

ENVIRONMENTAL
December 23, 1999 PROTECTION



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SK/C 5560 A

Subject: Work Plan for Off-site Investigation at Former Westinghouse
Property Located at 5815 Peladeau Street, Emeryville, California

Dear Susan:

Based on your letter dated August 25, 1999 a copy of our revised Work Plan for conducting additional off-site investigation at Heritage Square property adjacent to Former Westinghouse property is enclosed.

Upon your approval of the enclosed work plan, SOMA will initiate off-site investigation program at the subject property. Meanwhile, please do not hesitate to call me at (925) 244-6600 if you need further assistance.

Sincerely,

Mansour Sepehr, Ph.D., P.E.
Principal

cc: Dr. Ravi Arulanantham, RWQCB, San Francisco Bay Region
Mr. Gordon Taylor, Principal Engineer, CBS Corporation

*1/21/2000
conference call
w/ Mansour & Gordon
Taylor re: WP - can implement
Work plan*

*2/6/2000 SA
on site - met Mansour Sepehr
drilling SB-5 thru SB-18.
SB-1 to SB-3 drilled but with
(discontinue due to rain). SB-2 to SB-5
necessary samples. SB-4 appeared
to have H2O @ 4 ft.
Open boring near G well
be left open to
measure
H2O & collect*

December 23, 1999

**Workplan for the Delineation of Extent of PCBs
Contamination and Remediation at an Off-site Area
5815 Peladeau Street
Emeryville, California**

INTRODUCTION

This document has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of CBS Corporation (CBS), successor by corporate name change to Westinghouse Electric Corporation. This workplan summarizes the procedure for further site characterization for delineation and remediation of polychlorinated biphenyls (PCB) impacted soils at the Heritage Square property located immediately north of the former Westinghouse Property at 5815 Peladeau Street, Emeryville, California, (the "Property"), see Figure 1. This report has been prepared based on our limited soil sampling activities conducted at the subject property on October 3, 1999. It is our understanding that upon completion of the work proposed in this workplan, both Alameda County Department of Environmental Health (ACDEH) and California Regional Water Quality Control Board (RWQCB) will issue the site final closure letter. ?

The scope of this investigation is to drill shallow soil borings (up to four feet), and collect soil samples in order to delineate polychlorinated biphenyls (PCBs) impacted soils at the Property. The result of our investigation will identify the extent of PCB contamination at the Heritage Square surface soils. The PCB impacted soils will be excavated and disposed off-site. The cleanup levels for PCB impacted soils will be based on the recommendations of the Risk Assessment report prepared by SOMA (SOMA, 1996).

Background

In 1996, SOMA conducted a baseline human health risk assessment (HHRA) to address the adverse health effects of residual chemicals found in soil and groundwater on current and future site workers (SOMA, 1996). Based on the results of the risk assessment study, PCB impacted soils at the northern part of the property (now known as Parcel 4) adjacent to the Heritage Square property were above acceptable levels for the proposed use of the subject Property. Based on the recommendation of the human health risk assessment, CBS retained the services of Westinghouse Remediation Services, Inc. and ALTA Geosciences to remove PCB impacted soils in the summer of 1996.

Remediation criteria for the August, 1996 Soil Remediation were selected from the HHRA report as:

1. 0.5 ppm PCBs from the ground surface to a depth of 2 feet (residential criteria).
2. 59.3 ppm PCBs from a depth of 2 feet to a depth of 4 feet (site utility worker criteria).

Below a depth of 4 feet, the adverse risks to human health were not considered significant, as groundwater is frequently encountered, and no remediation was required. At the direction of CBS, the remediation goal of 50.0 ppm was set for the soils between a depth of 2 to 4 feet bgs to ensure that all soils in the upper 4 feet, which exceeded remediation criteria, were excavated and disposed of.

The soil remediation was performed in August and September 1996. As described in the Completion Report by ALTA Geosciences, remediation goals were met throughout the excavation bottom, either by excavation until confirmation sampling indicated that the excavation bottom was less than the remediation criteria, or by excavation to at least 4 feet bgs.

In the summer of 1998, SOMA conducted off-site investigation at the U.S. Postal Office and Heritage Square properties to evaluate the potential impact of the former Westinghouse facility operation on these areas located immediately north of the Property. SOMA drilled four soil borings along the property line of the U.S. Postal property and the former Westinghouse property in order to evaluate the horizontal extent of PCB contamination. In addition, SOMA drilled four additional soil borings along the property line between Heritage Square and former Westinghouse property. The Heritage Square used to belong to former Westinghouse, however, in November 1950 it was sold to ITT Grinnell Company.

The results of the soil investigation indicated that the PCB concentration at the property line of the U.S. Postal Office in the surface and subsurface soils is below 0.5 mg/kg, the cleanup criterion for residential purposes, see Figure-1. However, some of the samples collected at the Heritage Square property showed the PCB concentration above the recommended cleanup levels.

In October 1999, SOMA conducted a limited field investigation to evaluate the extent of PCB contamination at the Heritage Square property. During this investigation, SOMA drilled 8 soil borings (A through H) to a maximum depth of 4 feet below the grade. Soil samples were collected at 0.5 and 3-foot depths using a hand auger equipped with a brass tube. The soil samples were submitted to Delta Environmental Laboratories for PCB analysis using EPA Method 8080. The results of the laboratory analysis showed PCB concentration of up to 105 mg/kg in the surface soils. Generally, PCB concentration's at the 3-foot depth was below the action level of 0.5 mg/kg. PCB concentrations at the 3-foot depth ranged between 0.04 mg/kg at boring H and 92 mg/kg at boring G. Only three out of eight soil samples at the 3-foot depth showed high levels of PCB concentrations. Figure-2 shows the location of soil borings and the results of the laboratory analysis.

SCOPE OF WORK

The Scope of Work is summarized into the following tasks:

- Task-1: Drilling shallow soil borings and collecting soil samples**
- Task-2: Laboratory analysis and delineation of PCB impacted areas**
- Task-3: Soil remediation**
- Task-4: Report preparation**

The following is a brief description of each task:

Task-1: Drilling shallow soil borings and collecting soil samples

The results of the laboratory analysis on some of the soil samples collected from 0.5 and 3 foot depths at Heritage Square have shown elevated levels of PCB contamination above the risk-based levels. As Figure-2 shows, the concentration of PCBs is decreasing by depth. At the 3-foot depth the reported concentration of PCBs at borings D, E, F and H are below the risk-based levels, see Figure-2.

In order to define the vertical and horizontal extent of PCBs contamination at the Heritage Square property, CBS proposes to drill additional soil borings. The proposed soil sampling locations are based on the review of historical aerial photos from 1931 through 1981. The review of historical aerial photos indicated stockpiles of unidentified material and ground discoloration at the Heritage Square site during 1931 through 1950. In November 1950, ITT Grinnell Company (ITT) acquired the Heritage Square property. ITT sometimes between 1950 and 1959, paved over the soil discoloration area.

Figure-3 shows the extent of the soil discoloration area, which was paved over by ITT. To further evaluate the extent of PCB contamination, CBS proposes to drill 25 soil borings as presented in Figure 4. The borings will be drilled by the

hollow stem auger to a total depth of 4-feet below the ground surface (bgs). Two soil samples will be collected from each soil boring. One sample will be collected immediately below the asphalt pavement, while the other will be collected at 3.5-4 feet bgs. The drilling and sampling operation will be conducted under the supervision of SOMA's Senior Field Engineer. To avoid cross contamination, the sampling tools will be decontaminated after drilling and sampling of each soil boring.

A total of 50 soil samples will be collected during this investigation. Samples 1 through 40 will be analyzed for PCBs, while samples 41 through 50 will be analyzed contingent upon detection of PCBs in the most peripheral sampling locations such as SB-13, SB-16, SB-19, SB-18 and SB-15.

Task-2: Laboratory analysis and delineation of PCB impacted areas

The soil samples will be sent to DELTA Environmental Laboratories immediately for analysis. The soil samples will be analyzed for PCBs using U.S. EPA Method 8080. The results of the laboratory analysis will be used to delineate the extent of PCB impacted areas. Delineation of PCB-impacted areas will be based on recommended cleanup levels for the residential area given by SOMA's risk assessment document.

Task-3: Soil remediation

Upon delineation of the PCB hot spots, they will be excavated. The PCB impacted soils will be disposed off-site at a TSCA permitted landfill. Confirmation samples will be collected beneath the excavated areas in order to document the remaining PCB concentration in soils. The remaining residual PCB concentration after hot spot removal should not exceed 0.5 mg/kg for surficial (between 0-2 feet depth) and 59 mg/kg for subsurface soils (between 2 and 4 feet bgs) according to

the risk assessment document for the residential scenario as prepared by SOMA (SOMA, 1996).

Task-4: Report preparation

Upon completion of the fieldwork and possible soil remediation activities, SOMA will prepare a written report and submit it to ACDEH and RWQCB for review. The report will include a description of field activities, results of laboratory analysis, figures and tables showing the extent of PCBs impacted areas and remediation activities. The report will include the results of additional soil sampling activities following the soil removal/remediation process showing the remaining concentration levels of PCBs in the remediated areas.

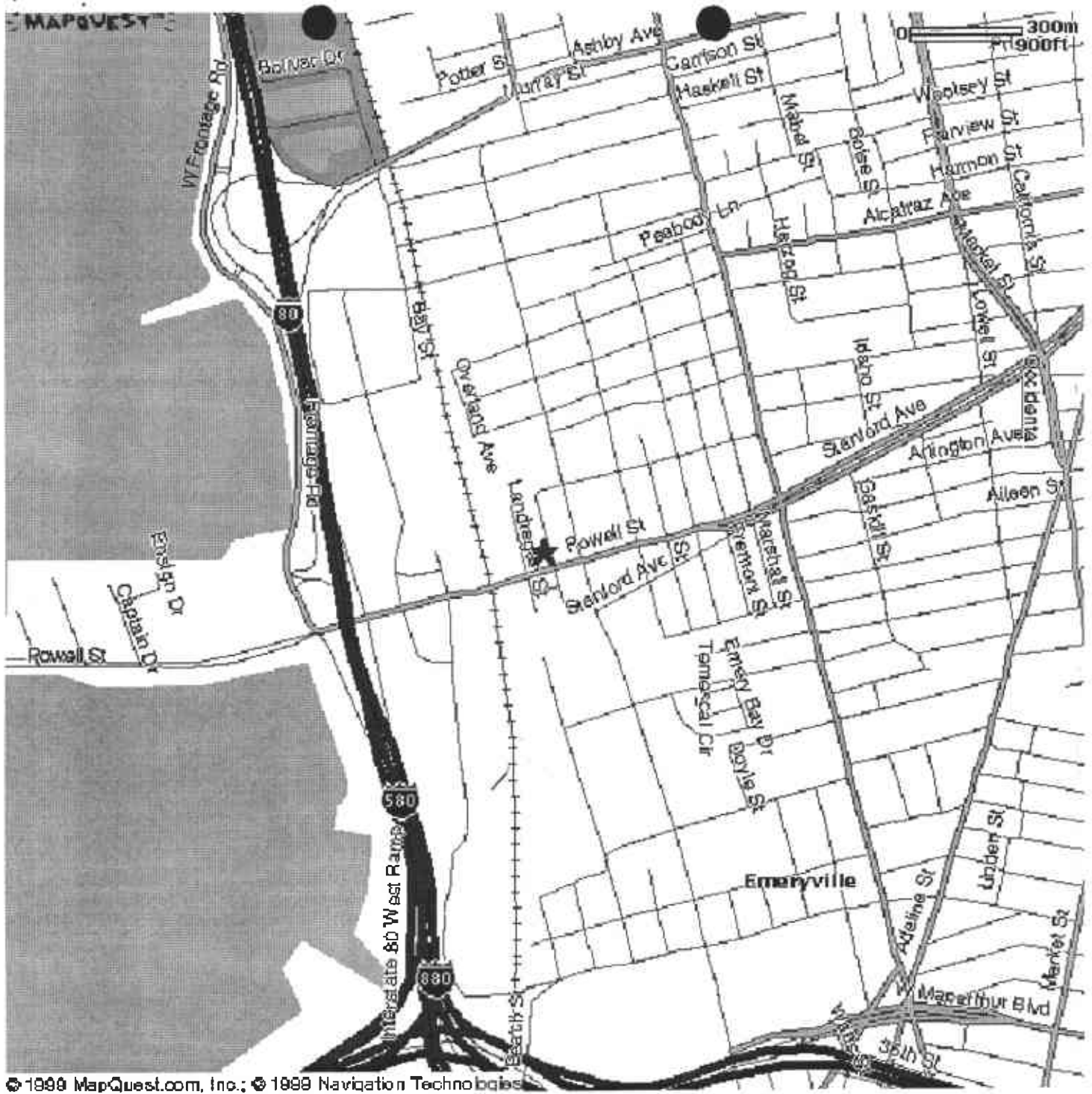


Figure 1: Site Vicinity Map



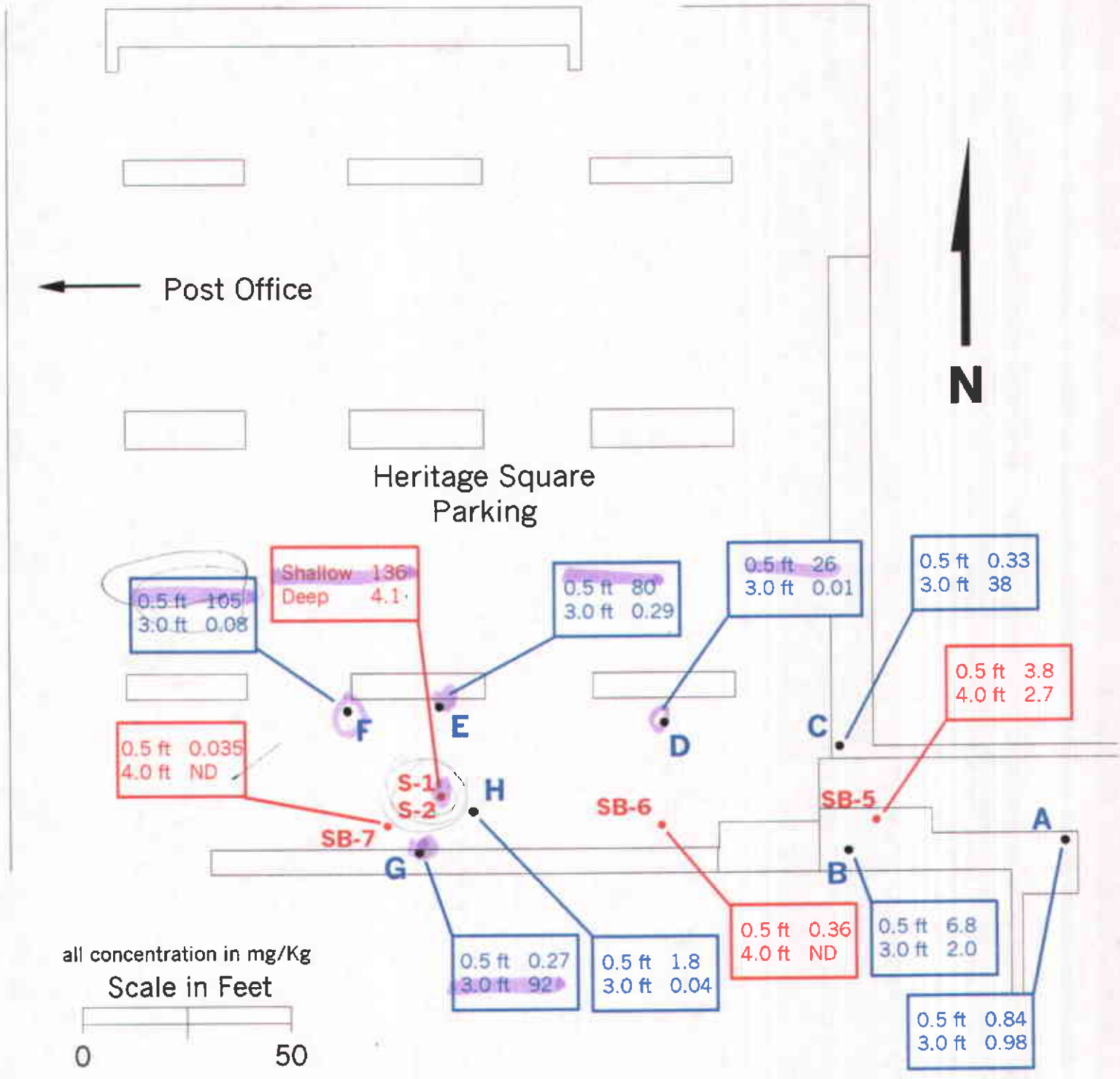


Figure 2: Soil Boring Locations



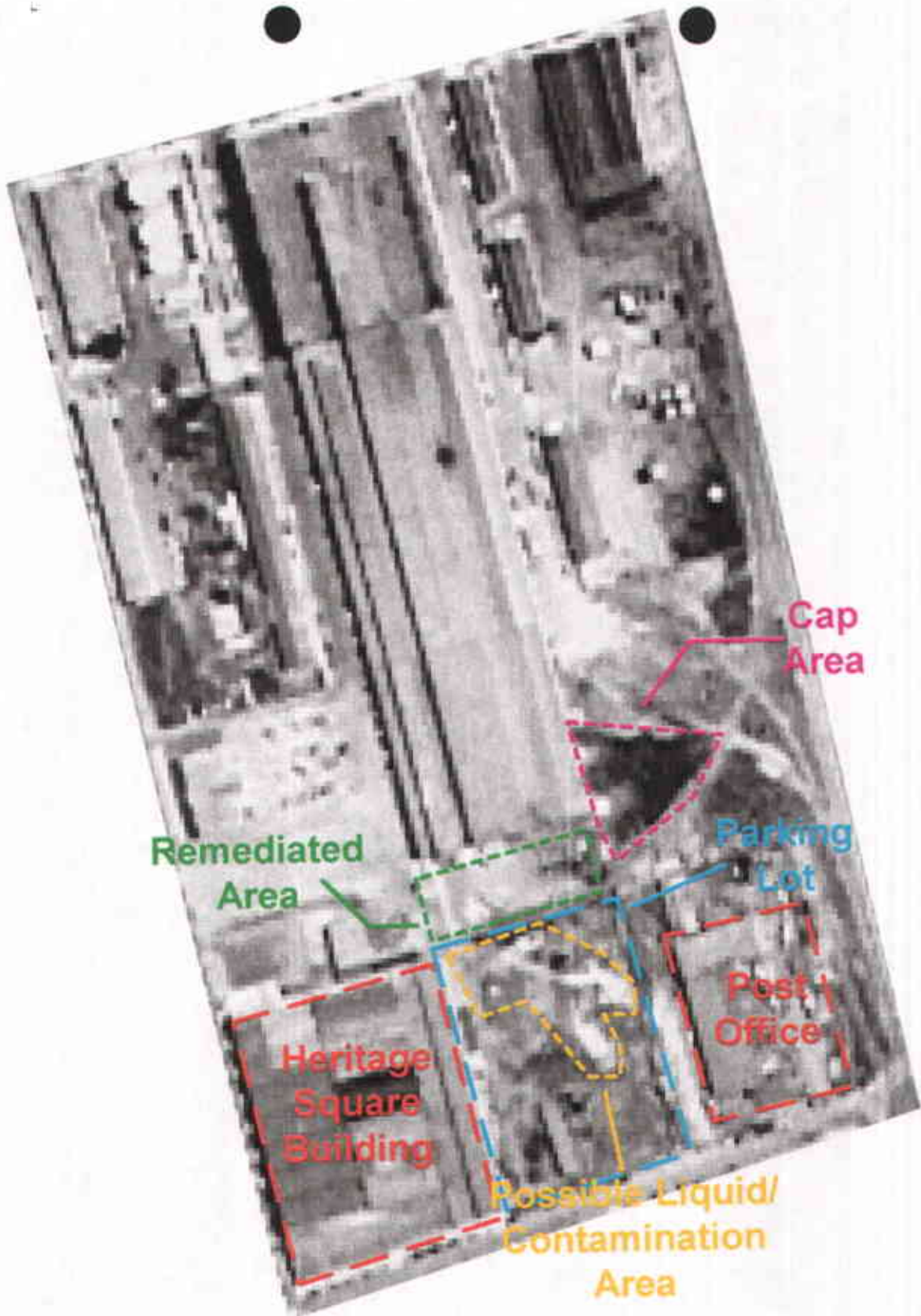


Figure 3: 1950 Aerial View

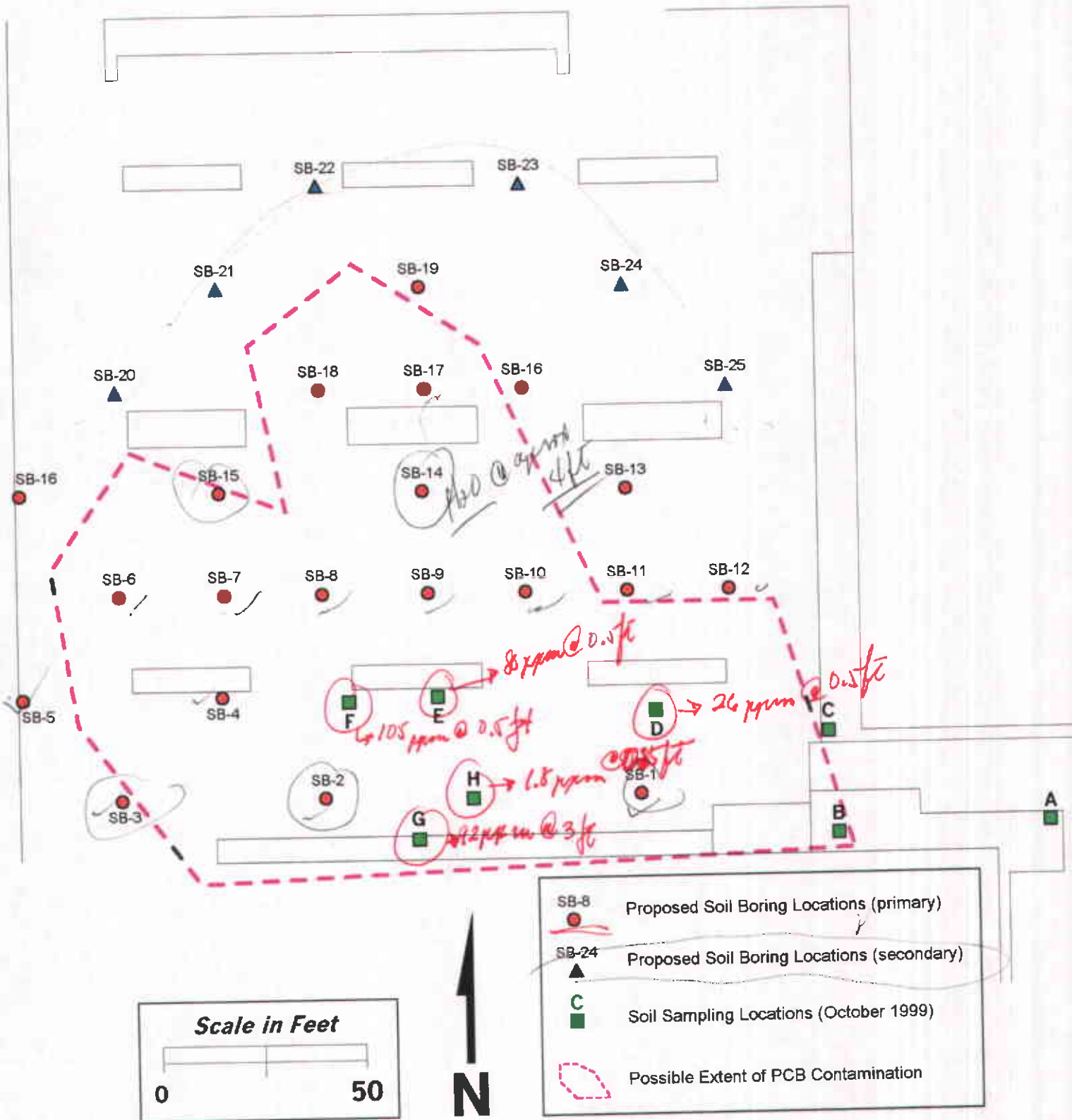


Figure 4: Proposed Soil Boring Locations

