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January 28, 2022

Via Email

Mr. Timothy Carroll, Town Administrator
P.O. Box 119
401 Middle Road
PO Box 119
Chilmark, MA 02535
townadministrator@chilmarkma.gov

RE: **Response to Request for Engineering Services**
Menemsha Commercial Fishing Dock Replacement
Phase 1 – Certified Engineer Assessment and Report
Pare Proposal No. GP011.22

Dear Mr. Carroll and Members of the Designer Selection Committee:

In accordance with your request dated January 12, 2022, Pare Corporation (Pare) is pleased to submit this proposal for professional engineering services toward the structural assessment and future planning of the Menemsha Commercial Fishing Dock. Our waterfront and structural engineers have many years of experience in the inspection, evaluation, maintenance, and rehabilitation of waterfront structures in and around New England. In particular, our Project Manager, Mr. Karl Hammond, has successfully undertaken and completed commercial fishing dock projects in New Bedford, Gloucester, Beverly, Marblehead, and Chatham, to name a few. Mr. Hammond has a personable approach to his projects and seeks the input of local fishermen and users of the facility to gain an understanding of the constraints, issues and ideas moving forward. We foresee this project as a team effort with the Harbor Committee, Planning Board, Harbormaster and the users, amongst others, to develop a plan to make this structure resilient and useful for the next 40 to 50 years.

Our qualifications and project staff are provided below, but first we wanted to share our vision of how we see this project unfolding. Congratulations on receiving the SEC grant!

It has been noted that the existing steel sheet pile bulkhead is deteriorated at the waterline, and that there do not appear to be any existing drawings of the dock and bulkhead. As a site plan is required for early planning and preliminary engineering, we would first check with MADCR and visit their plan room for available drawings. If drawings are not found, a site survey should be considered in this first phase of the project, pending available funding. (If diving inspections are deemed not necessary at this time, there should be adequate monies to support this task.)

Our waterfront engineers will schedule a kickoff meeting on site and commence the inspection. During the inspection, we foresee having discussions with the local fishermen and discussing how they load and discharge, how an increase in deck height might affect their operations and ask how



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T 401.334.4100 F 401.334.4108

10 LINCOLN ROAD, SUITE 210 FOXBORO, MA 02035

T 508.543.1755 F 508.543.1881



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they would consider improving the present dock. Listening is an underrated skill; we pay full attention. Would a system of floating docks be advantageous, or not?

The structural inspection will be carried out from topside, and from low water in a jon boat. Existing conditions will be observed, and deficiencies documented. Existing conditions will be recorded with photographs. Measurements of structural members will be taken in order to prepare existing cross sections. Leadline soundings will be taken to generally determine water depths.

Following the inspection, which will take approximately two days for the 600-foot length of the structure, we will immediately prepare a Condition Findings Report and submit this report to the Town. Concurrently, we will consider the feedback from the locals and propose possible alternates toward the rehabilitation and improvement of the docking facility. This will be a working document, to facilitate discussion and narrowing of the design criteria. Following the selection of two to three alternates, we will provide opinions of probable cost for comparison. Selection of a preferred design will be provided by the Town. Occasionally, if alternates are similar in cost, we can consider advancing the project with Bid Alternates, whereby the Marine Contractors bid on a couple of alternates.

Regulatory permitting often provides constraints whereby desired features may have to be minimized to limit their affect on resource areas. We will consider regulatory impacts when proposing alternates and will provide a path toward navigating the regulatory process.

What is not included in these qualifications is our personal approach to communication and coordination with our clients. Working closely with you and your staff, we will progress this project together as a team. You will find that we will do what we say we are going to do, and in doing so we will develop relationships based on mutual understanding and trust. We believe that this is key to a successful, and enjoyable, project.

We have the availability to provide full attention to this project, with the following project team:

Karl W. Hammond, P.E. – Project Manager: Mr. Hammond is an experienced, practical waterfront engineer, with excellent written and interpersonal skills. He understands that the local fishermen have a very good knowledge of the structures, and what works and what does not work. You just have to ask and listen and apply what makes the most sense.

Clarence C. Hutto, III, P.E. – Project Engineer: Mr. Hutto (Bubber) has over 40 years of varied experience on all types of structural and civil projects. He is what we call an “Engineer’s Engineer”. Bubber is presently working on the Pawtucket Town Landing ramp and float rehabilitation as well as the rehabilitation of timber piers and SSP bulkhead in Gallilee.

Allen R. Orsi, P.E. – Principal-in-Charge: Mr. Orsi has over 20 years of experience as a geotechnical engineer and a manager. Mr. Orsi has managed projects for the last 16 years.



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Brian Dutra, P.E. – Waterfront: Mr. Dutra has over 7 years of experience as a waterfront / geotechnical engineer, specializing in waterfront, dam, geotechnical and construction engineering projects. He is presently working on the Independence Park boat ramp and Fuel Dock in Bristol, RI.

Lauren Gluck, PWS – Permitting: Ms. Gluck is a seasoned environmental specialist with over 10 years of experience. Her knowledge of MA environmental regulations and the regulators themselves is invaluable.

We are confident that we can meet the schedule for deliverables as proposed by you. We have the available staff, and with an EARLY FEBRUARY Notice to Proceed, we can achieve these goals.

SCOPE OF SERVICES (Project)

Basic Services

The following tasks will be accomplished for this project and will be considered as the Scope of Services for the project. Pare will perform the following:

Task 1 – Pier Inspection

- Review existing information provided by MADCR Waterways, if available.
- Provide under deck inspection at low tide (via boat) and topside pier inspection. Document existing conditions with photographs.
- Consider the requirement for an underwater inspection. Depending on the amount of deterioration of the existing Steel Sheet Piling, it may be possible for some alternates to consider patching of the sheeting. Future use of the existing sheeting will require ultrasonic thickness measurements to determine the remaining steel thicknesses. If necessary, diving inspection could be completed for \$5,000 per day thru supplemental agreement.
- Consider the requirement for a site survey, pending available funds. It is estimated that a site survey could be completed for approximately \$10,000; if required, we would solicit bids from three local surveyors to complete the survey thru supplemental agreement.
- Prepare and submit an Inspection Findings Report detailing the findings of the inspection. The report will include a description of existing conditions, aerial photo site plan and typical cross sections, structural condition evaluations, repair alternatives, and preliminary recommendations with order of magnitude opinions of probable cost. Pare will provide recommendations and opinions of probable cost for the potential remedial and improvement work. Three hard copies of the report and one digital copy will be provided upon completion.
- Prepare for and attend virtual meetings to discuss the report and findings. At this time, an onsite meeting beyond during field inspection work has not been carried in our proposal.



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Outside Services

Underwater inspections of the facility will be carried out by a commercial diver under subcontract to Pare. It is estimated that the underwater work may require 3 days. If additional time is required due to conditions encountered, we will contact you prior to proceeding with any additional required scope.

Additional Services

Services that are required but not part of the Scope of Services as described above shall be considered Additional Services. All Additional Services must be previously authorized. Additional Services shall be compensated on an hourly basis at rates and charges as indicated in the attached Schedule of Fees. Included as Additional Services will be any meetings or other services not included within the Basic Services, including additional investigations beyond that described within the Basic Services.

SERVICES PROVIDED BY CLIENT

- Coordination and layout of all utilities within the work area.
- Access to the facility.

PERIOD OF SERVICE

The estimated time period for the inspection and preparation of an inspection findings report as set forth in the Scope of Services shall be no longer than 60 days from receipt of a written authorization to proceed. Additional services may add to the time required to complete the work on the Project schedule.

BASIS OF CHARGES AND CONDITIONS OF ENGAGEMENT

Pare's billings will be based upon accrued time and expenses in accordance with the attached Schedule of Fees and unit prices as indicated below. Additional services can be completed and will be billed based upon actual accrued time and expenses in accordance with the attached Schedule of Fees.

Invoices for services rendered and expenses incurred will be processed through the last Friday of each month and are due and payable within forty-five (45) days of the invoice date. Invoices not paid within the prescribed schedule shall be subject to a one and one-half percent (1.5%) per month interest charge. In addition, for contracts more than thirty days in arrears for payment, PARE may, with seven days written notice, suspend services.



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Pare reserves the right to renegotiate or adjust the fee accordingly if its Proposal for Service is not accepted within a ninety (90) day period.

ESTIMATE OF CHARGES

Based upon the defined scope of work presented above, Pare anticipates that the Scope of Work presented above can be completed for the amounts indicated below.

Professional Services

Task 1 - Pier Inspection and Evaluation

Project Management / Coordination (4 hrs @ \$200/hr)	\$ 800
Engineering Inspection (24 hours @ \$200/hr)	\$ 4,800
(24 hours @\$180/hr)	\$ 4,320
Findings Report (16 hours @ \$200/hr)	\$ 3,200
(16 hours @ \$185/hr)	\$ 2,960
(16 hours @ \$150/hr)	\$ 2,400
<u>Subtotal</u>	<u>\$ 18,480</u>

Reimbursable Expenses (Includes 10% Surcharge for Subcontract Work)

Misc. Expenses (travel, repro)	\$ 1,500
<u>Subtotal</u>	<u>\$ 1,500</u>

Total Task 1 \$ 19,980

Additional Project Additions

Task 2 - Underwater Inspection (if necessary)	3 days at \$5,000/day	\$15,000
Task 3 – Survey and Site Plan (if necessary)	*Budget	\$10,000

This represents our best judgment at this time as to the effort required to achieve the stated objectives. It must be recognized that unforeseen conditions, which become evident during the course of the studies, may alter or increase the effort required. You will be notified of any changes requiring an increase in budget, and we will not exceed the recommended budget without your prior approval.



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ACCEPTANCE

This proposal may be accepted by signing in the appropriate spaces below and returning one copy to us. Your signing of this letter constitutes your acceptance of all of the paragraphs included within the Terms and Conditions.

Thank you for the opportunity to submit this proposal. If you have any questions, please do not hesitate to call me at (508) 543-1755.

Sincerely,

PARE CORPORATION

Karl W. Hammond, P.E.
Managing Engineer

Allen R. Orsi, P.E.
Vice President

Attachments:

- Schedule of Fees
- Pare Qualifications and Flyers
- Resumes

This Proposal for Services and Statement of Terms and Conditions are hereby accepted and executed by a duly authorized signatory who, by execution hereof, warrants that he/she has full authority to act for, in the name of, and on behalf of the Town of Chilmark, MA.

THE TOWN OF CHILMARK, MA

By _____

Title _____

Typed Name _____

Date _____

SCHEDULE OF FEES

For Proposal for Services, dated January 28, 2022
Pare Proposal No. GP011.22

LABOR:

Engineer I	\$ 115.00/Hour
Engineer II	\$ 135.00/Hour
Project Engineer	\$ 155.00/Hour
Senior Project Engineer	\$ 180.00/Hour
Managing Engineer	\$ 210.00/Hour
Principal/Officer	\$ 245.00/Hour
Environmental Scientist	\$ 105.00/Hour
Senior Environmental Scientist	\$ 125.00/Hour
Principal Environmental Scientist	\$ 170.00/Hour
Senior Project Coordinator	\$ 180.00/Hour
CADD Operator/Designer	\$ 100.00/Hour
Senior CADD Operator/Designer	\$ 125.00/Hour
Principal CADD Operator/Designer	\$ 150.00/Hour
GIS Specialist	\$ 120.00/Hour
Construction Observer	\$ 100.00/Hour
Senior Construction Observer	\$ 125.00/Hour
Principal Construction Observer	\$ 150.00/Hour
Engineering Technician	\$ 90.00/Hour
Senior Engineering Technician	\$ 105.00/Hour
Clerical/Office Personnel	\$ 80.00/Hour

REIMBURSABLE EXPENSES:

Mileage (at Federal Standard Rate)	\$ 0.585/Mile
Printing/Copying Wide Format (in-house)	\$ 0.15/Square Foot
Photocopying (in-house)	\$ 0.10/Copy
Outside Services and Out-of-Pocket Expenses	Cost plus 10%

The above rates for technical and support personnel will be charged for actual time worked on the project. In addition, there will be charges for time required for travel from company office to job or site, and return.

For expert and material witness services, including preparation, associated with any actual or potential litigation, mediation, arbitration, or similar proceeding, a fifty percent (50%) premium will be added to the above rates.

Overtime worked by non-exempt, non-professional employees will be charged at a rate of one and one-half times the rates shown above for all time worked in excess of 8 hours per day.



STATEMENT OF TERMS AND CONDITIONS

Attached to and made a part of the Agreement for Professional Services dated 01/28/2022, by and between Town of Chilmark (Client) and Pare Corporation, (Pare) in respect of the Menemsha Commercial Fishing Dock Replacement (Project) described therein.

SECTION 1. SERVICES TO BE PROVIDED

1.1 Pare hereby agrees to provide Client with the services set forth in the Proposal for Services and under the terms and conditions set forth herein.

1.2 This Agreement, once executed, will become effective upon Pare's receipt of written authorization to proceed. The attendant Proposal for Service is subject to renegotiation if acceptance by this Agreement is not received within sixty (60) days.

1.3 Client acknowledges that work shall proceed under the defined scope of services **only upon receipt by Pare of a signed Agreement (this Agreement) and, if required, a retainer payment.** The retainer amount shall be held by Pare and shall be applied against the final invoice. In the event the amount of the retainer exceeds the final invoice, Pare shall refund the balance with the final invoice. If the final invoice exceeds the retainer, the Client shall promptly remit the amount due.

1.4 If CLIENT authorizes changes in the scope, extent, or character of the PROJECT, then the time for completion of Pare's services, and the rates and amounts of Pare's compensation shall be adjusted equitably.

1.5 If Pare's services include the performance of any services during the construction phase of the Project,

a. it is understood that the purpose of any such services (including any visits to the site) will be to enable Pare to better perform the duties and responsibilities assigned to and undertaken by it as an experienced and qualified design professional, and to provide Client with a greater degree of confidence that the completed work of the Contractor(s) will conform generally to the Contract Documents and that the integrity of the design concept as reflected in the Contract Documents has been implemented and preserved by Contractor(s). Neither the professional activities of Pare, nor the presence of Pare or his or her employees and subconsultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. Pare personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. Client agrees that the General Contractor is solely responsible for jobsite safety, and warrants that this intent shall be made evident in Client's agreement with the General Contractor. Client also agrees that Client, Pare and Pare's consultants shall be indemnified and shall be made additional insured under the General Contractor's general liability insurance policy.



b. (*Shop Drawing Review*) it is understood that Pare shall review and approve or take other appropriate action on the Contractor submittals, such as shop drawings, product data, samples and other data, which the Contractor is required to submit, but only for the limited purpose of checking for conformance with the design concept and the information shown in the Construction Documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. Pare's review shall be conducted with reasonable promptness while allowing sufficient time in Pare's judgment to permit adequate review. Review of a specific item shall not indicate that Pare has reviewed the entire assembly of which the item is a component. Pare shall not be responsible for any deviations from the Construction Documents not brought to the attention of Pare in writing by the Contractor. Pare shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

c. it is understood that providing a Resident Project Representative (RPR) is a separately defined service in addition to those described above and that the use of a RPR is to assist in providing a more extensive observation of the Contractor's work. If RPR services are to be provided, compensation shall be as set forth in a *supplemental agreement*. The furnishing of such RPR services will not limit, extend, or modify Pare's responsibilities or authority except as expressly set forth in Exhibit C and Exhibit D.

SECTION 2. BILLING AND PAYMENT

2.1 Client agrees to pay Pare in accordance with the rates and charges set forth in the attached Proposal for Services. Invoices for services rendered and expenses incurred will be submitted monthly by Pare to Client. All such invoices shall be due and payable upon receipt. Additionally, in the case of a lump sum method of compensation, invoices will be based upon Pare's estimate of the proportion of the total services actually completed at the time of billing.

2.2 All invoices shall be paid in full prior to the filing by Pare of any documents with a governmental agency having jurisdiction over this Project.

2.3 In the event of a disputed or contested billing, only that portion so contested may be withheld from payment, and the undisputed portion will be promptly paid.

2.4 If Client fails to make any payment due Pare for services and expenses within fifteen (15) days after the invoice date of Pare's statement therefor, the amounts due Pare shall include an interest charge at the rate of one and one-half percent (1.5%) per month from said thirtieth day, and in addition, Pare may, after giving seven (7) days written notice to Client, suspend services under this Agreement until he has been paid in full all amounts due him for services and expenses. Unless Pare receives payment in full within seven (7) days of the date of the notice, the suspension shall take effect without further notice. Payments on account will be credited first to interest and then to principal. In the event of a suspension of services, Pare shall have no liability to Client for delay or damage caused Client because of such suspension of services.

2.5 In the event of termination by Client under Section 17, Client shall remain liable for and shall promptly pay Pare the full amount for all services rendered by Pare to the date of termination and all termination costs together with interest on all overdue accounts in accordance with the foregoing rate and



attendant attorneys' fees and costs of collection. No failure by Pare to exercise any right hereunder shall operate as a waiver nor preclude Pare from exercising any other right.

2.6 If Client fails to make payment to Pare in accordance with the payment terms herein, this shall constitute a material breach of this Agreement and shall be cause for termination by Pare.

2.7 In the event legal action is necessary to enforce the payment provisions of this Agreement, Pare shall be entitled to collect from Client any judgment or settlement sums due, reasonable attorneys' fees, court costs and expenses incurred by Pare in connection therewith and, in addition, the reasonable value of Pare's time and expenses spent in connection with such collection action, computed at Pare's prevailing fee schedule and expense policies.

2.8 Payment of invoices is in no case subject to unilateral discounting or set-offs by Client, and payment is due regardless of suspension or termination of this Agreement by either party.

2.9 Payment of invoices to Pare is the sole responsibility of the signatory of this Agreement and is not subject to third party agreements.

SECTION 3. ADDITIONAL SERVICES

3.1 Services required by Client, which are not part of those described in the Proposal for Services, shall be considered Additional Services. Additional Services shall be furnished by Pare, or obtained from others by Pare, if requested in writing by Client. Client shall pay Pare for Additional Services in accordance with rates and charges agreed to in writing prior to authorization by Client.

3.2 Requests for additional services and any associated fee adjustment must be authorized in writing before additional services can begin. Oral directives by Client authorizing Additional Services will be confirmed in writing by Pare. Client shall pay Pare for orally directed Additional Services furnished by Pare in accordance with Pare's current Schedule of Fees unless other rates and charges for compensation are agreed to prior to the completion of the authorized Additional Services. Pare reviews its Schedule of Fees annually and reserves the right to adjust its schedule accordingly.

SECTION 4. REIMBURSABLE EXPENSES

4.1 Normal reimbursable expenses are in addition to the fee for services. Internal expenses incurred and allocated to the project will be billed to Client in accordance with our fee proposal and/or our attendant Schedule of Fees. Outside expenses incurred and allocated to the project shall be billed at rate of **1.10** times the amount expended. Reimbursable expenses include, but are not limited to, expenses associated with the Project such as: travel including transportation, meals and lodging; printing, copying and handling of documents; computer charges including computer-aided design; film and processing; telephone calls and other communications charges; postage and delivery; equipment for tests; and securing approval of authorities having jurisdiction over the Project and not specified as part of the fee.

SECTION 5. CLIENT'S RESPONSIBILITIES

5.1 Pare shall indicate to Client the information needed for rendering of services hereunder. Client shall provide to Pare all criteria and full information as to Client's requirements for the Project and such other information as is available to Client and Client's consultants and contractors, and Pare shall be entitled to rely upon the accuracy and completeness thereof. Client recognizes that it is impossible for Pare to assure



the accuracy, completeness and sufficiency of such information, either because it is impossible to verify, or because of errors or omissions that may have occurred in assembling the information Client is providing.

5.2 Client shall designate in writing a person to act as Client's representative with respect to the services to be rendered; shall examine and respond promptly to Pare's submissions; and shall give prompt written notice to Pare whenever he observes or otherwise becomes aware of any defect in the work.

5.3 Client shall arrange for access to and make all provisions for Pare to enter upon public and private property as required for Pare to perform his services.

5.4 Client acknowledges that invoices must be kept current for services to continue. If Client fails to pay any invoice due to Pare within 30 days of the date of the invoice, Pare may, without waiving any other claim or right against Client, suspend services under this Agreement until Pare has been paid in full all amounts due Pare and/or any of its Consultants and Subcontractors (See Paragraph 2.4). Sealed plans, final documents, reports and attendance at meetings/hearings will not be provided unless payment for services is current. Client acknowledges Pare's right to suspend services and withhold plans and documents, as provided above if payments are not current. If services are suspended for 30 days or longer, upon resuming services Pare shall be entitled to payment for expenses incurred in the interruption and resumption of services. If services are suspended for 90 days or longer, Pare shall be entitled to payment for expenses incurred in the interruption and resumption of its services, and fees for remaining services shall be equitably adjusted.

SECTION 6. INSURANCE

6.1 Pare is covered by Workers' Compensation Insurance, Commercial General Liability Insurance, Automobile Liability Insurance and Professional Liability Insurance. We will furnish information and certificates upon request.

SECTION 7. STANDARD OF CARE

7.1 Services provided by Pare under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances in the same locality.

SECTION 8. USE OF DOCUMENTS

8.1 All reports, plans, specifications, field data and notes and other documents, including all documents on electronic media prepared or furnished by Pare under this Agreement are instruments of service in respect to this Project, and Pare shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of Pare) whether or not the Project is completed. Client shall not rely in any way on any Document unless it is in printed form, signed or sealed by Pare or one of its Consultants.

8.2 A party may rely that data or information set forth on paper (also known as hard copies) that the party receives from the other party by mail, hand delivery, or facsimile, are the items that the other party intended to send. Files in electronic media format of text, data, graphics, or other types that are furnished by one party to the other are furnished only for convenience, not reliance by the receiving party. Any



conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

8.3 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any transmittal errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files.

8.4 When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of such documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the documents' creator. If any information is provided in electronic format, Client recognizes that such plans, documents or other information recorded on or transmitted as electronic media, including CADD documents ("Electronic Documents") are subject to undetectable alteration, either intentional or unintentional, due to, among other causes, transmission, conversion, media degradation, software error, or human alteration. Accordingly, the electronic documents are provided to Client for informational purposes only and not as record documents.

8.5 Client may make and retain copies of Documents for information and reference in connection with use on the Project by Client. Pare grants Client a license to use the Documents on the Project, extensions of the Project, and other projects of Client, subject to the following limitations: (1) Client acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Pare, or for use or reuse by Client or others on extensions of the Project or on any other project without written verification or adaptation by Pare; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Pare, as appropriate for the specific purpose intended, will be at Client's sole risk and without liability or legal exposure to Pare or to Pare's Consultants; (3) Client shall indemnify and hold harmless Pare and Pare's Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification without written verification, completion, or adaptation by Pare; (4) such limited license to Client shall not create any rights in third parties.

8.6 If Pare at Client's request verifies or adapts the Documents for extensions of the Project or for any other project, then Client shall compensate Pare at rates or in an amount to be agreed upon by Client and Pare.

SECTION 9. OPINIONS OF PROBABLE COST

9.1 Since Pare has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, his opinions of probable project cost and construction cost provided for herein are to be made on the basis of his experience and qualifications and represent his best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but Pare cannot and does not guarantee nor make warranty, expressed or implied, that proposals, bids, or actual project or construction cost will not vary from opinions of probable cost prepared by him. Similarly, since Pare has no control over building operation and/or maintenance costs, Pare cannot and does not guarantee that the actual building or system operating or maintenance costs will not vary from any estimates given by Pare.



SECTION 10. CERTIFICATIONS

10.1 Client shall not request certifications and/or affidavits that would require knowledge or services beyond the scope of this Agreement and/or beyond the professional qualifications and engineering expertise of Pare. Pare shall not be required to sign any documents, no matter by whom requested, that would result in Pare having to certify, guaranty or warrant the existence of conditions whose existence Pare cannot ascertain. Any certification provided by Pare shall be so provided based on Pare's knowledge, information and belief subject to the preceding sentence, and shall be given in Pare's professional opinion consistence with the Standard of Care. Pare shall be compensated for any work necessary to verify project compliance with regulatory standards for purposes of such certification.

10.2 The proposed language of any such certificates, affidavits or certifications requested of Pare or Pare's consultants shall be submitted to Pare for review and approval at least fourteen (14) days prior to expected execution.

SECTION 11. LIMITATION OF LIABILITY

11.1 To the maximum extent permitted by law, Client agrees to limit Pare's liability to Client for or on account of all claims and/or damages of any nature whatsoever caused by or arising out of Pare's performance of its services, such that the total aggregate liability of Pare for any and all claims and/or damages of any nature whatsoever, arising out of the performance of Pare's services on the Project, shall not exceed **\$50,000** or Pare's total fee for services rendered on the Project, whichever is greater.

11.2 Notwithstanding any other provision of the Agreement, neither party shall be liable to the other for any special, indirect, incidental, or consequential damages incurred due to the fault of the other party, regardless of the nature of this fault or whether it was committed by Client or Pare, their employees, agents, subconsultants or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.

SECTION 12. SERVICES MADE NECESSARY BY LACK OF CONTRACTOR PERFORMANCE

12.1 It is Client's responsibility to hire the Contractor, and it is the Contractor's responsibility to install and complete fully operable systems. Client agrees to pay Pare 3.20 times Direct Labor Costs for all its trouble-shooting work due to Contractor's inability to achieve satisfactory operation. Client shall hold harmless, defend and indemnify Pare, its officers, agents, employees and consultants, from any and all liabilities, claims, damages and suits arising out of the negligence of Client or its agents, or liability due to the negligence of any contractor(s) performing any portion of the work and supplying any materials, or any other parties, except for any liability of Pare, or its consultants, due to the sole negligence of Pare, or its consultants.



SECTION 13. HAZARDOUS WASTE/ASBESTOS/CONTAMINANTS

13.1 In consideration of the substantial risks to Pare involving or relating to the actual or threatened release, escape or discharge of hazardous waste, asbestos and/or other contaminants, it is agreed that Client to the fullest extent permitted by law, shall release and indemnify and hold harmless Pare and its consultants, agents and employees, from and against all claims, damages, losses and expenses, direct and indirect, including but not limited to attorneys' fees and defense costs, arising out of or resulting from the performance of any services by Pare, or claims against Pare related to, involving or arising out of hazardous waste, asbestos or other contaminants.

SECTION 14. INDEMNIFICATION

14.1 Pare agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Client, its officers, directors and employees (collectively, Client) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by Pare's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom Pare is legally liable.

14.2 The Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless Pare, its officers, directors, employees and subconsultants (collectively, Pare) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Client's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Client is legally liable.

14.3 Neither the Client nor Pare shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

SECTION 15. SUSPENSION OF SERVICES

15.1 If the Project is suspended by Client, or the services are suspended by Pare in accordance with Paragraph 2.4 and/or Paragraph 5.4 of this Agreement for more than thirty (30) calendar days in the aggregate, Pare shall be compensated for services performed and charges incurred prior to receipt from Client or issuance by Pare of notice to suspend and, upon resumption, an equitable adjustment in fees to accommodate the resulting demobilization and remobilization costs. Depending on the duration of the stoppage, an additional adjustment may be necessary to cover wage increases and general escalation. In addition, there shall be an equitable adjustment in the project schedule based on the delay caused by the suspension. If the Project is suspended for more than ninety (90) calendar days in the aggregate, Pare may, at his or her option, terminate this Agreement upon giving notice in writing to Client.

SECTION 16. DISPUTE RESOLUTION

16.1 Any disputes arising out of or relating to this Agreement, including disputes under termination, shall first be submitted to nonbinding mediation unless the parties mutually agree otherwise.

16.2 The parties further agree to include a similar mediation provision in all agreements with independent contractors and consultants retained for the project and to require all independent contractors and consultants also to include a similar mediation provision in all agreements with subcontractors, subconsultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.



16.3 On the written notice of either party to the other of the election to submit any dispute under this Agreement to mediation, each party shall designate their representative and shall meet within ten (10) days after the service of notice. The parties themselves shall then attempt to resolve the dispute within ten (10) days of the meeting. Should the parties themselves be unable to agree on a resolution of the dispute, then the parties shall proceed with mediation in accordance with the mediation rules of the American Arbitration Association. The cost of mediation shall be borne equally by both parties.

16.4 Any dispute not settled by agreement of the parties shall be decided by litigation in a court of competent jurisdiction.

SECTION 17. TERMINATION

17.1 Either Client or Pare may terminate this Agreement at any time with or without cause upon giving the other party ten (10) calendar days prior written notice. Client shall within thirty (30) calendar days of termination pay Pare for all services rendered and all costs incurred up to the date of termination, in accordance with the compensation provisions of this Agreement.

SECTION 18. TITLES

18.1 The titles in this Agreement are for general reference only and are not part of the Agreement.

SECTION 19. GOVERNING LAW

19.1 The laws of the State of Rhode Island will govern the validity of this Agreement, its interpretation and performance. Any litigation arising in any way from this Agreement shall be brought in the courts of the State of Rhode Island.

SECTION 20. INTEGRATION

20.1 This Agreement comprises the final and complete agreement between Client and Pare. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this Agreement. Amendments to this Agreement, except as otherwise provided herein, shall not be binding unless made in writing and signed by both Client and Pare.

SECTION 21. SEVERABILITY AND SURVIVAL

21.1 Any provision of this Agreement later held to be unenforceable for any reason shall be deemed void, and all remaining provisions shall continue in full force and effect. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between Client and Pare shall survive the completion of the services hereunder and the termination of this Agreement.



SECTION 22. SUCCESSORS AND ASSIGNS

22.1 Client and Pare each binds himself and his partners, successors, executors, administrators, assigns, and legal representatives to the other party of this Agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, in respect to all covenants, agreements, and obligations of this Agreement.

22.2 Neither Client nor Pare shall assign, sublet, or transfer any rights under or interest in (including, but without limitation, moneys that may become due or moneys that are due) this Agreement without the written consent of the other, except as stated in paragraph 23.1 and except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Pare from employing such independent consultants, associates, and subcontractors as he may deem appropriate to assist him in the performance of services hereunder.

22.3 Nothing herein shall be constructed to give any rights or benefits hereunder to anyone other than Client and Pare.

SECTION 23. ENTIRE AGREEMENT

23.1 This Agreement contains the entire understanding of the parties with respect to the subject matter hereof and there are no verbal understandings, statements, or stipulations bearing upon the meaning or effect of this Agreement. This Agreement may only be modified or amended by a written instrument executed by both parties, except as may be otherwise provided herein.

(END)



Celebrating 45 Years of Service

BACKGROUND

Established in 1970, Pare Corporation (Pare) is a multi-disciplinary firm comprised of engineers, scientists, and planners specializing in the areas of civil, structural, dam, geotechnical, environmental, waterfront/marine, transportation, and municipal projects. The firm serves all of New England and the Northeastern United States from offices in Foxboro, MA and Lincoln, RI. With more than four-and-a-half decades of cost-conscious planning and innovative design solutions – from project conception through post-construction services – we have established long-term relationships with a wide range of public- and private-sector clients throughout the region. Our commitment to practical, client-driven design has resulted in repeat business from more than 85% of our clients.

STAFFING CAPABILITIES

Pare employs more than 90 professional, technical, and support personnel including 41 Registered Professional Engineers. 60% of the engineering staff are registered professionals, and 22 individuals have received graduate degrees. Division Managers possess at least 20 years of experience within their fields of specialization, and Project Managers have at least 10 years of applicable experience. In-house wetland specialists and environmental scientists support the firm's planning and design efforts, specializing in the coordination and monitoring of all permitting requirements. Through in-house training and the firm's policies for continuing education, Pare personnel have remained at the leading edge of emerging engineering technologies.

PARE CORPORATION COMPANY PROFILE

SERVICE AREAS

- Dams and Related Structures
- Geotechnical and Structural Engineering
- Highway and Bridge Engineering
- Condition Surveys/Facilities Engineering
- Water, Wastewater and Utilities Engineering
- Hydrology and Hydraulics
- Wetlands and Environmental Permitting
- Site Planning and Civil Engineering
- Transportation and Traffic Engineering
- Environmental Site Assessments
- Hazardous Waste Remediation
- Waterfront/Marine Engineering
- Geographic Information Systems (GIS)
- Construction-Phase Services

CLIENTS

- State and Municipal Agencies
- Developers and Contractors
- Colleges and Universities
- K-12 Educational Facilities
- Hotels and Commercial Developments
- Manufacturing and Industrial Clients
- Power and Utility Companies
- Private Railroad Companies
- Port Operators and Authorities
- Financial Institutions
- US Department of Transportation
- US Department of Defense

OFFICES

**10 Lincoln Road, Suite 210
Foxboro, MA 02035
(508)543-1755 FAX (508)543-1881**

**8 Blackstone Valley Place
Lincoln, RI 02865
(401)334-4100 FAX (401)334-4108**

WATERFRONT AND MARINE ENGINEERING



Since 1970, Pare Corporation has successfully completed more than 350 marine and waterfront-related engineering projects throughout the Northeast—along the East Coast from Maine to Virginia and inland as far as Michigan. These projects have ranged from facility inspection and evaluation programs, to large planning and design efforts for multi-use port and terminal facilities. Our experience with marine and waterfront engineering spans the entire time period since our incorporation and has brought us to the

forefront of the field. Our combination of more than four-and-a-half decades of hands-on experience coupled with the latest advancements in marine technology allows Pare engineers to successfully apply the proper solutions to differing project conditions and to coordinate design and construction activities in a cost-effective manner.

The firm's extensive experience with the environmental regulations and coastal permitting requirements of various city, state, and federal agencies enhances the probability of a project's success. The professionals of Pare—including marine, coastal, structural, and geotechnical engineers—provide a high level of expertise to address all project elements of marine and waterfront development.

REPRESENTATIVE SERVICES:

- **Piers, Wharves, Dolphins, Bulkheads & Seawalls**
- **Fendering Systems & Mooring Devices**
- **Tanker Piers, Oil Storage & Product Pipelines**
- **Short Sea Shipping Ports**
- **Coastal Flood Studies**
- **Wind / Wave Analyses**
- **Condition Survey**
- **Ferry Docking Facilities**
- **Bathymetric Surveys**
- **Breakwaters & Shore Protection**
- **Ferry Docks & Terminals**
- **Port Planning**
- **Commercial & Recreational Marina Facilities, Fishing Ports**
- **Dredging & Dredged Material Disposal**
- **Structural Analyses & Underwater Inspections**
- **Coastal Permits**



GEOTECHNICAL ENGINEERING



Pare Corporation has provided geotechnical engineering services for over 40 years. The firm offers a broad range of services applicable to both small and large, simple and complex projects alike. Past clients have included the United States government, municipalities, private industrial and commercial clients, and marine/foundation contractors.

Pare engineers utilize state-of-the-art investigation, testing and analysis to address a broad range of geotechnical issues. Our experience allows us to provide the client with cost-effective, timely solutions to a variety of geotechnical and foundation issues. The firm's specific experience with geotechnical engineering projects exceeds a total construction cost of \$750 million. In addition, Pare has extensive experience with bridge and waterfront structures, which is reflected in over \$150 million of construction in place.

Pare has successfully completed a variety of geotechnical engineering projects, ranging in size and complexity from the assessment of boring information for simple foundations to the design of a 1,500,000-cubic yard earth containment structure to create a new port facility. Geotechnical investigations and design services have been provided for multi-story buildings and parking structures, bridge piers and abutments, retaining walls, braced excavations, underground pump stations and tanks, and specialty structures such as dams. Pare also provides expert testimony and investigation of foundation failures, as well as construction-phase geotechnical consultation. We can effectively address the troublesome and unknown conditions encountered in construction once the excavation has started.

REPRESENTATIVE SERVICES:

- **Subsurface Investigations**
- **Geotechnical Reports**
- **Deep & Shallow Foundation Design**
- **Earth Support System Design**
- **Pavement Design**
- **Dewatering System Design**
- **Instrumentation Installation and Monitoring**
- **Ground Improvement (DDC, Vibraprobe, Cement Stabilization)**





REGISTRATIONS AND CERTIFICATIONS

Professional Engineer –
Massachusetts, Maryland,
New Jersey, Virginia

OSHA 10-Hour Construction
Safety & Health

PROFESSIONAL AFFILIATIONS

American Society of Civil
Engineers

Boston Society of Civil
Engineers

Propeller Club of America

EDUCATION

Memorial University of
Newfoundland:
B.S., Civil Engineering, 1988

RELEVANT EXPERIENCE

Mr. Hammond has over 34 years of experience in the design, construction, and project management of waterfront development projects. Projects have ranged from full-scale port development to pier and bulkhead improvements, shore protection, marina layout and design, harbor plans, and ferry feasibility studies. Mr. Hammond also has considerable experience on dam assessment and dam rehabilitation projects, as well as geotechnical studies for building foundation design, retaining walls, and other structures. Representative projects include:

- **Chatham Site Assessment of Facility Conditions:** Project Manager for the overall site assessment and facility conditions of the municipal pier to guide the Town in its evaluation of uses and options for the fish pier and amenities. Responsible for completion of assessment report including existing data review, inventory of structures, repair recommendations, cost estimates, and resilient alternatives discussion. Chatham, MA.
- **Town Pier and Commercial Marina Rehabilitation:** Project Manager for the inspection, evaluation, planning, design and preparation of bid documents for the rehabilitation of the existing timber pier and commercial floats. Design included the installation of a large ADA-compliant steel deck barge and the installation of a concrete floating dock marina. Beverly, MA.
- **New Bedford Waterfront Facility Inspections:** Project Manager for the inspections and evaluations of six existing commercial fishing piers owned and operated by the New Bedford Harbor Development Commission. In an effort to provide assessments of the existing infrastructure, and to determine costs to adequately maintain these structures, underwater and topside structural inspections were carried out. Inspection Finding Reports were prepared for each site, including structural analyses, calculation of allowable loadings, recommendations for repair and opinions of probable cost. Additionally, preliminary engineering was carried out for the expansion of two berths, and modification of the limits of the Federal Navigation Project were included. New Bedford, MA.
- **Rehabilitation of the Chatham Town Pier and Fish Packing Building:** Completed in two phases, this \$3 million project involved the reconstruction of the Town Pier using a steel sheet piling bulkhead with helical anchor tiebacks, and the rehabilitation of the existing timber and steel frame building to meet the needs of the local fishing industry. Chatham, MA.
- **Fishery Products Plant Rehabilitation:** Acted as liaison between owner, consultant, general contractor, and plant personnel for a \$7-million plant rehabilitation and consolidation project. Provided on-site construction supervision, coordination, and scheduling; organized movement and installation of production equipment from Boston to Danvers; approved quantities, change orders, and progress claims for this design-build project; and assisted in the resolution of design and construction problems. Danvers, MA.
- **Lafarge North America – Boston Terminal Pier Rehabilitation:** Project Manager for the \$4 million reconstruction of the Lafarge North America Boston Terminal Pier. Completed in 2005, the project consisted of the removal of a 600-foot-long deteriorated concrete pier supported by timber piles and concrete caissons, and replacement with four breasting dolphins supported by 180-foot-long steel pipe piles—all while keeping the facility

operational. Responsible for the condition analyses of the existing facility; recommendations for rehabilitation to meet the needs of dry bulk cement barges and handymax vessels; permit filings; preparation of structural design and contract documents for the new facility; and construction supervision and project closeout. Charlestown, MA.

- **Fishery Products International Plant Rehabilitation and Repairs:** Project Engineer for various projects including production floor modifications, office facility renovations, building envelope and roofing replacements, miscellaneous site and structural modifications, and inspections of existing fish plant infrastructure with recommendations for repair.
- **Lafarge North America – Boston Terminal Landside Structures Inspection:** Project Manager for the visual and tactile inspection of structural components of cement storage silos, support buildings, and elevated platforms and walkways. Submitted a written findings report with observations, comments, repair recommendations, and load capacity calculations for structures. Charlestown, MA.
- **Solomon Jacobs Pier:** Provided structural inspection, design, and preparation of bid documents for the reconstruction of this 200-foot-long timber pier. Design included floating docks, guide piles, timber pier construction and the installation of a high-capacity marine davit. Gloucester, MA.
- **Robinson’s Landing Seawall Reconstruction:** Project Manager for the inspection, design, and reconstruction of a 400-foot-long, 15- to 20-foot-high granite block seawall, with roadway, concrete cap and guardrail. Provided construction supervision and contract administration for this Commonwealth of Massachusetts Department of Waterways project. Gloucester, MA.
- **Boston Redevelopment Authority – Parcel V-1/Pier 5 Bulkhead Repairs:** Project Manager for the design and rehabilitation of an existing deteriorated steel sheet pile bulkhead and cofferdam. Completed tie-back and cantilever wall analyses for the design and prepared cost estimates and bid documents. Designs included the reuse of the existing tie-back system as a value engineering effort. Also provided construction administration services including construction observation and submittal and pay requisition review. Boston, MA.
- **Portside at Pier One:** Provided waterfront inspection and design and preparation of bid documents for the waterfront facilities associated with the Pier One Condominium development at Pier One in East Boston. Infrastructure consists of seawalls and concrete floating docks and gangways for a water taxi float and a transient vessel marina. Boston, MA.
- **Port of Galilee Bulkhead/Pier Inspection:** Project Manager for the visual, tactile, and underwater inspection of 1470 feet of deteriorated bulkhead and 16 timber piers, up to 200 feet in length. Responsibilities included existing data review, inspection from landside and jon boat, and supervision of underwater inspection. Also responsible for completion of the inspection findings report including inventory of structures, discussion of current conditions, repair recommendations, cost estimate, Key Plan, and discussion of resilient alternatives. Narragansett, RI.



REGISTRATIONS AND CERTIFICATIONS

Professional Civil & Structural Engineer – Massachusetts, Rhode Island, Colorado, Michigan, Ohio, West Virginia, Virginia, South Carolina, North Carolina, Georgia (PE & SE), Florida, Alabama, Pennsylvania, Texas

California Governor's Office of Emergency Services Safety Assessment Program

PROFESSIONAL AFFILIATIONS

Fellow, American Society of Civil Engineers,

Structural Engineers Association of Georgia

Structural Engineers Association of South Carolina

EDUCATION

Lafayette College:
B.S., Civil Engineering, 2000

RELEVANT EXPERIENCE

Mr. Hutto has more than 40 years of experience in Structural and Civil Engineering, on a wide variety of industrial, commercial, and institutional projects. He is currently executing and supervising geotechnical and structural engineering projects for Pare's Geotechnical Division in dam design, analysis, and rehabilitation. Representative project include:

- **Langone Park Seawall Repairs:** Repairs and upgrades to the Langone Seawall. Included on-site supervision, observation and engineering to rebuild and reinforced the existing seawall, to bring the seawall resilience up to the levels required for future sea level rise. Boston, MA.
- **RIDEM – Galilee Port Upgrades and Improvements:** Repairs, upgrades and replacement of docking, mooring and vessel service facilities for the commercial fishing port. Included deep foundation design and bulkhead replacement for the Rhode Island Department of Environmental Management. Upgrades include heavy timber pier design, sheet steel bulkhead replacement and docking and mooring facilities, as well as Construction Observation and Administration. Design required that the port remain fully operational. Galilee, RI.
- **RIDEM – Roger Wheeler State Beach Bulkhead Replacement:** Senior Project Engineer for design of the replacement of the bulkhead and construction of a new boardwalk along the top of the wall with the goal of designing a resilient universally-accessible boardwalk that prevents the migration of sand from blowing into the parking lots. Developed four alternatives with opinions of probable cost and is providing final design of the selected alternative which will incorporate shade structures along each section of the boardwalk. Narragansett, RI.
- **Post 45; Charleston Harbor Deepening:** The largest dredging and spoils containment project in the district's history, the project deepened the Charleston Harbor approaches and channels to a 45-foot depth to accommodate larger ocean going vessels, including the improvement, and raising of spoils storage dams and revetments to accommodate spoils materials.
- **O.I.C.C. Mediterranean:** Designed and checked the structural steel calculation for the Submarine Mooring Facility (P-103) located in the Admiral Francesco Caracciolo Inner Harbor. The job entailed work for the United States Navy and involved the use of metric-based calculations, along with European steel types and shapes. Naples, Italy.
- **Georgia Ports Authority:** Foundation design for the large Bulk Storage Warehouse No. 3 located at the Brunswick Ocean Terminal. Structural reinforcement of the endwalls of Bulk Storage Warehouse No. 1 located at the Brunswick Ocean Terminal (following the collapse of two interior bin walls). Brunswick, GA.
- **Graving Dock Structural Inspection and Certification, Naval Sub Base Kings Bay:** Structural inspection and certification of the SSBN graving (dry) dock facility located at Kings Bay Submarine Base, St. Mary's, Georgia.
- **Pensacola Naval Air Station Fuel Pier Upgrades:** Structural engineering for the upgrading and renovation of the Fuels Pier located at Pensacola

Naval Air Station. Design included docking and mooring loads from fueling vessels, and replacement of fendering systems. Pensacola, FL.

- **Gloucester Gatehouses Repairs and Upgrades:** Repair and upgrades to the City of Gloucester water supply system, including inspection and re-design of the system water flow control systems for the dams and gatehouses at Wallace, Goose Cove and Dykes Meadow. Gloucester, MA.
- **Proctor Brook Dam Upgrades & Repairs:** Repair and upgrade of the Proctors Brook Dam as a part of the Tannery Redevelopment Project by Winn Development. The project included extensive underground assessment of and improvements to the original Tannery operation water supply system, and upgrades to the retention dam for Proctor Brook. Peabody, MA.
- **Milford Water Company Echo Lake Dam Shutterwall Repairs:** Repair and replacement of the steel stanchions on the Echo Lake Dam. Hopkinton, MA.
- **Lithia Springs Reservoir Gatehouse Improvements:** Demolition and reconstruction of the gatehouse and flow control systems for the Lithia Springs reservoir dam. South Hadley, MA.
- **Echo Lake Dam Shutterwall Repairs:** Repair and replacement of the steel stanchions on the Echo Lake dam. Hopkinton, MA.
- **Wiswall Dam Stability Improvements:** Upgrades to the stability systems of the Wiswall Dam. Durham, NH.
- **USS Yorktown Cofferdam Project:** Design and supervision of cofferdam containment systems and earthen dam construction for the stabilization and protection of the USS Yorktown exhibit, located at Patriots Point, Mount Pleasant, SC.
- **St. Stephens Hydroelectric Generating Station Project:** A USACE hydro-electric power generating station, Supervised and executed the facility's extensive safety inspections, maintenance repairs, and In Service bridge inspections.
- **Echo Lake Dam Repairs;** Engineering and administration of the repairs of the upper Echo Lake Dam walls. Medfield, MA.
- **NRCS – Fort Waite Holsteins Farm Waste Storage Facility: Provided** engineering design and construction administration for a 150-foot diameter manure and wastewater storage facility for manure processing and re-use. Corinth, VT.
- **Greenville Center for the Performing Arts:** Designed the structural support systems for the Theater building of the Greenville Center for the Performing Arts. The design effort included composite and non-composite structural steel design, reinforced, load bearing masonry, caisson supported foundations, and reinforced concrete retaining walls.



REGISTRATIONS AND CERTIFICATIONS

Professional Engineer –
Massachusetts,
Rhode Island, New York,
Connecticut, Vermont, Ohio,
Pennsylvania

OSHA 40-Hour Hazardous
Waste Operations Health
and Safety Training

Nuclear Gauge Operator
Safety Training

PROFESSIONAL AFFILIATIONS

Association of State Dam
Safety Officials

EDUCATION

Lafayette College:
B.S., Civil Engineering, 2000

RELEVANT EXPERIENCE

Mr. Orsi is a Geotechnical Engineer specializing in the field of dam engineering. With more than 23 years of experience, Allen has participated in a wide variety of dam engineering and geotechnical engineering projects. Building upon a career base of completing visual dam inspections and providing construction observation services, Allen has expanded his experience to include all phases of project implementation including scope development, evaluation, design, and project management for a diverse project portfolio under various dam safety programs throughout the Northeast. Representative project experience includes:

- **Field Pond Dam and Dike Rehabilitation:** Project Manager for the evaluation, design, permitting, and construction administration for the rehabilitation of a large size significant hazard dam within the State Forest. Rehabilitation elements included seepage mitigation, spillway replacement to meet spillway design flood requirements, slope stabilization, and public access amenities (bridge over spillway, fishing platforms, walking trails). Andover, MA.
- **Natick High School:** Project Engineer for the evaluation of subsurface conditions and the development of geotechnical recommendations. Natick, MA.
- **Lincoln Middle School:** Senior Engineer responsible for preparation of a geotechnical report for design of the proposed new three-story, 135,000 square foot middle school building and complex. Duties included developing, coordinating, and conducting a subsurface investigation across the entire proposed site, undertaking laboratory analyses, determining an allowable recommended bearing capacity, and preparation of the geotechnical report. Lincoln, RI.
- **MPTN Phase 7A Housing Development:** Senior Engineer responsible for conducting a subsurface investigation consisting of boring and test pits to characterize an undeveloped site for development including approximately 12,000 feet of new roadway and housing units. Duties included observation of the exploration program, field modification of the program dependent upon observed conditions, and preparation of a geotechnical report. Additional services and responsibilities included estimation of allowable bearing pressure for proposed features. Mashantucket, CT.
- **Plantation Circle Detention Basin:** Senior Engineer responsible for the design of a sub drain system to maintain a dry bottom to allow for maintenance, developed construction plans and specifications, reviewed construction submittals, and provided part time construction observation. Norwood, MA.
- **Inskip AutoMall Redevelopment:** Senior Engineer responsible for observing a subsurface investigation to support a site redevelopment of an existing car dealership. Duties included boring observation, laboratory gradation analyses, and preparation of a geotechnical report. Provided construction phase services including compaction testing, concrete testing, and general construction observation of earthwork related components. Warwick, RI.
- **Monument Estates Subdivision:** Senior Engineer responsible for providing clarifications and construction observation for implementation of a slope stability design and blanket drain installation. Oxford, MA.

- **Proposed Hotel:** Senior Engineer responsible for geotechnical investigations for a proposed 18-story hotel. Duties included field inspection and coordination of subsurface investigations, laboratory testing, and the development of subsurface profiles in support of the development of a design basis report. Providence, RI.
- **Rodney Hunt Facility Improvements:** Senior Engineer responsible for geotechnical investigations for proposed facility expansion. Duties included field inspection during the subsurface exploration program, liquefaction potential evaluation, and report development with foundation recommendations. Orange, MA.
- **Washington Street Banner Poles:** Field Engineer responsible for geotechnical investigation for the proposed banner poles. Duties included field inspection, soil classification, and preparation of summary report indicating feasibility of banner pole foundation system. Norwood, MA.
- **Exxon-Mobile Corporation Instrument Monitoring:** Staff/Field Engineer responsible for inclinometer and strain gauge readings. Duties include obtaining inclinometer and strain gauge readings, processing, and tabulating data, and creating reports on findings. East Providence, RI.
- **Towantic Energy Center:** Field Engineer responsible for geotechnical investigation for the proposed power plant. Duties included field inspection, soil classification, soil field-testing, installation of monitoring wells, coordination of drill rig, acquiring "Dig Safe" utility clearances, and soil laboratory testing. Oxford, CT.
- **QU-1 Interim Cap Design – Rhode Island Resource Recovery Corporation Central Landfill:** Staff Engineer responsible for performing a series of mechanical grain size analyses on samples of proposed landfill cap material. The sieve analyses were required to confirm that the materials satisfied specifications for use as an interim landfill cap. Johnston, RI.
- **Providence Public Safety Complex:** Field Engineer responsible for inspection and testing of backfilling operations during construction of the Public Safety Building and parking garage facilities. Duties included part-time field inspection, density testing, and preparation of daily field reports. Providence, RI.
- **Sumner Street Culvert:** As Staff Engineer, designed upstream and downstream retaining walls for replacement of the roadway culvert. Prepared environmental permit applications and construction specifications. Norwood, MA.
- **Proposed Post Road Development:** Field/Staff Engineer responsible for field density testing of compacted backfill. Duties included field inspection and report preparation. North Kingstown, RI.
- **MassDOT Bridges:** Field Engineer responsible for field inspection of subsurface investigation program for two bridge replacement projects. Duties included field inspection, soil classification, rock classification, and daily log reports. Lee and Tyringham, MA.



REGISTRATIONS AND CERTIFICATIONS

Professional Engineer –
Rhode Island

Troxler Nuclear Density
Gauge Training

OSHA 10-Hour Construction
Safety Training

EDUCATION

University of Rhode Island:
M.S., Civil and
Environmental Engineering,
2015
B.S., Civil and Environmental
Engineering, 2014

RELEVANT EXPERIENCE

Mr. Dutra has eight years of experience during which he has gained diverse knowledge in geotechnical, waterfront, dam, and construction engineering projects. This includes geotechnical site investigations, geotechnical analyses, dam inspection and repair design, structural analysis and design, waterfront inspection and design, permitting, and construction oversight. Relevant project experience includes:

- **New Bedford Port Authority – Coal Pocket Pier Reconstruction and Fishing Pier Repairs:** Staff engineer responsible for the construction oversight and pile inspection for the reconstruction of the Coal Pocket Pier Reconstruction, Pile jacketing and fender repairs on Steamship Pier, and tie back repairs fixing bolt/tie rod repairs at Leonard's Wharf. Responsibilities include shop drawing review, construction oversight, pile inspection, and dive inspection oversight. New Bedford, MA.
- **City of Fall River – City Pier Improvements:** Staff engineer for the design and construction of a steel sheet pile wall outboard of existing deteriorated stone bulkhead. Design included dredging and disposal plan for contaminated soils on site and marina design to develop the site into a multi-use waterfront facility. Responsible for analysis of tie-back wall for design. Fall River, MA.
- **Boston Planning & Development Agency – Parcel V1 and Pier 5:** Staff engineer responsible for the preliminary design and final design of the roadway and site. Responsibilities included design and evaluation of roadway curves and utility requirements. Additional responsibilities included preparing cost estimates, reviewing and editing design drawings, developing specifications, and submittal reviews. The project included the over sheeting of an existing sheet pile wall at Parcel V1 with the addition of a new roadway design, new sidewalk layout, and lighting. At Pier 5, sections of sheet pile wall were replaced along with the installation of a new concrete cap and other miscellaneous pier repairs. Boston, MA.
- **Town of Bristol – Prudence Island Ferry Dock:** Engineer responsible for completing the design and evaluation of the pier's retaining wall. Responsibilities included cost estimates, review and edit design drawings, and project specifications. The project included over sheeting the existing sheet pile wall on the north and west walls of the pier, repointing and resetting the existing masonry stone wall at the south wall, and the installation of a new concrete vehicle ramp. Bristol, RI.
- **Town of Bristol – Church Street Dock Expansion:** Engineer responsible for reviewing ADA requirements, preparing cost estimates, reviewing and editing design drawings, project specifications, and subsurface investigation. The project included the installation of 74 additional floats including 16 concrete floats designed to act as a breakwater for the dock expansion. Additionally, the project included the construction of a pile supported universal access platform to tie into the existing timber walkway. Bristol, RI.
- **Waterfront Facility Inspections:** Engineer responsible for the visual inspection and condition surveys and provided inspection and evaluation reports for various waterfront facilities.

- **Town of Bristol – State Street Boardwalk Extension:** Staff Engineer responsible for the design and drafting of the State Street boardwalk extension which included the design of a pile supported timber walkway connecting Rockwell Park to the State Street dock. Other responsibilities included the construction oversight of the project as well as bid and project specification preparations. Bristol, RI.
- **Acushnet River Safe Boating Club – Bulkhead Repairs:** Staff engineer responsible for the inspection and design of repairs to a steel sheetpile bulkhead. The inspection included a visual inspection of the bulkhead within and above the tidal zone as well as collaborating with a dive inspector for portions of the wall located below the water level. Repair designs include sheet pile repairs, fixing bolt replacement, and the design of an aluminum anode system to prevent further deterioration of the wall. Fairhaven, MA.
- **Lafarge Holcim – Toledo Terminal Dock Rehab:** Staff engineer responsible for the design of the steel sheet pile wall and soil anchor tie-back system, for the wharf bulkhead along the Maumee River. Additional responsibilities included construction observation and construction administration for the project. Toledo, OH.
- **Lafarge North America – Ravenna Wharf Repairs (Phase I and Phase II):** Staff engineer responsible for the wharf inspection, design of the pile encasements and repairs, wharf facility improvements (lighting, line handling processes, gangway design), the construction oversight of the above-mentioned improvements. Responsibilities included construction monitoring, quantity tracking, reviewing payment applications, attending project meetings and recording meeting minutes, maintenance of daily logs, and permitting services. Ravenna, NY.
- **ESSROC – Rochester Wharf Dock Reconstruction:** Engineer responsible for the final design of the gangway and pipe support structure, preparation of bid documents, and construction oversight. Responsibilities include reviewing and preparing cost estimates, reviewing and editing design drawings, and project specifications. The project includes installing two pile supported reinforced concrete dolphins, with new catwalks, fender systems, and a discharge pipe support structure. Rochester, NY.
- **Nahant Intake Pipe Repair:** Engineer responsible for the design of the water intake pipe repair. Responsibilities included cleanout basin design and the review and drafting of design drawings. Nahant, MA.
- **Dunkin’ Donuts:** Engineer responsible for construction oversight of the pile driving for the building's foundation. The project included installing timber piles to meet a predetermined capacity and providing daily logs. North Attleboro, MA.
- **Battery Wharf Vibration Monitoring:** Engineer responsible for the installation of vibratory monitoring systems and the recording of prior foundation and structural conditions. The project included vibratory monitoring of two structures during the installation of piles in the waterway adjacent to the structures. Boston, MA.



REGISTRATIONS AND CERTIFICATIONS

Professional Wetland
Scientist #2496

OSHA Construction Safety
10-Hour Training

OSHA HAZWOPER
40-hour Training

PROFESSIONAL AFFILIATIONS

Society of Wetland Scientists

Association of Massachusetts
Wetland Scientists

National Society of
Collegiate Scholars

EDUCATION

University of Rhode Island:
B.S. in Wildlife and
Conservation Biology, 2006

Wetlands-related courses
include the following:
Intro to Soil Science,
Field Botany/Taxonomy,
Wetland Wildlife, Wetland
Ecology, Wetlands and Land
Use, Wetlands Field
Investigation, Marine Ecology

Introduction to ArcGIS I
March 2007

RELEVANT EXPERIENCE

Ms. Gluck is responsible for performing wetland delineations in accordance with the guidelines and criteria of the Massachusetts Department of Environmental Protection (MADEP), Rhode Island Department of Environmental Management (RIDEM), Rhode Island Coastal Resources Management Council (RICRMC), and the US Army Corps of Engineers (USACE). Additional responsibilities include environmental studies, wildlife habitat investigations, impact mitigation design, reports and permit applications for a variety of coastal and inland projects, including utility, highway, bridge, dam, and private development projects. Ms. Gluck is adept at aerial photo interpretation, and the use of GPS, GIS, and AutoCAD in the collection and display of field data to assist in the development of permit submissions and other documentation. Representative projects include:

- **Town Creek Flood Hazard Mitigation and Wetland Restoration Project:** Performed coastal wetland delineations and prepared a wetland delineation report for the replacement of an undersized culvert and tide gate. Assisted in permit applications including Expanded ENF seeking a full EIR waiver; a Notice of Intent; Chapter 91 Waterways License, and Streamlined Review under the Massachusetts Endangered Species Act. Salisbury, MA.
- **Lafarge Toledo Terminal Bulkhead Rehabilitation:** Prepared state and federal environmental permit applications in support of a bulkhead rehabilitation project at an industrial facility on the Maumee River. Toledo, OH.
- **Colt State Park Bike Path Connector:** Performed coastal and inland wetland delineations and prepared environmental permits at Colt State Park in support of bike path connection with the East Bay Bike Path. Completed an Application for State Assent for submission to CRMC and provided construction-phase weekly and post-storm environmental monitoring in accordance with the Soil Erosion and Sediment Control Plan (SESCP). Bristol, RI.
- **RIDEM – Pier 9 Restorations:** Responsible for preparing a RI CRMC Request for a Maintenance Certificate and a RIDEM Application for Water Quality Certification as part of the permitting process for the restoration of Pier 9, a state-owned commercial pier. Newport, RI.
- **Willowdale Subdivision Wetlands Consulting:** Provided wetland delineation and permitting support for a residential subdivision project on a former golf course site heavily constrained by wetlands. Responsibilities included delineation of wetlands, preparation of a wetland delineation report for inclusion in permitting documentation; seasonal monitoring of a potential vernal pool and submission of a potential vernal pool monitoring study for review by the Conservation Commission; and providing support at public hearings throughout the permitting process. Mansfield, MA.
- **Panas Road Wetland Delineation:** Delineated approximately 2 miles of wetland within a 55-acre site that included open areas, natural woodlands, and abandoned gravel pits. Prepared a Wetland Delineation Report and appeared at a Public Hearing for an Abbreviated Notice of Resource Area Delineation. Currently monitoring two possible vernal pools on the site. Foxborough, MA.
- **242-244 Main Street Flagging:** Delineated extensive wetlands within an 80 acre site that included maintained horse pasture, shrub wetlands, natural

woodlands, and stream channels, to assist with land use planning. Monitored flow conditions within two stream channels in order to determine whether either qualifies as an intermittent stream under 310 CMR 10.58 (2). Evaluated a potential vernal pool on the site. Foxborough, MA.

- **Viridian Development - Wetland Consulting:** Responsible for wetland delineations, delineation data collection, and preparation of an Abbreviated Notice of Resource Area Delineation (ANRAD) for review and verification of approximately 17,000 feet of wetland edge on a 100± acre site. Attleboro, MA.
- **Pine Street Site Due Diligence:** Completed vernal pool investigations and preliminary wetland evaluations on a 206-acre wooded site. Completed monthly water level monitoring and biological investigations at ten isolated flooded depressions identified as Potential Vernal Pools. Also performed a site-wide walkover wetland field review to provide a preliminary evaluation of wetland constraints. Norton, MA.
- **MassLite Quarry Site Vernal Pool Monitoring:** Completed investigations of eight isolated flooded depressions identified as Potential Vernal Pools within wooded and developed areas on a quarry site. Completed bi-weekly water level monitoring and biological investigations throughout the growing season. Also completed stream monitoring at the upper reach of Ten Mile River on the site. Plainville, MA.
- **Attleboro Sand and Gravel Vernal Pool Monitoring:** Completed investigations of six isolated flooded depressions identified as Potential Vernal Pools within wooded and developed areas on a sand and gravel site. Completed bi-weekly water level monitoring and biological investigations throughout the growing season for two consecutive years. Attleboro, MA.
- **Concrete Products Site:** Responsible for wetland delineations, wetland data collection, vernal pool investigation, and preparation of an Abbreviated Notice of Resource Area Delineation (ANRAD) for the site. Plainville, MA.
- **Haskell Pond Dam Rehabilitation:** Responsible for wetland delineations and environmental permitting for a water supply dam in Gloucester. Responsibilities included wetland delineations, assessment of potential mitigation sites, preparation of a Notice of Intent, MEPA Environmental Notification Form, Water Quality Certification. Submitted documentation to the US Army Corps of Engineers for coverage under the General Permit for Massachusetts. Gloucester, MA.
- **Paradise Pond Dam:** For the design of repairs to an existing dam and dike on the campus of Smith College. Responsible for wetland delineations and a detailed Wildlife Habitat Evaluation. Prepared a Notice of Intent, Environmental Notification Form, Chapter 91 Waterways License application, and Water Quality Certification. Submitted documentation to the US Army Corps of Engineers for coverage under the General Permit for Massachusetts. Northampton, MA.
- **Center Pond Dam:** Performed and documented wetland delineations and prepared a detailed Wildlife Habitat Evaluation for repairs to Center Pond Dam. Prepared a Notice of Intent, Environmental Notification Form, Chapter 91 Waterways License application, and Water Quality Certification. Submitted documentation to the US Army Corps of Engineers for coverage under the General Permit for Massachusetts. Becket, MA.