

Historic Conservation and Interpretation, inc.

115 Route 519

Newton, New Jersey 07860

CULTURAL RESOURCES SURVEY OF THE ALLIED TEXTILE PRINTING SITE

IN-PROGRESS REPORT NO. 1, August 22, 1997
for REGAN DEVELOPMENT CORPORATION
435 S. Broadway, Suite 5, Yonkers, NY 10705
(914) 965-8007

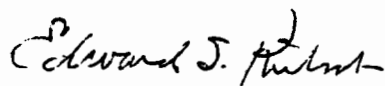
Historic Conservation and Interpretation, Inc. (HCI) was authorized on August 12 to proceed with this project on August 25, 1997. To date, the following tasks have been started:

- 1) Documentary research into the primary historical records concerning the site.
- 2) Historic American Engineering Record (HAER) recording of the building remains on site. Work on analysis and recording aspects of these buildings which are revealed in the partially demolished on-site buildings has begun, as well as sampling of wooden beams in the building for lab identification as to tree species.
- 3) Infield research. HCI will begin one week of field research on August 25th. A six-person crew aided by mechanical equipment as is appropriate will test site areas that are not covered with hazardous rubble. This work will lead to an interim report in which research goals, site demolition, landscape regrading, and construction plans are factored into a final research plan that will take place after hazardous site materials are removed.

Telephone (201) 383-6355

4) Community outreach on Monday, August 18th. The project's primary investigator and one assistant attended a meeting of the Paterson Historic Commission and presented an outline of this phase of the cultural resource work on the ATP site. There was a question-and-answer session and the Commission members were invited to visit and view next week's infield operations.

Respectfully submitted,



Edward S. Rutsch
Primary Investigator

ESR:maf

DRAFT

CULTURAL RESOURCES SURVEY OF THE ALLIED TEXTILE PRINTING SITE

IN-PROGRESS REPORT NO. 3, October 15, 1997
for REGAN DEVELOPMENT CORPORATION
435 S. Broadway, Suite 5, Yonkers, NY 10705
(914) 965-8007

INTRODUCTION

In normal circumstances, the cultural resources survey would be satisfactorily completed and assessed prior to any further site development. However, the Allied Textile Printing Site is covered with dangerous ruins which pose a safety threat, as well as obscure certain historically sensitive locales that need to be investigated to determine if potentially significant cultural resources are present. For this reason, infield work, including archeological testing, was limited to areas that were safe. It is proposed that the ruined buildings and large rubble piles be cleared from the site before testing is resumed and completed.

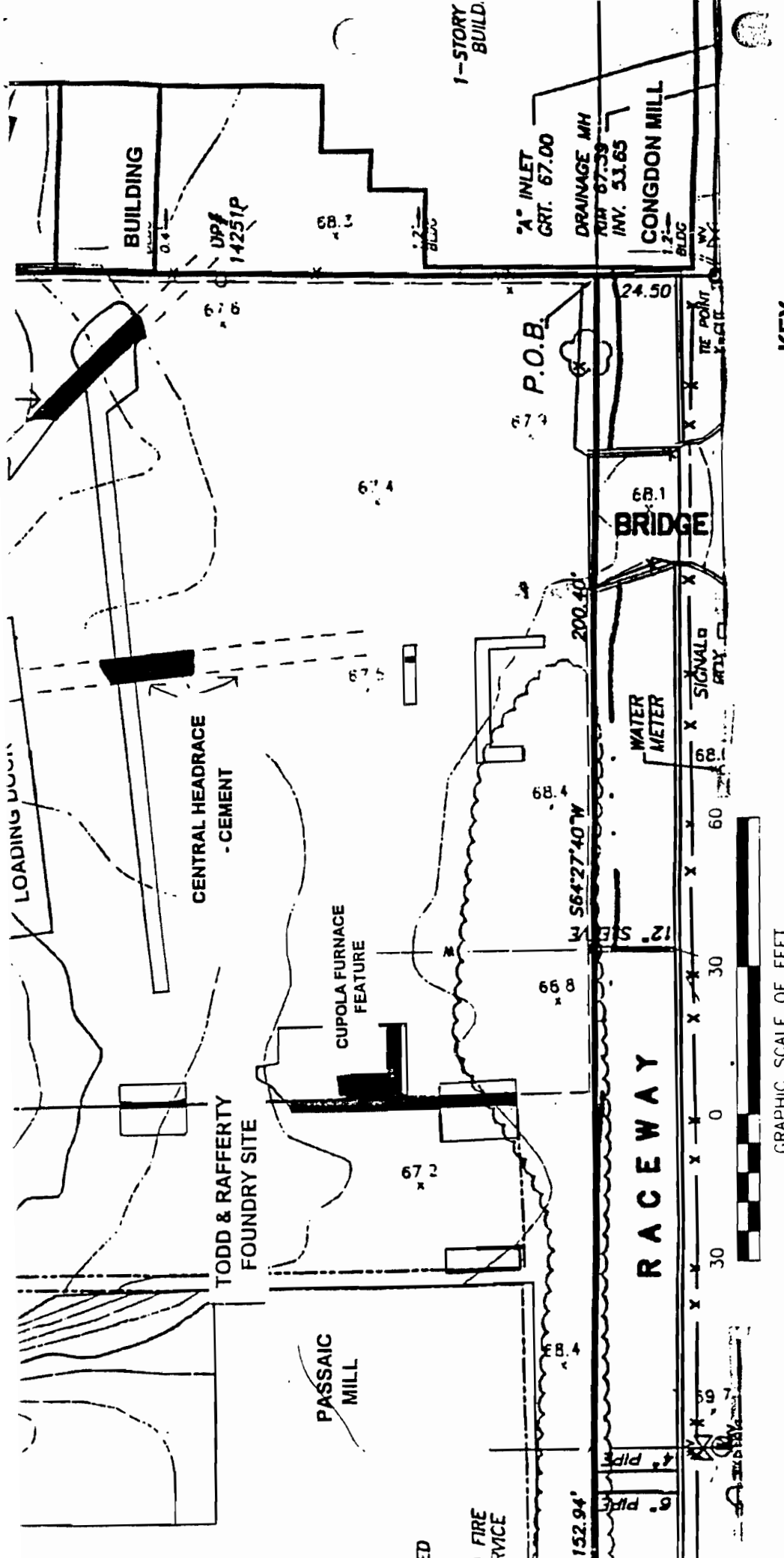
The following report documents the results of the field work accomplished to date. Plan views and section drawings have been added to illustrate what was found. The easternmost mill lot of the ATP Site was the only lot that was able to be safely investigated at this time. This lot was long associated with the firm of Todd and Rafferty, manufacturers of textile machinery, steam engines, etc. For a more complete historic

background of this firm, one should refer to the Maxman Report. Research is now underway that will supplement this historical narrative and be presented in the final report. For infield purposes, the mill lot, which measures 205 ft. x 330 ft., was divided into two components: the hydropower system and the foundry. The results of the investigations are as follows.

HYDROPOWER SYSTEM

HCI's archeological test excavations uncovered portions of two separate power raceways. Since it is not known as yet what they were originally called, the two raceways have been differentiated by calling one the east raceway and the other the central raceway (see Figure 1). For discussion purposes, each raceway has been divided into three sections. The first section is the headrace that carried the water from Paterson's Lower Race to a wheel pit area within the Todd and Rafferty Mill building, which is the next section. The wheel pit area was where the water fell onto a water wheel or turbine, which in turn powered the mill's machinery. The water was then carried in the last section or tailrace, which emptied it back into the Passaic River.

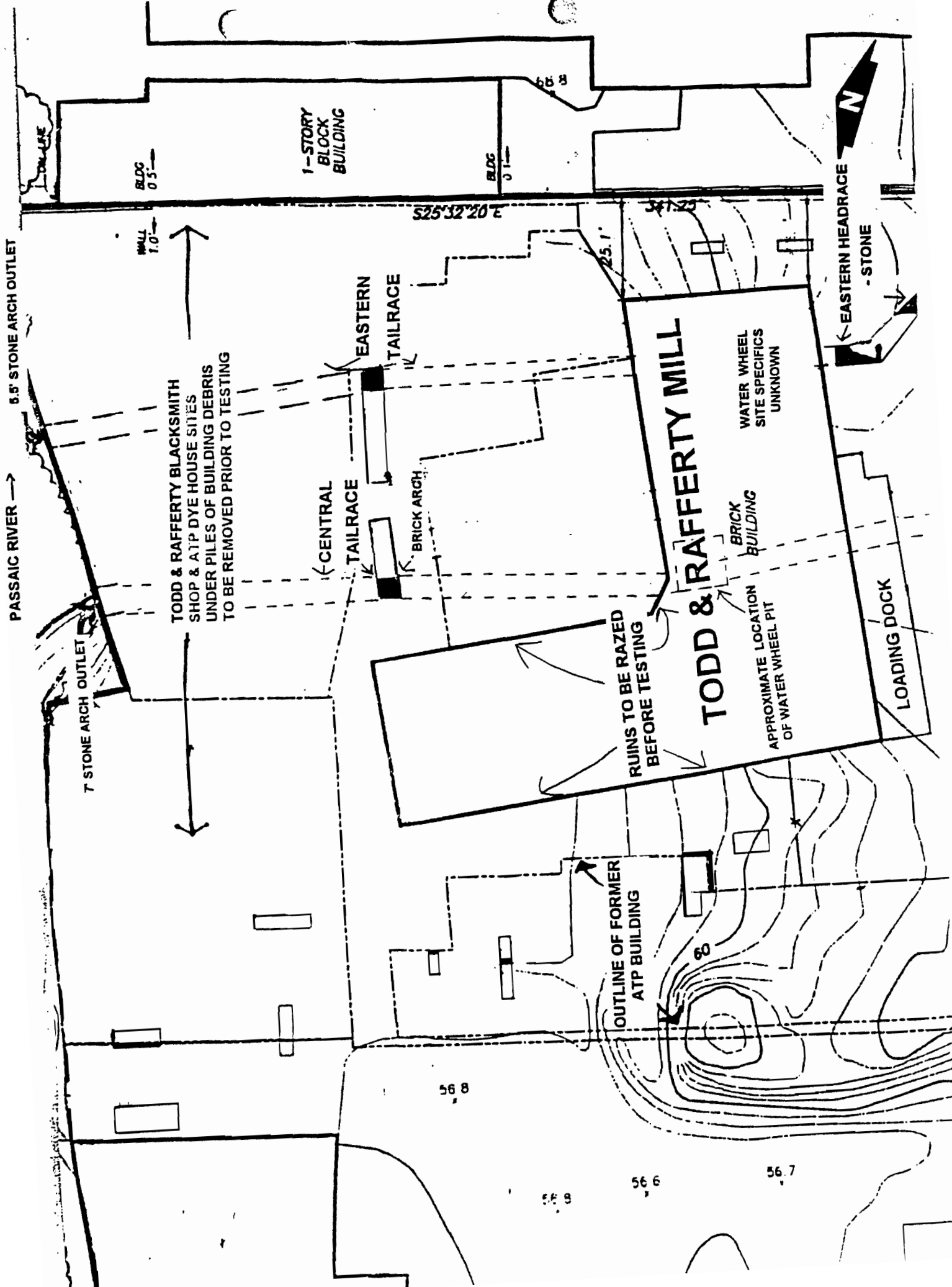
1. East Raceway. The east headrace approached the Todd and Rafferty Mill in a most surprising way (see Figure 1). It seems to have entered the mill yard not directly from the Lower Race, but from the next mill property to the east, now the home of the Congdon Mill. It is speculated that this headrace took water from the Congdon Mill's race and brought it back into the



KEY

- Excavation
- Excavation w/ Structural Remains
- Approximate Location of Buried Feature

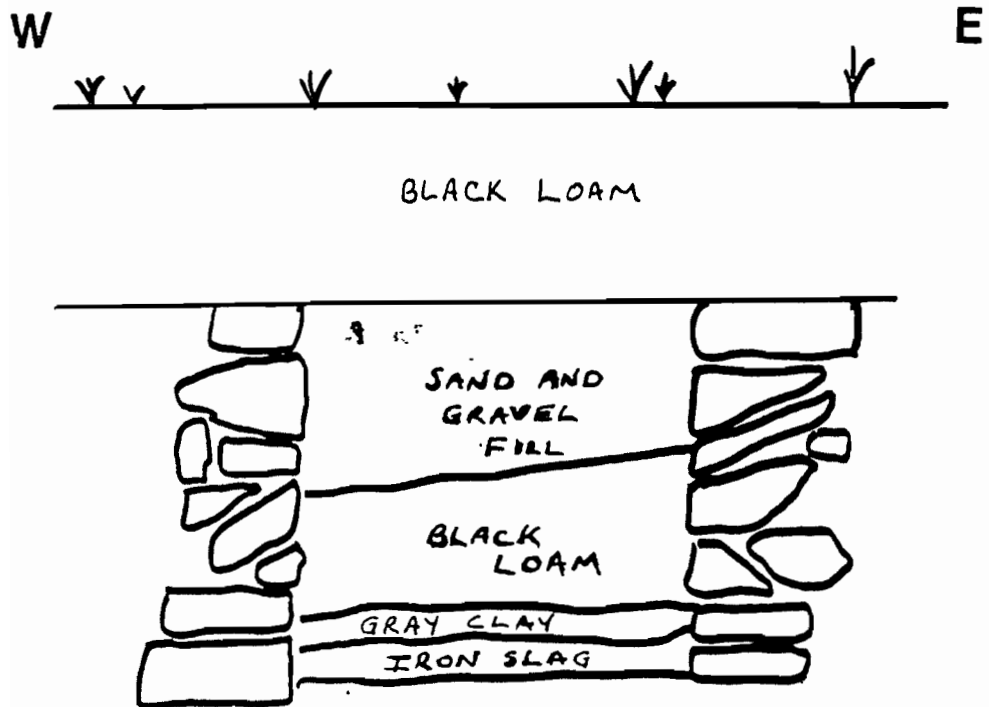
FIGURE 1. Plan of Test Excavations at the Todd & Rafferty Mill, showing buried features and areas to be tested after building ruins and debris piles are removed. Includes test excavations from SEA, Inc.'s "Remedial Investigations" (Rutsch, Condell and Sandy, Jan. 1997) and test excavations from HCI's Sept. 1997 Stage I Cultural Resource Survey. [Note: Soil borings are not shown.]



Todd and Rafferty Mill to use. Whether this reflects an agreement between two neighboring manufacturers or a part of an S.U.M. design is not known at this time. It is known that in the last half of the nineteenth century Todd and Rafferty were so successful that they bought two additional square feet of water supplementing the single square foot that was allotted with their mill lot. The S.U.M. designated the exact amount of water that accompanied the purchase or lease of each mill lot. It is hoped that more information on how extra water power was added will be found in the documents.

The east headrace was constructed of mortared native stones, mostly trap rock, that were dressed in such a way that a flat surface of each stone made up the interior walls of the raceway. The raceway was uncovered just beneath the modern surface and its interior measured 4 ft. wide and 3.9 ft deep (see Figure 2). The headrace was an open channel that was backfilled. There was no evidence that it had been covered by wooden planks. HCI is very interested in its juncture with the front or south wall of the Todd and Rafferty building. Excavations became dangerous under the ruined mill wall, but it was pretty well established that the raceway did abut the building.

Although the exact location is not as yet known, the wheel pit area of the east raceway is speculated to be inside the mill basement parallel with the building's east wall. No indications of the wheel pit were observed in the basement, but because of



SCALE: 1" = 2'

FIGURE 2.
**Cross Section of East Headrace
 Todd and Rafferty Mill**

dangerous conditions, the building will have to be removed before the wheel pit can be investigated (see Figure 3).

The final portion of the east raceway is the tailrace section that carried exhaust water from the water wheel to the river. The tailrace was found in a test excavation placed 65 feet from the rear or north wall of the Todd and Rafferty Mill building (see Figure 1). Here the race was built with an arched cover of rough stone (see Figure 4). A final piece of evidence of the east raceway is an arched outfall that is incorporated into retaining wall along the Passaic River. It is 7.5' in diameter.

This east raceway has been evaluated by HCI to be a significant historic feature. It is interesting to note that there is no record of this raceway on any map of the mill lot that has been examined so far.

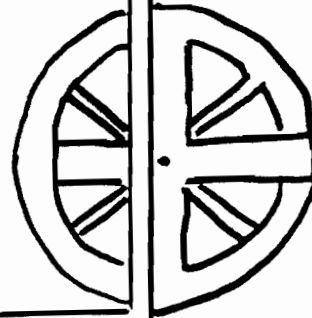
2. The Central Raceway. This raceway is well-documented in the historic records and appears on several maps, one of which indicates the location of the mill wheel. The central headrace was uncovered in the foreyard of the mill and was found to be constructed of cement (see Figure 1). These remains may not represent the earliest construction of this feature. The repair and replacement of water conduits such as with this race were common in Paterson. Usually, older races that were lined with wooden planks or poorly laid stones leaked and were rebuilt with a better material. Sometimes this work was done to maintain the unrestricted flow of water at the highest elevation possible.

Scale 1" = 10'
South -- North
HCI - 1997- ESR

TODD AND RAFFERTY MILL BUILDING

Headrace
(135' from the Lower Race to the
Todd and Rafferty Mill Building)

Water Wheel Locale
and Hypothetical Depth



Floor of Mill Building

Tailrace
(145' from the Mill to its outfall
into the Passaic River)

Area to be Tested for the Wheel Pit
After the Ruined Mill is Removed

FIGURE 3. Hypothesis of the East Raceway Wheel Pit in the Basement of the Todd and Rafferty Mill.

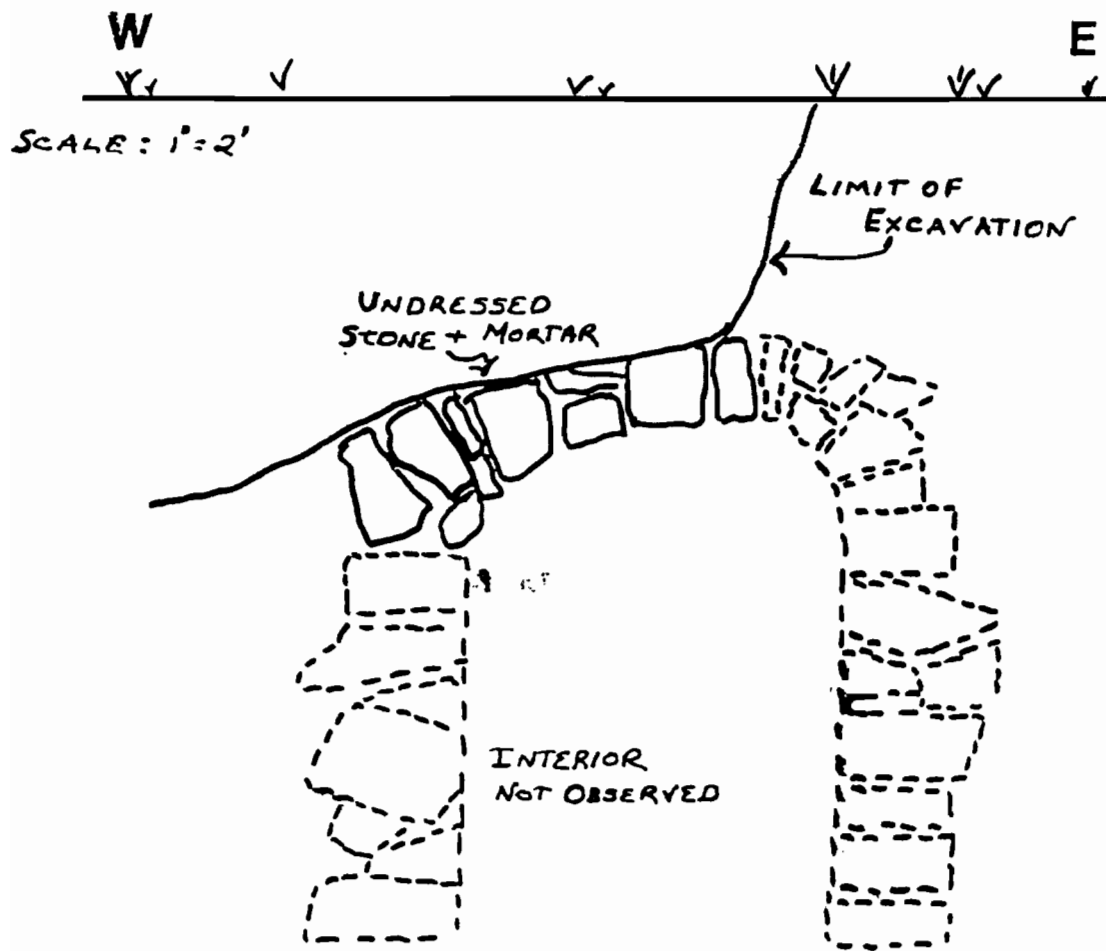
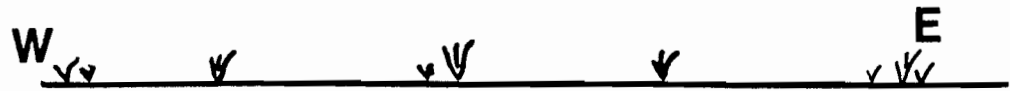


FIGURE 4.

**Cross Section of
East Tailrace
Todd and Rafferty Mill**

The central headrace's cement walls had a built-in step on both surfaces, extending 0.3 ft out from the inner wall of the race and was 0.2 ft deep (see Figure 5). It is assumed that this was built to accommodate a cover of planks. The central headrace was filled with industrial fill, with one exception. Part of the fill consisted of sheets of wrought iron approximately 1-inch thick. Closer examination revealed that the iron sheets were in fact cylindrical in shape and had been fastened together with rivets. These sheets have been tentatively identified as the body of a water tank that once stood on iron legs at this locale. It would appear that when the tank was dismantled it was used to fill the headrace. The removal of the tank and filling of the raceway may have been done as the yard was macadamized to handle large trucks that backed up to the loading docks located in the front of the main mill building.

For safety reasons, the wheel pit area of the central raceway could not be tested. This area will be tested once the building has been razed. The historian for the Historic American Engineering Record team reported in 1974 that there was, at that time, still evidence of the central raceway in the mill basement; an area now obscured by the debris of several subsequent fires and weathering. He reported, "Closure repairs on the inner face of the front wall [south] of the main building basement show the position of what was probably a flume. This



MIXED INDUSTRIAL SOILS,
ASH, + FOUNDRY LOAM

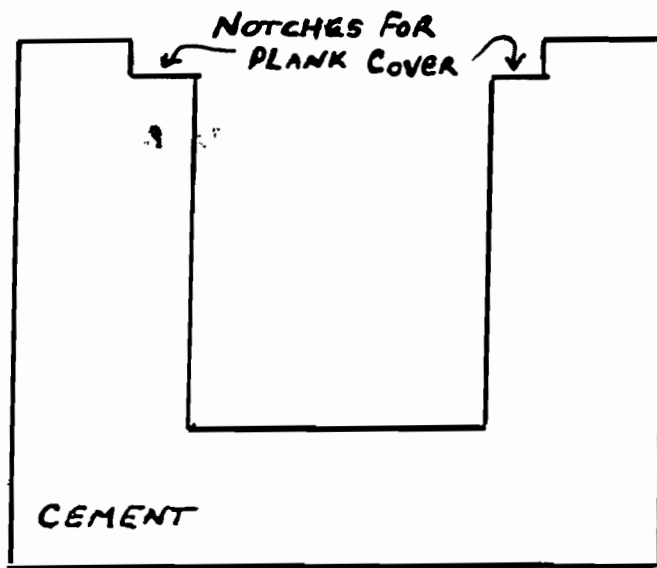


FIGURE 5.

**Cross Section of
Central Headrace**

Todd and Rafferty Mill

is directly aligned with a chamber [wheelpit?] below the basement floor leading to the still existing tailrace" (HAER NJ-5, 1974:6-7).

Two references in the 1974 HAER survey work document that in the decade of the 1860's when Todd and Rafferty experienced a rapid expansion of their business, they added two square feet of water to the one square foot that had been allotted to them previously. Also, in 1880 two 12 ft-diameter water wheels were employed in the mill (HAER NJ-5, 1974:7). Do these facts point to the reason for two races?

The tailrace of the central raceway was uncovered in a test located 70 feet north of the rear wall of the mill. The tailrace was protected by an arched brick vault, the top of which was 3.5 feet below the surface of the ground (see Figure 6). A second indication of the tailrace is the arched outfall, which was built into the retaining wall along the edge of the Passaic River (see Figure 1). It is 7.5' in diameter.

The central raceway has been evaluated by HCI to be a potentially significant historic cultural resource.

THE TODD AND RAFFERTY FOUNDRY (see Maxman, Pages D-100 to D-106)

Historic maps indicate that the foundry's cupola furnace once stood adjacent to its east wall near the southern end of the building. This furnace is where iron was melted prior to being cast in the foundry. The site of the furnace building was tested to determine if the building's foundation was intact. It was found that the foundation had been disturbed by three six-

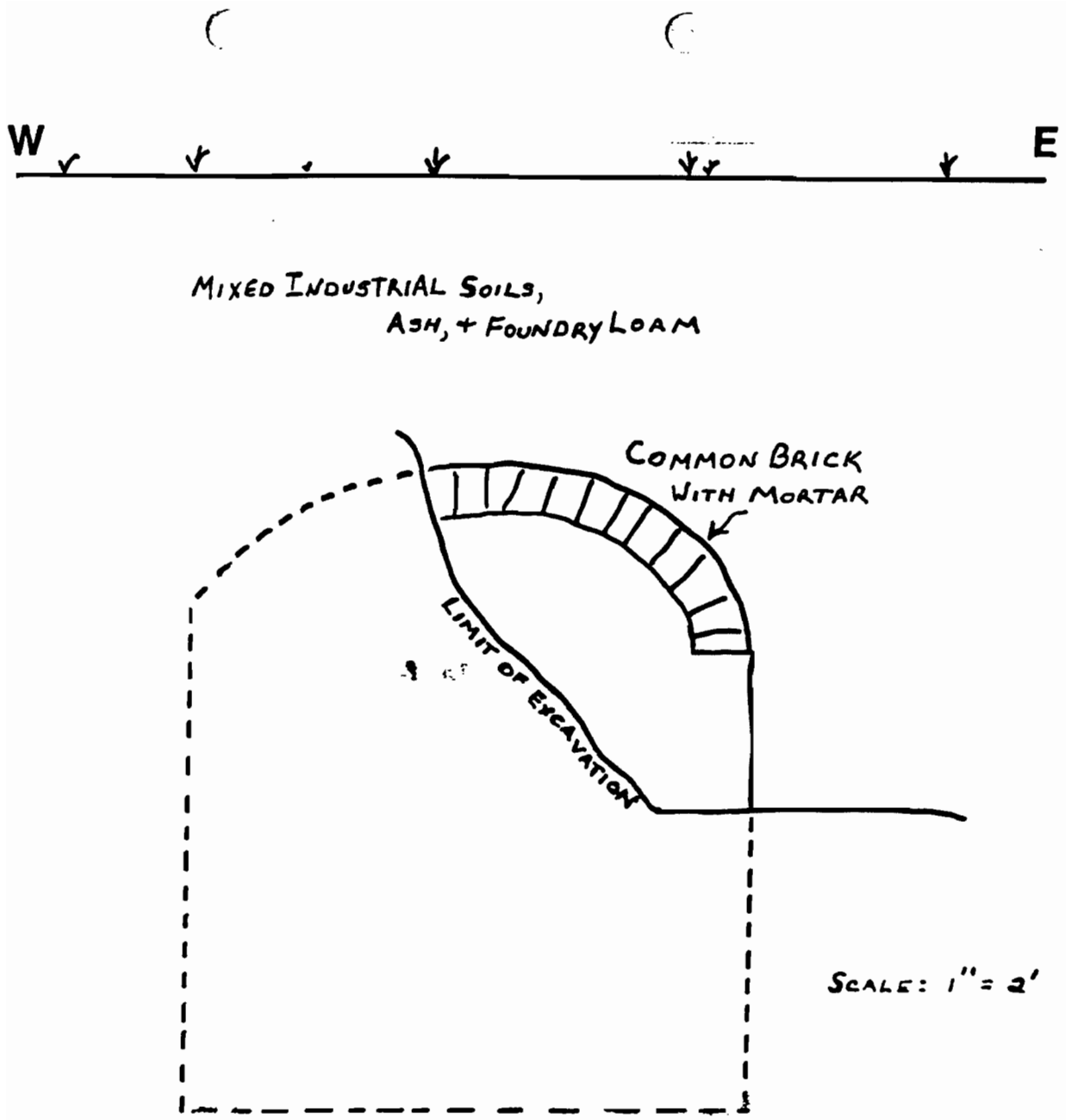


FIGURE 6. Cross Section of
 Central Tailrace
 Todd and Rafferty Mill

inch diameter steel steam lines. In addition, the remnants of four columns that supported the cupola were uncovered and found to be broken at about one foot in height. The floor of the furnace room had a fair amount of fused iron on it, probably the results of splashes from the tapping and cleaning of the cupola. Few artifacts or tools were found. HCI has evaluated the remains of the furnace building not to be an historically significant cultural resource.

4 of

Historic Conservation and Interpretation, Inc.

115 Route 519, Newton, New Jersey 07860

October 2, 1998

*Copy to: Dad Saunders ✓
G. Archimede*

Frank Blesso
Redevelopment Director
CITY OF PATERSON
125 Ellison Street
Paterson, NJ 07505-137

Re: Paterson ATP Archeology

AF 5/3/05

Dear Mr. Blesso:

Enclosed please find copies of our three progress reports and the research design for the above-mentioned project. If you need any further information, please call.

Very truly yours,

Marjorie Frint
Marjorie A. Frint
Office Manager

Enclosures

Historic Conservation and Interpretation, inc.

115 Route 519

Newton, New Jersey 07860

10/17/97

The following is a full compendium of the documents that have been generated to date in regard to the Stage I Cultural Resources Survey of the ATP Site in Paterson, NJ. Included are copies of the Research Design and three In-Progress reports detailing the findings of archeological investigations that have been completed so far. It should be noted that the Final Report of the Cultural Resources Survey will expound on the results presented in the In-Progress reports and will also incorporate additional data such as historic documentation and graphics, as well as an assessment of the impacts that the proposed development will have on any significant cultural resources.

Historic Conservation and Interpretation, inc.

115 Route 519 Newton, New Jersey 07860

CULTURAL RESOURCES SURVEY OF THE ALLIED TEXTILE PRINTING SITE

IN-PROGRESS REPORT NO. 2, September 11, 1997
for REGAN DEVELOPMENT CORPORATION
435 S. Broadway, Suite 5, Yonkers, NY 10705
(914) 965-8007

I. FIELD WORK AT TODD AND RAFFERTY MILL

A. A test excavation was made in the cupola furnace area. We found remnants and debris related to the cupola and parts of the cupola furnace's floor. No artifacts of note were recovered and most of the furnace area had been lost during the time the foundry was being converted into a silk mill. A further incursion was a pipe trench containing 3 twentieth-century pipes either for water or steam which traversed the feature on a diagonal.

This completes our work on the foundry and causes us to find that the foundry remains do not constitute a significant cultural resource.

B. Head Races - two head races were found in the Todd and Rafferty Mill yard.

1. A center head race constructed of cement runs from the center of the mill building directly toward Mill Street and the Lower Raceway.

2. A second head race was located at the eastern end of the site. It was constructed of native unquarried stone. It

ran between the eastern end of the main mill building but turned toward the east and entered the Congdon Mill property. This head race seems to line up with the smaller tail race previously found north of the mill building which was labeled by Historic American Engineering Record researchers as having originated in the Nightingale Mill which was on the site previous to today's Congdon Mill.

We evaluate these two raceway systems as being significant cultural resources.

- 4 -

II. HISTORIC AMERICAN ENGINEERING RECORD'S RESEARCH

We have conferred with our team's architectural historian, Herbert Githens, concerning the scope of this work. We have initiated obtaining the complete HAER files and photographs of all buildings now in the Regan portion of the ATP Site.

III. DOCUMENTARY RESEARCH

A. We have initiated work on the primary documentation by surveying the holdings of the Danforth Public Library (Paterson City) on the S.U.M. This includes a great deal of the S.U.M. original business records. Research work will be continued and we shall report a summary of our results in the next in-progress report.

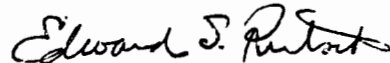
B. Some limited documentation is being culled from our previous work and data collected on foundries in order to give a

background explanation of what we have found in excavations of this site.

IV. ANALYSIS OF POTENTIAL NEGATIVE IMPACTS

Working with our findings and proposed construction plans, we will analyze the potential impacts the proposed construction will have. We have been working with Wayne Lucas, the site's architect, and the results of this work will determine what excavations will be necessary once the mill buildings have been removed.

Respectfully submitted,



Edward S. Rutsch
Primary Investigator

ESR:maf

PROPOSED RESEARCH DESIGN FOR A
CULTURAL RESOURCES SURVEY OF THE
ALLIED TEXTILE PRINTING (ATP) SITE IN
PATERSON'S NATIONAL HISTORIC LANDMARK DISTRICT

Prepared for the Regan Development Corporation

by

Historic Conservation & Interpretation, Inc.
115 Route 519, Newton, NJ 07860
in association with
Raber Associates and Herbert Githens Associates

DECEMBER 1996

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**PROPOSED RESEARCH DESIGN OF THE ATP SITE
CULTURAL RESOURCES SURVEY**

I. INTRODUCTION

The Allied Textile Printing Corporation (ATP) site, which is located within Paterson's National Historic Landmark District, is to be redeveloped by the Regan Development Corporation (hereafter the Client; see Figure 1). The Client has asked Historic Conservation and Interpretation, Inc. (hereafter HCI) to prepare a scope of work, or research design, for conducting a cultural resources survey that will meet the standards for such surveys promulgated by the New Jersey Historic Preservation Office (hereafter NJHPO).

Site maps to be used for the Stage One survey will be compatible with accurate maps formulated by the developer and his architect. HCI will use the accurate survey and contour maps to be drawn by the Client. The survey results of the historic documentation and infield research will be, in part, interpreted by placing information on the project's common-scale base maps. Many historic maps are not accurate and a certain amount of interpretation will be employed to formulate maps of the historic periods. This interpretation is the only way to demonstrate the all-important historic sequences of the complex development of the site.

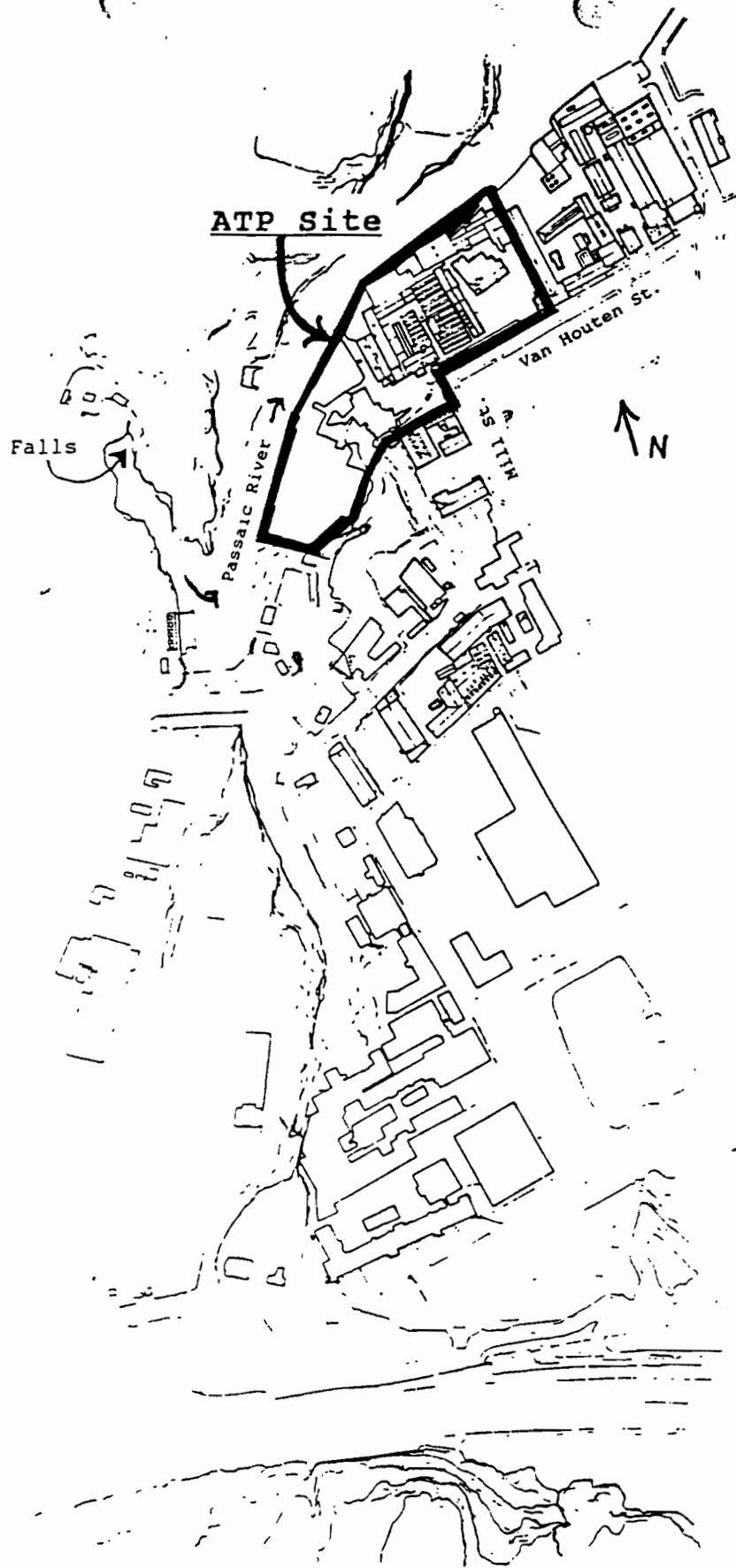


FIGURE 1. Map showing the location of the ATP Site in the City of Paterson (Map taken from the 1975 HAER recordings of the Great Falls S.U.M. Historic District, Paterson, NJ).

Much research has already been accomplished that will be used in the Stage One survey. One source is the Historical Industrial Site Analysis ATP Site, Paterson, New Jersey by Susan Maxman Architects (hereafter called the Maxman Report), which was completed in March 1996 for the National Park Service, Chesapeake/Allegheny System Support Office and the City of Paterson and was funded by the New Jersey Urban History Initiative. Please note that HCI was a member of the seven-member team who researched, formulated, and wrote the Maxman Report.

A second source of available data is the fieldwork portion of the research program concerning the locale and analysis of industrial waste material on the ATP site that was conducted for the Client by the firm of SEA Inc. of Cambridge, MA. Fieldwork for this work has just been completed. HCI performed the duties of cultural resources monitor for this project and the test results provide some of the facts concerning the location and nature of several of the potentially significant in-ground industrial archeological features on the site. This proposal factors these data sources into the research design and does not intend to redo what has been already accomplished.

The work program is based on three phases of work, which are given below, and includes the reasons for proposing this scenario. Phase One will initiate the documentary research and accomplish as much field work that is safe to do around the ruins now on the site. The documentary research would continue during the Phase Two period while the existing ruins and debris are

being cleared from the site by the Client. During this period it may be requested to take some samples from the ruins for analysis. Cultural resource monitors will be on site during the site clearing to deal with unforeseen cultural resources that may be revealed. Phase Three will be the investigation of several very specific sites located within the now-standing ruins which presently cannot be safely investigated. Also, during the course of the documentary research, additional potentially significant cultural resources that once existed on the ATP site may be identified and the remains of which will be investigated at this time.

All work presented in the research design is tailored to the mitigation of project-specific impacts, the development of information that is needed to test historic features and structures that make up the ATP site, and development of a contextual basis for future developments of the site.

The result of all this work will be a professionally-illustrated and documented research report. The number of report copies with original photographs and the responsibility for their distribution to reviewing agencies, the City, etc. will be negotiated with the Client at a later time. All work will be performed according to the criteria and regulations issued for cultural resources surveys by the NJHPO.

II. SCOPE OF WORK

A. DOCUMENTARY RESEARCH

This work will supplement, not duplicate, research already accomplished on the site. The focus will be on primary documentation, including contextual research into immigration, labor history, industrial history, specific industries/mills/companies, architectural development, etc., which will provide depth and clarity to future site development decisions. It will be particularly critical to incorporate archival research at the Passaic County Historical Society, as it was not possible to schedule such research for the Maxman Report. Additional primary documentation will be drawn from State and Federal census records, S.U.M. records, deeds, tax assessments and other local land records, Surrogates Office records, court records and testimony, newspapers, government-commission reports, photographs, prints, films, private papers, interviews, and patent and copyright records. Special study will be given to Resources of Paterson History: An Annotated Bibliography at the Paterson Free Library. Examples of surveys and studies that will provide critical information on the ATP site include "S.U.M. Charters, Laws, Certificates, and Contracts 1791-1905;" "Papers of the S.U.M. 1791-1946;" Brocket's 1976 The Silk Industry in America (Chapter XX, "Paterson, the Lyons of America"); Schnurrmann's 1942 "Selected Bibliography of Source and Reference Material Relative to the S.U.M.;" and "Early History -- The Society of Establishing Useful Manufactures" in Scientific

American, 1859. Less-likely sources include 1791-1923 Records of the Patent Office (Record Group 241) at the National Archives, the Hamilton Papers, etc.

The most critical topics to be investigated include the following:

- Conduct primary research into Passaic County deeds (to supplement information obtained from historic maps and HAER documentation) to define original S.U.M. lots and the subdivisions of the lots that took place over time, as well as to clarify legal aspects of site organization. Lot lines will be traced onto a site plan to guide/validate the organization of the site's redevelopment throughout time. Boundary lines of parcels and lots, as well as portions of the lots that were bought or leased from the S.U.M. and others, are critical for a valid historical interpretation of the site.
- Gather information on the specifics of the lease or purchase agreements made between the proprietors of mill lots and the S.U.M. for hydropower delivery. How much water was promised for delivery, how much was actually delivered, how was water removed from the raceway, what specifics were given about height of fall (potential hydropower), what types of water wheels or turbines, what details concerning returning exhaust water to the river or raceway system? In later periods, were any specifications made concerning the use of steam power, electric power, etc.? Were any specifics given concerning the water that mill owners used for industrial

processing, making steam, and fire protection? Special interest in the arrangements processing water polluted in the mill and other sewerage concerns.

- A corollary line of research will be addressed in the study of the sources and records of disputes between those sharing the mill lots and the S.U.M. power sources. These may be in S.U.M. records or in the records of the Chancery Court. If pertinent to our study, the information will be gathered and analysed.
- Conduct additional historical research into the 20th-century history of the site, specifically clarifying the consolidation of industries that began in the 1930s under the Standard Silk Dyeing Company and other large manufacturers. Based on this documentary information, clarify the hallmark periods of development of the site, to further support decisions concerning retention of site features.

B. INFIELD INDUSTRIAL ARCHEOLOGY

1. Prehistoric Archeological Resources

As stated in the Maxman Report, pages C-2 and C-3, the ATP site has a low potential for containing intact prehistoric remains. HCI recommends that, rather than specifically test for such remains, all in-ground site data will be analyzed for the presence of intact prehistoric soil layers. If any are found to exist, these areas will then be tested. Secondly, all tests will be excavated to culturally-sterile soil. Between the base of the

historic deposits and this culturally-sterile subsoil, there is an opportunity to search for such soil layers in which prehistoric remains may exist.

2. Historic Archeological Resources

Recent discussions with the Client and his architect, Walter Lucas of the Rannenkamp Planning Group, have indicated that it is feasible to design the proposed redevelopment in order to avoid any negative impacts to many of the potentially significant cultural resources on the site. Recent observations of the SEA, Inc. test excavations have revealed details pertaining to the presence or absence of many of these resources. Tests made by SEA did not, however, give a very complete picture of the remains. For example, once a raceway feature was found and identified, it was not uncovered in a complete cross-section so that details of its depth and size could be established. Several raceway tunnels were uncovered whose exteriors were clad in random undressed native stone set in mortar. No evaluation of the size, construction and condition of these raceways could be made. Raceways were tested in only one or two locales. Therefore, a good bit of evidence concerning their presence or absence is still fairly conjectural. Finally, an apparent tailrace was found in an unexpected location, in addition to a headrace that was not located where historic maps have indicated it should be. None of this is unexpected or unusual. In fact, the reason for historical documentation and on-site archeological studies of industrial sites is to answer such questions and

provide another set of data that is obviously essential for redeveloping a significant historic area in a way that maximizes its historic preservation.

It is interesting to note that in all tests made in the raceways, many pipes were found either emptying sewage and waste water in the raceways or distributing water, fuel, or other resources to various mills. Often these pipes are of a date when the raceways were no longer in use for hydropower, leading to the realization that the channels had become pipe trenches through the site. All such pipes will be recorded, described, and identified and an attempt will be made to leave them *in situ*. This will be done, rather than removing them, because they represent an important last chapter of the site's industrial history.

Test excavations are only one method industrial archeologists use in analysis of site remains. Above-ground remains such as building and machinery remains are also studied and analyzed. In this approach, HCI's team architect will access the remains of each structure, including the partially burned and/or collapsed floors and debris within them, to ascertain the presence or absence of materials that make a contribution to the significance of the remains as an industrial archeological artifact. This work will be done according to standards of the Historic American Engineering Record (HAER). Note the State of New Jersey standards are based on the publications of HAER.

In assessing the potential significance of shop remains and machinery, the consulting services of historians of technology

who have experience in studying historic hydropower, textile machinery, and metal working will also be employed.

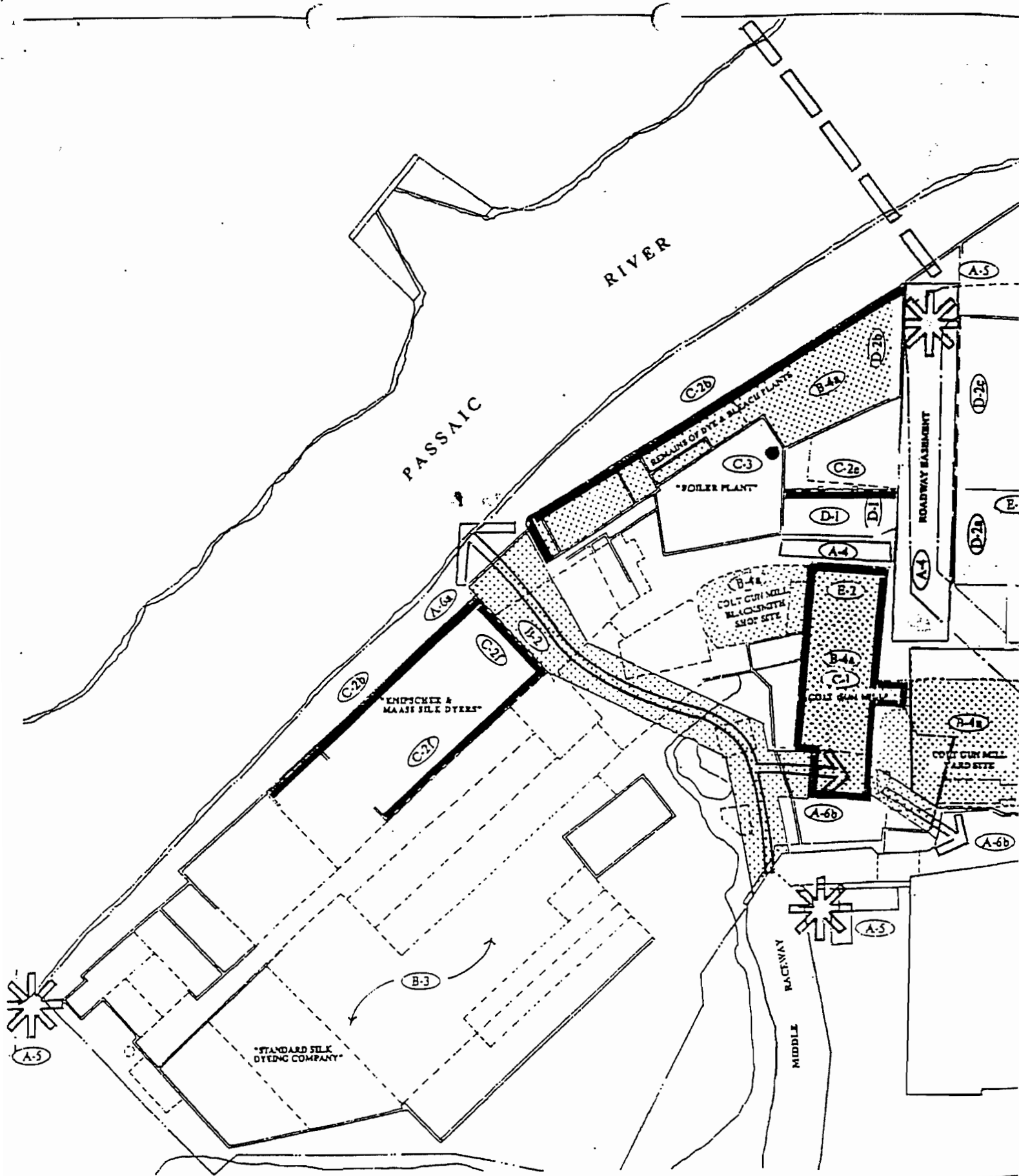
For purposes of this proposal, references to specific features within the ATP site are given. The reader should refer to Figure 2 for the location of these features within the given mill lots. This figure is the "Requirements and Recommendations" drawing from the Maxman Report.

To organize the infield investigation, it is suggested that the following studies be made:

a. The Quarry Area (see B-3 on Figure 2)

Test borings made in this area, coupled with analysis of historic photographs, reveal that this area of the ATP site was, up to the late-19th century, the site of Mount Morris, which was the last section of trap rock and sandstone of the Ramapo Fault of the Watchung Ridge. Historic maps and photos detail the reduction of Mt. Morris by quarrying over time. The operations were equipped with a steam-powered stone crusher. The timing of this work suggests that it was undertaken when such quarrying became less labor-intensive, largely due to the replacement of black powder with dynamite as a rock-fracturing agent, as well as the development of mechanical stone-processing mills.

Photos show that as the quarry was abandoned, its floor was protected along the river with a massive stone wall. Test borings excavated in the quarry area behind the wall by SEA, Inc. indicate that this area was filled with stone rubble and other non-cultural material. The only historically significant



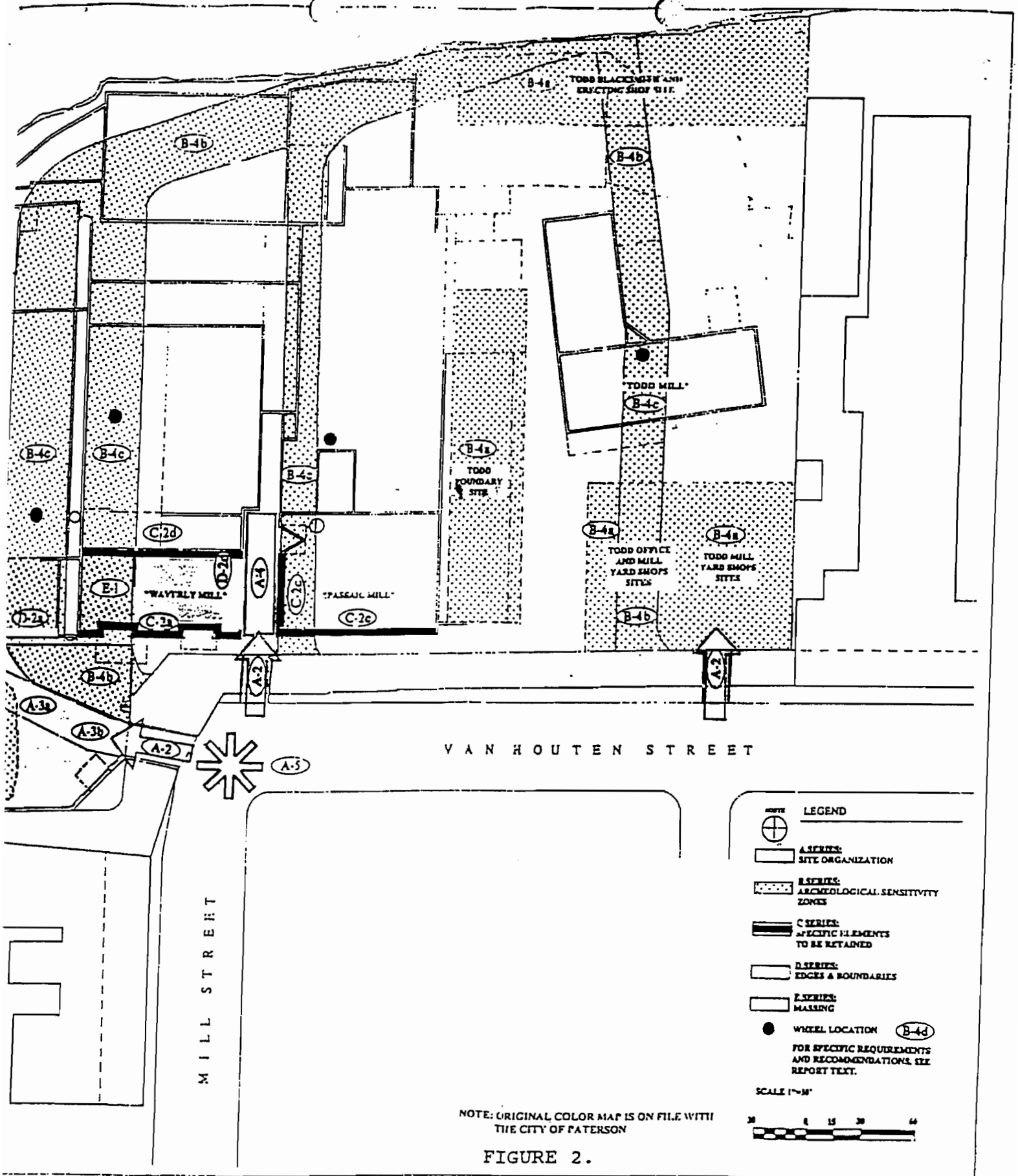
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 Pennsylvania 19103
 215 977-8662

Associate Architects:
 Nocton Architects PC
 1150 Connecticut Avenue, NW
 Suite 400
 Washington, DC 20036
 (202) 296-2700

Structural Engineers:
 Schoor DePalma, Inc
 Justin Corporate Center
 P.O. Box 900
 Manalapan, New Jersey 07726
 (908) 577-9000

Landscape Architects:
 EDAW, Inc
 Princes Street
 Alexandria, Virginia 22314
 (703) 836-1414

Historians:
 Robinson & Associates
 1710 Connecticut Avenue, N
 Washington, DC 20009
 (202) 234-2333



NOTE: ORIGINAL COLOR MAP IS ON FILE WITH THE CITY OF PATERSON

FIGURE 2.

NOTE **LEGEND**

- A.SERIES:** SITE ORGANIZATION
- B.SERIES:** ARCHEOLOGICAL SENSITIVITY ZONES
- C.SERIES:** SPECIFIC ELEMENTS TO BE RETAINED
- D.SERIES:** EDGES & BOUNDARIES
- E.SERIES:** MASSING
- WHEEL LOCATION** (B-4d)

FOR SPECIFIC REQUIREMENTS AND RECOMMENDATIONS, SEE REPORT TEXT.

SCALE 1"=30'

Archaeologist:
 Historic Conservation &
 Interpretation, Inc.
 RD 1, Box 120
 Newton, New Jersey 07860
 (201) 383-6355

HISTORICAL INDUSTRIAL SITE ANALYSIS
ALLIED TEXTILE PRINTING SITE
 Paterson, New Jersey
NATIONAL PARK SERVICE
 U.S. Custom House, Philadelphia, Pennsylvania 19106

Drawing Title:
REQUIREMENTS AND RECOMMENDATIONS
 Date: MARCH 1996

cultural resource in this area is the river wall, which is still largely intact and will not be negatively impacted by the proposed construction. In fact, stabilization and maintenance plans are being formulated that will have a positive effect on the historic preservation of this resource. For these reasons, no archeological test excavations are planned for this area.

- b. The Knipscher and Maass Dye House Site and the Northern Waste Weir Channel of the Middle Raceway (see B-2 and B-4a on Figure 2)

The northern waste weir channel was excavated by SEA, Inc. in two places. Its walls of cut-brownstone are largely intact. Excavations did not extend to the total depth of this race. Questions were not answered about the area of the channel that once lay beneath the waste weir's falling water, or about the nature of the bridge over the channel that allowed traffic to pass between the quarry area and the rest of the site, or about the details of the channel's connection to or through the Knipscher and Maass site. The details of this potential connection may explain how the dye house received some of the water that it used for industrial or perhaps hydropower purposes.

Test excavations are proposed during the Stage One survey in order to gain information about the channel's depth, as well details of the bridge over the channel. This will supply pertinent information to the site developer such as, is the raceway bridge present; is it a significant historic structure; what is its size and condition? These facts are necessary in order to further develop the site, which is ultimately planned to

become a "Mill Race" interpretation. It is recommended that archeologists be allowed to conduct the excavation of this channel so that all aspects of it can be studied as to historical significance, preservation, and adaptive reuse.

The Dye House complex itself will become a subject for archeological research if it is decided to remove it from the site. If it is to be saved, no further below-ground work will be necessary. Nevertheless, a description of its construction and use will be part of the Stage One report.

Study of the Dye House above-ground remains will be carried out by HCI's architectural historian and industrial archeologist. Some of this research will require site clearing and debris removal. (Note: We need direction as to what has been decided about the Knipscher & Maass remains. It may be that only part of the site remains are to be removed and the field research will be limited to analysis of these remains.) Mill buildings are the physical features or artifacts of past activities. To analyze mill buildings, the industrial archeologist is interested in taking existing descriptions and analysing the succéssion of events that took place in the mill. Mill buildings are examined for evidence of repair, alteration, or expansion. The interiors, though in shambles, can show how the power shafting was placed in the mill, where the mill machinery once stood, and the succession of the mill's use.

This analysis will be limited to gathering information about the above-ground remains so that their potential significance can

be ascertained. The work will include procedures to record those significant features which will be removed from the site.

- c. The Northern Waste Weir Channel of the Middle Raceway, Including the Flume to the Colt Gun Mill (see B-2 on Figure 2)

As explained in the Maxman Report, the Middle Raceway at first ended in a waste weir waterfall. This northern channel of the Middle Race had a single flume serving the Colt Gun Mill. A cement plug blocking this channel at the bend of the Middle Race has been recognized and the 20th-century water mains and valve sheds of the ATP plant are found in this area. There are no surface indications of the Middle Raceway's northern channel and there are no easily-recognized indications in the retaining wall or the rear wall of the Gun Mill's water wheel section. Tests will be made here with the aid of a mechanical excavator as the site is constricted and has no access. The channel's remains, as well as its associated features, such as the flume carrying water to the Colt Gun Mill, will be investigated during the Stage One survey.

- d. Identification of Belgian Block Roads and Drives

As stated in the Maxman Report, these roads have been evaluated as potentially significant cultural resources of the ATP site. The extent of these historic pavements, especially where they may be obscured by macadam, soils, or other materials, will be found. The report on this cultural resource will include

a map showing where the pavement exists and narrative detailing the various material used.

- e. The Gun Mill Blacksmith Shop (see B-4a on Figure 2)

The area to the rear of the Gun Mill is the site of its associated blacksmith shop. The SEA study indicated that the site contains large oil tanks. The surface of the site contains mounds of dressed brownstone blocks. The work in this location will be in two phases. The first phase will attempt to identify what building these blocks came from and evaluate if they should be saved for reuse. The mounds and the buried oil tanks will be removed and in the second phase the hole left when the oil tanks are removed will be observed. Since the site is designated to be used as open space, with a plan in place for the preservation of the remains, no further work will be necessary.

- f. The Gun Mill Yard (see B-4a on Figure 2)

A test made by SEA in the area of the tailrace of the mill's hydropower system revealed that the race appears to be an open channel running from the mill's water wheel section to the Lower Race. The top of the tailrace walls were uncovered, but no attempt was made to reach the bottom of the race. It is proposed that this test be re-excavated to the extent that a complete cross-section of the race is obtained.

HCI will map the several foundations and slabs lying on the surface of the ground that are thought to be associated with a late 19th-century copper works shop and one of the largest oil

tanks of the ATP plant. SEA tests did reveal the cement pipe channel that carried this oil to the plant's main boiler house. A second phase of the investigation will be made as these tanks are removed from the site.

It is important to note that HCI will do no more than observe the results of others who will actually remove the fuel tanks. It is not proposed to engage in any work which may require HAZMAT techniques. Should such work become a factor, the scope of work will be adjusted to accomplish the task according to HAZMAT standards.

A second test excavation will be made in the area between the Gun Mill's west wall and the retaining wall of the Middle Race. A small shop and a large smoke stack are noted in the Maxman Report analysis of the Gun Mill. HCI will test for known features and also establish the depth and composition of industrial fill that is present in the area. A pit is developing in this yard which is draining and collapsing into the ground. This must be the result of drain water being carried into some sort of subsurface pit or channel that will also be investigated.

g. The Gun Mill (see B-4a on Figure 2)

The Gun Mill is a very complex artifact of the industrial adaptation that took place in its approximate 125-year life span. In the first phase of the Stage One work, examinations searching for indications or clues of these changes will be made and, if found, their significance will be assessed. Indications of additions, such as the boiler and steam engine building, can be

studied on the building's exterior. Likewise, parts of the roof and two floors that stood before the last destructive fires are present. Recordings of the transmission power system, construction techniques, and the identification of species of trees used in construction, will allow future rehabilitations to proceed with the maximum knowledge. The result of this work will be a detailed recommendation of how this work can be accomplished in safety. (Note: Parts of this research should be tied into the work of demolition or clearing this debris from the building. A joint plan for this needs to be formulated.)

Phase Two of the Gun Mill investigations will occur once the building is cleared of debris. A test excavation will be centered in the wheel pit section of the mill to investigate the possible remains of the several water engines that were employed over time. Based on the results, information will become available that will enable the mill setting to be redeveloped in an accurate way with a historic water wheel, turbine, and steam engine. Test excavations that uncover important historic features must be refilled until a sound program for historic preservation of the exposed setting or artifact is in place. Buried remains may be of a type that will deteriorate if exposed and not curated. Therefore, after recording and photographing, all such tests will be backfilled. The method used to backfill and stabilize the site will meet archeological and historic preservation standards for such work and will be designed according to the conditions encountered.

Test excavations in the main section of the building will be made depending on floor conditions and indication of sub-floor features. (Note: Tests made along the mill walls can provide useful information to the architect who is contemplating wall stabilization. Many archeological tests can be made to serve two purposes if the work of both specialties is coordinated.)

h. The Mallory, Waverly and Passaic Mill Sites (see B-4c on Figure 2)

The next three historic mill lots (from west to east) have a great deal in common as potentially significant resources. In each case, the headrace of their hydropower system from the Lower Race will be studied. The SEA investigation revealed extensive reworking of the headraces of the Mallory and Waverly mills. It was also established that part of these headraces is the location of a large fuel tank. No excavations are planned, but a study will be made after the oil tank is removed to ascertain the significance of any existing headrace remains.

The third headrace which served the Passaic Mill's hydro system is no more than 20 feet in length as this mill had very little yard between the Lower Race and the building. A test will be made to see if the remains of this part of the race are present and as much about its condition as is practicable will be ascertained. Excavations of headraces will be done to establish the types of water control into each mill from the main S.U.M. Middle and Lower races.

The next area of investigation for each of these mills is the site of the water wheels. Generally, it can be assumed that

the original wooden water wheels were replaced by metal wheels and turbines. The wheel pits, bearings, and other aspects of these features will provide information on the evolution of power development during the Industrial Revolution.

It is HCI's working hypothesis that such wheel pits were filled and covered with 20th-century concrete slab floors that ATP laid to facilitate their operations. The work of investigating these wheel pits will require removal of the hanging debris and charred, unsteady building ruins that presently exist. Before testing to see if the wheel pits are still in place, an analysis of the fall of water from headrace to tailrace will be made. This will allow for the estimation of not only the power developed, but also the depth of the wheel pit. These tests will require some borings to prospect for the location of the wheel pits and to establish the best way to break the concrete floors now covering the pits. The wheel pit locations are shown on Figure 2.

The last portion of these three raceways is their exhaust channels or tailraces. There is historic evidence that these three races joined together as shown on the base map. Tests will be made to establish the locale and condition of these tailraces. Preliminary prospecting work can be done in Phase One, but actual infield testing will have to wait until the site is cleared of trees, ruins, and other debris.

In each of these mills' standing ruins, the presence or absence of significant building factors and machinery will be ascertained.

i. Todd and Rafferty Mill (see B-4a, b, and c on Figure 2)

Above-ground industrial archeology will include evaluating the ruined mill building's fabric to ascertain what should be recorded to complete and augment the Historic American Engineering Survey of the building which was undertaken in the 1970s. This will be the last chance to view the burnt-out and ruined remains of this mill.

In-ground testing done in the SEA study has located the tailrace at the rear (north) of the remaining building. It is proposed to excavate a cross-section of the exterior of the enclosed buried raceway closer to the Passaic River. Details of its construction, size, and layout will be provided that will prove useful designing the proposed redevelopment so that it will not destroy this feature.

A second purported tailrace was found in the locale shown on the HAER site plan that is labeled "Nightingale Race." HCI observed the SEA test which located this structure. It is proposed to test this structure and determine its layout, as well as its size, depth, and present condition.

The location of the headrace to the Todd and Rafferty Mill was investigated in SEA tests without being found. The race's location will be re-analyzed and then tested to see what remains of the feature.

The middle section of the Todd and Rafferty race is the wheel pit area which historic sources indicate was in the basement of the mill. This pit can be investigated only after

the ruined mill building is removed. Again, study of the head- and tailrace should allow for the prediction of a more accurate depth of the wheel pit and to ascertain what may be left of this historic feature.

The final areas to be investigated in the field are the sites of former shops that made up the Todd and Rafferty complex. Several tests by SEA were made in the foundry area. Foundry material was present in the form of spent casting material, iron waste, and coal ash. A few metal fragments and tools were observed in the SEA tests. It is proposed to make an additional test in the foundry site that will be specifically designed to find the remains of its cupola furnace and associated equipment. Work will also be done to establish the building foundation corners and address the nature of other foundation walls that were revealed in the excavations.

Also, several buildings stood in the mill yard that contained pattern storage, cleaning, packing shops, and offices. Each complex will be tested. Lastly, at the far northern end of the site, the machine, blacksmith and filing shops will be tested. This can only be done when the substantial piles of earth and building debris are cleared from the site. Tests here will specifically look for the remains of forges, steam hammers, and steam engines indicated in the historic documentation.

C. ARTIFACTS

It is not the purpose of the Stage One survey to make large artifact collections. Nevertheless, artifact deposits will be

noted, located, described, and their potential significance evaluated. However, small artifact collections often are a part of the diagnostic data that test excavations produce. Some analysis and research will be necessary to determine the age, use, composition, etc. of the cultural material. Any recovered artifacts will be given initial curation, i.e. cleaning, cataloging, and storage. Artifacts that need to be stabilized to prevent deterioration will be afforded such procedures. The artifact collection, replete with cataloging and historic preservation, will become the property of the repository designated by the Client. HCI will temporarily store these artifacts and ship them as required.

D. REPORTING

The product of the Stage One Cultural Resources Survey will be a professionally-documented and illustrated report. Because the work program is to be carried out in phases, interim reports will be necessary. In each interim report, there will be a section on the results of the research accomplished to date, as well as the amended research design to complete the survey work. Amended in this case draws attention to the fact that information gathered will change and make research hypothesis more useful and to the point.

Review of the final report will require that several draft copies containing original photographs be sent to the reviewing agencies, such as the City's designated committee and others, with at least two copies for the New Jersey Historic Preservation

Office. (Note: Details on the number of draft reports needed and the method of producing the final survey report can be negotiated between the Client and HCI.)

- 1 -

III. THE RESEARCH TEAM

Primary Investigator.....Ed Rutsch
Primary Field Investigator.....Mike Raber
Archeologist/Researcher.....Pat Condell
Archeologist/Researcher.....William Sandy
Architect/Industrial Archeologist.....Herb Githens
Assistant Architect....._____

Consultants:

Robert Howard.....Hagley Museum of Industrial History
Pat Malone.....Brown University
Arthur Rosen.....ATP President

Some excavations will require the work of hand excavation.
Members of Paterson's Silk City Americorps projects will be
hired for this purpose.

Note: Resumes of key personnel follows.

MICHAEL S. RABER

Michael S. Raber received a B.A. in Archaeology and a Ph.D. in Anthropology from Yale University. His doctoral research on Mormons in central Utah included considerable primary research in land tenure, genealogy, agriculture, and irrigation technology. Since receiving his doctorate in 1978, Dr. Raber has been self-employed as a consultant in industrial history and cultural resource management. His firm, Raber Associates, has completed some 200 projects ranging from small archaeological surveys to book-length studies of industrial history and detailed documentations of large factory complexes, frequently with large teams of researchers and photographers.

Dr. Raber has developed particular expertise in analysis, documentation, excavation, and interpretation of historic industrial sites. Projects completed under his direction include a 400-page study of the Springfield Armory for the National Park Service, and written and photographic documentation or assessment of factory complexes operated by Winchester Repeating Arms Company (New Haven, CT), Ford Motor Company (Edgewater, NJ), and Colgate-Palmolive Company (Jersey City, NJ). Seventeen projects have included documentation to standards of the Historic American Engineering Record, and many projects have included preparation of detailed site chronologies and maps (often overlays) of site development. Survey and documentation projects in the Port of New York, along over 55 miles of industrial waterfront in New York and New Jersey, have involved hundreds of structures and derelict vessels.

Other industrial sites studied include the Trenton Falls Hydroelectric Station in Trenton Falls, NY, a carriage factory in Rahway, NJ, a pewter shop in Middletown, CT, the Valley Falls Ruins in Cumberland, RI, the remains of waterpower, transportation canal, and factory resources at Market Square in Woonsocket, RI, the Tredegar iron works in Richmond, VA, and an iron-and-steel-making complex in Roxbury, CT. Work at Roxbury, conducted with Dr. Robert Gordon, included recording of surviving blast furnace and roasting oven structures, detailed site mapping and identification of archaeological features, preparation of a curation program, and completion of an article which won the Norton Prize from the Society for Industrial Archaeology. At the Tredegar iron works, a team led by Dr. Raber identified and mapped the locations of about 100 structures -- most now demolished -- built on a 25-acre parcel over a period of 160 years, and unraveled a complex history of waterpower development involving dozens of waterwheels and turbines. Detailed mapping of historic resources at Market Square predicted a complex array of site locations so accurately that there were no contractor delays during a construction monitoring project.

Dr. Raber's work has included studies of over a dozen transportation and power canal systems in Rhode Island, Connecticut, Massachusetts, New York, Ohio, and Virginia, with detailed documentary and field investigations, historic engineering assessments and interpretations, and development of programs for public use. A recent project on a historic power and transportation canal was the Master Plan and Feasibility Study for the proposed Windsor Locks Canal State Park in Connecticut. Beginning with a detailed historical study, this project identified exhibit themes and concepts for a visitor center scaled to the results of an economic feasibility analysis. In Ohio, Dr. Raber led a team which completed the historical significance section of a planning study of lock-and-dam structures on the Muskingum River in Ohio. The Muskingum River study, prepared for the Ohio Department of Natural Resources, won an award from the Society for Technical Communications.

Selected Publications

- in progress *"A Model Establishment..": Springfield Armory and Military Small-Arms Making, 1794-1916.* New York: Oxford University Press. (with C.C. Cooper, R.B. Gordon, and P.M. Malone.
- 1994 Navigation and Waterpower: The Connecticut River's Enfield Canal (with Patrick M. Malone), in Lance E. Metz, ed., *Canal History and Technology Proceedings* 13. Easton, PA: Canal History and Technology Press.
- 1988 Conservative Innovators, Military Small Arms, and Industrial History at Springfield Armory, 1794-1918, in *IA: The Journal of the Society for Industrial Archeology* 14, 1.
- 1984 An Early American Integrated Steelworks (with Robert B. Gordon), in *IA: The Journal of the Society for Industrial Archeology* 10, 1. (1986 Norton Prize, Society for Industrial Archeology).

HERBERT J. GITHENS, ARCHITECT AND PLANNER
ARCHITECTURAL DESIGN, HISTORIC PRESERVATION, REHABILITATION
AND CULTURAL RESOURCE MANAGEMENT

36 Park Street
Montclair, New Jersey 07042
201 - 746 - 4911
201-746-2080 (FAX)

FIRM HISTORY

Established in 1983 by Herbert J. Githens, Principal Architect
originally located in Jersey City, NJ. 1983-1988
currently located in Montclair, NJ. 1988 - present

PRIOR EXPERIENCE

Four years - (1973-1975, 1977-1979) General Architectural Practice
Four years - (1979-1983) Cultural Resource Management / Historic Preservation Specialist
Five years - (1976-1981) Part time Adjunct Instructor & Special Lecturer for Architectural
History and Historic Preservation, New Jersey Institute of Technology
School of Architecture, Newark, New Jersey

EDUCATION

Clemson University
Clemson, South Carolina
College of Architecture 1969-73
B A Pre-Architecture 1973

Columbia University
New York, New York
Graduate School of Architecture and Planning 1975-77
M.S. Historic Preservation 1977

PROFESSIONAL STATUS

Licensed Registered Architect
New Jersey - AI-O 8547
Pennsylvania - B 9308
New York - 022059

National Council of Architectural Registration Boards Certificate - No. 40394

Licensed Professional Planner
New Jersey - LI-O 4321

**THE OFFICE OF
HERBERT J. GITHENS, ARCHITECT AND PLANNER**

OVERVIEW OF THE FIRM

The office of Herbert J. Githens, Architect and Planner provides high quality professional architectural and planning services. Founded in 1983, the firm has steadily grown from a community-based design organization in Jersey City, NJ, to a regionally-recognized architecture and planning office located in Montclair, NJ, which specializes in historical architecture and preservation planning. Projects are distributed throughout New Jersey. The recognition that the firm has received has contributed to its growth and expansion. This success has brought about a diverse clientele, project type and scope of service. However the same high quality of service has been maintained throughout all projects.

Historic architectural projects have involved a full range of intervention. The firm has directed the relocation, stabilization and restoration of numerous cultural resources. Precision in restoration has been achieved through exhaustive historic research, accurate field documentation and analysis of original materials and methods of construction. Rehabilitation and adaptive re-use projects have been sensitive to the building's original integrity as the new program and code requirements inserted. Many of the investors in these projects have received Tax Credits for Certified Rehabilitation. The office has successfully applied the Secretary of the Interior Standards to a broad range of projects. Herbert J. Githens has identified and nominated hundreds of historic properties including individual structures, districts and industrial engineering landmarks to the National Register of Historic Places. The office has carefully recorded many buildings and structures according to Historic American Building Survey and the Historic American Engineering Record standards for filing with the Library of Congress. These have included drawings, photographic and documentary recordings. In order to properly plan for the preservation of various resources, this firm has prepared numerous condition assessment reports, historic preservation plans and historic structure reports. These have been carefully geared toward the individual resource and the sponsors budgetary constraints.

The context of these historic architecture and preservation planning projects have been very broad. They have included the individual building within an historic district, sections of a district and the entire district itself. Individual historic buildings have made up the bulk of projects from private historic houses, museums and major public buildings. These properties have varied in significance as well. Some have been locally designated, part of historic districts, listed on the State Register of Historic Places and the National Register of Historic Places. The firm has also worked on a number of National Historic Landmarks.

The firm's architectural design abilities are specialized in the renovation of existing facilities. These have included facilities for the developmentally disabled such as community residences, adult training centers and child development centers. The office has extensive experience in adapting the as-built environment for the physically-challenged. This has included making historic properties accessible to those with disabilities and installing accessible routes and other facilities which comply with the barrier-free codes.

Clients benefiting from the expertise of Herbert J. Githens Architect and Planner have included homeowners, developers, businesspersons, institutions, private non-profit agencies, house museum associations and governmental agencies at all levels including the National Park Service.

Herbert J. Githens, Architect and Planner is pre-qualified with the State of New Jersey, Division of Building and Construction for architectural projects, historical preservation/restoration, interior design/space planning and Americans with Disabilities Act facilities surveys. Githens meets and exceeds the qualifications of the National Park Service as a Historic Architect and Historic Preservation Specialist. He is also listed by the State of New Jersey Historic Preservation Office as a Historic Architect and Historic Preservation Consultant.

HERBERT J. GITHENS, ARCHITECT

HERBERT J. GITHENS is a licensed architect in New Jersey, New York and Pennsylvania and holds a certificate from the National Council of Architectural Registration Boards (NCARB). He is also a licensed planner in New Jersey. His practice specializes in the retrieval and recycling of the built environment. This includes both planning studies for historic buildings, districts, objects and sites and the actual conservation and restoration process. Projects have included the renovation and certified rehabilitation of historic and non-historic buildings, the sensitive insertion of new design elements into existing building fabric, contextual additions to existing buildings, the restoration of cultural property and general architectural design. Githens received his B.A. in Pre-Architecture from Clemson University and his M.S. in Historic Preservation from Columbia University. Prior to opening his own practice, he held positions as assistant designer/drafter, apprentice architect, and historic preservation specialist. He also served as an adjunct instructor and special lecturer for architectural history and historic preservation at the New Jersey School of Architecture.

Githens' experience as an historic architect includes the relocation, stabilization and restoration of numerous cultural resources. He has identified and nominated hundreds of historic properties including individual structures, districts and engineering landmarks to the National Register of Historic Places. His work includes the recording of buildings and structures to Historic American Building Survey and Historic American Engineering Record standards. He has executed reports, drawings and archival photography. He has authored various historic structures reports. He has applied the Secretary of the Interior Standards for Tax-Credited Certified Rehabilitation, historic district restorations and museum quality restorations.

Githens' architectural design abilities are specialized in the rehabilitation of existing facilities. This has included facilities for the developmentally disabled such as group homes, adult training centers, executive offices and child development centers. He has extensive experience in adapting the as-built environment for the physically-challenged. This has included making historic properties accessible to those with disabilities and installing rest room facilities which comply with the barrier-free codes. He has two intensive years in design development of educational facilities.

Clients benefiting from Githens' expertise have included homeowners, developers, businesspersons, institutions, private non-profit agencies, house museum associations and governmental agencies at all levels.

As a recognized expert witness in architecture, historic architecture and historic preservation planning, Herbert J. Githens, Architect and Planner has made presentations before historic preservation commissions, planning boards and zoning boards of adjustment. He has over twenty years experience in the building-related field, three years intensive years in the management of cultural resources and five years as an educator in architectural history. For over twelve years he has successfully managed his own architectural and historic preservation practice.

Herbert J. Githens, Architect and Planner is pre-qualified with the State of New Jersey, Division of Building and Construction for Architecture, Restoration/Historic Preservation and Americans with Disabilities Act Facility Surveys. He meets and exceeds the qualifications of the National Park Service as a Historic Architect, Architectural Historian and Historic Preservation Specialist. He is also listed by the New Jersey Historic Preservation Office as a recognized Historic Architect and Historic Preservation Consultant.

HERBERT J. GITHENS, ARCHITECT

MEMBERSHIPS

Professional Society of American Registered Architects (SARA)
Director, New Jersey Council - SARA
Past President, New Jersey Council - SARA
Other: Montclair Chamber of Commerce
Montclair Historical Society
Association for Preservation Technology (APT)
Society for Industrial Archeology (SIA)
Partners for Sacred Places
National Trust for Historic Preservation
New Jersey Historical Society
Glen Ridge Historical Society
Preservation New Jersey

COMMUNITY SERVICE

Member, Parking Advisory Committee, Township of Montclair, current
Board of Directors, Glen Ridge Art Parents Association, current
Trustee, Montclair Historical Society, current
Schultz House "Evergreens" Preservation Committee, Montclair, NJ, current
Delegate for Diabetes, American Diabetes Association, current
Commissioner, Township of Montclair Historic Preservation Commission, 1994-95
Sponsor, Cooperative Education Program, New Jersey Institute of Technology, 1994-95
Assistant Coach, 3rd & 4th Grade Girls Basketball, Glen Ridge Athletic Association, 1990-92
Member, Ward E Neighborhood Improvement Committee, City of Jersey City, 1978-80
Member, Community Development Block Grant Steering Committee, City of Jersey City, 1977-80

AWARDS

DESIGN AWARD

The Affordable House Competition, 1978
The New Jersey Department of Community Affairs, Sponsor

PRESERVATION AND RESTORATION ASSOCIATION OF JERSEY CITY

Herbert J. Githens, Architect Projects receiving awards (to Owners):

The Hamilton Mews Restoration 1986

47 Wayne Street Restoration 1987

THOMAS BARTON POST PRESERVATION AWARD

Citizen Award, 1993

Work Performed for the Fellowship for Metlar House
Piscataway, New Jersey

SPECIAL SERVICE AWARD

Society of American Registered Architects
in Recognition of outstanding service to the Society,
and to the Profession of Architecture, 1993

MONTCLAIR CHAMBER OF COMMERCE AWARD

Herbert J. Githens, Architect Project received awards (to Rev. Timothy Sluignic):
Exterior Restoration of Immaculate Conception Church
in Recognition of outstanding contribution to the Montclair Central Business District

HERBERT J. GITHENS, ARCHITECT

PUBLICATIONS

HOUSE IN TIME: A WALKING TOUR OF THE VAN VORST PARK HISTORIC DISTRICT, JERSEY CITY, NJ.

The Jersey City Museum, Jersey City, NJ. : 1981.

WHITE BOG, NJ. AN HISTORIC ARCHITECTURAL SURVEY

With William Bolger and Edward S. Rutsch

The New Jersey Conservation Foundation, Mendham, NJ. : 1982

PAPERS GIVEN :

"Pier G - Lehigh Valley Railroad, Jersey City, NJ."

Annual Conference - Society for Industrial Archeology
Harrisburg, PA 1982

"White bog, New Jersey's Pre-Eminent Cranberry and Blueberry Plantation"

State Historic Preservation Officer Conference

Trenton, NJ 1983

and

Roehling Chapter - Society for Industrial Archeology Annual Symposium
Drew University, Madison, NJ 1983

"Pemberton and the New Mills Company, Pemberton, NJ."

Roehling Chapter - Society for Industrial Archeology Annual Symposium
Drew University, Madison, NJ 1984

"A Hop, Skip and a Jump - Means and Methods Used by the Nineteenth Century Railroad Companies in Accessing New Jersey's Hudson River Waterfront"

Annual Conference - Society for Industrial Archeology
Newark, NJ 1985

"Reconstructing the Long Pond Ironworks Cultural Landscapes"

Historic Ironmaster's Symposium
Nassawango Iron Furnace, Snow Hill, MD 1987

"Reconstructing the Speedwell Ironworks Historic Landscape"

Lecture Series at Historic Speedwell
Morristown, NJ 1992

"Designing a Re-Use Project"

Symposium on the Re-Use of Industrial Architecture
The Paterson Museum
Paterson, NJ 1995

SEMINARS GIVEN

"Historic Preservation - Two Historic Architects Views"

Preservation and Restoration Association of Jersey City
Saint Peters College, Jersey City, NJ.
1984

"The Americans with Disabilities Act and Historic Sites"

The Museum Roundtable
The Hermitage, Ho-Ho-Kus, NJ.
1992

PATRICK M. MALONE

Patrick M. Malone was born on June 28, 1942 in Baltimore, Maryland. He graduated "with distinction" from the U. S. Naval Academy at Annapolis in 1964, with a B. S. in engineering and an additional major in history. After combat service as a Marine Corps officer, he spent a year as a metallurgical engineer at Manlabs in Cambridge, Massachusetts. He received his Ph. D. in history from Brown University and was elected to Phi Beta Kappa in 1971. His academic career began in 1970, when he became an assistant professor of American civilization at the University of Pennsylvania. He moved to Brown University in the same position and then went into the museum profession. After serving for many years as a half-time senior lecturer at Brown, he has recently returned to a full time position as Assistant Professor of American Civilization and Urban Studies.

Dr. Malone's primary academic field is the history of technology in America. He is also involved in the fields of industrial archeology, material culture, and museum studies. From 1974 to 1989, he was the director of the Slater Mill Historic Site in Pawtucket, Rhode Island. He is a past president of the Society for Industrial Archeology and an active consultant on archeological projects. His publications include Canals and Industry: Engineering in Lowell, 1821 - 1880, The Skulking Way of War: Technology and Tactics Among the New England Indians, 1600-1675, and The Texture of Industry: An Archaeological View of the Industrialization of North America (written with Robert Gordon), as well as numerous articles on historical subjects. His article on Springfield Armory won the Norton Prize, which is given for "outstanding scholarship in industrial archeology." The Texture of Industry received an "International Architecture Book Award" from the American Institute of Architects. Dr. Malone has served as a consultant, photographer, and writer for two award-winning, multi-image slide shows and is a principal of Historic Engineering Associates, a firm which undertakes a wide variety of archaeological, historical, and interpretive projects for museums and government agencies.

Much of Dr. Malone's consulting has been for museums, historical sites, waterways, and parks. His historical specialties include waterpower, canal transportation, and factory production, and military technology. He has worked on numerous projects for the National Park Service, most notably on the Lowell National Historical Park, the Springfield Armory National Historic Site, and the Blackstone River Valley National Heritage Corridor. As one of the planners of the Blackstone Corridor, he was responsible for a major section of the published planning document, a traveling exhibit, a program of interpreted canoe tours on the river and canal, an educational packet for teachers, and much of the interpretive signage for a key park. He has also worked on exhibits, surveys, or educational programming projects for state agencies in Massachusetts, Rhode Island, New York, and Ohio. Many of these projects have focused on historic canals and rivers. Recently, he served as a consultant for the Boott Mill Exhibit of the Lowell National Historical Park, and he helped design the new Water Power Experimental Area for school children who visit the Tsongas Center in Lowell. Both of these Lowell exhibits have won Dibner Prizes from the Society for the History of Technology.

IV. SCHEDULE AND COSTS FOR PHASE ONE PORTION OF SURVEY

Tasks

Task One: Preparation of a series of maps showing the development of the site over time, which will be drafted by the historic architect, but worked on by the entire research team. At present, the site will be organized in the same ways that each historic mill lot was laid out. Most of the historic graphics, such as maps, have already been collected, but several aspects of the mill lots will be gathered from deed research and agreements made between industrialists and the S.U.M.

Task Two: Documentary research to be carried out by the entire research team. Obviously, this development and the time allotted will allow for only very specific research that will assess what is available and the specifics necessary for development of each mill lot over time.

Task Three: Analysis of the ATP standing ruins. This work will describe those portions of the above-ground materials that are of potential historic significance. The team architect will conduct this research and will detail work to be done before and during the clearing of the burnt and ruined buildings from the site.

Task Four: Investigation of historic roadways. The location of roadway materials will be investigated, described, and evaluated for historic significance.

Task Five: Investigation of the Todd and Raffery Mill site.

This work will be under the direction of the industrial archeology research team. Test excavations to be made on:

- a. The two tail races
- b. The headrace and other mill yard sites
- c. The foundry site

The Product: The result of this research will be an interim report that will detail the work conducted on each task, describing how the work was conducted and its result. The second part of this report will detail the work to be undertaken in Phase Two.

Costs

1) HCI (includes wages, overhead, and profit, as well as direct expenses)	\$16,000
2) Githens Associates (includes wages, overhead, and profit, as well as direct expenses)	6,000
3) Raber Associates consulting fee	4,000
4) Robert Howard (of Hagley Museum) consulting fee	500
5) Patrick Malone (of Brown University) consulting fee	<u>500</u>
TOTAL COST	\$27,000

Note: Cost of a small rubber-tired backhoe and operator is not part of this proposal.

Schedule

Task One: Map work will be prepared in the first month of Phase One. Maps will be finalized for the Phase One interim report.

Task Two: Documentary research will run the length of the Phase One process with the balance of the work to be done in the winter months.

Task Three: Analysis of the above-ground remains to be completed for the Phase One interim report.

Task Four: Roadway research will entail about a week's work for a small crew and can be done as soon as authorized.

Task Five: Todd & Raffery Mill site testing should be done in the last month of the project, weather permitting.

Report: Five months from project inception.