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Franklin County Recorder

OHIO E.P.A.
APR 22 2010

ENTERED DIRECTOR'S JOURNAL

Date: 4-22-10

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the matter of:

Columbus and Franklin County
Metropolitan Park District
1069 West Main Street
Westerville, OH 43081

Regarding property known as:

Northern Tier of Whittier Peninsula
West Whittier Street
Columbus, OH 43215

Covenant Not to Sue
Director's Final Findings
and Orders

Pursuant to Ohio Revised Code ("ORC") Chapter 3746 and Ohio Administrative Code ("OAC") Chapter 3745-300, the Director of the Ohio Environmental Protection Agency (the "Director") hereby makes the following Findings and issues the following Orders ("Findings and Orders").

FINDINGS

1. A No Further Action Letter, No. 08NFA308 (the "NFA Letter"), was submitted on August 26, 2008, to the Director under the Voluntary Action Program on behalf of the Columbus and Franklin County Metropolitan Park District (the "Volunteer"), by Thomas J. Mignery, a certified professional, No. CP 125, as defined in ORC 3746.01(E) and OAC 3745-300-01(A) (the "Certified Professional").
2. The Certified Professional issued the NFA Letter by his certified professional affidavit on August 21, 2008. The Certified Professional also submitted to the Director addenda to the NFA Letter, which were issued under certified professional affidavit on March 20, 2009, November 20, 2009 and March 30, 2010. For the purposes of these Findings and Orders, the term "NFA Letter" includes the addenda.
3. The NFA Letter describes the investigational and remedial activities undertaken at the approximately 18.212-acre property, known as the Northern Tier of Whittier Peninsula and formerly known as the Maier Foundation, Cunard Lang and Koch

Asphalt properties, located on West Whittier Street, Columbus, Franklin County, Ohio (the "Property"). An exact legal description of the Property is attached hereto as Exhibit 1. A property location map is attached hereto as Exhibit 2. Based on information in the NFA Letter, the Property is owned by the Columbus and Franklin County Metropolitan Park District and the city of Columbus and the parcel numbers are 010-063303, 010-249658 (partial parcel), and 010-010234 (partial parcel). A map of the parcels is included in Exhibit 2.

4. The Certified Professional prepared pursuant to OAC 3745-300-13(J) an executive summary of the NFA Letter, which is attached hereto as Exhibit 3.

Summary of the Voluntary Action for the Property

5. The Volunteer conducted its voluntary action under Ohio's Voluntary Action Program in accordance with the procedures established under the "Memorandum of Agreement - Brownfield and Voluntary Action Program MOA Track" entered into between the United States Environmental Protection Agency, Region V, and Ohio EPA on July 31, 2001 as amended on July 24, 2004 and February 13, 2006 (collectively the "MOA"). The voluntary action was implemented under "VAP MOA Track" procedures.
6. Based upon the information in the NFA Letter, the Volunteer undertook the following investigational and remedial activities regarding the Property:
 - a. A Phase I property assessment, in accordance with OAC 3745-300-06, to determine whether there is any reason to believe that a release of hazardous substances or petroleum has or may have occurred on, underlying or is emanating from the Property.
 - b. A Phase II property assessment, in accordance with OAC 3745-300-07, including but not limited to investigations of identified areas and affected media, to assess environmental conditions related to releases of hazardous substances and/or petroleum.
 - c. Activity and use limitations contained in a proposed Environmental Covenant prepared pursuant to ORC 5301.80 to 5301.92, subject to execution by the Director and recording as described in these Findings and Orders.
 - d. A Risk Mitigation Plan, prepared in accordance with OAC 3745-300-15, that provides various risk mitigation measures for construction or excavation activities at the Property.
 - e. Remedial activities, conducted in accordance with OAC 3745-300-15, including the removal of approximately 10,641 cubic yards of

contaminated soil, abatement of asbestos-containing materials from an existing structure prior to its demolition pursuant to OAC Chapter 3745-20, and covering remaining areas of contaminated soil with a minimum of two feet of clean soil to achieve the applicable point of compliance.

- f. A demonstration that the Property complies with applicable standards following completion of remedial activities for the identified chemicals of concern in the identified areas and affected media at the Property through the use of generic numerical standards in accordance with OAC 3745-300-08 and the use of a property-specific risk assessment in accordance with OAC 3745-300-09.
7. The Certified Professional has verified by affidavit that the voluntary action was conducted and the NFA Letter was issued for the Property in accordance with ORC Chapter 3746 and OAC Chapter 3745-300, that the Property is eligible for the Voluntary Action Program, and that the voluntary action was conducted in compliance with all applicable federal, state and local laws and regulations.
8. At the time that analyses were performed, TestAmerica Laboratories, Inc., American Analytical Laboratories and DataChem Laboratories were certified laboratories, No(s). CL0018, CL0042 and CL0022, respectively, as defined in ORC 3746.01(D) and OAC 3745-300-01(A), whose services were used in support of the NFA Letter (the "Certified Laboratories").
9. The Environmental Covenant will be recorded in the Franklin County Recorder's Office as described in the Environmental Covenant and Order No. 2 herein. A copy of the executed Environmental Covenant is attached hereto as Exhibit 4. The Environmental Covenant upon recording will:
 - a. Restrict the Property to recreational, commercial or industrial land use.
 - b. Prohibit the extraction of ground water except for purposes of monitoring, remediation or in conjunction with excavation or construction activities including the maintenance of subsurface utilities.
10. The Risk Mitigation Plan, dated March 2007 and revised November 2009, was developed in accordance with OAC 3745-300-15. The Risk Mitigation Plan is attached hereto as Exhibit 5 and incorporated by reference herein. The implementation of the Risk Mitigation Plan is necessary to mitigate or eliminate human exposure to lead and polycyclic aromatic hydrocarbons at the Property, during construction or excavation activities.

Applicable Standards

11. Based on the information contained in the NFA Letter and all conditions set forth in these Findings and Orders, the Property meets applicable standards contained in ORC Chapter 3746 and OAC Chapter 3745-300 for various uses including recreational, commercial and industrial land use and restricted ground water use. The applicable standards for the Property are those in effect when the NFA Letter was issued on August 21, 2008. The applicable standards and the methods of achieving compliance with the standards for each complete exposure pathway, are identified in the NFA Letter, which contains a summary table titled "*Applicable Standards Determination and Complete Pathway Determination*" included as Table 11 in the Phase II property assessment report. The standards include one or more of the following:
 - a. Generic numerical standards determined in accordance with OAC 3745-300-08.
 - b. Property-specific risk assessment standards developed in accordance with OAC 3745-300-09.
 - c. Background standards determined in accordance with ORC 3746.06(A) and OAC 3745-300-07(H).
 - d. Standards for residential (potable) use of ground water in the limestone bedrock zone underlying the Property, applied in accordance with ORC 3746.06(B).
12. Based on the implementation and maintenance of the remedies identified in this paragraph, the Property complies with applicable standards. Failure to implement one or more of the remedial activities may constitute noncompliance with applicable standards. The remedies requiring implementation include:
 - a. The activity and use limitations set forth in the Environmental Covenant attached hereto, which once recorded will limit the Property to recreational, commercial or industrial land uses and prohibit the extraction of ground water for any purpose except monitoring, remediation or in conjunction with excavation or construction including maintenance of subsurface utilities.
 - b. The risk mitigation measures implemented under the Risk Mitigation Plan attached hereto, which mitigate exposure to chemicals of concern in soil and ground water for construction and excavation activities.
13. Pursuant to ORC 3746.12(A), the Director of Ohio EPA is authorized to issue a covenant not to sue for the Property through these Findings and Orders. Based

on the NFA Letter and subject to all conditions set forth in these Findings and Orders, the remedial activities for the Property are protective of public health and safety and the environment.

ORDERS

Covenant

1. Based on the NFA Letter, and subject to all conditions set forth in these Findings and Orders, Ohio EPA hereby covenants not to sue and releases the Columbus and Franklin County Metropolitan Park District and the city of Columbus, and their respective agents, employees, officers, directors, successors and assigns, and successors and assigns of the Property, from all civil liability to the State of Ohio (the "State") to perform additional investigational and remedial activities. This covenant not to sue and release of liability (the "Covenant") applies to the Property that has undergone a Phase I or Phase II property assessment in compliance with ORC Chapter 3746 and OAC Chapter 3745-300 or has been the subject of remedial activities conducted under ORC Chapter 3746 and OAC Chapter 3745-300 to address a release of hazardous substances or petroleum, and the assessment or the remedial activities demonstrate or result in compliance with applicable standards.

Conditions and Limitations

Effectiveness of the Covenant— Recording of the Environmental Covenant

2. The Covenant provided in Order No. 1 herein shall become effective upon the date the Environmental Covenant is recorded in accordance with this Order. The Environmental Covenant shall be filed as a document separate from the filing required by Order No. 3 herein. Within thirty (30) days after the issuance of these Findings and Orders, the Columbus and Franklin County Metropolitan Park District shall:
 - a. File with the Franklin County Recorder's Office for recording, in the same manner as a deed to the Property pursuant to ORC 3746.14 and 5301.88, the Environmental Covenant as executed and attached hereto as Exhibit 4. The document for recording may be an executed original or a copy of the same authenticated by Ohio EPA.
 - b. Submit to Ohio EPA a copy of the recorded Environmental Covenant that shows the filing date stamp of the Franklin County Recorder's Office or other reliable information that verifies the recording of the document in accordance with this Order. The submission shall include a cover letter that identifies "*Recorded - Environmental Covenant for Northern Tier of Whittier Peninsula, NFA Letter No. 08NFA308.*" The submission shall be

delivered either (1) electronically to the DERR Records Management Officer at Ohio EPA's Central Office, at records@epa.state.oh.us or (2) by U.S. mail or by other reliable means to both Ohio EPA's Central Office, 50 West Town Street, Suite 700, P.O. Box 1049, Columbus, OH 43216-1049, Attention: DERR Records Management Officer and Ohio EPA's Central District Office, 50 West Town Street, Suite 700, P.O. Box 1049, Columbus, Ohio 43216-1049, Attention: DERR Site Coordinator for Northern Tier of Whittier Peninsula.

Requirement to Record These Findings and Orders / Covenant Not to Sue

3. Within thirty (30) days after the issuance of these Findings and Orders, the Columbus and Franklin County Metropolitan Park District shall:
 - a. File with the Franklin County Recorder's Office, for recording in the same manner as a deed to the Property pursuant to ORC 3746.14, a copy of these Findings and Orders, including Exhibits 1 (Legal Description), 2 (Property Location Map), 3 (Executive Summary) and 5 (Risk Mitigation Plan).
 - b. Submit to Ohio EPA a copy of the Findings and Orders that shows the filing date stamp of the Franklin County Recorder's Office or other reliable information that verifies the recording of the Findings and Orders in accordance with this Order. The submission shall include a cover letter that identifies "*Recorded - Covenant Not to Sue for NFA Letter No. 08NFA308.*" The submission shall be delivered either (1) electronically to the DERR Records Management Officer at Ohio EPA's Central Office, at records@epa.state.oh.us or (2) by U.S. mail or by other reliable means to both Ohio EPA's Central Office, 50 West Town Street, Suite 700, P.O. Box 1049, Columbus, OH 43216-1049, Attention: DERR Records Management Officer and Ohio EPA's Central District Office, 50 West Town Street, Suite 700, P.O. Box 1049, Columbus, Ohio 43216-1049, Attention: DERR Site Coordinator for Northern Tier of Whittier Peninsula.

Requirement to Submit Annually a Risk Mitigation Plan Notification

4. Pursuant to ORC 3746.12(A) and OAC 3745-300-15(G), the Covenant provided in Order No. 1 of these Findings and Orders is conditioned on Ohio EPA's receipt of a notification regarding the Risk Mitigation Plan, as attached hereto and referenced in the Findings herein. This condition in no way supersedes any separate notification requirement included in the Risk Mitigation Plan (i.e., notice to contractors).
 - a. The notification shall be submitted annually, by June 15 of each year after the effective date of these Findings and Orders.

- b. Each notification shall be submitted under affidavit by the person(s) who has knowledge of RMP implementation for the applicable notification period. The notification shall address:
 - i. Whether implementation of the RMP occurred during the notification period.
 - ii. The events that required the implementation of the RMP, the exposures to contaminated environmental media that may have occurred, and the risk mitigation measures that were undertaken in accordance with the RMP.
- c. The submission shall include a cover letter that identifies "*Risk Mitigation Plan Annual Report for NFA Letter No. 08NFA308.*" The submission shall be delivered either (1) electronically to the DERR Records Management Officer at Ohio EPA's Central Office, at records@epa.state.oh.us or (2) by U.S. mail or by other reliable means to both Ohio EPA's Central Office, 50 West Town Street, Suite 700, P.O. Box 1049, Columbus, OH 43216-1049, Attention: DERR Records Management Officer and Ohio EPA's Central District Office, 50 West Town Street, Suite 700, P.O. Box 1049, Columbus, Ohio 43216-1049, Attention: DERR Site Coordinator for Northern Tier of Whittier Peninsula.

Limits of Covenant

5. Pursuant to ORC 3746.12(B)(1), the Covenant shall remain in effect for as long as the Property continues to comply with the applicable standards upon which the Covenant is based, as referenced in these Findings and Orders. Upon a finding pursuant to ORC 3746.12(B)(2) that the Property or portion thereof no longer complies with applicable standards upon which issuance of the Covenant was based and receipt of the Director's notice of that fact and the requirements of ORC 3746.12(B)(3), the person(s) responsible for maintaining compliance with those standards shall receive an "opportunity to cure" the noncompliance. ORC 3746.12(B)(4) provides for revocation of the Covenant upon a Director's finding that the noncompliance has not been cured.
6. Pursuant to ORC 3746.05, any use of the Property that does not comply with the institutional controls identified herein (i.e., the activity and use limitations contained in the Environmental Covenant), voids the Covenant on and after the date of the commencement of the non-complying use.
7. The Covenant shall not apply to releases of hazardous substances or petroleum that occur after the issuance of the NFA Letter.

8. The Covenant shall not apply:
 - a. To claims for natural resource damages the State may have pursuant to Sections 107 or 113 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. 9607 and 9613, as amended.
 - b. To claims the State may have pursuant to Section 107 of CERCLA, 42 U.S.C. 9607, as amended, for costs other than those for damages to natural resources, provided that the State incurs those other costs as a result of an action by the United States Environmental Protection Agency.
 - c. As otherwise specifically provided in ORC Chapter 3746, including but not limited to obligations arising under other applicable laws.
9. Nothing in the Covenant limits the authority of the Director to act under ORC 3734.13 and 3734.20 to 3734.23, or to request that a civil action be brought pursuant to the ORC or common law of the State to recover the costs incurred by Ohio EPA for investigating or remediating a release or threatened release of hazardous substances or petroleum at or from the Property, when the Director determines that the release or threatened release poses an imminent and substantial threat to public health or safety or the environment.
10. Nothing in the Covenant shall be construed to limit or waive the Director's authority to revoke the Covenant in response to any of the circumstances for revocation of a covenant, as provided in ORC Chapter 3746 and OAC Chapter 3745-300.

Ohio EPA Access to Property

11. Pursuant to ORC 3746.21 or 3746.171 and the Environmental Covenant, and at reasonable times, upon proper identification, and stating the necessity and purpose as directed by applicable law, authorized representatives of the Director shall be granted access to the Property for the inspection or investigation purposes authorized under applicable law, including but not limited to determining whether the Property is being used in compliance with the activity and use limitations contained in the Environmental Covenant.

Transfer

12. Pursuant to ORC 3746.14 and OAC 3745-300-13(L), the NFA Letter and the Covenant Not to Sue/Findings and Orders may be transferred to any person by assignment or in conjunction with the acquisition of title to the Property.

IT IS SO ORDERED:



Chris Korleski, Director
Ohio Environmental Protection Agency

Date 4/22/10

Exhibit 1
Legal Description

October 4, 2004

DESCRIPTION OF 18.212 ACRES
SOUTH OF INTERSTATE ROUTE 70
EAST OF WHITTIER STREET
COLUMBUS, OHIO

Situated in the State of Ohio, County of Franklin, City of Columbus, being 4.364 acres of that 6.568 acre tract of land as described in a deed to The City of Columbus, Ohio, of record in Instrument No. 199909030226779, being 10.707 acres of those tracts of land as described in a deeds to Sarah and Pauline Maier Scholarship Foundation, 1.572 acres of that 2.288 acre tract as described in a deed to The City of Columbus, Ohio, of record in Instrument No. 200012280261331, 0.886 acre of Furnace Street right-of-way and 0.683 acre of Maier Place right-of-way, all references herein being to the records located in the Recorder's Office, Franklin County, Ohio and being more particularly described as follows:

Beginning FOR REFERENCE at a point at the southwesterly corner of said 6.568 acre tract, in the northerly perimeter of that 9.4686 acre tract of land as described in a deed to City of Columbus, Ohio, of record Instrument No. 199902260048206 and in the easterly right-of-way line of Furnace Street (60.00 feet in width); thence North 04°00'00" East, along said easterly right-of-way line, a distance of 161.85 feet to the TRUE PLACE OF BEGINNING;

Thence North 86°09'15" West, through the right-of-way of Furnace Street and said 2.288 acre tract, a distance of 268.75 feet to a point in the westerly perimeter of said 2.288 acre tract;

Thence North 13°19'00" East, along said westerly perimeter, a distance of 107.27 feet to a point;

Thence North 07°39'22" East, continuing along said westerly perimeter, a distance of 258.94 feet to a point at the northwesterly corner of said 2.288 acre tract and in the southerly right-of-way line of River Street (50.00 feet in width);

Thence South 86°04'00" East, along said southerly right-of-way line, a distance of 175.00 feet to a point at the northeasterly corner of said 2.288 acre tract and at the intersection of the westerly right-of-way line of Furnace Street and said southerly right-of-way line;

Thence North 04°00'00" East, through the right-of-way of River Street and along the westerly right-of-way line of Furnace Street, a distance of 225.02 feet to a point;

Thence North 79°38'00" East, through the right-of-way of Furnace Street, along the northerly right-of-way line of Maier Place and along the southerly line of that 2.666 acre tract as described in a deed to the City of Columbus, of record in Official Records Volume 9097, Page C18, a distance of 530.80 feet to a point at the southeasterly corner of said 2.666 acre tract;

Thence North 22°58'00" East, along the easterly perimeter of said 2.666 acre tract, a distance of 186.26 feet to a point;

Thence North 07°22'00" West, continuing along said easterly perimeter and the southerly right-of-way line of Interstate Route 70/71, a distance of 130.00 feet to a point;

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Page 2 - 18.212 acres

Thence along the southerly right-of-way line of Interstate Route 70/71 the following courses:

1. North 82°56'37" East, a distance of 33.66 feet to a point;
2. South 88°48'00" East, a distance of 166.73 feet to a point;
3. North 22°56'37" East, a distance of 32.21 feet to a point in the westerly right-of-way line of the CSX Transportation, Inc. and Chesapeake and Ohio Railroad.

Thence South 26°01'05" East, along said westerly railroad right-of-way line, a distance of 772.68 feet to a point at the northeasterly corner of that 7.414 acre tract of land as described in a deed to City Properties, Inc., of record in Official Records Volume 13166, Page B13;

Thence South 64°13'17" West, along the northerly line of said 7.414 acre tract, a distance of 710.75 feet to a point at the northwesterly corner of said 7.414 acre tract in the easterly perimeter of the aforementioned 6.568 acre tract;

Thence South 35°13'00" East, along the line common to said 7.414 acre tract and said 6.568 acre tract, a distance of 59.03 feet to a point;

Thence North 86°09'15" West, through said 6.568 acre tract, a distance of 506.25 feet to the TRUE PLACE OF BEGINNING and containing 18.212 acres of land.

Bearings shown hereon are based on South 86°00'00" East, for a southerly line of the 9.4686 acre tract, of record in Instrument No. 199902260048206.

This description was prepared by M+B Companies, Inc., and is based on survey records and deed information.



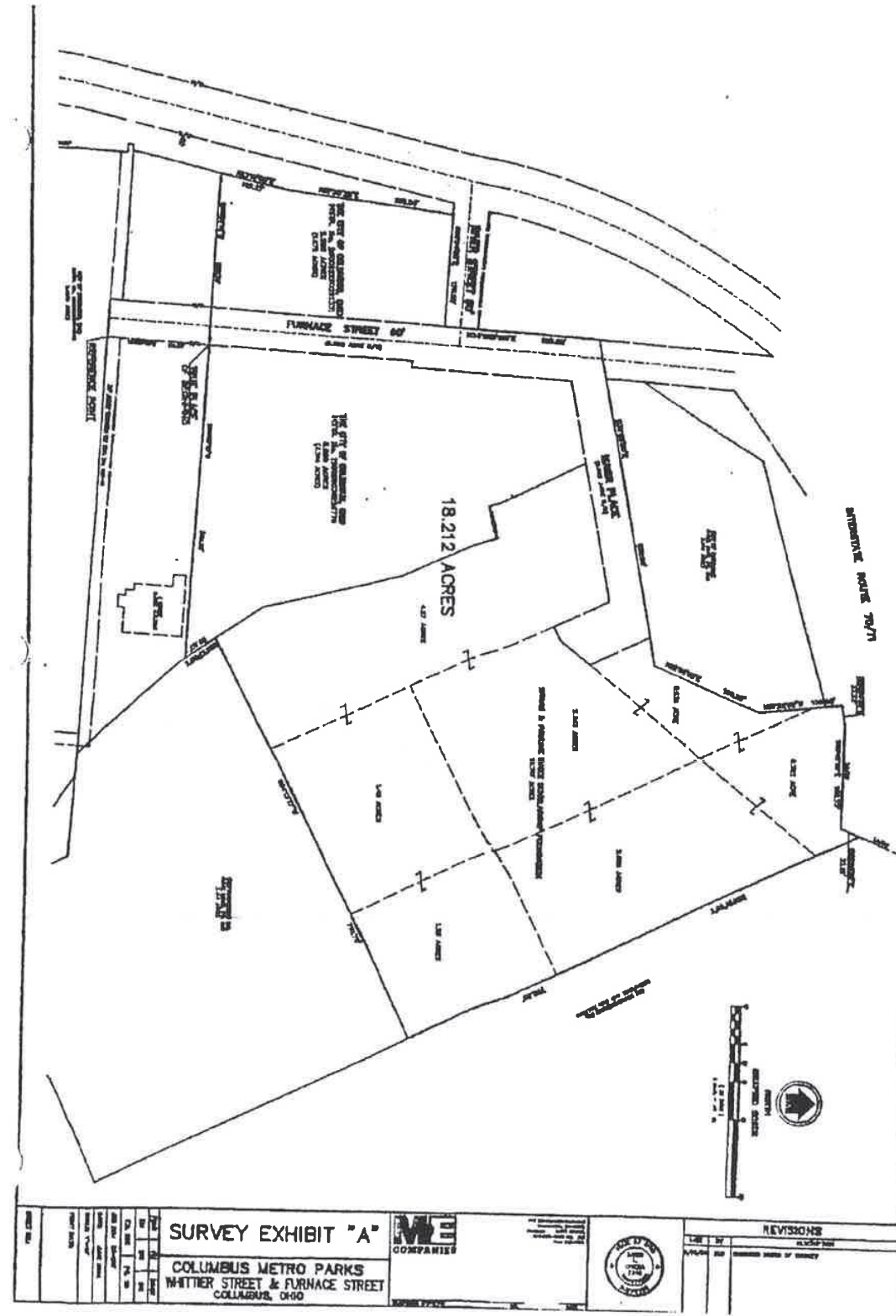
M+B Companies, Inc.

By *David L. Chiesa* 10/4/04
David L. Chiesa

Registered Surveyor No. 7740

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Exhibit 2
Property Location Map



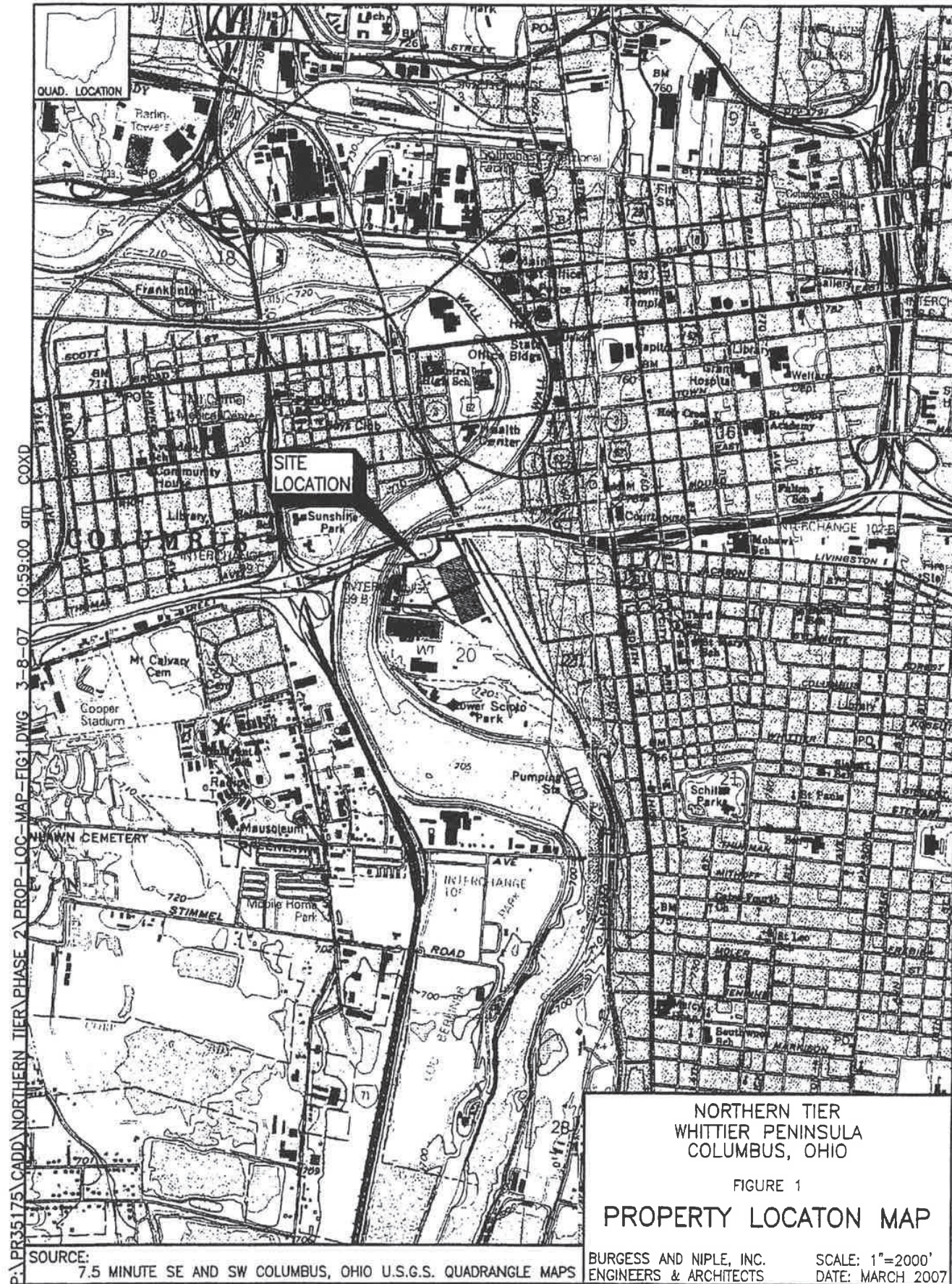


Exhibit 3
Executive Summary

**SECTION B
OHIO ENVIRONMENTAL PROTECTION AGENCY
VOLUNTARY ACTION PROGRAM
EXECUTIVE SUMMARY AND FILING DOCUMENT FOR THE
NO FURTHER ACTION LETTER
AUGUST 2008
REVISED MARCH 2010**

FOR

**NORTHERN TIER WHITTIER PENINSULA
COLUMBUS, OHIO**

VOLUNTEER:

**Columbus & Franklin County
Metropolitan Park District
1069 West Main Street
Westerville, Ohio 43081-1181**

CERTIFIED PROFESSIONAL ISSUING THE NFA:

**Thomas J. Mignery
CP 125
Telephone: (614) 459-2050; Fax: (614) 451-1385**

**BURGESS & NIPLE, INC.
Engineers and Architects
5085 Reed Road
Columbus, Ohio 43220**

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ATTACHMENTS

- 1 Property Legal Description
- 2 Environmental Covenant

1.0 INTRODUCTION

This introduction of the No Further Action (NFA) letter and the associated addenda has been prepared pursuant to Ohio Administrative Code (OAC) 3745-300-13(I). The purpose of the summary is to meet the requirements of OAC 3745-300-13 (H) and (J), to use the format provided by the Ohio Environmental Protection Agency (EPA) for submitting the NFA letter and its addenda, and OAC 3745-300-13 (J) for recording a summary of the NFA letter with the County Recorder's Office. A complete copy of the NFA letter, including the Addendum No. 1, Addendum No. 2, and Addendum No. 3 is on file with and will be made available to the Ohio EPA, Division of Emergency of Remedial Response (DERR) Voluntary Action Program (VAP) in accordance with OAC 3745-300-13(J). It should be noted that the Property was entered in the Memorandum of Agreement (MOA) track under the VAP.

An NFA letter was submitted to the Ohio EPA, DERR VAP on behalf of the Columbus & Franklin County Metropolitan Park District (Metro Parks) on August 22, 2008, the Addendum Number 1 to the original NFA submittal on March 20, 2009, an Addendum Number 2 addressing Ohio EPA comments on November 20, 2009, and an Addendum Number 3 addressing Ohio EPA comments on March 30, 2010 by Mr. Thomas J. Mignery, VAP-Certified Professional (CP) 125 of Burgess & Niple, Inc. (B&N).

The NFA and the addendum herein describes the Phase I and Phase II Property Assessments (Phase I and Phase II), the Human Health Risk Assessment (HHRA), the Risk Mitigation Plan (RMP), and the subsequent Remedial Action Report (RAR) for the approximate 18.212-acre property known as the Northern Tier of the Whittier Peninsula (Property), located southwest of downtown Columbus, Franklin County, Ohio. The Property consists of the former (1) Koch Asphalt property, located on the central portion of the Property, (2) Cunard-Lang Concrete property, located on the western portion of the Property, and (3) the former Sarah and Pauline Maier Scholarship Foundation property (now owned by Metro Parks), located on the eastern portion of the Property. The former Koch and Cunard-Lang properties are owned by the City of Columbus and are under control of Metro Parks by virtue of a long-term lease. Metro Parks owns 10.773 acres of the NFA Property and the City of Columbus owns 7.439 acres of the NFA Property. The Phase II Property Assessment involved collecting soil, groundwater, and surface water samples and a conducting HHRA.

A copy of the legal description is attached at the end of this document in **Attachment 1**. **Attachment 1** also includes the legal description for the portion of the Property owned by Metro Parks and the portion owned by the City of Columbus.

2.0 SUMMARY OF NO FURTHER ACTION LETTER

The CP, Mr. Thomas J. Mignery, issued an NFA letter on August 22, 2008 and later issued associated addenda based upon the Phase I, Phase II, HHRA, Remedial Action Plan (RAP), RMP, and RAR and Ohio EPA's comments. An Environmental Covenant (Covenant) will be filed with the Franklin County Recorder's Office for modified residential land use with restrictions on the use of groundwater for potable purposes on the Property. A copy of the Covenant is presented in **Attachment 2** at the end of this document for your review and comment. An RMP addresses health and safety requirements for construction workers if work is to be performed below the 2-foot Point of Compliance (POC).

Intended land use is that of a Metro Park. The Property has already undergone development by having existing buildings razed, impacted soils removed, and ponds and wetland features constructed as part of redevelopment for Modified Residential land use.

A summary of the Phase I, Phase II, HHRA, and RAR is provided below. Complete copies of the Phase I, Phase II, HHRA, and RAR are contained in the NFA letter.

2.1 Phase I Property Assessment

A Phase I was performed for the Property in December 2004 with an update performed in August 2008 as part of the NFA submittal. The Phase I included a determination of eligibility for entry into the Ohio VAP, a review of historic and current uses of the Property and surrounding properties, an environmental history review, a review of the history of hazardous substances or petroleum releases, a Property inspection, and identification of Identified Areas (IAs) as defined in OAC 3745-300-06(F). The following is a summary of the Phase I.

The VAP Phase I revealed some limited or suspected releases of hazardous and/or petroleum substances onto the Property. The physical Property inspection revealed evidence of monitoring wells and soil borings in the areas where former underground storage tanks (USTs) were removed. Areas of stained soil in the general vicinity of the historic coal operation on the southwestern former Maier property were identified during the site visit.

The Whittier Peninsula, the area containing the Property and surrounding areas, has historically been used for a number of industrial facilities and processing plants. The operations of these historic practices include a railroad car repair and manufacturing complex, asphalt processing, concrete

manufacturing, storage and distribution facilities, automotive machining, and electrostatic painting. Property use and historic documentation confirmed building construction and property development on the Property as far back as the late 1800s.

During the VAP Phase I, review of the regulatory database report, and local, state, and federal records did provide documentation on previous environmental issues from former operations on the Property. Spills or releases of hazardous and petroleum substances have been documented for portions of the Property. The review of environmental documents provided information that raw materials and products used consisted primarily of chemicals, petroleum compounds, and lubricants. Paints and solvents were used in electrostatic painting operations in the former Maier warehouse. Soil contamination could potentially exist from air emissions on and around the central portion of the Property (Koch Asphalt property).

Based on the potential environmental issues found during the environmental history review, potential chemicals of concern (COCs) on the Property generally include chemical solvents, metals, petroleum hydrocarbons, volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PAHs).

The environmental history review documented several environmental issues at the Property that require additional evaluation to determine if releases of hazardous or petroleum substances have occurred or have resulted in environmental impact to the Property. IAs that specifically resulted from the environmental history review includes the following:

- IA No. 2 – Impacts from a LUST located northeast of former Maier Warehouse;
- IA No. 3 – Impacts from two hazardous substance storage areas located north of the former Maier Warehouse;
- IA No. 4, 5, and 6 – Historic manufacturing/electrostatic painting/railroad operations from the former Maier Warehouse;
- IA No. 8– Impacts from leaking underground storage tanks (LUSTs) located on the Koch Property;
- IA No. 9- Historic operations located on the southwest section of the Koch property;

- IA No. 10 – Impacts from historic asphalt operation and aboveground storage tanks (ASTs) located on the Koch property;
- IA No. 11 and 12– Impacts from historic operations and potentially LUSTs on the Cunard-Lang Property;
- IA No. 13– Impacts from LUST on northwest section of Maier property.

Based on the presence of the IAs, an NFA letter could not be prepared by a CP and therefore, a VAP Phase II Property Assessment compliant with OAC 3745-300-07 was recommended for the Property.

2.2 Phase II Property Assessment

The purpose of the Phase II was to update the Phase I and to evaluate environmental impacts of the IAs reported in the Phase I, determine if VAP applicable standards were met, and if not, prepare and document the remedial efforts to meet the Property-specific VAP standards. As part of the Phase II, a subsurface investigation was conducted from July 2004 through May 2005, which included advancing 79 Geoprobe® borings throughout accessible areas of the Property and installing 13 monitoring wells.

Soil probe services were provided by EnviroCore, Limited (EnviroCore). Soil samples were collected during the subsurface investigation. Selected soil samples were submitted for analysis to American Analytical Laboratories, Inc. (AAL) or TestAmerica Laboratories, Inc. (TestAmerica); both are VAP-certified laboratories.

The monitoring wells were installed by Wright's Drilling, Inc. (Wright's Drilling), of Mt. Sterling, Ohio, concurrently with the Geoprobe® investigation. Selected soil samples collected from each of the monitoring well borings were submitted for analysis to AAL and TestAmerica as a supplement to the Geoprobe® soil samples.

Additional soil and groundwater concentrations were used in the Phase II and HHRA from a previous Phase II performed by DLZ in 2002. In addition, monitoring wells installed by DLZ were also redeveloped and sampled during the B&N Phase II. Additional soil samples were also collected and analyzed as a result of soil removal and are documented in the RAR (B&N, 2008).

In response to Ohio EPA comments, B&N collected additional soil samples in September 2009 to address Identified areas IA-1 and 2. The soil samples were focused on the potential for metals to exist in exceedance of applicable standards.

A summary of the Phase II findings is provided below.

2.2.1 Soil Investigation and Findings

A Geoprobe® sampling unit was used at the Property to collect soil samples for analytical testing. EnviroCore advanced 79 Geoprobe® borings throughout the Property. Twenty-seven borings were installed inside the former Maier building. Each Geoprobe® boring was completed either to investigate potential sources of contamination or to further delineate the extent of confirmed contaminants. Eighty-seven soil samples were collected from the Geoprobe® borings and submitted to the laboratory for analysis. Soil samples were also collected during installation of monitoring wells by Wright's drilling. Analytical results from an additional 15 soil samples submitted by DLZ during a previous investigation were also used as part of the Phase II assessment. In general, one soil sample from each boring location was collected and analyzed for all or a combination of inorganics, VOCs, semivolatile organic compounds (SVOCs) (base-neutral fraction), PAHs, and total petroleum hydrocarbon (TPH) Diesel Range Organics/Gas Range Organics (DRO/GRO).

Soil samples were collected from a variety of intervals based upon visual observation of a zone that appeared anomalous to the other samples collected within the soil boring, i.e., discoloration of soil, unusual odor, a change in soil type, etc., or if nothing appeared anomalous, depth to the first zone of saturation.

Direct push soil samples were collected in a large-bore, steel soil core sampler (4-foot-long by 2-inch diameter) attached to 1-inch-outside-diameter (OD) steel rods. The soil core sampler was lined with a new, clean, disposable acetate coring tube before collection of each soil sample. The sampler was driven into the ground by the static weight of the carrier vehicle and hydraulic hammer percussion. The soil was collected at 4-foot intervals until the desired termination depth was reached.

A hollow-stem auger (HSA) drill rig was used to advance the monitoring well borings into the unconsolidated deposits underlying the Property. Four-and-one-quarter-inch-inside-diameter (ID) HSAs were used to advance each borehole. A 2-foot by 2-inch diameter split-spoon soil sampler was used to

collect soil samples. The spilt-spoon sampler was driven ahead of the auger string. The split-spoon sampler was advanced 2 feet and removed, and the hole augered to the bottom of the sample depth. This process was repeated until the desired termination depth was reached.

Upon opening either the acetate liner or the split-spoon sampler, the soil was described by a B&N geologist and recorded on a boring log. In general, soil samples were collected in 2-foot intervals for both laboratory and headspace analysis. If soil recovery was low, samples were collected in 2- to 4-foot intervals for laboratory analysis. After recording the description, soil samples were collected in clean glass sample jars with Teflon®-lined lids provided by the laboratory. Each sample was collected using clean chemical-resistant nitrile gloves that were discarded after collection of the sample. The sample jars were properly labeled and placed into coolers chilled to 4 degrees Celsius (° C) with ice.

Samples were delivered to the VAP-certified lab under proper chain-of-custody documentation. Soil samples submitted to the VAP-certified laboratory were analyzed for a combination of VOCs (Method 8260A), inorganics (Methods 335.4, 6010A, 7060A, 7470/7471A, and 7740), SVOCs base-neutrals (Method 8270B), PAHs (Method 8270C), and TPH DRO/GRO (Method 8015A-M).

A variety of inorganics, PAHs, VOCs, and TPH DRO were detected in the soil samples collected from the Property. Soil results of the detected constituents were compared with the VAP single-chemical direct-contact standards for commercial land use, construction/excavation worker exposure standards, and the recreational standards calculated by B&N. In general, exceedances of the standards occurred with inorganics, PAHs, and TPH DRO. The following summarizes the single-chemical results for recreational land use, commercial land use, and construction/excavation worker exposure. Tables 9A through 9O of the Phase II document present soil analytical results

2.2.1.1 IA-2 – LUSTs Northeast Side of the Former Maier Warehouse

Six soil samples were collected from borings completed in IA-2 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet below ground surface (bgs) to 10 to 12 feet bgs. The analytical results are summarized as follows.

- Inorganics: No inorganics were detected at levels equaling or exceeding the calculated recreational standard or the VAP soil standards for commercial land use or the construction worker scenario.

- VOCs: Methylene chloride was the only VOC detected in any of the soil samples collected from IA-2. It was detected below the calculated recreational soil standard and the VAP standards.
- SVOCs: SVOCs were detected in the soil sample collected from GP-80 (0 to 2 feet) and GP-94 (0 to 2 feet). All concentrations were below their respective standards.
- TPH DRO/GRO: Three soil samples were submitted for TPH DRO/GRO analyses. None of the three soil samples had TPH concentrations above VAP standards.
- Multiple-Chemical Adjustment Standard (MCS): An MCS determination was performed using the maximum soil concentrations of COCs in IA-2. The sum of the risk ratios for both VAP standards (commercial and construction) in IA-2 was below one. Since the risk ratios were below one, an MCS was not calculated, and the single chemical generic direct contact soil standard (SCGDCSS) are applicable for the soil samples collected in IA-2.

It should be noted that during the NFA comment response period, B&N collected 3 additional soil samples were collected from four additional borings (CR-5 through CR-8) in IA-2 and analyzed for barium, cadmium, chromium, and lead. These samples were analyzed by a VAP certified lab and were below their respective calculated recreational standard.

2.2.1.2 IA-3 – North of the Former Maier Warehouse

Three soil samples were collected from borings completed in IA-3 and submitted to the laboratory for analysis. Collected sample intervals ranged from 4 to 6 feet bgs to 10 to 12 feet bgs. Analytical results are as follows:

- Inorganics: No inorganics were detected at levels equaling or exceeding the respective soil standards.
- VOCs: No VOCs were detected in IA-3 soil samples at concentrations exceeding laboratory detection limits.

- SVOCs: None of the analyzed soils contained concentrations of SVOCs at levels exceeding the laboratory detection limits.
- TPH DRO/GRO: Sample GP-75 (10 to 12 feet) was analyzed for TPH DRO/GRO. None of the TPH parameters were detected at levels above laboratory detection limits.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-3. The sum of the risk ratios for VAP standards (commercial and construction) in IA-3 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soil samples collected in IA-3.

It should be noted that during the NFA comment response period IA-3 was expanded to include storage areas defined in previous reports from Sharp and Associates. B&N collected 3 additional soil samples and 1 additional groundwater samples from the direct push soil sampler in the area of IA-2 and IA-3. These samples were analyzed for ethylene glycol to determine if it was a COC. The concentrations of ethylene glycol in samples were below reporting limits, therefore it was concluded by Ohio EPA and B&N staff that it was not a COC.

2.2.1.3 IA-4 – Railroad Operations and Floor Staining, Former Maier Warehouse

Eleven soil samples were collected from borings completed in IA-4 and submitted to a laboratory for analysis. Collected sample intervals ranged from 4 to 6 feet bgs to 12 to 14 feet bgs. The analytical results are discussed as follows:

- Inorganics: Arsenic was detected at a concentration of 151 milligrams per kilogram (mg/kg) in GP-92 (4 to 6 feet), 32.9 mg/kg in GP-101 (4 to 6 feet), and 25.8 mg/kg in GP-119 (4 to 6 feet). These concentrations are above the recreational standard of 23.67 mg/kg. In addition, the detected arsenic concentration of 151 mg/kg exceeds the VAP commercial standard of 80 mg/kg. Lead was also detected at a concentration which exceeded all soil standards. Lead was detected in boring GP-116 (4 to 6 feet) at 2,660 mg/kg, above the recreational standard of 550 mg/kg, the commercial standard of 1,800 mg/kg, and the construction standard of 1,600 mg/kg. No other inorganics were detected above the respective standards.

- VOCs: No VOCs were detected in IA-4 soil samples at concentrations exceeding laboratory detection limits.
- SVOCs: SVOCs were detected in soil samples collected from borings GP-102 (4 to 6 feet), GP-116 (4 to 6 feet), GP-119 (4 to 6 feet) and GP-121 (4 to 6 feet), below their respective soil standards.
- TPH DRO/GRO: Sample GP-91 (12 to 14 feet) was analyzed for TPH DRO/GRO. No TPH constituents were detected at levels above laboratory detection limits.
- Polychlorinated Biphenyls (PCBs): Sample GP-101 (4 to 6 feet) was analyzed for PCBs. No PCB constituents were detected above laboratory detection limits.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-4. Examination of the commercial standard calculation indicates that the sum of the carcinogenic risk ratios is greater than one due to the arsenic concentration of 151 mg/kg. Therefore, an MCS was calculated for compounds detected in IA-4. The new MCSs replace the generic numerical standards. Soil results were compared with the calculated MCSs. The same soil results which exceeded the generic numerical standards also exceeded the MSCs. No additional soil results were in exceedance of the calculated MCSs.

2.2.1.4 IA-5 – Historic Operations within the Former Maier Warehouse

Four soil samples were collected from borings completed in IA-5. Collected sample intervals ranged from 4 to 6 feet bgs to 10 to 12 feet bgs. The analytical results are summarized as follows:

- Inorganics: None of the detected inorganic concentrations exceeded the respective soil standards for recreational land use, commercial land use, or construction worker exposure.
- VOCs: No VOCs were detected in the four soil samples at levels exceeding laboratory detection limits.

- SVOCs: SVOCs were detected in the soil samples submitted from GP-88 (4 to 6 feet) and in GP-90 (8 to 10 feet), below the respective soil standards.
- TPH DRO/GRO: Only GP-100 (4 to 6 feet) was submitted for TPH analyses. None of the TPH constituents were detected above VAP soil saturation concentrations.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-5. The sum of the risk ratios for commercial and construction standards in IA-5 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soil samples collected in IA-5.

2.2.1.5 IA-6 – Historic Operations within the Former Maier Warehouse

Nine soil samples were collected from borings completed in IA-6. Collected sample intervals ranged from 4 to 6 feet bgs to 16 to 18 feet bgs. The analytical results are summarized as follows.

- Inorganics: Lead was detected in borings GP-85 (6 to 8 feet) at 799 mg/kg and in GP-99 (4 to 6 feet) at 841 mg/kg. Both are above the calculated recreational standard. However, these samples are below the 0 to 2 feet recreational POC. No other inorganic detections exceeded their respective standards.
- VOCs: No VOCs were detected in any of the soil samples at levels exceeding laboratory detection limits.
- SVOCs: GP-83 (4 to 6 feet), GP-85 (6 to 8 feet), and GP-99 (4 to 6 feet) contained detectable concentrations SVOCs, none of which exceeded the respective soil standards.
- TPH DRO/GRO: Five of the soil samples were analyzed for TPH. None of the detected concentrations exceeded VAP soil saturation standards.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-6. The sum of the noncarcinogenic and carcinogenic risk ratios for commercial and construction standards in IA-6 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soil samples in IA-6.

2.2.1.6 IA-7 – Historic Coal Yard

Six B&N soil samples and one DLZ soil sample were collected from borings completed in IA-7 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet bgs to 8 to 10 feet bgs. The analytical results are discussed as follows:

- Inorganics: None of the inorganic concentrations detected in the samples submitted from this IA exceeded VAP soil standards for commercial land use or the construction worker scenario, or the calculated recreational standards.
- VOCs: No VOCs were detected in IA-7 soil samples at concentrations exceeding laboratory detection limits.
- SVOCs: None of the detected SVOCs exceeded the applicable standards for recreational land use, commercial land use, or construction worker scenario SCGDCSS.
- TPH DRO/GRO: Only the soil sample collected by DLZ was analyzed for TPH. All TPH DRO/GRO concentrations were below VAP standards.
- PCBs: One soil sample was submitted for analysis of PCBs. No PCB constituent was detected above laboratory detection limits.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-7. The sum of the risk ratios for commercial and construction standards in IA-7 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS for commercial land use and construction worker scenario are applicable for the soil samples collected in IA-7.

2.2.1.7 IA-8 – LUSTs on Koch Property

Five B&N soil samples and two DLZ soil samples were collected from borings completed in IA-8. Collected sample intervals ranged from 0 to 2 feet bgs to 12 to 15 feet bgs. The analytical results summarized as follows:

- Inorganics: No detected inorganics exceed recreational, commercial or construction worker standards.
- VOCs: VOCs were detected in one of the soil samples collected from IA-8 at concentrations exceeding laboratory detection limits. All detections were below the recreational, commercial, and construction standards.
- SVOCs: SVOCs were detected in several of the samples collected from IA-8. Benzo(a)pyrene was detected in the soil sample collected from GP-115 (0- to 5-foot interval) at 6.22 mg/kg, above the recreational standard of 4.86 mg/kg. No other detected SVOCs exceeded their respective soil standards.
- TPH DRO/GRO: TPH was analyzed for in six of the seven samples submitted from IA-8. MW-24 (8 to 10 feet) contained detectable concentrations of DRO (C₁₀₋₂₀), DRO (C₂₀₋₃₄), and GRO. The detected concentration of DRO (C₁₀₋₂₀) at 2,800 mg/kg was above VAP soil saturation standards of 2,000 mg/kg.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-8. The sum of the risk ratios for commercial and construction standards in IA-8 was below one. However, the sum of the carcinogenic risk ratios for the commercial worker was 1.5 and required the calculation of an MCS. Soil results from IA-8 were compared to the calculated MCS. The same soil results which exceeded the generic numerical standards also exceeded the MSCs. No additional soil results were in exceedance of the calculated MCSs.

2.2.1.8 IA-9 – Historic Operations on Koch Property

Seven B&N soil samples and Seven DLZ soil samples were collected from borings completed in IA-9 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet bgs to 8 to 10 feet bgs. The analytical results are summarized as follows.

- Inorganics: No inorganics were detected at levels exceeding the soil standards for recreational land use, commercial land use, or the construction worker scenario.

- VOCs: Sample GP-54 (0 to 2 feet) contained detectable concentrations of ethylbenzene, toluene, and xylene. All sample detections were below the soil standards for recreational land use, commercial land use and the construction worker scenario.
- SVOCs: No detected SVOCs were at concentrations above VAP construction worker scenario standards. However, borings GP-54, 3-SB-15, and 3-SB-16 (all within the 2-foot POC) contain concentrations of benzo(a)pyrene which exceed recreational land use standards (4.86 mg/kg) and VAP commercial land use standards (6.3 mg/kg). In addition, laboratory detection limits were elevated for samples collected from boring 3-SB-8. These elevated detection limits exceed recreational land use standards and VAP commercial standards for benzo(a)pyrene and dibenzo(a,h)anthracene.
- TPH DRO/GRO: TPH DRO/GRO was detected in all DLZ soil samples submitted for analysis. The concentration of TPH DRO (C₂₀₋₃₄) (8,070 mg/kg) exceeded VAP soil saturation standards of 5,000 mg/kg in boring 3-SB-8 (0 to 2 feet). This would account for the elevated detection limits for the PAHs in this soil sample.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-9. The sum of the noncarcinogenic risk ratios for both standards (commercial and construction) in IA-9 was below one, and the carcinogenic risk ratio for the construction worker was also below one. However, the carcinogenic risk ratio for the commercial work was above one, therefore an MCS was required to be calculated. The soil results which exceeded the generic numerical standards also exceeded the MCSs. In addition, soil results from two additional borings also exceeded the calculated MCSs. These borings were re-evaluated under the HHRA and were removed during remedial activities.

2.2.1.9 IA-10 – Historic ASTs on Koch Property

Eleven B&N soil samples and three DLZ soil samples were collected from borings completed in IA-10 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet bgs to 14 to 16 feet bgs. The analytical results are summarized as follows.

- Inorganics: None of the samples submitted for inorganic analysis had concentrations above applicable single-chemical soil standards. All samples contained concentrations of inorganics above laboratory detection limits.
- VOCs: Methylene chloride was the only VOC detected in any of the soil samples submitted for analysis in IA-10. The detected concentration is below all soil standards. No other VOCs were detected above laboratory detection limits.
- SVOCs: Although SVOCs were detected in several of the samples submitted from IA-10, no detected concentrations exceed recreational land use, commercial land use, or construction worker exposure standards.
- TPH DRO/GRO: TPH in boring GP-56 (10 to 12 feet) contained GRO at 1,900 mg/kg, above the VAP soil saturation standard of 1,000 mg/kg. TPH DRO (C₁₀₋₂₀) and (C₂₀₋₃₄) were also detected, but below VAP standards.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-10. The sum of the risk ratios for commercial and construction standards in IA-10 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soil samples collected in IA-10.

2.2.1.10 IA-11 – Historic Operations and Potential LUST on Cunard-Lang Property (Southern Portion)

Three soil samples were collected from B&N borings completed in IA-11 and submitted to the laboratory for analysis. One DLZ sample was collected from within IA-11. Collected sample intervals ranged from 0 to 4 feet bgs to 12 to 14 feet bgs. The analytical results are discussed as follows.

- Inorganics: No inorganics were detected at levels equaling or exceeding the soil standards for recreational land use, commercial land use, or the construction worker scenario.
- VOCs: Acetone and methyl ethyl ketone were detected in one of the samples submitted for VOCs analysis, below their respective soil standards. No other VOCs were detected above laboratory detection limits.

- SVOCs: SVOCs were detected in two of the soil sample submitted for analysis, all of which were below recreational land use, commercial land use, and construction worker standards.
- TPH DRO/GRO: TPH analyses were performed only on the soil sample collected by DLZ, 3-SB-2 (0 to 4 feet). TPH concentrations were below VAP soil saturation standards.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-11. The sum of the risk ratios for both standards (commercial and construction) in IA-11 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soils collected in IA-11.

2.2.1.11 IA-12 – Historic Operations and Potential LUST on Cunard-Lang Property (Northern Portion)

Six Burgess & Niple, Inc. (B&N) and one DLZ soil samples were collected from borings completed in IA-12 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet bgs to 6 to 8 feet bgs. The analytical results are discussed as follows.

- Inorganics: Of the seven soil samples submitted for analysis, GP-47 (6 to 8 feet) contained a lead concentration of 1,840 mg/kg, which exceeds both the VAP commercial land-use and construction worker scenario standards, in addition to the calculated recreational land-use standard. It should be noted that this soil sample was collected below the 2-foot POC used for the evaluation of recreational and commercial land use. In addition, lead was detected in DLZ boring 4-SB-2 (0-12 ft) at 693 mg/kg, above the recreational standard of 550 mg/kg. No other inorganics were detected at levels equaling or exceeding the VAP soil standards for commercial land use or the construction worker scenario.
- VOCs: No VOCs were detected in soil samples at concentrations exceeding VAP applicable standards. Samples GP-47 (2 to 4 feet) and MW-21 (0 to 2 feet) contained detectable concentrations of acetone; sample GP-47 (2 to 4 feet) additionally contained detectable concentrations of methyl ethyl ketone, none of which were above VAP standards.

- SVOCs: No detected SVOC concentrations exceeded recreational land-use, commercial land-use, or construction worker exposure standards.
- TPH DRO/GRO: TPH analyses were only performed on the DLZ soil sample. TPH GRO and DRO (C₁₀₋₂₀) were detected, below VAP standards.
- PCBs: The soil sample collected from GP-108 (0 to 2 feet) was analyzed for PCBs. No PCB constituents were detected above laboratory detection limits.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-12. The sum of all risk ratios for the commercial and construction standards in IA-12 was below one. Therefore, the SCGDCSS are applicable for IA-12.

2.2.1.12 IA-13 – LUST on the Former Maier Property

Seven soil samples were collected from borings completed in IA-13 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet bgs to 10 to 12 feet bgs. The analytical results are summarized as follows.

- Inorganics: No inorganics were detected at levels equaling or exceeding the soil standards for recreational land use, commercial land use, or construction worker exposure in each of the soil samples.
- VOCs: No VOCs were detected in the seven soil samples at levels exceeding laboratory detection limits.
- SVOCs: No SVOCs were detected above VAP standards for recreational land-use, commercial land-use, or the construction worker exposure standards.
- TPH DRO/GRO: No TPH parameters for the three samples analyzed were detected at levels exceeding the applicable standards.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-13. The sum of the risk ratios for both commercial and construction

standards in IA-13 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soils collected in IA-13.

2.2.1.13 IA-14 – Railroad Spurs within Maier Warehouse

Four soil samples were collected from borings completed in IA-14 and submitted to the laboratory for analysis. Collected sample intervals ranged from 0 to 2 feet bgs to 2 to 4 feet bgs. The analytical results are summarized as follows.

- Inorganics: Arsenic was detected in the soil sample submitted from GP-104 (0 to 2 feet) at 26.7 mg/kg, above the recreational standard of 23.67 mg/kg. No additional detected inorganics exceeded their respective soil standard.
- VOCs: Methylene chloride was the only VOC detected in the soil samples collected from IA-14. Methylene chloride was detected at 0.0136 mg/kg in the sample collected from boring GP-105 (0 to 2 feet), below the recreational land-use, commercial land-use, and construction worker exposure standards.
- SVOCs: SVOCs were detected in each of the samples submitted from IA-14. All detections were below their respective soil standards.
- PCBs: One soil sample was submitted for PCB analysis. No PCB constituents were detected above laboratory detection limits in the sample submitted from GP-104 (0 to 2 feet).
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-14. The sum of the risk ratios for both commercial and construction standards in IA-14 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soils collected in IA-14.

2.2.1.14 IA-15 – Former Concrete Sump Along Furnace Street

Two soil samples were collected from borings completed in IA-15 and submitted to the laboratory for analysis. Collected sample intervals were 4 to 6 feet bgs for each soil sample. In addition, one sample collected from the Lazarus property (GP-20 4 to 6 feet), located north of the

former 514 Furnace Street building, was also included in the investigation of this IA. The following summarizes the analytical results.

- Inorganics: Inorganics were detected in both samples submitted from this IA. Arsenic was detected at 29.9 mg/kg in GP-123 (4 to 6 feet), above the recreational standard of 23.67 mg/kg. However, this concentration is below the 0 to 2 feet POC for recreational land use. No other detected inorganics exceeded their respective standards.
- VOCs: Acetone was the only VOC detected in a soil sample from this IA. Acetone was detected at 0.154 mg/kg, below the recreational land-use, commercial land-use, and construction worker exposure standards.
- SVOCs: No SVOCs were detected in the samples submitted from this IA above laboratory detection limits.
- MCS: An MCS determination was performed using the maximum soil concentrations of COCs in IA-15. The sum of the risk ratios for both commercial and construction standards in IA-15 was below one. Since the risk ratios were below one, an MCS was not calculated, and the SCGDCSS are applicable for the soils collected in IA-15.

2.2.1.15 IA-16 – PCB Release, Furnace Street Transformer

Two soil samples were collected from borings completed in IA-16 and submitted to the laboratory for PCB analysis following a leaky transformer and remedial action by the Ohio EPA. Collected sample intervals were 0 to 2 feet bgs for each soil sample. No PCB constituents were detected above laboratory detection limits for IA-16.

An MCS determination was not necessary for the samples collected in IA-16 as nothing was detected in the samples submitted from this IA.

2.2.2 Groundwater Investigation and Findings

Thirty-four groundwater samples were collected from the 15 monitoring wells during the Phase II Property Assessment. Groundwater samples from the 15 monitoring wells were collected during July and August 2004, October 2004, and May 2005. In addition, per Ohio EPA request, monitoring wells MW-24

and MW-40 were re-sampled in September 2005. Four of the sampled monitoring wells (MW-14S, MW-14D, MW-15S, and MW-15D) were installed by DLZ during a site investigation prior to the current Phase II. It should be noted that these four monitoring wells were redeveloped by B&N prior to sampling. The remaining 13 monitoring wells (MW-20, MW-21, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, MW-39, MW-40, MW-41, and MW-42) were installed by B&N during current Phase II.

Top-of-casing elevations were surveyed by B&N at each of the monitoring wells, including those installed by DLZ. After well development, samples were collected during subsequent sampling events using low-flow sampling techniques. A peristaltic Masterflex® pump was used to evacuate the water from 13 of the 15 monitoring wells sampled for this Phase II. A Grundfos® pump was used to evacuate water from two deep, previously installed monitoring wells. Both the Grundfos® and the Masterflex® pumping rates can be adjusted to a rate sufficiently slow enough so as not to agitate the water within the well, resulting in less-turbid samples. Both pumps use disposable polyethylene tubing to evacuate the water from the well. The pump tubing was lowered into the well and groundwater was pumped at a rate between approximately 100 and 500 milliliters per minute (ml/min) during purging and sampling. The monitoring wells were purged until the indicator parameters stabilized. Groundwater samples collected during each sampling event were analyzed for VOCs, SVOCs, and inorganics. Samples were collected in the order listed. As with the soil samples, collected groundwater samples were placed into coolers and chilled to 4° C. with ice. Samples were then delivered to a VAP-certified lab under proper chain-of-custody documentation.

Groundwater analytical results were compared to VAP Unrestricted Potable Use Standards (UPUS).

2.2.2.1 Groundwater Sampling Results

The groundwater analytical results are summarized as follows:

- Inorganics: None of the inorganics detected in the groundwater samples were above UPUS. Arsenic, barium, selenium, and zinc were the only inorganic parameters detected in groundwater from the monitoring wells. It should be noted that arsenic, barium, selenium, and zinc commonly occur naturally in Ohio groundwater, and the detected concentrations of these parameters are believed to be natural groundwater quality rather than a result of historical operations.

- VOCs: Several VOCs were detected in the groundwater samples from across the Property. MW-23 contained VOCs at levels exceeding laboratory detection limits. MW-24 contained 14 micrograms per liter ($\mu\text{g/l}$) of 1,1,1-trichloroethane and 1.4 $\mu\text{g/l}$ of 1,1-dichloroethane, both of which are below the UPUS of 200 $\mu\text{g/l}$ and 7.0 $\mu\text{g/l}$. In addition, MW-27 contained detectable concentrations of sec-butyl benzene, n-butyl benzene, isopropylbenzene, and n-propylbenzene, all of which were below UPUS. Lastly, MW-29 also contained detectable concentrations of cis-1,2-dichloroethene and trichloroethene, both of which were below UPUS. In summary, no VOCs detected in groundwater samples were above UPUS.
- SVOCs: SVOCs were detected in the groundwater samples collected from MW-24, MW-26, MW-27, MW-40, and MW-41. Compounds which exceed UPUS include benzo(a)anthracene and dibenzo(a,h)anthracene in MW-24 at 3 $\mu\text{g/l}$ and 0.62 $\mu\text{g/l}$, respectively. Benzo(a)anthracene and benzo(a)pyrene were detected at 7.0 $\mu\text{g/l}$ and 0.20 $\mu\text{g/l}$, respectively, above the UPUS in the groundwater sample collected from monitoring well MW-40 in October 2004. However, during the subsequent monitoring event in May 2005 and September 2005, these compounds were not detected above laboratory detection limits. No other SVOC detections were above UPUS, including detected parameters acenaphthene, anthracene, fluoranthene, fluorene, phenanthrene, and pyrene.
- Moreover, groundwater quality is expected to meet UPUS at the POC in the future based on the following line of evidence:

The groundwater which does not meet UPUS is relatively centrally located on the Property, surrounding monitoring wells MW-24 and MW-40 on the Koch portion of the Property. Groundwater samples collected from groundwater monitoring wells in proximity to the impacted area and at the Property boundary meet UPUS. Three monitoring wells are located downgradient of the impacted wells. These include MW-23, MW-15S and MW-15D (a well cluster), and MW-20, which is located at the Property boundary and is approximately 700 feet from MW-24. These wells have not had any detections of the COCs detected in the impacted monitoring wells. In addition, the Property has been developed for over 100 years. It is likely that if impacted groundwater were moving off-Property, it would have been detected in these downgradient wells. It should also be noted, however, that COCs in groundwater will continue to attenuate, and

that COCs in groundwater will most likely not reach the Property boundary at concentrations exceeding UPUS.

2.2.2.1.2 **Dibenzo(a,h)anthracene**

It should be noted that the laboratory detection limit for dibenzo(a,h)anthracene in all groundwater samples exceeds VAP UPUS. However, the Ohio EPA VAP Certification Program has acknowledged that the promulgated UPUS is below the achievable detection limit for this constituent. Based upon the Ohio EPA Comment Letter (dated September 2005) regarding the Interim Phase II submittal, the Ohio EPA requested that a Property-specific standard be calculated for this compound. Section 2.2.3 of the Risk Assessment document (B&N, 2008) discusses the calculation of the Property-specific standard. The following standards were calculated for dibenzo(a,h)anthracene:

- Child recreational visitor – 0.205 $\mu\text{g/l}$
- Adult recreational visitor – 0.0861 $\mu\text{g/l}$
- Commercial worker – 0.411 $\mu\text{g/l}$
- Construction worker – 1.94 $\mu\text{g/l}$.

The lowest calculated standard (for the recreational adult visitor) was used on the groundwater analytical table.

2.2.2.2 **Groundwater Classification and Protection of Groundwater Meeting UPUS**

Groundwater is classified as critical resource without an Urban Setting Designation.

When groundwater in a saturated zone underlying the Property complies with UPUS, any remedial activities undertaken at the Property must ensure that the migration of hazardous substances or petroleum from sources or source areas on the Property will not result in UPUS being exceeded anywhere within the saturated zone. These remedial activities provide the protection of groundwater meeting the UPUS.

Two groundwater zones underlie the Property: shallow, unconsolidated sand and gravel and a consolidated bedrock saturated zone. Both zones are evaluated for protecting groundwater meeting unrestricted potable use standards (POGWMPUS) applicability. The following presents the POGWMUPUS applicability for the Property.

2.2.2.2.1 Shallow Saturated Zone

Results of the groundwater sampling at the Property, discussed in Section 2.2.2.1, indicates that the upper saturated zone underlying the Property has been impacted by historical operations at the Property. Groundwater results for monitoring wells MW-24 and MW-40 contain concentrations of benzo(a)anthracene, benzo(a)pyrene, and dibenzo(a,h)anthracene above UPUS. Multiple samples were collected from these wells to confirm these results, all collected within the requisite 90 days. Therefore, the provisions for POGWMUPUS do not apply to the shallow saturated zone because this zone of saturation does not meet UPUS.

2.2.2.2.2 Silurian-Devonian Bedrock Aquifer

As addressed with Ohio EPA under Technical Assistance (TA), POGWMPUS does apply to the Silurian-Devonian aquifer underlying the Property and the unconsolidated sand and gravel aquifer. It applies in this situation because it is assumed that groundwater in the limestone aquifer is not impacted due to historical activities at the Property. There are several qualitative points of evidence indicating that downward migration of contaminants has not and will not occur, and therefore the requirements of POGWMUPUS apply and will be maintained for the limestone aquifer. These points are presented as follows:

1. Two deep monitoring wells (MW-14D and 15D) were constructed in the deeper portion of the unconsolidated sand and gravel aquifer, with screened intervals of 34 to 44 feet bgs and 29 to 39 feet bgs, respectively. These two monitoring wells are located horizontally downgradient of impacted monitoring wells MW-24 and MW-40, which are completed in the upper portion of the unconsolidated sand and gravel aquifer and have screened intervals of 12 to 17 feet bgs and 10 to 20 feet bgs, respectively. Current and historical sampling results indicate that no COCs have been detected in deep monitoring wells MW-14D and MW-15D at levels exceeding UPUS. Because no detectable concentrations were found in the deeper sand and gravel aquifer, it is expected that the underlying Silurian-Devonian aquifer is also not impacted.
2. COCs, in particular PAHs, found in soils across the Property are currently in contact with groundwater, and presumably have been for years. However, PAHs have been detected sparingly in groundwater, with the only detections being in two monitoring wells completed in the shallow portion of the sand and gravel aquifer. As a group of

compounds, PAHs are characterized by being relatively insoluble in water and having high soil-water distribution coefficients. Therefore, the PAHs are expected to remain bound to shallow soils rather than leached into groundwater, which is generally confirmed by sampling results.

3. As discussed in Sections 7.3.1 and 7.3.2 of the Phase II report, groundwater in the sand and gravel buried valley aquifer and the upper portion of the Silurian-Devonian aquifer (above the base of the Tymochtee Dolomite) is expected to discharge to the Scioto River. For the sand and gravel aquifer, Property-specific groundwater elevation contour maps indicate that groundwater indeed flows toward, and presumably discharges to, the Scioto River.

No Property-specific information exists for the underlying limestone aquifer. However, the hydrogeologic characteristics of both the sand and gravel buried valley aquifer and limestone aquifer south of downtown Columbus have been researched extensively by the USGS to determine relationships between the two aquifers, the Scioto River, the City of Columbus South Wellfield, various quarry operations and lakes, and solid waste landfills (de Roche and Razem, 1981; Sedam et al, 1989; Childress et al, 1991; Cunningham et al, 1996; Schalk, 1996; Nalley and Haefner, 1999). In general, these publications indicate that the groundwater from the upper portion of the limestone aquifer discharges to the Scioto River south of downtown Columbus, except in the presence of dewatering stresses. These conclusions are based on groundwater elevation measurements. Sedam et al (1989) specifically states, "In general, bedrock water levels near the Scioto River tended to be slightly higher (usually less than 1.0 foot) than levels in the glacial aquifer. In areas of considerable dewatering, the difference was not apparent."

It is reasonable to conclude the upper portion of the limestone aquifer underlying the Property footprint locally discharges to the Scioto River buried valley, based on the above discussion and the fact that no long-term dewatering operations are located in the vicinity of the Whittier Peninsula. Due to groundwater flow from the limestone aquifer to the buried valley sand and gravel and Scioto River, it is anticipated that contaminants have not migrated against this hydraulic gradient into the limestone aquifer.

2.2.3 Surface Water and Sediments Investigation and Findings

At the time of the Phase II, no true surface water bodies existed on the Property. Therefore, surface water and sediment samples were not collected as part of the Phase II investigation. Since completion of Phase II activities, wetland features and ponds have been constructed on the Property.

2.2.4 Exposure Pathway Assessment

Under VAP (OAC 3745-300-7), existing and potential pathways must be evaluated to determine if they are complete for human and, if necessary, ecological receptors. This is based on current and future intended land use. As discussed in Section 2.1, the Property is currently undergoing development as a Metro Park, with constructed wetlands and ponds. As such, potential receptors are:

- Commercial Worker - Exposure to an adult park worker;
- Recreational Visitor – The recreational visitor scenario accounts for the potential child and adult visiting the Property; and
- The Construction/Excavation Worker – There is the potential for a construction or excavation worker to perform work on or adjacent to the Property.

2.2.4.1 Human Health Exposure Pathways

Two environmental media exists on-Property or adjacent to the Property to which receptors can be exposed: soil and groundwater. Surface water and sediment exposure were eliminated as exposure pathways since no true surface water bodies (wetlands and ponds were constructed on Property), which could contain sediment, existed on Property at the time of the Phase II.

Potentially complete exposure pathways for soils on the Property for the recreational visitor (child and adult), the commercial worker, and the potential construction or excavation worker are:

- Ingestion;
- Dermal contact;

- Inhalation of fugitive dusts;
- Vapor migration from soil into slab-on-grade structures and structures with basements; and
- Soil COCs leaching to groundwater.

Potentially complete exposure pathways for groundwater for the child and adult recreational visitor, the commercial worker and the potential construction or excavation worker includes:

- Dermal contact of groundwater;
- Ingestion of groundwater;
- Vapor migration from groundwater into slab-on-grade structures and structures with basements; and
- Vapor migration from groundwater into an excavation.

2.3 Determination of Applicable Standards

Applicable standards were based on the future land uses of the Property. Intended future land use for the Property is recreational land use, which is considered Modified Residential under the VAP and includes a park and nature preserve. It should be noted that Modified Residential land use will require an Environmental Covenant designating the Property as Modified Residential.

2.3.1 Soil

Results of the B&N soil samples submitted for analysis, and those collected by DLZ, were compared to the Ohio VAP SCGDCSS for Commercial Land-Use (OAC 3745-300-08, Table III) and the Construction and Excavation Worker Exposure standards (OAC 3745-300-08, Table IV). However, the above-listed standards are for single-chemical exposures. When multiple chemicals are present, the adverse effects of the different chemicals are additive (U.S. EPA, 1989b). Therefore, the need for a MCS is determined. The MCS may reduce the applicable standards or cleanup levels for a COC in a particular

IA. As multiple chemicals were detected in soils at the Property, the MCS applicability was determined for each IA. Section 8.1.2.1 of the Phase II document discusses the MCS calculation in greater detail.

Since the intended future land use for the Property is that of an urban park (recreational) and since SCGDCSS have not been calculated for a recreational land-use scenario, single chemical direct-contact standards (based primarily on the ingestion pathway) were calculated for the potential recreational visitor. Since the child exposure is most conservative, calculated recreational standards are based on exposure to the child visitor. Section 8.2 of the Phase II discusses the recreational direct contact standards calculations.

As an MCS determination cannot be performed for the calculated recreational standards, nor do the SCGDCS account for all potential pathways, a HHRA was performed to determine what risk may apply based on additional pathways and the recreational receptor population.

Single-chemical direct-contact soil standards have not been established for recreational land use. Results of soil and sediment samples were initially compared with the VAP single chemical direct contact soil standards for commercial land use and the construction worker scenario. Lastly, results of the HHRA were compared with the VAP risk standards of 1×10^{-5} for lifetime carcinogenic risk, and a noncancer hazard index of 1.0.

2.3.2 Groundwater

Groundwater analytical results were compared to the VAP Generic UPUS, OAC 3745-300-008, Table VI, the Risk-Based Generic UPUS for Groundwater (OAC 3745-300-008, Table VII), and the Supplemental UPUS table (DERR 10/21/02). An MCS is not performed on groundwater samples that are listed in the UPUS table (Table VI). However, if more than one compound is detected from the non-UPUS Risk-Based Table (OAC 3745-300-008, Table VII) or the Supplemental UPUS table, an MCS should be performed. Several compounds were detected in the groundwater samples from the Supplemental Tables. The results of the risk ratios were below 1, therefore an MCS was not calculated for these compounds and the UPUS applies to all groundwater results at the Property. An Institutional Control in the form of a groundwater use restriction will be implemented for the Property.

2.4 Determination of Compliance with Applicable Standards

A HHRA was performed to determine whether or not VAP risk standards were met. To meet the noncancer and carcinogenic risk standards, several institutional controls were required. An environmental covenant, in the form of deed notations, included:

- A Modified Residential land-use designation for the Property;
- Prohibition of the use of groundwater for potable purposes.

In addition, it was determined that a RMP was required for the construction/excavation worker when work is to be performed anywhere on the Property below the 2-foot Modified Residential POC. The RMP details precautions required to mitigate the risk of the construction worker working in potentially impacted soils.

2.4.1 Methods for Demonstrating Compliance

Compliance with applicable standards was demonstrated through the following:

- A. Soil results were compared with single chemical direct-contact soil standards for commercial land use and construction/excavation worker scenario.
- B. Due to the presence of more than one COC, it is assumed that adverse affects of each chemical is additive. Therefore, a MCS determination was performed using the maximum detected soil concentrations. Results indicate that the presence of multiple COCs at the Property does not warrant calculating an MCS, that the single chemical direct-contact standards are applicable.
- C. A HHRA was performed to determine whether VAP risk standards were met for current and future land use.
- D. A RMP was developed for construction or utility workers working below the 2-foot POC at the Property.

2.4.2 Data Analysis

Based on a Comment Letter received from the Ohio EPA with regard to the VAP-approved RAP, theoretical fate and transport modeling (WinTran) of arsenic in groundwater was conducted for the subject Property. The model was developed as a result of arsenic impacted soils left in place within the footprint of the former Maier building below the POC and calculations indicating the potential for arsenic to leach from these soils to groundwater at concentrations exceeding the UPUS.

The model is a set of three theoretical scenarios using conservative flow model and transport model input data. The three scenarios were developed using a constant concentration arsenic source to simulate potential arsenic concentrations in groundwater under steady state conditions in relation to the Property boundary. The three scenarios are based on three different calculated retardation coefficients, which are the result of three potential K_d values. The modeling effort was intended to demonstrate conservative “worst-case” arsenic concentrations and not to represent actual subsurface conditions.

The modeling results indicate that simulated arsenic concentrations do not exceed the UPUS of 50 µg/l at the Property boundary for any of the three scenarios modeled. Scenario 1 has the lowest, and therefore most conservative, retardation coefficient of the three modeled scenarios, and had a maximum simulated concentration of approximately 18 µg/l at the property boundary for the 200 year simulation.

Sensitivity analyses were run to determine which parameters most affected the model simulation. The model was most sensitive to changes in the source concentration. Changes to hydraulic conductivity and longitudinal (and transverse) dispersivity moderately affected the model output. The model was least sensitive to changes in the porosity.

2.4.3 Compliance with Generic Numerical Standards

Section 2.2 discusses the soil and groundwater results of the samples collected at the Property throughout Phase II activities. Results are compared with applicable Generic Numerical Standards. As discussed in Sections 2.3 and 2.4.1, an MCS determination was performed for commercial and construction worker scenarios. The following summarizes the MCS determination:

- The sum of the calculated risk ratios for carcinogenic and noncarcinogenic compounds for commercial land-use standards was below 1 for IA-2, IA-3, IA-5, IA-6, IA-7, IA-10, IA-11, IA-12, IA-13, IA-14, and IA-15. Since the risk ratios were below 1, an MCS was

not calculated; therefore, the SCGDCSS are the applicable standards for comparison in those IAs.

- An MCS was not evaluated for IA-16 as the only suspected COC was PCBs, and no PCBs were detected above laboratory detection limits in any of the samples collected in IA-16.
- However, the sum of the calculated risk ratio for carcinogenic compounds for commercial land-use standards was above 1 for IA-4, IA-8, and IA-9. Therefore, an MCS was calculated for the compounds detected in these IAs.
- The sum of the calculated risk ratios for carcinogenic and noncarcinogenic compounds for construction/excavation worker standards was below 1 for all IAs. Therefore, an MCS was not calculated for the construction/excavation worker standards, and the single-chemical standards for the construction/excavation worker are applicable.
- Several of the COCs detected in the groundwater are listed on Table VII and the Supplemental Table, and therefore need an MCS determination. Results of this determination conclude that the calculated risk ratios of carcinogenic and noncarcinogenic compounds are below 1. Therefore, the VAP potable-use standards are applicable for COCs detected in the groundwater.

2.4.4 Property-Specific Risk Assessment Findings

A HHRA was performed for the Property to evaluate potential risk to human health from COCs detected on the Property during the Phase II. Results were used to determine if current and future level of risk to human health is at an acceptable level for future land use.

Exposure to potential receptor populations at the Property was evaluated using VAP human health risk assessment guidelines. An acceptable level of risk is defined as a hazard index of ≤ 1.0 for noncarcinogenic risk and a carcinogenic risk of 1×10^{-05} for each receptor population. IAs were combined into seven Risk Units (RUs) based upon similar historical practices, similar COCs, and, in turn, similar soil and groundwater data. The RUs are summarized as follows:

- RU 1: IA-2 and IA-3

- RU 2: IA-4, IA-5, IA-6, and IA-14
- RU 3: IA-7
- RU 4: IA-8, IA-9, and IA-10
- RU 5: IA-11 and IA-12
- RU 6: IA-13
- RU 7: Data from IA-15 were used for RU-7.

No COCs were detected in the samples collected from IA-16. Therefore, no remediation was necessary.

2.4.4.1 Findings of the HHRA

As stated above, VAP guidelines states that an acceptable level of noncarcinogenic risk is defined as a hazard index of ≤ 1.0 , and the acceptable level of carcinogenic risk is a calculated cancer risk of $\leq 1 \times 10^{-05}$. Based on the institutional controls implemented on the Property, the HHRA demonstrates an acceptable human health risk for exposure to the commercial worker, recreational visitor (child receptor), and construction worker across the entire Property, with the following institutional controls:

- A deed restriction designating the land use of the Property to be that of Recreational;
- A deed restriction prohibiting the use of groundwater for potable purposes.

Soil removal was recommended in several RUs throughout the Property to meet risk-based standards. The following indicates which areas were recommended for soil removals based on pathway exceedance:

1. Soil - Dermal Contact and Ingestion - For all receptor populations, VAP risk-based standards were met across the Property after removal of soil in portions of RU-1, RU-2, RU-3, RU-4, and RU-5.
2. Soil - Inhalation of Vapors (indoors and outdoors) and Fugitive Dusts – For all receptor populations, VAP risk-based standards were met across the Property after removal of soil in portions of RU-1, RU-2, RU-3, RU-4, and RU-5.

3. Groundwater – Dermal Contact and Ingestion – For all receptor populations, UPUS were met at the Property boundary, the POC. Groundwater is classified as critical resource without an Urban Setting Designation (USD). Because UPUS is not met toward the center of the Property, a restriction will be necessary on the use of groundwater for potable and non-potable purposes.
4. Groundwater – Inhalation of Vapors (Indoor and Outdoor) – For all receptor populations, VAP risk-based standards are met across the Property.

It should be noted that an ecological risk assessment was not performed for the Property as it has been industrially developed for over 100 years and is not located within an ecologically sensitive area. In addition, development of the Property as a Metro Park will only improve the area for ecological receptors.

2.4.5 Determination of Whether Remedial Activities Are Required

Based on the findings of the HHRA, it was determined that remedial activities were warranted to mitigate risk to the receptor populations at the Property to impacted media. The purpose was to prevent exposure to recreational visitors, commercial workers, and construction workers to PAHs and several metals (primarily arsenic and lead) present in soils within the 2-foot POC. In addition, due to some COCs which persist below the 2-foot POC, at the time of the NFA Letter, a RMP is required for the entire Property when construction or excavation is to be performed below the 2-foot POC.

2.5 Remedial Activities

Remedial activities were necessary to achieve compliance with applicable standards at the Property. However, based upon the HHRA, institutional controls will also be implemented to mitigate potential risk to a receptor population. Institutional controls include:

- A recreational land use designation, prohibiting residential land use at the Property,
- A voluntary prohibition of the use of groundwater for potable purposes.

Remedial activities commenced in May 2006 and were completed in September 2007. The following is a description of the remedial tasks completed to meet applicable standards set forth in the Revised RAP (B&N, 2006);

- Decommissioning groundwater monitoring wells,
- Collecting confirmation samples during removal and disposal of contaminated soil,
- Backfilling to meet the POC, and
- Surveying the areas to confirm the POC was met.

These remedial activities were based on the nature of the COCs as compared to applicable standards and due to the development of the Property.

2.5.1 RU-1

Risk-based standards are met for recreational land use and for the construction worker scenario in RU-1. No remedial action was required to meet applicable recreational and construction standards in RU-1. Although recreational and construction worker standards were met, the risk-based standards for commercial land use were exceeded in soil collected from GP-94.

The interim HHRA (B&N, 2006) indicated that risk-based standards for commercial land use are met for RU-1 upon soil removal surrounding boring GP-94 to a minimum depth of 2 feet bgs. The Ohio EPA approved RAP (B&N, 2006) recommended that an initial area of 25-foot by 25-foot be removed around GP-94 to meet applicable PAH standards. The excavated area was labeled as Pit 8. The excavation was to a minimum depth of 2-feet below initial ground surface to meet the POC for commercial land use. Confirmation soil samples (Pit 8-1 through Pit 8-5) were collected from each sidewall and from the base of the excavation and analyzed for PAHs. All analytical results were below VAP commercial land use standards and the excavation limits were achieved.

2.5.2 RU-2

Arsenic and lead concentrations in soil collected from GP-92, GP-101, GP-104, GP-116, and GP-119 within RU-2 exceeded the VAP soil-direct-contact standard for recreational land use and/or the commercial land use standard. Concentrations of lead in GP-116 exceeded the VAP soil-direct-contact standard for the construction worker scenario.

The RAP (B&N, 2006) recommended that an initial area of 55-foot by 125-foot be removed to a depth of 2-feet bgs surrounding borings GP-92, GP-101, and GP-104. The excavated area was labeled as Pit 9. The excavation was to a minimum depth of 2-feet below initial ground surface as to meet the POC for recreational land use. Initial confirmation soil samples (Pit 9-1 through Pit 9-8) were collected from the sidewalls and the base of the excavation and submitted to a VAP-certified laboratory for arsenic and lead analysis. Arsenic concentrations in soil samples collected at Pit 9-3 and Pit 9-4 exceeded the applicable standard. The excavation was extended and additional confirmation samples, Pit 9-9 through Pit 9-11, were collected and analyzed for arsenic and lead. The analytical results from soils collected from Pit 9-9 through Pit 9-11 were below applicable standards and the excavation limits were achieved.

Due to the elevated arsenic concentration in soil collected from GP-119, the RAP (B&N, 2006) recommended that an initial area of 25-foot by 25-foot be removed to a depth of 2 feet bgs surrounding GP-119. The excavated area was labeled as Pit 10. The excavation was to a minimum depth of 2 feet below initial ground surface as to meet the POC for recreational land use. Initial confirmation soil samples (Pit 10-1 through Pit 10-5) were collected from the sidewalls and the base of the excavation and submitted to a VAP-certified laboratory for arsenic and lead analysis. Arsenic concentrations in soils collected from Pit 10-1 exceeded the applicable standard. The excavation was extended 10 feet and an additional confirmatory soil sample, Pit 10-6, was collected. Analytical results from soils collected from Pit 10-6 were below applicable standards and the excavation limits were achieved.

Concentrations of lead in the soil sample collected GP-116 exceeded applicable standards for the construction worker scenario. The RAP (B&N, 2006) recommended that an initial area of 40-foot by 40 foot be removed to a depth of 2 feet bgs surrounding GP-116. The excavated area was labeled as Pit 11. The excavation depth was a minimum of 2 feet below initial ground surface to meet the POC for recreational land use. Confirmation soil samples Pit 11-1 through Pit 11-5 were collected from the sidewalls and the base of the excavation and submitted to a VAP-certified laboratory for arsenic and lead analysis. Analytical results from the confirmatory soil samples were below applicable standards and the excavation limits were achieved.

2.5.2.1 Fill Material Beneath the Former Maier Warehouse Building

The concrete floor of the former Maier Warehouse building was constructed four feet above surrounding ground surface to allow the loading and unloading of materials from trucks and trailers. Samples were collected from the fill material between the concrete slab and the surrounding ground surface elevation. Results of the soil sampling indicated that fill material immediately below the concrete

slab in the northern and southern portions of the Maier Warehouse footprint contained arsenic concentrations above applicable standards. A 95 percent upper confidence limit (UCL) of the arithmetic mean was performed using the arsenic concentrations within the “clean” fill in the central area. Soil within the central portion was below the 95 percent UCL and was stockpiled for later on-site use.

Once the “clean” fill from the central portion of the former Maier Warehouse footprint was removed and stockpiled, the northern contaminated fill was spread throughout the northern and central portion of the footprint. A soil to groundwater leaching calculation partitioning equation was utilized to find a concentration of arsenic that would leach to groundwater. Groundwater modeling was used to demonstrate that the arsenic concentrations that exceed applicable standards will not reach the Property boundaries.

The southern portion of the former Maier footprint was kept in place. The entire footprint was then covered with at least 2 feet of clean backfill except a 50-foot by 50-foot portion in the northwest corner that will be remediated using phyto-remediation. Two demonstrations were completed in the comment response period that addressed the uncovered 15-inch wide portion along the Bischoff/Maier property boundary. The demonstrations relied on computing a 95% UCL and the area coverage of the uncovered strip versus the entire risk unit. The demonstrations resulted in concentrations below the calculated recreational standard.

No remedial action was required to meet construction worker standards in RU-2.

2.5.3 RU-3

Analytical results from soil collected from GP-67 exceeded carcinogenic risk-based standards for the adult recreational visitor and commercial land use. The RAP (B&N, 2006) recommended that an initial area of 25-foot by 25-foot be removed around GP-67 to a depth of 2 feet bgs to meet applicable PAH standards. The excavated area was labeled as Pit 4. The excavation was to a minimum depth of 2 feet below initial ground surface as to meet the POC for recreational land use. Initial confirmation soil samples (Pit 4-1 through Pit 4-5) were collected from the sidewalls and the base of the excavation and submitted to a VAP-certified laboratory for PAH analysis. PAH concentrations in soils collected from Pit 4-1 and Pit 4-3 exceeded the applicable standard. The excavation was extended 10 feet to the north of Pit 4-1 and 10 feet to the south of Pit 4-3. Additional confirmation soil samples (Pit 4-6 and Pit 4-7) were collected from the extended sidewalls. Analytical results from soils collected from Pit 4-6 and Pit 4-7 were below applicable standards and the excavation limits were achieved.

No remedial action was required to meet construction worker standards in RU-3.

2.5.4 RU-4

Soil collected from several probes throughout RU-4 during the Interim VAP Phase II (B&N, 2006) exceeded carcinogenic risk-based standards for recreational land use due to the presence of PAHs. The RAP (B&N, 2006) recommended that soil surrounding GP-54, GP-55, and GP-115, and DLZ borings 3-SB-4, 3-SB-5, 3-SB-8, and 3-SB-10 through 3-SB-16 be removed to a minimum depth of 2 feet bgs.

Analytical results from soil collected from 3-SB-10 through 3-SB-12 exceeded carcinogenic risk-based standards for the adult recreational visitor due to the presence of PAHs. The RAP (B&N, 2006) recommended that an initial area of 170-foot by 40-foot be removed around 3-SB-10, 3-SB-11, and 3-SB-12 to a depth of 2 feet bgs to meet applicable standards. The excavated area was labeled as Pit 6. The excavation was to a minimum depth of 2 feet below initial ground surface as to meet the POC for recreational land use. Initial confirmation soil samples (Pit 6-1 through Pit 6-10) were collected from the sidewalls and the base of the excavation and submitted to a VAP-certified laboratory for PAH analysis. PAH concentrations in soils collected from Pit 6-1, Pit 6-6, and Pit 6-9 exceeded the applicable standard. The excavation was extended 10 feet to the north and south sides of Pit 6. Additional confirmation soil samples (Pit 6-11 through Pit 6-16) were collected from the extended sidewalls. Analytical results from soil collected from Pit 6-16 exceeded applicable standards and the excavation was extended 10 feet further. Three additional samples, Pit 6-17 through Pit 6-19, were collected and submitted to a VAP-certified laboratory for PAH analysis. Analytical results from soil collected from Pit 6-17 through Pit 6-19 were below applicable standards and the limits of the excavation was achieved.

Soil surrounding probes GP-54, GP-55, 3-SB-4, 3-SB-5, 3-SB-8, 3-SB-15, and 3-SB-16 were recommended to be removed in the RAP (B&N, 2006) due to exceedances of applicable PAH and TPH standards. The excavation was labeled as Pit 5. Depth of the excavation ranged from 2 feet bgs to 6 feet bgs. Confirmation samples, Pit 5-1 through Pit 5-20, were collected and submitted to a VAP certified laboratory for PAHs and TPH analysis to insure that applicable standards were met prior to termination of the excavation. Analytical results of soil collected from Pit 5-7 exceeded the applicable standards for benzo(a)pyrene and dibenzo(a,h)anthracene. The sidewall was extended 10 feet further and Pit 5-21 was collected. Analytical results from soil collected from Pit 5-21 were below applicable standards and the limits of the excavation were achieved.

2.5.5 RU-5

The Interim VAP Phase II (B&N, 2006) reported exceedances of carcinogenic risk-based standards for the recreational visitor and commercial land use due to PAHs in soils surrounding MW-21. The VAP-approved RAP (B&N, 2006) recommended that an area approximately 25-foot by 25-foot be removed, to a minimum depth of 2 feet bgs. The excavation was labeled Pit 1. Analytical results from confirmatory soil samples reported PAH exceedances on the north, east, and west sides of the initial excavation. The north, east, and west side of the excavation was extended 8 feet and confirmation samples were collected from each side. Analytical results from the extended excavation side walls were below applicable standards. Excavation of Pit 1 was terminated and backfilled with clean fill.

The concentration of lead in soil collected from GP-47 exceeded the direct contact standard for the construction worker scenario at a depth of 6 to 8 feet bgs. The approved RAP (B&N, 2006) recommended that soils surrounding GP-47 be removed to an approximate depth of 8 feet bgs to mitigate direct contact issues for the construction worker. An area approximately 25-foot by 25-foot was recommended to be removed. The excavation was labeled Pit 2. Analytical results from confirmatory soil samples collected from the side walls and the bottom of Pit 2 were below the direct contact standard for the construction worker scenario.

Risk-based standards were exceeded due to the potential inhalation of volatiles from soil and fugitive dusts surrounding boring GP-44. The approved RAP (B&N, 2006) recommended that a 25-foot by 25-foot be removed to an approximate depth of 8 feet bgs to mitigate the potential inhalation issues for the construction worker. The excavation was labeled as Pit 3. Confirmatory soil samples were collected from each side wall and the bottom of the excavation and submitted to a VAP approved laboratory for VOC and barium analysis. Concentrations of VOCs and barium reported in the confirmatory samples were below applicable standards.

During implementation of the approved RAP (B&N, 2006), the Ohio EPA re-evaluated the calculated lead standard for direct contact of the recreational visitor. The previously approved lead standard for the recreational visitor was 1,095 mg/kg. After the Ohio EPA's re-evaluation, the direct contact lead standard for the recreational visitor was established at 550 mg/kg. This caused the lead concentration in DLZ's soil boring 4-SB-2 to exceed the standard for the recreational visitor. The existing ground surface around 4-SB-2 was covered with at least 2 feet of clean backfill per wet land and final grading plans. The clean backfill cover met the 2-foot POC.

2.5.6 RU-6

Risk-based standards were met for recreational and commercial land use, as well as for the construction worker scenario. No remedial action was recommended for RU-6 to meet applicable standards.

2.5.7 RU-7

Remedial activities on the adjacent property to the south resulted in the potential for lead contamination on the Property. Soil samples were collected during remedial activities along the southern property boundary and analyzed for lead. Analytical results exceeded the direct contact standards in several samples collected from this area.

Direct push technology was used to delineate the extent of lead contamination in soil around the southern Property boundary. The extent of contamination was determined once soil results were reported below applicable standards. The POC was met by placing a minimum of 2 feet of clean fill over the contaminated area. The clean fill cover extended to the nearest boring that had concentrations below applicable standards and sloped to final design grade.

To ensure that the 2-foot POC was achieved along the sloping cover of the eastern Property boundary of RU-7, impacted soil was excavated from original ground surface and backfilled with clean fill. The excavated area extended east 6 feet from the eastern Property boundary and was at least 2 feet deep.

Although concentrations of lead in soils collected from RU-7 exceeded applicable standards, analytical groundwater results collected from monitoring wells during two sampling events on the adjacent property to the south were below the UPUS. Due to the length of time that the soil and fill materials have been in place and the lack of elevated lead concentrations in groundwater below the source area, it is believed that impacted soil has not affected groundwater below RU-7.

2.6 Planned Remedies

All remedies required to meet VAP applicable standards have been implemented. Soil removal and back-filling with clean fill was completed in September 2007. An Operation & Maintenance Plan is not required for this Property.

3.0 CONCLUSIONS

The HHRA and implementation of the RAP (summarized in the RAR as part of this NFA Letter submittal) demonstrates an acceptable human health risk for commercial, recreational (child exposure), and construction worker exposure within the 2-foot POC. However, the following restrictions will be implemented:

- An institutional control in the form of a deed restriction limiting land use of the Property to recreational land use (prohibiting unrestricted residential land use), but not restricting the visitation of children to the Property.
- An institutional control prohibiting groundwater use at the Property.

The three institutional controls will be voluntarily implemented by Metro Parks through an environmental covenant that will be filed with the Franklin County Recorder's office within 60 days of the issuance of a Covenant Not to Sue from the Director of Ohio EPA. Additionally, an RMP will be implemented for construction or utility workers at the Property if work is to be performed below the 2-foot POC.

Upon filing of the Environmental Covenant, the Property meets all acceptable risk goals and is protective of public health and safety and the environment.

Exhibit 4 **Environmental Covenant**

**To be Recorded in Deed Records
Pursuant to ORC 317.114**

ENVIRONMENTAL COVENANT

This Environmental Covenant ("Environmental Covenant") is entered into by the City of Columbus (the "City"), Columbus and Franklin County Metropolitan Park District ("Metro Parks"), and the Ohio Environmental Protection Agency ("Ohio EPA") pursuant to Ohio Revised Code ("ORC") § 5301.80 to 5301.92 for the purpose of subjecting certain property to the activity and use limitations set forth herein.

WHEREAS, the City, having offices at 90 West Broad Street, Columbus, Ohio 43215, is the owner of 7.439 acres of property generally located south of Interstate 70, East of the Scioto River, Columbus, Franklin County, Ohio (more particularly described on Exhibit A hereto, and referred to herein as the "City Property");

WHEREAS, Metro Parks, having offices at 1069 West Main Street, Westerville, Ohio 43081-1181, is the owner of 10.773 acres of property generally located south of Interstate 70, East of the Scioto River, Columbus, Franklin County, Ohio (more particularly described on Exhibit B hereto, and referred to herein as the "Metro Parks Property" and, combined with the City Property, is referred to herein as the "Property," more particularly described on Exhibit C hereto);

WHEREAS, the Property has undergone remediation pursuant to Ohio's Voluntary Action Program (VAP), ORC Chapter 3746 and Ohio Administrative Code (OAC) Chapter 3745-300;

WHEREAS, Thomas J. Mignery, Certified Professional No. 125, issued a no further action ("NFA") letter with respect to the Property on August 21, 2008 ("NFA Letter") and submitted the NFA Letter to Ohio EPA, with a request for a covenant not to sue ("CNS") (NFA Letter No. (08NFA308));

WHEREAS, this Environmental Covenant supports issuance of the NFA Letter and CNS and contains activity and use limitations to protect against exposure to any pollutants that may remain in soil on or underlying the Property;

WHEREAS, an overview of the historical operations at the Property, contaminants of concern at the Property and environmental remedy are contained in the NFA Letter Executive Summary, and the NFA Letter Executive Summary may be reviewed as an exhibit to the CNS issued for the Property and recorded with the Franklin County Recorder's Office.

WHEREAS, the CNS, Executive Summary, and complete NFA Letter for the Property may be reviewed by contacting the Records Management Officer, Ohio EPA, Division of Emergency and Remedial Response, Voluntary Action Program,

PAGE 2

P.O. Box 1049, Columbus, Ohio 43216-1049, or by telephone at (614) 644-2924, or the Central District Office at 50 West Town Street, Columbus, Ohio 43215, or by telephone at (614) 728-3778, or City of Columbus at 90 West Broad Street, Columbus, Ohio 43215, or by telephone at (614) 645-8430.

NOW THEREFORE, the City, Metro Parks and Ohio EPA agree to the following:

1. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to ORC § 5301.80 to 5301.92.
2. Property. This Environmental Covenant concerns an approximately 18.212- acre of real property partially owned by the City and partially owned by Metro Parks, located along Whittier Street, Columbus, Franklin County, Ohio, and more particularly described in Exhibit C (the "Property").
3. Owners. The City of Columbus, having offices at 90 West Broad Street, Columbus, Ohio 43215, is owner of the portion of the Property described in Exhibit A ("City Property") and Columbus and Franklin County Metropolitan Parks District, having offices at 1069 West Main Street, Westerville, Ohio 43081-1181, is the owner of the portion of the Property described in Exhibit B ("Metro Parks Property").
4. Holders. Owners, identified above, are the holders of this Environmental Covenant.
5. Activity and Use Limitations. As part of the voluntary action described in the NFA Letter, each Owner hereby imposes and agrees to comply with the following activity and use limitations with respect to the portion of the Property owned by said Owner:
 - A. Limitation for Recreational, Commercial or Industrial Land Uses. The Property is hereby limited to "recreational" land use as defined herein, or "commercial" or "industrial" land use, as defined in OAC 3745-300-08(B)(2)(c)(ii) and (B)(2)(c)(iii) (effective October 21, 2002), or any combination of those uses.
 - i. Recreational land use means surficial use of the Property, which include but are not limited to: picnic areas and shelters, playfields, open lawns, other green spaces, wildlife and city viewing opportunities, boardwalks, overlook decks, bike and multiple purpose trails including a pedestrian promenade, nature trails, paths and walkways, natural area amphitheater and other educational programming facilities,

public art displays, pet play areas, restrooms, and any activities and uses incidental to such land use.

Recreational land use excludes any land use as residences (including single or multiple family housing, condominiums and apartments); day care facilities; schools, colleges, and other educational institutions; nursing homes, elder care and other long-term health care facilities; and correctional facilities.

- ii. OAC 3745-300-08(B)(2)(c)(ii) defines commercial land use as "land use with potential exposure of adult workers during a business day and potential exposure of adults and children who are customers, patrons, or visitors to commercial facilities during the business day. Commercial land use has potential exposure of adults to dermal contact with soil, inhalation of vapors and particles from soil and ingestion of soil. Examples of commercial land uses include but are not limited to warehouses; building supply facilities; retail gasoline stations; automobile service stations; automobile dealerships; retail warehouses; repair and service establishments for appliances and other goods; professional offices; banks and credit unions; office buildings; retail businesses selling foods or merchandise; golf courses; hospitals and clinics; religious institutions; hotels; motels; and parking facilities."
 - iii. OAC 3745-300-08(B)(2)(c)(iii) defines industrial land use as "land use with potential exposure of adult workers during a business day and potential exposures of adults and children who are visitors to industrial facilities during the business day. Industrial land use has potential exposure of adults to dermal contact with soil, inhalation of vapors and particles from soil and ingestion of soil. Examples of industrial land uses include, but are not limited to: lumberyards; power plants; manufacturing facilities such as metalworking shops, plating shops, blast furnaces, coke plants, oil refineries, brick factories, chemical plants and plastics plants; assembly plants; non-public airport areas; limited access highways; railroad switching yards; and marine port facilities."
- B. *Ground water limitations:* No person shall extract the ground water located at or underlying the Property or any portion thereof for any purpose, potable or otherwise, except for ground water investigation, monitoring, or remediation, or in conjunction with

construction or excavation activities or maintenance of subsurface utilities.

- 6. Running with the Land. This Environmental Covenant shall be binding upon the Owners and all assigns and successors in interest, including any Transferee, and shall run with the land, pursuant to ORC 5301.85, subject to amendment or termination as set forth herein. The term "Transferee," as used in this Environmental Covenant, shall mean any future owner of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees, easement holders, and/or lessees.
- 7. Compliance Enforcement. Compliance with this Environmental Covenant may be enforced pursuant to ORC § 5301.91. Failure to timely enforce compliance with this Environmental Covenant or the activity and use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict the Director of Ohio EPA from exercising any authority under applicable law. Pursuant to ORC § 3746.05, if the Property or any portion thereof is put to a use that does not comply with this Environmental Covenant, the covenant not to sue issued for the Property by the Director of Ohio EPA under ORC § 3746.12 is void on and after the date of the commencement of the noncomplying use.
- 8. Rights of Access. Each Owner hereby grants to Ohio EPA, its agents, contractors, and employees the right of access to the Property for implementation or enforcement of this Environmental Covenant.
- 9. Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED _____, 2010, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE FRANKLIN COUNTY RECORDER ON _____, 2010, IN [DOCUMENT _____, OR BOOK ____, PAGE ____]. THE ENVIRONMENTAL COVENANT LIMITS THE PROPERTY USE TO RECREATIONAL, COMMERCIAL OR INDUSTRIAL LAND USE, OR ANY COMBINATION OF THOSE USES, AND PROHIBITS USE OF GROUND WATER, AS FURTHER DESCRIBED IN THE ENVIRONMENTAL COVENANT.

10. Representations and Warranties. Each Owner hereby represents and warrants to the other signatories:
- That the Owner has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder for the respective portion of the Property owned by each Owner;
 - That the City holds fee simple title to the City Property and to the best of City's knowledge, the City Property is subject only to the encumbrances listed on the attached Exhibit D, none of which the City reasonably believes to materially affect the Property;
 - That Metro Parks holds fee simple title to the Metro Parks Property and to the best of Metro Parks' knowledge, the Metro Parks Property is subject only to the encumbrances listed on the attached Exhibit E, none of which Metro Parks reasonably believes to materially affect the Property; and
 - That this Environmental Covenant will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which an Owner is a party or by which an Owner may be bound or affected.
11. Amendment or Termination. This Environmental Covenant may be amended or terminated by consent of all of the following: the City and Metro Parks or a Transferee; and the Ohio EPA, pursuant to ORC § 5301.90 and other applicable law. The term, "Amendment," as used in this Environmental Covenant, shall mean any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining. The term, "Termination," as used in this Environmental Covenant, shall mean the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

This Environmental Covenant may be amended or terminated only by a written instrument duly executed by the Director of Ohio EPA and the Owner or Transferee of the Property or portion thereof, as applicable. Within thirty (30) days of signature by all requisite parties on any amendment or termination of this Environmental Covenant, the Owner or Transferee shall file such instrument for recording with the Franklin County Recorder's Office, and shall provide a file-and date-stamped copy of the

- Recorder's Office, and shall provide a file-and date-stamped copy of the recorded instrument to Ohio EPA.
12. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.
13. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Ohio.
14. Recordation. Within thirty (30) days after the date of the final required signature upon this Environmental Covenant, Each Owner shall file this Environmental Covenant for recording, in the same manner as a deed to the Property, with the Franklin County Recorder's Office.
15. Effective Date. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the Franklin County Recorder.
16. Distribution of Environmental Covenant. Within 30 days of recording the Environmental Covenant, the Owners shall distribute a file- and date-stamped copy of the recorded Environmental Covenant to: Ohio EPA in accordance with the Notice paragraph herein.
17. Notice. Unless otherwise notified in writing by or on behalf of the current owner or Ohio EPA, any notice, document or communication required by this Environmental Covenant shall be submitted to:

Ohio EPA: Division of Emergency and Remedial Response
Ohio EPA
PO Box 1049
Columbus, Ohio 43216-1049
Attn.: Records Management Officer

and

Site Coordinator for NFA Letter 08NFA308
Division of Emergency and Remedial Response
Ohio EPA, Central District Office
PO Box 1049
Columbus, Ohio 43216-1049

City of Columbus: City of Columbus

Real Estate Management Office
90 W Broad Street
Columbus, Ohio 43215

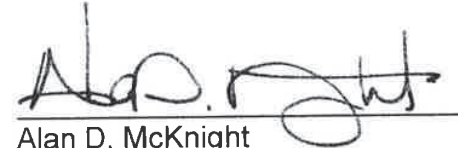
Metro Parks:

Columbus and Franklin County Metropolitan Park
District
1069 West Main Street
Westerville, Ohio 43081-1181

The undersigned Owners represent and certify that he/she is authorized to execute this Environmental Covenant:

IT IS SO AGREED:

THE CITY OF COLUMBUS, OHIO


Alan D. McKnight

Director, Columbus Department
of Recreation & Parks,

As authorized by Columbus City Council Ordinance No. 0827-2009 passed on the 15th day of June, 2009.


Date

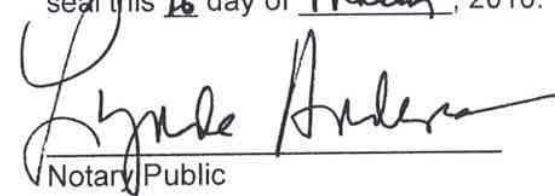
State of Ohio)
) ss:
County of Franklin)



LYNDA ANDERSON
NOTARY PUBLIC
STATE OF OHIO
Recorded in
Franklin County

Before me, a notary public, in and for said county and state, personally appeared Alan D. McKnight, a duly authorized representative of the City of Columbus, who acknowledged to me that he did execute the foregoing instrument on behalf of the City of Columbus, Ohio.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 16 day of March, 2010.


Notary Public

THE COLUMBUS AND FRANKLIN COUNTY METROPOLITAN PARK DISTRICT


John O'Meara
Executive Director

March 16, 2010
Date

State of Ohio)
) ss:
County of Franklin)

Before me, a notary public, in and for said county and state, personally appeared John O'Meara, a duly authorized representative of the Columbus and Franklin County Metropolitan Park District, who acknowledged to me that he did execute the foregoing instrument on behalf of the Columbus and Franklin County Metropolitan Park District.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 16th day of March, 2010.


Lynn D Krueger
Notary Public



LYNN D KRUEGER
Notary Public
In and for
the State of Ohio
My Commission Expires
February 21, 2011

OHIO ENVIRONMENTAL PROTECTION AGENCY


Chris Korleski, Director

4/22/10
Date

State of Ohio)
) ss:
County of Franklin)

Before me, a notary public, in and for said county and state, personally appeared Chris Korleski, the Director of Ohio EPA, who acknowledged to me that he did execute the foregoing instrument on behalf of Ohio EPA.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 22nd day of April, 2010.


Notary Public

This instrument prepared by:

Craig A. Sturtz, Esq.
Squire, Sanders & Dempsey L.L.P.
41 South High Street, Suite 2000
Columbus, Ohio 43215



SUSAN C. KROEGER
Attorney at Law
Notary Public
State of Ohio
Lifetime Commission

EXHIBIT A

DESCRIPTION OF 7.439 ACRES
PART OF THE NORTH TIER
WHITTIER PENINSULA
CITY OF COLUMBUS, OHIO

Situated in the State of Ohio, County of Franklin, City of Columbus, being part of the "North Tier" located on the Whittier Peninsula and on the lands of the City of Columbus. All references herein are to the records of the Recorder's Office, Franklin County, Ohio, and being more particularly described as follows:

Beginning **FOR REFERENCE** at the southwesterly corner of that 6.568-acre tract as described in a deed to the City of Columbus, Ohio, of record in Instrument No. 199909030226779, in the northerly line of that 9.4686-acre tract also as described in a deed to the City of Columbus, Ohio, of record in Instrument No. 199902260048206, and in the easterly right-of-way line of Furnace Street; thence North 03°46'03" East, along said right-of-way line, a distance of 165.75 feet to the **TRUE PLACE OF BEGINNING**:

Thence North 86°23'13" West, crossing Furnace Street and through that 2.288-acre tract as described in a deed to the City of Columbus, Ohio, of record in Instrument No. 200012280261331, a distance of 268.10 feet to a point in the westerly perimeter of said 2.288-acre tract;

Thence North 13°05'03" East, along said perimeter, a distance of 103.32 feet to an angle point;

Thence North 07°25'25" East, continuing along said perimeter, a distance of 258.94 feet to the northwesterly corner of said 2.288-acre tract and in the southerly right-of-way line of River Street;

Thence South 86°17'57" East, along said right-of-way line, a distance of 175.00 feet to the intersection of the westerly right-of-way line of Furnace Street;

Thence North 03°46'03" East, crossing River Street and along said westerly right-of-way line, a distance of 225.38 feet to a point;

Thence North 79°24'03" East, crossing Furnace Street and then along the northerly right-of-way line of Maier Place, a distance of 484.28 feet to a northwesterly corner of that 10.773-acre tract as described in a deed to Board of Park Commissioners

Description of 7.439 acres, page 2

of the Columbus and Franklin County Metropolitan Park District, of record in Instrument No. 200504190072924;

Thence along the perimeter of said 10.773-acre tract the following courses:

1. South 26°08'57" East, a distance of 107.53 feet to a point;
2. South 38°56'22" West, a distance of 59.56 feet to a point;
3. South 63°51'03" West, a distance of 26.00 feet to a point;
4. North 26°08'57" West, a distance of 97.44 feet to a point in the southerly right-of-way line of Maier Place;
5. South 79°24'03" West, along said right-of-way line, a distance of 227.34 feet to a point;
6. South 27°43'57" East, a distance of 156.48 feet to a point;
7. North 81°18'03" East, a distance of 53.06 feet to a point;
8. South 25°05'57" East, a distance of 150.23 feet to a point;
9. South 14°09'57" East, a distance of 222.85 feet to a point;
10. South 35°26'57" East, passing the southwesterly corner of said 10.773-acre tract at a distance of 91.22 feet, and then along the westerly line of that 7.414-acre tract as described in a deed to City Properties, Inc., of record in Official Record Volume 13166, Page B13, a total distance of 144.13 feet to a point;

Thence North 86°23'13" West, through the aforementioned 6.568-acre tract, a distance of 503.08 feet to the TRUE PLACE OF BEGINNING and containing 7.439 acres of land.

Bearings herein are based on the NAD 83 Ohio State Plane Coordinate System, South Zone, utilizing monuments COC 13-83 and COC 18-83 and determines the right-of-way of Maier Place to be North 79°24'03" East.

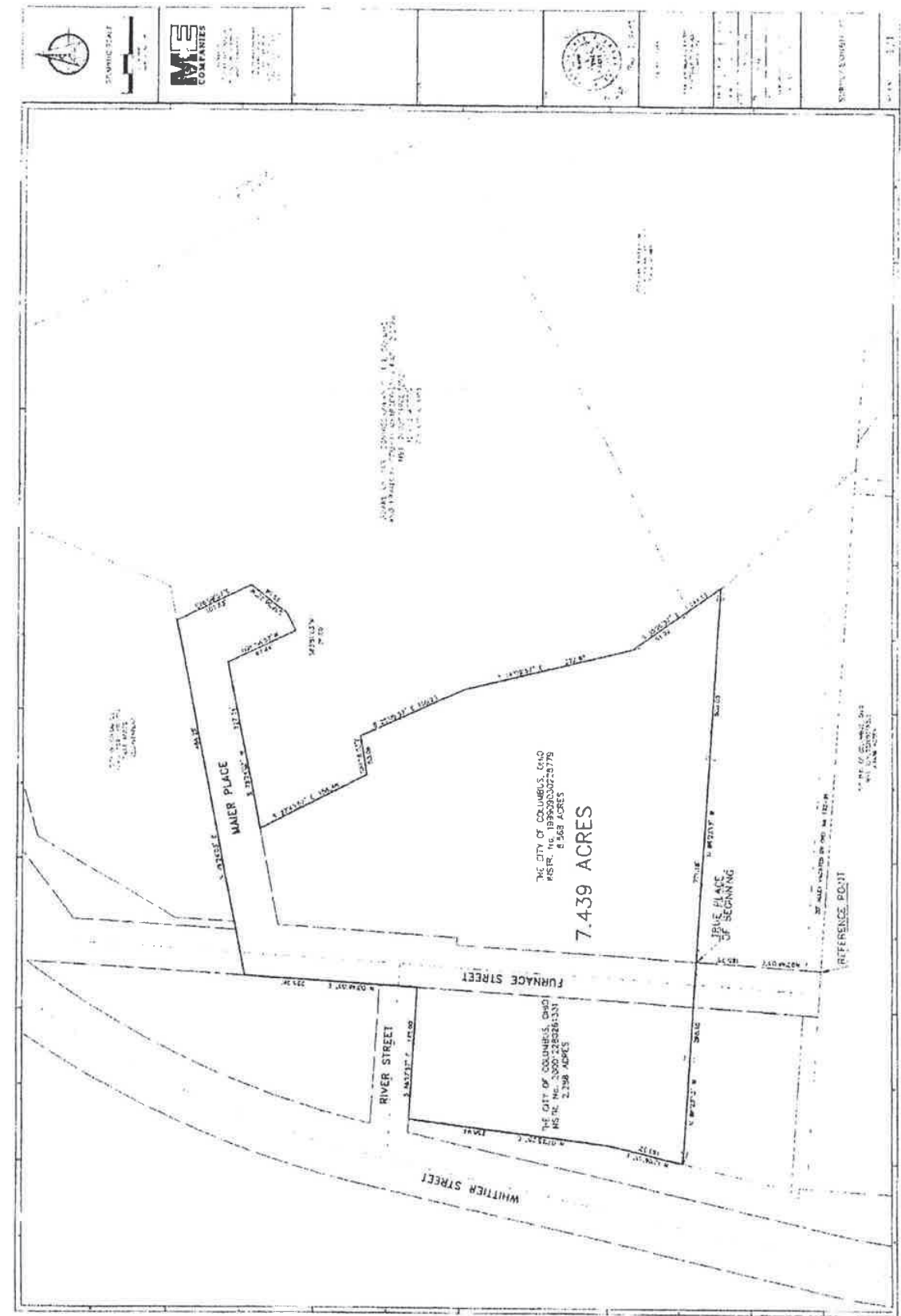
This description was prepared by M•E Companies, Inc., Civil Engineering Group, based on information obtained from field surveys and records of the Franklin County Recorder's Office.



M•E Companies, Inc.
Civil Engineering Group

By Robert S. Wynd 11/17/09
Robert S. Wynd date
Registered Surveyor No. 6872

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March 10, 2005

EXHIBIT B

DESCRIPTION OF 10.773 ACRES
SOUTH OF INTERSTATE ROUTE 70/71
EAST OF FURNACE STREET
WHITTIER PENINSULA
COLUMBUS, OHIO

Situated in the State of Ohio, County of Franklin, City of Columbus, being located in Half Section 27, Township 5 North, Range 22 West, Refugee Lands, being all that remains of those tracts of land as described in a deed to the Sarah and Pauline Maier Scholarship Foundation, Inc., of record in Deed Book 2296, Page 202; Deed Book 2296, Page 211; Deed Book 2296, Page 215; Deed Book 2296, Page 218 and Deed Book 2404, Page 155, all references herein being to the records of the Recorder's Office, Franklin County, Ohio, and being more particularly described as follows:

Beginning FOR REFERENCE at a 1" solid iron pin found at the intersection of the southerly right-of-way line of Maier Place (established by City of Columbus Ordinance No. 91-90) with the easterly right-of-way line of Furnace Street, 40 feet from centerline, being also the northwesterly corner of that 6.568-acre tract as described in a deed to The City of Columbus, Ohio, of record in Instrument No. 199909030226779; thence North 79°24'03" East, along said southerly right-of-way line, a distance of 131.34 feet to a found cross etched in a rail, the TRUE PLACE OF BEGINNING:

Thence continuing along the right-of-way lines of Maier Place the following courses:

1. North 79°24'03" East, a distance of 227.34 feet to an iron pin set;
2. South 26°08'57" East, a distance of 97.44 feet to an iron pin set;
3. North 63°51'03" East, a distance of 26.00 feet to an iron pin set;
4. North 38°56'22" East, a distance of 59.56 feet to a P.K. nail set;
5. North 26°08'57" West, a distance of 107.53 feet to an iron pin set in the southerly line of that 2.666-acre tract as described in a deed to the City of Columbus, Ohio, of record in Official Record Volume 9097, Page C18;

Thence along the perimeter of said 2.666-acre tract the following courses:

1. North 79°24'03" East, a distance of 46.25 feet to an iron pin set;
2. North 22°41'05" East, a distance of 186.26 feet to a 1" iron pin found (no cap);
3. North 7°38'55" West, passing a 1" iron pin found (no cap) at the northeasterly corner of said 2.666-acre tract at 104.81 feet, a total distance of 129.93 feet to a 1" iron pin found (no cap) at an angle point in the southerly limited access right-of-way line of Interstate Route 70/71;

Description of 10.773 acres – Page 2

Thence along said right-of-way line the following courses:

1. North 82°21'05" East, a distance of 38.53 feet to an iron pin set;
2. South 89°23'32" East, a distance of 166.73 feet to an iron pin set;
3. North 22°21'05" East, a distance of 32.21 feet to an iron pin set in the westerly right-of-way line of the CSX Transportation Inc. property as described in a deed of record in Deed Book 110, Page 91;

Thence South 25°53'37" East, along said right-of-way line, a distance of 773.97 feet to a 1" pinch-top iron pipe found at the northeasterly corner of that 7.414-acre tract as described in a deed to City Properties, Inc., of record in Official Record Volume 13166, Page B13;

Thence South 63°59'20" West, along the northerly line of said 7.414-acre tract, a distance of 710.47 feet to an iron pin set in the easterly line of the aforementioned 6.568-acre tract;

Thence along said easterly line the following courses:

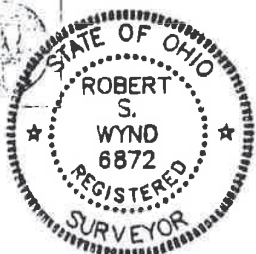
1. North 35°26'57" West, a distance of 91.22 feet to a 1" solid iron pin found with an "X" cut;
2. North 14°09'57" West, a distance of 222.85 feet to an iron pin found (capped "EMHT");
3. North 25°05'57" West, a distance of 150.23 feet to a found cross etched in a rail;
4. South 81°18'03" West, a distance of 53.06 feet to a 1" iron pin found (no cap);
5. North 27°43'57" West, a distance of 156.48 feet to the TRUE PLACE OF BEGINNING and containing 10.773 acres of land.

Bearings herein are based on the NAD 83 Ohio State Plane Coordinate System, South Zone, utilizing monuments COC 13-83 and COC 18-83 and determines the south right-of-way line of Maier Place to be North 79°24'03" East.

Iron pins set consist of a 1" (O.D.) pipe, 30" long with a plastic cap inscribed "M-E COMPANIES/S-6872".

This description was prepared by M•E Companies, Inc., Civil Engineering Group, based on information obtained from an actual field survey performed in February 2005.

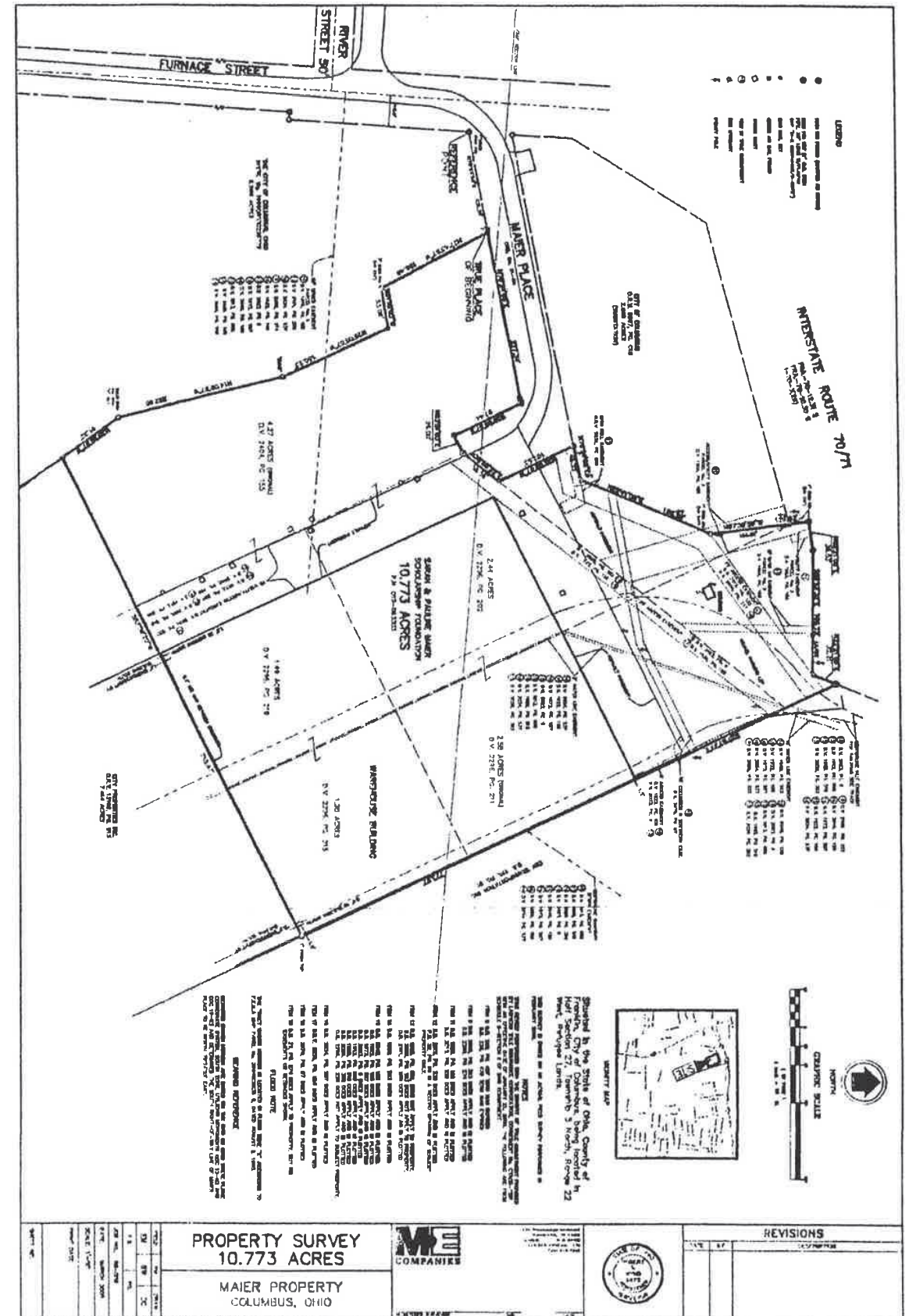
DESCRIPTION APPROVED
DEAN RINGEL, P.E.
DATE: 3/1/05
11/19/05



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M•E Companies, Inc.
Civil Engineering Group

By *Robert S. Wynd*
Robert S. Wynd
Registered Surveyor No. 6872



October 4, 2004

EXHIBIT C

DESCRIPTION OF 18.212 ACRES
SOUTH OF INTERSTATE ROUTE 70
EAST OF WHITTIER STREET
COLUMBUS, OHIO

Situated in the State of Ohio, County of Franklin, City of Columbus, being 4.364 acres of that 6.568 acre tract of land as described in a deed to The City of Columbus, Ohio, of record in Instrument No. 199909030226779, being 10.707 acres of those tracts of land as described in a deeds to Sarah and Pauline Maier Scholarship Foundation, 1.572 acres of that 2.288 acre tract as described in a deed to The City of Columbus, Ohio, of record in Instrument No. 200012280261331, 0.886 acre of Furnace Street right-of-way and 0.683 acre of Maier Place right-of-way, all references herein being to the records located in the Recorder's Office, Franklin County, Ohio and being more particularly described as follows:

Beginning FOR REFERENCE at a point at the southwesterly corner of said 6.568 acre tract, in the northerly perimeter of that 9.4686 acre tract of land as described in a deed to City of Columbus, Ohio, of record Instrument No. 199902260048206 and in the easterly right-of-way line of Furnace Street (60.00 feet in width); thence North 04°00'00" East, along said easterly right-of-way line, a distance of 161.85 feet to the TRUE PLACE OF BEGINNING;

Thence North 86°09'15" West, through the right-of-way of Furnace Street and said 2.288 acre tract, a distance of 268.75 feet to a point in the westerly perimeter of said 2.288 acre tract;

Thence North 13°19'00" East, along said westerly perimeter, a distance of 107.27 feet to a point;

Thence North 07°39'22" East, continuing along said westerly perimeter, a distance of 258.94 feet to a point at the northwesterly corner of said 2.288 acre tract and in the southerly right-of-way line of River Street (50.00 feet in width);

Thence South 86°04'00" East, along said southerly right-of-way line, a distance of 175.00 feet to a point at the northeasterly corner of said 2.288 acre tract and at the intersection of the westerly right-of-way line of Furnace Street and said southerly right-of-way line;

Thence North 04°00'00" East, through the right-of-way of River Street and along the westerly right-of-way line of Furnace Street, a distance of 225.02 feet to a point;

Thence North 79°38'00" East, through the right-of-way of Furnace Street, along the northerly right-of-way line of Maier Place and along the southerly line of that 2.666 acre tract as described in a deed to the City of Columbus, of record in Official Records Volume 9097, Page C18, a distance of 530.80 feet to a point at the southeasterly corner of said 2.666 acre tract;

Thence North 22°58'00" East, along the easterly perimeter of said 2.666 acre tract, a distance of 186.26 feet to a point;

Thence North 07°22'00" West, continuing along said easterly perimeter and the southerly right-of-way line of Interstate Route 70/71, a distance of 130.00 feet to a point;

Thence along the southerly right-of-way line of Interstate Route 70/71 the following courses:

1. North 82°56'37" East, a distance of 33.66 feet to a point;
2. South 88°48'00" East, a distance of 166.73 feet to a point;
3. North 22°56'37" East, a distance of 32.21 feet to a point in the westerly right-of-way line of the CSX Transportation, Inc. and Chesapeake and Ohio Railroad.

Thence South 26°01'05" East, along said westerly railroad right-of-way line, a distance of 772.68 feet to a point at the northeasterly corner of that 7.414 acre tract of land as described in a deed to City Properties, Inc., of record in Official Records Volume 13166, Page B13;

Thence South 64°13'17" West, along the northerly line of said 7.414 acre tract, a distance of 710.75 feet to a point at the northwesterly corner of said 7.414 acre tract in the easterly perimeter of the aforementioned 6.568 acre tract;

Thence South 35°13'00" East, along the line common to said 7.414 acre tract and said 6.568 acre tract, a distance of 59.03 feet to a point;

Thence North 86°09'15" West, through said 6.568 acre tract, a distance of 506.25 feet to the TRUE PLACE OF BEGINNING and containing 18.212 acres of land.

Bearings shown hereon are based on South 86°00'00" East, for a southerly line of the 9.4686 acre tract, of record in Instrument No. 199902260048206.

This description was prepared by M•E Companies, Inc., and is based on survey records and deed information.



M•E Companies, Inc.

By

David L. Chiesa
David L. Chiesa

Registered Surveyor No. 7740

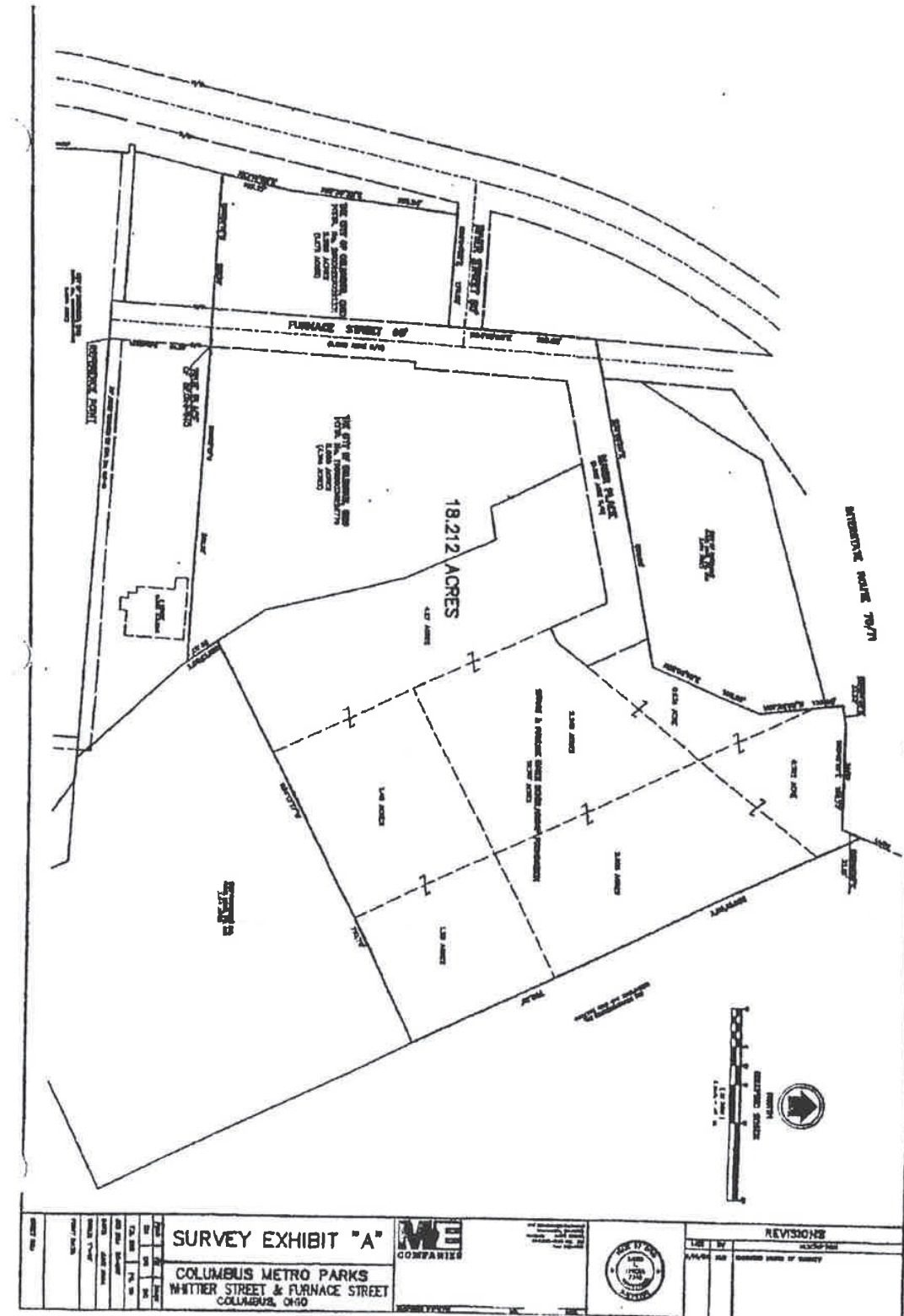


EXHIBIT D

CITY PROPERTY ENCUMBRANCES

1. Public Rights of Ways
2. Easement to Columbus Southern of record in Official Record 26678, page G01

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EXHIBIT E

METRO PARKS PROPERTY ENCUMBRANCES

1. Easement of Record, D.B. 2505, PG. 323, Railroad
2. Easement of Record, D.B. 2268, PG. 274, Sewer
3. Easement of Record, D.B. 1855, PG. 106, Water Line
4. Easement of Record, D.B. 2015, PG. 330, Access
5. Easement of Record, D.B. 2161, PG. 380, Sewer
6. Easement of Record, D.B. 1980, PG. 503, Water Line
7. Easement of Record, D.B. 2040, PG. 120, Sanitary Sewer
8. Easement of Record, D.B. 1922, PG. 106, Sanitary Sewer
9. Easement of Record, D.B. 1973, PG. 587, Sanitary Sewer
10. Easement of Record, D.B. 2023, PG. 6, Sanitary Sewer
11. Easement of Record, D.B. 1913, PG. 605, Sanitary Sewer
12. Easement of Record, D.B. 1985, PG. 518, Sanitary Sewer
13. Easement of Record, D.B. 2026, PG. 352, Sanitary Sewer
14. Easement of Record, D.B. 2034, PG. 537, Sanitary Sewer
15. Easement of Record, O.R.V. 5839, PG. G16, Telephone
16. Easement of Record, D.B. 2079, PG. 97, Electrical
17. Easement of Record, D.B. 27, PG. 274, Blanket
18. Instrument No. 200804080053220, Right-of-way
19. Instrument No. 200808290131765, Ingress Egress

Exhibit 5
Risk Mitigation Plan

Risk Mitigation Plan

Northern Tier Whittier Peninsula
Columbus, Ohio

Prepared for:

Columbus and Franklin County
Metropolitan Park District
Westerville, Ohio

March 2007
Revised March 2009