



Engineering a Sustainable Future

Brem-151-01.14.2014

January 13, 2015  
File No. 6680  
Via Email and U.S. Mail

RECEIVED  
JAN 14 2015

Mr. Steve Hinton  
Zoning Board of Appeals  
Town of Carlisle  
66 Westford Street  
Carlisle, MA 01741  
[shinton@mindspring.com](mailto:shinton@mindspring.com)

TOWN CLERK-CARLISLE  
CHARLENE M. HINTON

**Re: Proposed Scope of Services  
Independent Hydrogeologic Study  
100 Long Ridge Road  
Carlisle, Massachusetts**

Dear Mr. Hinton:

Nobis Engineering, Inc. (Nobis) is pleased to present to the Town of Carlisle (Town) Zoning Board of Appeals (ZBA) this proposed Scope of Services to perform an independent hydrogeologic study of potential impacts related to a proposed 40B housing development on the Brem property located at 100 Long Ridge Road (site; a.k.a. The Birches) in Carlisle, Massachusetts (Site).

Nobis understands that the site is undergoing development by a private owner and that the Town's concerns include potential impacts of proposed, on-site, wastewater disposal systems on proposed on-site and existing off-site drinking water wells, and potential interference (yield and water level) effects between the new wells and the existing abutter wells. Also, potential interference effects between the proposed new wells are a concern.

Nobis is a multi-disciplinary consulting firm that delivers a full range of environmental, geotechnical, and engineering services. A qualifications package was submitted to the Town as part of our August 2014 proposal. Primary project team members for this proposed Scope of Services include James H. Vernon, Ph.D.; Senior Hydrogeologist; Tim Andrews, Senior Geologist and Director of Environmental Services; Stan Bonis, Project Geologist; and Catherine Jones, Staff Geologist. Resumes will be provided on request. Dr. Vernon has performed similar hydrogeologic services for the Town.

**1.0 BACKGROUND**

Lifetime Green Homes, LLC (LGH) submitted a 40B housing approval application (LGH application) to the Town on July 2, 2014. Nobis received an updated site plan from the Town (prepared by LGH, dated November 14, 2014), which depicts 20 proposed residences to be served by three septic systems and 11 drinking water wells. The site plan also depicts an existing drinking water well on abutting property, located at 132 Long Ridge Road, west of the site; earlier maps reviewed by Nobis and provided by the Town indicate that at least one other existing drinking water well is present on an abutting lot, located at 200 Long Ridge Road, southwest of the site.



Nobis understands that the Town has retained Nitsch Engineering of Boston and GeoHydroCycle, Inc. (GHC) of Newton as peer reviewers for the LGH application and related submittals. The Town provided to Nobis GHC's review of the application, dated December 30, 2014. Nobis further understands that the site property abutters retained Hill Law of Cambridge and the Horsley Witten Group of Sandwich to review the LGH application and related materials. The Town provided Horsley's review of the application, dated October 3, 2014, to Nobis.

Nobis understands that the objectives of the independent hydrogeologic study include assessing potential impacts of the following:

- Proposed site septic system systems on proposed site and existing drinking water wells at abutting site properties;
- Proposed drinking water wells on existing drinking wells at abutting properties;
- Proposed drinking water wells and on each other; and
- Evaluation of actions intended to reduce the impacts or risks of impacts to acceptable levels.

Additional technical objectives may be developed during the course of the project and will be addressed in future Scopes of Services.

## **2.0 PROPOSED SCOPE OF SERVICES**

Nobis proposes to support the Town by conducting an independent hydrogeologic study and also by providing support at Town ZBA meetings and/or public hearings.

### **Phase 1: Background Information Review and Site Walk**

#### Task 100: Obtain and Review Background Information

Nobis will assess hydrogeologic information provided by the Town or available on the Town's project website regarding the site septic system design and the location and design of proposed and existing drinking water wells. This information may include submittals by the applicant (LGH), the Town's peer reviewer, and the abutters' consultant. It is not Nobis' primary role to critique or review submittals by these parties; Nobis may work with these parties and use information developed by them or by LGH, but only if directed to do so by the Town.

Nobis also requests that the Town provide any existing records on abutters' wells, which may include Carlisle Board of Health drilling records, well logs or permits, records that may be provided by property owners, or records that may be obtained from well drillers. Nobis also requests that the Town provide a copy of its zoning map that depicts aquifer protection areas.

Nobis will obtain and review existing published maps that may be available as Geographic Information Systems (GIS) layers from the public domain database, MASSGIS, and/or the Town. Such maps may include bedrock geology, overburden geology, soils, wetlands, and tax maps. (Tax lots, roads, and wells are available as GIS files from the Town.) Nobis' review will focus on both bedrock and overburden geology and hydrogeologic characteristics, as the septic systems are presumed to be installed in overburden deposits, and the existing and proposed wells are assumed to be drilled into (and obtain their water from) fractured bedrock.



#### Task 200: Project Base Map

Nobis requests existing GIS mapping (electronic data layers for roads, tax maps, wells, and other information, if available) from the Town ZBA for the project site and abutting properties. Nobis will add the appropriate mapped information and data layers obtained under Task 100 in order to form a base map for the hydrogeologic studies. If existing GIS files are not available, Nobis will create the required base map for the project site and abutting properties. Nobis' budget assumes that Nobis will create a GIS base map starting from GIS data layers for roads and tax lots provided by the Town ZBA.

#### Task 300: Site Walk

Nobis will conduct a reconnaissance visit in the vicinity of the site. Nobis understands that it may not be possible to enter the project site (LGH/Brem property) itself and that the reconnaissance visit may be limited to abutters' properties or areas and easements accessible to the public. Nobis assumes that the Town ZBA will seek and obtain access for Nobis. During the visit, Nobis will note general conditions, topography, soils, and geologic features such as landforms and bedrock outcrops, to the extent that these are visible. Surface water features, existing wells, and accessibility for future investigations (e.g. test pits or test borings) will also be noted.

#### Task 400: Photolineament (Fracture Trace) Analysis

It is Nobis' understanding the proposed and existing wells are assumed to be drilled into fractured bedrock. Therefore, an understanding of the bedrock, as well as the overburden geology in the site vicinity, will be needed in order to achieve the project objectives. For this task, Nobis will obtain public domain aerial photographs, available as stereo pairs from the USGS. Nobis will examine a minimum of two pairs of photos of different types (e.g. B&W, color, or infrared), dates, and/or scales. Nobis will trace photolineaments that, in our professional judgment, may represent bedrock fracture zones in or near the site and abutting properties. The photolineaments will be traced on Mylar overlays on the air photos and digitized and overlain on project GIS maps. The resulting maps will be examined to see if any photolineaments indicate potential bedrock fracture connections between proposed septic systems and existing or proposed wells. (Note that if such a connection is observed, this does not prove that an impact will occur but will indicate the need for more detailed study.)

#### Task 500: Report Summary and Meeting Attendance

In addition to project management and planning, Task 500 includes liaison with the Town ZBA representative throughout the project. Task 500 also includes one conference call with the Town ZBA's peer review consultant, GHC, to share information and perspectives on the project. Task 500 also includes Nobis attendance at one Town ZBA meeting to present our initial findings and discuss the next steps (Phase 2) in the project.

Nobis will prepare a written summary of existing reports and information, including a listing of key data gaps that need to be filed in order to conduct the independent hydrogeologic investigation. This summary will not include a technical review of the documents but an annotated listing of the documents and the general type and scope of the information contained in each. The summary will be part of the Phase 1 report, which will address preliminary conclusions, data gaps and their importance to completing the necessary analyses, and an outline of next steps and anticipated costs for Phase 2. Copies of the photolineament overlays and base map files will provided separately, in electronic format, to the Town.



A conceptual Scope of Services for subsequent phases can be found in Attachment A.

### 3.0 BUDGET

Our estimated fee for the scope items in Phase 1, as described above, is as follows. Additional work could be performed, upon request, according to the attached Schedule of Fees (Attachment B).

| Scope   | Fee Structure  | Estimated Fee  |
|---|----------------|----------------|
| <b>Phase 1: Background Information Review and Site Walk</b> |                |                |
| Task 100: Obtain and Review Background Information          | Time & Expense | \$2,300        |
| Task 200: Project Base Map                                  | Time & Expense | \$ 700         |
| Task 300: Site Walk   | Time & Expense | \$1,500        |
| Task 400: Photolineament Analysis                           | Time & Expense | \$ 900         |
| Task 500: Report Summary and Meeting Attendance             | Time & Expense | \$4,500        |
| <b>Estimated Total: Tasks 100 – 500</b>                     |                | <b>\$9,900</b> |

Services will be billed monthly in accordance with the hourly rates in the attached Schedule of Fees (Attachment B). Cost will not exceed the total listed above without requesting and receiving approval to provide such additional scope of services as may be required. Incidental expenses (printing, mileage, etc.) will be provided at cost plus 15% for administrative expenses. Our payment terms are net 30 days. You will be notified if conditions require a change to the scope of services and budget estimate. This proposal is valid for 30 days from the date of issue.

### 4.0 SCHEDULE

Nobis is prepared to begin work immediately upon authorization by the Town. Nobis will work closely with the Carlisle ZBA and understands that timely response and attendance at Town ZBA meetings are key elements of the project. The timing of specific investigations depends on site access, weather, and timing of other project elements.

### 5.0 ASSUMPTIONS

1. The Town will provide all project documents and digital mapping (GIS) files that are available and relevant to Nobis.
2. The Town will seek access to the site and abutting properties on behalf of Nobis and will inform Nobis as the results of its access requests.
3. Nobis proposes a phased approach to the hydrogeologic studies because the results of each phase will influence the direction, scope, and level of effort for the next phase. Nobis understands that many uncertainties may influence the scope and direction of the studies. One of the most significant uncertainties is whether Nobis will have access to the site. (Nobis understands that the Town ZBA formally requested access to the site on January 5, but that no response from LGH has been received at this time).
4. Attendance at one (1) or two (2) Town ZBA meetings is assumed for each phase of work.



**6.0 LIMITATIONS**

This Scope of Services for Phase 1 does not include the following (but could be provided at an additional cost, upon request):

- 1. Meetings with the site owner, abutters and/or their representatives on the Town's behalf;
- 2. Testimony in court or expert witness support; and
- 3. Sample collection, including subsurface investigation.

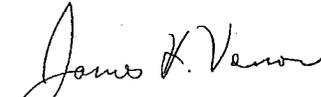
**7.0 TERMS AND CONDITIONS**

We will perform these services in accordance with the attached Statement of Terms and Conditions (Attachment C). Please note that Article 12.0 of our Terms and Conditions includes a "Limitation of Liability" clause by which you agree to limit our liability for any damages arising out of our professional negligence to \$50,000 or our fees, whichever is greater. You may request an increase to this limitation by making the request in writing and by paying an additional fee. This proposal is valid for 30 days from the date of issue.

We look forward to working with you on this project. Thank you for the opportunity to be of service. If you require additional information, please do not hesitate to contact us at (603) 224-4182.

Sincerely,

**Nobis Engineering, Inc.**

  
 James H. Vernon, Ph.D., P.G.  
 Senior Hydrogeologist

  
 Tracey A. Costa  
 Director State and Municipal Services

Attachments:

- Attachment A. Conceptual Scope of Services, Phases 2-4
- Attachment B. Schedule of Fees
- Attachment C. Terms and Conditions

**ACCEPTANCE**

This proposed contract for Phase 1 services and its attachment are hereby accepted by The Town of Carlisle as evidenced by the signature below, and such a person so executing the same on behalf of the Town of Carlisle does hereby warrant full authority to act for, in the name of, and on behalf of the Town of Carlisle. This proposed contract is valid for 30 days from the date of issue.

Signature \_\_\_\_\_  
For the Town of Carlisle

Date \_\_\_\_\_

Title \_\_\_\_\_

*Please indicate your acceptance by signing and returning one copy of this proposal.*

## ATTACHMENT A

### Conceptual Scope of Services, Phases 2 - 4

#### ***Phase 2: Initial Field Investigations and Hydrogeologic Analysis***

The Scope of Services for proposed Phase 2 activities will depend on the results of Phase 1 (including data gaps), Site access, and the quality and extent of data and field investigation results that may be submitted by LGH or provided by other investigators. Some or all of the tasks listed below may be undertaken in Phase 2.

#### **Task 600: Overburden Hydrogeology and Groundwater Flow Direction Assessment**

- Use existing test pit data to characterize soils and potentially excavate new test pits, if needed to fill data gaps;
- Use existing boring logs to characterize soils and overburden geology and determine saturated thickness and depth to bedrock or compact till; advance new borings if needed to fill data gaps;
- Install monitoring wells to determine overburden groundwater flow direction at on-site and off-site locations (Conduct an elevation survey of the site/abutter monitoring wells and measure water levels; use the data to contour the potentiometric surface and establish overburden groundwater flow directions.); and
- Perform slug tests on selected site/abutter monitoring wells in order to estimate hydraulic conductivity for comparison with published and expected values.

#### **Task 700: Develop Hydrogeologic Conceptual Site Model for Overburden and Bedrock**

- If bedrock outcrops are available nearby, measure orientations of fractures and other features that appear capable of groundwater flow;
- Integrate these results with the photolineament analysis in Task 400; and
- Synthesize overburden hydrogeologic information from Tasks 100 and 600 with bedrock hydrogeologic information to develop a coherent, conceptual hydrogeologic model for the site and vicinity.

#### **Task 800: Mass Balance and Groundwater Mounding Analyses**

- Perform mass balance analysis; and
- Conduct site specific groundwater mounding analyses for each of the three (3) proposed septic systems using the Hantush Method and the best available input parameters (depending on accessibility to the site and/or availability of on-site data gathered by others).

#### **Task 900: Nitrogen Loading/Dilution/Plume Analysis**

- Site specific nitrate loading and dispersion analyses will be performed for each of the three (3) proposed septic systems; details will vary depending on site access and data availability.

### **Task 1000: Phase 2 Report**

Nobis will prepare a report summarizing Phase 2 investigations and results. As appropriate, paper and/or digital appendices will include results of field investigations (e. g. boring logs), analytical models, etc. The report will also present recommendations for additional studies and/or actions that may be needed to address the LGH application.

### **Task 1100: Project Management and Meetings**

- Ongoing project management and planning;
- Communications with the Town; and
- One (1) to three (3) meetings/presentations to Town ZBA.

*The following Phase 3 details activities that may be proposed under a future Scope of Services and will be defined upon the completion of Phase 2 activities.*

### **Phase 3: Yield and Quality Assessment of Existing Abutter Wells**

The Scope of Services for the Phase 3 may include the following elements:

### **Task 1200: Pumping and Sampling of Existing Abutter Wells**

- If permitted by existing abutter well owners, yield tests will be conducted using the existing well pumps; duration and details of the tests will be determined after more information on the wells is obtained and pending the development of the conceptual hydrogeologic model; this model will indicate, qualitatively, the level of concern for each well, which will in turn influence the duration and design of the pumping tests;
- Water level monitoring in nearby wells may be performed to document potential interference effects;
- Testing may be done before new on-site wells begin service, in order to define baseline conditions;
- Water samples will be collected from the well being pumped during the tests to establish baseline water quality for the existing wells; this can serve as a comparison for later samples that may be analyzed for nitrates or other parameters after the proposed septic systems are in operation; and
- A report will be prepared to document the pumping test results.

### **Phase 4: Additional Investigations**

*The following details activities that may be proposed under a future Scope of Services and will be defined upon the completion of Phase 2 and 3 activities.*

### **Task 1300: Pumping Tests on New On-Site Wells**

- Details dependent on results of Phase 1, Phase 2, and Phase 3 studies (some wells will be more critical to test for longer periods of time than others).

### **Task 1400: Long-Term Monitoring of Selected Existing and New Wells**

- This may be a condition of a permit that may be granted for the 40B project; and

- Nobis will recommend a monitoring program that may include water levels, water sampling, or both.

**Task 1500: Numerical Overburden Groundwater Flow Model**

- Optional

**Task 1600: Installation of Downgradient Monitoring Wells**

- Downgradient groundwater monitoring wells may be added to verify nitrate loading/dilution calculations, check model results, monitor permit compliance, etc.

**Task 1700: Dye Tracer Studies**

- Non-toxic dyes would be injected at the sites of the proposed septic systems; and
- Existing or new bedrock wells would be monitored under pumping or ambient conditions to see if the dye reaches the drinking water wells to determine if there is a connection

**Task 1800: Report**

**Task 1900: Project Management and Meetings**



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## SCHEDULE OF FEES

| <b>CATEGORY</b>                                 | <b>HOURLY RATE</b> |
|---|--------------------|
| Principal                                       | \$190              |
| Senior Project Manager III/LSP/LEP              | \$175              |
| Senior Project Manager II                       | \$160              |
| Senior Project Manager I                        | \$140              |
| Senior Landscape Architect                      | \$130              |
| Landscape Architect                             | \$100              |
| Project Manager III/LSP                         | \$135              |
| Project Manager II                              | \$130              |
| Project Manager I                               | \$125              |
| Senior Project Engineer/Geologist/Scientist III | \$145              |
| Senior Project Engineer/Geologist/Scientist II  | \$130              |
| Senior Project Engineer/Geologist/Scientist I   | \$120              |
| Project Engineer III                            | \$115              |
| Project Engineer II                             | \$105              |
| Project Engineer I                              | \$ 90              |
| Project Geologist/Scientist III                 | \$110              |
| Project Geologist/Scientist II                  | \$ 95              |
| Project Geologist/Scientist I                   | \$ 85              |
| Staff Engineer/Geologist/Scientist III          | \$ 85              |
| Staff Engineer/Geologist/Scientist II           | \$ 80              |
| Staff Engineer/Geologist/Scientist I            | \$ 75              |
| Technician III                                  | \$ 85              |
| Technician II                                   | \$ 70              |
| Technician I                                    | \$ 60              |
| Senior Project Coordinator                      | \$115              |
| Project Coordinator                             | \$100              |
| Word Processor/Clerical II                      | \$ 65              |
| Word Processor/Clerical I                       | \$ 60              |
| <b>REIMBURSABLE EXPENSES</b>                    |                    |
| Report Materials                                | at cost            |
| Travel, Field and Miscellaneous Services        | Cost Plus 15%      |
| Subcontracted Services                          | Cost Plus 15%      |

- NOTE:**
- 1) Fees charged to the project will be in accordance with these rates for all work performed.
  - 2) Fee Schedule effective through December 31, 2014.

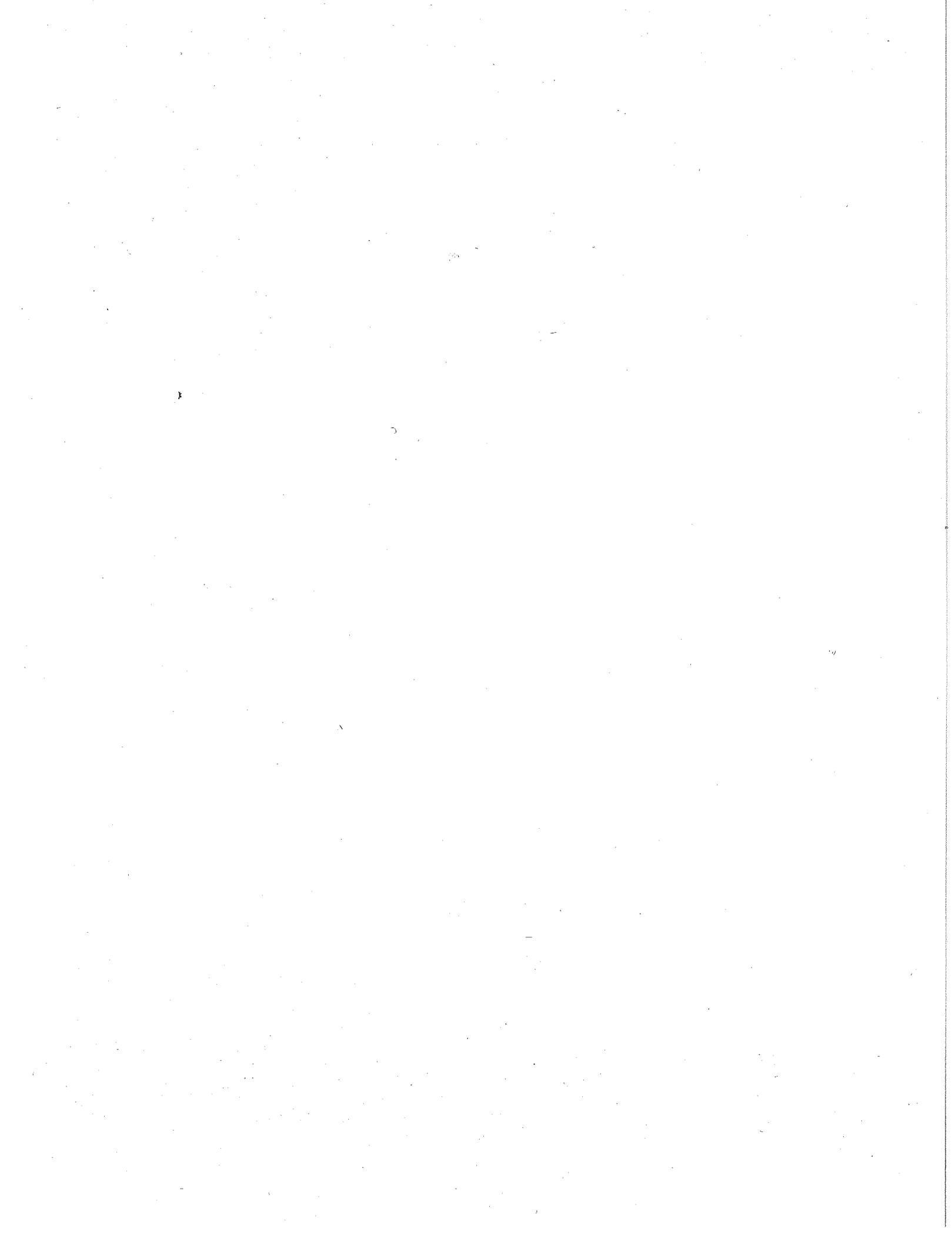


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## REIMBURSABLE EXPENSES

### FIELD EQUIPMENT

|   |               |
|---|---------------|
| Photoionization Detector (PID)                              | \$90/ day     |
| 4-Gas Meter   | \$90/ day     |
| Water Level Meter   | \$15/ day     |
| Interface Probe   | \$25/ day     |
| pH, Conductivity and Temperature Meter                      | \$20/ day     |
| Dissolved Oxygen Meter                                      | \$30/ day     |
| Oxidation Reduction Potential (ORP) Meter                   | \$30/ day     |
| Metal Detector  | \$15/ day     |
| Air Sampling Pump   | \$35/ day     |
| Data Logger Pressure Transducer                             | \$100/ day    |
| Disposable Bailers  | \$10/ each    |
| Field Supplies  | \$25/ day     |
| Groundwater Sampling Filter                                 | \$20/ each    |
| Groundwater Sampling Pump                                   | \$40/ day     |
| Low-flow sampling systems                                   | \$175/day     |
| Hand Auger  | \$15/ day     |
| Level, Tripod, Rod/Prism, Tape/Chain                        | \$80/ day     |
| Transit, Tripod, Rod/Prism, Tape/Chain                      | \$80/ day     |
| Multi Channel Data Logger                                   | \$250/ day    |
| Hand-held GPS Unit  | \$30/ day     |
| Trimble GPS Unit  | \$200/ day    |
| Turbidity Meter   | \$15/ day     |
| Horiba Multimeter   | \$80/ day     |
| Field PDA   | \$25/ day     |
| Digital Camera  | \$15/ day     |
| Expenses, Field Supplies, Travel and Subcontracted Services | Cost Plus 15% |



## TERMS AND CONDITIONS

These terms and conditions are incorporated by reference in the attached Proposal for Services, dated **January 13, 2015**, File Number **6680**, directed to **Town of Carlisle**, (the "Client"). This proposal contains clauses that limit the liability of Nobis Engineering, Inc. (the "Company") to Client and require the Client to indemnify Company for certain claims for damages. This Proposal should be reviewed carefully and Client may choose to consult with an attorney. Company and Client agree as follows:

**1.0 Services.** Company shall provide Client with the "Services" set forth in the Proposal for Services ("Proposal") with respect to the property identified in the Proposal ("Site"), under these terms and conditions. Company's Services will be performed on behalf of and solely for the exclusive use of Client for the purposes described in the Proposal and for no other purpose. Client acknowledges that Company's Services require decisions, which are based upon judgment stemming from limited data rather than upon scientific certainties. Client, in accepting Company's Proposal, acknowledges the inherent risks to Client and its property associated with the Services described in the Proposal and with underground work in general. Company reserves the right to refuse to undertake any work on behalf of any project or on behalf of any prospective Client. Client acknowledges that other qualified persons and entities are available to carry out the proposed Services. Client also acknowledges that the proposed Services may reveal certain conditions affecting the site, of which Company will inform Client and of which Company may be obligated to inform governmental agencies.

**2.0 Billings and Payment.** Client will pay Company for Services performed in accordance with the rates and charges in the Proposal. Invoices for Company's Services will be submitted on a periodic basis, or upon completion of Services as Company shall elect. All invoices are payable in full upon receipt. If payment in full is not received by Company within 30 days of the date on the invoice, the account will be deemed delinquent. Invoice balances remaining unpaid will bear interest from invoice date at 1.5 percent per month or at the maximum lawful interest rate if such interest rate is less than 1.5 percent per month. If Client fails to pay any invoice in full within 30 days of the invoice date, Company may, at any time, and without waiving any other rights or claims against Client, and without thereby incurring any liability to Client elect to terminate performance of Services upon ten (10) days prior written notice by Company to Client. Notwithstanding any termination of Services by Company for non-payment of invoices, Client shall pay Company in full for all Services rendered by Company to the effective date of termination of Services plus all delinquent fees, termination costs, and expenses incurred by Company and related to such termination. Client shall be liable to Company for all costs and expenses of collection, including reasonable attorney's fees. Company's non-exercise of any rights or remedies, whether specified herein or otherwise provided by law, shall not be deemed a waiver of any rights or remedies, nor preclude Company from the exercise of such rights or other rights and remedies under this instrument, or at law.

**3.0 Right of Entry.** Client grants to Company the right, exercisable from time to time, of entry to the Site by Company, its agents, employees, consultants, contractors and subcontractors, for the purpose of performing all acts, studies and research, including the performing of test borings, test pits and other explorations as described in the Proposal. Should Client not own the Site, Client warrants and represents by acceptance of this Proposal that it has authority and permission of Site owner and any other Site occupant to grant Company this right of entry. Company may require evidence of such authority in a form reasonably satisfactory to Company.

### **4.0 Subsurface Explorations.**

**4.1 Normal Disturbance.** Client acknowledges that the use of exploratory equipment and processes may affect, alter or damage the terrain, vegetation, buildings, structures, improvements and equipment at, in or upon the Site. Client accepts such risks. Company will not be liable for any affect, alteration or damage arising out of such explorations except that caused by Company's grossly negligent acts. The cost of restoration of the Site because of any damage to the site has not been calculated or included in Company's fees.

**4.2 Subterranean Structures.** Company will exercise a reasonable degree of care in seeking to locate subterranean structures in the vicinity of proposed subsurface explorations at the Site. Company will contact public utilities and review plans, if any, provided to Company by public utilities and public agencies and plans and information about the Site provided by Client. Company shall be entitled to rely on the accuracy and completeness of such plans and information. So long as Company observes such standard of care, Company will not be responsible for any damage, injury or interference with any subterranean structure, pipe, tank, cable or any other element or condition that is not called to Company's attention prior to commencement of work or which is not shown, or accurately located, on any plans furnished to Company by Client or by any other party (public or private).

**5.0 Samples.** Company may dispose of all soil, rock, water and any other samples within thirty (30) days after submission of Company's initial report. Client may request in writing that any such samples be retained beyond such date and Company shall arrange for shipment and storage of such samples at mutually agreed shipment and storage charges. Company will not give Client prior notice of intent to dispose of samples.

**6.0 Documents.** All reports, boring and test pit logs, field data, field notes, laboratory test data, calculations, estimates and other documents, data or information prepared by Company as instruments of Service shall remain the sole property of Company. All reports and other work prepared by Company for Client shall be used solely for the intended purposes and the Site described in the Proposal. Company will retain all pertinent documents for three (3) years following submission of Company's report to Client. Such documents will be available to Client upon request and upon reasonable notice and copies will be furnished by Company to Client for the total cost of reproduction.

**7.0 Client's Duty to Notify Company of Hazards.** Client represents and warrants that it will provide Company with any and all information known to or suspected by Client with respect to 1) The existence or possible existence at, on or under the Site of any hazardous materials, pollutants or asbestos as defined in the federal Water Pollution Control Act; the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; the Superfund Reauthorization Act of 1986; the Resource Conservation and Recovery Act of 1976; or under the provisions of federal, state and local laws of similar import now or hereafter existing, 2) any conditions known to Client to exist in, on, under or in the vicinity of the Site which might represent a potential safety hazard or danger to human health or the environment, or 3) any permit, manifest, title record, or other record of compliance or non-compliance with any federal, state or local laws relating in any way, directly or indirectly, to the past or present environmental conditions at the Site.

In no event shall Company be deemed a handler, generator, transporter, or owner of any hazardous materials that may be at the Site. Client shall defend, indemnify, and hold Company harmless from and against any and all claims, suits, costs, damages, liabilities, and expenses, including reasonable attorneys' fees, arising from or related to any such claims or allegations of any kind directed at Company by any party or entity that may arise out of or relate to Company's Services.

**8.0 Hazardous Materials, Pollutants, Asbestos.** If unanticipated potentially hazardous materials, pollutants or asbestos are encountered during the course of this work, Company shall have the right 1) to suspend its work immediately and 2) to terminate its Services upon ten (10) days of Company's written notice of intent to terminate, unless Company and Client agree on mutually satisfactory amendment to the Proposal that may include a revision of the scope of services, adjustment of budget estimates, revised Terms and Conditions, and revised fees.

**9.0 Confidentiality.** Company will not disclose information regarding the proposal, Company's Services or reports, except 1) to Client, 2) parties designated by Client, 3) as provided in section 10.0 below, 4) as required by law, 5) or to the extent reasonably necessary to substantiate a claim or defense in any adjudicatory proceeding. Information which is in the public domain or which is provided to the Company by third parties is excepted from the foregoing undertaking.

**10.0 Public Responsibility.** Client acknowledges that the Client or the Site owner, as the case may be, is now or shall remain in control of the site for all purposes and at all times. Company does not

undertake to report to any federal, state, county or local public agencies having jurisdiction over the subject matter any conditions existing at the subject Site from time to time which may present a potential danger to public health, safety or the environment. Client by acceptance of this Proposal, agrees that Client will timely notify each appropriate federal, state, county or local public agency, as required by law, of the existence of any conditions at the Site which may present a potential danger to public health, safety or the environment.

Notwithstanding the provisions of section 9.0 and the foregoing, Company will comply with judicial orders or government directives, and federal, state, county or local laws, regulations and ordinances, and applicable codes regarding the reporting to appropriate public agencies of findings with respect to potential dangers to public health, safety or the environment. Company shall have no liability or responsibility to the Client or to any other persons or entity for reports or disclosures made with such statutory or other lawful requirements. Client shall defend, indemnify and hold Company harmless from and against any and all claims, demands, liabilities and expenses, including reasonable attorneys' fees, incurred by Company and arising directly or indirectly in connection with Company's reporting or disclosing such information under a bona fide belief that such reporting or disclosure is required by law.

**11.0 Indemnification.** To the fullest extent permitted by applicable law, unless caused by Company's sole negligence or willful misconduct, Client agrees to defend, indemnify and hold harmless Company, its subcontractors, consultants, agents, owners, directors, officers and employees harmless from and against any and all claims for damages and all costs, liability or expense, whether direct, indirect, economic or consequential, including reasonable attorneys' fees, and court and arbitration costs sustained or alleged by any person or entity other than Client, based upon or arising in connection with: 1) a release of hazardous materials or pollutants; 2) bodily injury including death and property damage (real or personal) or any other claim of damage, expense or loss, caused by the release, removal, remediation, assessment, evaluation or investigation of hazardous materials or pollutants; 3) removal, assessment, evaluation or investigation of hazardous materials or pollutants; 4) any federal, state, local or other governmental fines or penalties related to hazardous materials or pollutants; or 5) the detection, abatement, removal or replacement of products, materials, or processes containing asbestos.

## **12.0 Limitation of Professional Liability.**

**12.1 General.** Client agrees that Company has neither created nor contributed to the creation of any hazardous materials, pollutants, asbestos, or other potentially dangerous substance that is now or may be in the future discovered or introduced at the Site. The Company does not assume any liability for the known and unknown presence of such materials. Company's liability to Client whether based upon or arising out of Company's actual or alleged breach of contract, tort, breach of warranty, negligent professional acts or omissions, or any other cause of action, is limited in the aggregate to the Company's fees actually received for Services rendered on the project or \$50,000, whichever is greater.

**12.2 Increased Limit of Professional Liability.** Company may, upon Client's written request, agree to increase the limit of Company's limitation of liability in consideration of payment by Client of additional monetary and other consideration. Any request for increased limit in professional liability must be made to Company in writing within five (5) days of Client's acceptance of this Proposal. Company is not obligated in any way to grant such request. Such additional monetary and other consideration given to the Company for the additional economic risk assumed by the Company shall not be construed as a charge for the placement and provision of additional professional liability insurance by Company.

**13.0 Governing Law, Severability, Modifications, Assignments.** The agreement between Company and Client shall be governed by and enforceable in accordance with the laws of the State of New Hampshire. The provisions of these Terms and Conditions are severable. The invalidity of any part of these Terms and Conditions shall not invalidate the remainder of these Terms and Conditions nor the remainder of any portion hereof. These printed Terms and Conditions cannot be modified orally or by any course of conduct. Any modification must be acknowledged in writing by Company. These Terms and Conditions shall take precedence over any inconsistent or contradictory provision contained in any proposal, contract, purchase order, requisition, notice to proceed, or like document issued by Client. Client shall not assign any aspect of the agreement between Client and Company except upon the prior written consent of Company.

**14.0 Standard of Care for Services.** The Company agrees to perform its Services under this agreement in accordance with the degree of skill and care ordinarily exercised by similarly practicing professionals performing similar services under similar conditions. The Company makes no other representations and no warranties of any kind, whether express or implied, with respect to the quality or performance of the Services.

**15.0 Waiver of Subrogation.** The Client hereby by waives all rights of subrogation against the Company with respect to any damages the Client may incur to the extent such damages are covered by any insurance maintained by the Client. The Client shall endeavor to require corresponding waivers of subrogation rights in Company's favor from any contractors or consultants Client may retain to perform work or services relating to the Services.

**16.0 Additional Insured.** Client shall name or require its insurance carriers to name Company as an additional insured on any Commercial General Liability insurance policy maintained by Client and shall require the same of any other contractors or consultants retained by Client that may be performing work or services relative to the Services.