GeoDesign INC

August 30, 2013

Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201

Attention: Mr. Tim Spencer

Methane Monitoring Work Plan
Building Surcharge Activities
Proposed Householder Refuge and Temple
LaVelle Landfill
NE 82nd Avenue and NE Siskiyou Street
Portland, Oregon
GeoDesign Project: DharmaRain-1-05

INTRODUCTION

The Dharma Rain Zen Center (DRZC) is planning to develop an approximately 14-acre parcel of land located at the eastern half of the approximately 26-acre former H.G. LaVelle Landfill located southeast of the intersection of NE 82nd Avenue and NE Siskiyou Street in Portland, Oregon (project site). The project site is currently undeveloped, and DRZC is preparing to construct Phase I of their planned development consisting of the Sodo Building, office, workshop, and infrastructure. The report of geotechnical engineering services[1] recommended a three-month-long surcharge program to help reduce post-construction settlement beneath proposed buildings and pavement areas. As discussed with the Oregon Department of Environmental Quality (DEQ), methane monitoring will be required before and during surcharge activities to evaluate the potential impacts that may result from the surcharge. This methane monitoring work plan describes the proposed methane monitoring that will be completed in association with the surcharge activities.

The project site is shown relative to surrounding physical features on Figure 1. The project site layout and surrounding properties are shown on Figure 2.

[1] GeoDesign, Inc., *Report of Geotechnical Engineering Services; Proposed Householder Refuge and Temple; LaVelle Landfill; NE 82nd Avenue and NE Siskiyou Street; Portland, Oregon,* dated May 10, 2013. GeoDesign Project: DharmaRain-1-03

METHANE MONITORING

As discussed with the DEQ, we will complete methane monitoring prior to and during the planned three-month surcharge program. The surcharge areas are shown on Figure 2. The monitoring is intended to establish baseline conditions and evaluate potential off-site migration of methane that may result from the surcharge activities. Project site activities will be conducted in general accordance with the DEQ-approved Site-Specific Health and Safety Plan[2] (HSP) that has been prepared for the project site. Details on the methane monitoring are provided below.

BASELINE MONITORING

Prior to planned surcharge activities, baseline methane monitoring data will be collected from the following perimeter gas probes:

- North side of landfill: MW-1, MW-2, MW-3, MW-4, and MW-5
- South side of landfill: MW-16, MW-17, MW-22, MW-29, MW-30, MW-31, and MW-32

Proposed monitoring locations are shown on Figure 2.

The following data will be collected and recorded as part of the baseline monitoring:

- Concentrations of methane, carbon dioxide, oxygen, and balance gases measured in percent by volume from the selected perimeter gas probes
- Static pressure measured in inches of water from the selected perimeter gas probes
- The date, time, and atmospheric barometric pressure

Gas concentrations and static pressure data will be collected using a Landtec GEM 2000+ gas analyzer.

SURCHARGE METHANE MONITORING

During surcharge activities, methane monitoring will be conducted following the same procedures outlined for the baseline monitoring. Data will be compared to the baseline and evaluated for potential impacts or changes that can be attributed to the placement of soil at the proposed surcharge locations.

Surcharge monitoring will initially occur weekly during the first month of soil placement. After the soil stockpiles are placed, the monitoring frequency will be reduced to monthly until the surcharge is complete. Monitoring results and a brief comparison of the data to baseline conditions will be emailed to DEQ within three days of each monitoring event.

Lastly, a portion of the soil used for the surcharge will be generated from on-site sources, reducing the overall thickness of the existing landfill soil cap. We will perform routine monitoring as described in the HSP during site activities that disturb the existing soil cap.

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[2] GeoDesign, Inc., *Site-Specific health and Safety Plan; Proposed Householder Refuge and Temple; LaVelle Landfill; NE 82nd Avenue and NE Siskiyou Street; Portland, Oregon,* dated August 1, 2013. GeoDesign Project: DharmaRain-1-04

We appreciate your continued assistance and support on this project. Please call if you have questions regarding this submittal or if we may be of assistance in any regard.

Sincerely,

GeoDesign, Inc.

Mike F. Coenen, P.E.
Associate Engineer

Signed for

Jason O'Donnell, R.G.
Principal Geologist

cc: Mr. Kevin Dana, Oregon Department of Environmental Quality (via email only)
Mr. Kakumyo Lowe-Charde, Dharma Rain Zen Center (via email only)
Mr. William Kehrli, CWK2 (via email only)

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Attachments
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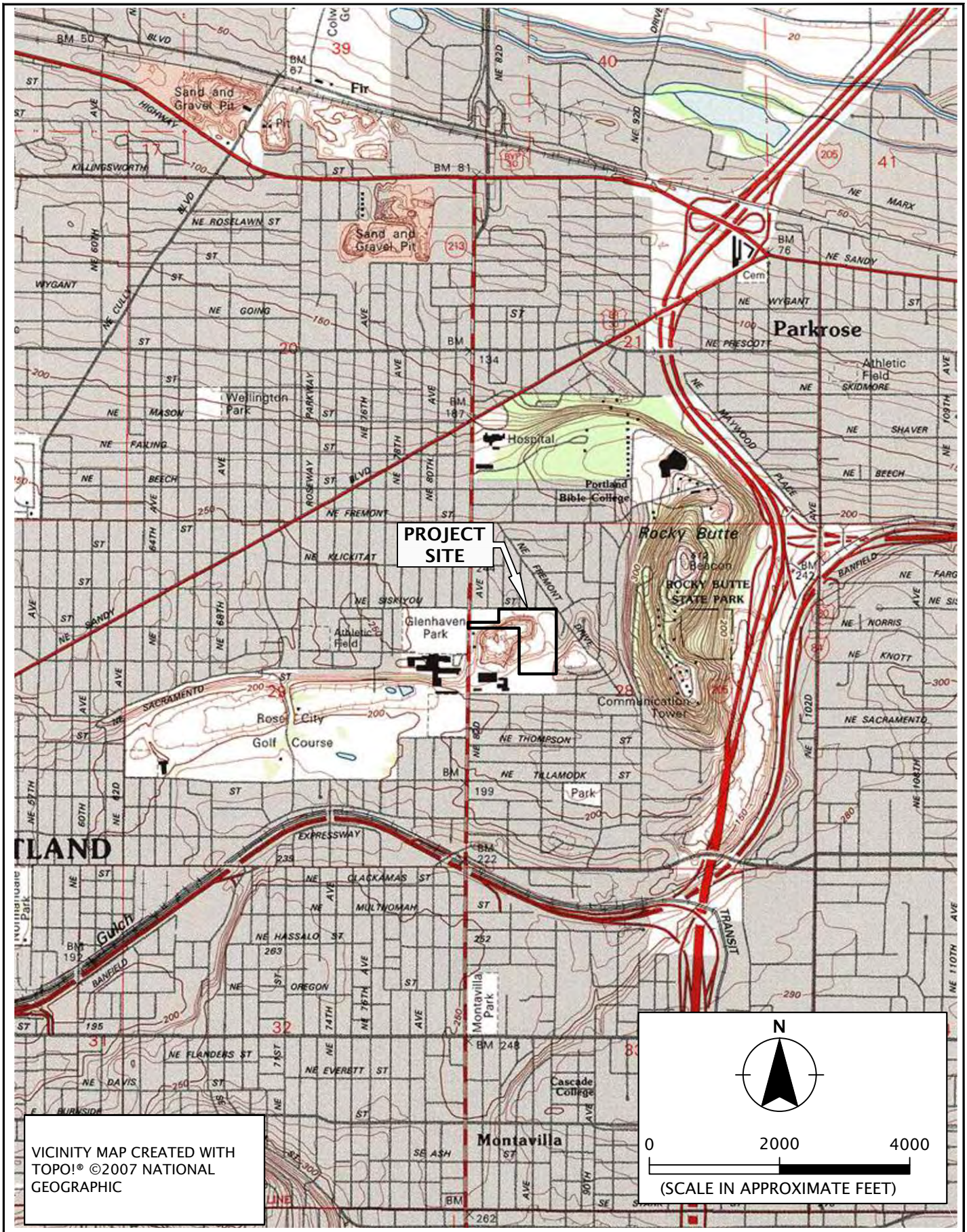
FIGURES



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DHARMARAIN-1-05	**VICINITY MAP**	
AUGUST 2013	PROPOSED HOUSEHOLDER REFUGE AND TEMPLE PORTLAND, OR	**FIGURE 1**

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File Name: J:\A-D\DharmaRain\DharmaRain-1\DharmaRain-1-05\Figures\CAD\DharmaRain-1-05-VM01.dwg | Layout: FIGURE 1

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GEODESIGN INC 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	DHARMARAIN-1-05	**SITE PLAN**	
	AUGUST 2013	PROPOSED HOUSEHOLDER REFUGE AND TEMPLE PORTLAND, OR	**FIGURE 2**