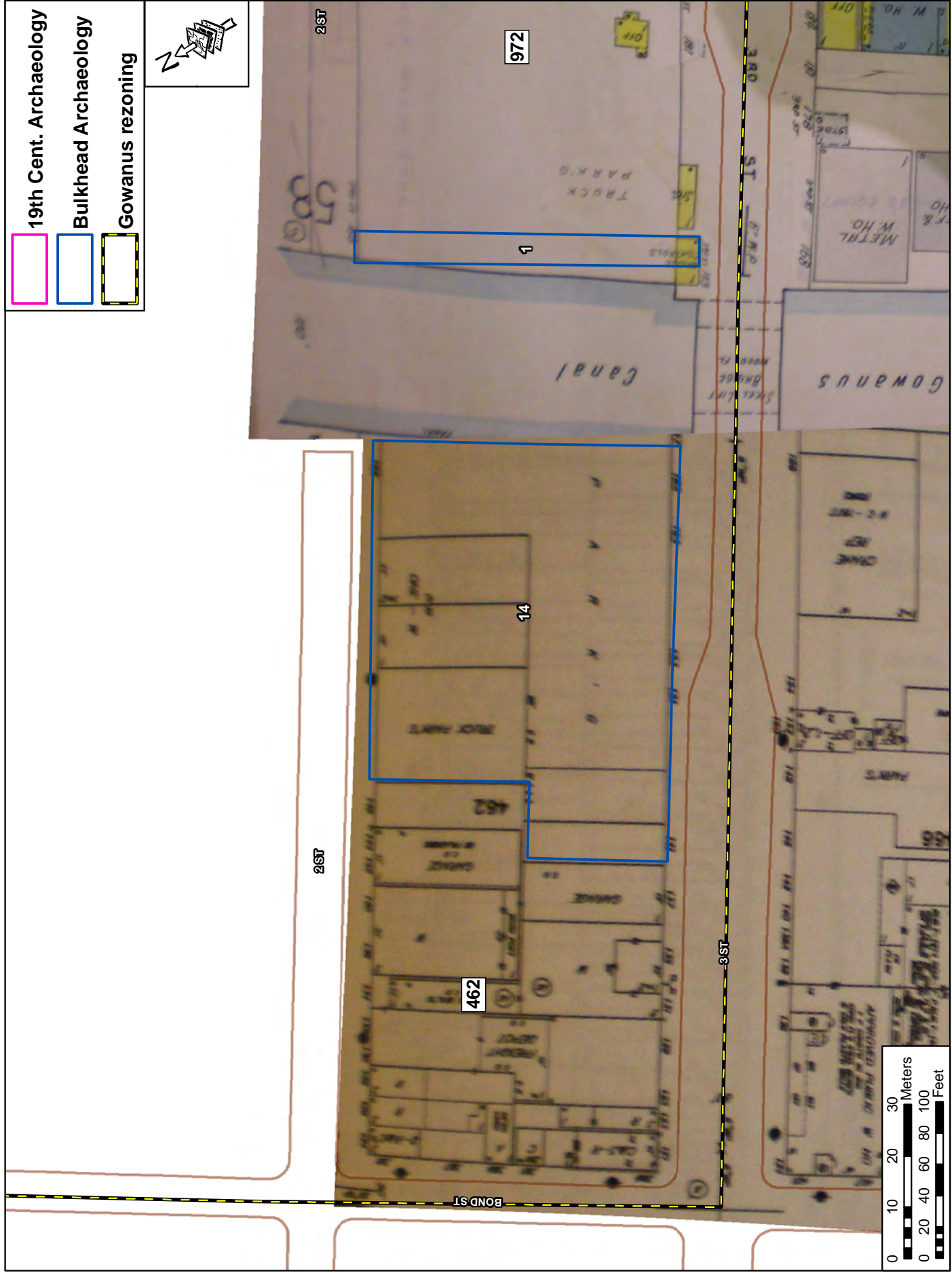


FIGURE 56: 2006 View of Blocks 462 and 972 within the Gowanus Rezoning Project Area

According to Hunter's evaluation, the bulkhead along the eastern frontage of Block 462, Lot 14 is "timber cribwork with deteriorating but visible sections above mean low water" (2004: Figure 3.1). Our site visit confirmed that the visible portion of the wall consists of partially intact timber cribwork above the water line (see Photo 43). Portions of the bulkhead, particularly the central portion of the canal wall, appear to be compromised in sections. As noted previously, Hunter's evaluation of the Gowanus Canal found that from the eighteenth century through to 1930, that bulkhead construction across the Port of New York involved primarily timberwork constructions (2004: 3-2). Hunter concludes that such timber cribwork constructions represented the bulk of the nineteenth century Gowanus Canal bulkhead as constructed by the Gowanus Canal Improvement Commission. Following Hunter's observations, it appears that remaining timber cribwork bulkheads represent potentially significant sources of historic information (2004: 3-5). The visible cribwork along the eastern frontage of Block 462, Lot 14 would represent such a potentially important resource.

### Summary and Conclusions

Initial development in the vicinity of Block 462, Lot 14 may date to the earliest construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 14 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

The first indication of structures within Lot 14 appears to date to 1869 with the development of a coal yard. By 1886, the Shaw & Truesdell Grain Elevator and Feed Mill has developed in a portion of the lot. A Kindling factory was also extant within the southeastern portion of the lot. The S. Dean & Brothers Stone Yard developed in 1904, and the Gowanus Kindling Wood Works expanded its operations by the same time. The Shaw & Truesdell Company expanded its operations and continued to occupy Lot 1 up until 1953. In 1930, the Canal Coal Company acquired ownership of the former Kindling Wood Works parcel. By 1968, Lot 14 had extensively changed; none of the previous occupants continued to operate within the lot.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 14 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of partially intact timber cribwork. The submerged portions of the bulkhead could not be observed during either survey. The visible evidence of cribwork and the potential for submerged cribwork foundations underneath the visible portions of the wall suggests that the eastern frontage of Block 462, Lot 14 has the potential to possess nineteenth or early twentieth century bulkhead remains (Figure 57). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000 (Brown 2000). This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 14 bulkhead.

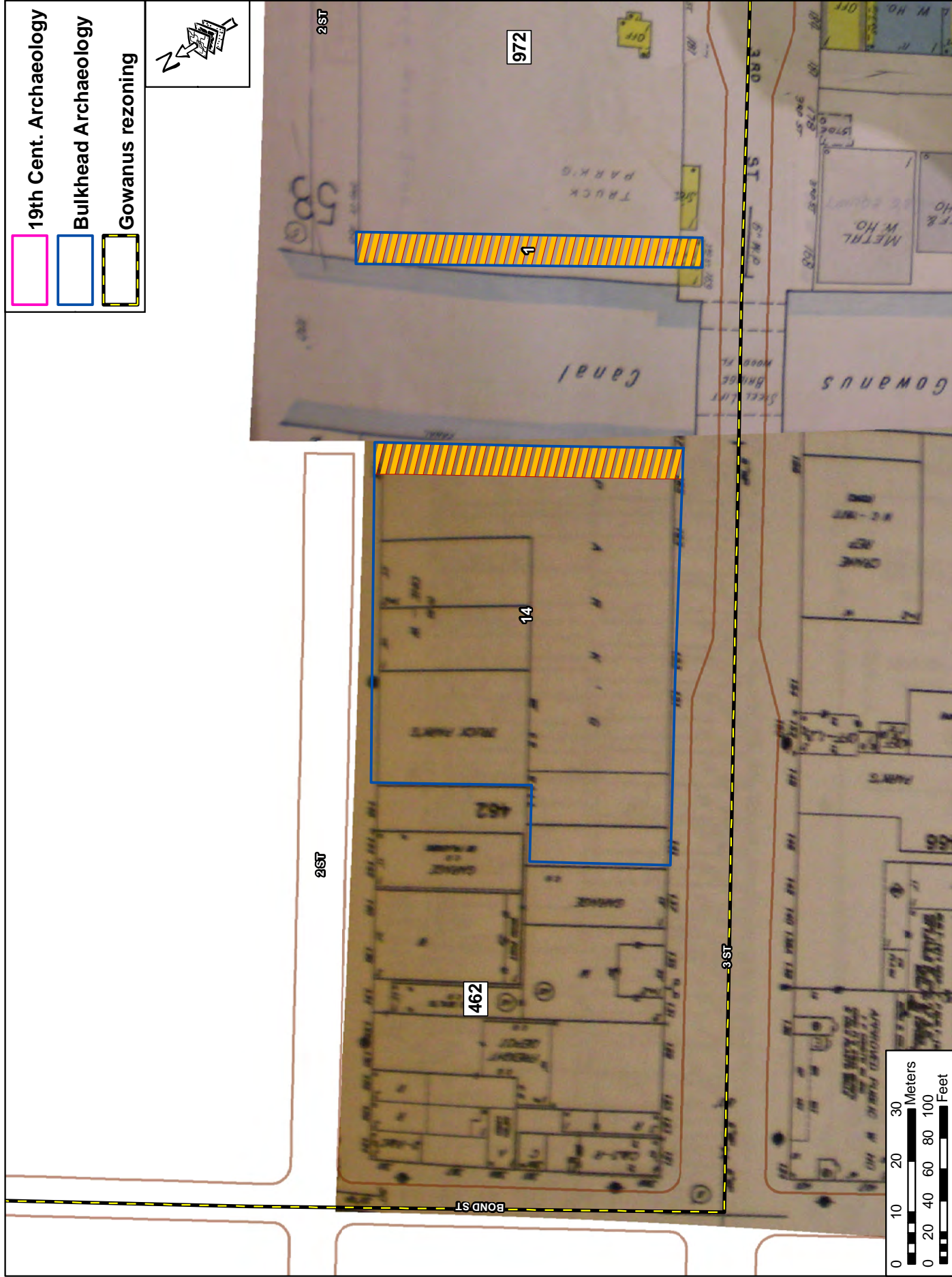
Based on the available historic information, Block 462, Lot 14, part of Projected Development site Z, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.

## **4.15 Block 972, Lot 1, Potential Development Site 40**

### Existing Conditions

Block 972 is bounded by Block 967 to the north, Third Avenue to the west, Third Street to the south, and the Gowanus Canal to the west. Lot 1 is a linear parcel on the westernmost edge of the block. The lot has a length of 220 feet (67.1 meters) including a 30 foot (9.1 meters) easement along its northernmost corner. Lot 1 has a width of 21 feet (6.4 meters), with a southern frontage along Third Street. The lot also has a western frontage on the Gowanus Canal. As of October 2000, Lot 1 was owned by 175 Third Street Associates, LLC (New York City





**FIGURE 57: Areas Sensitive for Historic Period Archaeological Resources within Block 462, Lot 14 and Block 972, Lot 1**



Department of Finance 2009). Lot 1 consists of a paved, landscaped parcel to the immediate west of a paved asphalt parking area (Photo 44).

On February 6, 2009, a site visit was undertaken to assess the condition of the bulkhead as visible within the project area. The western frontage of Block 972, Lot 1 was observed from the Third Street Bridge. Along this frontage, the bulkhead consists of a cement retaining wall resting on top of visible timber cribwork (Photo 45). Those portions of the bulkhead which remained underwater could not be observed at this time.

#### Lot History

Development did not occur within the immediate vicinity of Lot 1 until the mid-nineteenth century. Ratzer's 1766-1767 map depicts the lot submerged within the Gowanus Creek (see Figure 6). The 1844 US Coast Survey and the 1849 Colton map situate the majority, if not all, of the lot within the lowland salt marsh bordering the creek (see Figures 7 and 14). The discrepancies with respect to the location of Lot 1 between the historic maps may reflect changes in the trajectory and flood plain of the Gowanus Creek prior to its canalization.

As previously noted, early construction of the Gowanus Canal was funded by private landowners and private interests from 1851 to 1854. During this period, Lot 1 was subject to extensive real estate speculation (Table 24). It is possible that the western portions of Lot 1 may have been developed as part of the early Canal construction. Arthur Benson or one of the many earlier owners of the parcel may have undertaken or participated in the early Canal development so as to increase the perceived value of their waterfront parcel. Initial private construction of the Gowanus Canal consisted primarily of sheet piling to form the bulkhead walls (Brooklyn Eagle 1868a). If Lot 1 was developed during this period, the canal walls adjoining the lot were most likely originally constructed with this sheet pile technology. Within a few years of the Canal opening, this technology proved to be ineffective given the marshy conditions of the Gowanus Creek, with eroding mud and silt beginning to compromise the bulkhead and the navigability of the canal.



**Photo 44: Block 972, Lot 1**



**Photo 45: Block 972, Lot 1, Bulkhead Frontage. View East.**

**Table 24: Recorded Land Transfers for Block 972, Lot 1**

<b>Grantor</b>	<b>Grantee</b>	<b>Date</b>	<b>Liber: Page</b>	<b>Description</b>
<i>Stoddard, Robert</i> <i>Stoddard, Sarah</i>	<i>Coles, Jordan</i>	<i>12/12/1799</i>	<i>7: 165</i>	
<b>Johnson, John</b>	<b>Johnson, Teunis</b>	<b>5/2/1804</b>	<b>8: 108</b>	
<i>Coles, Jordan, Sr.</i> <i>Coles, Mary</i>	<i>Coles, Jordan, Jr.</i>	<i>6/1/1813</i>	<i>10: 461</i>	
<b>Johnson, Teunis T.</b> <b>Johnson, Margaret</b>	<b>Bergen, Jacob</b>	<b>12/22/1832</b>	<b>34: 423</b>	
<i>Coles, Jordan (Widow of)</i>	<i>Coles, Jordan (Executors of)</i>	<i>8/2/1836</i>	<i>62: 448</i>	
<i>Stoddard, Robert</i> <i>Stoddard, Sarah</i> <i>Stoddard</i>	<i>Coles, Jordan</i>	<i>10/8/1836</i>	<i>65: 165</i>	
<i>Coles, Jordan (Executors of)</i>	<i>Bowne, Samuel</i>	<i>12/17/1842</i>	<i>107: 52</i>	
<i>Bowne, Samuel</i> <i>Bowne, Sarah A.</i>	<i>Bowne, Gilbert W.</i>	<i>7/11/1846</i>	<i>150: 87</i>	
<b>Bergen, Michael</b> <b>Bergen, Issac E.</b>	<b>Agreement</b>	<b>8/7/1846</b>	<b>151: 99</b>	

Grantor	Grantee	Date	Liber: Page	Description
Johnson, Barnet (as Exec. & Trustee of) Bergen, Jacob Bergen, Jacob (heirs of) Bowne, Samuel Stanton, Amos P.				
Bergen, Jacob (Executors of)	Bushnell, Orsamus	9/9/1847	168: 67	
<i>Bowne, Gilbert W.</i>	<i>Bergen, Alexander J.</i>	<i>12/22/1847</i>	<i>172: 196</i>	
<i>Bergen, Alexander J.</i> <i>Bergen, Eliza V.</i>	<i>Balchen, George</i>	<i>2/12/1848</i>	<i>174: 339</i>	
Bushnell, Orsamus Bushnell, Mary W.	Balchen, George	2/17/1848	174: 469	
Balchen, George Balchen, Dorothy	Camp, Benjamin F.	7/1/1851	251: 8	
Balchen, George Balchen, Dorothy	Smith, William Smith, Milton G.	7/1/1851	251: 12	
Balchen, George Balchen, Dorothy	Secor, Charles A.	7/26/1851	253: 150	
Secor, Charles A. Secor, Lydia	Secor, Zeno	4/28/1852	278: 305	
Smith, William Smith, Mary	Smith, Milton G.	8/1/1853	331: 135	
Bergen, Alexander J. Bergen, Cornelius J. Rolfe, John P.	Smith, William Smith, Milton G. Camp, Benjamin F. Secor, Charles A.	10/22/1853	339: 269	Agreement to relinquish mortgages on property
Smith, Milton G. Smith, Sarah A. Secor, Charles A. Secor, Lydia Camp, Benjamin F. Camp, Margaretta Balchen, George Balchen, Dorothy	Benson, Arthur W.	10/22/1853	339: 271	
Benson, Arthur W. Benson, Jane A.	Litchfield, Edwin C.	11/18/1865	683: 97	
Litchfield, Edwin H.	Transit Development Co.	3/13/1903	40: 47	
Wiggins, Albert H. Dahl, Gerhard M. Strauss, Frederick	Brooklyn Manhattan Transit Corp.	10/5/1923	4342: 1	Serial number 129785
Brooklyn Manhattan Transit Co.	Williamsburg Power Plant Corp.	10/5/1923	4342: 22	Serial number 129779



Grantor	Grantee	Date	Liber: Page	Description
<b>Lacombe, Henry E. (as Special Master)</b> <b>Brooklyn Rapid Transit Co.</b> <b>Garrison, Lindley M. (as Receiver)</b> <b>Equitable Trust Co. (as Trustee)</b> <b>Central Union Trust Co. (as Trustee)</b> <b>Irving Bank-Columbia Trust Co. (as Trustee)</b>	<b>Wiggins, Albert H.</b> <b>Dahl, Gerhard M.</b> <b>Strauss, Frederick</b>	<b>10/5/1923</b>	<b>4342: 28</b>	<b>Serial number 129797</b>
<b>Williamsburg Power Plant Corp.</b>	<b>City of New York</b>	<b>6/4/1940</b>	<b>5866: 535</b>	<b>Serial number 21902, Q.C.</b>
<b>City of New York</b>	<b>Seid, Clarence</b>	<b>12/12/1956</b>	<b>8499: 474</b>	<b>Serial number 27958; Entire Block</b>
<b>Seid, Clarence</b>	<b>Chaves, Herbert</b>	<b>9/21/1973</b>	<b>660: 1283</b>	<b>Entire Lot</b>
<b>Rosen, Alan</b>	<b>Chaves, Mark (Trustee for)</b>	<b>10/7/1986</b>	<b>1894: 1851</b>	<b>Entire Lot</b>
<b>Chaves, Herbert</b>	<b>175 Third Street Associates LLC</b>	<b>10/23/2000</b>	<b>4991: 1760</b>	<b>Entire Lot</b>

**Bolded entry indicates land transfer most likely involving Block 972, Lot 1. *Italicized entry indicates land transfer believed to not include Block 972, Lot 1.***

Gerdes 1863 map may represent the first indication of development within Lot 1 (see Figure 17). In particular, the Gerdes map appears to situate Lot 1 immediately east of an apparent canal wall associated with the construction of the Gowanus Canal. Given that the Gerdes map places the line of the Canal west of its planned course, it is unclear whether this depiction accurately represents the location of Lot 1 with respect to the Canal. The 1869 Dripps map suggests that Modern Block 972 may have been filled and dredged by this time (see Figure 18). There are no structures depicted within the block; the Gowanus Canal is illustrated as it runs today, to the immediate west of the parcel.

From 1865 to 1903, Lot 1 was owned by Edwin C. Litchfield (Liber 683: 97). Litchfield was a pivotal player within the Brooklyn Improvement Corporation which constructed basins and docks along the Canal from 1868 through at least 1870. Between 1866 and 1870, the Gowanus Canal Commission, which operated contemporaneously with the Brooklyn Improvement Corporation, completed construction of the Gowanus Canal from Douglass Street to Percival Street (Hunter 2004: 2-26). As previously noted, completion of the Canal included the construction of docks and canal walls where such features had not previously been constructed or in places where previous sheet pile constructions had begun to fail (Brooklyn Eagle 1868a; Hunter 2004). It is possible that the bulkhead forming the eastern frontage of Lot 14 was constructed by the Commission, or if the canal walls had been previously constructed by private landowners, that these walls were repaired by the Gowanus Canal Improvement Commission. In either case, according to Hunter, the historic canal walls along Lot 14 would most likely have been timber cribwork constructions.

Bromley's 1880 map represents the first indication of a structure within Lot 1 (see Figure 19). A stable associated with the adjacent coal yard is depicted along the southern edge of the lot. The 1886 Sanborn indicates that Lot 1 was a part of R.P. Wernberg's Coal Yard (see Figure 51). A single one-story structure is depicted along the southern frontage of the lot. At this time, Lot 1 was owned by Edwin Litchfield, indicating that the Wernberg Coal Yard was renting the parcel. By 1904, the previously extant buildings within the western portion of Block 972 have disappeared. According to the 1904 Sanborn, a temporary elevated coal conveyer belt has been constructed across Block 972 extending into the central portion of Lot 1 (see Figure 52). The map further indicates that the entire block is to be occupied by the Robbins Belt Conveying Company. A structure housing the controls for the Third Street Lift Bridge has been constructed immediately south of Lot 1.

The 1915 Sanborn indicates that Brooklyn Rapid Transit is operating a coal yard within Block 972, including Lot 1 (see Figure 53). Several trestles and a linear conveyer belt are depicted within the block. The western extent of the conveyer belt appears to have been extended across the northern portion of Lot 1. The historic deed research indicates that the Brooklyn Manhattan Transit Corporation acquired ownership of the parcel in 1923 (Liber 40: 47). In 1935, the coal complex within Lot 1 appears to have remained unchanged. The continued presence of the coal complex as late as 1935 suggests that, despite multiple sales of the property in 1923, the Brooklyn Transit Company may have continued to occupy the property.

By 1951, the coal complex within Block 972 appears to have been removed (see Figure 54). The only structures within the vicinity of Lot 1 consist of the bridge control building and an adjacent shed to the immediate south of the lot. A search of the DOB BIS database for Lot 1 indicates that only one action, an application permit, has been filed for this parcel. Given the lack of filed demolition or new building permits, it is unclear as to when the conveyer belt system was removed from the lot. The City of New York acquired Lot 1 in 1940. It is possible that while owning the property, the City removed the coal-related features and deposits.

The 2006 Sanborn indicates that the parcel has remained vacant since 1951 (see Figure 56). The bridge control building for the Third Street Lift Bridge is still located to the immediate south of the parcel. However, the shed which previously stood adjacent to the control building has been removed. Lot 1 was acquired by 175 Third Street Associates, LLC in 2000. The lot is currently classified as Vacant Land by the DOB (reference).

According to Hunter's evaluation, the bulkhead along the western frontage of Block 972, Lot 1 is a timber cribwork with concrete replacements (2004: Figure 3.1). Our site visit confirmed that the visible portion of the Block 972, Lot 1 bulkhead consists of a concrete retaining wall resting on top of timber cribwork (see Photo 45). As previously discussed, Hunter identifies concrete bulkheads as one type of repair that has been made to preexisting canal walls. They further observe that such repairs may have been built on top of early timber cribwork foundations. Given that intact timber cribwork is visible beneath the concrete sections of the Lot 1 bulkhead, it appears that this wall may represent an example of newer components having been integrated into earlier components of the bulkhead. Therefore, it is possible that the visible wall fronting the western portion of Block 972, Lot 1 represents intact historic timber cribwork portions of which most likely remain submerged.

### Summary and Conclusions

Initial development in the vicinity of Block 972, Lot 1 may date to the earliest construction of the Gowanus Canal between 1851 and 1854. At this time, private landowners funded the canal work which generally consisted of the construction of timber sheet walls. Between, 1866 and 1870, construction of the Gowanus Canal was completed. This work, undertaken by the Gowanus Canal Improvement Commission, consisted of the completion and repair of canal walls. By this time, early timber sheet pile constructions were proving unstable and ineffective given the marshland conditions underlying and surrounding the Canal. Therefore, it is possible that the eastern bulkhead frontage of Lot 1 was constructed, repaired, or replaced during this subsequent period of Canal construction. During the Commission's work, canal walls were most likely constructed using timber cribwork.

The first indication of development within Block 972 dates to 1869 when it appears that the block has been dredged and filled. A structure does not appear within the lot until 1880 when portions of the R.P. Wernberg's Coal Yard appear to extend into Lot 1. By 1904, the entire block is slated to be occupied by the Robbins Belt Conveying Company. Subsequently, portions of a coal yard which occupied the majority of the block, were extended into Lot 1 by 1915. The coal yard operation has been removed by 1951 at the latest. Since the removal of the coal yard operation, Lot 1 has remained vacant.

The cartographic and historic research does not provide any indications of alterations, reconstructions, or impacts to the Lot 1 bulkhead. Separate pedestrian surveys and evaluations of the Canal found that the current visible bulkhead consists of a hybrid timber cribwork and concrete replacement feature. The submerged portions of the bulkhead could not be observed during either survey. The visible evidence of intact cribwork and the potential for additional submerged cribwork foundations suggests that the western frontage of Block 972, Lot 1 has the potential to possess nineteenth or early twentieth century bulkhead remains (see Figure 57). As previously noted, an underwater inventory and survey of the Gowanus Canal bulkhead was completed in 2000 (Brown 2000). This study could not be obtained during the preparation of the DEIS report. If this study becomes available, it should be reviewed in terms of its findings with respect to the submerged portions of the Lot 1 bulkhead.

Based on the available historic information, Block 972, Lot 1, part of Potential Development Site 40, is considered sensitive for potential nineteenth and early twentieth century bulkhead deposits relating to the Gowanus Canal. Additionally, the submerged canal walls in this area may retain evidence of the earliest timber sheet pile construction, as well as of the timber cribwork forms which dominated subsequent nineteenth century canal construction and repair efforts.



## 5.0 HISTORIC ARCHITECTURAL SURVEY

A historic architectural survey has been conducted to assess the potential of the proposed Gowanus Rezoning Project to affect historic architectural resources. This section has been prepared in accordance with the City Environmental Quality Review (CEQR) guidelines, which requires that city agencies consider the affects of their actions on historic properties. Pursuant to CEQR guidelines, historic architectural resources that have been designated or determined to meet the eligibility requirements for local, state, or national designation have been identified. This section also identifies those architectural resources that appear to meet these eligibility requirements.

The *CEQR Technical Manual* recommends that architectural resources be assessed if the proposed action would result in new construction, demolition, or significant physical alteration to any building, structure, or object; construction related disturbances; a change in scale, visual prominence, or visual context of buildings, structures, objects, or landscape features; and screening or elimination of publicly accessible views. An architectural survey is required when a proposed action may result in any of these conditions. As the proposed Gowanus Rezoning Project is expected to generate some of these results, an assessment of historic architectural resources has been undertaken.

### 5.1 Methodology

Historic architectural resources are those properties that are National Historic Landmarks (NHLs), listed in or determined eligible for listing in the State and National Registers of Historic Places, designated New York City Landmarks (NYCLs) and historic districts, and properties found by the New York City Landmarks Preservation Commission (LPC) to appear eligible for designation, considered for designation (“heard”) by LPC at a public hearing, or calendared for consideration at such a hearing (these are “pending” NYCLs).

The study area within which the architectural assessment is to be conducted, known as the Area of Potential Effect (APE), is developed based on the potential for the proposed project to affect historic architectural resources. Potential impacts on historic architectural resources can include both direct physical impacts and indirect impacts. Direct impacts include demolition of a resource, alterations to a resource that cause it to become a different visual entity, damage from vibration (e.g., from train movements underground or from construction blasting or pile driving), and additional damage from adjacent construction that could occur from falling objects, subsidence, collapse, or damage from construction machinery.

Indirect impacts are contextual or visual impacts that could result from project construction or operation. The *CEQR Technical Manual* indicates the following examples of indirect impacts: blocking significant views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to a resource’s setting; or introducing shadows over *significant characteristics* of a historic resource, such as a church with notable stained-glass windows.

To address the potential for direct (physical) and indirect (contextual) impacts, the architectural APE consists of the projected and potential development sites outlined in the proposed project and an area that extends approximately 400 feet (121.9 meters) beyond the perimeter of those sites (see Figure 5).

Once the architectural APE has been determined, an inventory of previously listed, eligible, or potentially eligible properties within the study area was compiled. Criteria for listing on the National Register are outlined in the Code of Federal Regulations, Title 36, Part 63, and the LPC has adopted these criteria for use in identifying architectural resources for CEQR review. Following these criteria, districts, sites, buildings, structures, and objects are eligible for the National Register if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. *That are associated with events that have made a significant contribution to the broad patterns of history;*
- B. *That are associated with the lives of persons significant in our past;*
- C. *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*

- D. *That have yielded, or may be likely to yield [archaeological] information important in prehistory or history.*

Properties that are younger than 50 years of age are ordinarily not eligible, unless they have achieved exceptional significance. Eligibility determinations are made by the Office of Parks, Recreation and Historic Preservation (NYSOPRHP).

The LPC designates historically significant properties in the City as NYCLs and/or historic districts following the criteria provided in the Local Laws of the City of New York, New York City Charter, Administrative Code, Title 25, Chapter 25, Chapter 3. Buildings, properties, or objects are eligible for landmark status when a part is at least 30 years old. Landmarks have a special character or special historical or aesthetic interest or value as part of the development, heritage, or cultural characteristics of the city, state, or nation. There are four types of landmarks: individual landmarks, interior landmarks, scenic landmarks, and historic districts.

In addition to identifying architectural resources officially recognized in the architectural APE, an inventory was compiled of other buildings within the architectural APE that could warrant recognition as architectural resources. For this project, potential architectural resources were those properties that appeared to meet one or more of the National Register Criteria (described above) and are at least 30 years of age. Such architectural resources were identified based on a field survey of the architectural APE and by using historical sources, such as documents at the New York Historical Society, the New York Public Library, the Avery Architectural Library at Columbia University, the Department of Buildings (DOB), the Brooklyn Public Library, and the Brooklyn Historical Society, as well as a variety of online repositories and databases.

Once the historic architectural resources in the architectural APE were identified, the proposed actions were assessed for both direct physical impacts and indirect visual and contextual impacts to these resources.

## **5.2 Identification and Evaluation of Historic Properties within the Architectural APE**

### **5.2.1 *Previously Listed or Eligible Historic Properties within the Architectural APE***

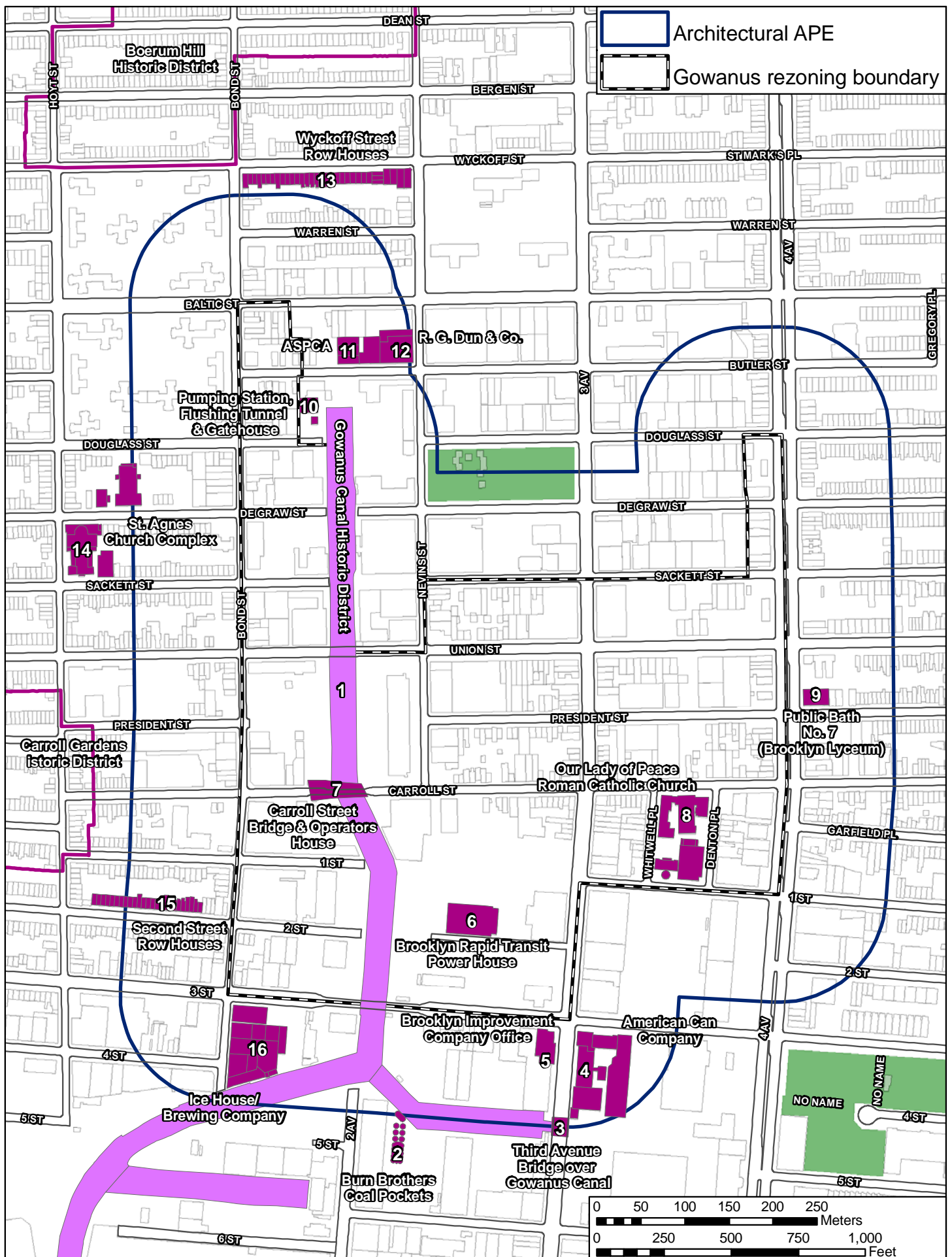
The identification of previously listed or eligible historic architectural properties was conducted in consultation with the New York City Landmarks Preservation Commission (LPC) and the NYSOPRHP. A total of 16 historic properties and/or historic districts have been previously identified within or directly adjacent to the Gowanus Rezoning Project architectural APE. These properties are listed in Table 25 and briefly discussed below (Figure 58). In addition to those historic properties listed or eligible for listing on the State and National Registers and/or designated or eligible as a New York City Landmark, five properties within the APE have been previously evaluated by the NYSOPRHP and the New York City Landmarks Preservation Commission and were determined not eligible and/or non-contributing resources to the National Register-eligible Gowanus Canal Historic District. These properties are the Brooklyn News Garage at 191-208 3<sup>rd</sup> Avenue, the former Washington Park Ball Field Wall at 321-359 3<sup>rd</sup> Avenue, the Third Street Bridge over Gowanus Canal, the Union Street Bridge over Gowanus Canal, and the Gowanus Wastewater Pumping Station and Service Building on Butler Street. The National Register-listed and New York City Landmark-designated Carroll Gardens Historic District and the eligible Carroll Gardens Historic District expansion, and the Boerum Hill Historic District and the eligible Boerum Hill Historic District expansion are located near the Gowanus Rezoning Project and are, with the exception of the rowblock on the south side of Wyckoff Street, located outside of the architectural APE. Lastly, the Foreman Blades Lumber Complex, identified as contributing to the Gowanus Canal Historic District, was located on the west side of the canal between First and Second Streets and is no longer extant.

**Table 25: Previously Documented Properties within the Gowanus Rezoning Project APE**

Map No.	Property	Block/Lot	Date Built	Eligibility Status
1.	Gowanus Canal Historic District: Waterway and Bulkheads Butler Street to Percival Street	n/a	19 <sup>th</sup> century	S/NR Eligible
2.	Burn Brothers Coal Pockets near 4 <sup>th</sup> Street Basin & 2 <sup>nd</sup> Avenue	979/23	c. 1915-1924 1932-1938	S/NR Eligible†
3.	Third Avenue Bridge over Gowanus Canal	n/a	Rehab 2008	S/NR Eligible†
4.	American Can Company (Somers Brothers Decorated Tinware) 361 Third Avenue	980/8	1890	S/NR Eligible†
5.	Brooklyn Improvement Company Office (Former New York and Long Island Coignet Stone Company) 360 Third Avenue	978/7	1872-1873	S/NR Eligible† NYCL
6.	Brooklyn Rapid Transit Power House 322 Third Avenue	967/1	1902	S/NR Eligible† NYCL eligible
7.	Carroll Street Bridge (BIN 2-24026-0) and Operators House	n/a	1888-1889	NR Eligible† NYCL
8.	Our Lady of Peace Roman Catholic Church 512 Carroll Street	455/1	1904	S/NR Eligible
9.	Public Bath No. 7 (Brooklyn Lyceum) 227-231 Fourth Avenue	955/1	1906-1910	S/NR Listed NYCL
10.	Pumping Station, Flushing Tunnel, and Gatehouse Douglass Street	411/14	1905-1911	S/NR Eligible†
11.	American Society for the Prevention of Cruelty to Animals 233 Butler Street	405/51	1922	S/NR Eligible
12.	R.G. Dun & Company 206 Nevins Street	405/27	1914	S/NR Eligible† NYCL eligible
13.	Wyckoff Street Row Houses (potential Boerum Hill Historic District Expansion) South side Bond to Nevins Streets 196-258 Wyckoff Street (even numbers)	Block 393	19 <sup>th</sup> century	S/NR Eligible NYCL Eligible
14.	Saint Agnes Church Complex Hoyt, Degraw and Sackett Streets	423/1 416/17 416/68	c. 1904-1913	S/NR Eligible NYCL Eligible
15.	Second Street Row Houses 59-97 Second Street (odd numbers)	457/ 48-67	19 <sup>th</sup> century	S/NR Eligible
16.	Ice House/Brewing Company 409-431 Bond Street; 124-146 3rd Street	466/ 46, 60, 1	c. 1904-1914	S/NR Eligible†

† Eligible as a contributing resource to the National Register-eligible Gowanus Canal Historic District





**FIGURE 58: Previously Documented Historic Properties in and adjacent to the Historic Architectural APE**

SOURCE: NYCE Map GIS, NYC DCP 2009; NYC LPC 2008

**Gowanus Canal Historic District (#1; Photo 46)**

The Gowanus Canal Historic District extends south of Butler Street through the project area. By the 1830s, the Gowanus Creek, originally a tidal creek with salt marshes, was the subject of plans to drain the marshes, improve sanitation, and create transportation through construction of a channel. The canal was developed through two basic periods of construction. The early phase took place between 1851 and 1854 basically through the efforts of private landowners. Although the concept was not fully executed until the late 1860s and early 1870s, during the Gowanus Canal Improvement Commission era, the canal was the earliest fully developed interior waterway in the region and provided a transportation system was the catalyst for growth and development in the area. The *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* prepared for the U.S. Army Corps of Engineers in 2004 identified the canal for its regional significance in the areas of history, design and construction, and transportation.

**Burns Brothers Coal Pockets (#2; Photo 47)**

This group of coal storage silos is located on the south bank of the 4<sup>th</sup> Street Basin near Second Avenue and the main canal. The concrete silos are set on concrete legs and platforms, 15 feet above the ground. Those nearest the canal are the earliest and were built from 1915 to 1924. Coal was one of the major commodities shipped on the canal, a reflection of its importance for domestic, commercial, and industrial uses during the nineteenth and early twentieth centuries. The Burns Brothers Coal Pockets are eligible as a contributing resource to the Gowanus Canal Historic District and were identified in the *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* prepared in 2004.

**Third Avenue Bridge over Gowanus Canal (#3; Photo 48)**

The Third Avenue Bridge spans the canal south of 3<sup>rd</sup> Street between the 4<sup>th</sup> Street basin and the filled 5<sup>th</sup> Street Basin. The bridge was constructed in 1870 due to the construction of the 5<sup>th</sup> Street basin and substantially rebuilt in 1889. Recent rehabilitation of the historic bridge by the New York City Department of Transportation included replacement of the superstructure: bearings, girders, and steel framing, deck replacement and paving, new sidewalks and railings, and utility conduits. The Third Avenue Bridge is eligible as a contributing resource to the Gowanus Canal Historic District and was identified in the *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* prepared in 2004.

**American Can Company (Somers Brothers Decorated Tinware) (#4; Photo 49)**

The Somers Brothers complex is located at the Southeast corner of Third Avenue and 3<sup>rd</sup> Street. The oldest section of the complex, the building nearest the corner, was constructed circa 1885, mostly likely by the Somers Brothers. The company was formed in Brooklyn by Daniel, Joseph, and Guy Somers in 1869 and initially made metal tags. During the 1870s, Somers Brothers began the production of decorated tin products. Considered a leader in the decoration of tin cans and boxes, Somers Brothers, created a process for the application of brightly colored lithographed designs directly on the containers in the place of paper labels. The process was lengthy and required several days to complete. Somers Brothers was also innovative in container design and created the talcum powder tin with rotating top for Mennen. At the time of the sale of the Company to American Can, the firm employed over 150 workers. American Can Company was formed in 1901 through the purchase and consolidation of 60 tin container companies, consisting of 123 factories, one of which was the Somers Brothers Decorated Tinware company. The American Can Company property was identified in the *363-365 Bond Street Environmental Impact Statement* as a contributing resource to the Gowanus Canal Historic District, due to the property's proximity to the canal and the canal's contribution to the development of the area.



**Photo 46:** Gowanus Canal. View Southwest.



**Photo 47:** Burn Brothers Coal Pockets. View South.





**Photo 48:** Third Avenue Bridge, View Southeast. Source: NR report



**Photo 49:** American Can Company (Somers Brothers Decorated Tinware). View South.

**Brooklyn Improvement Company Office (Former New York and Long Island Coignet Stone Company) (#5; Photo 50)**

The Brooklyn Improvement Company Office (former New York and Long Island Coignet Stone Company) is located at the southwest corner of 3<sup>rd</sup> Street and Third Avenue. Designed in 1872 by William Field and Son, the building is a pioneering example of concrete construction in the United States. The building was conceived as a showroom for the New York and Long Island Coignet Stone Company, the first firm to industrially manufacture concrete products in the United States. Constructed of fabricated concrete with a poured concrete floor, the building is the earliest known concrete building in New York City. The building is a New York City Landmark and has been determined eligible for listing on the National Register by the NYSOPRHP as a contributing resource to the Gowanus Canal Historic District.

**Brooklyn Rapid Transit Power House (#6; Photo 51)**

Located on the east side of the canal north of 3<sup>rd</sup> Street, the Brooklyn Rapid Transit (BRT) Power House is a surviving industrial building associated with coal distribution along the canal. The power house, built in 1902 to supply electricity to the transit system, relied on large shipments of coal to power its boilers. This Romanesque Revival style building is the sole remaining building of the BRT complex at this site. The Brooklyn Rapid Transit Power House was identified in the *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* prepared in 2004 as a contributing resource to the Gowanus Canal Historic District.

**Carroll Street Bridge and Operators House (#7; Photo 52)**

The Carroll Street Bridge, built 1888-1889, is the oldest example of the four known retractable bridges in America and one of the oldest bridges in New York City. Designed by Robert Van Buren, chief engineer, and George Ingram, engineer in charge, the bridge's superstructure was manufactured by New Jersey Steel and Iron Company, part of Cooper, Hewitt & Company. The brick operator's house is adjacent to the building on the south side of Carroll Street. The bridge is a New York City Landmark, has been determined by the NYSOPRHP as individually eligible for listing on the National Register, and is a contributing resource to the Gowanus Canal Historic District.

**Our Lady of Peace Roman Catholic Church Complex (#8; Photo 53)**

Occupying the block between Whitwell Place, Denton Place, 1<sup>st</sup> Street and Carroll Street, the church complex consists of the church, school, rectory, and youth center. The Romanesque style church was constructed in 1904 and the first school was built in 1909. The school at the corner of Whitwell Place and Carroll Street was constructed in 1922 and the rectory, located at the corner of Denton Place and Carroll Street was constructed about the same period and dates from before 1933. Department of Building records indicate that architects (Dominic) Salvati & (Herman) Le Quornik provided for alterations the parish's community house completed in 1927. Salvati & Le Quornik were Brooklyn-based architects who designed rectories, parish halls, and schools, as well as industrial buildings. In 1950, the cornerstone was laid for the youth center, sited at the corner of Denton Place and 1<sup>st</sup> Street. The Our Lady of Peace Roman Catholic Church Complex was identified in the *363-365 Bond Street Environmental Impact Statement* and was determined eligible for listing on the National Register.



**Photo 50:** Brooklyn Improvement Company Office. View West.



**Photo 51:** Brooklyn Rapid Transit Power House. View North.





**Photo 52:** Carroll Street Bridge over Gowanus Canal. View West.



**Photo 53:** Our Lady of Peace Roman Catholic Church Complex. View South.

**Public Bath No. 7 (Brooklyn Lyceum) (#9; Photo 54)**

Designed by architect Raymond F. Almirall, Public Bath No. 7, built 1906-1910, is a survivor of the extensive system of public bathhouses designed to serve communities where many residents lacked indoor plumbing. Located at northwest corner of President Street and Fourth Avenue, the Bathhouse was planned for the Gowanus community to the west. This Classically-styled brick and terra cotta-faced bathhouse evokes images of cleanliness and water with ornamental forms such as fish, shells, and tridents. The bath was converted to a gymnasium in 1930, abandoned for a period in the 1950s, and later utilized as a warehouse (Diamonstein 1998:285). The building is currently the Brooklyn Lyceum with performing arts, café and a gymnasium. Public Bath No. 7 is both a New York City Landmark and is listed on the National Register.

**Pumping Station, Flushing Tunnel, and Gatehouse (#10; Photo 55)**

Sited at the north terminus of the Gowanus Canal at Douglass Street, the pumping station and associated structures were completed in 1911. By end of the nineteenth century, the canal, which had been created by dredging the existing creek, was the dumping ground for household and industrial waste from the community that developed along its path and residents wanted the canal filled. To alleviate the problem, a flushing system, which included a pumping station between Douglass and Butler Streets and a flushing tunnel, was constructed (1905-1911) to pump the water from the canal to the bay. According *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal*, the high single-story brick pump house, built by Henry E. Fox, was built over the motor pit, drainage well, and the northern gate valve; the adjacent gatehouse is a square brick building built over the wheel pit and the southern gate valve. The 6,280-foot-long brick tunnel was built by John Pierce Company and consulting engineer E.C. Moore. The Pumping Station, Gatehouse, and Flushing Tunnel were determined eligible for listing on the National Register by the NYSOPRHP as a contributing resource to the Gowanus Canal Historic District.

**American Society for the Prevention of the Cruelty to Animals (ASPCA) (#11; Photo 56)**

Determined eligible for listing on the National Register by the NYSOPRHP, the American Society for the Prevention of the Cruelty to Animals is located on the north side of Butler Street between Bond and Nevins Streets. Built 1913 (northern section) and 1922 (southern section), the building housed an animal shelter, and after 1922, administrative offices, and garage and ambulance. The ASPCA building was determined eligible for listing on the National Register as part of the *363-365 Bond Street Environmental Impact Statement*.

**R.G. Dun & Company (#12; Photo 57)**

Constructed in 1914, the building contained the publishing department for R.G. Dun & Company, the first commercial reporting company in America. In the 1930's the company was reorganized as Dun & Bradstreet and dominated the industry well into the twentieth century. Located at the northwest corner of Butler and Nevin Street near the head of the Gowanus Canal, the four-story building was identified as a contributing resource to the National Register-eligible Gowanus Canal Historic District in the *363-365 Bond Street Environmental Impact Statement*.



**Photo 54:** Public Bath No. 7 (Brooklyn Lyceum). View East.



**Photo 55:** Gatehouse and Pumping Station. View North.





**Photo 56:** American Society for the Prevention of Cruelty to Animals. View North.



**Photo 57:** R.G. Dun & Company, View North.

**Wyckoff Street Row Houses (#13; Photo 58)**

This group of 19<sup>th</sup> century houses consists of the rowblock on the south side of Wyckoff Street between Bond and Nevins Streets, the houses at 196-258 Wyckoff Street. The contiguous row of Italianate-style brick houses retains a high level of integrity and are similar in style and period to those within the nearby Boerum Hill Historic District, both a New York City Landmark district and listed on the National Register. The Wyckoff Street Row Houses was one of two rowblocks (the second consists of the row on the south side of Wyckoff Street between Smith and Hoyt Streets) determined State and National Register-eligible and New York City Landmark-eligible in the *363-365 Bond Street Environmental Impact Statement*.

**Saint Agnes Church Complex (#14; Photos 59, 60, 61 and 62)**

The Saint Agnes Church Complex consists of the church on the east side of Hoyt Street between Sackett and Degraw Streets, the Parish Hall (Saint Agnes Parish Center) on the north side of Sackett Street, Saint Vincent's Residence on the north side of Degraw Street and Saint Agnes Roman Catholic School, immediately east of the residence on Degraw Street. The school is located within the architectural APE for the Gowanus Rezoning Project. Founded by Bishop Loughlin in 1878, Rev. James Duffy was appointed the parish's first priest. The cornerstone for the first stone church was laid in 1881 and a massive Gothic church was constructed, measuring 180 x 90 feet with stained glass windows made in Munich. In July 1901, however, this church was struck by lightning and destroyed by fire leaving only a stone shell. On the site of the old church, a new stone church was built. Dedicated in May 1913, the present church greatly resembles portions the former edifice, although constructed in a cruciform plan that expanded the rectangular plan of the former church. The 1913 church also has a taller tower and alters made of Carrara marble.

Constructed by 1904, the Parish Hall is located adjacent to the church and occupies the site of the first parish school. Saint Vincent's residence was a day nursery and convent associated with the church. The adjacent school on Degraw Street was also built by 1904. The Romanesque Revival style Saint Agnes Roman Catholic School is a brownstone, brick, and terra cotta building three and four stories in height. Nearly cruciform in plan, the wider street-facing section of the building was built with four stories and corner stair halls. The section beyond this block is narrower block and originally consisted of three stories including an open assembly hall with stages that encompassed the entire third floor. The Saint Agnes Church Complex was identified in the *363-365 Bond Street Environmental Impact Statement* and has been determined eligible for listing on the State and National Registers and New York City Landmark-eligible.

**59-97 Second Street Row Houses (#15; Photo 63)**

Constructed during the nineteenth century, concurrent with the development of the Gowanus area, this group of row houses is located on the north side of Second Street between Hoyt and Boyd Streets, east of the Carroll Gardens Historic District. Many of the houses are representative of Anglo-Italian residences, two and three bays wide, with raised stoops and bracketed cornices. Evaluated in the *363-365 Bond Street Environmental Impact Statement*, the row has been determined eligible for listing on the State and National Register by the NYSOPRHP.

**Ice House/Brewing Company (#15; Photo 64)**

The Ice House/Brewing Company complex is located adjacent to the Gowanus Canal at the southeast corner of Third Street and Bond Street. The buildings were formerly occupied by the Empire City Ice Company and Leonhard Michel Brewing Company. Described as four contiguous buildings, these brick industrial buildings range in height from one to six stories. The oldest section, which served the ice company in 1904, is nearest Bond Street and the Canal. The six-story Leonhard Michel Brewing Company building, the largest of the group was constructed by 1906 with additions in 1914. The building facing the corner of Third and Bond Streets was the last to be constructed. By 1951, the buildings were public warehouses and merchandise storage operated by the Municipal Haulage Co., Inc. The Ice House/Brewery complex was identified in the *363-365 Bond Street Environmental Impact Statement* and has been determined eligible for listing on the State and National Registers by the NYSOPRHP as a contributing resource to the Gowanus Canal Historic District.





**Photo 58:** Wyckoff Street Rowblock. View Southeast.



**Photo 59:** Saint Agnes Church. View East.





**Photo 60:** Saint Agnes Parish Hall (Saint Agnes Parish Center). View Northeast.



**Photo 61:** Saint Vincent's Residence. View East.





**Photo 62:** Former Saint Agnes Roman Catholic School. View North.



**Photo 63:** Second Street Row Houses. View North.



**Photo 64:** Empire City Ice Company/Brewing Company. View Southeast.

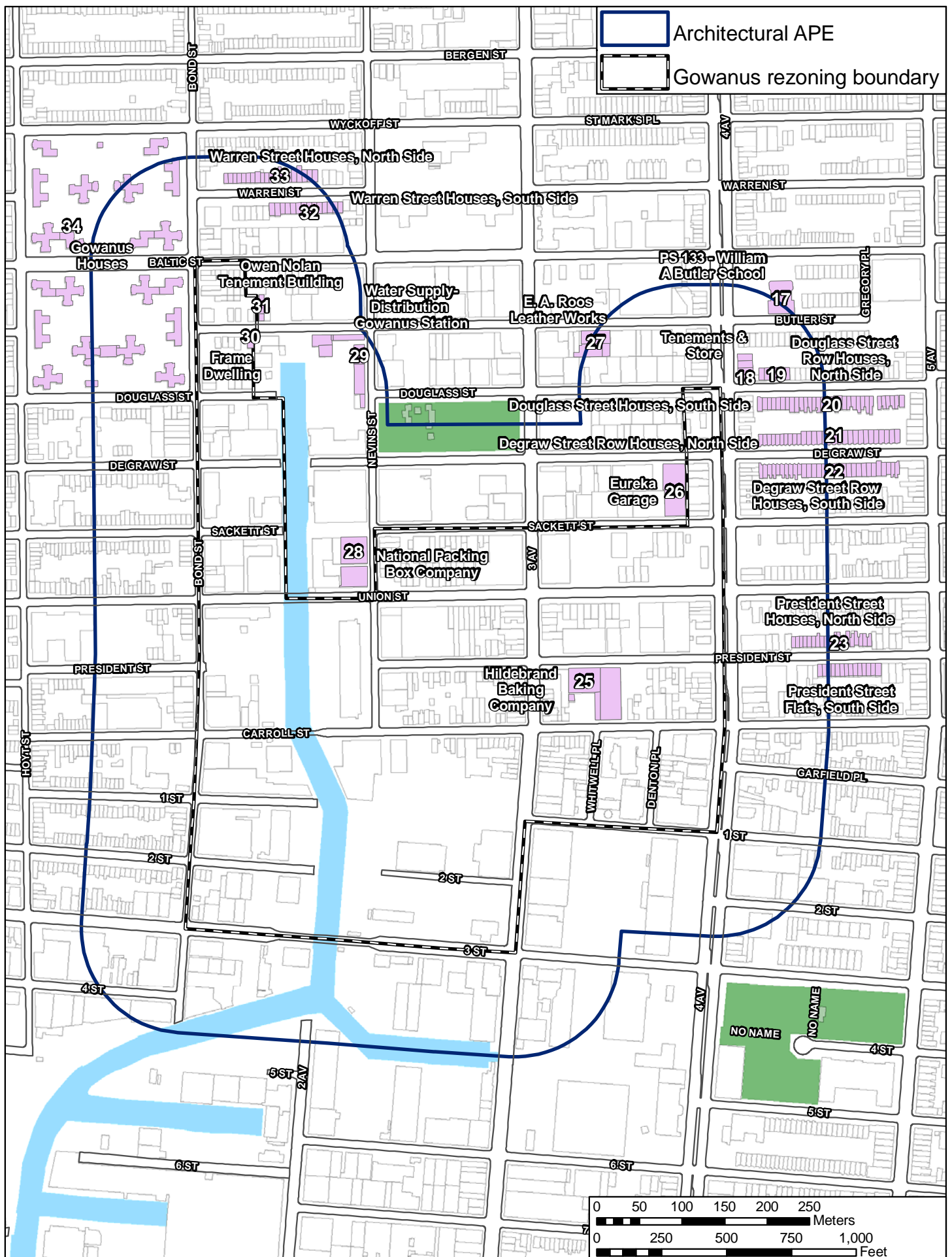


**5.2.2 Previously Undocumented Historic Properties within the Architectural APE**

The following historic architectural resources were identified within the historic architectural APE and appeared to be 50 years in age or greater (30 years in age or greater for New York City Landmarks) (Figure 34; Table 26). The resources described below were assessed for their potential to be listed in the State and National Registers of Historic Places using the criteria outlined above.

**Table 26: Previously Undocumented Historic Properties within the Historic Architectural APE**

Map No.	Property	Block/Lot	Date Built	Recommendations
17.	PS 133 – William A. Butler School 375 Butler Street	940/65	1889	S/NR Eligible
18.	Tenements & Store 143-149 Fourth Avenue	943/ 1-4	1889-1906	S/NR Eligible
19.	Douglass Street Row Houses, North Side 355-365 Douglass Street	943/ 70-75	1880-1886	S/NR Eligible
20.	Douglass Street Row Houses South Side 348A-410 Douglass Street	946/ 12-44	1885-1888	S/NR Eligible
21.	Degraw Street Houses (1) North Side 645-697 Degraw Street	946/ 56-84	1885-1898	S/NR Eligible
22.	Degraw Street Row Houses (2) South Side 664-716 Degraw Street	949/ 13-42	1885	S/NR Eligible
23.	President Street Houses (1) North Side 601-635 President Street	955/ 56-74	c. 1888-1898	S/NR Eligible
24.	President Street Flats (2) South Side 616-625 President Street	958/ 22-35	1889	S/NR Eligible
25.	Hildebrand Baking Company 530-550 President Street 495-507 Carroll Street	448/13	1890-1902	S/NR Eligible
26.	Eureka Garage 638-644 Degraw Street 637-641 Sackett Street	427/31	1923	S/NR Eligible
27.	E.A. Roos Leather Works 302 Butler Street	413/15	c. 1906	Not Eligible
28.	National Packing Box Company 533 Union Street- 282 Nevins Street	432/ 1, 25	1889	Lot 1 - S/NR Eligible and contributing to the Gowanus Canal Historic District Lot 25 - Not Eligible
29.	City of New York Water Supply- Distribution Gowanus Station 226 Nevins Street, 234 Butler Street	411/24	1911	Not Eligible
30.	Frame Dwelling 194 Butler Street	411/13	c. 1880	Not Eligible
31.	Owen Nolan Tenement Building 215 Butler Street	405/57	1878	Not Eligible
32.	Warren Street Houses (1) South Side 474-500 Warren Street	399	c. 1869	S/NR Eligible
33.	Warren Street Houses (2) North Side 437-475 Warren Street	393	1869-1880	Not Eligible
34.	Gowanus Houses 211 Hoyt Street Douglass, Bond, Wyckoff, Hoyt Sts.	392/1 404/1	1948-1949	Not Eligible



**FIGURE 59: Historic properties Surveyed for the Proposed Gowanus Canal Corridor Rezoning Project**

SOURCE: NYCE Map GIS, NYC DCP 2009; NYC LPC 2008

**PS 133 William A. Butler School, 375 Butler Street; Block 940, Lot 65 (#17; Photo 65)**

Built 1899-1900, PS 133 is a Collegiate Gothic brick and stone school, four stories in height. Located mid-block between Fourth and Fifth Avenues, the building has a modified T-plan to maximize exterior light and ventilation. Pinnacles trim the roof, cross gables, and gabled dormers. The school has tall multi-light windows with contrasting lintels and quoins. The entrance is framed within a gothic arch with foliated spandrels and flanked by engaged finials. Modern doors have been installed at the centrally located entrance fronting on Butler Street with infill added to the area above the doors. Colorful murals have been applied to the exposed basement story. Builders of the school were Kenny & Henningham (Building Plaque).

The school was designed by New York City Superintendent of School Buildings, C. (Charles) B.J. Snyder (1860-1945). Snyder was a prolific architect, architectural and mechanical engineer, and innovator in the field of urban school building design and construction. He was born in Stillwater, New York and moved to New York City in 1879. Snyder studied architecture at a technical school, Cooper Union, and with William E. Bishop, an obscure architect listed in New York in the 1870s and 1880s (Van Pelt 1898:543; Gray 1999; LPC 1997:4; Francis 1979:16). According to biography published around the turn of the twentieth century, Snyder also studied under various New York City builders during his first years in the city (Van Pelt 1898:543). He is first listed as an architect in 1886 (Francis 1979:71). In 1891, Snyder was appointed superintendent of school buildings and initially oversaw planning, design, and construction of schools in Manhattan and the Bronx. After consolidation in 1898, his oversight expanded to the five boroughs. While superintendent of school buildings, Snyder traveled to London and Paris where he made observations on urban architecture. He incorporated elements from the architecture he studied during his trip into his school designs. Little is known about his private life or design work he may have completed after retiring in his position; he remained in practice until about 1936 (Gray 1999; LPC 2003:5).

Snyder is recognized for his leadership, innovation, and transformation of school building construction process, design, and quality during his tenure with the New York City Board of Education (LPC 2003:5). Snyder felt that school buildings were civic monuments for the betterment of society. During his years as superintendent between 1891 and 1922, Snyder, who was concerned about health and safety in public schools, focused on fire protection, sanitary conditions, ventilation, lighting, and classroom size. To address fire protection, terra cotta blocks were used in floor construction. His buildings have many large (tall) windows to enhance light and air circulation. Snyder also designed and incorporated mechanical air circulation systems and added indoor toilets. Many of his buildings were developed with his signature through-block H-plan with side courts to allow for more windows and greater environmental quality. His first H-plan building featured a grand courtyard entrance and had areas for (safe) recreation between the wings. Those buildings that did not feature the H-plan incorporated U-plan or T-plan designs to provide optimal light and air to the classrooms. To improve construction time and costs, schools over four stories were built with a steel skeleton frame. His office would also standardize a school design for use in the construction of several buildings. Lastly, Snyder was an accomplished leader and administrator. Snyder is credited with the design of over 400 structures during his tenure as superintendent. To his credit are over 140 elementary schools, twenty high schools, and numerous additions and alterations. He worked in many styles such as Beaux Arts, English Collegiate Gothic, Jacobean, and Dutch Colonial. Snyder is credited with popularizing the Colligate Gothic as an accepted style for public school buildings. Paramount in his design of spaces for learning was “to offer a respite from noisy streets and poverty.” To accomplish this, Snyder preferred and selected mid-block locations on streets away from busy and noisy avenues (LPC 2003:5; Gray 1999).

According to Streetscapes author, Christopher Gray, “Snyder [who] was hired to reform school design...created a revolution, setting a standard for municipal architecture that has proved hard to match” (Gray 1999). Schools designed by Snyder are listed on the National Register of Historic Places and many are New York City landmarks. PS 133 is a representative and relatively intact example of a Gothic-inspired Snyder-era New York City public School. PS 133 is recommended eligible for listing on the State and National Registers for its significance in the areas of education, architecture, and association with C.B.J. Snyder.





**Photo 65:** PS 133 William A. Butler School. View Northeast.

**Tenements and Store, 143-149 Fourth Avenue; Block 943, Lots 1-4 (#18; Photo 66)**

This group of late-nineteenth century brick buildings is the remaining section of a rowblock of four-story tenements that extended from Douglass to Butler Street. The 1906 Sanborn maps indicate that the wider interior buildings were residential and only the buildings at the end of the block had storefronts. A similar configuration of apartments and corner stores was located on the opposite side of Fourth Avenue, which was a wide, divided avenue separated by a park (Sanborn 1906). The buildings at 143-149 Fourth Avenue are the most intact of the remaining Fourth Avenue buildings in the APE. The residential buildings have four bays at the upper stories and have a central entrance flanked by two windows on each side at the first story. By comparison, the corner store and tenement is only three bays wide. The buildings are crowned by bracketed cornices and have contrasting rough face lintels, belt courses, and continuous sill courses that form rhythmic horizontal emphasis across the group. The entrances have been altered through the introduction of modern doors and the loss of transoms; the store front has an awning and metal roll-down gate. The Tenements and Store at 143-149 Fourth Avenue are representative of the residential and commercial buildings that lined Fourth Avenue within the Gowanus Canal APE by the end of the nineteenth century. Although modern doors and storefront have been installed, the Tenement and Store buildings are the only intact group of their type in the study area. The Tenements and Store at 143-149 Fourth Avenue are significant in the area of architecture and are recommended eligible for listing on the State and National Registers.



**Photo 66:** 143-149 Fourth Avenue. View East.

**Row Houses, 355-365 Douglass Street, North Side; Block 943, Lots 70-75 (#19; Photos 67 and 68)**

The residences at 355-365 Douglass Street, located on the north side of the street east of Fourth Avenue, are a partially intact and representative row illustrative of the area's development. A remnant of this nineteenth century rowblock, this group consists of six houses, three stories in height, three bays wide with simple bracketed and modillioned cornices. The houses are set on 20-foot-wide lots with off-set doors and masonry stoops. The tall window openings have one-over-one double-hung replacement sash and most have modern replacement doors. The houses have brownstone lintels and sills and corbelled sawtooth sill courses between the stone sills at the second and third stories. The earliest houses in the group were constructed between 1880 and 1886 (Hopkins 1880; Robinson 1886; Sanborn 1886). As the design and overall treatment of the facades is consistent, it appears that the houses were constructed around the same time and by the same builder. Beyond 355-365 are similar houses, also three stories in height, however these buildings have been altered, the cornices removed, and facades stuccoed. This section of Douglass Street, between Fourth and Fifth Avenues (See #20, Douglass Street, South Side), consists of houses constructed for residents with modest incomes and continues to embody the characteristics of the original working-class neighborhood. Situated three blocks east of the Gowanus Canal and in close proximity to the industry that lined the canal during the late nineteenth and early twentieth century's, the streets between fourth and fifth avenue consisted of modest homes, tenements and flats, with stores, tenements and flats located on the avenue. Together with the rowblock on the south side of the street, these buildings are representative of the nineteenth century residential development in the area. As such, the Douglass Street houses are recommended eligible for listing on the National Register.





**Photo 67:** 355-363 Douglass Street. View Northeast.



**Photo 68:** 355-365 Douglass Street. View North.



**Douglass Street Row Houses – South Side; Block 946, Lots 12-44 (#20; Photos 69-72)**

The residences at 348A-410 Douglass Street, located on the south side of the street between Fourth and Fifth Avenues, are a partially intact and representative row of modest houses illustrative of the area's development. With the exception of the end houses, a Renaissance style inspired residence at 348A Douglass with a projecting curved bay and a three-story brick house at 410 Douglass, this nineteenth century rowblock consists of narrow two-story houses, three bays wide with simple cornices. The houses are set on lots, predominately 16.67 feet to 17.5 feet in width, with off-set doors accessed by masonry stoops. The houses at 350-364 have brownstone facades. East of 364 several houses have rough face lintel and sill courses with a rusticated first story and basement. Near the center of the block is a group of dwellings with two-sided projecting angled bays. The houses at the east end of the block are brick. Many of the windows have one-over-one double-hung replacement sash and stone lintels with simple hood molds. The period double-leaf doors have also been retained at many of the homes. A number of the houses have retained their period cast iron fences, railings, and newel posts. The exteriors of several houses, particularly located mid-block, have been painted and display a variety of color schemes. A few of the houses have modest paneled cornices that appear to have been altered.

The houses were built 1885-1888 and appear to be constructed for residents with modest incomes. According to an article in the Brooklyn Eagle on November 21, 1885, W.H. Jackson had just completed a row of 10 two-story brick residences, valued at \$4,500 that would rent for \$400 per year. The houses are described as 16.8 x 50, well lighted, with "a cellar of good height." Each contained a living room, dining room and back kitchen, and up to four bedrooms on the second floor. The houses had a total of four fireplaces with marble mantels (Brooklyn Eagle 1885). Although some of the houses have been painted, the Douglass Street Row Houses remain a relatively intact and representative rowblock of modest, worker-class two-story residential development in the Gowanus Rezoning Project area. The houses are significant in the area of architecture and are recommended eligible for listing on the State and National Register.



**Photo 69:** 348A-360 Douglass Street. View South.



**Photo 70:** Cast Iron Fences, Newel Posts, and Railings, 354-360 Douglass Street. View Southeast.



**Photo 71:** 360-370 Douglass Street. View Southeast.





**Photo 72:** Douglass Street Row Houses. View West.

**Degraw Street North Side; Block 946, Lots 56-84 (#21; Photos 73-77)**

The north side of Degraw Street between Fourth and Fifth Avenues consists of brownstone and brick residential buildings, two and three stories in height. The rowblock was constructed in several phases, beginning in 1885. Three different designs of houses are distinguished by projecting full-height bays, either two-sided angled bays, brick three-sided bays, or tin-faced three-sided bays. Other characteristics of these buildings include facades crowned by bracketed cornices, stoops with cast iron railings, double-leaf doors, rough-face lintels, and sill courses. Windows are a mix of wood and replacement double-hung sash. The two-story brownstone residences at 645-659 Degraw Street are sited on 16.33 lots and have two-sided bays, raised stoops, and double-leaf doors. The group at 653-659 are three stories in height and are of similar design to the adjacent two-story residences. Numbers 661-669 are brick buildings set on 20-foot lots, and are three stories in height, also employing the two-sided-bay design. The four brick buildings at 671-677 have three-sided masonry bays. The remaining buildings at 679-697 Degraw Street are brick residences, three-stories in height with tin-faced three-sided bays. The houses contain two to four units per building. The variation in materials, color of brick, and projecting bays create a striking rhythm along the street.

According to an article in the Brooklyn Eagle in November 1885, W.H. Brown was in the process of starting construction of “twenty stone front, two story and high basement residences” on Degraw Street (Lincoln Place) between Fourth and Fifth Avenues. The houses are viewed as “a notable addition to the small house accommodation of the Tenth Ward” (Brooklyn Eagle 1885). The two-story houses located on both sides of the street east of Fourth Avenue, may be those constructed by Brown, which number a total of 10 two-story stone residences and ten three-story houses of similar design. The five two-story houses on the north side of the street are depicted on the Robinson map in 1886. By 1898, the entire block between Fourth and Fifth Avenues was completely developed (Hyde 1898). The Degraw Street Houses constitute rowblocks representative of the variation in residential development in the Gowanus area and is recommended eligible for listing on the State and National Registers. The south side of the street is discussed below.





**Photo 73:** 645-651 Degraw Street, North Side. View North.



**Photo 74:** 651-659 Degraw Street, North Side. View Northeast.





**Photo 75:** 661-669 Degraw Street, North Side. View Northeast.



**Photo 76:** 671-677 Degraw Street, North Side. View North.



**Photo 77:** 679-685 Degraw Street, North Side. View North.

**Degraw Street South Side; Block 949, Lots 13-42 (#22; Photos 78-80)**

The residential buildings that make up the south side of Degraw Street between fourth and fifth avenues is slightly more varied than those on the north side of street. The five brownstone buildings nearest Fourth Avenue at 664-670 Degraw Street are two stories in height with high stoops, two-sided bay windows and bracketed cornices. The adjacent row at numbers 672-678 is similar in design, except three stories in height. Most of the rowblock consists of brick residential buildings, three stories in height with no projecting bays, many crowned by modillion-trimmed cornices. At the west end of the row are three, two-story brick houses, 712-716 Degraw Street; 716 has projecting angular bay windows.

According to an article in the Brooklyn Eagle in November 1885, W.H. Brown was in the process of starting construction of “twenty stone front, two story and high basement residences” on Degraw Street (Lincoln Place) between Fourth and Fifth Avenues. The houses are viewed as “a notable addition to the small house accommodation of the Tenth Ward” (Brooklyn Eagle 1885). The two-story houses located on both sides of the street east of Fourth Avenue, may be those constructed by Brown, which number a total of 10 two-story stone residences and ten three-story houses of similar design. The five two-story houses on the north side of the street are depicted on the Robinson map in 1886. By 1898, the entire block between Fourth and Fifth Avenues was completely developed (Hyde 1898). As with the houses located on the north side of the street, the Degraw Street Houses constitute a rowblock representative of the variation in residential development in the Gowanus area and are recommended eligible for listing on the State and National Registers.





**Photo 78:** 670-678 Degraw Street, South Side. View Southeast.



**Photo 79:** 706-714 Degraw Street, South Side. View Southwest.



**Photo 80:** Degraw Street Row Houses, South Side. View Southeast.

**President Street Row Houses, North Side, Block 955, Lots 56-74 (#23; Photos 81-83)**

This row of small two-story brick houses extends from 601-635 President Street on this tree-lined street, on the same block as Public Bath No. 7. The houses at the western end of the row are set on basements with raised masonry stoops, and most were constructed between 1886 and 1898. Those at the eastern end are lower with nearly ground-level first stories and were constructed about 1886 (Robinson 1886; Sanborn 1886; Hyde 1898). Features include bracketed cornices, stone molds, and single-leaf entrances. Several of the houses retain their cast iron railings and have fenced gardens. Although some of the residences reflect various alterations such as replacement windows, removal of a stoop, or addition of a Colonial door surround, the row is indicative of modest two-story residences constructed in the area during the late nineteenth century. The south side of President Street developed as four-story residences, most like tenements or flats for area workers (see #24, President Street, South Side). The President Street Row Houses are significant in the area of architecture as an intact rowblock of late-nineteenth century houses constructed for those of modest means and are recommended eligible for listing on the State and National Registers.





**Photo 81:** Row Houses President Street, North Side. View East.



**Photo 82:** Row Houses President Street, North Side. View Northeast.





**Photo 83:** President Street Row Houses, North Side. View Northeast.

**President Street, South Side, Block 958, Lots 22-35 (# 24; Photo 84)**

This row of 14 four-story residential apartment buildings at 616-638 President Street, dominates the south side of the street between Fourth and Fifth Avenues. Constructed in 1889, these dark Philadelphia brick residential buildings are crowned by bracketed and modillioned cornices and trimmed with stone. The buildings are three bays wide with low stoops, off-set entrances, and single- and double-leaf doors. The original dimensions of each building were 18 x 40 feet. The flats were designed to contain one apartment on each floor. In 1889, upon completion of the last three buildings, the flats were described as “Each floor contains one suit, with two sleeping rooms on the first and three on the upper floors, with parlor, bathroom, diningroom [sic] and kitchen. The woodwork is pine, with hard white walls and ceilings” (Brooklyn Eagle 1889). The entrances had double doors and tiled vestibules. The owner and developer of the row of flats was George. W. Brown (Brooklyn Eagle 1889).

These sparsely ornamented apartment buildings have an austere and utilitarian presence. The building provided much-needed housing for workers at the manufacturing businesses that developed along the east side of the canal. The President Street flats are recommended eligible for listing on the State and National Registers as a relatively intact rowblock, built by a single developer, significant as late-nineteenth century utilitarian worker housing.



**Photo 84:** Tenements President Street, South Side. View South.

**Hildebrand Baking Company, 495-507 Carroll Street, 530-550 President Street; Block 448, Lot 13 (#25; Photos 85-88)**

Hildebrand Baking Company is a complex of connected brick buildings, east of Third Avenue that extend from President Street through the block to Carroll Street. Constructed between 1890 and 1902, the bakery buildings are two and three stories in height with mill construction and concrete floors. The three-story bakery on President Street is fortress-like in appearance with bays defined by brick piers and pilasters crowned by a corbelled blocks and cornice. The center four bays are full-height arched bays pierce by pairs of windows with arched lights at the third story. The two-story section has arcaded bays, two stories high. The Carroll Street façade is defined by large arched openings at the first story and arched windows set in slightly recessed bays. Many of the openings have been infilled or have replacement sash, except for the second-story windows at the Carroll Street façade, which appear to be original. A row of brick chimneys at the east end of the building marks the former location of the ovens. A tall chimney and water tower remain at the northern sections of the bakery.

Hildebrand Baking Company was established by the Hildebrand brothers, presumably John, Harry and Fred. The New York Directories indicate that John F. Hildebrand had two occupations, shoes and baker, prior to his move to Gowanus and construction of the bakery. John was born in Germany in 1854 and came to the United State in his youth (U.S. Bureau of the Census). The brothers established the bakery at President and Carroll Streets about 1890, adding to the buildings between 1890 and 1902. The two-story buildings were constructed first and completed through from President to Carroll Streets by 1898. In an announcement titled Brooklyn Realty Matters in The New York Times in 1894, the Hildebrand brothers hired architect Charles Werner to design a two-story factory, 48 by 110 feet at a cost of \$10,000 (NYT 1898). About 1902, the three-story building was added to the complex (DOB; Hyde 1898; Sanborn 1906).

Brooklyn architect Charles Werner designed factory, school, stores, and residential buildings in Brooklyn, Manhattan, and New Jersey. Warner was a prolific architect, especially in Brooklyn and was active from about 1876 through about 1910. He appears to have been a member of the Brooklyn Chapter, American Institute of



Architects. He was also quartermaster of the Thirteenth Regiment New York State Militia at the time of the new armory's construction. Buildings by Werner include private residences and row houses in the Park Slope Historic District, the Saint Francis Xavier Academy in Park Slope, an apartment building in the Fort Greene Historic District, and the former Wissner Piano Factory, also in Brooklyn.

At the turn of the twentieth century the baking industry was comprised of many local firms of varying size. In 1910, 12 baking companies in Manhattan, Brooklyn, Hoboken, and Jersey City combined under the name of Shults Bread Company. The two largest bakeries in the consortium were John H. Shults and Hildebrand Baking Company, both of Brooklyn. At the time of the consolidation, Hildebrand had a 1,000 barrel a day capacity (NYT 1910). J. Frederick Hildebrand was appointed to the initial board of directors. John F. Hildebrand remained active in the Shults Bread Company, representing Shults at the state convention (NYT 1921). In 1923, United Bakeries Corporation, a holding company and largest corporation in the baking industry, acquired a controlling interest in the Shults Bread Company (Alsberg 1926:132). The following year Continental Baking Corporation was organized, absorbed United and acquired several other baking companies (Alsberg 1926:13). The 1926 Sanborn map depicts the former Hildebrand Baking complex is part of the Continental Bakeries Corporation-Shults Bread Company.

At the start of the twentieth century the Hildebrand Baking Company was one of the leading bakeries in Brooklyn. The Hildebrand Baking Company is illustrative of the shift from numerous small independent firms to area consolidation, followed by a national corporate baking industry. As with other buildings of its type, such as the Ward Bread Bakery building, also in Brooklyn, the Hildebrand Baking Company building is significant in the areas of industry and architecture and is recommended eligible for listing on the State and National Registers.



**Photo 85:** Hildebrand Baking Company, President Street. View South.





**Photo 86:** Hildebrand Baking Company, President Street. View West.



**Photo 87:** Hildebrand Baking Company, Carroll Street. View North.



**Photo 88:** Hildebrand Baking Company, Carroll Street. View Northeast.

**Eureka Garage, 638-644 Degraw Street, 637-641 Sackett Street; Block 427, Lot 31 (#26; Photos 89-92)**

Located between Degraw and Sackett Streets west of Fourth Avenue, this garage is an early example of Automotive-related buildings that sprung up following the popularity of the automobile during the early twentieth century. Sited in close proximity to Fourth Avenue and nearby residential neighborhoods, the Eureka building is reportedly associated with a chain of historic auto repair shops bearing the Eureka name. This brick single-story garage, built in 1923, features stepped and gabled parapets, corbelled panels, cast stone winged wheel on a grille, and a carved “Eureka” sign. In 1956 the building was converted into a woodworking shop and a large dust collector installed on the roof at the northwest corner (Columbia University GSAPP 2008). The building’s façade has remained remarkably intact. The garage is a good example of an early twentieth century auto garage, significant in the areas of auto-transportation and architecture. As such, the Eureka Garage is recommended eligible for listing on the State and National Registers.



**Photo 89:** Eureka Garage, Degraw Street. View Southwest.



**Photo 90:** Eureka Garage, Sackett Street. View Northeast.





**Photo 91:** Emblem, Eureka Garage.



**Photo 92:** "Eureka" Sign.

**E.A. Roos Leather Works, 302 Butler Street; Block 413, Lot 15 (#27; Photo 93)**

Sanborn maps indicate that the E.A. Roos Leather Works factory was constructed prior to 1906. This four-story brick factory is crowned by corbelled brackets. The façade is pierced by tall segmental arched window openings that have modern replacement windows at the upper stories. The first-story openings have been infilled, leaving one opening, a single-leaf door. Geisman, Musliner & Brightman Leatherworks acquired the building between 1916 and 1922. The firm, a noted manufacture of leather goods, also had a factory on Spruce Street in Manhattan. Louis M. Musliner died in 1930 and the company was reorganized in 1933 as Brightman Leather Company. Company president, Samuel D. Brightman died later that year. In 1951, the Brightman Leather Company continued to occupy the Butler Street factory (Sanborn 1951).

The E.A. Roos Leather Works is one the many factories and industrial concerns that occupied the blocks near the Gowanus Canal. As with a number of the surviving industrial buildings in the Gowanus area, this building has alterations to the first story openings. The E.A. Roos Leather Works is typical of mid-size industrial buildings. As such this factory does not appear to have sufficient significance for listing on the State and National Register and is recommended not eligible.



**Photo 93:** E. A. Roos Leather Works. View Southwest.

**National Packing Box Factory, 533-543 Union Street, 282 Nevins Street; Block 432, Lots 1 & 25 (#28; Photos 94-95 )**

Designed by architect Robert Dixon, the National Packing Box Factory is brick mill-construction factory, four stories in height (Columbia University GSAPP 2008:31; Sanborn 1904). The building was constructed in 1889 for owner James H. Dykeman and has both company and owner's name painted on the building. Before construction of the Gowanus factory, Dykeman was proprietor of the Union Packing Box Factory located on Front Street in Brooklyn. In 1880 the building that housed his factory and several other businesses was destroyed by fire (NYT 1880). Dykeman subsequently chose the Union and Nevins Street site to build his factory, which grew to include



the two adjacent buildings. In 1932, Dykeman faced another fire contained at the rear section of the building. By the early years of the twentieth century his business had declined and in 1936 the company filed bankruptcy. In the 1980s, the build at the corner of Union and Nevins Street was converted into artist studio space and continues to be used by artists as working studio space (Columbia University GSAPP 2008:31). Two Robert Dixons, both architects working in Brooklyn, were found. It is not clear which Robert Dixon is the architect of this building as both men appear to have designed buildings in Brooklyn at the time (Francis 1979:26, 87; NYT 1912; Withey 1970:176).

The National Packing Box Factory is a prominent industrial feature near the Gowanus Canal. Alterations to the building at 282 Nevins Street greatly detract from the architectural integrity and therefore, the building at 282 Nevins Street is recommended not eligible. The building at the corner of Union and Nevins Street known as 543 Union Street appears to retain sufficient integrity, is significant in the area of industry and its potential past dependence on the Gowanus Canal, as such is recommended eligible for the State and National Registers. The National Packing Box Company, as well as other industry to occupy this property, most likely relied on the Gowanus Canal for a component of distribution of either materials related to energy supply and manufacturing and/or product distribution. As such, the National Packing Box Factory building at 543 Union Street is recommended eligible as a contributing resource to the State and National Register eligible Gowanus Canal Historic District.



**Photo 94:** National Packing Box Factory. View North.





**Photo 95:** National Packing Box Factory Complex. View West.

**City of New York Water Supply-Distribution, Gowanus Station; Block 411, Lot 24 (#29; Photos 96-97)**

The City of New York Water Supply-Distribution, Gowanus Station is located at the southwest corner of Butler and Nevins Street. Actually two separate brick buildings, a long, narrow, two-story building that extends along Butler Street and a single-story, long, narrow building along Nevins Street constructed about 1911, the buildings enclosed the water department's storage yard. The more elaborate of the two, the two-story office and storage building has corbelled brickwork quoins, corbelled cornice, and a flat roof. Terra Cotta panels set in the classically-styled stepped parapet read "City of New York Water Supply-Distribution, Gowanus Station." A medallion surrounded by a laurel wreath at the center and scrolls at the corners complete the composition. Segmental arches with brick lintels, terra cotta volute keystones, and contrasting sills mark the openings that initially pierced the facades, most of which have been infilled with brick. The two remaining windows at the second story have been replaced by small modern sashes. The single-story building housed wagon sheds and forms a wall along Nevins Street (Sanborn 1915;1933). The band of small arched windows, set high on the facade below a corbelled cornice, are filled with brick. A metal gate marks the entrance between the two buildings.

Due to infill of most of the window openings and other alterations, the buildings no longer retains their architectural integrity. The City of New York Water Supply-Distribution, Gowanus Station does not appear to adequately meet the eligibility criteria and is recommended not eligible for listing on the State and National Registers.



**Photo 96:** City of New York Water Supply-Distribution, Gowanus Station. View West.



**Photo 97:** Detail City of New York Water Supply-Distribution, Gowanus Station. View West.

**Frame Dwelling, 194 Butler Street, Block 411, Lot 13 (#30; Photos 98-99)**

This frame dwelling is located on the south side of Butler Street, adjacent to the Gowanus Wastewater Pumping Station at the head of the Gowanus Canal. The wood frame dwelling is three stories in height and three bays wide with a brick basement. Wood shingles with rows of imbricated shingles and diamond-pattern inset shingles sheath the front façade, which is capped by a bracketed cornice with modillion blocks. Bracketed cornice hoods crown the windows. Most of the windows consist of vinyl replacement sash, however one original two-over-two window remains. The off-set entrance is accessed by a brick stoop and is crowned by a hood supported by elaborate openwork, wheel-pattern brackets.

The residential building at 194 Butler Street is first depicted on the 1880 Bromley map. By the mid-1880s, new houses were generally masonry construction. Most wood residential buildings, especially those located near the canal were viewed as being “of a very inferior class,” however, wooden tenements were still being built and some considered as “improved” houses (Brooklyn Eagle 1885). Additionally, the area east of the canal consisted of former wetlands that were in the process of being filled and streets laid out. Proximity to dump sites and factories made residential development in the areas closest to the Gowanus Canal less than desirable for better houses. The demand for worker housing meant that the areas around factories were densely populated. The building at 194 Butler Street is one of the few remaining and relatively intact late nineteenth frame residential buildings located near the canal, most likely built to house working-class tenants. The building, however, as a standalone structure, does not appear to adequately meet the eligibility criteria and is therefore, recommended not eligible for listing on the State and National Registers.



**Photo 98:** Frame Dwelling 194 Butler Street. View Southwest.





**Photo 99:** Cornice Hood over Entrance, 194 Butler Street. View South.

**Owen Nolan Tenement Building, 215 Butler Street; Block 405, Lot 57 (#31; Photo 100)**

Built in 1878 by real estate developer Owen Nolan, the building at 215 Butler Street is a three-story tenement, three bays wide, and crowned by a simple bracketed cornice (Columbia University GSAPP 2008). The modest embellishment includes quoins and diamond-shaped tiles between the second and third stories. While the building had various uses, such as a furniture store (1926) and a machine shop (1969 to present) located at the first story, the upper two stories have continued to be residential. Windows at the second and third stories are one-over-one double-hung sash. The first-story has a large window flanked by a wood panel pedestrian door and carriage doors. Situated across from the pumping station and the head of the Gowanus Canal, the building is a remnant of modest residential buildings that were interspersed with the industry near the canal.

Born in Ireland, Owen Nolan was a local builder who constructed houses and tenements in the Gowanus Area, such as houses within the Carroll Gardens Historic District at 335-337 Hoyt Street. Although identified as a historic building in the *Gowanus Canal Corridor* report prepared by the Columbia University Historic Preservation Graduate School in 2008, as a single structure modified during the early twentieth century, the building does not appear to be eligible for listing on the State and National Registers.



**Photo 100:** Owen Nolan Building. View Northeast.

**Warren Street Houses, South Side; Block 399, Lot 21-34 (#32; Photos 101-104)**

Warren Street, between Bond and Nevins Streets, is south of the Boerum Hill Historic District and eligible expansion of the district at Wyckoff Street. The block is sandwiched between two twentieth century housing projects, the Gowanus Houses to the west and Wyckoff Gardens to the east. This tree-lined block consists of a combination of new and old row houses with front gardens. A row of late twentieth century houses, two stories in height on basements, was constructed at the western end of the block in 1989.

The nineteenth century row houses on the south side of the street at 474-500 Warren Street are brick three-story residences on a high basement. The Italianate style row houses feature bracketed cornices, masonry stoops, and offset entrances with cornice hoods supported by brackets and double-leaf doors. The house at 476 Warren is unique and has a mansard attic story pierced by three pedimented gable dormers, has stone trim, and a rusticated brownstone first story with ground level entry. Many of the houses retain their cast iron fences, balustrades, and newel posts. Fire escapes have been installed at some of the houses and most have replacement windows. Houses at eastern two-thirds of the block were constructed by 1869 (Dripps 1869). The Warren Street Houses continue to retain a high degree of integrity and nineteenth century character. Although not included in the district, the 1989 row complements the existing nineteenth century construction. The houses at 474-500 Warren Street are significant in the area of architecture and recommended eligible for listing on the State and National Registers.





**Photo 101:** 498-490 Warren Street, South Side. View West.



**Photo 102:** 482-486 Warren Street, South Side. View Southwest.





**Photo 103:** 474-478 Warren Street, South Side. View Southwest.



**Photo 104:** 462-470 Warren Street, built 1989. View Southwest.

**Warren Street Houses, North Side; Block 393, Lots 46-65 (#33; Photos 105-108)**

Like those on the south side of the street, the rowblock on the north side of Warren Street at numbers 437-475, consist of a row of late nineteenth century brick residences. The houses are crowned by bracketed cornices, some of which have an arched frieze that echoes the segmental arch windows. Most of the houses were constructed as two stories in height with a high basement, however several of the stoops have been removed and the off-set entrances relocated at ground level in the exposed basement story. The houses at 467-475 were intended to be three-story houses with the entrance at street level (Sanborn 1886). The north side of Warren Street was developed shortly after the south side of the street with the rowblock first depicted on the 1886 Sanborn map. Although the appearance of front additions seems out of character, the 1886 map indicates that 451 and 455 both had their one-story front additions. The single story fronts functioned as stores during the late nineteenth century. By 1886, two of the buildings contained stores in the basement story (Sanborn 1886).

The north side of Warren Street, with its painted facades and single-story stores, while colorful, does not retain the degree of integrity as the south side of the street. Many of the front gardens have been covered with concrete, stoops have been altered, and masonry walls and chain-link fences have been installed. Although, these houses are a compliment to the nineteenth century residential feel of the Warren streetscape, the row does not appear to retain sufficient architectural integrity and is recommended not eligible for listing on the State and National Registers.



**Photo 105:** Former Storefront at 451 Warren Street, North Side. View East.





**Photo 106:** Warren Street, North Side. View Northwest.



**Photo 107:** 441-443 Warren Street, North Side. View North.





**Photo 108:** 445-449 Warren Street, North Side. View Northeast.

**Gowanus Houses; Block 392, Lot 1 and 404, Lot 1 (#34; Figure Photos 109-111)**

The Gowanus Houses covers a 12.6-acre area with sixteen buildings on two superblocks. Bounded by Wyckoff, Hoyt, Douglass, and Bond Streets, the buildings are brick faced, four to thirteen stories in height with 1,134 apartments. The buildings occupy less than 20 percent of the plot, providing space for park areas and a playground. A combination of cross-shaped, tee and strip-shaped, and zee-shaped units, the Gowanus Houses are sparsely designed dark brick unit-blocks. Plans, designed by architects Candella, Kahn & Jacobs, and McCarthy, were filed in 1945, but construction did not begin until January 1948 (New York Times 1945; 1948). Gowanus Houses is one of several post-World War II housing projects undertaken by the New York City Housing Authority. Many of the first families to move into the Gowanus Houses in December 1948, were veterans (New York Times 1948). In June 1949, the Gowanus Houses were completed. The Gowanus Houses is representative of public assisted housing projects constructed at the close of World War II. One of several housing projects undertaken in the outer boroughs during the period, architectural commentary on the period provides little or no acknowledgement of this project. The Gowanus Houses do not appear to be architecturally or historically significant and are recommended not eligible for listing on the State and National Registers.

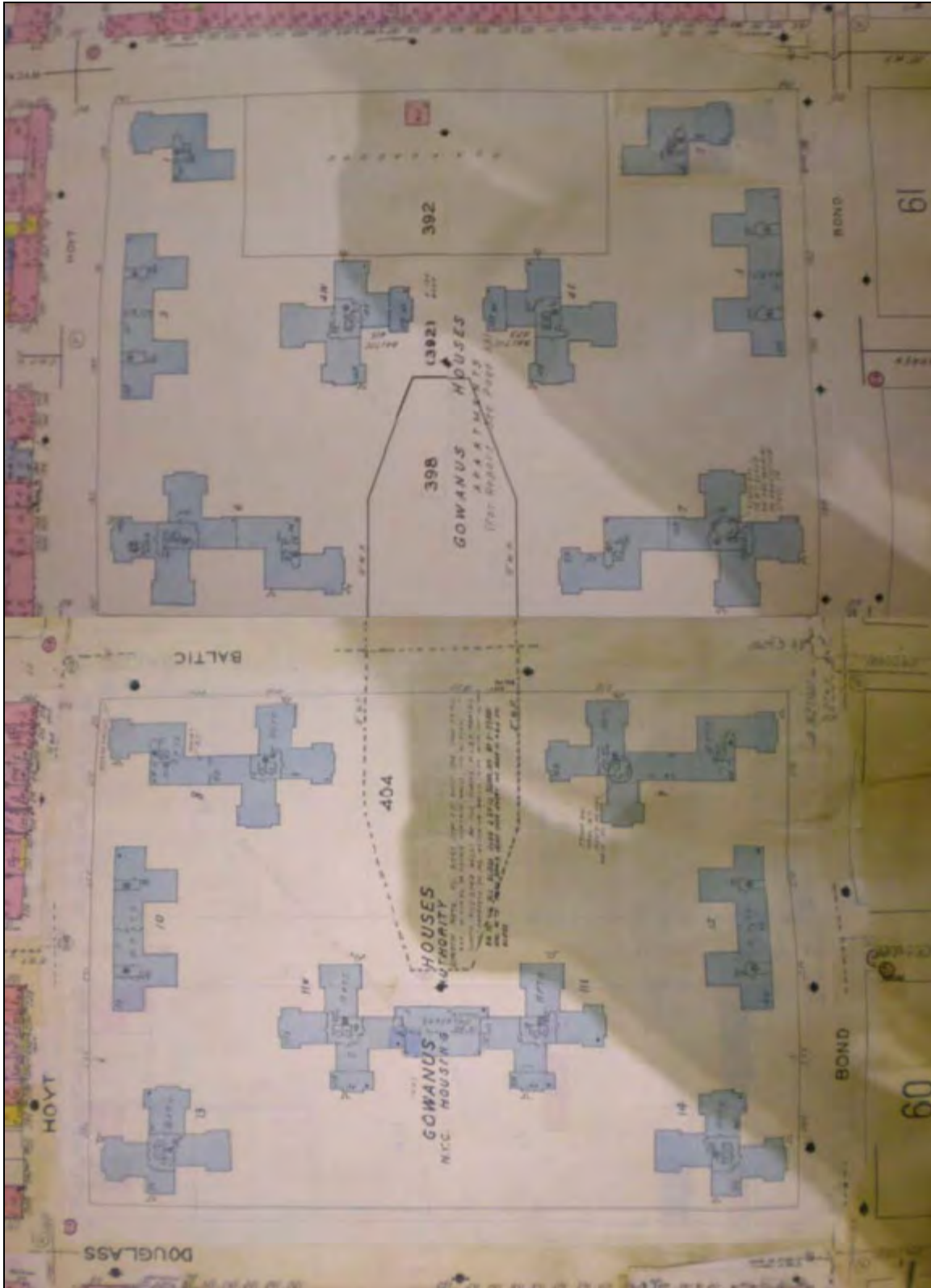


Figure 60: Gowanus Houses.

Source: Sanborn 1989





**Photo 109:** Gowanus Houses, Bond and Wyckoff Streets. View Southwest.



**Photo 110:** Gowanus Houses, Bond Street. View North.





**Photo 111:** Gowanus Houses, Bond Street. View Southwest.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Archaeology

As a function of the Draft Environmental Impact Statement (DEIS) for the proposed Gowanus Canal Corridor Rezoning Project, an assessment for potential archaeological resources was undertaken. In accordance with City Environmental Quality Review (CEQR) guidelines, the initial task established the archaeological Area of Potential Effect (APE) that may be affected by the various components of the proposed action. The New York City Landmarks Preservation Commission (LPC) identified 16 lots within the proposed project area possessing potential for intact archaeological deposits. A Documentary Study was conducted charting the ownership, occupation history, and, where relevant, the development of the Gowanus Canal bulkhead for each lot within the archaeological APE. The 16 LPC-selected lots consist of the following Blocks and Lots:

Block 405, Lot 7 (Projected Development Site A);  
 Block 405, Lot 8 (Potential Development Site 1);  
 Block 417, Lot 21 (Potential Development Site 7);  
 Block 424, Lot 1 (Projected Development Site D);  
 Block 424, Lot 20 (Projected Development Site D);  
 Block 431, Lot 17 (Projected Development Site D);  
 Block 438, Lot 3 (Projected Development Site I);  
 Block 438, Lot 7 (Projected Development Site J);  
 Block 439, Lot 1 (Potential Development Site 19);  
 Block 445, Lot 11 (Projected Development Site I);  
 Block 445, Lot 20 (Projected Development Site I);  
 Block 452, Lot 15 (Projected Development Site T);  
 Block 453, Lot 1 (Projected Development Site U);  
 Block 453, Lot 21 (Projected Development Site U);  
 Block 462, Lot 14 (Projected Development Site Z);  
 Block 972, Lot 1 (Potential Development Site 40)

The documentary study concluded that each of these lots or portions of each of these lots had the potential for intact archaeological deposits (see Table 27). Additionally, in an environmental review letter issued by the City of New York Landmarks Preservation Commission (Santucci 2009), LPC identified two additional locations that possessed the potential to contain potentially significant archaeological resources. These two locations are noted at the end of Table 27.

**Table 27: Archaeological Potential for Each Lot within the Gowanus Rezoning Archaeological APE**

Block, Lot	Development Site	Potential	Description of Archaeological Potential
405, 7	Part of Projected Site A	Nineteenth Century Historic Deposit	A dwelling appears on the front, western portion, of the lot by 1855. Federal Census and city directory research indicate that the Burns household may have occupied this parcel from 1852 to 1860. This occupation predates the installation of municipal water and sewer lines. A structure remained on the western frontage of the lot until 2006. The rear, eastern portion, of lot, which experienced minimal twentieth century development, has the potential to contain mid to late nineteenth century historic period deposits including shaft features.
405, 8	Part of Potential Site 1	Nineteenth Century Historic Deposit	A dwelling appears on the front, western portion, of the lot by 1855. Federal Census and city directory research indicate that the Murray household may have occupied this parcel from 1857 to 1865. This occupation predates the installation of municipal water and sewer lines. A structure remained on the western frontage of the lot until 1951. The rear, eastern portion, of lot, which experienced minimal twentieth century development, has the potential to contain mid to late nineteenth century historic period deposits including shaft features.

Block, Lot	Development Site	Potential	Description of Archaeological Potential
417, 21	Part of Potential Site 7	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter (2004), timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. Although the visible bulkhead frontage of Lot 21 appears to be a concrete wall, this segment may rest upon a timber cribwork foundation. Therefore, the eastern frontage of Lot 21 is considered sensitive for nineteenth century bulkhead deposits.
424, 1	Part of Projected Site D	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter (2004), timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. Although the visible bulkhead frontage of Lot 1 appears to be a steel sheet pile construction, this segment may rest upon a timber cribwork foundation. Therefore, the eastern frontage of Lot 1 is considered sensitive for nineteenth century bulkhead deposits.
424, 20	Part of Projected Site D	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter (2004), timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. Although the visible bulkhead frontage of Lot 20 appears to be a steel sheet pile construction, this segment may rest upon a timber cribwork foundation. Therefore, the eastern frontage of Lot 20 is considered sensitive for nineteenth century bulkhead deposits.
431, 17	Part of Projected Site D	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 17 bulkhead consists of steel-reinforced timber cribwork. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 17 is considered sensitive for nineteenth century bulkhead deposits.
438, 3	Part of Projected Site I	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 3 bulkhead consists of a poured cement retaining wall resting on top of an intact timber cribwork foundation. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 3 is considered sensitive for nineteenth century bulkhead deposits.



Block, Lot	Development Site	Potential	Description of Archaeological Potential
438, 7	Projected Site J	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 7 bulkhead consists of continuous timber cribwork. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 7 is considered sensitive for nineteenth century bulkhead deposits.
439, 1	Part of Potential Site 19	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter (2004), timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. Although the visible bulkhead frontage of Lot 1 appears to be a steel sheet pile construction, this segment may rest upon a timber cribwork foundation. Therefore, the western frontage of Lot 1 is considered sensitive for nineteenth century bulkhead deposits.
445, 11	Part of Projected Site I	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 11 bulkhead consists of a poured cement retaining wall resting on top of an intact timber cribwork foundation. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 11 is considered sensitive for nineteenth century bulkhead deposits.
445, 20	Part of Projected Site I	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 11 bulkhead consists of a continuous intact timber cribwork foundation. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 20 is considered sensitive for nineteenth century bulkhead deposits.
452, 15	Part of Projected Site T	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 15 bulkhead consists of a continuous intact timber cribwork foundation. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 15 is considered sensitive for nineteenth century bulkhead deposits.

Block, Lot	Development Site	Potential	Description of Archaeological Potential
453, 1	Part of Projected Site U	Nineteenth Century Residential Deposits; Nineteenth Century Bulkhead Deposits	The research conducted for this Documentary Study revealed that occupants on the three historic house lots within modern Lot 1 could be identified from ca. 1860-1890, including about 15-20 years (depending on the house) predating installation of municipal water and sewers under Carroll Street. Therefore, the former yard areas of these three historic lots are considered sensitive for nineteenth century domestic deposits. The visible portions of the bulkhead which rest along the western frontage of the lot appear to be in good condition. Given that this wall represents an intact portion of the Gowanus Canal, it is a contributing element to the Gowanus Canal Historic District and, as such, is a significant archaeological resource.
453, 21	Part of Projected Site U	Eighteenth to Nineteenth Century Grist Mill Deposits; Nineteenth Century Industrial Paper Mill Deposits	Two potentially significant mill resources were documented within and overlapping the Lot 21 boundaries: a grist mill dating from ca. 1709-1850, and a paper mill dating from ca. 1860-1894. Both types of mill resources (eighteenth- and early nineteenth-century grist mills and nineteenth-century paper mills) are underrepresented in the New York City archaeological record, and remains from either mill would constitute an important contribution to local history and archaeological studies.
462, 14	Part of Projected Site Z	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 14 bulkhead consists of a partially intact timber cribwork foundation. Portions of the visible wall appear to be deteriorating and failing within the central portions of the block. Nevertheless, the presence of visible partially intact timber cribwork within the canal wall suggests that the submerged portions of the wall may also be timber cribwork. Furthermore, the constant submerged environment of the lower portions of the canal wall may have enabled the preservation of the foundational cribwork. Therefore, the eastern frontage of Lot 14 is considered sensitive for nineteenth century bulkhead deposits.
972, 1	Part of Potential Site 40	Nineteenth Century Bulkhead Deposits	Early construction of the Gowanus Canal began from 1851 to 1854. During this period, the canal walls consisted of timber sheet piles. The Canal was completed between 1866 and 1870. This period of constructed most likely involved creation of timber cribwork bulkheads. Early timber pile walls may have also been removed and replaced or repaired with the timber cribwork technology. According to Hunter, timber cribwork was the prominent form of bulkhead construction within the Port of New York from the nineteenth century up until 1930. The visible portion of the Lot 1 bulkhead consists of a poured cement retaining wall resting on top of an intact timber cribwork foundation. The presence of visibly intact cribwork within the canal wall suggests that the submerged portions of the wall may also be intact cribwork. Therefore, the eastern frontage of Lot 1 is considered sensitive for nineteenth century bulkhead deposits.
453, 999/ Lateral Canal	Adjacent to Projected site U	Potentially significant archaeological resources	Singled out by LPC in letter dated May 13, 2009
Streetbed between Blocks 438 & 445	Adjacent to projected site I	Potentially significant archaeological resources	Singled out by LPC in letter dated May 13, 2009

Conclusions regarding the potential for intact archaeological deposits within the 16 LPC-selected sites were based on the historic cartographic and background research that is currently available and on previous archaeological studies regarding the development and condition of the Gowanus Canal. As previously noted, soil boring data could not be obtained for the potential residential and industrial lots within the archaeological APE, e.g., Blocks 405 and 453. Additionally, a previous underwater survey and inventory of the Gowanus Canal bulkhead was not available during the preparation of the DEIS. If such data becomes available, these studies should be reviewed and the conclusions regarding the sensitivity of each lot for historic period archaeological deposits should be reevaluated.

## 6.2 Historic Architecture

A total of 39 historic properties were identified in the architectural APE that had prior NYSOPRHP determinations of eligibility and/or were designated or eligible as a New York City Landmark, had been previously evaluated and determined not eligible for State, National Register, or LPC listing, or were evaluated as part of this report. Of these 39 historic properties, 16 historic properties were listed or eligible for listing on the State and National Registers and/or designated or eligible as a New York City Landmark and five (5) properties within the APE were previously evaluated by the NYSOPRHP and the New York City Landmarks Preservation Commission and determined not eligible and/or non-contributing resources to the National Register-eligible Gowanus Canal Historic District. In addition, a total of 18 historic properties within the architectural APE were identified by this survey that appeared to be 50 years in age or greater (30 years in age or greater for New York City Landmarks) and that had a potential to meet the eligibility criteria for inclusion in the State and National Registers of Historic Places. Of the 18 historic properties evaluated by this survey, 12 historic properties appear to meet the eligibility criteria and have been recommended State and National Register eligible in this report. Therefore, within the historic architectural APE for the proposed Gowanus Canal Corridor rezoning project, there are 28 historic properties that are listed and/or eligible for listing as NYC Landmarks and/or the State/National registers (Table 28).

**Table 28: Historic Architectural Resources within the Gowanus Rezoning Project**

Map No.	Property	Block/Lot	Recommendation/Eligibility
1	Gowanus Canal Historic District: Waterway and Bulkheads Butler Street to Percival Street	n/a	S/NR Eligible
2	Burn Brothers Coal Pockets near 4 <sup>th</sup> Street Basin & 2 <sup>nd</sup> Avenue	979/23	S/NR Eligible†
3	Third Avenue Bridge over Gowanus Canal	n/a	S/NR Eligible†
4	American Can Company (Somers Brothers Decorated Tinware) 361 Third Avenue	980/8	S/NR Eligible†
5	Brooklyn Improvement Company Office (Former New York and Long Island Coignet Stone Company) 360 Third Avenue	978/7	S/NR Eligible† NYCL
6	Brooklyn Rapid Transit Power House 322 Third Avenue	967/1	S/NR Eligible† NYCL eligible
7	Carroll Street Bridge (BIN 2-24026-0) and Operators House	n/a	NR Eligible† NYCL
8	Our Lady of Peace Roman Catholic Church 512 Carroll Street	455/1	S/NR Eligible
9	Public Bath No. 7 (Brooklyn Lyceum) 227-231 Fourth Avenue	955/1	S/NR Listed NYCL
10	Pumping Station, Flushing Tunnel, and Gatehouse Douglass Street	411/14	S/NR Eligible†
11	American Society for the Prevention of Cruelty to Animals 233 Butler Street	405/51	S/NR Eligible
12	R.G. Dun & Company 206 Nevins Street	405/27	S/NR Eligible† NYCL eligible
13	Wyckoff Street Row Houses (potential Boerum Hill Historic District Expansion) South side Bond to Nevins Streets 196-258 Wyckoff Street (even numbers)	Block 393	S/NR Eligible NYCL Eligible
14	Saint Agnes Church Complex Hoyt, Degraw and Sackett Streets	423/1 416/17 416/68	S/NR Eligible NYCL Eligible



Map No.	Property	Block/Lot	Recommendation/Eligibility
15	Second Street Row Houses 59-97 Second Street (odd numbers)	457/ 48-67	S/NR Eligible
16	Ice House/Brewing Company 409-431 Bond Street; 124-146 3rd Street	466/ 46, 60, 1	S/NR Eligible†
17	PS 133 – William A. Butler School 375 Butler Street	940/65	S/NR Eligible
18	Tenements & Store 143-149 Fourth Avenue	943/ 1-4	S/NR Eligible
19	Douglass Street Row Houses North Side 355-365 Douglass Street	943/ 70-75	S/NR Eligible
20	Douglass Street Row Houses South Side 348A-410 Douglass Street	946/ 12-44	S/NR Eligible
21	Degraw Street Houses (1) North Side 645-697 Degraw Street	946/ 56-84	S/NR Eligible
22	Degraw Street Row Houses (2) South Side 664-716 Degraw Street	949/ 13-42	S/NR Eligible
23	President Street Houses (1) North Side 601-635 President Street	955/ 56-74	S/NR Eligible
24	President Street Flats (2) South Side 616-625 President Street	958/ 22-35	S/NR Eligible
25	Hildebrand Baking Company 530-550 President Street 495-507 Carroll Street	448/13	S/NR Eligible
26	Eureka Garage 638-644 Degraw Street 637-641 Sackett Street	427/31	S/NR Eligible
28	National Packing Box Company 533 Union Street	432/1	S/NR Eligible†
32	Warren Street Houses (1) South Side 474-500 Warren Street	399	S/NR Eligible

† Eligible as a contributing resource to the National Register-eligible Gowanus Canal Historic District

It is anticipated that all or most of the projected development sites and some of the potential development sites would be redeveloped and, as a result, be the location of future development. Development on the projected and potential development sites under the proposed action could have potential adverse impacts on historic properties from direct physical impacts—demolition and alteration of architectural resources, or accidental damage to architectural resources from adjacent construction—and indirect impacts to architectural resources by blocking significant public views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to a resource's setting; or introducing shadows over an architectural resource with sun-sensitive features.

#### *Potential Impacts*

Of the historic architectural properties within the architectural APE, 17 buildings, districts, or structures are located on or in close enough proximity to the proposed actions' development sites to potentially lead to direct and/or indirect significant adverse impacts due to the proposed actions. These properties are:

- (#1) The Gowanus Canal Historic District (S/NR eligible; † indicates a contributing resource to the district)
- (#4) American Can Company (S/NR eligible†)
- (#5) Brooklyn Improvement Company Office (S/NR eligible†, NYCL)
- (#6) Brooklyn Rapid Transit Power House (S/NR eligible†, NYCL eligible)
- (#7) Carroll Street Bridge (S/NR eligible†, NYCL)
- (#8) Our Lady of Peace Roman Catholic Church (S/NR eligible)
- (#9) Public Bath No. 7 (S/NR Listed, NYCL)
- (#10) Pumping Station, Flushing Tunnel, and Gatehouse (S/NR eligible†)
- (#11) American Society for the Prevention of Cruelty to Animals (S/NR eligible)
- (#16) Ice House/Brewing Company (S/NR eligible†)
- (#18) Tenements & Store (S/NR eligible)
- (#19) Douglass Street Row Houses, North Side (S/NR eligible)
- (#21) Degraw Street Houses (1), North Side (S/NR eligible)
- (#22) Degraw Street Houses (2), South Side (S/NR eligible)
- (#25) Hildebrand Baking Company (S/NR eligible)
- (#26) Eureka Garage (S/NR eligible)
- (#27) National Packing Box Company (S/NR eligible†)

Two historic architectural properties, the S/NR-eligible† and NYCL eligible Brooklyn Rapid Transit Power House (#6) and the Hildebrand Baking Company (#25) at 530-550 President Street/495-507 Carroll Street, recommended S/NR-eligible, are located on a projected development lot. The Brooklyn Rapid Transit Power House is located on a site expected to be zoned M1-4/R6 (MX 3.6). M1-4/R6 (MX 3.6) is a mixed used district that allows for maximum height of 125 feet on limited portions of the site (after setbacks and subject to floorplate limitations), which could be built on this or adjacent sites. The Hildebrand Baking Company is located on a site expected to be zoned mixed use district M1-4/R6B under the proposed action. The M1-4/R6B zoning would allow for a maximum height of 50 feet, which could be constructed on this site or adjacent sites. Both properties may also be demolished or substantially altered as part of the projected development. As a result, the proposed action could result in a direct significant adverse impact to the Brooklyn Rapid Transit Power House and the Hildebrand Baking Company. As discussed below, the Brooklyn Rapid Transit Power House is also a contributing resource to the Gowanus Canal Historic District, and therefore, direct and indirect adverse impacts to this building would also adversely impact the S/NR eligible historic district.

The Gowanus Canal Historic District (#1) extends through the proposed rezoning area and is adjacent to several projected and potential sites on both sides in the rezoning area. The adjacent proposed actions include M1-4/R6 (MX 3.3), M1-4/R6 (MX 3.6), and M1-4/R6B. In addition, the proposed actions on sites with M1-4/R7A and M1-4/R6B zoning are within the viewshed of the canal on Sackett, Union, President, Carroll, 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Streets. Heights vary from a 50-foot maximum to a possible 125-foot maximum with the potential to greatly change the character associated with the historic district, as well as adversely impact contributing resources to the Gowanus Canal Historic District. The canal itself would not be directly impacted, however, contributing buildings in the historic district, namely the Brooklyn Rapid Transit Power House, which is located on a projected site and could be altered or demolished as a result of the proposed actions, could be directly impacted and therefore result in a direct adverse impact to the Gowanus Canal Historic District. Changes in the use, scale, overall character of the Gowanus Canal Historic District through the loss of associated historic fabric and the industrial buildings that contribute to the overall character of the district could result in adverse impacts. Likewise, the visual component of the Gowanus Canal Historic District and vistas from the crossings and nearby streets may be impacted by the proposed rezoning and could result in a significant alteration in the historic district's associated landscape, thereby creating an adverse impact.

The American Can Company (#4) and the Brooklyn Improvement Company Office (#5), located at the southeast and southwest corners of 3<sup>rd</sup> Street and Third Avenue, respectively, would not be directly impacted by the proposed rezoning actions. Both properties are also contributing resources to the Gowanus Canal Historic District. The rezoning action of Block 972, located on the north side of 3<sup>rd</sup> Street, proposes change to a M1-4/R6 (MX 3.6) zoned district. Under the M1-4/R6 (MX 3.6) zoning, possible construction could be a maximum of 125 feet in height, which could result in adverse indirect visual impacts to the both the S/NR eligible† American Can Company complex, the S/NR eligible†, NYCL Brooklyn Improvement Company Office, as well as the Gowanus Canal Historic District.

The NYCL and S/NR eligible† Carroll Street Bridge (#7) crosses the historic Gowanus Canal within the proposed rezoning area. The bridge is both a historic structure and a contributing resource to the Gowanus Canal Historic District. Under the proposed actions, the blocks surrounding the bridge would be rezoned to M1-4/R6 (MX 3.3) and M1-4/R6 (MX 3.6). North of the bridge proposed and projected development sites could be developed to a maximum streetwall height of 65 feet and maximum height of 85 feet after setback. South of the bridge, on larger parcels, the proposed zoning would allow a possible maximum height of 125 feet on limited portions of the site after setback and with provisions for waterfront public access. Most of the lots nearest the bridge and canal at Carroll Street consist of low, one- and two-story buildings undeveloped lots, and parking; however a three-story building with parking adjacent to the canal occupies one site. These lots nearest the Carroll Street Bridge could be redeveloped under the proposed actions to maximum heights of 85 to 125 feet, approximately 6 to 9 stories in height, or two to three times the height of the existing buildings. Open areas adjacent to the bridge could also be reduced or developed. The Carroll Street Bridge will not incur direct physical impacts as a result of the proposed rezoning actions. Given the special zoning provision for public access (i.e. open space) along the canal, the project will not result in adverse impacts to the bridge.

The Our Lady of Peace Roman Catholic Church (#8), bounded by Carroll Street, Whitwell Place, 1st Street, and Denton Place. Potential and projected sites are located east and west of the Our Lady of Peace complex, along the opposite side of Whitwell Place and Denton Place; both are narrow mid-block streets. Potential and projected sites are also located directly opposite the church, school, and rectory at the north side of Carroll Street. The development sites west and north of the church property are expected to be zoned mixed use district M1-4/R6B with maximum building height of 50 feet after setback. East of the church, between Denton Place and Fourth Avenue, development sites are expected to be zoned mixed used district M1-4/R6B/R8A/C2-4. (There are three proximate projected development sites — W, X and Y — where portions of each site are located in two proposed districts, M1-4/R6B and R8A/C2-4.) The M1-4/R6B/R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet, i.e. approximately 8 to 12 stories, which could be constructed on these projected development sites. The historic property would not be physically impacted by the proposed action. The potential significant increase in height and density of nearby sites, especially in the M1-4/R6B/R8A/C2-4 zoning district, could result in potential indirect adverse impacts to the S/NR eligible Our Lady of Peace Church complex.

Public Bath No. 7 (#9) is a S/NR listed and NYCL historic property at 227-231 Fourth Avenue. Located at the corner of President Street and Fourth Avenue, this historic sited across the avenue from potential development sites 24 and 25. The potential development sites are expected to be zoned R8A/C2-4 under the proposed action. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on these potential development sites. Fourth Avenue is a wide boulevard, and as such, the proposed action would not result in significant adverse direct or indirect impacts to the landmarked Public Bath No. 7.

The S/NR eligible† Pumping Station, Flushing Tunnel, and Gatehouse (#10) are contributing resources to the S/NR eligible Gowanus Canal Historic District. Located between Douglass and Butler Streets at the head of the canal, the historic Pumping Station and Gatehouse are directly adjacent to two potential development sites, which are expected to be rezoned under the proposed action. The M1-4/R6B zoning would allow for a maximum height of 50 feet after setback, which could be constructed on the adjacent sites. The proposed action would not result in direct impacts to the historic buildings, but are close enough for potential construction impacts. The proposed action would encourage development within reasonable density and height thresholds, and therefore would not result in adverse indirect, visual impacts. Likewise, the Society for the Prevention of Cruelty to Animals building is located at the north side of Butler Street and close enough for potential visual impacts; however, the proposed M1-4/R6B mixed use district would not result in physical or indirect impacts to the S/NR eligible Society for the Prevention of Cruelty to Animals building at 233 Butler Street.

Located south of the proposed action, bounded by Bond Street, 3<sup>rd</sup> Street, and the Gowanus Canal, the Ice House/Brewery Company buildings (#16) are near potential development site 36 at the north side of 3<sup>rd</sup> Street. Under the proposed action the site is expected to be zoned district M1-4/R6 (MX 3.6). Although the M1-4/R6 (MX 3.6) district would allow for greater density and maximum building height, the proposed action would not result in direct impacts nor would it result in adverse indirect impacts.



The Tenements and Store (#18) at 143-149 Fourth Avenue are located at the corner of Douglass Street and the Avenue. Potential development site 8 is diagonally across Fourth Avenue from the Tenements and Store buildings. The development site is expected to be zoned mixed use district R8A/C2-4. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on this potential development site. The row buildings are recommended-eligible and would have direct views of any construction at the site, but would not result in significant adverse indirect visual impacts. The Tenements and Store row would not incur direct, physical impacts as a result of the proposed actions.

The Douglass Street Row Houses (#19), located on the north side of the street east of Fourth Avenue, are recommended eligible in this study. The Douglass Street houses are in view of development site 8, which is expected to be zoned mixed use district R8A/C2-4. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on this potential development site. The proposed action would not result in direct impacts to the Douglass Street Houses, nor would it cause significant indirect, visual impacts to these resources.

The residential properties on the north and south side of Degraw Street (#21 & #22), recommended eligible in this study, would have direct view of development sites 8 and 9 on Fourth Avenue. These development sites are expected to be zoned mixed use district R8A/C2-4. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on this potential development site. As with the Douglass Street Row Houses, the rows on Degraw Street would have direct views of any construction at these sites, but would not result in significant adverse indirect visual impacts. The Degraw Street Houses would not incur direct, physical impacts as a result of the proposed actions.

The Eureka Garage (#26), recommended S/NR eligible in this report, is adjacent to and/or near several development sites at the west side of Fourth Avenue and on Sackett Street. The development sites on Fourth Avenue (projected development site E and potential development site 9) are expected to be zoned mixed use district R8A/C2-4. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on the adjacent/proximate development sites. Development sites on Sackett Street are expected to be zoned M1-/4/R7A and M1-/4/R6B. The M1-/4/R7A zoning district would allow for a 40-foot minimum and 65-foot maximum streetwall height and an 80-foot maximum building height with setback. The M1-/4/R6B zone would allow streetwall heights of 30 to 40 feet with a maximum building height of 50 feet. Under the proposed actions, development sites on Sackett Street would not result in direct or indirect impacts to the Eureka Garage, as these sites are not directly adjacent to the garage and could be developed in a scale that, while substantially taller than the garage building, is in keeping with the current scale and character of the area. However, under the proposed actions the development and/or alteration of the adjacent buildings/sites along Fourth Avenue could result in direct physical impacts to the Eureka Garage due to their close proximity, and could also result in significant indirect adverse impacts due to the in scale, height, and massing permissible in the R8A/C2-4 district.

The Eureka Garage (#26), recommended S/NR eligible in this report, is adjacent to and/or near several development sites at the west side of Fourth Avenue and on Sackett Street. The development sites on Fourth Avenue (projected development site E and potential development site 9) are expected to be zoned mixed use district R8A/C2-4. The R8A/C2-4 zoning would allow for a maximum base height of 80 feet with a maximum height after setback of 120 feet (i.e., approximately 8 to 12 stories), which could be constructed on adjacent/proximate development sites. Development sites on Sackett Street are expected to be zoned M1-/4/R7A and M1-/4/R6B. The M1-/4/R7A zoning district would allow for a 40-foot minimum and 65-foot maximum streetwall height and an 80-foot maximum with setback. The M1-/4/R6B zone would allow streetwall heights of 30 to 40 feet with a maximum buildings height of 50 feet. Under the proposed actions, development sites on Sackett Street would not result in direct or indirect impacts to the Eureka Garage, as these sites are not directly adjacent to the garage and could be developed in a scale that, while substantially taller than the garage building, is in keeping with the current scale and character of the area. However, under the proposed actions the development and/or alteration of the adjacent buildings/sites along Fourth Avenue could result in direct physical impacts Eureka Garage due to their close proximity, and would also result in significant indirect adverse impacts due to the in scale, height, and massing permissible within the R8A/C2-4 district.

The National Packing Box Company (#27), at the corner of Nevins and Union Street, is recommended S/NR eligible as a contributing resource to the Gowanus Canal Historic District. This building is in close proximity to and directly across the street or canal from potential development sites 11 and 19, and projected development sites D, J, and K. These development sites are expected to be zoned mixed use districts M1-4/R6B, M1-4/R7A, and M1-4/R6 (MX 3.3). The M1-4/R6B zoning would allow for a maximum height of 50 feet; the M1-4/R7A zoning district would allow for a 40-foot minimum and 65-foot maximum streetwall height and an 80-foot maximum building height with setback; and the M1-4/R6 (MX 3.3) district along the canal would allow maximum streetwall height of 65 feet with a maximum height of 85 feet after setback. Development permitted under the proposed zoning districts would not result in scale and massing substantially different from the existing 4-story, approximately 45-foot tall National Packing Box Company. Thus the proposed actions would not result in significant adverse indirect impacts. As the nearby development sites are not directly adjacent to the National Packing Box Company building and are separated by a street or the canal, the proposed actions would not result in physical impacts to the historic property.

As noted, seven of the historic architectural resources discussed above are eligible or recommended for listing on the S/NR and could incur significant adverse impacts as the result of the proposed actions. In addition to S/NR eligibility, the Brooklyn Improvement Company Office is a New York City Landmark. Architectural resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection under Section 106 of the National Historic Preservation Act from the effects of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the Registers are similarly protected against effects resulting from projects sponsored, assisted, or approved by state agencies under the State Historic Preservation Act. However, private owners of properties that are eligible for, or even listed on the Registers using private funds can alter or demolish their properties without such a review process. Privately owned properties that are NYCLs, in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded. Publicly owned resources are also subject to review by the LPC before the start of a project; however, the LPC's role in projects sponsored by other City or State agencies is generally advisory only.

The New York City Building Code provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic structures.

Although there are some possible protective measures for historic architectural resources, specifically the *New York City Department of Buildings Technical Policy and Procedure Notice (TPPN) #10/88 (Procedures for the Avoidance of Damage to Historic Structures)*, only NYCL designation would afford architectural resources located on privately owned properties any appreciable protection. The two properties at greatest risk for direct, physical impacts through alteration and/or demolition are not NYCL-designated or eligible properties and would not be afforded protection under the New York City Landmarks Law. Therefore, as a result of implementation of the proposed actions, development on projected development sites S and U would result in unavoidable adverse impacts to historic architectural resources, including possible demolition of the historic properties. Potential development sites 8 and 9 and projected development sites W, X, and Y could result in significant, indirect impacts to historic properties.

The remaining historic properties identified in this report are located outside of the proposed rezoning and redevelopment area and/or are not within close enough proximity to potential or projected development sites and therefore, would not be impacted by the proposed action.

**7.0 REFERENCES CITED**

AKRF

2008 *Draft Environmental Impact Statement: 363-365 Bond Street*. Report prepared for Toll Brothers, Inc.

Armbruster, Eugene

1942 *Brooklyn's Eastern District*. Brooklyn, New York.

Assessed Valuation of Real Estate for Brooklyn

1866 On microfilm at the New York City Municipal Archives.  
-1888

Bang, Mrs. Bleeker

1912 *Reminiscences of Old New Utrecht and Gowanus*.

Beers, J.B. &amp; Co.

1874 *Farm Line Map of the City of Brooklyn*. Section 4.

Bolton, Reginald Pelham

1922 *Indian Paths in the Great Metropolis*. Museum of the American Indian, Heye Foundation, New York.1934 *Indian Life of Long Ago in the City of New York*. Brasser, T.J. Joseph Graham (Bolton Books), 17 Vandewater Street, New York.

Boyd's

1873 *Brooklyn Business Directory*. Accessed online at <<http://www.brklyn-genealogy-info.com/Directory/1873/index.html>>.

Brasser, T.J.

1978 Mahican. In *Northeast*, edited by Bruce G. Trigger, pp. 198-212. Handbook of North American Indians, vol. 15, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bromley, George W. and E. Robinson

1880 *Atlas of the Entire City of Brooklyn*. G.W. Bromley & Co., New York.

Bromley, G.

1907 *Atlas of the Borough of Brooklyn, City of New York: From Actual Surveys and Official Plans by George W. and Walter S. Bromley*.

Brooklyn, City of

various *Minutes of the Brooklyn Common Council*. On file at the City Hall Public Library, Municipal Building, New York, NY.

(The) Brooklyn Daily Eagle (Brooklyn Eagle)

1846 The Battle of Long Island. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. August 27.1847 Sewerage in Brooklyn. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. September 27.1849 Gowanus Meadows. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. February 16.1853a Brooklyn as a Place of Residence. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. March 17.1853b Opening of the Gowanus Canal and other Improvements. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. June 1.1854 James Cole, Auctioneer. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. December 2.1855 Classified advertisement. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. January 3.



- 1857 An Ordinance Directing the Filling up Lots of Ground. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. December 23.
- 1858 Proposals for Filling Lots. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. February 9.
- 1860 A Paper Factory Consumed. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. November 5.
- 1861 Classified advertisement. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. March 2.
- 1868a The Gowanus Canal Improvement. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. February 17.
- 1868b The Gowanus Canal Waterfront. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. June 5.
- 1868c Our Water Front. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. November 11.
- 1869a South Brooklyn Improvements. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. January 29.
- 1869b Third Avenue Canal. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. August 5.
- 1870 Paper-Making in Brooklyn. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. December 23.
- 1877 Very Vile. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. September 3.
- 1885 More Houses in the Ninth, Tenth and Twenty-second Wards. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. November 21.
- 1886 Falling Off In Local Building Operations During April. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. April 27.
- 1889 Flats and Other Houses, New Homes for the People of Brooklyn. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. March 29.
- 1889 To Close It Up. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. September 16.
- 1890 Rival Plans. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. January 29.
- 1891 The Banks of the Canal. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. September 13.
- 1895 Gowanus Canal Odors. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. December 17.
- 1901 Firemen Half Hour Late at St. Agnes' Church. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. July 3.
- 1901 Must be an Architect. Brooklyn Public Library Brooklyn Daily Eagle Online, accessed at <<http://www.brooklynpubliclibrary.org/eagle>>. December 18.
- 1928 Tugboat pulling barge on Gowanus Canal. Accessed online at <<http://catalog.brooklynpubliclibrary.org/search/?XGowanus&m=k&SORT=R/XGowanus&m=k&SORT=R&SUBKEY=Gowanus/1%2C73%2C73%2CB/frameset&FF=XGowanus&m=k&SORT=R&5%2C5%2C>>.
- 1940 *Gowanus Canal -- Storied in 'songs' about Brooklyn and a busy waterway.* Accessed online at <<http://catalog.brooklynpubliclibrary.org/search/?XGowanus&m=k&SORT=R/XGowanus&m=k&SORT=R&SUBKEY=Gowanus/1%2C73%2C73%2CB/frameset&FF=XGowanus&m=k&SORT=R&8%2C8%2C>>.

Brooklyn Directory, New York Directories 1888-1890. The Generations Network, Inc., Provo, Utah. Online database accessed at Ancestry.com on February 11, 2009.

Brooklyn Historical Society

2000 *Red Hook Gowanus Neighborhood History Guide.* Brooklyn, NY.

Brooklyn Public Library, Brooklyn Collection

1910s *Tugboat and barges docked on Gowanus Canal.*

1912 *Carroll Street Bridge-- after planting.*

Brown, Adam (Marine Consulting)

2000 *Gowanus Canal Bulkhead Inventory Survey.* Report prepared for the Gowanus Canal Community Development Corporation.

Butt, Richard

1846 *Map of the City of Brooklyn and Village of Williamsburg.*

(The) Catholic Editing Company

1914 *The Catholic Church in the United States of America. Volume III. The Catholic Editing Company, New York.*

City of New York, Borough of Brooklyn, Department of Finance, City Register (City Register)  
Deeds as cited throughout the text.

Columbia University GSAPP

2008 *Gowanus Canal Corridor. Historic Preservation, Studio II: Planning, Columbia University, New York.*

Colton, J.H.

1849 *Map of the City of Brooklyn as Laid Out by the Commissioners and Confirmed by Act of the Legislature of the State of New York.* J.H. Colton, New York.

Davis, Zachary

2008 Information Request. Report to Gina Santucci, Landmarks Preservation Commission, October 14.

Diamondstein, Barbaralee

1998 *The Landmarks of New York III.* Harry N. Abrams, New York.

(DOB) See New York City Department of Buildings

Dolkart, Andrew S. and Matthew A. Postal

2009 *Guide to New York City Landmarks.* New York City Landmarks Preservation Commission. Fourth Ed. John Wiley & Sons, New York.

Douglass, D.

1870 *Plan No. 2 of Maj. Douglas's [sic] Report on the drainage of a part of the City of Brooklyn.* Copy of lithograph on file at the New York Public Library, New York.

Dripps, M.

1869 *Map of City of Brooklyn as Consolidated January 1<sup>st</sup>, 1855.* M. Dripps, New York.

Eastern Roads

2009 *Gowanus Expressway: Historic Overview.* Accessed online at  
<<http://www.nycroads.com/roads/gowanus/>>.

Edwards, R., and A. Merrill

1977 A Reconstruction of the Continental Shelf Areas of Eastern North America for the Times 9,500 BP and 12,500 BP. *Archaeology of Eastern North America* 5:1-42.

Eisenberg, L.

1978 *Paleo-Indian Settlement Patterns in the Hudson and Delaware River Drainages.* Occasional Publications in Northeastern Anthropology 4. Franklin Pierce College, Rindge, New Hampshire.

Feipel, Louis N.

1954 *Brooklyn, U.S.A., A Noble Heritage.*

Ferradino & Associates, Inc.

- 2006 *Gowanus Canal Comprehensive Community Plan*. Report prepared for Gowanus Canal Community Development Corporation (CDC).

Field, T.W.

- 1869 *Plan of the Positions and Movements of the British and American Army on the 26<sup>th</sup> and 27<sup>th</sup> of August 1776 on Long Island with projections of the modern streets*.

Francis, Dennis Steadman

- 1979 *Architects in Practice New York City 1840-1900*. Prepared for the Committee for the Preservation of Architectural Records.

Funk, Robert

- 1977 Early Cultures in the Hudson Drainage Basin. In *Amerinds and Their Paleoenvironments in the Northeast*, edited by W. Newman and B. Salwen. *Annals of the New York Academy of Sciences* 288:316-332.

Furman, Gabriel

- 1865 *Notes Geographical and Historical Relating to the Town of Brooklyn, on Long Island*. E.B. Spooner & Sons, Brooklyn.

Gallagher, John J.

- 1995 *The Battle of Brooklyn, 1776*. Sarpedon, New York.

Geismar, Joan H.

- 1993 Where is Night Soil? Thoughts on an Urban Privy. *Historical Archaeology* 27(2): 57-70.

Gray, Christopher

- 1999 Streetscapes: Charles B.J.Snyder; Architect Who Taught a Lesson in School Design. *New York Times*. November 21.

Greenhouse Consultants, Incorporated (Greenhouse)

- 2007 *Phase IB Archaeological Testing Spader Residence at 188 Atlantic Avenue, Brooklyn, New York*. Report prepared for Two Trees Management Co., LLC, 45 Main Street, Brooklyn, NY 11201.

Grumet, R.S.

- 1981 *Native American Place Names in New York City*. Museum of the City of New York.

Historical Perspectives, Inc. (HPI)

- 2006 *Stage IA Archaeological Documentary Study, Atlantic Yards Arena and Redevelopment Project, Brooklyn, New York*. Report prepared for AKRF, Inc., 440 Park Avenue South, 7<sup>th</sup> Floor, New York, NY 10016.

Hopkins, G.M.

- 1880 *Detailed Estate and Farm Line Atlas of the City of Brooklyn, New York, Volume 6, Plates Q & R*. Philadelphia.

Howard, H. (ed.)

- 1893 *The Eagle and Brooklyn. The Record of the Brooklyn Daily Eagle Together with History of the City of Brooklyn*. 2 Vols. Brooklyn Daily Eagle, Brooklyn.

Hunter Research, Inc. (Hunter)

- 2004 *Final Report National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal, Borough of Brooklyn, Kings County, New York In Connection with the Proposed Ecosystem Restoration Study*. Report prepared for U.S. Army Corps of Engineers, New York District, 26 Federal Plaza, New York, NY 10278-0090.

Hyde, E. Belcher

- 1898 *Atlas of the Brooklyn Borough of the City of New York, Originally Kings County*. Brooklyn.



- 1929 *Desk Atlas, Borough of Brooklyn, City of New York*. E. Belcher Hyde, New York.
- Jackson, Kenneth T.  
1995 *The Encyclopedia of the City of New York*. Yale University Press, Connecticut.
- Johnson, J.  
c1776 *Map of Brooklyn at the Time of the Revolutionary War*.
- Kopper, J. Steven and Frederick R. Black  
1978 *Cultural Resources Reconnaissance Gowanus Creek Channel, Brooklyn, New York*. Report prepared for the U.S. Army Corps of Engineers, New York District, NY.
- Lain's Brooklyn Directory  
1852- *Lain's Brooklyn Directory*.  
1890
- Lightfoot, Kent G., and James Moore  
1985 Interior Resources Exploitation: A Woodland Settlement Model for Long Island, New York. *Anthropology* 8:15-40.
- Lossing, B.J.  
1850 *Pictorial Field Book of the Revolution*. Harper & Brothers, New York, New York.
- Lott, Jeremiah  
1833 *Map of the Land, Meadow, and Mill Pond of John C. Freeke, Esquire*. Surveyed by Jeremiah Lott.
- McLean, Jo-Ann and Eugene J. Boesch  
2002 *Phase IA Archaeological Investigation of the Gowanus Facilities Upgrade Project Area, Block 411, Lots 14 and 53, Borough of Brooklyn, New York (Capital Project GOW PS-FP01, D&B No. 1887-A)*. Report prepared for Dvirka and Bartilucci Consulting Engineers, Woodbury, New York.
- Merlis, Brian  
2005 *Brooklyn's Williamsburg: City within a City*. Brooklyn Editions/Brooklyn pix.com, Lynbrook, NY.
- Newman, W.S.  
1977 Late Quaternary Paleoenvironmental Reconstruction: Some Contradictions from Northwestern Long Island, New York. In *Amerinds and Their Paleoenvironments in the Northeast*, edited by W. Newman and B. Salwen. *Annals of the New York Academy of Sciences* 288:545-570.
- New York City Department of Buildings (DOB)  
various. Building Information System (BIS) Online accessed at <<http://www.nyc.gov/html/dob/html/bis/bis.shtml>>.  
New York City Department of Buildings (DOB)  
various Building Files, Brooklyn Department of Buildings, On file at the Brooklyn Department of Buildings, 610 Joralemon Street, Borough Hall, Brooklyn, New York.
- New York City Department of Environmental Protection  
2008 Environmental Assessment Statement Gowanus Facilities Upgrade. December.
- New York City Department of Finance, Office of the City Register  
2009 ACRIS (Automated City Register Information System). Accessed online at <<http://a836-acris.nyc.gov/Scripts/Coverpage.dll/index>>.
- New York City Landmarks Preservation Commission (LPC)  
1973 Park Slope Historic District Designation Report. LP-0709. July 17.  
2003 Erasmus Hall High School, Brooklyn, Designation Report. List 348, LP-2130. June 24.

## New York City Soil Survey

2005 New York City Reconnaissance Soil Survey. Prepared for the United States Department of Agriculture, Natural Resources Conservation Service, Staten Island, NY, by the New York City Soil Survey Staff, New York.

## New York State Museum

n.d. Archaeological Site Files. New York State Museum, Albany.

## New York Times (NYT)

- 1856 New-York City. The Sanitary Conditions of the City. August 22.
- 1860 Destruction of a Paper Mill by Fire. November 5.
- 1880 Fierce Flames in Brooklyn, A Box Factory and Brass Finishing Establishment Destroyed. May 28.
- 1889a Obituary Note. September 4.
- 1889b Obituary Notes. December 29.
- 1893 Business Troubles. March 21.
- 1894 In the Real Estate Field, Brooklyn Realty Matters. May 8.
- 1896 Brooklyn. July 17.
- 1910 Bread Trust Formed. February 19.
- 1921 Big Bakers Reject the 5-cent Loaf. January 19.
- 1945 Building Plans Filed for Gowanus Houses. September 25.
- 1948 Gowanus Houses Begun in Brooklyn. January 6.
- 1948 New Housing Project Opened in Brooklyn. December 18.
- 1998 Brooklyn Fire May Lead to Revolutionary Graves. May 26.

## Office for Metropolitan History

Manhattan NB Database 1900-1986. Accessed online at <<http://www.MetroHistory.com>>.

## Ostrander, S.M.

1894 *A History of the City of Brooklyn and Kings County*. 2 Vols. Privately Printed, Brooklyn, N.Y.

## Parker, Arthur C.

1920 *The Archeological History of New York-Part II*. New York State Museum Bulletin 237-238, 471-473. Albany, New York.

## Perris, William

1855 *Map of the City of Brooklyn*.

## Pratt, Monica

2002 GIS Provides a New View on the Past. ArcUser Online, July-September 2002. Accessed at <<http://www.esri.com/news/arcuser/0702/histomap.html>>

## Ratzer, Bernard

1766-1767 *Plan of the City of New York, in North America*.

## Renard, Charles

1837 *From Brooklyn to Fort Hamilton and Gowanus Island*. United States Coast Survey.

## Richards, D.

1848 *Plan for the drainage of that part of the City of Brooklyn which empties its water into Gowanus Creek & Bay*. Willard Day, city surveyor. Photostat copy on file, New York Public Library.

## Ritchie, William A.

1980 *The Archaeology of New York State* (revised edition). Harbor Hill Books, Harrison, New York.

## Robinson, E., and R. H. Pidgeon

1886 *Robinson's Atlas of the City of Brooklyn*, New York. New York: E. Robinson.

## Sanborn Map Company

- 1886 *Insurance Maps of the City of New York*. Sanborn Map Company, New York  
1904 *Insurance Maps of the City of New York*. 1904, Revised 1908. Sanborn Map Company, New York  
1915 *Insurance Maps of the City of New York*. Sanborn Map Company, New York.  
1935 *Insurance Maps of the City of New York*. 1915, Revised 1935. Sanborn Map Company, New York.  
1939 *Insurance Maps of the City of New York*. Sanborn Map Company, New York.  
1950 *Insurance Maps of the City of New York*. Sanborn Map Company, New York.  
1951 *Insurance Maps of the City of New York*. 1915, Revised 1951. Sanborn Map Company, New York.  
1968 *Insurance Maps of the City of New York*. Sanborn Map Company, New York.  
2006 *Insurance Maps of the City of New York*. Sanborn Map Company, New York.

## Santucci, Gina

- 2008 Environmental Review. Letter dated November 13 to Zachary Davis, Louis Berger Group, Inc..  
2009 Environmental Review. Letter dated May 13, 2009 to New York City Department of City Planning for review of "Phase IA Cultural Resource Assessment for the Gowanus Canal Corridor Rezoning project, Gowanus, Brooklyn, New York," prepared by Louis Berger and dated March 2009.

## Saxon, W.

- 1973 The Paleo-Indian on Long Island. *New York State Archeological Association Bulletin* 57:1-11.

## Schubert, C.J.

- 1968 *Geology of New York City and Environs*. Natural History Press, Garden City, New York.

## Sewer Permitting Office, King County

- various Sewer Maps. Original maps on file at the Sewer Permitting Office of the Borough of Brooklyn, 250 Livingston Street, New York.

## Snow, Dean R.

- 1980 *The Archaeology of New England*. Academic Press, New York.

## Solecki, Ralph S.

- 1977 *Stage I Archaeological Survey, Nevins Street, Butler Street to President Street, Contract 3F Red Hook Water Pollution Control Project, Brooklyn, New York*. Report prepared for Mason and Hanger-Silas Mason Company, Inc.

## Sperr, Percy

- 1930 Photograph: South from Carroll Street. <<http://digitalgallery.nypl.org/nypldigital/index.cfm>>. Accessed February 19, 2009.

## Spooner, Alden

- 1822-1830 *Spooner's Brooklyn Directory*.

## Stiles, Henry B.

- 1867 *A History of the City of Brooklyn*. Volume 1. Brooklyn, New York.  
1869 *History of the City of Brooklyn, including the Old Town and Village of Brooklyn, the Town of Bushwick, and the Village and City of Williamsburgh*, three Volumes. Brooklyn, New York.  
1884 *The Civil, Professional, and Ecclesiastical History and Commercial and Industrial Record of the County of Kings and the City of Brooklyn, New York*. W.W. Munsell & Co., New York.

## Stottman, M. Jay

- 2000 Out of Sight, Out of Mind: Privy Architecture and Perception of Sanitation. *Historical Archaeology* 34(1): 39-61.

## Surrogate Court of Brooklyn

- 1845 Will of Nehemiah Denton, filed Jan. 22, 1845. Liber 9, page 107.



Sutphin, Amanda

2009 Environmental Review. Letter to Zachary Davis, Louis Berger Group, Inc., February 27.

United States [U.S.] Coast Survey

1844 *Map of New York Bay and Harbor and the Environs. Founded upon a Trigonometrical Survey under the Direction of F.R. Hassler Superintendent of the Survey of the Coast of the United States.* U.S. Coast Survey, Washington, D.C.

United States [U.S.] Department of Commerce

1790 Federal Census, Kings County.

1800 Federal Census, Kings County.

1810 Federal Census, Kings County.

1820 Federal Census, Kings County.

1830 Federal Census, Kings County.

1840 Federal Census, Kings County.

1850 Federal Census, Kings County.

1860 Federal Census, Kings County.

1870 Federal Census, Kings County.

1880 Federal Census, Kings County.

United States [U.S.] Department of the Interior

1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. *Federal Register*, Part IV, 48(2):44716-44742. Annotated version showing later technical and officially adopted revisions available from the National Park Service's preservation laws, regulations, and standards webpage at [http://www.cr.nps.gov/local-law/arch\\_stnds\\_0.htm](http://www.cr.nps.gov/local-law/arch_stnds_0.htm).

United States Geological Survey (USGS)

2003a *Atlantic Coastal Plain*. Accessed online 10/5/2007 at  
<<http://3dparks.wr.usgs.gov/nyc/coastalplain/coastalplain.htm>>.

2003b *Quaternary Geology of the New York City Region*. Accessed online 10/5/2007 at  
<<http://3dparks.wr.usgs.gov/nyc/coastalplain/coastalplain.htm>>.

URS Corporation (URS)

2007 *Phase 1B Archaeological Investigation for Atlantic Yards Arena and Redevelopment Project, Block 1119, Lot 1 and Block 1127, Lots 55 and 56, Brooklyn, Kings County, New York*. Report prepared for Forest City Ratner Corporation.

Van Pelt, Daniel

1898 *Leslie's History of the Greater New York, Volume III, Encyclopedia of New York Biography and Genealogy*. Arkell Publishing Company, New York.

Ward, James

1989 *Architects in Practice New York City 1900-1940*. Prepared for the Committee for the Preservation of Architectural Records. J&D Associates, Union, New Jersey.

White, Norval and Eliot Willensky.

2000 *AIA Guide to New York City*. 4<sup>th</sup> Edition. New York Chapter American Institute of Architects. Three Rivers Press, New York.

Withey, Henry F. and Elsie Rathburn Withey

1970 *Biographical Dictionary of Architects (Deceased)*. Hennessey & Ingalls, Inc., Los Angeles.

**APPENDIX A –  
CORRESPONDENCE WITH LANDMARKS PRESERVATION COMMISSION**

## ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/09DCP015K

4/27/2009

**Project number**

**Date received**

**Project: GOWANUS CANAL CORRIDOR REZONING**

The LPC is receipt of the, "Phase 1A Cultural Resource Assessment for the Gowanus Canal Corridor Rezoning Project, Gowanus, Brooklyn, New York," prepared by Louis Berger and dated March 2009.

Pertaining to archaeology, the LPC concurs that B 405, L 7, 8; B 417 L 21; B 424 L 1, 20; B 431 L 17; B 438 L 3, 7; B 439 L 1; B 445 L 11, 20; B 452 L 15; B 453 L 1, 21; B 462 L 14; and B 972, L 1 have the potential to contain potentially significant archaeological resources. In addition, we recommend that this study be amended to include "Lateral Canal" B 453 L 999 and the former end of President Street between B 438 and B 445 as these sites may have the potential to contain potentially significant archaeological resources.

Regarding architectural resources, LPC notes that the following items in Table 28, page 241, also appear LPC eligible: #6, Brooklyn Rapid Transit Power House, and #12, R.G. Dun and Company. The text of the Resource Assessment and the table should be amended to reflect these findings.

The final version of the Resource Assessment should be submitted to LPC in CD form for filing.

5/13/2009

SIGNATURE

DATE

A handwritten signature in black ink, reading "Gina Santucci". The signature is written in a cursive, flowing style.





## The New York City Landmarks Preservation Commission

1 Centre Street, 9th Floor North New York NY 10007 (212) 669-7700 Fax (212) 669-7818

<http://nyc.gov/landmarks>

[gsantucci@lpc.nyc.gov](mailto:gsantucci@lpc.nyc.gov)

**From: Gina Santucci, Director of Environmental Review**



To: Deborah Van Steen, Louis Berger, Inc.

Date: 9/5/08

Subject: Gowanus Rezoning, Brooklyn

NOTE: Please respond to items with "X" only as indicated below

**The above mentioned project(s) need additional information before they can be reviewed. In order to expedite your project, it is preferable to send electronic documents and images to [gsantucci@lpc.nyc.gov](mailto:gsantucci@lpc.nyc.gov). Adobe files are preferred. The maximum transmission per email accepted by our email system is 10MB.**

**All "Historic Resources" chapters of preliminary, draft, and final Environmental Impact Statements must be sent electronically *and* in hard copy in order to proceed with the review.**

( X ) see above

(X ) Site plans and description of existing and proposed conditions. **ONLY IF INGROUND CONSTRUCTION IS PROPOSED; IF NO INGROUND CONSTRUCTION IS PROPOSED A STATEMENT AS SUCH SHOULD BE PROVIDED FOR EACH BLOCK AND LOT**

(X ) 400' radius map measured from the edge of the site(s) on a **Sanborn Map** or equivalent. The subject site(s) should be clearly marked on the map. To get a map of your site use the following www addresses:

<http://gis.nyc.gov/doitt/mp/Portal.do>

<http://www.oasisnyc.net/OASISMap.htm>

( X ) Original photographs of building **façade** or streetscape for all projected and potential soft sites. All photographs to be keyed to a site map and/or the 400' radius map, and to be labeled with the address and block/lot.

(X ) Block and lot numbers. If Block and Lot numbers are not applicable, ie. project is only in a streetbed or sidewalk, use the nearest block and lot. To get to the block and lot numbers, use the use the following www addresses:

<http://gis.nyc.gov/doitt/mp/Portal.do>

<http://www.oasisnyc.net/OASISMap.htm>

( ) Scaled (1"=20") drawings of existing and proposed conditions in plan and section. **Send plans only if there is inground construction.**

( ) Site plan showing locations of soil borings and soil boring logs

(X) Other: **EAS and any supporting documentation.**

A timely response on the part of the applicant will ensure quick processing of the request. Due to the high volume of projects received by the Environmental Review staff, project analysis may take from 2 to 4 weeks. Please take this into account when deciding when to submit the ER request. Additionally, please note that your message is not a substitute for compliance with NEPA, SEQRA, and/or CEQR, or for

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**THE Louis Berger Group, Inc.**

199 Water Street, 23<sup>rd</sup> Floor, New York, New York 10038  
Tel (212) 612-7970 Fax (212) 363-4341 www.louisberger.com

October 14, 2008

Ms. Gina Santucci  
Director of Environmental Review  
NYC Landmarks Preservation Commission  
1 Centre Street, 9th Floor  
New York, NY 10007

**Re: Proposed Gowanus Canal Corridor Rezoning project**

Dear Ms. Santucci

The Louis Berger group, Inc. (Berger) has been retained by the NYC Department of City Planning (NYCDCP) to prepare the CEQR environmental review document for the proposed Gowanus Canal Corridor Rezoning project. The proposed project covers a portion of Brooklyn Community District 6, which in addition to Gowanus, includes the neighborhoods of Carroll Gardens/South Brooklyn, Cobble Hill, Columbia Street District, Park Slope and Red Hook. NYCDCP, which is serving as lead agency for environmental review, proposes zoning map and zoning text amendments for approximately 25 blocks in the Gowanus Canal corridor (see Figure 1).

The proposed zoning map amendments would rezone approximately 25 blocks of land currently zoned M1-2 and M2-1 to a Special Gowanus Mixed Use District containing M1-4/R6B, M1-4/R7A, and M1-4/R6 districts, and R8A/C2-4 along 4<sup>th</sup> Avenue. The rezoning proposal would include a zoning text amendment to establish a Special Gowanus Mixed Use District with special regulations for bulk, streetscape, and parking, and to make the Inclusionary Housing program applicable within portions of the rezoning area. Text amendments would also establish special floor area regulations for blocks adjacent to the Gowanus Canal, allowing up to 3.3 FAR on blocks north of Carroll Street and 3.6 FAR on blocks south of Carroll Street; apply the provisions of waterfront zoning, which do not currently apply in the rezoning area, to the blocks adjoining the Gowanus Canal north of Hamilton Avenue; and establish a Waterfront Access Plan (WAP) for blocks on the Canal within the proposed Special Gowanus Mixed Use District.

The proposed action would address the following land use goals:

- Allow a mix of uses, including residential, in certain areas currently zoned for manufacturing uses
- Maintain areas for continued industrial as well as commercial uses
- Encourage the redevelopment of the waterfront, including opportunities for public access at the Canal's edge
- Enliven the streetscape with pedestrian-friendly, active ground-floor uses
- Promote new housing production, including affordable housing through the City's Inclusionary Housing Program



*GOWANUS REZONING*

- Establish limits for height and density that consider neighborhood context as well as other shared goals

For purposes of providing an assessment of the reasonable worst-case impacts that may occur as a result of the proposed actions, NYCDP has defined a reasonable worst-case development scenario (RWCDS – see Tables 1 and 2). The RWCDS will provide a maximum development envelope in which the project can occur. The RWCDS contains both Projected and Potential Development sites. The sites more likely to experience redevelopment as a result of the Proposed Action were identified based primarily on size, location, and degree of utilization. These are designated as Projected Development Sites. Other sites with smaller footprints and less potential for redevelopment/conversion are identified as Potential Development Sites.

As with previous rezoning projects, Berger seeks LPC's review of the RWCDS to: 1.) identify specific lots that require archaeological documentary studies to ascertain if such lots possess the potential to contain archaeological resources within the Projected and Potential development sites and; 2.) identify historic architectural resources within the RWCDS plus a 400 foot radius from the boundaries of the rezoning (see Figure 2). Photographs of the lots comprising each Projected and potential development site are also included on the enclosed CD.

We look forward to your timely review of this project and thank you in advance for your assistance. If you have any questions regarding this request, please do not hesitate to contact Berger's Principal Archaeologist Zachary Davis at (212) 612-7970 or via email at [zdavis@louisberger.com](mailto:zdavis@louisberger.com).

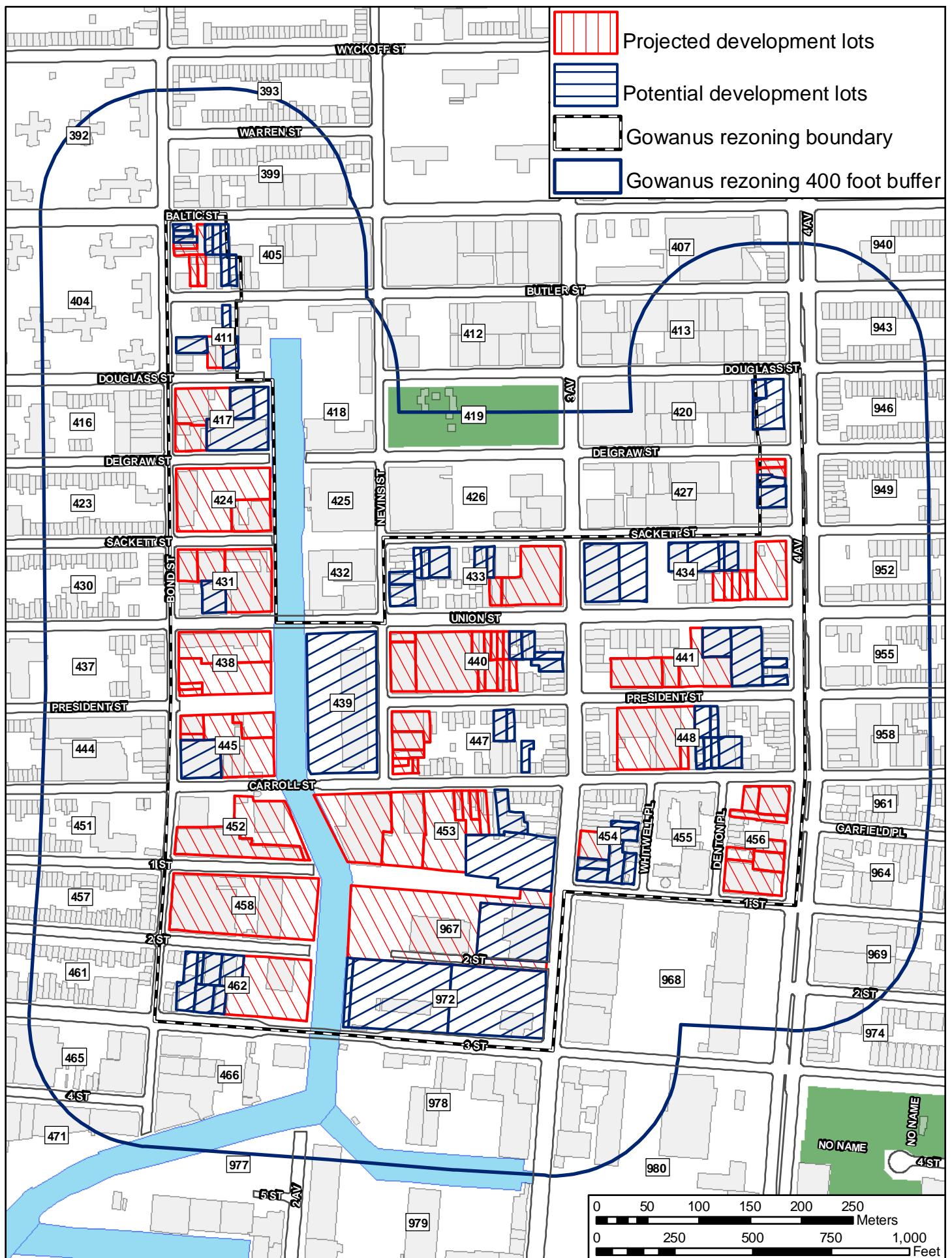
Sincerely,

THE LOUIS BERGER GROUP, INC.

Zachary J. Davis, RPA  
Principal Archaeologist

Cc: Glen Price, NYCDP  
Nicole Rodriguez, NYCDP  
XE 4257 (file)





**FIGURE 1 - Proposed Gowanus Canal Corridor Rezoning Area**



*GOWANUS REZONING - TABLE 1 - PROJECTED DEVELOPMENT SITES*

Site	Block	Lot	Address
<b>A</b>	405	7	215 Bond Street
	405	12	454 Baltic Street
	405	63	Butler Street
	405	64	Butler Street
<b>B</b>	411	60	191 Douglass Street
<b>C</b>	417	1	259 Bond Street
	417	10	261 Bond Street
<b>D</b>	424	1	267 Bond Street
	424	20	495 Sackett Street
	431	7	287 Bond Street
	431	12	498 Sackett Street
	431	17	510 Sackett Street
<b>E</b>	427	37	184 Fourth Avenue
	427	38	188 Fourth Avenue
<b>F</b>	433	28	586 Sackett Street
	433	46	577 Union Street
<b>G</b>	434	47	651 Union Street
	434	48	649 Union Street
	434	49	647 Union Street
	434	50	645 Union Street
	434	52	643 Union Street
<b>H</b>	434	35	204 Fourth Avenue
<b>I</b>	438	1	Bond Street
	438	2	Bond Street
	438	3	319 Bond Street
	445	0	Portion of President Street
	445	7	333 Bond Street
	445	8	327 Bond Street
	445	11	383 President Street
	445	20	426 President Street



**GOWANUS REZONING – TABLE I (CON'T) – PROJECTED DEVELOPMENT SITES**

Site	Block	Lot	Address
J	438	7	450 Union Street
K	440	1	469 President Street
	440	9	305 Nevins Street
	440	12	514 Union Street
L	440	21	532 Union Street
	440	23	536 Union Street
	440	24	538 Union Street
	440	25	540 Union Street
	440	26	542 Union Street
	440	47	499 President Street
	440	48	495 President Street
M	440	45	503 President Street
N	441	42	561 President Street
O	441	50	545 President Street
P	441	53	543 President Street
Q	447	3	337 Nevins Street
	447	4	335 Nevins Street
	447	7	325 Nevins Street
R	447	1	347 Nevins Street
	447	2	Nevins Street
	447	60	431 Carroll Street
S	448	13	530 President Street
	448	56	509 Carroll Street
T	452	1	363 Bond Street
	452	15	400 Carroll Street
	458	1	365 Bond Street





**GOWANUS REZONING – TABLE I (CON'T) – PROJECTED DEVELOPMENT SITES**

Site	Block	Lot	Address
U	453	1	420 Carroll Street
	453	21	430 Carroll Street
	453	31	454 Carroll Street
	453	32	456 Carroll Street
	453	33	458 Carroll Street
	453	26	444 Carroll Street
	453	30	452 Carroll Street
	967	0	Portion of 1st Street
	967	1	338 Gowanus Canal
W	456	1	27 Denton Place
X	456	32	284 Fourth Avenue
	456	34	290 Fourth Avenue
	456	6	21 Denton Place
Y	456	13	9 Denton Place
	456	17	538 Carroll Street
	456	23	272 Fourth Avenue
Z	462	14	155 Third Street



*GOWANUS REZONING - TABLE 2 - POTENTIAL DEVELOPMENT SITES*

Site	Block	Lot	Address
1	405	8	211 Bond Street
	405	9	209 Bond Street
	405	10	207 Bond Street
2	405	13	456 Baltic Street
	405	14	458 Baltic Street
	405	15	460 Baltic Street
3	405	59	211 Butler Street
	405	60	209 Butler Street
4	411	3	241 Bond Street
5	411	12	192 Butler Street
6	411	58	195 Douglass Street
7	417	14	198 Douglass Street
	417	21	479 De Graw Street
8	420	34	334 Douglass Street
	420	37	164 Fourth Avenue
9	427	40	190 Fourth Avenue
	427	42	194 Fourth Avenue
10	431	43	499 Union Street
11	433	1	301 Nevins Street
	433	5	295 Nevins Street
12	433	12	554 Sackett Street
	433	13	556 Sackett Street
13	433	14	558 Sackett Street
14	433	21	572 Sackett Street
	433	23	576 Sackett Street
15	434	1	231 Third Avenue
	434	12	Sackett Street
16	434	21	630 Sackett Street
17	434	24	638 Sackett Street



**GOWANUS REZONING – TABLE 2 (CON'T) – POTENTIAL DEVELOPMENT SITES**

Site	Block	Lot	Address
18	434	29	644 Sackett Street
	434	30	650 Sackett Street
19	439	1	300 Nevins Street
20	440	27	544 Union Street
	440	29	548 Union Street
21	440	35	Third Avenue
	440	36	264 Third Avenue
22	441	21	600 Union Street
23	441	24	608 Union Street
24	441	33	Fourth Avenue
25	441	35	240 Fourth Avenue
26	445	1	335 Bond Street
27	447	22	498 President Street
	447	24	502 President Street
28	447	43	465 Carroll Street
29	448	25	President Street
	448	27	564 President Street
30	448	47	525 Carroll Street
	448	52	519 Carroll Street
	448	53	78 Carroll Street
	448	54	515 Carroll Street
31	453	36	466 Carroll Street
32	453	54	312 Third Avenue
33	454	1	319 Third Avenue
	454	3	315 Third Avenue
34	454	24	18 Whitwell Place
	454	25	20 Whitwell Place
35	454	31	195 First Street
	454	33	189 First Street





**GOWANUS REZONING – TABLE 2 (CON'T) – POTENTIAL DEVELOPMENT SITES**

Site	Block	Lot	Address
36	462	6	132 Second Street
	462	8	134 Second Street
	462	42	137 Third Street
	462	44	135 Third Street
37	462	9	140 Second Street
38	462	12	142 Second Street
39	967	24	300 Third Avenue
40	972	1	78 Third Street
	972	43	201 Third Street
	972	58	225 Third Street

**THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION**  
1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

## ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/LA-CEQR-K

10/20/2008

**Project number**

**Date received**

**Project:**

GOWANUS CANAL CORRIDOR REZONING | DEPARTMENT OF CITY PLANNING

**Archaeology comments:**

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation for the following Borough, Block and Lot location(s) within the study area: 3004050007, 3004050008, 3004530001, 3004530021 and that there is potential for the recovery of remains from 19th Century construction of the Gowanus Canal bulkhead for the following Borough, Block and Lot location(s) within the study area:

3004170021  
3004240001  
3004240020  
3004310017  
3004380003  
3004380007  
3004390001  
3004450011  
3004450020  
3004520015  
3004530001  
3004620014  
3009720001

Accordingly, the Commission recommends that an archaeological documentary study be performed for these location(s) to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2001).

There are no further archeological concerns for the following Borough, Block and Lot location(s) within the study area:

3004050007  
3004050008  
3004050009  
3004050010  
3004050012  
3004050013  
3004050014  
3004050015  
3004050059  
3004050060  
3004050063  
3004050064  
3004110003  
3004110012  
3004110058  
3004110060  
3004170001  
3004170010  
3004170014  
3004200034  
3004200037  
3004270037  
3004270038

3004270040
3004270042
3004310007
3004310012
3004310043
3004330001
3004330005
3004330012
3004330013
3004330014
3004330021
3004330023
3004330028
3004330046
3004340001
3004340012
3004340021
3004340024
3004340029
3004340030
3004340035
3004340047
3004340048
3004340049
3004340050
3004340052
3004380001
3004380002
3004400001
3004400009
3004400012
3004400021
3004400023
3004400024
3004400025
3004400026
3004400027
3004400029
3004400035
3004400036
3004400045
3004400047
3004400048
3004410021
3004410024
3004410033
3004410035
3004410042
3004410050
3004410053
3004450001
3004450007
3004450008
3004470001
3004470002
3004470003
3004470004
3004470007
3004470022
3004470024
3004470043
3004470060
3004480013
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3004480027



3004480047
3004480052
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3004480056
3004520001
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3004530036
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3004540001
3004540003
3004540024
3004540025
3004540031
3004540033
3004560001
3004560006
3004560013
3004560017
3004560023
3004560032
3004560034
3004580001
3004620006
3004620008
3004620009
3004620012
3004620042
3004620044
3009670024
3009720001
3009720043
3009720058

**Architecture comments:**

**In the project area:**

Carroll St. Bridge, LPC and S/NR listed.

BRT Powerhouse, block 967/1, 332 Third Ave., appears LPC and S/NR eligible  
530 President St., 448/13. Date, architect, and original client are needed to  
complete the evaluation.

Our Lady of Peace R.C. Church, appears S/NR eligible, Carroll St. and Whitwell Pl.  
Gowanus Canal Historic District, S/NR eligible.

**In the study area:**

ASPCA, 233 Butler St., appears S/NR eligible

Pumping Station between Butler and Douglass Sts., appears S/NR eligible.

R.G. Dun and Co., NW corner of Butler and Nevins Sts., appears LPC and S/NR  
eligible.

St. Agnes Church Complex, four buildings at south side of Hoyt St. between Sackett,  
Degraw, and Bond Sts., appears LPC and S/NR eligible.

59-97 Second St., appears S/NR eligible.

Ice House/Brewery, 409-431 Bond St., appears S/NR eligible.

Brooklyn Improvement Company Office Building, 360 Third Ave., LPC designated and appears S/NR eligible.

American Can Company Building, SW corner of Third Ave. and Third St., appears S/NR eligible.

Carroll Gardens Historic District, in part, Hoyt between President and First Sts., LPC and S/NR listed.

11/14/2008

SIGNATURE

DATE

A handwritten signature in black ink that reads "Gina Santucci". The signature is written in a cursive, flowing style. The first name "Gina" is on the left, and the last name "Santucci" is on the right, connected by a fluid script. There is a small dot at the end of the signature.

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## ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/LA-CEQR-K

2/25/2009

**Project number**

**Date received**

**Project:** GOWANUS CANAL CORRIDOR REZONING (supplement)

Archaeology review only.

**Properties with no archaeological significance:**

BBL 3004540004

**The following properties possess archaeological significance:**

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century construction of the Gowanus Canal bulkhead for the following Borough, Block and Lot location within the study area: new development site "U". Accordingly, the Commission recommends that if this action may result in impacting this resource, that it be appropriately documented in consultation with LPC.



2/27/2009

SIGNATURE

DATE

25155\_FSO\_DNP\_02262009.doc



**APPENDIX B –**  
**LIST OF PROJECTED AND POTENTIAL DEVELOPMENT SITES**  
**INCLUDING CORRESPONDING BLOCK AND LOTS**

Site Description				Existing Conditions									No Action Conditions								With Action Conditions														INCREMENT							
	Block	Lot	Lot Area	Zoning District	Built FAR	Building Area (sf)	Indust./Auto/s storage (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Parking spaces	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Total parking spaces	Proposed Zoning	Proposed FAR	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Bldg (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Affordable Dwelling Units	Market Rate Dwelling Units	Total parking spaces	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Total parking spaces		
A	405	7	1500	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	3	0	3	2	0	0	0	0	0	0	0	3	2	
	405	12	4000	M1-2	1	3900	3900	0	0	0	0	0	0	3900	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	8	0	8	4	0	-3900	0	0	0	0	0	8	4	
	405	63	2500	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	3	0	0	0	0	0	0	5	-4		
	405	64	2500	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	3	0	0	0	0	0	0	5	-4		
Total A			10500			3900	3900	0	0	0	0	0	0	3900	0	0	0	0	0	12			0	0	0	0	0	0	21	0	21	11	0	-3900	0	0	0	0	0	21	-2	
B	411	60	5000	M1-2	1.03	5125	5125	0	0	0	0	0	0	5125	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	10	0	10	0	0	-5125	0	0	0	0	0	10	0	
Total B			5000			5125	5125	0	0	0	0	0	0	5125	0	0	0	0	0	0			0	0	0	0	0	0	10	0	10	0	0	-5125	0	0	0	0	0	10	0	
C	417	1	8578	M2-1	1.56	13386	13386	0	0	0	0	2	0	13386	0	0	0	0	0	2	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	0	0	28	6	23	11	0	-13386	0	0	0	0	0	28	9	
	417	10	18739	M2-1	1.22	22834	22384	0	0	0	0	2	0	22384	0	0	0	0	0	2	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	0	0	62	12	49	25	0	-22384	0	0	0	0	0	62	23	
Total C			27317			36220	35770	0	0	0	0	4	0	35770	0	0	0	0	0	4			0	0	0	0	0	0	90	18	72	36	0	-35770	0	0	0	0	0	90	32	
D	424	1	47500	M2-1	0.23	11100	11100	0	0	0	0	4	0	47500	0	0	0	0	0	0	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	11875	0	145	29	116	72	0	-47500	0	0	11875	0	145	72		
	424	20	12500	M2-1	0	0	0	0	0	0	0	0	0	12500	0	0	0	0	0	0	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	0	0	41	8	33	21	0	-12500	0	0	0	0	0	41	21	
	431	7	6200	M2-1	1	6200	6200	0	0	0	0	0	0	6200	0	0	0	0	0	0	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	0	0	20	4	16	10	0	-6200	0	0	0	0	0	20	10	
	431	12	8978	M2-1	1	8978	8978	0	0	0	0	0	0	8978	0	0	0	0	0	0	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	0	0	30	6	24	15	0	-8978	0	0	0	0	0	30	15	
	431	17	29800	M2-1	0.27	8150	8150	0	0	0	0	0	0	8150	0	0	0	0	0	0	M1-4/R6 (MX 3.3)	3.3	0	0	0	0	0	0	98	20	79	49	0	-8150	0	0	0	0	0	98	49	
Total D			104978			34428	34428	0	0	0	0	4	0	83328	0	0	0	0	0	0			0	0	0	0	11875	0	335	67	268	167	0	-83328	0	0	11875	0	335	167		
E	427	37	2430	M1-2	2.86	6939	0	0	0	0	0	0	0	0	0	6939	0	0	0	0	R8A/C2-4	7.2	0	0	0	0	2430	0	15	3	12	0	0	0	0	-6939	2430	0	15	0		
	427	38	2356	M1-2	1.15	2700	0	0	0	0	0	0	0	0	0	2700	0	0	0	0	R8A/C2-4	7.2	0	0	0	0	2356	0	15	3	12	0	0	0	0	-2700	2356	0	15	0		
Total E			4786			9639	0	0	0	0	0	0	0	0	0	9639	0	0	0	0			0	0	0	0	4786	0	30	6	24	0	0	0	0	-9639	4786	0	30	0		
F	433	28	30100	M1-2	1	30000	30000	0	0	0	0	0	0	30000	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	13485	0	125	25	100	50	0	-30000	0	0	13485	0	125	50		
	433	46	3450	M1-2	0.99	3420	3420	0	0	0	0	0	0	3420	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	0	1532	14	3	11	6	0	-3420	0	0	0	1532	14	6		
Total F			33550			33420	33420	0	0	0	0	0	0	33420	0	0	0	0	0	0			0	0	0	0	13485	1532	139	28	111	56	0	-33420	0	0	13485	1532	139	56		
G	434	47	2375	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	1064	0	10	2	8	4	0	0	0	0	1064	0	10	4		
	434	48	2375	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	1064	0	10	2	8	4	0	0	0	0	1064	0	10	4		
	434	49	2375	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	1064	0	10	2	8	4	0	0	0	0	1064	0	10	4		
	434	50	2375	M1-2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	M1-4/R7A	4.6	0	0	0	0	1064	0	10	2	8	4	0	0	0	0	1064	0	10	0		
	434	52	3563	M1-2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	M1-4/R7A	4.6	0	0	0	0	1596	0	15	3	12	6	0	0	0	0	1596	0	15	2		
Total G			13063			0	0	0	0	0	0	8	0	0	0	0	0	0	0	8			0	0</																		

Site Description				Existing Conditions									No Action Conditions								With Action Conditions														INCREMENT							
	Block	Lot	Lot Area	Zoning District	Built FAR	Building Area (sf)	Indust./Auto/s storage (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Parking spaces	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Total parking spaces	Proposed Zoning	Proposed FAR	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Bldg (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Affordable Dwelling Units	Market Rate Dwelling Units	Total parking spaces	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Total parking spaces		
L	440	21	5645	M1-2	2.02	11400	0	11400	0	0	0	0	0	0	0	11400	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	2529	0	23	5	19	8	0	0	0	-11400	2529	0	23	8	
	440	23	1800	M1-2	1	1800	1800	0	0	0	0	0	0	1800	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	806	0	7	1	6	2	0	-1800	0	0	806	0	7	2	
	440	24	1800	M1-2	1	1800	1800	0	0	0	0	0	0	1800	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	806	0	7	1	6	2	0	-1800	0	0	806	0	7	2	
	440	25	1800	M1-2	1	1800	1800	0	0	0	0	0	0	1800	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	806	0	7	1	6	2	0	-1800	0	0	806	0	7	2	
	440	26	1800	M1-2	1	1800	1800	0	0	0	0	0	0	1800	0	0	0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	806	0	7	1	6	2	0	-1800	0	0	806	0	7	2	
	440	47	2000	M1-2	1	2000	2000	0	0	0	0	0	0	0	2000	0	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	4	1	3	3	0	-2000	0	0	0	0	4	3
	440	48	4000	M1-2	1	4000	4000	0	0	0	0	0	0	0	4000	0	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	8	2	6	7	0	-4000	0	0	0	0	8	7
Total L			18845			24600	13200	11400	0	0	0	0	0	13200	0	11400	0	0	0	0	0			0	0	0	0	5755	0	65	13	52	28	0	-13200	0	-11400	5755	0	65	28	
M	440	45	2300	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	2000	0	1	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	-2000	5	-1	
Total M			2300			0	0	0	0	0	0	0	0	0	0	0	0	2000	0	1			0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	-2000	5	-1		
N	441	42	19831	M2-1	0.91	18000	0	0	0	0	0	0	39662	0	0	0	0	0	0	17	M1-4/R7A - M1-4/R6B	2.52	0	0	0	0	0	0	50	2	48	24	-39662	0	0	0	0	0	0	50	7	
Total N			19831			18000	0	0	0	0	0	0	39662	0	0	0	0	0	0	17			0	0	0	0	0	50	2	48	24	-39662	0	0	0	0	0	0	50	7		
O	441	50	4948	M1-2	1	4948	4948	0	0	0	0	0	0	0	0	0	4948	0	0	16	M1-4/R6B	2	0	0	0	0	0	0	10	0	10	0	0	0	0	0	0	-4948	0	10	-16	
Total O			4948			4948	4948	0	0	0	0	0	0	0	0	0	4948	0	0	16			0	0	0	0	0	10	0	10	0	0	0	0	0	0	-4948	0	10	-16		
P	441	53	15564	M1-2	0.99	15400	15400	0	0	0	0	20	31128	0	0	0	0	0	0	13	M1-4/R6B	2	0	0	0	0	0	0	31	0	31	16	-31128	0	0	0	0	0	0	31	3	
Total P			15564			15400	15400	0	0	0	0	20	31128	0	0	0	0	0	0	13			0	0	0	0	0	31	0	31	16	-31128	0	0	0	0	0	0	31	3		
Q	447	3	2500	M1-2	0.57	1425	0	0	0	0	1	5	0	0	0	0	0	0	1	5	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	3	0	0	0	0	0	0	0	4	-3	
	447	4	6000	M1-2	1	6000	6000	0	0	0	0	0	0	6000	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	12	0	12	6	0	-6000	0	0	0	0	0	12	6	
	447	7	8500	M1-2	1.13	9600	9600	0	0	0	0	0	0	9600	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	17	0	17	9	0	-9600	0	0	0	0	0	17	9	
Total Q			17000			17025	15600	0	0	0	1	5	0	15600	0	0	0	0	1	5			0	0	0	0	0	34	0	34	17	0	-15600	0	0	0	0	0	33	12		
R	447	1	1950	M1-2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	M1-4/R6B	2	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	4	-5		
	447	2	1250	M1-2	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10	M1-4/R6B	2	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	3	-10		
	447	60	900	M1-2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	M1-4/R6B	2	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	-5		
Total R			4100			0	0	0	0	0	0	20	0	0	0	0	0	0	0	20			0	0	0	0	0	8	0	8	0	0	0	0	0	0	0	8	-20			
S	448	13	45000	M1-2	2.25	101395	0	0	0	0	0	30	0	101395	0	0	0	0	0	30	M1-4/R6B	2	0	0	0	0	0	0	90	0	90	45	0	-101395	0	0	0	0	0	90	15	
	448	56	2625	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	3	0	0	0	0	0	0	5	3		
Total S			47625			101395	0	0	0	0	0	30	0	101395	0	0	0	0	0	30			0	0	0	0	0	95	0	95	48	0	-101395	0	0	0	0	0	95	18		
T	452	1	29819	M2-1	1.08	32300	32300	0	0	0	0	0	0	32300	0	0	0	0	0	0	M1-4/R6 (MX 3.6)	3.6	0	0	0	0	0	2500	0	105	21	844										



Site Description				Existing Conditions									No Action Conditions									With Action Conditions														INCREMENT									
	Block	Lot	Lot Area	Zoning District	Built FAR	Building Area (sf)	Indust./Auto/s storage (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Parking spaces	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Total parking spaces	Proposed Zoning	Proposed FAR	Hotel (sf)	Indust./Auto/s storage (sf)	Vacant Bldg (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Affordable Dwelling Units	Market Rate Dwelling Units	Total parking spaces	Hotel (sf)	Indust./Auto/ storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Total parking spaces					
X	456	32	3913	M1-2	1.98	7760	7760	0	0	0	0	0	0	0	0	0	7760	0	0	0	R8A/C2-4	7.2	0	0	0	0	532	0	28	6	22	9	0	0	0	0	-7228	0	28	9					
	456	34	5870	M1-2	1	5870	5870	0	0	0	0	0	0	0	0	0	5870	0	0	0	R8A/C2-4	7.2	0	0	0	0	798	0	41	8	33	13	0	0	0	0	-5072	0	41	13					
	456	6	3600	M1-2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	M1-4/R6B	2	0	0	0	0	0	0	7	0	7	8	0	0	0	0	0	0	7	5					
Total X			13383			13630	13630	0	0	0	0	3	0	0	0	0	13630	0	0	3			0	0	0	0	1330	0	76	14	62	31	0	0	0	0	-12300	0	76	28					
Y	456	13	3757	M1-2	1	3740	0	0	3740	0	0	0	0	0	0	0	3740	0	0	0	M1-4/R6B / R8A/C2-4	4.6	0	0	0	0	1683	0	16	3	12	9	0	0	0	0	-2057	0	16	9					
	456	17	3871	M1-2	0.99	3850	3850	0	0	0	0	3	0	3850	0	0	0	0	0	3	M1-4/R6B	2	0	0	0	0	0	0	8	0	8	10	0	-3850	0	0	0	0	8	7					
	456	23	8936	M1-2	2.15	19192	19192	0	0	0	0	3	0	19192	0	0	0	0	0	3	R8A/C2-4	7.2	0	0	0	0	1215	0	63	13	50	19	0	-19192	0	0	0	1215	0	63	16				
Total Y			16564			26782	23042	0	3740	0	0	6	0	23042	0	0	3740	0	0	6			0	0	0	0	2898	0	86	16	71	38	0	-23042	0	0	0	-842	0	86	32				
Z	462	14	45442	M2-1	0.41	18500	0	18500	0	0	0	30	0	0	0	18500	0	0	0	30	M1-4/R6 (MX 3.6)	3.6	0	0	0	11361	0	0	152	30	122	76	0	0	0	-7140	0	0	152	46					
Total Z			45442			18500	0	18500	0	0	0	30	0	0	0	18500	0	0	0	30			0	0	0	11361	0	0	152	30	122	76	0	0	0	-7140	0	0	152	46					
Grand Total			978773			599844	451099	37400	3740	0	10	278	70790	543716	0	133919	46018	2000	10	318			0	0	0	19953	80699	34032	3227	572	2654	1484	-70790	-543716	0	-113967	34681	32032	3211	1166					

Site Description				Existing Conditions								Without Action								With Action												Increment								
Site	Block	Lot	Lot Area	Zoning	Built FAR	Building Area	Industrial/Auto/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Hotel (sf)	Industrial/Auto/Warehouse/Storage (sf)	Parking/Vehicle Storage	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Proposed Zoning	Proposed FAR	Hotel (sf)	Industrial/Auto/Warehouse/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Affordable Dwelling Units	Market Rate Dwelling Units	Hotel (sf)	Industrial/Auto/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units		
1	405	8	1500	M1-2	0.13	2980	0	0	2980	0	0	0	0	0		0	2980	0	0	0	M1-4/R6B	2	0	0	0	0	1490	0	0	1	0	1	0	0	0	-1490	0	0	1	
	405	9	1200	M1-2	0.83	1000	0	0	0	1000	0	0	0	0		0	0	1000	0	0	M1-4/R6B	2	0	0	0	0	0	1000	0	1	0	1	0	0	0	0	0	0	1	
	405	10	1095	M1-2	2.19	2400	0	0	0	800	0	2	0	0	0		0	0	800	0	2	M1-4/R6B	2	0	0	0	0	800	0	2	0	2	0	0	0	0	0	0	0	0
Total 1			3795			6380	0	0	2980	1800	0	2	0	0	0	0	2980	1800	0	2			0	0	0	1490	1800	0	4	0	4	0	0	0	-1490	0	0	2		
2	405	13	2500	M1-2	0.6	1512	0	0	0	0	0	2	0	0		0	0	0	0	2	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	3	
	405	14	2500	M1-2	1.16	2888	0	0	0	2088	0	1	0	0		0	0	2088	0	1	M1-4/R6B	2	0	0	0	0	0	2088	0	3	0	3	0	0	0	0	0	0	2	
	405	15	2500	M1-2	1	2500	0	0	0	2500	0	0	0	0	0		0		2500	0	0	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	-2500	0	0	5
Total 2			7500			6900	0	0	0	4588	0	3	0	0	0	0	0	4588	0	3			0	0	0	0	0	2088	0	13	0	13	0	0	0	0	-2500	0	0	11
3	405	59	2500	M1-2	0.96	2400	0	0	0	0	0	2	0	0		0	0	0	0	2	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	3	
	405	60	2500	M1-2	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	5	
Total 3			5000			2400	0	0	0	0	0	2	0	0	0	0	0	0	0	2			0	0	0	0	0	0	10	0	10	0	0	0	0	0	0	0	8	
4	411	3	5000	M1-2	1	5000	0	0	0	5000	0	0	0	0		0	0	10000	0	0	M1-4/R6B	2	0	0	0	0	0	5000	0	5	0	5	0	0	0	0	-5000	0	0	5
Total 4			5000			5000	0	0	0	5000	0	0	0	0	0	0	0	10000	0	0			0	0	0	0	0	5000	0	5	0	5	0	0	0	0	-5000	0	0	5
5	411	12	2500	M1-2	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	5	
Total 5			2500			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	5	
6	411	58	5000	M2-1	1	5000	5000	0	0	0	0	0		5000		0	0	0	0	0	M1-4/R6B	2	0	0	0	0	1000	0	0	9	0	9	0	-5000	0	1000	0	0	0	9
Total 6			5000			5000	5000	0	0	0	0	0	0	5000	0	0	0	0	0	0			0	0	0	1000	0	0	9	0	9	0	-5000	0	1000	0	0	0	9	
7	417	14	7850	M2-1	1	6000	6000	0	0	0	0	0	0	6000		0	0	0	0	0	MX 3.3	3.3	0	0	0	0	7850	0	0	18	4	14	0	-6000	0	7850	0	0	18	
	417	21	24850	M2-1	0.74	17395	17395	0	0	0	0	0	0	17395		0	0	0	0	0	MX 3.3	3.3	0	0	0	0	0	0	82	16	66	0	-17395	0	0	0	0	0	82	
Total 7			32700	0	1.74	23395	23395	0	0	0	0	0	0	23395	0	0	0	0	0	0			0	0	0	7850	0	0	100	20	80	0	-23395	0	7850	0	0	0	100	
8	420	34	2520	M1-2	1	2520	2520	0	0	0	0	0	0	2520		0	0	0	0	0	R8A/C2-4	7.2	0	0	0	0	0	342.72	0	18	4	14	0	-2520	0	0	343	0	18	
	420	37	13480	M1-2	0.09	1248	0	0	0	1248	0	0	0	0	0	0	0	1248	0	0	R8A/C2-4	7.2	0	0	0	0	0	1833.28	0	95	19	76	0	0	0	585	0	95		
Total 8			16000	0	1.09	3768	2520	0	0	1248	0	0	0	2520	0	0	0	1248	0	0			0	0	0	0	0	2176	0	113	23	90	0	-2520	0	0	928	0	113	
9	427	40	2940	M1-2	1.47	4320	0	0	0	2160	0	1	0	0	0	0	0	2160	0	1	R8A/C2-4	7.2	0	0	0	0	0	2940	0	18	4	15	0	0	0	780	0	16		
	427	42	6075	M1-2	2	12150	12150	0	0	0	0	0	0	12150		0	0	0	0	0	R8A/C2-4	7.2	0	0	0	0	0	6075	0	38	8	30	0	-12150	0	0	6075	0	38	
Total 9			9015				0	5000																				203	41	163	0	0	0	0	0	0	0	0		
10	431	43	7581	M2-1	1	7581	7581	0	0	0	0	0	0	7581		0	0	0	0	0	MX 3.3	3.3	0	0	0	0	0	0	25	5	20	0	-7581	0	0	0	0	0	25	
Total 10			7581			7581	7581	0	0	0	0	0	0	7581	0	0	0	0	0	0			0	0	0	0	0	0	25	5	20	0	-7581	0	0	0	0	0	25	
11	433	1	5600	M1-2	0.33	1825	1825	0	0	0	0	0	0	1825		0	0	0	0	0	M1-4/R7A M1-4/R6B M1-4/R7A	4.6	0	0	0	0	0	5600	20	4	16	0	-1825	0	0					

Site Description				Existing Conditions								Without Action								With Action												Increment							
Site	Block	Lot	Lot Area	Zoning	Built FAR	Building Area	Industrial/Auto/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Hotel (sf)	Industrial/Auto/Warehouse/Storage (sf)	Parking/Vehicle Storage	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Proposed Zoning	Proposed FAR	Hotel (sf)	Industrial/Auto/Warehouse/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Affordable Dwelling Units	Market Rate Dwelling Units	Hotel (sf)	Industrial/Auto/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	
18	434	29	1663	M1-2	0.95	1575	1575	0	0	0	0	0	0	1575		0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	3	0	3	0	-1575	0	0	0	0	0	3
	434	30	3645	M1-2	1.06	3848	3848	0	0	0	0	0	0	3848		0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	7	0	7	0	-3848	0	0	0	0	0	7
Total 18			5308			5423	5423	0	0	0	0	0	0	5423	0	0	0	0	0	0			0	0	0	0	0	0	11	0	11	0	-5423	0	0	0	0	0	11
19	439	1	101500	M2-1	0.25	25430	25430	0	0	0	0	0	0	25430		0	0	0	0	0	MX 3.3	3.3	0	0	0	20000	11250	0	304	61	243	0	-25430	0	20000	11250	0	304	
Total 19			101500			25430	25430	0	0	0	0	0	0	25430	0	0	0	0	0	0			0	0	0	20000	11250	0	304	61	243	0	-25430	0	20000	11250	0	304	
20	440	27	3600	M1-2	1.93	6956	0	2318	0	0	0	4	0	0	0	0	0	2318	0	4	M1-4/R7A	4.6	0	0	0	0	0	3600	13	3	10	0	0	0	0	-2318	3600	8	
	440	29	3600	M1-2	1.26	4552	0	4552	0	0	0	0	0	4552		0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	0	3600	13	3	10	0	-4552	0	0	0	3600	13	
Total 20			7200			11508	0	6870	0	0	0	4	0	4552	0	0	0	2318	0	4			0	0	0	0	0	7200	26	5	21	0	-4552	0	0	-2318	7200	21	
21	440	35	2048	M1-2	0	0	0	0	0	0	0	0	0	2048		0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	2048	0	7	1	6	0	-2048	0	0	2048	0	7	
	440	36	3518	M1-2	1.84	6480	6480	0	0	0	0	0	0	6480		0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	3518	0	13	3	10	0	-6480	0	0	3518	0	13	
Total 21			5566			6480	6480	0	0	0	0	0	0	8528	0	0	0	0	0	0			0	0	0	0	5566	0	20	4	16	0	-8528	0	0	5566	0	20	
22	441	21	8518	M1-2	1.05	8930	0	8930	0	0	0	0	0	8930		0	0	0	0	0	M1-4/R7A	4.6	0	0	0	0	0	8518	31	6	25	0	-8930	0	0	0	8518	31	
Total 22			8518			8930	0	8930	0	0	0	0	0	8930	0	0	0	0	0	0			0	0	0	0	0	8518	31	6	25	0	-8930	0	0	0	8518	31	
23	441	24	19000	M1-2	1	19000	19000	0	0	0	0	0	0	19000		0	0	0	0	0	M1-4/R6B	3.3	0	0	0	0	0	0	63	0	63	0	-19000	0	0	0	0	0	63
Total 23			19000			19000	19000	0	0	0	0	0	0	19000	0	0	0	0	0	0			0	0	0	0	0	0	63	0	63	0	-19000	0	0	0	0	0	63
24	441	33	2240	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	R8A/C2-4	7.2	0	0	0	2240	0	0	14	3	11	0	0	0	2240	0	0	14	
Total 24			2240			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	2240	0	0	14	3	11	0	0	0	2240	0	0	14	
25	441	35	2400	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	2400	0	0	R8A/C2-4	7.2	0	0	0	2400	0	0	15	3	12	0	0	0	2400	-2400	0	15	
Total 25			2400			0	0	0	0	0	0	0	0	0	0	0	0	2400	0	0			0	0	0	2400	0	0	15	3	12	0	0	0	2400	-2400	0	15	
26	445	1	15480	M2-1	0.98	15178	0	0	15178	0	0	0	0	0	0	0	15178	0	0	0	MX 3.3	3.3	0	0	0	0	0	0	51	10	41	0	0	0	-15178	0	0	0	51
Total 26			15480			15178	0	0	15178	0	0	0	0	0	0	0	15178	0	0	0			0	0	0	0	0	0	51	10	41	0	0	0	-15178	0	0	0	51
27	447	22	4000	M1-2	1	4000	4000	0	0	0	0	0	0	4000		0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	8	0	8	0	-4000	0	0	0	0	0	8
	447	24	2500	M1-2	0.92	2310	0	0	0	0	0	2	0	0		0	0	0	0	2	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	3	
Total 27			6500			6310	4000	0	0	0	0	2	0	4000	0	0	0	0	0	2			0	0	0	0	0	0	13	0	13	0	-4000	0	0	0	0	0	11
28	447	43	2400	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	5
Total 28			2400			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	5	
29	448	25	5000	M1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M1-4/R6B	2	0	0	0	0	0	0	10	0	10	0	0	0	0	0	0	0	10
	448	27	2500	M1-2	0.84	2100	0	0	0	0	0	3	0	0	0	0	0	0	0	3	M1-4/R6B	2	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	3
Total 29			7500			2100	0	0	0	0	0	3	0	0	0	0	0	0	0	3			0	0	0</														



Site Description				Existing Conditions								Without Action								With Action													Increment							
Site	Block	Lot	Lot Area	Zoning	Built FAR	Building Area	Industrial/Auto/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Hotel (sf)	Industrial/Auto/Warehouse/Storage (sf)	Parking/Vehicle Storage	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Dwelling Units	Proposed Zoning	Proposed FAR	Hotel (sf)	Industrial/Auto/Warehouse/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units	Affordable Dwelling Units	Market Rate Dwelling Units	Hotel (sf)	Industrial/Auto/Storage (sf)	Vacant Building (sf)	Office (sf)	Retail (sf)	Community Facility (sf)	Total Dwelling Units		
36	462	6	9175	M2-1	0.17	1600	1600	0	0	0	0	0	0	1600		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	0	0	0	33	7	26	0	-1600	0	0	0	0	0	33
	462	8	2000	M2-1	0.9	1800	1800	0	0	0	0	0	0	1800		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	0	0	7	1	6	0	-1800	0	0	0	0	0	7	
	462	42	3600	M2-1	1	3600	3600	0	0	0	0	0	0	3600		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	0	0	13	3	10	0	-3600	0	0	0	0	0	13	
	462	44	5400	M2-1	2	10800	10800	0	0	0	0	0	0	10800		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	0	0	19	4	16	0	-10800	0	0	0	0	0	19	
Total 36			20175			17800	17800	0	0	0	0	0	0	17800	0	0	0	0	0	0			0	0	0	0	0	0	73	15	58	0	-17800	0	0	0	0	0	73	
37	462	9	5900	M2-1	1.77	10440	10440	0	0	0	0	0	0	10440		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	0	0	21	4	17	0	-10440	0	0	0	0	0	21	
Total 37			5900			10440	10440	0	0	0	0	0	0	10440	0	0	0	0	0	0			0	0	0	0	0	0	21	4	17	0	-10440	0	0	0	0	0	21	
38	462	12	7092	M2-1	0.56	4000	4000	0	0	0	0	0	0	4000		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	0	0	26	5	20	0	-4000	0	0	0	0	0	26	
Total 38			7092			4000	4000	0	0	0	0	0	0	4000	0	0	0	0	0	0			0	0	0	0	0	0	26	5	20	0	-4000	0	0	0	0	0	26	
39	967	24	40500	M2-1	0.78	31500	31500	0	0	0	0	0	0	31500		0	0	0	0	0	MX 3.6	3.6	0	0	0	0	5508	0	140	28	112	0	-31500	0	0	5508	0	0	140	
Total 39			40500			31500	31500	0	0	0	0	0	0	31500	0	0	0	0	0	0			0	0	0	0	5508	0	140	28	112	0	-31500	0	0	5508	0	0	140	
40	972	1	4636	M2-1	0	0	0	0	0	0	0	0	0	0		0	0	2318	0	0	MX 3.6	3.6	0	0	0	0	2318	0	14	3	11	0	0	0	0	0	0	14		
	972	43	66165	M2-1	0.09	5625	5625	0	0	0	0	0	0	0		0	0	33083	0	0	MX 3.6	3.6	0	0	0	0	16541.25	0	222	44	177	0	0	0	0	-16541	0	222		
	972	58	69080	M2-1	0.09	6320	6320	0	0	0	0	0	0	0		0	0	34540	0	0	MX 3.6	3.6	0	0	0	0	17270	0	231	46	185	0	0	0	0	-17270	0	231		
Total 40			139881			11945	11945	0	0	0	0	0	0	0	0	0	0	69941	0	0			0	0	0	0	36129.25	0	467	93	374	0	0	0	0	-33811	0	467		

**APPENDIX C—  
OCCUPANCY TABLES FOR BLOCK 453**

Block 453, Lots 1 and 21  
Summary Occupation Tables

Guide to Historic Lot numbers

Currently	1907	1898	1886	1878	1872 (new lot #s)	1872 (old lot #s)	1866-1871
Lot 1	1, 16	1, 38, 3, 42	1, 38, 3, 42	1, 2, 38, 3, 42 (was part of 5), 39	1, 2, 38, 3, 4, 39	1, 1a, 1b, 7, 8, 2*	1, 1a, 7, 8, 2
Lot 21	21	43, 6, 7, 37	43, 6, 7, 37	5, 6, 7, 37	5, 6, 7, 37	9, 10, 11, 3*	9, 10, 11, 3

\*Old Lots 2 and 3 fronted on First Street, new Lots 2 and 3 on Carroll Street.

Part of Modern Lot 1, Historic Lots 1, 1a/2, 404-412 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1864	Arthur W. and Jane A. Benson	James H. Watson and James H. Pittinger			
1859					Watson, James H., lumber mer., 26 <sup>th</sup> n. 3 <sup>rd</sup> Av., h. 87 1 <sup>st</sup> Pl.; Pittinger, James H., lumber mer., 26 <sup>th</sup> n. 3 <sup>rd</sup> Av., h. 21 <sup>st</sup> n. 4 <sup>th</sup> Av.
1860				No residents listed	
1866-1869			Lots 1, 1a/2: Watson & Pittinger, \$3000-4000		
1869-1872			Lot 1: Watson & Pittinger, \$4375-4400 Lot 1a/2: Watson & Pittinger, \$600, 2 stories		
1870				No residents listed	
1872-1875			Lot 1: Watson & Pittinger, \$4400-4000 Lot 1a/2: Watson & Pittinger, \$600, 2 stories		1873, Watson, Pittinger & Co., Lumber & Timber Dealers, Carroll St, on Gowanus Canal
1875-1878			Lot 1 (now includes former Lot 1a/2): Watson & Pittinger, \$4000-5000		
1878-1880			Lot 1 (now includes former Lot 1a/2): Watson & Pittinger, \$5000-6000	412 Carroll, Dennis Sheehan, 37, laborer and family	
1880-1884			Lot 1 (now includes former Lot 1a/2): Watson & Pittinger, \$6000-15,500		



Year	Grantor	Grantee	Tax	Census	Directory
1884-1888			Lot 1 (now includes former Lot 1a/2): Watson & Pittinger, \$18,000		
1888-1889					Watson & Pittinger, lumber, 412 Carroll and Carroll and Gowanus Canal
1917	Charles B. Thomson (as tr.) Watson & Pittinger (tr. of)	Julia L. Condax			

Part of Modern Lot 1, Historic Lots 1b/38, 414 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1854	Arthur W. and Jane A. Benson	Nathan Farrell			
1859					No Farrells listed on lot
1860				Henry Farrell, 50 (no real property) and family	
1866-1869			No listing		
1870				Henry Farrell, 71 (\$4000 real property) and family	
1872			Lot officially apportioned Oct. 1872		1873, no Farrells listed on lot
1872-1875			Henry Farrell, 3 stories, \$1500		
1875	Henry and Margaret Farrell	James H. Watson and James H. Pittinger			
1875	James H. Watson and James H. Pittinger	Henry Farrell			
1875-1878			Henry Farrell, 3 stories, \$1500		

Year	Grantor	Grantee	Tax	Census	Directory
1878-1880			Henry Farrell, 3 stories, \$1500	416, Frank Sutton, 31, machinist, and family; Henry Farrell, 80, and family (son James, 35, is a retail liquor dealer); Charles Harden, 27, truck driver, and wife; William Quirk, 27, truckman, and wife	
1880-1884			Henry Farrell, 3 stories, \$1500-\$2000		[1883, death notice for Margaret Farrell late of 416 Carroll Street]
1884-1888			Henry Farrell, 3 stories, \$2000		
1888-1889					Edward Farrell, cooper, 416 Carroll; James Farrell, liquors, Nevins c. Union, 416 Carroll; John Farrell, 416 Carroll; Thos. Farrell, liquors, 68 4 <sup>th</sup> Ave., 416 Carroll
1906	James Farrell	John Farrell			
1909	James Farrell	Watson & Pittinger, Inc.			
1909	Katherine B. Daniel (ref.) Thomas Farrell (pltf. et al.)	Watson & Pittinger, Inc.			
1917	Charles B. Thomson (as tr.) Watson & Pittinger (tr. of)	Julia L. Condax			

Part of Modern Lot 1, Historic Lots 7/3, 420 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1859	Arthur W. and Jane A. Benson	William Monks			
1859					No Monks or Redding listed on lot

Year	Grantor	Grantee	Tax	Census	Directory
1860				William Monks, 40, ferryman (\$1500 real property) and family	
1864	William and Mary A. Monks	Thomas Redding			
1866-1869			Thomas Redding, 2 stories, \$600-700		
1870				Thomas Reynolds (sic), 55, carman (\$4000 real property) and family; Wm. Turner, 57, engineer, and family; Wm. McManus, 43, typesetter, and family	
1869-1872			Thomas Redding, 3 stories, \$900-1000		1873, no Redding listed on lot
1872-1875			Thomas Redding, 3 stories, \$1000-1100		
1875-1878			Thomas Redding, 3 stories, \$1100		
1878-1880			Thomas Redding, 3 stories, \$1100	420, Thomas Redden, 61, truckman, and wife	
1880-1884			Thomas Redding, 3 stories, \$1100-1700		
1884-1888			Thomas Redding, 3 stories, \$1700		
1888-1889					420, Thomas Redden, truckman
1898	Thomas and Ann Redding	James H. Watson and James H. Pittinger			
1917	Charles B. Thomson (as tr.) Watson & Pittinger (tr. of)	Julia L. Condax			



Part of Modern Lot 1, Historic Lot 8/4/42, 424-426 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1864	Arthur W. and Jane A. Benson	James H. Watson and James H. Pittinger			
1866-1869			Watson & Pittinger, undeveloped , \$400-600		
1869-1872			Watson & Pittinger, undeveloped , \$750	1870, no residents found	
1872-1875			Geo. Wessel, undeveloped , \$750		
1875-1878			unoccupied		
1878-1880			No longer listed	1880, no residents found	
1880-1884			No longer listed		
1884-1888			No longer listed		
1917	Charles B. Thomson (as tr.) Watson & Pittinger (tr. of)	Julia L. Condax			

Part of Modern Lot 1, Historic Lots 9/5/43, 428 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1857	Arthur W. and Jane A. Benson	Michael Murphy			
1859					Murphy, Michael, smith, h. Carroll n. Nevins.
1860				Michael Murphy, 30, blacksmith (\$3000 real property) and family	
1866-1869			Michael Murphy, 2 stories, \$800-900		
1869-1872			Michael Murphy, 2 stories, \$1100	1870, occupancy unclear	

Year	Grantor	Grantee	Tax	Census	Directory
1872-1875			Michael Murphy, 2 stories, \$1100		1873, no Murphy listed on lot
1875-1878			Michael Murphy, 2 stories, \$1100		
1878-1880			Michael Murphy, 2 stories, \$1100	428, Michael Moroney, 30, retail liquor dealer, and family; Timothy Murphy, 24, clerk in store, James Murphy, 21, printer, Hannah Murphy, 17, dressmaker, Hannah Silk, 40 (aunt)	
1880-1884			Michael Murphy, 2 stories, \$1100-1460*		
1884-1888			Michael Murphy, 2 stories, \$1460-1500		
1888-1889					428, James Murphy, printer; Timothy Murphy, clerk
1901	Timothy Murphy et al. (devisees of Michael Murphy)	James H. Pittinger and J. Herbert Watson			
1917	Charles B. Thomson (as tr.) Watson & Pittinger (tr. of)	Julia L. Condax			

\*Lot 5 appears to have been divided into Lots 42 and 43 in 1884, with Lot 42 assessed at \$40 and Lot 43 at \$1460.

Part of Modern Lot 1, Historic Lots 2/39, bounded by former First Street and the canal

Year	Grantor	Grantee	Tax	Census	Directory
1864	Arthur W. and Jane A. Benson	James H. Watson and James H. Pittinger			
1866-1869			Watson & Pittinger, plot, \$1600-2000		
1869-1872			Watson & Pittinger, factory, \$2500-5000	1870, no residents listed	

Year	Grantor	Grantee	Tax	Census	Directory
1872-1875			Watson & Pittinger, \$5000		
1875-1878			Watson & Pittinger, \$5000		
1878-1880			Watson & Pittinger, sheds, \$5000-6000	1880, no residents found	
1880-1884			Assessed with Lot 1		
1884-1888			Assessed with Lot 1		
1917	Charles B. Thomson (as tr.) Watson & Pittinger (tr. of)	Julia L. Condax			

Part of Modern Lot 21, Historic Lots 6/10, 430-432 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1860	Arthur W. and Jane A. Benson	George A. Hamilton and Robert Donaldson		Occupancy unclear	1859, no Hamilton or Donaldson listed on lot
1861	George A. Hamilton, Robert and Narcissa J. Donaldson; Thomas Gordon, as assignee, George A. Hamilton and Robert Donaldson	Frederick W. Read			
1864	Augustus Sidell, referee	Margaret M. Hamilton			
1865	Margaret M. and Charles K. Hamilton	Ambrose Geoghegan			
1866-1869			Hamilton and Donaldson, 2 stories, \$600-700		
1870	Ambrose Geoghegan	Miles B. Carpenter, Henry A. Philp			
1869-1872			Miles B. Carpenter, 2 stories, \$900	1870, no residents listed	



Year	Grantor	Grantee	Tax	Census	Directory
1872-1875			Miles B. Carpenter, 2 stories, \$900		1873, Philp, H.A. & Co., paper, Carroll c. Nevins.
1875-1878			Miles B. Carpenter, 2 stories, \$900		
1878-1880			Miles B. Carpenter, 2 stories, \$700	1880, no residents listed	
1880-1884			H.A. Philp and Co., 2 stories, \$700-11,000**		
1884	Lewis R. Stegman, sheriff	Henry A. Philp, Miles B. Carpenter, firm of H.A. Philp and Co.			
1884-1888			H.A. Philp and Co., 2 stories, \$11,000		
1888-1889					Philp H. A. & Co., papermfrs., 430 Carroll
1889-1890					Philp H. A. & Co., papermfrs., 432 Carroll
1894	John Courtney, sheriff	Adela A. Taft			

\*\*Assessment for 1880 done for Lots 6, 7, and 37 separately (\$700, \$3800, and \$4000); for 1881 and 1882 Lots 6 and 7 were combined (\$6000), and for 1883 and 1884 all three lots were combined (\$11000).

Part of Modern Lot 21, Historic Lots 7/11, 434-436 Carroll Street

Year	Grantor	Grantee	Tax	Census	Directory
1860	Arthur W. and Jane A. Benson	George A. Hamilton and Robert Donaldson		Occupancy unclear	1859, no Hamilton or Donaldson listed on lot
1861	George A. Hamilton, Robert and Narcissa J. Donaldson; Thomas Gordon, as assignee, George A. Hamilton and Robert Donaldson	Frederick W. Read			
1864	Augustus Sidell, referee	Margaret M. Hamilton			

Year	Grantor	Grantee	Tax	Census	Directory
1865	Margaret M. and Charles K. Hamilton	Ambrose Geoghegan			
1866-1869			Hamilton and Donaldson, factory, \$2000-3000		
1870	Ambrose Geoghegan	Miles B. Carpenter, Henry A. Philp			
1869-1872			Miles B. Carpenter, factory, \$3800	1870, no residents listed	
1872-1875			Miles B. Carpenter, factory, \$3800		1873, Phillip, H.A. & Co., paper, Carroll c. Nevins.
1875-1878			Miles B. Carpenter, factory, \$3800		
1878-1880			Miles B. Carpenter, 2 story factory, \$3800	1880, no residents listed	
1880-1884			H.A. Philp and Co., 2 story factory, \$3800**		
1884	Lewis R. Stegman, sheriff	Henry A. Philp, Miles B. Carpenter, firm of H.A. Philp and Co.			
1884-1888			H.A. Philp and Co., 2 stories, Assessed with Lot 6		
1888-1889					Philp H. A. & Co., papermfrs., 430 Carroll
1889-1890					Philp H. A. & Co., papermfrs., 432 Carroll
1894	John Courtney, sheriff	Adela A. Taft			

\*\*Assessment for 1880 done for Lots 6, 7, and 37 separately (\$700, \$3800, and \$4000); for 1881 and 1882 Lots 6 and 7 were combined (\$6000), and for 1883 and 1884 all three lots were combined (\$11000).

Part of Modern Lot 21, Historic Lots 3/37, First Street frontage

Year	Grantor	Grantee	Tax	Census	Directory
1860	Arthur W. and Jane A. Benson	George A. Hamilton and Robert Donaldson		Occupancy unclear	1859, no Hamilton or Donaldson listed on lot
1861	George A. Hamilton, Robert and Narcissa J. Donaldson; Thomas Gordon, as assignee, George A. Hamilton and Robert Donaldson	Frederick W. Read			
1864	Augustus Sidell, referee	Margaret M. Hamilton			
1865	Margaret M. and Charles K. Hamilton	Ambrose Geoghegan			
1866-1869			Hamilton and Donaldson, plot, \$1000		
1870	Ambrose Geoghegan	Miles B. Carpenter, Henry A. Philp			
1869-1872			Miles B. Carpenter, plot, \$1300	1870, no residents listed	
1872-1875			Miles B. Carpenter, \$1300		1873, Phillip, H.A. & Co., paper, Carroll c. Nevins.
1875-1878			Miles B. Carpenter, sheds, \$1300-4000		
1878-1880			Miles B. Carpenter, sheds, \$4000	1880, no residents listed	
1880-1884			Miles B. Carpenter, 1 story, \$4000-5000		
1884	Lewis R. Stegman, sheriff	Henry A. Philp, Miles B. Carpenter, firm of H.A. Philp and Co.			
1884-1888			Miles B. Carpenter, 1 story, Assessed with Lot 6		



Year	Grantor	Grantee	Tax	Census	Directory
1888-1889					Philp H. A. & Co., papermfrs., 430 Carroll
1889-1890					Philp H. A. & Co., papermfrs., 432 Carroll
1894	John Courtney, sheriff	Adela A. Taft			

\*\*Assessment for 1880 done for Lots 6, 7, and 37 separately (\$700, \$3800, and \$4000); for 1881 and 1882 Lots 6 and 7 were combined (\$6000), and for 1883 and 1884 all three lots were combined (\$11000).