





## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Scott Hassett, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-0436  
Telephone 414-263-8500  
FAX 414-263-8606  
TTY 711

August 28, 2006

Richard Arnesen  
Hubbard St. Apartments, LLC  
P.O. Box 1547  
Madison, WI 53703

FID# 341102630  
BRRTS# 02-41-533351

Subject: Case Closure for Hubbard Street Apartments, 1830 N. Hubbard St., Milwaukee

Dear Mr. Arnesen:

On July 7, 2006, the Wisconsin Department of Natural Resources (Department) notified you that conditional closure had been granted to the above-referenced site. These conditions were the abandonment of monitoring wells and the disposal of any investigative waste. Based on the correspondence received on August 2, 2006, it appears that you have met the conditions for case closure. The Department considers this case closed and no further investigation or remediation is required at this time.

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Pursuant to s. 292.12(2)(a), Wis. Stats., the pavement, building foundation and soil cover that currently exists in the location shown on the attached map shall be maintained in compliance with the attached maintenance plan in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. If soil in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

Hubbard Street Apartments  
August 28, 2006  
Page 2 of 2

The following activities are prohibited on any portion of the property where pavement, a building foundation, or soil cover is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If your property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line <http://www.dnr.state.wi.us/org/water/dwg/3300254.pdf> or at the web address listed above for the GIS Registry.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Brenda Boyce at (414) 263-8366.

Sincerely,



James A. Schmidt  
Southeast Region Remediation & Redevelopment Team Supervisor

Attachment – Cap Maintenance Plan

cc: Betty Socha – BT<sup>2</sup>, Inc.

# PAVEMENT AND SOIL COVER AND BUILDING BARRIER MAINTENANCE PLAN

December 20, 2005

Property Located at:  
1830 North Hubbard Street, Milwaukee, Wisconsin

WDNR BRRTS #02-41-533351

Parcel 2 of Certified Survey Map No. 7075, recorded on March 15, 2002, Reel 5285, Images 1598 to 1601 as Document No. 8244242, being a division of Lots 1 thru 5 and part of Lots 6 thru 8 in Block 33 in Sherman's Addition, in the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 20 and part of Lot 14 in Block 13 in Park Addition, and part of vacated East Reservoir Avenue in the Southwest  $\frac{1}{4}$  of the Northwest  $\frac{1}{4}$  of Section 21, all in Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

PARCEL ID # 353-1450-7

## Introduction

This document is the Maintenance Plan for a pavement and soil cover and building barrier at the above-referenced property in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing building, soil cover, and paved surfaces occupying the area over the contaminated groundwater plume or soil on-site. The contaminated groundwater plume and soil is impacted by diesel range organics, polynuclear aromatic hydrocarbons (benzo (a)anthracene, benzo (b)fluoranthene, benzo (a)pyrene, dibenzo (a,h)anthracene, indeno (1,2,3-cd)pyrene, 2-methyl naphthalene, naphthalene, and phenanthrene), and metals (arsenic, cadmium, and lead). The location of the paved surfaces and building to be maintained in accordance with this Maintenance Plan, as well as the impacted groundwater and soil, are identified in the attached map (Exhibit A).

## Cover and Building Barrier Purpose

The paved surfaces, soil cover, and the building foundation over the contaminated groundwater and soil serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The paved surfaces and building foundation act as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current and future use of the property, the barrier should function as intended unless disturbed.

## Annual Inspection

The paved surfaces, soil cover, and building foundation overlying the contaminated groundwater and soil and as depicted in Exhibit A will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause additional infiltration into or exposure to underlying soils. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner, and is included as Exhibit B, Cap Inspection Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be sent to the

Wisconsin Department of Natural Resources (“WDNR”) at least annually after every inspection, unless otherwise directed in the case closure letter.

#### Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling operations or they can include larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (“PPE”). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the paved surfaces and/or the building overlying the contaminated groundwater and soil are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor.

The property owner, in order to maintain the integrity of the paved surfaces, soil cover, and/or the building, will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

#### Amendment or Withdrawal of Maintenance Plan

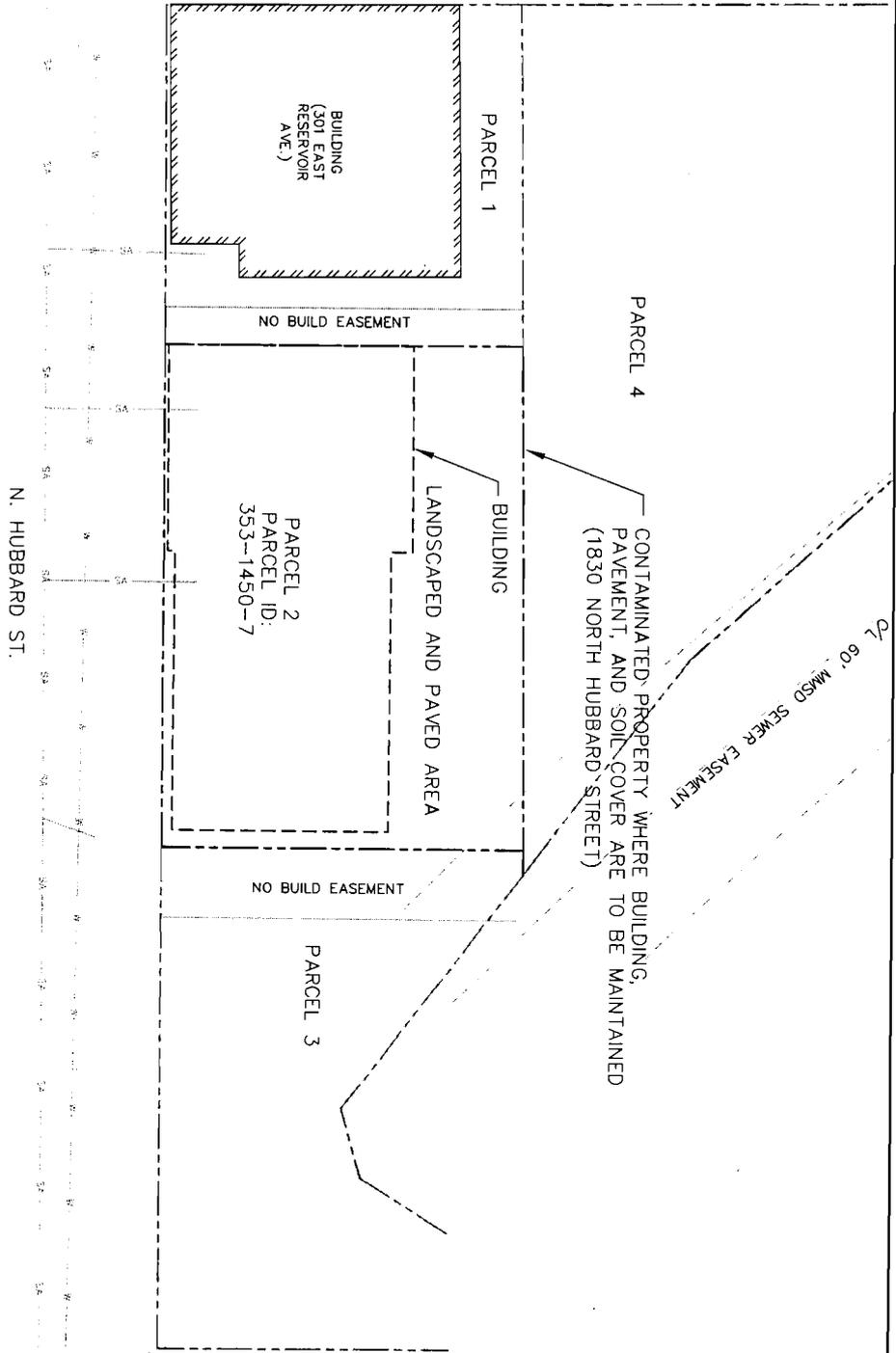
This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of WDNR.

#### Contact Information December 2005

Site Owners:	Mr. Richard B. Arneson Hubbard Street Apartments, LLC 132 E. Wilson Street P.O. Box 1547 Madison, WI 53703 608-251-2399
Consultant:	BT <sup>2</sup> , Inc. 2830 Dairy Drive Madison, WI 53718 608-224-2830
WDNR:	Ms. Pam Mylotta Wisconsin Department of Natural Resources 2300 North Martin Luther King Jr. Drive P.O. Box 12436 Milwaukee, WI 53212

**Exhibit B**  
**Barrier INSPECTION LOG**

<b>Inspection Date</b>	<b>Inspector</b>	<b>Condition of Cap</b>	<b>Recommendations</b>	<b>Have Recommendations from previous inspection been implemented?</b>



PARCEL 4  
CONTAMINATED PROPERTY WHERE BUILDING, PAVEMENT, AND SOIL COVER ARE TO BE MAINTAINED (1830 NORTH HUBBARD STREET)

Q/L 60" MSWD SEWER EASEMENT

BUILDING (301 EAST RESERVOIR AVE.)

PARCEL 1

NO BUILD EASEMENT

BUILDING  
LANDSCAPED AND PAVED AREA

PARCEL 2  
PARCEL ID: 353-1450-7

NO BUILD EASEMENT

PARCEL 3

N. HUBBARD ST.

EAST VINE STREET



LEGEND

- APPROXIMATE PROPERTY BOUNDARIES
- PROPERTY LINE
- SANITARY SEWER
- WATER

NOTES:

1. MAP ADAPTED FROM HUBBARD STREET LOFTS PRELIMINARY DESIGN MAP BY MILLER ARCHITECTURAL GROUP, INC., JULY 27, 2003.

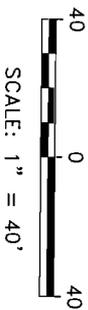


EXHIBIT A  
AREAS TO BE MAINTAINED  
HUBBARD STREET APARTMENTS, LLC.  
1830 NORTH HUBBARD STREET  
MILWAUKEE, WISCONSIN

PROJECT NO. 2670A
DRAWN BY: KP
CHECKED BY: JM
APPROVED BY:
DRAWN: 12/13/05
REUSED: 12/13/05



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Scott Hassett, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-0436  
Telephone 414-263-8500  
FAX 414-263-8606  
TTY 711

July 7, 2006

Richard Arnesen  
Hubbard St. Apartments, LLC  
P.O. Box 1547  
Madison, WI 53703

FID# 341102630  
BRRTS# 02-41-533351

Subject: Conditional Closure for Hubbard Street Apartments, 1830 N. Hubbard St., Milwaukee

Dear Mr. Arnesen:

On June 29, 2006, the Wisconsin Department of Natural Resources (Department) received the report entitled *Additional Groundwater Investigation, Engineered Barrier Documentation and Second Request for Case Closure* for the above-referenced site. Based on the correspondence and data provided, the Department has determined that the petroleum, metals, and chlorinated solvent contamination on the site from the fill material appears to have been investigated and remediated to the extent practicable under site conditions. Your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

- The monitoring wells at the site must be properly abandoned in compliance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to Ms. Victoria Stovall on Form 3300-5B found at [www.dnr.state.wi.us/org/water/dwg/gw/](http://www.dnr.state.wi.us/org/water/dwg/gw/) or provided by the Department of Natural Resources.
- Any remaining waste (soil piles, drilling spoil, and/or purge water) generated as part of site investigation or remediation activities must be removed from the site and disposed of or treated in accordance with Department of Natural Resources' rules. Please send a letter advising me that any remaining waste has been removed once that work is completed.

When the above conditions have been satisfied, please submit a letter to let me know that applicable conditions have been met, and your case will be closed. We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (414) 263-8366 or (262) 574-2140.

Sincerely,

Brenda H. Boyce, PG  
Hydrogeologist  
Bureau for Remediation & Redevelopment

c: Betty Socha – BT<sup>2</sup>, Inc.



## EXHIBIT A

Parcel 2 of Certified Survey Map No. 7075, recorded on March 15, 2002, Reel 5285, Images 1598 to 1601 as Document No. 8244242, being a division of Lots 1 thru 5 and part of Lots 6 thru 8 in Block 33 in Sherman's Addition, in the Southeast 1/4 of the Northeast 1/4 of Section 20 and part of Lot 14 in Block 13 in Park Addition, and part of vacated East Reservoir Avenue in the Southwest 1/4 of the Northwest 1/4 of Section 21, all in Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

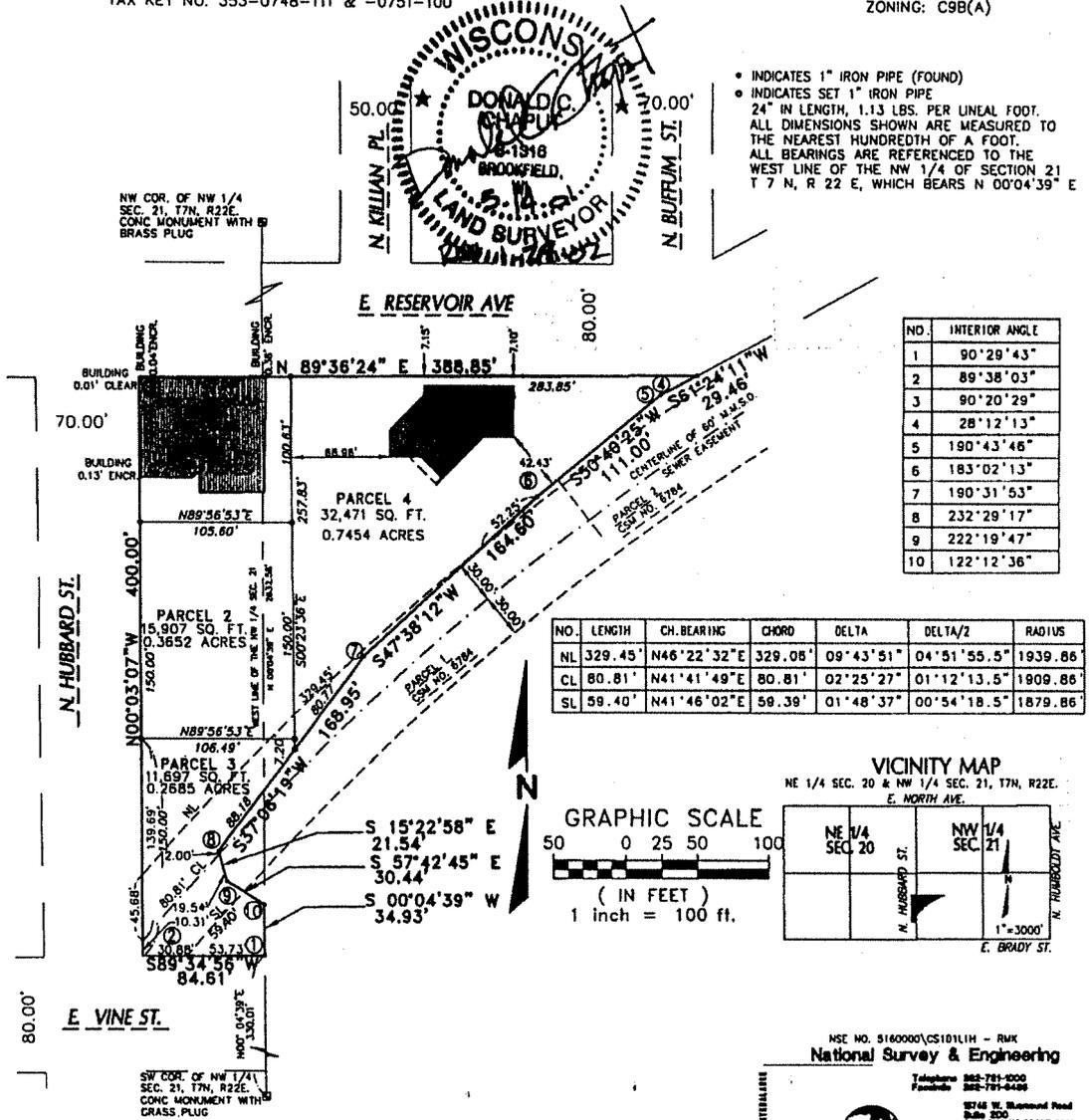
DCD #2163

# CERTIFIED SURVEY MAP NO. 7075

A DIVISION OF LOTS 1 THRU 5 AND PART OF LOTS 6 THRU 8 IN BLOCK 33 IN SHERMAN'S ADDITION, IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 20 AND PART OF LOT 14 IN BLOCK 13 IN PARK ADDITION, AND PART OF VACATED EAST RESERVOIR AVENUE IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, ALL IN TOWNSHIP 7 NORTH, RANGE 22 EAST, IN THE CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.

TAX KEY NO. 353-0748-111 & -0751-100

ZONING: C9B(A)



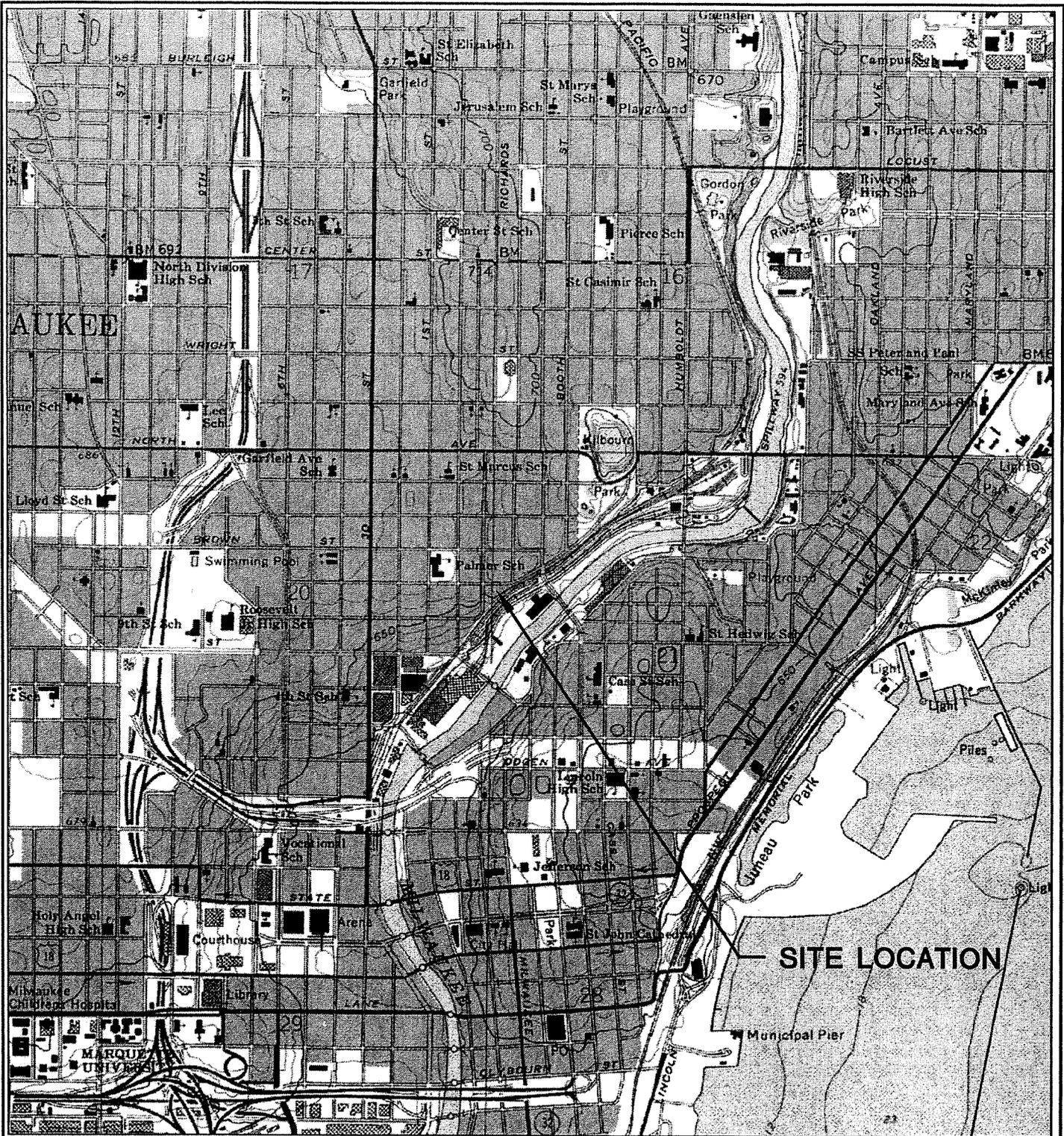
REEL 5285  
IMAGE 1598

INFRASTRUCTURE SERVICES DIVISION  
*Marcia Rindholm* 2/6/02  
 CENTRAL DRAFTING & RECORDS MANAGER  
*Martin Cegina* 2/6/02  
 ENGR. IN CHARGE ENVIRON. ENGR.  
**CORRECT**  
*Jeffrey S. Plank* 2/6/02  
 CITY ENGINEER  
**APPROVED**

DEPARTMENT OF CITY DEVELOPMENT  
 CITY OF MILWAUKEE  
 DEC 10 2001  
*[Signature]*  
**STAFF APPROVED**

NSE NO. 5160000/CS10111H - RMK  
**National Survey & Engineering**  
 Telephone 882-791-0000  
 Facsimile 882-791-4100  
 8748 W. Blommond Road  
 Suite 200  
 Brookfield, WI 53005-9904  
 www.nse.com

SHEET 1 OF 4

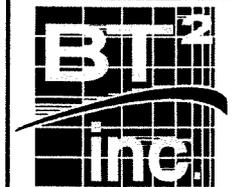


MILWAUKEE QUADRANGLE  
 WISCONSIN-MILWAUKEE CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)  
 SW/4 MILWAUKEE 15' QUADRANGLE  
 1971  
 SCALE: 1" = 2,000'

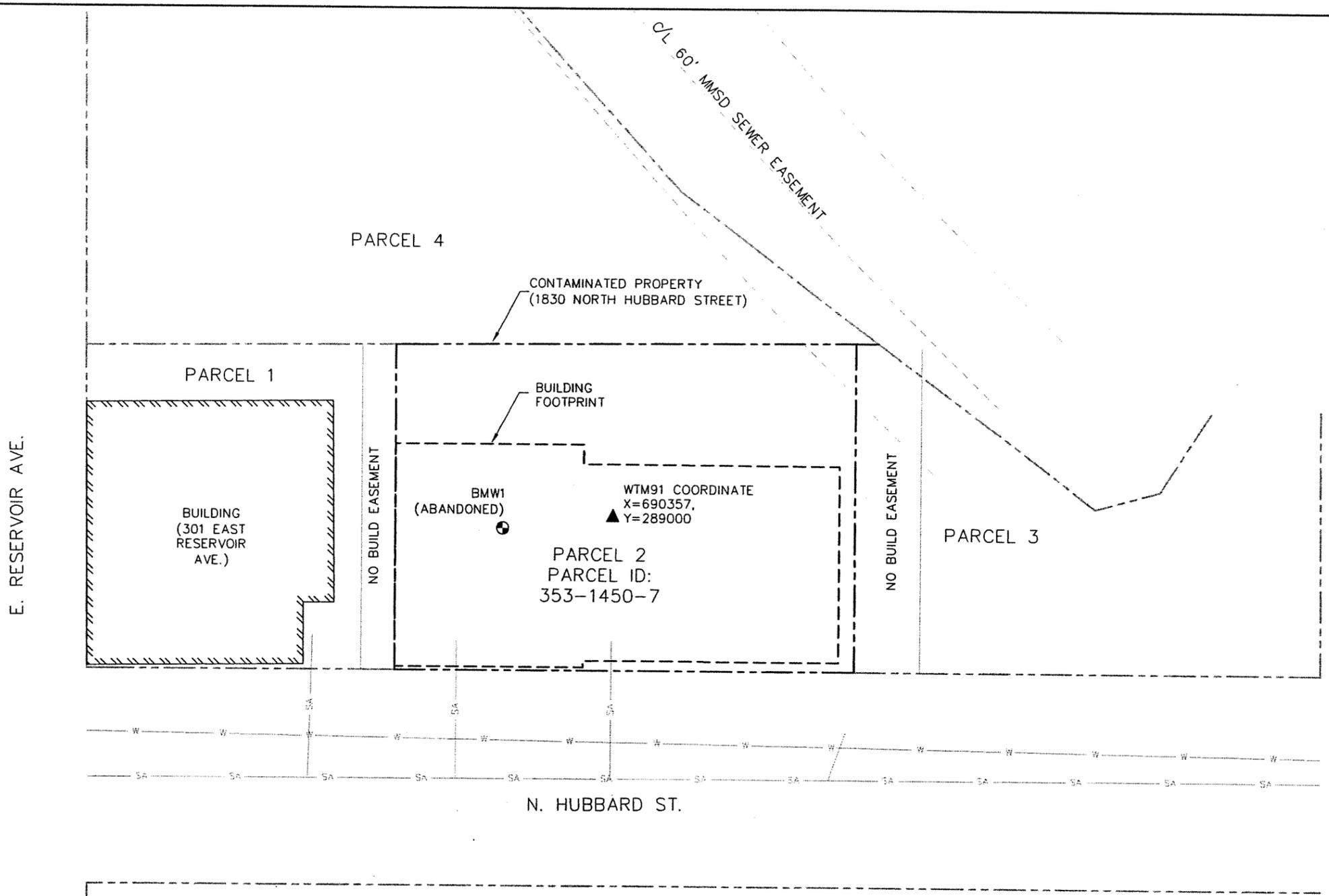


PROJECT NO. 2670
DRAWN BY: KP
CHECKED BY: JM
APPROVED BY:
DRAWN: 05/17/04
REVISED: 04/15/05

FIGURE A-2  
 SITE LOCATION MAP  
 HUBBARD STREET APARTMENTS, LLC.  
 1830 NORTH HUBBARD STREET  
 MILWAUKEE, WISCONSIN



1:\2670\figures-general\CLOSURE\CONTAMINATED PROP.dwg, 12/19/2005 3:08:57 PM



LEGEND

	APPROXIMATE PROPERTY BOUNDARIES
	PROPERTY LINE
	SANITARY SEWER
	WATER
	MONITORING WELL

- NOTES:
1. MAP ADAPTED FROM HUBBARD STREET LOFTS PRELIMINARY DESIGN MAP BY MILLER ARCHITECTURAL GROUP, INC., JULY 27, 2003.
  2. WTM-91 COORDINATE LOCATION IS APPROXIMATE.

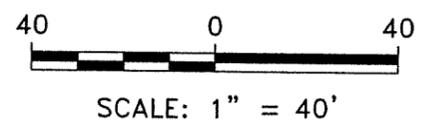


FIGURE A-3  
MAP OF CONTAMINATED PROPERTY  
HUBBARD STREET APARTMENTS, LLC.  
1830 NORTH HUBBARD STREET  
MILWAUKEE, WISCONSIN

PROJECT NO. 2670A	
DRAWN BY: KP	
CHECKED BY: JM	
APPROVED BY:	
DRAWN: 12/13/05	
REVISED: 12/13/05	

**Table C-1**  
**Excavation Soil Sample Field Screening Summary**  
**Hubbard Street Apartments, LLC**  
**1830 N. Hubbard Street, Milwaukee, WI**  
**BT<sup>2</sup> Project #2670A**

Sample	Date	Sample* Elevation (ft)	PID
S4	11/2/2004	58	55
S5	11/2/2004	58	2
S6	11/2/2004	58	132
S7	11/2/2004	58	110
S8	11/2/2004	58	3
S9	11/2/2004	58	102
S10	11/2/2004	57	157
S11	11/2/2004	58	2
S12	11/2/2004	62	0.8
S13	11/2/2004	62	1
S14	11/2/2004	62	3
S15	11/2/2004	62	1
S16	11/2/2004	62	2
S17	11/2/2004	60	1
S18	11/2/2004	59	2
S19	11/2/2004	58	0-1
S20	11/2/2004	58	0
S21	11/2/2004	57	1
S22	11/2/2004	57	0
S23	11/2/2004	57.5	1
S24	11/2/2004	58	8
S25	12/21/2004	50.5	1
S26	12/21/2004	50.5	1
S27	12/21/2004	50	1.1
S28	12/21/2004	52.5	1
S29	2/21/2004	48.5	2.6
S30	12/21/2004	48.5	0.7
S31	12/21/2004	52	1
S32	12/21/2004	50.5	1
S33	12/21/2004	52.5	1
S34	12/21/2004	50.5	1
S35	12/21/2004	52	1
S36	12/21/2004	52	1
S37	1/20/2005	50.5	0
S38	1/20/2005	50.5	0
S39	1/20/2005	50.5	0
S40	1/20/2005	50.5	0
S41	1/20/2005	50.5	0
S42	1/20/2005	50.5	0
S43	1/20/2005	50.5	0
S44	1/20/2005	49	0
S45	1/20/2005	50	0

**ABBREVIATION:**

PID = Photo-Ionization Detector

\* Relative to site data. See Figure A-4.

Created by: LMH 4/18/05

Checked by: TJK 04/18/05

I:\2670\Tables-General\[Soil\_PID.xls]Sheet1

**Table C-2**  
**Soil Analytical Results Summary - VOCs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670**  
(Results are in µg/kg, except where noted otherwise)

Sample	Original Surface Elevation (ft)	Date	Sample Elevation (ft)	PID	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	Naphthalene	TCE	PCE	Other VOCs
BGB1 S2	56.5	5/10/2004	52.5-54.5	0	(1)	<5.5	NA	<27	<27	<27	<38	<27	<27	<27	ND
BGB2 S2	55.5	5/10/2004	51.5-53.5	0	(1)	<5.6	NA	<28	<28	<28	<39	<28	<28	<28	ND
BGB4 S4	60.5	5/10/2004	52.5-54.5	1	(1)	6.9	NA	<28	<28	<28	<39	<28	<28	<28	ND
BGB6 S2	64.5	5/10/2004	60.5-62.5	1	(1)	NA	NA	<28	<28	124	135	<28	157	<28	ND
BGB6 S6	64.5	5/10/2004	52.5-54.5	2	(1)	NA	NA	<28	<28	41	57	110	<28	<28	ND
BGB7 S2	66.5	5/10/2004	62.5-64.5	1	(1)	NA	NA	<28	54	158	926	<28	100	<28	ND
BGB7 S6	66.5	5/10/2004	54.5-56.5	1	(1)	741 H	NA	<34	<34	<34	<47	<34	203	<34	ND
BGB8 S3	60.5	5/10/2004	54.5-56.5	0	(1)	NA	NA	<31	<31	<31	<43	<31	<31	<31	ND
BGB9 S1	69.5	5/10/2004	67.5-69.5	0	--	741 H	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
BGB9A S3	68	5/10/2004	62-64	1	(1)	NA	NA	<30	<30	<30	96	41	<30	<30	ND
BGB9A S9	68	5/10/2004	50-52	1	(1)	205	NA	<30	<30	<30	542	30	<30	<30	ND
BMW1 S7	65	5/10/2004	51-53	1	(1)	28 H	NA	<30	<30	<30	<41	<30	<30	<30	ND
GP1	67.5	1/8/1999	59.5-61.5	--	--	NA	NA	<25	<25	<25	<75	37	160	<25	ND
GP2	66.5	1/8/1999	58.5-60.5	15.1	--	NA	NA	<25	<25	<25	<50	<25	<25	<25	ND
GP3	59	1/8/1999	53-55	10	--	NA	NA	<25	<25	<25	<50	<25	<25	<25	ND
GP4	59.5	1/8/1999	49.5-51.5	9.2	--	NA	NA	<25	<25	<25	<50	<25	<25	<25	ND
GP5	60.5	1/8/1999	54.5-56.5	12.5	--	NA	NA	<25	<25	<25	<50	31	270	<25	n-Butylbenzene 32 1,3,5-Trimethylbenzene 28
HSA1	-63.5	1999	57.5-59.5	13.7	--	NA	NA	26	<25	<25	<50	<25	120	<25	cis-1,2-Dichloroethene 54
		1999	21.5-23.5	15.8	--	NA	NA	<25	<25	<25	<50	<25	<25	82	ND
HSA2	-60	1/12/1999	40-38	20.5	--	NA	NA	<25	<25	<25	<50	<25	<25	<25	p-Isopropyltoluene 140
		1/12/1999	30-28	29.8	--	NA	NA	<25	<25	<25	<50	<25	<25	<25	ND
		1/12/1999	20-18	42.2	--	NA	NA	<25	<25	<25	<50	<25	<25	<25	n-Butylbenzene 47 n-Propylbenzene 28
S10	67	11/2/2004	57	157	--	4,930	NA	<300	469	<300	<421	13,200	<300	<300	1,3,5-Trimethylbenzene 33
															sec-Butylbenzene 721
															Isopropylbenzene 913
															p-Isopropyltoluene 781
															n-Propylbenzene 769
1,2,4-Trimethylbenzene 3,370															
1,3,5-Trimethylbenzene 1,440															
S20	66	11/2/2004	58	0	(2)	NA	NA	<25	<25	194	<25	104	174	<25	p-Isopropyltoluene 336
S21	65.5	11/2/2004	57	1	(2)	NA	NA	<25	<25	737	<25	<25	<25	<25	ND

**Table C-2**  
**Soil Analytical Results Summary - VOCs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670**  
(Results are in µg/kg, except where noted otherwise)

Sample	Original Surface Elevation (ft)	Date	Sample Elevation (ft)	PID	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	Naphthalene	TCE	PCE	Other VOCs
S22	65.5	11/2/2004	57	--	(2)	NA	NA	<25	<25	<25	<25	<25	<25	<25	ND
S23	63.5	11/2/2004	57.5	1	(2)	NA	NA	<25	<25	<25	<25	<25	<25	<25	ND
S25	64	12/21/2004	50.5	1	(3)	NA	NA	<39	<39	<39	<54	53	<39	<39	ND
S26	65.5	12/21/2004	50.5	1	(3)	NA	NA	<28	<28	<28	<39	256	<28	<28	ND
S28	67	12/21/2004	52.5	1	(4)	NA	NA	<31	<31	<31	309	35	1,190	<31	Isopropylbenzene 57 1,2,4-Trimethylbenzene 124 1,3,5-Trimethylbenzene 136
S31	60.5	12/21/2004	52	1	(3)	NA	NA	<29	<29	<29	<41	<29	<29	<29	ND
S32	62	12/21/2004	50.5	1	(3)	NA	NA	<30	<30	<30	<41	<30	<30	<30	ND
S33	59.5	12/21/2004	52.5	1	(3)	NA	NA	<27	<27	<27	<38	<27	<27	<27	ND
S34	60.5	12/21/2004	50.5	1	(3)	NA	NA	<28	<28	<28	<39	178	<28	<28	ND
S35	60	12/21/2004	52	1	(4)	NA	NA	<28	<28	<28	<39	213	40	<28	ND
S36	60.5	12/21/2004	52	1	(4)	NA	NA	<29	<29	<29	<40	<29	67	<29	ND
S37	56.5	1/20/2005	50.5	0	--	NA	NA	<29	<29	<29	<41	100	<29	<29	ND
S38	59.5	1/20/2005	50.5	0	--	NA	NA	<30	<30	<30	<42	32	<30	<30	ND
S39	55	1/20/2005	50.5	0	--	NA	NA	<29	<29	<29	<40	61	30	<29	ND
S40	55.5	1/20/2005	50.5	0	--	NA	NA	<29	<29	<29	<41	32	<29	<29	ND
S41	56.5	1/20/2005	50.5	0	--	NA	NA	<28	<28	<28	<39	<28	<28	<28	ND
S42	54.5	1/20/2005	50.5	0	--	NA	NA	<28	<28	<28	<40	<28	<28	<28	ND
S43	54.5	1/20/2005	50.5	0	--	NA	NA	<28	<28	<28	<40	40	<28	<28	Methylene chloride 215.1
S44	54.5	1/20/2005	49	0	--	NA	NA	<26	<26	<26	<37	<26	<26	<26	Methylene chloride 100.1
S45	57	1/20/2005	50	0	--	NA	NA	<33	<33	<33	<46	49	<33	<33	Methylene chloride 130.1
MeOH Blank	--	5/10/2004	--	--	(1)	NA	NA	<25	<25	<25	<35	<25	<25	<25	ND
	--	12/21/2004	--	--	(3)	NA	NA	<25	<25	<25	<35	<25	<25	<25	ND
	--	1/20/2005	--	--	--	NA	NA	<25	<25	<25	<35	<25	<25	<25	ND
NR 720 Residual Contaminant Level (RCL)						100	100	5.5	2,900	1,500	4,100	NE	NE	NE	NE
NR 746 Table 1						NE	NE	8,500	4,600	38,000	42,000	2,700	NE	NE	1,3,5-Trimethylbenzene 11,000
NR 746 Table 2						NE	NE	1,100	NE	NE	NE	NE	NE	NE	NE

**Table C-2**  
**Soil Analytical Results Summary - VOCs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670**  
(Results are in µg/kg, except where noted otherwise)

ABBREVIATIONS:

µg/kg = micrograms per kilogram or parts per billion (ppb)  
DRO = Diesel Range Organics  
PCE = Tetrachloroethene  
ND = Not Detected  
NE = Not Established  
bgs = below the ground surface  
-- Not Applicable

mg/kg - milligrams per kilogram or parts per million (ppm)  
GRO = Gasoline Range Organics  
VOCs = Volatile Organic Compounds  
PID = Photo-Ionization Detector  
TCE = Trichloroethene  
NA = Not Analyzed

NOTES:

**Bold** values exceed NR 720 RCLs.

NR 720 RCL - Wisconsin Administrative Code (WAC), Chapter NR 720 Residual Contaminant Level.

NR 746 Table 1 - WAC, Chapter NR 746.06(2)(b) Table 1 - Indicators of Residual Petroleum Product in Soil Pores.

NR 746 Table 2 - WAC, Chapter NR 746.06(2)(b) Table 2 - Protection of Human Health from Direct Contact with Contaminated Soil.

Samples GP1 through GP5, and HSA1 and HSA2 obtained by Sigma Environmental Services, Inc. All other soil samples obtained by BT<sup>2</sup>, Inc. Surface and sample elevations are relative to base map site datum (see Figure 2).

LABORATORY NOTES:

(1) Dichlorodifluoromethane analysis - Standard outside of control limits.

(2) VOCs Analyses - The result for one or more quality control measurements associated with this sample did not meet the laboratory and/or source method acceptance criteria.

Also please note that the chain of custody (COC) included with the report is considered part of the report. The data user should review any comments or notes made on the COC.

Any receipt issues found by the laboratory that are noted on the COC will be stated. Any receipt issues found by the laboratory that are noted on the COC will be stated.

(3) Trichlorofluoromethane analysis - Standard outside of control limits.

(4) Trichlorofluoromethane and surr: toluene-d8 analyses - Standard outside of control limits.

H = Late eluting hydrocarbons present.

L = Common lab solvent.

Created by: JSP 5/17/04

Checked by: JMM 5/27/04; LMH 4/19/05

I:\2670\Tables-General\Soil\_VOCs.xls\Soil VOCs

**Table C-3**  
**Soil Analytical Results Summary - Metals**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670**  
(Results are in mg/kg)

Sample	Date	Original Surface (ft)	Sample Elevation (ft)	Lab Notes	Arsenic	Barium	Cadmium	Chromium	Chromium, hexavalent	Lead	Mercury	Selenium	Silver
BGB2 S2	05/10/04	55.5	51.5-53.5	--	6.5	35	0.99	13	<0.1	45 M	0.090	<6.2 D	<0.18 D
BGB4 S4	05/10/04	60.5	52.5-54.5	--	9.4	36	1.1	9.6	<0.1	42	0.11	<6.2 D	<0.18 D
BGB5 S3	05/10/04	63.5	57.5-59.5	--	5.1	73	1.4	6.6	<0.1	37	0.046	<6.9 D	<0.20 D
BGB6 S2	05/10/04	64.5	60.5-62.5	--	7.0	72	9.9	60	<0.1	270	0.16	<6.3 D	<0.18 D
BGB7 S2	05/10/04	66.5	62.5-64.5	--	5.9	64 M	16	38 M	<0.1	203 M	0.15	<6.3 D	<0.18 D
BGB7 S6	05/10/04	66.5	54.5-56.5	--	110	93	0.59	18	<0.1	284	0.27	<7.6 D	<0.22 D
BGB9A S3	05/10/04	68	62-64	--	10	69	3.7	31	<0.1	191	0.13	<6.7 D	<0.19 D
BGB9A S9	05/10/04	68	50-52	--	4.9	67	1.2	8.0	<0.1	70	0.12	<6.7 D	<0.19 D
BMW1 S7	05/10/04	65	51-53	--	11	66	15	40	<0.1	213	0.21	<6.6 D	<0.19 D
GP1	01/08/99	67.5	59.5-61.5	--	NA	NA	<1.2	11.0	NA	NA	NA	NA	NA
GP2	01/08/99	66.5	58.5-60.5	--	NA	NA	<1.2	11.0	NA	NA	NA	NA	NA
GP3	01/08/99	59	53-55	--	NA	NA	<1.2	13	NA	NA	NA	NA	NA
GP4	01/08/99	59.5	49.5-51.5	--	NA	NA	<1.2	13	NA	NA	NA	NA	NA
GP5	01/08/99	60.5	54.5-56.5	--	NA	NA	<1.2	7.6	NA	NA	NA	NA	NA
HSA1	1999	63.5	57.5-59.5	--	NA	NA	<1.2	8.9	NA	NA	NA	NA	NA
	1999	63.5	21.5-23.5	--	NA	NA	<1.2	15	NA	NA	NA	NA	NA
HSA2	01/12/99	~60	38-40	--	NA	NA	<1.2	8.4	NA	224	NA	NA	NA
	01/12/99	~60	28-30	--	NA	NA	<1.2	14	NA	13	NA	NA	NA
	01/12/99	~60	18-20	--	NA	NA	<1.2	7.2	NA	<6	NA	NA	NA
S1	10/25/04	54	53.5	--	4	NA	NA	NA	NA	69.1	NA	NA	NA
S2	10/25/04	61.5	61	--	7.57	NA	NA	NA	NA	110	NA	NA	NA
S3	10/25/04	62.5	62	--	2.69	NA	NA	NA	NA	537	NA	NA	NA
S10	11/02/04	67	57	--	7.6	NA	NA	NA	NA	61	NA	NA	NA
S19	11/02/04	66.5	58	--	42.5	NA	<0.65	47.3	NA	190 QC	NA	NA	NA
S20	11/02/04	66	58	--	6.13	NA	<0.607	6.59	NA	435 QC	NA	NA	NA
S21	11/02/04	65.5	57	--	6.07	NA	<0.639	12.5	NA	28.4 QC	NA	NA	NA
S22	11/02/04	65.5	57	--	<2.89	NA	<0.578	12.1	NA	6.33 QC	NA	NA	NA
S23	11/02/04	63.5	57.5	--	<2.72	NA	<0.545	10.3	NA	7.86 QC	NA	NA	NA
S25	12/21/04	64	50.5	--	7.9	NA	1.2	4.6	NA	17	NA	NA	NA
S26	12/21/04	65.5	50.5	--	5.8	NA	1.3	11	NA	48	NA	NA	NA
S28	12/21/04	67	52.5	--	5.4	NA	1.4	12	NA	11	NA	NA	NA
S31	12/21/04	60.5	52	--	4.5	NA	1.2	8.1	NA	71	NA	NA	NA
S32	12/21/04	62	50.5	--	9.6	NA	1.3	6.5	NA	154	NA	NA	NA

**Table C-3**  
**Soil Analytical Results Summary - Metals**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670**  
(Results are in mg/kg)

Sample	Date	Original Surface (ft)	Sample Elevation (ft)	Lab Notes	Arsenic	Barium	Cadmium	Chromium	Chromium, hexavalent	Lead	Mercury	Selenium	Silver
S33	12/21/04	59.5	52.5	--	<b>8.3</b>	NA	1.2	7.0	NA	8.5	NA	NA	NA
S34	12/21/04	60.5	50.5	--	<b>3.2</b>	NA	1.3	9.7	NA	42	NA	NA	NA
S35	12/21/04	60	52	--	<b>6.2</b>	NA	1.3	9.1	NA	49	NA	NA	NA
S36	12/21/04	60.5	52	--	<b>7.8</b>	NA	1.4	15	NA	15	NA	NA	NA
S37	01/20/05	56.5	50.5	--	<b>11</b>	NA	1.9	5.9	NA	26	NA	NA	NA
S38	01/20/05	59.5	50.5	--	<b>12</b>	NA	2.4	2.7	NA	20	NA	NA	NA
S39	01/20/05	55	50.5	--	<b>8.3</b>	NA	1.4	4.6	NA	21	NA	NA	NA
S40	01/20/05	55.5	50.5	--	<b>8.3</b>	NA	1.7	11	NA	11	NA	NA	NA
S41	01/20/05	56.5	50.5	--	<b>7.1</b>	NA	1.5	10	NA	43	NA	NA	NA
S42	01/20/05	54.5	50.5	--	<b>6.0</b>	NA	1.4	15	NA	7.4	NA	NA	NA
S43	01/20/05	54.5	50.5	--	<b>6.0</b>	NA	1.5	11	NA	<b>57</b>	NA	NA	NA
S44	01/20/05	54.5	49	--	<b>9.2 M</b>	NA	1.7 M	3.0 M	NA	5.2 M	NA	NA	NA
S45	01/20/05	57	50	--	<b>12</b>	NA	<b>130</b>	72	NA	<b>456</b>	NA	NA	NA
NR 720 RCLs Non-Industrial					0.039	NE	8	16,000*	14	50	NE	NE	NE
NR 720 RCLs Industrial					1.6	NE	510	na*	200	500	NE	NE	NE

**ABBREVIATIONS:**

mg/kg - milligrams per kilogram or parts per million (ppm)

NA = Not Analyzed

NE = No Standard Established

-- = Not Applicable

**NOTES:**

\* Chromium, trivalent non-industrial = 16,000 mg/kg; industrial = na = not applicable.

**Bold** values exceed NR 720 RCLs.

NR 720 RCLs Non-Industrial = NR 720 Table 2 Residual Contaminant Levels (RCLs) Based On Human Health Risk From Direct Contact Related To Land Use for Non-Industrial.

NR 720 RCLs Industrial = NR 720 RCLs Table 2 Based On Human Health Risk From Direct Contact Related To Land Use for Industrial.

Samples GP1 through GP5, and HSA1 and HSA2 obtained by Sigma Environmental Services, Inc. All other soil samples obtained by BT<sup>2</sup>, Inc.

**LABORATORY NOTES:**

D = Diluted for analysis.

M = Matrix interference.

QC = The result for one or more quality control measurements associated with this sample did not meet the laboratory and/or source method acceptance criteria.

Created by: JSP 5/17/04

Checked by: BJS 5/17/04; JMM 5/27/04; LMH 4/19/05

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**Table C-4**  
**Soil Analytical Results Summary - PAHs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI BT<sup>2</sup> Project #2670**  
 (Results are in µg/kg, except where noted otherwise)

Sample	Date	Original Surface (ft)	Sample Elevation (ft)	Lab Notes	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(ghi)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
BGB2 S2	5/10/2004	55.5	51.5-53.5	--	<56	<96	<5.6	18	13	8.2	18	15	17	<8.4	44	<11	11	<34	<28	<34	22	11
BGB5 S3	5/10/2004	63.5	57.5-59.5	--	<62	<110	8.2	21	14	9.2	20	25	16	<9.3	58	<12	15	<37	<31	<37	40	55
BGB9A S9	5/10/2004	68	50-52	--	<60	<100	133	410	265	181	422	386	349	69	976	55	289	<36	<30	<36	554	843
BMW1 S7	5/10/2004	65	51-53	--	<59	<100	64	130	86	58	142	82	110	20	331	30	75	<36	154	51	237	260
S10	11/2/2004	67	57	--	3,370 M	<500 M	781 M	421 M	120 M	97 M	180 M	132 M	228 M	35 M	1,440 M	3,490 M	120 M	14,400 M	20,400 M	1,110 M	3,120 M	601 M
S19	11/2/2004	66.5	58	--	<130 QC	<260 QC	<130 QC	<65 QC	<65 QC	<130 QC	19.9 QC	<130 QC	<130 QC	<6.50 QC	195 QC	<130 QC	<65 QC	<130 QC	<130 QC	<130 QC	<130 QC	<130 QC
S20	11/2/2004	66	58	(1)	1,600 QC	300 QC	572 QC	1,080 QC	1,040 QC	515 QC	1,130 QC	775 QC	1,010 QC	26.1 QC	3,290 QC	295 QC	895 QC	296 QC	245 QC	<121 QC	1,910 QC	3,490 QC
S21	11/2/2004	65.5	57	--	<128 QC	<256 QC	<128 QC	<63.9 QC	<63.9 QC	<128 QC	<6.39 QC	<128 QC	<128 QC	<6.39 QC	<128 QC	<128 QC	<63.9 QC	<128 QC	<128 QC	<128 QC	<128 QC	<128 QC
S22	11/2/2004	65.5	57	--	<116 QC	<231 QC	<116 QC	<57.8 QC	<57.8 QC	<116 QC	<5.78 QC	<116 QC	<116 QC	<5.78 QC	<116 QC	<116 QC	<57.8 QC	<116 QC	<116 QC	<116 QC	<116 QC	<116 QC
S23	11/2/2004	63.5	57.5	--	<109 QC	<218 QC	<109 QC	<54.5 QC	<54.5 QC	<109 QC	<5.45 QC	<109 QC	<109 QC	<5.45 QC	<109 QC	<109 QC	<54.5 QC	<109 QC	<109 QC	<109 QC	<109 QC	<109 QC
S25	12/21/2004	64	50.5	--	<77	<130	26	59	23	28	57	42	43	<12	150	20	40	<46	<39	<46	130	130
S26	12/21/2004	65.5	50.5	--	90	<95	110	133	68	56	100	67	110	10	389	83	69	<33	356	76	445	267
S28	12/21/2004	67	52.5	--	<62	<110	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<9.3	<12	<12	<6.2	<37	<31	<37	<6.2	<6.2
S31	12/21/2004	60.5	52	--	<58	<98	13	42	23	19	32	29	32	<8.7	100	<12	24	<35	<29	<35	66	68
S32	12/21/2004	62	50.5	--	<59	<100	47	142	85	71	130	93	118	25	390	30	91	<35	201	130	236	296
S33	12/21/2004	59.5	52.5	--	<55	<93	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<8.2	<11	<11	<5.5	<33	<27	<33	<5.5	<5.5
S34	12/21/2004	60.5	50.5	--	<56	<95	29	41	18	19	30	22	28	<8.4	111	26	24	<33	<28	<33	111	89
S35	12/21/2004	60	52	--	146	<95	258	258	180	146	269	202	236	28	988	123	202	<34	584	<34	954	920
S36	12/21/2004	60.5	52	--	<57	<98	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<8.6	<11	<11	<5.7	<34	<29	<34	<5.7	<5.7
S37	1/20/2005	56.5	50.5	--	59	<99	128	151	56	50	98	76	140	9.3	384	76	73	61	279	63	407	384
S38	1/20/2005	59.5	50.5	--	<60	<100	18	31	18	12	24	18	25	<8.9	84	12	18	<36	<30	<36	68	54
S39	1/20/2005	55	50.5	--	<57	<97	45	62	33	24	47	33	53	<8.6	171	26	32	<34	<29	<34	148	160
S40	1/20/2005	55.5	50.5	--	<58	<98	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<8.7	<12	<12	<5.8	<35	<29	<35	11	8.2
S41	1/20/2005	56.5	50.5	--	<56	<95	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<8.4	<11	<11	<5.6	<34	<28	<34	7.1	8.2
S42	1/20/2005	54.4	50.5	--	<57	<96	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<8.5	<11	<11	<5.7	<34	<28	<34	<5.7	<5.7
S43	1/20/2005	54.5	50.5	--	<57	<96	<5.7	8.5	8.3	<5.7	7.1	<5.7	6.8	<8.5	23	<11	<5.7	<34	<28	<34	12	16
S44	1/20/2005	54.5	49	--	<53	<90	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<7.9	<11	<11	<5.3	<32	<26	<32	<5.3	<5.3
S45	1/20/2005	57	50	--	<65	<110	36	221	156	110	182	208	234	26	560	<13	169	<39	<33	<39	247	534
WDNR PAH Soil Generic Residual Contaminant Levels (RCLs) (Interim Guidance - April 1997)																						
Groundwater Pathway					38,000	700	3,000,000	17,000	360,000	870,000	48,000	6,800,000	37,000	38,000	500,000	100,000	680,000	23,000	20,000	400	1,800	8,700,000
Non-Industrial Direct Contact					900,000	18,000	5,000,000	88	88	880	8.8	1,800	8,800	8.8	600,000	600,000	88	1,100,000	600,000	20,000	18,000	500,000
Industrial Direct Contact					60,000,000	360,000	300,000,000	3,900	3,900	39,000	390	39,000	390,000	390	40,000,000	40,000,000	3,900	70,000,000	40,000,000	110,000	390,000	30,000,000

**ABBREVIATIONS:**  
 µg/kg = micrograms per kilogram or parts per billion (ppb)  
 PAHs = Polynuclear Aromatic Hydrocarbons  
 WDNR = Wisconsin Department of Natural Resources

**NOTE:**  
**Bold** indicates concentration is greater than the non-industrial direct contact RCL or groundwater pathway RCL.

**LABORATORY NOTES:**  
 M = Matrix interference.  
 QC = The result for one or more quality control measurements associated with this sample did not meet the laboratory and/or source method acceptance criteria.  
 O11 = The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the recovery for this individual compound in the check standard was below 85%.  
 (1) Surrogate: Carbazole analysis - This quality control measurement is above the laboratory established limit.

Created by: JSP 5/17/04  
 Checked by: BJS 5/17/04; LMH 4/19/05

**Table C-5**  
**Soil Analytical Results Summary - PCBs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670A**  
(Results are in µg/kg)

Sample	Date	Original Surface (ft)	Sample Elevation (ft)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
BGB9 S1	5/10/2004	69.5	67.5-69.5	<130	<260	<130	<130	<130	<1,700	<130
S10	11/2/2004	67	57	<20	<40	<20	<20	<20	<20	<20
S20	11/2/2004	66	58	<30.3	<30.3	<30.3	<30.3	<30.3	<30.3	<30.3
S21	11/2/2004	65.5	57	<32.0	<32.0	<32.0	<32.0	<32.0	<32.0	<32.0
S22	11/2/2004	65.5	57	<28.9	<28.9	<28.9	<28.9	<28.9	<28.9	<28.9
S25	12/21/2004	64	50.5	<26	<51	<26	<26	<26	<26	<26
S26	12/21/2004	65.5	50.5	<19	<37	<19	<19	<19	<19	<19
S32	12/21/2004	62	50.5	<20	<39	<20	<20	<20	<20	<20
S35	12/21/2004	60	52	<19	<37	<19	<19	<19	<19	<19
EPA				1,000	1,000	1,000	1,000	1,000	1,000	1,000

**ABBREVIATIONS:**

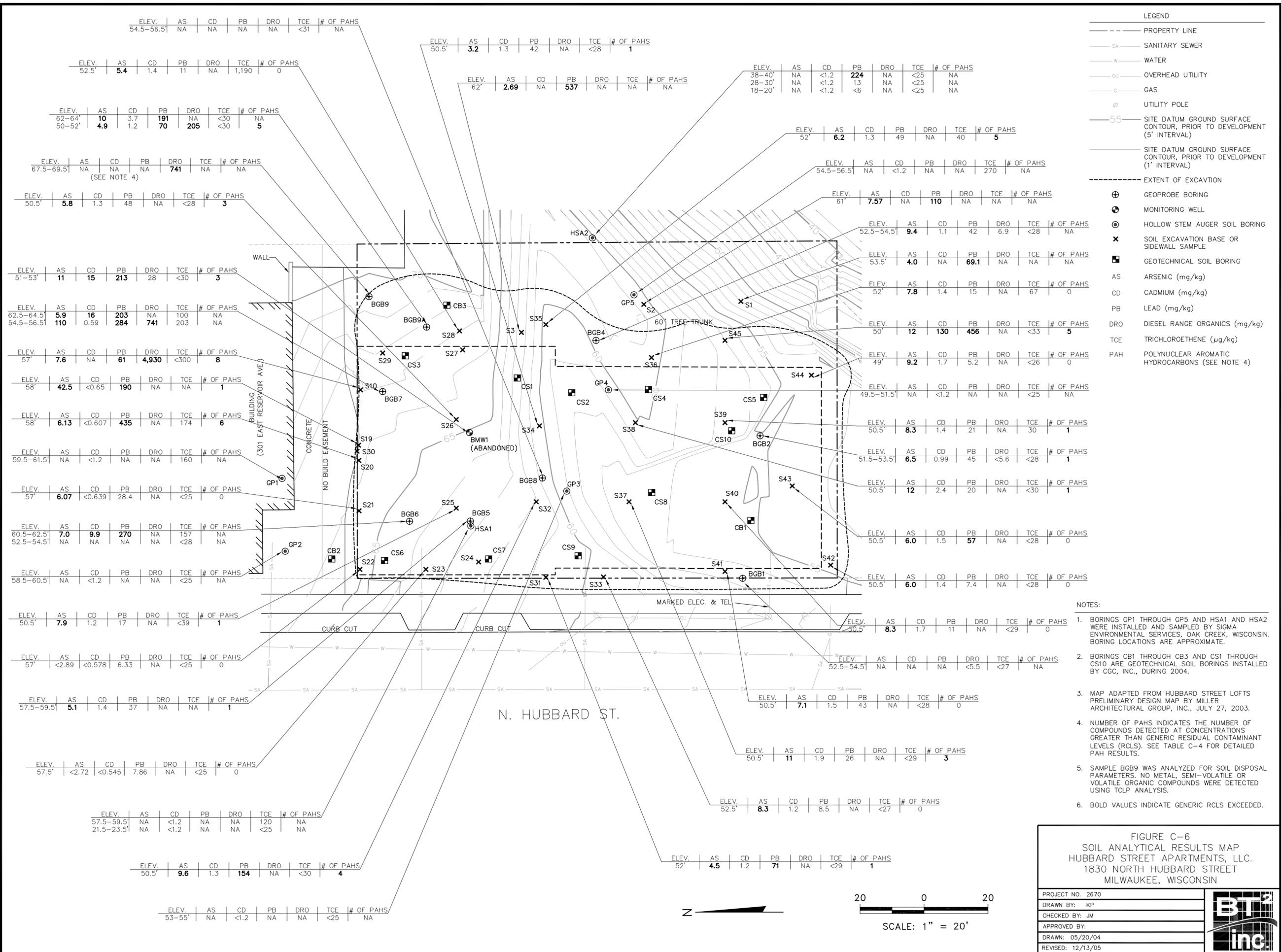
PCB = Polychlorinated Biphenyls

µg/kg = micrograms per kilogram

Created by: LMH 4/18/05

Checked by: LMH 4/18/05

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LEGEND

- PROPERTY LINE
- SA SANITARY SEWER
- W WATER
- OU OVERHEAD UTILITY
- G GAS
- Ø UTILITY POLE
- 55 SITE DATUM GROUND SURFACE CONTOUR, PRIOR TO DEVELOPMENT (5' INTERVAL)
- SITE DATUM GROUND SURFACE CONTOUR, PRIOR TO DEVELOPMENT (1' INTERVAL)

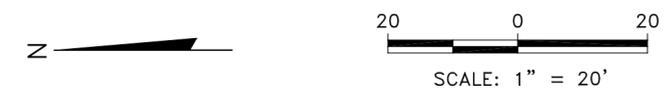
EXTENT OF EXCAVATION

- ⊕ GEOPROBE BORING
- ⊙ MONITORING WELL
- ⊙ HOLLOW STEM AUGER SOIL BORING
- ✕ SOIL EXCAVATION BASE OR SIDEWALL SAMPLE
- GEOTECHNICAL SOIL BORING
- AS ARSENIC (mg/kg)
- CD CADMIUM (mg/kg)
- PB LEAD (mg/kg)
- DRO DIESEL RANGE ORGANICS (mg/kg)
- TCE TRICHLOROETHENE (μg/kg)
- PAH POLYNUCLEAR AROMATIC HYDROCARBONS (SEE NOTE 4)

- NOTES:
- BORINGS GP1 THROUGH GP5 AND HSA1 AND HSA2 WERE INSTALLED AND SAMPLED BY SIGMA ENVIRONMENTAL SERVICES, OAK CREEK, WISCONSIN. BORING LOCATIONS ARE APPROXIMATE.
  - BORINGS CB1 THROUGH CB3 AND CS1 THROUGH CS10 ARE GEOTECHNICAL SOIL BORINGS INSTALLED BY CGC, INC., DURING 2004.
  - MAP ADAPTED FROM HUBBARD STREET LOFTS PRELIMINARY DESIGN MAP BY MILLER ARCHITECTURAL GROUP, INC., JULY 27, 2003.
  - NUMBER OF PAHS INDICATES THE NUMBER OF COMPOUNDS DETECTED AT CONCENTRATIONS GREATER THAN GENERIC RESIDUAL CONTAMINANT LEVELS (RCLS). SEE TABLE C-4 FOR DETAILED PAH RESULTS.
  - SAMPLE BGB9 WAS ANALYZED FOR SOIL DISPOSAL PARAMETERS. NO METAL, SEMI-VOLATILE OR VOLATILE ORGANIC COMPOUNDS WERE DETECTED USING TCLP ANALYSIS.
  - BOLD VALUES INDICATE GENERIC RCLS EXCEEDED.

FIGURE C-6  
SOIL ANALYTICAL RESULTS MAP  
HUBBARD STREET APARTMENTS, LLC.  
1830 NORTH HUBBARD STREET  
MILWAUKEE, WISCONSIN

PROJECT NO.	2670
DRAWN BY:	KP
CHECKED BY:	JM
APPROVED BY:	
DRAWN:	05/20/04
REVISED:	12/13/05



**Table E-1**  
**Groundwater Analytical Results Summary - VOCs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670A**  
(Results are in µg/l)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	Naphthalene	TCE	PCE	Other VOCs
BMW1	5/14/2004	--	<0.20	<0.50	<0.20	<0.50	4.2	<0.20	<0.50	ND
	9/23/2004	--	0.34	<0.50	<0.20	<0.50	4.8	<0.20	<0.50	ND
	10/25/2004	--	<0.50	<5.0	<5.0	<5.0	<8.0	<0.50	<0.50	ND
HSA-1	1/15/1999	--	<0.31	<0.35	0.35 J	<0.73	<0.72	<0.44	<0.48	ND
HSA-2	1/15/1999	--	<0.31	<0.35	<0.32	<0.73	<0.72	<0.44	<0.48	ND
Trip Blank	5/4/2004	--	<0.20	<0.50	<0.20	<0.50	<0.25	<0.20	<0.50	ND
	9/23/2004	--	<0.20	<0.50	<0.20	<0.50	<0.25	0.27	<0.50	ND
NR 140 Enforcement Standards (ES)			5	700	1,000	10,000	40	5	5	
NR 140 Preventive Action Limits (PAL)			0.5	140	200	1,000	8	0.5	0.5	

**ABBREVIATIONS:**

µg/l = micrograms per liter or parts per billion (ppb)  
VOCs = Volatile Organic Compounds

TCE = Trichloroethene  
ND = Not Detected

PCE = Tetrachloroethene

**NOTES:**

NR 140 ES - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

NR 140 PAL - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

Sample BMW1 was obtained by BT<sup>2</sup>, Inc.

Samples HSA1, and HSA2 were obtained by Sigma Environmental Services, Inc.

**LABORATORY NOTE:**

J = Estimated below the level of quantification.

Created by: LMH 5/21/04

Checked by: JMM 5/27/04; LMH 4/18/05

I:\2670\Tables-General\[GW\_VOCs1 revised 041012.xls]GW VOCs

**Table E-2**  
**Groundwater Analytical Results Summary - Metals**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670A**  
(Results are in µg/l)

Sample	Date	Lab Notes	Arsenic	Barium	Cadmium	Chromium	Hexavalent Chromium	Lead	Mercury	Selenium	Silver
BMW1	5/14/2004	--	<b>12</b>	210	<0.14	<2.1	<2.5	<1.4	<0.040	<3.2	<1.3
	9/23/2004	--	<b>15</b>	250	<0.14	<2.1	NA	<1.4	<0.092	<3.2	<1.3
HSA-1	1/12/1999	--	NA	NA	<1.4	<i>12</i>	NA	<5.8	NA	NA	NA
HSA-2	1/12/1999	--	NA	NA	<1.4	3.3 J	NA	<b>18 J</b>	NA	NA	NA
NR 140.10 Enforcement Standards (ES)			10	2,000	5	100	NE	15	2	50	50
NR 140.10 Preventive Action Limits (PAL)			1	400	0.5	10	NE	1.5	0.2	10	10

**ABBREVIATIONS:**

µg/l = micrograms per liter or parts per billion (ppb)

NE = No Standard Established

NA = Not Analyzed

**NOTES:**

**Bold** values meet or exceed NR 140 enforcement standards.

*Italic* values meet or exceed NR 140 preventive action limits.

NR 140.10 ES - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

NR 140.10 PAL - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

Sample BMW1 was obtained by BT<sup>2</sup>, Inc.

Samples HSA1, HSA2, and MW1 were obtained by Sigma Environmental Services, Inc.

**LABORATORY NOTES:**

J = Estimated below the level of quantification.

Created by: LMH 5/21/04

Checked by: JMM 5/27/04; LMH 4/18/05

I:\2670\Tables-General\[GW\_Metals1 revised 041012.xls]GW Metals

**Table E-3**  
**Groundwater Analytical Results Summary - PAHs**  
**Hubbard Street Apartments, LLC - 1830 N. Hubbard Street, Milwaukee, WI / BT<sup>2</sup> Project #2670A**  
(Results are in µg/l)

Sample	Date	Lab Notes	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(ghi)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
BMW1	9/23/2004	--	0.60	<1.0	0.31	0.20	<0.14	<0.072	<i>0.13</i>	<0.18	<i>0.14</i>	<0.19	0.73	0.70	<0.091	<0.47	2.3	1.9	1.4	0.36
NR 140 Enforcement Standards			NE	NE	3,000	NE	0.2	NE	0.2	NE	0.2	NE	400	400	NE	NE	NE	40	NE	250
NR 140 Preventive Action Limits			NE	NE	600	NE	0.02	NE	0.02	NE	0.02	NE	80	80	NE	NE	NE	8	NE	50

**ABBREVIATIONS:**

µg/l = micrograms per liter or parts per billion (ppb)  
-- = Not Applicable

PAHs = Polynuclear Aromatic Hydrocarbons

NE = No Standard Established

**NOTES:**

*Italic* values meet or exceed NR 140 preventive action limits.

NR 140 ES - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

NR 140 PAL - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

**LABORATORY NOTES:**

None

Created by: LMH 10/13/04

Checked by: LMH 4/18/05

I:\2670\Tables-General\GW\_PAHs.xls\GW PAHs

**Table E-5**  
**Water Level Summary**  
**Hubbard Street Apartments, LLC**  
**1830 N. Hubbard Street, Milwaukee, WI / Project #2670A**

Raw Data		Depth to Water in feet below top of well casing			
		MW1			
Measurement Date					
14-May-05	(1)	17.00			
23-Sep-04		21.10			
25-Oct-05		21.76			

Well Number Top of Casing Elevation (feet amsl)		Ground Water Elevation relative to site datum			
		MW1			
Measurement Date					
14-May-05	(1)	50.20			
23-Sep-04		46.10			
25-Oct-05		45.44			

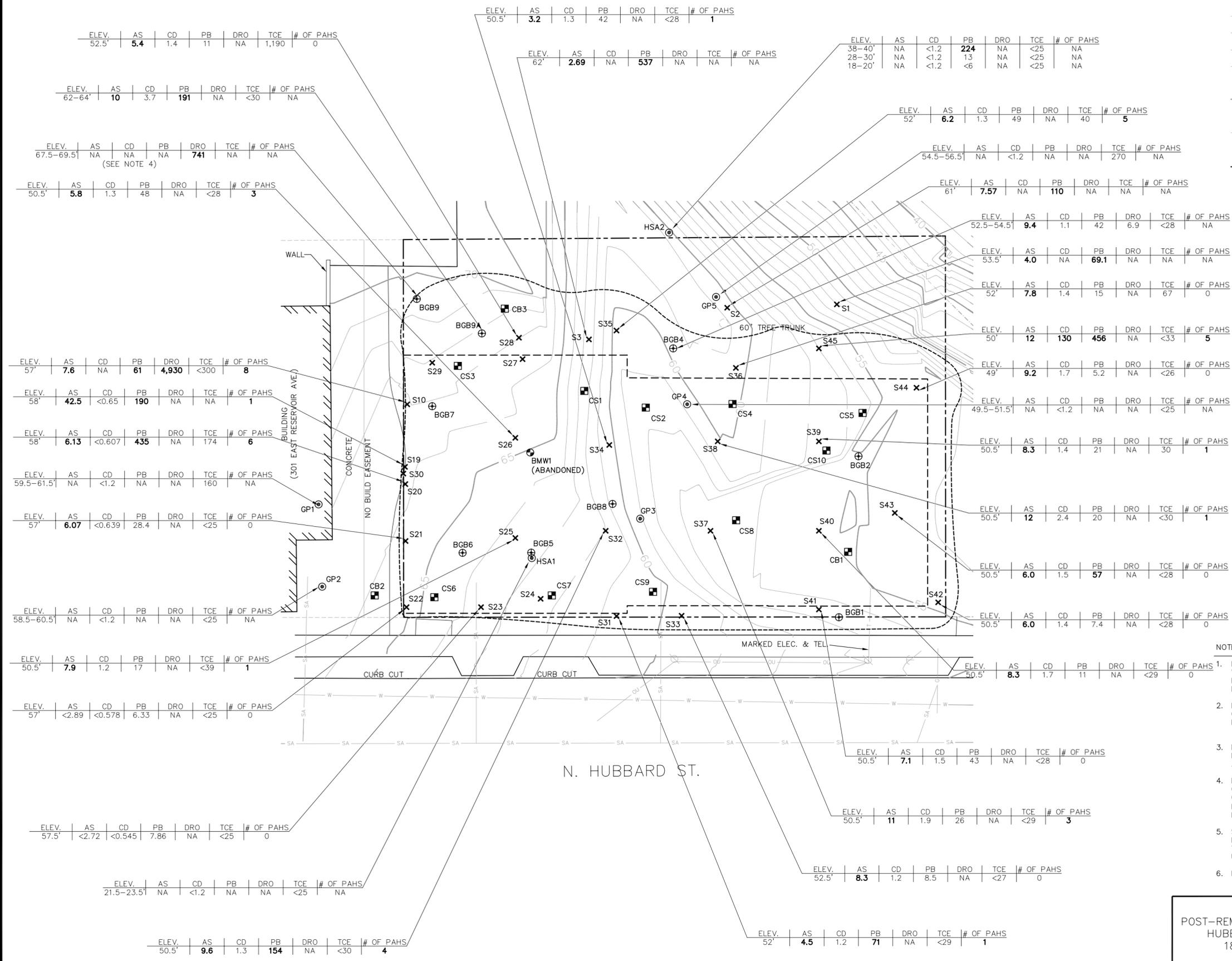
**NOTES:**

(1) Pre-well development water level

Well casing elevation was not surveyed. Casing elevation was estimated assuming a pre-development ground surface elevation of 64.9 feet and a measured casing stick-up of 2.3 feet above ground surface.

LEGEND

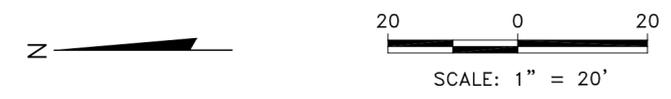
- PROPERTY LINE
- SA SANITARY SEWER
- W WATER
- OU OVERHEAD UTILITY
- G GAS
- Ø UTILITY POLE
- 55 SITE DATUM GROUND SURFACE CONTOUR, PRIOR TO DEVELOPMENT (5' INTERVAL)
- 1 SITE DATUM GROUND SURFACE CONTOUR, PRIOR TO DEVELOPMENT (1' INTERVAL)
- EXTENT OF EXCAVATION
- ⊕ GEOPROBE BORING
- ⊙ MONITORING WELL
- ⊙ HOLLOW STEM AUGER SOIL BORING
- ✕ SOIL EXCAVATION BASE OR SIDEWALL SAMPLE FOR LABORATORY ANALYSIS
- ⊗ SOIL EXCAVATION BASE OR SIDEWALL SAMPLE FOR FIELD SCREENING ONLY
- AS ARSENIC (mg/kg)
- CD CADMIUM (mg/kg)
- PB LEAD (mg/kg)
- DRO DIESEL RANGE ORGANICS (mg/kg)
- TCE TRICHLOROETHENE (μg/kg)
- PAH POLYNUCLEAR AROMATIC HYDROCARBONS (SEE NOTE 4)



- NOTES:
1. BORINGS GP1 THROUGH GP5 AND HSA1 AND HSA2 WERE INSTALLED AND SAMPLED BY SIGMA ENVIRONMENTAL SERVICES, OAK CREEK, WISCONSIN. BORING LOCATIONS ARE APPROXIMATE.
  2. BORINGS CB1 THROUGH CB3 AND CS1 THROUGH CS10 ARE GEOTECHNICAL SOIL BORINGS INSTALLED BY CCG, INC., DURING 2004.
  3. MAP ADAPTED FROM HUBBARD STREET LOFTS PRELIMINARY DESIGN MAP BY MILLER ARCHITECTURAL GROUP, INC., JULY 27, 2003.
  4. NUMBER OF PAHS INDICATES THE NUMBER OF COMPOUNDS DETECTED AT CONCENTRATIONS GREATER THAN GENERIC RESIDUAL CONTAMINANT LEVELS (RCLS). SEE TABLE C-4 FOR DETAILED PAH RESULTS.
  5. SAMPLE BGB9 WAS ANALYZED FOR SOIL DISPOSAL PARAMETERS. NO METAL, SEMI-VOLATILE OR VOLATILE ORGANIC COMPOUNDS WERE DETECTED USING TCLP ANALYSIS.
  6. BOLD VALUES INDICATE GENERIC RCLS EXCEEDED.

FIGURE D-1  
 POST-REMEDIATION SOIL ANALYTICAL RESULTS MAP  
 HUBBARD STREET APARTMENTS, LLC.  
 1830 NORTH HUBBARD STREET  
 MILWAUKEE, WISCONSIN

PROJECT NO. 2670	
DRAWN BY: KP	
CHECKED BY: JM	
APPROVED BY:	
DRAWN: 05/20/04	
REVISED: 12/19/05	



AREA WHERE FILL MATERIAL EXCEEDS RESIDUAL CONTAMINANT LEVELS FOR ONE OR MORE OF THE FOLLOWING CONTAMINANTS: ARSENIC, LEAD, CADMIUM, AND POLYNUCLEAR AROMATIC HYDROCARBONS (SEE DEED RESTRICTION FOR LIST OF PAHS)

AREA WHERE FILL MATERIAL EXCEEDS THE NR720 RESIDUAL CONTAMINANT LEVEL FOR DIESEL RANGE ORGANICS (DRO)

BUILDING FOOTPRINT (FILL EXCAVATED TO AN ELEVATION OF 50' WITHIN BUILDING FOOTPRINT)

- LEGEND
- PROPERTY LINE (APPROXIMATE)
  - SANITARY SEWER
  - WATER
  - OVERHEAD UTILITY
  - GAS
  - UTILITY POLE
  - ⊕ GEOPROBE BORING
  - ⊙ MONITORING WELL
  - ⊙ HOLLOW STEM AUGER SOIL BORING
  - ✕ EXCAVATION SOIL SAMPLE
  - GEOTECHNICAL SOIL BORING

- NOTES:
- BORINGS GP1 THROUGH GP5 AND HSA1 AND HSA2 WERE INSTALLED AND SAMPLED BY SIGMA ENVIRONMENTAL SERVICES, OAK CREEK, WISCONSIN. BORING LOCATIONS ARE APPROXIMATE.
  - BORINGS CB1 THROUGH CB3 AND CS1 THROUGH CS10 ARE GEOTECHNICAL SOIL BORINGS INSTALLED BY CGC, INC., DURING 2004.
  - MAP ADAPTED FROM HUBBARD STREET LOFTS PRELIMINARY DESIGN MAP BY MILLER ARCHITECTURAL GROUP, INC., JULY 27, 2003.

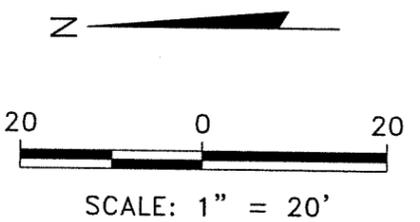
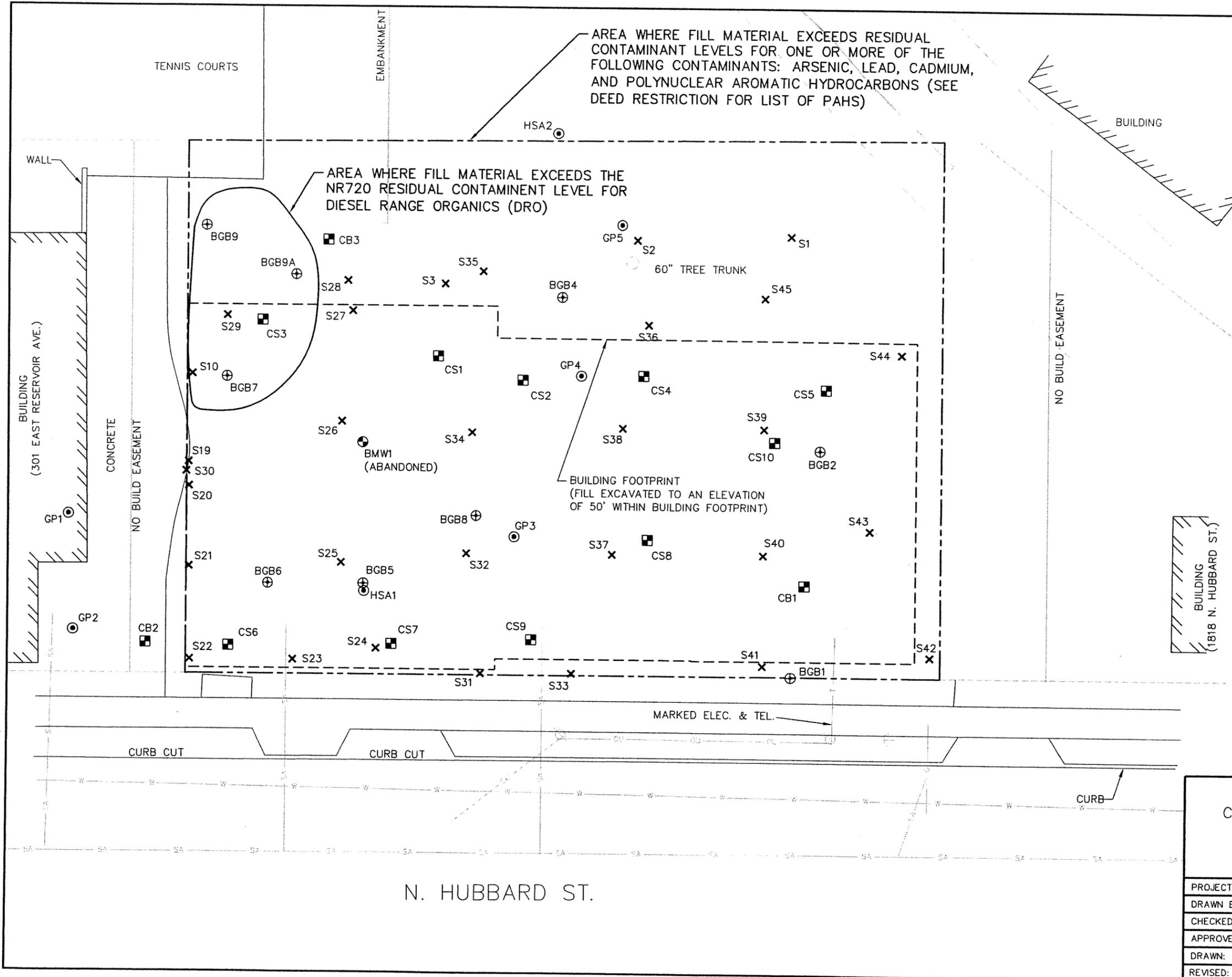


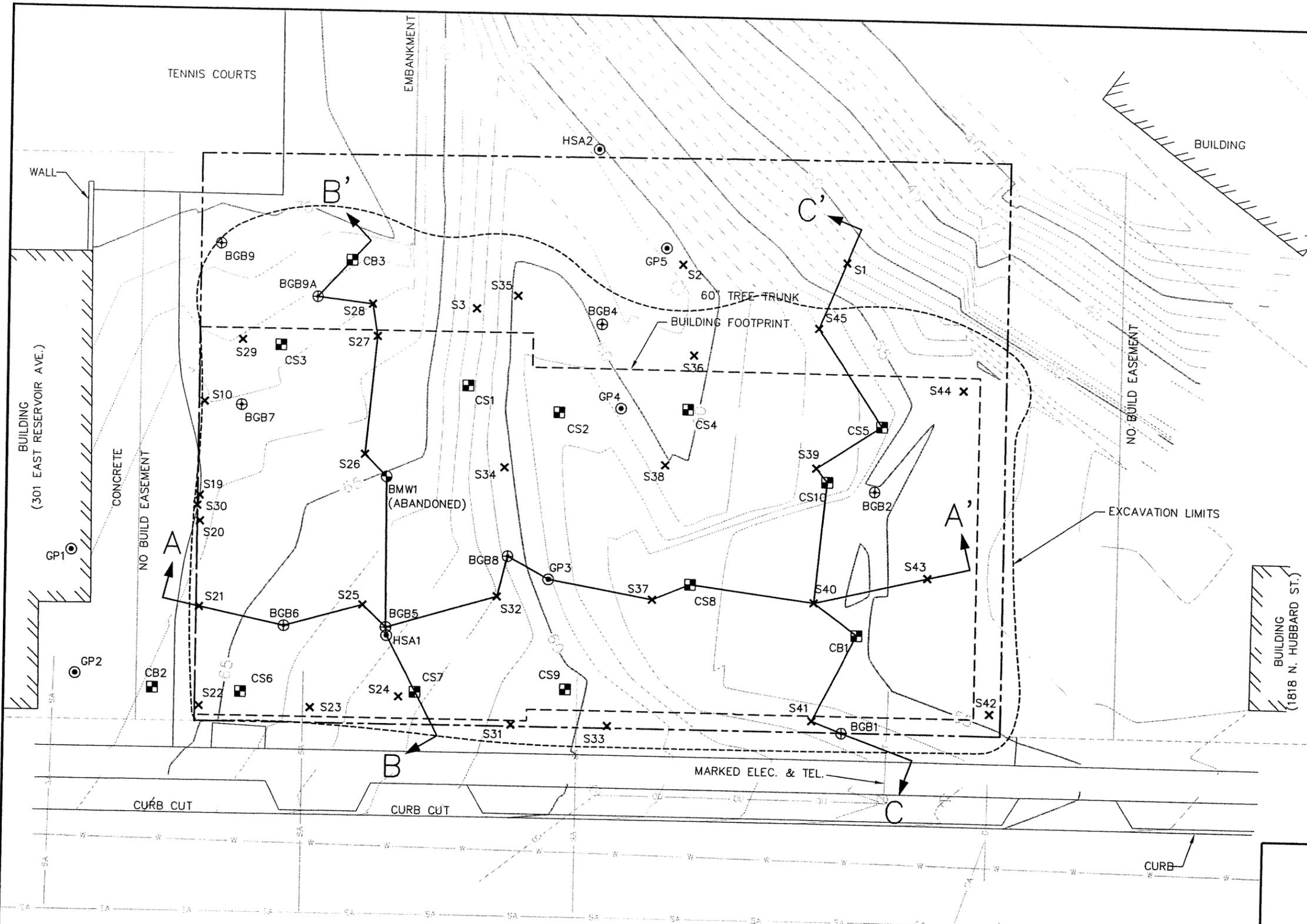
EXHIBIT A  
CONTAMINATED SOIL ON THE PROPERTY  
HUBBARD STREET APARTMENTS, LLC.  
1830 NORTH HUBBARD STREET  
MILWAUKEE, WISCONSIN

PROJECT NO. 2670
DRAWN BY: KP
CHECKED BY: JM
APPROVED BY:
DRAWN: 05/20/04
REVISED: 12/13/05



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- LEGEND
- PROPERTY LINE (APPROXIMATE)
  - SANITARY SEWER
  - WATER
  - OVERHEAD UTILITY
  - GAS
  - UTILITY POLE
  - SITE DATUM GROUND SURFACE CONTOUR, PRIOR TO DEVELOPMENT (5' INTERVAL)
  - SITE DATUM GROUND SURFACE CONTOUR, PRIOR TO DEVELOPMENT (1' INTERVAL)
  - ⊕ GEOPROBE BORING
  - ⊙ MONITORING WELL
  - HOLLOW STEM AUGER SOIL BORING
  - ✕ EXCAVATION SOIL SAMPLE
  - GEOTECHNICAL SOIL BORING

- NOTES:
1. BORINGS GP1 THROUGH GP5 AND HSA1 AND HSA2 WERE INSTALLED AND SAMPLED BY SIGMA ENVIRONMENTAL SERVICES, OAK CREEK, WISCONSIN. BORING LOCATIONS ARE APPROXIMATE.
  2. BORINGS CB1 THROUGH CB3 AND CS1 THROUGH CS10 ARE GEOTECHNICAL SOIL BORINGS INSTALLED UNDER THE DIRECTION OF CGC, INC., DURING 2004.
  3. MAP ADAPTED FROM HUBBARD STREET LOFTS PRELIMINARY DESIGN MAP BY MILLER ARCHITECTURAL GROUP, INC., JULY 27, 2003.

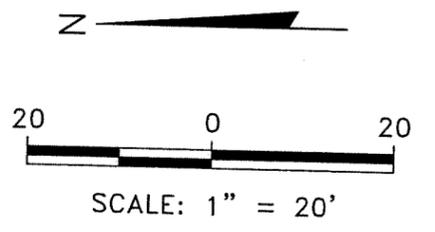


FIGURE D-3  
 CROSS SECTION LOCATION MAP  
 HUBBARD STREET APARTMENTS, LLC.  
 1830 NORTH HUBBARD STREET  
 MILWAUKEE, WISCONSIN

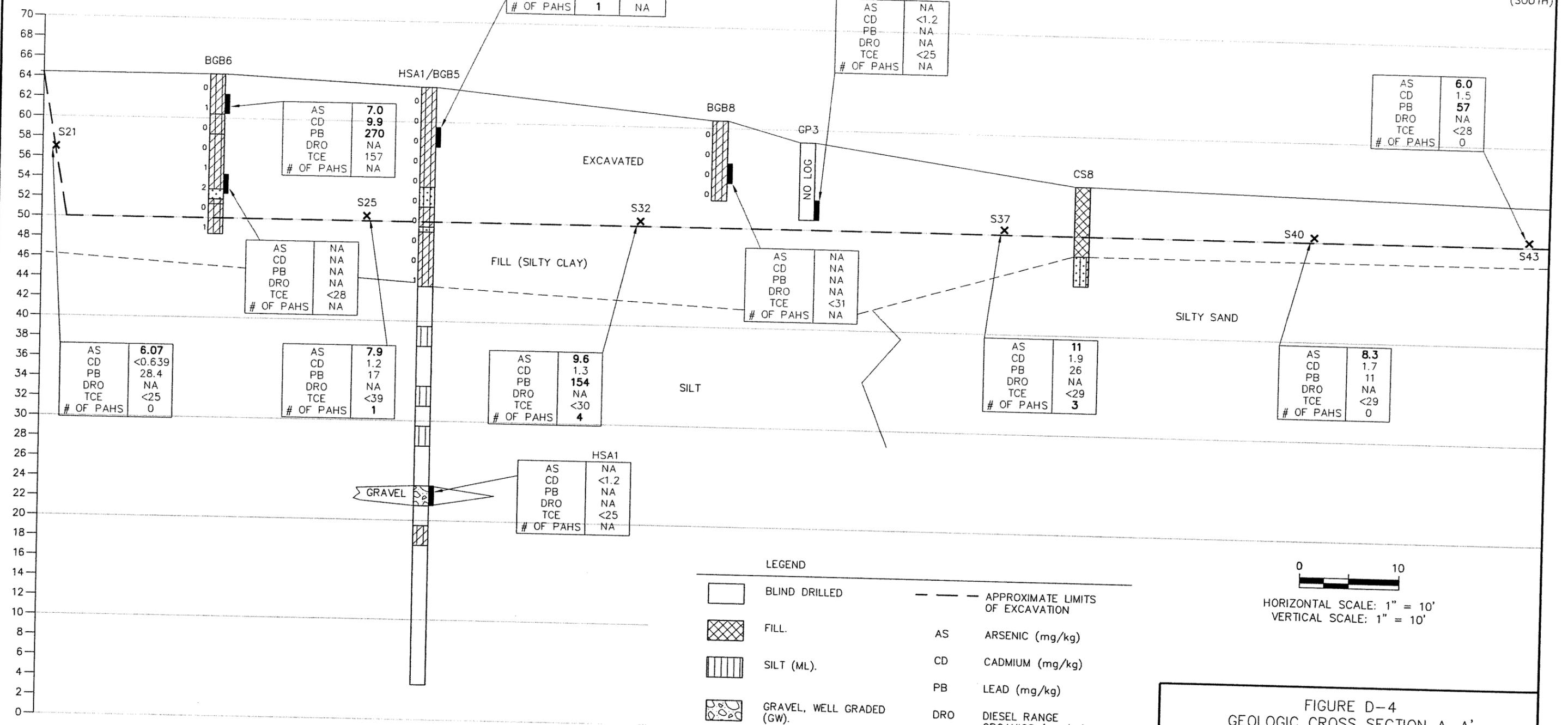
PROJECT NO.	2670
DRAWN BY:	KP
CHECKED BY:	JM
APPROVED BY:	
DRAWN:	05/20/04
REVISED:	12/13/05



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A  
(NORTH)

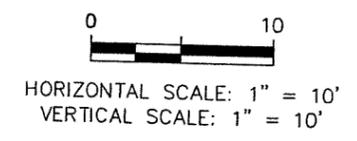
A'  
(SOUTH)



- NOTES:
- NUMBER OF PAHS INDICATES THE NUMBER OF COMPOUNDS DETECTED AT CONCENTRATIONS GREATER THAN GENERIC RESIDUAL CONTAMINANT LEVELS (RCLS). SEE TABLE C-4 FOR DETAILED PAH RESULTS.
  - BOLD VALUES INDICATE GENERIC RCLS EXCEEDED.

**LEGEND**

	BLIND DRILLED		APPROXIMATE LIMITS OF EXCAVATION
	FILL	AS	ARSENIC (mg/kg)
	SILT (ML)	CD	CADMIUM (mg/kg)
	GRAVEL, WELL GRADED (GW)	PB	LEAD (mg/kg)
	SILTY SAND (SM)	DRO	DIESEL RANGE ORGANICS (mg/kg)
	SILTY CLAY (CL-ML)	TCE	TRICHLOROETHENE (µg/kg)
	EXCAVATION SOIL SAMPLE	PAHS	POLYNUCLEAR AROMATIC HYDROCARBONS
		25	PHOTO IONIZATION DETECTOR READING



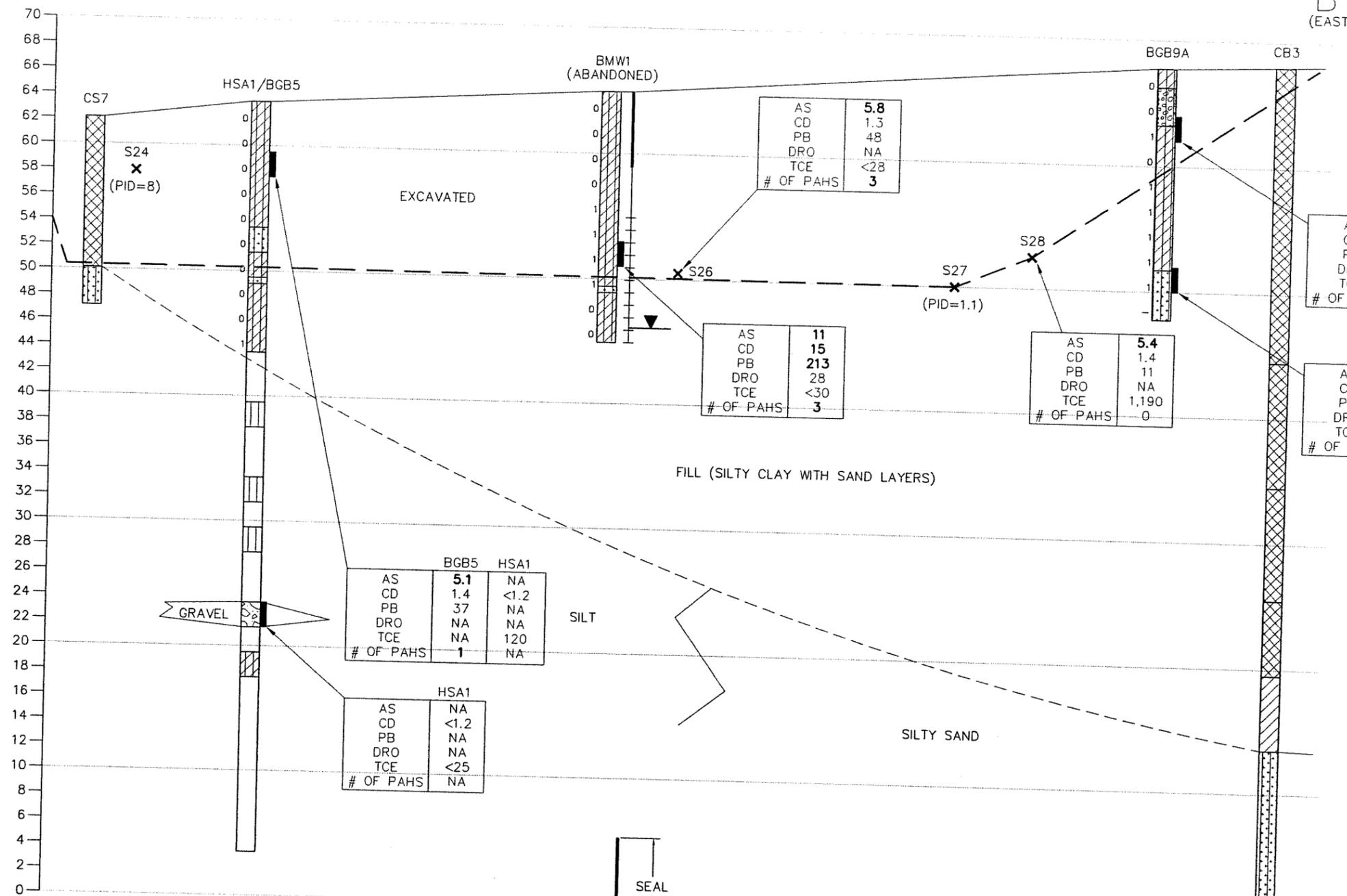
**FIGURE D-4**  
GEOLOGIC CROSS SECTION A-A'  
HUBBARD STREET APARTMENTS, LLC.  
1830 NORTH HUBBARD STREET  
MILWAUKEE, WISCONSIN

PROJECT NO.	2670
DRAWN BY:	KP
CHECKED BY:	TJK
APPROVED BY:	
DRAWN:	03/15/05
REVISED:	12/19/05

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B  
(WEST)

B'  
(EAST)



**LEGEND**

- BLIND DRILLED
- FILL
- SILT (ML)
- GRAVEL, WELL GRADED (GW)
- SILTY SAND (SM)
- SILTY GRAVEL (GM)
- SILTY CLAY (CL-ML)
- APPROXIMATE LIMITS OF EXCAVATION
- EXCAVATION SOIL SAMPLE
- WATER TABLE ELVATION MEASURED ON 09/04/04
- AS ARSENIC (mg/kg)
- CD CADMIUM (mg/kg)
- PB LEAD (mg/kg)
- DRO DIESEL RANGE ORGANICS (mg/kg)
- TCE TRICHLOROETHENE ( $\mu\text{g}/\text{kg}$ )
- PNAS POLYNUCLEAR AROMATIC HYDROCARBONS
- 25 PHOTO IONIZATION DETECTOR READING (PID)

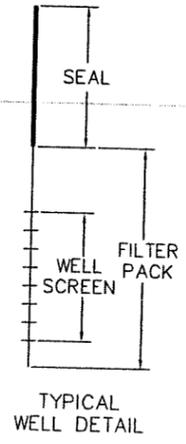
- NOTES:**
- NUMBER OF PAHS INDICATES THE NUMBER OF COMPOUNDS DETECTED AT CONCENTRATIONS GREATER THAN GENERIC RESIDUAL CONTAMINANT LEVELS (RCLS). SEE TABLE C-4 FOR DETAILED PAH RESULTS.
  - BOLD VALUES INDICATE GENERIC RCLS EXCEEDED.

**FIGURE D-5  
GEOLOGIC CROSS SECTION B-B'  
HUBBARD STREET APARTMENTS, LLC.  
1830 NORTH HUBBARD STREET  
MILWAUKEE, WISCONSIN**

PROJECT NO.	2670
DRAWN BY:	KP
CHECKED BY:	TJK
APPROVED BY:	
DRAWN:	03/15/05
REVISED:	12/19/05



0 10  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 10'

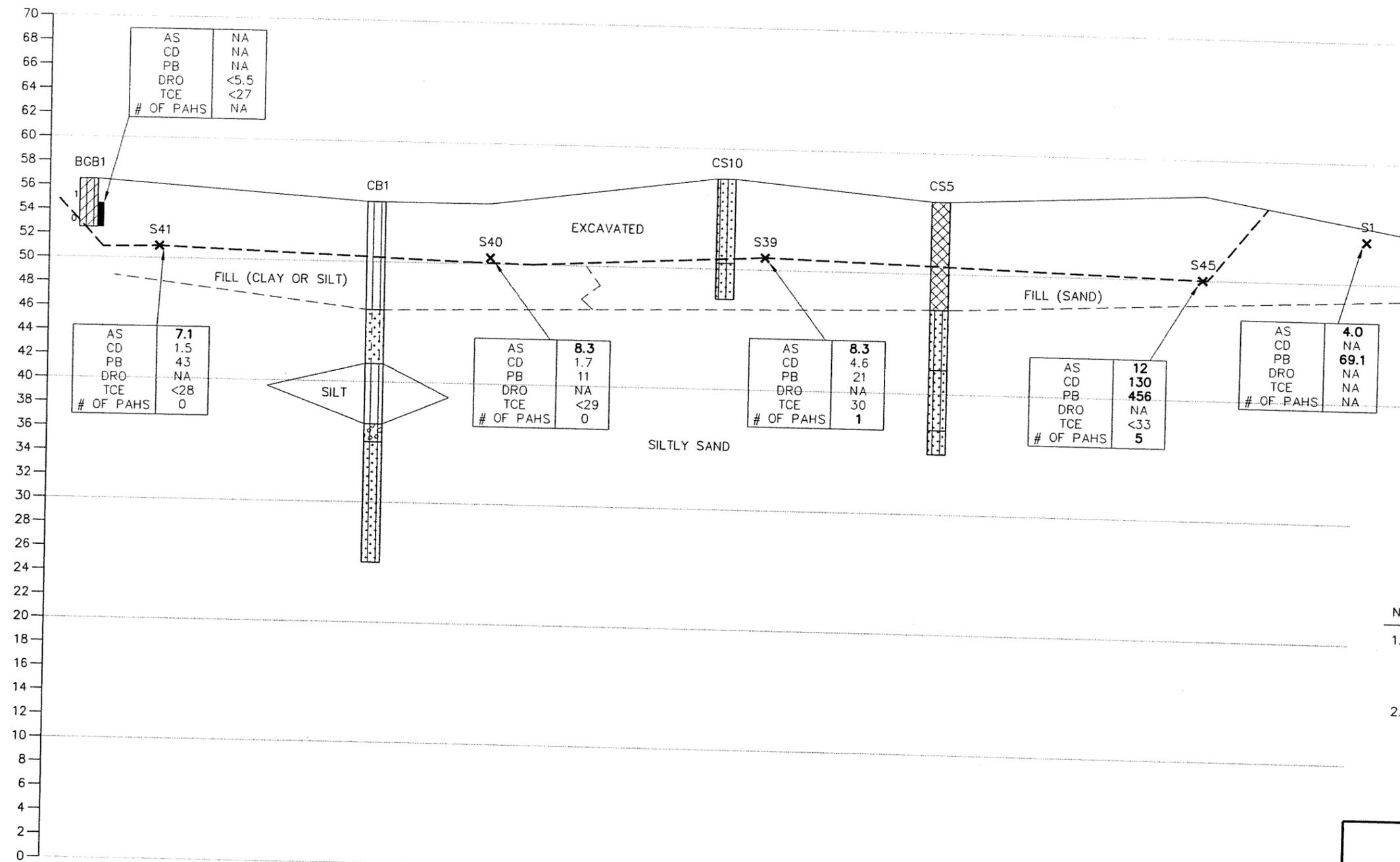


TOTAL DEPTH 95'

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C  
(WEST)

C'  
(WEST)



LEGEND

	FILL.
	SILT (ML).
	SILTY SAND (SM).
	SILTY CLAY (CL-ML).
	APPROXIMATE LIMITS OF EXCAVATION
	EXCAVATION SOIL SAMPLE
AS	ARSENIC (mg/kg)
CD	CADMIUM (mg/kg)
PB	LEAD (mg/kg)
DRO	DIESEL RANGE ORGANICS (mg/kg)
TCE	TRICHLOROETHENE (µg/kg)
PAHS	POLYNUCLEAR AROMATIC HYDROCARBONS
25	PHOTO IONIZATION DETECTOR READING

NOTES:

1. NUMBER OF PAHS INDICATES THE NUMBER OF COMPOUNDS DETECTED AT CONCENTRATIONS GREATER THAN GENERIC RESIDUAL CONTAMINANT LEVELS (RCLS). SEE TABLE C-4 FOR DETAILED PAH RESULTS.
2. BOLD VALUES INDICATE GENERIC RCLS EXCEEDED.

0 10  
 HORIZONTAL SCALE: 1" = 10'  
 VERTICAL SCALE: 1" = 10'

FIGURE D-6  
 GEOLOGIC CROSS SECTION C-C'  
 HUBBARD STREET APARTMENTS, LLC.  
 1830 NORTH HUBBARD STREET  
 MILWAUKEE, WISCONSIN

PROJECT NO. 2670
DRAWN BY: KP
CHECKED BY: TJK
APPROVED BY:
DRAWN: 03/15/05
REVISED: 12/19/05



December 15, 2005

To: Wisconsin Department of Natural Resources

Subject: Statement that the Legal Description for the Property within the  
Contaminated Site Boundary has been Included  
Hubbard Street Apartments Property  
1830 North Hubbard Street, Milwaukee, WI 53212  
WDNR BRRTS # 02-42-533351  
BT<sup>2</sup> Project #2670A

To Whom it May Concern:

To the best of my knowledge, I believe that with the submittal of the attached property information the legal description for each property within, or partially within the contaminated site boundary has been included with the closure request.

The attached property information includes the Deed and Legal Description for the property located at 1830 North Hubbard Street, Milwaukee, Wisconsin.

If you need additional information, please contact me at (608) 251-2399.

Sincerely,



Mr. Richard B. Arnesen  
Hubbard Street Apartments, LLC