08-36456

PHILIP ENVIRONMENTAL

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P.O. Box 230
Columbia, IL 62236-0230
618/281-7173
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618/281-5120 FAX

LETTER OF TRANSMITTAL

0190100008
Ameren IP
SR/HecN

To Jason Crompton
Site Remediation Program
IEPA
1021 North Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276

Date 1/17/08
Project Champaign - Ameren
Project No. 62403053

1. ( ) FOR REVIEW & COMMENT
2. ( ) FOR APPROVAL
3. ( ) AS REQUESTED
4. (X) FOR YOUR USE
5. ( ) _____

Enclosed (X) / Under separate cover ( )

NO. OF COPIES	DESCRIPTION
& 2	SIR REPORT PAGES 10 + 11 REPLACEMENTS
2	FIGS 2-8, 7-1 THRU 7-4

REMARKS: Jason, Please Discard Pages 10 + 11 of SIR Text Portion and Figs 2-8, 7-1, 7-2, 7-3, + 7-4. Please Insert Attached Replacements.

Call if You Have any Questions.

RECEIVED
JAN 18 2008
IEPA/BOL

RELEASABLE
JAN 23 2008
REVIEWER MD

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FROM Pete Sztukowski
TITLE PM.

PE-20 (4/95)

The middle sand and gravel aquifers found in the Illinoian Glasford Formation occur as fairly continuous layers in the Radnor and Vandalia Till Members. The middle aquifer serves as a source of water for 55 percent of the farm and domestic wells in the County. The middle aquifer also provides a backup source of water for the cities of Champaign and Urbana. The top of the middle aquifer ranges from about 125 to 175 feet BLS near Champaign/Urbana. The bottom ranges between 175 and 200 feet BLS. The water level of wells finished in the middle aquifer ranges from about 630 feet above MSL around Champaign/Urbana to about 720 feet above MSL in the northwest part of the County. The direction of flow appears to be towards the southwest (Sanderson and Zewde, 1976).

The lower sand and gravel aquifer encountered in the Kansan Banner Formation occurs as thick sand and gravel deposits of the Mahomet bedrock valley. The aquifer within the Mahomet Sand is the most significant aquifer within east-central Illinois, accounting for about 87 percent of municipal groundwater supplies for the County. The groundwater resources of the Mahomet Sand are underdeveloped, especially those overlying the main channel. The lower aquifer can be up to 150 feet thick, depending on proximity to the main channel of the Mahomet bedrock valley. The top of the Mahomet Sand is fairly consistent at 500 feet above MSL. The average width of the valley is about 12 miles in Champaign County. The deposit is composed of clean sand and gravel. However, the deposit becomes more silty towards the valley margins.

The Paleozoic bedrock beneath the glacial deposits provides only small supplies of water from sandstone and limestone beds of the Pennsylvanian formations. The groundwater in Mississippian and older bedrock is too deep and/or too mineralized to be considered a good source of water.

The Illinois American Water Company (IAWC) supplies water from water wells located in the west well field located about three miles west of the site. These wells average about 310 feet in total depth and have between 50 and 100 feet of screen. The wells in the west field produce water from the Mahomet Sand Member. IAWC also has water wells in the north well field located about 1.0 mile northeast of the site. These wells average about 210 feet deep, with screens ranging from 10 to 50 feet in length. The wells produce water from the middle sand and gravel aquifer in the Glasford Formation.

2.5 Private and Public Drinking Water Wells in Vicinity

The "EDR Illinois Water Well Report" provides a summary of known water wells within a one-half mile radius of the site. Federal, State, and Public Water supply databases were searched. Twenty-two (22) wells were identified from the State database. There are no public water supply wells

within the one-half mile radius of the site. A copy of the EDR report is presented in Appendix B.

Champaign/Urbana and the University of Illinois are supplied with water from the IAWC. IAWC supplies water from water wells located in the west well field about three miles west of the MGP site. These wells average about 310 feet in total depth and have between 50 and 100 feet of screen. The wells in the west field produce water from the Mahomet Sand Member.

The IAWC also has water wells in the north well field located about 1.0 mile northeast of the MGP site. These wells average about 210 feet deep, with screens ranging from 10 to 50 feet in length. The wells produce water from the middle sand and gravel aquifer in the Glasford Formation.

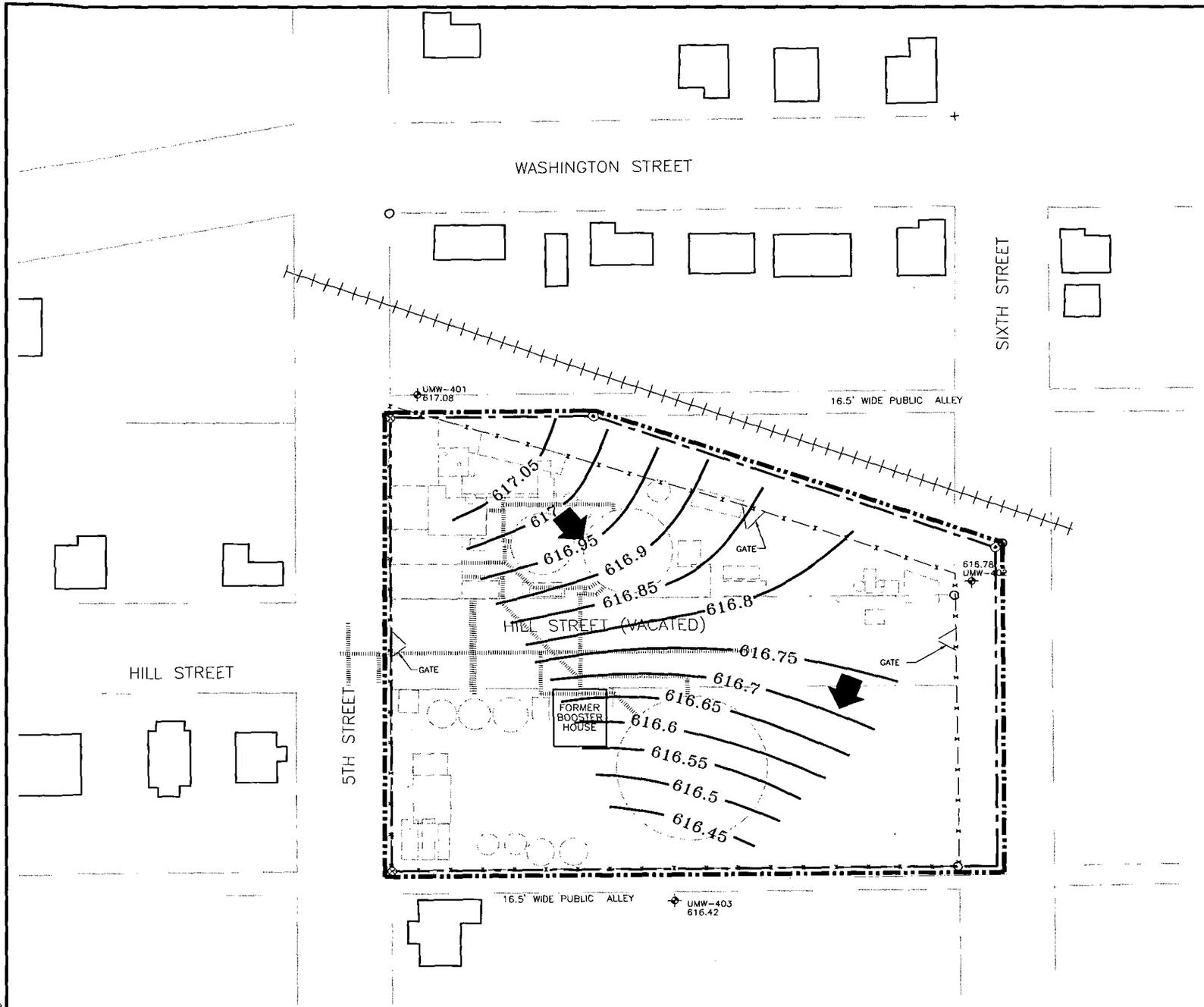
2.6 Site Geology

The major geologic units present at the site; in descending order, are the surficial fill layer, the weathered till unit (Wedron), the unweathered till unit (Wedron), and the lower silty sand member of the Glasford Formation. The mappable geologic units found in the shallow subsurface at the site include (in descending order), the Surficial Fill Layer, the Weathered Till Unit (Wedron), the Unweathered Till Unit (Wedron), and a Lower Silty Sand Member of the Glasford Formation.

The geology of the site was interpreted through analysis of the Phase II geologic logs (Appendix D), CSI geologic logs (Appendix I), field notes of the site geologist, grain-size distribution curves and results of physical property testing. Physical property testing was completed during the Phase II investigation and results are summarized in Table 2-2.

2.6.1 Surficial Fill Layer

The surficial fill layer is typically three to four feet thick and covers the entire site. The fill consists of gravelly silt and sand, with cinders, bricks and debris. Much of the fill was placed on the site after demolition of the MGP facilities was completed. Some topsoil encountered may have been classified as fill material based on a dark organic appearance which resembles the known fill on site. Topsoil was also placed over portions of the site where CSI test pits were excavated. The fill is thickest in an isolated area along the northern portion of the site near the railroad tracks.



LEGEND

- HISTORICAL MANUFACTURED GAS PLANT STRUCTURES
- FORMER GAS PLANT PIPING
- EXISTING STRUCTURES (APPROXIMATE)
- CURRENT AMERENIP PROPERTY BOUNDARY
- REMEDIATION SITE BOUNDARY
- FENCE
- UMW-401 — DEEP GROUNDWATER MONITORING WELLS (APPROXIMATELY 170') COMPLETED IN GLASFORD FORMATION
- 734.6 — WATER TABLE ELEVATION JANUARY 1993
- INTERPRETED FLOW DIRECTION

RELEASABLE

JAN 23 2008

REVIEWER MD

NOTE: THE HISTORICAL MANUFACTURED GAS PLANT STRUCTURES ARE A COMPOSITE FROM SANBORN FIRE INSURANCE MAPS AND HISTORICAL AMERENIP SITE PLANS. THE EXACT LOCATIONS OF THE FEATURES IS NOT KNOWN. STRUCTURES AND BUILDINGS MAY HAVE SERVED MULTIPLE PURPOSES DURING THE OPERATION OF THE PLANT.

SOURCE: THE SOURCE FOR THE PROPERTY BOUNDARY SURVEY IS VEGRZYN, SARVER AND ASSOCIATES.

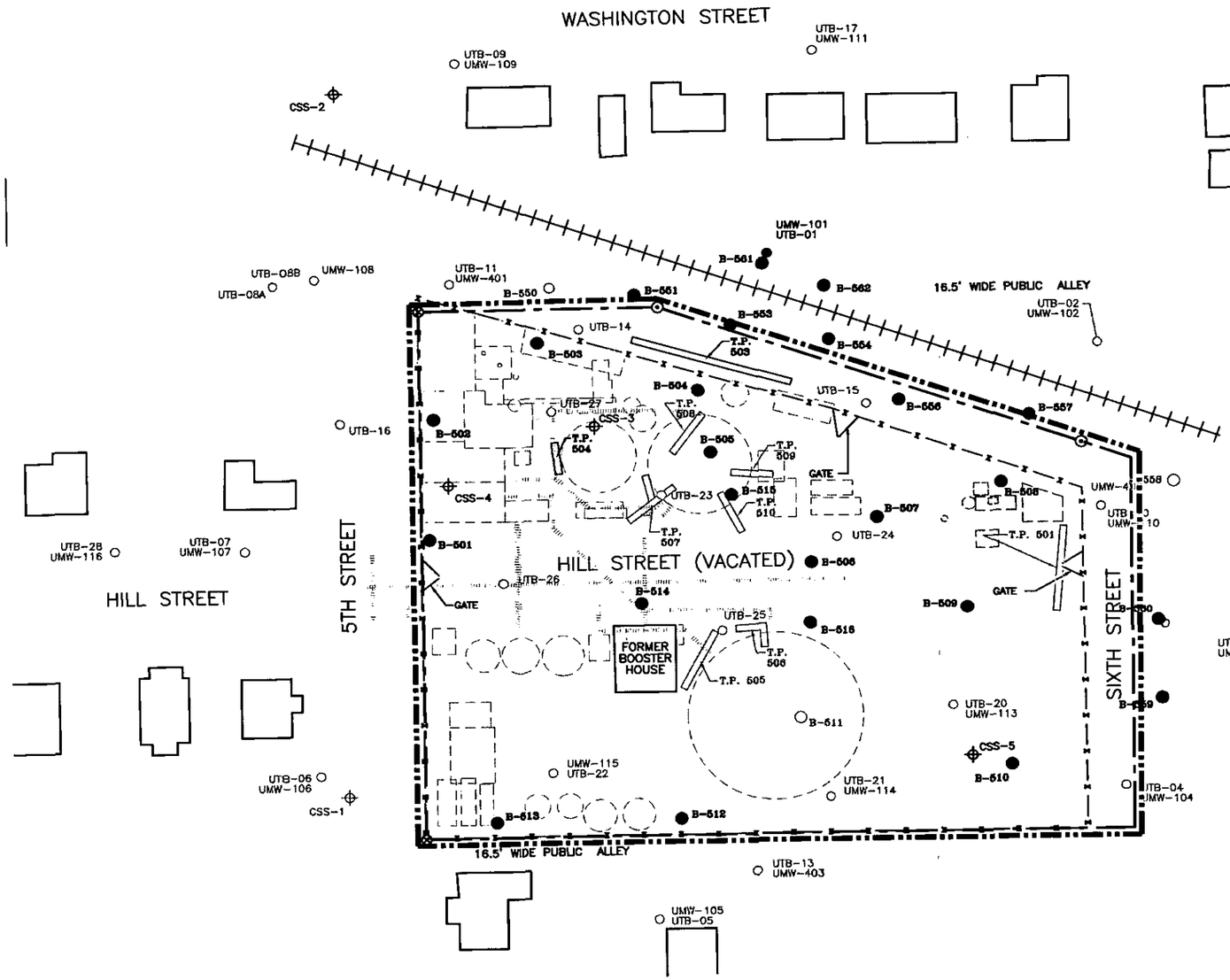
0 80
FEET

PSC

TITLE:
GROUNDWATER ELEVATION CONTOUR
DEEP GROUNDWATER SYSTEM
JANUARY 1993

DWN: TMM	DES: MRC	PROJECT NO: 62402647	AMERENIP CHAMPAIGN, ILLINOIS
CHKD:	APPD:		
DATE: 12/14/07	REV:		FIGURE 2-8

COL. J:\624\02647B-025



LEGEND

- B-557 — NO EXCEEDANCE
- B-557 — EXCEEDANCE AT LEAST 1 PATHWAY
- B-557 — NO DATA
- HISTORICAL MANUFACTURED GAS PLANT STRUCTURES
- EXISTING STRUCTURES (APPROXIMATE)
- CURRENT AMERENIP PROPERTY BOUNDARY
- REMEDIATION SITE BOUNDARY
- FENCE

RELEASABLE

JAN 25 2008

REVIEWER MD

NOTE: THE HISTORICAL MANUFACTURED GAS PLANT STRUCTURES ARE A COMPOSITE FROM SANBORN FIRE INSURANCE MAPS AND HISTORICAL AMERENIP SITE PLANS. THE EXACT LOCATIONS OF THE FEATURES IS NOT KNOWN. STRUCTURES AND BUILDINGS MAY HAVE SERVED MULTIPLE PURPOSES DURING THE OPERATION OF THE PLANT.

SOURCE: The source for the property boundary survey is Vegrzyn, Sarver and Associates.

0 80
FEET

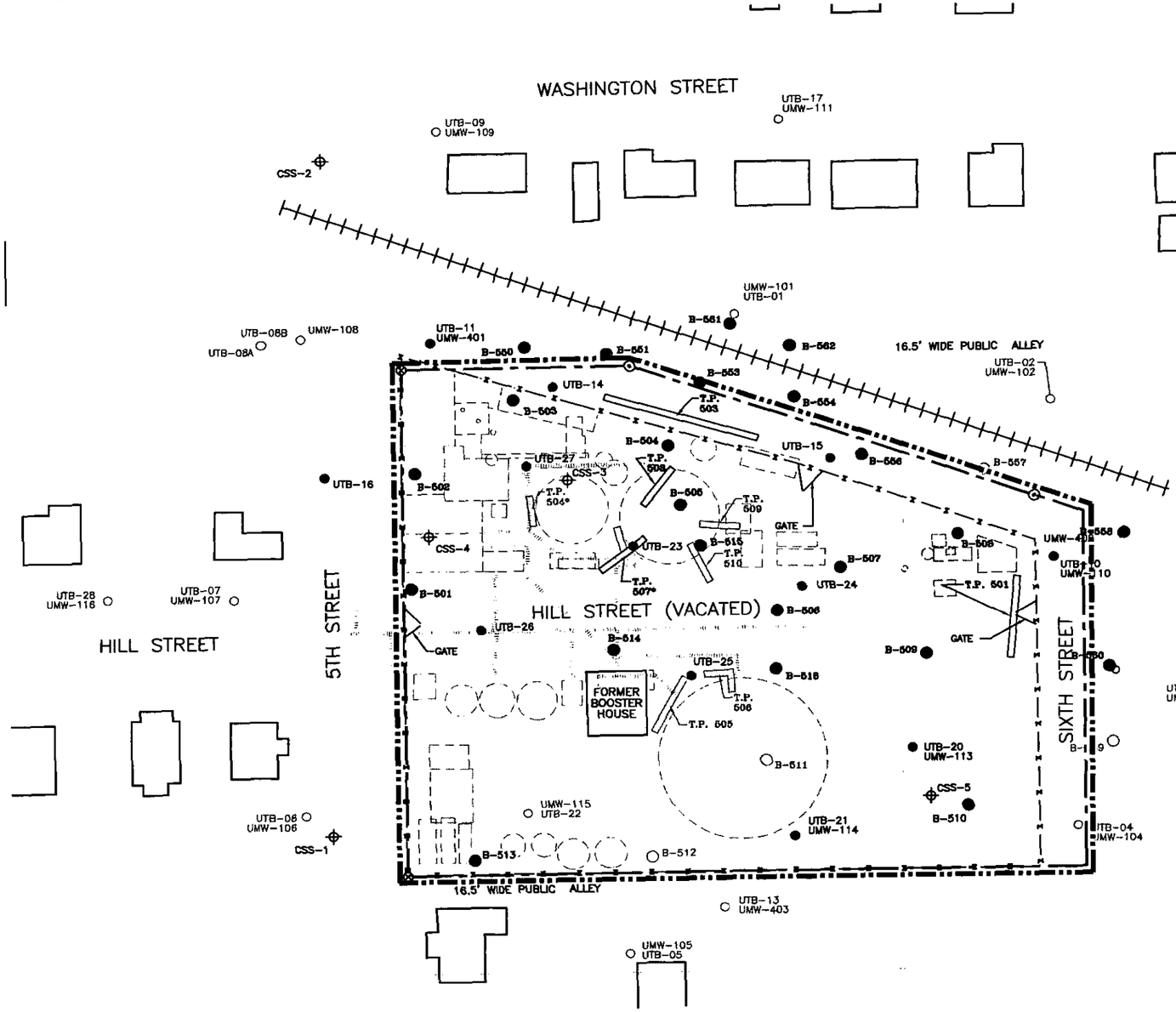
N

PSC

TITLE:
EXCEEDANCE OF TIER 1 REMEDIATION OBJECTIVES FOR SOIL
BTEX AND PAH COMPOUNDS
0-3 FOOT DEPTH INTERVAL

DWN: TMM	DES: JG	PROJECT NO: 62402647	
CHKD:	APPD:	AMERENIP CHAMPAIGN, ILLINOIS	
DATE: 12/14/07	REV:	FIGURE 7-1	

COL J:\624\02647A-033



LEGEND

- ● B-557 — NO EXCEEDANCE
- ● B-557 — EXCEEDANCE AT LEAST 1 PATHWAY
- ○ B-557 — NO DATA
- HISTORICAL MANUFACTURED GAS PLANT STRUCTURES
- EXISTING STRUCTURES (APPROXIMATE)
- CURRENT AMERENIP PROPERTY BOUNDARY
- REMEDIATION SITE BOUNDARY
- FENCE

RELEASABLE

JAN 23 2008

REVIEWER MD

NOTE: THE HISTORICAL MANUFACTURED GAS PLANT STRUCTURES ARE A COMPOSITE FROM SANBORN FIRE INSURANCE MAPS AND HISTORICAL AMERENIP SITE PLANS. THE EXACT LOCATIONS OF THE FEATURES IS NOT KNOWN. STRUCTURES AND BUILDINGS MAY HAVE SERVED MULTIPLE PURPOSES DURING THE OPERATION OF THE PLANT.

SOURCE: The source for the property boundary survey is Vegrzyn, Sarver and Associates.

0 80
FEET

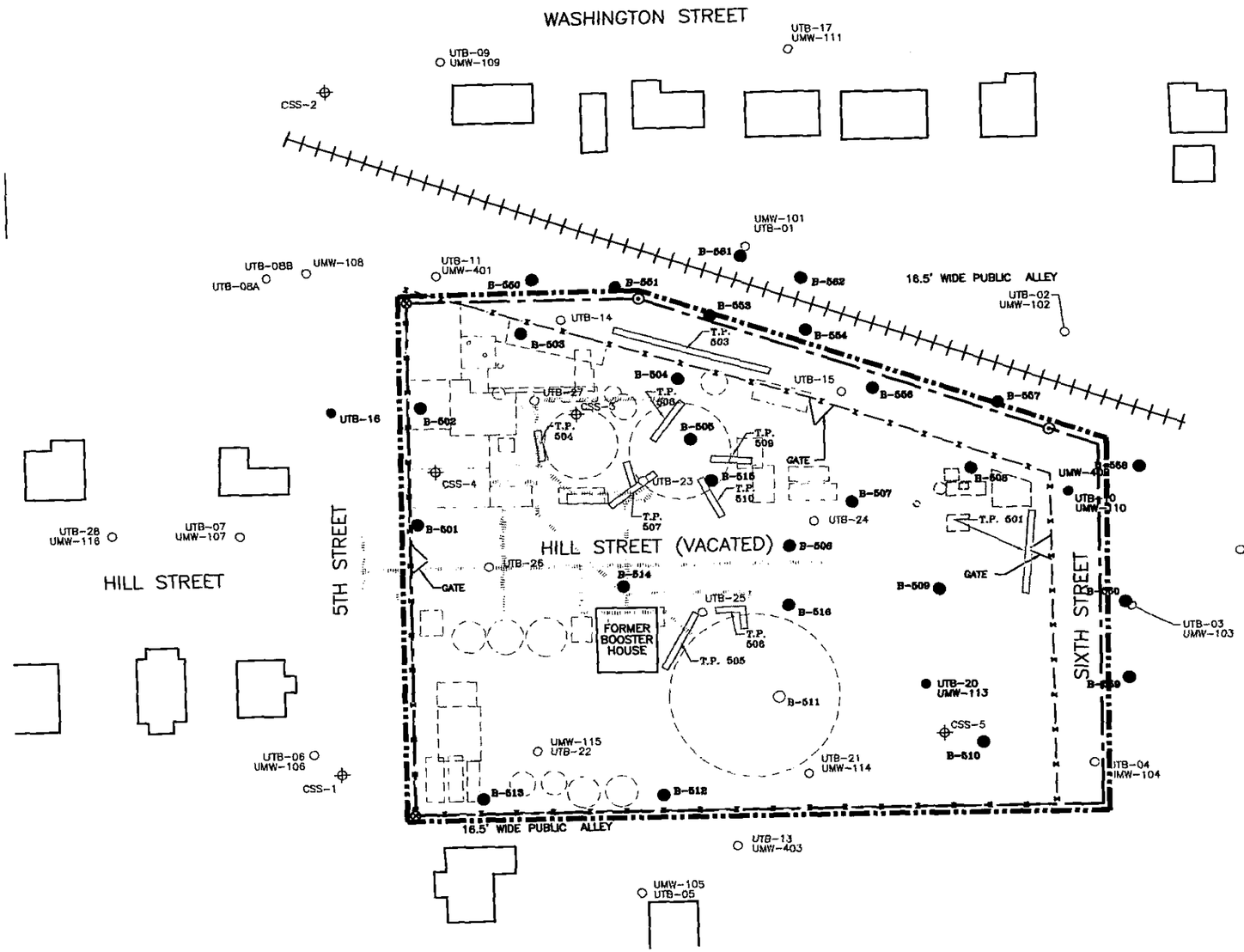
N

PSC

TITLE:
EXCEEDANCE OF TIER 1 REMEDIATION OBJECTIVES FOR SOIL
BTEX AND PAH COMPOUNDS
3-10 FOOT DEPTH INTERVAL

DWN: TMM	DES: JG	PROJECT NO: 62402647 AMERENIP CHAMPAIGN, ILLINOIS
CHKD:	APPD:	
DATE: 12/14/07	REV:	FIGURE 7-2

COL J:\62402647A-034



LEGEND

- B-557 — NO EXCEEDANCE
- B-557 — EXCEEDANCE AT LEAST 1 PATHWAY
- B-557 — NO DATA
- HISTORICAL MANUFACTURED GAS PLANT STRUCTURES
- EXISTING STRUCTURES (APPROXIMATE)
- CURRENT AMERENIP PROPERTY BOUNDARY
- REMEDIATION SITE BOUNDARY
- FENCE

RELEASABLE

JAN 23 2008

REVIEWER MD

NOTE: THE HISTORICAL MANUFACTURED GAS PLANT STRUCTURES ARE A COMPOSITE FROM SANBORN FIRE INSURANCE MAPS AND HISTORICAL AMERENIP SITE PLANS. THE EXACT LOCATIONS OF THE FEATURES IS NOT KNOWN. STRUCTURES AND BUILDINGS MAY HAVE SERVED MULTIPLE PURPOSES DURING THE OPERATION OF THE PLANT.

SOURCE: The source for the property boundary survey is Vegrzyn, Sarver and Associates.

0 80
FEET

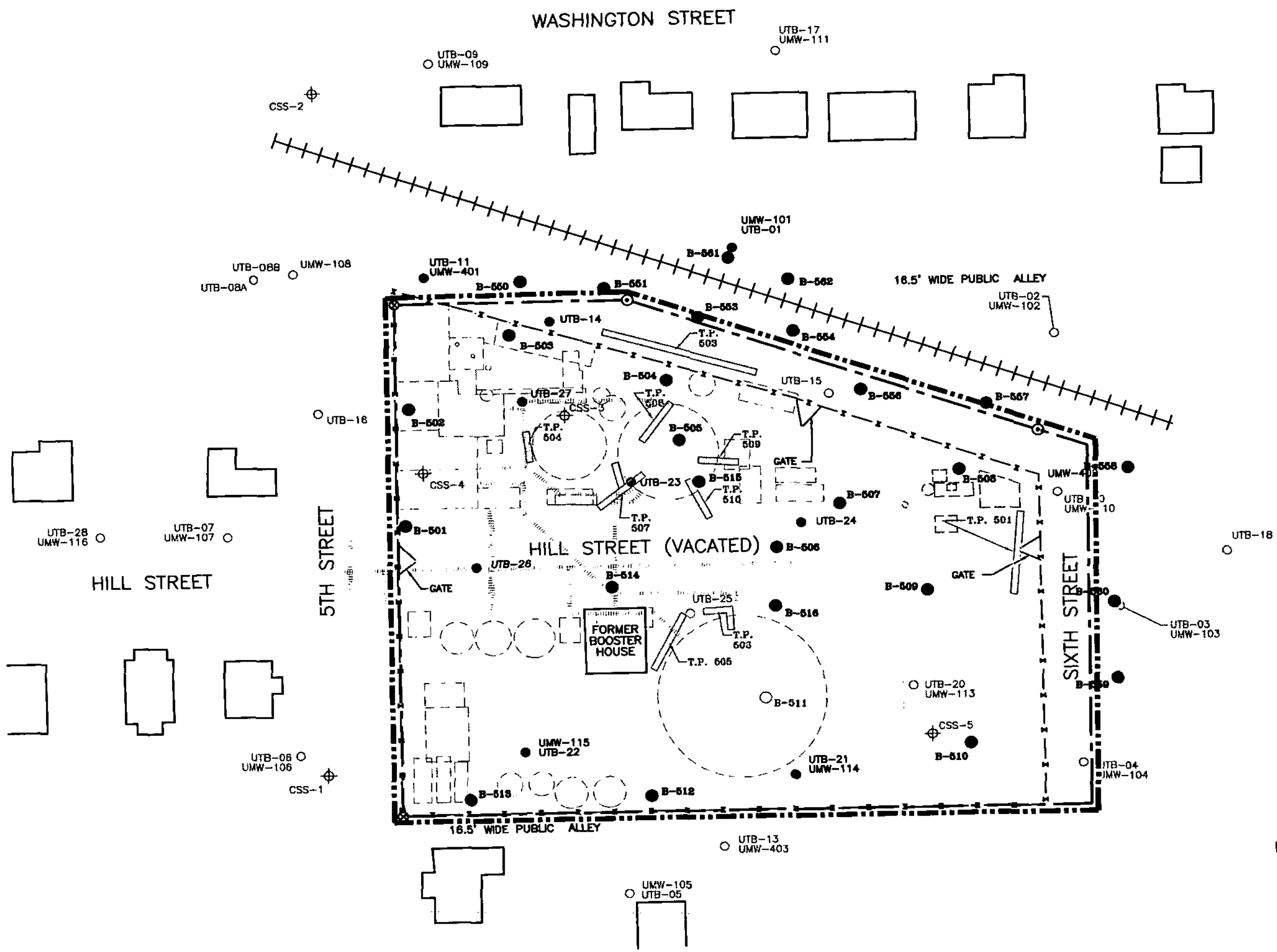
N

PSC

TITLE:
EXCEEDANCE OF TIER 1 REMEDIATION OBJECTIVES FOR SOIL
BTEX AND PAH COMPOUNDS
10-20 FOOT DEPTH INTERVAL

DWN:	DES:	PROJECT NO: 62402647
TMM	JG	AMERENIP CHAMPAIGN, ILLINOIS
CHKD:	APPD:	
DATE: 12/14/07	REV:	FIGURE 7-3

COL J:\62402647A-035



LEGEND

● B-557	NO EXCEEDANCE
● B-557	EXCEEDANCE AT LEAST 1 PATHWAY
○ B-557	NO DATA
- - - - -	HISTORICAL MANUFACTURED GAS PLANT STRUCTURES
———	EXISTING STRUCTURES (APPROXIMATE)
— - —	CURRENT AMERENIP PROPERTY BOUNDARY
—··—··—	REMEDIATION SITE BOUNDARY
—x—x—	FENCE

RELEASABLE

JAN 2 5 2008

REVIEWER MD

NOTE: THE HISTORICAL MANUFACTURED GAS PLANT STRUCTURES ARE A COMPOSITE FROM SANBORN FIRE INSURANCE MAPS AND HISTORICAL AMERENIP SITE PLANS. THE EXACT LOCATIONS OF THE FEATURES IS NOT KNOWN. STRUCTURES AND BUILDINGS MAY HAVE SERVED MULTIPLE PURPOSES DURING THE OPERATION OF THE PLANT.

SOURCE: The source for the property boundary survey is Vegrzyn, Sarver and Associates.

0 80
FEET

N

COL J:\824\02847A-036

PSC

TITLE:
EXCEEDANCE OF TIER 1 REMEDIATION OBJECTIVES FOR SOIL
BTEX AND PAH COMPOUNDS
GREATER THAN 20 FEET

DWN: TMM	DES: JG	PROJECT NO: 62402647 AMERENIP CHAMPAIGN, ILLINOIS
CHKD:	APPD:	
DATE: 12/14/07	REV:	FIGURE 7-4