



CITY COUNCIL ACTION REPORT

December 11, 2006

TO: Phillip L. Nelson, City Manager

FROM: John M. Lamerato, Assistant City Manager/Finance and Administration
Jeanette Bennett, Purchasing Director
Carol K. Anderson, Parks and Recreation Director

SUBJECT: Amendment #2 - Environmental Work Sanctuary Lake Golf Course – NTH Consultants

Background

- Prior to construction of Sanctuary Lake Golf Course, the City entered into a contract with NTH to assess environmental conditions. {Resolution #2000-377}
- NTH Consultant's final report included a recommendation that groundwater sampling and testing be done to assess possible changes in groundwater quality or flow patterns after the golf course construction.
- Through an amendment to the contract, NTH has been monitoring the groundwater and methane gas on the property. {Resolution #2003-06-316}
- Two methane monitors have been damaged necessitating repair.

Financial Considerations

- Funds for this work are available in 885.7802.050 Sanctuary Lake Greens.

Legal Considerations

- There are no legal considerations.

Policy Consideration

- Monitoring of methane and groundwater is imperative to ensure no environmental problems on this site. (Goal #6)
- This amendment includes staff training, which will enable City personnel to monitor methane gas. (Goal #1)

December 11, 2006

To: Phillip L. Nelson, City Manager
Re: Amendment #2 – NTH Consultants

Options

- City management recommends approval of this amendment at an estimated cost of \$30,000. The scope of services included in this proposed amendment includes repairing the damaged methane detectors in the golf cart shed, implementing a maintenance program for the methane detectors, developing a gas monitoring contingency plan, and continuing to conduct landfill gas and groundwater monitoring at the Sanctuary Lake Golf Course Development. At the completion of this scope of work, staff will be trained to monitor the gas detection devices and landfill gas monitoring.

CA/ S:/John's Review/Agenda 12.18.06 Amendment #2 – NTH - Letter



NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

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Farmington Hills, MI 48331
248.553.6300
248.324.5178 Fax

Mr. C. Neall Schroeder, P.E.
Engineering Department
City of Troy
500 West Big Beaver
Troy, Michigan 48084

November 9, 2006
Prop. No. P-20061550-F

RE: Proposal for Landfill Gas and Groundwater Monitoring
Sanctuary Lake Golf Course Development
Troy, Michigan

RECEIVED

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ENGINEERING

Dear Mr. Schroeder:

With this letter, NTH Consultants, Ltd. (NTH) is requesting an amendment to our existing contract for environmental services for the above-reference project. The scope of services included in this proposed amendment includes repairing the damaged methane detectors in the golf cart shed, implementing a maintenance program for the methane detectors, developing a gas monitoring contingency plan, and continuing to conduct landfill gas and groundwater monitoring at the Sanctuary Lake Golf Course Development.

The following sections present a description of our proposed scope of work, the anticipated schedule, and estimated fees for completing the work.

SCOPE OF WORK

NTH proposes to complete the following tasks related to the landfill gas and groundwater monitoring programs at the site:

Task 1 – Replacement/Repair of Damaged Methane Detectors

In April 2006, we met with representatives of the City of Troy Engineering, Parks & Recreation, and Fire Departments to discuss a methane detector alarm that had occurred in the golf cart storage building at the golf course. We also went to the golf course to observe the condition of the methane detectors and to assess possible causes of the alarm. Subsequently, we arranged for ASC Mastertek (ASC) to inspect the two RKI PS2 methane detectors located in the golf cart storage building, which were in constant alarm. Based on ASC's findings, both units had been damaged by either a lightning strike or power surge.

To place the methane detectors back into service, NTH will coordinate with ASC to repair, calibrate, and reinstall the methane detectors located in the golf cart storage building.



Task 2 – Methane Detector Maintenance Plan

The damage and subsequent constant alarm of the detectors suggests that a maintenance plan needs to be developed for the methane detectors at the Sanctuary Lake Golf Course Development. NTH will develop a maintenance plan for the detectors at the golf course. We will consult with the methane detector manufacturer to determine an appropriate schedule for inspection and calibration of the detectors to ensure proper function of their units. Based on the proposed schedule, we will prepare a cost estimate for long-term maintenance, which NTH or a qualified subcontractor will implement in the future.

Task 3 – Development of a Gas Monitoring Contingency Plan

The purpose of this task is to develop a gas monitoring contingency plan that outlines the actions that should occur if a methane detector alarm occurs. Based on the alarm that sounded earlier this year within the golf cart storage building, a contingency plan should be developed to outline the appropriate actions that need to be taken by on-site personnel and by response personnel. We will work with the Troy Fire Department to determine the acceptable response plan measures. We will also reference the performance-based protection standard from the Fire Code in the development of the plan (IFC 2003 ed. Chapter 27, Section 2701.3).

Task 4 – Landfill Gas Monitoring

We propose to continue to obtain methane gas readings from the gas monitoring probes located around the perimeter of the landfill, on a semi-annual basis, in December 2006 and June 2007. We understand that City of Troy Parks & Recreation Department personnel are prepared to take over the gas monitoring in the future. Therefore, we will provide training to designated City personnel, by having them join us at the site during the monitoring activities and giving them hands-on training on the field instrument and procedures.

We will also review the methane gas monitoring data developed by NTH and/or City personnel, and we will prepare an annual report of the results. This report will also provide an evaluation of the effectiveness of the existing landfill gas venting system and recommendations, as appropriate, for improvements or additional monitoring requirements.

Task 5 – Annual Groundwater Monitoring

As part of the last groundwater monitoring report, submitted on April 4, 2006, we prepared a summary evaluation of the previous 3 years' monitoring results. As presented in that report, the groundwater monitoring results indicated that no appreciable change in groundwater quality occurred after the golf course was constructed.

We propose to continue collecting and analyzing groundwater samples, on an annual basis, in accordance with the proposed monitoring program, as recommended in our report of November 9, 2001. Specifically, we will obtain samples from selected existing monitoring wells located along the south property boundary (i.e., MW-1 through MW-4, MW-10, MW-13, and MW-14) and a surface water sample from the wetland south of the site. During the annual sampling event, we will also measure static water levels in each of the wells that are sampled,



along with several additional monitoring wells at the site to confirm the groundwater flow direction.

We will submit the groundwater samples to an analytical laboratory for chemical testing. The proposed analytical parameters are presented on Table 1, Groundwater Sampling Parameters. The table also defines the analytical methods to be used and the method detection limits to be attained.

We will present our findings from each groundwater sampling event in a written report to the City of Troy. Each report will include an updated groundwater contour map, a tabulation of the analytical results, and a comparison to the appropriate generic Part 201 groundwater criteria.

Task 6 – Project Administration & Meeting

In addition to the above-listed tasks, we have provided a proposed budget for project administration and one (1) additional meeting at the City of Troy or at the golf course, if requested.

ANTICIPATED SCHEDULE

Upon approval of this proposal, we will begin the scope included in each task. We estimate that Tasks 1 and 2 will be completed within approximately one month of approval. For Task 3, we will prepare a draft gas monitoring contingency plan within approximately six weeks, which we will provide for review and comment by the City. Upon receiving the City's comments, we estimate that the finalized plan will be completed within approximately two weeks.

The last groundwater and methane monitoring event at the site was performed in November 2005. Therefore, to maintain an annual schedule, we propose to conduct the next monitoring event before the end of December 2006. We will prepare the associated report in January 2007. An additional gas monitoring event will then be performed in June 2007.

PROPOSED PROJECT BUDGET

Fees to complete the proposed scope of services will be made in accordance with the rates shown on our current Fee and Rate Schedule (FS-ENG-2), dated 1-2006, and under the terms of our current contract between NTH Consultants, Ltd., and the City of Troy. A copy of our Fee & Rate Schedule is attached for your reference and is part of this contract for professional services. On the basis of the estimated hours and expenses, our anticipated fees to complete the individual tasks included in this proposal are summarized below.



Mr. Neal Schroeder
November 9, 2006

<u>Task Description</u>	<u>Proposed Budget</u>
1. Site Meeting (April 2006) & Replacement/Repair of Methane Detectors	\$ 2,200
2. Methane Detector Maintenance Plan	\$ 1,800
3. Gas Monitoring Contingency Plan	\$ 7,700
4. Gas Monitoring (2 events and training of City Personnel) and Annual Report Preparation	\$ 4,500
5. Annual Groundwater Monitoring and Report Preparation (included annual summary evaluation included in 2005 report)	\$ 11,600
6. Project Administration & Meetings (1), if requested	<u>\$ 2,200</u>
TOTAL	\$30,000

We trust this proposal meets your needs at this time. We appreciate the opportunity to be of continued service to the City of Troy. Should you have any questions or need additional information, please feel free to contact us.

Sincerely,

NTH Consultants, Ltd.

Mary L. Siegan, P.E.
Project Engineer

Alan C. Erickson, P.E.
Senior Project Engineer

MLS/ACE

cc: Rick Burns (NTH)

Attachment



**2006 FEE AND RATE SCHEDULE
PROFESSIONAL SERVICES**

PERSONNEL

Fees for our services will be based upon the time worked on the project by professional, technical and clerical personnel according to the following schedule:

	PER HOUR
Technician I*.....	\$ 45
Word Processor*.....	\$ 45
Technician II*.....	\$ 55
Lab Technician*.....	\$ 65
Technician III*.....	\$ 60
Staff Professional.....	\$ 85
Senior Technician/Certified Welding Inspector*.....	\$ 80
CADD Operator.....	\$ 80
Senior Staff Professional.....	\$ 95
Project Professional.....	\$110
Senior Project Professional.....	\$125
Principal Engineer.....	\$145
Senior Principal Engineer.....	\$165
Senior Officer.....	\$195

*For these personnel, overtime work will be charged at a rate equal to 1.33 times the Standard Rate.

A premium of 25 percent will be added to hourly rates for expert testimony and depositions, including preparation time.

NTH Consultants and Professionals include Engineers, Geologists, Environmental Specialists, Architects, Roofing Specialists, Industrial Hygienists, Environmental Health Specialists, Scientists, Asbestos Specialists, and Environmental Chemists. NTH Technicians include Engineering, Environmental, Construction Materials, and Environmental Health technical specialists.

NTH operates on a strong project management system, and a Project Manager is appointed for each project. Project Managers are selected from our staff of Senior Project Professionals, Principal Engineers and Senior Principal Engineers.

EXPENSES

The following expenses, when incurred in direct connection with the project, will be charged at the rate shown:

Transportation, Lodging and Subsistence for Travel.....	Cost + 10%
Printing, Reproduction, Photographs, Long Distance Telephone and Telecopier Charges, Shipping Charges and Material Purchases.....	Cost + 10%
Project Mileage for Company-Owned Vehicles.....	\$0.48/Mile
Cellular Phone (Field Projects).....	\$12/Day
CADD Supply Charge.....	.\$6/hr.

Rental of Specialized Field, Laboratory or Monitoring Equipment will be billed as indicated on NTH Schedule of Equipment Usage Rates

SUBCONTRACTORS/SUBCONSULTANTS

On projects requiring subcontractors or subconsultants, we will obtain the services of reputable contractors or consultants to perform such work. The fees of these contractors or consultants plus a 15% service charge will be added to our invoices.

INVOICES

Progress invoices will be submitted to the client monthly and a final bill will be submitted upon completion of our services. Invoices will show charges for different personnel and expense classifications. Each invoice is due on presentation and is past due thirty (30) days from invoice date. Client agrees to pay a finance charge of one percent (1%) per month on past due accounts.

We reserve the right to suspend or terminate work under our agreement upon failure of the client to pay invoices when due.

INCREASES

Fee schedule increases made by our firm on an overall client basis will be applied to work on all projects as the increases become effective.