

RECORD OF DECISION

BICC Cables
Operable Unit Number 02: Hudson River Sediment
Remediation EPRI Building DCU 2B
State Superfund Project
Yonkers, Westchester County
Site No. 360051
July 2014



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

BICC Cables
Operable Unit Number: 02
State Superfund Project
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Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 02: Hudson River Sediment Remediation EPRI Building DCU 2B of the BICC Cables site, a Class 2 inactive hazardous waste disposal site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 02 of the BICC Cables site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

The elements of the proposed remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program.

- The encapsulation system must be able to withstand anticipated maximum wave energy within the tidal estuary predicted for up to a Category 5 hurricane (Saffir–Simpson Hurricane Wind Scale) with river elevations as high as the 500 year flood elevation, as well as impacts due to river, tidal, and wave-induced currents, and turbulence generated by ships/vessels (due to propeller action and vessel draft).
- Ice flow and debris considerations must also be addressed by the design.

- Computer modeling to determine energy levels the Engineered Multilayer Sediment Cover System must withstand are required. Due to the limitations of computer modeling and other factors associated with cap construction, a 50% factor of safety will be added to the energy level which will be incorporated into the final design.
- The upper layer of the Engineered Multilayer Sediment Cover System must consist of a permanent or long lasting material. A wearing layer or sacrificial layer will not be allowed.
- The Engineered Multilayer Sediment Cover System must not unduly/negatively disrupt the water flow within the Hudson River, including river elevations as high as 500-year-flood elevation conditions.
- The cap design should demonstrate that the proposed layers of the cap will sufficiently contain PCBs for the concentrations that are expected at the cap/sediment interface and the timeframe expected for effective isolation. This should include assumptions of porewater movement during cap settling and chemical constraints of the "active core mat". This analysis needs to also consider the potential for preferential movement of porewater through the gaps caused by the pilings and the treatment at the pilings.
- The design should include a prediction of the expected settlement vertically and horizontally of cap materials. This may vary depending on the armor treatment. Details should be sufficient to understand whether the materials will be stable on the expected slopes, what the expected final grade would be in the near term, and whether sediment will stay in place or move horizontally.
- Any fill material brought to the site for incorporation in the Engineered Multilayer Sediment Cover System will meet unrestricted SCOs as set forth in 6 NYCRR Part 375-6.7(d).
- In conformance with 40 CFR 761.61, the use of the Engineered Multilayer Sediment Cover System to allow in-place management of the PCBs greater than 50 ppm must be approved by USEPA prior to installation. If USEPA does not approve the use or design of the Engineered Multilayer Sediment Cover System, then the NYSDEC will re-evaluate this remedy decision.

Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;

- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Engineered Multilayer Sediment Cover System

An Engineered Multilayer Sediment Cover System will be required to address the Hudson River sediment contamination beneath the EPRI Building, designed to isolate these areas from uncontaminated sediment, the water column, and biota. The cover system will be placed over all sediments that exceed the site derived values that would have required dredging under the 2005 ROD (Table 1). The cover will consist of permanent encapsulation by an Engineered Multilayer Sediment Cover System for PCB contaminated sediment beneath the EPRI Building in Dredge Certification Unit 2B.

Details which appear on the figures are for illustrative purposes only and are not intended to depict components of the design element required herein.

3. Habitat Mitigation

The March 2005 OU 1 ROD required restoration of the river environment following the removal of contaminated sediment. Because the Engineered Multilayer Sediment Cover System will prevent the restoration of the aquatic habitat, mitigation to replace the loss of aquatic habitat beneath the EPRI Building is required. The mitigation will be detailed in a mitigation design plan which, at a minimum, will replace a comparable area to the lost aquatic habitat and be consistent with the requirements of 6 NYCRR Part 608 and 661.

4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan is required, which includes the following:

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: The asphalt, concrete or soil cover as required in the 2005 OU 1 ROD and September 19, 2008 USEPA Approval of Self Implementing PCB Cleanup and the DCU Area 2B Engineered Multilayer Sediment Cover System.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - o a provision for further investigation to refine the nature and extent of contamination where access was previously hindered (i.e., under the EPRI Building in DCU 2B if and when the building is demolished);
 - o a provision for demolition of the EPRI Building if and when it becomes unsafe or no longer considered necessary;
 - o a provision for removal or treatment of the source area located under the EPRI Building if and when the building is demolished;
 - o descriptions of the provisions of the environmental easement including any land use, groundwater and/or surface water use restrictions;
 - o provisions for the management, repair and inspection of the identified engineering controls;
 - o maintaining site access controls and Department notification;
 - o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls; and
 - o a provision for repair and maintenance of the site mitigation area as specified in the final mitigation plan.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan will be designed to measure PCB and metals concentrations and evaluate the long-term contaminant trends in the affected media (biota, sediment, water). This program will monitor the performance and effectiveness of the remedy in achieving the remedial goals established for the project and will be a component of the

monitoring and maintenance of the site. The plan includes, but may not be limited to:

- a schedule of monitoring and frequency of submittals to the Department;
- long-term sampling of biota; surficial sediment sampling; biota sampling in the vicinity of the site and at reference locations; porewater and surface water sampling in the vicinity of the site and at reference locations; and shoreline and nearshore bathymetry;
- actions necessary to monitor, measure and observe whether remedy is in place and functional;
- monitoring of the capped area and, if any portion of a capped area has been eroded, additional monitoring and sampling will be required to determine whether other areas have been contaminated with PCBs released from the damaged areas. Repair of the identified area, or if needed, additional remedial action or enhanced capping may be undertaken to cover any areas in the main river channel where sampling shows surface sediment PCB concentrations greater than or equal to 1 ppm; and
- monitoring of the mitigation area for restoration success as specified in the final mitigation plan.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

July 24, 2014

Date



Robert W. Schick, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

BICC Cables
Operable Unit Number 02: Hudson River Sediment
Remediation EPRI Building DCU 2B
Yonkers, Westchester County
Site No. 360051
July 2014

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of hazardous wastes at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal of hazardous wastes at this site, as more fully described in Section 6 of this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for the selecting the remedy.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Yonkers Public Library
Riverfront Branch
1 Larkin Center
Yonkers, NY 10701 Phone: 914-375-7966

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location:

The BICC Cables site is located at 1 Point Street in Yonkers, Westchester County, in an urban industrial area adjacent to the Hudson River.

Site Features:

The site is approximately 14 acres in area, which at one point contained 360,000 sq. ft. of warehouse and office structures. The Electric Research Power Institute (EPRI) Building, a 29,700 sq. ft. building which is constructed on piles over the Hudson River, is the only remaining structure associated with the site. The BICC Cables site is open or paved/unpaved lots and is predominantly flat. It is bounded by the Hudson River to the north and west, a plastic packaging manufacturing plant to the south, and Metro North Rail Road tracks adjacent to the east side of the site.

Current Zoning and Land Use:

The site is currently inactive, and is zoned for industrial/commercial use. The surrounding parcels are currently used for a combination of commercial and industrial. The nearest residential area is approximately 100 feet to the east on Point Street and Ravine Avenue.

Past Use of the Site:

The facility, in operation since 1886, manufactured high voltage cables until 1996. The property was expanded (into the Hudson River) using fill material from 1940 to 1976. On-site disposal of waste material, improper handling practices of products and chemicals and spillage are

responsible for the PCB and metals contamination present at the site.

Prior to 1898: The landmass beneath the majority of the site buildings was created through filling prior to 1898. Site occupants during that time included: S. S. Hepworth and Co. (c. 1886 to 1890) who manufactured sugar machinery and tools and India Rubber Gutta Percha Insulating Co. (1890 to 1915), a wire and cable manufacturer.

1915 to 1930: At the beginning of their occupancy, Habirshaw Wire Company manufactured paper insulated, lead-jacketed cables at the site. Materials for these cables included: paper insulation wound over a conductor, then oil impregnated, and covered by a lead sheath, bitumen and rubber. Later on Habirshaw expanded their cable and wire product line. They included rubber insulated and jacketed cables that required rubber mixing equipment and continuous vulcanizing steam lines and armored submarine cable that required the use of asphalt and jute to provide water resistance along with braided steel sheathing to protect the cable from mechanical damage.

1930 to 1984: Phelps Dodge acquired the facility in 1930 and continued to produce the Habirshaw Wire Company product line. By the 1960s, production began to focus on paper wrapped cables that included the use of highly refined rosins and later refined hydrocarbon oils as the dielectric fluids to replace the rosins. Rubber jacketed cable manufacturing was phased out at the site by the early 1960s. About that time, the manufacturing of armored submarine cable was also discontinued.

Higher voltage cables and solid dielectric cable with insulation made of polyethylene (PE) and ethylene propylene rubber (EPR) for medium voltage distribution applications were developed and manufactured at the site beginning in the 1960s.

1984 to 1996: Cablec (later merged into BICC Cables Corp.) acquired the facility in 1984. The product line was narrowed further to focus on the growing electric distribution market for which paper, lead, PE and EPR were used. However, Cablec moved the solid dielectric cable manufacture of PE and EPR to other facilities. Some of the PE and EPR cables that were manufactured at other BICC factories were shipped to the site for finishing with application of a lead jacket to provide protection against mechanical abuse and moisture. The principal materials used for cable manufacture after 1984 at the site were paper, dielectric oil and lead with polyethylene or PVC applied as jackets over the lead. As a result of a decline in the market for paper insulated leadjacketed cable, BICC ceased manufacturing operations at the site in 1996.

In 1997, following the end of manufacturing operations, an environmental investigation began at the site in accordance with a Petroleum Spills Order (Administrative Order on Consent DC-0001-97-06). The investigation involved collecting environmental media samples and interior building material samples. Based upon the discovery of PCBs at concentrations above 50 parts per million (ppm) in site soil during the Petroleum Spills Investigation, this property was listed as a class "2" site on the *Registry of Inactive Hazardous Waste Disposal Sites* in 1999. BICC Cables Corporation, a responsible party, conducted a Remedial Investigation/ Feasibility Study (RI/FS) under Administrative Order on Consent. The site remediation is being addressed under the Brownfield Cleanup Program (BCP), based on an exemption that expired in July 2005 that

allowed class “2” sites to enter the BCP. One Point Street, LLC, a Volunteer and present owner, entered into a Brownfield Cleanup Agreement in May 2005.

Operable Units:

The site was divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigation, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

Operable Unit 1 (OU1) includes upland soils, groundwater, and contaminated sediment in the Hudson River, excluding the sediment beneath the EPRI Building. Operable Unit 2 (OU2) includes only the sediment beneath the EPRI Building.

Site Geology and Hydrogeology:

The North Yard was created through the placement of fill and operational debris. The landmass west of the railroad tracks (South Yard and below previously removed buildings) was created through the placement of fill. This fill material extends to the silt layer, located a maximum depth of 20 feet below grade. The BICC Parking Lot east of the railroad tracks located on Point Street was raised using clean sand fill. Groundwater is encountered at the site from a minimum of 2.3 feet below ground surface (bgs) to a maximum of 13.5 feet bgs. Artesian conditions were observed in one well. Tidal fluctuations in groundwater elevations in the site wells range from 0 to 2.3 feet. Groundwater flow from the site is southwesterly towards the Hudson River.

Operable Unit (OU) Number 2 is the subject of this document.

A Record of Decision was issued for the site in March 2005 (the “March 2005 ROD”) which included the remediation of the sediment beneath the EPRI Building by dredging. Concurrent with this PRAP, the March 2005 ROD is being amended to define OU1 and eliminate the required cleanup by dredging of the sediment beneath the EPRI Building (see *Amended Record of Decision* dated July 2014). As amended, the March 2005 ROD is the OU1 ROD.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted residential use as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the RI to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Inactive Hazardous Waste Disposal Site Remediation Program

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Phelps Dodge Corporation

BICC Corporation

BICC Cables Corporation entered into an Administrative Order on Consent on March 17, 2000 (ref. Index No. D-3-0001-00-03) which obligated it to conduct an RI/FS.

Brownfield Cleanup Program

The site was accepted into the Brownfield Cleanup Program in May 2005. One Point Street, LLC entered into a Brownfield Cleanup Agreement for the remediation of the site, including off-site impacts.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- sediment

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediment, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

For OU 1

Polychlorinated Biphenyls (PCB)	Lead
Copper	

For OU 2

Polychlorinated Biphenyls (PCB)	Lead
Copper	Arsenic

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- soil
- sediment
- groundwater

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Nature and Extent of Contamination:

Based on investigations conducted to date, soil, groundwater, sediment and interior building material samples were collected to characterize the nature and extent of contamination. Chemical categories that exceed their SCGs in the environmental media are polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and inorganic constituents. Sampling of the interior of the EPRI Building did not indicate contamination above SCGs.

Operable Unit 1:

Soil

PCBs were identified at concentrations above the SCGs in site soil, site-related impacted sediment and interior building materials. The predominant Aroclor present at the site is Aroclor 1260.

Low level VOCs found in the site environmental media are from petroleum impacted soils. Low levels of tetrachloroethene which is also present but only in site groundwater, not soil, and is suspected to be from an off-site source located to the east of the BICC Site.

Low level SVOCs were found in the site soil/fill are predominantly polycyclic aromatic hydrocarbons (PAHs) PAHs are commonly found in combustion end products routinely observed in historic fill.

The inorganic contaminants of potential concern (COPCs) at the site are found at concentrations higher than background and higher than uncontaminated fill.

Some of these metals are found in historic fill and some, are likely associated with previous cable manufacturing at the site.

Groundwater

Groundwater at the site is encountered at a minimum of 2.3 feet bgs to a maximum of 13.5 feet bgs. The groundwater is located within an unconfined unit that experiences some degree of tidal

influence from the Hudson River. Site groundwater flows to the southwest into the Hudson River. Low levels of benzene, xylenes and tetrachloroethene in groundwater were detected at concentrations above groundwater standards; however, higher concentrations of tetrachloroethene were observed in a monitoring well on the upgradient boundary of the site. In light of the finding, the suspected source of tetrachloroethene in site groundwater is an upgradient, off-site source. The source of benzene and xylene in groundwater appear to be the VOC-impacted North Yard soils which were addressed under OU 1.

Sediment

As part of the RI, the impacts of site operations on sediment in the Hudson River were investigated. In addition, to determine site background sediment concentrations, sediment samples were also collected upriver of the site.

Comparison to the SCGs indicates that the sediment samples collected adjacent to the North and South Yards, adjacent to site buildings and beneath the EPRI Building consistently exceed the SCGs for PCBs, various PAHs and several inorganic constituents in both the surface sediment (i.e., 0 to 6 inch) samples and the subsurface sediment (6 to 12 inch) samples. In order to evaluate site-related sediment contamination in the context of local sediment conditions in the river, the site sediment sampling results were compared to the average upriver concentrations for inorganics and PAHs. Site sediment results for inorganics were also compared to the average concentrations found downriver from (and presumed out of the influence of) the Harbor at Hastings site. This evaluation was used to describe environmental conditions in five sediment areas, designated as Areas I, II, III, IV and V (Figure 3). These areas exhibited PCB and lead concentrations indicative of site-related impacts. These two constituents are well correlated with operationally impacted soil and interior building materials.

In Area V, a direct comparison of lead and copper levels to the concentrations of lead and copper in the upriver samples show that sediment samples collected adjacent to the South Yard exhibit slightly higher levels than the upriver samples.

Hudson River sediment was contaminated with levels of PCBs (1,650 ppm), copper (967 ppm), and lead (6,440 ppm). The five sediment remedial areas in the OU1 ROD had an assumed maximum remedial depth of 24 inches in the absence of information indicating that the extent of impacted sediment was deeper. The areas were subdivided into manageable sized Dredge Certification Units (DCUs) based on further characterization in March and May 2007, December 2008 and March 2009.

Sediment remediation under OU1 began in April 2010 and continued until October 2013. All DCUs were remediated in conformance with the OU1 ROD and all Remedial Action Work Plan goals met except DCU 2B under the EPRI Building.

Other significant facets of the site which were investigated and addressed as part of the OU1 ROD were: Interior Building Materials, Lead Extrusion Pits, Interior Stormwater Trench System, Process Oil Tanks and Fuel Oil Tanks and Subsurface Structures.

Operable Unit 2: Sediment

DCU 2B area sediment beneath the EPRI Building is primarily contaminated with PCBs (some sediment also contains lead above SCGs). The maximum PCB concentration detected in this sediment is 739 ppm. The extent of PCB contaminated sediment is known to extend approximately 150 feet south and 100 feet west of the northeast corner of the EPRI Building.

All DCUs were remediated in conformance with the OU1 ROD and all Remedial Action Work Plan goals met except DCU 2B under the EPRI Building. Several dredging techniques were attempted on DCU 2B including diver assisted hydraulic dredging, H&H water-based dredge, Pit Hog water-based dredge, Toyo pump, work boat based mini-excavator and Scan Crawler dredge.

Special Resources Impacted/Threatened: Hudson River Estuary. Some of the site qualifies as tidal wetland; there are federally listed endangered sturgeon in proximity to the site, as well as other fishery resources. A Natural Heritage review has not been conducted recently and additional resources may be present.

Significant Threat: The site represents a significant environmental threat due to the ongoing releases of contaminants from source areas into groundwater and the Hudson River.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Measures are in place to control the potential for coming in contact with sediment contamination remaining on the site. People may come in contact with contaminants present in river sediments while entering or exiting river during recreational activities.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Sediment

RAOs for Public Health Protection

- Prevent direct contact with contaminated sediment.

RAOs for Environmental Protection

- Prevent impacts to biota from ingestion/direct contact with sediment causing toxicity or impacts from bioaccumulation through the marine or aquatic food chain.

SECTION 7: SUMMARY OF THE SELECTED REMEDY

To be selected, the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the November 2013 Dredge Containment Unit (DCU) Area 2B Sediment Remediation Alternatives Analysis Report prepared by PS&S Engineering, Inc.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's proposed remedy is set forth at Exhibit D.

For OU 2: The selected remedy is referred to as the Remedial Action Hudson River Sediment Remediation - EPRI Building DCU 2B remedy.

The estimated present worth cost to implement the remedy is \$3,187,000. The cost to construct the remedy is estimated to be \$3,000,000 and the estimated average annual cost is \$20,000.

The elements of the proposed remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program.

- The encapsulation system must be able to withstand anticipated maximum wave energy within the tidal estuary predicted for up to a Category 5 hurricane (Saffir–Simpson Hurricane Wind Scale) with river elevations as high as the 500 year flood elevation, as well as impacts due to river, tidal, and wave-induced currents, and turbulence generated by ships/vessels (due to propeller action and vessel draft).
- Ice flow and debris considerations must also be addressed by the design.

- Computer modeling to determine energy levels the Engineered Multilayer Sediment Cover System must withstand are required. Due to the limitations of computer modeling and other factors associated with cap construction, a 50% factor of safety will be added to the energy level which will be incorporated into the final design.
- The upper layer of the Engineered Multilayer Sediment Cover System must consist of a permanent or long lasting material. A wearing layer or sacrificial layer will not be allowed.
- The Engineered Multilayer Sediment Cover System must not unduly/negatively disrupt the water flow within the Hudson River, including river elevations as high as 500-year-flood elevation conditions.
- The cap design should demonstrate that the proposed layers of the cap will sufficiently contain PCBs for the concentrations that are expected at the cap/sediment interface and the timeframe expected for effective isolation. This should include assumptions of porewater movement during cap settling and chemical constraints of the "active core mat". This analysis needs to also consider the potential for preferential movement of porewater through the gaps caused by the pilings and the treatment at the pilings.
- The design should include a prediction of the expected settlement vertically and horizontally of cap materials. This may vary depending on the armor treatment. Details should be sufficient to understand whether the materials will be stable on the expected slopes, what the expected final grade would be in the near term, and whether sediment will stay in place or move horizontally.
- Any fill material brought to the site for incorporation in the Engineered Multilayer Sediment Cover System will meet unrestricted SCOs as set forth in 6 NYCRR Part 375-6.7(d).
- In conformance with 40 CFR 761.61, the use of the Engineered Multilayer Sediment Cover System to allow in-place management of the PCBs greater than 50 ppm must be approved by USEPA prior to installation. If USEPA does not approve the use or design of the Engineered Multilayer Sediment Cover System, then the NYSDEC will re-evaluate this remedy decision.

Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;

- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Engineered Multilayer Sediment Cover System

An Engineered Multilayer Sediment Cover System will be required to address the Hudson River sediment contamination beneath the EPRI Building, designed to isolate these areas from uncontaminated sediment, the water column, and biota. The cover system will be placed over all sediments that exceed the site derived values that would have required dredging under the 2005 ROD (Table 1). The cover will consist of permanent encapsulation by an Engineered Multilayer Sediment Cover System for PCB contaminated sediment beneath the EPRI Building in Dredge Certification Unit 2B.

Details which appear on the figures are for illustrative purposes only and are not intended to depict components of the design element required herein.

3. Habitat Mitigation

The March 2005 OU 1 ROD required restoration of the river environment following the removal of contaminated sediment. Because the Engineered Multilayer Sediment Cover System will prevent the restoration of the aquatic habitat, mitigation to replace the loss of aquatic habitat beneath the EPRI Building is required. The mitigation will be detailed in a mitigation design plan which, at a minimum, will replace a comparable area to the lost aquatic habitat and be consistent with the requirements of 6 NYCRR Part 608 and 661.

4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan is required, which includes the following:

- c. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: The asphalt, concrete or soil cover as required in the 2005 OU 1 ROD and September 19, 2008 USEPA Approval of Self Implementing PCB Cleanup and the DCU Area 2B Engineered Multilayer Sediment Cover System.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - o a provision for further investigation to refine the nature and extent of contamination where access was previously hindered (i.e., under the EPRI Building in DCU 2B if and when the building is demolished);
 - o a provision for demolition of the EPRI Building if and when it becomes unsafe or no longer considered necessary;
 - o a provision for removal or treatment of the source area located under the EPRI Building if and when the building is demolished;
 - o descriptions of the provisions of the environmental easement including any land use, groundwater and/or surface water use restrictions;
 - o provisions for the management, repair and inspection of the identified engineering controls;
 - o maintaining site access controls and Department notification;
 - o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls; and
 - o a provision for repair and maintenance of the site mitigation area as specified in the final mitigation plan.
- d. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan will be designed to measure PCB and metals concentrations and evaluate the long-term contaminant trends in the affected media (biota, sediment, water). This program will monitor the performance and effectiveness of the remedy in achieving the remedial goals established for the project and will be a component of the

monitoring and maintenance of the site. The plan includes, but may not be limited to:

- a schedule of monitoring and frequency of submittals to the Department;
- long-term sampling of biota; surficial sediment sampling; biota sampling in the vicinity of the site and at reference locations; porewater and surface water sampling in the vicinity of the site and at reference locations; and shoreline and nearshore bathymetry;
- actions necessary to monitor, measure and observe whether remedy is in place and functional;
- monitoring of the capped area and, if any portion of a capped area has been eroded, additional monitoring and sampling will be required to determine whether other areas have been contaminated with PCBs released from the damaged areas. Repair of the identified area, or if needed, additional remedial action or enhanced capping may be undertaken to cover any areas in the main river channel where sampling shows surface sediment PCB concentrations greater than or equal to 1 ppm; and
- monitoring of the mitigation area for restoration success as specified in the final mitigation plan.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

Groundwater, surface water, soil and sediment media (other than sediment media beneath the EPRI Building DCU 2B) were addressed in the BICC Cables OU1 ROD dated March 2005 (OU1 ROD). The BICC Cables OU2 ROD addresses sediment media beneath the EPRI Building in DCU 2B. This contaminated sediment was identified and a table summarizing the findings of the investigation is included. The table presents the range of contamination found in DBU 2B in the sediment media and compares the data with the applicable SCGs for the site. The contaminants are arranged into two categories; pesticides/polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use.

As described in the RI report, many soil, groundwater, sediment and interior building material samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main chemical categories that exceed their SCGs in sediment media are polychlorinated biphenyls (PCBs) and inorganic constituents.

PCBs are a group of 209 distinct congeneric molecules. In the U.S., PCB mixtures were principally sold under the trade name Aroclor. The various PCB mixtures sold were identified by their chlorine content. For example, Aroclor 1260 is a PCB mixture composed of approximately 60% chlorine. Aroclors were used for various purposes by industry due to their insulating and heat resistance properties. The predominant Aroclor present at the site is Aroclor 1260. PCBs have a very low solubility in water, a relatively low volatility in air and tend to absorb to oils, fats and carbon rich materials, if available. In the environment, PCBs are relatively persistent, and are degraded only under certain conditions. PCBs are reported to pose a health risk to humans and/or ecological receptors depending upon the route and duration of exposure and the dose received. PCBs were identified at concentrations above the SCGs in site soil, site-related impacted sediment and interior building materials.

Inorganics are metals, naturally occurring in the environment. However, the inorganic COPCs at the site are found at concentrations higher than background and higher than uncontaminated fill. The inorganic constituents of concern at the site are the metals arsenic, copper and lead. Some of these metals are found in historic fill and some, such as copper and lead, are likely associated with previous cable manufacturing at the site.

Sediment

As part of the RI, the impacts of site operations on sediment in the river were investigated. The investigation began with identification of discharge points from the site into the river. Sediment sampling locations in the river were then selected biased towards these discharge locations. These samples were collected adjacent to and beneath site buildings and adjacent to the Yard. To determine site background sediment concentrations, sediment samples were also collected upriver of the site. Additional horizontal and vertical characterizations of the DCUs were performed as part of preconstruction and construction activities.

Comparison of the site sediment sampling results to SCGs is presented in Table 1.

Comparison to the SCGs indicates that the sediment samples collected adjacent to the Yard and adjacent to and beneath the site buildings consistently exceed the SCGs for PCBs and several inorganic constituents in both the surface sediment (i.e., 0 to 6 inch) samples and the subsurface sediment (as deep as 5.5' to 6' deep interval) samples. In order to evaluate site-related sediment contamination in the context of local sediment conditions in the river, the site sediment sampling results were compared to the average upriver concentrations for inorganics. Site sediment results for inorganics were also compared to the average concentrations found downriver from (and presumed out of the influence of) the Harbor at Hastings site. This evaluation was used to describe environmental conditions in five sediment areas, designated as Areas I, II, III, IV and V. These areas exhibited PCB and lead concentrations indicative of site-related impacts. These two constituents are well correlated with operationally impacted soil and interior building materials. Based on the comparison to both sets of upriver data, the extent of site-related impacted sediment in DCU 2B is presented in Table 1 and Figures CCR-02, CCR-03 and CCR-04.

The BICC Cables OU2 ROD will focus on the DCU 2B. DCU 2B is an area of PCB contaminated sediment beneath the EPRI Building, areal extent of approximately 15,300 square feet. Based on additional preconstruction delineation, significant PCB contamination was found within this DCU up to 6 feet deep in the sediment. (The depth of sediment sampling ranged from the sediment surface [0 to 0.5' interval] to 8 feet.). The DCU contains approximately 2,200 yd³ of contaminated PCB sediments. It was estimated during initial attempts at dredging this material that approximately 4,500 yd³ would need to be dredged (or over-dredged) to remove this 2,200 yd³ volume.

The PCB contamination within DCU 2B ranges from 12.4 ppm total PCBs in the surface sediment interval (0 to 0.5 foot deep) to 80 ppm (5.0 to 5.5 foot interval), with a maximum PCB concentration of 739 ppm at in the deeper sediment (2.0 to 2.5 foot interval).

Erosion of the DCU 2B sediment or leaching of the PCBs from within the sediment could cause ecological impacts due to the spread of PCB contamination to other river sediment as well as the water column and river biota.

Table 1 – Sediment

Detected Constituents	Concentration Range Detected (ppm) ^a	Site Derived Value (ppm) ^c	Frequency Exceeding Site Derived Value
Inorganics^h			
Lead	12 to 6440	19 to 87.5	54/57
Copper	16.9 to 967	23.3 to 149	56/57
Arsenic	1.4 to 26.5	2.5 to 11.4	34/57
Pesticides/PCBs			
Total PCBs	12.4 to 739	1 ppm to 5 ppm average with depth ^c	36 /171

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in sediment;

b - SCG: The Department's Technical Guidance for Screening Contaminated Sediment.

c - Site Derived Value:

For PCBs refer to March 2010 Final Remedial Action Work Plan For Sediment Remediation for specific criteria:

For samples collected at locations where the sample depth is within 2 feet of the existing (predredge) grade (depths of 0 to 2 feet bgs) the average total PCB concentration of all the samples collected within the DCU is less than 1 mg/kg.

For samples collected at locations where the sample depth is greater than 2 feet below the existing (predredge) grade (2 plus feet bgs) the average total PCB concentration of all the samples in the DCU is less than 5 mg/kg

For Inorganics refer to March 2005 OU 1 ROD Table 2 Range of Upriver Sediment Sampling Results

The primary sediment contaminants are PCBs and lead, and to a lesser degree copper and arsenic, associated with the historical manufacture of high voltage cables. As noted on Figures 3 and CCR-02, the primary sediment contamination beneath the EPRI Building is found in DCU 2B.

Based on the findings of the Remedial Investigation, the presence of PCBs and lead has resulted in the contamination of sediment. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of sediment to be addressed by the remedy selection process are PCBs and lead.

Exhibit B

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Present Worth: \$0
Capital Cost: \$0
Annual Costs: \$0

Alternative 2: Monitored Natural Attenuation

Sediment contamination will be addressed with monitored natural attenuation (MNA). Sediment will be monitored for site related contamination and also for MNA indicators which will provide an understanding of the (biological activity) breaking down the contamination. It is anticipated that contamination will not decrease significantly in a reasonable period of time (5 to 10 years). Reports of the attenuation will be provided at 5 and 10 years, and active remediation will be proposed if it appears that natural processes alone will not address the contamination.

Present Worth: \$440,000
Capital Cost: \$300,000
Annual Costs: \$15,000

Alternative 3: Engineered Multilayer Sediment Cover System

Off-site sediment in DCU 2B which exceed Site Derived Values that would have been dredged for PCBs and lead will be capped. The cover will consist of a permanent encapsulation system of the Hudson River sediment impacted by the site beneath the EPRI Building in DCU 2B. The encapsulation system must be able to withstand anticipated wave energy within a tidal estuary created by a Category 5 hurricane (Saffir–Simpson Hurricane Wind Scale) with river elevations as high as the 500 year flood elevation. Ice flow and debris considerations must also be included.

Computer modeling to determine energy levels the Engineered Multilayer Sediment Cover System must withstand are required. The upper layer of the Engineered Multilayer Sediment Cover System must consist of a permanent or long lasting material. A wearing layer or sacrificial layer will not be allowed. The Engineered Multilayer Sediment Cover System must not unduly/negatively disrupt the water flow within the Hudson River, including river elevations as high as 500 year flood elevation conditions.

Any fill material brought to the site will meet the requirements for the unrestricted use as set forth in 6 NYCRR Part 375-6.7(d).

The Engineered Multilayer Sediment Cover System will prevent the restoration of the aquatic habitat, therefore, mitigation to replace the loss of aquatic habitat beneath the EPRI Building is required. The mitigation will be detailed in a mitigation design plan which, at a minimum, will replace lost aquatic habitat and be consistent with the requirements of 6 NYCRR Part 608 and 661.

In conformance with 40 CFR 761.61, the Engineered Multilayer Sediment Cover System must be approved by USEPA prior to installation.

Present Worth: \$3,187,000
Capital Cost: \$3,000,000
Annual Costs: \$20,000

Alternative 4: EPRI Building Demo, Sediment Excavation and EPRI Reconstruction

The existing EPRI Building would be demolished, DCU 2B contaminated sediment would be excavated, the excavation would be backfilled and restored and the EPRI Building would be reconstructed.

Contaminated sediment in DCU 2B, which exceed Site Derived Values that would have been dredged for PCBs and lead will be excavated and transported off-site for disposal. Approximately 4,500 cubic yards of sediment will be removed from the site and treated prior to disposal.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated sediment and establish the designed grades at the site.

Present Worth: \$52,200,000
Capital Cost: \$52,200,000
Annual Costs: \$0

Alternative 5: Cofferdam, Dewatering, Excavation

A coffer dam will be placed around DCU 2B or the EPRI Building, the area dewatered, and the sediment exceeding Site Derived Values that would have been dredged for PCBs and lead will be excavated, backfilled and restored as above in Alternative 4.

Present Worth: \$44,000,000
Capital Cost: \$44,000,000
Annual Costs: \$0

Alternative 6: Perimeter Cofferdam with Sediment Encapsulation

A coffer dam will be placed around DCU 2B or the entire EPRI Building to prevent lateral contaminant migration, then the top of this area encapsulated with a flowable, permanent encapsulation material such as concrete. Encapsulation material/concrete may be placed once the area is dewatered or by tremie method.

A Perimeter Cofferdam with Sediment Encapsulation will prevent the restoration of the aquatic habitat, therefore mitigation to replace the loss of aquatic habitat beneath the EPRI Building is required. The mitigation will be detailed in a mitigation design plan which, at a minimum, will replace lost aquatic habitat and be consistent with the requirements of 6 NYCRR Part 608 and 661.

Present Worth: \$80,987,000
Capital Cost: \$80,800,000
Annual Costs: \$20,000

Alternative 7: Low Profile Mechanical Dredging

Sediment in DCU 2B which exceed Site Derived Values for PCBs and lead will be dredged using Low Profile Mechanical Dredging techniques. These include using H&H (or Rotomite) Dredge and Work Boat Mounted Mini Excavator.

Contaminated sediment in DCU 2B, which exceed Site Derived Values for PCBs and lead (approximately 4,500 cubic yards) will be excavated, treated and transported off-site for disposal. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated sediment and establish the designed grades at the site.

Present Worth: \$25,000,000
Capital Cost: \$25,000,000
Annual Costs: \$0

Exhibit C**Remedial Alternative Costs**

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
No Action	0	0	0
Monitored Natural Attenuation	\$300,000 (Baseline Study)	\$15,000	\$440,000
Engineered Multi Layer Sediment Cover System	\$3,000,000	\$20,000	\$3,187,000
EPRI Building Demo, Sediment Excavation and EPRI Reconstruction	\$52,200,000	0	\$52,200,000
Coffer Dam, Dewatering, Excavation	\$44,000,000	0	\$44,000,000
Perimeter Coffer Dam with Sediment Encapsulation	\$80,800,000	\$20,000	\$80,987,000
Low Profile Mechanical Dredging using H&H (or Rotomite) Dredge, Work Boat Mounted Mini Excavator	\$25,000,000	0	\$25,000,000

Exhibit D

SUMMARY OF THE SELECTED REMEDY

The Department has selected Alternative 3, Engineered Multi Layer Sediment Cover System as the remedy for this site. Alternative 3 would achieve the remediation goals for the site by permanently encapsulating the Hudson River sediment impacted by the site beneath the EPRI Building in DCU 2B. The elements of this remedy are described in Section 7. The area of the selected remedy is depicted in Figure SK-09.

Basis for Selection

The selected remedy is based on the results of the RI, additional horizontal and vertical characterizations of the OU2 sediment performed as part of preconstruction and construction activities for implementation of the OU1 remedy, and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the November 2013 Dredge Containment Unit (DCU) Area 2B Sediment Remediation Alternatives Analysis report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

The selected remedy, Alternative 3, Engineered Multi Layer Sediment Cover System would satisfy this criterion by permanently encapsulating the Hudson River sediment impacted by the site beneath the EPRI Building in DCU 2B. Encapsulation would prevent direct contact with contaminated sediment and prevent impacts to biota from ingestion/direct contact with sediment causing toxicity or impacts from bioaccumulation through the marine or aquatic food chain. Alternative 6 Perimeter Cofferdam with Sediment Encapsulation also complies with this criterion but to a lesser degree, or with lower certainty, as the flowable encapsulation material would not allow for possible differential settlement.

Alternative 1 (No Action) and Alternative 2 (Monitored Natural Attenuation) do not provide any additional protection to public health and the environment and will not be evaluated further. Alternatives 4, 5 and 7, by removing all sediment contaminated above the Site Derived Values for PCBs and lead, meet these threshold criteria.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternative 3 complies with SCGs to the extent practicable. It addresses source areas of contamination and complies with the sediment Site Derived Values for PCBs and lead at the surface through construction of a cover system. Alternatives 4, 5 and 7 also comply with this criterion. Alternative 6 complies with this criterion but to a lesser degree or with lower certainty. Since Alternatives 4, 5, and 7 satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Long-term effectiveness is best accomplished by those alternatives involving excavation of the contaminated sediment (Alternatives 4, 5 and 7). Since most of the contamination in DCU 2B is in the upper 2 to six feet of sediment, if successfully excavated, that would remove the need for long-term maintenance of an engineered cover system and long-term monitoring. Alternatives 3 and 6 would provide long-term effectiveness if designs were sufficiently robust to withstand anticipated energy levels over time. Alternative 3 would remain effective in the scenario of moderate to minimal differential settlement, however, the flowable fill contemplated by Alternative 6 would be subject to cracking with even minimal differential settlement. Alternative 6 would have little risk of lateral subsidence if the coffer dam sheet piling was of sufficient depth, while Alternative 3 may require anchoring to resist lateral displacement.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives 3 and 6 would limit the mobility of contaminated sediment and control potential exposures with encapsulation only and will not reduce the toxicity or volume of contaminants remaining. Alternatives 4, 5 and 7 excavation and off-site disposal, reduces the toxicity, mobility and volume of on-site waste by transferring the material to an approved off-site location. However, depending on the disposal facility, the volume of the material would not be reduced.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Alternatives 3 through 7 all have short-term impacts which could easily be controlled, however, Alternatives 3 and 6 would have the smallest impact. The time needed to achieve the remediation goals is approximately the same for Alternatives 3 through 7.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

Alternatives 3 and 7 are favorable in that they are readily implementable. Alternatives 4, 5 and 6 are also implementable, but include the installation of a coffer dam and dewatering. The results of the pilot testing indicate Alternative 7 could not be easily implemented (i.e., due to the difficulty of working beneath the EPRI Building).

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

The costs of the alternatives vary significantly. Alternatives 4, 5, 6 and 7 have very high capital and present worth costs. Alternative 3 has a low cost, but the contaminated sediment would remain in DCU 2B encapsulated. Alternative 6 provides a similar encapsulation remedy to Alternative 3 but at much greater cost.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

Anticipated use of the site is restricted/residential, Alternatives 3, 4, 5, 6 and 7 would be of equivalent desirability for anticipated land use above the river. However, alternatives 4, 5, and 7 would restore the sediments beneath the EPRI Building to pre-existing conditions.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary was prepared that describes public comments received and the manner in which the Department addressed the concerns raised.

Alternative 3 has been selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

BICC Cables Operable Unit Number 02: Hudson River Sediment Remediation EPRI Building DCU 2B State Superfund Project Yonkers, Westchester County, New York Site No. 360051

The Proposed Remedial Action Plan (PRAP) for the BICC Cables site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on May 5, 2014. The PRAP outlined the remedial measure proposed for the contaminated sediment at the BICC Cables site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on May 20, 2014, which included a presentation of the alternative analysis for the BICC Cables site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on June 4, 2014.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

Janos M. Szeman, P.E. of PS&S Engineering, Inc. submitted a letter dated June 4, 2014 which included the following comments pertaining to the PRAP:

COMMENT 1: Page 1, Section 1. Summary and Purpose of the Proposed Plan: Page 1 of the NYSDEC PRAP reports that “The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment”. The OPS Project Team concurs with the NYSDEC statement of the intent of the State Superfund Program; however, NYSDEC must note that the BICC Site is in the NYSDEC Brownfield Cleanup Program (BCP) and not the State Superfund Program. Please review and revise with the BCP reference, as applicable. Further, this Site is subject to a Brownfield Cleanup Agreement (BCA) and not a State Superfund Program enforcement order.

RESPONSE 1: The BICC Cables Site is a class 2 site on the Registry of Inactive Hazardous Waste Disposal Sites (the State Superfund Program) which is under Order on Consent, Index No.

D3-0001-00-03, between Department and BICC Cables Corporation, executed on March 17, 2000. It is also in the Brownfield Cleanup Program (BCP) under Brownfield Site Cleanup Agreement Index No. W3-1063-05-03, between the Department and One Point Street, Inc. executed on May 18, 2005, pursuant to a window (prior to July 1, 1985) during which Environmental Conservation Law allowed class 2 sites to enter the BCP.

COMMENT 2: EPRI Building Consistency Reference: For consistency purposes, please reference the “EPRI building” as the “EPRI Building”.

RESPONSE 2: The Department has made that change.

COMMENT 3: DCU Area 2B Consistency Reference: For consistency purposes, please reference the Dredge Certification Unit Area 2B (DCU Area 2B), “DCU 2B”, and “DCU Area 2B” as the “DCU Area 2B”.

RESPONSE 3: The Department has made these consistency changes, but elected to use the convention DCU 2B. References to documents that use the convention “DCU Area 2B” remain unchanged as these are the names for formal documents.

COMMENT 4: Page 3, Section 3. Site Description and History, Site Features: The DRAFT OU-2 PRAP section states “The rest of the site is open or paved/unpaved lots and is predominantly flat with commercial properties on all sides.” This DRAFT PRAP statement is incorrect. The upland part of the BICC Site is paved and only commercial properties are present to the south of the BICC Site. Please consider the following revised language.

The BICC Site is bounded by the Hudson River to the north and west, a plastic packaging manufacturing plant to the south, and a Metropolitan Transportation Authority bus garage, Metro North Rail Road tracks, and vacant land to the east.

RESPONSE 4: The Department has made some of the requested changes. Please note that the upland portion of the site is not entirely paved. The southern portion of the property still has a gravel and dirt surface. There is a grass and gravel buffer area from the BICC Cable south line and the METRO Bus garage.

COMMENT 5: Page 3, Section 3. Site Description and History, Current Zoning and Land Use: The DRAFT PRAP section states “The site is currently inactive, and is zoned for industrial/commercial use. The surrounding parcels are currently used for a combination of commercial and industrial. The nearest residential area is approximately 100 feet to the east on Point Street and Ravine Avenue.” Yes, the nearest residential area is on Point Street and Ravine Avenue near the BICC Site Point Street surface parking lot; however, the residential properties are separated from the main BICC Site by a passenger and commercial rail line. Please consider the following revised language.

The site is currently inactive, and is zoned for industrial use; however, the Site is part of an Urban Renewal Plan and Planned Urban Redevelopment (PUR) zoning; where PUR is available for the Site. The Site has received an approved PUR from the City of Yonkers, which permits restricted

residential uses. The surrounding parcels are currently used for a combination of commercial and industrial uses. The nearest residential area is approximately 100 feet to the east from the main BICC Site on Point Street and Ravine Avenue adjacent to the BICC parking lot, which was not found to be contaminated.

RESPONSE 5: The language is correct as written and has not been changed.

COMMENT 6: Section 6. Site Contamination, Section 6.1 - Maximum PCB Contamination Reporting Consistency: The DRAFT OU-2 Amended ROD Section 6. Site Contamination, Section 6.1 – Summary of Environmental Assessment states “Contamination does remain in the off-site portion of the site under the EPRI building. It is contaminated with PCBs as high as 553 parts per million (ppm).” However, the DRAFT PRAP Section 6. Site Contamination, Section 6.3 – Summary of Environmental Assessment states “DCU 2B area sediment beneath the EPRI building is primarily contaminated with PCBs (some sediment also contains lead above SCGs). The maximum PCB concentration detected in this sediment is 739 ppm.” NYSDEC must review the applicable EPRI Building (OU-2) and DCU Area 2B PCB reported concentrations and report a consistent maximum PCB concentration.

PS&S summarized the 2013 DCU Area 2B Post-Excavation Confirmation Samples and the historical DCU Area 2B PCB samples on Sheet CCR-02, 2013 DCU Area 2B Remaining Contamination Data after Proposed Excavation. The highest reported PCB concentration remaining at DCU Area 2B is 739 milligrams per kilogram (mg/kg) at the Tetra Tech Sample TtSed05 at a sample interval of 2.5 feet to 3 feet below the top of sediment.

The reported PCB concentration of 553 mg/kg was at the Tetra Tech Sample TtSed06 at a sample interval of 3.5 feet to 4 feet below the top of sediment.

RESPONSE 6: PS&S Engineering, Inc. is correct. The OU-2 PRAP value of 739 milligrams per kilogram (mg/kg) corresponding to Tetra Tech Sample TtSed05 at the 2.5 feet to 3 feet below the top of sediment sample interval is stated correctly and will be depicted in the OU-2 ROD as such. The OU-1 Proposed AROD value of 553 milligrams per kilogram (mg/kg) corresponding to Tetra Tech Sample TtSed06 at the 3.5 feet to 4 feet below the top of sediment sample interval and will be corrected in the OU-1 AROD to be consistent with the OU-2 PRAP and ROD.

COMMENT 7: Section 6. Site Contamination, Section 6.1.1 Standards, Criteria, and Guidance (SCGs): Section 6. Site Contamination, Section 6.1.1 Standards, Criteria, and Guidance (SCGs) states that “The tables found in Exhibit A list the applicable SCGs in the footnotes”. The referenced table is not included the DRAFT PRAP Exhibit A. The Final PRAP Exhibit A must include this referenced table.

RESPONSE 7: The appropriate SCGs are found in Table 1, footnote “c” which was included in the PRAP and will be included in the OU-2 ROD. However, footnotes d, e, f, g and h are not appropriate for Table 1 and were removed from the Table, but not the footnotes of Table 1 of the PRAP. That has been corrected by the Department in the ROD.

COMMENT 8: Section 6. Site Contamination, Section 6.4 Summary of Environmental Assessment: Section 6. Site Contamination, Section 6.4 Summary of Environmental Assessment states that “Sampling of the EPRI Building itself did not indicate contamination above SCGs”. For the Project Record, the OPS Project Team respectfully requests that NYSDEC clarify that the interior of the EPRI Building was sampled and did not indicate contamination above the NYSDEC SCGs.

RESPONSE 8: Regarding Section 6. Site Contamination, Section 6.3 Summary of Environmental Assessment: The PS&S Engineering, Inc./OPS Project Team is correct, prior to Superstorm Sandy in October 2012, samples of the **interior** of the EPRI Building did not indicate contamination above SCGs. Contamination of the interior of the EPRI Building due to Superstorm Sandy will be addressed by PS&S Engineering, Inc./OPS Project Team as a separate remedial action not addressed by this ROD.

COMMENT 9: Section 6. Site Contamination, Section 6.4 Summary of Environmental Assessment - COPC: On Page 8, the acronym COPC should be defined. The NYSDEC website defines the acronym COPC as “contaminant of potential concern”.

RESPONSE 9: The Department has defined that acronym in the ROD.

COMMENT 10: Section 6. Site Contamination, Section 6.4 Summary of Environmental Assessment- Figure 4: On Page 9, NYSDEC references a “Figure 4”. Figure 4 was not included in the DRAFT PRAP; Figure 4 must be included in the Final PRAP, as appropriate.

RESPONSE 10: The Department has removed from the ROD the reference to Figure 4 which was not used.

COMMENT 11: Figure 2 – Operable Units and Figure 3 – Sediment Remediation Areas (March 2010): The OPS Project Team respectfully request that NYSDEC clarify the limit of the Operable Unit Number 2 (OU-2) based on the area requiring sediment remediation as referenced in the DRAFT PRAP. Figure 2, the OU-2 Amended ROD/PRAP text (Section 3. Site Description and History and Section 7, and Summary of Original Remedy and Proposed Amendment) identify OU-2 as the footprint of the EPRI Building; however, Figure 3 identifies OU-2 as the smaller DCU Area 2B footprint requiring sediment remediation. NYSDEC must note that this smaller DCU Area 2B footprint is the proposed Sediment Cover System (SCS) area depicted on the DRAFT May 30, 2014 Environmental Easement (EE) Survey that was submitted to NYSDEC.

The current SCS Design presents a sediment cap footprint over the approximately 24,500 square feet DCU Area 2B footprint which is located under the northeast section of the EPRI Building. The current SCS Design footprint does not encompass the entire EPRI Building (i.e., OU-2) footprint.

RESPONSE 11: The Department defines the BICC Cables Operable Unit Number 02: Hudson River Sediment Remediation EPRI Building DCU 2B as approximately the same boundary as the EPRI Building footprint. . The volume of sediment was determined by the 2012 TetraTech sampling and results. The area of the remedy fluxuates depending on the alternative, however if PS&S

Engineering, Inc. is referring specifically to the Engineered Multilayer Sediment Cover System, that area is best depicted by the 2012 TetraTech results and PS&S Engineering Site plans SK-09, SK-09A, CCR-02, CCR-03, and CCR-04. Actual area of the Engineered Multilayer Sediment Cover System will be dependent on the remedial design. The final Environmental Easement (EE) Survey that will be submitted to NYSDEC must show the final actual extent of the cap as completed.

COMMENT 12: Section 7. Summary of Proposed Remedy, 2. Engineered Multilayer Sediment Cover System of the DRAFT PRAP states that “The cover will consist of permanent encapsulation by an Engineered Multilayer Sediment Cover System for PCB contaminated sediment beneath the EPRI Building in Dredge Certification Unit 2B”. The OPS Project Team concurs with this NYSDEC representation that the SCS Remedy (the Engineered Multilayer Sediment Cover System) will be installed at the DCU Area 2B which is only part of the large EPRI Building footprint.

Section 7. Summary of Proposed Remedy, 1. Remedial Design: The DRAFT PRAP Section 7. Summary of Proposed Remedy, 1. Remedial Design states that “The encapsulation system must be able to withstand anticipated maximum wave energy within the tidal estuary predicted for up to a Category 5 hurricane (Saffir–Simpson Hurricane Wind Scale) with river elevations as high as the 500 year flood elevation, as well as impacts due to river, tidal, and wave-induced currents, and turbulence generated by ships/vessels (due to propeller action and vessel draft).” As discussed on May 20, 2014, the OPS Project Team understands NYSDEC request for a robust DCU Area 2B SCS that will be able to withstand the maximum anticipated wave energy on the SCS. NYSDEC must note that a Category 5 Hurricane on the Saffir–Simpson Hurricane Wind Scale only applies to the sustained wind intensity and does not correlate to the anticipated wave energy that will be applied to the SCS. The OPS Project Team’s response to the NYSDEC PRAP Remedial Design requirements will be submitted under separate cover and will present additional information on the maximum anticipated wave energy that may be applied to the SCS.

RESPONSE 12: The Department understands that the Saffir–Simpson Hurricane Wind Scale was derived only to categorize hurricane intensity and potential to damage manmade structures and that the highest flood levels may not cause the most damage to the Engineered Multilayer Sediment Cover System. Several discussions between the Department and PS&S Engineering, Inc. on this subject since the issuance of the PRAP has led to agreement that both the Department and PS&S Engineering, Inc. are seeking a design to anticipate the maximum wave energy that may be applied to the Engineered Multilayer Sediment Cover System.

COMMENT 13: Section 7. Summary of Proposed Remedy, 5. Site Management Plan: The DRAFT PRAP Section 7. Summary of Proposed Remedy, 5. Site Management Plan (Pages 14 and 15) states that “monitoring of the capped area and, if any portion of a capped area has been eroded, additional monitoring and sampling will be required to determine whether other areas have been contaminated with PCBs released from the damaged areas. Repair of the identified area, or if needed, additional remedial action or enhanced capping may be undertaken to cover any areas in the main river channel where sampling shows surface sediment PCB concentrations greater than or equal to 1 ppm”. As discussed on May 20, 2014, the OPS Project Team understands the NYSDEC SCS monitoring and reporting requirements; however, this new NYSDEC 1 PPM surface sediment PCB concentration requires further clarification, written justification, and negotiations. This new NYSDEC 1 PPM

surface sediment PCB concentration does not comply with the following NYSDEC three sediment remediation clean-up objectives (SRCO):

1. Maximum Concentration of 1 mg/kg (milligrams per kilogram) for Top 2 Feet of All Sediment Excavations: If the end-point analytical results indicate the average PCB concentration of all the samples is less than 1 mg/kg and no sample with a concentration greater or equal to 5 mg/kg is observed then the DCU sediment remediation would be considered complete in the area and no further remediation action would be required;
2. Average Concentration of 5 mg/kg for Sediment Excavations Deeper than 2 Feet: If the end-point analytical results indicate the average PCB concentration of all the samples is less than 5 mg/kg and no sample with a concentration greater or equal to 15 mg/kg, sediment removal would be considered complete in the area and no further remediation investigation would be required; and
3. Maximum Concentration of 15 mg/kg for Sediment Excavations Deeper than 2 Feet: If the end-point analytical results indicate the average PCB concentration is greater or equal to 5mg / kg or any sample is greater than 15 mg/kg, an additional foot of sediment would be dredged in the cut area and be retested.

If NYSDEC requires that OPS sample the Hudson River channel, the OPS Project Team will first consider the historical remedial investigation data which demonstrated that contamination from the BICC Site did not reach the Hudson River channel. Further and in the event of a 1 PPM exceedance, a forensic evaluation of the specific PCB congeners present at the BICC Site must be prepared to study the potential impacts of the BICC Site PCB impacted sediment under the SCS with respect to the entire Hudson River channel. Finally, the Hudson River channel is off-site and OPS will require a site access agreement from the Office of General Services (OGS) since the State of New York owns that land.

RESPONSE 13: Further investigation into the Hudson River would only be triggered if the remedy fails and sediment travels into the river or if the weight of the cover system or instability of the river bottom forces out, or otherwise allows, sediment from the beneath the cover to release to the surrounding sediment or capped area. In such an event, the Department would only require the remedial party to identify and remediate the sediment that was released.

COMMENT 14: Exhibit A – Nature and Extent of Contamination: In the second paragraph of Page 1, Exhibit A states “This contaminated sediment was identified and a table summarizing the findings of the investigation is included”. The NYSDEC referenced table was not included with the DRAFT PRAP. The Final PRAP must include this referenced table.

RESPONSE 14: Table 1 – Sediments was included in the OU 2 PRAP.

COMMENT 15: Page 2 - Exhibit A – Nature and Extent of Contamination (DCU Area 2B Limit): In the second paragraph of Page 2, Exhibit A NYSDEC states that “The BICC Cables OU2 proposed remedial action plan will focus on the DCU 2B. DCU 2B is an area of PCB contaminated sediment beneath the EPRI building, areal extent of approximately 15,300 square feet.” The OPS Project

Team concurs with the NYSDEC statement that the DCU Area 2B impacted sediment footprint is limited to 15,300 square feet.

NYSDEC must note that for design and construction purposes, the current SCS Remedy Design presents a sediment cap footprint of approximately 24,500 square feet over the DCU Area 2B footprint which is located under the northeast section of the EPRI Building. Nevertheless, the current SCS Remedy Design footprint does not encompass the entire EPRI Building (OU-2) footprint.

RESPONSE 15: The Department has stated that DCU 2B is an area of PCB contaminated sediment beneath the EPRI building, with an areal extent of approximately 15,300 square feet to which the PS&S Engineering, Inc./OPS Project Team concurs. The Department notes that the areal size of the Engineered Multilayer Sediment Cover System is expected to be greater than 15,300 square feet dependent on the final, acceptable design. The limits of the cover will be defined during the design.

COMMENT 16: Exhibit B, Description of Remedial Alternatives: The OPS Project Team concurs with the 7 Remedial Alternatives presented in Exhibit B; however, for the Project Record please identify the appropriate reference documents that initially presented these 7 Remedial Alternatives.

RESPONSE 16: The Department always includes the Alternatives Analysis documents as part of the Administrative Record of the ROD. The Alternatives Analysis document used was “*Dredge Containment Unit (DCU) Area 2B Sediment Remediation Alternatives Analysis Report*,” November 2013, prepared by PS&S Engineering, Inc. and is included in the Administrative Record as well as being referenced in Exhibit D, page8.

COMMENT 17: Exhibit B, Description of Remedial Alternatives – Alternative 7 (Low Profile Mechanical Dredging): The OPS Project Team concurs with the Alternative 7 – Low Profile Mechanical Dredging presented in Exhibit B; however, NYSDEC should clarify that low profile mechanical dredging was attempted as part of the 2012 EPRI Building Pilot Study and was observed to not be a safe, efficient, and economical approach to complete the entire DCU Area 2B footprint. Further, Alternative 7 – Low Profile Mechanical Dredging approach was limited to the easternmost and shallowest Hudson River DCU Area 2B column bays under the EPRI Building under the northeast section.

RESPONSE 17: Exhibit B merely identifies the alternatives, Exhibit D is where the evaluation and screening of the alternatives occurs. The Department concurs that Alternative 7 (Low Profile Mechanical Dredging) did not pass evaluation criteria 6 for Implementability or evaluation criteria 7 for Cost-Effectiveness.

COMMENT 18: Exhibits B and C, Alternative 7 (Low Profile Mechanical Dredging) Annual Costs: Exhibit Page 6 identifies the Alternative 7 Annual Cost as \$20,000; however, Exhibit C – Remedial Alternative Costs identifies the Alternative 7 Annual Cost as \$0. The Final PRAP must clarify and report the appropriate Alternative 7 Annual Cost.

RESPONSE 18: The Department corrected Exhibit B, Page 6, Alternative 7: Low Profile Mechanical Dredging, Annual Costs to \$0.

COMMENT 19: Exhibit D, Summary of the Proposed Remedy – Primary Balancing Criteria: Exhibit D, Page 9 of the DRAFT PRAP states that “The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.” The DRAFT PRAP identifies seven primary balancing criteria (3. Long-Term Effectiveness and Permanence through 9. Community Acceptance); therefore, the NYSDEC PRAP should be updated, as appropriate.

RESPONSE 19: The Department has corrected the ROD to indicate seven primary balancing criteria.

APPENDIX B

Administrative Record

Administrative Record

BICC Cables
Operable Unit Number 02: Hudson River Sediment
Remediation EPRI Building DCU 2B
State Superfund Project
Yonkers, Westchester County, New York
Site No. 360051

1. *Proposed Remedial Action Plan* for the BICC Cable site, dated December 2004, prepared by the Department.
2. Order on Consent, Index No. D3-0001-00-03, between Department and BICC Cables Corporation, executed on March 17, 2000.
3. "*Remedial Investigation/Feasibility Study Report*," Vol. 1, September 2003, prepared by ERM
4. "*Remedial Investigation/Feasibility Study Report*," Vol. 2, December 2003, revised September 10, 2004, prepared by ERM.
5. "*Remedial Investigation/Feasibility Study Work Plan*", May 2000, prepared by ERM.
6. *Record of Decision*, BICC Cables (#360051), March 2005, prepared by the Department.
7. "*Dredge Containment Unit (DCU) Area 2B Sediment Remediation Alternatives Analysis Report*," November 2013, prepared by PS&S Engineering, Inc.
8. *Proposed Remedial Action Plan, BICC Cables, OU2: Hudson River Sediment Remediation EPRI Building DCU 2B*, April 2014, prepared by the Department.
9. *Proposed Amended Record of Decision*, OU1, State Superfund Project, BICC Cables (#360051) dated April 2014, prepared by the Department.
10. Letter submitted to the Department from Janos M. Szeman of PS&S Engineering, Inc. dated June 4, 2014.

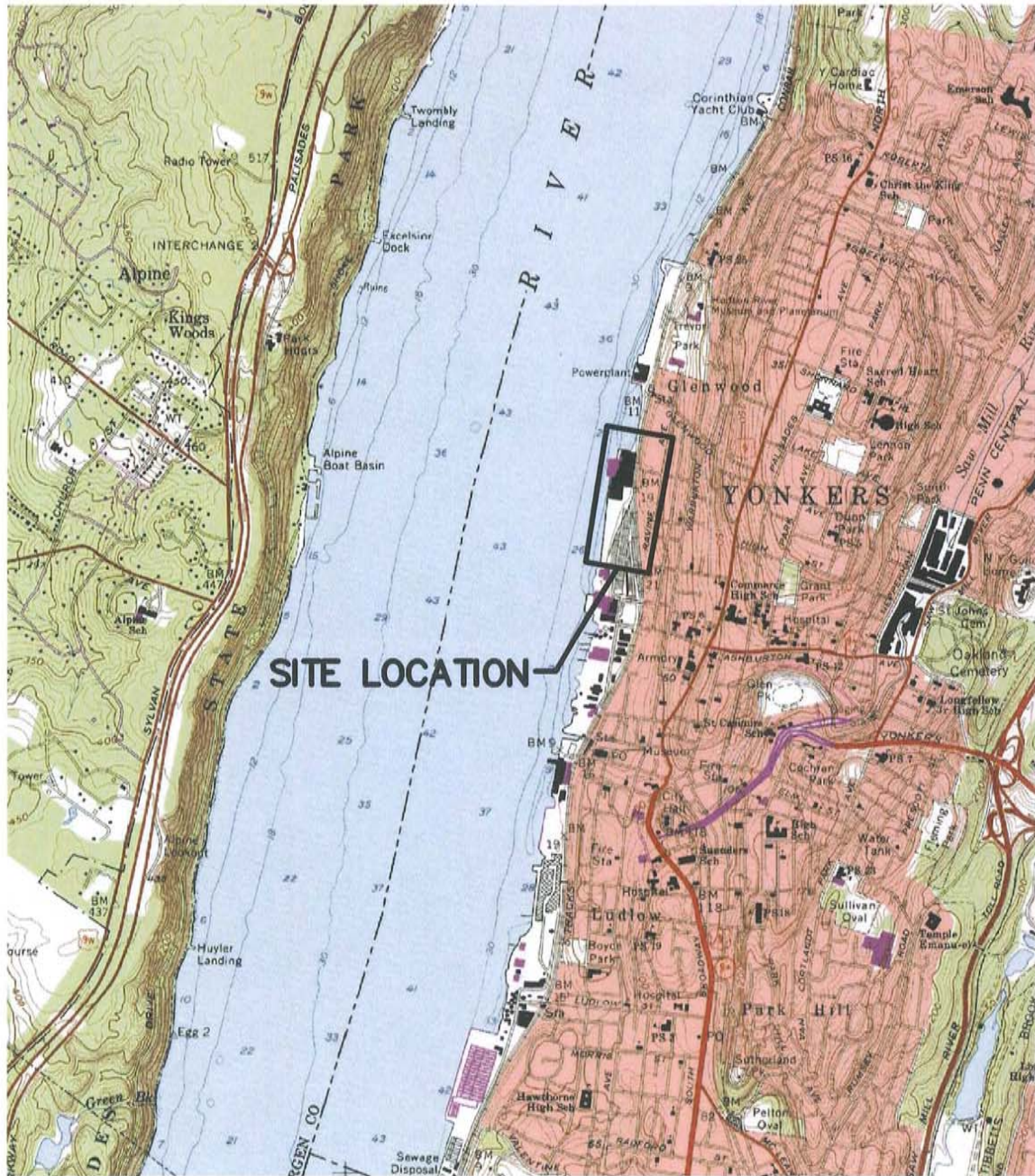
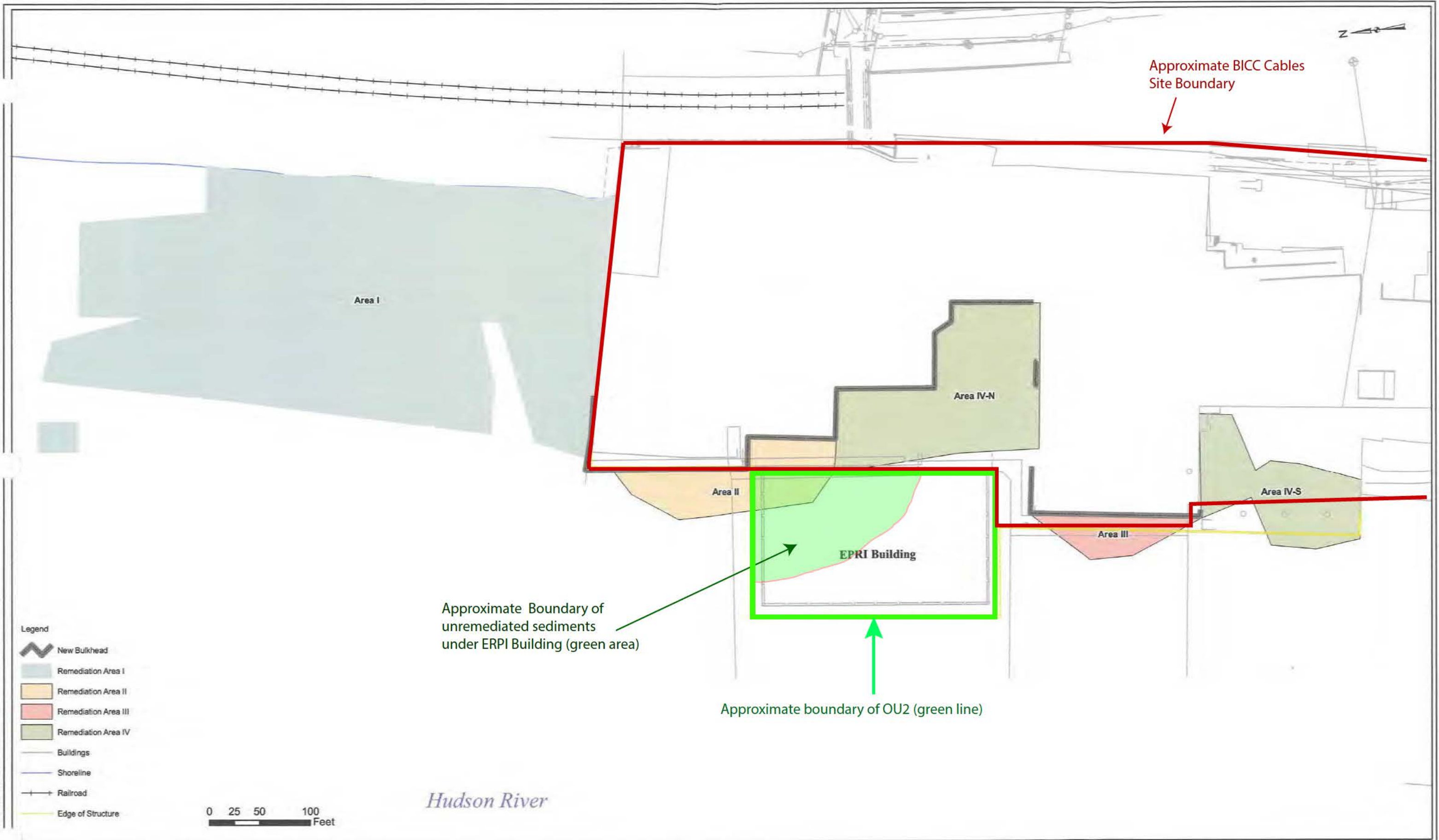


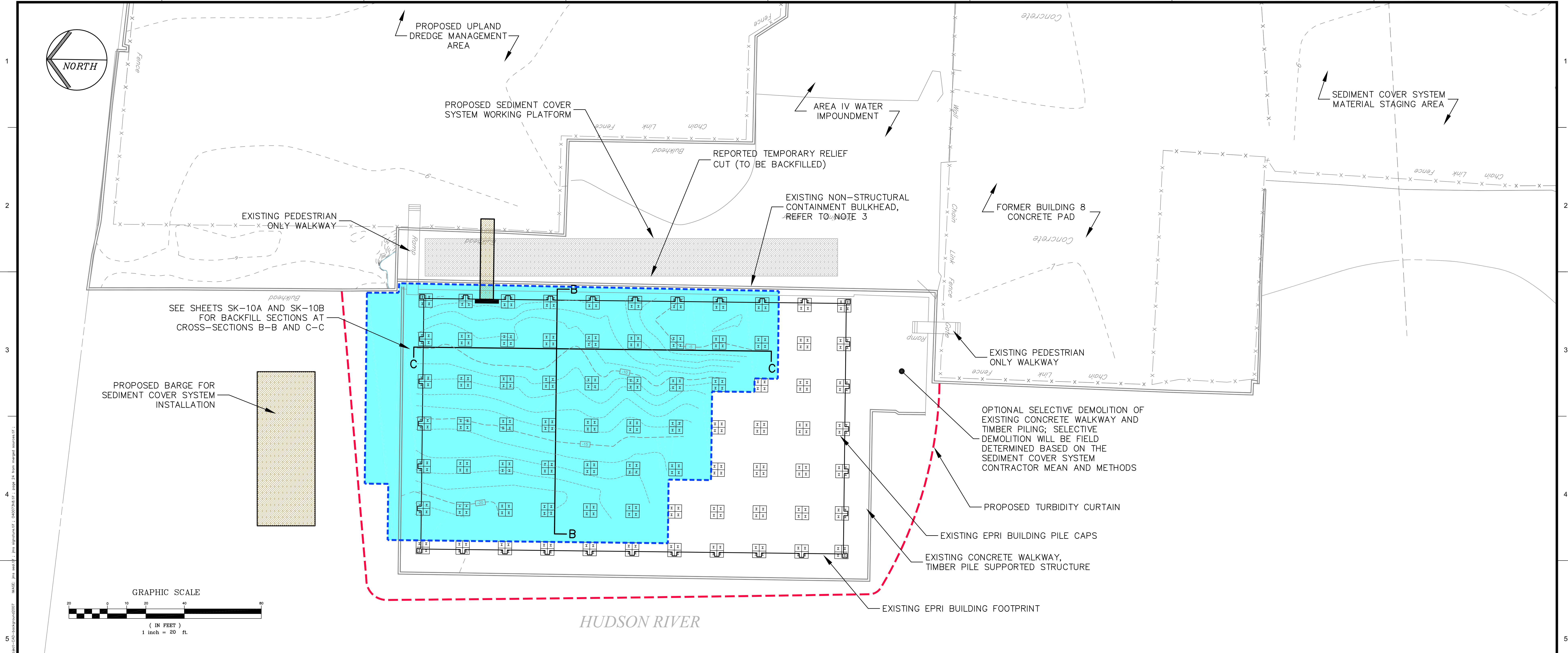
Figure 1
Site Location Map
Former BICC Cables Site
Yonkers, New York

Reference:
 USGS Quadrangle 7.5 minute
 Yonkers, N.Y. - 1966 (Revised 1979)

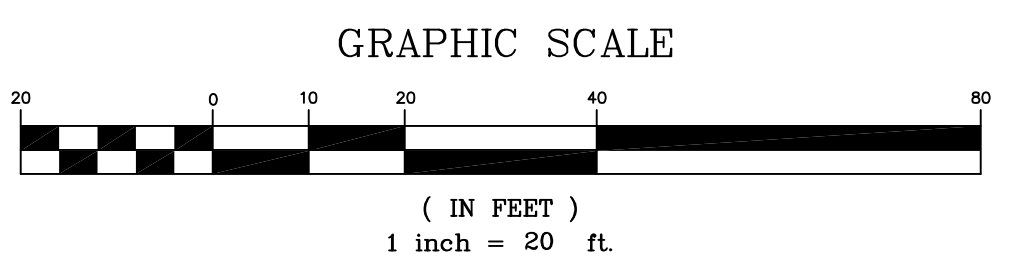
Figure 2 - Operable Units
BICC Cables (Site #360051)







SEE SHEETS SK-10A AND SK-10B FOR BACKFILL SECTIONS AT CROSS-SECTIONS B-B AND C-C



LEGEND

	PROPOSED MULTI-LAYER SEDIMENT COVER SYSTEM
--	--

- NOTES:**
1. TOPOGRAPHIC SURVEY DATA SHOWN IS REFERENCED FROM SURVEY PREPARED BY WARD CARPENTER, INC., PREPARED FOR "ONE POINT STREET, INC" AND RECEIVED BY PS&S ON NOVEMBER 17, 2011.
 2. EPRI BUILDING COLUMN AND DREDGE DEPTH DATA SHOWN IS REFERENCED FROM DRAWING PREPARED BY TETRA TECH ENGINEERING CORPORATION, P.C., PREPARED FOR "FORMER BICC CABLES SITE", DRAWING TITLED "EPRI UNDER-BUILDING PILOT STUDY", SHEET NO. 6009, DATED JULY 25, 2012.
 3. UNDER BUILDING BATHYMETRIC DATA SHOWN WAS ACQUIRED FROM A DRAWING TITLED "2013 DCU AREA 2B EXISTING CONDITIONS BATHYMETRIC SURVEY" PREPARED BY "WARD CARPENTER, INC." AND DATED SEPTEMBER 24, 2013. THE SEPTEMBER 2013 DCU AREA 2B BATHYMETRIC SURVEY WAS UPDATED ON OCTOBER 21, 2013 TO DOCUMENT THE OBSERVED ZONE 1A (CELLS A1 AND A2) BATHYMETRY AFTER THE OCTOBER 2013 SCANCRAWLER SEDIMENT EXCAVATION ATTEMPTS.
 4. THE EXISTING NON-STRUCTURAL CONTAINMENT BULKHEAD MAY REQUIRE SELECTIVE DEMOLITION TO ONE FOOT ABOVE THE CURRENT MUD LINE TO ALLOW FOR CONSTRUCTION EQUIPMENT ACCESS FROM THE WATER IMPOUNDMENT.
 5. SELECTIVE DEMOLITION OF THE EXISTING CONCRETE WALKWAY AND TIMBER PILING MAY BE REQUIRED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE MULTI-LAYER SEDIMENT COVER SYSTEM. SELECTIVE DEMOLITION WILL BE NECESSARY FOR CONTRACTOR TO ACCESS UNDER THE EPRI BUILDING AND TO PLACE AND CONSTRUCT THE MULTI-LAYER SEDIMENT COVER SYSTEM. THE EXTENT OF THE SELECTIVE DEMOLITION WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON THE EXTENT OF THE COMPLETED SEDIMENT EXCAVATION ACTIVITIES AND THE OBSERVED EXISTING CONCRETE WALKWAY AND TIMBER PILING CONDITIONS.

ISSUED FOR CONSTRUCTION (07/16/2013)

REVISIONS/ISSUES					
NO.	DATE	BY	CHK	DESCRIPTION	
1	04/17/13	RP	JMS	ISSUED FOR REGULATORY REVIEW	
2	06/12/13	RP	JMS	REVISED PER NYSDOC COMMENTS	
3	07/16/13	RP	JMS	EDITS TO COVER SYSTEM DETAIL	
4	11/27/13	RP	JMS	REVISIONS TO SEDIMENT COVER SYSTEM DETAIL	
5	04/21/14	RP	JMS	04/16/2014 NYSDOC COMMENTS; ISSUED FOR DCU AREA 2B SCS PRAP	

**BICC Site
Hudson River Remediation
DCU Area 2B**

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JANOS M. SZEMAN, P.E.
PROFESSIONAL ENGINEER
NEW YORK - LIC. NO. 084542-1

Janos M. Szeman 04/23/2014
SIGNATURE DATE

PS&S
Integrating design & engineering

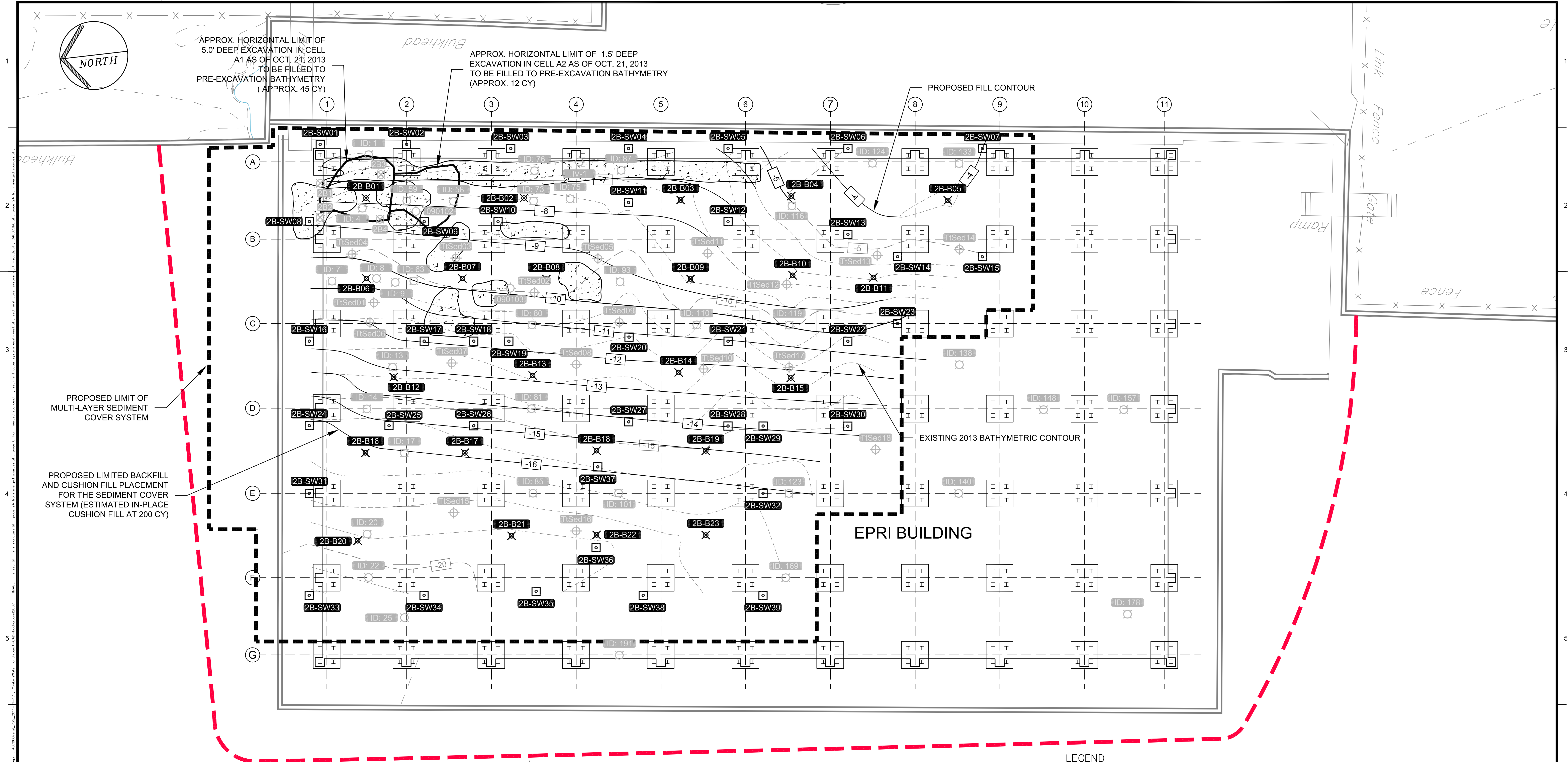
55 MAIN STREET
3RD FLOOR
YONKERS, NEW YORK 10791
PHONE (914) 509-8600

PROJECT TITLE
**ONE POINT STREET, INC.
FORMER BICC CABLES
SITE**

CITY OF YONKERS, NEW YORK

SHEET TITLE
**PROPOSED SEDIMENT
COVER SYSTEM
CONSTRUCTION PLAN**

DATE	04/04/2013	JOB NO.	045210001
SCALE	1"=20'	B/O	
DRAWN	RP	SHEET NO.	
CHKD.	JMS		SK-09



APPROX. HORIZONTAL LIMIT OF 5.0' DEEP EXCAVATION IN CELL A1 AS OF OCT. 21, 2013 TO BE FILLED TO PRE-EXCAVATION BATHYMETRY (APPROX. 45 CY)

APPROX. HORIZONTAL LIMIT OF 1.5' DEEP EXCAVATION IN CELL A2 AS OF OCT. 21, 2013 TO BE FILLED TO PRE-EXCAVATION BATHYMETRY (APPROX. 12 CY)

PROPOSED FILL CONTOUR

EXISTING 2013 BATHYMETRIC CONTOUR

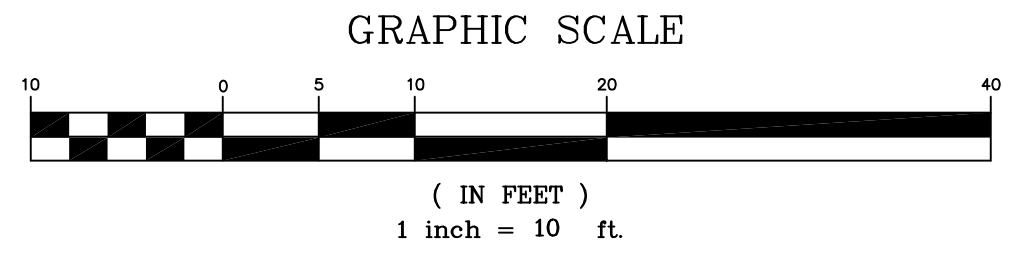
EPRI BUILDING

HUDSON RIVER

PROPOSED LIMIT OF MULTI-LAYER SEDIMENT COVER SYSTEM

PROPOSED LIMITED BACKFILL AND CUSHION FILL PLACEMENT FOR THE SEDIMENT COVER SYSTEM (ESTIMATED IN-PLACE CUSHION FILL AT 200 CY)

PROPOSED TURBIDITY CURTAIN



REFERENCE NOTES:

- TOPOGRAPHIC SURVEY DATA SHOWN IS REFERENCED FROM A SURVEY PREPARED BY WARD CARPENTER, INC., PREPARED FOR "ONE POINT STREET, INC" AND RECEIVED BY PS&S ON NOVEMBER 17, 2011.
- EPRI BUILDING COLUMNS AND 2012 PROPOSED DREDGE DEPTH DATA SHOWN IS REFERENCED FROM A DRAWING PREPARED BY TETRA TECH ENGINEERING, P.C.; PREPARED FOR "FORMER BICC CABLES SITE"; PROJECT TITLED "EPRI UNDER-BUILDING PILOT STUDY"; DRAWING TITLED "FIGURE 4 PROPOSED DREDGE CUTS FOR FULL SCALE REMEDIATION"; SHEET NO. G004; DATED JULY 25, 2012.
- UNDER BUILDING BATHYMETRIC DATA SHOWN WAS ACQUIRED FROM A DRAWING TITLED "2013 DCU AREA 2B EXISTING CONDITIONS BATHYMETRIC SURVEY" PREPARED BY "WARD CARPENTER, INC." AND DATED SEPTEMBER 24, 2013. THE SEPTEMBER 2013 DCU AREA 2B BATHYMETRIC SURVEY WAS UPDATED ON OCTOBER 21, 2013 TO DOCUMENT THE OBSERVED ZONE 1A (CELLS A1 AND A2) BATHYMETRY AFTER THE OCTOBER 2013 SCANCRAWLER SEDIMENT EXCAVATION ATTEMPTS.
- DEBRIS LOCATION AND BICC POLING DEBRIS LOCATIONS CHART SHOWN IS REFERENCED FROM A DRAWING PREPARED BY TETRA TECH ENGINEERING, PC; PREPARED FOR "FORMER BICC CABLES SITE"; PROJECT TITLED "EPRI UNDER BUILDING PILOT STUDY"; DRAWING TITLED "FIGURE 9 EPRI BUILDING DREDGING KNOWN DEBRIS LOCATIONS"; SHEET NO. G009; DATED JULY 25, 2012
- LOCATION OF ESTIMATED HARD MATERIAL SHOWN IS REFERENCED FROM A DRAWING PREPARED BY TETRA TECH ENGINEERING, P.C.; PREPARED FOR "POINT STREET FACILITY - EPRI LAB BUILDING"; DRAWING TITLED "EXTENTS OF PRELIMINARY PROBE SURVEY AND SEDIMENT CORE COLLECTION LOCATIONS"; SHEET FIG. 1; NOT DATED.
- LIMITED BACKFILL AND CUSHION FILL MATERIAL (I.E., IMPORTED FILL MATERIAL) WILL BE PLACED IN SUCH A MANNER AS TO CONSTRUCT A UNIFORM DOWNSLOPING GRADE (I.E., BATHYMETRY) FROM THE EAST AT COLUMN LINE A TO THE WEST AT COLUMN LINES E AND F.
- THE PRIME REMEDIATION CONTRACTOR WILL BE RESPONSIBLE FOR PROCURING, DELIVERING, AND PLACING THE LIMITED BACKFILL AND CUSHION FILL MATERIAL. THE PRIME REMEDIATION CONTRACTOR AND THE ENGINEER WILL SUBMIT THE IMPORTED FILL MATERIAL DOCUMENTS AND THE SEDIMENT COVER SYSTEM OPERATIONS TO NYSDEC FOR THE PROJECT RECORD.

LEGEND

- [2010] ESTIMATED AREA OF HARD MATERIAL
- PROPOSED SEDIMENT EXCAVATION "BOTTOM OF EXCAVATION" CONFIRMATORY SAMPLE (1 SAMPLE APPROXIMATELY EVERY 900 SF)
- PROPOSED MULTI-LEVEL SEDIMENT EXCAVATION "SIDEWALL OF EXCAVATION" CONFIRMATORY SAMPLE (1 SAMPLE APPROX EVERY 30LF). SEE TO DETAIL SW
- [2012] SEDIMENT CORE LOCATIONS (REFER TO SHEET SK-02A)
- [2012] STUDY CONFIRMATORY SAMPLES (REFER TO SHEET SK-02A)
- [2008] REMEDIAL INVESTIGATION IN AREA 2B2 (REFER TO SHEET SK-02A)
- [2008] DEBRIS LOCATION (REFER TO SHEET SK-04A)
- 15- SEPTEMBER 2013 WARD CARPENTER BATHYMETRIC SURVEY
- 15- PROPOSED LIMITED BACKFILL AND CUSHION FILL GRADING (BATHYMETRY) PLAN

REVISIONS/ISSUES			
NO.	DATE	BY	DESCRIPTION
1	11/13/13	RP	ISSUED FOR REGULATORY REVIEW
2	11/27/13	RP	REVISIONS TO SEDIMENT COVER SYSTEM DETAIL
3	04/21/14	RP	04/18/2014 NYSDEC COMMENTS; ISSUED FOR DCU AREA 2B SCS PREP

BICC Site
Hudson River Remediation
DCU Area 2B

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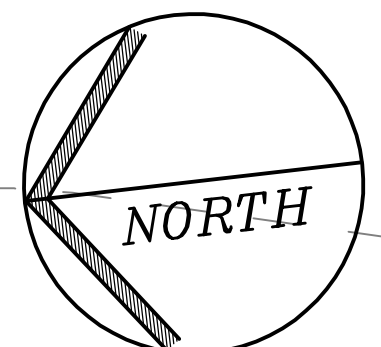
JANOS M. SZEMAN, P.E.
PROFESSIONAL ENGINEER
NEW YORK LIC. NO. 084542-1
Janos M. Szeman 04/23/2014
SIGNATURE DATE

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PHONE (914) 509-8600

PROJECT TITLE
**ONE POINT STREET, INC.
FORMER BICC CABLES
SITE**
CITY OF YONKERS, NEW YORK

SHEET TITLE
**SEDIMENT COVER
SYSTEM SITE PLAN
& LIMITED BACKFILL
MATERIAL PLAN**

DATE 10/22/2013
SCALE 1"=10'
DRAWN RP
CHKD. JMS
JOB NO. 048170002
SHEET NO.
SK-09A



APPROX. HORIZONTAL LIMIT OF OCTOBER 2013 5.0' DEEP EXCAVATION APPROX. 45 CY

APPROX. HORIZONTAL LIMIT OF OCTOBER 2013 1.5' DEEP EXCAVATION APPROX. 12 CY

EXISTING NON-STRUCTURAL CONTAINMENT BULKHEAD, REFER TO SHEET SK-00, SITE IMPROVEMENT NOTES, NOTE 1.

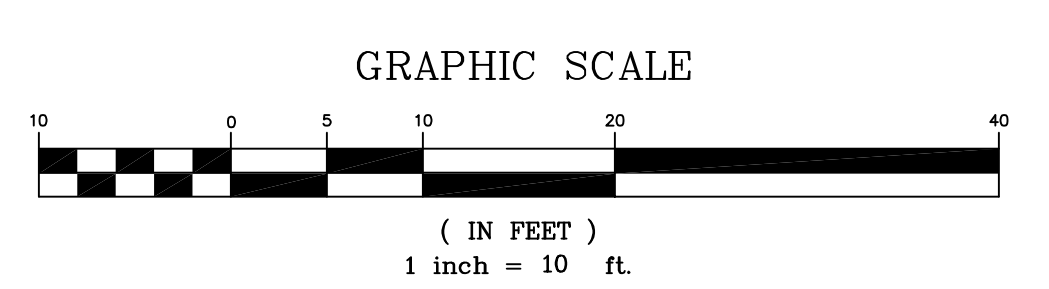
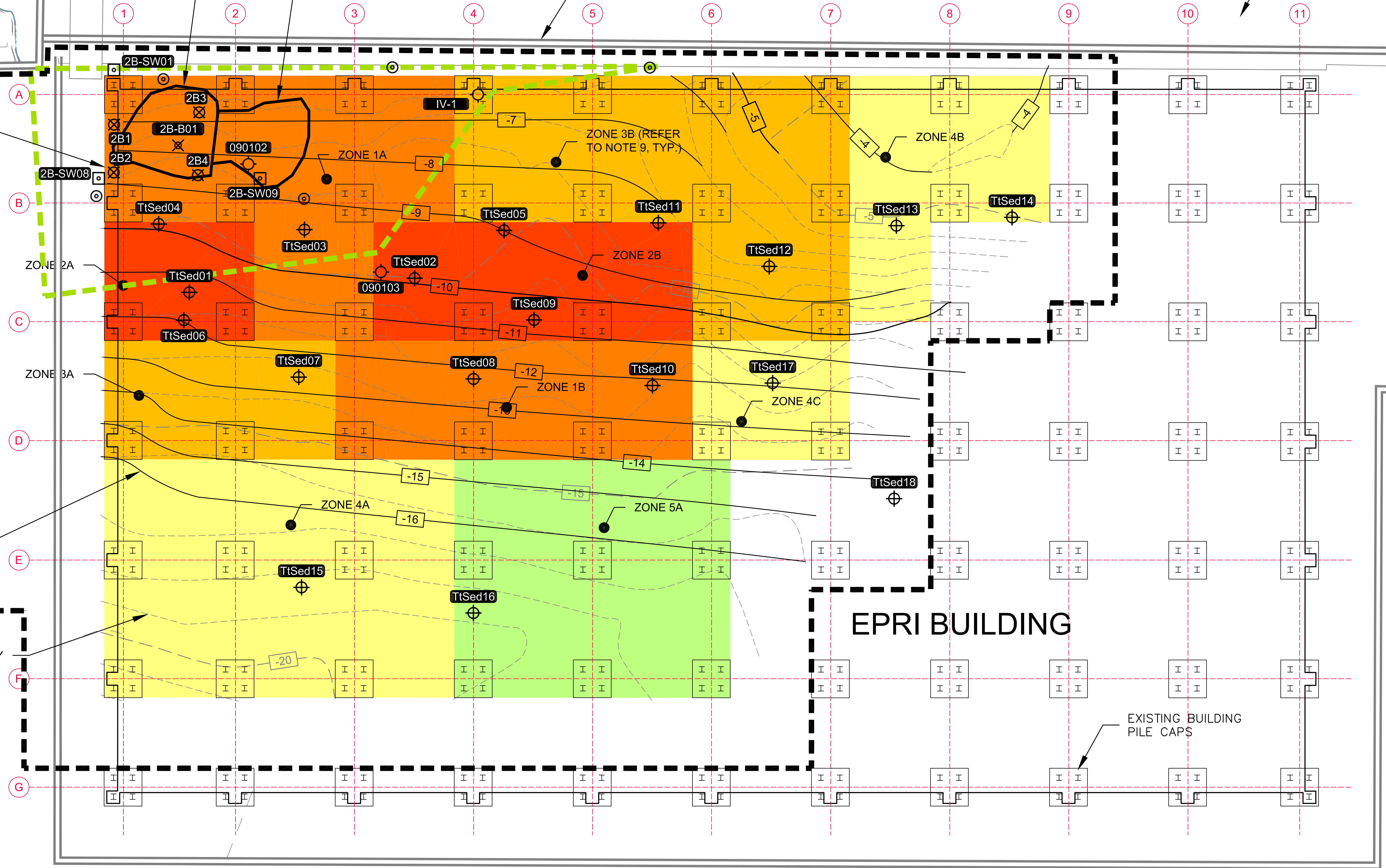
AREA IV WATER IMPOUNDMENT

HISTORIC 2008 REMEDIAL INVESTIGATION SAMPLING RESULTS AT SAMPLE LOCATIONS 2B1, 2B2, 2B3 AND 2B4 HAVE BEEN SUPERSEDED BY SAMPLING RESULTS SHOWN ON SHEET CCR-01

PROPOSED LIMIT OF MULTI-LAYER SEDIMENT COVER SYSTEM

PROPOSED LIMITED BACKFILL BATHYMETRY

EXISTING 2013 BATHYMETRY



HUDSON RIVER

- REFERENCE NOTES:
1. TOPOGRAPHIC SURVEY DATA SHOWN IS REFERENCED FROM A SURVEY PREPARED BY WARD CARPENTER, INC., PREPARED FOR "ONE POINT STREET, INC" AND RECEIVED BY PS&S ON NOVEMBER 17, 2011.
 2. EPRI BUILDING COLUMNS, ESTIMATED DEPTH OF IMPACTED SEDIMENT AND PROPOSED DREDGE DEPTH SHOWN IS REFERENCED FROM A DRAWING PREPARED BY TETRA TECH ENGINEERING CORPORATION, P.C.; PREPARED FOR "FORMER BICC CABLES SITE"; PROJECT TITLED "EPRI UNDER-BUILDING PILOT STUDY"; DRAWING TITLED "FIGURE 4 PROPOSED DREDGE CUTS FOR FULL SCALE REMEDIATION"; SHEET NO. 6004; DATED JULY 25, 2012.
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 6. REMEDIAL INVESTIGATION AREAS IN 2B2 LOCATIONS AND THE TABLE SHOWN ARE REFERENCED FROM A DRAWING PREPARED BY H2M GROUP, INC.; DRAWING TITLED "REMEDIAL INVESTIGATION AREAS - AREA II"; FIGURE 2-3; DATED MARCH 2010.
 7. UNDER BUILDING BATHYMETRIC DATA SHOWN WAS ACQUIRED FROM A DRAWING TITLED "2013 DCU AREA 2B EXISTING CONDITIONS BATHYMETRIC SURVEY" PREPARED BY "WARD CARPENTER, INC." AND DATED SEPTEMBER 24, 2013.
 8. POST EXCAVATION SAMPLES WERE COLLECTED ON NOVEMBER 10, 2013 USING AN ECKMAN SAMPLING DREDGE. RESULTS ARE PRESENTED AS TOTAL POLYCHLORINATED BIPHENYL (PCBs) CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (mg/kg).
 9. HISTORICAL 2010 SAMPLE LOCATIONS HAVE BEEN SUPERSEDED BY SAMPLING RESULTS OBTAINED DURING TETRA TECH'S MARCH 2012 SAMPLING EVENT AND BY SAMPLING RESULTS SHOWN ON CCR-01.

- MARCH 2005 RECORD OF DECISION (ROD) SEDIMENT CLEANUP OBJECTIVES (SCOS):
1. MAXIMUM AVERAGE CONCENTRATION OF 1 MG/KG (MILLIGRAMS PER KILOGRAM) FOR TOP 2 FEET OF ALL SEDIMENT EXCAVATIONS: IF THE END-POINT ANALYTICAL RESULTS INDICATE THE AVERAGE PCB CONCENTRATION OF ALL THE SAMPLES IS LESS THAN 1 MG/KG AND NO SAMPLE WITH A CONCENTRATION GREATER OR EQUAL TO 5 MG/KG IS OBSERVED THEN THE DCU SEDIMENT REMEDIATION WOULD BE CONSIDERED COMPLETE IN THE AREA AND NO FURTHER REMEDIATION ACTION WOULD BE REQUIRED;
 2. AVERAGE CONCENTRATION OF 5 MG/KG FOR SEDIMENT EXCAVATIONS DEEPER THAN 2 FEET: IF THE END-POINT ANALYTICAL RESULTS INDICATE THE AVERAGE PCB CONCENTRATION OF ALL THE SAMPLES IS LESS THAN 5 MG/KG AND NO SAMPLE WITH A CONCENTRATION GREATER OR EQUAL TO 15 MG/KG, SEDIMENT REMOVAL WOULD BE CONSIDERED COMPLETE IN THE AREA AND NO FURTHER REMEDIATION INVESTIGATION WOULD BE REQUIRED; AND
 3. MAXIMUM CONCENTRATION OF 15 MG/KG FOR SEDIMENT EXCAVATIONS DEEPER THAN 2 FEET: IF THE END-POINT ANALYTICAL RESULTS INDICATE THE AVERAGE PCB CONCENTRATION IS GREATER OR EQUAL TO 5MG / KG OR ANY SAMPLE IS GREATER THAN 15 MG/KG, AN ADDITIONAL FOOT OF SEDIMENT WOULD BE DREDGED IN THE CUT AREA AND BE RETESTED.

LEGEND

- 8' THICK SEDIMENT REMEDIATION (ZONES 2A AND 2B)
- 6' THICK SEDIMENT REMEDIATION (ZONES 1A AND 1B)
- 4' THICK SEDIMENT REMEDIATION (ZONES 3A AND 3B)
- 3' THICK SEDIMENT REMEDIATION (ZONES 4A, 4B AND 4C)
- 2' THICK SEDIMENT REMEDIATION (ZONE 5A)
- [2010] REPORTED SEDIMENT REMEDIATION AREA 2B
- [2012] SEDIMENT CORE LOCATIONS
- [2012] STUDY CONFIRMATORY SAMPLES
- [2008] REMEDIAL INVESTIGATION IN AREA 2B
- [2010] POST-DREDGING SAMPLING LOCATIONS, SEE NOTE 10
- PROPOSED BOTTOM OF EXCAVATION CONFIRMATORY SAMPLE
- PROPOSED SIDEWALL OF EXCAVATION CONFIRMATORY SAMPLE
- SEPTEMBER 2013 WARD CARPENTER BATHYMETRIC SURVEY
- PROPOSED LIMITED BACKFILL AND CUSHION FILL GRADING (BATHYMETRY) PLAN

HISTORIC 2012 SEDIMENT SAMPLING SUMMARY (REFER TO REFERENCE NOTE 4)

Top	Bottom	TiSed01	TiSed01A	TiSed02	TiSed02A	TiSed03	TiSed03A	TiSed04	TiSed04A	TiSed05	TiSed05A	TiSed06	TiSed06A	TiSed07	TiSed07A	TiSed08	TiSed08A	TiSed09	TiSed09A	TiSed10	TiSed10A	TiSed11	TiSed11A	TiSed12	TiSed12A	TiSed13	TiSed13A	TiSed14	TiSed15	TiSed15A	TiSed16	TiSed16A	TiSed17	TiSed18
0	0.5	0.818	0.466	2.883	0.2945	3.582	0.419	12.4	ND	2.71	1.506	0.423	0.112	0.668	0.551	0.567	0.915	0.717	1.123	0.913	0.691	2.16	2.84	2.832	1.047	4.68	0.492	1.52	1.324	1.542	0.528	0.7403		
0.5	1	3.93	2.469	14.95	0.4517	8.61	0.436	29.1	0.289	4.46	3.052	1.077	0.104	1.594	0.545	0.748	1.097	1.065	1.72	1.349	0.59	1.547	1.229	0.668	5.981	6.19	1.564	1.128	4.48	0.441	7.61	0.592	2.18	
1	1.5	116.8	3.976	3.029	0.3467	2.436	1.183	7.66	3.201	2.68	1.418	4.385	0.247	1.495	0.283	2.111	1.179	0.5334	0.773	2.481	0.68	1.006	0.672	0.773	0.938	0.578							2.307	
1.5	2	5.73	1.621	4.71	1.625	4.52	1.767	3.8	0.563	2.824	4.731	7.48	0.167	6.737	1.635	1.462	1.816	0.871	1.203	5.088	0.698	1.109	6.05	28.09	0.317	0.671							2.49	
2	2.5	0.569		1.03	3.345	88.4	3.748	0.379	2.875	2.99		103	0.802	0.28		45.09	1.063	2.84	2.651	1.663	1.86	2.489	1.511		1.708									
2.5	3	0.492		0.273	3.316	0.0802		ND	21.92	738		ND	0.751	ND		2.85	7.75	49.24	3.598	7.9	8.623	1.401	1.725		1.437									
3	3.5	4.07		7.61	4.248			ND	82.9	45		ND	2.018	ND		27.2	5.25	27.93	1.866	2.342	4.2	1.072	1.481		5.25									
3.5	4	0.237		36.3	5.2			ND	3.182	0		553	3.745	ND		43.17	3.006	6.12	6.17	1.023	3.048	2.16	ND		4.13									
4	4.5	ND		0.271	9.84			ND	3.08	8.53		118	7.25	ND		ND	ND	103.2	84.63	2.742	2.791	17.33	ND		1.815									
4.5	5	ND		ND	2.084			ND	2.09	5.31		5.033	ND	ND		ND	ND	1.206	ND	ND	32.71	5.391			1.727									
5	5.5	ND		89.3	3.228			ND	4.69	4.73		3.157	ND	ND		ND	ND	3.157	ND	ND	0.758	ND			1.621									
5.5	6	ND		0.195				ND	80	37.3		ND	ND	ND		ND	ND	ND	ND	ND	3.646				1.2									
6	6.5	ND		0.459				ND	0.459																									
6.5	7	ND		ND				ND																										
7	7.5	ND		ND				ND	0.307																									
7.5	8	ND		ND				ND																										

Individual sample >15 ppm (any depth)
 Individual sample >5 ppm (top 2 feet only)
 ND Not detected
 FOR PROPOSED SEDIMENT EXCAVATION DEPTHS SEE FIGURE SK-05
 Samples IDs followed by the letter "A" were collected by hand coring; all other samples were collected using sonic drilling methods
 Heavy black horizontal lines indicate the bottom of the first core barrel deployments recovery at each roto-sonic core location

REVISIONS/ISSUES

NO.	DATE	BY	CHK	DESCRIPTION
0	11/13/13	RP	JMS	ISSUED FOR REGULATORY REVIEW (12/2013)
1	04/21/14	RP	JMS	ISSUED FOR DCU AREA 2B SC5 PRAP

ONE POINT STREET, INC.
FORMER BICC CABLES SITE

NYSDEC SITE NUMBER: C360051
 BROWNFIELD'S SITE CLEANUP AGREEMENT
 INDEX NUMBER: W3-1063-05-03

ORIENTATION/KEY PLAN

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JANOS M. SZEMAN, P.E.
 PROFESSIONAL ENGINEER
 NEW YORK LIC. NO. 084542-1

Signature: *Janos M. Szeman* 04/23/2014 DATE

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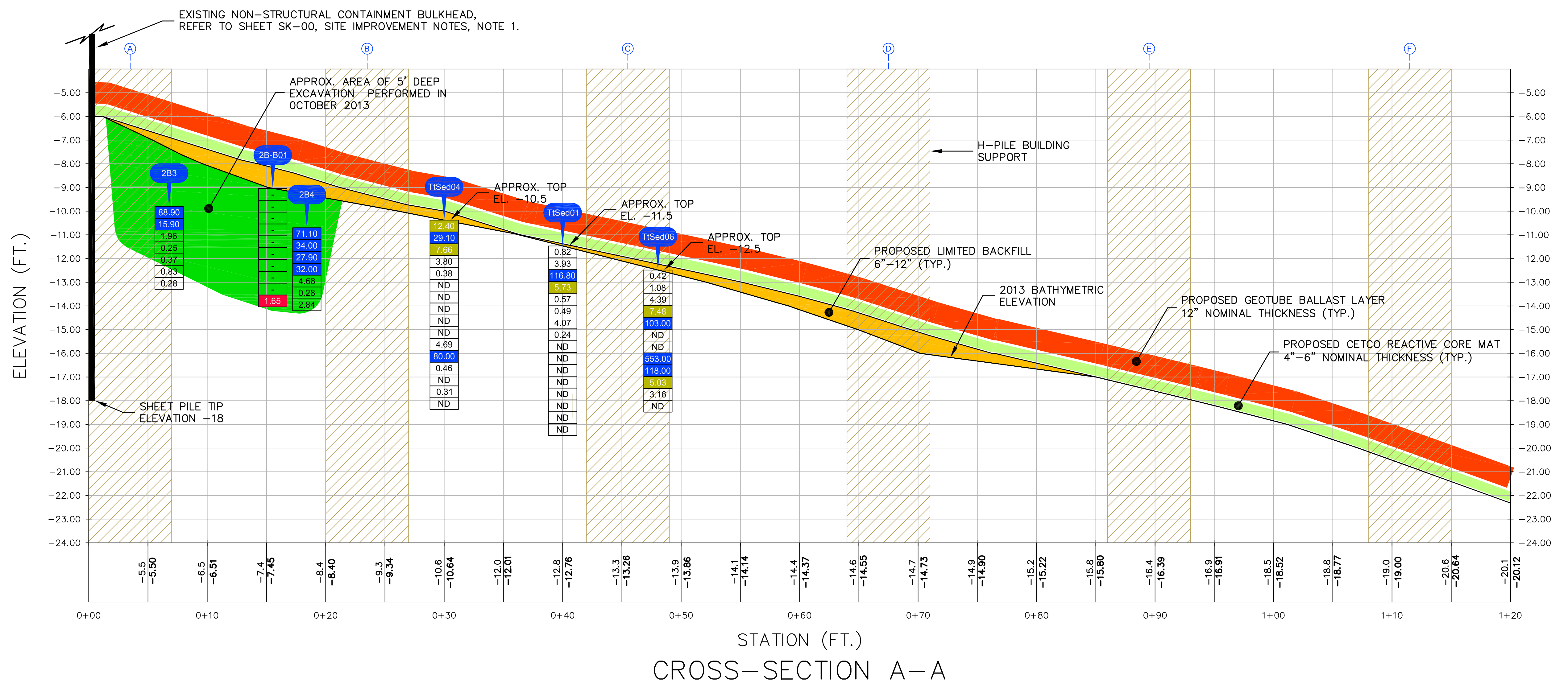
55 MAIN STREET
 3RD FLOOR
 YONKERS, NEW YORK 10791
 PHONE (914) 509-8600

PROJECT TITLE
 DCU AREA 2B
 CFR 761.61(c)
 RISK BASED
 APPROACH
 APPLICATION

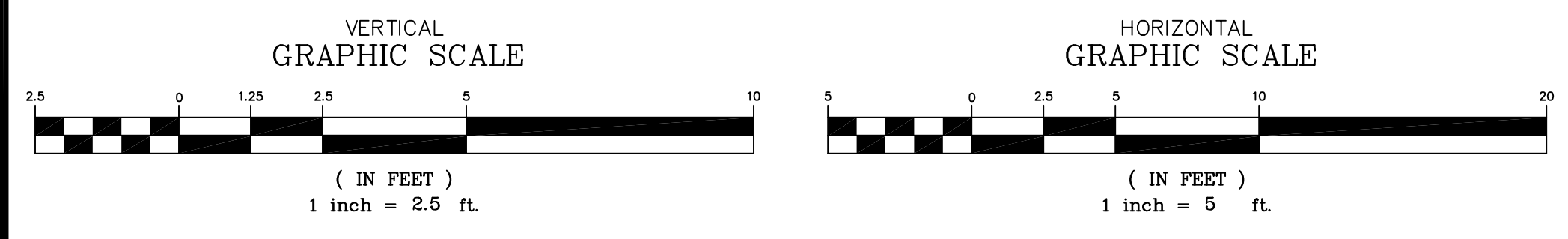
SHEET TITLE
 2013 DCU AREA 2B
 REMAINING
 CONTAMINATION DATA
 AFTER PROPOSED
 EXCAVATION

DATE 01/31/14
 SCALE 1"=10'
 DRAWN RP
 CHKD. JMS

JOB NO. 048170002
 SHEET NO. CCR-02



CROSS-SECTION A-A

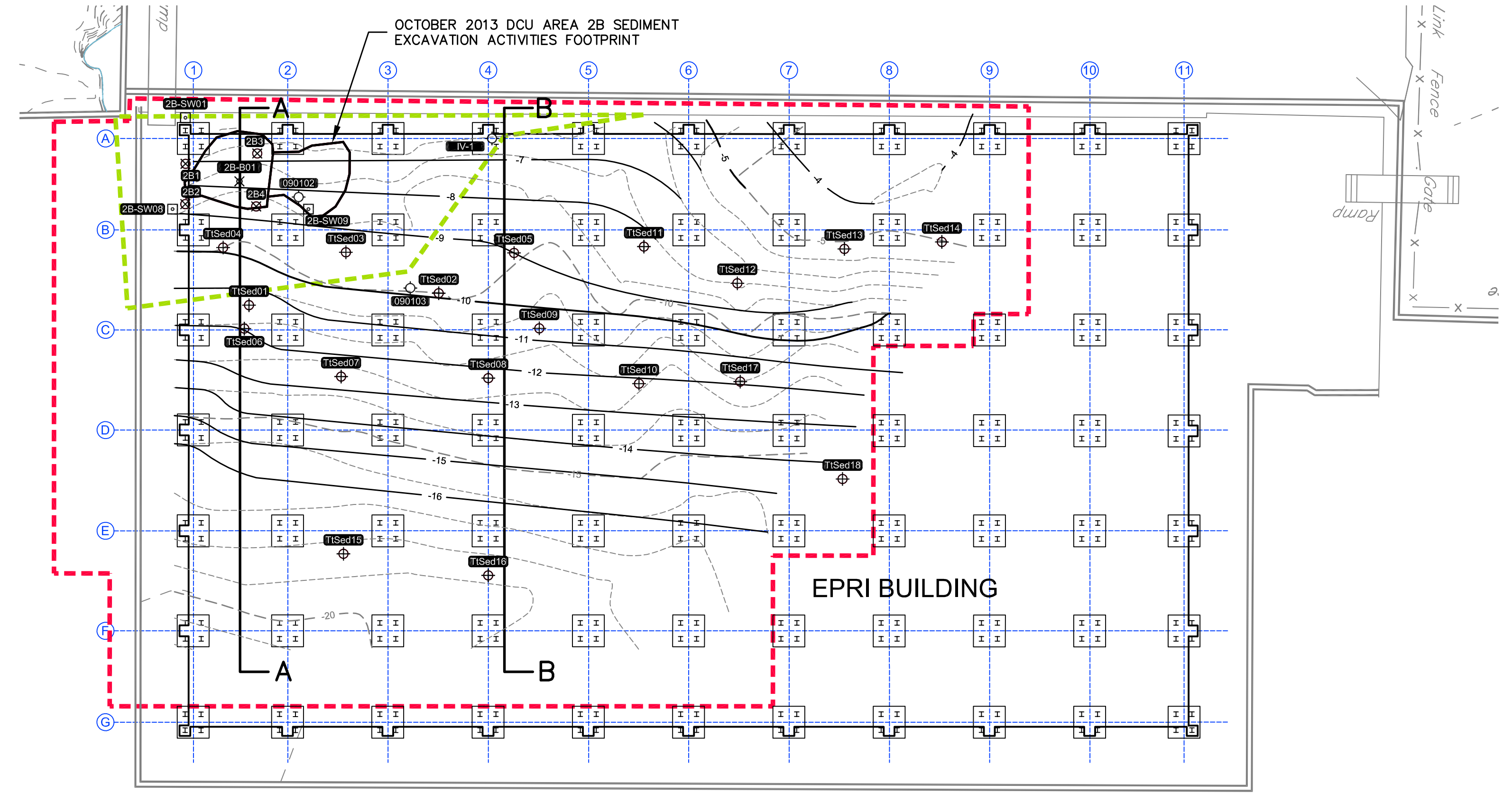


LEGEND

- [NOVEMBER 10, 2013] INDIVIDUAL 0.5' CORE SAMPLE SECTION
- [2012] INDIVIDUAL 0.5' CORE SAMPLE SECTION >15 PPM
- [2012] INDIVIDUAL 0.5' CORE SAMPLE SECTION >5 PPM
- [2012] NOT DETECTED; [2010] NOT DETECTED AT IV-1
- PROPOSED GEOTUBE BALLAST LAYER
- PROPOSED LIMITED BACKFILL
- PROPOSED CETCO REACTIVE CORE MAT
- [OCTOBER 2013] SCANCRAWLER SEDIMENT EXCAVATION
- LIMITS OF PROPOSED MULTI-LAYER SEDIMENT COVER SYSTEM
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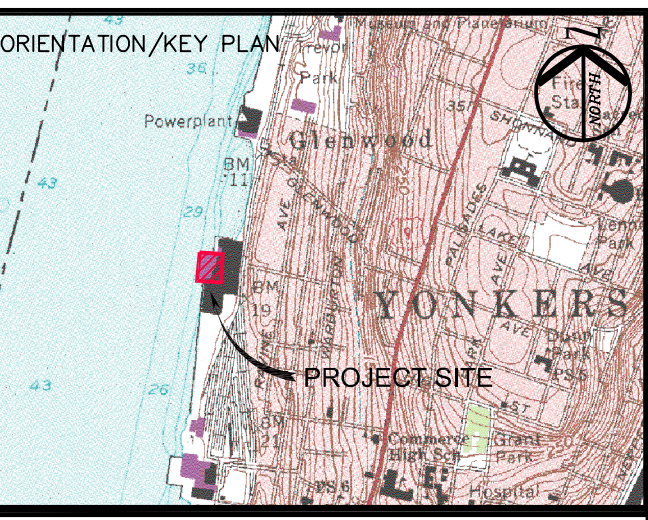


2013 COMPLETED PROPOSED DCU AREA 2B SEDIMENT EXCAVATION EFFORTS

REVISIONS/ISSUES				
NO.	DATE	BY	CHK	DESCRIPTION
0	11/13/13	RP	JMS	ISSUED FOR REGULATORY REVIEW (12/2013)
1	04/21/14	RP	JMS	ISSUED FOR DCU AREA 2B SCS PRAP

ONE POINT STREET, INC.
FORMER BICC CABLES SITE

NYSDEC SITE NUMBER: C360051
BROWNFIELD'S SITE CLEANUP AGREEMENT
INDEX NUMBER: W3-1063-05-03



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NEW YORK - LIC. NO. 084542-1

Janos M. Szeman 04/23/2014
SIGNATURE DATE

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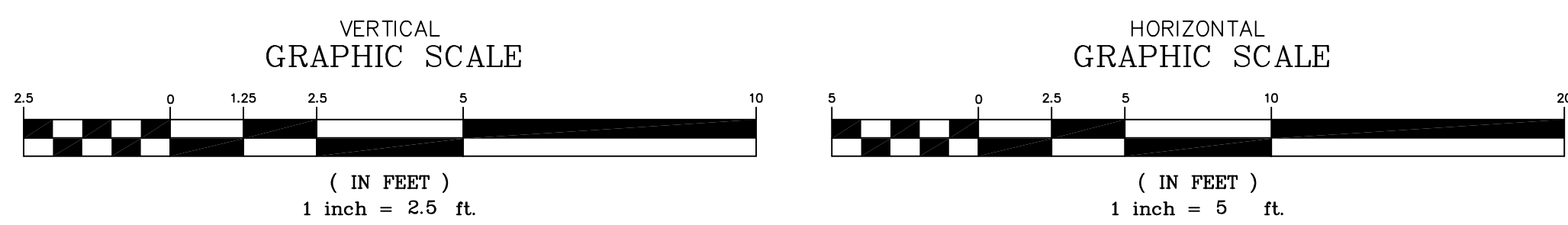
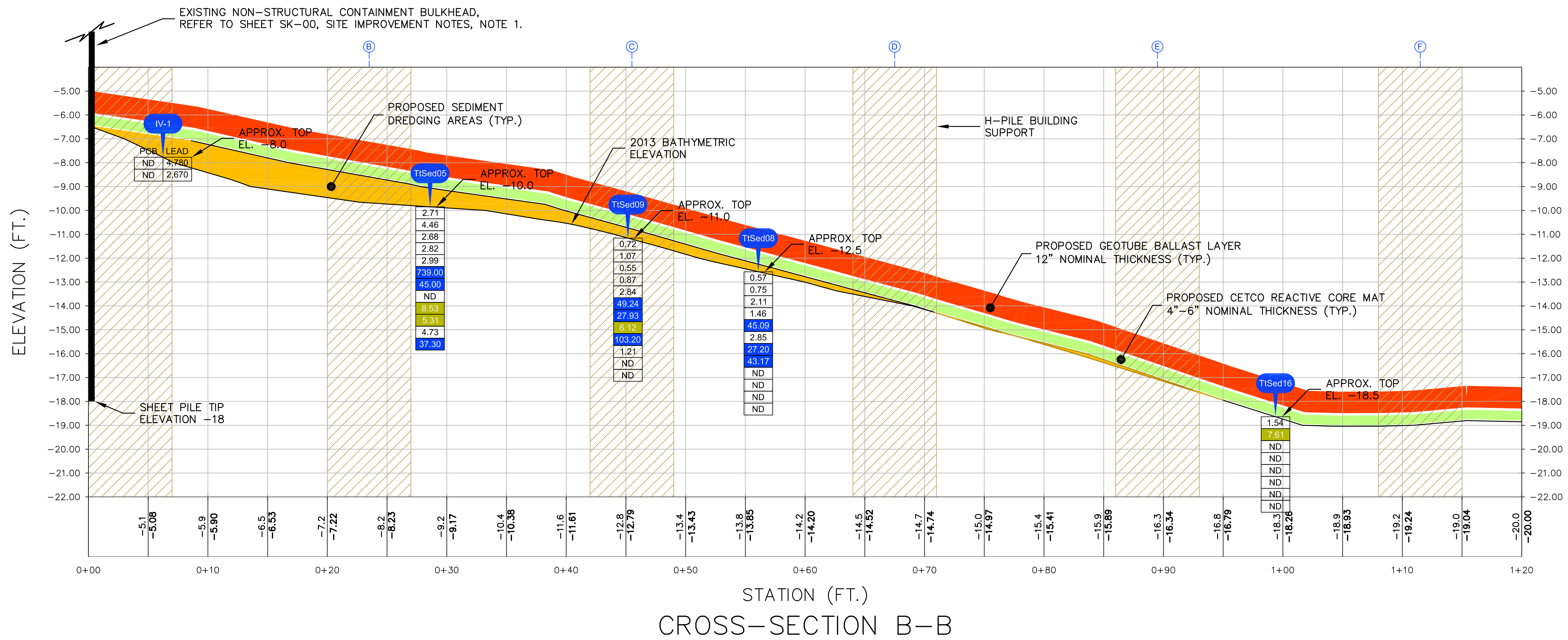
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3RD FLOOR
YONKERS, NEW YORK 10791
PHONE (914) 509-8600

PROJECT TITLE
**DCU AREA 2B
CFR 761.61(c)
RISK BASED
APPROACH
APPLICATION**

1 POINT STREET, YONKERS, NEW YORK

SHEET TITLE
**PROPOSED SEDIMENT
REMEDATION
CROSS-SECTIONS**

DATE	01/31/14	JOB NO.	048170002
SCALE	AS NOTED	B/G	
DRAWN	RP	SHEET NO.	
CHKD.	JMS		CCR-03

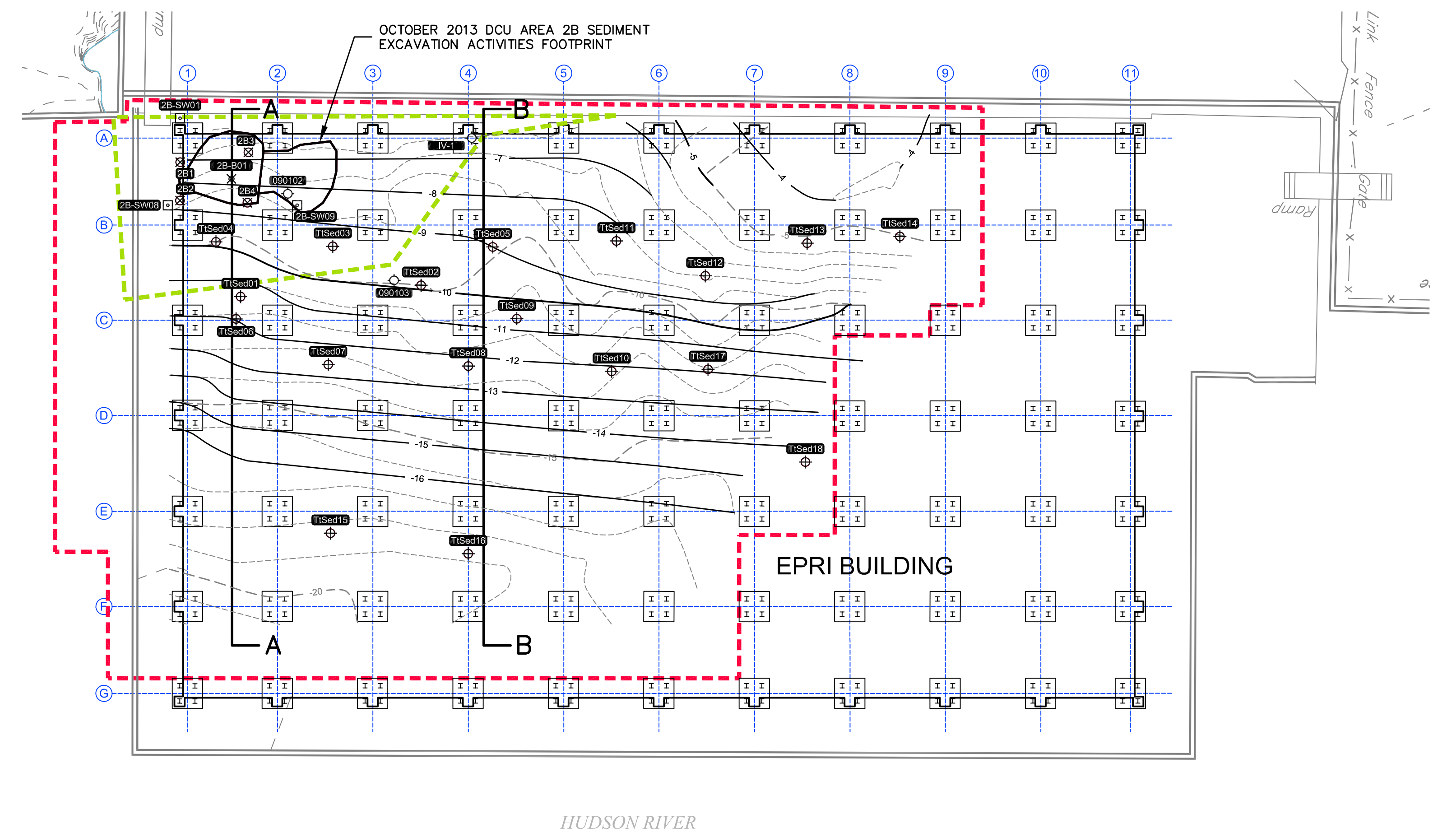


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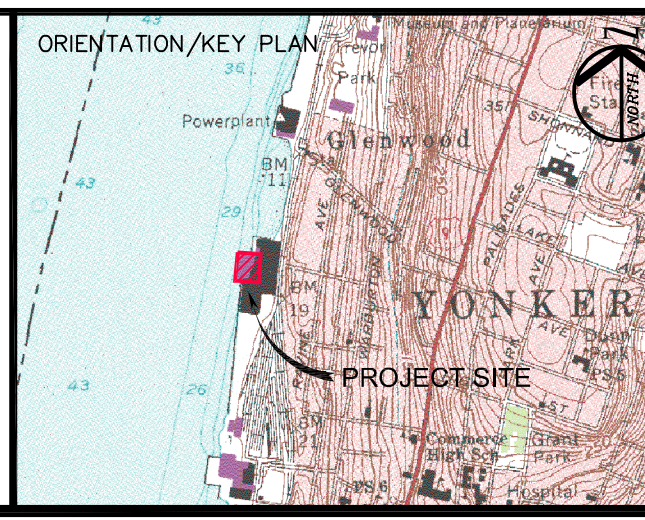
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2013 COMPLETED PROPOSED DCU AREA 2B SEDIMENT EXCAVATION EFFORTS

REVISIONS/ISSUES				
NO.	DATE	BY	CHK	DESCRIPTION
0	11/13/13	RP	JMS	ISSUED FOR REGULATORY REVIEW (12/2013)
1	04/21/14	RP	JMS	ISSUED FOR DCU AREA 2B SCS PRAP

ONE POINT STREET, INC.
FORMER BICC CABLES SITE
NYSDEC SITE NUMBER: C360051
BROWNFIELD'S SITE CLEANUP AGREEMENT
INDEX NUMBER: W3-1063-05-03



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CFR 761.61(c)
RISK BASED
APPROACH
APPLICATION**
1 POINT STREET, YONKERS, NEW YORK

SHEET TITLE
**PROPOSED SEDIMENT
REMEDATION
CROSS-SECTIONS**

DATE	01/31/14	JOB NO.	048170002
SCALE	AS NOTED	B/G	
DRAWN	RP	SHEET NO.	
CHKD.	JMS	CCR-04	