

MEETING NOTICE AND AGENDA
MANSFIELD INLAND WETLANDS AGENCY
Special Meeting

Monday, July 20, 2015 ▪ 7:00 PM

Audrey P. Beck Municipal Building ▪ 4 South Eagleville Road ▪ Council Chambers

- 1. Call to Order**
- 2. Roll Call**
- 3. W1548-Niarhakos, 101 East Road, 3-Lot Re-Subdivision**
Memo from Wetlands Agent
- 4. Adjournment**



Town of Mansfield

Department of Planning and Development

Date: July 16, 2015
To: Mansfield Inland Wetlands Agency
From: Jennifer Kaufman, Inland Wetlands Agent
Subject: 101 East Road (File #W1548)
C. and L. Niarhakos
Description of work: 3 Lot Subdivision
Map Date: March 30, 2015, revised through June 21, 2015

At your July 6, 2015 meeting, there was a public hearing regarding the above referenced 3-lot subdivision. There was lengthy testimony and the applicant's experts and the abutter/intervener's experts gave opposing opinions as to whether the proposed activities would adversely impact the wetlands. The hearing was closed as the applicant did not consent to extending the hearing beyond the timeframe established in state statutes.

Given the divergent opinions, the volume of material presented at the public hearing, and concerns expressed by the Agency prior to closure of the hearing, staff consulted with Kevin Deneen, Town Attorney to determine if an independent consultant could be retained to assist the Agency given that the public hearing was closed. Attorney Deneen indicated that the Agency does have the right to retain its own expert(s) to analyze and help it understand the information presented. As long as the information reviewed was presented in the public hearing, the Agency can rely on its own expert, even if retained after the close of the public hearing. The expert is limited to reviewing and analyzing the information presented, and no new factual evidence shall be presented.

Because of the two opposing expert opinions on this application, it is my opinion that it is in the best interest of the Town and the Agency to engage the services of an independent consultant. Section 8.6 of Mansfield's Inland Wetlands and Watercourses Regulations and the Fee Schedule established in Article V, Chapter 122, Section 122-12 of the Mansfield Code of Ordinances authorizes the Agency to hire independent consultants at the expense of an applicant when the Agency deems it necessary to do so.

Attached to this memo are proposals from two consultants, Charter Oak Environmental and CME Associates, Inc.; both firms are on the state's approved list of contractors. Based on the qualifications and the proposals submitted, I recommend that the Agency engage the services of CME Associates to analyze the information presented as part of the public hearing process and assist the Agency in determining whether the proposed activities as presented will have an adverse impact on the wetlands. The applicant's agent, Edward Pelletier, expressed initial concern that there may be a conflict between CME and the intervenor's engineer. In discussing this further with the lead staff person at CME Associates, Inc., Mr. Eaton, he stated that while he had worked with Don Aubrey in situations where he represented a Town and Mr. Aubrey represented a client or vice versa, he was confident that there was not conflict of interest.

If the Agency agrees with this recommendation, the following motion is in order:

Recommendation/Suggested Motion

_____ MOVES, _____ seconds to authorize staff to engage the services of CME Associates, Inc. to review and analyze the information presented at the Public Hearing held on June 1, 2015 and July 6, 2015, regarding an Inland Wetlands Application submitted by C. and L. Niarhakos (File #W1548) for 3 Lot Subdivision on property owned by the applicants and located at 101 East Road as shown on plans dated 3/30/2015 and revised through June 21, 2015, and as described in application submissions. Pursuant to section 8.6 of Mansfield's Inland Wetlands and Watercourses Regulations, fees incurred for this review will be the responsibility of the applicants; a deposit in the amount of the estimated cost shall be provided prior to issuance of a notice to proceed.

July 15, 2015

Jennifer S. Kaufman
Natural Resources and Sustainability Coordinator
Inland Wetlands Agent
Town of Mansfield
Storrs-Mansfield, Connecticut 06268

Re: Environmental Professional Services
Review and Professional Opinion
101 East Road 3-lot Subdivision

Dear Ms. Kaufman:

This letter presents a scope of work and not to exceed budget for reviewing, evaluating and providing a professional opinion regarding a proposed subdivision application for 101 East Road in Mansfield, Connecticut. Thank you for considering Charter Oak Environmental Services, Inc. (Charter Oak) to perform these environmental services.

Background and Purpose

A proposed 3-lot subdivision of 101 East Road in Mansfield has been opposed by a hydraulically down-gradient neighbor. Both applicant and opponent have submitted professional reports and opinions. The public hearing period is now closed and no new information may be submitted regarding this application. The primary controversy centers on hydraulic conditions (ground and surface water) on, onto and leaving the proposed subdivision properties. The Town of Mansfield has asked for a proposal to evaluate this file and to offer a professional opinion to be considered in rendering a decision regarding this application.

Scope of Work

A scope of work has been developed to perform the requested review, render a written opinion and answer questions at a Town meeting on Monday, August 3, 2015. The specific work to be performed includes the following activities:

- Review the application file;
- Review the Inland Wetland regulations as they pertain to this application;
- Perform a site visit (under wet conditions, if possible);
- Render a professional opinion referencing the regulations, as applicable; and
- Attend the August 3, 2015 meeting and answer questions.

33 Ledgebrook Drive Mansfield, Connecticut 06250

Phone: 860-423-2670 FAX: 860-423-2675 charteroak@charteroak.net www.charteroak.net

Environmental Professional Review & Opinion
101 East Road 3-lot Subdivision
Mansfield, Connecticut
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Because the public hearing is closed, Charter Oak will not perform any independent or "new" evaluations. Rather, our opinion will be based on the application file as it current exists.

Schedule

Charter Oak will begin immediately upon authorization to complete the scope of work (anticipated on Tuesday, July 21st, if this proposal is accepted). The written report will be submitted no later than July 29th and Mr. Franson will attend the meeting scheduled for August 3, 2015.

Cost Estimate

Charter Oak will perform the work described herein on a time and materials basis for a budget not to exceed \$4,800 (32 hours at \$150/hour).

Acceptance

The following terms and conditions shall apply upon acceptance of this proposal and shall be considered incorporated in any subsequent contract, agreement or purchase order:

1. CHARTER OAK ENVIRONMENTAL SERVICES, INC. will provide the services described herein on a time and materials basis.
2. Our Standard Contractual Terms and Conditions and our current Schedule of Rates as Revised for the Town of Mansfield shall apply upon acceptance of this proposal.
3. Subcontractor and miscellaneous expenses are billed at cost plus ten percent and are included in our budget estimates.
4. Invoices requesting payment will be submitted approximately monthly and shall be due and payable within thirty days.

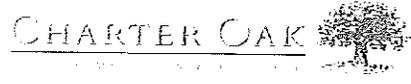
If this proposal is acceptable, please sign the enclosed copy and return it for our records. Thank for considering Charter Oak to assist you on this project.

Sincerely,

Charter Oak Environmental Services, Inc.

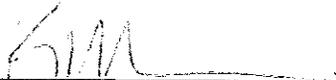
Mark A. Franson, P.E.
President

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Required Authorizations:

Accepted for Charter Oak Environmental Services, Inc.:

		
Kimberly J. Ewalt	CEO	Date

Accepted for Town of Mansfield:

Name	Title	Date
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CHARTER OAK ENVIRONMENTAL SERVICES, INC.

STANDARD CONTRACTUAL TERMS AND CONDITIONS

ARTICLE 1: GENERAL:

The Terms and Conditions outlined herein shall apply to the sale by CHARTER OAK ENVIRONMENTAL SERVICES (Hereinafter referred to as CHARTER OAK) of consulting services. Unless prior to the start of work, alternative terms are agreed to in writing, these terms and conditions shall apply to any contract entered into by CHARTER OAK and the Client for the services being furnished by CHARTER OAK.

ARTICLE 2: SUCCESSORS AND ASSIGNS:

Neither party shall assign or transfer this contract without the prior written consent of the other party. As a condition of any such written consent, such assignment shall be subject to the terms and conditions herein and no greater rights or remedies shall be available to the assignee.

ARTICLE 3: PERFORMANCE AND DELAYS:

The dates of performance contained in CHARTER OAK's proposal shall be interpreted as estimated and in no event shall dates be construed as falling within the meaning of "time is of the essence."

CHARTER OAK shall not be liable for any loss or delay due to reasons such as war, riots, fire, floods, acts of civil or military authority including governmental laws, orders, priorities or regulations, acts of the client, inability to obtain access to the property or facilities, or delays caused by the weather. In the event of delay in performance due to any such causes, the date of performance shall be extended to reflect the time lost by reason of such delay.

ARTICLE 4: CONTROL OF SITE:

The client acknowledges that it is now in control of the site and shall remain in control of the site throughout the entire period that CHARTER OAK is performing services on the site. CHARTER OAK will not have responsibility for any condition on the site which is presently known to exist or which is hereafter discovered. CHARTER OAK does not, by its entry onto the site, or by its performance of services in accordance with the proposal for services, assume liability or responsibility with respect to the site. Neither liability nor responsibility shall be implied or inferred by reason of CHARTER OAK's performance of any work under the proposal for services.

ARTICLE 5: RIGHT OF ENTRY:

Client grants to CHARTER OAK, its agents, employees, consultants, contractors and subcontractors the right of entry on the site for the performance of all necessary tests, studies, and inspections which include, but are not limited to, sampling, investigations, borings or exploration, and CHARTER OAK shall employ reasonable care and precautions to minimize damage or interference with the normal operations of the owner.

If the client does not own the site, the client represents and warrants that it has secured a right of entry upon the site for CHARTER OAK for the purpose of performing the work set forth in the proposal for services. If the client does not own and/or occupy the site, the client shall indemnify and defend CHARTER OAK in any action which is brought against CHARTER OAK by the owner and/or occupant of the site for any reason. If the client owns, but does not occupy the site, the client shall indemnify and defend CHARTER OAK in any action which is brought against CHARTER OAK by the occupant of the site for any reason.

ARTICLE 6: STANDARD OF CARE:

CHARTER OAK shall perform the consulting services, using that degree of care and skill ordinarily exercised, under similar circumstances by members of the profession practicing in the same or similar locality. The Standard of Care shall be judged exclusively as of the time the services are rendered and not according to later standards.

The client shall be obligated to promptly report any failure to conform to this warranty in writing to CHARTER OAK within six (6) months of completion of the services, whereupon CHARTER OAK shall at its option, correct such non-conformity or reimburse the client the price of the services provided.

CHARTER OAK makes no other representation or warranty of any kind whatsoever, expressed or implied, related to the performance of the services.

ARTICLE 7: INDEMNITY:

The client shall indemnify and hold CHARTER OAK harmless from any and all losses, costs, damages, expenses, or claims of any kind asserted against CHARTER OAK which are related to, on account of, or with respect to the performance of the services which CHARTER OAK performs or has contracted to perform. Upon written notice to the client from CHARTER OAK that a claim has been asserted against it, the client shall defend such claim against CHARTER OAK with counsel of CHARTER OAK's selection and shall pay all reasonable costs and attorney's fees.

ARTICLE 8: LIMITS OF LIABILITY:

The remedies of the client set forth herein are exclusive, and the total liability of CHARTER OAK with respect to this contract and services furnished, shall not exceed the purchase price of the services upon which such liability is based.

CHARTER OAK and its subcontractors and consultants shall in no event be liable to the client, any successors in interest or any beneficiary or assignee of this Contract for any consequential, incidental, indirect, special or punitive damages arising out of this contract or any breach thereof, whether based upon loss of use, lost profits or revenue, or interest whether or not such loss or damage is based on contract, warranty, negligence, indemnity or otherwise.

ARTICLE 9: INSURANCE:

CHARTER OAK represents that it maintains workers' compensation insurance with respect to its employees and that its workers' compensation insurance is within statutory limits. CHARTER OAK also maintains Comprehensive General Liability, Professional Liability and Automobile Liability Insurance. Certificates of insurance indicating the level of coverage maintained will be provided to the client upon request.

ARTICLE 10: CHANGES IN SCOPE:

Client recognizes that from time to time circumstances require a departure from, or additions to, original understandings of a project's requirements. In the event such changes in scope are deemed necessary by CHARTER OAK or any other party, CHARTER OAK will seek to immediately notify the Client, and obtain approval prior to implementing such measures. In the event Client is not available for such approval, and the project's timely completion requires such measures as deemed prudent by CHARTER OAK, resulting costs will be honored and paid by Client at our cost plus 10% (if an outside expense), or at our Standard Rates (if a CHARTER OAK direct cost). In the event Client does not grant such approval, Client will honor the proposed project cost, despite non-completion of work, and pay CHARTER OAK invoices for said work.

ARTICLE 11: DAMAGE TO SITE AND TO SUBTERRANEAN STRUCTURES:

a) Damage to Site:

Client understands and agrees that the work performed under this agreement may unavoidably affect, alter, or damage the terrain, vegetation, buildings, fixtures, structures, personal property and equipment on the site. The client recognizes and accepts the risk of unavoidable damage to the site as an inherent risk of the work performed by CHARTER OAK and will not hold CHARTER OAK liable for any damage or alteration which occurs on the site during the performance of the services outlined in the proposal for services. The work may also disrupt other activities on the site and the client will not

hold CHARTER OAK liable for any direct, special, consequential, or incidental damages resulting from disruption of other activities on the site.

If the client does not own and/or occupy the site, the client shall indemnify and defend CHARTER OAK in any action which is brought against CHARTER OAK by the owner and/or occupant of the site for any reason. If the client owns, but does not occupy the site, the client shall indemnify and defend CHARTER OAK in any action which is brought against CHARTER OAK by the occupant of the site for any reason.

CHARTER OAK will exercise reasonable care to limit damage to the site. However, if any damage results from CHARTER OAK'S performance of services, CHARTER OAK is not required to restore the site to its original condition unless specifically included in CHARTER OAK'S proposal to or agreement with the client.

b) Damage to Subterranean Structures:

Client is responsible for identifying all subterranean structures on the site where CHARTER OAK is conducting subsurface explorations and is responsible for advising CHARTER OAK of the location of all subterranean structures. CHARTER OAK will exercise reasonable care in locating subterranean structures in areas where proposed subsurface borings and/or excavations are to be made. However, CHARTER OAK is not responsible for damages or injury resulting from damage to or interference with any subterranean structure including, but not limited to, pipes, tanks, and utility lines, which the client failed to properly and completely bring to CHARTER OAK's attention.

ARTICLE 12: DISCOVERY OF HAZARDOUS MATERIALS OR ASBESTOS:

If asbestos, toxic substances, toxic chemicals, or potentially hazardous wastes, substances, or materials are encountered during the performance of the work in locations, concentrations, or quantities other than those disclosed by the client at the outset of the work, CHARTER OAK shall have the right to suspend work immediately, and upon written notice to the client, CHARTER OAK shall have the right to terminate the work described in the proposal for services or take all steps necessary to safely contend with such hazards at the client's cost. CHARTER OAK and the client may, within ten days of the notice of intent to terminate the work, agree upon a mutually satisfactory amendment to the proposal for services. Any amendment may include a revision in the scope of services, an adjustment of fees, and a revision of the terms and conditions of the agreement. The client shall remain liable and shall pay all fees and charges incurred under the original proposal for services through the date of termination, notwithstanding the failure of CHARTER OAK and the client to reach a mutually satisfactory amendment to this agreement.

ARTICLE 13: CONFIDENTIALITY AND STATUTORY DISCLOSURE REQUIREMENT:

CHARTER OAK will not intentionally divulge information regarding the proposal for services, the services it has performed, or information in its reports, results, or analyses except to the client, or to parties designated by the client to receive information. Information that is in the public domain or that is provided to CHARTER OAK by third parties is not confidential information.

Notwithstanding the above, CHARTER OAK will comply with judicial and administrative orders and any federal, state, county, and local laws, regulations, and ordinances requiring the reporting of information.

The client agrees to notify each appropriate federal, state, county, or local agency of the existence of any condition at the site for which a notification requirement exists, or to notify each appropriate federal, state, county or local agency of the existence of any condition which may present a potential danger to public health, safety and/or environment.

CHARTER OAK shall have no liability or responsibility to the client or to any other person or entity for disclosure made pursuant to judicial order or statutory or regulatory requirements. The client shall indemnify, defend, and hold CHARTER OAK harmless from any and all losses, costs, damages, fees, expenses, or claims of any kind brought against CHARTER OAK and related to CHARTER OAK's disclosure of information under a bona fide belief that disclosure was required by law. The client shall also pay reasonable attorney's fees for the defense of third party claims related to CHARTER OAK's disclosure of information.

ARTICLE 14: DOCUMENT RETENTION:

At the completion of work contracted to be performed by CHARTER OAK on behalf of the client, CHARTER OAK will retain project documents for a period of five years. After the five year period, CHARTER OAK will discard or destroy the project documents. At the sole discretion of CHARTER OAK, CHARTER OAK may contact the client to inquire as to whether or not the client requests to take possession of the project documents at the sole expense of the client. At any time following completion of the contracted work, the client may request to take possession of the project documents at the sole expense of the client. Such request by the client must be made in writing. In the event that the client takes possession of the project documents and the five-year post-completion period has not elapsed, CHARTER OAK will retain a copy of the project documents until the end of the five year period.

ARTICLE 15: DISCLAIMER:

The client understands and agrees that the study, report, analysis, or assessment provided by CHARTER OAK as a result of work performed may be, in part, based upon samples taken from a random selection of test sites and that these samples may not reflect conditions which may exist on other portions of site. The client understands and agrees that site conditions may change and that the conditions which are observed by CHARTER OAK may differ from conditions that are observed at a later time.

The client understands and agrees that compliance with the recommendations presented in CHARTER OAK'S report do not warrant, guarantee, or insure the client's compliance with local, state and federal laws. Nor does compliance with CHARTER OAK's recommendations warrant, guarantee, or insure compliance with any orders, agreements, permits, licenses or approvals which may exist.

CHARTER OAK makes no warranties or guarantees or representations, express or implied, with respect to the services performed for the client. Any reports or representations made with respect to CHARTER OAK'S findings shall not be deemed to constitute a warranty or guarantee, express or implied, of the conditions of the site.

ARTICLE 16: GOVERNING LAW

The Terms and Conditions of the contract, and any act, agreement or transactions to which they shall apply, or which are contemplated hereby or hereunder shall be governed by, and construed and interpreted in accordance with the laws of the State of Connecticut.

ARTICLE 17: PARTIAL INVALIDITY:

If any term, covenant, condition or provision is found by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions of these terms and conditions shall remain in full force and effect, and shall in no way be affected, impaired or invalidated thereby.

ARTICLE 18: ENTIRE AGREEMENT:

These Terms and Conditions represent the entire understanding and agreement between the parties and supersede any and all prior agreements, whether written or oral, that may exist between the parties.

CHARTER OAK ENVIRONMENTAL SERVICES, INC.

TIME AND MATERIALS SCHEDULE OF RATES

REVISED FOR TOWN OF MANSFIELD

The following schedule of rates and terms applies to Time and Material contracts. Unless otherwise agreed to in writing prior to the start of work, these rates and terms take precedence over any other rates or terms which may be contained in the Client's purchase order or similar document.

LABOR RATES AND TERMS

These rates apply to actual time devoted to the project and include all travel time which may be required.

<u>TITLE</u>	<u>RATE</u>
Licensed Environmental Professional	\$ 150.00
Senior Consultant	150.00
Senior Project Manager	132.50
Project Manager	122.50
Senior Project Geologist	107.50
Senior Project Hydrogeologist	112.50
Project Hydrogeologist	102.50
Senior Project Engineer	107.50
Project Engineer	97.50
Senior Engineer	87.50
Senior Geologist/Hydrogeologist	92.50
Project Scientist	82.50
Geologist/Hydrogeologist II	77.50
Engineer	77.50
Geologist/Hydrogeologist	72.50
Staff Engineer	72.50
Staff Geologist/Staff Scientist	62.50
Field Technician	57.50
Financial tracking/reporting	72.50
Administrative	62.50

EXPERT TESTIMONY

A twenty-five percent (25%) premium is added to the straight time hourly rates for time incurred for preparation and presentation of expert testimony in judicial, administrative or arbitral proceedings.

OTHER DIRECT COSTS

1. Expenses for subcontracted services such as laboratory analysis, surveyors and drillers, materials and equipment purchases, and other costs incurred in the performance of the contract are billed at cost plus ten percent (10%).
2. Expenses for in-house services, such as reprographics/copying, are billed at unit prices. Rate schedules are available upon request.
3. Specialized instrumentation, Company vehicles and related equipment are billed at a fixed daily or weekly rate depending on period of usage. Rate schedules are available upon request.
4. Travel and subsistence costs are to be billed at cost plus ten percent (10%) in the following manner:
 - personal auto usage at \$0.565/mile or the allowable IRS rate
 - lodging as incurred
 - airfare/ground transportation as incurred
 - per diem \$52/day or the allowable IRS M&IE rate by location

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CHRISTOPHER R. MANGO

253 Spring Hill Road
Storrs, CT 06268
(860) 617-3117
mango.christopher@yahoo.com

EDUCATION

University of Maine, Orono, ME; 2004-2007
BS in Environmental Science & Wildlife Ecology, concentrating in Wetlands & Aquatic Ecology with a minor in Soil Science

University of Connecticut, Storrs, CT; 2009-2010
Geographic Information Systems Professional Certification

Rutgers University NJ; 2013
Continuing professional education:
Methodology for delineating wetlands
Wetland Identification North

CERTIFICATIONS

- Professional Certification in GIS
- Currently taking 40 hr HAZWOPER Certification
- Rutgers Nationally recognized Wetland Delineation Certification

WORK EXPERIENCE

Hundt Industrial LLC.
North Stonington, CT
2/1/ 2009-3/5/2012
(860) 213-0063

Environmental Health and Safety Manager/Forman-Lead a team of between 5-10 employees while monitoring PEL's, and continuously screening for on site job hazards. Setup respirator fitting & pulmonary testing, confined space trainings, and forklift operation classes for workers. Managed MSDS sheets both on site and off site in case of emergency. I also took part in the Silikal® Flooring application, epoxy flooring application, mixing flooring products, and sales of product interacting with clients on a routine basis.

Blue Water Fisheries
New Bedford, MA
6/2010-6/2013
860-662-0280

Fisherman- GPS/radar navigation, splicing Rope, mending nets, fish processing, and freezer management.

Lomas Tree Services
139 Bill Hill Road
Old Lyme, CT 06371
May 2008 – October 2010
(860) 434-9660

Tree Specialist- backhoe, buldozer, log loader, and skidder operation. Pruning, tree removal, pesticide application assistant, wood chipping, mulching, deep root fertilization,

Natural Resources Conservation Service-U.S. Department of Agriculture
1423 Broadway
Bangor, ME 04401
(207) 564-2321

February 2007- May 2007

Computer Applications Specialist- Digitizing using ArcGIS, locating, plotting, editing, and graphing soil data. Experience using Microsoft Excel; Field Work- dig & prepare soil pits, set up instrumentation, obtain soil samples; Environmental Educational programs- NRCS representation at events (Envirothon program staff) to raise environmental awareness.

Contact- Wayne D. Hoar, Supervisor

Rivers End Tackle
440 Boston Post Rd
Old Saybrook, CT 06475
(860) 388-2283

May 2002- November 2007

Customer Service and Product Sales- Preparation, assembly, assistance, and repairs; licensing, permits and registration for: fishing, hunting, shellfish, tournaments, weigh in, etc. Also, navigation and GPS instruction, fly casting instruction.

Aspen Home Services
253 Spring Hill Road
Storrs, CT 06268
(860) 487-1919

January 1994- Current

Landscape and Building Construction- Operate small equipment, dig test holes, percolation testing, install retention areas, soil and erosion control implementation prior to construction, collect elevation field data using transit.

Contact- Robert Mango, Owner

References

Bob Conrad (Commercial Fishing Boat Captin/Boat Owner).....860-662-0280
Quentin Kresser (Rivers End Tackle Manager)-.....860-961-2560
Henry Lomas (Lomas Tree Service Owner)-.....860-460-5939

MARK A. FRANSON, P.E., LEP

PROFESSIONAL EXPERIENCE

CHARTER OAK ENVIRONMENTAL SERVICES, INC.
President

Mansfield, CT
November 1997 to Present

Founder of the firm; responsible for operations, technical services and business development for engineering, regulatory compliance, geologic, hydrogeologic and other environmental services performed by the company. Provide expert witness services for environmental compliance and site investigation and remediation projects. Manage multi-million dollar environmental remediation project in Utah as agent for a PRP Group. Provided senior review for RCRA Voluntary Corrective Action of a former explosives manufacturing facility in Colorado.

CONSULTING ENVIRONMENTAL ENGINEERS, INC.
Vice President of Environmental Services

West Hartford, CT
July 1994 to October 1997

Responsible for operations and business development for both engineering and geologic services groups. Manage multi-million dollar environmental project in Utah as agent for PRP Group.

DAMES & MOORE (by acquisition of Balsam)
Senior Engineer

Colchester, CT
March 1994 to July 1994

BALSAM ENVIRONMENTAL CONSULTANTS, INC.
Regional Manager, Environmental Engineering Services

Wethersfield, CT
August 1993 to March 1994

Responsible for environmental engineering and hydrogeologic services performed in Connecticut and eastern New York. Conduct marketing and business development efforts to expand the volume of business in Connecticut. Manage and/or perform engineering and hydrogeologic services provided from the Wethersfield Office. Report to the Vice President of Engineering at the company headquarters in Salem, New Hampshire.

CONSULTING ENVIRONMENTAL ENGINEERS, INC.

West Hartford, CT

Provided a diversity of environmental consulting services to industrial facilities, municipalities, developers and entrepreneurs.

Manager of Geologic Services

June 1992 to August 1993

Managed a staff of geologists, scientists and a geophysicist in all project and market development functions. Primary responsibilities included:

CHARTER OAK ENVIRONMENTAL SERVICES, INC.

Mark A. Franson, P.E., LEP
Resume

- Subsurface soil and groundwater investigations
- Groundwater monitor well network design and installation
- Groundwater flow and contaminant transport modeling
- Groundwater recovery system design and construction inspection
- Soil and groundwater sampling and analysis
- Phase I, II and III property site assessments
- Asbestos surveys
- Aquifer mapping
- Pump and slug testing

Senior Project Engineer/Project Engineer

February 1986 to June 1992

Project management responsibilities included personally providing a critical link between engineering and hydrogeologic services within the firm. Accomplishments included:

- Development and implementation of waste, soil, water and groundwater sampling and analysis programs to determine appropriate management or remediation strategies
- Preparation of RCRA closure plans and cost estimates, groundwater monitoring reports, and compliance documents (contingency plans, personnel training programs and inspection logs)
- Preparation of a hazardous waste delisting petition
- Coordination of a response to an EPA Corrective Action Order
- Evaluation, recommendation, and implementation of remedial actions for site remediation involving the following technologies:
 - In-situ and above-ground biological remediations of soils and groundwater
 - Biological treatment of organics in air streams
 - Air stripping of volatile organics
 - Oil/Water separation
 - Carbon absorption
 - Solids filtration
 - Ultra violet light/oxidation of organics in groundwater
 - Iron removal from groundwater
 - Phosphorus removal from sanitary wastewater
 - Ion exchange metals removal from groundwater
 - Soil Venting
- Conducted industrial audits to determine compliance with state and federal regulations
- Prepared wastewater discharge permit applications and treatment plant plans and specifications
- Conducted and managed environmental site assessments to satisfy Connecticut's "Negative Declaration" and "Superlien" requirements

Mark A. Franson, P.E., LEP
Resume

DEPARTMENT of ENVIRONMENTAL PROTECTION
Hazardous Waste Management Unit

Hartford, Connecticut
January 1984 to February 1986

Employed as a district lead enforcement engineer for Connecticut's hazardous waste management regulations. Supervised a field inspection staff, instituted enforcement actions, reviewed engineering plans and hazardous waste management programs. Approved plans for contaminated site remediation.

EDUCATION AND REGISTRATION

The Pennsylvania State University
B.S. Degree in Environmental Engineering
Emphasis: Water and Solid Waste

University Park, PA
May 1983

Professional Engineer: Connecticut License # 17640 August, 1992 – Present
Utah License # 96-321750-2202 June, 1996 – March, 2011
Colorado License # 32488 January, 1998 – January, 2012

Connecticut Licensed Environmental Professional: LEP License # 138 August, 1997

PUBLICATIONS

“In Situ Bioremediation of Unleaded Gasoline Contaminated Groundwater, Plainfield, Connecticut, A Case Study.” *Proceedings of the 1992 U.S. EPA/Air and Waste Management International Symposium.*

“Low Temperature Thermal Deactivation for Remediation of Energetic Materials in Soil.” Franson, Mark; McGowan, Tom and Theriault, Philip. *Proceedings of the 2007 IT3 Conference, Phoenix, Arizona.*

PRESENTATIONS

“Investigating Explosive Compounds and their Degradation Products in the Subsurface: A Developing Practice.” International Society of Environmental Forensics, Environmental Forensics: Advanced Techniques Workshop, September 23-24, 2002, Santa Fe, New Mexico.

“Low Temperature Thermal Deactivation for Remediation of Energetic Materials in Soil.” IT3 Conference, May 14 – 17, Phoenix, Arizona.

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Previous Cases / Testimony
Mark A. Franson, P.E., LEP
Updated April 2, 2013

1. Superior Court of Connecticut: CV 960566306S
Sidney J. Holbrook, Commissioner of Environmental Protection v. The Birken Manufacturing Company et al.
Decision filed August 3, 2000
Expert for Defendant. Hazardous waste / site remediation / compliance case.
2. Judicial District of Middletown, Complex Litigation Docket: MMX-CV-X04-4000696-S
Jonathan Lanciani, et al. v. Metropolitan District Commission, et al.
Deposition taken on April 26, 2006. Case settled.
Expert for Plaintiff. Water damage case involving potable water over-pressurization.
3. American Arbitration Association, Re: 12 489 Y 00733 06
Metal Management Inc. and Metal Management Connecticut, Inc. And Michael Schiavone and Joseph A. Schiavone Corp., Inc.
Interim Partial Award – Phase I, January 7, 2009
Expert for Defendant. Site remediation obligation and costs.
4. Superior Court, Judicial District of Hartford: CV 03-0825384-s
Arthur J. Rocque, Jr., Commissioner of Environmental Protection v. Michael Schiavone, and Joseph A. Schiavone Corp.
Decision filed on February 3, 2010
Expert for Defendant. Applicability of Transfer Act. Regulatory compliance. Environmental damages claims.
5. Superior Court, Judicial District of Hartford, Complex Litigation Docket:
X03-HHD-CV-05-4015076-S
Ronald E. Bourbeau v. Alpha Q, Inc.
Deposition taken on June 8, 2010. Case settled.
Expert for Defendant. Site remediation obligation and costs.
6. State of Connecticut, Connecticut Siting Council
Petition Nos. 983 and 984
Petitions of BNE Energy Inc. for a Declaratory Ruling for the Location, Construction and Operation of 4.8 MW Wind Renewable Generating Projects on Flagg Hill Road in Colebrook, Connecticut (“Wind Colebrook South”) and Winsted-Norfolk Road in Colebrook, Connecticut (“Wind Colebrook North”)
Prefiled testimony filed March 15 and April 13, 2011
Expert for citizen group opposing project. Prepared maps, calculated distances and determined numbers of structures within certain radii of proposed wind turbines.

7. Superior Court, Judicial District of Hartford, Complex Litigation Docket:
NNH-CV07-6001398-S
Plato Associates, L.L.C. v. Environmental Compliance Services, Inc., et al.
Expert report and disclosure submitted February 22, 2012. Case settled March, 2013.
Expert for Plaintiff.
Standard of care performing environmental site assessments. Applicability of Transfer Act. Site remediation and related costs.

Proposal for Services



Architecture

Engineering

Planning

Land Surveying

Environmental
Services

July 16, 2015 - Revised

Jennifer S. Kaufman
Natural Resources and Sustainability Coordinator
Inland Wetlands Agent
Town of Mansfield
10 South Eagleville Road
Storrs-Mansfield, CT 06268
Sent Via Email: KaufmanJS@MANSFIELDCT.ORG

RE: **CME Proposal No. 002611**
Professional Review: Inland Wetlands Agency Application
101 East Road

Dear Ms. Kaufman,

Thank you for contacting CME regarding your above-referenced project. We have reviewed the requirements and available information and have prepared the following proposal for your review.

Staffing & Resources:

Based on the understanding of the project provided below, we propose these services will be provided by Richard W. Canavan, PhD, Senior Environmental Scientist and Charles E. Eaton, PE, Director of Municipal Services. Dr. Canavan and Mr. Eaton regularly work together to provide expert review of wetlands and stormwater regulatory compliance. Resumes, which we had previously emailed, are attached for additional information about their experience.

Project Understanding

Based on our discussion and your email, we understand that the Town of Mansfield Inland Wetlands Agency (IWA) requires the following services:

- A A review of application materials for a proposed three-lot subdivision at East Road and
- B A recommendation to the Agency for action on this application based on the applications compliance with the requirements of the Mansfield Inland Wetlands Regulations.

Based on this understanding and preliminary review of the permit application materials you provided, we have developed the proposed scope of services and associated fees for performing this work as detailed below.

☎ 860.928.7348

🌐 www.cmeengineering.com

📍 32 Crabtree Lane, P. O. Box 849, Woodstock, CT 06281

Scope of Services

The scope of services will include:

- Site inspection
- Review of the materials submitted to CME on July 15, 2015, including Intervener materials submitted on July 16, 2015
- Letter report reviewing the application materials in support of a recommendation
- Assisting staff in developing an approval or denial motion based on the recommendation
- Attending a meeting on 8/3/2015 at 7 pm in Mansfield

Assumptions & Clarifications

For the purpose of this proposal, we have assumed the following:

- We are provided full access to the site for the inspection
- The meeting on 8/3/2015 will be attended by Mr. Eaton only

It is difficult to estimate the time and expense of engaging in additional submittal reviews and meeting attendance beyond the initial response, we would propose to conduct these services on an hourly basis or provide additional estimations of costs if additional services are required.

Fee Proposal & Timeframe

CME will bill you hourly for this work with an estimated fee of \$3,900.00, based on the Scope of Work and assumptions described herein. This estimate is for budgeting purposes only and should not be considered a not to exceed fee proposal. This work will be billed in accordance with the terms and conditions of our agreement for services as attached to this proposal, as will any additional work requested of CME.

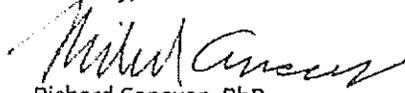
We understand that you require the letter report deliverable for this project by 7/29/2015 and will work to achieve that pending your authorization of this proposal.

Terms & Conditions

Please refer to the attached agreement for service which outlines the terms and that will govern this work. If you would like to proceed with this work, please sign, date and return one copy of this agreement in its entirety. Upon receipt of the signed agreement, I will contact you to coordinate the work. This proposal will remain valid for a period of 30 days.

Please feel free to contact me with any questions regarding this proposal or the attached agreement. We look forward to working with you.

Sincerely,



Richard Canavan, PhD.

Senior Environmental Scientist

Agreement for Services

The Agreement for Services (the "Agreement") is entered into by and between CME, a Connecticut Corporation ("CME") and the client (the "Owner") as identified in the attached proposal. In consideration of the terms and conditions set forth below, the parties hereby agree as follows:

1. **Services:** The "Owner" hereby retains "CME" as an independent contractor to perform the services set forth in the attached proposal (the "Proposal") for the consideration therein contained.
2. **Compensation:** Unless otherwise stated in the "Proposal", the "Owner" shall pay "CME" monthly in installments as the work progresses, based upon a percentage of completion of the fees set forth in the "Proposal". Payment is to be made within fifteen (15) days of receipt of invoice and all invoices over fifteen (15) days past due shall bear interest at the simple rate of one (1%) percent per month. Invoices not paid within thirty (30) days may result in a work stoppage by "CME". Provision of services will not recommence until all outstanding balances are brought up to date.
3. **Term:** The term of this agreement is from the date the "Proposal" is signed by both parties and submission of the required retainer, as identified in the "Proposal", for 12 months thereafter, and is subject to such extensions as the parties may mutually agree.
4. **Termination:** Either party may terminate this agreement on sixty (60) days written notice to the other party without cause. The "Owner" may terminate this "Agreement" for cause on one week's written notice to "CME", provided that prior to that time, the "Owner" shall have given written notice to "CME" indicating a default under the terms and conditions of this "Agreement" with a two week opportunity to cure any such default, and if the default is substantive and "CME" neither cures the default nor commences to cure the default. If more than two weeks is required to cure the default, then the "Owner" may terminate the "Agreement" on one week's written notice as herein set forth. "CME" may terminate this "Agreement" if the "Owner" fails to pay any invoice within thirty (30) days from the same is due, provided that prior to electing to terminate this "Agreement" for non-payment, "CME" shall give the "Owner" a ten day grace period and Notice of Default with opportunity to cure by payment of said invoice.
5. **Relationship between Parties:** Both parties expressly acknowledge it is the intention of the parties that this "Agreement" shall be a contract for services and shall not in any way create any employer/employee relationship between the parties or any co-venture or joint venture. It is expressly acknowledged and agreed that "CME" shall be responsible for its own insurance and that the "Owner" shall be responsible for any and all construction and builders' risk insurance. It is further acknowledged that if loss or damage to the "Owner" should result from the failure of performance or deficient performance by "CME" in providing the "Services", the liability of "CME", if any shall be limited to a sum equal to the amount charged to the "Owner" for the "Services" or Ten Thousand dollars (\$10,000.00) whichever sum is less. This limitation of liability shall apply to a claim for loss or damage whether based on a contract claim or tort claim.
6. **Notices:** Notices to CME shall be addressed to 32 Crabtree Lane, P.O. Box 849, Woodstock, CT 06281, and any notice shall be dispatched by certified mail, return receipt requested and shall be conclusively assumed to have been received by the party. The notice to the "Owner" will be at the address identified on the attached "Proposal".
7. **Additional Compensation:** Should the "Owner" assign additional services to "CME" during the term of this agreement, "CME" shall be compensated based on its effective hourly rate structure at the time of provision of said services.
8. **Reports:** If so requested, "CME" shall submit a progress report or memorandum in writing to the "Owner" at least monthly as part of this "Agreement" and shall meet with the "Owner" at regular meetings at least monthly to report on the status of the work.
9. **Ownership of Papers and Documents:** Any and all documents developed by "CME" during the term of this "Agreement" shall be documents owned by "CME" provided upon payment, the "Owner" shall be entitled to copies of all reports, documents, and data in possession of "CME" derived in whole or in part under this "Agreement". The "Owner" provided it is not in default in payments under this "Agreement".

has the right to request copies of any and all documents and supporting data as developed by "CME" in the furtherance of this "Agreement". "CME" is expressly granted the right to utilize images/plans/descriptions, photographs, and post a sign at the site of construction for the purpose of marketing their services and general public relations.

10. Reimbursable Costs: CME will charge the "Owner" for all reimbursable costs at cost plus a ten percent administrative fee. Reimbursable costs include, but are not limited to, Special or Overnight Delivery fees, copy or reproduction fees for reports, plan sets, construction documents, etc; sub-consultant fees; and other project specific fees as outlined in the Scope of Services.
11. Limitation of Delegation: The "Owner" and "CME" each recognize that "CME" has certain unique skills in the areas of this "Agreement". The "Owner" and "CME" further acknowledge that there is certain work contemplated in this "Agreement" that may be sublet or subcontracted to competent individuals to provide services outside the scope of "CME" normal expertise. While "CME" is not the guarantor of the work of such contractors and subcontractors, it shall see that all such contractors and subcontractors are licensed and insured and competent to do the work for which they are retained.
12. Mediation: It is expressly acknowledged and agreed that any and all disputes which may arise under this "Agreement" shall be subject to non-binding mediation provided no request for mediation shall be made later than ninety (90) days after the dispute or condition of dispute came to the attention of the parties. Mediation shall be held at a mediator's office that is reasonably convenient to Hartford, CT or other location convenient to "CME" and the "Client". The parties agree to share equally in the costs of the mediation.
13. Insurance: At the present time, "CME" maintains and shall endeavor to maintain such coverage's or reasonably equivalent coverage's for the term of this agreement, as long as the same are available on a commercially reasonable basis.
14. Contact Person: Each party to this "Agreement" shall designate one contact person, who shall be primarily responsible for coordination of the project with the other party. Either party may, through notification to the other party, change its principal contact person from time to time during the term of this "Agreement".
15. Severability: If any provision of this "Agreement" is found by a proper authority to be invalid or unenforceable, the remainder of the "Agreement" shall remain valid and the invalid provision shall be replaced by a valid provision, which comes closest in intent to the invalid provision. The rest of the provisions shall remain in full force and effect.
16. Entire Agreement: The foregoing constitutes the entire "Agreement" between the parties and cannot be changed or modified except in writing and signed by both parties to this "Agreement"

Client Acceptance:

Date: _____

Signature of Authorized Representative

Town of Mansfield, 10 South Eagleville Road, Storrs-Mansfield, CT 06268

Tel: _____ Email: _____



Registration

Professional Wetlands Scientist
PWS # 2147
SWS

Registered Professional Soil Scientist
SSSSNE

Technical Service Provider -Wetlands
TSP-10-6618
USDA / NRCS

40 hr. HAZWOPER

Municipal Inland Wetland Agency Training
Connecticut Department of
Energy and Environmental Protection

Education

Ph.D., Biogeochemistry, 2006
Utrecht University, Netherlands

M.S., Soil Science, 1997
Cornell University

B.A., Botany, 1993
Connecticut College

Professional Affiliations

Connecticut Federation of Lakes
President, Board of Directors

Connecticut Association of
Wetlands Scientists

Association of Massachusetts
Wetlands Scientists

Richard W. Canavan, PhD Senior Environmental Scientist

General Qualifications

As a Senior Environmental Scientist at CME, Dr. Canavan directs environmental permitting for transportation and development projects. He is a professional wetland scientist and registered soil scientist who delineates wetlands in accordance with federal and state regulations and has successfully designed and implemented wetland restorations. He provides expert review and guidance for projects in the areas of water quality and natural resources.

Dr. Canavan's previous experience includes research projects in a variety of settings, he has studied lake water quality in Connecticut; nutrient cycling in waste compost additions to agricultural soils in New York State; industrial stormwater compliance in the San Francisco Bay area; and freshwater sediment biogeochemical responses to salinization in the Netherlands. He also has experience as an educator.

Relevant Experience

Natural Resource Management

Rare species mitigation, Enfield CT

Obtained an Incidental Take approval under the CT ESA. Prepared and directed a mitigation plan which included the transplantation of two state listed plants and habitat enhancement efforts for state-listed invertebrate host plants.

Surface water diversion, Putnam WPCA, Putnam, CT

Developed surface water diversion management based on the results of an Instream Flow Study of fisheries habitat. Prepared mitigation plans for filter backwash water reuse and bypass flow at a water plant.

Expert Review, Water Chemistry, Various locations CT

Provided review and testimony for projects under review for local approval or in litigation. Described/quantified nutrient fluxes associated with development in: the coastal zone, freshwater lake shores and public drinking water supply watersheds.

Ecological Study, US Army Corps of Engineers, CT & MA

Managed ecological study of five flood control facilities including vernal pool mapping, documenting state listed species and natural community areas, and invasive plant species mapping. Final report included GIS mapping and management recommendations.

Expertise

- Soil and Water Quality Assessment
- Wetland delineation
- Wetland restoration and mitigation
- Wetland Functional Assessment
- Lake & Watershed Management
- Vegetation Mapping
- Stormwater Management
- Expert Witness
- Wetlands & Stormwater Permitting
- Environmental Impact Statements



Selected Publications & Presentations

Ecological Design Case Studies

Guest Lecturer
at RISD Landscape Architecture
May 2013

Biogeochemical Modeling of Sediment Phosphorus Release in Response to Salinization

Presented at the 2009 North American
Lakes Management Society meetings,
Hartford CT

Trace Metal Geochemistry in a Fresh Water Lake Sediment

presented at the 2006 European
Geoscience Union meetings
Vienna, Austria

Review of Stormwater Monitoring Results and Evaluation of Permit Effectiveness

presented at the
1998 Society for Risk Analysis meetings
Phoenix, AZ
with R.M. Rollins & K.K. Chellman

Phosphorus Additions in Compost Amended Cultivated Soils

presented at the 1996 N.E. Branch
American Society of Agronomy meetings
Ithaca, NY
with J.H. Peverly

Connecticut Lakes: A Study of the Chemical and Physical Properties of Fifty-Six Connecticut Lakes

R. W. Canavan and P. A. Siver, 1995
Connecticut College Arboretum,
New London, CT

Richard W. Canavan, PhD

Selected Project Experience

Wetland Delineation, Restoration and Permitting

Lyman Viaduct, Colchester, CT

Obtained DEEP Inland Wetlands and Cat. II USACE approvals for a culvert repair. Work included coordination with DEEP inland fisheries for channel stabilization design.

Town of Webster MA, Conservation Commission

Acting wetlands agent performing Wetland Protection Act application reviews including site meetings and public hearings.

US EPA Superfund Remediation Action, Willington CT

Conducted a wetland delineation, designed a wetland restoration to meet regional USACE guidance, prepared bid specifications, directed mitigation construction on site.

Xtra Mart, Guilford CT

Directed a wetland restoration planting and conducted post construction vegetation monitoring. Successfully created a cattail marsh to exclude the non-native invasive plant *Phragmites australis*.

Bridge Replacement Project, Wilmington, Tewksbury, & Billerica, MA

Delineated Bank and BWV under the Wetlands Protection Act, prepared Notice of Intent applications and obtained approvals for the replacement of a flood damaged bridge over the Shawsheen River.

Transportation Environmental Permitting

MassDOT, Bridge replacements, multiple locations in Massachusetts

Environmental documentation and permitting including wetland delineation, applications under 401 Water Quality Certification and NEPA (Categorical Exclusions) for nine bridge replacement projects

RIDOT, Laurel Avenue bridge replacement, Coventry, RI

Obtained approval under the Fresh Water Wetlands Act for a design-build bridge replacement project including reconstruction of flood damaged structures in a river channel. Rapid response to meet design-build schedule.

Watershed & Water Quality Assessment

Lake Watershed Plan, Killingly, CT

Review of existing water quality monitoring data, help establish citizens water quality monitoring and providing data analysis.

Environmental Monitoring, CT Resource Recovery Authority, Hartford, CT

Managed the collection of water quality samples of ground, surface and stormwater and landfill leachate at a solid waste landfill and the interpretation of results.

Soil Science

New York City Dept. of Environmental Protection, Fountain Avenue Landfill

Expert review services for a sampling plan, soil chemistry results, and mitigation plan for acid producing sulfide soils in landfill cap with a native grassland cover

Compost Comprehensive Nutrient Management Plan, Monroe, CT

Prepared a comprehensive nutrient management plan for a nursery and composting agricultural facility. The plan reviewed site management practices, volume of material on site and was submitted to CTDEEP.



Registration

Licensed Professional Engineer
CT, MA, NH, NY & RI

LEED-Accredited Professional
United States Green Building Council

Competent Person
Trenching and Excavation Operations

ACI Concrete Field Testing Tech Grade I

NICET Level II Inspector

NETTCP Certified Inspector
Hot Mix Paving - Concrete - Soils &
Aggregate

Technical Service Provider,
U.S.D.A. / N.R.C.S.

Education

B.S., Civil and Environmental
Engineering, 1996
University of Connecticut

B.S., Natural Resources
Management and Engineering, 1996
University of Connecticut

Professional Affiliations

Soil and Water Conservation Society
Association of State Dam Safety Officials

Hebron Inland Wetlands
and Conservation Commission,
Board Member
1995-1996, 2001-2006



Charles E. Eaton, PE, LEED-AP, NICET II

Director of Municipal Services

General Qualifications

Mr. Eaton is a Professional Engineer with over 20 years of experience in civil engineering. He is an expert in municipal engineering, including site, roadway, storm water, ADA access, building maintenance and construction. Project experience includes the design and construction of roadways, sidewalks, storm water management and treatment systems, water and sewer mains, pump stations, town engineer services, horizontal and vertical construction administration, construction inspection and grant administration.

As the leader of the Municipal Services Group, he is experienced in providing a full array of support to towns, cities and municipal organizations. He once served as the Town Engineer for Killingly and Tolland, Connecticut and currently serves as the Town Engineer for the Towns of Webster and Sturbridge, Massachusetts and Griswold, Connecticut and Consulting Engineer for the Town of Hebron and City of New London, Connecticut. Tasks undertaken as Town Engineer include: preparation of plans, specifications and bidding documents for municipal building and infrastructure projects, providing public bidding, administration and inspection, contractor pay request review and approval, grant administration, review of plans and applications submitted to town boards and commissions, providing expert testimony at public hearings and board and commission meetings.

Services

Municipal

- Plan and project review and administration (peer review)
- Building roof and infrastructure maintenance, repair and replacement; municipal buildings, DPW facilities, schools, sewer and water treatment
- Municipal building programming; fire stations & DPW facilities
- Grant administration (USDA, DECD, STEAP, CDBG, ARRA)
- Peer review of applications & plans to boards and commissions
- ADA accessibility evaluation & review
- Town Engineer/On-Call consulting services
- Sanitary sewer studies and evaluations
- Board and commission agent and representative

Environmental

- State and local permitting for storm water, treated waste water, public wells/water systems
- Non-illicit discharge certification
- Sanitary sewer system review and design
- Storm Water Pollution Prevention Plans (SWPPP)
- Sediment and erosion control plans
- UST removal and replacement

Storm Water

- Drainage system analysis and design
- Expert witness and legal representative for storm water reviews and litigation
- LID analysis, design, plan review and construction inspection
- Storm water management and treatment system design and review
- Analysis of public works storm water management and preparation of storm water ordinances
- Speaker, storm water management and treatment & public works maintenance of storm water systems

Services, cont.

Grant &
Construction Administration

- Horizontal and vertical construction administration & inspection
 - Grant Preparation, Administration & Coordination (USDA, DECD, STEAP, CDBG, ARRA)
 - Public Hearings & Public Information Meetings
- Public procurement & bidding of municipal projects
- Coordination of construction reporting via daily reporting, email & web updates
 - Review & approval of contractor submittals, certified wages, & pay requests

Special Experience

- Presenter,
Municipal Stormwater: Effective Maintenance
Connecticut Conference of Municipalities
2014 Conference
- Presenter,
Storm Water Management & Maintenance
from the Public Works Perspective
NEIWPPC
2014 Nonpoint Source Pollution
Conference
- Presenter,
Storm Water Management & Maintenance
International Erosion Control Association
2013 Conference
- Co-writer,
Rhode Island Erosion & Sediment Control
Handbook 2014



Horizontal Construction

Roadway & Streetscape:

- Numerous Roads & Intersections, Webster, MA (CDBG funded)
- Numerous Roads, Groton Long Point, CT
- Sidewalk replacements, Franklin Co., MA (CDBG funded)
- Providence Road Streetscape - Constr. Admin, Putnam, CT (CDBG funded)
- Mountain Brook Road reconstruction, Sturbridge, MA
- Canterbury Turnpike reconstruction, Norwich, CT (CT DOT funded)
- Witches Woods Tax District gravel road improvements, Woodstock, CT
- Birch Island culvert replacement, Webster, MA (MassDOT funded)

Water Main:

- Southbury Training School, Southbury, CT
- Route 66, Hebron, CT

Public Sewer & Septic:

- Route 171 to Woodstock Academy, Woodstock, CT (USDA funded)
- Matulaitis Nursing Home, Putnam, CT (USDA funded)
- Inn at Woodstock, Woodstock, CT

Drainage & Storm Water Management:

- Webster Lake - study and design, Webster, MA (MassDEP funded)
- Harkness Greenhouse and Potting Shed drainage, Waterford, CT
- Palmer Memorial Hall drainage and parking, Woodstock, CT

Site Improvements:

- Shetucket Village Senior Housing improvements, Sprague, CT
- Simonzi Park - streambank stabilization / improvements, Putnam, CT
- FedEx Distribution Center - roadway access / parking, Willington, CT
- JFK Middle School - slope stabilization / improvements, Enfield, CT

Athletic & Recreational:

- Bentley Athletic Fields, Woodstock Academy, Woodstock, CT (USDA funded)
- Webster Memorial Field, Webster, MA

Environmental:

- Sayles Elementary School - UST replacement, Sprague, CT
- Willimantic White Water - UST removal, Willimantic, CT (DECD funded)
- J B Hunt - Storm Water Pollution Prevention Plan (SWPPP), Putnam, CT
- Brothers Quality, LLC - Non-Illicit Discharge Permit & SWPPP, Stafford Springs, CT
- Crabtree & Evelyn / Windham Manufacturing - SWPPP, Woodstock, CT
- Connecticut Department of Transportation - UST Replacement, Resident Engineer, Wallingford & Stratford, CT

Vertical Construction

- Greenville Fire Station roof replacement and masonry repointing, Norwich, CT
- Quinebaug Fire Station new building construction inspection, Thompson, CT
- Sterling Memorial School roof replacement and handicap accessible bathroom remodel, Sterling, CT
- Crabtree & Evelyn, 94,000 s.f. warehouse roof replacement Woodstock, CT
- Webster Town Hall slate and shingle roof replacement, Webster, MA
- Filmer School roof replacement and UST removal, Webster, MA
- Bartlett High School flooring replacement, Webster, MA
- Chester C. Corbin Public Library slate roof, skylight replacement and UST removal, Webster, MA
- Webster Senior Center EDPM roof replacement, masonry repointing and life safety systems upgrades, Webster, MA
- Thompson Road Fire Station EDPM roof replacement, Webster, MA
- Woodstock Department of Public Works facility, new construction, Woodstock, CT (DECD funded)
- Riverview Marketplace, Farmers Market pavilion, Putnam, CT (USDA funded)
- Hebron Department of Public Works facility programming, Hebron, CT
- Tolland Emergency Operations Center and Fire Department programming, Tolland, CT