

ARCHAEOLOGICAL SENSITIVITY ASSESSMENT
WILLIAM PINTO HOUSE RELOCATION
NEW HAVEN, CONNECTICUT

Prepared for

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I. INTRODUCTION

59 Elm Street Partners, LLC is proposing to relocate the 1810/11 William Pinto House, a Federal-style building located at 275 Orange Street in New Haven, Connecticut. The building is individually listed in the National Register of Historic Places (NRHP) for its association with New Haven's late 18th-/early 19th-century residents William Pinto and Eli Whitney, and as the "best-preserved extant example of the locally rare, gable-to-street form of early 19th-century frame architecture" (Scott and Loether 1985). There is a large modern addition on the back of the house, replaced in 1987, two years after the house was listed. The proposed relocation site is 87 feet across a parking lot on the abutting property at 283 Orange Street.

59 Elm Street has asked the Connecticut Historic Preservation Review Board (SRB) within the Connecticut State Historic Preservation Office (SHPO) to maintain the NRHP status of the Pinto House during and after its location. As part of its consideration of this request and in compliance with 36 CFR 60.14(6), the SHPO requested an archaeological sensitivity assessment of the house's current site and adjacent relocation site to evaluate whether either possesses significant archaeological deposits that would be adversely affected by the relocation.

The Public Archaeology Survey Team, Inc. (PAST) prepared this archaeological assessment in support of the Pinto House relocation. The assessment provides a brief summary of the historical land use of the two adjacent parcels in order to provide a basis for assessing the potential for intact significant archaeological deposits to be present at the current location and proposed relocation sites, and a summary of how the relocation would be undertaken. An assessment of the potential for the relocation to affect potentially significant archaeological remains is then made. The two parcels, which encompass approximately .76 acres, are essentially one project area or Area of Potential Effects (APE).

II. EXISTING CONDITIONS

The Pinto House sits in a densely developed urban area, 1.5 blocks east of the New Haven Green (Figure 1), surrounded by parking lots and 19th- and 20th-century buildings (Figure 2). The house is situated close to the sidewalk on a relatively flat lot, facing north on the south side of Orange Street. A driveway runs along the west side of the building (Figure 3), feeding a set of seven parking spaces at the rear of the lot. The southeast boundary of the lot is lined with a chain-link fence and maple saplings. The lot is flanked on three sides by parking lots. The eastern-side parking lot, at 283 Orange Street, is the proposed relocation site (Figure 4). The relocation site includes a small parking lot attendant structure close to the street (Figure 4).

III. LAND USE SUMMARY

There is excellent historical mapping available for the Pinto House current site and proposed neighboring relocation site. On the 1748 Wadsworth Map of New Haven, Orange Street had yet to be laid out and no buildings were located on either site. There are a few nearby buildings occupied by a physician, farmer, priest and merchant (Figures 5a and 5b). By 1817, when Orange Street had been laid out, the Pinto House is visible in its current location; the proposed relocation site is in between the Pinto House and a building on the corner of Orange Street and Wall Street on the Doolittle map (Figures 6a and 6b).

The Whiteford 1852 maps does not clearly show the Pinto House, but it does show dense development of the block (Figures 8a and 8b). The detail of the 1879 Bailey and Hazen Birds-eye view, although oblique, provides a look at just how closely packed the area around the Pinto House had become in terms of buildings (Figures 9a and 9b).

By 1886, however, the Sanborn Fire Insurance Map shows the Pinto House with a single building between it and the proposed relocation site, with the proposed relocation area now vacant and unbuilt (Figure 10). This pattern is the same on the 1901 Sanborn (Figure 11) and the 1923 Sanborn (Figure 12). But this latter map, updated in 1951, shows that the building between the Pinto House and the relocation site to now be vacant and converted to “auto parking” (Figure 13). That condition shows on a 1934 Fairchild aerial (Figure 14), continuing to modern times (Figure 2), except for the addition of a parking attendant shed.

Based on the historical map evidence, the area surrounding the extant house site was urbanized and developed throughout the 19th century. In the second half and third quarter of the century the proposed relocation area appears to have been built upon, but that building was removed before 1886, and by the 1950s the current site was surrounded by a parking lot, and the proposed relocation site was also paved over.

IV. ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

Based on the historical map evidence, data from geotechnical explorations of the present site parcel and adjacent proposed relocation parcel, plus an understanding of the actual methods that will be used to prepare the relocation site and move the building off of its current site, PAST assessed the archaeological sensitivity of both sites and potential effects to archaeological resources. Our assessment was also informed by many years of experience at comparative sites.

The map research shows dense development around the Pinto House by the mid-19th century, as well as at the proposed relocation site, which appears to have had a building on it in 1879. There was certainly a building between the Pinto House and relocation site until 1923, but it was removed before the 1950s and the flat surface around the Pinto House and over the relocation site was paved to provide a parking lot. Building construction and removal, followed by paving, characterize the second half of the 19th century and first half of the 20th century around the Pinto House and over the proposed relocation site. Pinto House archeological deposits, during its early 19th-century period, may have been relatively near the house, but as time went on and the house itself was expanded, and the immediate area was developed and paved, these deposits were likely compromised by construction and demolition, and the placement of fill to enable paving over the entire circumference of the Pinto House. It is doubtful that intact Pinto House deposits of significance are present in the immediate vicinity of the house or on the lot. It is also unlikely that such intact deposits are present at the relocation site, which may have housed a building.

A. Geotechnical Testing

In order to develop an understanding of subsurface conditions across the current and relocation sites, a geotechnical engineering study was conducted in 2018. Six borings were placed, three in each location (Figure 15). GZA GeoEnvironmental, Inc., which conducted the geotechnical survey, summarized the borings as follows:

Test borings GZ-1 through GZ-6 were drilled in the proposed building and garage footprints. Based on the results of the test borings, the subsurface conditions provide a generalized subsurface profile consisting, in descending order beneath the asphalt, existing fill and New Haven Outwash Deposits (naturally-deposited soil). Asphalt was encountered at the ground surface in the test borings and ranged in thickness from 2 to 6 inches thick. Fill was encountered in each test boring below the asphalt to depths between 2.5- and 6.4-feet below grade. The fill generally consisted of loose to medium dense sand with varying amounts of gravel and silt. Trace amounts of debris consisting of brick and ash was also encountered in the fill.

Further, GZA noted that:

The existing fill is not suitable for support of new foundations or slabs-on-grade. Building debris from demolition activities and other deleterious materials (pavement, utilities, etc., if encountered) are also considered unsuitable material. If encountered during construction, these unsuitable materials must be removed from the entire proposed building footprint and a lateral distance beyond the outside edge of the footings equal to the thickness of Controlled Fill must be placed.

The extent of fill encountered in the test borings was up to 6.4 feet below the existing grades. Most of the existing fill will be removed during mass excavation for the basement level. Any existing utilities that are encountered should be removed from within the limits of the proposed building footprint and capped or rerouted during construction. Fill any excavation with compacted Controlled Fill. If utilities are to remain in-place, the utilities should be protected during construction activities.

The presence of such deep fill supports the disturbance on the two parcels as a result of building construction, demolition and ground-leveling for pavement.

B. Method of Moving the Pinto House

The Pinto House will be moved 87 feet from its current location at 275 Orange Street (Map 224, Block 292, Lot 700) across a parking lot to the adjacent lot at 283 Orange Street (Map 224, Block 292, Lot 800) (Figure 2). The modern addition at the rear will be demolished in preparation for the move. The rear wall of the house, which has been modified for the two additions, will be patched to match the appearance of the adjacent historic walls. A new wheelchair lift will be added to the rear of the building.

Prior to the move, a new basement/foundation measuring 8 feet x 28 feet x 50 feet will be dug on the relocation site and footings will be poured. The project mason will then number and remove the red sandstone foundation stones at the front of the Pinto House; these stones will be carefully stored for re-use in the same locations in the new foundation of the relocated house. If needed, the house will be temporarily shored up to accommodate the removal of the sandstone from the foundation. Wooden shoring called cribs would be placed on the existing surface; they will not disturb the existing ground surface, meaning they will rest on the pavement but not penetrate it. The remaining above-ground foundation stones will be removed and stored for re-use once the building has been lifted off of them. The contractor will then assemble “a table of steel” under the building, with main I-beams extending the length of the building, with cross steel inserted approximately every seven feet. Minor trenching to a depth of no more than one foot may be needed to facilitate the placing of the steel support beams, but this is the only potential ground disturbance associated with the current location of the house. The fireplaces, chimney and chimney remnants will get additional steel needle beams to support them. Once in place, the steel will be shimmed to the existing wood framing, pre-deflecting it with wedges to keep the floor planes stable. Temporary shoring inside the house will be placed at this time, if on-site investigations suggest it is needed. Once the “steel table” is in place, the building will be lifted off its foundation by a unified jacking system of hydraulic jacks and held on cribs. There will likely be six pick-up points each with two 15-ton capacity crib jacks for a total of 12 jacks. Once lifted the house will be placed on purpose-built rollers called *skates* located at the six jack points. The house on its skates will then be moved along heavy I-beam rails, perpendicular to those supporting the building, to its new location, where it will rest above the cellar hole so that plumb bobs can be used to match the foundation wall to the shape of the building. The historical materials from the house will be incorporated into the new foundation exterior as a veneer. The house will be lowered onto the new foundation using the same hydraulic unified jacking system that raised it. Any evidence left by the steel or other aspects of the move will be removed once the building reaches its new foundation. Utility trenches will be dug once the house is placed on its new foundation. Beyond the possibility of very shallow trenching to allow for the insertion of the beams, the

digging of the new basement, and trenching for utilities, this moving process is not expected to create any ground disturbance on either lot. The original house cellar will be filled after the move.

C. Sensitivity and Effects Assessment

Based on the presence of deep fill deposits across the two-parcel APE, which confirms the disturbance associated with the construction, demolition, and grading to create a large parking surface, the potential for the current and relocated sites to contain intact archaeological resources which are significant enough to yield important information about the history of the combined parcel is, in our opinion, low. No pre-Pinto House (pre-1810/11) deposits are likely to have survived intact in this urban area. Likewise, it is not likely that significant intact deposits survive from the Pinto House era and beyond into the second half of the 19th century, when the immediate-area development intensified.

Geotechnical borings demonstrate the presence of 6.4 feet of fill across the APE. The cellar excavation for the relocated house would cause the most ground disturbance, but only to eight feet deep, in perhaps the most disturbed part of the APE. No disturbance below the pavement at the current site is anticipated; indeed, even the pavement is not expected to be disturbed, and if so, to no more than one foot deep.

The only subsurface disturbance/effect associated with the relocation other than the new foundation would be utility trenches relocated to the new site. These would not be an effect on archaeological resources because they will rest within fill deposits.

In sum, it is our opinion that the proposed relocation of the William Pinto House will have no effect on significant archaeological resources.

It is acknowledged that the relocation may open up more of the two parcels to development and ground disturbance. However, assessment of the archaeological sensitivity of the parcels is low based on a site history of development and demolition and grading to create a parking lot. The geophysical testing confirmed the lack of integrity of subsurface deposits. In our opinion, the potential for significant archaeological resources to be present, and thus impacts, is extremely low.

V. REFERENCES

GZA Geoenvironmental, Inc.

2018 Preliminary Geotechnical Engineering Report, Proposed Mixed-Use Development, 271-283 Orange Street, New Haven, CT. Trumbull, CT: GZA Geoenvironmental, Inc.

Scott, Eldon and J. Paul Loether

1985 National Register of Historic Places Inventory-Nomination Form, William Pinto House, 275 Orange Street, New Haven, CT.

APPENDIX A: Figures

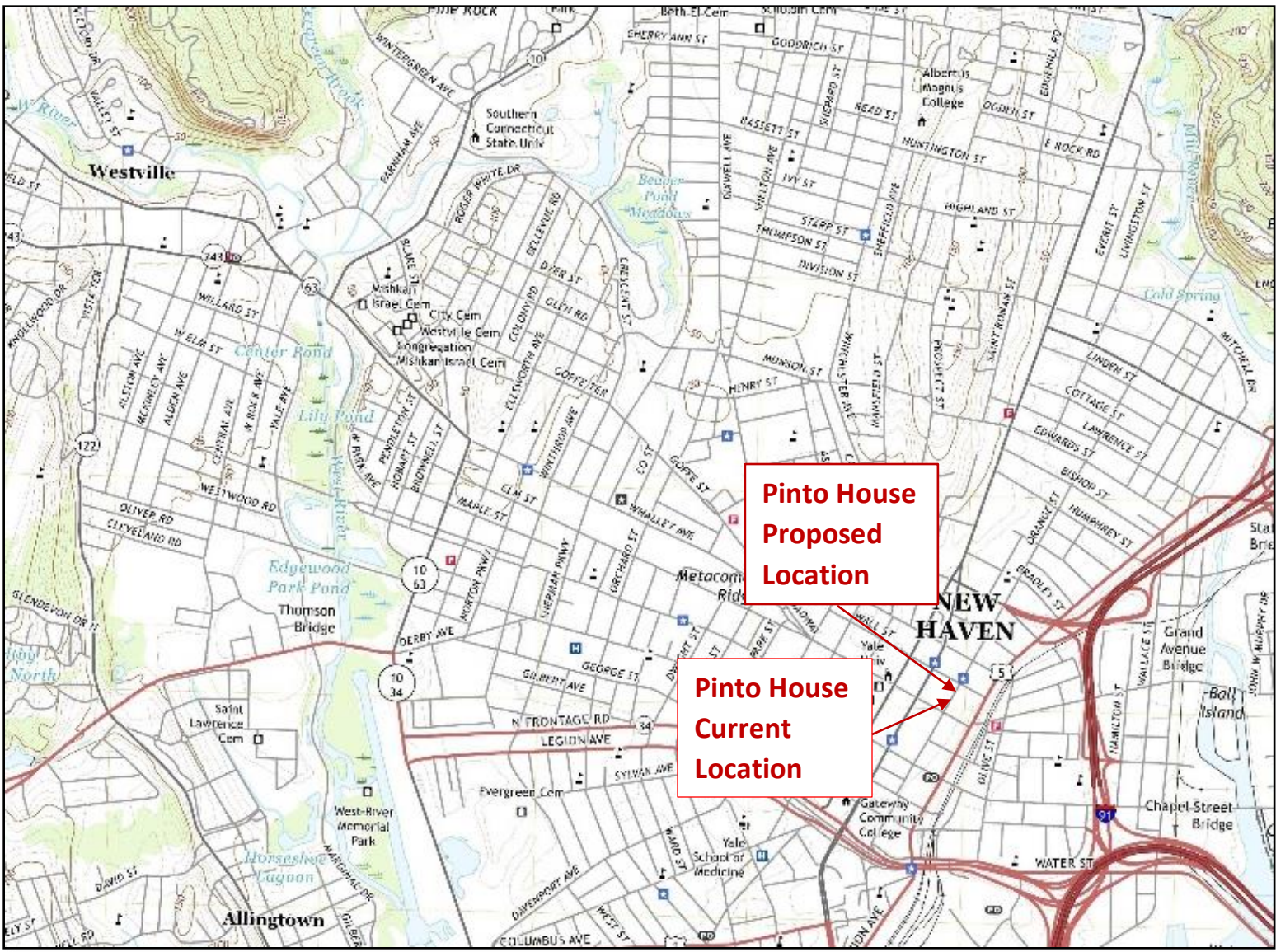


Figure 1 – Pinto house location shown on 2018 USGS New Haven Quadrangle topographic map (7.5 Minute Series).



Figure 2 – Diagram of proposed move (Newman Architects).



Figure 3 – Looking east across Orange Street at the Pinto House (AHS, January 2020).



Figure 4 -- Google Earth view looking southeast across APE. Proposed relocation site at 283 Orange Street on left, current location of Pinto House on right at 275 Orange Street.



Figure 5a. 1748 Wadsworth Map of New Haven. (Library of Congress)



Figure 5b. Detail of the 1748 Wadsworth Map of New Haven showing the future location of Orange Street. (Library of Congress)



Figure 6a. 1817 Doolittle Map of New Haven showing Orange Street. (Library of Congress)



Figure 6b. Detail of 1817 Doolittle Map of New Haven showing Orange Street. (Library of Congress)



Figure 7a. Whiteford 1852 Map of New Haven County. (Library of Congress)

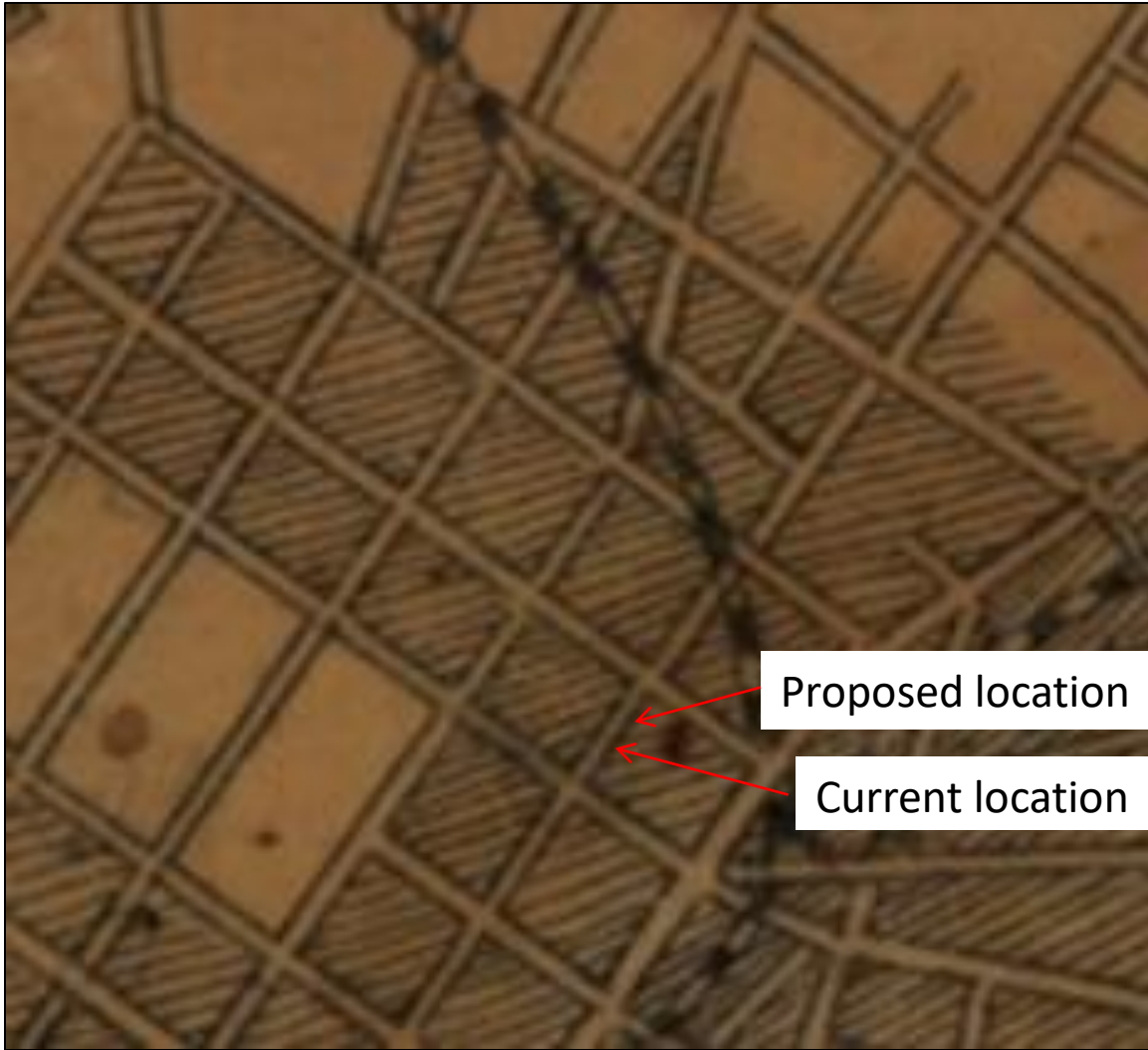


Figure 7b. Detail of Whiteford 1852 Map of New Haven County showing Orange Street. (Library of Congress)

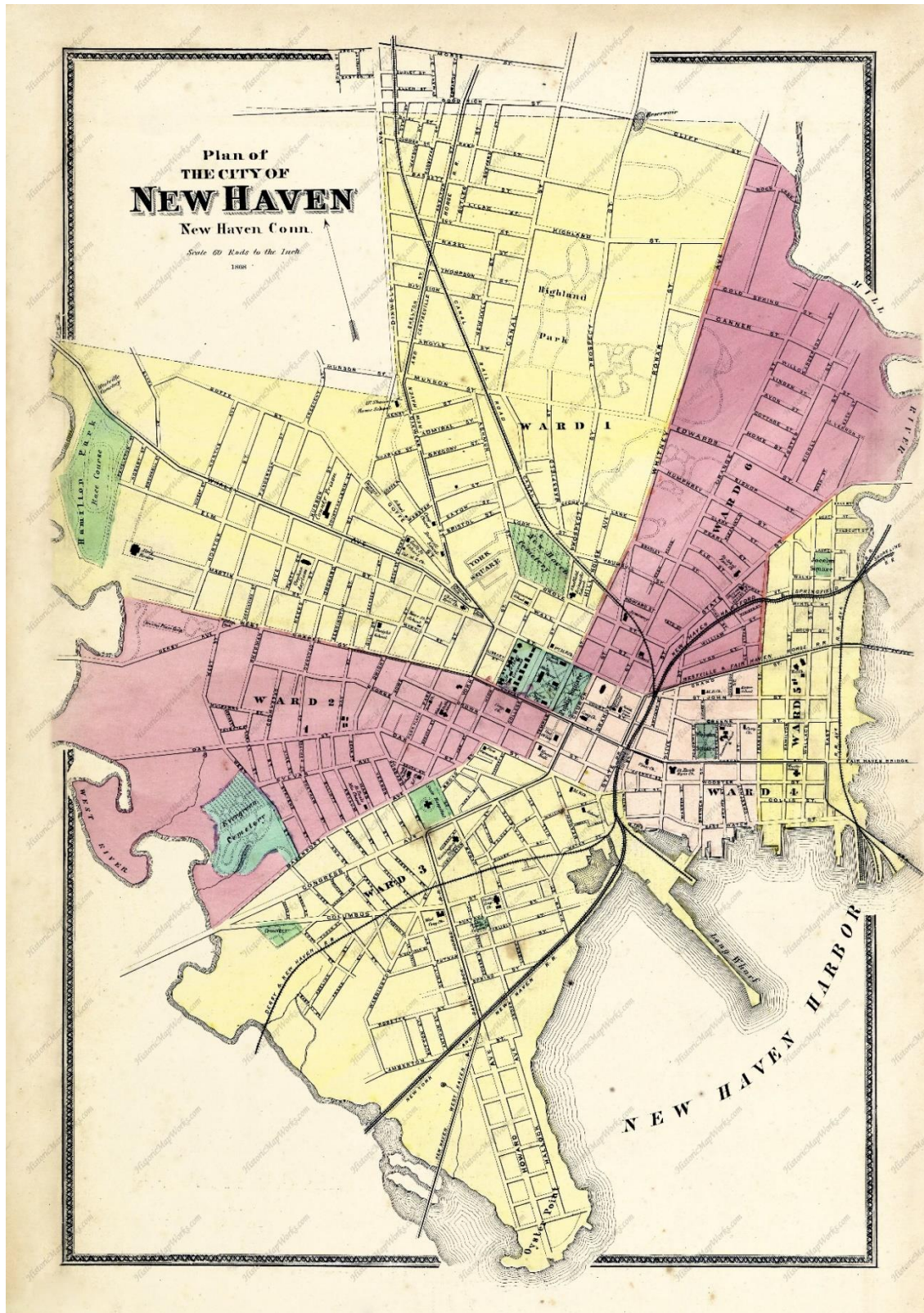


Figure 8a. 1868 Plan of the City of New Haven from the Atlas of New Haven County. (Historic Map Works via Connecticut State Library)



Figure 8b. Detail of Beers 1868 Plan of the City of New Haven from the Atlas of New Haven County showing Orange Street. (Historic Map Works via Connecticut State Library)



Figure 9b. Detail of 1879 Bailey and Hazen Bird's Eye view of New Haven showing Orange Street (Library of Congress)

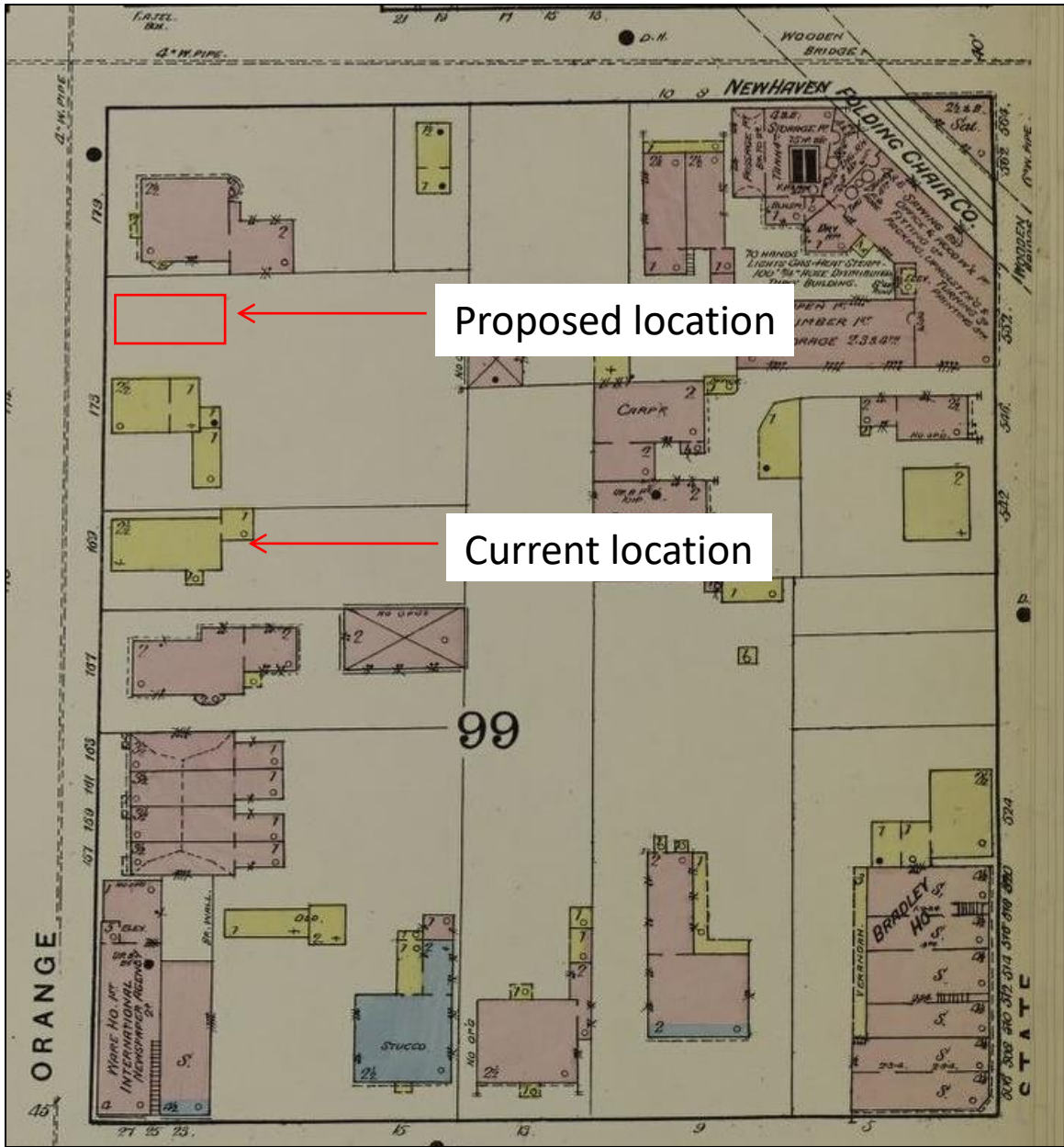


Figure 10. 1886 Sanborn Fire Insurance Map of New Haven, vol. 1, pl. 14. (Library of Congress)

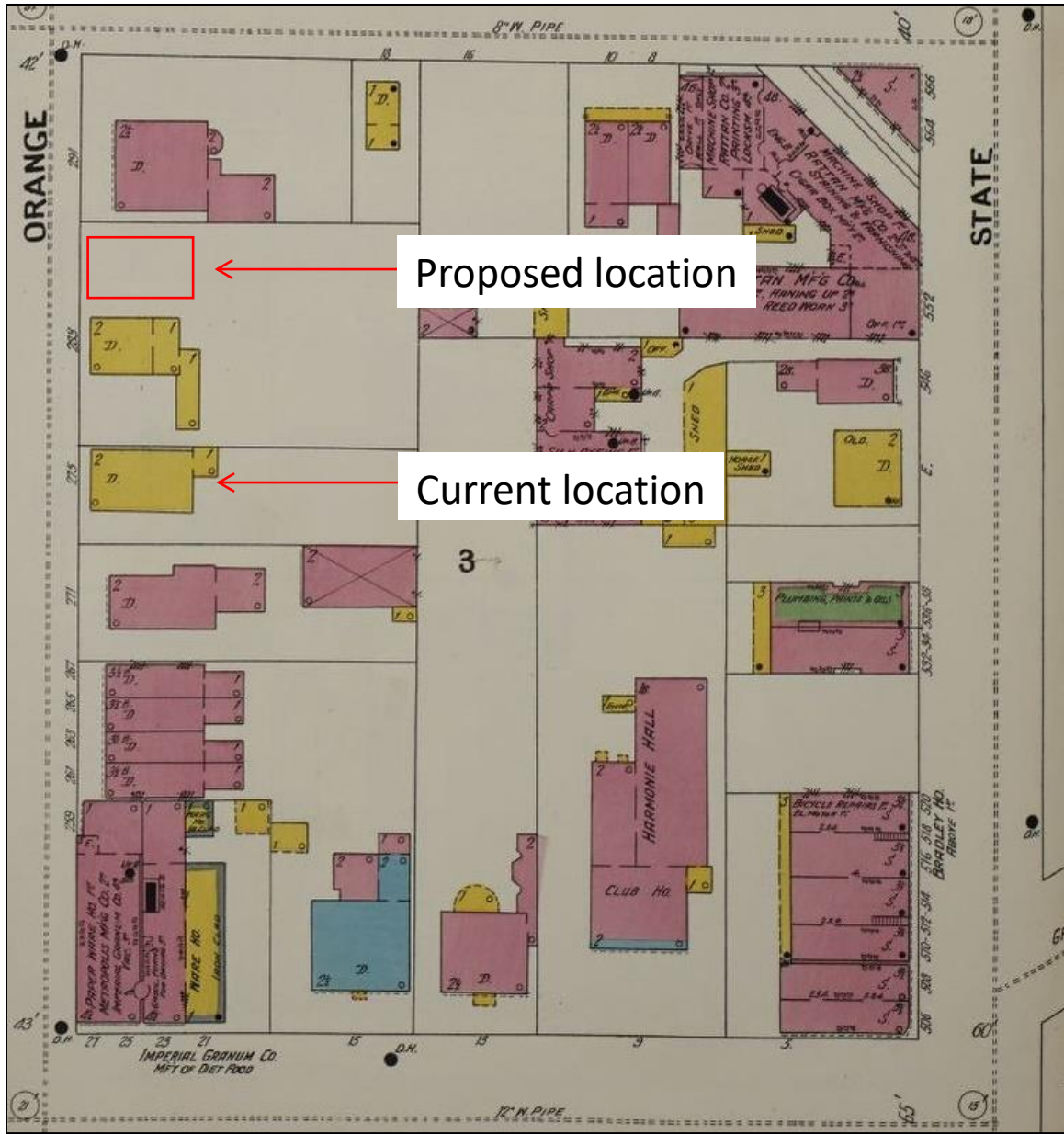


Figure 11. 1901 Sanborn Fire Insurance Map of New Haven, vol. 1, pl. 6. (Library of Congress)

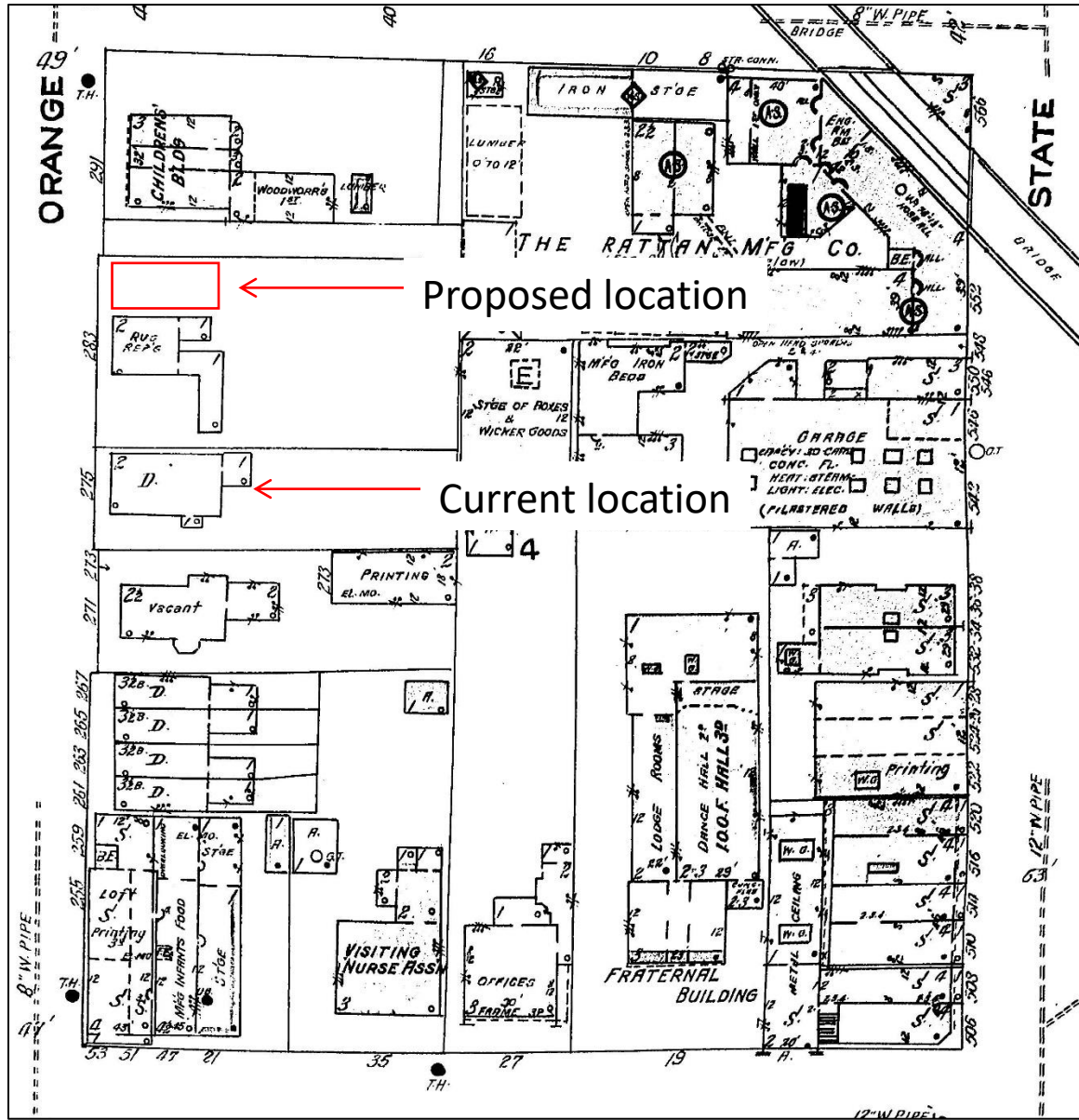


Figure 12. 1923 Sanborn Fire Insurance Map of New Haven, vol. 1, pl. 11. (ProQuest Digital Sanborn Maps, 1867–1970 via Connecticut State Library)

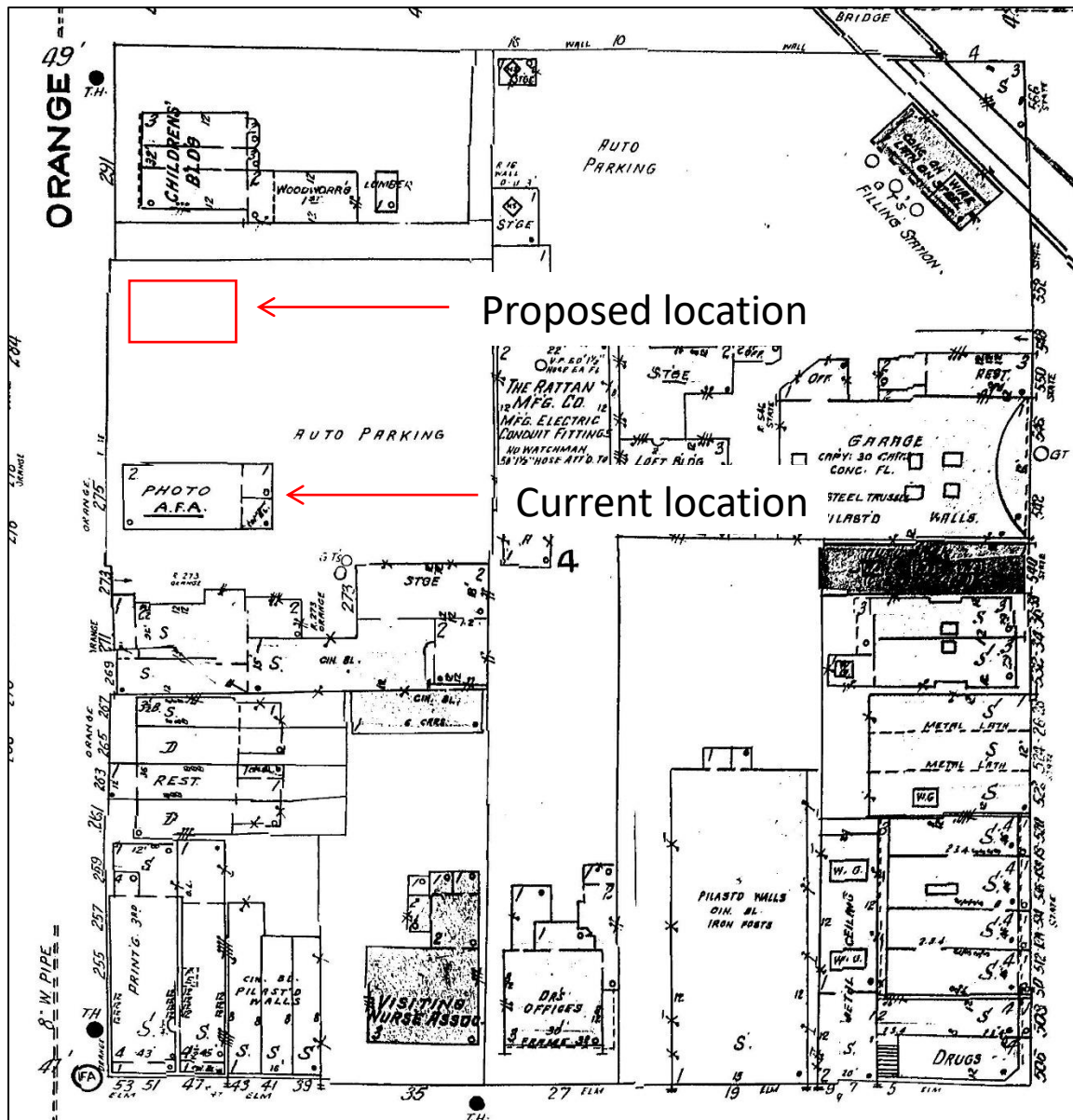
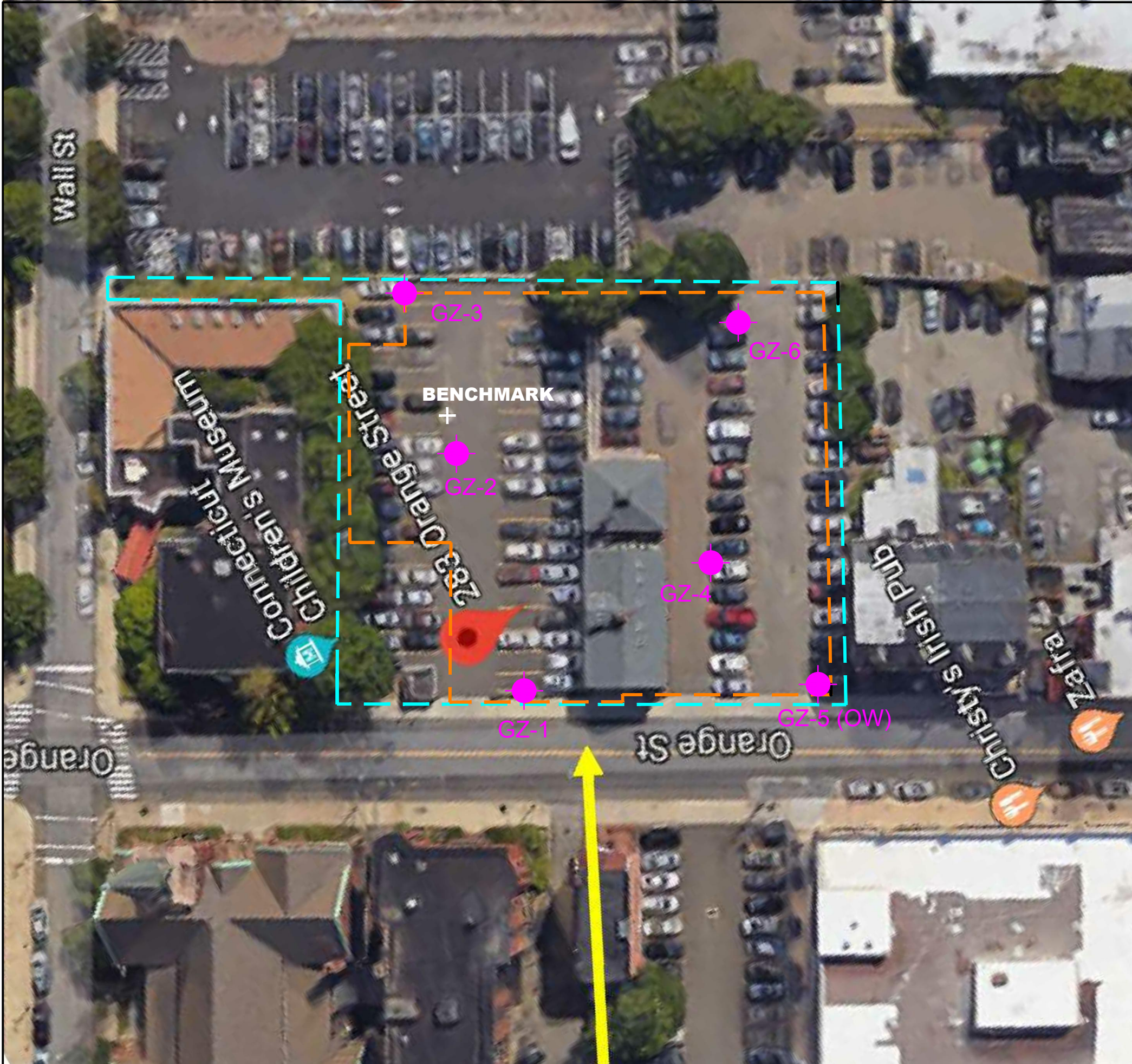


Figure 13. 1923 Sanborn Fire Insurance Map of New Haven (updated 1951), vol. 1, pl. 11. (ProQuest Digital Sanborn Maps, 1867–1970 via Connecticut State Library)






Figure 14. 1934 Fairchild Aerial Survey of Connecticut, photograph 04930. (Connecticut State Library)

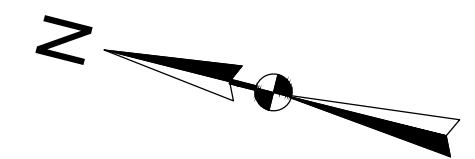


GENERAL NOTES

1. BASE MAP DEVELOPED FROM A GOOGLE EARTH SCREENSHOT DEPICTING 271-283 ORANGE STREET, NEW HAVEN, CT.
2. THE PURPOSE OF THIS DRAWING IS TO LOCATE, DESCRIBE, AND REPRESENT THE POSITIONS OF TEST BORINGS IN RELATION TO THE SUBJECT SITE. THIS DRAWING IS NOT CONSIDERED A LAND SURVEY. THE LOCATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USE.

LEGEND

-  INDICATES APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY SEABOARD DRILLED AND OBSERVED BY GZA PERSONNEL.
-  INDICATES APPROXIMATE PROPERTY BOUNDARY LINE
-  INDICATES APPROXIMATE BUILDING FOOTPRINT



NO.	ISSUE/DESCRIPTION	BY	DATE

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**271-283 ORANGE STREET
NEW HAVEN, CONNECTICUT**

EXPLORATION LOCATION PLAN


PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: SPRING ROCK DEVELOPMENT 271 ORANGE STREET NEW HAVEN, CT		
PROJ MGR: PW	REVIEWED BY: PW	CHECKED BY: DMB	FIG OR DWG
DESIGNED BY: BC	DRAWN BY: BC	SCALE: 1" = 40'	1
DATE: SEPTEMBER 2018	PROJECT NO. 05.0046334.00	REVISION NO.	

Figure 15 – Test boring locations (GZA GeoEnvironmental Inc.).