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ADDENDUM 1

Volume Calculation Package Addendum

Beech and Bonaparte P engineering p.c.

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CALCULATION PACKAGE COVER SHEET

Client: Honeywell Project:	Onondaga L	ake SCA Final Cover Design	Project/Proposal #:	GD5497	
TITLE OF COMPUTATIONS	VOLUME CALCULATION PACKAGE ADDENDUM				
COMPUTATIONS BY:	Signature Printed Name and Title	Ray Wu Senior Staff Engineer	3	02/26/16 DATE	
ASSUMPTIONS AND PROCEDURES CHECKED BY:	Signature Printed Name and Title	Sowmya Bulusu, P.E. Senior Engineer		02/26/16 DATE	
COMPUTATIONS CHECKED BY:	Signature Printed Name and Title	Sowmya Bulusu, P.E. Senior Engineer		02/26/16 DATE	
COMPUTATIONS BACKCHECKED BY:	Signature Printed Name and Title	Ray Wu Senior Staff Engineer	OF NEW YOR	02/26/16 DATE	
APPROVED BY:	Signature Printed Name and Title	Jay Beech, Ph.D., P.E. 40 Senior Principal '0'- 40	100 06633	05/04/16 DATE	
APPROVAL NOTES:			ROFESSIO		
REVISIONS (Number and initial all revisi	ons)				
NO. SHEET	DATE	BY CHEC	CKED BY APP	PROVAL	

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Written by: Ray Wu	Date: 02/26/2016 Reviewed by:	Page Sowmya Bulusu / Jay Be	eech Date:	of : 02/26/2	<u> </u>
Client: Honeywell Project:	Onondaga Lake SCA Final Cover Design	Project/ Proposal No.:	GD5497	Task No.:	03

VOLUME CALCULATION PACKAGE ADDENDUM

The purpose of this addendum is to update the proposed SCA final cover system originally presented in the NYSDEC approved calculation package titled "*Volume Calculations for SCA Final Cover Design*" [Beech and Bonaparte, 2015], referred to herein as the Volume Package.

The Volume Package had indicated that the geocomposite drainage layer would only be used on the side slopes of the main deck. This addendum clarifies that the geocomposite drainage layer will be installed over the entire SCA cover area (i.e., top deck, main deck, and side slopes of both decks). Additionally, a geotextile cushion layer will be installed over the entire leveling layer surface. Therefore, Figures 1A and 1B, as shown below, have been updated to show that the SCA final cover system consists of the following layers1:

- Leveling layer consisting of soil fill, with variable thickness as needed to establish design grades;
- Geotextile cushion layer;
- Linear low-density polyethylene (LLDPE) geomembrane;
- Geocomposite drainage layer;
- 18-inch thick protective soil layer; and
- 6-inch thick vegetative soil layer.

This clarification does not impact the soil volume calculations presented in the Volume Package.

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Client: Honeywell Project:	Onondaga Lake SCA Final Cover Design	Project/ Proposal No.:	GD5497	Task No.:	03

REFERENCES

Beech and Bonaparte. "Appendix A-2: Volume Calculations for SCA Final Cover," Onondaga Lake SCA Final Cover Design, dated April 2015.

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Written by: Ray Wu	Date: Date: Reviewed by:	Sowmya Bulusu / Jay I	Beech Date	e: <u>02/26</u>	2016
Client: Honeywell Projec	Onondaga Lake SCA Final Cover	Project/ Proposal No.:	GD5497	Task No.:	03

Figures

Beech and Bonaparte **>**

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Written by:	Ray Wu	Date:	02/26/2016	Reviewed by:	Sowmya Bulusu / Jay B	eech Date	e: <u>02/26/2</u>	2016
Client: Honeywell	Project:	Onond Design	aga Lake SCA	Final Cover	Project/ Proposal No.:	GD5497	Task No.:	03

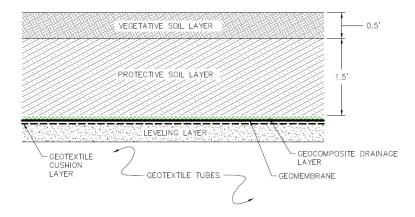


Figure 1A: SCA Final Cover for Gently Sloping Areas on the Top and Main Decks

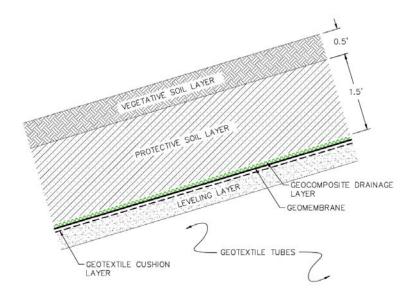


Figure 1B: SCA Final Cover for Top and Main Deck Side Slopes