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EAST RIVER WATERFRONT ESPLANADE AND PIERS

Lower Manhattan Development Corp

MONITORING PROTOCOL

and

UNANTICIPATED DISCOVERY PLAN:

CULTURAL RESOURCES

*FOR THE GEOTENCHNICAL INVESTIGATIONS OF MARGINAL
ROAD AREA BETWEEN PINE STREET AND RUTGERS SLIP*

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Historical Perspectives Inc.

P. O. Box 3037

Westport, Connecticut 06880

August 9, 2007

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1. INTRODUCTION

Introduction

The Lower Manhattan Development Corporation (LMDC) is the lead agency for the development of the proposed East River Waterfront Esplanade and Piers Project (ERE). The ERE is intended to revitalize the East River waterfront by improving a two-mile-long, City-owned public open space connecting the Whitehall Ferry Terminal and Peter Minuit Plaza to the south with East River Park to the north. The existing esplanade would be enhanced, some new sections of esplanade would be created, and several piers would be renovated and redeveloped. The Project Site or Area of Potential Effect (APE) runs along present South and Marginal Streets roughly from Whitehall Street adjacent to Battery Park, north and east to Jackson Street, along the East River shoreline of the Borough of Manhattan.

Due to environmental review requirements, the New York City Landmarks Preservation Commission (LPC) has identified the ERE APE as having the potential to contain significant archaeological resources and required the preparation of archaeological sensitivity studies. Three documentary studies, each covering a section of the total APE, were conducted by Historical Perspectives, Inc. (HPI) and the reports were accepted by LPC (6/14/07; 6/19/07; and 7/12/07).

The technical reports' conclusions and recommendations for further archaeological consideration were based, in part, on the subsurface data available at the time of the evaluation (e.g., soil boring logs, utility installations, and dredging records). As with any active, urban site with a long history of use, however, there are many unknown variables that may have affected the subsurface integrity of a city lot, bulkhead, or street bed. The collection of additional controlled data on below-grade conditions would provide the opportunity to revise and focus the conclusions and recommendations of the three approved studies.

Geotechnical Investigation

Currently, borings, test pits, and associated laboratory work are planned for a portion of the ERE in order to provide the project architects and engineers with foundation design data (W. Kelley, EDC, 7/12/07). According to the "Subsurface Investigation Specification" (Joseph Appleby, ARUP, 7/12/07), there will be approximately five (5) test pits, ERW-T6 – ERW-T10. Each test pit will be approximately 3'x8' in area, and 15' deep. Four (4) soil borings (ERW-L1 – ERW-L4), each to an approximate depth of 40 feet, also will be conducted. Both types of tests will be confined to the APE between Pine Street and just north of Rutgers Slip within the Marginal Street roadbed. The tests are intended to clarify subsurface conditions at proposed pavilion locations. The proposed location plan for the test units and borings is attached. It is understood that field conditions may dictate some variation in the actual placement of the test units and/or borings, but that the overall boundaries of the testing area will be maintained.

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These necessary geotechnical procedures afford HPI the opportunity to work with the investigation team to gain further insights into the subsurface conditions of this portion of the APE. HPI will establish parameters with the geotechnical team (e.g., continuous tube sampling) so that the borings to be conducted will yield field data applicable to archaeological questions of subsurface conditions/integrity. The soil boring logs will be included in the Monitoring Report described below.

As noted in the LPC "Guidelines" (6.5 Archaeological Monitoring), monitoring is not a preferred method for investigation of a potentially sensitive parcel. Marginal Street, however, like all of the project site, is active public space and not easily accessed for archaeological testing. Taking advantage of the exposed subsurface conditions to refine further the conclusions and recommendations of the IA reports is an efficient and prudent approach. It should also be noted that the Marginal Street corridor was not assessed within the accepted documentary studies to be as highly sensitive as the South Street roadbed to the north.

The following protocol outlines the archaeological monitoring of the proposed geotechnical investigation.

II. GOALS OF MONITORING PROTOCOL AND UNANTICIPATED DISCOVERY PLAN

- To establish the role of the monitoring archaeologist within the project team and to outline the archaeological actions during the geotechnical investigation.
- To create an understanding of the procedures for cultural resource identification and processing during monitoring so that the geotechnical testing schedules are not adversely impacted.
- To develop within the on-site construction employees and supervisors a sense of stewardship for and participation in the potential recovery and understanding of cultural resources related to ERE's waterfront heritage.
- To provide a framework for appropriate procedures in the event of the unanticipated discovery of cultural resources.

III. MONITORING PROCEDURES

As defined in the LPC "Guidelines," monitoring is the observation of construction excavation activities by an archaeologist in order to identify, recover, protect and/or document archaeological information or materials. The process is under the control of the construction

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contractor, with input from the archaeologist and reviewing agency. The archaeologist is given authority to temporarily halt construction work to complete the assigned tasks but the excavation area, location, and depth are determined by the contractor.

HPI's archaeological monitoring of the ERE five test unit excavations will adhere to the established definition of monitoring, in accordance with the current *Standards for Cultural Resources Investigations and Curation of Archaeological Collections in New York State of the New York Archaeological Council* (NYAC), the New York City Landmarks Preservation Commission's "Guidelines for Archaeological Work in New York City" (2002) and the "Guidelines for the Use of Archaeological Monitoring as an Alternative to Other Field Techniques [DRAFT]" (NYAC, 9/6/2000). The monitoring procedures include several tasks that, combined, constitute a Cultural Resources Management Program (CRMP). These tasks are listed below and discussed in greater detail in the subsequent sections.

- (1) Conduct a brief educational presentation for the on-site management team on why the ERE project site is sensitive for potential archaeological resources and what data the archaeological team hopes to collect from the geotechnical investigation.
- (2) Prepare information on the archaeological component of the geotechnical investigation for public and press inquiries.
- (3) Establish monitoring procedures, in consultation with the excavation team, that both allocate a reasonable and specified timeframe for archaeological examination of the test units and define the parameters for the soil boring sampling techniques.
- (4) Establish lines of communication within the various project team members; particularly the HPI on-site archaeologist and the day-to-day excavators.
- (5) Define mitigation of any impacted resource if encountered during the test unit excavations.

Orientation

HPI will conduct an awareness session with the on-site geotechnical personnel, both management and equipment operators. The archaeologist's authority to halt excavations, to allow for the examination of unanticipated, potentially significant archaeological materials, will be clarified for all project team members. In addition, anticipated support services, e.g. de-watering, will be defined.

As of 8/1/07, five test units and four soil borings are scheduled for the ERE corridor. HPI will maintain constant communication with the geotechnical investigation team on the overall progress of the site work. If excavation procedures and/or locations must be altered or expanded significantly, the HPI monitoring archaeologist and the HPI office must receive confirmed notification of this action at least three full business days prior, in order to contact LPC for approval of an amended protocol.

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Public Outreach During Monitoring

The test locations within the ERE corridor will be visible to vehicular and pedestrian traffic. HPI will rely on LMDC to supply the archaeological team, at the initiation of monitoring, with a prepared and appropriate response for any public enquiries.

Health and Safety Plan

A Health and Safety Plan (HASP), in full compliance with OSHA regulations, has been established by Environmental Planning & Management, Inc. for the subsurface investigations under contract to Frankfurt/ARUP, Joint Venture (July 2007). HPI will adopt the existing HASP for the archaeological team, which indicates no significant chemical, physical, and/or biological hazards that cannot be met easily with standard procedures.

Monitoring

The objective of the archaeological coordination with the on-going subsurface testing is to identify subsurface conditions in the Marginal Street corridor. HPI will, to a large extent, rely on the expertise of the field geotechnicians for the interpretations of soil stratigraphy. In addition, reasonable efforts will be undertaken by HPI to hand clean any exposed cultural elements and/or features.

HPI will rely on the geotechnical contractors for specific site controls, e.g., site security and dewatering, as necessary. Similarly, if shoring, in addition to the proposed bulkhead sheeting, is required during excavation to meet OSHA requirements, HPI will rely on the geotechnical contractors to shore the sides of the open excavations and to provide an appropriate ladder for access in and out of the open excavations for monitoring observations.

The HPI archaeologist will be on site and monitor all test unit excavations to their final depth. In order to ensure that the monitoring archaeologist(s) has adequate opportunity to observe exposed features/potential resources, HPI will establish the following inspection routine:

- HPI monitoring archaeologist will inspect the open excavation for no more than 30 minutes at regular two-foot depth intervals.
- HPI inspection will include use of a probe, shovels, and trowels.
- If and when a cultural feature is identified, HPI will halt excavations and confer with the excavation operators on exposure and sampling, as per the attached Unanticipated Discovery Plan.

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Mitigation

The need for mitigative action is not anticipated. If during the test unit excavation process, *in situ* cultural material of significance is encountered, HPI will immediately halt the operations and implement the Unanticipated Discoveries Plan detailed below.

Recordation and Reporting

As per Section 6.51 of the LPC "Guidelines," there are professional actions that will be followed during the monitoring effort, including recordation of the monitoring and appropriate analysis and conservation of artifacts. Upon conclusion of the monitoring effort, a Monitoring Report will be filed. The Monitoring Report will be an addendum to the three archaeological technical reports that were accepted by LPC. The additional subsurface data gleaned from the geotechnical study will inform the reports' conclusions and recommendations and any relevant amendments to the 1A reports will be thoroughly discussed in the Monitoring Report and subject to LPC and OPRHP for review. As described above, the soil boring logs will be included in the Monitoring Report/added as amendments to the 1A reports.

V. PERSONNEL

Project Director: Sara F. Mascia, Ph.D. See attached C.V.

VI. UNANTICIPATED DISCOVERY PLAN

In the event that some unanticipated cultural resource (i.e., a "find") of potential significance may be discovered during test unit excavations, the following guidelines establish a plan of action as part of the monitoring protocol. The plan is provided below.

The objective of the plan is to protect the integrity of the find. HPI assumes that oversight of unanticipated discoveries will be the responsibility of the construction management team's Superintendent. The Superintendent will maintain a complete and current copy of the Unanticipated Discovery Plan on the ERE project site at all times.

The Contractor will not restart work in the area of the find until the on-site Superintendent has granted clearance. The following notification procedures are a guide if unanticipated discovery of potentially significant artifacts or historic property remains occurs during construction.

Discovery of Unanticipated, Potentially Significant Cultural Materials on Project Site

- 1) The HPI Project Manager will promptly notify the Superintendent to flag or fence off the test excavation site. Any discovery made on a weekend will be protected until all

appropriate parties are notified of the discovery.

- 2) The HPI Project Manager will direct the on-site archaeologist to begin a more detailed assessment of the find's significance and the potential effect on the *geotechnical investigation*.
- 3) The HPI Project Manager will promptly notify the Landmarks Preservation Commission (LPC) and the New York State Office of Parks, Recreation and Historic Preservation/State Historic Preservation Officer (OPRHP) of the find.

Contact, LPC: Amanda Sutphin, City Archaeologist [or designee]
Arthur Bankoff, Archaeological Advisor to the LPC Commissioner
Telephone: 212.669.7823
Address: One Centre Street, 9th Floor North, New York, NY 10007
E-mail: asutphin@lpc.nyc.gov, abankoff@brooklyn.cuny.edu

Contact, OPRHP: Doug Mackey, Archaeologist
NYS OPRHP, Field Services Bureau
Telephone: 518.237.8643
Address: P. O. Box 189, Waterford, NY 12188-0189
Delaware Avenue, Cohoes, NY 12047
E-mail: Douglas.mackey@oprhp.state.ny.us

- 4) The notification to LPC and OPRHP will either (a) explain why the archaeologist believes the resource not to be significant and request approval for construction to proceed; or (b) describe a scope of work for evaluating the *significance of the resource* and evaluating project effects on it. In the latter case, the notification to LPC and OPRHP will include a request for authorization to implement the scope of work.
- 5) The HPI Project Manager will notify other parties, as directed by LPC and OPRHP, or as indicated by city/state law.
- 6a) If the find is determined to be significant, and continuing geotechnical investigative work may damage more of the site, then the HPI Project Manager will request recommendations from LPC and OPRHP and other parties regarding appropriate measures for site treatment. These measures may include:
 - i) Formal archaeological evaluation of the site;
 - ii) Visits to the site by LPC and OPRHP and other parties;
 - iii) Preparation of a mitigation plan for approval by LPC and OPRHP;
 - iv) Implementation of the mitigation plan; and
 - v) Approval to resume construction following completion of the fieldwork

component of the mitigation plan.

- 6b) If the find is determined to be isolated or completely disturbed by construction activities, then the HPI Project Manager will consult with LPC and OPRHP and other parties, and will request approval to resume construction.
- 7) The HPI Project Manager will notify the on-site Superintendent who will grant clearance to the construction team to start work.
- 8) If human remains are identified, the Superintendent will immediately notify both the New York City Police Department (NYPD) and the New York City Office of the Chief Medical Examiner (OCME) of the find and cooperate with the OCME to notify, as required, the appropriate city law enforcement agency(s)..

Contact, NYPD: Fifth Precinct
Telephone: 212.334.0711 (switchboard)
Address: 19 Elizabeth Street
New York, NY 10013

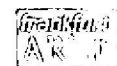
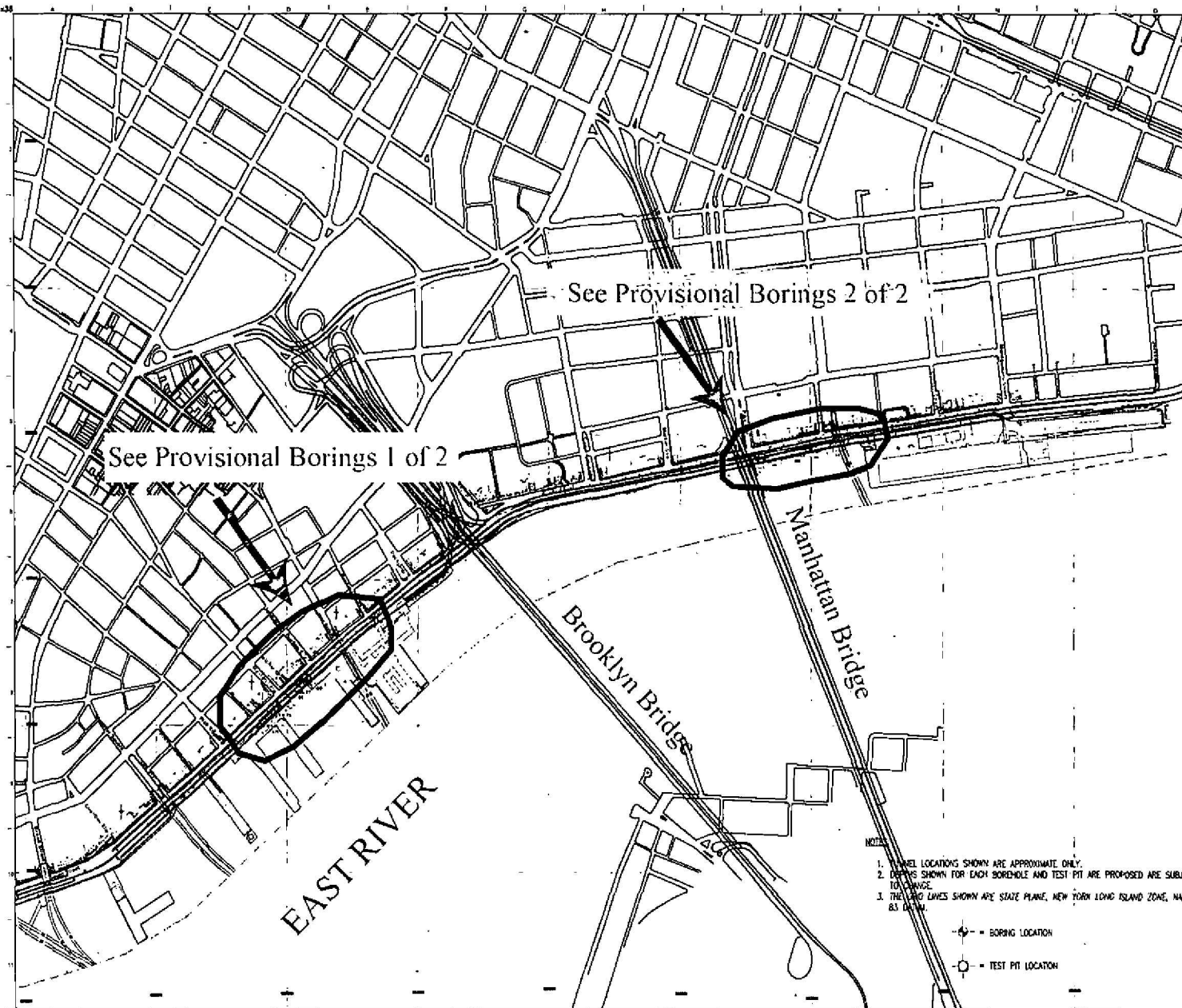
Contact, OCME: Dr. Bradley Adams
Telephone: 212.447.7571
Address: NYC Office of the Chief Medical Examiner
520 First Avenue
New York, NY 10016

- 9) At all times human remains must be treated with the utmost dignity and respect.
- 10) If potentially significant materials are discovered, it is assumed the interested government agencies will act immediately to do what is necessary to avoid impacts to the progress of the geotechnical investigation.

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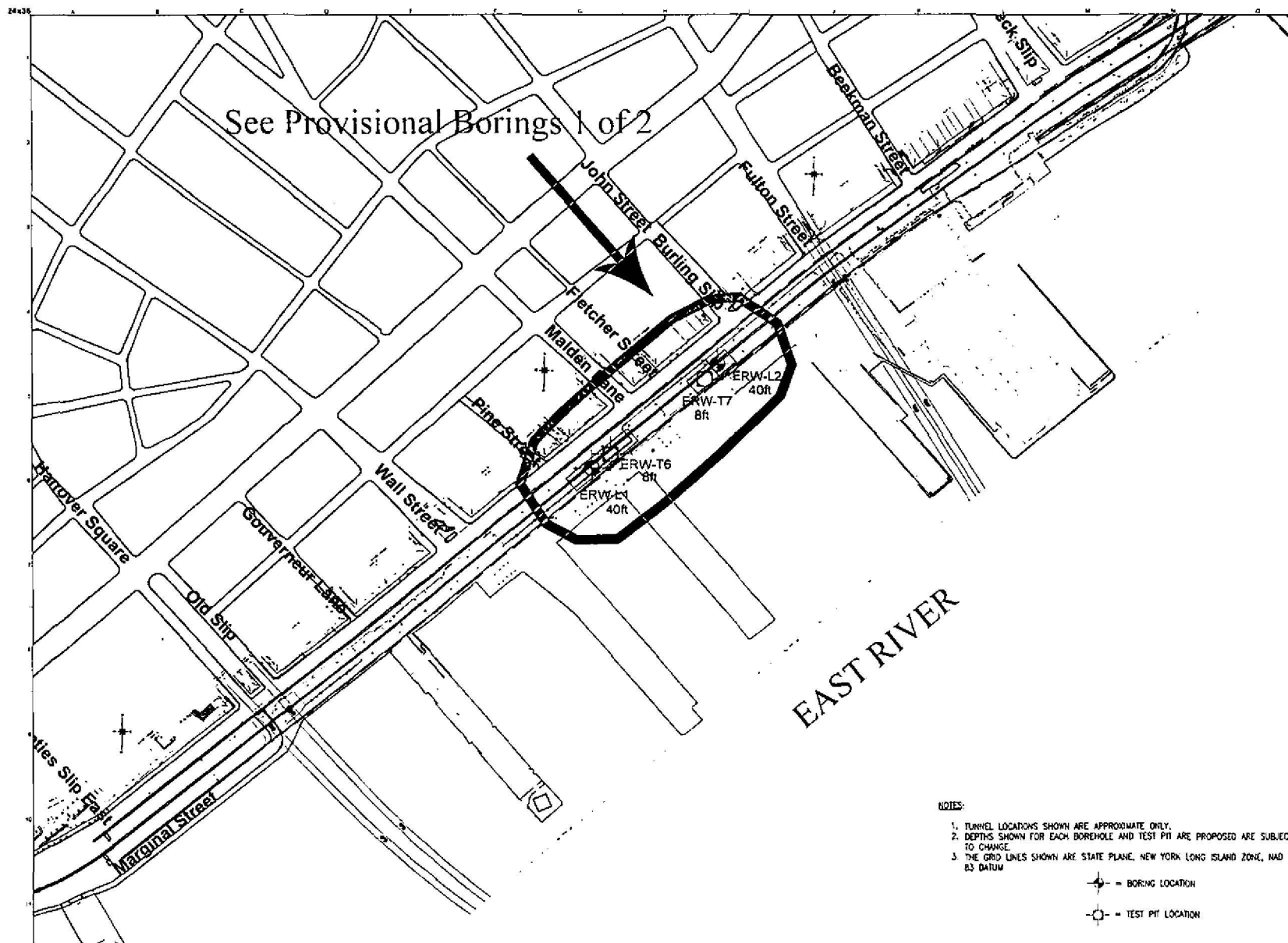
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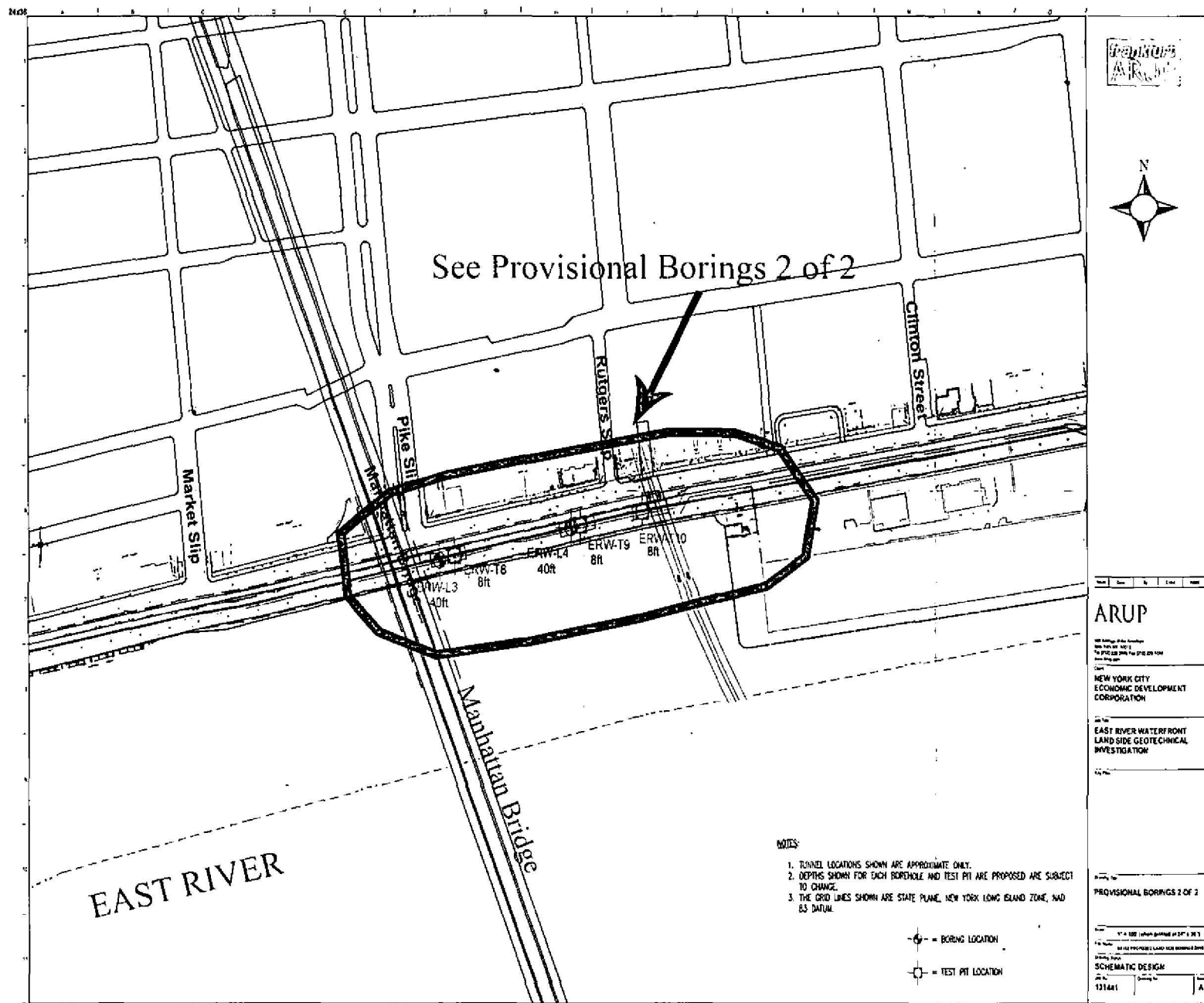
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PROVISIONAL SOIL BORINGS**





**EAST RIVER ESPLANADE AND PIERS
PROVISIONAL SOIL BORINGS 1**





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PROVISIONAL SOIL BORINGS 2**

