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November 17, 2020

B.J. LeRoy, PG
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BJ.LeRoy@wisconsin.gov

**Subject: Revised Site Investigation Work Plan
Ashview Terrace Apartments
988-1020 Willard Drive, Ashwaubenon, Wisconsin
BRRTS #: 02-05-564043**

Mr. LeRoy,

Georgia-Pacific LLC (GP) is submitting the enclosed document in response to your letter dated September 14, 2020 regarding the above-referenced matter. GP has incorporated the comments offered by Wisconsin Department of Natural Resources (DNR) relative to the previously submitted Site Investigation Work Plan dated June 8, 2020.

Please feel free to let me know if you have questions or wish to discuss.

Sincerely,

Michael Hassett

cc: Andrew Fiskness, Wood



SITE INVESTIGATION AND REMEDIATION WORK PLAN

Ashview Terrace Apartments Site

Ashwaubenon, Wisconsin

Wisconsin Department of Natural Resources Bureau of Remediation and
Redevelopment Site No. 02-05-564043

Prepared by:

Wood Environment & Infrastructure Solutions, Inc.

800 Marquette Avenue, Suite 900

Minneapolis, Minnesota

November 2020



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11/17/2020

Mr. Mike Hassett
Global Remediation and Environmental Services
133 Peachtree Street NE
Atlanta, GA 30303

RE: Site Investigation and Remediation Work Plan
Ashview Terrace Apartments Site at 988-1020 Willard Drive, Ashwaubenon, Wisconsin
(WDNR Site # 02-05-564043)

Dear Mr. Hassett,

Wood Environment & Infrastructure Solutions, Inc. (Wood), is pleased to present this Site Investigation and Remediation Work Plan, on behalf of Global Remediation and Environmental Services, for the Ashview Terrace Apartments Site. This plan provides a scope of work to support refinement of the extent of landscape cover areas that have been proposed within green spaces at the site. These cover areas will supplement the existing asphalt, sidewalk or other hard cover, such that the direct contact pathway to paper sludge at the site is minimized.

Let us know if you have any questions related to the information contained in this Work Plan.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

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Site Investigation and Remediation Work Plan for the Ashview Terrace Apartments Site, Ashwaubenon, Wisconsin Wisconsin Department of Natural Resources Bureau of Remediation and Redevelopment Site No. 02-05-564043

Wood Project #7311200028

Prepared for:

Global Remediation & Environmental Services LLC
133 Peachtree Street NE, Atlanta, Georgia 30303

Prepared by:

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11/17/2020

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CERTIFICATION STATEMENT

I, Jonathan Murer (#668-13), hereby certify that I am a geologist as the term defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Admin. Code, or licensed in accordance with requirements of ch. GHSS3, Wis. Adm. Code, and that to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to NR 726, Wis. Adm. Code.”



Project Geologist
Signature and title

November 17, 2020

Date



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1.0 INTRODUCTION

Wood Environment & Infrastructure Solutions, Inc. (Wood) has prepared this revised Site Investigation and Remediation Work Plan (Work Plan) for Global Remediation & Environmental Services (GRES) for work at the Ashview Terrace Apartments (ATA) site, located at 988-1020 Willard Drive, in the Village of Ashwaubenon, Brown County, Wisconsin (the Site). A Site location map is provided as Figure 1. Investigation activities at the Site are being conducted under Wisconsin Department of Natural Resources (WDNR) Bureau of Remediation and Redevelopment Tracking System (BRRTS) Site identification number 02-05-564043. This Work Plan has been prepared in general accordance with Wisconsin Administrative Code (Wis. Adm. Code) Chapter NR 716, specifically NR716.09 for Site Investigation Work Plans.

The objective of the proposed investigation is to further define areas where paper sludge containing polychlorinated biphenyls (PCBs) and metals may be present in the top 18 inches of Site soil. The presence of paper sludge in shallow soil poses a potential exposure risk through direct contact, necessitating the need for an engineered barrier to mitigate potential exposure to PCBs and metals impacted material. The recommended engineered barrier involves the installation of geotextile and stone landscape cover areas in existing green spaces at the Site (Wood, February 2019). These landscape cover areas will supplement the existing asphalt, sidewalk, other hard cover, and clean topsoil to aid in mitigating direct contact with the underlying soil.

The approach for this additional investigation will be to collect data that will allow refinement of the boundaries of the previously recommended landscape cover areas by performing a series of hand push probe soil borings to depths of approximately 18 inches within green spaces at the Site. Soil cores will subsequently be evaluated for the presence of paper sludge through visual observation and confirmatory laboratory analysis. The Work Plan incorporates the comments received from the WDNR on September 14, 2020 for the Site Investigation and Remediation Work Plan submitted on June 8, 2020.

Additional Site background information, and the investigation scope of work (SOW), are presented in the following sections.



2.0 BACKGROUND

The Site is located at 988 – 1020 Willard Drive, in the city of Ashwaubenon, Wisconsin in the southeast quarter of the southeast quarter of Section 4, Township 23 North and Range 20 East (OMNNI 2015). The Site is specifically identified as Brown County tax parcel VA-120-5. The Site is occupied by the ATA complex including apartment buildings, paved driveway, parking areas and green space. The surrounding area is a mix of light commercial and residential development.

According to previous work completed at the site (OMNNI 2015), the Site area is underlain by fill at the surface and glacial lake deposits consisting of clay, silt and sand to a depth of approximately 90 feet below ground surface (bgs).

Review of previous environmental investigations indicate the Site was an agricultural field until the 1930s. From the 1930s through the 1950s the Site served as a borrow pit. Beginning in approximately 1952, paper-mill wastes were disposed of in the borrow pit. The Site overlays a portion of the filled borrow pit. The School/Village property was remediated under WDNR Site #02-05-559562 (Ashwaubenon School District/Klipstine Park Site).

2.1 SITE DESCRIPTION AND FEATURES

The Site is relatively flat with a slight slope to the southeast and is occupied by apartment buildings, paved driveway, parking areas and green space.

The Site encompasses 3.3 acres. Approximately 2.0 acres of the Site are covered by apartment buildings and other hardscape; including parking areas, driveways, and walkways. The total acreage covered by grass (green space) is 1.3 acres, of which 0.9 acre is within the area of the former borrow pit. The green space within the former pit area therefore constitute 27 percent of the total property.

The surrounding area is a mix of light commercial and residential development. No surface water bodies exist on Site and the nearest surface waters to the Site are Dutchman Creek and the Fox River located approximately 0.8 mile and 1.4 miles southeast of the Site, respectively.

2.2 PREVIOUS INVESTIGATIONS

As summarized below, five environmental investigations (by OMNNI and Wood [formerly Amec Foster Wheeler]), have been conducted at the Site from February 2015 to December 2017:

- A Phase II Subsurface Investigation (Phase II) (OMNNI, 2015)



- A Site Investigation (SI) (Amec Foster Wheeler, 2017)
- A Supplemental Site Investigation (SSI) (Amec Foster Wheeler, 2018a)
- A Supplemental Site Investigation Addendum (SSI Addendum) (Amec Foster Wheeler, 2018b)
- A Hand Probe Investigation (Amec Foster Wheeler, August 2017)

These investigations included installing hydraulic push-probe, hand auger, and hand push probe soil borings; installing and sampling two temporary monitoring wells, collecting 43 soil samples for laboratory analyses, collecting two groundwater analytical samples, and visually inspecting all soil sample cores. Of the 43 soil samples collected to date, 35 of the sample locations have been within the 0.9-acre green space co-located with the former pit area. Collectively, this work has been used to characterize the subsurface materials/stratigraphy and to assess the presence of PCBs and metals in soil and shallow groundwater across the Site.

2.3 SITE STRATIGRAPHY

The Site topsoil is underlain by sandy clay and/or silty sand where native materials were encountered (i.e., outside the former borrow pit area). Over the remainder of the Site, within the confines of the former borrow pit, fill was generally encountered below 1 to 2 feet of topsoil or asphalt and road base. The fill in the central portion of the Site within the former borrow pit extends up to 16 feet bgs and consists of sandy clay and/or silty sand, gravel and paper sludge. Paper sludge in this area has been observed at depths ranging from the surface to 13.5 feet bgs.

2.4 LANDSCAPE COVER PLAN

As discussed with WDNR in a meeting with GRES and Wood on February 22, 2017, an engineered barrier may be used to minimize exposure to soils impacted at levels of concern at the Site. The cover may consist of 18 inches of soil or a combination of soil plus geotextile/stone landscape cover. Wood formulated a Landscape Improvement Plan (Wood, February 2019) to cover current green space locations exhibiting detections of PCBs and/or metals above soil criteria or containing paper sludge within the top 18 inches of soil. A total of 14 areas requiring additional cover were identified (Figure 2). The location and extent of the proposed cover areas were selected based on past site assessment activities, site features (buildings, pavement, etc.), and aesthetics. The proposed cover is landscape fabric overlain by landscape river rock applied to the existing ground surface to achieve a combined (soil and landscape cover) thickness of 18 inches.



The WDNR reviewed the Landscape Improvement Plan and provided comments in an email dated September 18, 2019 and during a teleconference on January 14, 2020. The WDNR indicated that additional soil characterization was necessary to confirm the lateral extent of the 14 proposed landscape cover areas. Because there is a strong correlation between the presence of paper sludge and impacts above soil criteria, it was agreed by WDNR, GRES and Wood during the January 14, 2020 teleconference that the additional delineation would consist primarily of visual evaluation of soil cores for the presence of paper sludge. In addition, the WDNR requested limited additional analytical sampling of shallow surficial soil to confirm that parameter concentrations in soil are below applicable criteria.



3.0 SCOPE OF WORK

This section presents the proposed SOW at the Site to aid in determining the final lateral extent of the planned landscape cover areas.

3.1 HEALTH AND SAFETY

The existing Site-specific Health and Safety Plan (HSP) completed for the previous Site investigations will be updated where required to support the supplemental investigation work. The HSP will summarize all of the necessary health and safety policies and procedures to support a safe fieldwork environment. Necessary modifications to field protocols will be required due to the ongoing Covid-19 pandemic and will be documented in the HSP.

It is assumed that all investigative work will be conducted using "Level D" personal protective equipment (PPE), consistent with previous work conducted at the Site.

3.2 SITE ACCESS

Wood understands that GRES has a formal access agreement with the Ashview Terrace Apartments property owner; however, if required, the access agreement will be renewed with the property owner prior to the onset of the field investigation. No work will be permitted without a formal Site access agreement in place.

3.3 UTILITY CLEARANCE

Prior to mobilization to the Site, the Wisconsin one-call Diggers Hotline (1-800-242-8511) will be contacted for utility clearance and the Site will also be cleared by a private utility locator. In addition, Wood representatives will check with the property owner to determine the possible presence of underground utilities in the vicinity of the proposed borings. Wood will document the utility information obtained from the public and private locates as well as from the property owner and confirm that the proposed shallow hand push probe borings are at locations that are clear of utilities.

3.4 SHALLOW SOIL INVESTIGATION

The shallow soil investigation will include performing a series of hand push probe borings within Site green spaces to a depth of 18 inches at the approximate locations shown on Figure 2. These locations have been selected to aid in the refinement of the perimeters of the planned cover areas.



Additional step-out borings may also be required, as described below. The investigation will include both visual evaluation of the soil cores and laboratory analysis of selected soil samples, as indicated below.

Based on previous investigations, it has been determined that paper sludge is assumed to contain PCBs and/or metals and therefore soil samples will only be collected for laboratory analysis from those soil borings where paper sludge is not observed. Soil samples will be analyzed for PCBs using USEPA method 8082A and for lead and mercury using USEPA method 3050.

3.4.1 Hand Push Probe Borings

The Site will be subdivided into 47 grid locations for soil evaluation and sampling. Wood field technicians will utilize a portable sub-meter global positioning system (GPS) unit to locate the proposed hand push probe boring locations as well as the previously defined areas of PCB contamination and areas that have been identified as proposed 'cover' areas for remedial design. Wood will conduct a minimum of one hand push probe boring in each of the 47 grid locations. The hand push probe borings will be completed to a depth of 18 inches bgs to support soil logging and potential soil sampling (for laboratory analyses). The grid layout and planned boring locations are presented on Figure 2.

If paper sludge is observed in a boring, Wood will step out 5-feet (where conditions allow) to complete an additional boring. Up to two step-out borings will be completed for each of the planned borings identified on Figure 2. If the step-out locations have observed paper sludge, then no samples will be collected within that grid square.

As can be noted on Figure 2, certain grid areas are locations where landscape cover areas are planned to be constructed. For these grid areas, the hand push probe borings will be useful for refining the design of the planned cover areas. For sampling grids where there are no current plans to install landscape cover areas, the hand push probe borings will be useful to confirm whether or not, landscape cover areas necessary for that area of the Site.

3.4.2 Shallow Soil Sampling

Soil borings will be advanced to a total depth of 18 inches (1.5 ft bgs or refusal) with a 1-inch diameter, stainless steel hand push probe window sampler. Following insertion of the probe to total depth, the sampler will be extracted, and the core will be visually screened and logged. In



particular, the core will be visually inspected for the presence of paper sludge. Soil samples will also be collected for laboratory analysis as described below in Section 3.4.3.

Hand push probe boring locations will be surveyed to the nearest 0.5 foot (horizontally) by GPS following completion of the field activities. No elevations will be collected. The proposed boring locations shown on Figure 2 may need to be adjusted in the field based on the presence of utilities or other obstructions.

3.4.3 Analytical Samples and Testing

Based on the past Site assessment activities, a correlation of PCB, lead, and mercury presence within observed paper sludge has been established. As such, soil samples from the planned borings will only be collected and analyzed for PCBs, lead, and mercury where no paper sludge is observed. Up to 110 soil samples will be collected during this investigation, including Quality Assurance/Quality Control (QA/QC) samples.

Soil samples will be submitted to the Pace Analytical Services (Pace) laboratory in Green Bay, Wisconsin and will be tested for PCBs (reported as individual Aroclors and total PCBs), lead, and mercury. The planned analytical parameters, and the associated analytical methods, are as follows:

<u>Parameter – Soil</u>	<u>EPA or WI Method</u>
• PCBs	8082 w/ 3541 Prep
• Lead	6010B/ 7471 Prep
• Mercury – (total)	1631B

QA/QC samples will be collected in accordance with the requirements of Wis. Adm. Code NR 716.13 and will include:

- Duplicate samples: 1 duplicate per 10 primary samples
- Matrix Spike (MS) and Matrix Spike Duplicates (MSD): 1 MS/MSD per 20 primary samples
- Equipment blank samples (one per piece of non-dedicated sampling equipment per day [or at a minimum of 1 equipment blank per 10 primary samples])

3.4.4 Equipment Decontamination

Decontamination of the hand push probe and miscellaneous sampling equipment will be conducted prior to use at each boring, using the following procedure:

- Wash equipment with detergent (Alconox) and potable water using brushes



- Rinse/wash equipment with potable water
- Rinse equipment twice with de-ionized distilled organic free water and allow to air dry
- Collect all wash/rinse water

3.4.5 Investigation Derived Waste

Investigation-Derived Waste (IDW) generated during this investigation will include soil boring cuttings, equipment decontamination water, and used PPE.

IDW soils and water will be containerized in Department of Transportation (DOT) approved, locking, labeled 55-gallon drums. The drums will be placed on a pallet, covered and stored in one of the vacant apartment building garage stalls. Labeling on the drums will include the date, type of material in the drum, the point of origin of the material (i.e., the Site), and the Wood project manager's telephone number.

IDW will be disposed of in accordance with appropriate state and federal regulations. To determine the method of IDW transportation and disposal, soil cuttings and decontamination water will be sampled and analyzed for parameters based on the profiling requirements of the selected disposal facility. It is assumed that one soil IDW sample and one water IDW sample will be collected and analyzed for the full list of toxicity characteristic leaching procedure (TCLP) parameters.

IDW will remain on-Site until analytical data is received to determine proper disposal. Wood assumes that soil IDW generated during this investigation will be transported to and disposed of by Badger Disposal in Milwaukee, Wisconsin, consistent with previous work at the Site.

3.5 REPORTING

Wood will utilize the data generated during this investigation, along with pertinent existing data, to prepare and submit a Site Investigation Report (SIR) including a discussion of the field methodologies and results, soil boring logs, figures showing the updated extents of paper sludge, tables and figures depicting analytical results and IDW disposal manifests. The SIR will also summarize proposed additional remedial actions warranted based on the Site data.

Wood will also prepare a sample results notifications letter for the Ashview Terrace Apartments property owner and the WDNR in accordance with the requirements of Wis. Adm. Code NR 716.14.



3.6 SCHEDULE

Wood assumes execution of field work will be initiated within 60 days of WDNR approval of this Work Plan, provided ground conditions are favorable. Wood recognizes that the schedule for field investigation activities is weather dependent and will be contingent upon the ground conditions. Field work cannot be conducted while the ground is frozen. Wood also recognizes that the schedule for implementation of the field investigation may be impacted by the ongoing Covid-19 pandemic. The WDNR requests the sample results notification letters be submitted to both the Ashview Terrace Apartments property owner and to the WDNR within 10 business days of receipt of analytical results, we request an extension to 30 days from receipt of analytical results for the submittals to allow for ample time to complete data validation.

The SIR will be prepared and submitted to the WDNR within 60 days after completion of the field investigation and receipt of analytical data.



4.0 REFERENCES

- Amec Foster Wheeler, (June 2016). Site Specific Health and Safety Plan, Ashview Terrace Apartments Site, Ashwaubenon, Brown County, Wisconsin.
- Amec Foster Wheeler, (June 2017). Site Investigation Report, Ashview Terrace Apartments Site, Ashwaubenon, Brown County, Wisconsin.
- Amec Foster Wheeler, (January 2018a). Supplemental Site Investigation Report, Ashview Terrace Apartments Site, Ashwaubenon, Brown County, Wisconsin.
- Amec Foster Wheeler, (January 2018b). Supplemental Site Investigation Report Addendum, Ashview Terrace Apartments Site, Ashwaubenon, Brown County, Wisconsin.
- Code of Federal Regulations, Title 40 (40 CFR) 761.61 (a)(4)(i)(A), and 761.61(a)(7) and (a)(8)
- OMNNI, (February 2015). Phase II Subsurface Investigation at the Perry Property, 988-1020 Willard Dr., Parcel VA-120-5, Ashwaubenon, Brown County, Wisconsin Report.
- WDNR, (January 14, 2020). Georgia Pacific and Wood, teleconference January 14, 2020
- WDNR, November, 2014. WDNR Remediation and Redevelopment document RR-786, PCB Remediation in Wisconsin under the One Cleanup Program Memorandum Agreement.
- Wis. Adm. Code NR 700 – Environmental Protection – Investigation and Remediation of Environmental Contamination, Chapter NR 716 Site Investigations, Register November 2013 No. 695
- Wis. Adm. Code NR 700 – Environmental Protection – Investigation and Remediation of Environmental Contamination, Chapter NR 720 Soil Cleanup Standards, Register November 2013 No. 695
- Wis. Adm. Code NR 700 – Environmental Protection – Investigation and Remediation of Environmental Contamination, Chapter NR 724 Remedial and Interim Action Design, Implementation, Operation, Maintenance and Monitoring Requirements, Register November 2013 No. 694

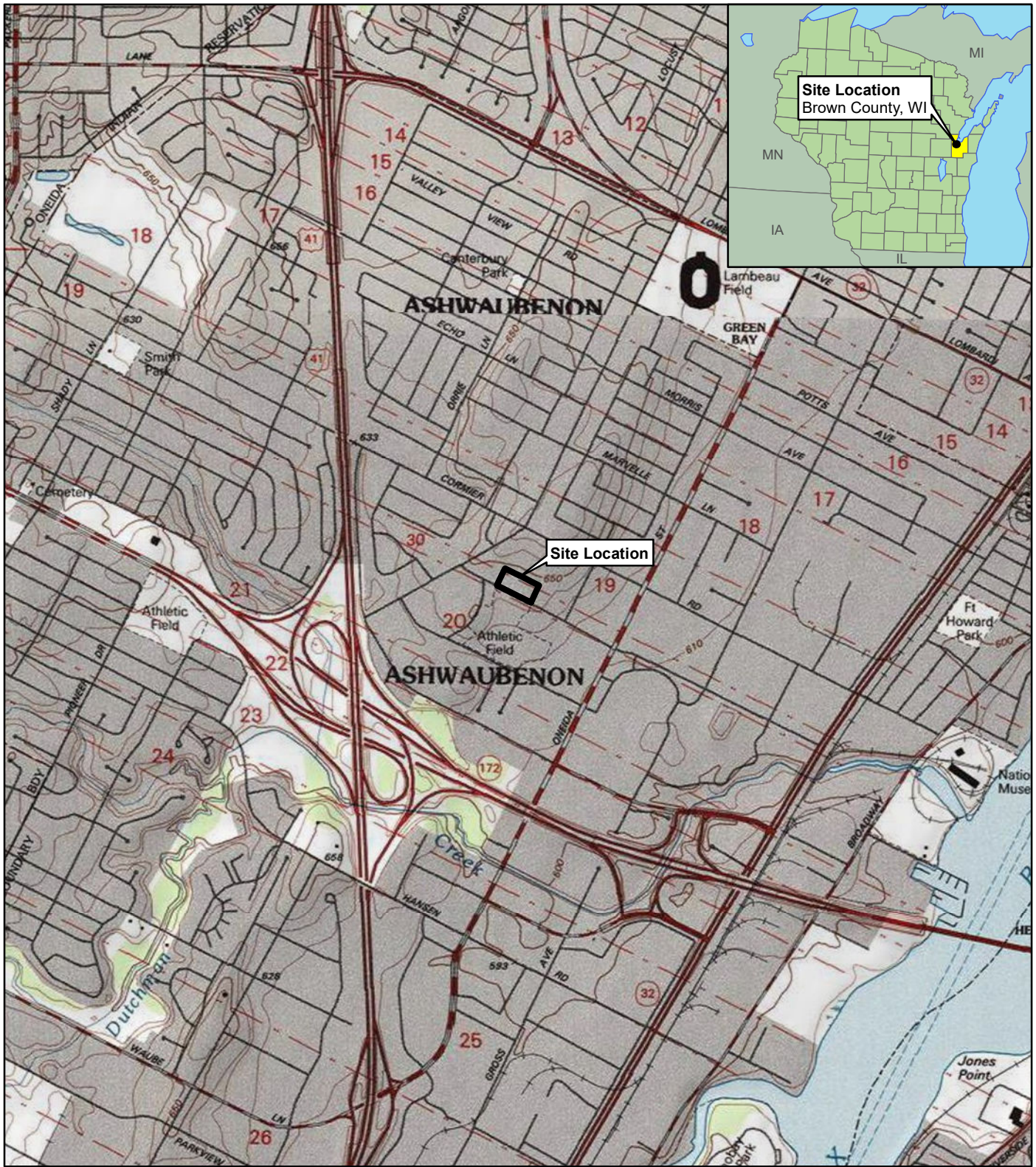
Wis. Adm. Code NR 700 – Environmental Protection – Investigation and Remediation of Environmental Contamination, Chapter NR 726 Case Closure, Register November 2013 No. 695 (Date of Last Update October 2013)

Wood, (February, 2019). Landscape Improvement Plans for Ashview Terrace Apartments, 1010 Willard Drive, Village of Ashwaubenon, Wisconsin.




FIGURES





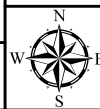
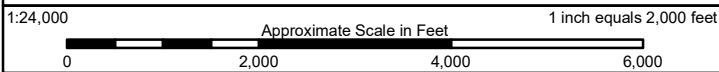
Legend

 Approximate Site Boundary

SITE LOCATION MAP

Site Investigation and Remediation Work Plan
 WDNR Site 02-05-564043
 Ashview Terrace Apartments Site
 Ashwaubenton, Wisconsin

Note: 1:24k Topos courtesy of ESRI (De Pere and Green Bay West Quads)



Date: 06/03/2020

Project No. 7311150004

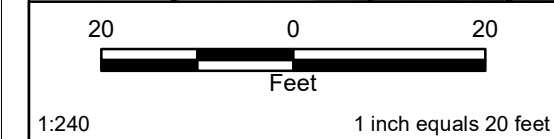
Figure:

Drawn: MJV

Checked: JMR

wood.

1



- Legend**
- Proposed Soil Probe Locations
 - ⊗ Completed Soil Probes and Borings
 - ▭ Proposed Sampling Grid
 - Proposed Landscape Cover
 - Impervious Surfaces (Buildings, Parking, Walkways)
 - Pervious Surfaces (Green Spaces)
 - ⋯ Approximate Site Boundary
 - ⋯ Approximate Extent of Historic Landfill by Year:
 - ⋯ 1938
 - ⋯ 1951
 - ⋯ 1954
 - ⋯ 1960

PROPOSED SOIL PROBES
 Site Investigation and Remediation Work Plan
 WDNR Site 02-05-564043
 Ashview Terrace Apartments Site
 Ashwaubenon, Wisconsin