

*D. Grayson*

OHIO E.P.A.

AUG 15 2000

ENTERED DIRECTOR'S JOURNAL

**BEFORE THE  
OHIO ENVIRONMENTAL PROTECTION AGENCY**

RECEIVED  
SEP 12 2000  
OHIO EPA/CDO

**In the matter of:**

SBHI Inc.  
580 North Fourth Street  
Columbus, Ohio 43215

**Covenant Not to Sue**

**Director's Final Findings  
and Orders**

**Regarding property known as:**

Smith Brothers Hardware  
560-580 North Fourth Street  
Columbus, Ohio 43215

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

**FINDINGS**

1. An original No Further Action Letter, No. 00NFA085 (the "NFA Letter"), was submitted on February 29, 2000 to Ohio EPA's Division of Emergency and Remedial Response, Voluntary Action Program ("VAP") on behalf of the volunteer SBHI Inc. (the "Volunteer" or "SBHI"), by John C. Muehlenberg, P.E., a certified professional, No. CP194, as defined in ORC 3746.01(E) and OAC 3745-300-01(A)(8) (the "Certified Professional").
2. The Certified Professional and the Volunteer submitted to Ohio EPA an addendum to the NFA Letter dated July 13, 2000. For the purposes of these Findings and Orders, the term "NFA Letter" includes the addendum.
3. The NFA Letter describes investigational and remedial activities undertaken at the approximately 3.55 acre property, known as the Smith Brothers Hardware Property, located at 560-580 North Fourth Street, Columbus, Franklin County, Ohio (the

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

*Zuma L. Clements*  
Date 8-15-00

"Property"). An exact legal description of the Property is attached hereto as Exhibit 1. A site location map is attached hereto as Exhibit 2. The NFA Letter includes an Executive Summary, which is attached hereto as Exhibit 3.

4. Based upon the information contained in the NFA Letter, the following investigational and remedial activities were undertaken and completed 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 at or emanated 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 of concern and affected media, to assess environmental conditions related to any release of hazardous substances and petroleum;
  - c. a demonstration that compliance with applicable standards has been achieved through the use of generic numerical standards in accordance with OAC 3745-300-08 and by use of a Property-specific risk assessment in accordance with OAC 3745-300-09;
  - e. an institutional control contained in the Declaration of Use Restriction dated April 12, 2000 recorded on May 17, 2000 in the Franklin County Recorder's Office, Instrument 200005170097172, Page 7 (the "Declaration"), which restricts the Property to commercial uses only; and
  - f. an engineering control contained in an Operation and Maintenance ("O&M") Plan and O&M Agreement for the Property, providing for the maintenance of an asphalt cap and/or the reinforced concrete floor of a parking garage, to prevent direct contact with contaminated soils, and the monitoring, reporting, record keeping, financial assurance and other requirements as set forth in the O&M Plan and O&M Agreement.
5. The Certified Professional has verified by affidavit that the investigational and remedial activities undertaken at the Property comply with the applicable standards established in ORC Chapter 3746 and OAC Chapter 3745-300, that the Property is eligible to receive a Covenant Not to Sue under the VAP, and that the voluntary action was conducted in compliance with all applicable federal, state and local laws and regulations.

6. At the time that analyses were performed, Quanterra Laboratory Inc., was a certified laboratory, No. CL0024, as defined in ORC 3746.01(D) and OAC 3745-300-01(A)(7), whose services were used in support of the NFA Letter for the Property (the "Certified Laboratory").
7. According to information provided by the Certified Laboratory in an affidavit contained in the NFA Letter, the Certified Laboratory performed analyses for which it was certified and qualified, pursuant to ORC Chapter 3746 and OAC Chapter 3745-300, that formed the basis for the issuance of the NFA Letter by the Certified Professional.
8. The Declaration was recorded on May 17, 2000 in the Franklin County Recorder's Office, in accordance with ORC 3746.14 and OAC 3745-300-13(E)(13). A copy of the Declaration is attached hereto as Exhibit 4. The Declaration limits the use of the Property to commercial land uses only.
9. To provide for implementation of the engineering controls specified herein, Ohio EPA and SBHI have entered into an O&M Agreement, which is incorporated by reference as if fully written into these Findings and Orders. The O&M Agreement includes and incorporates by reference an approved O&M Plan. The O&M Agreement is attached hereto as Exhibit 5.
10. Based on the information contained in the NFA Letter, and upon the implementation of the O&M Agreement and all other conditions set forth in these Findings and Orders, the Property meets the applicable standards contained in ORC Chapter 3746 and OAC Chapter 3745-300 for commercial land use, including but not limited to:
  - a. Commercial land use category generic direct contact soil standards for hazardous substances in accordance with Tables III and VI of OAC 3745-300-08 for generic direct contact standards, or OAC 3745-300-09(D) for those standards derived through Property-specific risk assessment procedures, at a point of compliance from the surface to a depth of 10 feet, except in areas of the Property not demonstrated to meet direct contact soil standards, but otherwise addressed by engineering controls, as described herein;
  - b. Commercial land use category direct contact soil standards for petroleum in accordance with OAC 3745-300-08(B)(3)(a)(i) at a point of compliance from the surface to a depth of 10 feet, except in areas of the Property not demonstrated to meet direct contact soil standards, but otherwise addressed by engineering controls as described herein;

- c. Unrestricted potable use ground water standards in accordance with Table VII of OAC 3745-300-08, in the shallowest saturated water bearing zones having the potential to be impacted by hazardous substances or petroleum, where in Identified Area #1 and a portion of Identified Area #2, in the northeastern boundary of the Property, the shallowest zone (the "first saturated unit") occurs at a depth from 6 to 12 feet below the surface, and in the remainder of Identified Area #2, the shallowest zone (the "second saturated unit") occurs at a depth of approximately 21 feet below the surface. The unrestricted potable use standards were met throughout the Property;
  - d. Soil standards derived through Property-specific risk assessment procedures in accordance with OAC 3745-300-09(D), to satisfy the requirements in OAC 3745-300-10(E) to ensure the protection of ground water meeting unrestricted potable use standards, from the surface to the depth of the "first saturated unit", as described in Finding 10.c. of these Finding and Orders; and
  - e. Soil standards based on exposures to the construction and utility worker receptor populations, derived through Property-specific risk assessment procedures in accordance with OAC 3745-300-09 for direct contact with subsurface soils, at a point of compliance from the surface to a depth of 10 feet.
11. Based on the information contained in the NFA Letter, and subject to all conditions set forth herein, the Property is eligible to receive a covenant not to sue in accordance with ORC 3746.12(A), and upon implementation of the O&M Agreement, the voluntary action for the Property is protective of public health and safety and the environment.

## ORDERS

### Covenant

1. Upon the effective date of these Findings and Orders, and subject to the conditions set forth herein, including but not limited to the terms and conditions of the O&M Agreement (Exhibit 5), Ohio EPA hereby covenants not to sue and releases SBHI Inc., and its agents, employees, shareholders, officers, directors, and 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 at the Property for the releases of hazardous substances or petroleum identified in the Phase I and Phase II Property Assessments completed in accordance with ORC Chapter 3746 and OAC Chapter 3745-300.

### Conditions and Limitations

2. The Covenant provided in Order No. 1 of these Findings and Orders shall only apply to the approximately 3.55 acre Property described herein, in the NFA Letter and the Exhibits attached hereto, upon which the investigational and remedial activities specified in the NFA Letter were conducted.
3. Pursuant to ORC 3746.12(B), 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, including but not limited to the terms and conditions of the O&M Agreement.
4. Pursuant to ORC 3746.05, any use of the Property that does not comply with the institutional control identified herein, *i.e.*, the use restriction contained in the Declaration, voids the Covenant on and after the commencement of the noncomplying use.
5. Pursuant to ORC 3746.21 and 3746.171, authorized representatives of the Director shall be granted access to the Property for inspection or investigation purposes, including but not limited to determining whether the Property is being used in compliance with the use restriction contained in the Declaration.
6. The Covenant shall not apply to releases of hazardous substances or petroleum:
  - a. that occur after the issuance of the NFA Letter to the Volunteer;
  - b. on or emanating from the Property, that are not described in the NFA Letter;  
or
  - c. for which investigational or remedial activities were conducted that were not in compliance with ORC Chapter 3746 and OAC Chapter 3745-300.
7. 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; or

- c. as otherwise specifically provided in ORC Chapter 3746.
8. Nothing in ORC Chapter 3746 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.
9. 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. Pursuant to ORC 3746.12(A)(2)(c), the Covenant shall be revoked if the engineering controls are violated or are no longer in place and the Volunteer or subsequent property owner has not reinstated the controls within a reasonable period of time as determined by the Director in accordance with the Covenant.

#### **Recordation in Deed Records**

10. A copy of these Findings and Orders, including Exhibits 1 (Legal Description), 2 (Site Map), 3 (Executive Summary) and 5 (O&M Agreement), shall be recorded in the Franklin County Recorder's Office, in the same manner as a deed to the Property, within sixty (60) days after the effective date of these Findings and Orders.

#### **Transfer**

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

#### **Notice of Use Restrictions Upon Property Conveyance**

12. In each instrument the Volunteer uses to convey the Property or any portion of the Property, the Volunteer shall include a notice of the use restrictions on the Property in accordance with paragraph 6 of the Declaration attached hereto as Exhibit 4, and within thirty (30) days after conveyance, shall submit to the Director a copy of such instrument(s) that provide notice of the declaration.

**Notice of Transfer or Assignment of Covenant or Property**

13. Pursuant to ORC 3746.12(A)(2)(b), the transferor of the Covenant Not to Sue/Findings and Orders or the Property shall give written notice to the Director of any transfer or assignment of the Covenant Not to Sue/Findings and Orders or the Property, or any portion of the Property, whenever such transfer or assignment occurs.

**IT IS SO ORDERED:**

  
\_\_\_\_\_  
Christopher Jones, Director  
Ohio Environmental Protection Agency

  
\_\_\_\_\_  
Date

SBHI, Inc. regarding Smith Brothers Hardware Property  
Director's Final Findings and Orders: Covenant Not to Sue

**Exhibit 1**  
**Legal Description**

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition Lots No. 29, 30, 31, and 32, as shown in Plat Book 1, Page 308, of the Franklin County recorders Office, and also being part of East Poplar Street vacated by Ordinance 26116, dated November 9, 1911, and also being part of Congress Street vacated by Ordinance 26210 dated December 21, 1911, and also being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Deed Book 4559, Page 003, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street and being 2.00 feet west of the easterly line of North Fourth Street;

thence South  $86^{\circ}46'00''$  East, 2.00 feet to a point being the intersection of the southerly line of East Poplar Street (50.00 feet wide) and the easterly line of North fourth Street (76.00 feet wide) and being also the true point of beginning of the parcel described;

thence with the southerly line of East Poplar Street, South  $86^{\circ}46'00''$  East, 150.00 feet to an iron pin set in concrete pavement at the intersection of the easterly line of Kenney alley (30.00 feet wide);

thence with the easterly line of Kenney Alley, North  $3^{\circ}18'46''$  East, 14.00 feet to a railroad spike found in the centerline of a 28.00 foot, asphalt paved passageway to the east;

thence with the centerline of said passageway also being the southerly line of a parcel held by the Emily P. Benua heirs as described in Franklin County Deed Book Vol. 2225, Page E20, South  $86^{\circ}46'00''$  East, 340.00 feet passing upon a hollow iron pin set at 339.00 feet to a point being the northeasterly corner of the described parcel and in the westerly right-of-way line of Interstate-670 as described in Franklin County Instrument No. 19970728055862;

thence with the said right-of-way line of Interstate-670 South  $42^{\circ}25'18''$  West, 167.26 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $51^{\circ}05'57''$  West, 267.97 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $54^{\circ}04'09''$  West, 200.00 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $43^{\circ}34'04''$  West, 29.88 feet to a hollow iron pin set being the southerly corner of the parcel described and also the southeasterly corner of a 360.61 square foot triangular parcel now held by The City of Columbus as recorded in Franklin County Deed Book 2597, Page 42, said point also

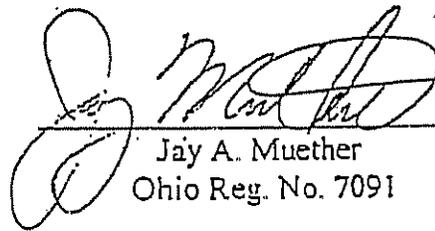
being North  $80^{\circ}40'25''$  East of a wooden hub with tack being in the easterly line of North Fourth Street and the original southwesterly corner of the parcel described;

thence with the easterly line of said triangular parcel North  $8^{\circ}16'37''$  West, 58.84 feet to a point in the easterly line of North Fourth Street ;

thence with the easterly line of North Fourth Street, North  $3^{\circ}18'46''$  East, 386.84 feet returning to the point of beginning;

containing 2.749 acres more or less.

Bearings shown hereon are based on the State of Ohio Department of Transportation centerline survey of Interstate I-670, Third Street Connector.



Date 2-15-00

Jay A. Muether  
Ohio Reg. No. 7091

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition as shown in Plat Book 1, Page 308, of the Franklin County Recorders Office and Jeanette L. Andrews Subdivision Lots No. 1, 2, 3, 4, 5, and 6, as shown in Plat Book 2, Page 138, of the Franklin County Recorders Office, and also being part of East Poplar Street vacated by Ordinance 26116 dated November 9, 1911, and also being part of Congress Street vacated by Ordinance 26210 dated December 21, 1911, and also being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Official Records 22251, Page E20, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street (50.00 feet wide) and being 2.00 feet west of the easterly line of North Fourth Street (76.00 feet wide);

thence South 86°46'00" East, 152.00 feet to an iron pin set in concrete pavement at the intersection of the southerly line of East Poplar Street and the Easterly line of Kenney Alley (30.00 feet wide);

thence North 3°18'46" East, 14.00 feet to a railroad spike found in the centerline of a 28.00 foot, asphalt paved passageway to the east and being the southwesterly corner and true point of beginning of the parcel described;

thence with the easterly line of Kenney Alley, North 3°18'46" East, 56.00 feet to a hollow iron pin set being the northwesterly corner of the parcel described;

thence North 70°33'27" East 162.66 feet to a hollow iron pin set in the westerly line of Congress Street (20.00 feet wide) vacated by Ordinance No. 26210;

thence South 86°46'00" East, 20.00 feet to a hollow iron pin found in the easterly line of said Congress Street;

thence South 74°28'04" East, 226.87 feet to a point being the northeasterly corner of the parcel described and also in the westerly right-of-way line of Interstate-670 as described in Franklin County Instrument No. 199707280055862, and passing upon a hollow iron pin set at 223.47 feet;

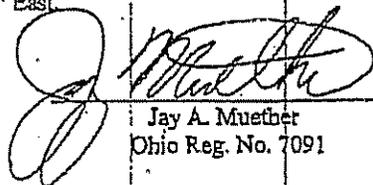
thence with the said right-of-way line of Interstate-670 South 39°41'52" West, 44.80' to a point;

thence with the said right-of-way line of Interstate-670 South 39°29'52" West, 42.61' to a point in the centerline of the previously mentioned 28.00 foot passageway and being the southeasterly corner of the parcel described;

thence with the northerly line of a parcel held by Hall Investment Company as described in Franklin County Deed Book Vol. 4559, Page 003, North 86°46'00" West, 340.00 feet returning to the point of beginning and passing upon a hollow iron pin set at 1.00 feet;

containing 0.795 acres more or less.

Bearing shown hereon are based upon a line between Ohio Department of Transportation centerline control monuments found on the I-670 right-of-way at Station 51+50, 55.00' Left and at Station 46+00, 80.00' Left of the centerline of I-670 Ohio Center Connector. The bearing of said line being calculated from the centerline bearings of the Ohio Center Connector as North 47°08'10" East.

  
 Jay A. Muether  
 Ohio Reg. No. 7091

Date of Survey 2-15-00

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition as shown in Plat Book 1, Page 308 of the Franklin County Recorders Office, and Jeanette L. Andrews Subdivision Lot No. 1 as show in Plat Book 2, Page 138, of the Franklin County Recorders Office, and being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Deed Book 1491, Page 479, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street and being 2.00 feet west of the easterly line of North Fourth Street;

thence South  $86^{\circ}46'00''$  East, 2.00 feet to a point being the intersection of the southerly line of East Poplar Street (50.00 feet wide) and the easterly line of North fourth Street (76.00 feet wide);

thence with the easterly line of North Fourth Street, North  $3^{\circ}18'46''$  East, 50.00 feet to the northerly line of East Poplar Street;

thence with the northerly line of East Poplar Street, South  $86^{\circ}46'00''$  East, 103.00 feet to a hollow iron pin set being a southeasterly corner in the right-of-way line of Interstate I-670 as described in Franklin County D.B. Vol. 1491, Pg. 479, and also being the southwesterly corner and the true point of beginning of the described parcel;

thence with the right-of-way line of Interstate I-670, North  $3^{\circ}18'46''$  East, 15.00 feet to a point being a northwesterly corner in the right-of-way line of Interstate I-670 and also being the northwesterly corner of the described parcel and passing upon a hollow iron pin set at 13.00 feet;

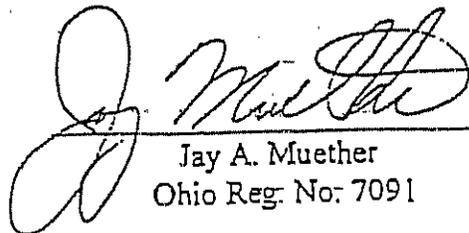
thence with the right-of-way line of Interstate I-670, South  $86^{\circ}46'00''$  East, 17.00 feet to a hollow iron pin set being the northeasterly corner of the described parcel;

thence with the westerly line of Kenney Alley (30.00 feet wide), South  $3^{\circ}18'46''$  West, 15.00 feet to a hollow iron pin set being the southeasterly corner of the described parcel;

thence with the northerly line of East Poplar Street, North  $86^{\circ}46'00''$  West, 17.00 feet returning to the point of beginning;

containing 0.006 acres more or less.

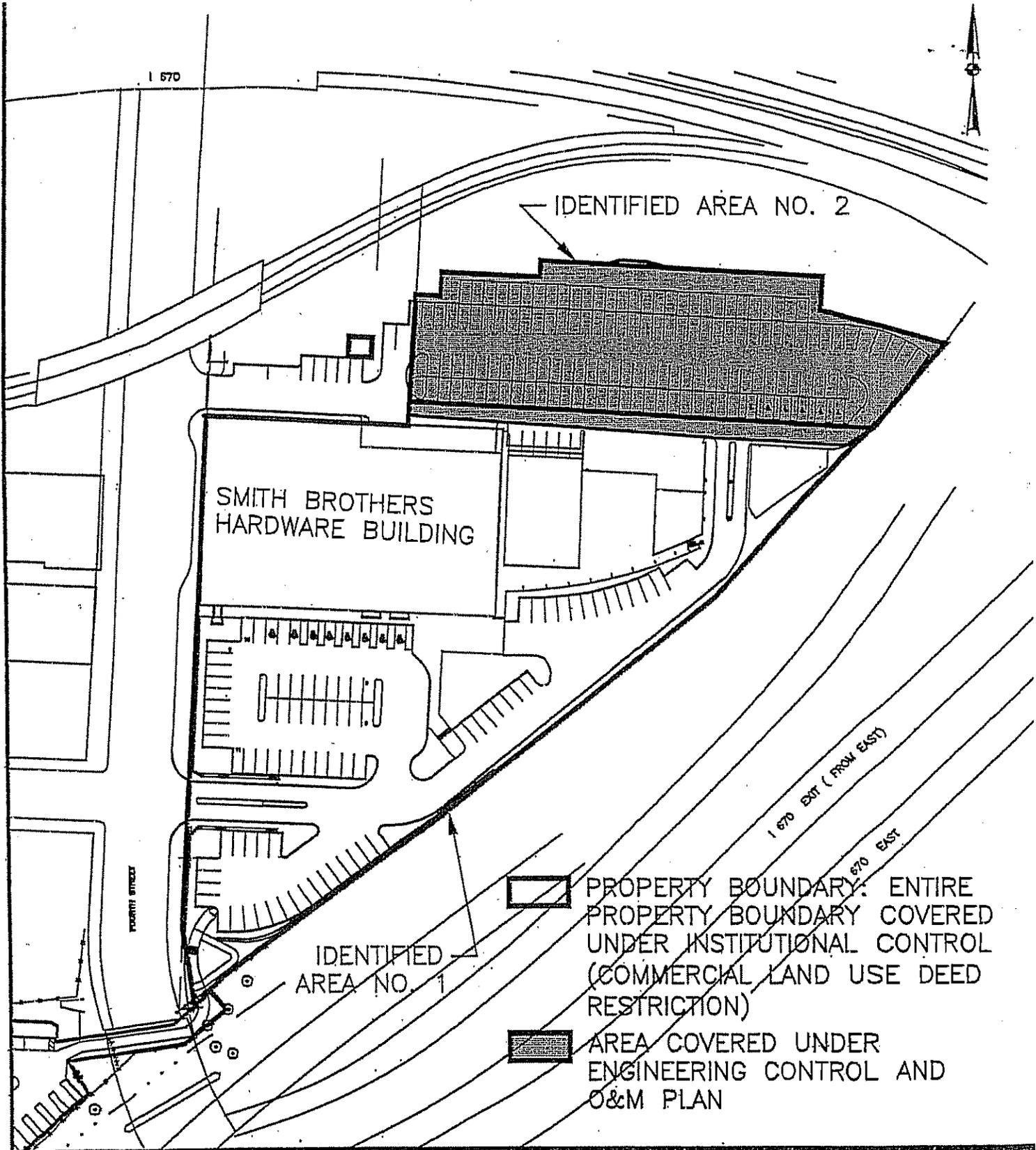
Bearing shown heron are based on the State of Ohio Department of Transportation centerline survey of Interatate I-670 Third Street Connector.

  
Jay A. Muether  
Ohio Reg. No: 7091

Date 2-15-00

SBHI, Inc. regarding Smith Brothers Hardware Property  
Director's Final Findings and Orders: Covenant Not to Sue

**Exhibit 2**  
**Site Map**



QUADRANGLE LOCATION  
FRANKLIN COUNTY

**BELING CONSULTANTS** Professional Engineering Since 1938

FIGURE 7  
SITE MAP - CURRENT CONDITIONS

DESIGNED BY: CLE SMITH BROTHERS HARDWARE

DRAWN BY: BLW SCALE: NONE DATE: FEBRUARY 2000

SBLT/11/18/00/0070

SBHI, Inc. regarding Smith Brothers Hardware Property  
Director's Final Findings and Orders: Covenant Not to Sue

**Exhibit 3**  
**Executive Summary**

**SECTION K - ATTACHMENT 1  
OHIO ENVIRONMENTAL PROTECTION AGENCY  
VOLUNTARY ACTION PROGRAM  
EXECUTIVE SUMMARY AND FILING DOCUMENT OF  
NO FURTHER ACTION LETTER**

Smith Brothers Hardware Property  
560-580 North Fourth Street  
Columbus, Ohio 43215

**VOLUNTEER:**  
SBHI, Inc.  
560-580 North Fourth Street  
Columbus, Ohio 43215

**OWNER(S):**  
SBHI, Inc.  
560-580 North Fourth Street  
Columbus, Ohio 43215

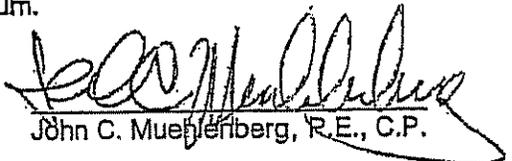
**CERTIFIED PROFESSIONAL ISSUING THE NFA:**  
John C. Muehlenberg, P.E.  
CP No. 194  
(614) 486-6844 (614) 486-6850 fax

State of Ohio  
County of Franklin

John C. Muehlenberg, P.E., being first duly sworn according to law, and deposes and states that, to the best of my knowledge, information and belief:

1. I am an adult over the age of eighteen (18) years old and competent to testify herein.
2. I am a Certified Professional, (CP No. 194), in good standing under Ohio Revised Code (ORC) Chapter 3746 and Ohio Administrative Code (OAC) 3745-300.
3. I have prepared a No Further Action Letter for SBHI, Inc., for property located at 560-580 North Fourth Street, Columbus, Ohio 43215 ("the Property"), as amended on July 13, 2000.
4. I have reviewed Paragraph (F) of OAC Rule 3745-300-05, and have met all standards of conduct contained in that paragraph while rendering professional services to SBHI regarding the Property.
5. The Property is eligible for the Voluntary Action Program, pursuant to ORC Section 3746.02 and OAC Rule 3745-300-02.
6. The voluntary action has been conducted and the No Further Action Letter has been issued in accordance with ORC Chapter 3746 and OAC Chapter 3745-300.
7. The voluntary action conducted at the Property was conducted in compliance with all applicable federal, state and local laws and regulations.
8. The No Further Action Letter and NFA Review Form for the Property, and any other information, data, documents, and reports submitted with the No Further Action Letter and NFA Review Form, as amended, are true, accurate, and complete.
9. The No Further Action Letter, and all supporting information, data, documents, and reports, as amended, are a true, accurate, and complete characterization of conditions at the Property, including the presence or absence of hazardous substances and petroleum.

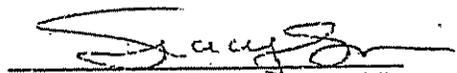
Further affiant sayeth naught.

  
John C. Muehlenberg, P.E., C.P.

Sworn to before me this 13th day of July, 2000:

This instrument prepared by: Cary L. Ehrman



  
Notary Public  
**TRACY MORRIS**  
Notary Public, State of Ohio  
My Commission Expires 12-16-2004

---

**EXECUTIVE SUMMARY AND FILING DOCUMENT  
NO FURTHER ACTION LETTER**

---

Smith Brothers Hardware Property  
560-580 North Fourth Street  
Columbus, Ohio 43215

*Volunteer:*  
SBHI, Inc.  
645 S. Grant Avenue  
Columbus, Ohio 43206

*Prepared by:*  
John C. Muehlenberg, P.E.  
CP #194  
Raymond-Beling, Inc.  
1150 Dublin Road  
Columbus, Ohio 43215  
614-486-6844

July 6, 2000

## 1.0 INTRODUCTION

This Executive Summary and Filing Document of the No Further Action (NFA) Letter has been prepared to meet the requirements of OAC 3745-300-13(H) and OAC 3745-300-13(I) for filing a summary of the NFA in the County Recorders Office. A NFA Letter was submitted to the Ohio Environmental Protection Agency (Ohio EPA), Division of Emergency and Remedial Response (DERR), Voluntary Action Program (VAP) on behalf of SBHI, Inc. on February 22, 2000, as amended on June 23, 2000. The NFA Letter was prepared by John C. Muehlenberg, P.E., CP #194, Raymond-Beling, Inc.

The NFA describes the Phase I and II Environmental Site Assessments conducted at the three parcels at 560-580 North Fourth Street, Columbus, Ohio, 43215 ("the Property"). The Property is located north of downtown Columbus, east of the Columbus Convention Center on the east side of North Fourth Street, north and west of CSX Railroad lines and Interstate I-670, and south of an Interstate I-670 ramp. The three parcels were purchased by SBHI, Inc. in 1997. The three parcels occupy 3.55 acres of land --- Parcel No. 1 (2.749 acres); Parcel No. 2 (0.795 acres); and Parcel No. 3 (0.006 acres). Phase I Environmental Site Assessment reports for the three parcels determined the existence of two (2) Identified Areas at the Property. During the Phase II investigation, soil borings and monitoring wells were installed to characterize these Identified Areas.

A complete copy of the NFA letter is on file and is available at the Ohio EPA, DERR VAP in accordance with the filing requirements of OAC 3745-300-13(J).

## 2.0 SUMMARY OF NO FURTHER ACTION LETTER

A summary of the No Further Action Letter is provided in the following sections. Complete copies of the Phase I and II Environmental Site Assessments are contained in Volumes 1, 2, and 3 of the NFA Letter.

### 2.1 Phase I Property Assessment

The need to perform the Phase II Property Assessment was based on the findings of Phase I and II Environmental Site Assessments that addressed the parcels that comprise the Property:

Parcel Nos. 1 and 3	<i>Phase I Environmental Site Assessment</i> (Beling Consultants, July 1997) <i>Phase I Environmental Site Assessment Addendum</i> (Beling Consultants, January 1998)
Parcel No. 2	<i>Phase I Environmental Site Assessment</i> (Beling Consultants, January 1998) <i>Phase II Environmental Site Assessment</i> (City of Columbus) - conducted along the northern portion of the parcel that is adjacent to an Interstate I-670 ramp

These reports determined the existence of two (2) Identified Areas requiring Phase II Investigation, as follows:

**Identified Areas (OAC 3745-300-06(F))**

IDENTIFIED AREA	POTENTIAL CONTAMINANTS	DESCRIPTION
Identified Area No. 1	Petroleum products Solvents Heavy metals	The past historical uses of the southern part of Parcel No. 1 included activities that, if not managed properly, could have potentially contaminated the soil and/or groundwater with petroleum products, solvents, and heavy metals.
Identified Area No. 2	Petroleum products Heavy metals	High levels of total petroleum hydrocarbons north of Parcel No. 2 could have potentially contaminated the soil and/or groundwater with petroleum products. In addition, groundwater sampling found concentrations of total lead, arsenic, and selenium in excess of U.S. EPA drinking water standards*.

\* Groundwater sampling was not performed in accordance with the VAP (i.e., micropurging/use of low flow sampling techniques, etc.)

## 2.2 Phase II Property Assessment

The Phase II Property Assessment investigation was conducted in March 1998, with additional work conducted in January 2000. The objective of the Phase II Property Assessment investigation was to collect sufficient soil and groundwater data to determine: 1) the presence of Constituents of Concern (COCs) on, underlying, or emanating from Identified Area Nos. 1 and 2; 2) compliance with Generic Numeric Standards listed in OAC 3745-300-08 or property-specific, risk-derived standards; and 3) if institutional and/or engineering controls were required to address COCs above applicable standards.

The two media identified for the Phase II investigation included soils within Identified Area Nos. 1 and 2 and the uppermost water-bearing strata at the Property. Due to the small size of the Property, the Certified Professional (CP) established one (1) groundwater monitoring program for the entire site to allow for the hydraulic gradient and upgradient contaminant contributions to the site to be better determined.

### 2.2.1 Soil Investigation and Findings

The soil investigation included the collection of soil samples from six (6) Geoprobe® borings within Identified Area No. 1 and five (5) Geoprobe® borings within Identified Area No. 2. In addition, soil samples were collected from five (5) borings that were subsequently converted to monitoring wells (see Section 2.2.2). Soil samples were collected at each boring from both the contact layer (upper two feet to the surface) and from whichever two-foot increment in the soil column registering the highest field screening result using the Photoionization Detector (PID). The soil samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), petroleum hydrocarbons (TPH), herbicides, and pesticides.

### Identified Area No. 1

No volatile organic compounds, pesticides, herbicides or PCBs were detected in the soil samples collected at Identified Area No.1. Pyrene was detected from 0-2 feet in GP-6, while multiple PAHs were detected from 0-2 feet in GWMW-3, and from 8-10 feet in GWMW-1. Total petroleum hydrocarbons were detected from 0-2 feet in GP-3 (12 mg/kg), from 0-2 feet in GP-6 (15 mg/kg), and from 2-4 feet in GP-6 (16 mg/kg). Of note were the lead concentrations detected from 0-2 feet in GP-6 (225 mg/kg) and 2-4 feet in GP-6 (419 mg/kg); however, similar lead concentrations were detected in soils just inside the upgradient boundary of the Property from 0-2 feet in GWMW-3 (415 mg/kg).

### Identified Area No. 2

No pesticides, herbicides, or PCBs were detected in soils collected from Identified Area No. 2. VOCs, SVOCs, TPH, and metals were detected in most of the samples. The highest TPH concentrations found at the Property were detected in surficial soil samples from GP-1, SLAG-1, GWMW-4, and GWMW-5.

## **2.2.2 Groundwater Investigation and Findings**

Because of the small size of the Property, one groundwater monitoring program was established for the entire site. Five (5) groundwater monitoring wells were constructed in the first saturated zone encountered in the associated boring. Well placement, screen interval, and the direction of flow allowed the monitoring wells to characterize both the first saturated unit (comprised of sand stringers), and the second, thicker sand and gravel saturated unit underlying the Property as follows:

GWMW-1	First saturated unit downgradient of Identified Area on Parcel No. 1
GWMW-2	Second saturated unit on southern boundary of the Property*
GWMW-3	First saturated unit just inside the upgradient boundary of the Property
GWMW-4	First saturated unit on the northern boundary of the Property*
GWMW-5	Second saturated unit downgradient of Identified Area on Parcel No. 2

\* Not sampled during January 2000; abandoned in December 1999.

The water elevation data were used to construct the groundwater potentiometric surface map for the 1<sup>st</sup> and 2<sup>nd</sup> saturated units. Groundwater movement in the first water-bearing zone traverses the Property from southeast to northwest. Groundwater movement in the second water-bearing zone also traverses the Property southeast to northwest, following the floodplain topography toward the Olentangy River.

Groundwater samples were collected from GWMW-1, GWMW-3, and GWMW-5 during Round 1 and 2 sampling events conducted in January 2000. The groundwater samples were analyzed for VOCs, SVOCs, metals, PCBs, TPH, herbicides, and pesticides. No PCBs were detected above reporting limits. Lead concentrations detected in GWMW-5 (0.024 mg/l) during Round 1, and GWMW-3 (0.024 mg/l) during Round 2, exceeded the lead Action Level (0.015 mg/l).

Based on the two rounds of sampling conducted in January 2000, two (2) consecutive samples collected at the same well within 15 to 30 days of each other did not contain COCs above unrestricted potable use standards (UPUS), and as such, the provisions for protecting groundwater meeting potable use standards apply at the Property (OAC 3745-300-07(D)(3)(a)(ii)). Therefore, no classification of groundwater was required. Because the first saturated unit underlying the Property was determined to be clean, the Protection of Groundwater Meeting Unrestricted Potable Use Standards (PGWMPUS) demonstration was made for the first saturated unit (see Section 2.4.1).

### 2.2.3 Surface Water and Sediments Investigation and Findings

The surface water and sediment were not analyzed because they do not exist on the Property.

### 2.2.4 Exposure Pathway Assessment

The completed exposure pathways evaluated in this assessment included:

Exposure Pathway	Complete or Incomplete	Justification
Ingestion Pathway Direct Contact Soils	Complete	Commercial/Construction/Utility workers on-site have the potential for direct contact with contaminated soils on-site. Significant off-site exposures are not expected.
Dermal Pathway Direct Contact Soils	Complete	Commercial/Construction/Utility workers on-site have the potential for direct contact with contaminated soils on-site. Significant off-site exposures are not expected.
Inhalation Pathway Direct Contact Soils	Complete	Commercial/Construction/Utility workers on-site have the potential for direct contact with contaminated soils on-site. Significant off-site exposures are not expected.
Vapor Intrusion of VOCs in Subsurface Structures from Soils	Complete	VOCs were selected as constituents of concern in on-site soils (qualitative evaluation).
Vapor Intrusion of VOCs in Subsurface Structures from Groundwater	Complete	VOCs were selected as constituents of concern in groundwater (qualitative evaluation).

## 2.3 DETERMINATION OF APPLICABLE STANDARDS

The generic numerical standards for the commercial land-use category presented in OAC-3745-300-08 were used for comparison to the 95% UCL or maximum concentration of constituents of concern detected on-site during this evaluation. The generic numerical standard for pyrene was used as a surrogate for dibenzofuran. Site-specific numerical

standards were calculated for all constituents not presented in OAC-3745-300-08 using the deterministic approach and assumptions presented in OAC-3745-300-09. Construction/utility worker direct contact standards were also calculated by using methods presented in OAC 3745-300-09.

Leaching standards were calculated in accordance with the Ohio EPA Derived Leach-Based Soil Values Technical Guidance Document (Ohio EPA, 1996), with the exception of PCE. A qualitative weight-of-evidence approach was used to evaluate leaching of PCE (refer to Section 2.4.1).

Concentrations of COCs in groundwater were compared to unrestricted potable use standards and supplemental generic cleanup values developed by the Ohio EPA.

## **2.4 DETERMINATION OF COMPLIANCE WITH APPLICABLE STANDARDS**

The applicable standards were based on the evaluation of potential exposure pathways in accordance with OAC 3745-300-07(D)(2) for a commercial land use scenario. Soil COCs were compared to direct contact commercial standards and the construction/utility worker standards. In addition, a soil-to-groundwater leaching evaluation was conducted to determine whether the concentrations of constituents detected in soils could represent a potential and/or continuing source of groundwater contamination using the U.S. EPA Soil Screening Guidance (May 1996).

### **2.4.1 Methods for Demonstrating Compliance**

#### ***Soils at Identified Area No. 1***

COCs in soils collected from Identified Area No. 1 did not exceed applicable direct contact commercial standards; as such, they also do not exceed the construction/utility worker standards because detected compounds in soils to a depth of 10 feet bgs were incorporated into the direct contact evaluation. These findings also apply to clean fill brought to the Property which were sampled as part of the Phase II investigation.

#### ***Soils at Identified Area No. 2***

COCs in soils collected from Identified Area No. 2 exceeded applicable adjusted direct contact commercial standards for arsenic, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The risk assessment concluded that direct contact exposure to these soils by commercial worker receptors should be prevented — however, concentrations of COCs in soils collected from Identified No. 2 do not exceed applicable standards under the construction/utility worker scenario.

### ***Soil-to-Groundwater Leaching Evaluation***

A protection of groundwater meeting potable use standards (PGWMPUS) demonstration was made for the first saturated unit by comparing maximum concentrations of VOCs, PAHS, and metals detected in soils to LBSS developed for these compounds. The maximum concentrations of all constituents detected in soils except PCE did not exceed LBSS values. A qualitative weight-of-evidence approach demonstrated that PCE will not cause groundwater to exceed potable standards. Therefore, the demonstration is made that groundwater will continue to meet the unrestricted potable use standard.

### ***Property-Wide Groundwater***

Two (2) consecutive samples collected at the same well within 15 to 30 days of each other did not contain COCs above potable use standards, and as such, the provisions for protecting groundwater meeting potable use standards apply at the Property (OAC 3745-300-07(D)(3)(a)(ii)).

## **2.4.2 Compliance with Generic Numerical Soil Standards**

The VOCs, SVOCs, and metals detected in soils on site were compared to GNSs or the supplemental generic cleanup values developed by the Ohio EPA. All complete exposure pathways at the Property were used in calculating the GNS and/or supplemental generic cleanup values. No cumulative adjustments to the applicable standards were required because:

- Soils in Identified Area No. 1 did not exceed applicable standards individually or cumulatively
- Soils in Identified Area No. 2 exceeded direct contact commercial standards both individually and cumulatively; however, engineering controls will be used to prevent exposure
- Soils in Identified Area No. 2 did not exceed direct contact construction/utility worker standards individually or cumulatively

## **2.4.3 Risk Assessment Findings**

A Property-specific risk assessment was conducted on the Property because applicable standards were not presented for MCPP, copper, and manganese. Because all complete exposure pathways for the Property were included in the GNS calculations, the default exposure parameters used in the GNS calculations were also used to calculate standards for these COCs. A construction/utility worker evaluation was conducted on Identified Area

No. 2 because COCs exceeded the direct contact commercial standards. The risk assessment concluded the following:

- COCs in soils collected from Identified Area No. 1 did not exceed applicable direct contact commercial standards; as such, they also do not exceed the construction/utility worker standards because detected compounds in soils to a depth of 10 feet bgs were incorporated into the direct contact evaluation.
- COCs in soils collected from Identified Area No. 2 exceeded applicable adjusted direct contact commercial standards for arsenic, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The risk assessment concluded that direct contact exposure to these soils by commercial worker receptors should be prevented -- however, concentrations of COCs in soils collected from Identified No. 2 do not exceed applicable standards under the construction/utility worker scenario.
- The maximum concentrations of all COCs except PCE detected in soils did not exceed LBSS values. A weight-of-evidence approach showed that PCE will not cause groundwater to exceed potable standards. Therefore, the demonstration is made that groundwater will continue to meet the unrestricted potable use standard.

#### **2.4.4 Determination of Remedial Activities Required**

Based on comparison to applicable standards, the risk assessment determined that remedial activities were required at the Property to achieve compliance with applicable standards. A commercial land use restriction is an institutional control required for the entire Property to meet applicable commercial standards. COCs in soils that exceeded direct contact commercial standards at Identified Area No. 2, including arsenic, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, require engineering controls to prevent direct contact by potential receptors.

### **2.5 REMEDIAL ACTIVITIES**

The remedial activities implemented to comply with applicable standards include institutional controls to limit the Property to commercial land use and engineering controls to prevent contact with soils at Identified Area No. 2.

A portion of the remedy to protect against exposure to COCs relies on the commercial land use Declaration of Restriction recorded with the Franklin County Records Office on May

17, 2000, as Instrument #200005170097172 in the Franklin County Deed Records ("Declaration of Use Restriction"). The commercial land use restriction runs with the land and is binding upon all current owners and all successors.

In December 1999, SBHI, Inc. paved Identified Area No. 2 with asphalt as the engineering control. The pavement was constructed in accordance with Ohio Department of Transportation (ODOT) specifications, and consists of approximately 3 to 6 inches of asphalt above 6 or more inches of engineered fill. The future engineering control will include the reinforced concrete flooring of a parking garage, and will continue to have a minimum of 3 to 6 inches of pavement above engineered fill so that the combination is at least 12 inches thick above impacted soils. The engineering control provides a physical barrier between potential receptors and direct contact with COCs in soils. Because the remedy selected for Identified Area No. 2 consists of an asphalt cap/concrete flooring that is used for parking, there is no 'operation' required and no 'treatment' will take place. Because there are no engineering controls that require 'operation', there are no potential operating problems.

## **2.6 PLANNED OPERATION AND MAINTENANCE REMEDIES**

The asphalt pavement/concrete flooring at Identified Area No. 2 will be maintained in repair to limit direct contact to the subsurface soil by potential receptors in accordance with the approved Operation & Maintenance Plan (O&M Plan) dated June 23, 2000.

## **3.0 CONCLUSIONS**

The foregoing is a summary of the NFA Letter submitted on behalf of SBHI, Inc., by John C. Muehlenberg, P.E. of Raymond-Beling, Inc., Certified Professional #194, pursuant to OAC Rule 3745-300-05. The Phase I and II investigations indicated that there are on-site source areas with potential to impact human health based on direct contact to the soils. Therefore, engineering and institutional controls have been implemented. An institutional control on the Property in the form of a Declaration of Use Restriction for commercial use only has been recorded in the Franklin County Recorder's Office as Instrument #200005170097172 to prevent future human exposure. An engineering control in the form of asphalt pavement/concrete flooring of a parking garage prevents direct contact with COCs in soils.

SBHI, Inc. regarding Smith Brothers Hardware Property  
Director's Final Findings and Orders: Covenant Not to Sue

**Exhibit 4**  
**Declaration of Use Restriction**

RECEIVED

MAY 22 2000

DECLARATION OF USE RESTRICTION

Instr: 200005170097172 05/17/00  
Pages: 7 Fee: \$34.00 2:21  
Richard B. Matcalf T200000641  
Franklin County Recorder BXTITLE

BEING CONSULTANT'S  
THIS DECLARATION OF USE RESTRICTION made this 12 day of April, 2000, by SBHI, INC., a Delaware corporation ("Declarant").

WITNESSETH:

WHEREAS, Declarant is the owner of real property situated in the City of Columbus, Franklin County, Ohio which is specifically described in the attached Exhibit (the "Property"); and

WHEREAS, Declarant has and will develop, lease or sell all or portions of the Property; and

WHEREAS, Declarant is about to develop, lease or convey certain portions of the Property, but, before developing, leasing or selling all or part of the Property, Declarant desires to subject the Property to and impose upon the Property, certain restrictions, as hereinafter set forth;

NOW, THEREFORE, Declarant hereby declares, on behalf of itself, and its successors and assigns in ownership of the Property, that all of the Property is held and shall be held, conveyed, hypothecated or encumbered, leased, rented, used, occupied and improved subject to the following "Use Restriction" (hereinafter defined), which is declared and agreed to be in furtherance of the general plan for the Property and is established and agreed upon as required by the Ohio Environmental Protection Agency ("Ohio EPA") Voluntary Action Program ("VAP"). The Use Restriction shall run with the land and shall be binding on all parties having or acquiring any right, title or interest in and to the Property or any part or parts thereof, which shall be subject to the following Use Restriction and the terms of this Declaration of Use Restriction:

1. **Use Restriction:** As a portion of the remedy under the Ohio EPA VAP to protect against exposure to hazardous substances and petroleum on the Property, the Property shall be restricted to commercial land use only (the "Use Restriction"), as defined in Ohio Administrative Code ("OAC") 3745-300-08(B)(2)(c)(ii) (effective December 16, 1996).

2. **Declaration of Use Restriction to be Binding and Run With the Land:** This Declaration of Use Restriction shall run with the land and shall be binding upon all current owners of the Property, and all successors and assigns of the Property or any portion of the Property including any leasehold interests in the Property or any portion of the Property. This Declaration of Use Restriction shall continue in perpetuity unless terminated or modified in accordance with in Paragraph 7 of this Declaration of Use Restriction.

TITLE FIRST AGENCY BOX

75101024

DSN:75465.3

CONVEYANCE TAX  
EXEMPT  
JOSEPH W. TESTA  
FRANKLIN COUNTY AUDITOR

TRANSFERRED  
NOT NECESSARY

MAY 17 2000

JOSEPH W. TESTA  
AUDITOR  
FRANKLIN COUNTY, OHIO

3. **Enforcement:** Compliance with this Declaration of Use Restriction may be enforced by a legal or equitable action brought in a court of competent jurisdiction by one or more of the following parties (i) any party referenced in Paragraph 2 of this Declaration of Use Restriction, (ii) the Ohio EPA or its representative, or (iii) any party with an interest in the Property or any portion of the Property or which may incur liability as a result of noncompliance with this Declaration of Use Restriction. Any delay or failure on the part of such party to take any action to enforce compliance with this Declaration of Use Restriction shall not bar any subsequent enforcement with respect to the failure of compliance in question and shall not be deemed a waiver of the right of any party to take action to enforce any noncompliance.

4. **Noncomplying Use:** Pursuant to Ohio Revised Code ("ORC") 3746.05, if the Property or any portion of the Property is put to a use that does not comply with this Declaration of Use Restriction, any Covenant Not to Sue issued for the Property by Ohio EPA under ORC 3746.12 is void on and after the date of the commencement of the noncomplying use.

5. **Recording:** This Declaration of Use Restriction shall be recorded in the same manner as a deed in the Office of the Recorder of Franklin County, pursuant to ORC 3746.10(C) and 317.08(A), and shall be deemed incorporated by reference in any instrument hereafter conveying any interests in the Property or any portion of the Property.

6. **Notice of Use Restriction Upon Conveyance:** Any instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a recital acknowledging the Use Restriction and providing the recording location of the Use Restriction upon such conveyance substantially in the following form: "The real property described herein is subject to the 'Declaration of Use Restriction' made by SBHI, Inc., dated APRIL 12 2000, and filed for record with the Office of the Recorder of Franklin County, Ohio on MAY 17 2000 in the Franklin County Deed Records, Volume 20000517097172 Page 7", [insert "location of Declaration of Use Restriction (e.g., "Volume \_\_\_\_\_, Page \_\_\_\_\_" or "Document Number \_\_\_\_\_")] as if the same were fully set forth herein."

7. **Termination and Modification:** This Declaration of Use Restriction shall not be modified or terminated without the prior written consent of the Director of Ohio EPA and the written acknowledgment of the Director of Ohio EPA that the termination or modification of this Declaration of Use Restriction will not result in the revocation of any Covenant Not to Sue.

8. **Miscellaneous:** If any one or more provisions of this Declaration of Use Restriction is found unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired. This Declaration of Use Restriction shall be governed by and interpreted in accordance with the laws of the State of Ohio, including ORC Chapter 3746 and the OAC Chapter 3745-

300. All headings used herein are for convenience and shall not be used to interpret or qualify the terms of this Declaration of Use Restriction.

IN WITNESS WHEREOF, Declarant has caused its common and corporate seal to be affixed to these presents by the hand of its President, and the same to be duly attested by its Secretary, dated the day and year first above written.

Witness: (AS TO 1)

SBHI, Inc., a Delaware Corporation

SIGNED:

Suzanne Jones  
Print Name Suzanne Jones

1 By:

Doug Cheesman  
DOUG CHEESMAN

Its: President

SIGNED:

Lauren M Jones  
Print Name: Lauren Jones

2 By:

Seldon O. Young  
SELDON O. YOUNG

Its: Secretary

STATE OF OHIO

COUNTY OF FRANKLIN, SS:

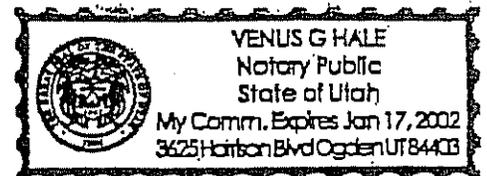
The foregoing instrument was acknowledged before me this 12 day of April, 2000 by DOUG CHEESMAN, the President of SBHI, Inc., and Seldon O. Young, the Secretary of SBHI, Inc., on behalf of the Corporation. who is personally known to me

Marsha D. Cousino

1 - Notary for Doug Cheesman  
Commission expiration: \_\_\_\_\_

Venus G. Hale  
2 - Notary for Seldon O. Young  
NOTARY PUBLIC

**MARSHA D. COUSINO**  
Notary Public, State of Ohio  
My Commission Expires  
10-07-2001



This Instrument Prepared by Stephen E. Friedberg, Attorney at Law, State of Ohio, of Wolf, Block, Schorr and Solis-Cohen LLP, 250 Park Avenue, New York, New York 10177.

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition Lots No. 29, 30, 31, and 32, as shown in Plat Book 1, Page 308, of the Franklin County recorders Office, and also being part of East Poplar Street vacated by Ordinance 26116, dated November 9, 1911, and also being part of Congress Street vacated by Ordinance 26210 dated December 21, 1911, and also being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Deed Book 4559, Page 003, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street and being 2.00 feet west of the easterly line of North Fourth Street;

thence South  $86^{\circ}46'00''$  East, 2.00 feet to a point being the intersection of the southerly line of East Poplar Street (50.00 feet wide) and the easterly line of North fourth Street (76.00 feet wide) and being also the true point of beginning of the parcel described;

thence with the southerly line of East Poplar Street, South  $86^{\circ}46'00''$  East, 150.00 feet to an iron pin set in concrete pavement at the intersection of the easterly line of Kenney alley (30.00 feet wide);

thence with the easterly line of Kenney Alley, North  $3^{\circ}18'46''$  East, 14.00 feet to a railroad spike found in the centerline of a 28.00 foot, asphalt paved passageway to the east;

thence with the centerline of said passageway also being the southerly line of a parcel held by the Emily P. Benua heirs as described in Franklin County Deed Book Vol. 2225, Page E20, South  $86^{\circ}46'00''$  East, 340.00 feet passing upon a hollow iron pin set at 339.00 feet to a point being the northeasterly corner of the described parcel and in the westerly right-of-way line of Interstate-670 as described in Franklin County Instrument No. 19970728055862;

thence with the said right-of-way line of Interstate-670 South  $42^{\circ}25'18''$  West, 167.26 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $51^{\circ}05'57''$  West, 267.97 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $54^{\circ}04'09''$  West, 200.00 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $43^{\circ}34'04''$  West, 29.88 feet to a hollow iron pin set being the southerly corner of the parcel decribed and also the southeasterly corner of a 360.61 square foot triangular parcel now held by The City of Columbus as recorded in Franklin County Deed Book 2597, Page 42, said point also

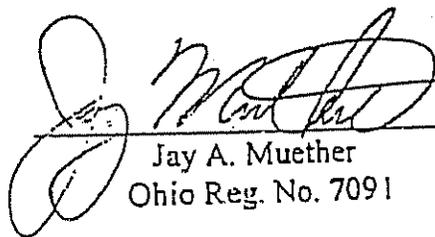
being North  $80^{\circ}40'25''$  East of a wooden hub with tack being in the easterly line of North Fourth Street and the original southwesterly corner of the parcel described;

thence with the easterly line of said triangular parcel North  $8^{\circ}16'37''$  West, 58.84 feet to a point in the easterly line of North Fourth Street ;

thence with the easterly line of North Fourth Street, North  $3^{\circ}18'46''$  East, 386.84 feet returning to the point of beginning;

containing 2.749 acres more or less.

Bearings shown heron are based on the State of Ohio Department of Transportation centerline survey of Interstate I-670, Third Street Connector.



Date 2-15-00

Jay A. Muether  
Ohio Reg. No. 7091

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition as shown in Plat Book 1, Page 308, of the Franklin County Recorders Office and Jeanette L. Andrews Subdivision Lots No. 1, 2, 3, 4, 5, and 6, as shown in Plat Book 2, Page 138, of the Franklin County Recorders Office, and also being part of East Poplar Street vacated by Ordinance 26116 dated November 9, 1911, and also being part of Congress Street vacated by Ordinance 26210 dated December 21, 1911, and also being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Official Records 22251, Page E20, and bounded and further described as follows:

Commencing at a PK. nail set in a concrete sidewalk in the southerly line of East Poplar Street (50.00 feet wide) and being 2.00 feet west of the easterly line of North Fourth Street (76.00 feet wide);

thence South 86°46'00" East, 152.00 feet to an iron pin set in concrete pavement at the intersection of the southerly line of East Poplar Street and the Easterly line of Kenney Alley (30.00 feet wide);

thence North 3°18'46" East, 14.00 feet to a railroad spike found in the centerline of a 28.00 foot, asphalt paved passageway to the east and being the southwesterly corner and true point of beginning of the parcel described;

thence with the easterly line of Kenney Alley, North 3°18'46" East, 56.00 feet to a hollow iron pin set being the northwesterly corner of the parcel described;

thence North 70°33'27" East 162.66 feet to a hollow iron pin set in the westerly line of Congress Street (20.00 feet wide) vacated by Ordinance No. 26210;

thence South 86°46'00" East, 20.00 feet to a hollow iron pin found in the easterly line of said Congress Street;

thence South 74°28'04" East, 226.87 feet to a point being the northeasterly corner of the parcel described and also in the westerly right-of-way line of Interstate-670 as described in Franklin County Instrument No. 199707280055862, and passing upon a hollow iron pin set at 223.47 feet;

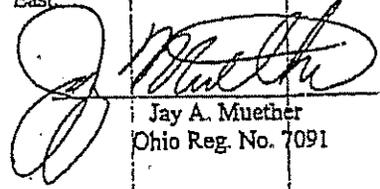
thence with the said right-of-way line of Interstate-670 South 39°41'52" West, 44.80' to a point;

thence with the said right-of-way line of Interstate-670 South 39°29'52" West, 42.61' to a point in the centerline of the previously mentioned 28.00 foot passageway and being the southeasterly corner of the parcel described;

thence with the northerly line of a parcel held by Hall Investment Company as described in Franklin County Deed Book Vol. 4559, Page 003, North 86°46'00" West, 340.00 feet returning to the point of beginning and passing upon a hollow iron pin set at 1.00 feet;

containing 0.795 acres more or less.

Bearing shown hereon are based upon a line between Ohio Department of Transportation centerline control monuments found on the I-670 right-of-way at Station 51+50, 55.00' Left and at Station 46+00, 80.00' Left of the centerline of I-670 Ohio Center Connector. The bearing of said line being calculated from the centerline bearings of the Ohio Center Connector as North 47°08'10" East.



Date of Survey \_\_\_\_\_

Jay A. Muether  
Ohio Reg. No. 7091

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition as shown in Plat Book 1, Page 308 of the Franklin County Recorders Office, and Jeanette L. Andrews Subdivision Lot No. 1 as show in Plat Book 2, Page 138, of the Franklin County Recorders Office, and being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Deed Book 1491, Page 479, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street and being 2.00 feet west of the easterly line of North Fourth Street;

thence South  $86^{\circ}46'00''$  East, 2.00 feet to a point being the intersection of the southerly line of East Poplar Street (50.00 feet wide) and the easterly line of North fourth Street (76.00 feet wide);

thence with the easterly line of North Fourth Street, North  $3^{\circ}18'46''$  East, 50.00 feet to the northerly line of East Poplar Street;

thence with the northerly line of East Poplar Street, South  $86^{\circ}46'00''$  East, 103.00 feet to a hollow iron pin set being a southeasterly corner in the right-of-way line of Interstate I-670 as described in Franklin County D.B. Vol. 1491, Pg. 479, and also being the southwesterly corner and the true point of beginning of the described parcel;

thence with the right-of-way line of Interstate I-670, North  $3^{\circ}18'46''$  East, 15.00 feet to a point being a northwesterly corner in the right-of-way line of Interstate I-670 and also being the northwesterly corner of the described parcel and passing upon a hollow iron pin set at 13.00 feet;

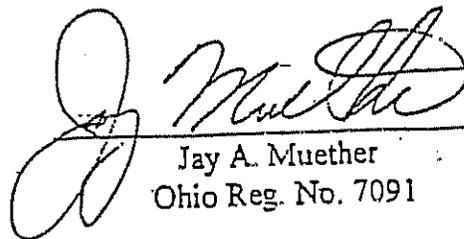
thence with the right-of-way line of Interstate I-670, South  $86^{\circ}46'00''$  East, 17.00 feet to a hollow iron pin set being the northeasterly corner of the described parcel;

thence with the westerly line of Kenney Alley (30.00 feet wide), South  $3^{\circ}18'46''$  West, 15.00 feet to a hollow iron pin set being the southeasterly corner of the described parcel;

thence with the northerly line of East Poplar Street, North  $86^{\circ}46'00''$  West, 17.00 feet returning to the point of beginning;

containing 0.006 acres more or less.

Bearing shown heron are based on the State of Ohio Department of Transportation centerline survey of Interatate I-670 Third Street Connector.

  
Jay A. Muether  
Ohio Reg. No. 7091

Date 2-15-00

SBHI, Inc. regarding Smith Brothers Hardware Property  
Director's Final Findings and Orders: Covenant Not to Sue

**Exhibit 5**  
**Operation and Maintenance Agreement**  
**and**  
**Operation and Maintenance Plan**

**OPERATION AND MAINTENANCE AGREEMENT  
REGARDING THE SMITH BROTHERS HARDWARE BUILDING PROPERTY,  
FRANKLIN COUNTY, COLUMBUS, OHIO BETWEEN  
THE OHIO ENVIRONMENTAL PROTECTION AGENCY AND SBHI, INC.**

In consideration of the mutual covenants and provisions contained herein, this Operation and Maintenance Agreement ("Agreement") is entered into by the **DIRECTOR OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY** ("Director") and **SBHI, INC.** ("Owner"), pursuant to Ohio Revised Code ("ORC") Chapter 3746 and Ohio Administrative Code ("OAC") Chapter 3745-300, under the following circumstances and subject to the terms and conditions herein stated:

**TERMS AND CONDITIONS**

1. **The Original NFA Letter.** An original No Further Action Letter (NFA Letter No. 00NFA085; the "NFA Letter") under the Ohio Environmental Protection Agency ("Ohio EPA") Voluntary Action Program ("VAP"), which included an Operation and Maintenance Plan (the "Original O&M Plan"), was submitted to the Ohio EPA Division of Emergency and Remedial Response on behalf of Owner on February 21, 2000, by John C. Muehlenberg, VAP Certified Professional No. 194, for real property located at 580 North Fourth Street, Columbus, Franklin County, Ohio as described in the NFA Letter for such property (the "Property"). The legal description of the Property is included as **Exhibit A** and made a part of this Agreement.
2. **Amendments to Original NFA Letter.** Amendments to the original NFA Letter were submitted to Ohio EPA by John C. Muehlenberg in response to comments from Ohio EPA. The amendments include a new O&M Plan dated June 23, 2000 that wholly replaces the Original O&M Plan. For the purposes of this Agreement, the term "NFA Letter" also includes the amendments to the original NFA Letter and the term "O&M Plan" refers to the O&M Plan dated June 23, 2000.
3. **Requirement for an Operation and Maintenance Agreement.** This Agreement is required for the Property pursuant to ORC 3746.12 and OAC 3745-300-15(A)(2) and 3745-300-15(F)(4).
4. **Remedy for the Property.** The remedy for the Property consists of:
  - (a) An institutional control on the Property in the form of a use restriction restricting the use of the Property to commercial use only (as defined in OAC 3745-300-08(B)(2)(c)(ii)), as described in the Declaration of Use Restriction recorded in the Franklin County Recorder's Office on May 17, 2000 as Instrument #200005170097172, in the Franklin County Deed Records ("Declaration of Use Restriction"); and
  - (b) An engineering control on the Property in the form of asphalt pavement or the reinforced concrete floor of a parking garage, covering one hundred percent (100%) of "Identified Area No. 2" and the portion of "Identified Area No. 1" north of the

Smith Brothers buildings and south of Identified Area No. 2 (as both such "Identified Areas" are described on Figure No. 1 to the O&M Plan, which O&M Plan is attached as Exhibit B to this Agreement).

5. **The Remedy Component Subject to Operation and Maintenance.** The remedy component that requires operation and maintenance consists of the engineering control referenced in the O&M Plan.
6. **Implementation of O&M Plan.** Owner agrees to implement the monitoring of the pavement and/or concrete floor, reporting, record keeping and the other requirements, as set forth in the O&M Plan and this Agreement. The O&M Plan, dated June 23, 2000, is hereby approved and incorporated into this Agreement as if fully rewritten herein. Owner agrees to implement the O&M Plan, upon complete execution of this Agreement and the Director's issuance of a Covenant Not to Sue for the Property pursuant to ORC 3746.12 (the "Covenant").
7. **Effect of Violation of Agreement.** For the purposes of ORC 3746.12(B), this Agreement is an applicable standard upon which the Covenant is based. Failure to comply with the terms contained in this Agreement shall be the failure to maintain an applicable standard in accordance with and subject to ORC 3746.12(B), OAC Chapter 3745-300 and the process outlined in Paragraph 12 of this Agreement, except for noncompliance with an institutional control, which voids the Covenant, as provided in ORC 3746.05.

**Notice to the Director of Transfer/Notice to Transferees.** Prior to a sale or other transfer of the Property, or any portion thereof, Owner agrees to provide written notification to the Director that the Property, or a portion thereof, is being sold or otherwise transferred. This notice to the Director must include the name, address, telephone number and contact person for the transferee, a legal description of the property being transferred if not the entire Property, and the closing date for the transfer of ownership of the Property or portion thereof. Owner agrees to provide written notice to the prospective transferee prior to the execution of any sales contract or other document transferring ownership, for the purchase of the Property, or any portion thereof, that the Property is subject to the Covenant and the obligations imposed by this Agreement, as a term and condition of the Covenant.

9. **Recordation/Effectiveness of Agreement.** Owner agrees to record this Agreement as set forth in the Covenant. This Agreement shall be effective upon the Director's issuance of the Covenant.
10. **Transfer of Agreement & Notice of Agreement Transfer.** Pursuant to ORC 3746.14(C), this Agreement may be transferred by Owner to any other person by assignment or in conjunction with the acquisition of title to the Property to which the Covenant applies. Owner agrees to provide Ohio EPA notice of such transfer.
11. **Modifications.** Except for Minor Modifications discussed below and any modifications proposed by the Director, any proposed Modifications to this Agreement, including the O&M Plan, shall be submitted by Owner to the Director for approval. Modifications include any change to the terms and conditions of this Agreement or the O&M Plan,

including but not limited to the engineering control for the Property and financial assurance. Approval of Modifications is subject to the sole discretion of the Director and must be agreed to by the Director, in writing, prior to implementation. Minor Modifications include non-substantive administrative changes to this Agreement or the O&M Plan, including changes of the contact persons and addresses contained in this Agreement. Minor Modifications shall not include changes to the remedy upon which the Covenant is based, such as changes to the type or location of any engineering or institutional control used at the Property. Owner shall, within fourteen (14) days of implementation of a Minor Modification, provide Ohio EPA notice of any Minor Modification to this Agreement or the O&M Plan.

12. **Compliance Schedule Agreement.** Consistent with ORC 3746.12(B), upon a finding that the Property or a portion thereof no longer complies with the applicable standards upon which the issuance of the Covenant was based, Owner will have thirty (30) days from receipt of notice from the Director of such finding to notify the Director of the intention to return the Property or portion thereof to compliance ("cure") with the applicable standards upon which the Covenant was based and enter into a reasonable compliance schedule for such cure with the Director. The process provided in this paragraph shall apply to all activities required in this Agreement and in the O&M Plan except as to the institutional control specified in paragraph 4(a) of this Agreement.
13. **Financial Assurance.** SBHI, its successors and assigns and all subsequent owners of the Property and their heirs, successors and assigns, must maintain an operation and maintenance fund (an "O&M Fund") for the Property in the amount of at least Two Thousand and 00/100 Dollars (\$2,000.00), to ensure that reasonable and adequate funds will be spent, as necessary, to comply with the terms of the O&M Plan and this Agreement. The O&M Fund shall become effective upon the issuance of the Covenant and shall initially consist of a fidelity bond from an insurance company, in the form of **Exhibit C**, which bond shall be renewed annually. Alternatively, SBHI or any subsequent owners of the Property shall have the right to substitute such fidelity bond with a cash escrow account through a third party financial institution. If maintained in an escrow account, the O&M Fund shall be replenished annually, as necessary, to compensate for operation and maintenance expenditures out of the O&M Fund. Owner shall provide the Director with an annual report of all expenditures for compliance with the terms and conditions of this Agreement, within thirty (30) days of each anniversary date of the Covenant. In the event that the amount or form of financial assurance provided herein is inadequate to comply with the terms and conditions of this Agreement, the Director may require a modification of the terms of this Paragraph.
14. **Inspections by Ohio EPA.** Owner agrees to allow Ohio EPA or its representatives to perform periodic inspections to determine compliance with this Agreement. Such inspections, and any additional inspections or audits by Ohio EPA shall be consistent with ORC Chapter 3746, OAC Chapter 3745-300, and due process considerations, including but not limited to the reasonableness of inspection timing and frequency in accordance with ORC 3746.21.
15. **Document Submittals/Notifications to Parties.** All documents, including but not limited to, notices and reports required to be submitted by Owner pursuant to this Agreement, shall be addressed to:

Ohio Environmental Protection Agency  
Division of Emergency and Remedial Response  
Voluntary Action Program  
Lazarus Government Center  
122 South Front Street  
Columbus, Ohio 43215  
Attn: Manager, VAP

All documents, including any notice, required to be submitted by Ohio EPA pursuant to this Agreement shall be delivered to Owner as provided in this Agreement. Notice to any future owners not identified in this Agreement shall also be delivered to the Property, unless the future owners provide in writing to Ohio EPA a different address for purposes of notice. Notice to Owner shall be addressed to:

SBHI, Inc.  
580 North Fourth Street  
Columbus, Ohio 43206  
Attn: Mr. Douglas D. Cheesman, President

and to:

Wolf, Block, Schorr and Solis-Cohen LLP  
250 Park Avenue  
New York, New York 10177  
Attn: Stephen E. Friedberg, Esq.

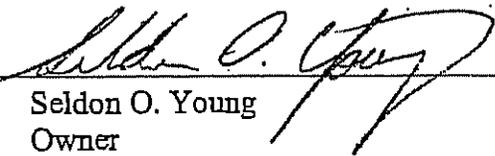
16. **Entire Agreement.** The terms and conditions of this Agreement, including the O&M Plan, constitute the entire Agreement of the parties and no oral or written representation or modification of the Agreement shall be binding, unless agreed to pursuant to paragraph 11 of this Agreement. The terms and conditions of this Agreement shall be interpreted consistent with ORC Chapter 3746 and OAC Chapter 3745-300.
17. **Compliance With Other Laws and Regulations.** Owner agrees to conduct all activities pursuant to this Agreement, including the O&M Plan and any modifications thereof, in compliance with all local, state and federal laws and regulations, including but not limited to obtaining all required permits or authorizations. Any health and safety plan developed for and implemented at the Property shall not supercede any requirements imposed by the Occupational Health and Safety Administration.
18. **Termination.** This Agreement shall terminate upon revocation or termination of the Covenant for the Property, or otherwise upon the written approval of the Director.
19. **Waiver.** Owner agrees that the terms and conditions herein are lawful and reasonable, that the schedules provided in the O&M Plan are reasonable, and agrees to comply with the terms and conditions contained in this Agreement. Owner hereby waives its rights to appeal the issuance, and terms and conditions of this Agreement, and hereby waives any and all rights it might have to seek judicial or administrative review of this Agreement either in law or

equity. Owner reserves its rights to participate in any appeal by a third party to the Environmental Review Appeals Commission or to any applicable appellate court.

20. **Authorized Signatories.** Each undersigned representative of a party to this Agreement represents that he or she is fully authorized to enter into this Agreement and to legally bind such party to this Agreement.

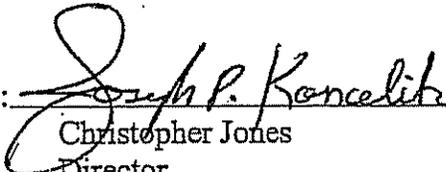
In witness whereof, the parties hereto have entered into this Agreement on the date noted below.

**SBHI, INC.:**

By:   
Seldon O. Young  
Owner

7/11/00  
Date

**OHIO ENVIRONMENTAL PROTECTION AGENCY:**

By:  / For  
Christopher Jones  
Director

8/15/00  
Date

STATE OF OHIO )  
 )SS:  
COUNTY OF FRANKLIN )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of July, 2000, by Seldon O. Young, the President of SBHI, Inc., a Delaware corporation, on behalf of such corporation.

Marsha D. Cousino  
Notary Public

**MARSHA D. COUSINO**  
Notary Public, State of Ohio  
My Commission Expires  
10-07-2001

This Instrument Was Prepared by Stephen E. Friedberg, Attorney at Law, State of Ohio, of Wolf, Block, Schorr and Solis-Cohen LLP, 250 Park Avenue, New York, New York 10177.

**EXHIBIT A**  
**LEGAL DESCRIPTION OF THE PROPERTY**

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition Lots No. 29, 30, 31, and 32, as shown in Plat Book 1, Page 308, of the Franklin County recorders Office, and also being part of East Poplar Street vacated by Ordinance 26116, dated November 9, 1911, and also being part of Congress Street vacated by Ordinance 26210 dated December 21, 1911, and also being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Deed Book 4559, Page 003, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street and being 2.00 feet west of the easterly line of North Fourth Street;

thence South  $86^{\circ}46'00''$  East, 2.00 feet to a point being the intersection of the southerly line of East Poplar Street (50.00 feet wide) and the easterly line of North fourth Street (76.00 feet wide) and being also the true point of beginning of the parcel described;

thence with the southerly line of East Poplar Street, South  $86^{\circ}46'00''$  East, 150.00 feet to an iron pin set in concrete pavement at the intersection of the easterly line of Kenney alley (30.00 feet wide);

thence with the easterly line of Kenney Alley, North  $3^{\circ}18'46''$  East, 14.00 feet to a railroad spike found in the centerline of a 28.00 foot, asphalt paved passageway to the east;

thence with the centerline of said passageway also being the southerly line of a parcel held by the Emily P. Benua heirs as described in Franklin County Deed Book Vol. 2225, Page E20, South  $86^{\circ}46'00''$  East, 340.00 feet passing upon a hollow iron pin set at 339.00 feet to a point being the northeasterly corner of the described parcel and in the westerly right-of-way line of Interstate-670 as described in Franklin County Instrument No. 19970728055862;

thence with the said right-of-way line of Interstate-670 South  $42^{\circ}25'18''$  West, 167.26 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $51^{\circ}05'57''$  West, 267.97 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $54^{\circ}04'09''$  West, 200.00 feet to a hollow iron pin set;

thence with the said right-of-way line of Interstate-670 South  $43^{\circ}34'04''$  West, 29.88 feet to a hollow iron pin set being the southerly corner of the parcel decribed and also the southeasterly corner of a 360.61 square foot triangular parcel now held by The City of Columbus as recorded in Franklin County Deed Book 2597, Page 42, said point also

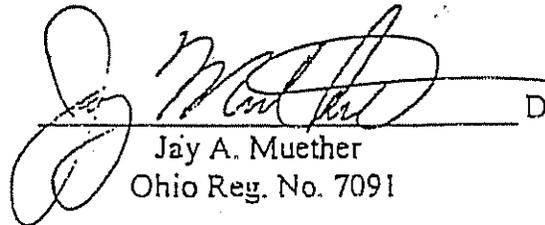
being North 80°40'25" East of a wooden hub with tack being in the easterly line of North Fourth Street and the original southwesterly corner of the parcel described;

thence with the easterly line of said triangular parcel North 8°16'37" West, 58.84 feet to a point in the easterly line of North Fourth Street ;

thence with the easterly line of North Fourth Street, North 3°18'46" East, 386.84 feet returning to the point of beginning;

containing 2.749 acres more or less.

Bearings shown hereon are based on the State of Ohio Department of Transportation centerline survey of Interstate I-670, Third Street Connector.

  
Date 2-15-00  
Jay A. Muether  
Ohio Reg. No. 7091

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition as shown in Plat Book 1, Page 308, of the Franklin County Recorders Office and Jeanette L. Andrews Subdivision Lots No. 1, 2, 3, 4, 5, and 6, as shown in Plat Book 2, Page 138, of the Franklin County Recorders Office, and also being part of East Poplar Street vacated by Ordinance 26116 dated November 9, 1911, and also being part of Congress Street vacated by Ordinance 26210 dated December 21, 1911, and also being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Official Records 22251, Page E20, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street (50.00 feet wide) and being 2.00 feet west of the easterly line of North Fourth Street (76.00 feet wide);

thence South  $86^{\circ}46'00''$  East, 152.00 feet to an iron pin set in concrete pavement at the intersection of the southerly line of East Poplar Street and the Easterly line of Kenney Alley (30.00 feet wide);

thence North  $3^{\circ}18'46''$  East, 14.00 feet to a railroad spike found in the centerline of a 28.00 foot, asphalt paved passageway to the east and being the southwesterly corner and true point of beginning of the parcel described;

thence with the easterly line of Kenney Alley, North  $3^{\circ}18'46''$  East, 56.00 feet to a hollow iron pin set being the northwesterly corner of the parcel described;

thence North  $70^{\circ}33'27''$  East 162.66 feet to a hollow iron pin set in the westerly line of Congress Street (20.00 feet wide) vacated by Ordinance No. 26210;

thence South  $86^{\circ}46'00''$  East, 20.00 feet to a hollow iron pin found in the easterly line of said Congress Street;

thence South  $74^{\circ}28'04''$  East, 226.87 feet to a point being the northeasterly corner of the parcel described and also in the westerly right-of-way line of Interstate-670 as described in Franklin County Instrument No. 199707280055862, and passing upon a hollow iron pin set at 223.47 feet;

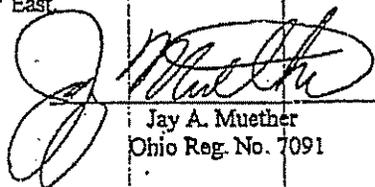
thence with the said right-of-way line of Interstate-670 South  $39^{\circ}41'52''$  West, 44.80' to a point;

thence with the said right-of-way line of Interstate-670 South  $39^{\circ}29'52''$  West, 42.61' to a point in the centerline of the previously mentioned 28.00 foot passageway and being the southeasterly corner of the parcel described;

thence with the northerly line of a parcel held by Hall Investment Company as described in Franklin County Deed Book Vol. 4559, Page 003, North  $86^{\circ}46'00''$  West, 340.00 feet returning to the point of beginning and passing upon a hollow iron pin set at 1.00 feet;

containing 0.795 acres more or less.

Bearing shown hereon are based upon a line between Ohio Department of Transportation centerline control monuments found on the I-670 right-of-way at Station 51+50, 55.00' Left and at Station 46+00, 80.00' Left of the centerline of I-670 Ohio Center Connector. The bearing of said line being calculated from the centerline bearings of the Ohio Center Connector as North  $47^{\circ}08'10''$  East.

  
 Jay A. Muether  
 Ohio Reg. No. 7091

Date of Survey 2-15-00

Situated in the State of Ohio, County of Franklin, City of Columbus, Lazell's North Addition as shown in Plat Book 1, Page 308 of the Franklin County Recorders Office, and Jeanette L. Andrews Subdivision Lot No. 1 as show in Plat Book 2, Page 138, of the Franklin County Recorders Office, and being part of Section 9, Half Section 11, Township 5, Range 22, Refugee Lands, and being previously described in Franklin County Deed Book 1491, Page 479, and bounded and further described as follows:

Commencing at a PK nail set in a concrete sidewalk in the southerly line of East Poplar Street and being 2.00 feet west of the easterly line of North Fourth Street;

thence South  $86^{\circ}46'00''$  East, 2.00 feet to a point being the intersection of the southerly line of East Poplar Street (50.00 feet wide) and the easterly line of North fourth Street (76.00 feet wide);

thence with the easterly line of North Fourth Street, North  $3^{\circ}18'46''$  East, 50.00 feet to the northerly line of East Poplar Street;

thence with the northerly line of East Poplar Street, South  $86^{\circ}46'00''$  East, 103.00 feet to a hollow iron pin set being a southeasterly corner in the right-of-way line of Interstate I-670 as described in Franklin County D.B. Vol. 1491, Pg. 479, and also being the southwesterly corner and the true point of beginning of the described parcel;

thence with the right-of-way line of Interstate I-670, North  $3^{\circ}18'46''$  East, 15.00 feet to a point being a northwesterly corner in the right-of-way line of Interstate I-670 and also being the northwesterly corner of the described parcel and passing upon a hollow iron pin set at 13.00 feet;

thence with the right-of-way line of Interstate I-670, South  $86^{\circ}46'00''$  East, 17.00 feet to a hollow iron pin set being the northeasterly corner of the described parcel;

thence with the westerly line of Kenney Alley (30.00 feet wide), South  $3^{\circ}18'46''$  West, 15.00 feet to a hollow iron pin set being the southeasterly corner of the described parcel;

thence with the northerly line of East Poplar Street, North  $86^{\circ}46'00''$  West, 17.00 feet returning to the point of beginning;

containing 0.006 acres more or less.

Bearing shown heron are based on the State of Ohio Department of Transportation centerline survey of Interatate I-670 Third Street Connector.

  
Jay A. Muether  
Ohio-Reg. No: 7091

Date 2-15-06

**EXHIBIT B**  
**OPERATIONS AND MAINTENANCE PLAN**

[REDACTED]

[REDACTED]

# **VOLUNTARY ACTION PROGRAM OPERATION AND MAINTENANCE PLAN**

**SBHI, INC.  
560-580 N. Fourth Street  
Columbus, Ohio 43215**

**OHIO EPA VOLUNTARY ACTION PROGRAM  
OAC 3745-300-07**

**Prepared for**

**Retail Planning Associates  
645 S. Grant Avenue  
Columbus, Ohio 43206**

**Prepared by**

**Raymond-Beling, Incorporated  
1150 Dublin Road  
Columbus, Ohio 43215**

**June 23, 2000**

## **1.0 INTRODUCTION**

On behalf of SBHI (property owner and volunteer), Raymond-Beling, Inc. has prepared this Voluntary Action Program (VAP) Operation and Maintenance Plan (O&M Plan) in conformance with Ohio Administrative Code (OAC) Rule 3745-300-15 for the Smith Brothers Hardware Building, 560-580 N. Fourth Street, in Columbus, Ohio (the Property).

This O&M Plan addresses monitoring requirements, repair requirements, procedures, schedules, documentation requirements, and necessary notifications to the Director of the Ohio EPA for an engineering control and institutional controls to: 1) maintain an acceptable property-specific remedy that will ensure compliance with the standards set forth in the Phase II Property Assessment for the Property dated February 18, 2000; 2) eliminate or mitigate exposures to all receptors sufficient to meet risk goals and applicable standards; 3) be effective and reliable for the climate conditions and activities at the Property to which the controls will be applied; and 4) be capable of being monitored and maintained under this O&M Plan.

### **1.1 Soil Response**

The Phase II Property Assessment concluded in part that an engineering control to limit access to Identified Area No. 2 of the Property was necessary to maintain VAP-acceptable potential property-specific risks in accordance with OAC Rule 3745.300-09. In addition, a commercial land use restriction will be adhered to at the Property, as identified in the use restriction for the Property. Semivolatile organic compounds (SVOCs) are the primary contributors to the potential human health risk from direct contact.

## **2.0 ENGINEERING CONTROL**

As concluded by the VAP Phase II Property Assessment for the Property, an engineering control is necessary to mitigate potential risks from direct contact with the impacted soils.

### **2.1 Asphalt Pavement**

The selected engineering control consists of asphalt pavement which covers 100% of Identified Area No. 2, and the portion of Identified Area No. 1 north of the Smith Brothers Hardware buildings and south of Identified Area No. 2 (Figure 1). The pavement was constructed in accordance with the Ohio Department of Transportation (ODOT)

specifications presented in Attachment A. The pavement consists of at least 3 to 6 inches of asphalt above 6 or more inches of engineered fill (Figure 2). Future pavement controls will continue to have a minimum of 3 to 6 inches of pavement above engineered fill meeting the specifications in Attachment A so that the combination is at least 12 inches thick above impacted soils.

This engineering control provides a physical barrier between potential receptors and COCs in soils. Because the remedy selected for Identified Area No. 2 consists of an asphalt cap that is intended to be used as a parking lot, there is no 'operation' required and no 'treatment' will take place. Because there are no engineering controls that require operation', there are no potential operating problems. The pavement in the area of the engineering control identified in Figure 1 must be maintained in repair, in its current configuration to prevent direct contact with the subsurface soil by potential receptors.

## **2.2 Concrete Floor of Future Parking Garage**

It is anticipated that the asphalt cap, currently being used as a parking lot, will be replaced by a multi-level parking garage in the near future. The constructed parking garage will occupy approximately 80% of the area currently covered by the asphalt cap. Upon completion, the parking garage will have a reinforced concrete floor with the remainder of the surrounding area being restored with asphalt pavement. The concrete floor of the garage and asphalt pavement will then constitute the engineering control that provides the physical barrier between potential receptors and COCs in soils. It is anticipated that the parking garage will take between 9 and 12 months to construct.

The floor of the parking garage must consist of at least 3 inches of reinforced concrete above 6 or more inches of engineered fill meeting or exceeding ODOT specifications in Attachment A. The combination of engineered fill and concrete shall be at least 12 inches thick above impacted soils.

During construction, the area will not be used for any commercial purpose. In addition, the area will be restricted in a manner that prevents access to this area by trespassers, visitors, and/or employees using the Smith Brothers Hardware buildings.

The Director of Ohio EPA shall be notified at least 60 days prior to initiating removal of the asphalt pavement engineering control and construction of the parking garage. At the time of notification, design plans of the reinforced concrete floor shall be provided to the Director of the Ohio EPA. If the plans for the concrete floor do not meet the foregoing specifications, the notification of proposed modification shall be submitted to the Director for approval in accordance with Section 5.2 of this O&M Plan.

### **3.0 NORMAL OPERATION AND MAINTENANCE**

The Property is considered adequately maintained when the engineering control described in Section 2.0 is not breached or compromised. The following sections prescribe the monitoring necessary to ensure that the engineering control is adequately protective of potential receptors.

#### **3.1 Monitoring**

The monitoring necessary to ensure that the engineering and institutional controls meet their stated purpose consists of routine visual inspections of the Property. The purpose of the visual inspections is to note the presence of any breach, including but not limited to, potholes, cracks or other damage and/or breaches that may compromise the integrity of the engineering control, as well as to activities that are contrary to the institutional controls on the Property. Monitoring of all engineering and institutional controls relied upon at the Property shall be conducted on a scheduled semi-annual basis during the Spring and Fall of each calendar year, and on an unscheduled basis, as-needed for any known or suspected breaches of engineering or institutional controls. During such inspections, all breaches in or damage to the engineering control or activities inconsistent with institutional control shall be detailed on the inspection report. If necessary to prevent exposure to human receptors, the breach or damage area will be physically marked (e.g., circled with spray paint and/or barricaded) at the time of such inspection. Unscheduled monitoring events may vary in thoroughness from partial to complete inspection.

#### **3.2 Documentation**

Scheduled Operation and Maintenance monitoring will be documented on Form 1 (Attachment B). Unscheduled monitoring events do not require documentation, unless breaches or damage which require repair or violations of institutional controls are noted, in which case Form 1 or a similar form will be completed.

The owner of the Property shall submit Form 1 to Ohio EPA, in accordance with Section 5.1 of this O&M Plan. Unscheduled inspections which reveal a breach or compromise of an engineering control or violation of an institutional control shall also result in the submittal of Form 1 in accordance with Section 5.1 of this O&M Plan. All inspection documentation will be kept on file by the owner of the Property for five (5) years from the date of inspection.

### **3.3 Schedule**

Scheduled monitoring events shall occur in the Spring and Fall of each calendar year and be separated by at least six months, but by no more than nine months. Scheduled monitoring shall not be conducted when snow cover, rainfall or other climatological conditions could interfere with identification of breaches in the engineering control. Unscheduled monitoring events may be conducted at any time, but are required when the owner of the Property or inspector knows, or has reason to know, of a breach in or damage to the engineering control or violation of the institutional control restricting the Property to commercial use only.

## **4.0 OPERATION AND MAINTENANCE FOR REPAIRS**

The following section discusses the requirements for necessary repair of the engineering control and procedures that must be taken when the engineering control is compromised.

### **4.1 Repairs Required**

Any breach or damage to the engineering control shall be repaired promptly, but no later than 60 days from discovery of the breach, weather permitting. Appropriate methods of repair include all methods which restore the ability of the engineering control to prevent direct contact with the soil and maintain a combined thickness of at least 12 inches of pavement and engineered fill, including patching or replacement of pavement. Typical repairs include:

- **Seal Coating**

In this process, an asphalt emulsion product is spread over the surface of the damaged or worn area to fill small cracks. This helps prevent water from entering the cracks, thereby reducing the damaging effects of freezing and thawing.

- **Crack Sealing**

In this process, cracks in the asphalt that are too large to be effectively remedied by seal coating are individually filled with an asphalt emulsion product to help prevent the cracks from becoming larger. Cracks in the reinforced concrete floor of the parking garage will be individually filled with a concrete sealant.

## ▪ Re-Paving

In some cases, it is more cost-effective to restore the integrity of an asphalt surface by either applying another layer of asphalt and/or concrete over the damaged area or by removing the old asphalt/concrete and replacing it with new asphalt/concrete.

Replacement of the engineering control with an alternative engineering control other than those described under Section 2.0 is prohibited, unless this O&M Plan is modified and the modification is approved by Ohio EPA in accordance with Section 5.2.

The timing of repairs may be subject to favorable weather and/or construction conditions. On Form 1, the owner of the Property shall identify the date of completion of each repair and, if not repaired as of the date the report is submitted to the Ohio EPA, an estimated date of completion.

## 4.2 Maintenance of Health and Safety

All repairs will be inspected within 3 weeks after completion to ensure that the breach or damage has not reoccurred, and measures to prevent deterioration of repairs will be implemented, as warranted (e.g., placing caution tape, barricading, further repairs, or other measures). A report of all post-repair inspection results must be attached to the Form 1, and kept in the files of the owner of the Property for at least 5 years.

Safety measures consistent with the requirements of this O&M Plan and with all applicable Occupational Safety and Health Administration (OSHA) laws and regulations will be taken during construction or repair activities. Such measures may include proper barricading and marking of the work area, fencing, dust suppression measures, etc.

## 4.3 Documentation

All repairs shall be documented for compliance with the applicable terms and conditions of this O&M Plan and submitted to the Director of Ohio EPA in accordance with Section 5.1. At a minimum, documentation must include:

- a. Identification of the event as a repair event;
- b. Beginning and ending dates of the event (the dates are the inspection as identified on Form 1 and the repair date);
- c. A summary of repair activities; and,
- d. A statement that the engineering control has been repaired or maintained as approved in the O&M Plan.

All documentation of repairs shall be kept on file by the owner of the Property for five (5) years from the termination date of the event. Prior to the destruction of any reporting documentation, the owner of the Property will notify Ohio EPA by certified mail of its intent to destroy the documents and allow Ohio EPA 45 days to obtain the documents before disposal.

## **5.0 REPORTING AND NOTIFICATIONS TO OHIO EPA**

### **5.1 Reporting Operation and Maintenance Monitoring to Ohio EPA**

The following information will be reported to Ohio EPA on an annual basis within 60 days of completion of the Fall semi-annual monitoring event, and will include all information which arose during the time frame between the date of the last annual report:

- The Form 1, and attached reports for precautions, repairs, and post-repair inspections, related to scheduled Operation and Maintenance monitoring;
- Any Form 1, and attached reports for precautions, repairs, and post-repair inspections of unscheduled Operation and Maintenance monitoring during which the need for repairs was identified or violations of institutional controls were noted;
- Summary of any Notifications required to be submitted to the Director of Ohio EPA during the reporting period;
- A cover letter summarizing Operation and Maintenance activities during the reporting period; and,
- An affidavit in accordance with OAC 3745-300-13 from the owner of the Property, and other persons with knowledge, attesting that information submitted is truthful, accurate and complete.

### **5.2 Notification and Prior Approval of Proposed Modification to Operation and Maintenance Plan**

Any proposed modification to this O&M Plan shall be submitted in writing by the owner(s) for approval by the Director of Ohio-EPA at least 60 days before the proposed

commencement date of work on the modification. Approval of any modification must be obtained from the Director prior to beginning work on the modification. Any construction activities which will not, and do not, result in a material change in the coverage, materials, configuration or type of engineering control identified in Section 2 of this O&M Plan, are considered normal repairs of the existing engineering control and are not modifications under this section.

### **5.3 Transfer of Property**

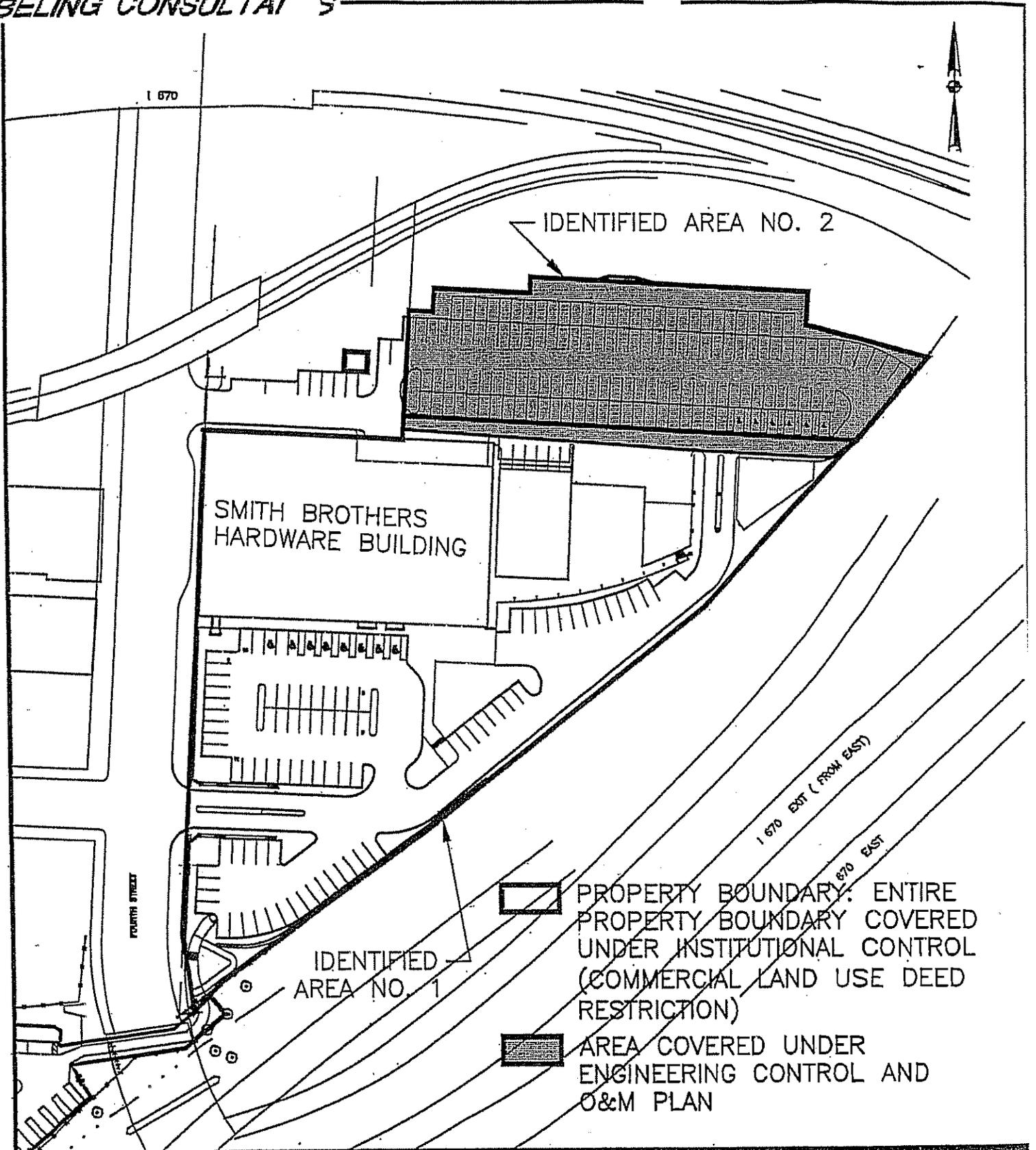
If the SBHI Property, or any portion of the Property is transferred to a new owner, prior notification will be sent to the Director of the Ohio EPA.

### **6.0 INSTITUTIONAL CONTROL**

A portion of the remedy to protect against exposure to hazardous substances and/or petroleum on the Property relies on a commercial land use restriction filed with the Franklin County Recorders Office on May 17, 2000:

The commercial land use restriction is intended to run with the land and to be binding upon all current owners and all successors.

**FIGURE 1**  
**SITE MAP LOCATION OF ENGINEERING AND INSTITUTIONAL CONTROLS**



QUADRANGLE LOCATION  
FRANKLIN COUNTY

**BELING  
CONSULTANTS**

Professional Engineering  
Since 1938

FIGURE 7  
SITE MAP - CURRENT CONDITIONS

DESIGNED BY: CLE

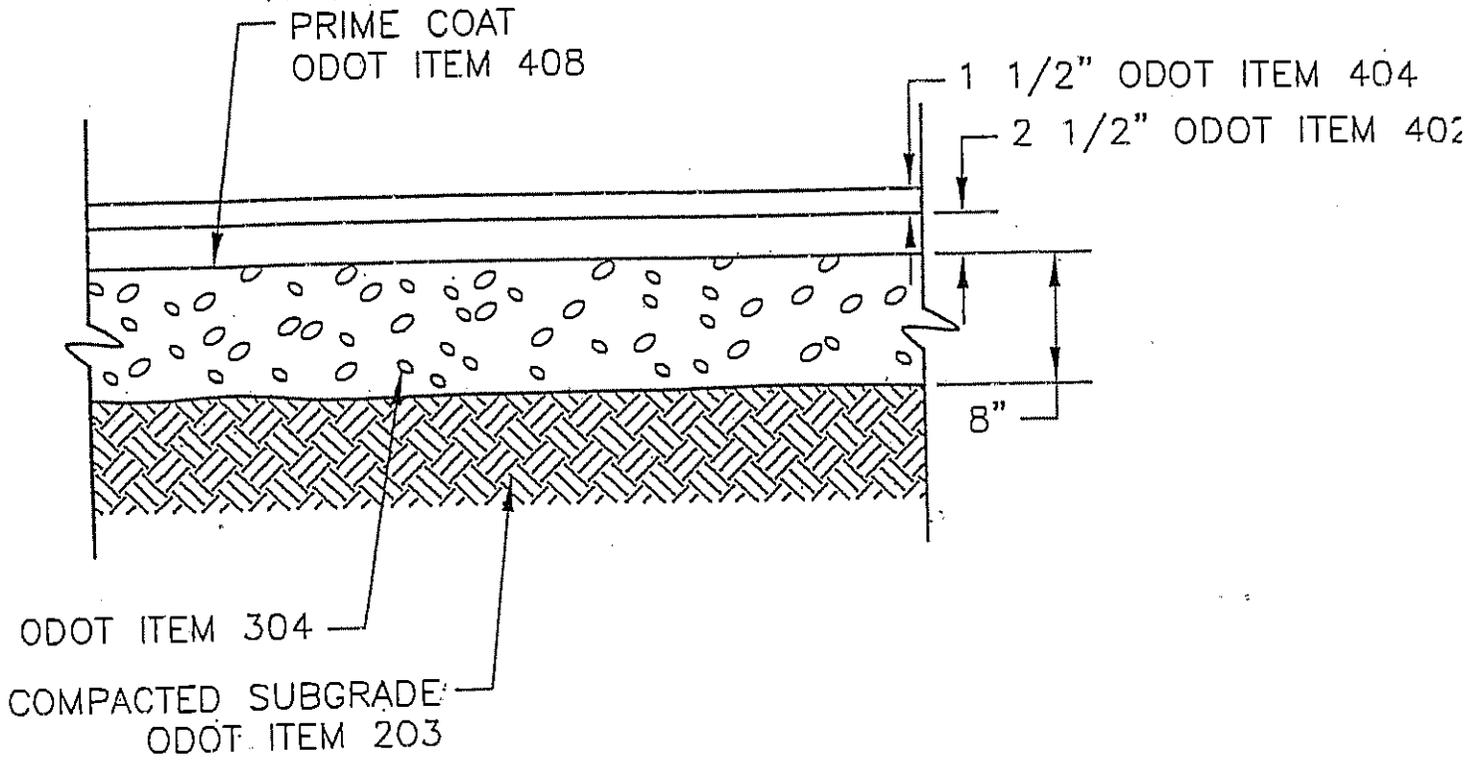
SMITH BROTHERS HARDWARE

DRAWN BY: BLW

SCALE: NONE

DATE: FEBRUARY 2000

**FIGURE 2**  
**ASPHALT PAVEMENT CROSS-SECTION**



# ASPHALT PAVEMENT

SCALE: 1"=1'-0"

117FIG2A.DWG



QUADRANGLE LOCATION

**BELING  
CONSULTANTS**

Professional Engineering  
Since 1936

FIGURE 2  
ASPHALT PAVEMENT CROSS SECTION

DESIGNED BY: CLE

SMITH BROTHERS HARDWARE

**ATTACHMENT A**  
**ODOT SPECIFICATIONS FOR ASPHALT PAVEMENT CONSTRUCTION**

**ITEM 203 ROADWAY EXCAVATION AND  
EMBANKMENT**

- 203.01 Description
- 203.02 Definitions
- 203.03 Borrow
- 203.04 General
- 203.05 Disposal of Excavated Material
- 203.06 Tolerances
- 203.07 Embankment Construction
- 203.08 Requirements for Suitable Material
- 203.09 Construction Methods
- 203.10 Construction of Embankment and Subgrade with Moisture and Density Control and Treatment of Subgrade in Cut
- 203.11 Moisture Control
- 203.12 Embankment Compaction
- 203.13 Subgrade
- 203.14 Proof Rolling
- 203.15 Method of Measurement
- 203.16 Basis of Payment

203.01 Description. This work shall consist of preparation of areas upon which embankments are to be placed; excavation for the roadway and channel, including the removal of all material encountered not being removed under some other item; constructing embankments with the excavated material and material from other sources necessary to complete the planned embankments; furnishing and incorporating all water required for compacting embankment and subgrade; disposing of unsuitable and surplus material; preparing the subgrade; testing the stability and uniformity of compaction of the subgrade for areas specifically called for on the plans; finishing shoulders, slopes and ditches; all in accordance with these specifications and in reasonably close conformity with the lines, grades, thicknesses and cross sections shown on the plans. All excavation shall be considered as unclassified excavation.

Where embankment is a separate pay item, payment for roadway excavation shall be made under 203 Excavation Not Including Embankment Construction. Payment for roadway embankment shall be made under 203 Embankment, which shall include payment for furnishing suitable material from sources other than excavation if

needed to complete embankments, with no separate payment for borrow for planned embankments. The Contractor shall control disposition of excavated material, using in embankment or disposing of it as he desires.

Where embankment is not a separate pay item, payment for roadway excavation shall be made under 203 Excavation Including Embankment Construction, which shall include payment for placing suitable excavated material in embankment. If borrow is needed to complete planned embankments, it shall be measured and paid for separately under 203 Borrow. No excavated material shall be disposed of without permission; and all suitable material from excavation, or an equivalent volume from other sources, shall be used for planned embankments to the extent of project requirements.

When the proposal does not contain a lump sum for 201 Clearing and Grubbing or an estimated quantity for 201 Removal of Trees and/or Stumps, or an estimated quantity for 202 Removal of Structures and Obstructions, this work shall be performed but will not be paid for directly, and shall be considered as a subsidiary obligation of the contractor under 203.

**203.02 Definitions. Embankment.** A structure consisting of soil, granular material, shale, rock, or random material, constructed in layers to a predetermined elevation and cross section.

**Subbase.** Selected material of planned thickness placed on the subgrade as a foundation for a base or surface course. Subbase is a part of the pavement structure.

**Soil.** All earth materials, organic or inorganic which have resulted from natural processes such as weathering, decay, and chemical action in which more than 35 percent by weight of the grains or particles will pass a 75  $\mu$ m (No. 200) sieve. Recycled portland cement concrete (RPCC), reclaimed asphalt concrete pavement (RACP), or reclaimed bituminous aggregate base (RBAB) can be utilized, but may require blending with other materials to meet the above grading requirements and the provisions of 203.09(a). Pieces of RPCC, RACP or RBAB shall not exceed 100 mm (4 inches) in the largest dimension.

**Granular Materials.** Broken or crushed rock, gravel, sand, RPCC, slag, or cinders which can be readily incorporated in an 200 mm (8-inch) layer, and in which at least 65 percent by weight of the grains or particles are retained on a 75  $\mu$ m (No. 200) sieve. Open hearth and basic oxygen steel slags shall conform to stockpiling and aging

requirements of 703.01 and come from approved sources on file at Laboratory.

**Shale.** Laminated material, formed by the consolidation in nature of soil and having a finely stratified structure. For the purpose of specifications, the following bedrock types shall also be considered shale: mudstone, claystone, siltstone and clay bedrock.

**Rock.** Sandstone, limestone, dolomite, glacial boulders, brick or RPCC which cannot readily be incorporated in an 200 mm (8-inch) layer.

**Random Material.** A mixture of previously defined materials suitable for use in embankment which can be readily incorporated in a 200 mm (8-inch) layer.

**Optimum Moisture.** The water content at which the maximum density is produced in a soil by a given compactive effort (AASHTO Designation: T 99). The appropriate curve from Ohio's typical moisture-density curves, Set C, may be used to establish optimum moisture.

**Field Testing.** Testing of embankment and subgrade compaction shall be in accordance with the "Manual of Procedures for Earthwork".

**Laboratory Dry Weight.** The maximum laboratory dry weight shall be the weight provided by the Laboratory when the sample is tested in accordance with AASHTO T 99. The appropriate curve from the typical moisture-density curves, Set C, may be used to establish maximum laboratory dry weight.

**Excavation.** The excavation and disposal of all materials of whatever character encountered in the work.

**Borrow.** Material obtained from approved sources, outside the right-of-way, required for the construction of embankments or for other portions of the work.

**203.03 Borrow.** Borrow shall meet the requirements for suitable embankment material set forth in this section. Borrow shall be required only when sufficient quantities of suitable materials are not available from other items of the contract. Unless otherwise designated in the contract, the Contractor shall make his own arrangements for obtaining borrow and shall pay all costs involved.

Borrow used in embankment shall be placed in accordance with the requirements for constructing embankment.

Borrow will not be paid for as a separate item:

(a) where embankment is a pay item in the contract, or

## 203.03

(b) where the Contractor elects to use borrow in place of excavation.

If the Contractor places more borrow than is required and thereby causes a waste of excavation, the amount of such waste will be deducted from the borrow volume as measured in the borrow area. All borrow areas shall be bladed and left in such shape as to permit accurate measurements after excavating has been completed.

The Contractor shall notify the Engineer sufficiently in advance of opening any borrow areas so that cross section elevations and measurements of the ground surface after stripping may be taken.

Borrow areas shall meet the requirements of 105.151 and cleaning up of all borrow areas shall meet the requirements of 104.06.

**203.04 General.** Excavation and embankments for the roadway, intersections and entrances shall be finished to conform to the plan cross sections within the tolerances set forth in 203.06. The Contractor shall satisfy himself as to the nature and distribution of the materials to be excavated. The unit price bid for excavation shall apply to all materials, of whatever nature, to be excavated.

Prior to beginning excavation, grading, and embankment operations any area, all necessary clearing and grubbing in that area shall have been performed.

Limitations of areas of clearing and grubbing and of earthwork operations shall be in accordance with 108.04 and 207.

Obliteration of old roadways shall include all grading operations necessary to incorporate the old roadway into the new roadway and surroundings in order to provide a pleasing appearance. Removal of portland cement concrete pavement and portland cement concrete base course will be paid for as a contract item. Roadway obliteration will be paid for as excavation.

Where a new pavement is to be constructed on an embankment which is less than 1 meter (3 feet) over an existing pavement, the existing pavement shall be removed.

When the Contractor's excavating operations encounter remains of prehistoric people's dwelling sites or artifacts of historical or archaeological significance, the operations shall be temporarily discontinued. The Engineer will contact archaeological authorities to determine the disposition thereof. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and shall remove them for delivery to the custody of the proper state authorities. Such excavation will be considered and paid

for as extra work.

If the contractor encounters any abnormal material such as, but limited to, drums, tanks, or stained earth or any unusual odors during construction operations, the work in this area shall be temporarily discontinued, equipment left in place, the area cordoned off and the Engineer notified. The area is considered to contain hazardous or toxic material and must be handled correctly in accordance with Department policy as directed by the Engineer. Upon notification by the Engineer to resume work, the Contractor may file for an extension of time in accordance with 108.06. Compensation for added expense will be in accordance with 108.031.

Where excavation to the finished graded section results in a subgrade of unstable soil, the Engineer may require the Contractor to remove unstable materials and backfill to the finish graded section with approved material in accordance with 203.12. The Contractor shall conduct his operations in such a way that the Engineer can take necessary cross-sectional measurements before the backfill is placed.

(a) Drainage. During the process of excavation, the roadway subgrade shall be maintained in such condition that it will be well drained at all times. When trenching is done for narrow base widening, ditches of adequate depth shall be constructed at frequent intervals across the roadway. Side ditches shall be deepened, if necessary, to provide an outlet for water to insure the thorough drainage of the subgrade at all times.

The upstream ends of all pipe lines encountered in earthwork operations shall be effectively plugged and covered.

(b) Rock and Shale Excavation. Where granular subbase is a part of the pavement design, and rock, shale or coal is encountered below the subgrade shall be excavated to a depth of 0.6 m (2 feet) below the surface of the subgrade for the cross section width of the roadway between points 0.3 m (1 foot) beyond the shoulders. The additional excavation shall be filled with suitable embankment material. Payment will be at the contract unit price bid for excavation and embankment.

Where granular subbase is a part of the pavement design, and shale or coal is encountered, the subgrade shall be excavated to a depth of 0.5 m (18 inches) below the subbase for the cross section width of the roadway between points 0.3 m (1 foot) beyond the shoulders. The additional excavation shall be filled with suitable embankment material. Payment shall be at the contract unit price bid for excavation and embankment. The Contractor will be paid for the thickness of gravel

subbase material shown on the typical section for rock excavation.

(c) **Drilling and Blasting in Rock Cuts.** Where rock encountered in cuts requires drilling and blasting, all necessary precautions shall be exercised to preserve the rock in the finished slope in a natural undamaged condition, with the surfaces remaining reasonably straight and clean. The Contractor shall presplit rock and shale along proposed backslopes which are designed at inclinations steeper than one to one and where depths of cut in rock or shale exceed 1.5 m (5 feet).

The Contractor shall first completely remove all overburden soil along the line(s) of presplitting to expose the rock surface prior to drilling the presplitting holes. The Contractor shall then drill 60 to 80 mm (2 1/2 to 3-inch) nominal diameter holes, spaced not more than 1 meter (3 feet) center to center along the required slope line and at the required slope inclination to the full depth of the cut or to a predetermined stage elevation. If any cut is presplit by vertical stages (lifts), the presplit drill holes for the next stage may be offset a distance of not more than 0.3 m (1 foot) inside the previously presplit face, but in no case shall any of the presplit holes be started inside of the payment line. No payment will be made for additional excavation quantities caused by these offsets.

No hole shall deviate more than 0.15 m (1/2 foot) at any place from plane of specified presplit slope, or an approved offset plane as hereinabove provided. Also, no hole shall deviate more than 0.3 m (1 foot) at any place from a vertical plane through the top of the hole, normal to the plane of slope.

Before placing the charge, each hole shall be tested for its entire length to ascertain the possible presence of any obstruction. No loading will be permitted until the hole is free of all obstructions for its entire depth. All necessary precautions shall be exercised so that the placing of the charge will not cause caving of material from the walls of the hole. The charge for each hole shall consist of not less than 0.11 kg (1/4 pound) nor more than 0.45 kg (1 pound) of 40 percent dynamite per 0.3 m (foot) of hole and spaced not more than 0.5 m (20 inches) center to center of charge, except that 0.25 to 1.15 kg (1/2 to 2 1/2 pounds) of dynamite shall be placed in the bottom of the hole, and except near the top of the hole the charges shall be reduced sufficiently to eliminate overbreak and heaving. The top charge shall not be less than 0.75 m (2 1/2 feet) nor more than 1.0 m (3 feet) below the top of rock.

The spacing of the dynamite charges in each hole shall be accom-

plished by means of securely taping (or attaching by other approved means) each piece of dynamite to the detonating fuse at the required intervals, or by deck loading. If the latter is used, the dynamite must be in intimate contact with the detonating fuse to assure detonation of charges.

Either of the following charges may be used as an alternate, provided the results are satisfactory and with the written permission of Engineer:

(1) Continuous column commercial explosives manufactured especially for presplitting.

(2) Multiple strands of high strength 35 to 45 grams (175 to 1700 grains) of explosive per meter (foot) detonating fuse taped together 1 to 2 m (4 to 6 foot) intervals.

All space in each hole not occupied by the explosive charge shall be filled with No. 8 size coarse aggregate meeting the requirement 703.01. No other material or type of stemming will be permitted.

Firing shall be by means of detonating fuse extending the full depth of each hole and attached to a trunk line of detonating fuse at surface, which shall be fired by dynamite cap(s). Permission to use other method of detonating must be approved by the Engineer in writing. The detonation of presplitting charges shall precede detonation of adjacent fragmentation charges within the section 1 minimum of 25 milliseconds.

The cost of all material, labor and equipment necessary for presplitting and other work included herein shall be included in the price bid for the pertinent 203 excavation item.

Changes may be made in details of procedure outlined in the above requirements for presplitting, including hole spacing and size, provided that written permission is secured from the Director and satisfactory results can be obtained.

In rock cuts, portions of rock which would be hazardous to high traffic if allowed to remain, shall be removed when and as directed.

(d) **Slides and Breakages.** All slides and breakages beyond finished work as planned; if caused by improper methods of excavation shall be removed by the Contractor at his own expense. Slide breakages beyond the finished work as planned which occur due to fault or neglect of the Contractor shall be paid for in accordance with the provisions of 104.02 and 104.03.

(e) **Shoulders, Slopes and Ditches.** Sod and topsoil salvaged in scalping operations shall be placed upon areas to be seeded or so

With 50 mm (2 inches) of the surface in a loose condition, the shoulders shall be built at an elevation that will allow subsequent operation of seeding and sodding to conform to the lines shown on the plans within the tolerances set forth in 203.06. Shoulders, slopes and ditches which have been damaged by erosion during construction shall be reshaped by the Contractor at no additional expense to the State.

Earth or other berm materials shall not be dumped or stockpiled on the new or existing pavement or on the paved area of the berm. Such material shall be kept clear of the pavement and paved berm areas at all times.

(f) **Pavement Widening Construction.** For work performed under this item the Contractor shall, under the direction of the Engineer, locate the edges of sound pavement, and shall cut and trim the pavement to a neat line as established by the Engineer. Damage done to those areas designated for salvaging, by the Contractor's equipment or methods, shall be repaired and restored at the Contractor's expense. The old pavement materials resulting from this cutting and trimming operation shall be used or disposed of in accordance with the provisions of 203. The cost of cutting, trimming, and disposal of excavated material shall be included in the unit price bid for 203 Excavation.

(g) **Linear Grading.** This work shall include all labor and equipment necessary to produce typical sections and profile grades as detailed in the plans. This shall include embankment construction if embankment area is within 1 km (1/2 mile) of material source. If additional material is required to obtain conformance to plan specified grades, and if it is required at a distance of more than 1 km (1/2 mile) from material source, then it shall be measured and paid for separately under 203 Borrow.

**203.05 Disposal of Excavated Material.** All surplus or unsuitable excavated material, including rock or large boulders, that cannot be used in embankments shall be disposed of by one of the following methods as determined by the Engineer:

(1) Wasted adjacent to or incorporated in the regular construction where and as ordered by the Engineer.

(2) Disposed of by the Contractor at his own responsibility and expense outside the limits of the right-of-way.

Material wasted outside the limits of the right-of-way shall be in accordance with the provisions of 105.151.

Prior to the disposal of waste materials, the Contractor shall submit

an executed copy of its contract or permission statement from property owner to the Engineer. The contract or permission statement must recite that the waste materials are not the property of the Department. Further, it must expressly state that the Department is not a party to that contract or permission statement and that the Contractor property owner will hold the Department harmless from any claim may arise from their contract or permission statement.

**203.06 Tolerances.** The Contractor shall check the work under item with templates, slope boards or other devices satisfactory to the Engineer. The completed work shall conform to the plans within following tolerances:

For cut slopes back of the ditch line and for fill slopes beyond shoulder, deviations of 0.3 m (one foot) measured in a horizontal plane will be permitted. For shoulders and ditches the horizontal measurements from the centerline shall not be less than the plan dimension. The elevations thereof shall not be higher than specified, but may not more than 15 mm (1/2 inch) at the pavement edge and 50 mm (two inches) elsewhere, below the established grades. For subgrade surface shall at no place vary more than 15 mm (1/2 inch) from a 10-foot (ten-foot) straight edge applied to the surface parallel to the centerline of the pavement nor more than 15 mm (1/2 inch) from subgrade elevation established by construction layout stakes.

For excavation and embankment beyond plan lines, measurement payment will be made only to plan lines.

**203.07 Embankment Construction.** Embankment construction shall consist of preparation of the areas upon which embankment material is to be placed; the placing and compacting of approved material in roadway areas where unsuitable material has been removed; and the placing and compacting of embankment material in holes, pits and depressions within the roadway area. Only approved materials shall be used in the construction of embankments and backfills. Frozen material shall not be placed in the embankment nor shall embankment be placed on frozen material.

**203.08 Requirements for Suitable Material.** Granular material, shale, rock, and random materials as defined in 203.02 are suitable for use in embankment, except RPCC, open hearth and basic oxygen slag shall be placed at least 0.3 m (one foot) below the flow line

203.08

underdrains or other drainage items susceptible to runoff from these materials.

Soil is suitable for use in embankment provided it has the following characteristics:

Maximum laboratory dry weight shall be not less than 1450 kg/m<sup>3</sup> (90 pounds per cubic foot), except that soils having maximum dry weights of less than 1600 kg/m<sup>3</sup> (100 pounds per cubic foot) shall not be used in the top 0.3 m (12 inches) of embankment subgrade.

Silt from excavation or borrow identified as Ohio classification A-4b, RACP, and RBAB shall be considered suitable for use in embankment only when placed at least 1 m (3 feet) below the surface of the subgrade. RPCC, RACP, and RBAB shall not be placed in any location where it would inhibit the growth of vegetation.

Soil having a liquid limit in excess of 65 or soils identified as Ohio classifications A-2-5, A-5 or A-7-5 are considered as unsuitable for use in embankment.

Soils not identifiable from preliminary soils investigation reports and appearing questionable, shall be sampled and submitted to the Laboratory for classification tests.

**203.09 Construction Methods.** When embankment is to be placed and compacted on hillsides or where new embankment is to be compacted against existing embankments, or where embankment is built half-width at a time, slopes that are steeper than 8:1 when measured at right angles to the roadway shall be continuously benched over those areas where it is required as the work is brought up in layers. Benching shall be of sufficient width to permit operations of placing and compacting equipment. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts. Materials thus cut out shall be recompacted along with the new embankment material at the Contractor's expense.

Soil, granular material, shale and random material shall be spread in successive loose layers, not to exceed 200 mm (8 inches) in thickness. The layers thus placed shall be compacted as specified in this section. Compaction of the outer 1.5 m (5 feet) of each layer measured horizontally from the face of the slope shall be obtained with a roller capable of covering the layer to the outer edge.

If embankment can be deposited on one side only of abutments, wing walls, piers or culvert headwalls, care shall be taken that the area immediately adjacent to the structure is not compacted in a manner such

that it will cause overturning of or excessive pressure against the structure. When embankment is to be placed on both sides of concrete wall or a pipe or box type structure, operations shall be conducted that the embankment is always at approximately the same elevation on both sides of the structure.

(a) Soil. All soil used in embankment shall be placed in accordance with provisions of 203.12.

When RPCC, RACP or RBAB is utilized, the blend shall produce uniform and stable mixture.

The RACP or RBAB shall be placed in 150 mm (6 inch) lifts and discing with underlying lift of material until a uniform and homogeneous material is formed. The disk shall have a minimum of 0.75 m (3 inch) diameter blade. Under no circumstances shall the placement of RACP or RBAB be allowed without discing. The lifts of RACP or RBAB shall be alternated with other approved materials. RPCC, RACP, and RBAB shall be compacted in accordance with 310.03 or other methods approved by the Engineer.

(b) Granular Material. Granular material shall be compacted to a density established as satisfactory by the Engineer based on field density test. The moisture content shall be as determined by the Engineer to obtain the desired compaction.

(c) Shale. Shale which consists predominantly of fine particles which can be readily tested for compaction shall be placed and compacted in accordance with requirements for soil. Shale containing sufficient amounts of large particles to make checking of the compaction impracticable shall be broken down in placing until the voids between the shale particles are filled insofar as is practicable. When ordered by the Engineer, water shall be used to aid in breaking down the shale. Watering of the shale shall be performed in accordance with the provisions of 203.11. The moisture content and compaction shall be directed by the Engineer.

Shale embankment, within a length of 6 times the height of the finished abutment, shall be sprinkled as directed by the Engineer to bring moisture content to within a range of optimum minus 3 percent to optimum plus 2 percent. Each layer shall be rolled with at least two coverages of fully ballasted tamping roller, or with other roller satisfactory to the Engineer.

Mixtures of shale and rock shall be placed in accordance with above noted provisions for shale. Rock in such mixtures shall be reduced in size not to exceed 200 mm (8 inches) or separated from

mixture and placed as rock fill.

(d) **Rock:** Rock fill shall be placed in not to exceed 1 m (3-foot) lifts except that within a length of 6 times the height of the fill at an abutment, thickness of rock layers shall not be greater than 0.5 m (18 inches). Rock which cannot be incorporated into lifts of the above specified thicknesses shall be reduced in size until it can be so incorporated. Lifts made up principally of small rock shall be rolled as directed by the Engineer. Care shall be exercised in placing rock so that the side slopes will conform substantially with the requirements of the plan.

When rock and other embankment material are excavated at approximately the same time, the rock shall be incorporated into the outer portions of the embankment as rock fill and the other material shall be incorporated into the inner portion as rolled embankment. Rolled embankment adjacent to rock fill shall be held at substantially the same elevation as the rock, but always above the rock and of sufficient width to permit the proper compaction of this portion.

The top 0.6 m (2 feet) of all embankment shall be constructed of material other than rock or shale according to the specifications for placing that material. Material for this upper 0.6 m (2 feet) shall be reserved by the Contractor from the suitable excavation to the extent that it is available. Should this material be available and not be reserved, it shall be furnished and placed by the Contractor at his expense. In all cases where embankment material other than rock is superimposed upon rock, the top of the rock fill shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments or earth.

(e) **Random Materials.** For random materials the moisture content and compaction shall be as required by the Engineer. When random material is of such size that it cannot be readily incorporated into an 200 mm (8 inch) layer it shall be reduced in size until it can be so incorporated.

(f) **Areas Inaccessible to Rollers.** Embankment in areas inaccessible to rollers shall be composed of embankment material which can readily be incorporated into a 100 mm (4-inch) layer, loose depth, placed and compacted in accordance with the following provisions: Embankment material, other than granular material, shall be deposited in level layers not exceeding 100 mm (4-inch) in thickness, loose depth, and compacted by mechanical devices to the density required in 203.12. Granular material shall be compacted as required in this section except that it may be deposited in water without compaction to a height not

exceeding normal water level. Compaction of granular material in water above normal water level is permitted if satisfactory drainage is provided.

Effective spreading equipment shall be used on each lift to obtain uniform thickness prior to compacting. As the compaction of each layer progresses, continuous leveling and manipulating will be required to assure uniform density. Water shall be added or removed as necessary, in order to obtain the required density.

**203.10 Construction of Embankment and Subgrade and Moisture and Density Control and Treatment of Subgrade in C** All embankments, except rock embankments, shall be constructed using moisture and density control. All subgrade, except rock and shale sections, shall be constructed using moisture and density control.

**203.11 Moisture Control.** Embankment and subgrade material which does not contain sufficient moisture to be compacted in accordance with the requirements of this subsection shall be sprinkled with water as directed by the Engineer to bring the moisture content within the range needed to meet the density requirements. Water shall be applied by means of tank trucks equipped with suitable sprinkling devices and shall be thoroughly incorporated into the material which is to be compacted by means of discs or other approved equipment.

Embankment and subgrade material containing excess moisture shall be required to dry prior to or during compaction to a moisture content not greater than that needed to meet the density requirements, except that for material which displays pronounced elasticity or deformation under the action of loaded rubber tired construction equipment moisture content shall be reduced to secure stability. For subgrade material, these requirements for moisture shall apply at the time of compaction of the subgrade. Drying of wet soil shall be expedited by the use of plows, discs, or by other approved methods when so ordered by the Engineer.

**203.12 Embankment Compaction.** Soil embankment shall be placed and compacted in layers until the density is not less than the percentage of maximum dry density indicated in the following table determined by AASHTO T 99 or other approved method.

**EMBANKMENT SOIL COMPACTION REQUIREMENTS**

Maximum Laboratory Dry Weight Kilograms/Cubic Meter (Pounds/Cubic Foot)	Minimum Compaction Requirements Percent Laboratory Maximum
1440-1680 (90-104.9)	102
1681-1920 (105-119.9)	100
1921 and more (120 and more)	98

203.13 Subgrade. All soil subgrade shall be prepared in accordance with this subsection. Soils with a maximum dry weight of less than 1600 kg/m<sup>3</sup> (100 pounds per cubic foot) are considered unsuitable for use where subgrade compaction for a depth of 0.30 m (12 inches) is required, and when encountered in the upper 0.30 m (12 inches) of the subgrade shall be replaced with suitable soil or granular material.

(a) Compaction Requirements. Soil subgrade with maximum laboratory dry weight of 1600-1680 kg/m<sup>3</sup> (100-105 pounds per cubic foot) shall be compacted to not less than 102 per cent of maximum dry density. All other soil subgrade shall be compacted to not less than 100 percent of maximum dry density. The maximum dry density shall be as determined by AASHTO T 99 or other approved method.

Subgrade under new pavement and paved shoulders shall be compacted to a depth of 0.30 m (12 inches) below the surface of the subgrade and to a width of 0.46 m (18 inches) beyond the edge of the surface of the pavement, paved median, paved shoulder, or to the back of the adjacent curb and gutter, and shall be paid for as a separate item under 203 Subgrade Compaction.

Subgrade under pavement widening less than 1.8 m (6 feet), driveways, mailbox turnouts, and stabilized shoulders, shall be compacted to a depth of 150 mm (6 inches) below the surface of the subgrade and to the width of the pavement or base, or to the back of adjacent curb and gutter; and shall not be paid for as a separate item. The cost of compacting subgrade to a depth of 150 mm (6 inches) shall be included in the unit price bid for 203 Excavation.

Where the combined width of pavement widening and adjacent paved shoulder is 1.8 m (6 feet) or more, the subgrade shall be compacted as under new pavement and shall be paid for as a separate item under 203 Subgrade Compaction. For method of measurement, see 203.15(f).

(b) Drainage. The surface of the subgrade shall be maintained in a

smooth condition to prevent ponding of water after rains, and ditches shall be constructed and maintained in accordance with 203.04 Drainage, to insure the thorough drainage of the subgrade surface at all times.

(c) Soft Subgrade. Where soft subgrade is encountered in cuts, to no fault or neglect of the Contractor, in which satisfactory stability cannot be obtained by moisture control and compaction as provided under 203.11 and 203.13 (a), the unstable material shall be excavated to the depth required by the Engineer. The excavation thus required shall be measured and paid for at the contract unit price bid for Excavation. Material thus excavated shall be disposed of in accordance with 203.05.

Where embankment is a separate pay item, material required to replace the undercut shall be provided from 203 excavation, if available from grading operations within 1 km (1/2 mile) of the soft subgrade area. Suitable material shall be considered available when within 1 (1/2 mile) of the soft subgrade area only when there is an excess suitable material on the entire project, available portions of which located within 1 km (1/2 mile) of the soft subgrade area. Embankment required in the undercut area shall be paid for at the contract unit price for 203 Embankment, except that if such material is not available excavation thus made shall be filled with any suitable material available beyond 1 km (1/2 mile) of the soft subgrade area, and payment shall be made in accordance with Section 104.03.

Where embankment is not a separate pay item, suitable material required for the embankment to replace the undercut shall be secured from 203 Excavation if available from grading operations within (1/2 mile) of the soft subgrade area. If such suitable material is not available, the excavation thus made shall be filled with suitable material from 203 Borrow or with any suitable material available beyond (1/2 mile) of the soft subgrade area in accordance with Section 104.03.

Where soft subgrade in cuts is due to the failure of the Contractor to maintain adequate surface drainage as required in 203.04 (a) Drainage or is due to any other fault or neglect of the Contractor, the unstable condition shall be corrected as outlined above at no expense to the State.

(d) Full Width New Pavement Construction. After the surface of the subgrade has been shaped to approximate cross section grade before any pavement, base or subbase material is placed thereon, a portion of the berm for a distance of at least 0.5

inches) outside the limits of the surface of the planned pavement, shall be compacted. When the rolling is completed, the surface of the subgrade shall be shaped as necessary to conform to the grade and cross section shown on the plans within the tolerance set forth in 203.06 and shall be so maintained until the overlying course is in place.

**203.14 Proof Rolling.** Proof rolling shall be performed on areas described on the plans or as directed by the Engineer.

(a) **Equipment.** The equipment shall consist of four heavy pneumatic tire wheels mounted on a rigid steel frame. The wheels shall be evenly spaced in one line across the width of the roller and shall be arranged so that all wheels will carry approximately equal loads when operated over an uneven surface. The maximum center to center spacing between adjacent wheels shall not exceed 0.8 m (32 inches). The compacting equipment shall have a suitable body for ballast loading with such capacity that the gross load may be varied from 23 to 45 metric tons (25 to 50 tons).

The tires shall be capable of operating at inflation pressures ranging from 620 to 1040 kPa (90 to 150 pounds per square inch). From 90 to 95 percent of the volume of the tires shall be filled with liquid. The Contractor shall furnish the Engineer charts or tabulations showing the contact areas and contact pressures for the full range of tire inflation pressures and for the full range of loading for the particular tires furnished.

Ballast to obtain the weight directed by the Engineer shall consist of ingots of known unit weight, or sand bags with a unit weight of 45 kg (100 pounds) or bags of other material of known unit weight, or other suitable material such that the total weight of the ballast used can be readily determined at all times. There shall be a sufficient amount of ballast available to load the equipment to a maximum gross weight of 45 metric tons (50 tons).

(b) **Construction.** The designated areas of subgrade, prior to the placing of the overlying course, shall be compacted to requirements of 203.13. The subgrade shall then be rolled with one or more coverages, as directed, of the heavy pneumatic tire roller. One coverage shall be considered to represent two trips of the roller, each trip offset from the other by the width of one tire, to obtain complete area coverage. The roller shall operate in a systematic manner so that the number of coverages over all areas can be readily determined and recorded.

Moisture content of the subgrade at the time of proof rolling shall

conform to the requirements of 203.11.

Within the ranges set forth above, the load and tire inflation pressure shall be adjusted as directed. It is the intent to use a contact pressure nearly as practical to the maximum supporting value of the subgrade. The equipment shall be operated at the speed directed but in no case shall the speed exceed 8 km per hour (5 miles per hour), and the normal operating speed shall not be less than 4 km per hour (2 1/2 miles per hour).

Where the operation of the heavy pneumatic tire roller shows the subgrade to be unstable or to have non-uniform stability, the Contractor shall correct the unstable areas in accordance with the provisions of 203.13 so that the stability of the subgrade will be uniform and satisfactory. The subgrade shall then be checked for conformity with the plan lines and any irregularities of the surface caused by operation of the heavy pneumatic tire roller shall be corrected and the subgrade shall be shaped to the plan lines within the tolerance specified in 203.06.

Proof rolling will not be required where rock or shale occurs in the subgrade, or in areas where subbase has been thickened to replace susceptible silts or other unsuitable subgrade material.

**203.15 Method of Measurement.** The quantities of excavation to be paid for shall be the number of cubic meters (cubic yards) of material in the original position, acceptably excavated, measured by the method of average end areas. Excavation outside plan lines shall not be included in measurement for payment.

(a) **Contract Quantity Payment.** The quantities of excavation for embankment, when embankment is specified as a separate bid item, which payment will be made will be those shown in the contract plans, provided the project is constructed to the lines and grades shown on the plans, within allowable tolerances, and provided the plan quantities are adjusted to correct errors and to take into account authorized changes. Check measurements or final cross sections shall be used to determine the quantity for payment.

It is not the intent of this specification to change the plan quantities for payment as a result of minor discrepancies in the plotting of the sections, calculation of the end areas, and the subsequent computation of the plan volume of the earthwork quantities. No adjustment of plan quantities or recalculation of the volumes shall be made if two consecutive cross section end areas found different by less

percent from the plan quantity. The Contractor shall accept the plan quantity with authorized changes as payment in full unless revised by the Engineer. The burden of proof of a plan discrepancy greater than five percent on two consecutive end areas is on the Contractor. The Contractor shall submit supporting documentation concerning the possible changes. The Engineer will make revisions for one or more of (but not limited to) the following authorized changes: changes in two consecutive end areas in excess of five percent; undercutting; changes in the grades or slopes; removing slides; or arithmetic errors; etc. When the quantities are measured for payment, the original plan cross sections plotted on the plans, corrected for errors, if any, shall be used as original field cross sections. Additional original cross sections may be interpolated at points where necessary to more accurately determine quantities.

(b) **Measured Quantities.** When payment is specified on a volume basis, all accepted excavation shall be measured in its original position by cross-sectioning the area excavated, which measurements will include overbreakage or slides not attributable to carelessness of the Contractor. Volumes will be computed from the cross section measurements by the average end area method.

Measurement will be made for unsuitable materials actually excavated and removed at the direction of the Engineer, to obtain proper stability in cut sections and in foundations for fill sections.

Where it is impractical to measure material by the cross section method due to the erratic location of isolated deposits, acceptable methods involving three-dimensional measurements may be used.

(c) **Measurement on a Linear Basis.** When an item of excavation is to be measured and paid for on a linear basis, the actual length will be measured along each side of the pavement in the units specified in the contract. (A station shall equal one hundred feet). Measurement shall be continuous thru the work including intersections and other gaps.

(d) **Measurement of Embankments.** Where the contract does not specifically provide for payment for embankment, the work of embankment construction will not be paid for as such, but will be considered incidental to the various items of excavation.

When payment for embankment constructed with moisture and density control is specified as a separate bid item, the quantities to be paid for shall be the number of cubic meters (cubic yards) of embankment in the completed position, acceptably placed as herein described,

measured by the method of average end areas. Embankment outside plan lines shall not be included in measurement for payment.

(e) **Measurement of Borrow.** Borrow will be measured and paid by the cubic meter or metric ton (cubic yard or ton) in accordance with 109.

Borrow material in a natural formation shall be measured by method of average end areas or by weight. Where measurement by method of average end areas is used, the borrow area shall be cross-sectioned after the surface has been cleared and scalped and after excavating in the borrow area has been completed. The volume to be paid for shall be determined from these cross sections. When measurement by weight is used, the density of the material in its original position shall be determined by a series of representative measurements made after clearing and scalping have been performed and as the material in the borrow area becomes exposed by excavation operations. Acceptable material excavated from the borrow area and incorporated into the embankment shall be weighed and load tests shall be furnished. The cubic meters (cubic yards) to be paid for shall be determined by dividing the average weight per cubic meter (cubic yard) of the undisturbed material as determined by the density tests into the total weight of borrow material as determined by the load weight tests.

Borrow material from sources other than natural formations, such as cinders, slag, processed stone or gravel, and quarry strippings shall be measured as follows: The weight per cubic meter (cubic yard) of such material in its compacted condition in the embankment shall be determined. Ninety-five percent of the density thus determined divided into the weight of the material furnished shall be the cubic meters (cubic yards) of such material.

Where measurements show that completed embankment is outside allowable tolerances, the quantity outside plan lines shall be multiplied by a shrinkage factor determined by the Engineer, and the resulting quantity shall be deducted from the measured borrow to determine the pay quantity for this item. Volume of roadway excavation outside plan lines will not be considered in the determination of deductions from measured borrow.

(f) **Measurement of Subgrade Compaction.** The quantity paid for shall be the number of square meters (square yards) of subgrade acceptably compacted to a depth of 0.3 m (12 inches) herein described, measured by the number of square meters (square yards) of pavement surface, paved median, paved shoulders, or

203.15

and gutter supported by the compacted subgrade.

(g) Measurement of Proof Rolling. The quantity shall be the actual number of hours of accepted proof-rolling time. No measurement of time will be made for idle equipment due to repairs, servicing, loading or unloading ballast, increasing or decreasing tire pressure, bad weather, wet subgrade, standing by so as to be available when next needed, or for any other reason, or for the use of the equipment at times or locations other than as directed by the Engineer. The actual rolling time shall be recorded to the nearest 0.1 hour by the Contractor and will be checked by the Engineer.

203.16 Basis of Payment. The accepted quantities will be paid for at the contract price per unit of measurement for each of the pay items listed below that is included in the bid schedule.

Payment will be made under:

Item	Unit	Description
203	Cubic meter (cubic yard)	Excavation including embankment construction
203	Cubic meter (cubic yard)	Excavation not including embankment construction
203	Cubic meter or metric ton (cubic yard or ton)	Borrow
203	Cubic meter (cubic yard)	Embankment
203	Meter or kilometer (station or mile)	Linear grading
203	Square meter (square yard)	Subgrade compaction
203	Hour	Proof rolling

304.03

304.03 Prior to Spreading. The Engineer will sample Contractor's stockpile. A moisture-density curve will be made in accordance with the AASHTO T 99 for the purpose of establishing initial optimum moisture.

The aggregate material shall have reasonably uniform gradation moisture, and at a moisture content not less than minus four percent optimum moisture prior to the spreading operation. The material shall be handled in a manner to minimize segregation. The stockpile shall be thoroughly mixed or regraded if the aggregate material is segregated.

304.04 Spreading. The aggregate material shall be spread on the prepared surface. The compacted thickness of a single layer shall not exceed 150 mm (6 inches) when vibratory equipment is used in conjunction with other methods of compaction. The aggregate material shall be constructed in two or more approximately equal layers if the specified compacted thickness exceeds 150 mm (6 inches); maximum compacted thickness of one layer shall not exceed 75 mm (3 inches) when vibratory compaction equipment is not used. A maximum compacted thickness of 200 mm (8 inches) is allowed when a vertical depth is specified under the pavement or in the shoulder adjacent to the pavement.

The material shall be placed with self-propelled spreading machine capable of placing the aggregate true to line and grade.

Approved hand placing methods may be used when the total area of the aggregate material is 1700 square meters (2,000 square yards) or less, or in small areas where machine spreading is impractical. In all areas, the compaction requirements shall be in accordance with 203.09(b).

Water shall be added to the aggregate material or the aggregate material shall be dried to bring it to within minus four percent optimum to plus two percent of the optimum moisture prior to compaction operation. This moisture range shall be maintained during all compaction operations. If water is required, it shall be applied in a manner that will not soften the lower courses.

304.05 Compaction. The compaction of the aggregate material shall immediately follow the spreading operation. The minimum weight shall be nine metric tons (10 tons). The weight of the roller

ITEM 304 AGGREGATE BASE

- 304.01 Description
- 304.02 Aggregate
- 304.03 Prior to Spreading
- 304.04 Spreading
- 304.05 Compaction
- 304.06 Finished Surface
- 304.07 Method of Measurement
- 304.08 Basis of Payment

304.01 Description. This work shall consist of furnishing, placing and compacting one or more courses of aggregate, including furnishing and incorporating all water required for compacting, on a prepared surface in accordance with these specifications, and in reasonably close conformity with the lines, grades, thicknesses and typical cross sections shown on the plans or established by the Engineer.

304.02 Aggregate. The aggregate shall be crushed carbonate stone, crushed gravel, crushed air-cooled blast furnace slag, granulated slag, or open hearth slag from approved sources on file at the Laboratory. Crushed carbonate stone, crushed gravel, crushed air-cooled blast furnace slag, and open hearth slag from approved sources on file at the Laboratory shall meet the following gradation requirements and the requirements of 703.04. In addition, open-hearth slag shall conform to the stockpiling and aging requirements of 703.01.

Sieve	Total Percent Passing
50 mm (2 inch)	100
25.0 mm (1 inch)	70-100
19.0 mm (3/4 inch)	50-90
4.75 mm (No. 4)	30-60
600 µm (No. 30)	9-33
75 µm (No. 200)	0-13

Granulated slag shall also meet the requirements of 703.08.

Aggregate acceptance shall be determined prior to incorporation into the work based on samples taken from stock piles.

the test section and production rolling shall be the same. Light rollers may be used in small areas or when heavier rollers are not practical. Approved compaction equipment may consist of vibratory or static rollers and vibratory equipment and rollers.

The material shall have sufficient stability to support the weight of the rollers without excessive rutting or deflection. When the material falling within a grading permitted by the specifications is used and surface stability cannot be obtained, a sufficient quantity of crushed angular material shall be added to secure the stated stability.

Vibratory equipment alone may be permitted only in small areas or areas where rollers are impractical. In areas where normal production rollers cannot be used, the compaction requirements shall be in accordance with 203.09(b).

At the beginning of the compaction operation, the density requirement shall be determined by compacting a short test section. The compaction of the test section shall continue until no further increase in density can be achieved or when the difference in density between two consecutive coverages is less than 32 kilograms per cubic meter (2 pounds per cubic foot). The remainder of the material shall be compacted to a density of not less than 98 percent of the test section density.

The production density may be checked before or after the finishing operation.

A new test section density may be required if the aggregate material characteristics or the supporting materials change appreciably. The surface of each layer shall be maintained during the compaction operations in such a manner that a uniform texture is produced and the aggregate material is firmly keyed.

Water shall be uniformly applied over the aggregate materials during the compaction operation in the amount necessary to maintain the specified moisture content.

During the test section or the production rolling, if the aggregate material is unstable due to excess moisture, the moisture shall be decreased to secure stability.

The finished surface of this course shall have sufficient stability to support loaded construction equipment used in the construction of this and subsequent courses without rutting or deflection in excess of the

surface tolerances permitted herein.

304.06 Finished Surface. The finished surface shall not vary more than 10 mm (3/8 inch) from a 3.0 m (10 foot) straightedge parallel to the centerline nor more than 13 mm (1/2 inch) from a temporary straightedge, templates or other devices satisfactory to the Engineer and check the surface for conformance with these requirements.

Any irregularities or depressions that develop in the finished surface of the aggregate material shall be corrected by loosening the surface, adding or removing material until the surface presents a smooth regular appearance.

304.07 Method of Measurement. Aggregate base course will be measured by the number of cubic meters (cubic yards) computed from plan lines, compacted in place.

Where variable depth is specified, the number of cubic meters (cubic yards) of aggregate will be measured by conversion from weight on the following basis:

	kg/m <sup>3</sup>	lbs/yd <sup>3</sup>
Crushed stone .....	2375	4000
Crushed gravel .....	2375	4000
Crushed slag, 1450 kg/m <sup>3</sup> (90 lbs. per cu. ft.)* .....	2140	3600
Crushed slag, 1450 to 1600 kg/m <sup>3</sup> (90 to 100 lbs. per cu. ft.)* .....	2375	4000
Crushed slag more than 1600 kg/m <sup>3</sup> (100 per cu. ft.)* .....	2670	4500
Granulated slag .....	1660	2800

\*Based on average dry rodded weight of standard sizes of aggregates on record at the Laboratory.

The kilograms per cubic meter (pounds per cubic yard) for aggregate mixtures shall be determined by the test section density required for 304.05 Compaction.

304.08 Basis of Payment. Payment for accepted quantities complete in place, will be made at contract prices for:

Item	Unit	Description
304	Cubic meter (cubic yard)	Aggregate base

## ITEM 402 ASPHALT CONCRETE

### 402.01 Description

### 402.02 Composition

### 402.13 Spreading and Finishing

### 402.16 Surface Tolerances

### 402.18 Basis of Payment

**402.01 Description.** This work shall consist of constructing an intermediate course of aggregate and asphalt cement mixed in a central plant and spread and compacted on a prepared surface in accordance with these specifications and in reasonably close conformity with the lines, grades and typical sections shown on the plans or established by the Engineer.

The requirements of 401 shall apply; deviations from these are as follows.

The Contractor may use 448 Asphalt Concrete Intermediate Course, Type 2 in lieu of this item if he notifies the District Engineer of Tests in writing.

**402.02 Composition.** Coarse aggregate (No. 57, No. 67, No. 6, No. 8 or a combination thereof) and fine aggregate shall be combined in such proportions that the resulting blend shall be as directed by the Laboratory but within the following limits.

Sieve	Total Percent Passing
37.5 mm (1 1/2 inch)	100
25.0 mm (1 inch)	95-100
12.5 mm (1/2 inch)	60-90
4.75 mm (No. 4)	35-65
1.18 mm (No. 16)	15-45
300 µm (No. 50)	3-22
75 µm (No. 200)	0-8

Bitumen content shall be as directed by the Laboratory within the following limits.

Bitumen (Percent of total mix) 4.0 to 12.0

**402.13 Spreading and Finishing.** Where the mixture is placed for correcting irregularities in the existing pavement, the maximum compacted depth of any one layer shall be 75 mm (3 inches).

**402.16 Surface Tolerances.** The variation of the surface from the testing edge of the 3.0 m (10 foot) straightedge shall not exceed 6 mm (1/4 inch). Variations in excess of slope or surface tolerances shall be corrected by adding or removing material in a manner satisfactory to the Engineer.

**402.18 Basis of Payment.** Payment for accepted quantities, complete in place, will be made at the contract price for:

Item	Unit	Description
402	Cubic meter (cubic yard)	Asphalt concrete

## ITEM 404 ASPHALT CONCRETE

## 404.01 Description

## 404.02 Composition

## 404.12 Conditioning Existing Surface

## 404.13 Spreading and Finishing

## 404.15 Joints

## 404.16 Surface Tolerances

## 404.18 Basis of Payment

404.01 Description. This work shall consist of constructing a surface course of aggregate and asphalt cement mixed in a central plant and spread and compacted on a prepared surface in accordance with these specifications and in reasonably close conformity with the lines, grades and typical sections shown on the plans or established by the Engineer.

The requirements of 401 shall apply; deviations from these are as follows.

The Contractor may use 448 Asphalt Concrete Surface Course, Type 1 in lieu of this item if he notifies the District Engineer of Tests in writing.

404.02 Composition. Coarse aggregate (No. 8) and fine aggregate shall be combined in such proportions that the resulting blend shall be as directed by the Laboratory but within the following limits.

Sieve	Total Percent. Passing
12.5 mm (1/2 inch)	100
9.5 mm (3/8 inch)	90-100
4.75 mm (No. 4)	45-75
1.18 mm (No. 16)	15-45
300 µm (No. 50)	3-22
75 µm (No. 200)	0-8

Bitumen content shall be as directed by the Laboratory within the following limits.

Bitumen (Percent of total mix)	4.5-12.0
--------------------------------	----------

404.12 Conditioning Existing Surface. In areas where the surface is required to be feathered to meet an adjoining surface; the existing surface shall be coated uniformly with a thin coat of asphalt cement as specified.

## 404.13

404.13 Spreading and Finishing. Traffic shall not be permitted on the compacted mixture until it has cooled sufficiently to prevent cracking, as determined by the Engineer.

After completion of the surface course, gutters shall be sealed with asphalt cement as directed by the Engineer. The material shall be applied at a uniform width of approximately 100 mm (4 inches) at a rate just sufficient to fill surface voids.

404.15 Joints. Transverse construction joints shall be formed to a vertical face and coated in accordance with 401.15.

404.16 Surface Tolerances. The completed surface course shall be checked with straightedges and/or rolling straightedges by the Engineer. The variation of the surface course from the testing edge of the (10 foot) straightedge shall not exceed 6 mm (1/4 inch). Variations in excess of slope or surface tolerance shall be corrected by removal of mixture to neat lines and replacement or by surface grinding in a manner satisfactory to the Engineer.

404.18 Basis of Payment. Payment for accepted quantities of work complete in place, will be made at the contract price for:

Item	Unit	Description
404	Cubic meter (cubic yard)	Asphalt concrete

## ITEM 408 PRIME COAT

- 408.01 Description
- 408.02 Bituminous Material
- 408.03 Cover Aggregate
- 408.04 Weather Limitations
- 408.05 Equipment
- 408.06 Preparation of Surface
- 408.07 Application of Bituminous Material
- 408.08 Application of Cover Aggregate
- 408.09 Method of Measurement
- 408.10 Basis of Payment

408.01 Description. This work shall consist of preparing and treating an existing surface with bituminous material, and cover aggregate if required, in accordance with these specifications and in reasonably close conformity with the lines shown on the plans or established by the Engineer.

408.02 Bituminous Material. The bituminous material shall meet the applicable requirements of 702 and shall be one of the following: 702.02 RC-70, RC-250, MC-30, MC-70, or MC-250; or 702.03 Primer 20.

408.03 Cover Aggregate. Cover aggregate shall be No. 9 size 703.05, or 703.06.

408.04 Weather Limitations. Bituminous material shall not be applied on a wet surface. Prime coats for road mix or surface treatment work shall not be applied when the atmospheric temperature is below 10° C (50° F) or when the air temperature within the preceding 24 hours has been 5° C (40° F) or lower. Prime coats on new macadam, stabilized and granular base courses, may be applied when the atmospheric temperature is 5° C (40° F) or higher.

408.05 Equipment. Equipment shall conform to 407.03.

408.06 Preparation of Surface. The surface to be primed shall be shaped to the required grade and section, shall be free from all ruts, corrugations, segregated material or other irregularities and shall be smooth and uniformly compacted at the time of application of the bituminous material. The cleaning shall be done in such manner as to thoroughly remove all mud, earth and other foreign material. The sweeping on a waterbound surface shall be just sufficient to expose the pattern of the coarse aggregate. Special care shall be taken to clean the

edges of road to be primed in order to insure uniform application of bituminous material directly on the existing base or pavement surface. Material cleaned from the surface shall be removed and disposed of as directed by the Engineer.

408.07 Application of Bituminous Material. Bituminous material shall be applied in a uniform continuous spread to the width of section to be primed by means of a pressure distributor conforming to 407.03. When traffic is maintained, not more than one half of the width of the section shall be treated in one application. Care shall be taken that the application of bituminous material at the junction of spread shall not be in excess of the specified amount. Excess bituminous material shall be squeegeed from the surface. Skipped areas or deficiencies shall be corrected.

When traffic is maintained, one-way traffic shall be permitted on the untreated portion of the road bed. As soon as the bituminous material has been absorbed by the surface and will not pick up, traffic shall be transferred to the treated portion and the remaining width of the section shall be primed. The quantity, rate of application, temperature and areas to be treated, shall be approved before application of the prime coat.

408.08 Application of Cover Aggregate. If after the application of the prime coat, the bituminous material fails to penetrate with the required time and the roadway must be used by traffic, cover aggregate shall be spread in the amounts required to absorb any excess bituminous material. The cover aggregate shall be included in the bid price for the bituminous prime coat.

408.09 Method of Measurement. Bituminous material shall be measured by the liter (gallon) in accordance with 109.

408.10 Basis of Payment. Payment for accepted quantities of prime coat in place will be made at the contract price for:

Item	Unit	Description
408	Liter (gallon)	Bituminous prime coat

**OPERATION AND MAINTENANCE AGREEMENT  
REGARDING THE SMITH BROTHERS HARDWARE BUILDING PROPERTY,  
FRANKLIN COUNTY, COLUMBUS, OHIO BETWEEN  
THE OHIO ENVIRONMENTAL PROTECTION AGENCY AND SBHI, INC.**

In consideration of the mutual covenants and provisions contained herein, this Operation and Maintenance Agreement ("Agreement") is entered into by the **DIRECTOR OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY** ("Director") and **SBHI, INC.** ("Owner"), pursuant to Ohio Revised Code ("ORC") Chapter 3746 and Ohio Administrative Code ("OAC") Chapter 3745-300, under the following circumstances and subject to the terms and conditions herein stated:

**TERMS AND CONDITIONS**

1. **The Original NFA Letter.** An original No Further Action Letter (NFA Letter No. 00NFA085; the "NFA Letter") under the Ohio Environmental Protection Agency ("Ohio EPA") Voluntary Action Program ("VAP"), which included an Operation and Maintenance Plan (the "Original O&M Plan"), was submitted to the Ohio EPA Division of Emergency and Remedial Response on behalf of Owner on February 21, 2000, by John C. Muehlenberg, VAP Certified Professional No. 194, for real property located at 580 North Fourth Street, Columbus, Franklin County, Ohio as described in the NFA Letter for such property (the "Property"). The legal description of the Property is included as **Exhibit A** and made a part of this Agreement.
2. **Amendments to Original NFA Letter.** Amendments to the original NFA Letter were submitted to Ohio EPA by John C. Muehlenberg in response to comments from Ohio EPA. The amendments include a new O&M Plan dated June 23, 2000 that wholly replaces the Original O&M Plan. For the purposes of this Agreement, the term "NFA Letter" also includes the amendments to the original NFA Letter and the term "O&M Plan" refers to the O&M Plan dated June 23, 2000.
3. **Requirement for an Operation and Maintenance Agreement.** This Agreement is required for the Property pursuant to ORC 3746.12 and OAC 3745-300-15(A)(2) and 3745-300-15(F)(4).
4. **Remedy for the Property.** The remedy for the Property consists of:
  - (a) An institutional control on the Property in the form of a use restriction restricting the use of the Property to commercial use only (as defined in OAC 3745-300-08(B)(2)(c)(ii)), as described in the Declaration of Use Restriction recorded in the Franklin County Recorder's Office on May 17, 2000 as Instrument #200005170097172, in the Franklin County Deed Records ("Declaration of Use Restriction"); and
  - (b) An engineering control on the Property in the form of asphalt pavement or the reinforced concrete floor of a parking garage, covering one hundred percent (100%) of "Identified Area No. 2" and the portion of "Identified Area No. 1" north of the

Smith Brothers buildings and south of Identified Area No. 2 (as both such "Identified Areas" are described on Figure No. 1 to the O&M Plan, which O&M Plan is attached as Exhibit B to this Agreement).

5. **The Remedy Component Subject to Operation and Maintenance.** The remedy component that requires operation and maintenance consists of the engineering control referenced in the O&M Plan.
6. **Implementation of O&M Plan.** Owner agrees to implement the monitoring of the pavement and/or concrete floor, reporting, record keeping and the other requirements, as set forth in the O&M Plan and this Agreement. The O&M Plan, dated June 23, 2000, is hereby approved and incorporated into this Agreement as if fully rewritten herein. Owner agrees to implement the O&M Plan, upon complete execution of this Agreement and the Director's issuance of a Covenant Not to Sue for the Property pursuant to ORC 3746.12 (the "Covenant").
7. **Effect of Violation of Agreement.** For the purposes of ORC 3746.12(B), this Agreement is an applicable standard upon which the Covenant is based. Failure to comply with the terms contained in this Agreement shall be the failure to maintain an applicable standard in accordance with and subject to ORC 3746.12(B), OAC Chapter 3745-300 and the process outlined in Paragraph 12 of this Agreement, except for noncompliance with an institutional control, which voids the Covenant, as provided in ORC 3746.05.

**Notice to the Director of Transfer/Notice to Transferees.** Prior to a sale or other transfer of the Property, or any portion thereof, Owner agrees to provide written notification to the Director that the Property, or a portion thereof, is being sold or otherwise transferred. This notice to the Director must include the name, address, telephone number and contact person for the transferee, a legal description of the property being transferred if not the entire Property, and the closing date for the transfer of ownership of the Property or portion thereof. Owner agrees to provide written notice to the prospective transferee prior to the execution of any sales contract or other document transferring ownership, for the purchase of the Property, or any portion thereof, that the Property is subject to the Covenant and the obligations imposed by this Agreement, as a term and condition of the Covenant.

9. **Recordation/Effectiveness of Agreement.** Owner agrees to record this Agreement as set forth in the Covenant. This Agreement shall be effective upon the Director's issuance of the Covenant.
10. **Transfer of Agreement & Notice of Agreement Transfer.** Pursuant to ORC 3746.14(C), this Agreement may be transferred by Owner to any other person by assignment or in conjunction with the acquisition of title to the Property to which the Covenant applies. Owner agrees to provide Ohio EPA notice of such transfer.
11. **Modifications.** Except for Minor Modifications discussed below and any modifications proposed by the Director, any proposed Modifications to this Agreement, including the O&M Plan, shall be submitted by Owner to the Director for approval. Modifications include any change to the terms and conditions of this Agreement or the O&M Plan,

including but not limited to the engineering control for the Property and financial assurance. Approval of Modifications is subject to the sole discretion of the Director and must be agreed to by the Director, in writing, prior to implementation. Minor Modifications include non-substantive administrative changes to this Agreement or the O&M Plan, including changes of the contact persons and addresses contained in this Agreement. Minor Modifications shall not include changes to the remedy upon which the Covenant is based, such as changes to the type or location of any engineering or institutional control used at the Property. Owner shall, within fourteen (14) days of implementation of a Minor Modification, provide Ohio EPA notice of any Minor Modification to this Agreement or the O&M Plan.

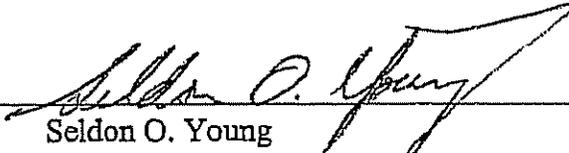
12. **Compliance Schedule Agreement.** Consistent with ORC 3746.12(B), upon a finding that the Property or a portion thereof no longer complies with the applicable standards upon which the issuance of the Covenant was based, Owner will have thirty (30) days from receipt of notice from the Director of such finding to notify the Director of the intention to return the Property or portion thereof to compliance ("cure") with the applicable standards upon which the Covenant was based and enter into a reasonable compliance schedule for such cure with the Director. The process provided in this paragraph shall apply to all activities required in this Agreement and in the O&M Plan except as to the institutional control specified in paragraph 4(a) of this Agreement.
13. **Financial Assurance.** SBHI, its successors and assigns and all subsequent owners of the Property and their heirs, successors and assigns, must maintain an operation and maintenance fund (an "O&M Fund") for the Property in the amount of at least Two Thousand and 00/100 Dollars (\$2,000.00), to ensure that reasonable and adequate funds will be spent, as necessary, to comply with the terms of the O&M Plan and this Agreement. The O&M Fund shall become effective upon the issuance of the Covenant and shall initially consist of a fidelity bond from an insurance company, in the form of Exhibit C, which bond shall be renewed annually. Alternatively, SBHI or any subsequent owners of the Property shall have the right to substitute such fidelity bond with a cash escrow account through a third party financial institution. If maintained in an escrow account, the O&M Fund shall be replenished annually, as necessary, to compensate for operation and maintenance expenditures out of the O&M Fund. Owner shall provide the Director with an annual report of all expenditures for compliance with the terms and conditions of this Agreement, within thirty (30) days of each anniversary date of the Covenant. In the event that the amount or form of financial assurance provided herein is inadequate to comply with the terms and conditions of this Agreement, the Director may require a modification of the terms of this Paragraph.
14. **Inspections by Ohio EPA.** Owner agrees to allow Ohio EPA or its representatives to perform periodic inspections to determine compliance with this Agreement. Such inspections, and any additional inspections or audits by Ohio EPA shall be consistent with ORC Chapter 3746, OAC Chapter 3745-300, and due process considerations, including but not limited to the reasonableness of inspection timing and frequency in accordance with ORC 3746.21.
15. **Document Submittals/Notifications to Parties.** All documents, including but not limited to, notices and reports required to be submitted by Owner pursuant to this Agreement, shall be addressed to:

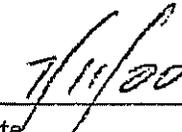
equity. Owner reserves its rights to participate in any appeal by a third party to the Environmental Review Appeals Commission or to any applicable appellate court.

20. **Authorized Signatories.** Each undersigned representative of a party to this Agreement represents that he or she is fully authorized to enter into this Agreement and to legally bind such party to this Agreement.

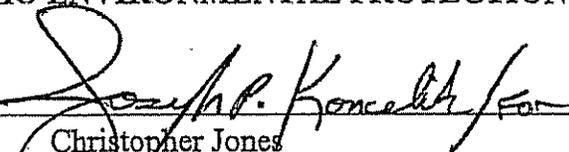
In witness whereof, the parties hereto have entered into this Agreement on the date noted below.

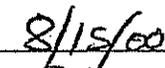
**SBHI, INC.:**

By:   
Seldon O. Young  
Owner

  
Date

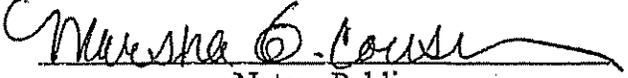
**OHIO ENVIRONMENTAL PROTECTION AGENCY:**

By:   
Christopher Jones  
Director

  
Date

STATE OF OHIO )  
 )SS:  
COUNTY OF FRANKLIN )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of July, 2000, by Seldon B. Young, the President of SBHI, Inc., a Delaware corporation, on behalf of such corporation.

  
Notary Public

**MARSHA D. COUSINO**  
Notary Public, State of Ohio  
My Commission Expires  
10-07-2001

This Instrument Was Prepared by Stephen E. Friedberg, Attorney at Law, State of Ohio, of Wolf, Block, Schorr and Solis-Cohen LLP, 250 Park Avenue, New York, New York 10177.