

Geohydrology Section
1930 Constant Avenue
Lawrence, KS 66047-3724
April 14, 2009

Nick Gardner, E. I. T.
Project Engineer
AquaTerra Environmental Solutions, Inc.
7311 W. 130th Street, Suite 100
Overland Park, Kansas 66213

Dear Mr. Gardner:

I was asked to review the AquaTerra plans for expansion of a construction demolition landfill. The soils in the area are silty clay loams and may be somewhat permeable depending upon the amount of silt and sand present. The wells located in this area have shallow water tables ranging from 8 to 20-ft depths.

Water-quality data from the monitoring wells indicate that low levels of arsenic, chromium, selenium, and lead were detected in June 2008. The arsenic levels in two of the wells are above the drinking water limit of 0.01 mg/L (table). The lead value in MW-4R is also above the drinking water limit and the values in wells MW-5 and MW-7 are close to the limit (table). I do not have access to historical water chemistry data from this site. If these values are consistent with previous analyses then perhaps the area being considered for expansion should be lined to prevent movement of contaminants from the site.

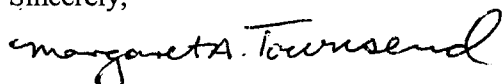
Table of June 2008 Chemical Values for Selected Constituents

Well #	Drinking Water limit (mg/L)	MW-1	MW-4R	MW-5	MW-7
Arsenic	0.01		0.065	0.029	
Chromium	0.1	0.014	0.054		
Lead	0.015		0.061	0.013	0.014
Selenium	0.05	0.026			

Another potential issue is whether the contaminants are reaching Deer Creek to the northeast and west of the present landfill. I do not know if the current monitoring plan for the landfill includes sampling of the stream to see if contaminants are reaching the stream. It may be useful to do some stream sampling in order to prevent future issues with aquatic life water quality limits.

The above comments are based on regional geologic conditions and limited information available to the KGS at the time of writing and cannot be used in substitute for a detailed site characterization. Other geologic conditions, not discussed here, or for which the KGS has no knowledge, may affect the viability or safe operation of this facility or property. Geotechnical engineering and design are outside the purview of the KGS. It is the responsibility of the applicant to produce any detailed site characterizations, geotechnical or environmental testing, or design by a licensed professional geologist or engineer to complete the project.

Sincerely,



Margaret A. Townsend
Hydrogeologist

AQUATERRA
ENVIRONMENTAL SOLUTIONS, INC.

February 3, 2009

Kansas Geological Survey
1930 Constant Avenue
Lawrence, Kansas 66047-3726

Re: **Bradken – Atchison/St. Joseph, Inc. Industrial Landfill**
Proposed Horizontal and Vertical Expansion
Atchison County, Kansas
Aquaterra Project No.: 2318.10

To Whom It May Concern:

Aquaterra Environmental Solutions, Inc. (Aquaterra) has been retained by the Bradken - Atchison/St. Joseph, Inc. Industrial Landfill to prepare a permit modification application for expansion of their existing industrial landfill. One of the requirements is to contact several agencies to determine if they have any information about the proposed site.

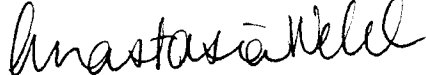
The proposed industrial landfill expansion would take place at the Bradken Industrial Landfill (formerly the ACCIL when owned by Americast Technologies, Inc.) located on approximately 74 acres in the East ½ of NE ¼ of Section 31, Township 5 South, Range 20 East in Atchison County, Kansas. A location map and a preliminary site layout plan are attached. We request a response from your agency indicating any issues you may be aware of regarding this proposed land use.

Thank you for your consideration in this matter. If you have any questions about this request, please contact Aquaterra at (913) 681-0030.

Sincerely,

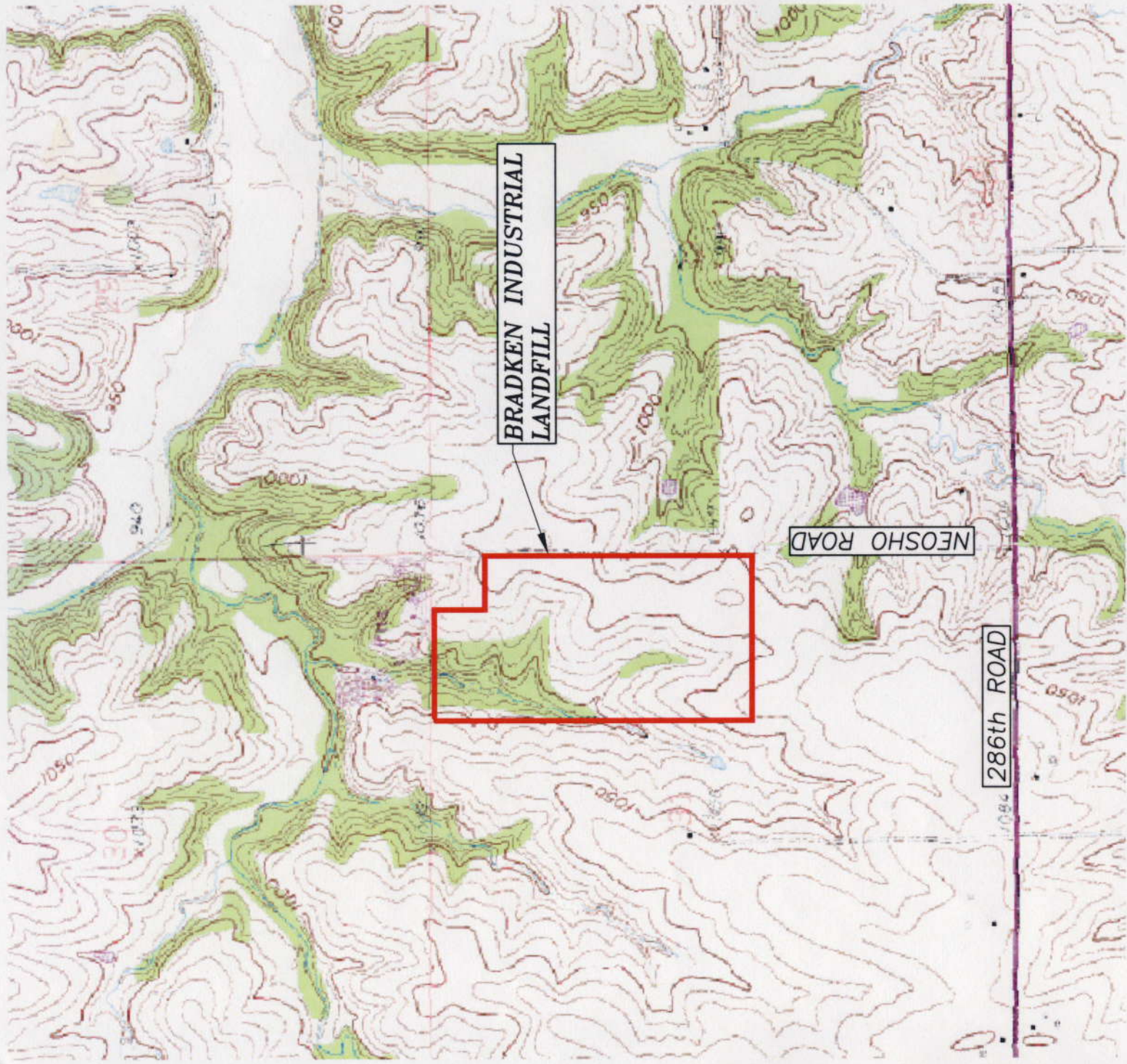
Aquaterra Environmental Solutions, Inc.


Nick Gardner, E.I.T.
Project Engineer


Anastasia J. Welch, P.E.
Project Manager

Attachments: Figures

cc: KDHE-BWM



NOTE: USGS TOPOGRAPHICAL MAP TAKEN FROM TERRASERVER-USA.COM



NOT TO SCALE

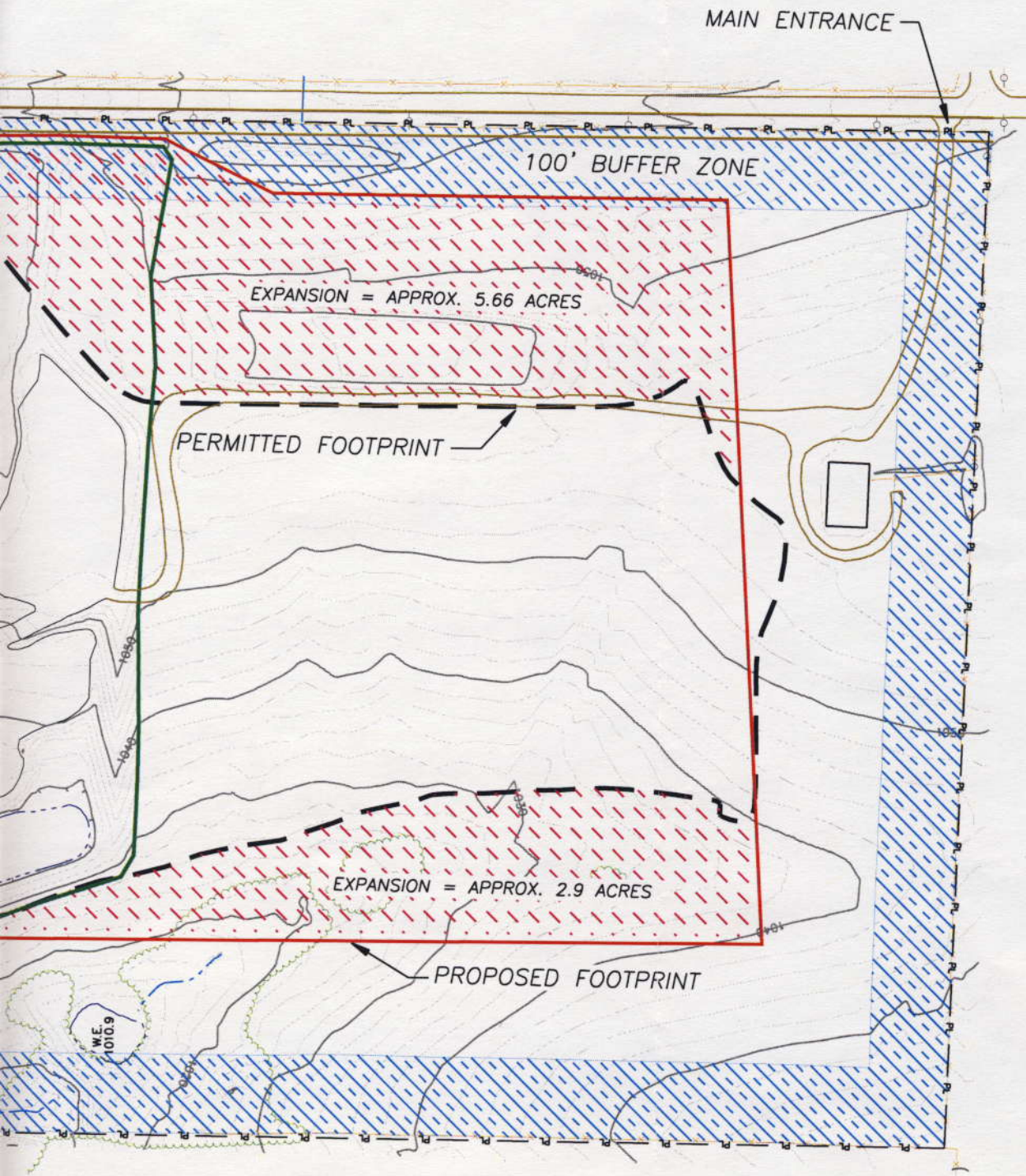
AQUATERRA

ENVIRONMENTAL SOLUTIONS, INC.
7311 West 130th Street, Suite 100
Overland Park, Kansas 66213

LOCATION MAP

HORIZONTAL AND VERTICAL EXPANSION
BRADKEN - ATCHISON/ST. JOSEPH, INC.
INDUSTRIAL LANDFILL

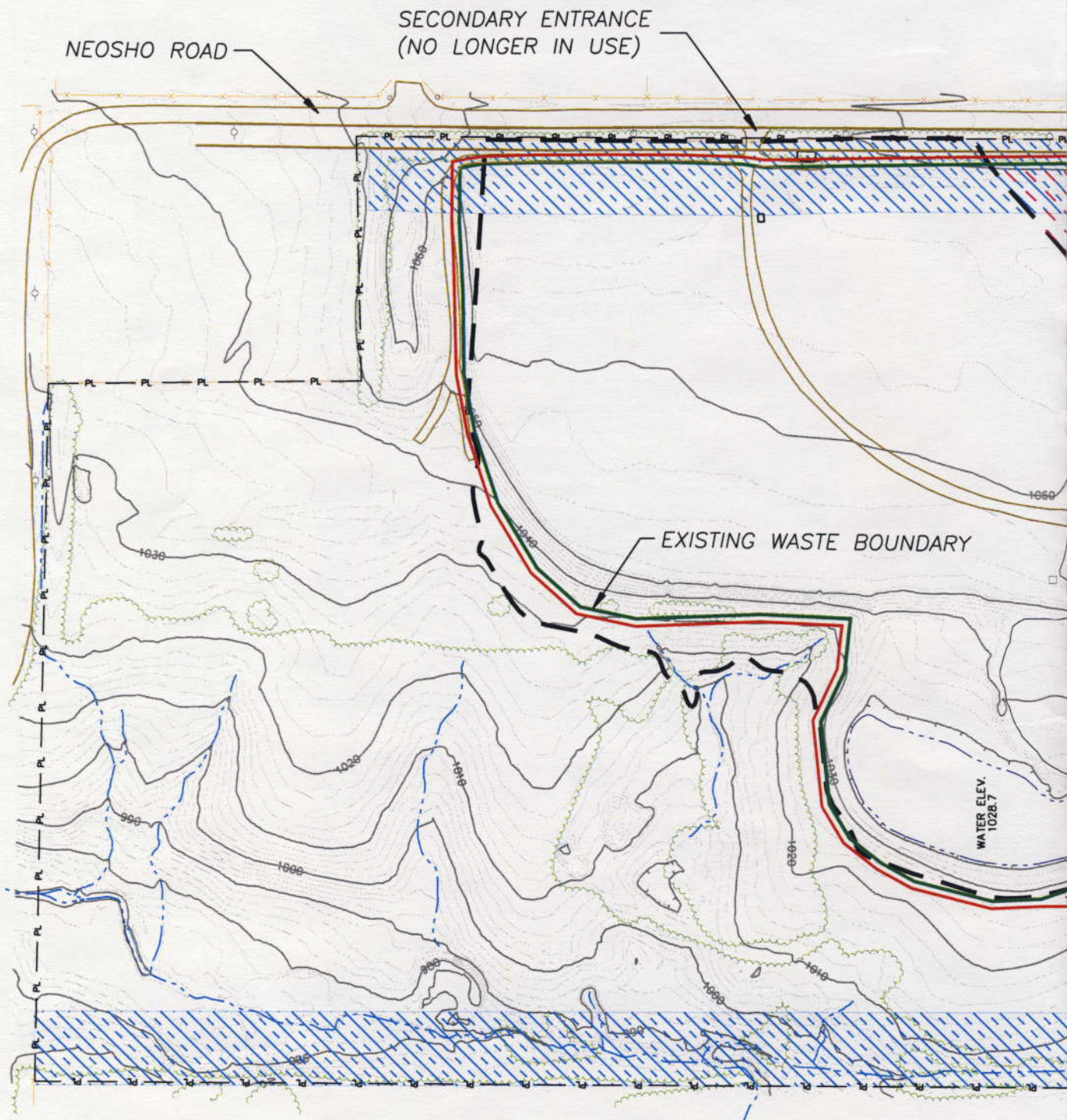
Project Mgr.	AJW	Drawn By	NAG	Designed By	NAG	Project No.	2318.10
Scale	No Scale	Date	2/3/09	File Name	FIG_1_-_LOCATION_MAP.DWG	Figure No.	1



NOTES:

1. TOPOGRAPHIC CONTOURS PROVIDED BY WESTERN AIR MAPS, INC. DATED JANUARY 11, 2008.

FIGURE 2 - PRELIMINARY SITE LAYOUT HORIZONTAL AND VERTICAL EXPANSION		CLIENT: INDUSTRIAL LANDFILL BRADKEN - ATCHISON/ST. JOSEPH, INC. ATCHISON, KANSAS		PROJECT NUMBER: 2318.10 FIGURE NUMBER: 2		DATE: 2/3/09 FIG 2 - PRELIM SITE LAYOUT.DWG		PROJECT INFORMATION: ENVIRONMENTAL SOLUTIONS, INC. 7311 West 130th Street, Suite 100 Overland Park, Kansas 66213		REVISIONS:	
		DESIGNED BY: NAG ELECTRONIC FILE NAME:		PROJECT MGR: AJW DATE: 2/3/09		REV.		DESCRIPTION		BY	
R5		-		5BY							
R4		-		4BY							
R3		-		3BY							
R2		-		2BY							
R1		-		1BY							
R0		-		0BY							



LEGEND:

- | | | | |
|-----------|--------------------------------|-----------|---|
| — — — — — | EXISTING 2' CONTOURS | — X — X — | EXISTING FENCE |
| — 820 — | EXISTING 10' CONTOURS | — — — — — | EXISTING ROADS |
| — PL — | PROPERTY BOUNDARY | — ~ — ~ — | EXISTING TREES |
| — — — — — | EXPANSION FINAL COVER BOUNDARY | □ | EXISTING BUILDING |
| — — — — — | EXISTING LANDFILL FOOTPRINT | ▨ | EXPANSION AREA |
| — — — — — | EXISTING WASTE FOOTPRINT | ▨ | 100-FOOT BUFFER ZONE FROM PROPERTY LINE |

Other documentation not scanned.
Available in open file.