Fearing Hill Road | Wareham, MA

Town of Wareham

Peer Review Engineering Consulting Services

Technical Proposal

Submitted October 18, 2022
by

PARE CORPORATION

October 18, 2022

Town of Wareham, Town Hall
Attn: Derek Sullivan, Town Administrator
54 Marion Road
Wareham, MA 02571

RE: **Request for Qualifications**
Peer Review Engineering Consulting Services
Wareham, Massachusetts
(Pare Proposal No. TP372.22)

Dear Mr. Sullivan and Members of the Selection Team:

Pare Corporation is excited about the opportunity to work with the Town of Wareham to provide Peer Review Engineering Consulting Services. **For over 50 years, Pare has been providing municipalities throughout southern New England with comprehensive engineering services.** These services range from planning, design, and construction administration, to review and support services for municipal departments and agencies to ensure compliance with town laws and specifications. Pare has a long history of providing on-call development plan review services and construction inspections to many communities in Massachusetts and Rhode Island.

We have provided or are currently providing peer review services for other municipalities, namely the Town of Sturbridge, the City of Amesbury, and the Town of Middletown, RI. Additionally, we have worked with the Town on Parker Mills Pond Dam, Tremont Mill Dam, Fearing Hill Road Bridge, and 2nd Elm Street Bridge (with Nitsch Engineering). Our experience means we will have confidence when working with the Town of Wareham on peer reviews, able to accommodate obstacles that may come along the way.

For this project, we have assembled a team of in-house professionals, supported by Pare's multidisciplinary in-house technical staff of over 110 professionals. Pare's Project Management Team will include Walter P. Heller, P.E. as Principal-in-Charge and Derek L. Hug, P.E., PTOE as Project Manager. Mr. Hug will serve as the day-to-day contact with the Town boards and commissions and will be responsible for overseeing the performance of the contract and making sure that adequate resources are provided. We also have appointed several staff members as heads for the following categories of service: traffic, stormwater, geotechnical, environmental permitting, and construction inspections. Futhermore, the size of our staff means that we will have someone available to help the Town when tasks are appointed.

We welcome the opportunity to work again with the Town of Wareham and are available at your convenience to review this submission. If you require any additional information, please feel free to contact me at 401-334-4100 or at wheller@parecorp.com.

Sincerely,

Walter P. Heller, P.E.
Vice President

Table of Contents

PARE CORPORATION

Town of Wareham

Peer Review Engineering Consulting Services

Section 1

Project Understanding and Scope

PARE CORPORATION

PROJECT UNDERSTANDING / SCOPE OF SERVICES

The primary purpose of this contract is to provide peer review engineering consulting services to support Wareham's Town boards and commissions in the review of applications for Site Plan Reviews, Special Permits, and other entitlements pursuant to the local bylaws and State laws. We will also periodically inspect construction progress of approved projects to report back to the board and commission. The reviews will include all design documents being proposed, as requested, development plans and supporting documentation and studies including, but not limited to development impact statements, traffic studies, drainage reports and sewage flow calculations and various development impact reports and analyses. Pare has the in-house staff to address all of these areas.

Pare will coordinate with the Town concerning the review process and to discuss project-related issues. Pare anticipates completing reviews in 15 days or less from Notice to Proceed. This duration can be shortened if the board or commission requires a faster review period. Review comments will be submitted prior to the Town meetings. Pare will be available to discuss our reviews at Town meetings as requested.

Submission reviews typically include the evaluation of the potential impact of the proposed development upon:

a. Traffic and parking conditions on-site and within the surrounding area;

b. Municipal utilities and services, including water supply, sewage disposal, storm drains, police, fire protection, emergency services, schools, and other town services;

c. The physical and ecological characteristics of the site and the surrounding land, including wetlands, floodplain, vegetation, wildlife habitat, and other environmental conditions;

d. The character of the community, including scenic, historic and archaeological conditions; scale, placement, lighting, parking, and use of open space.

As an engineering company with traffic and transportation engineers, water and wastewater engineers, stormwater engineers, land development engineers, structural engineers, and environmental professionals, Pare has the ability to provide experts in any civil engineering discipline likely to be encountered during reviews. Our staff most familiar with planning and zoning reviews will take the lead on this project and other staff experts will be called upon for opinions on any complicated issues.

SCOPE OF SERVICES

Pare has developed the following basic procedure for reviews of subdivision or development plan submissions. We will work with the Town to provide the level of service that meets your needs. Upon notice to proceed and receipt of submitted plans and reports for any specific proposed development, Pare typically performs the following tasks described below.

The Pare team will provide an independent review of the document submittals made on behalf of subdivision development applicants. Appropriate team members will attend Town

Board meetings to present our findings concerning our reviews. The following are the tasks which will be performed for each individual subdivision plan review.

Basic Services:

1. Project Coordination
    a. A coordination meeting will be held with the Town Planner, and if deemed necessary the applicant, to discuss the proposed project. This meeting will provide an opportunity for the Town and the applicant to indicate any issues that are of concern.
    b. Pare will provide monthly status reports that will include updates concerning work accomplished during the reporting period, items to be resolved, present stage of the project, and the next scheduled submission date.

2. Field Verification
    a. A site visit will be conducted for the project site. This visit will include verification of data provided for review. Data to be verified includes traffic speed data, sight distance data, the physical characteristics of the site, the ecological characteristics of the site, and the description of the scenic and historic nature of the site.
    b. A site visit could be conducted with Town staff or Board members if this is desired. This may provide interested parties a chance to bring their concerns to Pare's attention.

3. Submission Reviews
    a. Pare will review the plans and supporting documentation including the project narrative accompanying the submissions. Pare will prepare a letter report documenting any issues identified during the review. Field measured data will be verified when possible during the field verification portion of the project.
    b. Pare will review all calculations provided with the submissions. It is anticipated that these could include traffic capacity calculations, drainage calculations, water flow calculations, wind analysis and wastewater flow calculations. Pare will provide comments concerning correctness and adequacy of the calculations provided.
    c. Pare's environmental scientist will review and comment on site environmental investigations completed in relation to certain development proposals.
    d. If directed, Pare will perform studies on the Town's behalf. Such studies could include traffic capacity analyses, drainage studies, sewer flow studies, wind studies and hydraulic modeling. The Pare team has the latest software to complete these studies and has the experienced staff to successfully complete these studies.

4. Analysis Letter Report Preparation

   a. Based on the field verification and our review findings, a letter report documenting all comments will be submitted to the Town prior to any Technical Review Committee meetings, Planning Board meetings, or Select Board meetings.

   b. Pare is available to meet with the Town Staff prior to any Town meeting to discuss the findings if requested.

5. Attendance at Town Meetings

   a. Pare will attend public meetings as requested by the Town Staff and/or Board of Commission to present our findings and to discuss any issues and/or concerns.

6. Review of Revised Submissions

   The level of effort required for this task can vary greatly depending on the level of detail and accuracy provided in the initial submissions. Pare will coordinate with the Town concerning the level of effort required for this task. Any additional reviews necessary for resubmissions will be performed as an additional service.

7. Construction Inspections

   Pare's experienced staff is available to continue its involvement in the subdivision review process during the construction of the subdivision. Pare staff will perform routine and scheduled inspections to ensure that the construction of the infrastructure is in accordance with the approved plans and the Town's various regulations.

ENGINEERING SERVICES AS REQUESTED

Pare frequently works with a variety of municipal agencies and boards, and we would be available to provide engineering services as requested from the Town Boards and Commissions. Pare has the dedicated staff necessary to handle additional services related to municipal projects and facilities. In addition to providing separate scopes for each assignment as they arise, a project schedule for the design, outlining the milestone dates for submissions and the review times anticipated by any reviewing authority, will also be prepared and supplied to the Town for review.

For projects that require emergency repairs and immediate attention and response, we have the staff available to turn those projects around in a shortened time frame. We recognize the importance of meeting critical deadlines for all projects but, in particular, we assure the Town that critical designs for emergency repair projects will be addressed immediately so that there are no negative impacts or safety concerns to the public.

Town of Wareham

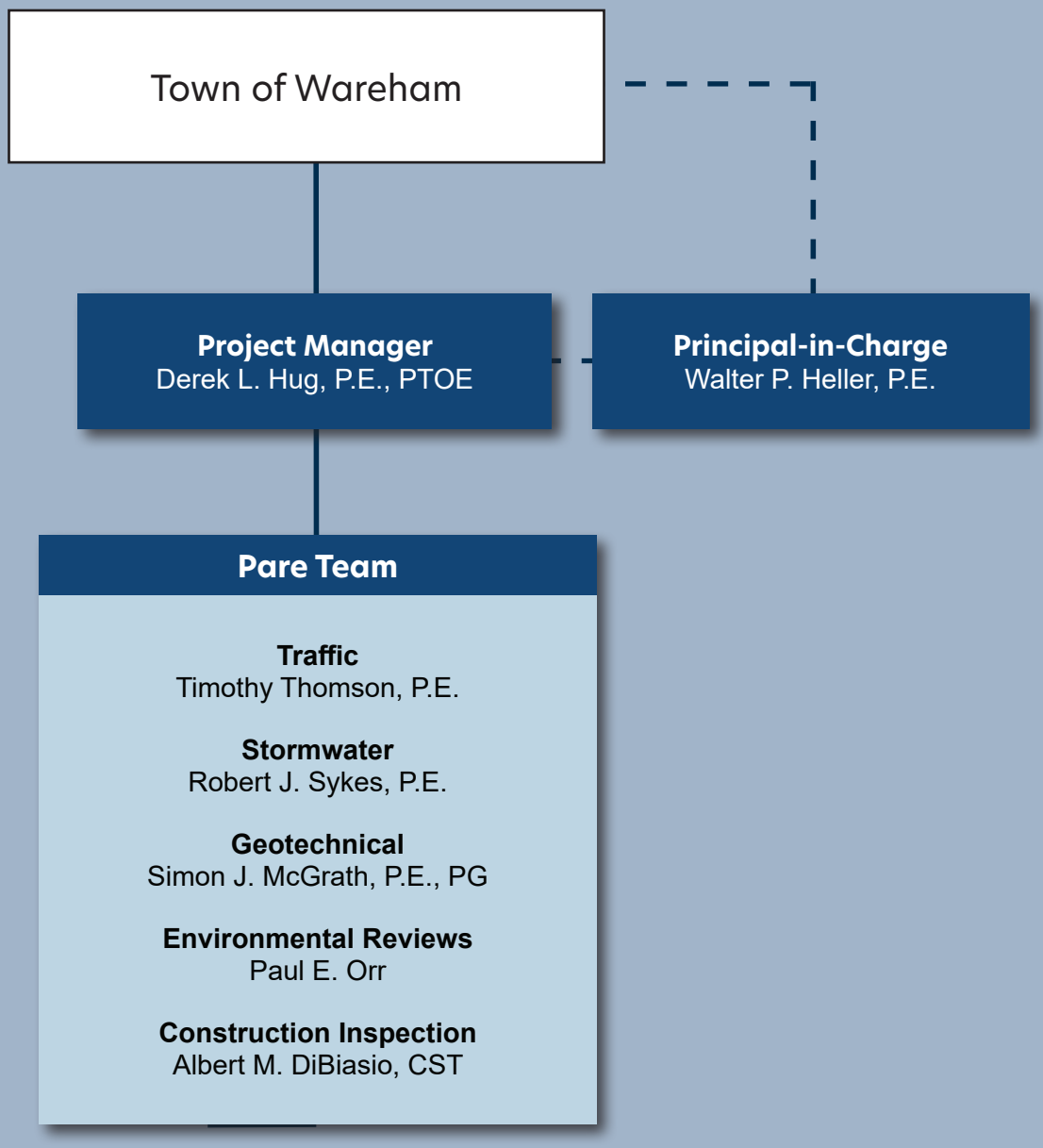
Peer Review Engineering Consulting Services

Section 2

Project Personnel

PARE CORPORATION

TOWN OF WAREHAM
PEER REVIEW ENGINEERING CONSULTING SERVICES



PARE CORPORATION

Walter P. Heller, P.E.
Principal-in-Charge

PARE CORPORATION

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer:
Massachusetts,
Rhode Island

PROFESSIONAL AFFILIATIONS

Member, Subcommittee on Bridges and Structures; AASHTO Materials Reference Library, 2014

EDUCATION

Drexel University -
B.S., Civil Engineering, 1994

Drexel University -
B.S., Architectural Engineering, 1994

RELEVANT EXPERIENCE

Mr. Heller possesses more than 27 years of experience in management of design and construction programs for roadways, bridges, and transportation facilities throughout New England. Representative projects include:

- **MassDOT – Safe Routes to School Program:** Principal-in-charge for providing QA/QC reviews including overall project management for design of various roadway improvements to improve pedestrian walking routes for three (3) elementary schools within the communities of Arlington, Longmeadow and Harwich MA. Improvements included the installation of new curbing, sidewalks, ADA compliant wheelchair ramps, minor drainage/utility adjustments, RRFB pedestal signals, pavement marking and associated signage. Each project also included preparation of a functional design report, environmental permitting and associated right-of-way as required to facilitate the improvements. MA.

- **District 6 Highway Director:** Director responsible for District 6, which encompasses 20 municipalities in the Boston region, including the Metropolitan Highway System; the Thomas P. O Neill, Jr. Tunnel; the Tobin Bridge; the I-90 tunnels; and 14 ventilation facilities. Reviewed and authorized construction, repair, and operational maintenance for both private and public activities related to the transportation infrastructure and coordinated the development of future projects. Assessed and interpreted complex engineering proposals, environmental impacts, social-economic benefits, and funding availability for a variety of projects with regional influence. Boston, MA.

- **River Street Bridge Replacement:** Project Manager responsible for working with the consultant, coordination with railroad and the city, quality review of design, specifications, and construction schedule and cost estimate for bridge replacement project. The proposed bridge increases the clearance over the MBTA Commuter Rail Line and widens the existing bridge to provide for two 12-foot travel lanes and 8-foot shoulders, as well as reconstructed sidewalks and wheelchair ramps. Boston, MA.

- **Preservation of Affordable Housing – Hebronville Pond Dam and Culvert Repairs:** Principal-in-charge. Evaluation, design, permitting, preparation of contract documents, and construction administration for a multi-phase project consisting of repairs to a high hazard potential dam and its 300-foot long auxiliary spillway culvert system at a former industrial complex. Responsibilities also included frequent coordination with the contractor during construction, including aiding with understanding the design intent as well as determining adequate substitutions and field fixes due to the unique nature of the project. Attleboro, MA.

- **RIDOT Pell Bridge Ramps – Phase 1 (Improvements to JT Connell Hwy/Coddington Hwy):** Engineer for the reconstruction of a 1.4-mile section of roadway on JT Connell/Coddington Highway. Included full depth roadway reconstruction, curb realignment, drainage improvements, and implementation of stormwater management strategies. Narrowing of the roadway and relocation of curb alignments allotted space for a new 12’-14’ wide separated shared-use path running parallel to the roadway, providing a provide a safe and healthy alternative transportation mode for a number of users. Landscaping improvements and a new pedestrian hybrid beacon (HAWK Signal) were also designed. Newport/Middletown, RI.

- **MassDOT – Larz Anderson Memorial Bridge:** Director for the Anderson Memorial Bridge project, overseeing repair deterioration, upgrade structural capacity and improve local street connections and accessibility, while preserving as many of the original bridge elements as possible. Boston, MA.

- **Accelerated Bridge Program:** State-wide Director for $3 Billion Dollar budgeted Accelerated Bridge Program with a completion date of eight years and a State legislative requirement of 80% or greater being on-time and on-budget. Managed a team of 142 employees using Performance Management / Project Controls for all individual projects, incorporated site and transportation planning, environmental benefits, federal requirements, and state of the art techniques to meet the high demands of the program. Boston, MA.

- **Accelerated Bridge Program Cedar St. Bridge:** Director of Accelerated Project Delivery for the replacement of the Cedar Street over Route 9 in Wellesley MA. The project demolished the old bridge and erected new precast abutment caps, a new precast pier cap, and elastomeric bearings. A self-propelled modular transporter (SPMT) moved the superstructure from the cloverleaf onto the Cedar Street ramp and down the ramp onto Rt 9, arriving at the pier and abutments. Wellesley, MA.

- **Accelerated Bridge Program Morton St. Bridge Replacement:** Director of Accelerated Project Delivery responsible for determining staging areas, constructability and construction schedule. This project used SPMT to replace the bridge and increases the clearance over the MBTA Commuter Rail Line, plus provide a new elevated walkway to the outbound platform and reconstructs the sidewalks and wheelchair ramps throughout the project area. The project required coordination with the City of Boston to demolish a existing building to create the staging areas needed for construction. Boston, MA.

- **Route 2 Bridge Replacement:** Director of Accelerated Project Delivery responsible for creating the First Heavy Lift Project for MassDOT and the overall delivery of the project from preliminary through final acceptance. The project used SPMTs to replace the existing structurally deficient bridge that carries Route 2 over Route 2A (State Road) in Phillipston in a way that resulted in the least possible impact to road users. Phillipston, MA.

- **Design Development for Reconstruction of Highland Avenue:** Director responsible for overseeing the development to 75% design for the reconstruction of Highland Avenue in Needham and Needham Street in Newton from an intersection just west of the Route 128 interchange to Route 9. Project required a new bridge to accommodate additional lanes of traffic and improve pedestrian accommodations, continuous designated sidewalks, designated ADA and MA AAB compliant crosswalks, and provide bicycle accommodations including a 5-foot-wide shoulder/bike lane. Needham/Newton, MA.

- **Roadway Design Development for Reconstruction of Cypher St, E Street, and Fargo Street:** Director working with the City of Boston to oversee this conceptual design which included the Design Development for reconstruction and extension of Cypher St from the South Boston Bypass Road to E Street with further improvements along E Street and then from E Street to Summer St along Fargo Street. Improvements to include new roadway, sidewalks, crosswalks, and signals. Boston, MA.

Derek L. Hug, P.E., PTOE
Project Manager

PARE CORPORATION

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer – Massachusetts, Rhode Island, Connecticut

Professional Traffic Operations Engineer

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers

American Council of Engineering Companies

National Council of Examiners for Engineering & Surveying

EDUCATION

University of Rhode Island: B.S., Civil & Environmental Engineering, 1998

RELEVANT EXPERIENCE

Mr. Hug has 24 years of experience in a variety of civil, traffic, and transportation engineering and planning projects. Project experience includes highway design; transportation planning and analysis; traffic signal design; roundabout analysis and design; traffic calming; design of bicycle, pedestrian, and equestrian facilities; context-sensitive design including complete/green streets; temporary traffic control plans; and parking lot design. Project responsibilities often include management of construction phase activities and construction inspection services. Representative projects include:

- **Town of Warren On-Call Consulting Services:** Task Manager for several tasks on this on-call contract. Task involvement included design of traffic calming improvements and temporary traffic control plans for Water Street and design of drainage and sidewalk improvements for Franklin Street. Construction administration tasks included submittal review, RFI responses, review of payment requests, coordination with regulatory agencies, and oversight of construction inspection staff. Construction management was also required for five infrastructure improvement projects, including coordination of contractors, utility companies, and various design consultants through the final design, permitting, and construction phases. Warren, RI.

- **Franklin Street Drainage Improvements:** Project Manager for the final design and construction administration of water quality improvements along Franklin Street in Warren, RI. Project also included sidewalk and ADA improvements to improve connection to the nearby East Bay Bike Path. Responsibilities included preparation of final design plans and specifications, bidding support, on-site construction inspection, and submittal and payment reviews. Warren, RI.

- **Main Street/Pleasant Street/East Street Intersection Improvements:** Project Manager for redesign of the intersections of Main Street at Pleasant Street in the Town Center. Project includes roadway widening and traffic signal improvements at the intersection and the closure of a small section of East Street between Pleasant Street and Main Street. Tewksbury, MA.

- **Lincoln Street Sidepath:** Project Manager for the construction of a sidepath for pedestrians and bicyclists along Lincoln Street, a narrow, one-way residential street. Included upgrading a sidewalk along Brook Road to link the Lincoln Street sidepath to Pierce Middle School. Also presented at two public meetings with residents to gather input into the design. Milton, MA.

- **Great Neck Road North:** Project Manager for the design and construction oversight of the one new traffic signal at the intersection of Great Neck Road North and Lowell Road. Project also included safety analysis of four intersections along Great Neck Road North as part of a larger sidewalk/shared-use path improvement project. Mashpee, MA.

- **MassDOT - Route 53 Resurfacing:** Project Manager the development of plans and specifications for the pavement rehabilitation of 2.05 miles of Route 53 in Weymouth, Braintree, and Quincy. Project included the development of roadway improvement plans, curbing and sidewalk improvements to fix damaged curbs or sidewalk sections that do not meet ADA/PROWAG standards due to surface quality issues, and road dieting of four-lane sections of roadway and associated traffic signal modifications to allow for the inclusion of on-street bike lanes. Braintree/Quincy/Weymouth, MA.

- **Traffic Studies:** Author or reviewer for dozens of traffic studies in support of land development projects ranging from small housing subdivisions to multi-million square foot developments throughout southern New England. Presented the findings of studies to municipal boards in Rhode Island, Massachusetts and Connecticut.

- **MassDOT – Bournedale Elementary School:** Project Manager for the construction administration effort for roadway widening and signal installation along Route 6 adjacent to the Cape Cod Canal associated with the construction of the Bournedale Elementary School, working closely with the Massachusetts Department of Transportation. Bourne, MA.

- **East Harwich Village Center:** Project Manager for traffic impact feasibility study for creation of a mixed-use village center in East Harwich Village. Evaluated feasibility of providing a "ring road" around the village center area, as well as an evaluation of providing traffic signals versus roundabouts at village intersections, and the adequacy of the existing arterials leading into the village center area. Harwich, MA.

- **100 College Street:** Project Manager for the parking and traffic control aspects of the project, was charged with procuring numerous City permits for construction activities and site plan revisions. Work included the design of temporary traffic control plans for the 13-story office and medical testing laboratory building, adjacent parking garage, and associated utilities adjacent to three major vehicular thoroughfares with bike lanes in downtown New Haven. In addition, managed the design of operational revisions to the parking garage and transit shuttle operations. New Haven, CT.

- **Cape Cod Rail Trail Extension:** Project Manager for the design of a two-mile extension of the Cape Cod Rail Trail in Wellfleet, MA for the Massachusetts Department of Conservation and Recreation. The Extension is an off-road shared use path along an abandoned rail corridor from the LeCount Hollow trailhead to Route 6 south of Main Street. Project included a significant public outreach effort and coordination of efforts to avoid impacts to threatened species.

- **Pequonnock River Trail:** Project Manager during the construction phase for two sections of the Pequonnock River Bike Path through southern Trumbull. These sections of the path consisted of an off-road shared use path utilizing pervious pavement and a bridge replacement over the Pequonnock River. Responsibilities included oversight of construction inspection staff and to interface with the contractor in the role of owner's representative. Trumbull, CT.

- **Town of Coventry Greenway:** Project Manager for the design of more than four miles of shared-use path along an abandoned rail bed which will become part of the 2,950-mile East Coast Greenway. Working closely with RI Department of Transportation staff, the project included an adjacent equestrian trail for a portion of the project's length, spurs off the main path to various other destinations, a shade structure, and a canoe launch. Coventry, RI.

- **Garden City Center:** Project Manager for improvements to the Garden City Shopping Center. Services provided included consulting and providing options to improve the value of the property through circulation and parking improvements. Services also included providing plans and construction services for the removal of sidewalk canopies to improve site visibility. Cranston, RI.

Timothy Thomson, P.E.
Traffic Engineering

PARE CORPORATION

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer – Rhode Island

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers (ITE)

Providence Engineering Society (PES)

American Society of Civil Engineers (ASCE)

EDUCATION

University of Washington: M.S.C.E., Transportation Engineering, 2011

University of Rhode Island: B.S., Civil & Environmental Engineering, 2009

RELEVANT EXPERIENCE

Mr. Thomson has 14 years of engineering experience with an emphasis in traffic design and planning, beginning with an internship at the Rhode Island Department of Transportation. Since joining Pare in 2011 he has been involved in a variety of traffic engineering studies and roadway and intelligent transportation systems design projects. Representative projects include:

- **RIDOT 2016 On-Call Transportation Engineering Services – Greenville Avenue Bridge No. 740:** Project Engineer for the preliminary design and development of a Design/Build Request-for-Proposals package for the rehabilitation of twin single-span steel highway bridges. Also responsible for review of Design/Build Team submittals and construction consultation. Johnston, RI.

- **Foxborough – Completion of the Master Plan:** Assisted the McCabe Enterprises team in identifying policy and design options for improving transportation access along Route 1 in Foxborough, including access management. The completion of the master plan included proposing a multi-use path to connect the growth nodes in Foxborough parallel with the railroad right-of-way and a buffer zone between Route 1 and neighborhood residential development. Foxborough, MA.

- **Lawrence Merrimack Street Land Use Planning Study:** Senior Engineer responsible for observing existing traffic conditions and identified proposed strategies for short-term and longer-term for improvement to the Merrimack Street-Route 114 intersection. The project has identified alternative approaches to incorporating a complete streets approach along Merrimack Street and the South Canal, balancing the desire to improve conditions for pedestrians and bicyclists with current truck traffic generated by adjacent industry. Lawrence, MA.

- **Sturbridge Commercial Tourist District Improvement Plan:** Senior Engineer for a roadway improvement project that passed through the heavily visited Commercial Tourist District (CTD) along Main Street (Route 20) in the Town of Sturbridge. The two-mile project focused on creating conceptual design plans for an improved Main Street corridor. Improved connections between the Quinebaug River and the CTD, the attractiveness of the corridor, and encouraged economic growth within the District. Prepared conceptual designs for a multilane roundabout and geometric improvements to signalized intersections. Sturbridge, MA.

- **Weymouth Traffic Signal Design:** Project Engineer for traffic engineering design for replacement of existing traffic signal at the intersection of East Street and Green Street. Tasks included complete replacement of traffic signal equipment, geotechnical investigations, sidewalk and pavement marking improvements and wheelchair ramp improvements. The Town is currently seeking funding sources for completion of project. Weymouth, MA.

- **UMass Boston 25-Year Transportation Master Plan Update:** Senior Engineer for an extensive traffic study involving 15 intersections, both on and off campus. The transit system of the University was also studied where ridership, bus routes, schedules, and stop locations and accommodations were evaluated. Intersections recommendations include timing, phasing and/or minor geometric improvements, and improvements to the transit system will also be recommended. Boston, MA.

- **Massachusetts High Schools – Traffic Studies:** Staff Engineer for traffic impact analyses performed for several new "model" middle and high schools. These studies typically include investigations of off-site traffic capacity and safety issues, pedestrian safety issues, traffic circulation on-site, and development of off-site mitigation recommendations to improve vehicular and pedestrian movements. Plymouth, Marshfield, Somerset, Andover, Foxborough, and Franklin, MA.

- **P&W Railroad Detour Route:** Staff Engineer for the preparation detour routes for the temporary closure of roadways for rail bridge construction. Analysis included determination of detour impacts to surrounding intersections and roadway safety impacts. Massachusetts

- **MassDOT – Rehabilitation of Main Street Bridge B-13-004 (202):** Staff Engineer involved in the development traffic management plan for multiple phases of bridge construction. The project involved installation of a temporary traffic signal to control one-way alternating traffic across the bridge during construction. Blackstone, MA.

- **RIDOT Pell Bridge Ramps – Phase 1 (Improvements to JT Connell Hwy/Coddington Hwy):** Project Engineer for the reconstruction of a 1.4-mile section of roadway on JT Connell/Coddington Highway. Included full depth roadway reconstruction, curb realignment, drainage improvements, and implementation of stormwater management strategies. Narrowing of the roadway and relocation of curb alignments allotted space for a new 12'-14' wide separated shared use path running parallel to the roadway, providing a provide a safe and healthy alternative transportation mode for a number of users. Landscaping improvements and a new pedestrian hybrid beacon (HAWK Signal) were also designed. Newport/Middletown, RI.

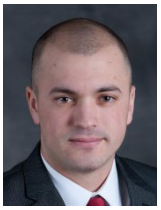
- **University of Rhode Island Roads and Parking Lot Repairs:** Project Engineer for reconstruction and repair of parking lots, roadways, and utilities throughout URI campuses. A traffic model was prepared using traffic counts and mounted cameras, and assessment was aided by parking management systems such as License Plate Reader (LPR) technology and Automated Parking Guidance Systems (APGS). Project also included final design, permitting, and cost estimating. Kingston, RI.

- **URI/South County Bike Path Connector:** Project Engineer for the design of a bike path connecting the URI campus to the existing William C. O'Neill Bike Path. The 1.85-mile Bike Path Connector begins at Flagg Road, parallels the west side of White Horn Brook, passes across Route 138, and passes through Peckham Farm and by the West Kingston Elementary School to connect to the existing bike path. The project included the state's second HAWK traffic beacon (High-intensity Activated crossWalK) at the Route 138 crossing as an additional safety measure. Kingston, RI.

- **Misquamicut Bike Path Feasibility Study:** Project Engineer for the feasibility study of an approximately 7-mile multi-use facility surrounding Winnapaug Pond in the Town of Westerly. Developed path alignment and cross-section alternatives to maximum path safety and convenience while minimized ROW and wetland impacts. Prepared recommendations based on anticipated costs, and the impact to ROW and environmentally sensitive areas. Westerly, RI.

Robert J. Sykes, P.E.
Stormwater Engineering

PARE CORPORATION



REGISTRATIONS AND CERTIFICATIONS

Professional Engineer - Rhode Island, Maine

OSHA 10-hour Construction Safety and Health Training

Title V Soil Evaluator - Massachusetts

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers-
Rhode Island Chapter
Younger Member Group
Past Chair

EDUCATION

Complete Streets 101, 2016

Wentworth Institute of Technology:
B.S., Civil Engineering Technology, 2013

RELEVANT EXPERIENCE

Mr. Sykes has nine years of experience in various aspects of civil and transportation engineering. He is proficient in a variety of engineering disciplines including roadway design, utilities, stormwater management, traffic analysis, and site design. Representative projects include:

- **Southborough Contracted Town Engineering Services:** Provided part-time engineering services for the Southborough Department of Public Works. Responsibilities include the preparation of bid documents for municipal construction projects, in-house design of multiple municipal facilities including conceptual layouts for a new transfer station, a hiking trail parking facility, various intersection improvements, and playground upgrades. Also providing engineering reviews for stormwater and traffic components of multiple proposed developments throughout the town and has aided in the preparation of the municipal permits including the Annual MS4 Permit. Southborough, MA.

- **Engineering Services-Town of Westerly:** Project Engineer for several projects for the Town of Westerly Engineering Department including: the design and construction services for the Pond View Avenue Reconstruction Project; and the development of as-built survey/record drawings of Nina Lane and Christopher Drive Road. Westerly, RI.

- **Town of Bristol – On-Call Technical Review Consultant:** Project Engineer attending Technical Review Committee meetings for various on-call project reviews to the Town of Bristol Planning Department including, to date, the following project assignments:
  - *Seasons Corner Market*
  - *Storage Facility*
  - *August Farms Subdivision*
  - *Virgil Sales Subdivision*
  - *91 Broadcommon Road*
  - *549 Metacom Avenue*
  - *Massasoit Avenue Extension*
  - *Ridge Road Extension*
  - *206 Bayview Avenue*
  - *San Francisco Street Extension*
  - *Old Orchard Farm*
  - *1200 Hope Street*
  - *1202 Hope Street*
  - *180 Mt. Hope Avenue*
  - *Bristol Yarn Mill*
  - *2 Peter Road*

- **Fox Run Subdivision:** Provided construction services including consultation for design revisions and observations for the erection of a five-lot subdivision including the drainage and roadway improvements. Barrington, RI.

- **Hundred Acre Cove Estates:** Senior Engineer for reviewing the Master Plan Submission and stormwater management report for the development of a 21 Lot Subdivision on Wampanoag Trail. Attended Planning Board meeting to provide engineering consultation for stormwater management, traffic, and construction standards. East Providence, RI.

- **Charlestown Storage Facility Review:** Project Engineer for reviewing the plans and FEMA Letter of Map Revision for Fill (LOMR-F) Submission for the development of a Storage Facility. Provided engineering consultation for the FEMA submission process and to determine if the proposed development was reasonably safe from flooding. Charlestown, RI.

- **South Drive Development:** Provided construction services including consultation for design revisions and observations for the erection of a affordable housing development including drainage and roadway improvements. Westerly, RI.

- **Town of Southborough MS4 Permit:** Project Engineer for preparation and review of required materials for the Town's MS4 Permit. Documents included Town's Stormwater Management Program, Illicit Discharge Detection and Elimination Plan, Operation and Maintenance Plan, Notice of Intent, and various other resources for the Town's compliance. Southborough, MA.

- **Francis J. Varieur School Drainage Investigation:** Senior Project Engineer responsible for reviewing and overseeing the assessment and recommendations to alleviate drainage issues experienced at the Max Read athletic field complex. Pawtucket, RI.

- **I-95 Viaduct Northbound Providence - Design Build:** Project Engineer responsible for the drainage and stormwater design for the I-95 northbound viaduct replacement. Responsibilities included working with design staff, coordinating the interface throughout the disciplines of the project team, review of relative design materials, and quality assurance. Attended weekly meetings with the design team and contractor to coordinate the components from the proposal phase, through construction documents. Providence, RI.

- **RIDOT 2016 On-Call Transportation Engineering Services Task Order Program Round 1 – Stormwater/MS4 & EPA Compliance Contract C-6:** Project Engineer for assisting the RIDOT Office of Stormwater Management in complying with the 6 minimum measures and additional requirements of the MS4 Permit between the Department and EPA. The On-Call Task Order assignments included assisting RIDOT with requirements of the RIPDES general permit and EPA Consent Decree requiring the total maximum daily load (TMDL) requirements, the 303(d) listed impaired waterbody goals, illicit discharge detection and elimination (IDDE) requirements and implementing recommendations from various Stormwater Control Plans prepared under RIDOT's MS4 program. Assignments included the following projects:
  - ***Lower Woonasquatucket River Watershed 10B*:** Development of a Feasibility Study Report and Final Design Documents for construction and implementation of Stormwater Treatment Units (STUs) within the 10B Watershed in Smithfield, RI. Prepared hydraulic and hydrologic calculations and conducted various evaluations of specific best management practices for implementation within the MS4 Permit Areas.
  - ***Sand Pond Stormwater Feasibility Study & Preliminary Design*:** Development of a Feasibility Study Report and 30% Design Plans for assessing the feasibility implementation of Stormwater Treatment Units (STUs) and erosion controls adjacent to Sand Pond Road. This project was performed in partnership with RIDOT and Warwick Public Works.
  - ***Roger Williams Park and Mashapaug Ponds Watershed 1C*:** Development of a Feasibility Study Report for implementation of Stormwater Treatment Units (STUs) within the 1C Watershed within the Cities of Providence and Cranston, RI. As part of this scope, prepared preliminary hydraulic and hydrologic calculations, selected the locations and types of conceptual STUs and other evaluations of specific best management practices for implementation within the MS4 Permit Areas.

Simon J. McGrath, P.E., P.G.
Geotechnical Engineering

PARE CORPORATION

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer - Massachusetts, Rhode Island

Professional Geologist - Pennsylvania

OSHA Hazardous Waste Operations 40-Hour Health and Safety Training

OSHA Hazardous Waste Operations 8-Hour Supervisor Training

Troxler Nuclear Density Gauge Training

Loss Prevention System Training

PROFESSIONAL AFFILIATIONS

Association of Engineering and Environmental Geologists

Fellow of the Geological Society, London, UK

EDUCATION

Bolton Institute of Higher Education, Bolton, U.K. - M.S., Geotechnical Engineering, 2000

University of Manchester, Manchester, U.K. - B.S., Geology, 1989

RELEVANT EXPERIENCE

Mr. McGrath is an experienced geologist and geotechnical engineer with 32 years of demonstrated success in a wide variety of development and construction projects in the US and overseas including electric transmission corridors, nuclear power stations, municipal and education buildings, retail developments, gas stations, and transportation improvements. His experience includes excavation assessments, subsurface investigations, bearing capacity and settlement calculations, foundation and retaining wall design, and construction inspection. Representative projects include:

- **Poplar Street Sewer Separation:** Designed, coordinated and implemented the preliminary, design, and supplemental geotechnical subsurface investigation programs for the design of a new below grade 1M gallon stormwater storage tank and sewers within an urban environment. Prepared a geotechnical report giving foundation and other recommendations for the proposed structures inclusive of alternative soil support systems. Somerville, MA.

- **Amesbury Heights Subdivision Slope Evaluation:** Designed, coordinated, and executed the geotechnical subsurface investigations and analysis to evaluate and design stabilization measures for the slope abutting I-495. Amesbury, MA.

- **Salisbury Police Station:** Designed, coordinated, and performed the preliminary and supplemental phase geotechnical subsurface investigations for the proposed new police station and provided a Geotechnical Design Basis Report. Salisbury, MA.

- **Hobbs Pond Dam Reconstruction:** Provided construction administration during the replacement of the primary spillway, addition of a low level outlet, and construction of a new auxiliary spillway to repair a structure that breached in the storms of 2010. Weston, MA.

- **Whitings Pond Dam Repairs:** Project manager for the construction phase to install upstream slope protection along this high hazard potential dam. North Attleboro, MA.

- **Reading High School Retaining Wall Reconstruction:** Coordinated and performed the subsurface investigation and appraisal of an approximately 300 feet long segmental retaining wall that was undergoing movement. Designed a replacement segmental retaining wall, prepared the construction documents, and coordinated the procurement of the replacement wall reconstruction. Performed the construction administration during the wall reconstruction. Reading, MA.

- **Abington Co-Located Pre-K, Middle and High School:** Designed, coordinated, and performed preliminary and supplemental geotechnical subsurface investigation for a school located on the footprint of the existing school fields. Prepared a geotechnical report giving foundation and other recommendations for the proposed structures. Designed a perimeter- and underdrain system to remove groundwater. Abington, MA.

- **MWRA Dam Safety Technical Assistance:** Completed technical reviews of seepage, slope stability, and gravity stability evaluations for a number of MWRA dams throughout Massachusetts.

- **Tewksbury Fire Station HQ:** Project Manager for geotechnical exploration and evaluation, seismic evaluation and, inspection of subgrade during construction of the Fire Station Headquarters. Tewksbury, MA.

- **Pharmaceutical Facility Expansion:** Designed, coordinated, and executed the geotechnical subsurface investigations for the proposed facility additions and modifications and provided a Geotechnical Design Basis Report inclusive of the rock removal requirements and recommendations. Milton, MA.

- **Nunziato Field Sewer Separation:** Designed, coordinated, and implemented the preliminary, design, and supplemental geotechnical subsurface investigation programs for the design of a new below grade stormwater storage tank and new sewers within an urban environment. Prepared a geotechnical report giving foundation and other recommendations for the proposed structures inclusive of alternative soil support systems using secant piles, soldier pile walls, ground freezing, and slurry walls. Somerville, MA.

- **Multi-Family Development:** Designed, coordinated, and executed the geotechnical subsurface investigations for the proposed structure and provided a Geotechnical Design Basis Report inclusive of consideration for adjacent structures within an urban environment. Dorchester, MA.

- **Dunkin Donuts Store:** Coordinated and performed subsurface appraisal and investigation, then designed the driven pile foundations for a new strip mall. Prepared the piling specification and organized the procurement and installation of 114 driven timber-piles. Performed the construction administration during the installation of the piles. North Attleboro, MA.

- **UMass Boston University Hall:** Performed construction administration and vibration monitoring during the driven-pile foundation installation for 181,000-SF University Hall building in the center of the campus. Boston, MA.

- **UMass Boston University Hall Building Connector Structure:** Designed driven pile foundations for the link structure connecting University Hall and Campus Center buildings. Performed construction administration and vibration monitoring during driven-pile foundation installation. Boston, MA.

- **Salisbury Tide Gate Improvements:** Project manager for construction to reconstruct the embankment which failed in 2006 during a significant storm event that flooded portions of Route 1 causing significant economic impact. Includes the addition of an additional ‘barrel’ and gate, as well as replacement of the existing barrel and gate, while maintaining flow and protection to the Route 1 business district. Salisbury, MA.

- **Center Street Bridge Monitoring:** Provided pre-construction monitoring of the dam adjacent to the proposed bridge reconstruction and developed an emergency response plan for use by the Contractor during the progression of the project. Framingham, MA.

- **MBTA Green-Line Extension:** While with another firm, performed bearing capacity and settlement calculations; produced geotechnical engineering reports for proposed new stations along the proposed Green Line Extension. Performed geotechnical analyses on proposed retaining walls and stability of slopes. Lechmere to Medford, MA.

Paul E. Orr
Environmental Reviews

PARE CORPORATION

REGISTRATIONS AND CERTIFICATIONS

Certificate of Professional Achievement in Construction Project Management (Northeastern University)

Certificate of Wetlands Protection Act for Conservation Commissioners (Massachusetts Association of Conservative Commissioners)

PROFESSIONAL AFFILIATIONS

Project Management Institute, Mass Bay Chapter

EDUCATION

Hunter College, City University of New York:

RELEVANT EXPERIENCE

Mr. Orr has more than 30 years of experience in various roles on environmentally related projects, including extensive experience developing and implementing strategic permitting programs, including managing the preparation of Environmental Impact Reports (EIRs) and Environmental Assessments/ Environmental Impact Statements (EAs/EISs). He is proficient in managing the preparation of Wetlands and Waterways-related permits for infrastructure improvement, water supply/wastewater, transportation, and other construction projects. His experience includes the following projects:

- **Mashpee Water District - Regulatory and Environmental Peer Review:** Senior Project Manager responsible for the development and direction of the peer review process of the New Seabury Properties project, a large-scale residential/commercial development proposed to be sited within the Zone I of two major public water supply wells. Responsible for representing the Mashpee Water District (MWD) and its interests during the MEPA public review process and at Cape Cod Commission hearings. In addition, provided ongoing support to the MWD's legal counsel relative to groundwater monitoring, water supply and potential impacts to the MWD's wells. Further assisted the MWD in negotiations with the proponent's legal counsel to provide for adequate mitigation and protection of the Town's water supply. Mashpee, MA.

- **Environmental Permitting and Compliance Plans:** Technical Director and Client Services Manager responsible for providing expert testimony and adjudicatory support at the request of the client's legal counsel pursuant to an enforcement action before the Boston Conservation Commission (BCC). Managed the development, review and approval, and implementation of both Comprehensive and Individual Wetlands Protection Plans for transportation and building construction valued more than $2.5 billion. Concurrently addressed the concerns of the BCC, senior partners of the client firm, contractor resident engineering staff, in addition to managing a staff of eight personnel. Performed field observations and direct development and implementation of these plans to a level acceptable for approval by all stakeholders. Boston, MA.

- **Cambridge Department of Public Works - Combined Sewer Separation Program:** Environmental Permitting Manager responsible for lead coordination with the Cambridge Conservation Commission, the U.S. Army Corps of Engineers, the Department of Environmental Protection, and the Metropolitan District Commission. Provided technical and administrative review of dewatering permits for portions of the project involving MWRA sewers, which have been approved by the MWRA. Cambridge, MA.

- **Massachusetts Highway Department - Central Artery/Tunnel Project:** Project Controls/Senior Planner responsible for contracts management of the East Boston subarea of the CA/T project, with contracts valued more than $250 million, including review and approval of change orders and cost and schedule forecasting.

- **MBTA - Silver Line Fort Point Channel Crossing:** Senior Project Manager responsible for the excavation and on-site remediation of lead-contaminated soil and subsequent backfill with controlled density fill (cdf) of more than 5,000 cubic yards (cy) of material in an area adjacent to the Fort Point Channel. Oversaw soil and dredged material treatment and disposal,

wharf and seawall demolition and reconstruction, and excavation and cdf placement. Other responsibilities include supervision relative to permit conditions, environmental inspection, and, acted as liaison between the MBTA's consultant and contractor project management. Boston, MA.

- **Massachusetts Water Resources Authority (MWRA) - Southern High Service Extension Feasibility Study:** Environmental Permitting Manager responsible for development of permitting strategy and identification of Federal, State and local permitting requirements, including: several wetlands crossings including work in adjacent resource areas; simultaneous coordination with the Conservation Commissions of eight different communities; coordination with local Departments of Public Works; preliminary consultations to be followed by filings with MEPA; Section 404/10 permits from the U.S. Army Corps of Engineers; and highway access permits from the Massachusetts Highway Department. Assisted in review of past engineering and environmental investigations such as environmental permitting strategy, wetlands assessments, construction staging and methodology and community outreach information. Reassessed environmental permitting strategies and assisted in the classification of potential impacts on local communities as well as compressing the schedule for permit application preparation, filings and hearings. Boston, MA.

- **Environmental Services/Environmental Documentation Administrator**: Participated in the preparation and review of the Charles River Crossing Draft and Final EIRs, more than 20 Notices of Project Change and two Section 61 Findings (MEPA); and, assisted in the preparation of Boston Conservation Commission Notices of Intent under the Wetlands Protection Act Regulations. Boston, MA.

- **MFN / Adesta Communications - Wetlands Protection Act Comprehensive Permitting:** Senior Project Manager responsible the placement of polyvinyl chloride ducting to accommodate fiber optic cable optimized for Internet access along a 75-mile route through 14 communities in the Boston and Metro-North area. Responsible for compliance with the Wetlands Protection Act requirements for the entire route, including coordinating the preparation, internal QA/QC, client review and approval, and filing of Requests for Determination of Applicability (RDAs) and Notices of Intent (NOIs). Identified the Act's applicability on a community-specific basis; designed and implemented strategies for permit acquisition; and developed design and construction methodology modifications aimed at streamlining and reducing permitting requirements. Boston, MA.

- **Everett Yard Staging and Laydown:** Manager of Environmental Compliance responsible for negotiating and developing the Remediation Plan of Modern's Everett Yard laydown area, a 27-acre site requiring remediation under a Department of Environmental Protection (DEP) Administrative Consent Order (ACO) pursuant to both the Massachusetts Contingency Plan and Solid Waste regulations. Responsibilities included retaining and managing the subconsultant labor force to perform the remediation, transport and delivery of non-clearance, PAH-contaminated and asbestos-containing materials. Prepared the compliance report in coordination with legal counsel, which successfully completed the ACO process. Everett, MA.

Albert M. DiBiasio, CST
Construction Inspection

PARE CORPORATION

REGISTRATIONS AND CERTIFICATIONS

Certified Survey Technician: N.S.P.S., A.C.S.M.

OSHA Construction Safety 30-Hour Training Confined Space

Transportation Worker Identification Credential (TWIC) Certified

EDUCATION

New England Institute of Technology: Architectural and Structural Engineering Drafting Technology, 1993-1995

Certified in Carlson Civil/Survey, Takeoff & Construction Estimating

RELEVANT EXPERIENCE

Mr. DiBiasio has 27 years of experience in design and construction of various site, civil and transportation projects. His responsibilities include plan production, construction observation and construction management for the Transportation, Civil, and Environmental Divisions of the firm, as well as ensuring compliance with requirements of state agencies such as the Rhode Island Department of Transportation, Rhode Island and Massachusetts Departments of Environmental Management, and MassDOT. Projects have included landfill design, road design and reconstruction, pavement management, site improvements, bike paths, drainage and utility improvements, bridges, waterfront structures, dams, water supply facilities (piping and storage tanks), wetland delineation, traffic studies and design, wastewater facility design, structural building renovations, and beach erosion control. Representative projects include:

- **Waltham Component of the Wayside Trail:** Construction Manager for the 2.2-mile multi-use trail across the City of Waltham, running predominantly through a previously abandoned RR ROW. Tasks included coordinate with the City of Waltham and review pay requestions, change orders and respond to request for information (RFIs). Waltham, MA.

- **Town of Spencer – Donnelly Cross Road over Shaw Brook – Culvert Replacement:** Provided Construction Management and responsible charge for full time Resident Construction Observer for the replacement of a three sided culvert and the reconstruction of Donnelly Cross Road Bridge. Spencer, MA.

- **Town of Westerly – School Street Reconstruction, Main Street to Granite Street:** Provided Construction Management and provided staffing for a full-time field observation services of the reconstruction of the Town maintained roadway from Main Street to Granite Street. The project involves the reconstruction of School Street through reclamation. Elements to be replaced along the roadway, including curbing, striping, drainage and utility structures, will be replaced as necessary. Westerly, RI.

- **Town of Bristol – Wood Street Neighborhood Project Improvements:** Construction Manager for the resurfacing/reconstruction and roadway improvements for nine roadways. Project included the development of a full set of design plans, estimate and contract documents. Improvements included full depth reclamation and cold in-place recycling of existing bituminous pavement; sidewalks; installation of new ADA compliant wheelchair ramps; resetting existing granite curbing; adjustment of roadway utility structures (such as frame & cover, frames & grates, gate valve boxes, etc.) to grade; reconstruction of catch basins and the installation of new drainage structures. Bristol, RI.

- **Kingston Train Station Improvements:** Served as Project Superintendent and Project Manager for Wallace Construction in responsible charge of construction of 1.5 miles of high speed rail to enable high-speed trains to safely bypass the Kingston Station. This project was a partnership with RIDOT and Amtrak. South Kingstown, RI.

- **Route I-295/Greenville Avenue Ramps:** Served as Project Superintendent for DiGregorio Corporation in responsible charge of all construction operations for building a new interchange on Interstate 295 and Greenville Avenue as part of the development of a new Citizens Bank Headquarters.

This high profile project was a partnership between the Rhode Island Department of Transportation, Providence Water, the Narragansett Bay Commission and the end user Citizens Bank Corporation. Johnston, RI.

- **Sanitary Sewer and Municipal Water Improvements:** Served as Project Manager and General Superintendent for Wallace Construction Corporation in responsible charge of construction operations for constructing a sanitary sewer project for the Narragansett Bay Commission and water main improvements project for Providence Water. RI.

- **Site, Bridges and Dam Improvements:** Served as Project Manager and Superintendent for New England Building & Bridge Co. in responsible charge of construction operations for constructing a site improvement at the Stedman Government Center in South Kingstown; Pier Modifications / Rehabilitations for the US Coast Guard ANT in Bristol; and various dames and bridges across Rhode Island.

- **Infrastructure and Waterfront Improvements:** Served as Superintendent and Quality Control Supervisor for R.P. Iannuccillo and Sons in responsible charge of construction operations for a new Airbag Launchway for Senesco Marine; a new Pump Station in North Kingstown; and a new Leachate Collection Pump Station and Storage Tanks for Rhode Island Resource Recovery Corporation. RI

- **Site Layout and Field Engineering Services:** Served as Project Surveyor and Field Engineer for DiGregorio Corporation on a variety of site development projects that included; FM Global World Headquarters; site improvements at Roger Williams University and Brown University; improvements at the Burrillville Landfill; Reconstruction of Atwood Avenue; and various stormwater drainage and utility projects throughout RI.

- **Narragansett Bay Commission - Phase III Combined Sewer Overflow Program:** This Combined Sewer Overflow tunnel project includes a 2.2-mile 33.5-foot diameter approx. 160' in depth tunnel. The Stantec/Pare team is serving NBC in the role of Program Manager/Construction Manager. Perform and analysis of the design-builder/contractor's initial project baseline schedule as well as monthly updates and prepare a report of the results. Perform time impact analyses and discuss the analyses with the Resident Engineer in review of any CORs and claims. Prepare opinions of probable construction cost for NBC initiated changes and review design-builder cost proposals included in CORs. Pawtucket, RI.

- **Quonset Development Corporation – Pier and Landside Improvements at General Dynamics Electric Boat Facility:** Provided Construction Management and staffing for a full-time Resident Construction Observer throughout the construction of a new Pier for the Ocean Transport Barge. The pier consists of constructing a 117 foot long by 120 foot wide T-shaped pier. The Landside Improvements consists of constructing of a 300 foot by 75 foot structural pad with ground improvements over 1500 Rigid Inclusions ground support system for the heavy lift crane. North Kingstown, RI.

- **RIRRC Central Landfill – Phase II\III Area 1 and Area 2 Cap Construction:** Performed oversight of cap construction. As-built liner and intermediate layers for certification report. Attended weekly cap construction meetings with DEM, RIRRC and contractor. Assisted in oversight of cap construction. Johnston, RI.

Town of Wareham

Peer Review Engineering Consulting Services

Section 3

Relevant Firm Experience

PARE CORPORATION

PARE CORPORATION

Engineers | Scientists | Planners

Pare Corporation was founded in 1970 with one goal in mind — providing consistently superior service to our clients. Over the years, we have expanded both our capabilities and our staff to address the ever-changing complexities and challenges of projects in both the public and private sectors.

Today, we provide a diverse array of in-house services. By combining the resources of our experienced professional staff, and staying at the forefront of emerging technologies, we maintain a track record of solid accomplishment and are able to handle projects of any size with efficient, responsive service.

As a multidisciplinary firm of engineers, planners, environmental and wetland scientists, GIS specialists, and regulatory permitting specialists, our clients depend on us to help them work through the anxieties of the design and permitting process while sharing their sense of urgency.

Pare at a Glance

- 52 Years in Business
- 125+ Employees
- 44 Professional Engineers (Licenses in RI, MA, CT, ME, NH, VT, NY, AL, CO, DE, FL, GA, IA, MD, MI, MN, NC, NE, NJ, NV, OH, PA, SC, TX, UT, VA, WI, WV, and US Virgin Islands)
- USGBC LEED-Accredited Professionals
- ISI Envision Sustainability Professionals
- Licensed Site Professionals (LSP)
- Professional Geologists
- Professional Wetland Scientists
- Resident Construction Observers

Primary Markets

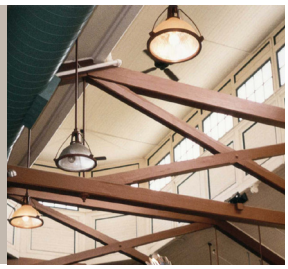
- *State, Municipal, and Site Infrastructure — Transportation, Water, Wastewater, Solid Waste*
- *K-12 and Higher Education*
- *Pharmaceutical and Biotechnology*
- *Dam Owners and Marine Facilities*
- *Industrial, Corporate, Institutional, and Commercial*

PLANNING AND SITE / CIVIL

Feasibility Studies and Master Planning
Land Development and Site Design
Sustainable Design / LEED Assistance
Municipal Planning Services
Park and Recreation Planning
Sustainable Energy Development
Grading / Drainage / Utility Layout

STRUCTURAL

Building Design and Rehabilitation
Condition Surveys / Inspection
Parking Decks, Specialty Structures
Foundation Design, Historic Structures
Demolition Plans
Pre- and Post-Construction Inspections



ENVIRONMENTAL

Water Supply / Wastewater
Stormwater BMPs
Environmental Site Assessments
Site Remediation, Hazardous Waste
Hydrology and Hydraulics
Solid Waste / Resource Recovery

GEOTECHNICAL / DAM

Subsurface Investigations
Foundations and Retaining Walls
Slope Stability and Ground Stabilization
Dam Inspections, Design,
Rehabilitation, and Removal
Emergency Action Plans / O&M Manuals

TRANSPORTATION

Multimodal Transportation Planning
Highways and Roadways
Bridge Design & Inspections
Parking / Traffic Studies and ITS
Bicycle and Multi-Use Facilities
Streetscape Design
Railroads and Airports

WATERFRONT / MARINE

Piers / Docks / Wharves
Seawalls / Bulkheads
Ferry Docks & Terminals
Structural Analyses & Underwater
Inspections
Port Planning / Marinas
Dredging / Coastal Studies

PERMITTING & SUPPORT SERVICES

Coastal & Inland Wetlands
Delineations / Mitigation / Restoration
Water / Groundwater
Regulatory Agency Coordination
LSP Services / CAD
Geographic Information Systems (GIS)
Construction-Phase Services

Lincoln, RI
(401) 334-4100

Foxboro, MA
(508) 543-1755

Holyoke, MA
(413) 507-3448

parecorp.com

MUNICIPAL COMMISSION CONSULTING

Pare Corporation has considerable experience in assisting Planning, Zoning, Board of Health, and Conservation Commissions in the review of subdivisions and site plans to determine compliance with existing regulations and sound engineering practice. We also assist in the updating of regulations and design standards to reflect current criteria. We attend commission meetings, as requested, to present our findings and answer commission members' technical questions. We also monitor construction of site plans and subdivision roads to verify the work is performed in accordance with the approved plans.

We review approximately 50 submissions per year for commissions in various towns throughout New England. Typically, when we review a subdivision or site plan, our services include:

- Verifying that buildings, lot lines, septic systems, wells and other physical features comply with **zoning, health** and **other applicable requirements.**
- Review of **traffic plans** prepared by developers to ensure a project's impacts upon municipal roadways are properly evaluated.
- Review of **drainage calculations** to verify that storm drainage and detention systems are properly sized.
- Review of **roadway horizontal and vertical alignments** and intersection sightlines to ensure the roadway is properly designed for vehicular traffic.
- Review of **parking requirements**, loading requirements, and other site-specific traffic items.
- Review of **Soil Erosion and Sedimentation Control Plans** to ensure that a development's impact will be minimized with proper environmental controls.
- Perform **field visits** during the construction phase to review installation of roadway and storm drainage systems.

MUNICIPAL PLANNING AND DESIGN

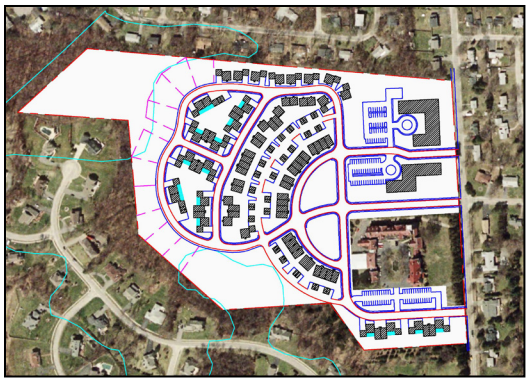
Pare Corporation provides a wide variety of planning and design services for our municipal clients. These services range from comprehensive land use planning, urban design for downtown and waterfront revitalization, smart growth solutions, master planning, harbor and waterfront management planning, water and wastewater planning, and demographic studies, to revisions to zoning, development regulations, and impact fee ordinances. Our interdisciplinary staff works collaboratively on these assignments to provide municipalities with the breadth of expertise required. Through public outreach programs we assure that projects are embraced by the community. Our goal is to assist communities in addressing complex issues of growth in a positive and environmentally sensitive manner, to preserve and enhance the quality of life.

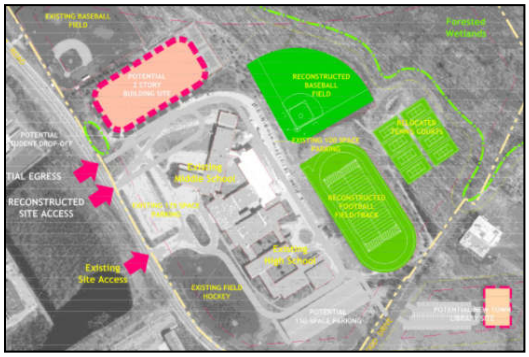
Regardless of the project size, Pare recognizes overall project success is highly dependent on public participation, sequencing, scheduling, and regulatory compliance. Our ability to meet the needs of our clients is reinforced by the firm's full-service, in-house capabilities.

Pare has been responsible for the study, planning and/or design of urban riverwalks, streetscape enhancement projects, school needs assessment and site feasibility projects, revitalization plans, comprehensive town plans, water system management plans, stormwater management plans, parks, playgrounds, and recreational fields, traffic calming plans, land-use recommendations, septic system maintenance plans, recreation studies, and parking studies.

REPRESENTATIVE SERVICES:

- **Comprehensive Community Planning**
- **Visioning and Charrettes**
- **Growth Management Studies**
- **Conceptual and Feasibility Studies**
- **Site Master Planning and Site Design**
- **Preliminary and Final Plan Preparation**
- **Traffic and Parking Studies**
- **Wastewater Management Plans**
- **Water Supply System Management Plans**
- **Planning Commission Consulting**
- **Landfill Closure Plans**
- **Phase II Stormwater Management Plans**
- **Clean Water Infrastructure Replacement Plans**
- **Geographic Information Systems (GIS)**





Town of Sturbridge Planning Board Engineering Review Services

Sturbridge, Massachusetts

Pare Corporation has provided engineering services to the Town of Sturbridge's Planning Board and Conservation Commission for several years. These review services have addressed site layout, water and wastewater requirements, stormwater management/drainage calculations, utility connections, parking requirements, fire supply needs, traffic, wetlands delineation and mitigation, erosion and sedimentation control, structural design of retaining walls, and compliance with municipal regulations. The projects include:

New England Cold Storage: Pare reviewed the design of a new 120,549-square-foot cold storage facility on Route 20 which is meant to operate in the food supply chain. Pare reviewed the site layout and parking and the traffic study related to the project for the Planning Board.

Caregiver Patients Connection (Local Roots NE): Pare reviewed a Special Permit and Site Plan Approval application for the construction of a building and related site improvements for an Adult Use Marijuana Facility and Gym/Retail Space to be located at 365 Main Street. The review included plan review, stormwater design and calculations, traffic impact and access study, and the MassDOT Application for Permit to Access State Highway.

Heal Sturbridge: Pare reviewed a Special Permit and Site Plan Approval application which would allow the operation of an Adult Use Marijuana Facility to be located within the existing building (currently approved as a Medical Marijuana Facility) at 660 Main Street. Review services performed to assist the Planning Board included the review of the applicant's traffic impact assessment.

Pilot Travel Center: Pare reviewed the Site Plan Approval application and Notice of Intent Application for the Planning Board and Conservation Commission for the Pilot Travel Center which is an existing travel center consisting of three buildings and two fuel canopies. It is proposed to raze and rebuild the entire facility so the final site will have one travel center building with two fuel canopies. The review included: Site Plans, the Project Narrative, the Stormwater Management Report, the Sturbridge Conservation Commission Affidavit, the Notification to Abutters, the Notice of Intent, the Wetland Buffer Plans, the Wetland Resource Evaluation and the Traffic Study.

All of these reviews included coordination with Town staff and testimony with the Planning Board and the Conservation Commission.

Relevant Project Features:

- *Review of conceptual, preliminary, and final site design plans.*
- *Review of traffic impact analyses.*
- *Review of stormwater management plans and drainage design.*
- *Attendance at Conservation Commission and Planning Board meetings.*

PARE CORPORATION

City of Amesbury Planning Board Consultation

Amesbury, Massachusetts

Pare Corporation was retained by the City of Amesbury, Massachusetts to provide Planning Board Consultation Services. These included reviews of proposed subdivision and land development projects, construction observation, and material testing services.

Typical reviews included checking compliance with the Subdivision Rules and Regulations, Zoning Bylaw, and City Ordinances. Conformance with accepted engineering practice and a review of environmental permitting concerns was also provided. During the construction phase of projects, Pare provided observation and material testing to ensure compliance with the accepted design.

Typical assignments are summarized below:

Woodman Road - Pare reviewed a standard and cluster subdivision design for this project. Recommendations were made concerning suitability with the surrounding land uses.

E.F. Shea - Pare reviewed the land development plans for the expansion of a precast concrete plant. The project included an expansion of the facility to increase the suitability for winter operations. Traffic impacts and environmental impacts were investigated.

75 Main Street - Pare reviewed this proposal for rehabilitation of a structure damaged by fire in the downtown area. This project included a parking deck and a driveway that crosses a busy sidewalk. Safety provisions for pedestrians included a warning light on the building face.

Relevant Project Features:

- *Review of conceptual, preliminary, and final subdivision and land development plans.*
- *Compliance confirmation with City, State, and Federal regulations.*
- *Review and recommendations for off-site improvements including roadway, drainage, and utility upgrades.*
- *Review of the impacts to the character of the community.*
- *Attendance at Planning Board meetings.*

PARE CORPORATION

Newly-constructed Kingsley Estates subdivision.

Town of Rehoboth Planning Board Consultation

Rehoboth, Massachusetts

Pare Corporation was retained by the Town of Rehoboth, Massachusetts to review projects before the Planning Board. Pare provided reviews investigating compliance with Town General Bylaws, Zoning Bylaws, and Rules and Regulations Governing the Subdivision of Land. Pare also investigated compliance with Wetland Permitting Regulations and good engineering practice and principles. Pare also provided construction observation and material testing services to the Town during the construction phase of approved projects.

Analyses included drainage, traffic, sewer, structural, parking, and environmental site issues. Pare was available to attend Planning Board meetings as requested. The following projects are a representative sample of tasks completed:

Cedar Hill Estates – Pare reviewed this 13-lot residential subdivision. This site included wetland crossings and wetland replication areas. Retaining walls that support roadways were reviewed for compliance with AASHTO criteria. Pare provided construction observation and material testing services for the Town during construction.

Atwells Farm Subdivision – This project involved the subdivision of land into five residential lots. Pare provided initial comments concerning the submission. A meeting with the Town Planner and Developer was necessary due to the complexity of the environmental and drainage issues.

Bay State Trucking & Trailer Facility – Pare reviewed this land development project which included wetland impacts and retaining walls.

Relevant Project Features:

- *Review of conceptual, preliminary, and final site design plans.*
- *Review of traffic impacts and sight distances.*
- *Review of stormwater management plans and drainage design.*
- *Review of municipal utilities and services.*
- *Review of structural elements, such as retaining walls.*
- *Attendance at Planning Board meetings if requested.*

PARE CORPORATION

Town of Middletown Engineering Consultation

Middletown, Rhode Island

Pare Corporation was retained by the Town of Middletown, Rhode Island for several years to review Development Impact Reports for fourteen proposed projects including residential, hotel, and commercial developments. Analyses included drainage, traffic, sewer, parking, and environmental site issues. Pare attended Technical Review Committee meetings and coordination meetings with the Developers and their Consultants and attended Planning Board meetings to present the results of our reviews. The projects reviewed include:

- **Simmons Farm Road** – This proposed development was for ten single-family, residential properties on approximately 7 acres of land.
- **Omni Land Company Industrial Subdivision** – This proposed development includes the creation of eight light industrial properties on approximately 25 acres of land.
- **Proposed Hotel** – This proposed development includes a 63-room hotel elevated above the flood plain. The planned parking layout for the proposed hotel is to be underneath and around the new structure.
- **Hotel Building Addition** – Review of plans and supporting documents for an 18-room hotel building which is to function as an addition to the existing "Inn at Newport Beach."
- **The Village at Forrest Commons** – Review of the Development Impact Statement, Traffic Study, and Plan submissions for a 22-building development on approximately 29 acres.
- **Marriot Residence Inn** – Review of a proposed Marriot Residence Inn Hotel located on High Street.
- **Auto Center Rezone Expansion** – Review of a Limited Subsurface Investigation Report for the expansion of the Auto Center site.
- **Regata Car Wash** – Reviewed a Traffic Impact Study for a proposed automated car wash.
- **Tim Horton's** – Performed Traffic Impact Study Review of a proposed Tim Horton's restaurant.
- **Sunset Lawn Development** – Provided construction inspection services for pavement work.
- **Saltwood Farm** – Review of the preliminary site plans, drainage reports, and development impact statement for this residential subdivision.

Relevant Project Features:

- *Review of conceptual, preliminary, and final site design plans.*
- *Review of traffic studies.*
- *Review of parking conditions.*
- *Review of stormwater management plans and drainage design.*
- *Review of municipal utilities and services.*
- *Review the physical and geological characteristics of the sites and surrounding land.*
- *Review the impacts to the character of the community.*
- *Attendance at Technical Review Committee meetings.*
- *Attendance at Planning Board meetings.*
- *Construction services.*

- **Traffic Studies** – Performed safety evaluations of several town-owned roadways / intersections including Oliphant Lane, Chase Lane, and Forest Avenue.

Town of Warren Engineering Consultation

Warren, Rhode Island

Warren Commercial Fishing Pier

Main Street Improvements

Pare Corporation (PARE) has provided engineering services to the Town of Warren since 1975. Projects have included various structural investigations of Town buildings, including the Town Hall; design of a solid waste transfer station and a landfill closure plan; design of a commercial fishing pier; and design of a recreational facility including sports fields and a pavilion/restroom building.

PARE's long history with the Town led to the selection of PARE for an on-call consulting contract in 2002. Under this contract, PARE completed almost 50 different projects including:

- Main Street Streetscape Improvements – Design and construction administration for ½-mile of Main Street included sidewalk, decorative street lighting, and landscaping improvements to both sides of the street in the commercial district.
- Preparation of Phase II Stormwater Management Program Plan to conform to RIPDES requirements for RI municipalities. Coordinated public meetings, reviewed report, and coordinated with client.
- Market Street Streetscape Improvements – Design of improvements to 550 linear feet from Main Street to the East Bay Bike Path.
- Planning Board Reviews for various developments, including:
  - Asylum Road (residential)
  - Fore & Aft Property (residential)
  - Spinnaker Subdivision (residential)
- Zoning Board Reviews, including the Child Street Apartment development, a multi-family apartment complex submitted to the Town as a Comprehensive Permit based on Rhode Island State Laws.
- Drainage studies and designs of improvements to various roads.

Relevant Project Features:

- *Review of conceptual, preliminary, and final site design plans.*
- *Review of traffic impact analyses.*
- *Review of stormwater management plans and drainage design.*
- *Landfill consultation.*
- *Remedial design for drainage problems.*
- *Waterfront engineering design.*
- *Attendance at Planning Board and Zoning Board meetings.*
- *Roadway and structural engineering design.*

PARE CORPORATION

Town of Barrington Municipal Engineering

Barrington, Rhode Island

Pare Corporation has provided municipal services to the Town of Barrington since 1987. Projects have included environmental studies, open space and beach access studies, traffic/parking studies, landfill engineering, planning studies, school parking lot designs, and stormwater mitigation.

Some of the more significant efforts are:

- **Palmer Pointe Development Reviews** – Comprehensive review of plan submissions including site plan, stormwater management, traffic impact study, easement agreements, lighting layout, and Phase I Environmental Site Assessment for proposed 42-unit residential subdivision.
- **Fox Run Construction Services** – Provided limited construction observation services for a new 5-lot residential subdivision to ensure contractor compliance with approved plans for site elements such as stormwater handling, roadway construction, and Erosion and Sedimentation Control.
- **Town Hall Parking and Traffic Circulation Study** – Evaluation of parking supply and demand as well as traffic circulation and pedestrian safety at the Town Government Center complex.
- **Housing Land Use Study** – Planning study of two large parcels of land available for redevelopment (including the former Zion Bible College campus).
- **Landfill Engineering** – Pre- and Post-Closure environmental monitoring of four abandoned landfills, including landfill gas and groundwater. Included Site Investigation Reports for Landfill Nos. 3 and 4.
- **Safe Routes to School** – Designed curb, sidewalk, cross-walk, and bike lane additions/ improvements in the vicinity of Hampden Meadows Elementary School.
- **School Parking Lots** – Designed parking lot improvements at the high school and various elementary schools.
- **Third Street Outfall** – Study and BMP design for an 11.4-acre catchment area in the Allin's Cove watershed.

Relevant Project Features:

- *Review of preliminary and final site design plans.*
- *Review of traffic studies.*
- *Review of parking conditions.*
- *Stormwater and drainage studies.*
- *School safety improvements.*
- *School parking lot improvements.*
- *Attendance at Planning Board meetings.*
- *Construction services.*

PARE CORPORATION

Traffic Review/ Construction Services – Dowling Village

North Smithfield, Rhode Island

Project Owner: Town of North Smithfield

Pare Corporation was retained by the Town of North Smithfield, Rhode Island to review a traffic impact analysis and off-site improvement plans for the development of a multi-use facility with retail and residential uses.

Dowling Village is a 600,000-SF mixed-use development that includes a residential condominium complex and commercial retail spaces ranging in size from 7,000 to 120,000 square feet. The property encompasses 122 acres and is located on Route 146A (Eddie Dowling Highway) in the vicinity of Route 146.

The review analysis included determining potential impacts to the surrounding roadway network, including the access from Route 146, and impacts to various roadways in town. Also, on-site plans for traffic circulation and roadway and parking layout were reviewed.

Pare attended Planning Board meetings to hear testimony, community concerns, and present testimony. Pare reviewed all available correspondence from reviewing agencies such as the Rhode Island Department of Transportation and Town emergency services departments.

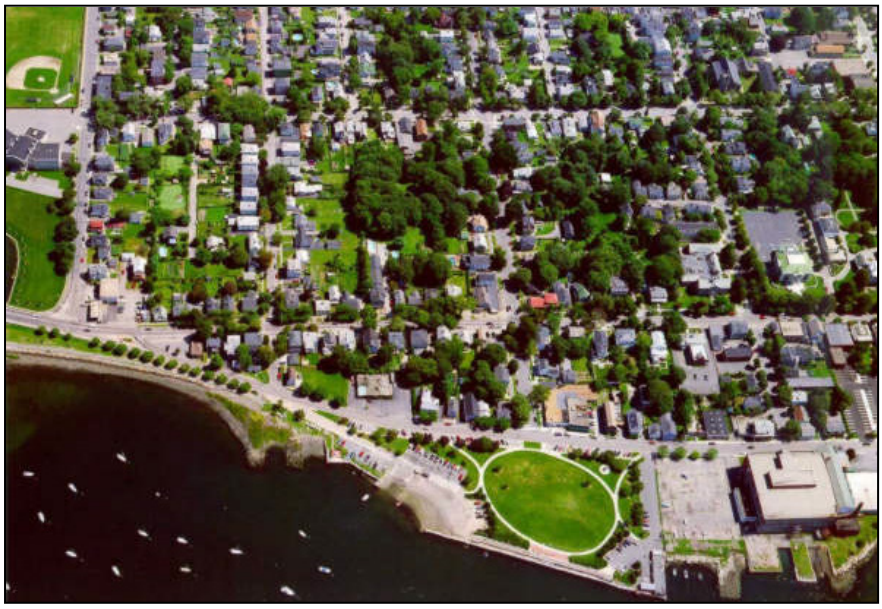
Pare investigated concerns brought up at the Planning Board meetings by members of the public and Board. Pare also reviewed third-party engineering comments concerning the Traffic Study.

Pare was also hired by the Town to provide construction observation services.

Relevant Project Features:

- *Coordination with local officials.*
- *Traffic capacity reviews.*
- *Traffic safety review.*
- *Parking study.*
- *On-site traffic circulation review.*
- *Preparation of a report of findings.*
- *Expert testimony at public hearings.*
- *Construction observation services.*

PARE CORPORATION



Town of Bristol Engineering and Review Services

Bristol, Rhode Island

Pare Corporation has provided engineering services to the Town of Bristol for over 30 years. Projects have included the design of a wastewater treatment facility; sewer investigations and design; landfill design, consultation, and monitoring; and a downtown parking study. Based on this experience and on the firm's extensive in-house capabilities, the Bristol Planning Board retained Pare to provide on-call consulting services beginning in 1998.

To date Pare has completed over 90 reviews for the Town including reviews of conceptual site plans, final site design plans, construction estimates, and traffic impact analyses for both residential and commercial development and expansion projects. These review services have addressed water and wastewater requirements, stormwater management/drainage calculations, utility connections, parking requirements, fire supply needs, traffic and roadway design, wetlands delineation and mitigation, erosion and sedimentation control, structural design of retaining walls, and compliance with municipal regulations. Pare also provides construction observation of projects during construction phases to monitor compliance with the approved project plans and specifications.

Specific development projects which Pare has reviewed include:

- Bristol Landing Condominium Complex (residential)
- East Bay Industrial Park Developments (industrial)
- Polk Court Extension (residential)
- Cox Court Subdivision (residential)
- Bristol Marina (recreational facility)
- ELJ Inc. (residential)
- Fonseca Development (residential)
- Franklin Business Park (industrial)
- Poppasquash Road Minor Subdivision (residential)
- Elm Farm Subdivision (residential)
- Bristol Toyota Parking Expansion (commercial)

Relevant Project Features:

- *Review of conceptual, preliminary, and final site design plans.*
- *Review of traffic impact analyses.*
- *Review of stormwater management plans and drainage design.*
- *Construction observation and administration.*
- *Attendance at Technical Review Committee (TRC) and Planning Board meetings.*

PARE CORPORATION

Town of Portsmouth Engineering Consultation

Portsmouth, Rhode Island

Aquidneck Place Assisted Living Residence

Pare Corporation has provided engineering and review services to the Town of Portsmouth for over 15 years. Projects completed for the Portsmouth Water and Fire District include design of the Turkey Hill Pump Station, a Clean Water Infrastructure Replacement Plan, and design of the Cove Bridge Water Line.

Additional projects performed for the Town include design and construction observation for the replacement of the Sand Point Ferry Pier on Prudence Island; analysis, design, and permitting for a timber wave fence (breakwater) at the Sand Point Ferry Pier; and design of improvements to Benedict Avenue.

Three major development review projects have been completed for the Town which included plan reviews, drainage design review, wastewater design review, and traffic review. Pare was responsible for attending Town of Portsmouth Zoning Board hearings to discuss reviews and recommendations. The projects reviewed were:

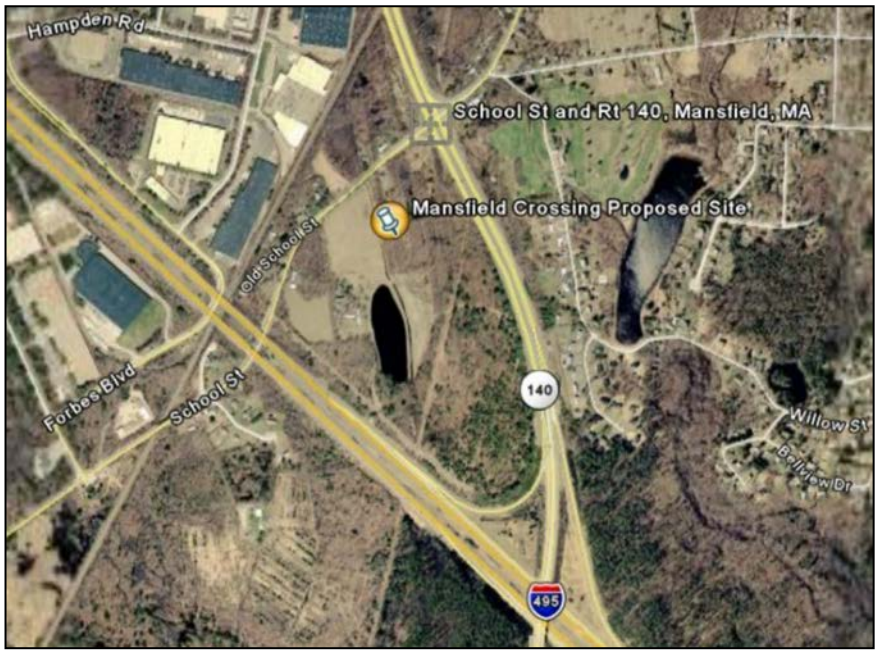
- The Towers Ocean Resort, a 44-acre parcel abutting Willow Lane that was to include a 780,000-SF resort/ conference/exhibit complex.
- Freedom Bay, an assisted-care community with accessory communal buildings on 108 acres on West Main Road in Portsmouth and Middletown.
- Portsmouth Commons and Aquidneck Place, a development located on the west side of East Main Road, consisting of 77,500 square feet of retail space and a 90-unit assisted-living facility. The project site is approximately 19 acres.

Relevant Project Features:

- *Review of conceptual, preliminary, and final site design plans.*
- *Review of traffic impact analyses.*
- *Review of stormwater management plans and drainage design.*
- *Review of wastewater design.*
- *Attendance at Zoning Board meetings.*
- *Waterfront consultation and design.*
- *Roadway design.*
- *Construction observation.*

Town of Mansfield Planning Board Consultation – Traffic Study Review

Mansfield, Massachusetts



Pare Corporation was retained by the Town of Mansfield, Massachusetts to review a traffic impact analysis and off-site improvement plans for the development of a multiuse facility with retail and hotel uses.

The project was located in the vicinity of Route 140 and School Street. The project included 405,000 square feet of retail space and 45,000 square feet of hotel space. The local Chamber of Commerce was also offered to locate their offices on the site.

The analysis included a review of potential impacts at 23 area intersections, investigation of a potential direct access onto Route 140, a sensitivity analysis to account for existing detours and holiday impacts, and impacts to various roadways in town. The buildout condition of nearby approved land development projects was also taken into account in the study.

Pare attended five Planning Board meetings to hear testimony, community concerns, and present testimony.

Pare reviewed all available correspondence from reviewing agencies such as the Town emergency services departments and the Massachusetts Department of Transportation.

Pare investigated concerns brought up at the Planning Board meetings by members of the public and Board. Pare also reviewed third-party engineering comments concerning the Traffic Study.

Relevant Project Features:

- *Review of traffic impact analysis.*
- *On-site circulation and parking issues.*
- *Off site impacts and improvements at 23 area intersections.*
- *Review of impacts and mitigation for emergency response vehicles.*
- *Review the impacts to the character of the community.*
- *Attendance at Planning Board meetings.*

CLIENT REFERENCES

Client	Project
Town of Sturbridge 308 Main Street Sturbridge, MA 01566 Jean Bubon Town Planner (508) 347-2508	**Planning Board Engineering Review Services** *Sturbridge, MA*
City of Amesbury 62 Friend Street Amesbury, MA 01913 Robert Desmarais Jr., P.E. Director of Public Works (978) 388-8116	**On-Call Engineering Services** *Amesbury, MA*
Town of Braintree 1 JFK Memorial Drive Braintree, MA 02184 John Thompson Assistant DPW Director/Town Engineer (781) 794-8013	**On-Call Engineering Services** *Braintree, MA*

Town of Wareham

Peer Review Engineering Consulting Services

Section 4

Sample Peer Review

PARE CORPORATION

MEMORANDUM

DATE: May 23, 2022

TO: Jean Bubon, AICP, Town Planner

CC: file

FROM: John P. Shevlin, P.E.

Re: Engineering Review Services
Blueberry Hill Estates-Site Plan & Special Permit
30 Main Street/20 Fiske Hill Road
Sturbridge, Massachusetts
(Pare Project No.: 22088.00)

On behalf of the Planning Board ("Board"), Pare Corporation (Pare) has completed our preliminary review of the Special Permit and Site Plan Approval application submitted by Fiske Hill Realty Trust for the construction of a 55+ manufactured housing community within the cul-de-sac subdivision on the site located at 30 Main Street and 20 Fiske Hill Road. The site consists of 71 units with optional garages, a clubhouse, open space for residents and a storm water system. The community will be privately owned and maintained after completion. The Subdivision Plan was approved by the Planning Board in 2021.

Pare has been provided the following information for review:

- Special Permit and Site Plan "Blueberry Hill Estates, 55+ Manufactured Housing Community Lot 3 Berry Farms Road" – Sturbridge, Massachusetts owned by: Fiske Hill Estates. Plan date 4/1/22. Plan prepared by McClure Engineering.
- Permit Application dated March 30, 2022 from Fiske Hill Estate
- Development Impact Statement prepared by LEC
- Phasing Plan dated February 23, 2022. Prepared by McClure Engineering.
- Stormwater Management Report dated April 5, 2022 prepared by McClure Engineering, Inc.
- Operations & Maintenance Plan
- Legal Notice
- Waiver Request dated April 4, 2022 from Fiske Hill Estate

.
Pare offers the following pertaining to this submission.

PLANS

1. *Sheet C-1- Title Sheet*- Fix spelling of "Manufactured",
2. *Sheet C-1- Title Sheet* – Owner is referenced as both Justin Stelmok and Fisk Hill Realty Trust. Please clarify.
3. *Sheet C-1- Title Sheet* – Please modify Drawing Index to match plan sheets:
   - C-15 thru C-18: "Phasing and Erosion Control Plans" should be "Erosion and Sediment Control Plans".

- Add Sheet C-19 “Phasing Plan”.
- Plan & Profile Sheets should be sheets C-20 thru C-23.
- “Construction Details” should be “Site Details”. Should also be labelled sheets C-24 thru C-30.

4. *Sheet C-3 thru Sheet C-5 Existing Conditions* – Show test pit locations on plans.
5. *Sheet C-7 Layout and Materials Plan* – Cul-de-sac for Proposed Drive C exceeds 500 feet.
6. *Sheet C-7 Layout and Materials Plan*- Label width of Proposed Drive A.
7. *Sheet C-7 and C-8: Layout and Materials Plan*- Is Drive A considered a major road? If so is radii of 150’ acceptable?
8. *Sheet C- 7 thru C-9: Layout and Materials Plan* – Curb radii shown as 20 feet. Minimum radius should be 30 feet.
9. *Sheet C-7 thru C-10: Layout and Materials Plan* - Lot lines with areas, frontage and depth dimensions should be provided.
10. *Sheets C-7 thru C-10*: Show bound locations on plan and provide a detail.
11. *Sheet C-8: Layout and Materials Plan*- Label width of Drive A.
12. *Sheet C-8: Layout and Materials Plan* – Label square footage of clubhouse. Should be 1,500 square foot minimum.
13. *Sheet C-9: Layout and Materials Plan* – Label Drive A. Provide width.
14. *Sheets C-11 thru C-14: Grading and Drainage Plans*- In general, the design concept for the stormwater layout is acceptable. Confirmation of many of the grades and elevations were difficult to review due to clarity of numbers.
15. *Sheet C-19 Phasing Plan* – Please clarify the limits of some of the phasing There is a Phase 1 identified in the area of the intersection of Drive A and Drive C. A separate colored Phasing Plan was provided. Please clarify which is correct. If necessary modify the plan set.
16. *Sheet C-20: Plan and Profile Drive A*: the 2% grade at the intersection with Berry Farm Road should be extended to at least 100 feet.
17. Sheet C-21: Plan & Profile Drive A- due to length of cul-de-sac and waterline dead end does waterline need to be looped. Review with the water department.
18. *Sheets C-20 thru C-23: Plan & Profiles*- Label centerline elevations on profiles.
19. *Sheet C-24: Site Details* – Bituminous Concrete Sidewalk & Driveway Detail – Gravel base shall be 8”. Also, bituminous concrete sidewalks shall consist of three (3) inches of bituminous concrete applied in a base two-inch layer and a top one-inch layer. Per regulations for sidewalks, “ In all areas all materials shall be removed or filled to a depth of thirteen (13) inches below the finished design grade. In areas of high groundwater, as determined by soil borings, all materials shall be removed or filled to a depth of seventeen (17) inches below the finished design grade.” Add to detail.
20. *Sheet C-24*: A vegetated area of at least four (4) feet in width shall be located between the sidewalk and the curbing, maintained in grass or retained natural vegetation, unless the Board approves an alternate sidewalk placement.
21. *Sheet C-27: Site Details* – Typical Hydrant with Gate Detail Elevation View – 18” minimum should be 24” minimum.
22. *Sheet C-28: Site Details* – Site Entrance Mat – Width of mat should be 24’ minimum instead of 20’ minimum.
23. *Sheet C-28: Site Details* - A landscaping plan prepared by a certified landscape architect should be provided.
24. *Sheet C30: Site Details* – Sidewalk Culvert Section – Sidewalk should be 3” bituminous and 8” gravel borrow.
25. *Sheet C30: Site Details* – Rain Garden Typical Cross Section – Finish grade of rain garden is proposed to be mulch. Has stone been considered.
26. *Site Details* – Provide light detail.

27. General – O & M Plan How will snow removal/storage occur?

STORMWATER MANAGEMENT REPORT

1. *Introduction*- The applicant does a good job with the Scope of Analysis, the Site Description, and the Proposed Construction description.

2. *Hydrologic Analysis* – The information and analyses performed pertaining to this section are complete. The results of the analyses indicates no increase or a decrease in post peak rate runoff at all 8 analysis points for the 2, 10, 25 and 100-year, 24-hour storm event. Analysis provided is acceptable.

3. *Stormwater Standards* - We are providing a list of each standard and supporting documentation for each for review.

   - *Standard No. 1: No new stormwater (e.g.) outfalls may discharge untreated stormwater directly to or cause erosion in wetlands or waters in Commonwealth.*

     Met. The design includes stormwater discharges through water quality treatment BMPs prior to discharge. Riprap outfalls or perforated pipe level spreaders are used to reduce runoff rates to prevent erosion or sedimentation downstream..

   - *Standard No. 2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.*

     Met. The proposed design indicates that there will be no increase to off-site peak flow rates and the rate of runoff will not increase the flood elevation downstream.

   - *Standard No. 3; Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type.*

     Met. Recharge volumes through the use of raingardens and infiltration basins will provide ground water recharge that will far exceed the required recharge volumes.

   - *Standard 4: Stormwater management systems shall be designed to remove 80% of the annual post-construction load of Total Suspended Solids (TSS). The Standard is met when:*
     a. *Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;*
     b. *Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and*
     c. *Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

Met: The applicant has provided data that indicates that with the proposed design greater than 80% of the annual post-construction load of TSS will be removed.

- *Standard 5: For land uses with higher pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses with the higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMP's determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, Sections 26-53 and the regulations promulgated thereunder at 314 CMR 3.0, 314 CMR 4.00 and 314 CMR 5.00.*

  NA. Agreed this site is not a Land Use with High Potential Pollutant Loads.

- *Standard 6: Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook.*

  Met. Stormwater does discharge to or near critical areas consisting of vernal pools. All discharges from paved areas will be treated to a minimum 85% TSS removal and the discharges to or near the critical areas (vernal pools) are treated for 44% pretreatment prior to infiltration. Also with the treatment being provided, the applicant has demonstrated that the EPA Region 1 BMP Performance Extrapolation Tool and the Massachusetts Stormwater Handbook will provide for a minimum of 60% phosphorous removal as well.

- *Standard 7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standards 2 & 3 and the pretreatment and structural best management practice requirements of Standard 4, 5 and 6. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.*

  NA. Agreed that this is not a redevelopment project but the standards are being met.

- *Standard 8: A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.*

  Met: An acceptable weekly inspection report form has been provided, and a construction period erosion and sediment control plan has been outlined on the site plans along with a sequence for implementation and construction phasing.

- *Standard 9: A long-term Operation and Maintenance Plan shall be developed and implemented to ensure stormwater management systems function as designed.*

  Met: An acceptable Operations and Maintenance Plan has been provided.

- *Standard 10: All illicit discharges to the stormwater management are prohibited.*

Met: The applicant has addressed that illicit discharges to the stormwater management system are prohibited in the Long-Term Operation and Maintenance Plan.

GENERAL

Pare is of the opinion that the submission and in particular the Stormwater Management System has been designed to meet the requirements of the Stormwater Bylaws. Water quality has been addressed with the proposed design components. We have found the analysis performed to be accurate and the components of the system have been sized appropriately for the proposed design.

We are available to discuss our initial comments at the May 24, 2022 Board meeting. After hearing the presentation, Pare will complete our review. In the meantime, if you have any questions please feel free to contact me.

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MEMORANDUM

DATE: July 1, 2020

TO: Ms. Jean Bubon, Town Planner
Ms. Rebecca Gendreau, Conservation Agent

CC: file

FROM: Mr. John P. Shevlin, P.E.

RE: Pilot Travel Center-400 Haynes Street
Peer Review, Stormwater Management
Sturbridge, MA
Prepared for: Pilot Travel Centers, LLC
Prepared by: Core States Group
Pare Project No. 20083.00

This memorandum is being submitted as a follow-up to our original review memo dated June 9, 2020. On behalf of the Planning Board ("Board") and the Conservation Commission ("Commission"), Pare Corporation (Pare) has completed our review of the revised submission documents provided by Core States Group. The revised documents submitted for review include:

- *Responses to Comments provided by Core States Group, dated June 12, 2020 and revised June 24, 2020 (received June 24, 2020)*
- *Site Plans (55 sheets) for Pilots Travel Centers-400 Haynes Street, Book 35851, Page 0275* dated February 10, 2020, revised May 27, 2020 and revised June 24, 2020. Plans prepared by Core States Group, Watertown, MA. Plans received June 25, 2020 and July 1, 2020
- *Updated Hydrology Model, received July 1, 2020*
- *Test Pit Photos received July 1, 2020*
- *Construction Period Pollution Prevention and Erosion and Sediment Control Plan*, prepared by Core States Group (received June 28, 2020)
- *Long Term Pollution Prevention Plan*, prepared by Core States Group (received June 28, 2020)
- *Spill Prevention, Control and Countermeasure Plan and Best Management Practices fro Stormwater* - Prepared for: Pilot Travel Centers LLC NO. 222 - 400 Haynes Street (Route 15) - Sturbridge, MA 01566 (received June 28, 2020)

Pare offers the following pertaining to the revised submissions. We will first address original comments and dispositions and additional comments/remarks will follow.

PLANS

1. Sheet C1.0- General Site Note No. 2: "The Architect/Engineer will not be held responsible for any substandard or insufficient workmanship, materials or services provided in the execution of any phase of construction of this project." Who will be the engineer of record?
   Response: Core States Group has noted that they will be engineer of record. No further action necessary.

2. Sheet C2.1- Where does storm drain pipe on west side of west driveway go to?
   Response: Cores is awaiting confirmation from surveyor.

3. Sheet C2.1 – Is existing pump line for fire service remaining. It was my understanding that it was to be tested to prove it can be reused and replaced if needed.
   Response: Addressed. No further response required.

4. Sheet C2.1-.2- Please identify location on plan 'Z'-Existing DEF Tank.
   Response: Addressed. No further action necessary.

5. Sheet C3.0 – Zoning Data- Provide parking requirements and what is being provided.
   Response: Parking requirements provided. Applicant notes that relief on dimension of truck spacing requirements may be necessary. Also note, parking provided exceeds what is required although it is a reduction in existing.

6. Sheet C3.1 – Where is Sign 13 "Ped Xing" sign located?
   Response: Signs at crosswalks are provided. Are crosswalk locations shown where we want them. Crosswalk at entrance seems too close. Stop bar appears to close to entrance. Will pedestrians use crosswalks as laid out. Should discuss.

7. Sheet C3.1 – Where is sign 15- "Passenger Loading Zone"?
   Response: Addressed. No further action necessary.

8. Sheet C3.1- Provide 12" Wide Painted (Safety Yellow) Pull Forward Line (J) detail as noted.
   Response: Addressed. No further action necessary.

9. Sheet C3.1 – Please clarify 3 tanks (K, L, & M). Plan appears to show 2 tanks.
   Response: Addressed. No further action necessary.

10. Sheet C3.1- Is tank vent riser cluster being installed in middle of parking area?
    Response: Addressed. No further action necessary.

11. Sheet C3.1 – What is offset distance for wall and pedestrian fence? Will this be impacted by front end of cars? Will it be impacted by snow plowing?
    Response: According to detail on Sheet S1.0 wall will extend 1'-00" above finished asphalt grade. No further action necessary.

12. Sheet C3.1 – Provide Traffic Arrow Painted Detail (AH) as noted.
    Response: Addressed. No further action necessary.

13. Sheet C3.1 – Is there a solid yellow line at truck entrance to divide traffic flow? Please label.
    Response: Addressed. No further action necessary.

14. Sheet C3.1 – Signs (R4-7) should be added to truck entrance islands to keep entering trucks to right of island.
    Response: Addressed. No further action necessary.

15. Sheet C3.1- BB- MassDOT Sheets not provided.
    Response: Addressed. No further action necessary.

16. Sheet C3.1 – Add retaining wall to Site Legend and BD callout to plan.
Response: Addressed. No further action necessary.

17. Sheet C3.1- Please identify snow disposal methods on-site and how impacts to environmentally sensitive areas will be addressed.
Response: Long-Term Pollution Prevention Plan addresses Management of Snow and Ice. No further action necessary.

18. Sheet C3.1 – Should a 4th 3' Diameter Bollard be added on the southeast corner of tank farm?
Response: Addressed. No further action necessary.

19. Sheet C3.1- Where are deliveries made? Where is loading zone?
Response: Addressed. No further action necessary.

20. Sheet C3.1 – No overflow structure is provided for Basin #3.
Response: Addressed. No further action necessary.

21. Sheet C3.1- Label Basin No. 3.
Response: Addressed. No further action necessary.

22. Sheet C3.2 – Identify path/roadway makeup to well facility.
Response: Keyed notes identify path/roadway as "crushed stone". Applicants response states "Crushed Stone (3/4" – 1-1/2" Stone)". Please provide detail showing thickness of stone and subbase.

23. Sheet C4.1 – Grading notes No. 1 – Revise "Staten Island".
Response: Addressed. No further action necessary.

24. Sheet C4.1 – Verify note 14. States maximum cross-slope is 1.5%. Details on C5.1 show 2% maximum slope.
Response: Addressed. No further action necessary.

25. Sheet C4.2- Review grading between fuel dispensers and convenience store. The grading is flat at Elevation 681.10.
Response: Addressed. No further action necessary.

26. Sheet C4.3- Have all wetland flags been added to plans? Have all buffer areas been labeled? Please put on all plans so it is easier to read impacts within sensitive areas. Plans should match report prepared by EcoTec, Inc.
Response: Addressed. No further action necessary.

27. Sheet C4.3- Please label all trees to be removed particularly in the area of the proposed Detention Basin No. 3.
Response: Are trees remaining in area of Basin No. 2 as noted on LP-2. (Existing trees-Protect in place). Please verify that with the cuts proposed that the trees will survive. Callouts do not seem to match legend. Please clarify.

28. Sheet C4.3- Have test pits been performed and high groundwater elevations and perc rates in basin areas been verified?

Response: Investigations are underway. To date applicant has stated that consistent materials and groundwater conditions were found to support the proposed design. The soils were found to be HSG "A" (Sands and Gravels) which will infiltrate runoff adequately and removes the first flush of runoff from discharge to the pond and stream system, effectively removing storm water discharges and capturing warmed stormwater for infiltration and integration into the groundwater regime to reduce any impact to cold-water fisheries.

Pare will review information upon receipt.

29. Sheets C4.3 & C4.3.1- For heavy storms, stormwater will by-pass diversion manhole and discharge directly to 12" outfalls with no pre-treatment. Please review and revise accordingly.
    Response: Addressed. No further action necessary.

30. Sheet C4.3.1 – What happens with drain pipe from oil separator to catch basin in southeast corner of parking lot, the oil separator and sediment chamber? Is catch basin in southeast corner being rebuilt?
    Response: Upon further review of comment, there is no further action required.

31. Sheet C4.3- Add detail for deep sump catch basins and gas traps.
    Response: Addressed. No further action necessary.

32. Sheet C4.3- Please provide long-term maintenance for stormwater system.
    Response: Addressed. No further action necessary.

33. Sheet C4.3- Outfalls should have rip-rap aprons at outlets to minimize erosion.
    Response: Addressed. No further action necessary.

34. Sheet C4.3- Storm weirs or check dams should be incorporated in the design of all the basins.
    Response: Addressed. No further action necessary.

35. Sheet C4.3.1- Stormwater from south of the truck fueling area has no pretreatment before discharging into Detention Basin 3.
    Response: Addressed. No further action is necessary.

36. Sheet C4.3.1- Was consideration given to the incorporation of a vegetated filter strip be incorporated into the design along the east edge of the truck parking area to help with peak flow attenuation and pretreatment?
    Response: Addressed. No further action is necessary.

37. Sheet C5.0 – Were there pavement cores done of existing paved areas? What is pavement thickness based on?
    Response: Pavement designs are based on similar sites. They appear to be appropriate based on our experience. No further action necessary.

38. Sheet C5.1 – Provide detail for MassDOT Pavement.
    Response: Addressed. No further action is necessary.

39. Sheet C6.0- What is 'AP' and 'AC' in roadway pointing to?
    Response: Addressed. No further action necessary.

40. Sheet C7.0- Sequence of Construction- We are of the opinion that "Construct Silt Fence on the Site" and "Install Inlet Protection Around All Storm Structures" should be first work items performed.
Response: Addressed. No further action required.

41. Sheet C7.0 – Revise silt fence line around Basin No. 3.
Response: Addressed. No further action required.

42. Sheet C7.2- Should permanent sodding be extended to the area of Detention Basin No. 3?
Response: Addressed on plans. No further action required.

43. Sheet C8.0- Provide Silt Fence detail.
Response: Addressed. No further action required.

44. Sheet TD-1 – Is it safe to say that if a tree does not show a tree protection fence then it is going to be removed? For example are trees 105-`107 and 118-128 being removed?
Response: Please clarify tree dispositions as noted previously.

45. Sheet LP-2- Is any landscaping being provided at the new islands on the west side of the site?
Response: Discussed with applicant. Questioned whether trees would survive in this area.

PROJECT NARRATIVE

1. Are there any existing environmental conditions that should be noted? Has there been any spills that have occurred that should be identified?
Response: Addressed. No further action required.

2. Will the intake line from the pond and fire line to hotel that are proposed to remain be tested to ensure their reuse.
Response: Addressed. No further action required.

3. Preliminary construction staging provided appears acceptable. However, please further explain how communications will be sent out to customers alerting them of any closures to eliminate as much traffic as possible during the shutdown. Also, as construction proceeds plans for maintenance of traffic flow should be provided for review and approval.
Response: Further information necessary. Response is that information will be provided by the applicant.

4. Relocation of leach field and other sewer work is not shown on plans. This work is being designed by others.
Response: Although design is being done by others, location of proposed leach field is to be on the south end of the truck parking and should have no impact to any other drainage / utility design. No further action is necessary.

TOWN OF STURBRIDGE STORMWATER MANAGEMENT REGULATIONS

1. Has an Operations and Maintenance Plan been developed? The Post-Construction (Long-Term Operation & Maintenance Plan) should include an estimated operations and maintenance budget.

Response: Long-Term Pollution Prevention Plan has been provided and appears complete for maintenance. Would the Town like to have an estimated operations and maintenance budget.

NOTICE OF INTENT

1. The NOI identifies riverfront data information. The total area expected to be disturbed by excavation, grading or other construction activities is not identified and should be estimated and provided.
   Response: This information is provided on WB-1 and WB-2. No further action required.

2. Please confirm if habitats mapped by the Massachusetts Natural Heritage and Endangered Species Program as endangered or of special concern, estimated habitats of rare wildlife and certified vernal pools and priority habitats of rare species within 500 feet of any construction activity exist.
   Response: Addressed. No further action required.

3. Identify material stockpiling areas.
   Response: This item needs to be addressed. Not described or shown on plans.

STORMWATER STANDARDS:

We are providing a list of each standard and supporting documentation for each for review.

Standard No. 1: No new stormwater (e.g.) outfalls may discharge untreated stormwater directly to or cause erosion in wetlands or waters in Commonwealth.

Met. The proposed project includes discharge through the use of modified catch basins, oil/water separators and/or detention basins. No direct discharge of untreated stormwater directly to or cause erosion in wetlands is proposed.

Standard No. 2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

Met. The proposed design reduces impervious areas and provides some attenuation of discharge rates such that the post-development peak discharge rates are less than the pre-development rates.

Standard No. 3; Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type.

Recharge volumes through the use of proposed detention basins is proposed. The applicant /engineer however should provide existing and proposed recharge volumes to confirm this has been met.

Standard 4: Stormwater management systems shall be designed to remove 80% of the annual post-construction load of Total Suspended Solids (TSS). The Standard is met when:

a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;
b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and
c. *Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

Met: The applicant has provided data that indicates that with the proposed design greater than 80% of the annual post-construction load of TSS will be removed. Also the design allows runoff infiltration in addition to removing the first flush of runoff from discharge to the pond and stream system. This will remove direct stormwater discharges and will also allow warmed stormwater to be infiltrated into the groundwater regime to reduce any impact to cold-water fisheries.

As indicated, the groundwater resource protection areas are within the project site and the proposed project meets the test as a Land Use with a higher potential pollutant load.

Standard 5: For land uses with higher pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses with the higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMP's determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, Sections 26-53 and the regulations promulgated thereunder at 314 CMR 3.0, 314 CMR 4.00 and 314 CMR 5.00.

Met. This project does have the potential to generate runoff with higher concentrations of oil and grease (e.g. a parking lot with >1000 vehicle trips per day). The applicant proposes to implement good house keeping/maintenance of the property, deep sump hooded catch basins, oil-grit seperators and detention basins. It is requested to determine if sediment forebays are possible at outfalls into basins.

Standard 6: Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook.

Discharges will occur within a Zone II, Interim Wellhead Protection Area and other critical areas on-site. The applicant has proposed pollution preventive measurements. Pare has recommended other methods including vegetative filter strip adjacent to the truck parking area to be considered. After review with applicants engineer, the grades currently direct the runoff to the existing drainage system.

Standard 7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standards 2 & 3 and the pretreatment and structural best management practice requirements of Standard 4, 5 and 6. A redevelopment project

shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Recharge and treatment is being provided for most of the proposed impervious area. Standards appear to have been met. Additional information for recharge is being requested however.

Standard 8: A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

Met: Erosion control on plans has been updated. An Operation & Maintenance Plan has been provided.

Standard 9: A long-term Operation and Maintenance Plan shall be developed and implemented to ensure stormwater management systems function as designed.

Met: An Operations and Maintenance Plan has been provided.

Standard 10: All illicit discharges to the stormwater management are prohibited.

Met: The applicant has addressed that illicit discharges to the stormwater management system are prohibited and measures to prevent illicit discharges have been included in the Spill Prevention, Control Plan and Countermeasure Plan and Best Management Practices for Stormwater Report.

The applicant should submit a No Illicit Discharge Compliance Statement within their submittal. It has been stated that the owner is to submit a statement prior to the discharge of any stormwater to post-construction BMP's. This is in conformance with *Volume 3: Documenting Compliance with the Massachusetts Stormwater Management Standards*.

Additional Comments:

Plans

1. Cover Sheet: Sheet Index- Add Sheet S3.0 Typical details.
2. Sheets C9.0, C9.1, C9.2: Revise outfall callout to overflow callout.

General

1. What is status of MassDOT review?
2. Discussion at Planning Board meeting regarding trucks idling on Haynes Street. Information is to be documented by Owner/Applicant as to how this situation may be resolved.
3. At Planning Board hearing there was question regarding crash data. Crash data in the traffic report was obtained from MassDOT. Over the six-year period where data was obtained there was only one reported single vehicle collision with a utility pole in the project area. Based on discussions, please confirm with the Sturbridge Police that the accident data included is complete.

In general, I am of the opinion that the latest set of plans are for the most part complete with relatively minor comments remaining. I believe the detail provided on this submission is very

thorough and complete. I would recommend that this project move forward with approval with the following conditions:

- Response to the outstanding comments highlighted. Applicant is to provide further information and Pare will provide appropriate responses prior to Conservation Commission and Planning Board meeting.
- Approval from MassDOT as to the redesign of the entrances which I believe is in the works.

We are available to review these comments at the next scheduled Commission and Planning Board meetings. In the meantime, if you have any questions please feel free to contact me.

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Town of Wareham

Peer Review Engineering Consulting Services

Appendix A

Required Forms

PARE CORPORATION

ATTACHMENT A – Required Submission Form

SUBMISSION FOR: Peer Engineering Consulting Services for the Town of Wareham

Company Name: Pare Corporation

Individual Contact Name: Walter P. Heller, P.E.

Title: Senior Vice President

E-Mail wheller@parecorp.com

Address: 8 Blackstone Valley Place

Company Address: Lincoln, RI 02865

Phone: 401-334-4100

Fax: 401-334-4108

Signature of Individual Authorized to Submit:

Print Name: Walter P. Heller, P.E.

ATTACHMENT B CERTIFICATE OF NON-COLLUSION FORM The undersigned certifies under penalties of perjury that this bid has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, entity, or group of individuals.

Walter P. Heller, P.E. (Name of person signing)

Pare Corporation (Name of business)

ATTACHMENT C TAX COMPLIANCE CERTIFICATION Pursuant to M.G.L. Ch. 62C, Sec. 49A, I certify under the penalties of perjury that I, to my best knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and subconsultants, and withholding and remitting child support. Walter P. Heller, P.E. (Name of person signing) Pare Corporation (Name of business)

ATTACHMENT D – Certificate of Authority Meeting of Board of Directors At a meeting of the Directors of the _____Pare Corporation_____ duly (Corporation) called and held at _____8 Blackstone Valley Place_____ on the _____15th_____day of _____February_____, in the __2022___ year at which a quorum was present and acting, it was voted, That _____Walter P. Heller_____ the _____Senior Vice President_____ of this (name) (title/position) Corporation is hereby authorized and empowered to submit, make, enter into, sign, seal and deliver, on behalf of this Corporation a Contract for

__providing peer review engineering consulting services_____

_____(brief description) with the Town of Wareham, and to issue any response, performance, or payment bonds if required in connection with such Contract. I hereby certify that the above is a true and correct copy of the record, that said vote has not been amended or repealed and is in full force and effect as of this date, and that _Walter P. Heller_____ is duly elected ___Senior Vice President_____ of this Corporation. _J. Matthew Bellisle_ /s/ Matthew Bellisle Clerk or Secretary of the Corporation

SCHEDULE OF FEES

For Proposal for Services, dated October, 2022
(Pare Proposal No. TQ372.22)

LABOR:

Engineer I	$ 125.00/Hour
Engineer II	$ 150.00/Hour
Project Engineer	$ 175.00/Hour
Senior Project Engineer	$ 200.00/Hour
Managing Engineer	$ 225.00/Hour
Principal/Officer	$ 275.00/Hour
Environmental Scientist/Planner	$ 110.00/Hour
Senior Environmental Scientist/Planner	$ 125.00/Hour
Managing Environmental Scientist/Planner	$ 170.00/Hour
Principal Environmental Scientist/Planner	$ 175.00/Hour
Senior Project Coordinator	$ 150.00/Hour
CADD Operator/Designer	$ 100.00/Hour
Senior CADD Operator/Designer	$ 125.00/Hour
Principal CADD Operator/Designer	$ 150.00/Hour
GIS Specialist	$ 125.00/Hour
Construction Observer	$ 105.00/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	$ 90.00/Hour

REIMBURSABLE EXPENSES:

Mileage (at Federal Standard Rate)	$ 0.625/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.

Town of Wareham

Peer Review Engineering Consulting Services

Appendix B

Professional Registrations and Licenses

PARE CORPORATION

COMMONWEALTH OF MASSACHUSETTS

DIVISION OF OCCUPATIONAL LICENSURE

BOARD OF

ENGINEERING

ISSUES THE FOLLOWING LICENSE

REG/PROF CIVIL ENGINEER

WALTER P HELLER
218 WOODLAND RD
MILTON, MA 02186-3608

LICENSEE SIGNATURE

41434	06/30/2024	238531
LICENSE NUMBER	EXPIRATION DATE	SERIAL NUMBER

COMMONWEALTH OF MASSACHUSETTS

DIVISION OF OCCUPATIONAL LICENSURE

BOARD OF

ENGINEERING

ISSUES THE FOLLOWING LICENSE

REG/PROF CIVIL ENGINEER

DEREK L HUG
18 BLACK WALNUT DR
COVENTRY, RI 02816-7906

LICENSEE SIGNATURE

46426	06/30/2024	242744
LICENSE NUMBER	EXPIRATION DATE	SERIAL NUMBER

An Official website of the Commonwealth of Massachusetts

ePLACE Portal

Information Pertaining To:
Civil Engineer 53339

Licensee Detail

License Number: 53339

Licensing Entity: Board of Registration of Professional Engineers and of Land Surveyors

License Type: Civil Engineer

Type Class: C

License Issue Date: 06/26/2017

License Expiration Date: 06/30/2024 **Status:** Current

Current Discipline:

Prior Discipline:

Name: Simon John McGrath

Business Name:

DBA Name:

8 Blackstone Valley Place
Lincoln, RI 02865
401-334-4100

10 Lincoln Road, Suite 210
Foxboro, MA 02035
508-543-1755

14 Bobala Road, Suite 2B
Holyoke, MA 01040
413-507-3448

www.parecorp.com