ONE RIVER STREET

HASTINGS-ON-HUDSON NEW YORK

STRUCTURE PRESERVATION EVALUATION

Summary of Findings *May 2006*

Hutton Associates Inc. / Stephen Katz Architect

BL Companies Robert Silman Associates PC

One River Street
Hastings-on-Hudson NY

Structure Preservation Evaluation

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FINAL REPORT
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Executive Summary

For much of the last century, the One River Street site on the Hastings waterfront was a vibrant industrial complex that formed an integral part of life in the Village of Hastings-on-Hudson ("the Village"). With the closure of the Anaconda Cable and Wireless plant in 1976, and the subsequent purchase of the 27-acre site by a variety of private owners, it has been the subject of numerous studies and the focus of much public interest with regard to future development opportunities. These opportunities, however, have been influenced by the responsibilities assumed by the current site owner—ARCO Environmental Remediation Limited (AERL)—to undertake a comprehensive remediation of the soil contamination that was the result of decades of industrial activity. In 2004, Atlantic Richfield (AR) and AERL entered into agreements with the New York State Department of Environmental Protection, the Village, and Hudson Riverkeeper to design and carry out a remediation program to take place over a period of several years.

One stipulation in the agreements requires AR/AERL to evaluate the physical condition of three of the oldest structures within the former industrial complex—Building 51, Building 52 and the Water Tower. In addition, AR/AERL was asked to consider the potential for reuse of these structures as part of a future redevelopment plan with special consideration given to their historic and cultural value as well as their potential for adaptive reuse. A team of consultants was retained by AR/AERL's project manager—Parsons—to undertake the "Structure Preservation Evaluation" which is the subject of this report. In addition to evaluating the physical condition of each structure, the consultants were also asked to report on the compatibility of preservation of the subject structures with the proposed remediation plan which was adopted as part of AR/AERL's agreement with NYS DEC, the Village and Riverkeeper.

The consultant's study was divided into several components:

1. *An historic and cultural analysis to evaluate the relative importance of the three structures and the desirability of preserving them.*
2. *A structural analysis to describe current physical condition and identify the steps needed to stabilize the structures and prevent further deterioration in advance of any decision to convert the structures to new uses as part of an overall redevelopment plan.*
3. *An evalulation of how the implementation of the remediation plan would impact the preservation of each structure.*
4. *An identification of what types of uses would be appropriate for each of the subject structures as part of a redevelopment plan.*

Based on their investigations, the consultants are of the opinion that all three structures have intrinsic historic and cultural value. Although the structures were not formally granted preservation status by New York State's Historic Preservation Office (SHPO), they merit consideration for preservation as important examples of early twentieth century industrial activity within the Hudson River valley. Their importance in the history of the Village is also indicative of their broader significance in the industrial life and development of the Hudson River region. This recommendation, however, is subject to a further analysis of preservation costs and environmental remediation requirements as part of future site development.

Although they have suffered various degrees of deterioration since they were last used as part of active industrial production, all three structures are in reasonably good physical

condition and are capable of being stabilized to prevent further structural deterioration.

Compatibility with the current preliminary remediation plan is problematic, however. The consultant team believes that the preservation of Building 52 would be least affected by components of the remediation plan. Although the Water Tower would be significantly affected by the need to excavate soil to a depth of 12 feet below and immediately around it, its steel structure would lend itself to be disassembled, repaired, stored and rebuilt following the completion of remediation efforts. Building 51 is most affected by the need to excavate soil to depths of up to 12 feet within and immediately surrounding the western portion of the building. Pending results of more detailed design of the remediation program, it appears that at least a quarter and up to one-half of the area of Building 51 would be difficult to preserve as part of remediation.

A summary of the consultant's findings and recommendations for each structure is as follows:

Building 51

Building 51 is a fine example of early twentieth century industrial mill building architecture. A long, rectangular building set perpendicular to the river and rail line, it is constructed of consecutive parallel bays of lightweight steel trusses set on masonry bearing walls with steel columns encased in brick piers. Two linear roof monitors bring additional light into the column-free interior space and provide considerable architectural interest. Structural problems include: deterioration of parts of the wood roof deck; cracking of the masonry bearing walls probably related to steel delamination within masonry piers; deterioration of mortar; deterioration of exterior masonry parapets, and wicking of ground water into the lower portion of masonry walls. Although these problems are relatively extensive, none seem to represent so serious a problem that would require major structural repairs or demolition at this time although they may become necessary due to continued deterioration.

The remediation plan, however, presents more serious problems for the preservation of Building 51, given the need to excavate up to one-half of the western area of the building to remove contaminated soils and replace it with clean fill. Although it would be physically possible to devise an excavation plan that would stabilize the building's pile-supported foundations during excavation, it is unlikely that this would be a cost effective option. It is also unclear at this time of the impact of the proposed capping fill on the integrity of the existing piles that would remain below the building slab and foundations. Measures could be taken to protect the integrity of the currently above-grade masonry and structural steel from the potential impacts of these cover fills. However, the consultants recommend undertaking structural and building envelope repairs to preserve the building in the short term. Although it may be necessary to demolish some part of the building prior to remediation, it is further recommended that the detailed design of the remediation plan take account of the desirability of preserving as much of Building 51 as possible, as the building represents a valuable historical and cultural asset and presents a unique opportunity for future reuse as part of a longer term redevelopment program.

Building 52

Similar to Building 51 in its design and original purpose, Building 52 is considerably larger and has a distinctive saw tooth roof design which would no doubt flood the enormous interior with northern light should the roof monitors be repaired and the plywood infill be replaced with glass.

Unlike Building 51, the building envelope appears to be relatively weather tight and is still in use, as an auto storage facility. In addition to similar deterioration of mortar, masonry walls, parapets and some steel delamination, recent demolition of contiguous buildings has created a number of more serious structural problems where removals have left sections of structural walls unsupported and structural steel exposed to the elements. The consultants strongly recommend that short-term repair and stabilization work be undertaken to correct these deficiencies as well as other evidence of building envelope deterioration. The main issue with remediation that would affect the preservation of Building 52 is the need to install a soil cover to raise the level of existing grade by up to five feet. The consultants believe that this would be feasible with moderate measures to ensure that structural steel and masonry walls would be protected from water penetration, as both interior and exterior grade levels would be raised. However, it is unclear at this time of the impact of the proposed capping fill on the integrity of the existing piles that would remain below the building slab and foundations. As Building 52 is furthest from the water, however, it is possible that the future soil cover could be reduced at this part of the site. In any event, preservation of Building 52 should be considered from an historic point of view as well as presenting numerous opportunities for reuse. Short term structural and stabilization repairs are recommended to ensure its preservation in the next three to five years.

Water Tower

The Water Tower appears to be in relatively good condition. To maximize future options with regard to its possible incorporation into a future redevelopment plan, and to minimize conflicts with excavation of underlying soils, disassembly of the structure appears to be feasible and is, therefore, recommended for consideration.

Further consideration should be given to the location of the water tower within an overall site development plan, as well as to possible reuse options as part of its preservation in a future redevelopment plan.

The following report sets out in detail the methodology, research and analysis that formed the basis of this Historic Structures Analysis of three of the most important remaining structures on the Hastings waterfront.

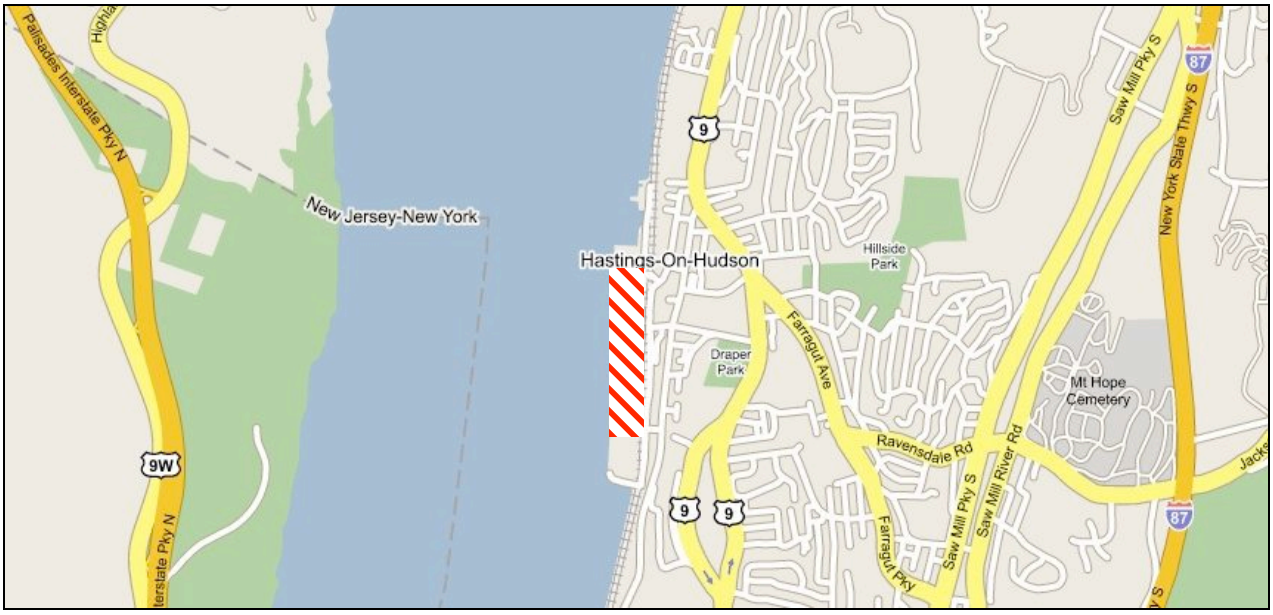
1. Introduction

1.1 Purpose of This Assignment

The Hastings-on-Hudson Waterfront, a former industrial area adjacent to downtown but separated by rail lines, is seen by the Village of Hastings-on-Hudson as a long-term opportunity to establish a vital and active district on underutilized property at the water's edge. ARCO Environmental Remediation Limited (AERL), affiliated with Atlantic Richfield Company (AR), as a key owner of land on the waterfront site, concurs with this objective and adds a second: as a business it wishes to maximize its return on investment, especially given the costs of remediating the environmental impacts that were present when the site was purchased.

The waterfront area has many assets—especially its attractive location on the Hudson River and dramatic views of the Palisades cliffs opposite. The site is close to downtown and development could be seen as an extension of Hastings' distinctive central core. The adjacent rail station provides commuter access into NYC and, by connection to Amtrak at adjacent stations, access south to Philadelphia and beyond, or north to Albany and beyond. On the other hand, there are also constraints. Direct auto access is limited at present to one bridge connection by the rail station. The site is currently subject to a Federal Consent Decree with the Village and Hudson Riverkeeper, and a separate Consent Order with New York State, for environmental remediation-- the execution of which may affect the ability to preserve and reuse existing buildings on the site. Evaluating the current conditions of three of these site structures, their historic value and implications on reuse, is the focus of this report.

As a result of a Year 2000 workshop-based planning process sponsored by the Village of Hastings-on-Hudson and AERL, and prepared by the Regional Plan Association and its consultants, a sketch plan was proposed for the site's long-term development. This plan is understood to be advisory only, and future development is still under the control of Atlantic Richfield. The Village is currently preparing a Local Waterfront Revitalization Plan (LWRP) that will define implementation scenarios and an associated Generic Environmental Impact Statement (GEIS) that will evaluate the impact of future development.



Issues of concern specified in the Federal Consent Decree between the Village, Riverkeeper, and AR include:

5.10 Assessment of Potential of Preserving Certain Site Structures:

AR [Atlantic Richfield] shall assess the feasibility of the following:

(a) whether the Water Tower, located in the Shoreline Area, has sufficient structural integrity to allow it to be disassembled, stored, and reassembled on the site;
(b) reusing the Administrative Building, Building No. 51 and/or Building No. 52; or
(c) saving one or more facades from the Administrative Building, Building 51 and/or Building 52.

In each instance, AR's assessment shall consider the overall condition and integrity of the structure in question, and/or the compatibility of preservation measures with the implementation of any remedial actions required by this Consent Decree or by DEC.

If the assessment of these factors indicates that preservation may be feasible, AR shall then consider, at a minimum, the estimated costs of preservation measures and the potential effects of preservation measures on future redevelopment of the Site.

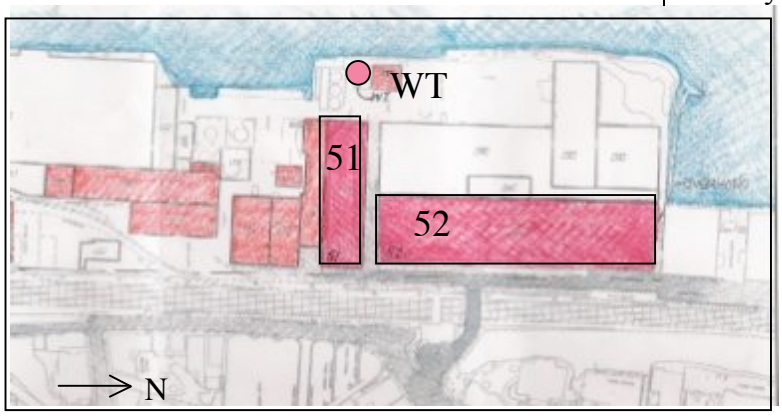
It should be noted that the Administration Building (Building 2) referred to above was unable to be preserved because of safety concerns, and was demolished in 2004. The assignment covered by this report therefore focuses only on the Water Tower and two of the remaining structures-- Buildings 51 and 52.

As the first phase of addressing issues described in the consent decree above, Parsons-- acting as project manager for AR-- has retained Hutton Associates, Inc. for consultant services to provide an evaluation of three remaining key structures on the site—the Water Tower and Buildings 51 and 52. The intent of this phase of work is to evaluate the structures' condition, historic value, and suitability for preservation in the context of future strategic options for the site's development following remediation.

This report describes an initial analysis of the buildings in terms of their structural viability and historical importance, together with a preliminary outline of preservation/ reuse measures and their compatibility with remedial actions. More detailed work may be undertaken in subsequent phases as a result of these initial conclusions.

Such subsequent work, based on this analysis and other studies by both the landowner and the public sector, may involve a process to refine an active, district-oriented public-private partnership—promoting the area as a whole, enhancing its mix of uses and real estate feasibility, and defining new projects and activities.

A properly programmed vision and strategic planning process can take advantage of the waterfront's strengths and deal constructively with its limitations. The current assignment is a key step in realizing this goal.



The three structures (Buildings 51 and 52, and the Water Tower) are shown in outline. Other existing site structures have no outline.

1.2 Site Description and Overview of Development History

The One River Street site, owned by Atlantic Richfield and its subsidiary, Arco Environmental Remediation Ltd. (AERL), is approximately 27 acres in area. This site is the central section of the larger 50-acre Hastings Waterfront located to the west of the village and rail tracks on the Hudson River. (For purposes of clarity, the Atlantic Richfield property will be called "the Site" in this report, as opposed to the larger multi-ownership waterfront area).

This central site is key to development of the waterfront as a whole-- the sole bridge crossing the rail line, located adjacent to the rail station, leads directly from the Village into the site. This road turns 90º in two directions across the tracks, leading north to a 4-acre village park and separately-owned tennis club and restaurant, and south into the AR/ AERL property and further on to the 14.5 acre 'Tappan Terminal' property, a former oil storage/ industrial complex previously occupied by ExxonMobil and Uhlich Color.

The entire waterfront was originally developed for industrial uses following its creation on landfill adjacent to the newly constructed railroad (circa 1849). Early sugar refineries were supplanted by manufacturing facilities for paving materials and chemicals and by warehouse and shipping facilities for stone, lumber and coal.

The emerging electrical cable industry found a home on the central site starting in the mid 1890s, which was interrupted during World War I by a shift to ammunition manufacture. In 1923 the Anaconda Copper Company bought the site's existing cable and brass works and became the Anaconda Wire and Cable Company, which thrived through the 1950s and continued though subsequent economic decline until manufacturing ceased in 1975 and the plant was closed in 1976. The site was sold in 1978 and a subsequent series of owners leased the site to a variety of tenants.

AR purchased the shares, but not the liabilities, of the Anaconda Company in 1977. The liability for the One River Street property was eventually passed to AR when it merged with the Anaconda Company in 1981. AERL acquired the property in 1998 in order to manage the remediation..

The southern portion of the waterfront was used as a fuel oil storage facility, the Tappan Tanker Terminal, in the 1960s. Following this use, a portion was actively used by ExxonMobil from 1971 to 1985 (and is still under its ownership); the remainder was used by Uhlich Color Company until 2002 for . New York State has recently issued a Proposed Remedial Action Plan (PRAP) for this property, which is currently going through a public comment phase prior to issuing a Record of Decision (ROD).

(For more historic detail, see Section 3 of this report, 'Historic Evaluation.')

As with most industrial operations of this period, environmental concern, safety and sustainability were not well-developed concepts. The resulting contamination culminated in the need for a plan for environmental remediation involving cleanup, demolition or renovation of buildings, removal and off-site disposal of PCB-impacted materials, and installation of fill to replace contaminated soils and bring the Site above the flood plain elevation. This remediation plan is described in more detail in the following section.

Northern Remainder of the Site looking west from the Village

Following the waterfront's cessation as an industrial area but prior to addressing environmental issues, a series of real estate development analyses were prepared. These are primarily of historic interest. Two major efforts were described in the following reports:

(1) *Summary Report, Hastings Property* by Howard P. Hoffman Associates Inc. (an affiliate of Lehman Brothers), 1975, prepared for the Anaconda Co.

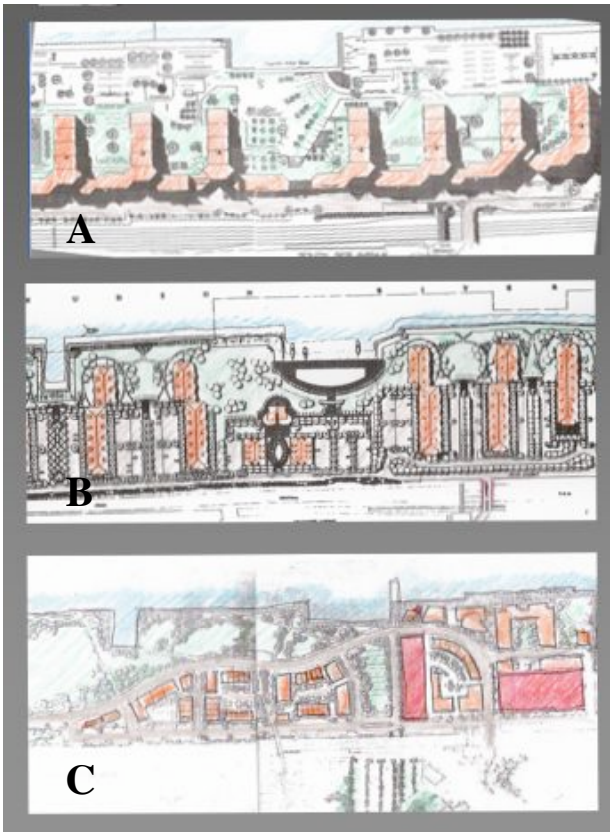
Comprehensive Engineering and Environmental Analysis by Dolph Rotfield Associates, 1976, prepared for Howard P. Hoffman Associates

The first document was a market study and concept plan proposing a mix of luxury residential housing, office space, ancillary commercial space, parking and open space. The second document was a more detailed physical plan refining the recommendations, prepared as part of the same proposal.

(2) *Final Environmental Impact Statement* by Parish & Weiner Inc, 1989, prepared for The Harbor at Hastings Associates (HHA)

A final EIS document, approved by the Village of Hastings on Hudson, summarized previous studies and evaluated impacts of proposed HHA development—residential units, retail space and associated commercial and recreational facilities.

In addition, as part of the negotiations leading to the consent decree, the Regional Plan Association (RPA) prepared a proposal as a preliminary framework for post-mitigation waterfront development. These documents will be cited along with other reuse options, following a description of the remediation program.



Plans for the property:
A Howard P. Hoffman Associates Inc., 1975
B The Harbor at Hastings Associates, 1989
C Regional Plan Association and other consultants, 2000

1.3 Current Status of Project

1.3.1 Record of Decision (ROD)

The Record of Decision for Operable Unit 1 (OU-1) is the legal basis for the remediation plan as ordered by New York State Department of Environmental Conservation (NYSDEC). (OU-1 represents the land fill portion of the site). This remediation approach was selected from a series of alternatives as the basis of the Record of Decision by the NYSDEC, in consultation with the New York State Department of Health, dated March 2004. (See figure below: "Selected Remedial Alternative—Former AWC Plant Site OU-1".) The ROD is legally enforceable through the Consent Order between NYSDEC and AR.

The remediation plan has divided the site area into three parcels: a Northern, Central and Southern Area. The Northern Area is further subdivided into three parcels that relate directly to remediation plans: Northwest Corner Area (or Containment Area); Northern Shoreline Area; and Northern Remainder.

All three structures, which are the subject of this evaluation, are located within the "Northern Area" of the AR/ AERL site. Although it is likely that future development will be impacted by remediation within the Northwest Corner/Northern Shoreline, or Containment Area, preservation considerations of these structures are unlikely to be directly affected by remediation plans.

The remediation measures described in the ROD within the Northern Area (and which may affect the feasibility of preserving the water tower, Buildings 51 and 52), are summarized as follows:

- Excavation and off-site disposal of PCB-contaminated soil to a maximum depth of 9 feet in the Northwest Corner along the Northern Shoreline; however, these remediation measures are unlikely to directly impact the feasibility of preserving the subject structures.
- Containment of remaining deep contamination of the Northwest Corner and Northern Shoreline areas using a slurry wall, sealed sheet pile bulkhead, and an impermeable cap. These measures will likely affect the viability of preservation of the water tower.
- Outside of the Northwest Corner and Northern Shoreline containment areas, excavation, to a maximum depth of 12 feet, of all PCB-contaminated soil. For the few areas where PCB contamination exceeds 12 feet, soil would either be excavated by alternative methods, or contained within a watertight sheet pile structure and capped. Approximately one third to one-half of the area within Building 51 is included in the preliminary and subsequent identification of those areas subject to excavation of PCBs to a maximum depth of 12 feet. Should any of these or additional containment areas be identified within Buildings 51 or Building 52, this remediation requirement would likely affect the feasibility of preservation of these structures. In addition, one "isolation pocket" with PCB contamination to depths greater than 12 feet is located within the western portion of Building 51.
- Installation of a 2-foot thick barrier system, consisting of a demarcation layer and soil cover over areas not covered by an impermeable cap. All three structures would be subject to this remediation requirement.

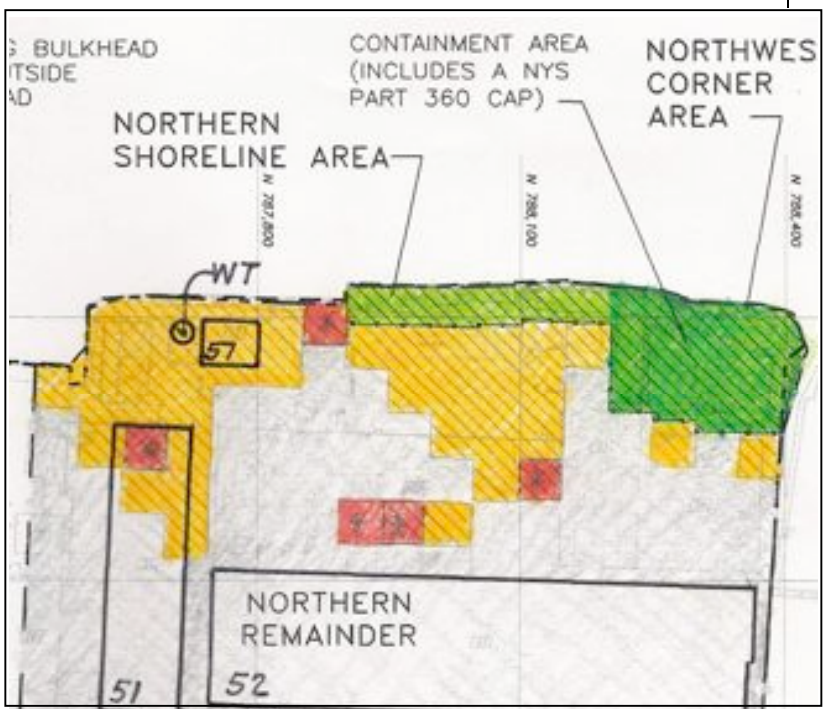
1.3.2 Federal Consent Decree

The Federal Consent Decree between the Village, Riverkeeper, and AR also defines elements to be incorporated into the remedy. This agreement requires a 5-foot thick cover above existing grade over the entire site instead of the 2-foot required under the ROD. This 5-foot cover includes a 6-inch thick layer of low-permeability asphalt, a 4-foot thick layer of clean fill, and a 6-inch thick layer of vegetated topsoil.

The Federal Consent Decree also sets out a series of deed restrictions and processes for evaluating future site development. This is the document that requires the evaluation of the preservation of the three structures that are the subject of this report. It also has defined minimum widths of committed open space adjacent to the river among other site development restrictions. The combination of the Federal Consent Decree and the normal Village planning and permitting processes will govern the public process for the future development of the site.

1.3.3 Remedial Design Work Plan

The Remedial Design Work Plan (RDWP) was prepared by Parsons and represents a more detailed description of the required remedial actions, which were stipulated in the Record of Decision, the NYSDEC Consent Order and the Consent Decree entered into between Hudson Riverkeeper and Atlantic Richfield. The development of the RDWP was required by the Administrative Order of Consent between AR/AERL and NYSDEC, dated 3/25/05, and includes plans, schedules and methodologies for the implementation of "pre-design" and "remedial design" of the remediation specified in the ROD. Originally prepared in September, 2004, the RDWP was revised (subject to comments by NYSDEC) in May, 2005.



Selected Remedial Alternative

- Containment Area (Northwest Corner and Northern Shoreline) *Excavation of PCBs (max. depth of 9ft)*
- Excavation of PCBs *(maximum depth of 12 ft.)*
- Isolated pockets of PCB contamination *(to depths >12 ft.)*
- Northern Remainder *(contact barrier and soil cover)*

In reviewing the RDWP, the consultants have focused on implications related to the preservation of the three subject structures. The "selected remedy" for site remediation—as described in the RDWP— was based on results of remediation investigations, feasibility studies and public comments which were undertaken by AERL since its acquisition of the site in 1998.

The "Selected Remedial Alternative" which is the subject of the RDWP provides for the following remediation measures, illustrated in the adjacent map:

1. Removal of +/-60,000 cu. yds. of contaminated material in the Northwest Corner Area of the site.
2. Installation of a vertical barrier at the Northwest Corner Area and along part of the Northern Shoreline.
3. Backfilling the site to its original grade.
4. Construction of a soil barrier across the entire site with a low permeability cap over the containment area. (Northwest Corner Area.)
5. Reconstruction of the shoreline bulkhead.

The RDWP further describes seven "Remedial Work Elements" (I–VII) that form the basis of the remediation plan. Of these, we believe that the following elements have the potential to affect the viability of preserving the three subject structures:

Remedial Work Element I: Relating to the Northwest Corner containment area—approximately 1.1 acres in area and include: excavation to remove contaminated soils to a depth of 9 feet; construction of a vertical containment barrier along the shoreline, a slurry trench along the up-gradient boundary of the containment area; construction of a 5 ft. deep multi-layer low permeability cap over the Northwest Corner and part of the shoreline. Deed restrictions precluding pile-supported structures and designation of this area as open space will further preclude building development in this area. As previously discussed, these requirements are not likely to directly affect the subject structures but will likely impact overall site development opportunities.

Remedial Work Element II: Excavation of contaminated soil in the northern half of the Northern Area—outside the containment area—to a depth of 9 to 12 feet; excavation of isolated pockets of contaminated soil beneath Building 51 and construction of individual sheet piled containment cells as may be required in the area immediately north of Building 57—which is adjacent to the Water Tower along the shoreline. The requirements of this work element are most likely to impact the ability to preserve Building 51 in its entirety and will have implications for the feasibility of preserving the water tower.

Remedial Work Element III: Excavation of contaminated soil beneath Building 72A—no impact on subject structures.

Remedial Work Element VII: Development of a site management plan to guarantee compliance with long term monitoring requirements; and deed restrictions to minimize potential degradation of contact barriers and the soil cover during redevelopment activities. This work element is unlikely to affect potential preservation of the three subject structures. However—to the extent that one or more will be preserved and incorporated into a site development plan—the site management plan and any deed restrictions may affect the reuse development options for these structures in the longer term.

Section Two of the RDWP describes previously completed and planned investigations that will lead to the preparation of the Pre-Design Investigation Report, as part of the Preliminary Design (50%) Report that is scheduled to be submitted in mid-2006. These activities include: more detailed mapping and survey tasks; additional soil sampling, geotechnical and hydrological investigations and water testing.

Sections Three and Four of the RDWP detail interim remedial design activities and permitting requirements, and provide a summary of the organization of the overall remediation project including project organization, personnel and responsibilities.

Section Five details the schedule for the completion of remedial design activities prior to implementation of the remedial design plan.

1.3.3. Status of Current Waterfront Planning

As previously described, a preliminary framework proposal for post-mitigation site development was prepared by the Regional Plan Association (RPA). AR participated in these activities, but views the products as a preliminary non-binding framework.

Two major work products have emerged to date as part of this effort:

- *A Redevelopment Plan for the Hastings-on-Hudson Waterfront* by the Regional Plan Association, 2001, prepared for the Westchester Community Foundation, NYS Department of State, and AR Environmental Remediation:

  A site analysis and proposal for development that anticipates completion of environmental remediation and availability of the site for development. This plan proposes a mix of commercial, residential, and open space uses for the waterfront site as a whole, organized around a dense 'village' to the north and successively less intense residential groupings to the south, ending in public open space.

  This proposal was prepared through a participatory design workshop that involved professional consultants as well as a variety of stakeholders from the public, private and civic sector. The plan itself has no legal standing with the private landowner.

- *Waterfront Implementation Strategy: Village of Hastings-on-Hudson,* by The Saratoga Associates, 2004, prepared for the Hastings Local Waterfront Committee:

  This report summarized the various steps taken to establish a public plan for the waterfront and proposed a series of recommendations, including sources and uses of funds and various options for public or public-private implementation/ development management vehicles.

Perspective view looking east from water (proposed RPA plan, 2000-- see page 8 for illustrative plan.) Note proposed retention of Water Tower, Building 51 to left and portion of Building 52 but development in what is now committed open space next to water.

2. Historic Evaluation: Features and Benefits

An historic/ cultural resources analysis was undertaken for Buildings 51 and 52 and the Water Tower on the former Anaconda Plant site located at One River Street in the Village of Hastings-on-Hudson in the Town of Greenburgh, Westchester County.

A summary of the historical site utilization and a discussion of the relative importance of these structures—and the industrial complex in general— follows. The importance of these three structures from an architectural, historical and cultural perspective is the focus of this analysis.

2.1 File Review

A review of available cultural resource data (both standing structures and historic and prehistoric archaeological resources) at the former Anaconda Wire and Cable Company site location was conducted at the New York State Museum and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The OPRHP functions as the New York State Historic Preservation Office (SHPO).

This review revealed that in 1989, the SHPO assessed the eligibility of twenty-nine buildings located at the former Anaconda Wire and Cable Company site for their ability to meet the criteria for inclusion in the National Register of Historic Places. The SHPO files indicate that all twenty-nine structures were determined not eligible for the National Register. Included in this assessment were Buildings 51 and 52, identified by USN# 11955.000228 and 11955.000231, respectively. No specific reference to or assessment of the Water Tower was documented. (The USN is the structure number the SHPO assigns in their historic building inventory numbering system.) The file review, and subsequent discussions with SHPO personnel, did not reveal the specific basis for the National Register eligibility determinations.

The file review revealed that the nearby Hastings Railroad Station, which was constructed in 1910 and lies immediately east of the former Anaconda Wire and Cable Company site, is eligible for the National Register of Historic Places.

The review also indicated that there are no known or previously recorded archaeological sites, and that there were no previous archaeological surveys conducted at the former Anaconda Wire and Cable Company site.

Additionally, in 1996, the Hudson River Valley National Heritage Area (which includes Hastings) was established by Congress as one of twenty-seven federally designated Heritage Areas nationwide. A National Heritage Area is a place designated by the United States Congress where natural, cultural, historic and recreational resources combine to form a cohesive, nationally distinctive landscape arising from patterns of human activity shaped by geography. These patterns make National Heritage Areas representative of the national experience through the physical features that remain and the traditions that have evolved in the areas.[1]

[1]U.S. Department of the Interior National Park Service, National Heritage Areas website: http://www.cr.nps.gov/heritageareas.

The Village of Hastings–on-Hudson and the Site are located within the boundaries of this region. Although there are no binding legal implications or restrictions on development imposed by this historic designation, the designation recognizes that the Hudson River Valley is of national significance. From Troy to New York City, the Hudson River Valley contains a rich assemblage of natural features and nationally significant cultural and historical sites.

2.2 Site History

The following history of the Site was developed after consulting numerous sources, including historic newspaper articles, written recollections, the Atlantic Richfield Company website, and other websites, environmental documents prepared as part of the site remediation assessments, and municipal planning documents. Verbal accounts of the region's industrial history as provided by local scholars were also included. The majority of the historic photographs, plates and Sanborn maps came from the archives of the Hastings Historical Society.

The riverfront as we know it today did not exist in the early nineteenth century. Over time, the waterfront was extended into the Hudson River using fill material to accommodate a variety of industrial uses. According to the Village of Hastings-on-Hudson's account of the history of the waterfront, a mill was established in the early nineteenth century near the Hudson River in what is now the Village of Hastings-on-Hudson.[2]

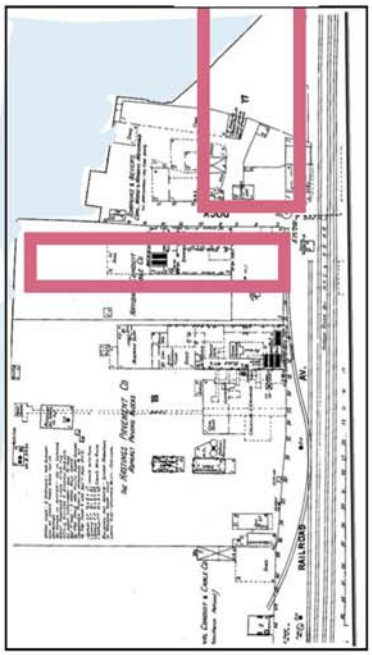
Railroad service between New York City and Peekskill, which was initiated in 1849, passed along the Hastings waterfront. Two sugar factories were established, but were destroyed by fire in 1875. Subsequently, the Hastings Pavement Company opened on the site of one of the sugar refineries. By 1893, the waterfront contained industries including the Adamant Plaster Company, two lumber/ coal suppliers, the Treanor Bluestone Works, and the Hastings Pavement Company. In 1897, Frederick G. Zinsser came to Hastings and established a chemical plant on a portion of the site of the former sugar factory.[3]

In the late nineteenth century, the discovery of cable that was able to transmit electrical power created a new industry. During the mid-1890's, the National Conduit and Cable Company erected its first buildings on the Hastings waterfront just south of what is now the current property being studied as part of this Historic Structures Analysis. From 1896 to the early 1920s, the company made shipping wire, cable and tubing. The factory supplied cable for one of America's first public utilities— the Chicago Electric Light Company— as well as for New York's Metropolitan Traction Company , which supplied trams and power lines in Europe. The company grew from 75 employees in 1896 to 3,200 by 1913.[4] A 1915 New York Times article noted that nearly 4,000 men were employed in the foundry of the National Conduit and Cable Company where ammunition was being made for the Allies. The product was actually metal cups or disks of brass and copper that were shipped abroad and pressed into cartridge shells.[5]

2 Village of Hastings-on-Hudson Statement of Findings for Rezoning of the Waterfront, 1989.
3 Final Environmental Impact Statement, The Harbor at Hastings, NY, as required by the Village of Hastings-on-Hudson Board, 1989.
4 Atlantic Richfield Company website: http://www.oneriverstreet.com
5 Explosion Burns 6 in Munitions Plan[t]s, New York Times, September 2, 1915

The 1907 Sanborn map depicts Tompkins & Bevers ('Coal Wood and Masons Materials') occupying a portion of the subject site—the area approximately where Building 51 now stands. The site where Building 52 now stands was still depicted as river because the filled land had yet to be created to the north as it exists today.

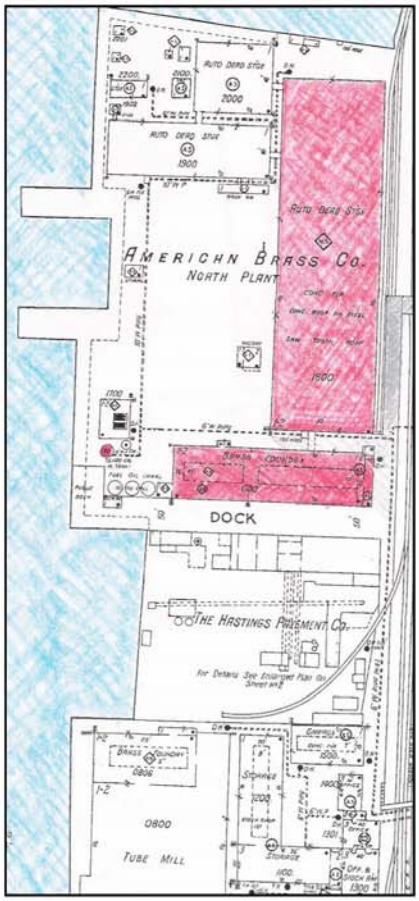
The National Conduit & Cable Company owned operations at and south of the subject property. In the early 1900's, the American Brass Company also took up residence on the waterfront, both south of Washington Avenue as well as at the current location of the subject site. In 1922 the National Conduit and Cable Company was acquired by the Anaconda Company.



1907 Sanborn

The 1924 Sanborn map shows how the industrial waterfront was developed and used at that time and depicts Buildings 51 and 52 on filled land that had been created since the 1907 Sanborn map. The map also indicates construction materials of some of the structures. The buildings currently under study are shown as operating under the American Brass Company in 1924. Building 51 was labeled as a brass foundry, while Building 52 was utilized for auto dead storage.

According to the Local Waterfront Revitalization Plan, (LWRP), prepared by the Village of Hastings-on-Hudson, Building 52 dates to 1911. [2]The Howard P. Hoffman Associates, Inc. report previously cited indicates that both Buildings 51 and 52 date to 1911.



1924 Sanborn

During World War I, the waterfront industries geared up to support the war effort. Zinsser Chemical, located south of the Site, produced mustard gas. Hastings Pavement supplied pavers for the Army supply base in Brooklyn and the Navy yards in New York, Boston and Philadelphia. The National Cable and Conduit and Cable Company reportedly made artillery, weapons, machine guns shells and bullets[7] The

[6] Local Waterfront Revitalization Plan, (LWRP), Village of Hastings-on-Hudson, 1999.

location of this manufacturing effort was likely on their holdings just south of Valley Street and north of Washington Avenue—immediately south of the current Building 51. In the years following the lucrative World War I contracts, the National Cable and Conduit and Cable Company experienced a severe decline in revenue and employees. In 1921, the Cable Company went bankrupt.[8]

In 1923, the Anaconda Copper Company acquired the properties of the National Cable and Conduit and Cable Company having in the previous two years acquired the American Brass Company. In 1929 the company was renamed the "Anaconda Wire and Cable Company".[9]

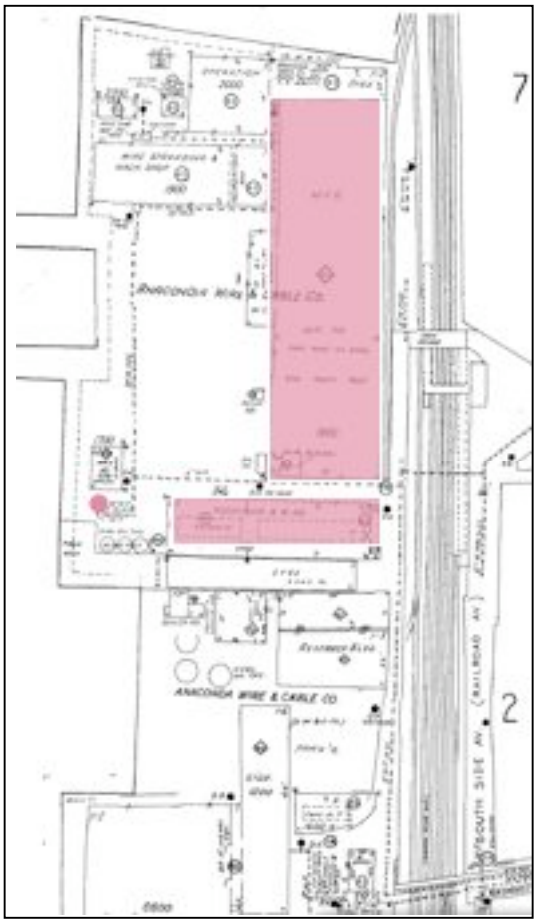
The 75,000 gallon Water Tower appears on the 1924 Sanborn map. An historic photograph dating from the early to mid 20th century depicts the new Water Tower as taken from the south. A plate dating to 1930 shows the Anaconda Wire and Cable Company complex, which then occupied a site south of Washington Avenue. It includes notes that indicate the plant's product was copper wire, lead covered cable and insulated wire, and that approximately 500 employees worked at the complex. Industry was a major force in the economic stability of the Village.[10]

7 Final Environmental Impact Statement, The Harbor at Hastings, NY, as required by the Village of Hastings-on-Hudson Board, 1989. And the History of the National Conduit and Cable Company and Anaconda Wire and Cable Company, Stuart Cadenhead, 2004

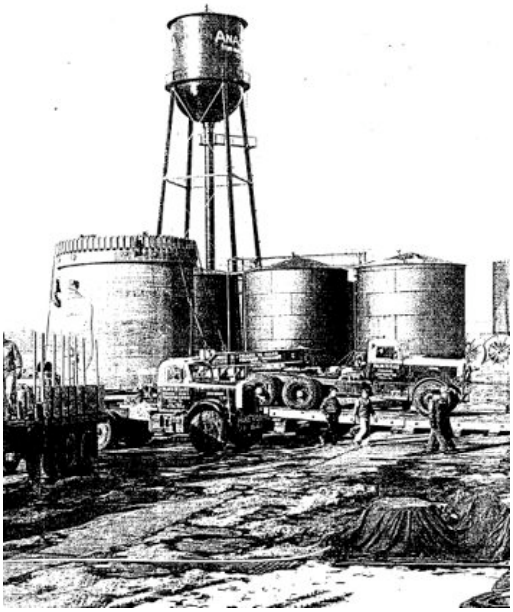
8 The History of the National Conduit and Cable Company and Anaconda Wire and Cable Company, Stuart Cadenhead, 2004.

9 The History of the National Conduit and Cable Company and Anaconda Wire and Cable Company, Stuart Cadenhead, 2004.

10 Final Environmental Impact Statement, The Harbor at Hastings, NY, as required by Village of Hastings-on-Hudson Board, 1989.



1955 Sanborn



In 1940, Anaconda Wire and Cable received its first of many defense contracts and officials were asked to develop mine-sweeping cable. In the former Research Building (the 4-story aluminum-clad building currently serving as temporary AR and Parsons field offices), Anaconda invented and produced four special types of cable. By the end of the war, thousands of men and women had produced over one-fourth of the shipboard cable used by the U.S. Navy. Anaconda received the coveted "Navy E" Award (for excellence) on four occasions.[11] During World War II, Anaconda also manufactured fireproof products for Navy battleships, including wiring that would not burn if a ship were hit by a torpedo or other fire. PCB mixtures were used in this manufacturing process.

The 1955 Sanborn depicts Building 51 as functioning in a receiving and warehousing capacity while Building 52 was used for manufacturing. Both were under the ownership of the Anaconda Wire and Cable Company. Building 52A, a small addition to the western façade of Building 52, appears on the 1955 Sanborn map and therefore must have been constructed some time between 1924 and 1955. A 1957 map shows an addition on the west side of Building 52 (referred to elsewhere as Building 52B) that encompassed the then existing Building 52A.[12] A 1960 aerial photograph provided a detailed view of the buildings and site configuration in the North Mill section of the complex. Building 51, 52 and the Water Tower are visible in the context of the larger waterfront site.

From 1922 until its closing in 1976, the Hastings plant of the Anaconda Company produced electrical building materials, bare and insulated wire, cables and conduit and undertook research and design at the laboratories on site. After World War II, Anaconda enjoyed a boom building electrical and television cable. Over time, however, economic and population factors that caused the migration of blue-collar industries out of the northeast took its toll on Anaconda and contributed to its gradual decline.

From 1978 to 1998, several owners and tenants were involved in the Hastings waterfront, the most notable being Harbor at Hastings Associates, which proposed the development plans previously described.[13] Many of the buildings at the southern end of the site were demolished shortly after AERL acquired the site in 1998.

Between 1976 and 1989 environmental investigations revealed the presence of PCBs. In 1989 the NY State Department of Environmental Conservation listed the site as a Class 2 hazardous waste site. AR has embarked on a comprehensive remediation program related to the historic manufacturing operations. As a result of the environmental mitigation work plan and structural conditions, many of the buildings in the North Mill section of the complex were demolished in the last two to three years.

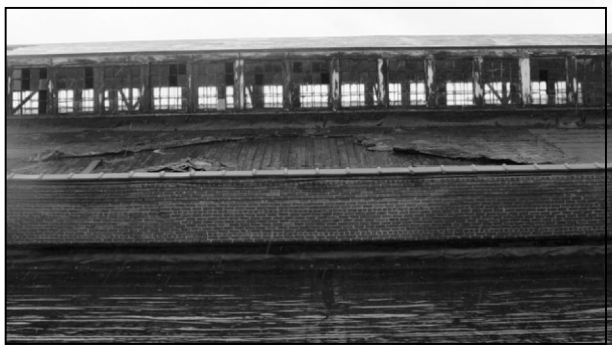
11 The History of the National Conduit and Cable Company and Anaconda Wire and Cable Company, Stuart Cadenhead, 2004.
12 Summary and Evaluation of Existing Data Harbor at Hastings Site for Atlantic Richfield Company, Golder Associates, October 1995.
13 Proposed Remedial Action Plan Harbor at Hastings, Division of Environmental Remediation, NY State Department of Environmental Conservation, 2003.

2.3 Characteristics/ Significance: Buildings 51 and 52 and the Water Tower

A discussion of the physical characteristics and relative importance of Buildings 51, 52, and the Water Tower—and the industrial complex in general—follows. The importance of these features from an architectural, historical and cultural perspective has been assessed with respect to any noteworthy characteristics inherent to their individual design and to their current setting.

Building 51

Building 51 is unoccupied and is in poor condition relative to its suitability for current use. The masonry and steel-frame building is oriented on an east-west axis perpendicular to the railroad tracks and stands approximately 25 feet tall, approximately 330 feet long and 85 feet wide. The steel reinforced masonry facade is constructed in a common header bond pattern. The form is symmetrically composed with a central two-part monitor raised approximately 10 feet from the shallow-pitched roof. A band of continuous clerestory windows occur along



Building 51. Southern elevation of monitor. Wood planks are visible in the roofing system of the earlier section of the building.

both sections of the monitor. Because of the truss design and the use of wood planks in the deck, the eastern section of the roof appears to have been constructed slightly earlier than the western section, and is larger than the western section. The 1924 Sanborn map depicts both sections of the monitor, and identifies the building's use as a brass foundry.

Building 51 interior.

The exposed truss and pier system occurs at 15-foot intervals, creating a series of bays on both the northern and southern facades. Although the building is of continuous open-span construction, 13 bays within the eastern section feature the earlier truss construction system and are topped by a wood deck and monitor, and eight bays to the west are topped by a second section of monitor of concrete plank construction. The floor is concrete. Three doors at the west end of the building are located within utilitarian openings large enough for vehicular access. A series of doors are also located at the northeastern corner of the eastern facade.

For descriptive purposes, the eastern facade, which faces the Village and railroad tracks, can be considered a primary elevation. Both east and

west elevations feature a stepped masonry gable end. There is an interior masonry wall between the exterior eastern gable end and the second bay, which is shown on the 1924 and 1955 Sanborn maps.

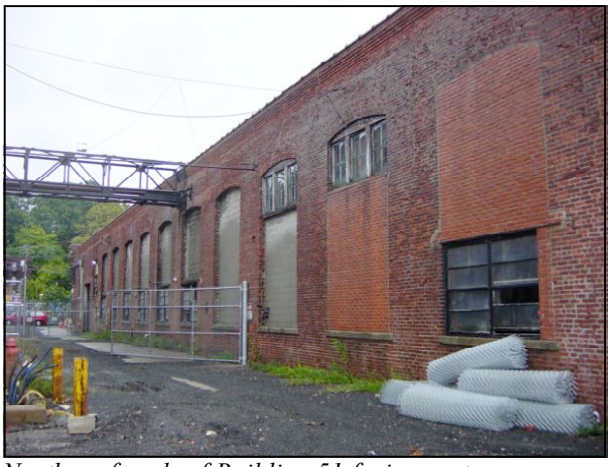
Building 51 eastern gable end and fenestration.

The window bays on the southern side have been filled in with concrete block, presumedly as a result of the addition of Building 51A. The bays on the remainder of the structure have either been filled in with block or brick. Two over two double hung wood windows remain in the upper portions of some of the bays. A triple row of header bricks forms the shallow segmental arches that top all of the window bays, and the sills are concrete. The stepped cornice of brick corbelling is built in a fairly common pattern.

Building 51 corbelled cornice detail and stepped gable of western façade. Monitor and clerestory windows, segmental arches on bays.

Within the western section of the building, two rows of steel monitor windows form continuous bands on the north and south monitor walls. Concrete planks or cast-in-place concrete form the roof deck of this section of the building. Sixteen-light steel monitor windows are located within the earlier eastern monitor section. In additions, six shed-roofed 6 over 6 sash windows puncture the lower roofline of this section of the building on both the northern and southern sides of the monitor.

Building 51 monitor detail of the eastern and western sections. The earlier, western section is the right side of the photograph. The roof of Building 51A is in the foreground. The Water Tower is visible in the background.



Northern façade of Building 51 facing east.

Western facades of 51A (foreground) and 51, facing north.

The building once contained many windows, with steel frame and sash systems occurring in the exterior walls. An early twentieth century photograph depicts the exterior fenestration before the addition of Building 51B. The steel-frame clerestory windows are typical awning-type operable sash glass windows. The upper band of windows were operated by a rack and pinion mechanism, connected to a chain pull device operated from the floor. Although their current functionality is unknown, they constitute an interesting historical feature of the building. The fenestration of the window bays and monitor are typical of early twentieth century mill buildings and are in relatively good condition from a prospective preservation and reuse standpoint.

Building 51 clerestory windows and opening mechanism.

The roof exhibits significant water penetration throughout, and is partially collapsed on the southeast corner of the building. However, from a historic architectural perspective, the building remains relatively intact and has not suffered significant irreversible alterations to the original workmanship, materials, feeling and design. Overall, the building is a rational expression of an early twentieth century industrial mill building, and exhibits a degree of architectural ornamentation in the masonry work.

Building 52

Building 52 is the larger of the two buildings under consideration, and is located immediately to the north of Building 51. It is approximately 150 feet wide and 580 feet long, and comprises approximately 87,000 sf. Currently Building 52 is used for automobile storage. The masonry and steel-frame facade is constructed in a common header bond pattern and is oriented on a north-south axis parallel to the railroad tracks and the river. The building features a steel- framed roof truss system with distinctive saw-toothed roof monitors. The roof and walls are sufficiently stable to provide non-climate controlled protection suitable for its current use of auto storage.

,

Building 52 once featured a double set of steel framed windows in openings set one above the other in each of the bays. A simple corbelled brick detail, similar to that of Building 51, is visible at the cornice. Additional corbelling occurs above the upper windows. The rooflines of the northern and southern elevations feature a simple single-stepped gable. The building has a concrete plank or cast-in-place roof deck (cannot be determined without further detailed study) on a steel truss roof system and a concrete floor. Steel columns run north to south, roughly dividing the building into two long bays.

Adjacent to the northern end of the building, two overhead traveling gantry cranes survive as important historic industrial artifacts. A plaque indicates a 7,000 lb capacity. The cranes give evidence of the building's former manufacturing use.

Building 52 saw-toothed roof on eastern elevation off River Street.

Building 51 interior of eastern elevation.

From an aesthetic and architectural design standpoint, the removal of Buildings 52A and 52B have left "scars" on the western façade. The lower set of windows has been filled with concrete block and the masonry face has been painted. These alterations, however, are reversible and have not drastically compromised the integrity of the building. The upper windows on the western facade still admit light. The upper and lower window openings on the eastern facade facing River Street have been covered with plywood.

Almost all of the windows in the southern elevation, which faces Building 51, have been filled in with brick or concrete block. The pulley system still remains in the windows in the saw-tooth monitor, similar to the rack and pinion mechanism and chain pull device found in Building 51. The functionality of the window opening system is unknown, but it constitutes an interesting historical feature of the building.

Building 52 Southern elevation.

Western façade of Building 52 where Buildings 52A and 52B once stood attached.

Building 52 still retains integrity of setting, design, materials and workmanship, although historic and modern alterations have somewhat compromised the fenestration. It appears that the alterations are reversible, however, and we believe, from an historic architectural perspective, that the structure is a good example of an early twentieth century industrial building.

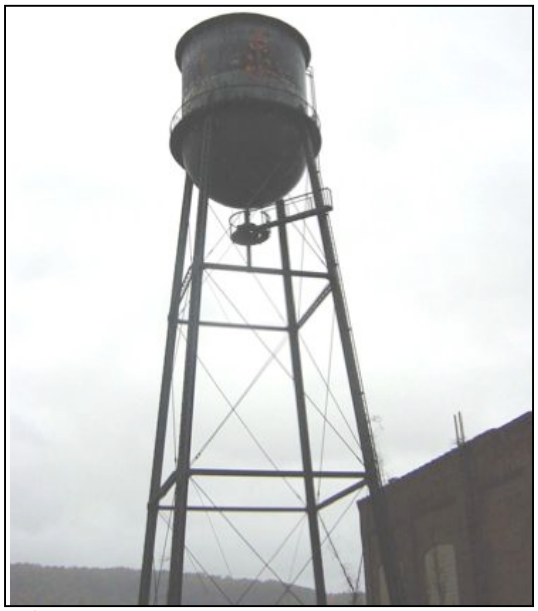
Building 52. Historic crane is an industrial artifact.

The Water Tower

The Water Tower is located on the western edge of the property, immediately west of Building 51, with the Anaconda lettering still slightly visible. According to the 1924 Sanborn map, the 75,000 gallon Water Tower stood approximately 80 feet tall. A historic photograph from the 1960's or 1970's depicts Building 51 and the Water Tower. It stands unaltered and clearly conveys its historic use.

The Water Tower is not specifically associated with any particular industry at the former Anaconda plant. A second water tower, which has since been demolished, was located further south along the waterfront. The Water Tower is a typical feature of industrial complexes and is consistent with early twentieth century industrial complexes.

However, as a vertical focal point within the former complex, the Water Tower may have



The Water Tower

intrinsic value as one of the very few remaining vestiges of the village's industrial birth and boom years. The AR website refers to the "historic water tower" at the One River Street site, and many historic photographs include this water tower as an intentional central focal point. It exhibits rust typical of any structure that is almost 100 years of age. Like many iron or steel truss bridges built during the same period, the Water Tower is certainly not beyond rehabilitation and preservation. However, it is □ purposes, rather than rehabilitation for active water storage. The remediation of the soil upon which the Water Tower stands, however, will ultimately be a major factor in the feasibility of the preservation of this structure.

It is likely that the current location will be included in the "Shoreline Containment Area" which will likely preclude driving new piles for a foundation due to deed restrictions. The water tower will likely need to be relocated inland or to the south in the former Building 15 area if is reconstructed.

2.4 Historic Industrial Context

The site history and the architectural merit of specific structures associated with the former Anaconda Wire and Cable Company has been presented. By studying the remaining structures at the former Anaconda Wire and Cable Company site, and considering the significance of that site within the *context* of other industrial resources in the Hudson River Valley *region*, we can better approach the final consideration in this Historic Evaluation. The objective of the Historic Evaluation is to answer the question of whether the buildings are worthy of preservation, rehabilitation, restoration or reconstruction from an historic architectural standpoint and a cultural perspective.

Looking north to south along the Hudson River Valley, a number of industrial sites are notable, which have been preserved, redeveloped or adapted for modern uses. Many have involved reuse of historic industrial structures, while other projects have been located on properties that had been completely cleared. The following list is not by any means a comprehensive account of comparative industrial resources, but is intended to provide a general industrial context to facilitate the assessment of the relative significance of the former Anaconda site.

Numerous industrial redevelopment sites exist in the Albany/Troy/Cohoes area. Presumably one of the best extant resources is the administrative building of the former Burden Iron Works. It has been preserved and converted into a museum that showcases Troy's industrial history. The iron company produced horseshoes for the Union Army during the Civil War. The distinguished brick Romanesque Revival building was constructed by 1882. It is the only extant building from the former iron works. The Hudson Mohawk Industrial Gateway has adopted this building as their current office. They also maintain the RiverSpark Visitor Center in Cohoes, which is housed in the former 1874 Cohoes Music Hall building.

In Cohoes, the former Harmony Mills are some of the best surviving Victorian textile mill buildings in the nation, according to the Executive Director of the Hudson-Mohawk Industrial Gateway. The complex was once one of America's largest textile mills, and the recently planned adaptive reuse scheme features preservation of eight historic mill buildings. After standing vacant for many years, the construction of almost 100 loft apartments is underway, with future phasing of development being planned.

The former Rensselaer Iron Works in Troy began operations on the Poestenkill Creek in the mid-nineteenth century. It is currently the site chosen for the proposed Upper Hudson Rivers and Estuaries Satellite Center—an estuarine research facility. In addition to the research facility, the project includes opportunities for public access to the Hudson River. The proposed center would adaptively reuse the former nineteeenth century iron and steel mills. These steam-powered rolling mills once rolled rivets and made deck plates used in the construction of the U.S.S. Monitor, an 1862 Stealth Bomber. Rails for the Transcontinental Railroad, were also manufactured here, and the works were once considered the foremost rolling mill in the country.

In the Lansingburgh neighborhood of Troy, Powers Park Lofts features eighteen loft condominiums created within a former nineteenth century masonry textile mill building. The 1903 freight elevator was removed and salvaged, and stands on display within the restored building.

Also in Troy, from 1826 to the 1950's foundries

cast bells that were shipped to cities worldwide. A reproduction of the original Liberty Bell, cast in Troy, hangs today in Independence Hall in Philadelphia.

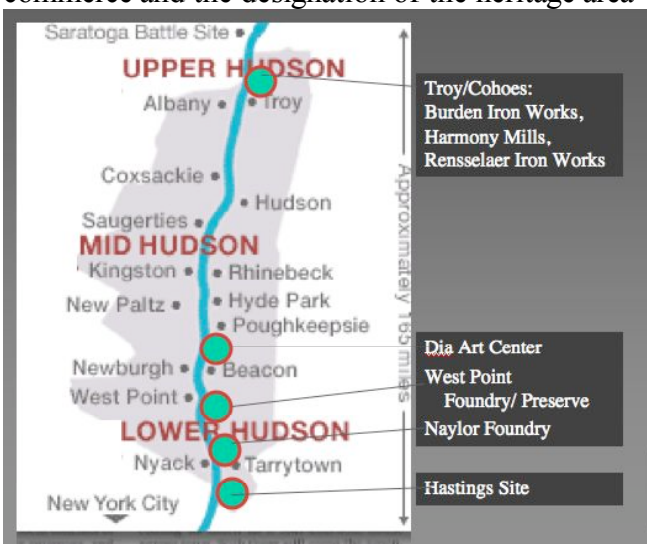
The West Point Foundry and Preserve in Cold Spring, Putnam County is listed on the National Register and was home to the West Point Foundry from 1817 to 1884. After the War of 1812, the site was chosen for a weapon foundry and gained renown during the Civil War when it produced the Parrott gun. [16]The foundry was one of the most innovative and productive industrial facilities at the dawn of the Industrial Revolution. The site now contains foundry ruins including the boring mill, blast furnace and ruins of the casting house where President Lincoln once visited. It is a reasonably significant industrial archaeological site and is now open to the public for tours.

Most of these once significant sites representing a mix of eighteenth, nineteenth and twentieth century American industrial complexes called the Hudson River valley home. Intact industrial complexes are not ubiquitous in the river valley. Tracts were cleared during urban renewal efforts, environmental remediation activities, or due to the pure economics of redevelopment and specific site constraints. In light of the current condition of other historic industrial facilities in the Hudson River Valley, it appears that the former Anaconda Wire and Cable Company plant and the remaining Buildings 51 and 52 and Water Tower associated with that site, appear to be relatively good examples of extant industrial resources within that context. The plant, including its evolution of ownership and varied products, had far-reaching influences.

The buildings under consideration are relatively unaltered from their original designs and configurations. They are representative examples of solid and rational early twentieth century industrial design, but are not without intentional decorative architectural embellishment.

2.5 Preservation Considerations

From the sugar refineries opening in 1849, to the post WW II boom years until 1975, the riverfront industries have played a central role in the life the Village of Hastings-on- Hudson community. When considering the significance of the former Anaconda Wire and Cable Company site, its location and contribution within the geographic boundary of the Hudson River Valley National Heritage Area should not be overlooked. The former industrial site embodies the theme of commerce and the designation of the heritage area



Hudson River Valley National Heritage Corridor: Industrial Site Examples

[16] Hudson River Valley National Heritage Area website: http//www.hudsonrivervalley.com.

recognizes the historic importance of the valley as a "Corridor of Commerce."

However, most of the current site has been cleared, leaving just two large buildings and a random mix of ancillary structures dating from the same period as the buildings under study up to the mid twentieth century. In its heyday, six to seven dozen buildings once comprised the South Mill, Central Mill and North Mill sections of the Anaconda Wire and Cable Company. However, buildings have been demolished over the years as safety and site access required.

Considering the extent of building fabric that has been demolished, it could be said that the historic industrial setting has been drastically compromised. As a result of these changes, gaps in the industrial function and organization of the property occur. The buildings do not convey their specific function in relation to other extant buildings, or hint to the site's once massive employment force. Neither the buildings nor the site reveal the varied products that were once manufactured before, during and after Anaconda ownership—sugar, pavement, brass, copper wire, insulated wire, lead covered cable and munitions, and the importance of the Hudson River in these operations. Except for the overhead cranes in Building 52, there are no tools remaining that would illustrate the buildings' industrial uses—no spools, equipment, or raw materials--the buildings have in essence been decommissioned.

The transition of the site's production and appearance as it was shaped by the historical forces of the economy and two world wars, and the relationship of the three structures within any of the former periods of production has been significantly diminished by the recent required demolition of several buildings. The interrelationship of the once extant buildings and structures with respect to the river, the railroad and among themselves is not readily evident to the uninformed bystander.

Furthermore, considering the SHPO's determination circa 1989 that the then extant buildings on site were not eligible for the National Register, it can therefore be said that they were not deemed to be significant. When an intact industrial site, the former complex was more significant from a cultural and historical perspective than the remaining individual structures. However, given this demolition of an important portion of the historic complex, Buildings 51, 52, and the Water Tower are locally significant, even if not nationally-- because they survive to help tell the story of that once flourishing complex. Former industrial buildings, in relatively good condition, with the ability to convey their general historic use and tell a story of the community's past, provide opportunities for preservation and adaptive reuse.

After consulting representatives of local historic organizations and reading the historic accounts of the former Anaconda Wire and Cable Company, it is difficult to assess the worthiness of preservation without introducing a degree of subjectivity into the process. The unique opportunity for the preservation of Buildings 51, 52, and the Water Tower, their potential reuse as components of a waterfront redevelopment scheme, and that project's potential future economic benefit to the Village of Hastings-on-Hudson, appear to be desirable considerations in the opinion of preservationists, historical organizations and some (though not all) community residents and officials. One River Street refers to the "historic Water Tower" in a photograph on their website. But is it considered historic simply because it is old, or because it functioned as a component of a once thriving industrial complex, including its dramatic decline, and because these periods shaped the cultural

landscape and built environment of the Village of Hastings-on-Hudson?

Preservation and reuse of the structures in a modern setting without the integral *interpretation* of their historic function and relationship to the former industries on that site would constitute an overlooked opportunity for most accurately preserving the physical vestiges and telling the story of the village's industrial heritage.

Some benefits of preservation are intangible. Conservation efforts are grounded in a community's pride in its history and traditions, and in residents' interest and involvement in retaining and interpreting a landscape for future generations. Preserving the integrity of the cultural landscape and local identity means that future generations will be able to understand their relationship to the land and the built environment. Historic preservation provides educational and inspirational opportunities, which can encourage residents to stay in a place, or visitors to choose the site as a destination.

Were the structures to be preserved and rehabilitated for future reuse, there is real potential for them to be not only a focal point along the redeveloped Hastings waterfront but to offer a glimpse of the village's industrial past. Mixed use or strictly residential development projects along the Hudson River Valley have been or are currently being undertaken on former eighteenth, nineteenth and twentieth century industrial sites. Some of these projects have incorporated the remnants of former industrial structures for modern uses. Others just occupy the sites where former industries were located.

However, given the known environmental concerns on the former Anaconda Wire and Cable Company site, the concept of preserving Buildings 51, 52 and the Water Tower for future reuse needs to be balanced against the remediation considerations that have yet to be completely determined. Although a waterfront redevelopment project incorporating historic structures is certainly buildable from an engineering and architectural standpoint, the next logical question to ask is whether it is *economically feasible* to remove contaminated soils from around the structures in question, to stabilize and reposition the Water Tower after remediation of the underlying soils at its base, to import clean fill, and to redevelop the site by incorporating the rehabilitated structures, while ensuring the health and safety of future inhabitants and visitors.

Although not the focus of this section of the report, the financial considerations involved with remediating and redeveloping the site both with and without the historic structures will be a key factor in the ultimate decision to preserve or remove the historic structures.

Despite the loss of the historic context, the buildings and the Water Tower retain sufficient historic association with the community to warrant at minimum the *consideration* of preservation and adaptive reuse concurrent with the necessary remediation studies and possible mitigation activities that may occur on site.

As summarized in the LWRP, the desire to re-use structures is desirable given the historical connection to the growth and character of the village and the drama created by the larger spaces. However, the challenge will be to identify a building or buildings with the desired characteristics for which the potential constraints to re-use—building or soil contamination, view obstruction, location in flood plain, impact on scale and cost of rehabilitation, can be overcome or minimized.[17]

[17] Local Waterfront Revitalization Plan, (LWRP), Village of Hastings-on-Hudson, 1999

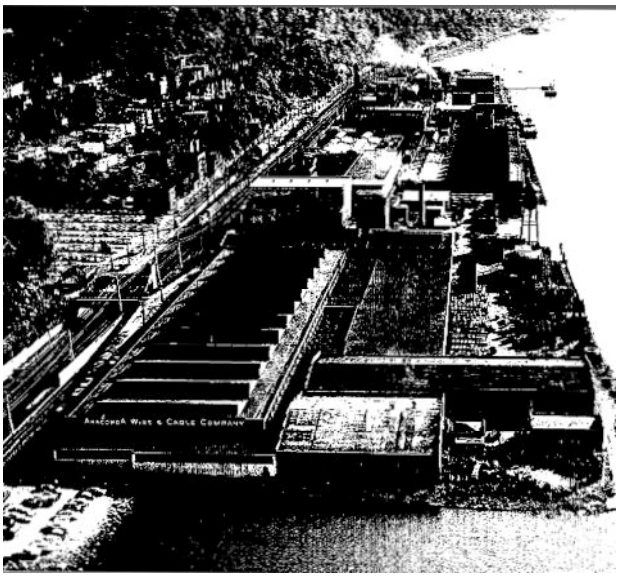
Decommissioning and demolishing much of the industrial fabric of the former Anaconda Wire and Cable Company site has resulted in the significant alteration of the historic setting that once encompassed Buildings 51 and 52. The buildings' association and specific function within the former wire and cable millcomplex are evident only to the extent that buildings of such massing, and which exhibit similar fenestration, would have obviously functioned as a mill, machine shop, or warehouse, as opposed to an office building, for example.

The structures exhibit solid, rational form and are able to convey their general original uses as industrial mills or warehouses. The original footprints stand relatively unaltered, and the historic alterations in fenestration are reversible.

In summary, although the SHPO did not find Buildings 51 and 52 to individually meet the criteria for the National Register of Historic Places, their significance as extant historic industrial architectural resources, which were components of a community's industrial heritage with national influences, should not be overlooked.

While the remaining Buildings 51, 52 and the Water Tower of the former Anaconda plant do not possess strong spatial associations with the former industrial site, they nevertheless possess a physical integrity and high degree of representativeness which is becoming increasingly rare in the regional industrial context.

They are certainly notable in the context of the altered site, as they are the last remnants of some of the oldest structures on the waterfront.



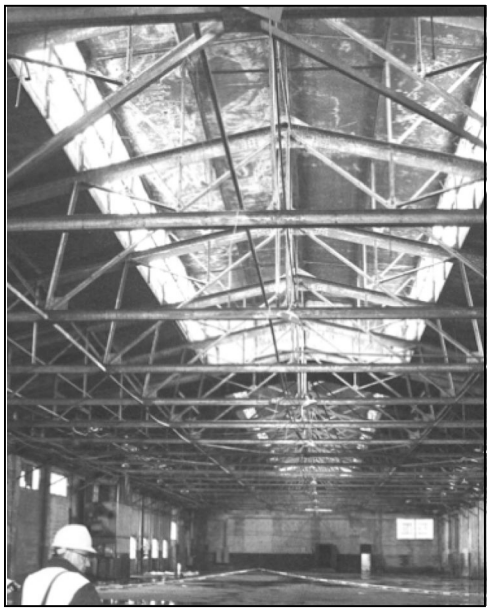
The site in its industrial heyday, with the sawtoothed roof forms of Building 52 in the left foreground.

3. Building/ Structural Analysis: Description and Existing Conditions

Building 51

Building 51 is a single story, column free, long span roof structure that was originally used for manufacturing. The structure consists of brick masonry bearing walls at the perimeter with steel columns at 15 feet +/- on center, buried in the brick piers along the walls. The building was apparently built in two phases as the roof structure changes at about the 1/3 point of its length. The roof structure of what we believe to be the original building is 13 bays of long span steel trusses with wood roof rafters and wood planking. The adjacent later built section consists of steel roof trusses and what appears to be a concrete plank or even a cast in place roof surface. Foundations are not visible but are assumed to be pile supported, given the close proximity to the waterfront and team member (Robert Silman Associates) designs of several new buildings along the same Hudson waterfront, further north.

Inside Building 51, facing north



Long span trusses and light monitor

Structure

The wood section was cordoned off due to numerous structural failures of the wood joists/rafters and wood decking. The steel trusses all appeared to be in good condition with no signs of deterioration, despite the extensive leaks. (At the time of the visit, heavy rains were occurring and the roof was leaking severely in numerous locations.) The wood joists (3" x 10" at 24" o/c) at the top of the monitor roof appeared to be in good condition. At the lower sections of roof (3" or 4" x 8" @ 48" o/c), below the monitor, there were several areas of total collapse of deteriorated wood and numerous areas of severe to moderate water damage. It is our recommendation that this remain cordoned off and that eventually, total replacement of the joists at this elevation be undertaken. At the interior, there are several columns/piers that exhibit cracks vertically along them. This is typically a sign of rusting and delamination of the steel column buried with in the brick.

The concrete roof section is in better condition. There was little sign of deterioration of the concrete despite evidence of several leaks, particularly at drains. A further evaluation,

perhaps including probes, should be undertaken. At the west garage door, a diagonal crack exists over the door. This can be a result of either settlement or, more likely, some sort of lintel deflection or failure. Once again, there are cracks on the piers where the steel columns exist at the first two columns starting from the northwest corner. The cracks also form on the side of the pier where the pier connects to the brick wall. This is further evidence of steel delamination and the force of the steel pushing out the brick pier from the wall. On the north wall, seven bays from the west, there is extensive brick delamination over the garage door to the exterior. There is also extensive damage to the base of the brick walls due to wicking action of moisture up from the ground into the walls. This is a common phenomenon that occurs in masonry where water migrates up through wicking action, into the wall. Through the freeze thaw cycles of an unheated building, the surface of the brick can fail due to moisture constantly present in the material.

Exterior walls

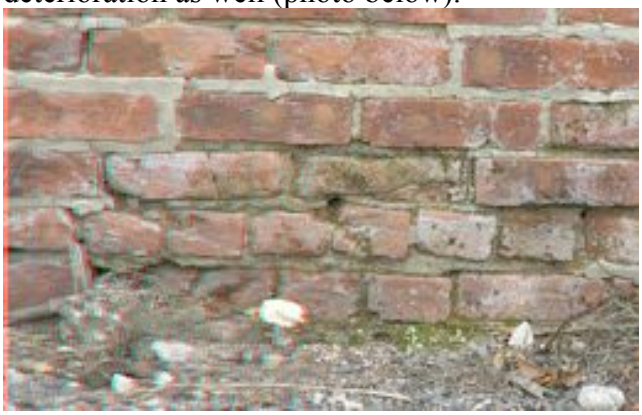
The exterior walls of this building are brick masonry with infill of cmu at former window openings. At the west elevation, there are settlement cracks at the north end (photo below).

This could be the result of a foundation settlement or pile failure and should be investigated further. The parapet is also deteriorated in places, probably due to long term water damage (photo below).

It is also leaning out (photo below) as a result of either lateral forces (wind) or water and freezing action. At the base of the building, the face of the brick has spalled off in spots due to water wicking and freeze thaw (previously explained above).

At the north elevation, the cracks previously described at the interior at the steel columns, also reflect themselves at the exterior in numerous locations (photo below).

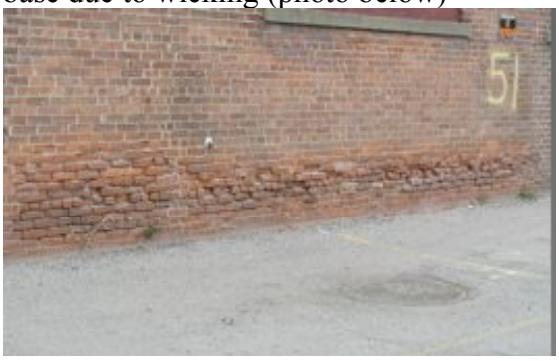
This should be probed to determine the condition of the steel column and to verify that the structure is sound. From what we see, it appears that this is an early stage of cracking and the delamination is probably minor. The bottom of the wall consistently shows sign of mortar deterioration as well (photo below).



This is probably due to moisture wicking and appears to have been patched previously. In fact, much of the patching mortar appears to be of a poor and inconsistent quality.

The south wall is for the most part covered by the metal storage building that runs alongside the exterior wall. Portions of this wall are visible from the interior (a parking garage). For the most part it is in good condition, probably due to the protection of the metal building. One of the former wall openings has a crack over it and there are some signs of leaks but nothing is of a serious structural concern.

The east wall has extensive deterioration at the base due to wicking (photo below)



as well as cracks at the second window (photo below),

and near the north door opening (photo below).

The mortar is also deteriorated particularly above the door (photo below).

Recommendations

As noted above, we recommend that the interior of this building under the wood framed section, remain cordoned off to the public. Collapse of sections of the roof is imminent. In the long term, this roof should be repaired by replacing all of the wood framing with in kind framing and plywood and/or tongue and groove decking. Close up evaluation of the steel trusses is also recommended, as there could be hidden conditions, particularly where they disappear into masonry, that warrant repairs. At the steel columns, the brick should be removed where cracking is evident, and evaluation of the steel performed. It may also be wise to open up several that do not exhibit problems to set a baseline for level of deterioration based on visual examinations. Once the steel is opened, the long-term repairs would be to power tool clean the surfaces of steel that are delaminated, and recoat with a rust inhibitive coating. This would mean removal of all of the brick that surrounds the column both inside and out. The brick can then be replaced in kind.

At the exterior and interior walls, repairs can be made to cracks by either stitching in new replacement brick, or repairing the crack with a repair mortar such as SIKA 35 Hi-Mod LV epoxy resin or similar. In locations where brick is spalling or sever wicking is occurring, the brick should be replaced in kind with new brick and a mortar that matches accurately the original building mortar. A conservator through testing the makeup of the original mortar can ascertain this. A drainage course at the base of the wall below grade is also recommended to help alleviate any future wicking.

Repointing of the entire building (and all buildings in this report) must also occur. This is critical to the success of the performance and longevity of these walls. It must also be done properly. It is imperative that a mortar be selected that matches the properties of the original mortar. A conservator can ascertain this. This is critical as if too hard a mortar is used, the face of the brick will begin to spall. If too soft a mortar is used, the opposite can happen and water penetration is more readily accessible.

Building 52

Building 52 is a single story, long-span sawtooth roofed building that was originally used for manufacturing. The structure consists of brick masonry bearing walls at the perimeter with steel columns at 16 feet +/- on center, buried in the brick piers along the walls. The building was once supplemented with adjacent buildings, large concrete block and steel additions (52A and 52B), although recently the remaining section to the west was demolished. This is evidenced all along the west side by the demolition marks and existing slabs that remain. The roof structure is approximately 21 bays of steel trusses with intermediate steel framing between the trusses and interior steel columns. The roof is concrete plank or poured in place concrete (not confirmed due to inability to closely observe roof).

There is also a substructure of steel beams and rails for a traversing crane, which appears to still be relatively intact.

Foundations are not visible but as with building 51 are assumed to be pile supported, given the close proximity to the waterfront and team member designs (Robert Silman Associates) of several new buildings along the same waterfront, further north.

Structure

The structure in general appears to be in good condition. There were several cracks noted in the existing walls at the interior. Most of these appear to be similar to building 51 where the steel columns are buried in brick exterior walls and deterioration may be occurring due to water penetration. In addition, there is an interior construction masonry unit (cmu) wall (not original) running east west that is about midspan along the north south direction that has a diagonal crack at about the centerline near an original column. This wall was probably placed on the existing slab on grade and some settlement has resulted in this crack. Some of the roof deck has been replaced with metal decking. This could be a sign of prior damage or an infill of a roof penetration. There are signs of extensive water penetration throughout the roof structure, though little damage seems to have occurred. We did note that several column bases are deteriorated due to water damage and will require repair. Lastly, there is the same wicking damage at the base of the interior walls that appear in building 51, particularly at the east wall.

Exterior walls

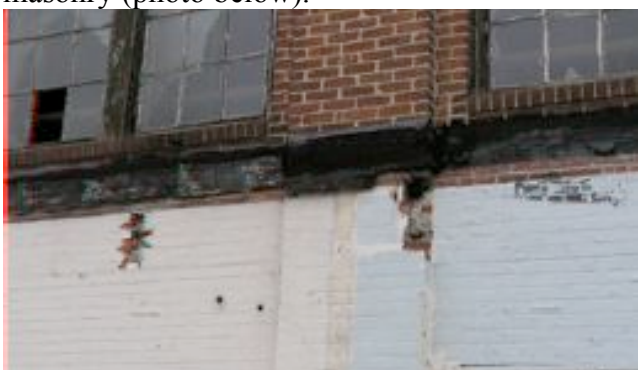
The exterior walls are similar to building 51 and are brick masonry with infill of cmu at former window openings. Given the sequence of construction, it is likely that the west wall, in spite of its appearance, was originally an exterior wall, although it is not entirely clear due to many alterations and coverings. Four piers were found to have vertical cracks similar to building 51. The tops of the steel columns are actually visible at this wall and some deterioration is evident (photo below).

There is also severe deterioration at the base of a pier that appears to be due to impact (photo below).

At eight columns/piers, the brick covering over the piers has been removed and the steel is exposed. It appears that this may have occurred during demolition. These columns are now exposed to the elements and will deteriorate rapidly if left unprotected. At the piers, the brick above the tops of the columns appears to be supported on steel lintels (photo below).

This may have been due to the fact that the adjoining roof ended at this elevation and the brick continued above this point—evidenced by the roof tar that remains at this location. These lintels may have been added when the adjoining building was erected separately and the brick wall removed. The only other possibility is that this was originally one contiguous building as the brick is only above the roof.

Unfortunately, much of this steel is now exposed to the elements. There are also numerous locations where damage has occurred to the masonry (photo below).



or to remaining steel crane structure due to the recent demolition (photo below).

This leaves several precarious situations of steel hanging off the building or loose bricks allowing water to penetrate and freeze. This could become a safety hazard and should be addressed. At one location, there is a section of brick that must have been removed during the demolition that has resulted in the pier above it being unsupported (photo below).

This too is a dangerous condition. Lastly, the northernmost pier is damaged, probably due to demolition, including missing brick and a large crack (photo below).

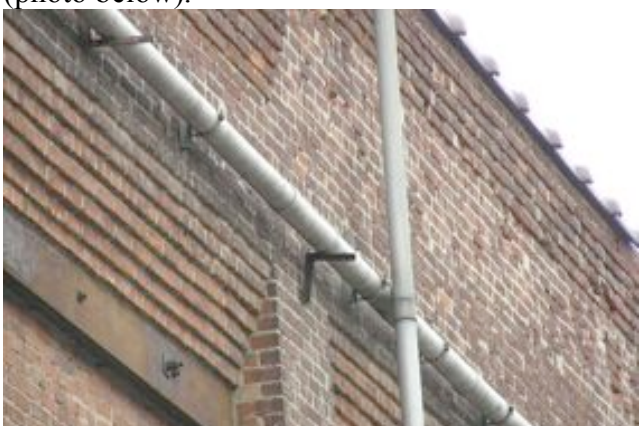
The north façade was only partly accessible as its fence was locked at the time of the site visits.

However, most of the facade could be seen from a distance. In general, this section appears to be in poor condition, mostly due to the prior demolition. The tops of all of the piers are in different states of disrepair due to the building removal pulling down sections of brick (photo below).

This must be addressed as there are instabilities in the brick above and the winter will bring more damage through freeze-thaw. Extensive pointing is also required throughout this façade (photo below).

The south façade is also partially inaccessible due to fencing. However, we were able to access this area at a different time to ascertain enough information on its condition. The base of this elevation is consistently in poor condition due to wicking damage. If left alone, this wall will continue to deteriorate and severe distress will occur (photo below).

A section of the parapet towards the east end may require replacement, as it is exhibiting signs of rotation, brick delamination, prior attempts at repair, and severe joint recessing, though the photo does not fully reflect what is occurring (photo below).



Lastly, a pier is delaminating from the column and requires removal and/or stabilization due to potential for freeze/ thaw failure (photo below).

The east façade has most of the typical problems we have found at all elevations, particularly the

loss of bricks at a column and cracks at piers (photo below).

The latter is very common on this elevation. The sills below the window that are concrete are cracked at several locations and should be replaced or repaired (photo below).

There is one brick pier at about the mid point that has an unsupported section above an adjacent roof and should have a lintel installed (photo below).

At many of the piers, there is a steel tie plate of unknown use that is exposed on the exterior (photo below).

Though these plates appear to be in good condition, they should be better protected with a rust inhibitive primer. At the north end, the parapet is in poor condition due to loss of mortar and brick face (photo below).

Lastly, the northernmost pier is in very poor condition, primarily due to the adjacent demolition (photo below).

Recommendations

As with building 51, repairs can be made to all brick elements (cracks, wicking, pointing etc.), using the methods described above. In addition, there is extensive brickwork and steel repair required at all locations where demolition has occurred. This will entail the replacement of missing brick and toothing in with new brick and matching mortar. Where brick is unsupported, new steel angles should be bolted into the existing brick and dry packed tight to the underside of the unsupported brick. Where parapets are in poor condition, these should be repaired, stabilized or removed as soon as possible to prevent a dangerous condition. Until such time, these should be cordoned off (most are) and monitored regularly.

With respect to the structure, the steel bases and structure that are deteriorated can be cleaned of all rust and coated with a rust inhibitive primer. In the case of locations that have severe section loss, steel plates can be welded into place to reinforce them to their original capacity.

Water Tower

The water tower is a steel framed structure with a steel water tank supported at its top (19). The structure is made of built up steel beams and columns along with steel rod cross bracing for lateral load. The bases may sit on concrete piers and are presumably pile supported. The structure is protected by a fence and inaccessible.

The steel structure appears to be in very good condition. There was no distress noted at the time of the visit. Our only concern would be for the condition of the steel bases that may or may not sit on concrete piers. These bases may also be buried in the ground. That could pose a problem, as the steel will deteriorate if exposed to earth. This should be verified and evaluated.

Recommendations

The only recommendations at this time would be for a thorough, up-close survey (perhaps with a lift truck) to more carefully access connections and steel conditions. The bases should also be looked at more closely.

4. Preservation: Compatibility with Remediation Plan and Reuse Options

4.1 Compatibility with Remediation Plan

In evaluating the feasibility of structure preservation, three elements of the overall remediation plan will impact the ability to preserve Buildings 51, 52 and the water tower. These elements—which were described in more detail in Section 1.3.1 and 1.3.2 of this report—are as follows:

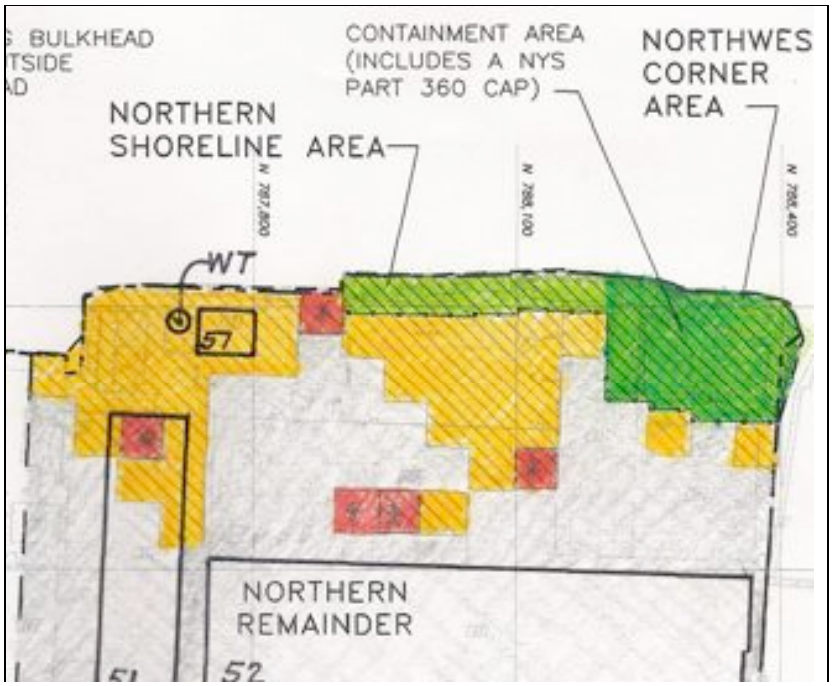
- Excavation of PCBs to a maximum depth of 12 feet and replacement with clean fill;
- Excavation of isolated pockets of PCBs to a depth greater than 12 feet and removal and/or construction of containment cells with sheet piling;
- Construction of a 5 foot contact barrier and soil cover over the entire northern area.

Implementation of these work elements will affect each of the three structures in the following ways:

Building 51

Approximately one-quarter to one-half of the area of Building 51 falls within the area slated for excavation to a maximum depth of 12 feet. This area is within the western part of the building as shown in yellow in the Selected Remedial Alternative (figure repeated adjacent).

Although it would probably be feasible to conduct this excavation within and immediately adjacent to the building, it would be extremely costly to do so. Excavation would have to be staged to minimize destabilization of existing building exterior walls, foundations, pile caps and piles. Existing foundation walls would have to be progressively stabilized with appropriate shoring during excavation. As excavation uncovered the pile caps and piles, wood piles would be exposed to the air for the first time since their installation over 100 years ago; deterioration of the piles—especially at the water line—would be a serious concern. The presence of marine borers, if found, would also complicate the excavation. This condition would require the piles to be encased in concrete to protect and reinforce them.



Selected Remedial Alternative

- Containment Area (Northwest Corner and Northern Shoreline) *Excavation of PCBs (max. depth of 9ft)*
- Excavation of PCBs *(maximum depth of 12 ft.)*
- Isolated pockets of PCB contamination *(to depths >12 ft.)*
- Northern Remainder *(5 ft. contact barrier and soil cover)*

Another issue would be the instability of the entire foundation system. The piles depend on the earth surrounding them for stability. Once the excavation started and the piles were exposed, they would quickly become unstable as the excavation deepened and the bracing of the piles were lost (like toothpicks holding up the building). Temporary lateral bracing would need to be installed (cross bracing of heavy timber and/or steel) as the excavation extended downward. Once the contaminated fill was completely removed and the bracing installed, the new replacement fill could be installed, burying the temporary bracing in place. This process would be extremely expensive.

Although the area subject to excavation will likely become more clearly defined as further investigations are completed by the engineers responsible for designing the detailed remediation plan, it is our opinion at this time that excavation of contaminated soils beneath Building 51 will not be cost effective and will likely result in the need to demolish at least part of Building 51. This conclusion should be re-evaluated, however, as more detailed information about the boundaries and depth of excavation become available.

Several concentrated pockets of contamination are also illustrated on the "Selected Remedial Plan". One of these falls within the area of Building 51—close to the west façade. Similar issues related to the wider excavation would apply to this work element although it might be more feasible to complete this remediation task if the area of the pocket was relatively small and located as far from the west foundation wall as possible. However, uncovering wood piles—and probable conflicts with pile caps—would also be problematic. The need to remediate both widespread and deeper concentrations of contaminated soils complicate the situation, reduce the likelihood that these could be accomplished in a cost effective manner and confirm our initial finding that preservation of Building 51 in its entirety could probably not be accomplished in a cost effective manner.

The need to install an additional soil cover of approximately 5 feet within the area of Building 51 as well as surrounding it, is the most cost effective remediation element to achieve. This would require waterproofing of exterior masonry walls, the possible encapsulation of steel columns below new grade levels, and installation of a perimeter pipe drainage system, surrounded by porous fill around the exterior of the building. However, the effect of the fill loading on the integrity of the underlying slab and piling system has not yet been considered. There is the potential that the filling would overload the underlying piling system making construction of a new flooring system difficult. Implementation of this remedial work element alone could be compatible with the preservation of Building 51 in its entirety.

Building 52

Of the three structures under investigation, the preservation of Building 52 in its entirety is the most compatible with implementation of the selected remediation plan. The only work element that affects possible preservation is the installation of a soil cover both inside and around the building. As in the case with Building 51, some form of waterproofing should be installed together with foundation drainage. A breathable product designed for underground use should be applied to the wall prior to the addition of fill; and a perforated pipe drainage system, surrounded by porous fill, should wrap the exterior of the building. This would help alleviate any wicking problems that might occur and keep water away from the foundations. Similarly, the lower portion of the steel columns should be encapsulated by concrete. Again, however, the effect of the fill loading on the integrity of the underlying slab and piling system has not yet been considered. There is the potential that the filling would overload the

underlying piling system making construction of a new flooring system difficult.

It is possible, however, that as the remediation design plan develops in more detail, the depth of the soil cover may vary —particularly along the eastern site boundary that is naturally at the highest elevation. For example, it is possible that the ultimate soil cover placed adjacent to (and within) the Building 52 site may be less than five feet and that it may not be required within the building at all.

Water Tower

Preservation of the Water Tower will be affected by two of the same considerations that will affect Building 51: excavation of soils to a depth of 12 feet beneath the structure in its entirety; and placing of a soil cover to a level above existing grade of approximately five feet. (No deep pockets of contaminated soil have been identified thus far below or immediately adjacent to the water tower.)

Unlike Building 51, however, because the Water Tower is a (relatively) light weight steel structure—and not a masonry and steel truss building—it would be possible to disassemble the structure which would facilitate excavation of contaminated soils. Once clean fill and the additional soil cover is replaced and installed, the water tower could be re-assembled on new concrete piers placed on the existing piles to the required higher elevation if the piles are salvageable. We note that deed restrictions may prevent driving new piles if the current water tower location falls within a containment area. It may therefore be necessary to move the water tower inland or to south of the boat slip if preservation of the water tower is desired. As suggested as part of our structural analysis, the re-assembled Water Tower could incorporate a light weight tank in place of the existing steel tank; and/or the tank could be replaced with an observation tower as part of a reuse plan for the site and water tower structure.

Disassembly of the Water Tower to facilitate remediation would also be compatible with the installation of a new steel sheeting bulkhead immediately adjacent along the shoreline, which is required as part of the remediation plan. Maintaining the water tower *in situ* during this work element would otherwise be very difficult to achieve in a cost effective manner.

Conclusions: Short Term Preservation Strategy

Based upon potential conflicts between preservation objectives and the relevant remedial plan work elements as they are developed to date, the following preservation strategy is recommended for the immediate future until further analysis is prepared regarding remediation techniques, building condition and longer term reuse options:

- Undertake building stabilization work as outlined in report;
- Preservation of Building 52 in its entirety;
- Preserve Bldg.51 in its entirety pending more detailed design of remediation work to refine boundary and depth of required removal area. Careful consideration should be given to the design of the remediation work to minimize the extent of building demolition that would be required;
- Disassembly of the water tower prior to implementation of remediation work elements. Further consideration should be given to the location of the water tower in an overall site development plan, and what reuse option should be considered as part of the preservation of the structure;
- Possible reuse scenarios for each structure should be taken into account as part of the detailed design of the soil cover work element.

4.2 Reuse Options

Once remediation is complete, the site's redevelopment value should be substantially increased.

The historic value of the site has been previously discussed. The corollary point should be made that it is possible that retention and reuse of these existing buildings can enhance the market value of the uses that would inhabit them or be developed adjacent to them.

Uses Compatible with Retained Structures

To begin to define this site development potential, the team developed a preliminary list of possible uses that could be compatible with Buildings 51 and 52 and the Water Tower.

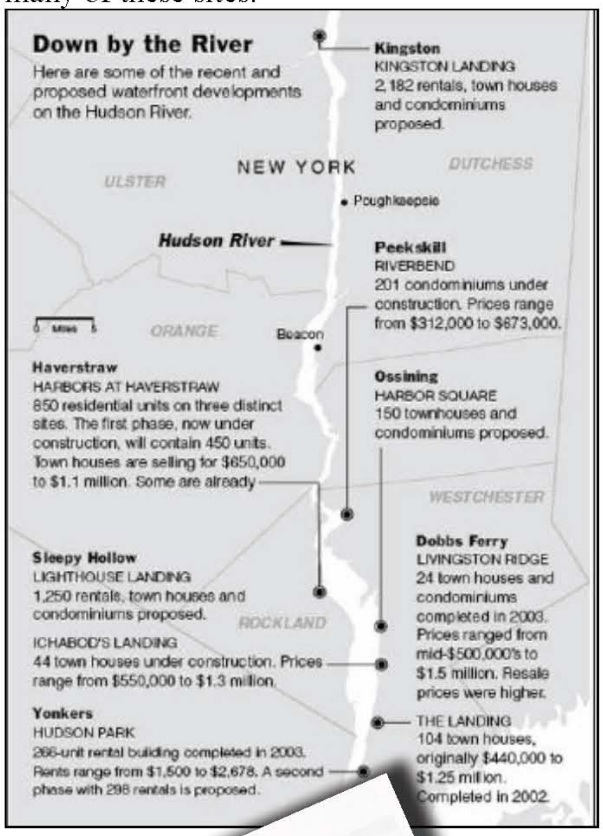
Public Use:	Museum, Meeting Space, Library, Exhibition Space, Conference Center, Performance Space
Recreation:	Skating/ Hockey, Basketball, Indoor Soccer/ Football, Gymnasium, YM/WCA, Heath Club, Spa
Commercial:	Retail/ Festival Market, Boutiques Mall, Big Box Store, Restaurants, Trade Shows, Catering Hall/ Weddings, Antiques Center
Water-Related:	Boat Sales/ Service/ Storage, Maritime Sales:
Other:	Parking, Warehousing

These are uses that could occupy part or all of the large high-volume interior spaces of Buildings 51 and 52.

Potential reuse of the Water Tower, if retained or rebuilt, is also a consideration. A rebuilt tower, housing an observation deck, wireless communications, and associated food or gift services, is an important possibility.

Other Site Development Potential

Adjacent to the historic buildings, another important use category is residential development. One important gauge of the site's potential for such use is the market experience of other similarly- located waterfront properties up and down the Hudson. A recent report in the New York *Times* (see appendix A to this report for full article) cites the success of previously industrial sites along the Hudson that have been wholly or partially converted to residential and community related uses. The adjacent diagrammatic map from that article identifies many of these sites.



Overall Site Development: Previous Plans

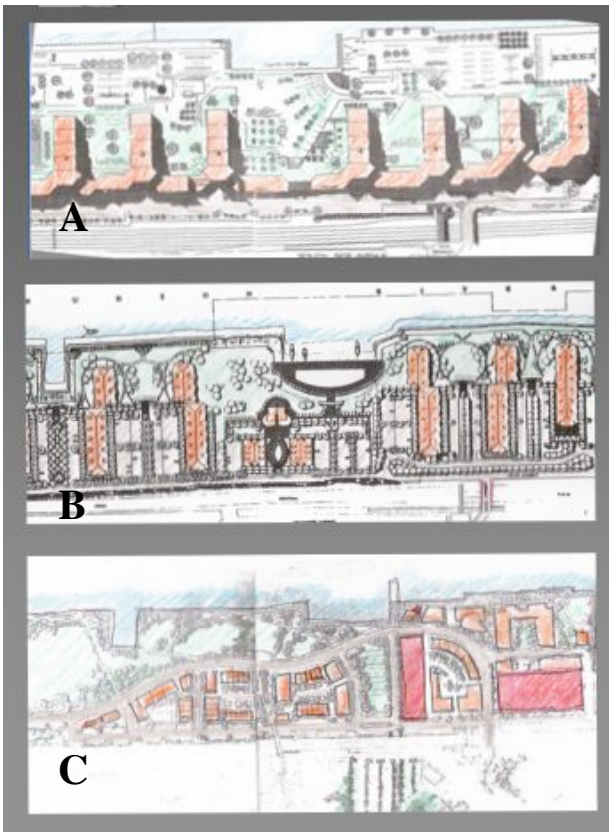
Again, the projects proposed for the site prior to knowledge of the need for remediation warrant consideration when the site is again available following the completion of remediation. The land will be free of contaminants and above the flood plain.

The concepts proposed by Howard P. Hoffman and by Harbor at Hastings both represent visions whose program and design represented what were seen to be market conditions and economic costs and benefits at earlier points in time. These assumptions can no longer be assumed to be valid. The uses are primarily residential, taking advantage of views and adjacency to village services and rail access. Auto access and circulation are problems for each. The scale and massing are a function of the periods in which they were conceived, and much of the site shown for impervious parking lot or building near the water is no longer possible due to the setback conditions include in the Federal Consent Decree. Neither saves any site structures.

More to the point as a base for reference is the 'RPA plan,' developed as part of a community design process under the aegis of the Village of Hastings-on-Hudson and the site's owners.

This proposal, also detailed in plan view to the right, proposes (without benefit of direct structural evaluation) retention of at least portions of Building 52 and all of Building 51 and the Water Tower. It fills out the site with lower scale commercial and residential uses (some of which are in 100'-0 setback areas now earmarked for eventual open space). The illustrative plan is also reproduced, focusing on the central open space extending the village's dramatic stream gully to the east of the rail tracks.

This proposal also needs to be revisited in terms of its assumptions as to remediation, costs and benefits to both the landowner and the surrounding municipality.



Plans for the property:

A Howard P. Hoffman Associates Inc., 1975

B The Harbor at Hastings Associates, 1989

C Regional Plan Association and other consultants, 2000

Perspective view looking east from water (proposed RPA plan, 2000)

Reuse Issues and Opportunities

The site conditions that have required remediation also become important determinants of development potential. The opportunities for preservation and reuse of the three subject buildings will be affected by the feasibility of simultaneously meeting cleanup requirements and stabilizing the structures. The potential development program and site plan will vary depending on whether these buildings are maintained.

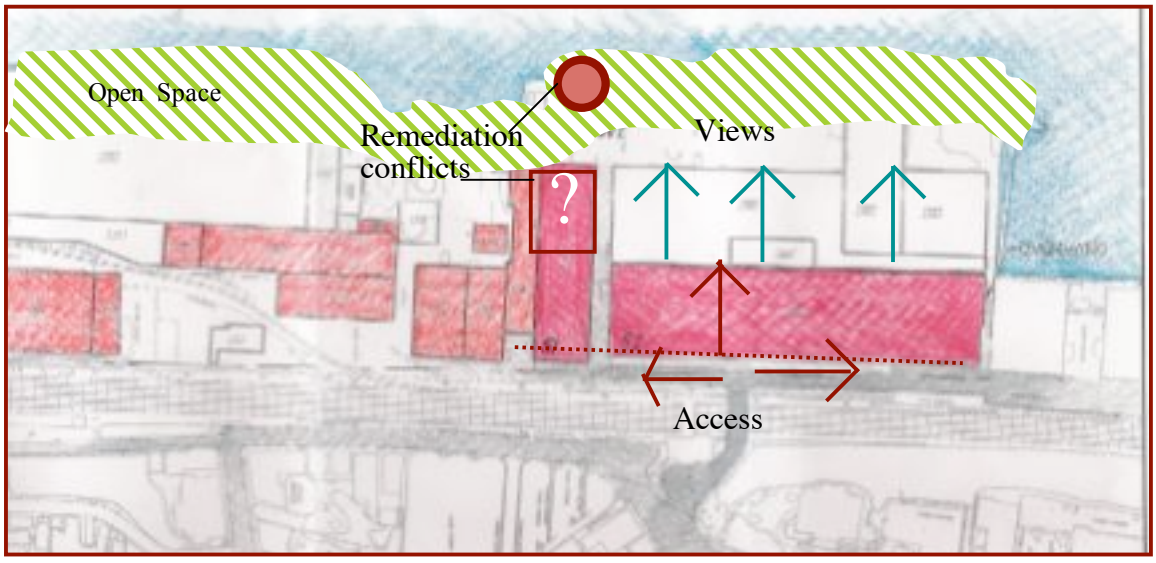
The diagram below describes some of the issues with which a next stage examination of options must contend:

- The probable loss of the western half of Building 51, due to conflict with remediation impacts, must be further examined and verified.

  Access options for entering and exiting the site at the rail bridge must be defined- whether the 90 degree ramps should be supplemented with a straight-ahead entrance into the site through Building 52.

- Similarly, additional access to the south must be examined—relying solely on one point of access may be problematic in terms of maximizing value of the property. This may require facilitation with adjacent landowners.

- The views from the preserved buildings, as well as from any new development, are some of the most valuable assets of the site. These views, and the relationship to adjacent required open space next to the water, should be a major feature of any potential plan.



4.3. Next Steps: Summary of Recommendations

In summary, our recommendations for next steps are as follows:

1. Short-Term Stabilization: Repair and Stabilize Structures

1) Building 51
- *Wood Roof*
- *Pointing*

2) Building 52
- *NE/NW Corners*
- *Leaks*
- *Windows*

3) Water Tower
- *Footing Conditions*

2. Refine Analysis/ Evaluate Remaining Structures

3. Analyze Longer-Term Development Potential

1) Detailed Research: Issues and Opportunities
- *Physical/ Market/ Infrastructure*
- *Public/ Private/ Civic Objectives*

2) Define Overall Site Development Options
- *Infrastructure/ Parcelization Options*
- *Historic/ Reuse Opportunities*
- *Land Use/ Market Program Options*
- *Extent of Building Retention/ Renovation*

3) Evaluate and Choose Implementation Approach
- *Costs vs Benefits/ Return*
- *Development Vehicle/ Implementation Approach*

Appendix A
(from New York *Times*, October 31, 2005- see p 43 of this report)

Rooms With Views Replace Factories on Hudson's Banks

Librado Romero/The New York Times

The Harbors at Haverstraw residential complex is being built in Rockland County. About 15,000 units of housing are under review or being constructed along the Hudson River.

By LISA W. FODERARO
Published: October 31, 2005

First came the gracious estates and summer getaways of the 1800's, built for New York City businessmen who yearned for Hudson River breezes and Palisades views. Then came decades of suburban-style home building, with colonial- and Tudor-style set back in hills and valleys while heavy industry and noisy trains came to dominate the riverbanks.

But now another housing boom is unfolding along the Hudson. From Yonkers to Kingston, thousands of units of town houses and apartments to buy or rent are planned for the river's edge, where manufacturing has long been in decline.

A confluence of forces - a cleaner river, empty lots created by vanished factories, a housing boom, the proliferation of suburban developers, a willingness by local officials to embrace a new source of tax revenues, and a crystallizing Hudson Valley consciousness - have come together in recent years to generate interest in building and living along the Hudson.

Almost all of the planned housing falls in the luxury category, with condominiums costing as much as a four-bedroom house inland. With it will come the amenities of a rejuvenated Hudson River, with docks, riverside dining and parkland.

The plans are not universally popular. Vehement antidevelopment efforts extend up and down the Hudson, with environmentalists and river enthusiasts joining forces to try to rein in the projects. But most of the battles are over scale, riverfront access and affordability. And it is becoming increasingly clear: The next great phase for the Hudson River is housing.

Some of the proposals are so ambitious that they would create villages within villages, leading to population increases and, some critics charge, a total change in the character of the towns. Several smaller projects are in the works as well; some have recently opened.

Sleepy Hollow, in Westchester County, is considering a plan for 1,250 units of housing on a 100-acre site where General Motors once assembled cars that affords stunning views of the Tappan Zee Bridge.

Across the river in Rockland County, construction has begun on the first of 850 units in Haverstraw, a former brick-making center.

In historic Kingston, the first state capital, in Ulster County, a developer wants to transform an abandoned cement plant into 2,182 rental and condominium apartments and town houses.

Altogether, there are about 15,000 units of housing now under review or being constructed along the river, according to an estimate by Scenic Hudson, an environmental organization. Scenic Hudson has formed a coalition with several groups to oppose the Kingston plan.

Elected officials have raised concerns about the density of the plans, but have, for the most part, embraced them, particularly in communities that have felt the sting of departing industries.

"There are two things we can do," said James M. Sottile, the mayor of Kingston, which has lost a fifth of its population since the 1960's. "We can grow our tax base or we can grow our tax rate. We're going to develop here in the City of Kingston, and we're going to do it responsibly."

But some of the same groups that helped defeat a proposal this year for a huge new cement plant in Columbia County have now shifted their attention to what they call the new megaprojects. They say the developments will introduce sprawl to the banks of the Hudson, with its implications for traffic, visual blight and pollution runoff.

They also fear the upscale nature of most of the proposed housing, saying the developments will stand apart in areas like Sleepy Hollow, Haverstraw, Kingston and Yonkers, which are mostly blue collar and ethnically and racially diverse.

"These megaprojects threaten to damage the ecology and world-class vistas that make this a tourist destination and a great place to live," said Ned Sullivan, Scenic Hudson's president.

"It's critical that citizens come together and share their vision of what the waterfront should be like rather than have elected officials turn it over to developers whose sole motive is to make a profit," he said.

Early in the 19th century, the banks of the Hudson were ideal for building homes, until the addition of railroad lines kept builders away.

Washington Irving, author of "The Legend of Sleepy Hollow" and "Rip Van Winkle," built his home, Sunnyside, now a historic landmark, just feet from the river in Tarrytown. Irving, a former envoy to Spain with political connections, tried to prevent the railroad from slicing across his placid retreat, as did his neighbors, but to no avail.

"If the garden of Eden were now on earth, they would not hesitate to run a railroad through it," Irving lamented, according to a biography by his nephew, Pierre M. Irving, published several years after Irving's death in 1859.

Over the decades and into the 20th century, inexpensive worker housing was situated near the factories that were rising along the river. With some exceptions, more generously proportioned houses for the new commuter class rose on winding streets that snaked up hillsides, many with distant river views. The pattern is still evident in many communities.

But most of the factories are gone, leaving large tracts of land available for development. As for the railroad tracks, triple-glazed windows in houses and quieter, electrified rail cars have made the rumbling Metro-North Hudson Line, Amtrak and freight trains less of a problem.

"I'm pleased the shift is occurring," said Roger Akeley, commissioner of planning and development for Dutchess County, noting that cities like Beacon and Poughkeepsie are being rediscovered. "The urban renewal of the 1970's got rid of a lot of the old industrial fabric, but it has taken this long to understand the potential of it."

Yonkers officials have for years discussed ways to reclaim the miles of waterfront in southern Westchester, with its picturesque views of the Palisades that line the riverside in New Jersey.

Finally, after many false starts, Hudson Park - a new 266-unit rental building near the city's historic pier - is now occupied, set back a step to accommodate a striking riverfront park that includes a sculpture garden and walkway.

To the south are the smokestacks of a Domino sugar plant, one of the last riverfront factories in Westchester. Just to the north, if a proposal gains approval, there will be a second phase of Hudson Park with 298 units in two buildings.

An earlier plan called for apartment towers along the river, with no public access, but Scenic Hudson sued. The developer later settled with the group, and Scenic Hudson became a partner in guiding the current midrise development.

"The Yonkers waterfront is very positive," Mr. Sullivan said. "Back in the mid-1980's they were proposing six 38-story high-rises that would have completely blocked the waterfront." But the group is now concerned about a newly proposed 30-story building by the river.

Even small proposals have encountered resistance. A luxury town house development with 24 units languished for more than a dozen years on the agendas of various boards in the village of Dobbs Ferry, north of Yonkers. Village officials hashed out engineering issues and tried to preserve views for existing neighbors, said the mayor, Brian D. Monahan.

Completed a few years ago by Ginsburg Development Companies, the complex, Livingston Ridge, is situated on a steep slope above the village's expansive riverside park, with sweeping views of the river, a pool and lush plantings. One apartment sold recently for nearly $2 million.

"They're very expensive, and during the construction process the actual cost of them kept going up and up and up," Mayor Monahan said. "But it has generated significant tax revenue for the village." He added, "I don't believe any school-age children came out of it."

Despite its modest size and handsome facade, feelings remain mixed about the complex - a sign of the sense of ownership many communities have for the river. "A lot of us are concerned that it towers over the Hudson when you look up from our park," Mayor Monahan said.

Librado Romero/The New York Times

Livingston Ridge, a development of 24 town houses and condominiums along the Hudson in Dobbs Ferry, N.Y., was completed in 2003.

Developers say the new projects appeal mainly to empty-nesters, making them attractive to municipalities since couples whose children are grown and gone will not burden the school district. But critics argue that markets are hard to predict, and that demographics and housing trends may change.

In Ossining, Westchester's two biggest developers, Louis R. Cappelli and Martin Ginsburg, signed an agreement with the village last month to build 150 upscale condominiums on only 4.5 acres, as well as 10,000 square feet of retail space - the latest of several proposals that have set off battles over public access and open space.

The village won assurances that 60 percent of the property would be accessible to the public. "There's a lot of debate over whether the site can take 150 units, but it will give us access to a portion of the river that we have not been able to access," said Gene Napolitano, Ossining's mayor.

In Kingston, the issues of access and density have been complicated by the size of the site - more than 500 acres on a mile of riverfront. The developer, AVR Realty, and Mayor Sottile say that half the property would be preserved as open space.

"It's an abandoned quarry right now - a moonscape - with no public access to the Hudson," said Tom F. Perna, vice president of AVR Realty. "We're proposing a project with 250 acres of open space, a mile-long promenade, trail systems and parks."

But Scenic Hudson says some of the space will be unusable because it bears the scars of mining activity.

Opponents of the project also say it is not in keeping with the city's quirky historic neighborhoods.

Lowell Thing, a past president of Friends of Historic Kingston and founder of an Internet-based encyclopedia, would like to see the rehabilitation of still more deteriorating and vacant buildings rather than the construction of hundreds of cookie-cutter housing units.

Recently, Mr. Thing turned to the book sitting on his coffee table, "The Death and Life of Great American Cities," by Jane Jacobs, for insight into the project.

"Gradualism is a good thing in cities and towns because they are complex environments," he said. "When you try to do things in one fell swoop, the results are unpredictable and often disastrous."