

Report
Archaeological Sensitivity Assessment

Walk Bridge Replacement Project
Norwalk, Connecticut

State Project No. 0301-0176

Prepared for

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By

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ABSTRACT/MANAGEMENT SUMMARY

The State of Connecticut, through the Connecticut Department of Transportation (CTDOT), is planning the replacement of the 1896 Norwalk River railroad swing bridge in Norwalk, Connecticut, in order to improve the safety and reliability of service along the state's busiest rail corridor. The project will receive funding from the Federal Transit Administration (FTA), requiring the project to consult with the Connecticut State Historic Preservation Office (CTSHPO) regarding possible impacts to significant historic and archaeological resources under Section 106 of the National Historic Preservation Act and Section 4(f) of the U.S. Department of Transportation Act.

This report presents the results of an archaeological sensitivity assessment of the areas to be impacted by the replacement of the bridge, known as the Walk Bridge. The report was prepared by Archaeological and Historical Services, Inc. (AHS) under contract to HNTB Corporation, the engineering firm that is developing and evaluating alternative designs for replacing the bridge. Above-ground historic resources such as buildings and structures are addressed in a companion AHS report (Clouette et al 2016).

The Area of Potential Effect (APE) for the Walk Bridge project is delineated as: 1.) the limits of project actions within the railroad right-of-way (ROW), extending from the east end of the South Norwalk Railroad Bridge over South Main and Washington Streets to a point east of the Fort Point Street Railroad Bridge; 2.) the project's temporary construction staging/access areas; and 3.) underwater and shoreline areas that could be impacted by the project's temporary and permanent facilities in the Norwalk River in the vicinity of the bridge.

Within the APE, 20 parcels are planned for use as construction easements, staging areas, river access areas, rail to street access areas, and equipment and material storage areas. The parcels, which are located along the east and west banks of the Norwalk River and in the vicinity of the existing railroad bridge, are included within the study area for this report.

AHS researched basic environmental sources on hydrology, geology and soils, the files of recorded archaeological sites at the Office of State Archaeology (OSA) and CTSHPO, relevant cultural resource management reports and archaeological publications, historic maps, local histories, and primary documents. This research provided a context for assessing the archaeological sensitivity of the project parcels. No geotechnical boring data or bathymetric data was available at the time of the survey; when this data becomes available, the survey conclusions and recommendations may be amended.

Based on the results of the background research, AHS determined that undisturbed portions of Parcels 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, 2/24/27, 2/84/33, 2/84/63, 3/2/3, 3/2/6, 3/1/25, 3/1/22, 3/1/24, 3/1/15, 3/1/16, 3/1/30, and 3/1/19 are sensitive for pre-colonial archaeological resources and recommends archaeological testing be conducted in these areas prior to ground disturbance, assuming that geotechnical data does not alter the conclusions. In particular, Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25 are located in the vicinity of a historically-documented Contact-period Native American fort. Given its proximity to the river, the strip of land comprising Parcels 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27 is considered moderately sensitive for pre-colonial and historic-period archaeological resources. AHS also determined that Parcels 3/1/15, 3/1/16, 3/1/24, the southwestern portion of Parcel 2/84/63, the northwestern portion of Parcel 2/84/33, and Parcel 2/24/8 are sensitive for historic-period archaeological resources. The archaeological sensitivity in these locations is primarily related to late 19th-century working class domestic sites (Parcels 3/1/15, 3/1/16, 3/1/24, 2/84/63, and

2/84/33) and the National Register-eligible Norwalk Lock Company complex (Parcel 2/24/8). AHS recommends subsurface archaeological testing prior to ground disturbance in the locations of former houses and pre-construction archaeological monitoring of any ground-disturbing activities in Parcel 2/24/8, in the locations of the former Norwalk Lock and Norwalk Iron companies.

Underwater archaeological sensitivity could not be assessed because of the lack of bathymetric data and the incompleteness of the underwater project design components.

The conclusions and recommendations presented in this document are subject to change as the bridge design progresses, and bathymetric and geotechnical data becomes available, and further work is undertaken to assist CTDOT and FTA in evaluating the project's impacts to archaeological resources.

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I. INTRODUCTION AND SCOPE OF WORK

A. Introduction

The State of Connecticut, through the Department of Transportation (CTDOT), is planning to replace the 1896 Norwalk River Railroad Bridge (No. 4288R), also known as the Walk Bridge, in Norwalk, Connecticut. The bridge carries the Metro-North Railroad over the Norwalk River between the South Norwalk and East Norwalk stations. The proposed project (State Project No. 0301-0176) will include the replacement of the existing bridge and is also expected to require changes to or replacement of elements associated with the electrification of the line, including removal of the high steel-skeleton towers. The project will improve the safety and reliability of service along the state's busiest rail corridor.

CTDOT is evaluating options for the replacement of the existing bridge, including a vertical lift bridge and a rolling bascule bridge. The project will receive state funding, requiring it to comply with the Connecticut Environmental Policy Act (CEPA), which mandates consideration of possible impacts to significant historic and archaeological resources. In addition, funding will be provided by the Federal Transit Administration (FTA), requiring the project to comply with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act of 1966, as amended, and Section 4(f) of the United States Department of Transportation Act. These federal laws require consultation with the Connecticut State Historic Preservation Office (CTSHPO) regarding possible project-related impacts to archaeological and historical resources listed in or eligible for listing in the National Register of Historic Places (NRHP).

B. Definition of APE

The overall project Area of Potential Effect (APE) was delineated as: 1.) the limits of the project actions within the railroad ROW, extending from the east end of the South Norwalk Railroad Bridge over South Main and Washington Streets to a point east of the Fort Point Street Railroad Bridge; 2.) the project's temporary construction staging/access areas; and 3.) underwater and shoreline areas that could be impacted by the project's temporary and permanent facilities in the Norwalk River and the vicinity of the bridge (Figure 1). Most of the very urban APE has low archaeological sensitivity due to development, thus archaeological assessment is being conducted of project-specific actions. Within the APE, 20 parcels are planned for use as construction easements, staging areas, river access areas, rail-to-street-access areas, and equipment and material storage area (Figure 2). The parcels, which are located along the east and west banks of the Norwalk River, in the vicinity of the existing railroad bridge, comprise archaeological study area for this report.

This report presents the results of an assessment of archaeological resources that could be impacted by the acquisition and use of 20 parcels within the APE as construction easements, staging areas, river access areas, rail to street access areas, and equipment and material storage areas. The parcels addressed in this report include 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, 2/24/27, 2/84/19, 2/84/33, 2/84/63, 3/1/8, 3/1/15, 3/1/16, 3/1/19, 3/1/22, 3/1/24, 3/1/29, 3/1/30, 3/2/3 and 3/2/6. The locations of these parcels are shown on an aerial photograph and included as Figure 2. Parcel 3/1/25 (formerly Parcel B) (Figure 2), is 11 Goldstein Place, which was evaluated in detail in a separate report (Clouette and Sportman 2015). The results of that report are included herein.

It is anticipated that the activities that will be required to make the parcels into construction-supportive areas include the demolition of the existing buildings, removal of demolition debris, and the filling in of any cellars and other below-grade cavities. The deposition of additional fill will be required, which when graded will create a level surface over the entire extent of the parcels. Access roadways will require some subsurface preparation along the course of the access roads. Shoreline stabilization along the riverfront will occur but the parameters of this action are not yet known, nor is bathymetric data available, thus these areas have not been assessed for impacts to archaeological or historical resources.

No archaeological assessment was conducted of actions that will occur in existing railroad rights-of way. Because of the dense fill deposits and built-up nature of rights-of-way as a result of railroad construction, the potential for intact archaeological resources to be present in these areas is extremely low.

The survey was conducted in accordance with the CTSHPPO's *Environmental Review Primer for Connecticut's Archaeological Resources* (hereafter *Primer*), *The Standard Requirements for Cultural Resource Survey Work Mandated through CTDOT, OEP* (March 2014), and the Secretary of Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. This document was prepared by Sarah Sportman, Ph.D., Senior Archaeologist with Archaeological and Historic Services, Inc. (AHS), the project's historic preservation consultant. AHS performed the work under contract to HNTB Corporation, the engineering firm that is evaluating alternative designs for replacing the bridge. This report presents the results of the archaeological assessment survey.

C. Scope of Work

This scope of work includes an archaeological sensitivity assessment (Phase IA Survey) of 20 parcels within the APE. As defined by the *Primer*, the purpose of a Phase IA survey is the collection of data sufficient to evaluate the archaeological sensitivity of a project area (i.e., the potential of the project for containing significant buried archaeological resources); assessing the potential impacts to potential significant archaeological resources; recommending additional studies, if necessary, to identify specific archaeological sites rather than broader areas of archaeological sensitivity; and developing strategies for avoiding or mitigating impacts to potential significant archaeological and historical resources. This report addresses only the archaeological aspects of the 20 parcels. An assessment of historic resources in the APE, such as buildings and structures, has also been conducted by AHS, and the results of that survey are presented in a separate report, *Historic Resources Evaluation: Walk Bridge Replacement Project, Norwalk, Connecticut* (Clouette et al 2016).

The results of the archaeological assessment will be incorporated into the Environmental Assessment/Environmental Impact Evaluation (EA/EIE) prepared as part of the Walk Bridge project under CEPA and NEPA, as well as the Section 4(f) Evaluation that will be appended to the EA/EIE.

The tasks of the archaeological assessment survey include researching the past environment and historical development of the APE parcels, researching previously-documented archaeological resources in the vicinity, and conducting a windshield survey to collect sufficient information to delineate portions of the parcels that may be sensitive for pre-colonial Native American sites. A review of historical maps was also conducted to compile a capsule history of documented land use in the project area and to assess the potential of the project area to contain historic-period archaeological resources related to past use of the land. While Phase IA

assessment surveys often include preliminary subsurface investigation in the form of hand-powered soil cores, no subsurface investigation was conducted for the current project due to access issues, time constraints, the potential for buried utilities, and the preponderance of paved areas within the APE. Geotechnical boring data was not available at the time of the survey, but will be incorporated when it is available.

The report is organized as follows: Chapter II presents the methodology. Chapter III presents a summary of the environmental history and conditions in the APE. Chapter IV provides the pre-colonial Native American background history of the project area, including a discussion of previously identified Native American sites in the APE vicinity. Chapter V outlines the post-European contact history of the APE vicinity, including a review of historic maps, and provides a discussion of previously documented historic archaeological sites in the project area vicinity. Chapter VI addresses the archaeological sensitivity of the parcels and includes AHS' recommendations for each project parcel.

II. METHODOLOGY

AHS researched the files of recorded archaeological sites at the Office of State Archaeology (OSA) and CTSHPO. Relevant cultural resource management reports and archaeological publications were reviewed to help develop a pre-colonial Native American and historic context preparatory to assessing the potential for significant buried archaeological sites to be present in the APE. Large-scale, relatively recent Phase I, II and III archaeological surveys as part of the widening of Route 7 and the reconstruction of the Route 7/15 Interchange in Norwalk, undertaken for the Connecticut Department of Transportation, proved especially useful (Jones et al. 2005; Forrest and Clouette 2007). Environmental sources on hydrology, geology and soils were reviewed to establish an understanding of the natural environment that existed prior to urbanization and to also help understand the level of disturbance in the APE.

Historic maps, local histories and primary documents were researched to establish a historic-period context and aid in identifying archaeologically sensitive areas in the APE parcels. Aerial photographs and windshield survey helped refine AHS's assessment of archaeological sensitivity.

As stated above, no subsurface testing in the form of hand-powered soil cores or shovel-test pits was conducted in the APE as part of the assessment survey, as access issues, time constraints, the potential for buried utilities, and the preponderance of paved areas within the APE made testing impractical. Geotechnical boring data collection is ongoing and the results will be incorporated when they are available.

III. ENVIRONMENTAL CONTEXT OF THE PROJECT AREA

Research on the environmental setting and pre-colonial history is essential to assessing the pre-colonial archaeological sensitivity of the APE. Native Americans were often drawn to rivers and to tidal wetland areas like those that existed along the southern portion of the Norwalk River prior to extensive modern development.

AHS conducted background research on the physiographic setting, geology, hydrology, and soils in the project area using published sources and soils data compiled by the Natural Resources Conservation Service (NRCS).

A. Geology and Topography

Bedrock in the town of Norwalk consists of schist and gneiss of the Hartland and Gneiss Dome belts, which form part of the greater Connecticut Valley Synclinorium (Rodgers 1985). These metamorphosed sedimentary and igneous rocks formed during the Middle to Early Paleozoic age (350-500 million years BP [Before Present]) as oceanic terrain that was subsequently deformed and metamorphosed by the collision of crustal plates that formed Pangaea. The process reversed during the Mesozoic Era (ca. 235 million years BP), causing rift basins to form as Pangaea fragmented. The eastern edge of the Hartland Gneiss Dome belts is bounded by the younger Newark (rift basin) terrane of the central Connecticut basin.

During the last glacial maximum (ca. 18,000 ¹⁴C¹ BP), the project area was beneath the Connecticut Valley Lobe of the Laurentide Ice Sheet as it deposited its terminal moraine, which constitutes Long Island (Uchupi et al. 2001). The glacier retreated from what is now the Connecticut coastline at ca. 17,500 ¹⁴C BP, leaving proglacial Lake Connecticut in its wake. Impounded by Long Island and the Harbor Hill Moraine (on the east side of Long Island Sound), this lake occupied most of what is now Long Island Sound until it drained rapidly at ca. 15,500 ¹⁴C BP. According to eustatic shifts, the Long Island Sound basin was slowly inundated during the early to middle Holocene, gradually reducing the gradients of streams and rivers along the paleocoastline. Sea level stabilized along the coast of southern New England by ca. 4000 BP, which facilitated the development of highly productive marshlands and floodplains (Lavin 1988). Rich salt marshes and smaller estuarine environments, in locations such as the lower Norwalk River likely developed during the Late Holocene.

The town of Norwalk is located on Connecticut's Coastal Slope, which is characterized by relatively gentle topography and an average elevation drop of about 50 feet per mile (Bell 1985). Connecticut's rocky and jagged coastline is, in part, a reflection of this relatively steep incline. The natural breakwaters formed by Long Island and Fisher's Island hinder the development of straight-bordered barrier beaches and also contribute to the uneven coastline. The major river basins that empty into Long Island Sound here tend to be long and straight with few branches because they are confined to north-to-south bedrock channels carved by glacial ice that have become "drowned" by post-glacial sea-level rise. Soils in the Coastal Slope from New Haven westward are particularly fertile because they contain a significant proportion of glacially deposited lime that originated from the Marble Valleys to the north.

¹ ¹⁴C identifies this as a radiocarbon date. Radiocarbon dating is a form of radiometric dating used to determine the age of organic components in ancient materials, on the basis of the half-life of carbon 14 and a comparison between the ratio of carbon-12 to carbon-14 in the sample and the known ratio in living organisms.

B. Hydrology

The project area is located within the Norwalk River watershed, which comprises about 64 square miles within southwestern Connecticut and Westchester County, New York. The Norwalk River originates in ponds located in Ridgefield, Connecticut. The river has two major tributaries; the Silvermine River, which flows into the Norwalk River at Deering Pond in Norwalk, and Comstock Brook, which joins the river in Wilton.

The APE study parcels are located on the east and west banks of the Norwalk River, approximately 0.4-0.5 miles north of Norwalk Harbor (Figure 1). This area is heavily developed today, but historically much of the land along the river in the project area vicinity was comprised of salt marsh, salt meadow, and the wide tidal flats that paralleled the river channel, which was close to the west side. The 1835 Coast Survey map and the 1847 Hall map (see Figures 3 and 4), show the extent of the marshlands in the project area vicinity.

These tidal wetland areas provided abundant plant and animal resources that were likely attractive to Native American populations. Native people also used marshy or swampy land as refuges in times of unrest and military strife. Historic maps (Figures 3 and 5) indicate that local Native people likely used of a portion of the proposed project area (3/1/25; see Clouette and Sportman 2015) for this purpose. The maps depict a small peninsula or spit of land extending out from the east bank into the river in the vicinity of Parcel 3/1/25, known as Fort Point, which is labeled as the location of an “ancient Indian fort.”

C. Soils

The soils in the majority of the proposed project areas are characterized as Urban Land and Udorthents-Urban Land Complex (NRCS 2015). The Natural Resource Conservation Service (NRCS) (2005) defines Urban Land as areas with a specific percentage of pavement, driveways, and buildings (i.e., impervious cover). Such areas may contain intact soils, fill, or Udorthents soils, or some combination of those soil types, below impervious surfaces. Udorthents are found on areas that have been cut or filled two feet or more. While it is possible that areas of undisturbed soils exist within these larger categories, Urban Land and Udorthents soils are generally considered to have low archaeological potential, as archaeological sites found within such sediments often lack integrity.

IV. PRE-COLONIAL NATIVE AMERICAN CONTEXT

Although a relatively large number of Native American archaeological sites have been identified in coastal Connecticut, the understanding of pre-colonial cultures in the area remains incomplete. Only a small percentage of the recorded sites along the coast have undergone professional archaeological investigations. Many of the sites were recorded and excavated by avocational archaeologists and many others were destroyed by extensive modern development of coastal areas. Information from several important sites, investigated by avocational and/or professional archaeologists (Coffin 1937, 1938, 1940, 1946, 1951; Glynn 1953; Lavin 1988; Praus 1942; Russell 1942), has contributed to our understanding of Native lifeways in coastal areas. Important coastal sites include Grannis Island (Site 93-3) in New Haven Harbor (Glynn 1953; Lavin 1988), the Old Lyme Shell Heap (Lavin 1988), Mago Point in Waterford (McBride 1984), Fort Shantok and Shantok Cove in Montville (Salwen 1966; Salwen and Ottesen 1972; Williams 1972), the Thomas Site in Groton (Butler 1946), and the Davis Farm Site in Stonington. A number of regional archaeological surveys have also been conducted in coastal areas of Connecticut, and have provided a great deal of information on the nature and distribution of archaeological sites in these areas (McBride 1984).

The following section provides a summary of the regional and local culture history, based on the current local archaeological record for Connecticut and the greater Northeast. The era predating the arrival of Europeans, which lasted roughly 11,000 years, is subdivided into several major periods coinciding with broad technological and settlement patterns observed in the archaeological record.

A. Paleoindian Period (11,000-9,500 BP)

In the Northeast, the Paleoindian Period dates from 11,000 to 9,500 BP, as measured in radiocarbon years, and coincides with the final glacial period, known as the Younger Dryas. Following a brief warming trend in the region, the Younger Dryas marked a return to colder, glacial conditions and ice-sheet re-expansion in portions of eastern North America (McWeeney 1999).

The earliest archaeological evidence for human occupation in New England dates to approximately 11,000 BP (Spiess et al. 1998) and in Connecticut to around 10,200 BP (Moeller 1980, Jones 1999). Paleoindian sites are characterized by distinctive lithic tools kits that include fluted points and unifacial tools such as side- and end-scrapers. Data reflecting Paleoindian Period land-use patterns and subsistence activities in the Northeast is relatively scarce (Spiess et al. 1998). It is assumed that Paleoindian people exploited a wide range of food resources, including large and small game, fish, wild plant foods, and perhaps extinct megafauna (Meltzer 1988; Jones 1998). Most archaeologists also believe that caribou played a significant, if seasonal role in the Paleoindian subsistence strategy. Settlement patterns during this period are poorly understood. The range of identified sites includes large base camps, small residential camps, and small, task-specific loci. Taken all together, the archaeological evidence suggests a settlement system based on small, highly mobile social groups exploiting dispersed seasonally available resources.

Few intact Paleoindian sites have been found in Connecticut. According to former State Archaeologist Nicholas Bellantoni, about 50 fluted points have been recovered as isolated finds across Connecticut (Bellantoni 1995), but only two sites have been investigated and published in detail: the Templeton Site in Washington (Moeller 1980, 1984) and the Hidden Creek Site on the

Mashantucket Pequot Reservation in Ledyard (Jones 1997). More recently, excavations were conducted at the Ohomowauke Paleoindian Site, which is also located on the Pequot reservation, but the analysis of this site is still in the preliminary stages (Singer 2013). A handful of other sites have received more cursory attention. In 2005, a probable Paleoindian component was identified in the Route 7/15 Interchange in Norwalk, north of the project area (Jones et al. 2005). The scarcity of identified Paleoindian sites suggests a low population density during this period. The small size of most Paleoindian sites and the high degree of landscape disturbance over the past 10,000 years likely contribute to poor site visibility.

B. Archaic Period (9,500-2,700 BP)

The Archaic Period dates from 9,500 to 2,700 BP in the Northeast and it marks a time of dynamic and shifting subsistence and settlement patterns, but the general trend is one of generalist hunter-gatherer populations utilizing a variety of seasonally available resources. The period is subdivided into the Early, Middle and Late Archaic periods on the basis of associated changes in environment, projectile point styles, and inferred adaptations (Snow 1980; McBride 1984). Each sub-period is discussed briefly below.

B.1 The Early Archaic Period (9,500-8,000 BP)

Pollen evidence from swamp cores indicates a gradual warming and drying trend beginning around 10,000 BP (McWeeney 1999). By this time Pleistocene megafauna had been replaced by modern cool-temperate game species such as moose, muskrat, and beaver. Deer populations likely increased in abundance at the end of this period, when oak began to dominate upland forests. As the climate stabilized, plant and animal resources may have become more abundant and predictable, enabling Early Archaic populations to exploit a wider range of seasonal resources. Early Archaic sites are poorly represented in the regional archaeological record and this likely reflects continued low population densities. The dearth of Early Archaic sites may be due in part to changing environmental conditions which have deeply buried, inundated, or destroyed many early sites, or to the difficulty of recognizing some Early Archaic assemblages (Funk 1997; Jones 1998; Forrest 1999).

Archaeologists have recovered Early Archaic stone tool assemblages from several sites in the Northeast. The recovered data suggest that this period can be characterized by a number of distinct traditions. The most poorly understood period, that between 9,500 and 9,000 BP, appears to reflect both local Late Paleoindian and intrusive southern Piedmont Tradition Early Archaic influences. A quartz lithic industry in which projectile points are extremely rare occurs locally between roughly 9,000 and 8,500 BP. The Sandy Hill Site on the Mashantucket Pequot Reservation demonstrates this pattern (Forrest 1999, Jones and Forrest 2003). The site represents a local expression of a much broader techno-complex referred to as the Gulf of Maine Archaic Tradition (Robinson et al. 1992). Sandy Hill produced evidence of multiple semi-subterranean living structures and a variety of plant-food remains, including abundant cattail roots and hazelnuts.

Archaeological evidence indicates a shift in Early Archaic period technology about 8,500 years ago, marked by the arrival of an apparently intrusive temperate forest-adapted culture that utilized bifurcate-based projectile points typically manufactured from non-regional materials (Jones 1998, 1999). The Dill Farm Site in East Haddam is one of the best-documented bifurcate sites in Connecticut (Pfeiffer 1986). Archaeological investigations at this site identified cooking/refuse features, quartz flakes, retouched tools, bifurcate-based projectile points, and

subsistence remains, including charred nuts and mammal bone associated with a radiocarbon date of 8560 +/- 270 BP. Bifurcate points are documented throughout the state, though most appear to represent isolated finds without apparent associated artifacts. Bifurcate points are commonly manufactured from rhyolite probably originating from a Boston Basin source or Hudson Valley chert, but few are made from local lithic materials such as quartzite.

B.2 The Middle Archaic Period (8,000-6,000 BP)

Based on pollen evidence, the climate became warmer and drier during the Middle Archaic period and alluvial terraces developed along the state's major river systems (Jones 1999; Jones et al. 2008). This period marks the establishment of most modern nut tree species, which provided a new and abundant food resource for both human foragers and game animals such as bear, deer, and turkey. Evidence of Middle Archaic period occupation in Connecticut is more widely documented than for the preceding periods and it suggests adaptation to local resources during a period of population increase (McBride 1984; Jones 1999). Archaeological evidence of grooved axes suggests that wood became an increasingly important raw material during the Middle Archaic, while the presence of pebble net-sinkers and plummetts on some regional sites implies a growing reliance on marine and riverine resources (Dincauze 1976; Snow 1980). Despite their relative abundance, sites in Connecticut have yielded limited information on Middle Archaic subsistence and land-use patterns (Jones 1999). Archaeological assemblages are characterized by the presence of Neville and Stark projectile points and large flake tools usually manufactured from local materials such as quartzite. The Middle Archaic settlement pattern appears to have been seasonally oriented toward large upland interior wetlands (McBride 1984; Jones 1999) and the data suggest seasonal re-use of such locales over long periods of time. The Dill Farm Site and the sites around Great Cedar Swamp on the Mashantucket Pequot Reservation reflect this pattern (Jones 1999, 2004). The limited number of period coastal and riverine sites may be due to rising sea levels that have resulted in deep alluvial burial.

B.3 Late Archaic Period (6,000-2,700 BP)

The Late Archaic period in the Northeast is characterized by an essentially modern distribution of plant and animal populations. Based on archaeological evidence for population increase, burial ritual, and long-distance exchange networks, the Late Archaic is often considered a time of cultural florescence (Dincauze 1975; Snow 1980; Ritchie 1994; Cassedy 1999). This period is one of the best-documented temporal sequences in southern New England, and is characterized by three major cultural traditions: the Laurentian (ca. 5,500-4,500 BP), the Narrow-stemmed (ca. 4,500-3,500 BP), and the Terminal Archaic (ca. 3,800-2,700 BP). Late Archaic sites are common throughout the state, although the period between ca. 6,000 and 5,000 BP remains poorly documented. During most of this period, settlement strategies revolved around large, seasonally revisited settlements located in riverine areas and along large wetland terraces, and smaller, more temporary special-purpose sites in the interior and uplands (Ritchie 1969; McBride 1984; Cassedy 1997, 1999). The nature and distribution of sites suggest aggregation during summer months, with seasonal dispersal into smaller groups during the cold weather (McBride and Dewar 1981). In general, the Late Archaic appears to represent a continuation of the land-use and resource acquisition patterns observed during the Middle Archaic.

The Laurentian Tradition (Ritchie 1965) was originally thought to reflect a hunting and fishing culture with origins in the upper St. Lawrence Valley. In Connecticut, its local

manifestations may simply represent the adoption of Laurentian technological traits by local residents (Hoffman 1990; Ives 2009). The settlement pattern appears to reflect a central-based wandering pattern (*sensu* Beardsley et al. 1956) in which numerous small communities exploited a wide variety of settings (Snow 1980:230). In southern New England, Laurentian sites are more common in the interior than along the coast. This pattern suggests that Laurentian groups were primarily adapted to upland and riverine environments, with more limited exploitation of coastal areas on a seasonal basis (e.g., Snow 1980, Kingsley and Roulette 1990). Laurentian sites are characterized by a distinctive tool kit which includes diagnostic side-notched and corner-notched projectile points, often found in association with adzes, axes, gouges, ulus, and slate knives.

The transition to the Small- or Narrow-stem phase of the Late Archaic includes notable changes in lithic raw material use. During this phase, the use of quartzite declines significantly and quartz becomes by far the most commonly used material. This pattern has promoted the argument that population increase at this time restricted the availability of even regionally available resources like quartzite. The Narrow-stem phase is characterized by the development of a new quartz cobble technology that focused on the reduction of cobble cores into useful blanks for the production of projectile points, especially the narrow-stemmed forms. It is not known whether restrictions on raw material access drove the development of this new technology or if the technology drove raw material selection. Archaeologically identifiable features are more common on sites from this period and include broad fire-cracked-rock pavements, earth ovens, and some fire-cracked-rock hearths.

Narrow-stemmed phase sites are the most abundant of any period represented in Connecticut. The more notable Narrow Stemmed sites in Connecticut's coastal zones include the Archaic Midden Site in Haddam and the Grannis Island Site in New Haven (Glynn 1953; Lavin 1988). The Archaic Midden Site has been partially submerged by rising sea levels and is only visible at low tide. This may be typical of many Late Archaic sites in the region, indicating the potential of encountering sites under salt marshes or in coves or bays. Recent research interprets the Cove River Site in West Haven to represent a seasonal base camp associated with the Narrow Stemmed Tradition (Cuzzone et al. 2009).

The Terminal Archaic period appears to mark a transition in settlement and perhaps subsistence strategies (Dincauze 1975). A number of technological innovations appear during this period, including the manufacture and use of steatite bowls and the rare production of cord-marked and grit-tempered pottery. The use of quartz declined during this period, while the exploitation of regionally available quartzites increased. Imported chert and other non-local lithics such as argillite, rhyolite, and felsite are found in high proportions in Terminal Archaic lithic assemblages. This pattern appears to indicate renewed social and economic contact with a broader region. Fire-cracked-rock features are often associated with this period and likely reflect intensive food-processing activities. Identified site locations suggest that settlement was focused on expansive lacustrine and wetland areas and upper river terraces, rather than floodplains (McBride and Dewar 1981). The interior and uplands appear to have been less extensively used during this period (McBride 1984), though this may be a reflection of small, difficult-to-locate logistical hunting sites. The Terminal Archaic period also marks the appearance of human cremation burials (Dincauze 1968; Robinson 1996; Leveillee 1999). These cultural attributes may represent intrusive peoples or ideas, but the debate over the possibility of migration remains active (see, for example, Robinson 1996: 38-39).

C. The Woodland Period (2,700-450BP)

The Woodland period is characterized by the increased use of clay pottery, celts, and exotic raw materials, as well as the introduction of bow-and-arrow technology, smoking pipes and horticulture (Lavin 1984; Feder 1984, 1999). An increase in site size and complexity suggests a trend toward greater sedentism and social complexity, probably the result of a growth in the population base, particularly at the end of this period (McBride and Dewar 1987; Lavin 1988; Jones 2002). The Woodland Period has been traditionally subdivided into Early, Middle, and Late periods on the basis of ceramic styles, settlement and subsistence patterns, and political and social developments (Ritchie 1969, 1994; Snow 1980; Lavin 1984). Despite these changes, most recent scholars see the Woodland as a period well-rooted in the traditions and lifeways of the preceding Archaic period (Feder 1984, 1999).

C.1 Early Woodland Period (2,700-2,000 BP)

Most documented sites in Connecticut containing Early Woodland components are situated along the coast or at the mouths of major rivers such as the Quinnipiac, Connecticut, Thames, and Mystic, although a number of interior upland locations have also been documented. The Early Woodland period remains poorly understood, and sites from this period are less well-represented in the archaeological record than sites from the preceding phases of the Late Archaic. This leads some to argue for a probable population decline during the Early Woodland (Fiedel 2001). On the other hand, the apparent dearth of Early Woodland sites may simply reflect the biases of site-recognition strategies (Juli and McBride 1984). Direct association of Narrow-stemmed projectile points with Woodland Period radiocarbon-dated contexts (Herbster and Chereau 1999, 2001, 2003; Herbster 2004), as well as the stratigraphic association of Narrow-stemmed points with Woodland types (Lavin and Russell 1985; Cuzzone and Hartenberger 2009), suggest the possibility that Woodland Period assemblages are frequently misidentified as Late Archaic. The observed change in site patterning from the previous periods may also be a reflection of shifting settlement strategies that promoted the formation of larger, but fewer, seasonal aggregation camps (Jones 2002). Research suggests that year-round habitation of some sites was established by the late Early Woodland period (Ceci 1980; Bernstein 1990).

Early Woodland regional complexes are generally characterized by stemmed, tapered, and side-notched (Meadowood) point forms and preforms, often of Onondaga chert; thick, grit-tempered, cord-marked ceramics; tubular stone pipes; burial ritual; and indications of long-distance trade/exchange networks (Lavin 1984; Juli 1999). It is possible that incipient horticulture focused on native plant species such as goosefoot (*Chenopodium sp.*) had begun by this time (George 1997). The existence of stone pipes also suggests that tobacco was being traded into the region, if not locally produced, by the Early Woodland.

Despite the rarity of Early Woodland sites, a number of very large, deep pit features attributed to this period have been found across southern New England. These pits may represent nut-storage facilities and clusters of these features could indicate repeated use of nut-gathering locations by families, perhaps with established rights to certain groves. This would represent a break from presumed earlier patterns based on more mobile kin-based social units with relatively open access to local areas (Jones 2002).

C.2 Middle Woodland Period (2,000-1,200 BP)

The Middle Woodland Period is characterized by increased diversity in ceramic style and form, continued examples of long-distance exchange (especially of jasper), and at its end, the introduction of tropical cultigens (Dragoo 1976; Snow 1980; Juli 1999). Much of our current knowledge of the Middle Woodland Period in southern New England is extrapolated from Ritchie's (1994) work in New York State. Ritchie noted an increased use of plant foods such as goosefoot (*Chenopodium sp.*), which he suggested had a substantial impact upon social and settlement patterns. George (1997) reiterated this hypothesis for the Middle Woodland of Connecticut. Ritchie also noted an increase in the frequency and size of storage facilities during the Middle Woodland period, which may reflect a growing trend toward sedentism (Ritchie 1994; Snow 1980). At this time, jasper tool preforms imported from eastern Pennsylvania appear to have been entering the region through broad, formalized exchange networks (Luedtke 1987).

In Connecticut, Middle Woodland sites are relatively rare outside of coastal and near-coastal contexts. Archaeological evidence of settlement patterns suggests an increased frequency of large sites adjacent to wetlands and tidal marshes along the Connecticut River, a decline in large upland occupations, and a corresponding increase in upland temporary camps (McBride 1984). This pattern may reflect a reduction in residential mobility is likely related to the development, by 2,000 BP, of modern tidal marshes and estuaries in low-lying riverine areas. The tidal marshes would have supported a wide variety of terrestrial and aquatic animal and plant resources, allowing longer residential stays (McBride 1984).

C.3 Late Woodland Period (1,200-450 BP)

The Late Woodland period is characterized by population aggregation in villages along coastal and riverine locales; more intensive use of maize, beans, and squash; changes in ceramic technology, form, style, and function; the eventual establishment of year-round villages; and the use of the upland-interior areas by small, domestic units or organized task groups on a temporary and short-term basis. The settlement pattern suggests a trend toward intensified settlement in larger villages and hamlets in coastal and riverine areas. It has been hypothesized that these changes can be attributed to the introduction of maize, beans, and squash, but the importance of cultigens in the diet of southern New England groups, especially those with access to coastal resources remains unclear (Ceci 1980; McBride 1984; McBride and Dewar 1987; Bendremer and Dewar 1993; Ritchie 1994; Chilton 1999). Although sites clearly demonstrate the use of tropical cultigens in the Connecticut River valley, wild plant and animal resources were still a primary component of the aboriginal diet. The use of imported cherts increased over time in the Connecticut River valley, suggesting possible social, economic, and/or political ties to the Hudson Valley region. Affinities in pottery styles also suggest western ties at this end of this period (Feder 1999).

D. Contact and Historic-Period Native American Context

Between 1520 and 1650, initial European settlement in southern New England had a significant impact on Native American groups in Connecticut and profoundly altered the pre-Contact geopolitical landscape. In the Late Woodland and early Contact periods, indigenous settlement focused on or adjacent to the floodplains of major rivers and tributaries, reflecting the importance of agricultural activities, fishing, and access to transportation and communication routes (Pagoulatos 1990). After 1600 AD, contact with Europeans likely catalyzed documented shifts in settlement and subsistence strategies, including the intensification of maize agriculture.

Planting in the spring required a focused, cooperative kin-based effort, while the capture of anadromous fish at waterfalls and choke-points brought together households as it had for millennia. From late summer through winter, small household groups from larger village-based communities continued to use upland areas for hunting, trapping, and gathering. The introduction of a market economy related to the development of a large-scale fur-trading industry led to rapidly shifting alliances and power struggles between the various Native American groups in Connecticut. At the same time, Native communities struggled to maintain traditional lifeways as epidemic diseases decimated populations (Carlson et al 1992). Encroachment by newly arrived European settlers also contributed to the rearrangement of the physical and social landscape.

The explorations of Giovanni da Verrazanno in 1524 and Adriaen Block in 1614 are the most often noted examples of early contact between the region's Native population and Europeans, although it is likely that numerous less well-documented fishermen and traders infiltrated the waters of Long Island Sound and interacted with Native populations throughout the 16th century. For the interior tribes, contact with Europeans took longer. By the end of the Pequot War in 1637, however, rapid colonization and sales of land by Native sachems to English colonists were well underway. In the decade that followed, new towns were quickly established and an estimated 20,000 English settled Connecticut during the Great Migration (1629-1642).

At the time of European contact in the early 17th century, the project area was inhabited or at least utilized by Native Americans. It is likely that the Native people in the area identified as Norwalke, a subset of the larger Siwanoy band that occupied southwestern Connecticut and adjacent portions of present-day New York State. As noted above and discussed in greater detail below, historic maps of the project area (Figures 4 and 5) indicate that an "ancient Indian fort" was located on a spit of land on the east side of the Norwalk River within the APE.

Norwalk falls within the Western Coastal Slope region – a historical-geographical context defined by the Connecticut Historical Commission in 1996 (Lavin and Mozzi 1996). English occupation here began in the mid-17th century, when a number of land deeds were negotiated with Native American leaders. Local natives suffered a process of dispossession that involved the definition of land reservations within the boundaries of present-day Bridgeport, Fairfield, Orange, Stratford, and Westport. Due to their relatively small sizes, these reservations were not well-suited to supporting large populations through foraging or agriculture. Consequently, some Indians relocated to communities upriver. Others joined ethnically admixed communities that formed in the state's developing coastal urban centers, where careers in the maritime and service industries were available. None of the original Indian reservations exist today, all having been passed into non-Indian ownership by the mid-19th century.

E. Previously Identified Pre-Colonial Archaeological Sites

AHS reviewed the files of previously-documented archaeological sites in the site files of the OSA and CTSHPO. No archaeological surveys have been conducted within the project area, but a total of 11 previously-recorded pre-colonial sites are recorded within one mile of the existing bridge. A review and discussion of those sites is presented below.

Eight of the pre-colonial sites (103-13, 103-20 – 103-22, 103-26, 103-28, 103-43, and 103-45) are recorded only as points on a map, with no additional information, and three additional pre-colonial sites (103-32, 103-35, and 103-36) identified by avocational archaeologist Ted Jostrand.

Site 103-32, the Ted Jostrand #3 or Woodward Avenue Site, is located approximately 0.9 miles south of the APE. The site was first reported in 1962 in an Archaeological Society of

Connecticut newsletter. The site is described as a multi-component campsite area that includes shell deposits on high ground with some small, unidentified potsherds. Jostrand's notes on the site form indicate that the main portion of the site is likely submerged and suggests that this site may be related to the nearby Jostrand Sites numbers 4 (103-33) and 5 (103-34).

Site 103-35, the Ted Jostrand #6 Site, is located immediately north of I-95, approximately 1.1 miles northeast of the project area. The site form contains very little information about the nature of the site, which was identified based on surface finds in a bulldozed area. Site 103-35 is described as a "probable campsite area, containing a few thin shell pits and very few stone artifacts." This site is located in close proximity to Site 103-22, the Fitch School Site, for which, as noted above, no information apart from the site location is available.

Site 103-36, Ted Jostrand site #9, is located about 0.9 miles southwest of the APE, south of Flax Hill Road. The site form contains no additional information about the nature of the site.

Historic maps of the project area vicinity also indicate that there may have been a Late Woodland/Contact Period palisaded Indian Fort in the project area. The location of the fort is noted on the 1847 Hall map (Figure 4) and the 1867 Beers map (Figure 5) and based on a 1689 deed for a piece of land along the Norwalk River from John Gregory to his son, Thomas. The land was described as "Lying on the West side of the Norwalke Towne plot, 2 acres—bounded East by the common land banke; West, Norwalk River; South, by the point of common land where the Indian fort formerly stood; North, by Thomas Betts' Marsh Meadow" (Hall 1847: 21). The area comprising the former fort has been filled, but it is possible that portions of the site may have been capped by fill, rather than destroyed. A discussion of the filling and development activities in the APE is discussed below.

Eight additional sites are documented just over a mile from the project area. To the southeast, two pre-colonial-period sites are located: the Woodland period Bernie's Burial Site (103-4) excavated by Powell in 1975 and the Spruce Swamp Site (103-5), a multi-component site that includes a village and shell midden and dates to the Archaic and Woodland periods. The Sasqua Hill/Duck Pond Site (103-25) is located about 1.1 miles east of the project area. This site, which was located near the coast, was excavated by Powell and Jostrand. The site extended for about 10,500 feet and included a midden and burials. Site 103-33, the Ted Jostrand #4 Site, is located just over a mile south of the project area. It is a multi-component campsite that contained Snook Kill, Rossville, Orient Fishtail, and Levanna projectile points. The artifacts were salvaged from bulldozed areas. Additionally, two pre-colonial sites (103-23 and 103-24), are located just over a mile northeast of the project area, one pre-colonial site (103-43) is located just over a mile east of the project area, and one pre-colonial site (103-46) is a bit over a mile south/southeast of the project area. These sites are recorded only as points on a map, with no additional information.

V. HISTORIC-PERIOD CONTEXT

Historical background research was conducted in order to compile a capsule history of documented land use in the project area and to provide a context for assessing the potential of the APE to contain historic-period archaeological resources. The research included a review of local histories (Grant 2014; Hall 1847; Loboza 1974; Selleck 1901), historical maps and aerial photographs (Figures 3-27) (Eakins 1835; Hall 1847; Clark 1851; Beers 1867; Bailey 1875; Landis and Hughes 1899; Sanborn 1884-1950), and the OSA and CTSHPO archaeological site files.

A. Brief History of Norwalk

The area that became Norwalk was purchased in two transactions, one in 1640 and one in 1641, from a Norwalke sachem named Mahackemo. Daniel Patrick bought a large tract on the west side of the Norwalk River in April 1640, and Roger Ludlow bought land on the east side of the river (including portions of the project area) in February 1640/41. Ludlow's land, which extended north from the coast so far as a man could walk in a day, was paid for with "eight fathoms of wampum, six coats, ten hatchets, ten hoes, ten knives, ten scissors, ten jew's harps, ten fathoms tobacco, three kettles of six hands about, and ten looking glasses." Actual settlement by the English did not begin until 1649, when the families of Richard Olmstead and Nathaniel Ely arrived from Hartford. Other families soon followed, and Norwalk was incorporated as a town in 1651.

Initially, the English occupied the southern end of the territory, nearest Long Island Sound. The original focus of English settlement was along present-day East Main Street in East Norwalk, a short distance east of the project area, where the settlers laid out houselots, built a meetinghouse, and established a burying ground. The area along the river was described in early deeds as "marsh meadows," low-lying tidal areas suited for harvesting salt hay but probably not much else. By the end of the 17th century, and certainly by the early years of the 18th century, English settlement had reached into the northern part of Norwalk.

As was common throughout most of Connecticut during the colonial period, the inland area of Norwalk appears to have been occupied by widely scattered family farms eking out a modest living from the soil. The swift waters of the nearby Norwalk River powered the sawmills, gristmills, and fulling mills needed to sustain the agricultural economy, and local craftsmen provided other necessary services, such as blacksmithing. For several generations, most families in Norwalk pursued a generalized, near-subsistence agriculture to earn their living, although many also likely incorporated some fishing and other maritime activities into their seasonal round.

By the mid-19th century, the areas at the head of the Norwalk River and South Norwalk (formerly known as "Old Well") along the river were becoming rapidly industrialized. East Norwalk, however, remained a relatively isolated, rural part of the town, especially the low-lying parts closest to the river (see Figures 4 and 5). The first bridge between East Norwalk and South Norwalk was the railroad drawbridge that was built as part of the construction of the New York and New Haven Railroad. Construction began in 1847 and the rail line opened in 1849. The railroad encouraged the development of South Norwalk, which with the completion of the north-south Danbury and Norwalk Railroad in 1852, became a junction of two lines. The railroad had relatively little impact on the development of East Norwalk, as that part of town did not get a passenger station until 1885.

In South Norwalk, Marshall Street was initially the more densely developed area, but following the completion of the first highway bridge across the river in 1867, Washington Street became the preferred site for building new commercial enterprises. The 1867 map of Norwalk (Figure 5) shows numerous industries in the project area vicinity on the west side of the river. These included lumber and coal yards, a planing mill, machine shop and wire manufacturer, a knob manufacturer, and an iron works.

The Washington Street commercial area eventually expanded across the river into East Norwalk, with the first commercial blocks and houses going up in the late 1880s (Bryant 2005:4). Some of the east-side buildings were on the “main land,” while other buildings clearly were built in the marsh or even the tidal flats flanking the bridge, presumably on pilings (Figures 7 and 8). The presence of “Germania Hall” among the buildings on the east side of the river suggests the ethnic makeup of the area, as does the name of the north-south cross street that forms the eastern border of parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25, which was originally “Kaiser Avenue” (changed to Goldstein Place in the World War I period).

As noted above, the New York and New Haven Railroad began operating through Norwalk in 1849 and in 1852 the Danbury and Norwalk Railroad connected those two cities. By the 1870s the New York and New England Railroad had merged with the New York and New Haven Railroad to form the New York, New Haven, and Hartford Railroad, which quickly became one of the busiest rail lines in the region.

The current Norwalk River Railroad Bridge is a swing bridge that was built in 1896, during the New York, New Haven, and Hartford Railroad’s massive reconstruction of its main line from New York to New Haven. The expansion, which involved doubling the number of tracks from two to four and straightening out many of the line’s curves, was conducted to address the rapid growth in rail traffic. The bridge was designed by railroad engineers and provided by the Berlin Iron Bridge Company. The bridge’s swing span, rotating on a rim-bearing system of 96 rollers, was designed to allow tall vessels to pass on the Norwalk River.

B. Previously-Recorded Historic-Period Sites in the Project Area Vicinity

A review of the archaeological site files at CTSHPO and OSA indicates that there are two historic-period sites (103-17 and 103-50) within a mile of the APE. Site 103-17, the Neptune Site, is located within the APE in Parcel 3/1/25, 11 Goldstein Place. This portion of the project area was addressed in a separate report (Clouette and Sportman 2015). The Neptune Site is described as the first (unofficial) landfill area for South Norwalk and is believed to date from the early 19th century to the early 20th century. It is possible that landfilling activities are related to the filling of marshy portions of the project area, depicted on historic maps and discussed in greater detail below. The Neptune Site was identified by a collector who surface-collected and “pot-hunted” the site using a metal detector and shovel. Reported artifacts included medicine and beverage bottles from local stores. When the site was recorded in 1982 it measured roughly 30 by 55 feet and cultural materials were visible around the perimeter. The site was situated between wetlands on the east, the marina to the north, the river to the west, and sterile mud to the south. It is possible that remnants of this site may still exist in the APE.

Site 103-50, the Metro North Railroad 1910 Electrification Norwalk New Haven Railroad Danbury Branch Site, is located across the Norwalk River, about 0.25 miles west of the project area. The includes the ca. 1910 electrification infrastructure which extends for about one-mile from CP 214, Switch 35 on the Amtrak Northeast Corridor to a point approximately 5000 feet

north, roughly 600 feet north of Jennings's Crossing. The site name provided on the site form is somewhat misleading, as the electrification actually occurred in 1925.

C. Review of Historic Maps

This section provides an overview of land use history in the project areas based on an examination of historic maps. When possible, the project parcels (Figure 2) were geo-referenced and overlaid on a series of historical maps for accuracy. Due to the variable quality, accuracy, and projections of the different historic and modern maps, geo-referencing was not always possible. In such cases, the project parcels were hand drawn on historic maps. The discussion is organized by blocks of adjacent project areas as shown on project plans provided by HNTB (Figure 2). For the purposes of the following discussion Block 1 comprises parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25; Block 2 includes parcels 3/1/8, 3/1/19, 3/1/29, and 3/1/30; Block 3 encompasses parcel 3/2/3; Block 4 includes parcels 2/84/19, 2/84/33, and 2/84/63; Block 5 comprises parcels 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27.

C.1. Block 1 – Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25

The 1835 U.S. Coast Survey map (Figure 3) and the 1847 Hall map (Figure 4) depict parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25 (see Clouette and Sportman 2015 for a discussion of parcel 3/1/25 (formerly Parcel B)) on the spit of land documented on two 19th-century maps (Figures 4 and 5) as the location of the “ancient Indian fort” surrounded by the salt marsh.

The 1847 (Figure 4) and 1867 (Figure 5) maps of Norwalk indicate that little development occurred in the vicinity of Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25 during the first three quarters of the 19th century. Intensive development of East Norwalk did not really begin until after 1885 when a railroad station was built on that side of the river. The marshy area surrounding Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25 appears to have been gradually filled, beginning in the 1890s and extending into the first half of the 20th century (see Figures 7-14). Figure 8 is detail of a Sanborn Insurance map that shows the Block 1 parcels in 1895. The majority of 3/1/25 is labeled as marshy land and there are two houses in the project area, one in Parcel 3/1/24 and the other in parcel 3/1/15, suggesting that these areas were built up or sufficiently filled in to support the structures. The 1899 bird's-eye view of Norwalk (Figure 8) shows two large industrial structures in Parcel 3/1/25, as well as the houses visible in parcels 3/1/24 and 3/1/15 on the 1895 map. The 1899 map also indicates that much the area surrounding the project areas was still marshy at this time, as the structures south of 3/1/25 and 3/1/15, on the south side of Washington Street, appear to be built on pilings.

The Sanborn Insurance map from 1900 (Figure 9) shows the Norwalk Pattern and Manufacturing Company in Parcel 3/1/25, and from south to north along Kaiser Avenue, a single-family house at number 1 in Parcel 3/1/15, a single-family house at number 3 in 3/1/16, a duplex at numbers 5 and 7 within 3/1/24, and fourth house (no longer extant) at number 9 within parcel 3/1/22. The same dwellings are visible in these parcels on the 1912 Sanborn map (Figure 10). The same structures appear on the 1922 and 1950 Sanborn maps, as well as the 1934 and 1951 aerial photographs of the project area vicinity (Figures 11-14), and appear to remain relatively unchanged during those years. It is likely that domestic deposits related to the occupation of these structures during the late 19th-20th centuries are present in the house lots.

When the first listing by street numbers in the *Norwalk Directory* began in 1914, all of the houses were occupied by working-class families; at the time of the 1930 federal census, three

of the four were rental properties (Clouette and Sportman 2015). Although these structures served as rental houses for much of their existence, the abundance of available historical records (census, Sanborn maps, city directories, etc.) for late 19th to early 20th century Norwalk permits the identification of many of people who lived in the houses in the early 20th century and provides valuable context for interpreting potential associated archaeological deposits. For example, census records indicate that in 1900, the house at number 3 was rented by Henry Flagg, a railroad leverman, and his family. By the 1910 the Gouch family occupied the house. Leo Gouch was a German immigrant, who worked in a hat factory. His wife Catherine's family was from Connecticut and the couple had three young sons. The 1914 *Norwalk Directory* indicates that the Gouch family was still in residence at number three Kaiser Avenue, and listed Leo Gouch as a foreman at the Crofut and Knapp hat factory in South Norwalk. In 1920 the house was occupied by the Vanclief family. William H. Vanclief, who worked as chauffeur for the lumberyard, is listed as a 46-year-old "black" male from New York. His wife Helen and his four daughters are listed as "mulatto." The household also included Helen's parents, William and Mary Zellick. William worked as a watchman in the lumberyard. He is listed in the census as "mulatto," and Mary, who was born in Colorado, is listed as "Indian." Available Norwalk city directories indicate that the family moved to number 3 between 1918 and 1920 and they left the house sometime between 1924 and 1927, when they moved to 31 Ann Street. Interestingly, in the 1930 U.S. census lists Mary Zellick, along with the entire Vanclief family, as "negro," illustrating the variable definition of racial categories at this time. After the Vanclief family left number 3, the house was rented by John and Jane Purdy, a middle-aged couple from New York. Census records indicate that the Purdys were still living in the house in 1940.

C.2. Block 2 – 3/1/8, 3/1/19, 3/1/29, and 3/1/30

The 1835 Eakin Coast Survey map (Figure 3) shows the area comprising Parcels 3/1/8, 3/1/19, 3/1/29, and 3/1/30 as marshland. The 1847 Hall map (Figure 4) shows the western portions of Parcels 3/1/19, 3/1/29, 3/1/30 on the spit or peninsula of land that extends out into the river and is surrounded by salt meadow and marsh. It is difficult to reconcile these maps, as they are not as accurate as modern maps. However, based on the 1835 map and later maps depicting the project area, it seems likely that these parcels actually fell within the marsh and that the majority of the former peninsula is comprised of Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25.

The 1867 map of Norwalk (Figure 5) depicts Parcel 3/1/8 and the southeastern portion of Parcel 3/1/19 within the boundaries of the property owned by E.L. Hendrick. Based on the map, it appears as though two structures related to the Hendrick property fell within the boundaries of the project area, one in Parcel 3/1/8 and the other in Parcel 3/1/19. The 1881-82 *Fairfield County Directory* (Boyd 1881) identifies E. L. Hendrick as Edward L. Hendrick, a farmer with a house on Fort Point Road. U.S. Federal Census records from 1900-1920, however, indicate that Edward Hendrick lived at 10 Fort Point Road until his death in 1920. This structure, which is no longer extant, would have been on the east side of the road, outside of the APE.

The 1895 Sanborn map (Figure 7) and the 1899 bird's-eye view map (Figure 8) do not show any structures within Parcels 3/1/8, 3/1/19, 3/1/29, and 3/1/30. The Sanborn map from 1900 (Figure 9) does not show the eastern part of Parcel 3/1/8. No structures are depicted within the Block 2 parcels on this map, and the area comprising Parcels 3/1/29 and 3/1/19 is labeled "vacant." The 1912 Sanborn map (Figure 10) depicts only the western portions of Parcels 3/1/19, 3/1/29, and 3/1/30, and no structures are shown in those areas. It is likely that this area remained

undeveloped because it was very wet. The 1934 Fairchild aerial photograph (Figure 12) shows standing water across much of the area comprising Parcel 3/1/30, with a cluster of buildings in the northeast corner. The aerial photograph also shows a structure in the area comprising Parcel 3/1/8. The 1950 Sanborn map (Figure 13) identifies the structure in 3/1/8 as a restaurant. In the 1951 aerial photograph the area looks drier, but is still largely undeveloped (Figure 14).

C.3. Block 3 – Parcels 3/2/3 and 3/2/6

On the 1835 Eakin Coast Survey map (Figure 3), most of the area comprising Parcel 3/2/3 is depicted as marshland. The 1947 Hall map shows parcel 3/2/3 in a salt meadow (Figure 4). On the 1867 map of Norwalk (Figure 5), most of the southwestern part of the parcel falls within the bounds of property held by S.E. Firth, although no associated structures are depicted on the map. The remainder of the parcel appears to have remained undeveloped until the turn of the century (Figure 8). None of the Sanborn maps between 1884 and 1950 show the portion of the project area comprising Parcel 3/2/3. The 1934 and 1951 aerial photographs (Figures 12 and 14) show some development in parcels immediately northeast of parcel 3/2/3, in the location the wastewater treatment plant that still exists in this area today (see Figures 1 and 2).

C.4. Block 4 – Parcels 2/84/19, 2/84/33, 2/84/63

Parcels 2/84/19, 2/84/33, and 2/84/63 are located on the west side of the Norwalk River, south of Washington Street (Figure 2). The 1835 Coast survey map (Figure 3) shows these parcels as undeveloped marsh land. The coverage of the 1847 Hall map of Norwalk (Figure 4) ends just north of Block 4. The 1867 map (Figure 5) shows Parcels 2/84/19, 2/84/33, and 2/84/63 extending out into the river and located just to the east of a machine shop and wire ferrule manufacturing facility, as well as a property owned by H. Z. Norton. The 1875 bird's-eye view (Figure 6) also depicts a commercial operation in Parcels 2/84/19, 2/84/33, and 2/84/63. It is likely that some filling was conducted prior to the construction of the commercial structures, as the early historic maps depict the area as very wet.

The 1884 Sanborn Insurance map (Figure 15) covers Parcels 2/84/19, 2/84/33, and 2/84/63 and depicts the Raymond Furnace Manufacturing Company's foundry, pattern shop, and dock, as well as a dwelling and a shed along Water Street within the project area. The Raymond Furnace Company made heating apparatuses, including steam and hot water systems that worked in combination with hot air (Comstock 1887:2). The company went out of business sometime between 1887 and 1889. In 1891, George Raymond, the former company president, accepted a position with the Detroit Heating and Lighting Company of New York (Gerard 1891).

The 1889 Sanborn map showing Parcels 2/84/19, 2/84/33, and 2/84/63 (Figure 16) depicts a new firm, the Richardson and Morgan Company, occupying the former Raymond Company works. This company also made steam heaters. On the 1889 map the dock is labeled as a "rotted plank wharf." The dwelling depicted on the 1884 Sanborn map is shown on the 1889 map as a drugstore. On the 1895 Sanborn map (Figure 17), the manufacturing structures are listed as vacant. The Richardson and Morgan Company had some financial trouble in 1893 (Williams 1893:488), likely as a result of the Panic of 1893. The drug store on Water Street is no longer standing; the map shows an office and a block of dwellings, listed as 70 – 84 Water Street, in that location. These buildings may be associated with E.M. Tolles and Company Coal and Wood Yard, located just north of Parcels 2/84/19 and 2/84/63 (Figure 17). These structures were likely rental or tenement housing units. They are visible on the 1906, 1912, and 1922 Sanborn maps (Figures 18-20), and the 1934 Fairchild aerial photograph (Figure 14), but by

1950 (Figure 21), all but number 70 had been demolished. The residents of these houses were enumerated in the 1940 Federal Census, indicating the structures were demolished sometime in the 1940s. Additional research in census records and town directories could identify the occupants at various times. Census records indicate, for example, that in 1920, several of these structures were occupied by African American families. Most of the men worked in the oyster industry as “oyster openers” and several of the women were listed as laundresses in private homes or in public laundries. By the 1940 census, these houses were still occupied by working-class African American individuals and families.

During the same time period, the commercial property formerly occupied by the Richardson and Morgan Company in the southern part of the project area changed hands several times. In 1900 and 1906 these structures are listed as the United States Foundry and Sales Corporation. The company was incorporated in New Jersey in 1902 and operated an iron and steel manufacturing plant in South Norwalk (Iron and Machinery World 1902). By 1912 (Figure 19) the property had become part of Crofut and Knapp, a large hat manufacturing company. Crofut and Knapp was originally located at the corner of Day and Tolles Streets, but by 1912 the operation had expanded and taken over the former United States Foundry and Sales Corporation complex. The 1922 Sanborn (Figure 20) shows several structures related to hat manufacturing in the project area. By 1950 (Figure 21), the commercial structures, like the former dwellings, had been torn down.

C.5. Block 5 – Parcels 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27

Parcels 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27 are located north of Washington Street on the west side of the river (Figure 2), immediately north and south of the rail line. The 1835 Eakin Coast Survey map (Figure 3) and 1847 Hall map (Figure 4) show the parcels within the “Old Well” section of Norwalk. Both the Eakin Coast Survey and Hall maps show the parcels on dry land.

The 1867 map of Norwalk (Figure 5) map depicts the Norwalk Iron Company and the Norwalk Lock Company within Parcel 2/24/8 and an associated “Knob Factory” in Parcels 2/24/10 and 2/24/22. Parcels 2/24/24, 2/24/26, and 2/24/27 skirt the rear yards of two domestic structures and the First National Bank. The layout of these structures can also be seen on the 1875 bird’s-eye view (Figure 6). The Norwalk Lock Company’s main building was constructed in 1856, and several additions were added over the next approximately 100 years. Norwalk Lock, which manufactured locks and hardware, was one of the first large steam-powered factories in the U.S. The company occupied the structure until the 1950s. The buildings were used for various short-term purposes during the second half of the 20th century. In 2000 CTSHPO determined the Norwalk Lock building to be eligible for the National Register of Historic Places. The structure was renovated and re-opened in 2001 and it now houses several businesses. The Norwalk Iron Company manufactured compressors. The company was known for its innovations in compressor technology. By 1901, the Norwalk Iron Company was one of the largest manufacturers in Norwalk and it employed 375 men (Norwalk 2.0 2015).

The 1884 and 1889 Sanborn maps (Figures 22 and 23) show the Norwalk Lock Company in Parcel 2/24/8, but the Knob Factory building is no longer standing in the vicinity of Parcels 2/24/10 and 2/24/22 and the map doesn’t extend to the area covering parcels 2/24/24, 2/24/26, and 2/24/27. By 1906 (Figure 24), two storage buildings associated with the C.S. Trowbridge wooden box manufacturing plant had been constructed immediately south of Parcels 2/24/10 and 2/24/22. The 1912, 1922, and 1950 Sanborn maps (Figure 25-27) depict a similar layout.

VI. CONCLUSIONS AND RECOMMENDATIONS

AHS conducted an archaeological sensitivity assessment of 20 parcels (2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, 2/24/27, 2/84/19, 2/84/33, 2/84/63, 3/1/8, 3/1/15, 3/1/16, 3/1/19, 3/1/22, 3/1/24, 3/1/29, 3/1/30, 3/2/3 and 3/2/6; Figure 2) within the APE. In addition, a brief discussion of the 1.6-acre parcel, Parcel 3/1/25, at 11 Goldstein Place, the subject of a separate report (Clouette and Sportman 2015), is also included here. These parcels were identified as possible construction staging and road, rail, and water access areas for the replacement of the 1896 Norwalk River railroad swing bridge. The project parcels are located along the east and west banks of the Norwalk River, in the vicinity of the existing railroad bridge.

Based on a review of the environment, archaeology, and history of the project parcels and project area vicinity, AHS assessed the sensitivity of the parcels for pre-colonial Native American and historic-period archaeological resources. In general, the proximity of the project area to the Norwalk River and its associated marshlands and feeder streams suggests that these parcels are highly sensitive for pre-colonial resources. The coves, mudflats, and estuarine zones that characterize this area today have probably existed for at least 4,000 years, persistently attracting pre-colonial Native American populations. However, many of these parcels are heavily developed and have contained industrial and/or domestic structures since the mid to late 19th century. As a result, AHS recommends that any undisturbed and relatively dry areas in the APE should be considered highly sensitive for pre-colonial resources and subjected to archaeological testing.

Nearly all of the parcels are potentially sensitive for historic-period archaeological resources, as most of these areas have been heavily developed since the mid-19th century. AHS assessed the sensitivity of the parcels for historic-period archaeological resources based on the land-use history of the parcel, the potential for intact deposits, and the potential significance of undocumented sites in terms of information potential and singularity or importance of site types. A more-detailed sensitivity assessment of individual parcels is provided below, along with a discussion of AHS's recommendations for archaeological testing and/or monitoring in sensitive areas. The areas considered to have archaeological sensitivity are shown on Figure 28. Table 1 (located at the end of the section) presents a summary of the recommendations.

Due to the prevalence of industrial operations in the parcel areas, an assessment of potential soil contamination must be conducted prior to any archaeological investigations.

A. Block 1 – Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25

A review of previously documented archaeological sites and historic maps and aerial photographs indicates that while this part of the APE has been heavily developed since the late 19th century, it does possess some potential for intact archaeological deposits. Historic maps (Figures 3-5) indicate that much of Block 1 was once a small peninsula surrounded by marshes. The 1847 and 1867 maps of Norwalk (Figures 4 and 5), also indicate that a Native American fort once stood on the peninsula. If even a portion of the fort site remains, it would comprise a very significant archaeological site.

A series of historic maps and aerial photographs examined for the archaeological assessment indicates that some of the land comprising the former fort may still be intact. The area has certainly been filled, but it is possible that portions of the fort and its related archaeological features and deposits could have been capped by fill, rather than destroyed. As stated above, the Urban Land characterization of the soils in the project area indicates only

impervious cover. If, as the maps suggest, the area surrounding the peninsula was filled to create solid land in the late 19th century, the former peninsula may have been relatively undisturbed. The only way to assess this block for the presence of intact soils is to remove the pavement and conduct archaeological testing. Therefore, AHS recommends that subsurface archaeological investigations be conducted within those parts of this block that were not previously disturbed for industrial use. In some areas, this may require the removal of pavements or thick layers of gravel parking lot fill. Due to the presence of several industrial operations in Parcel 3/1/25 during the 19th and 20th centuries, the possibility of soil contamination must be considered prior to any archaeological investigations in this area.

The lots of the four 1890s houses along Goldstein Place (numbers 1, 3, 5-7, and 9) that fall within Parcels 3/1/15, 3/1/16, 3/1/22, 3/1/24, and 3/1/25 likely contain intact archaeological deposits related to the working-class families that occupied these houses during the late 19th and early 20th centuries. Archaeological deposits associated with these houses have the potential to provide information about the domestic lives of working-class residents of Norwalk in the late 19th and early 20th century. The availability of extensive historical records would enable the association of particular individuals and families with these structures and potential archaeological deposits. It is also possible the previously documented Neptune Site (103-17), the 19th to 20th century dump discussed in greater detail in a previous report (Clouette and Sportman 2015), is related to the occupation of these structures.

B. Block 2 – Parcels 3/1/8, 3/1/19, 3/1/29, and 3/1/30

The 1835 Coast Survey map suggests that the area comprising Block 2 would have been marshland, adjacent to the spit of land where the Contact-period Indian fort once stood. In undeveloped portions of the Block 2 parcels, there is some potential for pre-colonial or Contact-period archaeological resources such as small resource-extraction sites or larger temporary settlement sites on the edges of the former marsh. Marsh environments are extremely rich in plant and animal resources and such areas often played an important role in Native American subsistence and settlement patterns. Archaeological testing is recommended in areas that would have comprised dry land bordering the marshes, particularly in Parcels 3/1/19, 3/1/29, and 3/1/30. Development in these parcels has been limited; if there are archaeological sites in these areas, they may contain relatively intact deposits.

Based on a review of historic maps, Parcels 3/1/8, 3/1/19, 3/1/29, and 3/1/30 appear to have low sensitivity for historic-period archaeological resources. For most of the 19th and early 20th centuries, these parcels remained undeveloped.

C. Block 3 – Parcel 3/2/3 and 3/2/6

Based on a review of the historic maps and aerial photographs, The northwestern portion of parcel 3/2/3 and the northern portion of Parcel 3/2/6 are considered to have moderate potential for pre-colonial resources and low potential for historic-period archaeological resources. Historic maps indicate that these parcels have remained largely undeveloped, and their proximity to the river and marshland would have made them attractive areas for Native American use and/or settlement. It is possible, however, that these areas contain deep fill soils, as they appear to be significantly drier today than they were during the first half of the 20th century. AHS recommends archaeological testing in the northwestern portion of Parcel 3/2/3 and the northern portion of Parcel 3/2/6 prior to ground disturbance. The southern portions of Parcel 3/2/6 and the southeastern portion of 3/2/3 are likely heavily disturbed as a result of railroad construction.

AHS considers it unlikely that these areas contain any significant pre-colonial or historic-period archaeological resources.

Historic maps indicate that during the historic period, Parcels 3/2/3 and 3/2/6 remained undeveloped until well into the 20th century, indicating little potential for historic-period sites. However, as stated above, the lack of development in this area increases the possibility for intact pre-colonial archaeological deposits.

D. Block 4 – Parcels 2/84/19, 2/84/33, and 2/84/63

Historic maps dating to the first half of the 19th century (Figures 3-5) depicts Parcels 2/84/19, 2/84/33, and 2/84/63 as very wet. As a result, there is probably very little potential for pre-colonial cultural resources in these parcels. By the last third of the 19th century, Parcel 2/84/33 contained industrial structures. The 1867 map shows a machine shop and wire ferrule manufacturing facility in this area, and by 1884 the Raymond Company, which manufactured heating apparatuses, was established in the project area. Over the next three decades, several other industrial operations occupied the former Raymond Company's space and constructed new structures and/or demolished old buildings as needed. It is likely that subsurface exploration of the project area would be able to detect evidence of the industrial uses that occupied the site from the 1860s through the first quarter of the 20th century. However, these operations were relatively short-lived and of no exceptional historical significance. Crofut and Knapp was a major producer of hats well into the 20th century, but the Sanborn maps indicate that the company used the project area primarily for storage. It is doubtful that much could be learned about the various industrial processes that is not known from more intact sites elsewhere. The same assessment applies to the remains (if any) of the timber wharf that was once located in the eastern portion of the project area. Such remains would require underwater investigation to locate and they are unlikely to provide significant information.

It is likely that archaeological deposits related to the block of houses at 70 to 84 Water Street, which first appear on the 1895 Sanborn map (Figure 17), are present in the southwestern portion of Parcel 2/84/63 and the northwestern part of Parcel 2/84/33. These structures, which were rental or tenement housing, were demolished sometime in the 1940s. Census records indicate that between 1920 and 1940 these structures were occupied by working-class African American individuals and families. In the 1920s, most of the men were employed as oyster openers and the women worked as laundresses. By 1940 several different occupations were represented. When considered within the context of available historical information, archaeological deposits associated with these houses have the potential to provide significant information about the lives of working-class African-Americans in Norwalk. Therefore, AHS recommends archaeological testing or pre-construction monitoring in the locations of these structures and their rear yard areas prior to ground disturbance.

E. Block 5 – Parcels 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27

Parcel 2/24/8 is located north of Washington Street on the west side of the river and the remaining Block 5 parcels comprise a narrow strip of land that parallels the southern edge of the rail line (Figure 2). Early historic maps (Figures 3 and 4) show these parcels on dry land along the river. Given their proximity to the river, undisturbed portions of parcels 2/24/8, 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27 are considered sensitive for pre-colonial cultural resources. Parcels 2/24/10 and 2/24/22, which contained the Knob Factory, have likely been

subjected to greater disturbance than parcels 2/24/24, 2/24/26, and 2/24/27, which historically skirted the rear yards of domestic structures.

The 1847 and 1867 maps (Figures 5 and 6) show parcels 2/24/10, 2/24/22, 2/24/24, 2/24/26, and 2/24/27 in the “Old Well” section of Norwalk. This was one of the earliest settled areas in Norwalk. By 1867 (Figure 5) the Norwalk Lock Company was established in Parcel 2/24/8. The original building was constructed in 1856 and several additions were added during the course of the company’s approximately 100-year occupation of the site. As stated above, Norwalk Lock, which manufactured locks and hardware, was one of the first large steam-powered factories in the U.S. In 2000 the Norwalk Lock building was determined eligible for the National Register of Historic Places.

Given the fact that the Norwalk Lock Company and Norwalk Iron Works occupied Parcel 2/24/8 for over a century, and the Norwalk Lock building was determined eligible for the National Register of Historic Places, it is likely that significant and relatively intact archaeological deposits related to these industries exist in the project area. AHS recommends pre-construction archaeological monitoring of any ground-disturbing activities conducted in Parcel 2/24/8 in the vicinity of existing or former structures related to the Norwalk Lock and Norwalk Iron companies and in Parcels 2/24/10 and 2/24/22. Given that the same company occupied the project area for such a long period of time, it is possible that there are undisturbed areas in Parcel 2/24/8. If such areas exist, they should be considered sensitive for both pre-colonial Native American and historic-period cultural resources related to the early settlement of Old Well. A walkover and visual assessment of the project area will help to clarify the presence or absence of intact areas. AHS recommends archaeological testing in undisturbed areas prior to any ground disturbing activities in Parcel 2/24/8.

G. Underwater and Shoreline Parcels

Potential impacts to underwater and shoreline archaeological resources in riverine parcels (Figure 29), including areas proposed as dredging areas, possible substructure locations, proposed temporary work trestle locations, and the possible submarine cable trench, also are impossible to quantify without more developed project plans. A combination of bathymetric, vibrocore, and hand-auger data, along with data gathered from pedestrian survey of shorelines and intertidal areas within the APE, are being collected and analyzed to determine the potential for intact cultural resources in underwater, riverbank, and intertidal parcels slated for project use. These methods are adequate for evaluating the presence and/or potential for subsurface cultural materials, reconstructing paleogeography, evaluating depositional environments, and potentially recording changes in historical land use; and providing recommendations for further investigations or mitigation based on an overall assessment of underground archaeological potential within the APE. In areas determined to possess archaeological sensitivity, additional underwater and bankline archaeological assessments will be required to accurately assess project impacts.

Table 1: Summary of recommendations for parcels in the APE. *

Map/Block/ Lot	Address	Pre-Colonial/Contact Period Sensitivity	Historic-Period Sensitivity	Recommendations
3/1/22	9 Goldstein Place	High	Moderate	Subsurface archaeological testing/archaeological monitoring; geoprobes
3/1/25	11 Goldstein Place	High	Moderate	Subsurface archaeological testing/archaeological monitoring; geoprobes
3/1/24	5 Goldstein Place	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
3/1/16	3 Goldstein Place	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
3/1/15	1 Goldstein Place	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
3/1/30	10 Goldstein Place	Moderate	Low	Subsurface archaeological testing; geoprobes
3/1/29	4 Goldstein Place	Moderate	Low	Subsurface archaeological testing; geoprobes
3/1/19	6 Goldstein Place	Moderate	Low	Subsurface archaeological testing; geoprobes
3/1/8	217 Liberty Square	Low	Low	Subsurface archaeological monitoring
3/2/3	60 South Smith Street	Moderate	Low	Subsurface archaeological testing; geoprobes
3/2/6	21 Goldstein Place	Moderate (northern portion)	Low	Subsurface archaeological testing (northern portion); geoprobes
2/84/33	90 Water Street	Low	High (northwestern portion)	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/84/63	70 Water Street	Low	High (southwestern portion)	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/84/19	68 Water Street	Low	Low	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/24/8	18 Marshall Street	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes

Map/Block/ Lot	Address	Pre-Colonial/Contact Period Sensitivity	Historic-Period Sensitivity	Recommendations
2/24/10	20 North Water Street	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/24/22	99 Washington Street	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/24/24	83 Washington Street	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/24/26	79 Washington Street	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes
2/24/27	67 Washington Street	Moderate	High	Subsurface archaeological testing/archaeological monitoring; geoprobes

* Recommendations may be amended after geotechnical data becomes available, contingent upon field conditions, and as design is advanced.

VII. REFERENCES

Bailey, Oakley Hoopes

1875 *Norwalk and South Norwalk, Conn. Bird's-eye View*. Boston, MA: O.H. Bailey and Company.

Beardsley, R.K, P. Holder, A.D. Krieger, B.J. Meggers, J.B. Rinaldo, and P. Hutsche

1956 Functional and Evolutionary Implications of Community Patterning. Seminars in Archaeology: 1955. *Society for American Archaeology, Memoir* 11: 129-155.

Beers, Frederick W.

1867 *Atlas of New York and Vicinity*. New York: Beers, Ellis & Soule.

Bell, Michael

1985 *The Face of Connecticut*. Bulletin 110, State Geological and Natural History Survey of Connecticut. Hartford, CT: Connecticut Department of Environmental Protection.

Bellantoni, Nicholas

1995 *Distribution of Paleoindian Cultural Material in Connecticut*. Paper presented at the Archaeological Society of Connecticut Annual Spring Meeting.

Bendremer, Jeffrey and Robert Dewar

1993 The Advent of Maize Horticulture in New England. In *Corn and Culture in the Prehistoric New World, University of Minnesota Publications in Anthropology, No 5*, edited by Sissel Johannessen, Christine A. Hastorf. Boulder, CO: Westview Press.

Bernstein, David J.

1990 Prehistoric Seasonality Studies in Coastal Southern New England. *American Anthropologist* 92(1):96-115.

Boyd, Andrew W.

1881 *Stamford and Norwalk, General Directory, including a Business and Farmer's Directory for the Years 1881-1882*. Washington, D.C.: W. Andrew Boyd.

Butler, Eva

1946 The Brush or Stone Memorial Heaps of Southern New England. *Bulletin of the Archaeological Society of Connecticut* 19:3-12.

Bryant, Tod

2005 "Liberty Square: Artifact of a Lost Era." Unpublished research paper.

Carlson, Catherine, George Armelagos, and Ann Magennis

1992 Impact of Disease in the Precontact and Early Historic Populations of New England and Maritimes. In *Disease and Demography in the Americas*, edited by J. Verano and D. Ubelaker. Washington, D.C.: Smithsonian Institution Press.

Cassedy, Daniel F.

1997 *From the Erie Canal to Long Island Sound: Technical Synthesis of the Iroquois Pipeline Project, 1989-1993*. Atlanta, GA: Garrow and Associates, Inc.

1999 The Archaic Florescence: The Late and Terminal Archaic Periods of Connecticut as Seen From the Iroquois Pipeline. *Bulletin of the Archaeological Society of Connecticut* 62: 125-139.

Ceci, Lynn

1980 Maize Cultivation in Coastal New York: The Archaeological, Agronomical and Documentary Evidence. *North American Archaeologist* 1(1): 45-74.

Chace, J., Jr., W. J. Barker, and N. Hector.

1856 *Clark's Map of Fairfield County, Connecticut*. Philadelphia, PA: Richard Clark.

Chilton, Elizabeth

1999 Mobile Farmers of Pre-Contact Southern New England: The Archaeological and Ethnohistorical Evidence. In *Current Northeast Paleoethnobotany*, edited by J. Hart, pp. 157-176. Albany, NY: New York State Museum, No. 494.

Clouette, Bruce

2015 *Preliminary Report: Historic Resources, Replacement/Rehabilitation of Bridge No. 04288R, Norwalk River Railroad Bridge (Walk Bridge), Norwalk, Connecticut*. Storrs, CT: Archaeological and Historical Services, Inc.

Clouette, Bruce and Sarah Sportman

2015 *Memorandum Report: Historic and Archaeological Resources, 11 Goldstein Place, Replacement/Rehabilitation of Bridge No. 04288R Norwalk River Railroad Bridge (Walk Bridge) Norwalk, Connecticut*. State Project No. 301-176. Storrs, CT: Archaeological and Historical Services, Inc.

Clouette, Bruce, Marguerite Rodney and Stacey Vairo

2016 *Historic Resources Evaluation Report: Walk Bridge Replacement, Norwalk, Connecticut*. State Project 301-176. Storrs, CT: Archaeological and Historical Services, Inc.

Coffin, Claude

1937 A Prehistoric Shell Heap at the Mouth of the Housatonic. *Bulletin of the Archaeological Society of Connecticut* 5:10-19.

1938 An Indian Village at Cedar Ridge, Upper White Hills, Shelton, Connecticut. *Bulletin of the Archaeological Society of Connecticut* 7:9-11.

1940 Excavations in Southwest Connecticut. *Bulletin of the Archaeological Society of Connecticut* 10:33-50.

- 1946 Final Work at the Eagle Hill Site 1937-43. *Bulletin of the Archaeological Society of Connecticut* 19:18-36.
- 1951 The Eagle Hill Ridge Site—Laurel Beach, Milford. *Bulletin of the Archaeological Society of Connecticut* 25:25-54.
- Comstock, William
- 1887 *Building: a Journal of Architecture* (Trade Supplement). Vol. VII, No. 16:2. October 15, 1887.
- Cuzzone, H., and B. Hartenberger
- 2009 Late Archaic and Late Woodland occupations at Cove River, West Haven: New Data on Subsistence and the Narrow Point Tradition. *Bulletin of the Archaeological Society of Connecticut* 71:17-39.
- Dincauze, Dena F.
- 1968 Cremation Cemeteries in Eastern Massachusetts. *Papers of the Peabody Museum of Archaeology and Ethnology* 59(1). Cambridge, MA: Harvard University.
- 1975 The Late Archaic Period in Southern New England. *Arctic Anthropology* 12(2): 23-24.
- 1976 *The Neville Site: 8000 Years at Amoskeag Falls*. Peabody Museum Monographs 4. Cambridge, MA: Harvard University.
- Dragoo, D.W.
- 1976 Some Aspects of Eastern North American Prehistory: A Review 1975. *American Antiquity* 41:3-27.
- Eakin, C. M.
- 1835 "From Black Rock to Norroton," manuscript map, U.S. Coast Survey (T-Sheet No. 19).
- Fairfield Aerial Survey
- 1934 Aerial photographs of Connecticut. Connecticut State Library, Hartford.
- Feder, Kenneth
- 1984 Pots, Plants, and People: The Late Woodland Period of Connecticut. *Bulletin of the Archaeological Society of Connecticut* 47: 99-112.
- 1999 The Late Woodland Revisited: The Times, They Were A-Changin' (But Not That Much). *Bulletin of the Archaeological Society of Connecticut* 62: 155-174.
- Fiedel, Stuart
- 2001 What Happened in the Early Woodland? *Archaeology of Eastern North America* 29: 101-142.

Forrest, Daniel T.

1999 Beyond Presence and Absence: Establishing Diversity in Connecticut's Early Holocene Archaeological Record. *Bulletin of the Archaeological Society of Connecticut* 62: 79-99.

Forrest, Daniel and Bruce Clouette

2007 *Report: Phase I and II Archaeological Surveys, Route 7/15 Interchange Improvements, Norwalk and Wilton, Connecticut*. State Project Nos. 102-269 and 102-305. Storrs, CT: Archaeological and Historical Services, Inc.

Freeman, C.A.

1901 *Norwalk after 250 Years*. South Norwalk: CT: C.A. Freeman, Publisher.

Funk, Robert E.

1997 Holocene or Hollow Scene? The Search for the Earliest Archaic Cultures in New York State. *The Review of Archaeology* 17(1): 11-24.

George, David

1997 Late Prehistoric Archaeobotany of Connecticut: Providing a Context for the Transition to Maize Agriculture. *Bulletin of the Archaeological Society of Connecticut* 60: 13-28.

Gerard, Henri

1891 *Manufacturer and Builder, Volume XXIII*. New York, NY: Henri Gerard.

Glynn, F.

1953 The Pilot's Point Submerged Sites. *Bulletin of the Archaeological Society of Connecticut* 27:11-29.

Grant, Lisa Wilson

2014 *Images of America: Norwalk*. Charleston, S.C.: Arcadia Publishing.

Hall, Edwin, ed.

1847 *The Ancient Historical Records of Norwalk, Conn. with a Plan of the Ancient Settlement, and of the Town in 1847*. Norwalk, CT: Norwalk: J. Mallory & Co.

Herbster, H.

2004 *Technical Report, Archaeological Data Recovery Program, East Pasture Site (19-DK-238), Aquinnah, Massachusetts*. Pawtucket, RI: The Public Archaeology Laboratory, Inc.

Herbster, H., and S.G. Cherau

1999 *Fieldwork Completion Report, Archaeological Data Recovery Program within the Herring Creek Archaeological District, Wampanoag Aquinnah Shellfish Hatchery (WASH) Project, Aquinnah, Massachusetts*. Pawtucket, RI: The Public Archaeology Laboratory, Inc.

2001 *Technical Report, Data Recovery Program, Lot 5/6 Site (19-DK-138), Lot 6 Building Envelope, Squibnocket Ridge, Chilmark, Massachusetts.* Pawtucket, RI: The Public Archaeology Laboratory, Inc.

2003 *Technical Report, Intensive (Locational) Archaeological Survey and Data Recovery Program, Gerhard Site, Aquinnah Massachusetts.* Pawtucket, RI: The Public Archaeology Laboratory, Inc.

Hoffman, Curtis R.

1990 *People of the Fresh Water Lake.* New York: Peter Lang Publishing, Inc.

Iron and Machinery World

1902 *Iron and Machinery World*, Vol. 92: 30. St. Louis, MO: Journal of Commerce Company.

Ives, Timothy H.

2009 *Large Pit Feature Formation and Use at the Late Archaic Preston Plains Site in Southeastern Connecticut.* Paper presented at the 74th annual meeting of the Society for American Archaeology, Atlanta.

Jones, Brian D.

1997 *The Late Paleoindian Hidden Creek Site in Southeastern Connecticut.* *Archaeology of Eastern North America* 25: 45-80.

1998 *Human Adaptation to the Changing Northeastern Environment at the End of the Pleistocene: Implications for the Archaeological Record.* Ph.D. dissertation, University of Connecticut. University Microfilms, Ann Arbor, No. 9906705.

1999 *The Middle Archaic Period in Connecticut: The View From Mashantucket.* *Bulletin of the Archaeological Society of Connecticut* 62: 101-123.

2002 *Continuity vs. Change During the Last Three Millennia at Mashantucket.* *Northeast Anthropology* 64: 17-29.

Jones, Brian and Daniel Forrest

2003 *Life in a Postglacial Landscape: Settlement-Subsistence Change During the Pleistocene-Holocene Transition in Southern New England.* In *Geoarchaeology of Landscapes in the Glaciated Northeast*, edited by David L. Cremeens and John P. Hart. New York State Museum Bulletin 497: 75-90.

Jones, Brian, Ross Harper, Mary Harper and Bruce Clouette

2005 *Report: Phase III Data Recovery at Site 103-49, Route 7/15 Interchange, Norwalk, Connecticut.* State Project No. 102-269. Storrs, CT: Archaeological and Historical Services, Inc.

Juli, Harold

1999 Current Perspectives on Early and Middle Woodland Archaeology in Connecticut. *Bulletin of the Archaeological Society of Connecticut* 62: 141-153.

Juli, Harold D. and Kevin A. McBride

1984 The Early and Middle Woodland Periods of Connecticut Prehistory: Focus on the Lower Connecticut River Valley. *Bulletin of the Archaeological Society of Connecticut* 47:89-98.

Kingsley, R.G., and B.R. Roulette

1990 *The Joyner Site: Late Archaic-Early Woodland Adaptations and Cultural Dynamics in Conanicut Island, Rhode Island*. John Milner Associates.

Landis and Hughes

1899 *Norwalk, South Norwalk, and East Norwalk, Conn.* Panoramic map. New York, NY.

Lavin, Lucianne

1984 Connecticut Prehistory: A Synthesis of Current Investigations. *Bulletin of the Archaeological Society of Connecticut* 47: 5-40.

1988 Coastal Adaptations in Southern New England and Southern New York. *Archaeology of Eastern North America* 16:101-120.

Lavin, Lucianne and Lyent W. Russell

1985 Excavation of the Burwell-Karako Site: New Data on Cultural Sequences and Artifact Typologies in Southern New England. *Bulletin of the Archaeological Society of Connecticut* 48: 45-87.

Lavin, Lucianne and Marina E. Mozzi

1996 *Historic Preservation in Connecticut, vol. 1*. "Western Coastal Slope: Overview of Prehistoric and Historic Archaeology and Management Guide." Unpublished manuscript prepared for the Connecticut Historical Commission, State Historic Preservation Office, Hartford, CT.

Leveillee, Alan

1999 Transitional Archaic Ideology as reflected in Secondary Burials at the Millbury III Cremation Complex, *Archaeology of Eastern North America*, 27 (1999).

Lobozza, Carl

1974 *Norwalk, Connecticut Pictures from the Past*. Norwalk, CT: Norwalk Historical Society.

Luedtke, Barbara E.

1987 The Pennsylvania Connection: Jasper in Massachusetts Archaeological Sites. *Bulletin of the Massachusetts Archaeological Society* 48(1): 37-47.

McBride, Kevin A.

1984 *Prehistory of the Lower Connecticut River Valley*. Unpublished Doctoral Dissertation, University of Connecticut.

McBride, Kevin A. and Robert Dewar

1981 Prehistoric Settlement in the Lower Connecticut River Valley. *Man in the Northeast* 22: 37-66.

1987 Agriculture and Cultural Evolution: Causes and Effects in the Lower Connecticut River Valley. In *Emergent Horticultural Economies in the Eastern Woodlands*, edited by W. Keegan, pp. 305-328. Center for Archaeological Investigations, University of Illinois, Carbondale.

McWeeney, Lucinda

1999 A Review of Late Pleistocene and Holocene Climate Changes in Southern New England. *Bulletin of the Archaeological Society of Connecticut* 62: 3-18.

Meltzer, David J.

1988 Late Pleistocene Human Adaptations in Eastern North America. *Journal of World Prehistory* 2(1): 1-52.

Moeller, Roger W.

1980 *6LF21: A Paleo-Indian Site in Western Connecticut*. American Indian Archaeological Institute, Washington, Connecticut.

1984 Regional Implications of the Templeton Site for Paleo-Indian Lithic Procurement and Utilization. *North American Archaeologist* 5(3): 236-246.

Natural Resource Conservation Service (NRCS)

2005 *Urban Soil Primer*. Natural Resources Conservation Service, United States Department of Agriculture. PDF available online at http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052835.pdf. Accessed 6/25/2015.

2015 Web Soil Survey. Natural Resources Conservation Service, United States Department of Agriculture. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed 7/15/2015.

Norwalk 2.0

2015 "Historic SoNo." Online article. <http://discovernorwalk.com/historic-sono/>. Accessed 7/21/15.

Pagoulatos, Peter

1990 Terminal Archaic "Living Areas" in the Connecticut River Valley, *Bulletin of the Archaeological Society of Connecticut*, No. 53: 59-72.

Pfeiffer, John

1986 Dill Farm Locus 1: Early and Middle Archaic Components in Southern New England. *Bulletin of the Archaeological Society of Connecticut* 49: 19-35.

Praus, Alexis

1942 Excavations at the Old Lyme Shell Heap. *Bulletin of the Archaeological Society of Connecticut* 13: 3-66.

Ritchie, William A.

1965 *The Archaeology of New York State*. Garden City, NY: Natural History Press.

1969 *The Archaeology of Martha's Vineyard*. Garden City, NJ: The Natural History Press.

1994 *The Archaeology of New York State, Revised Edition of 1965*). Fleischmanns, NY: Purple Mountain Press.

Robinson, Brian S.

1996 Archaic Period Burial Patterning in the Northeast. *The Review of Archaeology, Special Issue* 17(1): 33-44.

Robinson Brian, Peterson Jim and Ann Robinson (editors)

1992 *Early Holocene Occupation in Northern New England*, Occasional Publications in Maine Archaeology 9. Augusta, ME: Maine Historic Preservation Commission.

Rodgers, John

1985 Bedrock Geological Map of Connecticut: Connecticut Geological and Natural History Survey, Scale 1:125,000.

Russell, Lyent W.

1942 The Menunketisuck Site, Westbrook, Connecticut. *Bulletin of the Archaeological Society of Connecticut* 14:4-57.

Salwen, Bert

1966 European Trade Goods and the Chronology of the Fort Shantok Site. *Bulletin of the Archaeological Society of Connecticut* 34:5-39.

Salwen, Bert and Ann Ottesen

1972 Radiocarbon Dates for a Windsor Occupation at the Shantock Cove Site. *Man in the Northeast* 3:8-19.

Sanborn Map and Publishing Company

1884-1958 Insurance maps of Norwalk. Microfilm, Connecticut State Library, Hartford.

Selleck, Charles M.

1901 *Norwalk after 250 Years*. South Norwalk, CT: Norwalk Historical and Memorial Library Association, 1901.

Singer, Zachary

2013 *Ohomowauke: A Middle Paleoindian Site in Southeastern Connecticut*. Paper presented at the 80th Annual Meeting of the Eastern States Archaeological Federation, Portland, Maine.

Snow, Dean

1980 *The Archaeology of New England*. New York: Academic Press.

Spiess, Arthur E., Deborah B. Wilson and James Bradley

1998 Paleoindian Occupation in the New England-Maritimes Region: Beyond Cultural Ecology. *Archaeology in Eastern North America* 26: 201–64.

Uchupi, Elazar, Driscoll, Neal, Ballard, Robert D., and Bolmer, S.T.

2001 Drainage of Late Wisconsin Glacial Lakes and the Morphology and Late Quaternary Stratigraphy of the New Jersey - Southern New England Continental Shelf and Slope: *Marine Geology* 172:117-145.

U.S. Census Office (name varies)

1880-1940 Manuscript population schedules. Microfilm, Connecticut State Library, Hartford.

U.S. Department of Agriculture

1951 Aerial photographs of Connecticut, 1951. Connecticut State Library, Hartford.

Vairo, Stacey and Marguerite Rodney

2015

Williams, Lorraine E.

1972 Fort Shantok and Fort Corchaug: A Comparative Study of 17th Century Culture Contact in the Long Island Sound Area. Unpublished Ph.D. Dissertation, New York University.

Williams, David

1893 *The Iron Age*. Vol. 52, September 14, 1893: 488.

APPENDIX I

Figures

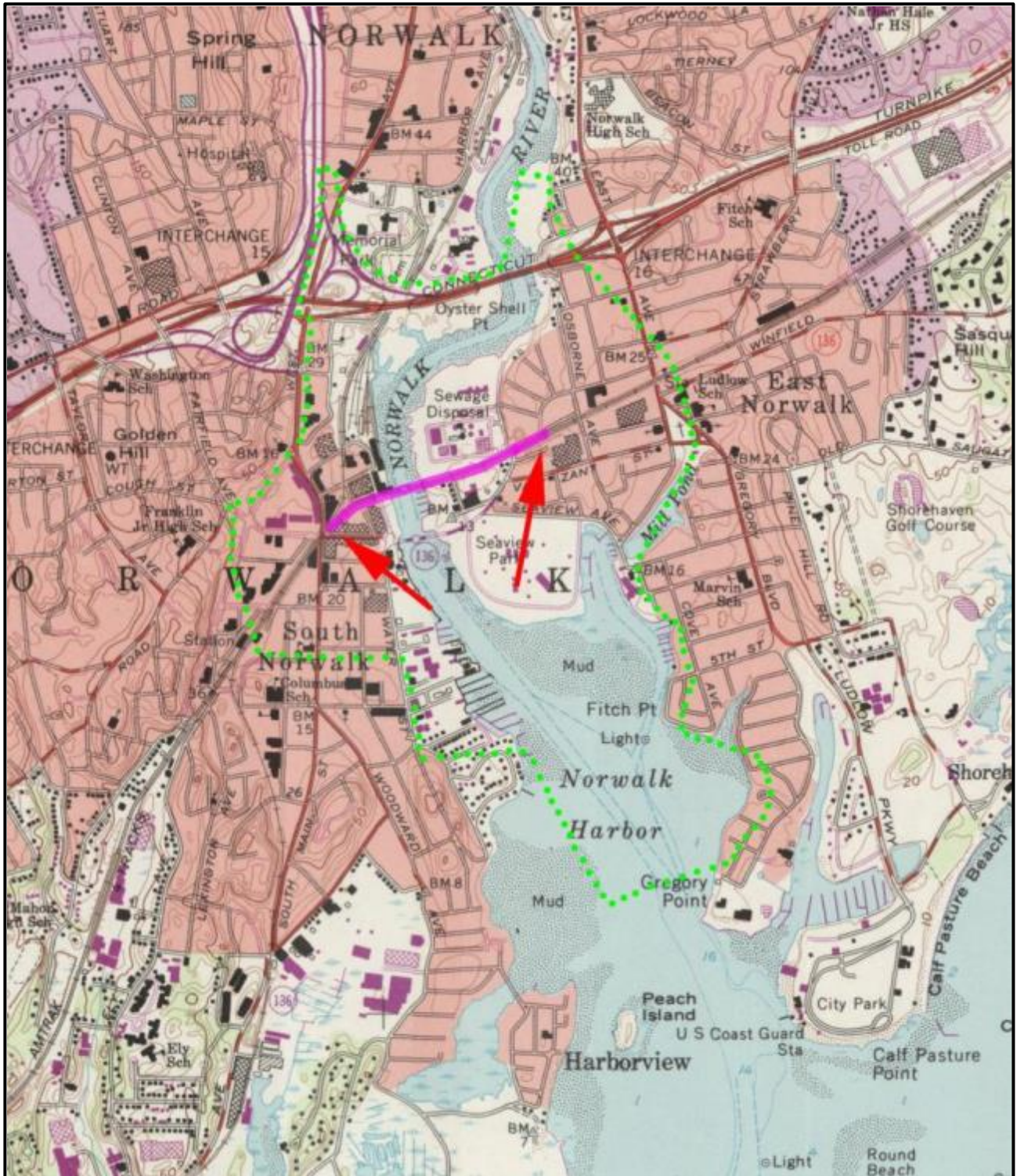


Figure 1: Location of project (arrows), shown on USGS Norwalk South Quadrangle, Scale 1:24000. The dotted green line outlines the approximate area in which the high towers, the tallest structures in the project, are visible.

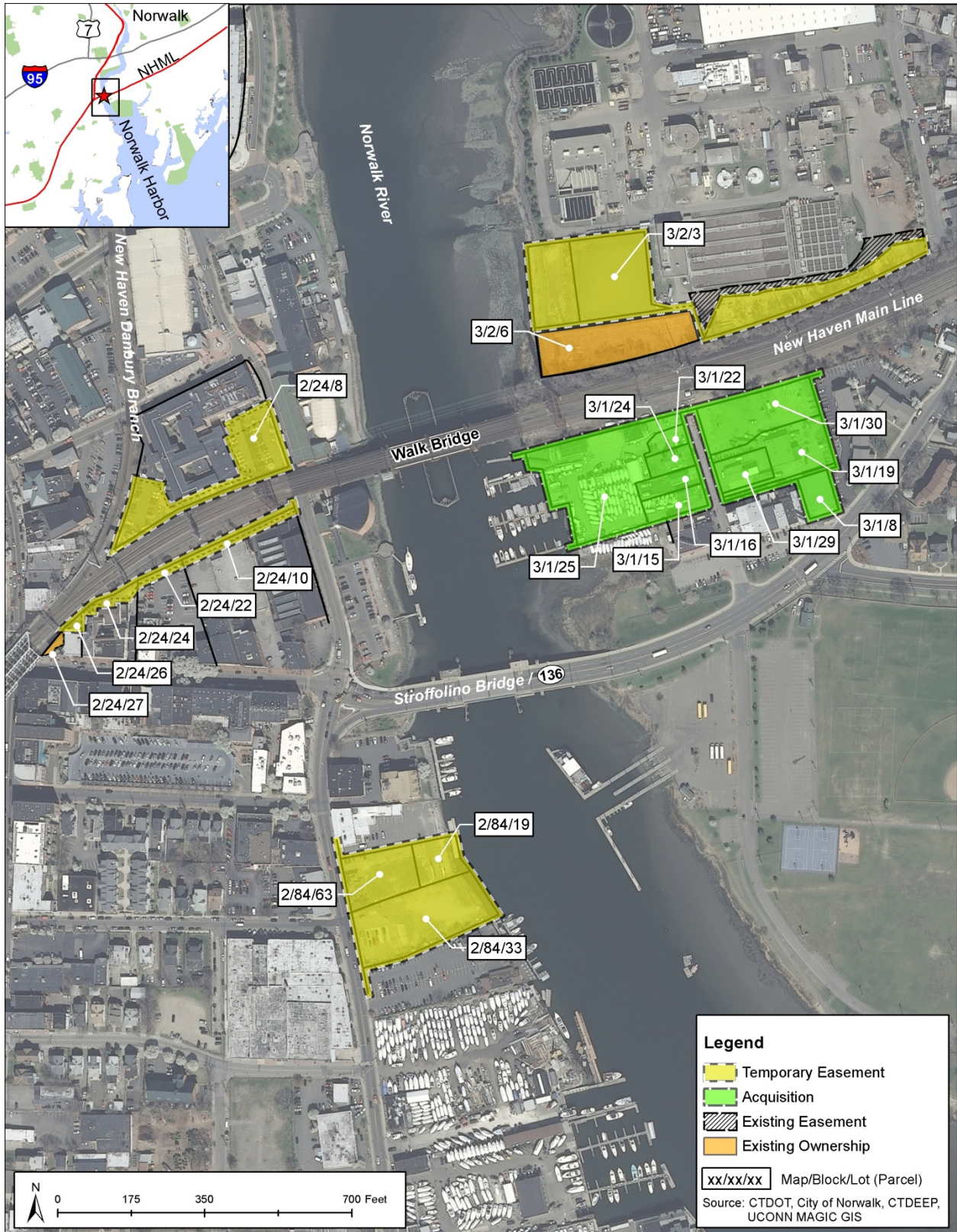


Figure 2. Aerial photograph, showing the locations of the acquisition and temporary easement parcels comprising the APE.



Figure 3: Detail of the 1835 Coast Survey map (Eakin 1835), showing the approximate locations of the APE parcel areas in red.

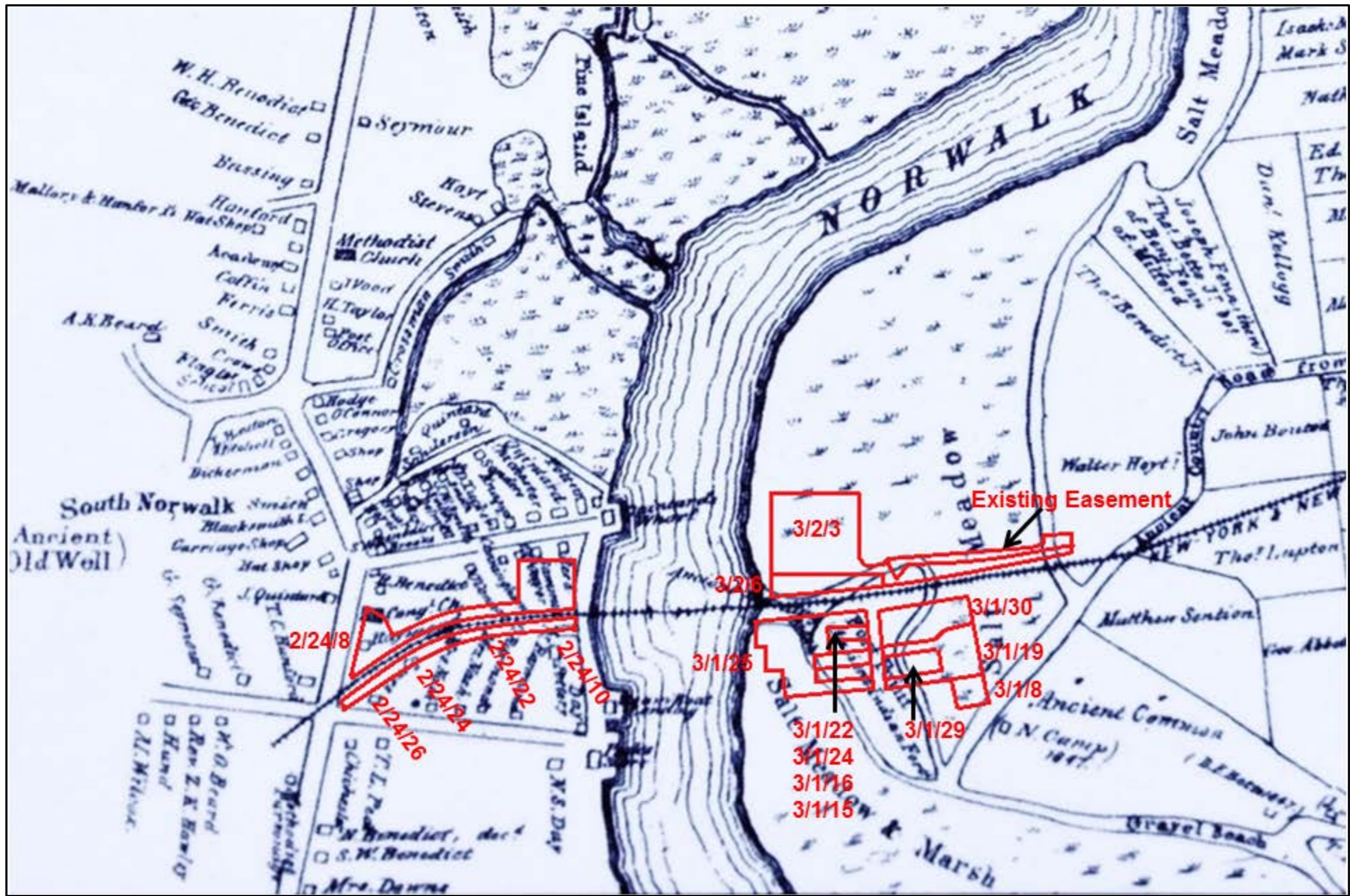


Figure 4: Detail of the 1847 Hall map of Norwalk, showing the approximate locations of the APE parcel areas in red.

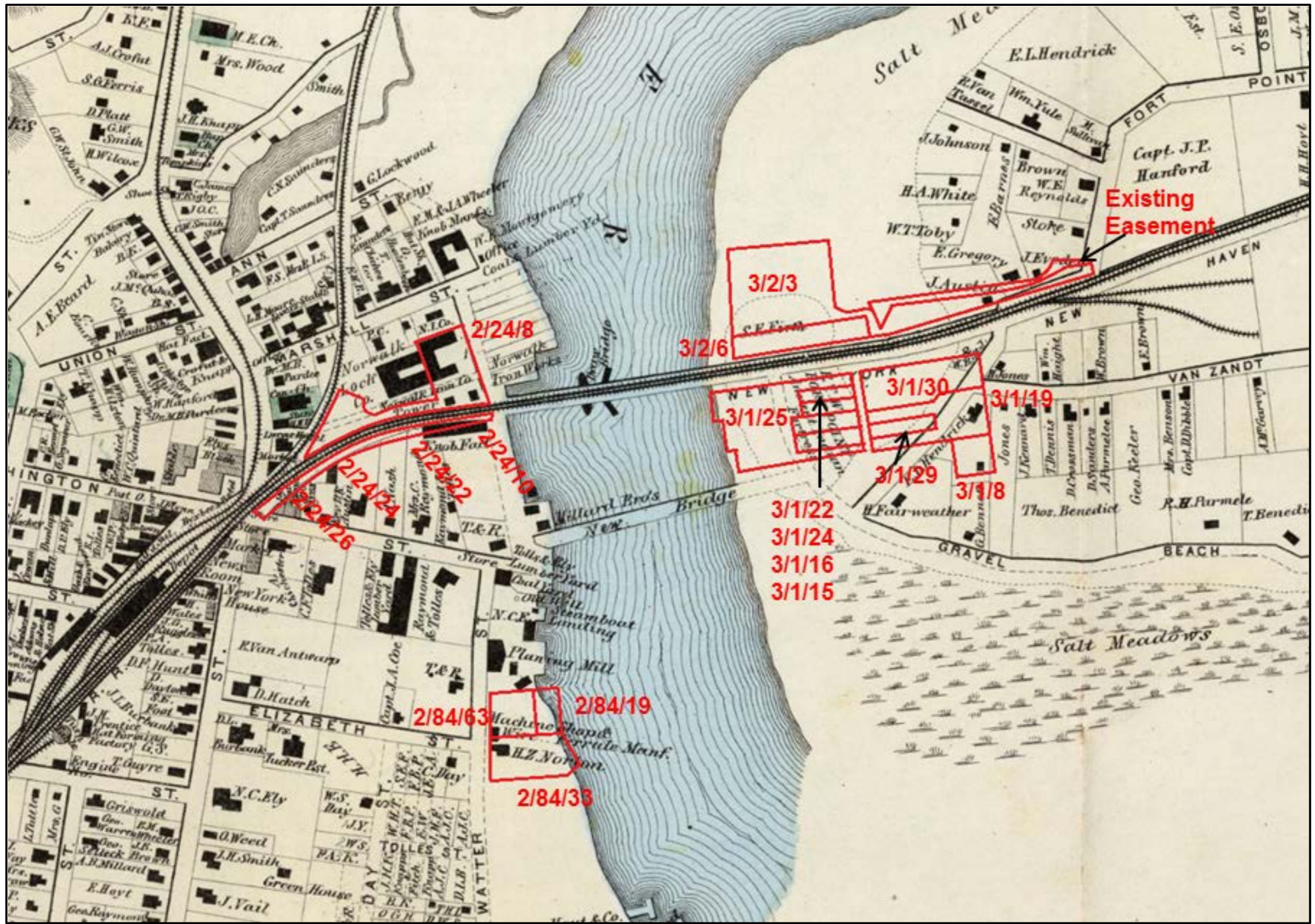


Figure 5: Detail of 1867 Beers atlas of Fairfield County, showing the approximate locations of the APE parcel areas in red

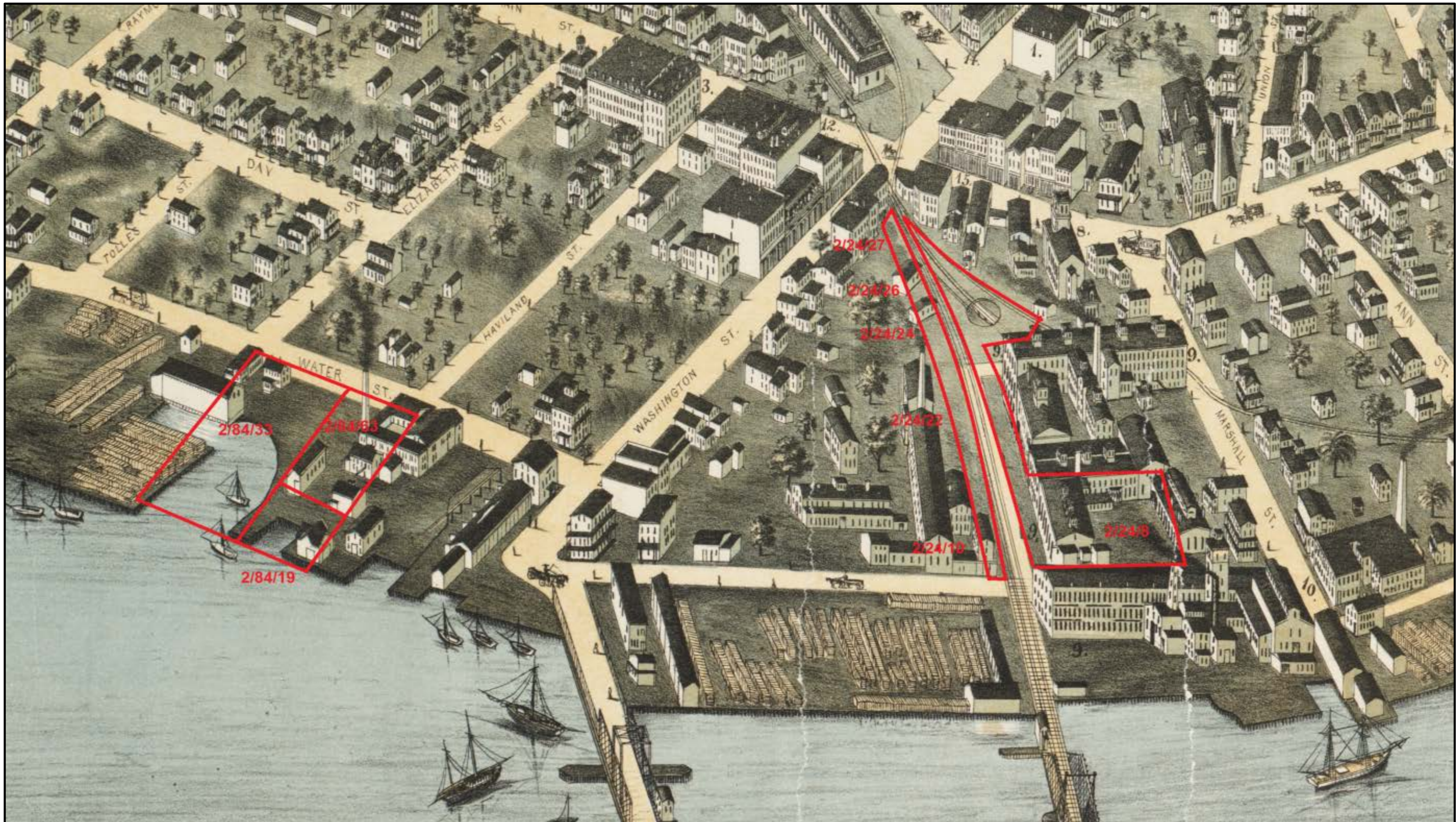


Figure 6: Detail 1875 Bailey bird's-eye view of Norwalk and South Norwalk, showing the approximate locations of the project areas on the west side of the Norwalk River in red. The east side of the river is not included on the original map.

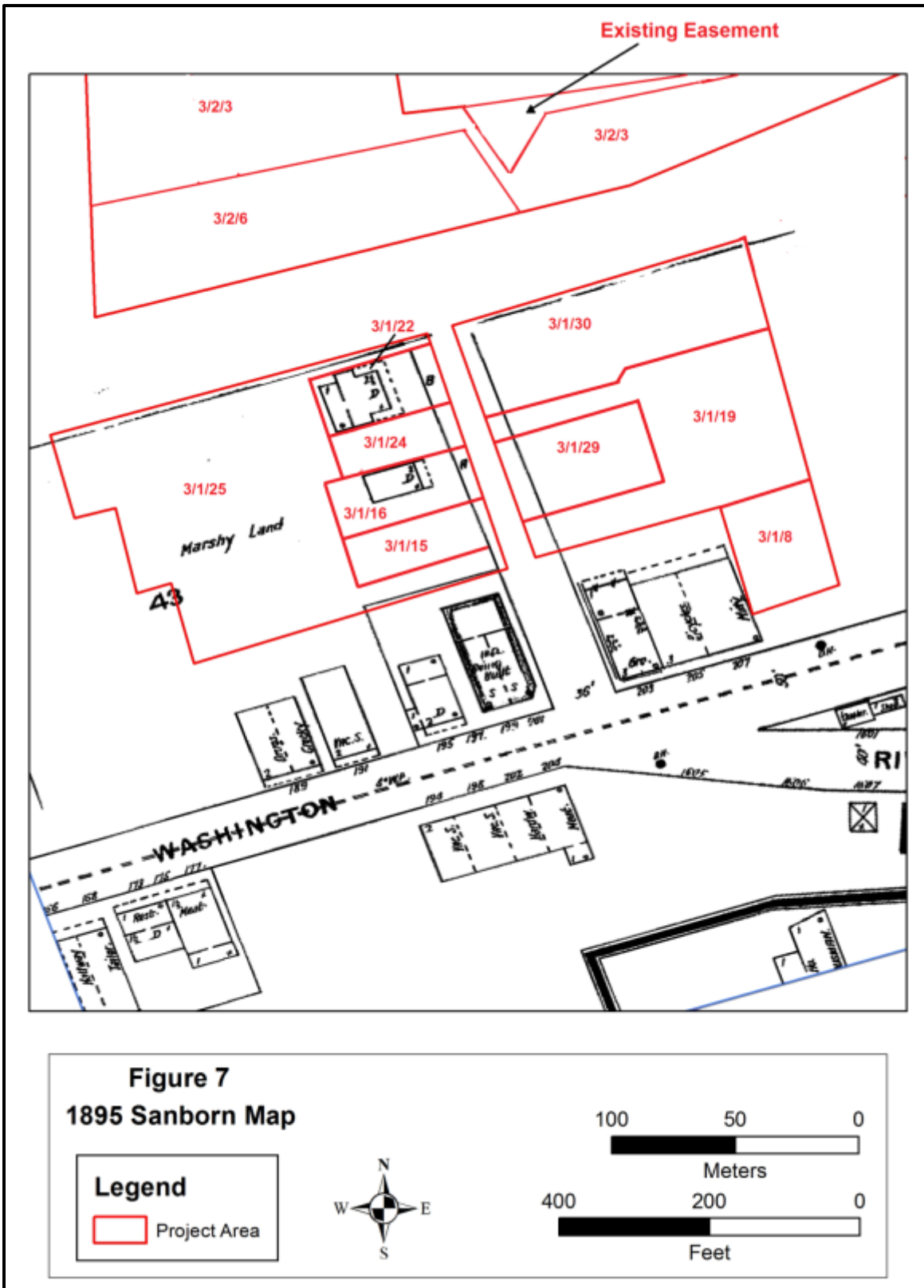


Figure 7: Detail of the 1895 Sanborn Insurance Map, showing the approximate location of Parcels 3/1/25, 3/1/22, 3/1/24, 3/1/16, 3/1/15, 3/1/8, 3/1/19, 3/1/29, 3/1.30, 3/2/3, and 3/2/6.

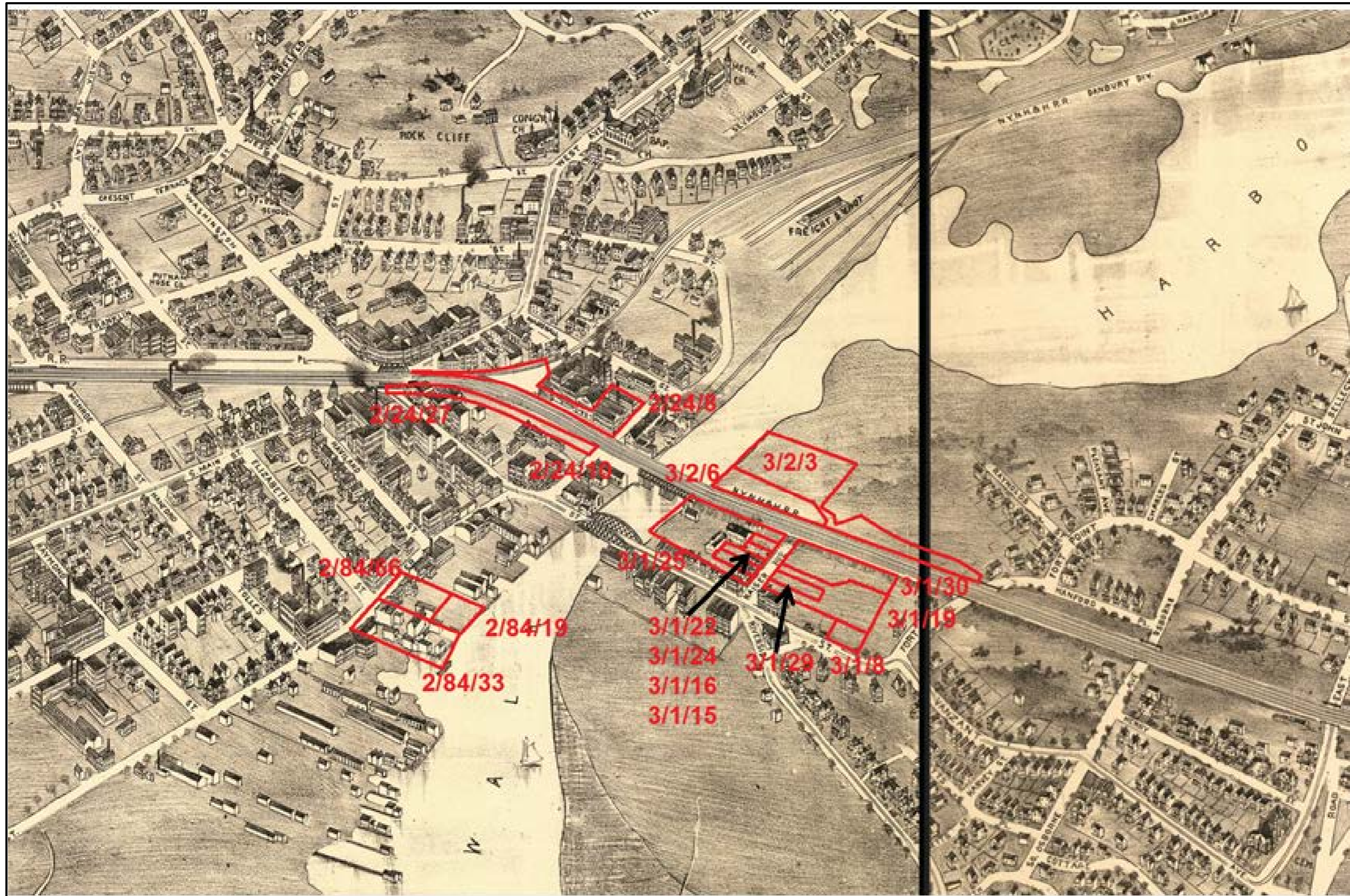


Figure 8: Detail of 1899 Landis & Hughes bird's-eye view of Norwalk, showing the approximate locations of the project parcel areas in red.

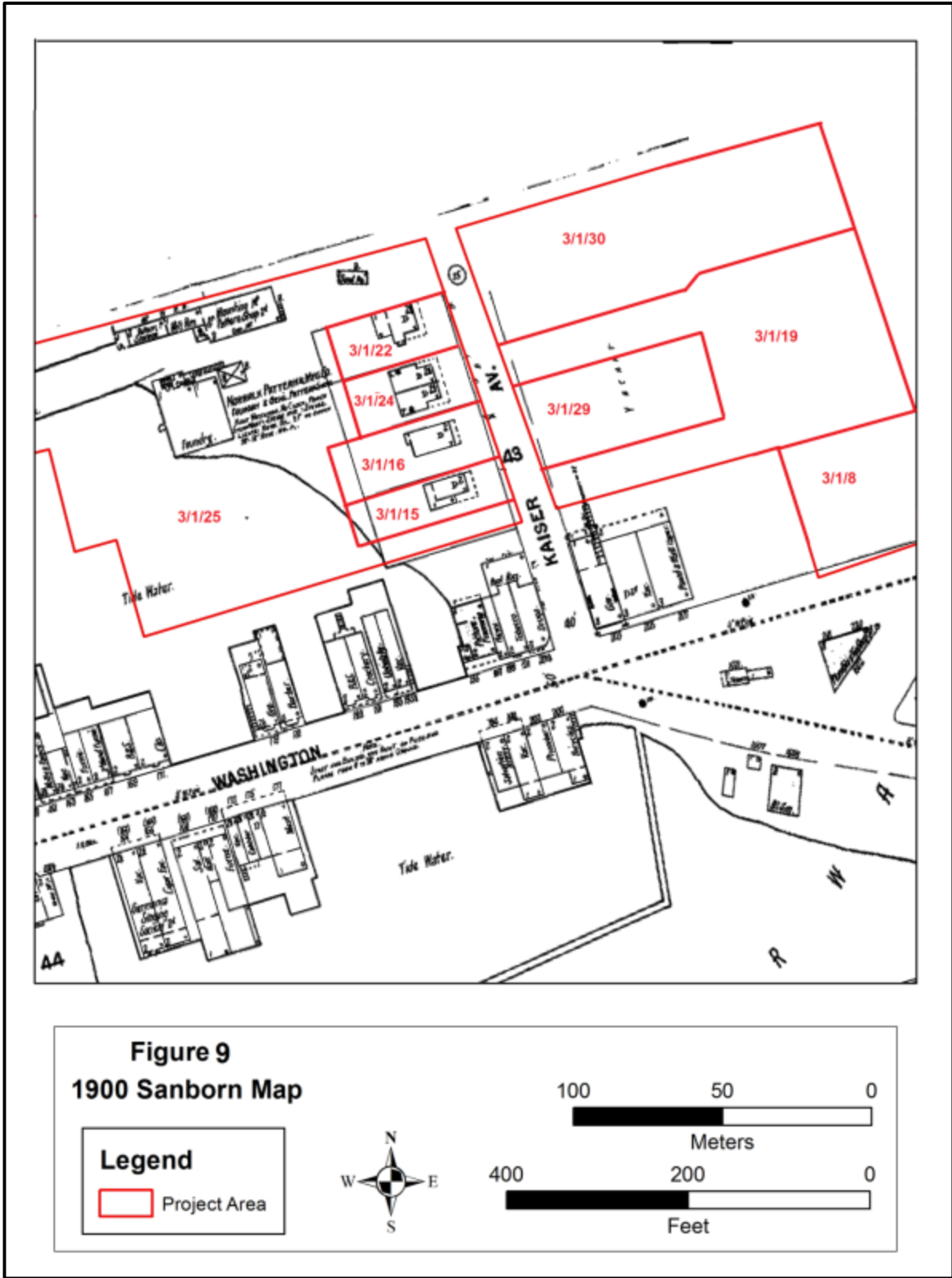


Figure 9: Detail of the 1900 Sanborn Insurance map, showing the approximate locations of Parcels 3/1/25, 3/1/22, 3/1/24, 3/1/16, 3/1/15, 3/1/8, 3/1/19, 3/1/29, and 3/1/30.

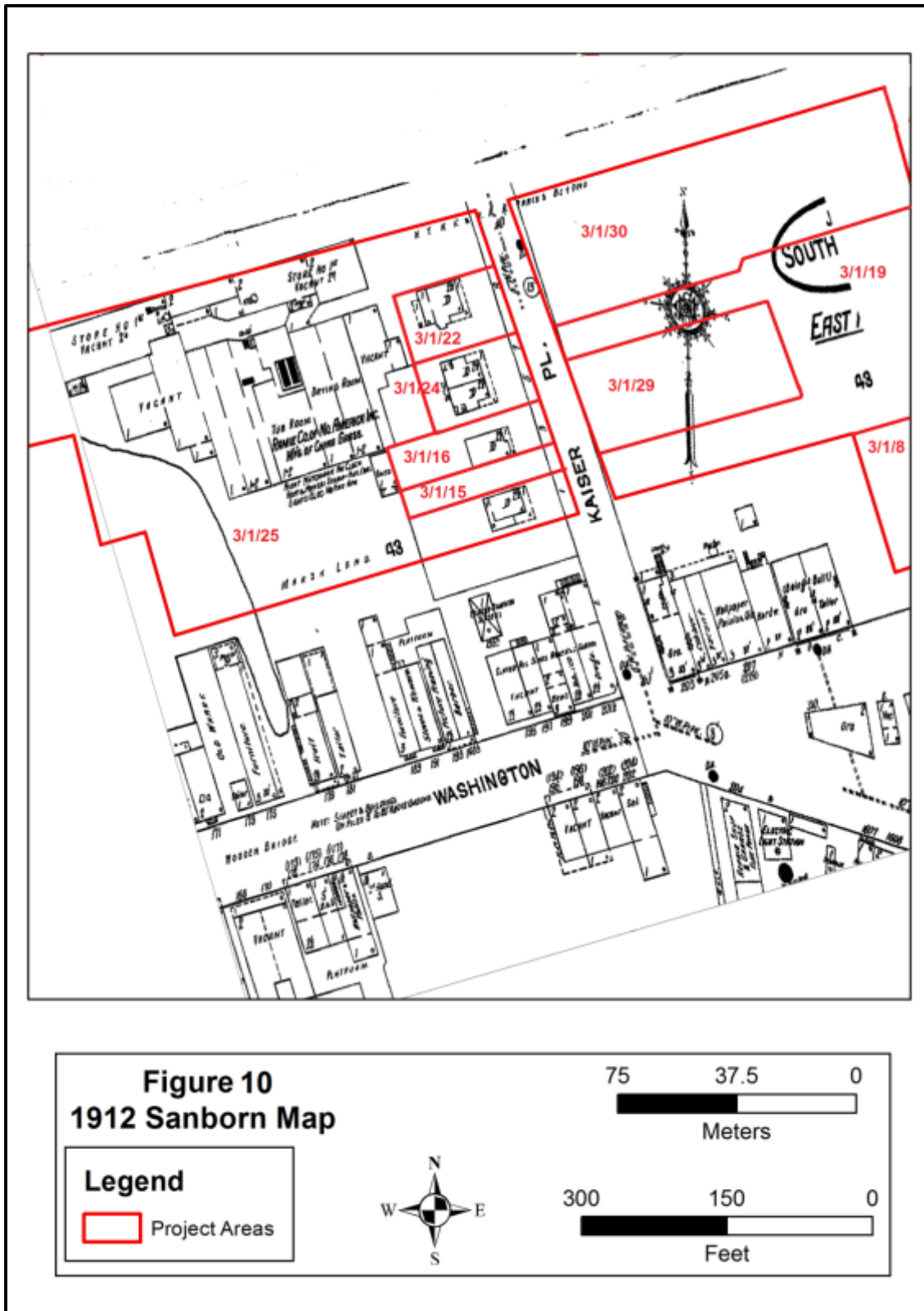


Figure 10: Detail of the 1912 Sanborn Insurance map, showing the approximate locations of Parcels 3/1/25, 3/1/22, 3/1/24, 3/1/15, 3/1/16, 3/1/8, 3/1/19, 3/1/29, and 3/1/30.

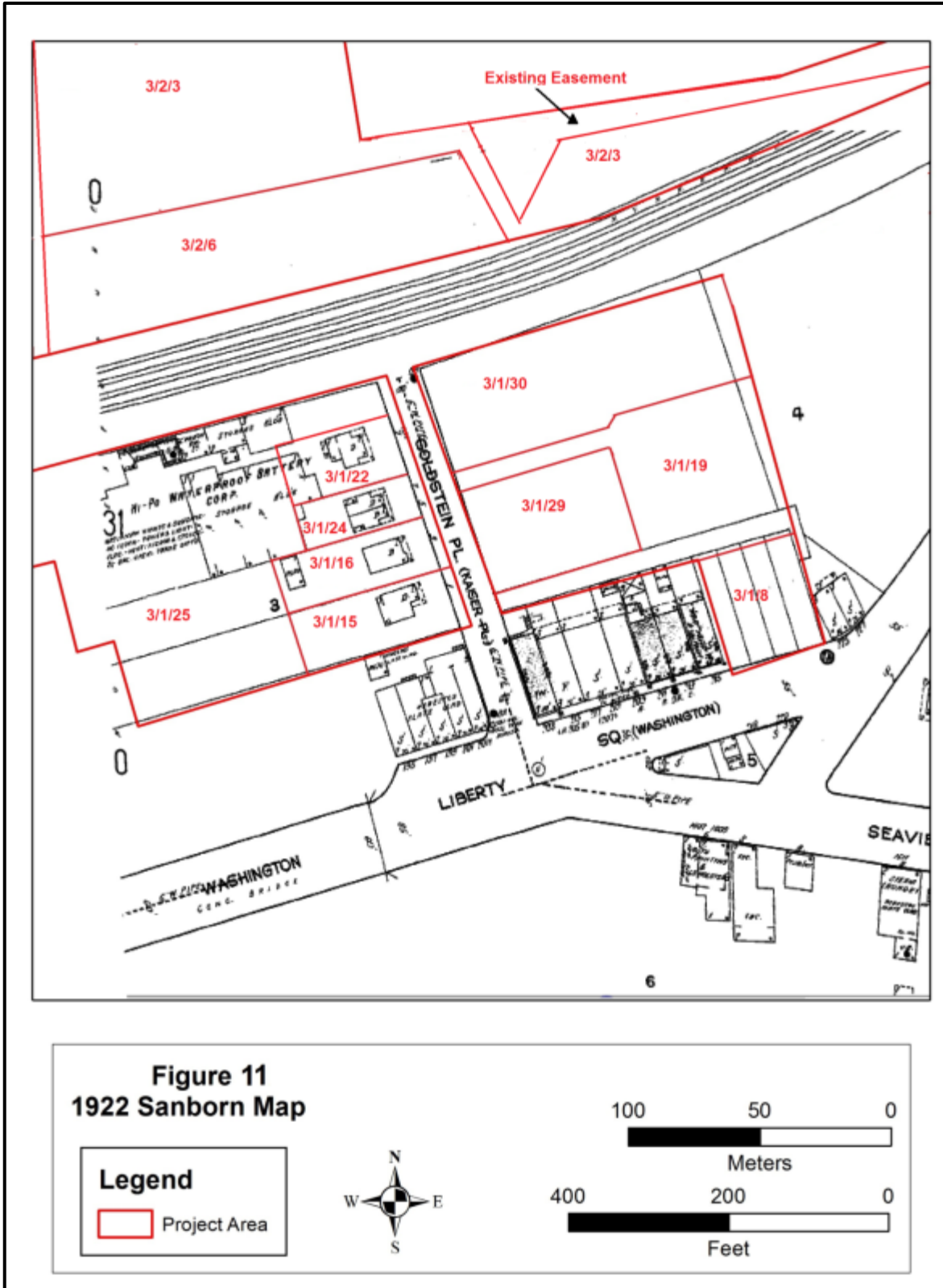


Figure 11: Detail of the 1922 Sanborn Insurance map, showing the approximate location of Parcels 3/1/25, 3/1/22, 3/1/24, 3/1/15, 3/1/16, 3/1/8, 3/1/19, 3/1/29, 3/1/30, 3/2/3, and 3/2/6.

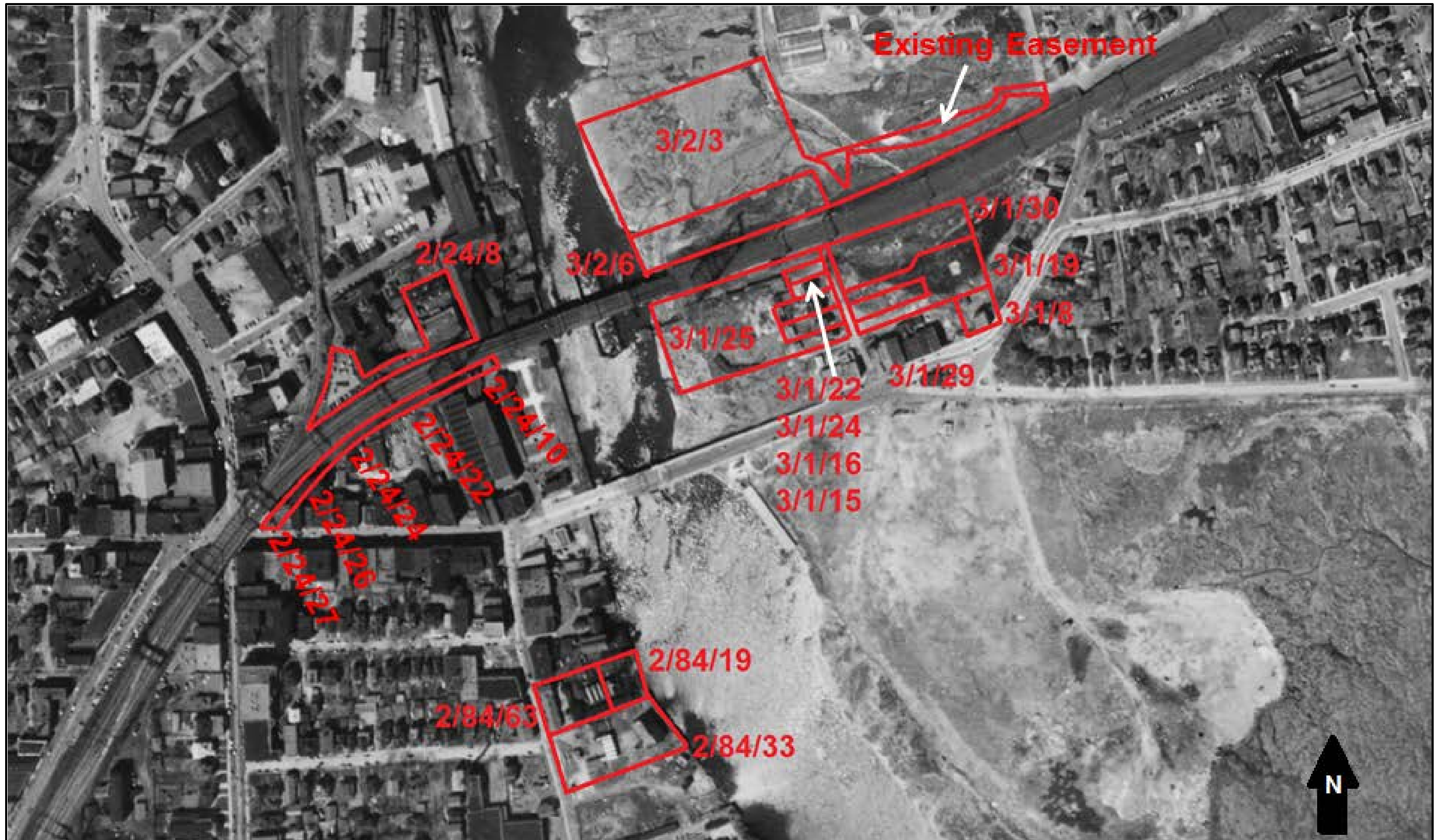


Figure 12: Detail of the 1934 Fairchild Series aerial photograph, showing the approximate location of the APE parcels in red.

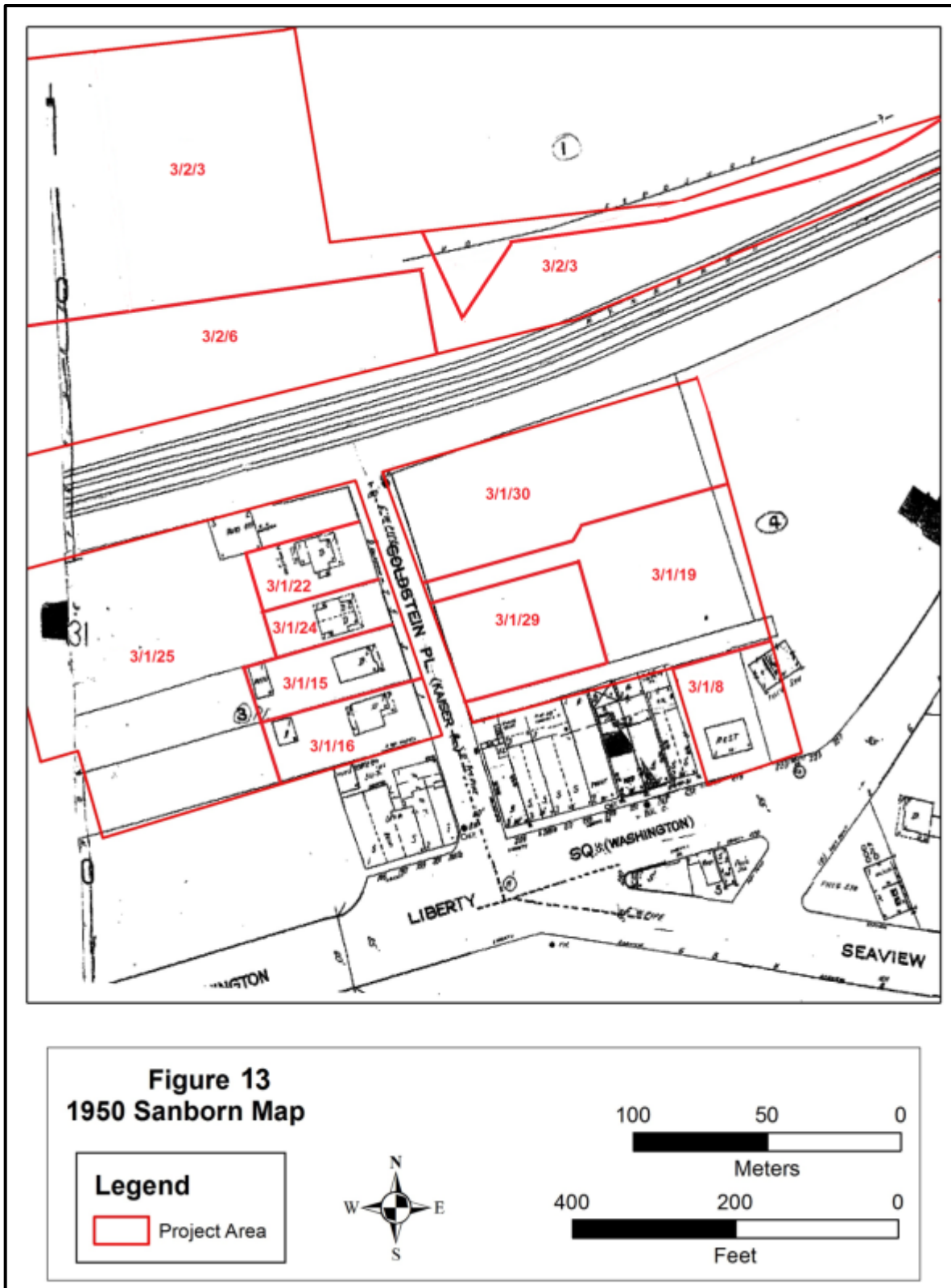


Figure 13: Detail of the 1950 Sanborn Insurance map, showing the approximate locations of Parcels 3/2/25, 3/1/22, 3/1/24, 3/1/15, 3/1/16, 3/1/8, 3/1/19, 3/1/29, 3/1/30, 3/2/3, and 3/2/6.

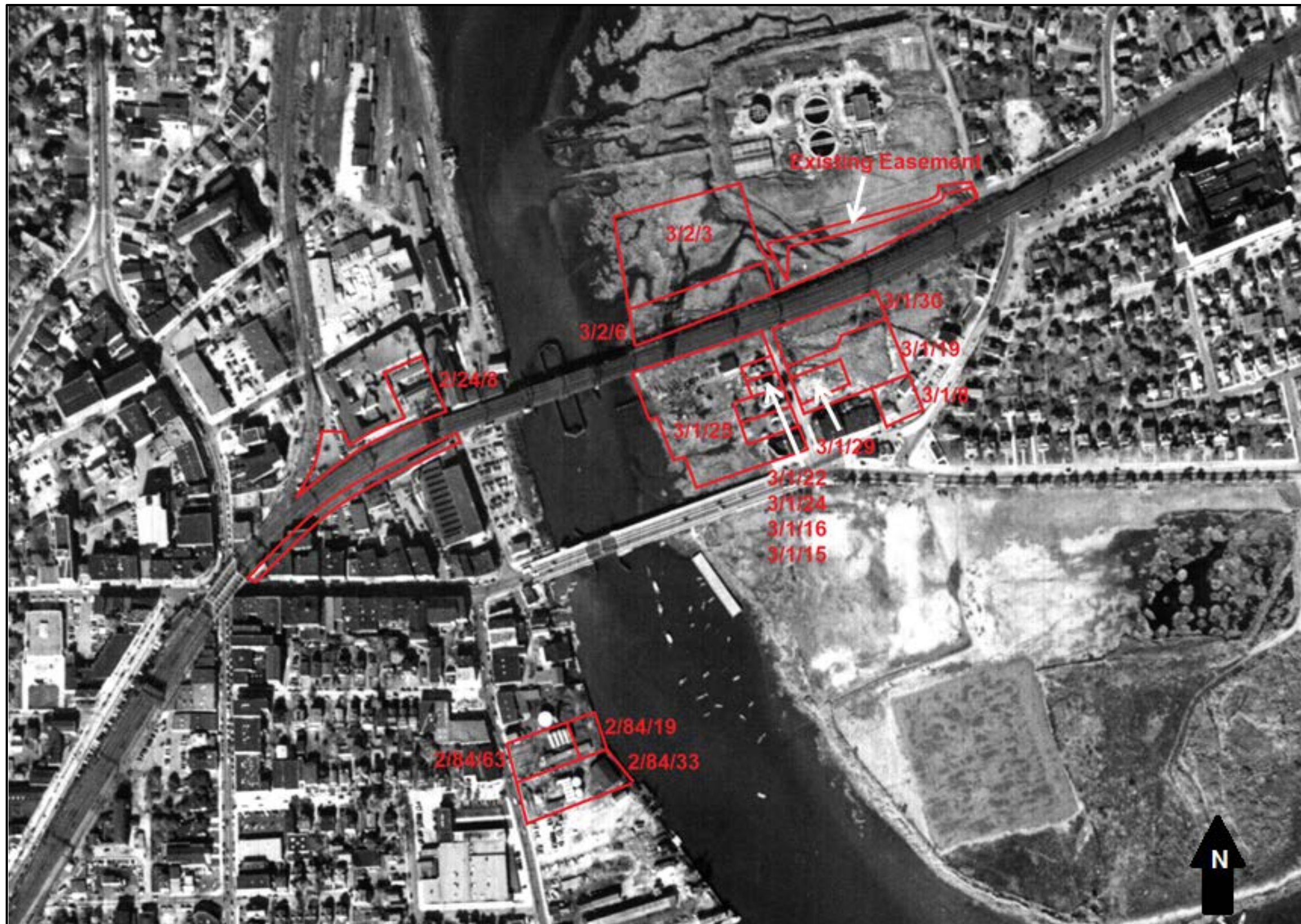


Figure 14: Detail of 1951 USDA aerial photograph, showing the approximate location of the APE parcels in red.

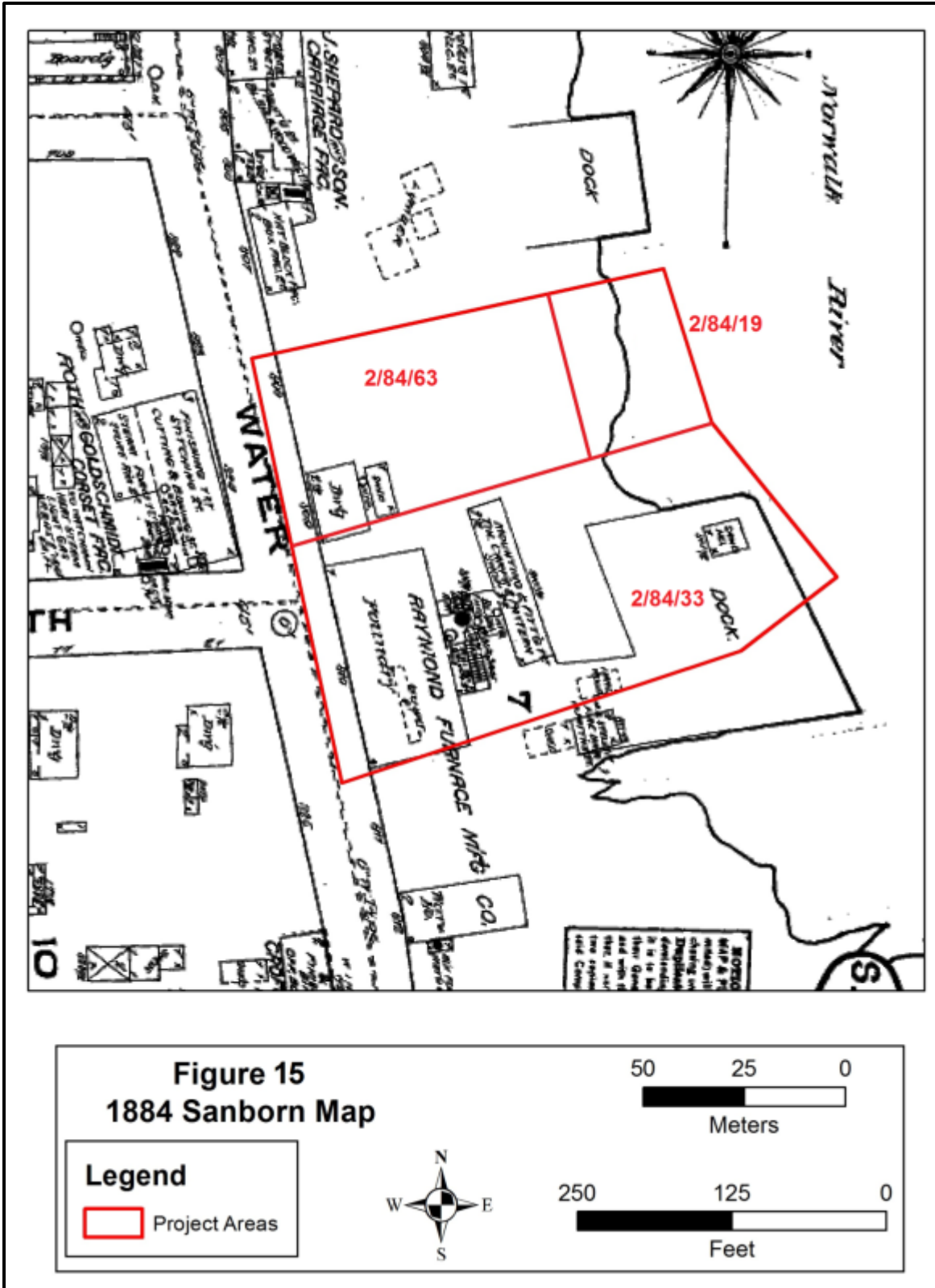


Figure 15: Detail of the 1884 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

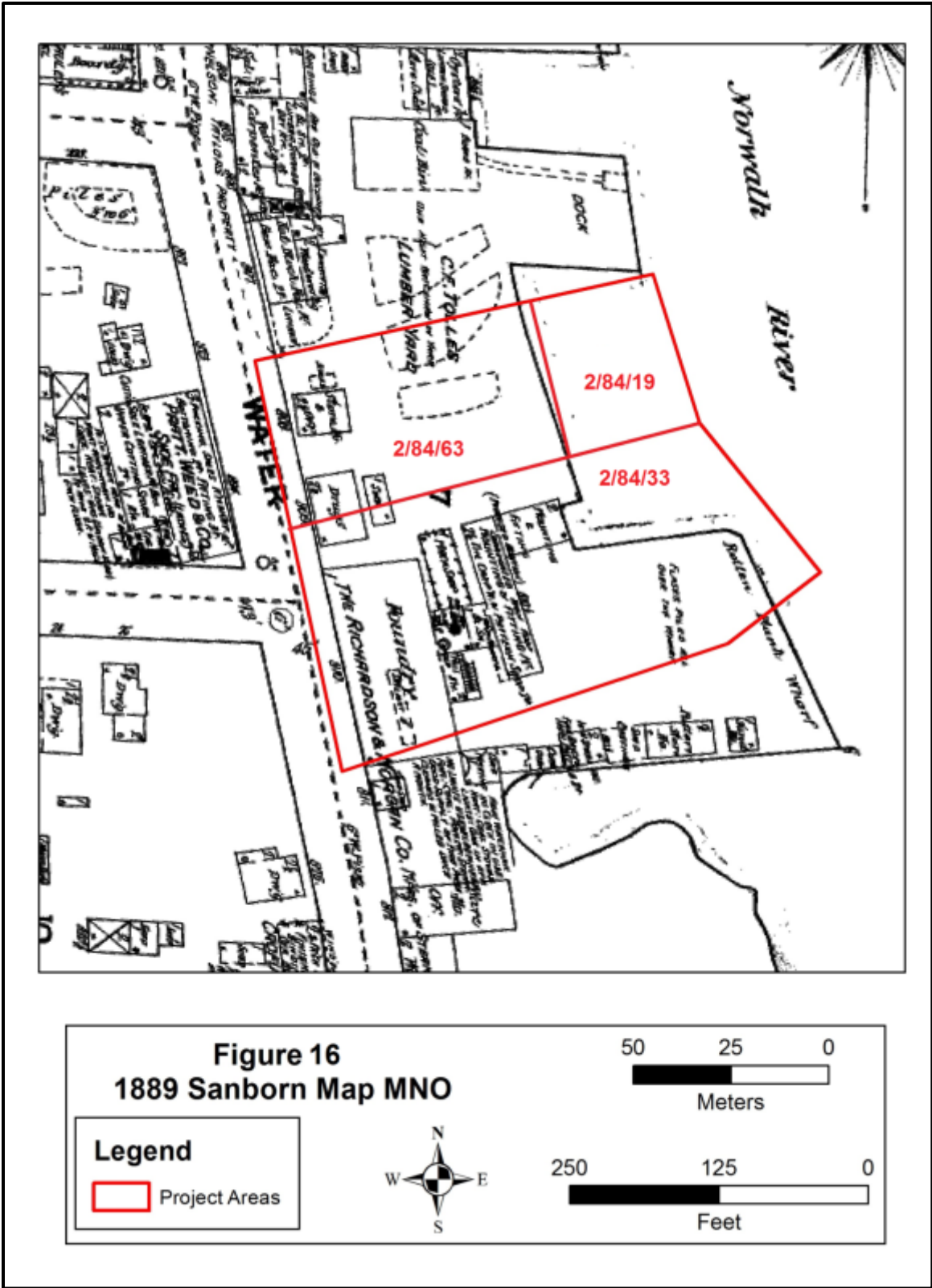


Figure 16: Detail of 1889 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

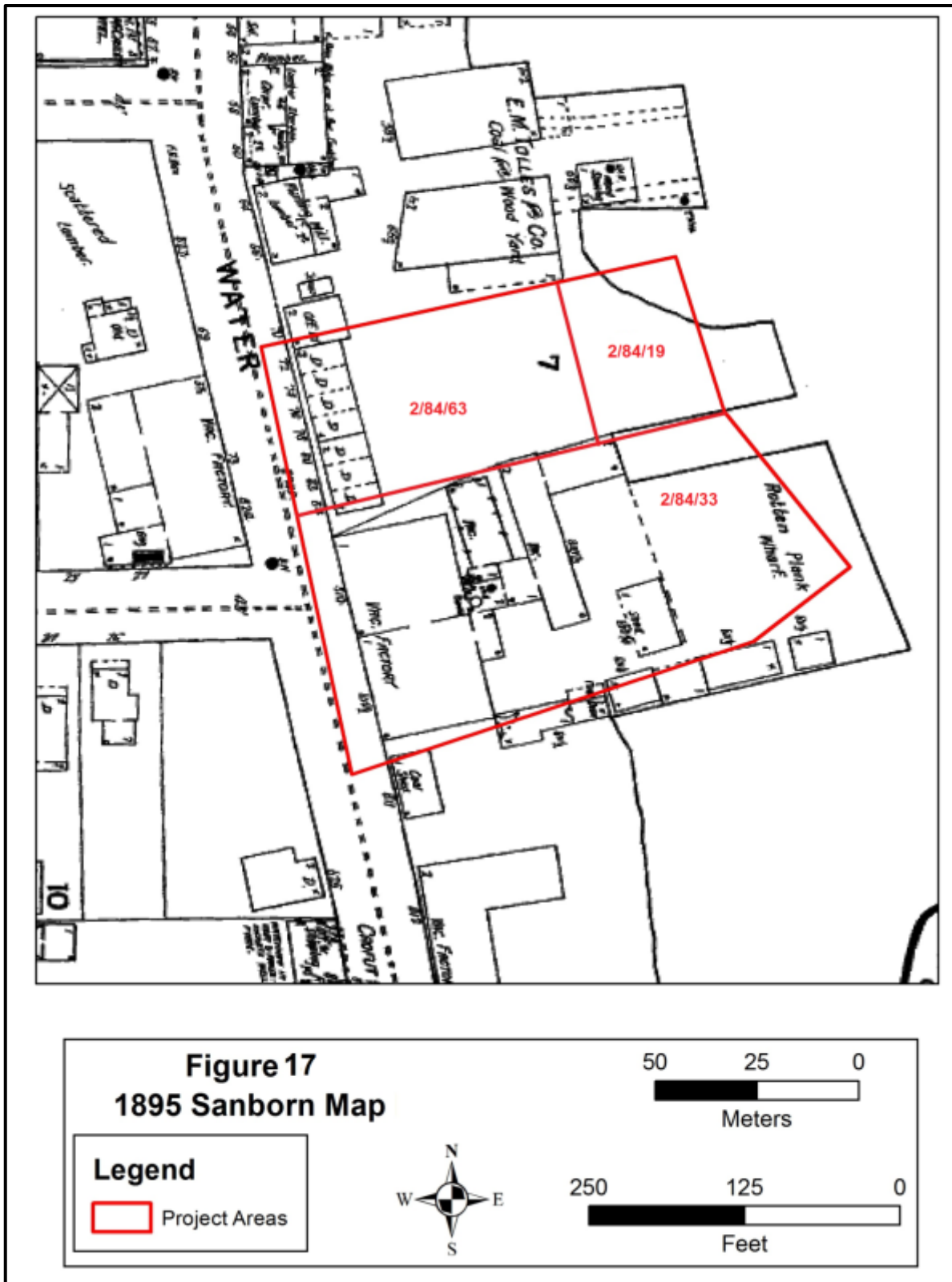


Figure 17: Detail of the 1895 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

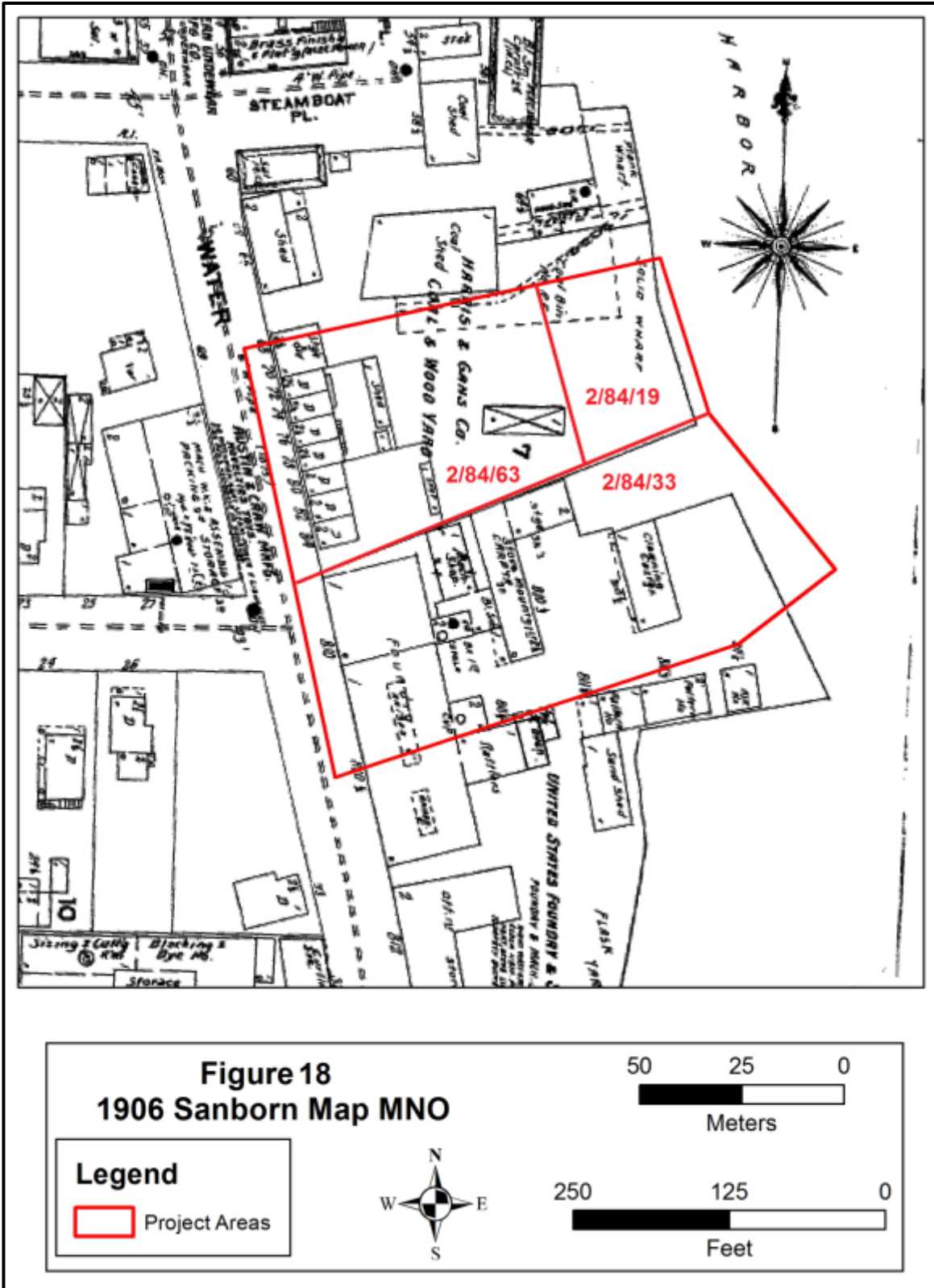


Figure 18: Detail of the 1906 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

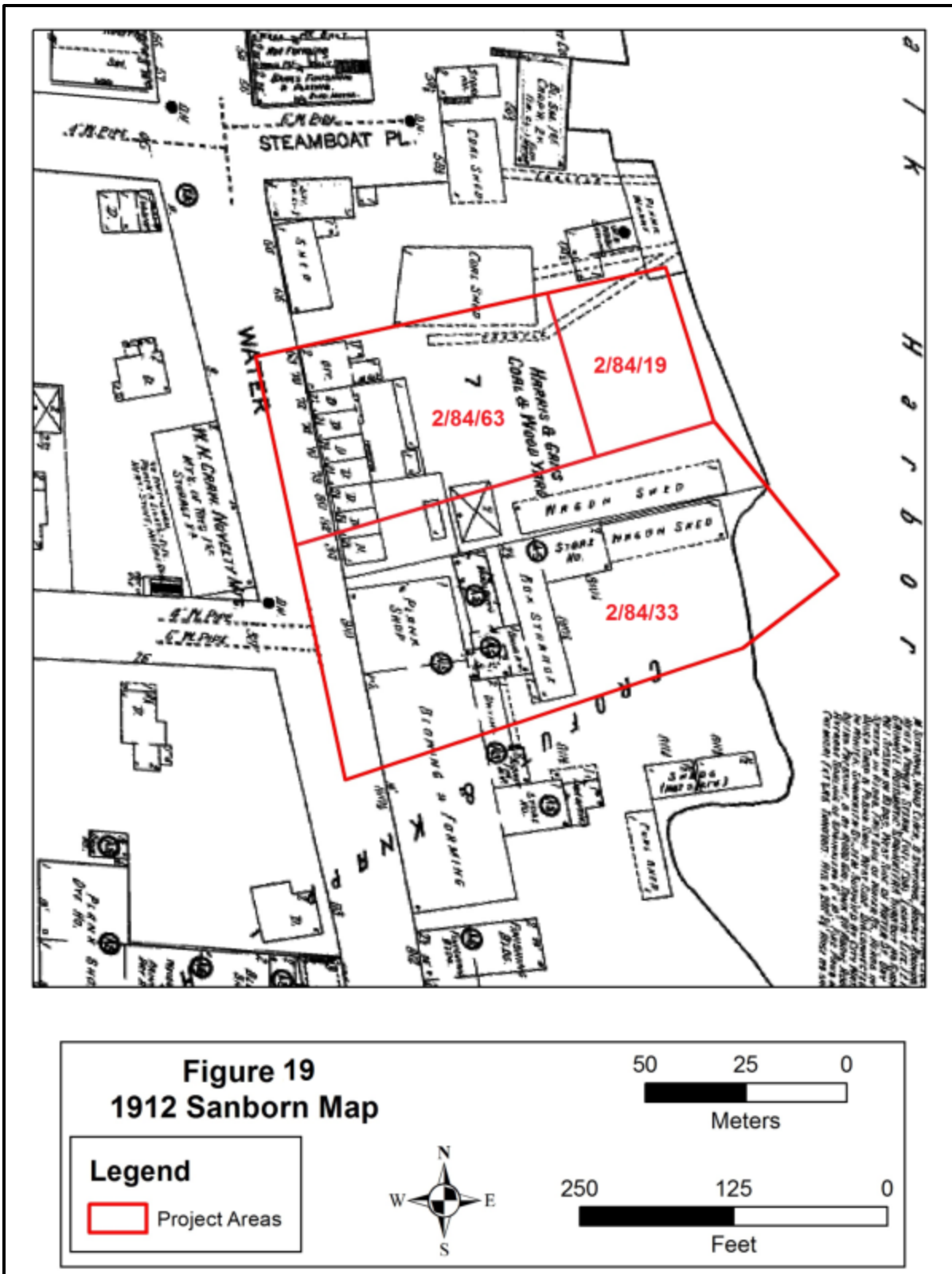


Figure 19: Detail of the 1912 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

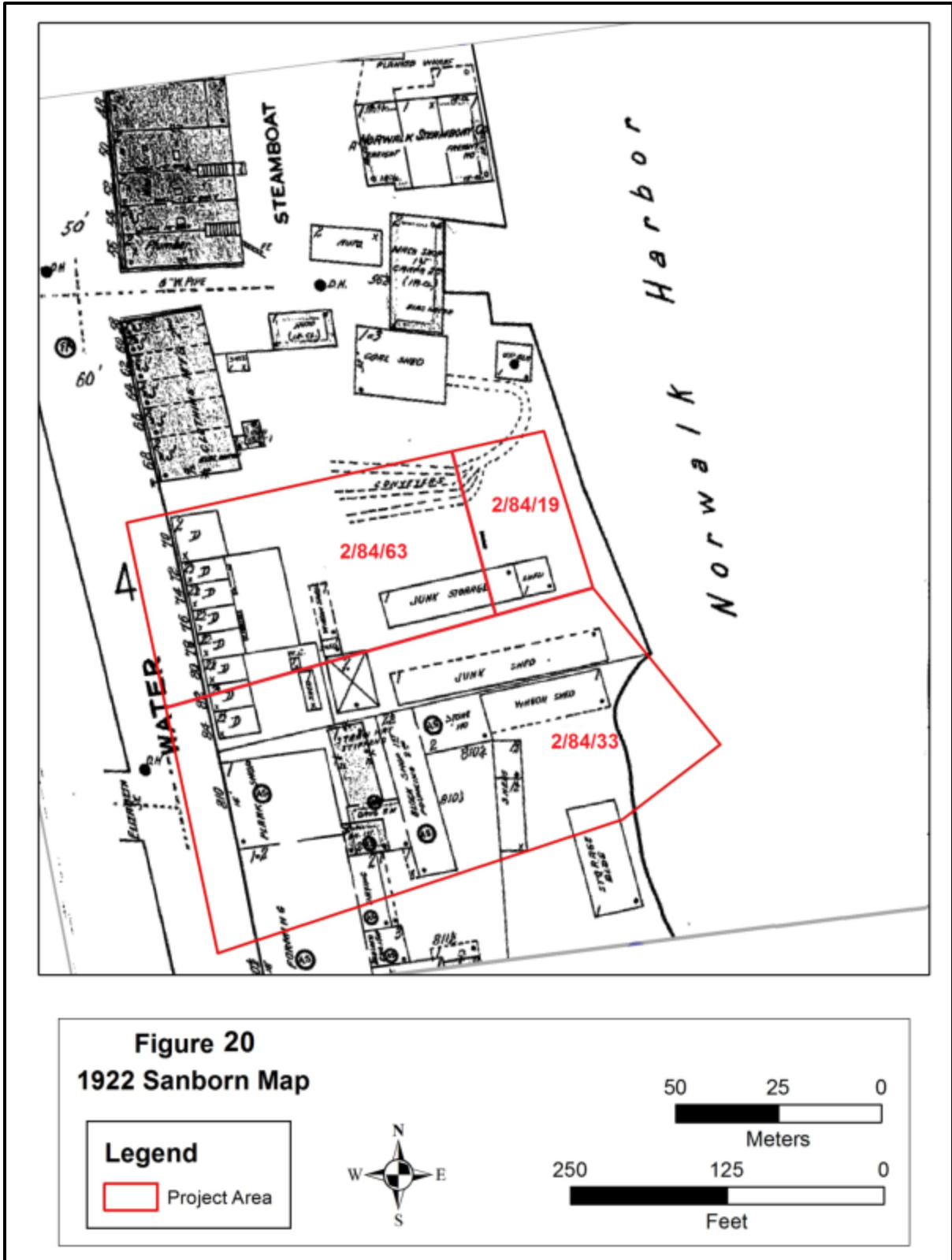


Figure 20: Detail of the 1922 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

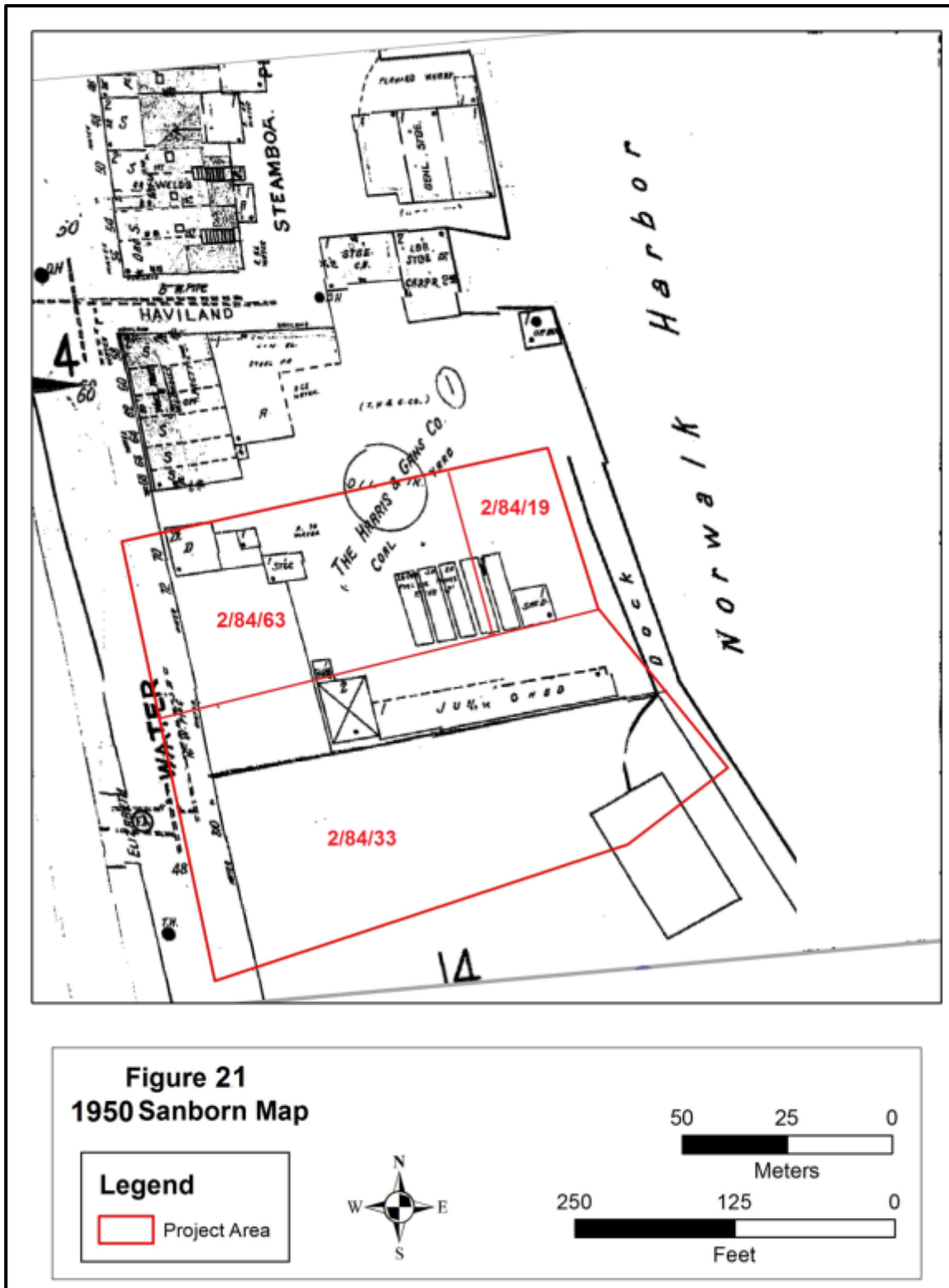


Figure 21: Detail of the 1950 Sanborn Insurance map, showing the approximate locations of Parcels 2/84/19, 2/84/33, and 2/84/63.

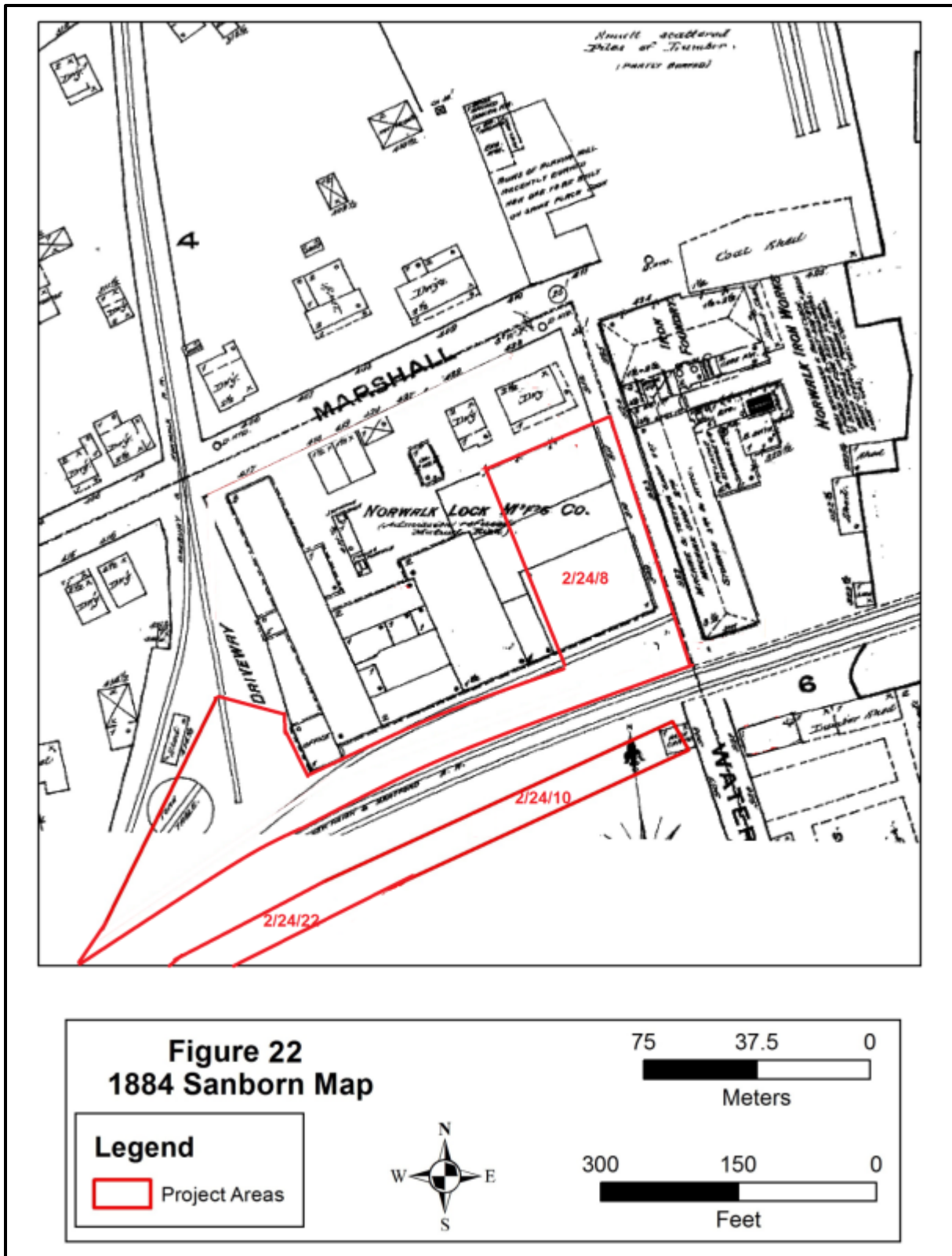


Figure 22: Detail of the 1884 Sanborn Insurance map, showing the approximate locations of Parcels 2/24/8, 2/24/10, and 2/24/22.

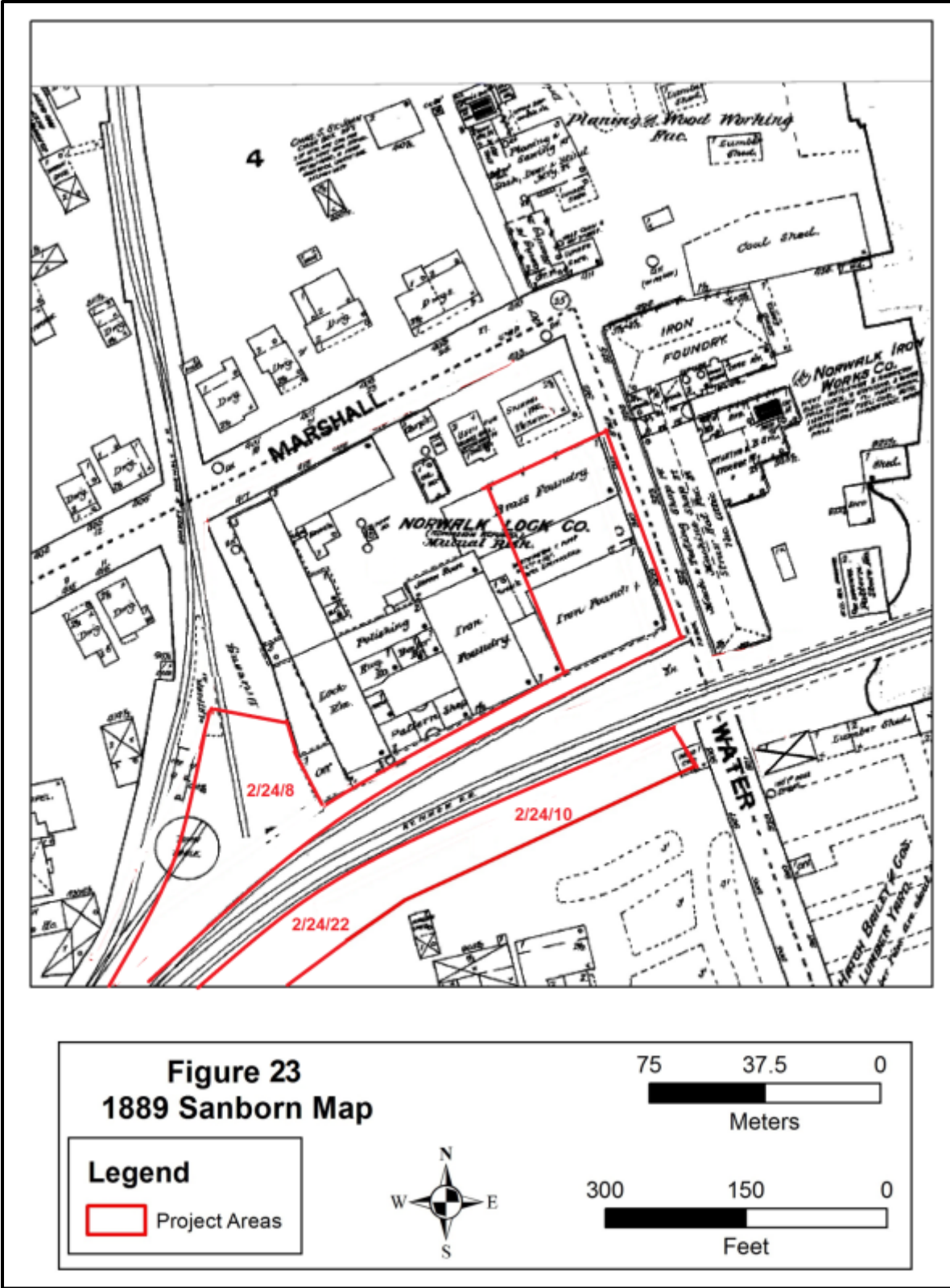


Figure 23: Detail of the 1889 Sanborn Insurance map, showing the approximate locations of Parcels 2/24/8, 2/24/10, and 2/24/22.

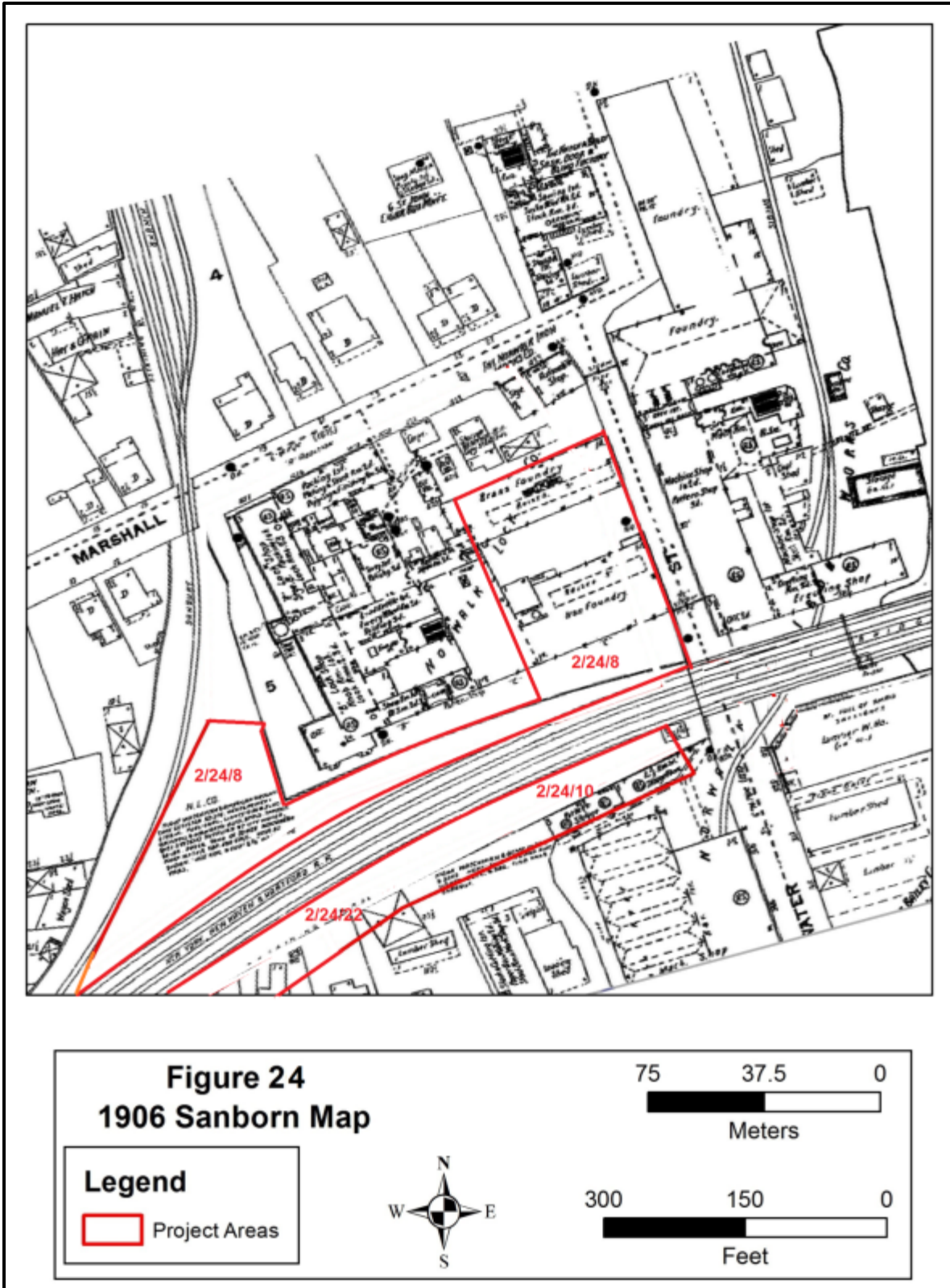


Figure 24: Detail of the 1906 Sanborn Insurance map, showing the approximate locations of Parcels 2/24/8, 2/24/10, and 2/24/22.

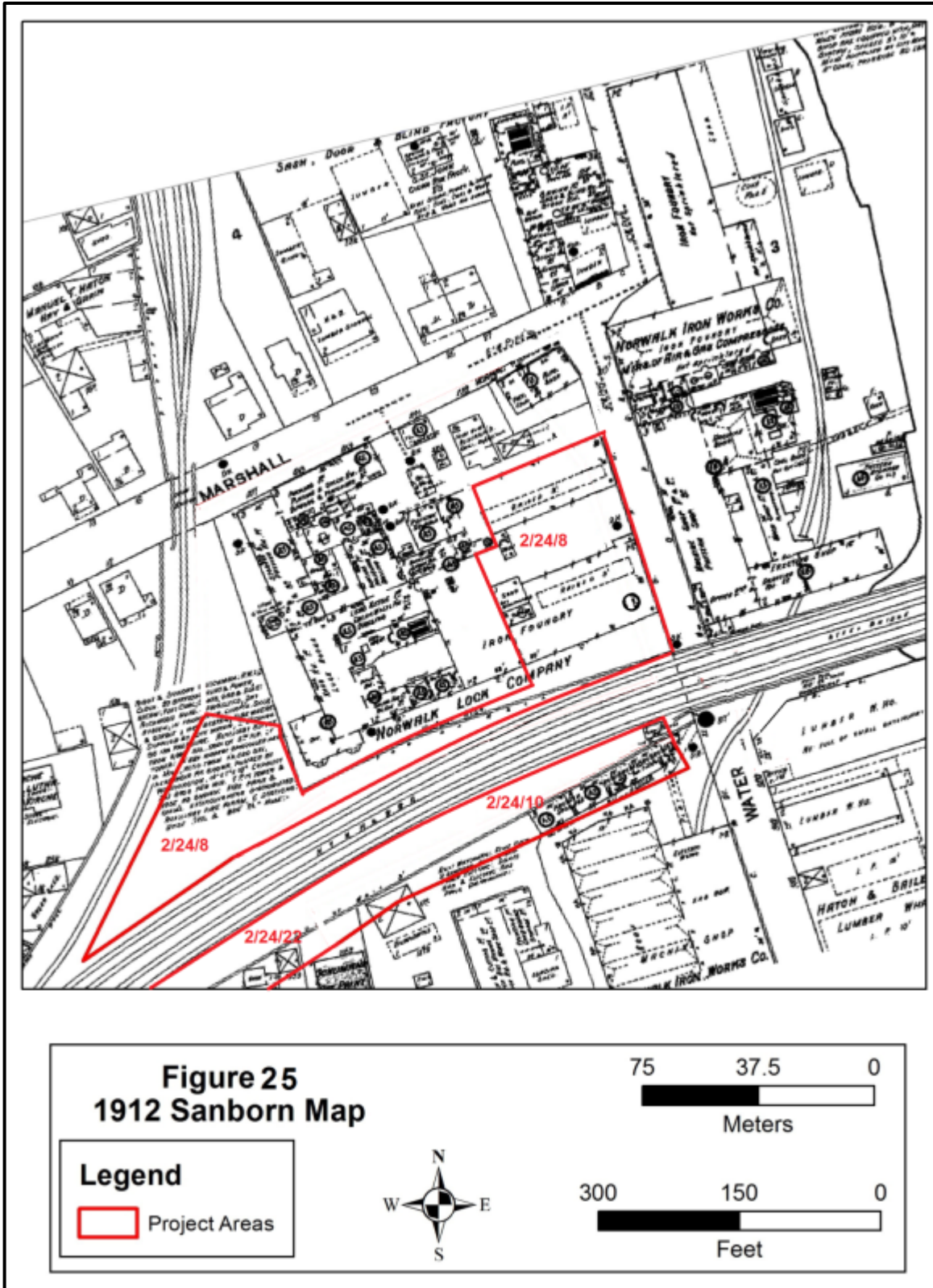


Figure 25: Detail of the 1912 Sanborn Insurance map, showing the approximate locations of Parcels 2/24/8, 2/24/10, and 2/24/22.

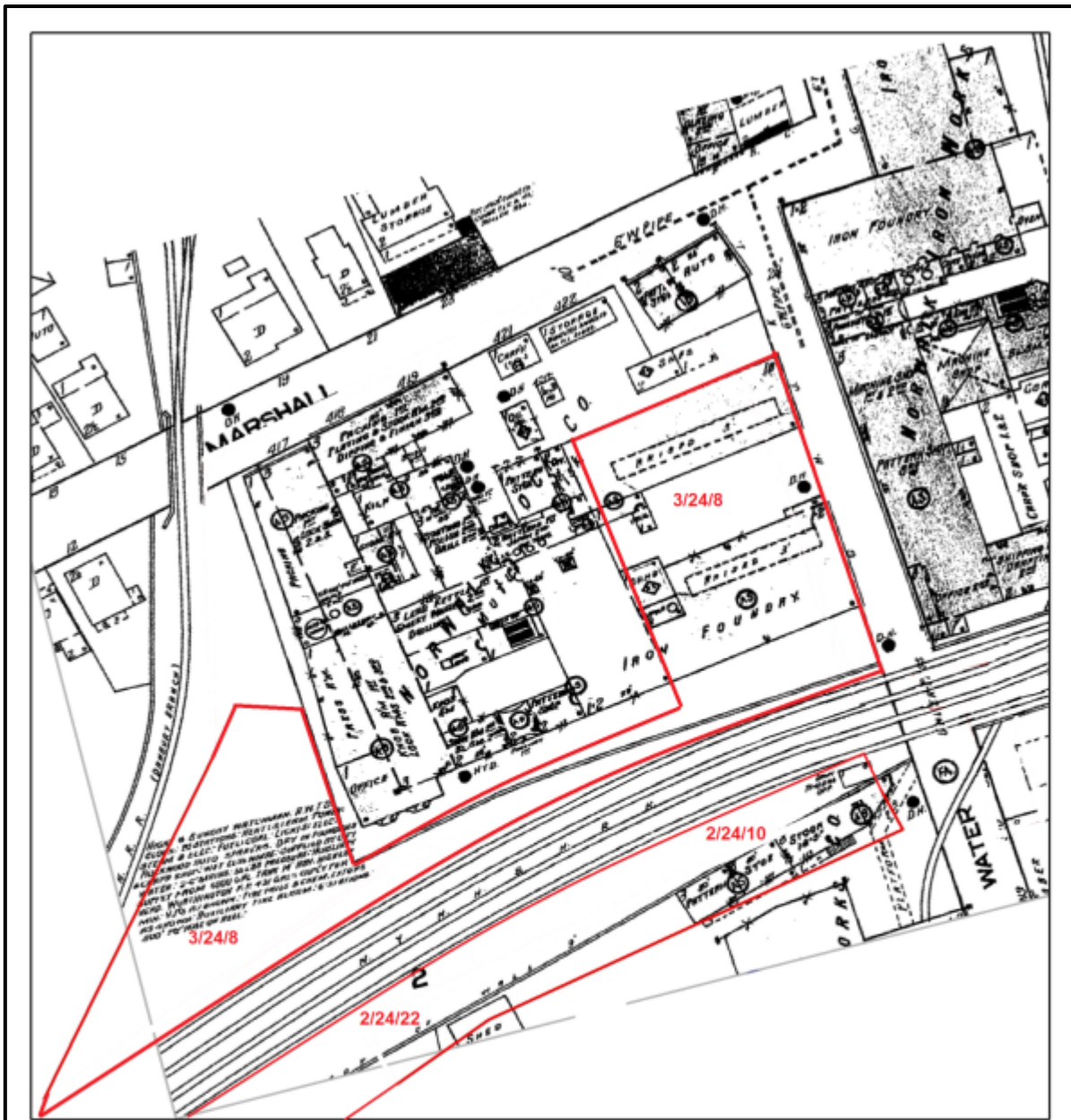


Figure 26
1922 Sanborn Map

Legend
 Project Area

N
 W —+— E
 S

75 37.5 0
 Meters
 300 150 0
 Feet

Figure 26: Detail of the 1922 Sanborn Insurance map, showing the approximate locations of Parcels 2/24/8, 2/24/10, and 2/24/22.

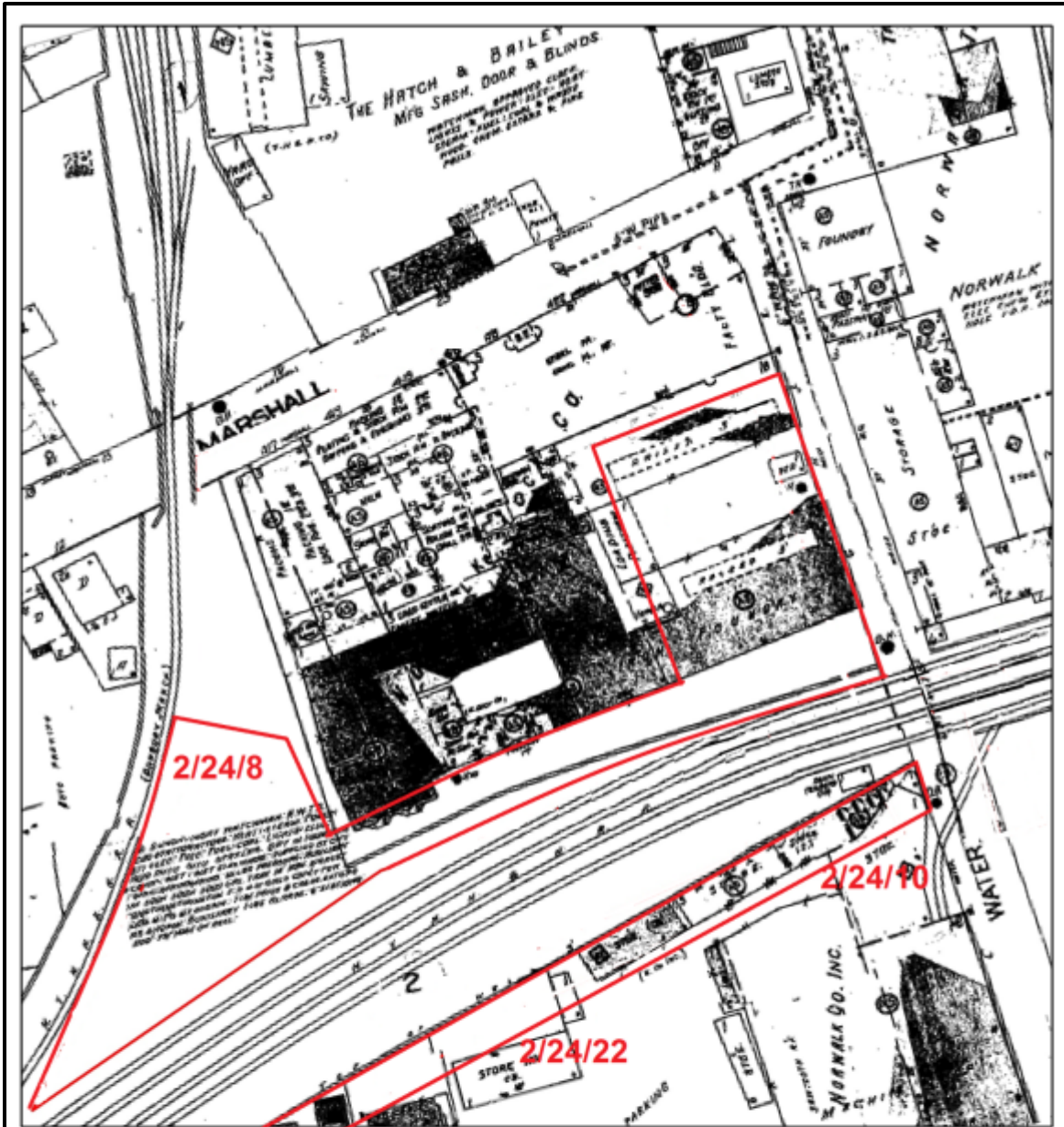


Figure 27
1950 Sanborn Map

Legend
 Project Area

75 37.5 0
 Meters
 300 150 0
 Feet

N
 W —+— E
 S

Figure 27: Detail of the 1950 Sanborn Insurance map, showing the approximate locations of Parcels 2/24/8, 2/24/10, and 2/24/22.

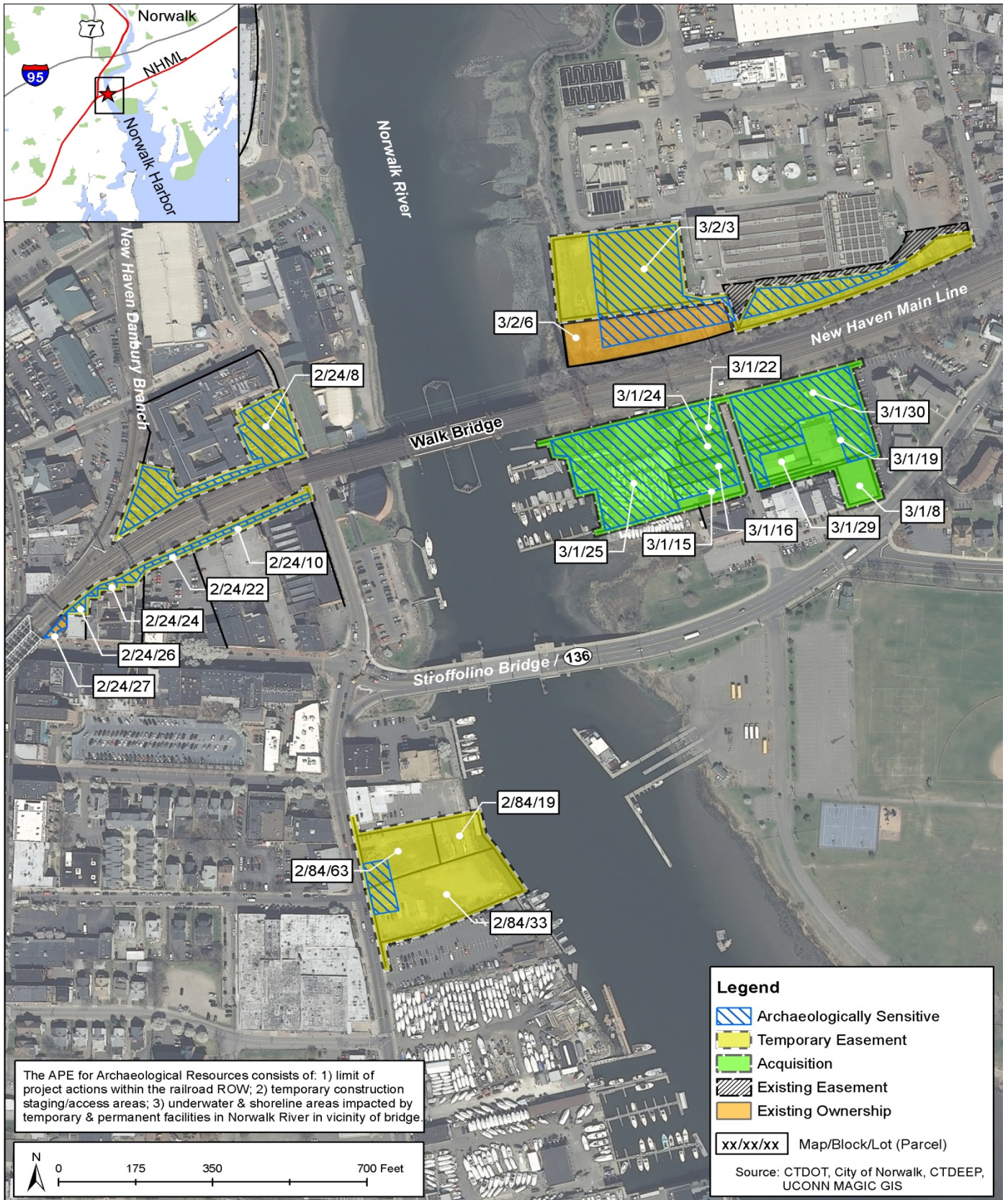


Figure 28: Archaeologically sensitive areas within the APE.

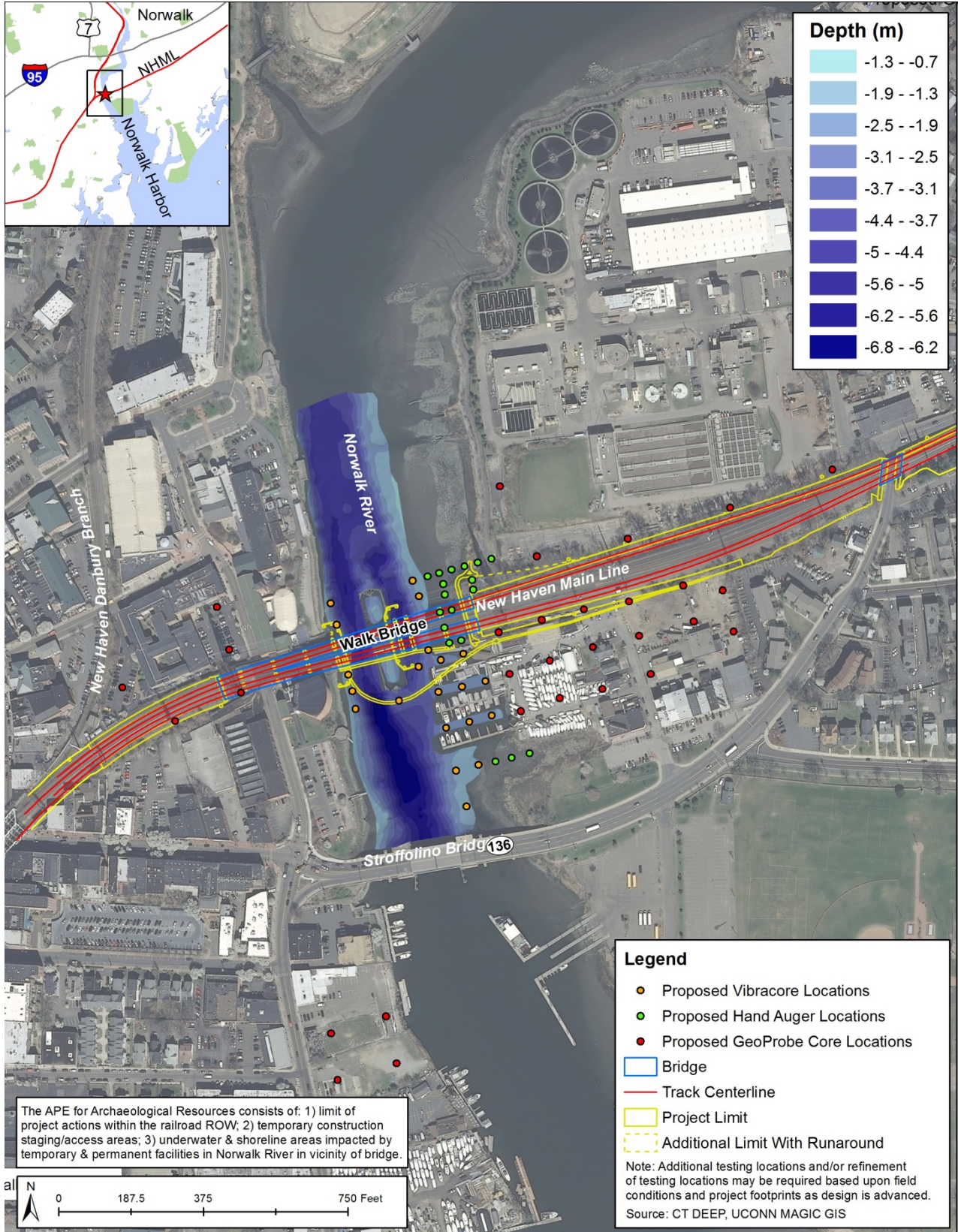


Figure 29: Aerial photograph showing underwater and intertidal portions of the APE and bathymetric map of the Norwalk River.

