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Phase 1B Archaeological Testing Report

New York City Wireless Network (NYCWiN)

Site SI-007B:

4414 Arthur Kill Road

Charleston, Richmond County, New York

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Prepared for:

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Phase 1B Archaeological Testing – NYCWiN Site SI-007

A. INTRODUCTION

AKRF, Inc. has been retained by Northrop Grumman Information Technology, Inc. (Northrop Grumman) to perform environmental services in connection with the proposed installation of a New York City Wireless Network (NYCWiN) facility at 4414 Arthur Kill Road (Block 7380, Lot 70) in the Charleston section of Staten Island. Northrop Grumman is under contract to design, install, and maintain the proposed wireless network known as NYCWiN which is designed to support the City's public safety and public service agencies throughout the five boroughs of New York City. NYCWiN will enable a wealth of mobile and fixed applications, including real-time video, rapid database lookup, and the exchange of rich graphical information. The proposed facility at this site requires a special permit from the City Planning Commission (CPC) pursuant to Section 107-73 of the *Zoning Resolution* to allow a structure that would exceed the 50-foot maximum height limit for the Special South Richmond Development District and thus requires City Environmental Quality Review (CEQR).

The facility at 4414 Arthur Kill Road would be located in the southeast corner of the lot, directly behind an existing auto service building. The facility would consist of antennas concealed within an approximately 120 foot-tall pole with an equipment cabinet (to be mounted on a concrete pad measuring approximately 6 feet by 3 feet) and other related utility equipment on the ground. The facility would be surrounded by an approximately eight foot-tall opaque fence. The installation of the pole would require excavation of an area approximately 20 feet deep and approximately 3 feet in diameter. Installation of other related utility equipment, conduits, a concrete pad, and the fence would require excavation to a depth of up to five feet.

The pole would be located immediately east of an existing auto garage while underground utility conduits will connect the pole and equipment cabinet to an existing utility pole that is situated in an area currently used for parking (see Figure 1). The parking area is currently paved, although to the north of the existing garage structure, the conduits would extend through an unpaved area to connect to the facility.

As part of the CEQR process, a Phase 1A Archaeological Study of the project site (Phase 1A) was completed by AKRF, Inc. in December 2007. The Phase 1A determined that because of a lack of documented disturbance in the area, the proposed locations of the pole, equipment cabinet, and associated electrical equipment conduits were sensitive for precontact archaeological resources. The Phase 1A recommended additional research in the form of Phase 1B Archaeological Testing. A scope of work for field testing was submitted to the New York City Landmarks Preservation Commission (LPC). In a letter dated December 13, 2007, LPC concurred with the results of the Phase 1A and the scope for field testing.

The goal of a Phase 1B survey is to determine the presence or absence of archaeological resources that may be impacted by proposed development and involves a level of subsurface testing and artifact collection sufficient to draw conclusions regarding the potential for significant resources to be present in a project site. The Phase 1B completes the identification

accumulating at the bottom of the test pit. The seven soil levels excavated in this test pit are described in Table 1 and a wall profile is depicted in Figure 2.

Table 1
STP1 Soil Level Descriptions

Level #	Depth Below Ground Surface (inches)	Soil Classification	Color	Remarks
1	0 to 4	Large heavy gravel with silty sand	10 YR 3/3: Dark Brown	Fill containing modern artifacts.
2	4 to 13	Very dense compact sandy silty clay	7.5 YR 4/4: Very Dark Gray	Disturbed fill containing modern artifacts.
3	13 to 20	Sandy silty clay containing a large quantity of gravel	10 YR 3/1: Very Dark Gray	Fill containing modern artifacts; possibly represents an older driveway surface.
4	20 to 22	Silty loam	10 YR 2/2: Very Dark Brown	Disturbed remnant of possible original ground surface; contained roots.
5	22 to 30	Silty clayey loam	7.5 YR 4/3: Brown	Clayey subsoil.
6	30 to 36	Very wet silty loam	10 YR 4/2: Dark Grayish Brown	Clayey subsoil.
7	36 to 40	Sandy loam	10 YR 5/3: Brown	Clayey subsoil, groundwater accumulated at bottom (see Figure 3).

Level 4 of STP1 appeared to represent the original ground surface, although it was disturbed. The approximately seven inch thick level immediately above it (Level 3) was mostly composed of large pieces of gravel, which appears to have been part of a former driveway surface. Virgin subsoil was identified beginning with Level 5. It is possible that this area had been graded in association with the construction of the gravel drive and was later re-covered with fill or was covered with naturally accumulating sediments and debris over time. It is also possible that this area was disturbed during the construction of the garage bordering the western end of the project site. The garage appears to have been constructed in an area that was graded significantly. While STP1 was located more than 10 feet to the east of the garage, well outside of the area which was visibly graded, it is possible that additional disturbance in this area could have occurred as a result of the garage's construction. Photographs of STP1 can be seen in Figure 3.

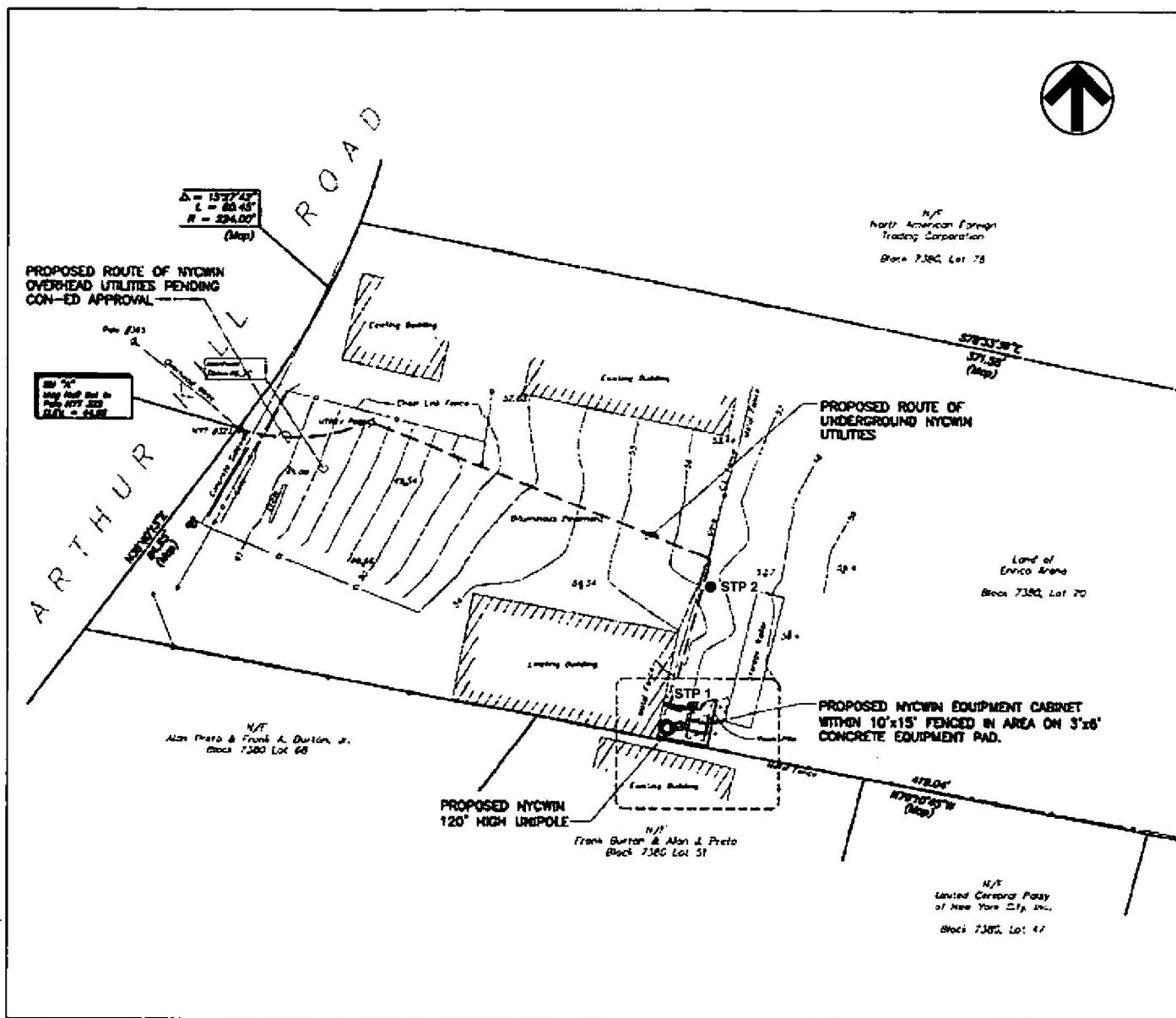
STP2 was excavated at a distance of approximately 16 feet to the north of the existing garage and approximately three feet to the east of a metal fence extending from the garage's eastern wall. The STP was excavated to a depth of approximately 31 inches below the ground surface and 4 soil levels were encountered. Subsoil was encountered at a depth of 24 inches. The soil

which they were found, the artifacts are considered to possess little to no archaeological research value.

D. CONCLUSIONS

The Phase 1B Testing revealed that there is little chance that undisturbed archaeological resources are located in the project site. No intact soil horizons or undisturbed original ground surfaces were encountered in either of the two STPs which were excavated to the depth of subsoil as part of the Phase 1B testing. No artifacts were recovered during the excavation with the exception of a small number of mostly 20th century refuse that is most likely associated with the site's use as a junkyard.

Therefore, based on the absence of intact artifact deposits and/or natural soil horizons dating to the precontact period, no additional testing is recommended.



● Shovel Test Pits

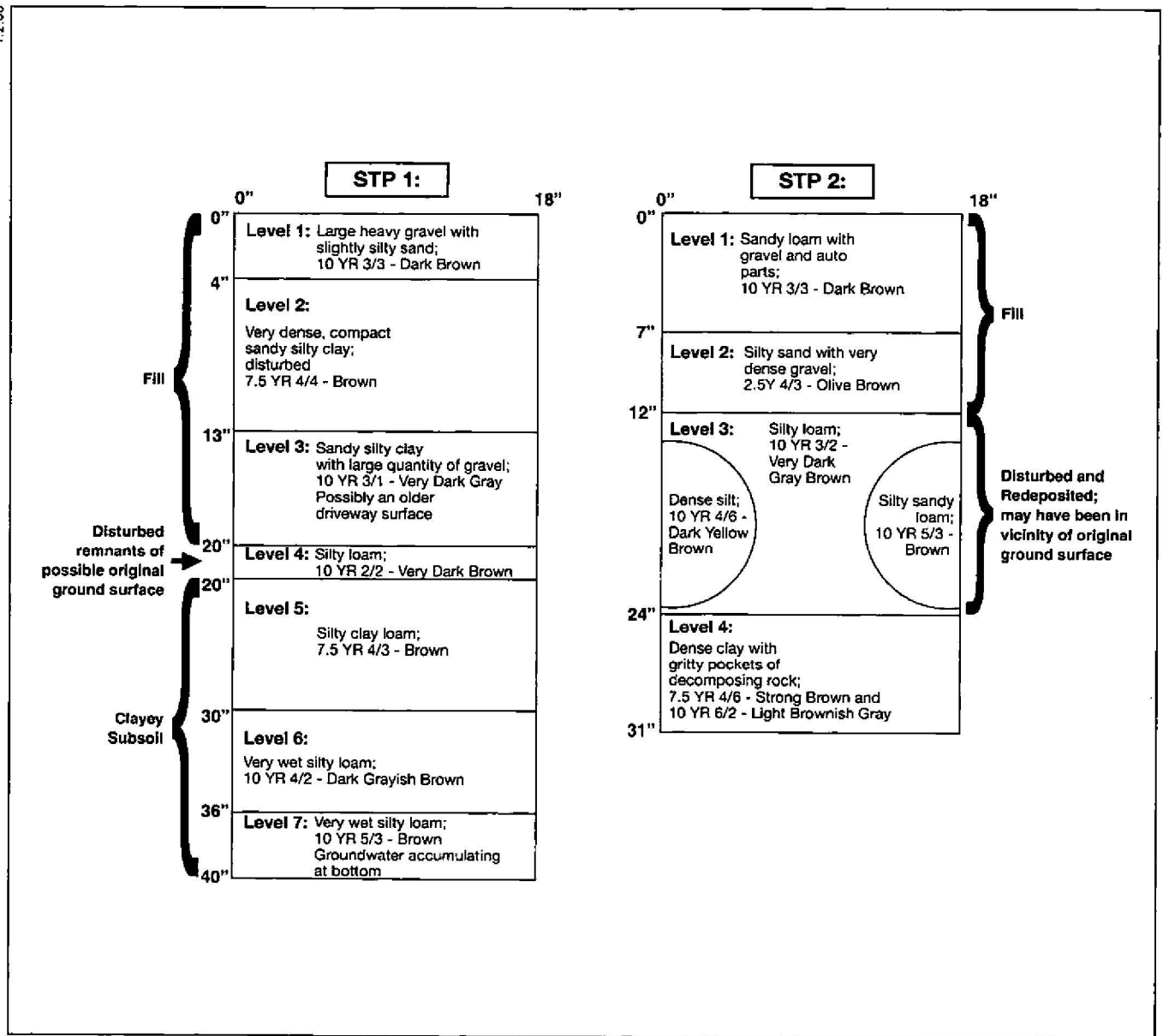


Figure 2
Shovel Test Pit
Wall Profiles



STP1, showing groundwater accumulation at bottom

1



STP1 and southern portion of project area, looking southwest

2