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September 28, 2011

To: Diane Carlton, NYSDEC, Region 7 (1 PDF)
Holly Sammon, Onondaga County Public Library (1 bound)
Samuel Sage, Atlantic States Legal Foundation (1 bound)
Joseph J. Heath, Esq., Onondaga Nation (cover letter)

Re: Letter of Transmittal – Willis Ave/Semet Repository Addition

The below document has been approved by the New York State Department of Environmental Conservation (NYSDEC) and is enclosed for your document holdings:

- I-690 Storm Drainage System Flow Monitoring and Sampling Work Plan dated June 9, 2011 and the June 14, 2011 email from Chris Calkins which provided modified work plan text.

Sincerely,

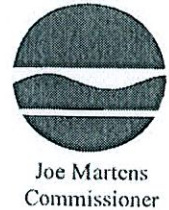
John P. McAuliffe by CCC

John P. McAuliffe, P.E.
Program Director, Syracuse

Enc.

cc: Tracy A. Smith - NYSDEC

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau D, 12th Floor
625 Broadway, Albany, New York 12233-7013
Phone: (518) 402-9676 • Fax: (518) 402-9020
Website: www.dec.ny.gov



June 16, 2011

Alfred J. Labuz
Honeywell International, Inc
301 Plainfield Road, Suite 330
Syracuse, New York 13212

Re: I-690 Storm Drainage System Flow Monitoring and Sampling Work Plan

Dear Mr. Labuz:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the referenced work plan dated June 9, 2011, and the June 14, 2011, email from Chris Calkins, which provided modified work plan text.

The work plan, as modified by the June 24, 2011 email, is approved conditioned on this letter and the referenced email being inserted into all copies of the work plan that are distributed by Honeywell (including any copies distributed within Honeywell), to its agents (including its contractors working on this project), and to the public, if any.

If you have any questions, please contact me at (518) 402-9676.

Sincerely,



Donald J. Hesler
Section Chief, Section B

cc: John McAuliffe - Honeywell
Robert Nunes - USEPA, NYC
Mark Sergott - NYSDOH
John Davis, NYSDOL
Joseph Heath, Onondaga Nation
Thane Joyal, Onondaga Nation
Jeanne Shenandoah
Heidi Kuhl
Fred Kirschner, AESE
Curtis Waterman
Alma Lowry
Christopher Calkins, OBG



ENV - Fwd: I-690 Storm Drain System Flow Monitoring and Sampling Work Plan

From: Christopher Calkins
To: Conklin, Tom
Date: 6/16/2011 7:58 AM
Subject: Fwd: I-690 Storm Drain System Flow Monitoring and Sampling Work Plan

>>> On 6/14/2011 at 4:35 PM, in message <4DF78DC0.8C87.004E.0@obg.com>, Christopher Calkins wrote:

As per our telephone conversation of this afternoon, it was agreed that the following text modifications would be made to the above referenced work plan, submitted to the Department on June 9, 2011.

On Page 2, In the sixth sentence of the *Approach* subsection of the *Storm Water Drainage System Characterization* section, the text will be modified to read "..., and samples will be collected from DR-42 and DR-43 only, if DR-41 is surcharged".

Please let me know if you wish to discuss further. Thanx.



Christopher C. Calkins
VICE PRESIDENT

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June 9, 2011

Mr. Donald Hesler
New York State Department of Environmental Conservation
Remedial Bureau D
625 Broadway
Albany, New York 12233-7016

Re: I-690 Storm Drainage System Flow Monitoring and Sampling Work Plan

Dear Mr. Hesler:

This letter work plan presents the scope and procedures for I-690 storm drainage flow measurement and storm water sampling to support the proposed Phase 4 remedial design for the I-690 Storm Drainage System in Geddes, New York. The scope presented herein is in response to NYSDEC's request for this work in your April 1, 2011 letter and May 26, 2011 comment letter on the April 26, 2011 letter work plan.

Project Background

Phase 3 of the I-690 Storm Drain Modification/Temporary Trench Installation Project involved decommissioning of the underdrain isolation pilot study system in the eastern storm drain system, and installation of cured in-place pipe (CIPP) and permanent underdrain conveyance piping in portions of the eastern storm drain system. Also, CIPP was installed in a portion of the western storm drainage system. A site plan presenting the eastern and western storm drain systems is included as **Figure 1**.

The May 22, 2009 letter regarding the Willis Ave/Semet Tar Beds IRM I-690 Storm Drain Modifications/Temporary Trench Installation Phase 3 – Post Construction Inspection and Sampling summarized the results of the post-construction sampling and presented recommendations for corrective actions. The recommendations were for further inspection of manhole MH-1, corrective action for catch basins DR-41 and DR-45, and additional sampling. These corrective actions were performed in the summer and fall of 2009. A letter was submitted to the NYSDEC on May 3, 2010 summarizing the repair work and presenting recommendations for additional sampling. The NYSDEC approved this work plan on July 8, 2010.

The Phase 3 – Post Construction repair sampling included additional storm water samples being collected in the eastern and western storm drainage systems in August 2010. The storm water samples were found to contain benzene, chlorinated benzenes, and mercury. These data were submitted to the NYSDEC in a letter dated October 21, 2010. The proposed sampling information discussed below will provide information necessary to finalize the I-690 Phase 4 remedial design.

Storm Water Flow Investigation and Storm Water Sampling Plan

The proposed tasks for the storm water flow investigation and storm water are presented below.

Flow monitoring

Flow measurements will be collected for the eastern and western portions of the storm water drainage system for a 6-month period. Due to surcharging at manholes MH-1 and MH-2, the flow measurements will be collected downstream of catch basin DR-41 for the eastern storm drainage system and downstream of catch basin DR-40 for the western storm drainage system. Flow will be collected by a pressure transducer or equivalent device, and flow will be recorded every 15 minutes with a data logger. The data will be uploaded from the data logger on a weekly basis for the 6 month duration. At the time of each flow data upload, the system around the flow sensor will be checked for debris and sediment that could affect flow measurements. Photographs will also be taken to document the condition of the system when the flow data is uploaded. Two flow units were evaluated, the ISCO 2150 flow module and the Hach Marsh-McBirney Flo-Dar®, for flow monitoring. The two units were evaluated based on effectiveness, size, installation procedures, vendor recommendations, and cost. Based on the results of this evaluation, the ISCO 2150 flow module will be utilized for this program. Proposed flow measurement locations are presented on **Figure 1**.

Storm Water Drainage System Characterization

Objective: Storm water samples will be collected within the eastern and western portions of the I-690 storm drainage system to further characterize ongoing impacts to this system and to further refine the Phase 4 remedial design.

Approach: Storm water samples will be collected from catch basins DR-40, DR-41, DR-42, and DR-43. Two samples from these catch basins, one wet weather and one dry weather event, will be collected each month for the six month duration that the flow measurement sensors are installed. A wet weather event will be collected when a precipitation event of greater than 0.1 inches occurs during a three hour period and a dry weather event will be collected when no precipitation event greater than 0.1 inches has occurred for a minimum of 3 days. Additional samples will be collected upstream of these locations if the analytic results exceed NYS Class C surface water criteria. If lake level causes manholes DR-40 and DR-41 to surcharge then samples will be collected from alternate locations. Samples will be collected at DR-39 and DR-40A if DR-40 is surcharged, and samples will be collected at DR-42 and DR-43 if DR-41 is surcharged. The samples will be analyzed for the full USEPA TCL list for VOCs (including 1,2-, 1,3-, and 1,4-dichlorobenzene) and mercury (high resolution) using USEPA methods 8260B and 1631, respectively. A sample summary matrix is provided as **Table 1**.

Report

A letter report will be submitted to the NYSDEC for review within 60 days after completion of the work described above. The letter report will summarize the approach and results and include a figure presenting sampling locations, tabulated analytic results, and recommendations for further action, if warranted.

Schedule

This work will begin within 20 working days of the acceptance of this work plan.

Mr. Donald Hesler
June 9, 2011
Page 3

Please contact me if you have any questions regarding this matter.

Sincerely,

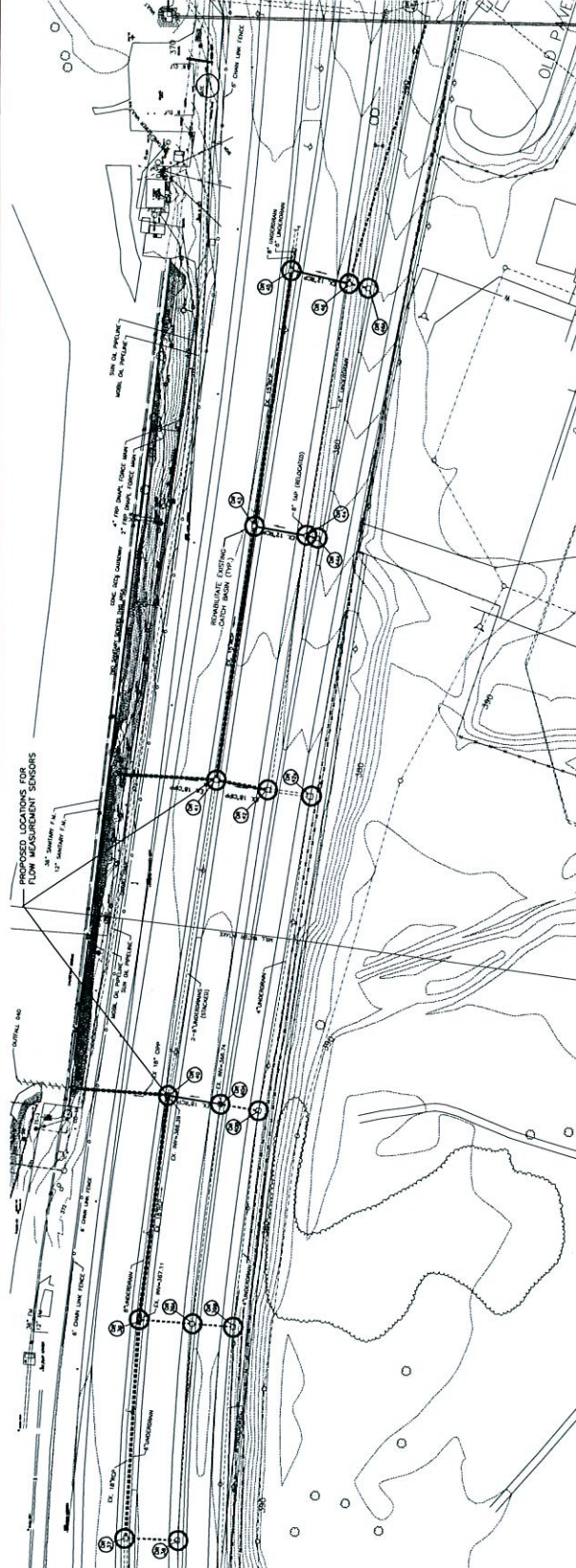
Alfred J. Labuz
Alfred J. Labuz *by CCC*
Remediation Manager

Attachments

cc:	Argie Cirillo, Esq.	USEPA (ltr only)
	Mr. Robert Nunes	USEPA, Region II (1 copy & ec)
	Ms. Tara Blum	NYSDEC, Region 7 (ec)
	Ms. Sandy Lizlovs	NYSDEC, Region 7 (ec)
	Mr. Steven Bates	NYSDOH (1 copy, 1 CD)
	Mr. Geoffrey Laccetti	NYSDOH (ec)
	Brian D. Israel, Esq.	Arnold & Porter (ec)
	Mr. William Hague	Honeywell (ec)
	Mr. John P. McAuliffe, P.E.	Honeywell (ltr only)
	Mr. John Davis	NYS DOL (1 copy)
	Joseph J. Heath, Esq.	Onondaga Nation (ec)
	Thane Joyal, Esq.	Onondaga Nation (ec)
	Ms. Jeanne Shenandoah	Onondaga Nation (1 copy, ec)
	Mr. Fred Kirshner	AESE, Inc. (ec)
	Mr. Curtis Waterman	Onondaga Nation (ec)
	Ms. Alma Lowry	Onondaga Nation (ec)
	Ms. Heidi Kuhl	Onondaga Nation (1 copy)
	Mr. Steven Miller	Parsons (CD/hc cov ltr)
	Mr. Thomas Conklin	O'Brien & Gere (ec)
	Mr. Christopher Calkins	O'Brien & Gere (ec)

Storm Sewer Investigation

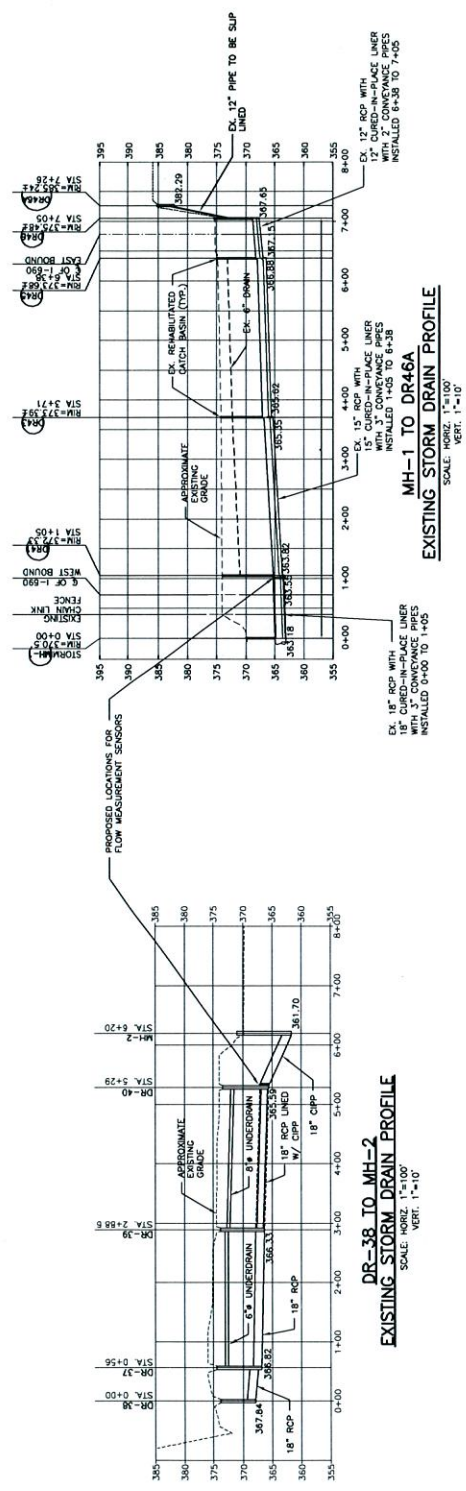
Matrix/Analysis	Method	Samples	MS	MSD	Field Duplicates	Equipment Blanks	Trip Blanks	Total Samples
Storm Water (4 locations; 1 dry weather sample and 1 wet weather sample per month for 6 months)								
TCL VOCs ¹	8260B plus 10 TICs	48	0	0	3	0	12	63
Mercury	1631	48	0	0	3	0	0	51
Notes								
All analyses will be performed in accordance with USEPA SW846 methods.								
MS/MSD - Matrix Spike/Matrix Spike Duplicate								
¹ VOC analysis will include 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene								



I-690 STORM
DRAIN SYSTEM
PROPOSED
SAMPLE LOCATIONS



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SCALE: HORIZ. 1"=100'
VERT. 1"=10'

SCALE: HORIZ. 1"=100'
VERT. 1"=10'