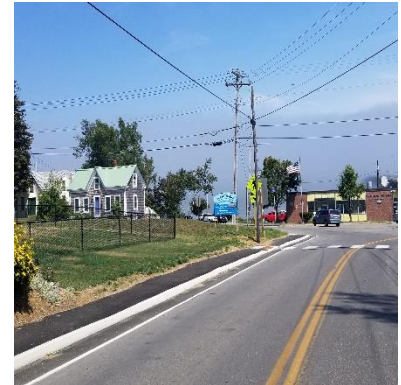




HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING



Town of Millinocket

May 28, 2021

Penobscot Avenue Lighting and Lighting & Receptacles at Veteran's Park



One Merchants Plaza, Suite 701, Bangor, ME 04401
T: 207.989.4824 | HALEYWARD.COM



HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING

FORMERLY:  CES INC

May 28, 2021

Town of Millinocket
c/o Cody McEwan
197 Penobscot Avenue
Millinocket, ME 04462
c.mcewen@millinocket.org

RE: Proposal for Engineering | Penobscot Avenue Lighting and Lighting & Receptacles at Veteran's Park | Millinocket, Maine

Dear Mr. McEwen:

Haley Ward, Inc., formerly CES, Inc., is pleased to present our proposal for the street lighting and park electrical infrastructure upgrades requested by the Town of Millinocket (Town).

We understand that you plan to replace the existing streetlights with new LED streetlights and poles along Penobscot Avenue and repair all the concrete bases so they all look the same and like new bases. The project also consists of replacing the overhead electrical cables with new underground branch circuits, replace the existing lighting with new LED to match those along Penobscot avenue and remove all the convience power receptacles in the park and install new 120v and 240v receptacles. We also understand that you would like to include a conceptual study for adding EV charging stations. Haley Ward has experience with all these project types and is a good choice to help you with your CDBG funded project.

Haley Ward has recently completed similar projects to yours in the Town of Mount Desert that included removal of overhead service laterals to multiple buildings, new street lighting, EV Charging stations and receptacles in the marina for convience outlets and food trucks.

RFP for Engineering - Lighting | 05.28.2021 | 11061.001 | Page i

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Our staff of engineers are adept at working with clients that have similar needs. We would enjoy engaging with you in a dialogue that will help you fully realize your construction goals, and make clear what services we can provide to address your needs.

We feel that our team provides several advantages for your specific project that result from our ability to bring the resources of our multi-disciplined firm to bear on your specific goals. With extensive professional and project execution resources, Haley Ward is able to provide support the Town as follows:

- **Personal Service:** Our design team can provide professional resources tailored to your project and building goals. We will listen to your needs and react accordingly to make sure that we can serve your best interests.
- **Design Experience:** Our team is extremely familiar with the types of projects you are contemplating and their specific challenges and requirements. Our team consists of not only engineers but we also have Master Electrician on the project that has the experience of estimating, construction observation and installation for all aspects of the project.
- **Graphic Skill:** Our team explains our projects by combining the latest computer modelling software with our abilities as drafts-people and artists to produce attractive and informative exhibits that present our work to advantage. These exhibits will allow your team to successfully explain the need for your project to all who may support it or make use of it.
- **All Services Under One Roof:** Our combined team provides all design services under one roof. This makes it easier for you to work with us, and for our team to coordinate our work together. In addition to our architectural and engineering staff, we can also provide a broad scope of services that might not be on the radar right now, but often arise in projects like this.
- **Project Horsepower:** When the time comes to complete each project, our team's extensive project execution resources allow us to work quickly and accurately to complete it on time.
- **Estimating Expertise:** Since our team provides all design disciplines under one roof, we are able to use our expertise to control project cost, resulting a project that fulfills its financial expectation. We provide in house estimating as needed by our clients to provide the financial definition needed in order to understand what a project will cost.
- **Construction Industry Relationships:** Our long experience in the construction industry has allowed us to develop relationships with other design firms, with regulatory authorities that manage construction, and most importantly with the contractors who do the work in our market. We can capitalize on our



relationships with other construction professionals to secure advice and guidance that allows our projects to proceed smoothly and successfully. Many firms view their industry connections competitively, but we know that our work is more successful when we can work together with others in the construction world.

- **Construction Administration:** This is another place where our team works to your advantage. Our engineers understand construction and the project delivery process. We provide that expertise throughout the project, but especially when the work is being executed in the field. We work closely with clients, contractors, and other professionals to make sure the project comes out like it was designed to be.
- **Funding Understanding:** Haley Ward has assisted counties, municipalities, and institutions with their funding goals for many years, including Covid 19 funding. We will work with you to ensure that the Town of Millinocket is positioned for the best potential funding opportunities available.

We recognize that it is essential to work closely with the Town to maintain cohesiveness in the schedule, deliverables and final product expectations. We assign a single Project Manager as a point of contact to work directly with your staff and/or committees on all aspects of the planning process. The PM will easily be able to convey information to our staff, maintaining and ensuring consistency and quality all the way through the project delivery process. We have found that efficiency in our management structure and attention to quality control helps to keep client expectations and compensation fees in line, from beginning to end.

We greatly appreciate your consideration and hope that in the end you feel, like we do, that we are the right partner for this RFP. Our design experience with development projects, coupled with the design and construction skills of our engineering staff will greatly benefit your project. Please do not hesitate to contact us with any questions you may have.

Sincerely,
Haley Ward, Inc.

Philip E Badger III, PE
Master Electrician
Sr Project Manager

Travis Noyes, PE
Principal-in-Charge
Executive Vice President
Engineering Division Director

CWS/TEN/rlt
Enc.



TABLE OF CONTENTS

SECTION 1 COMPANY INFORMATION	p. 1
SECTION 2 QUALIFICATIONS	p. 5
SECTION 3 TEAM	p. 16
SECTION 4 BUDGET AND COST CONTROL	p. 17
SECTION 5 REFERENCES	p. 19
ATTACHMENT A: RESUMES	



SECTION 1 | COMPANY INFORMATION

Haley Ward is a 100% employee-owned technical consulting firm offering a wide range of engineering, architectural, environmental and surveying services focused upon delivering client-based solutions. Founded as CES, Inc. of Brewer, Maine, our company evolved into Haley Ward in 2020 to better represent our increasing size, reach, and service portfolio.

While our name has changed, our commitment to our clients has not. By listening attentively to clients' needs and working collaboratively, Haley Ward delivers *optimal solutions* built on value, quality, promptness, and teamwork. Functioning as a team within our organization, with our subcontractors, and most importantly with our clients, promotes effective communication and results in the delivery of a cost-efficient project that is customized to fit your needs.

At Haley Ward, we value accountability and collaboration. These values drive us to provide every client with quality service that meets, and often exceeds, their expectations, and is one of the reasons clients routinely return to us for help. Haley Ward retains clients through our technical ability and years of experience solving problems across a wide spectrum of complexity.

Haley Ward is headquartered in Bangor, Maine, with branch offices located in the communities of Lewiston, Machias, Presque Isle, Waterville and Saco, as well as Fort Myers, Florida and Maynard, Massachusetts. We have approximately 120 professional team members.

COMPANY NAME:

Haley Ward, Inc.

POINT OF CONTACT:

Phil Badger III, PE

ADDRESS:

Headquarters

*One Merchants Plaza
Suite 701
Bangor, ME 04401*

WEBSITE:

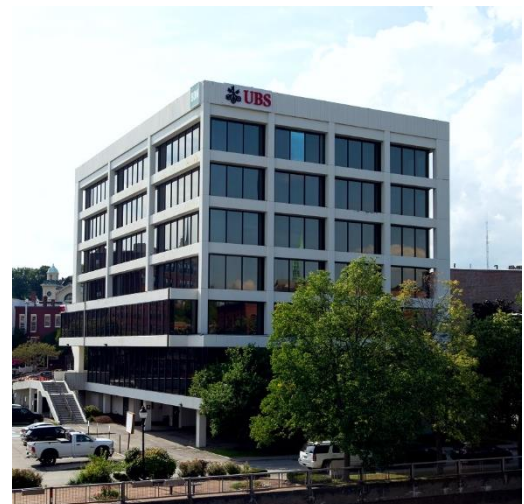
www.haleyward.com

PHONE:

207.989.4824

EMAIL:

pbadger@haleyward.com





Our services include:

Civil Engineering

Land Use Permitting & Development
Recreational Trails
Roads & Parking Lots
Transportation & Traffic
Water/Wastewater Treatment & Conveyance
Water Works

Structural/MEP Engineering

Architectural Design
Building Services
Building Evaluations
Capital Needs Assessments & Services
Electrical System Design
Mechanical System Design
Municipal Infrastructure
Structural Design & Analysis

Environmental Engineering

Remediation Services
Solid Waste

Environmental Sciences

Geology/Hydrogeology
Geophysics
PFAS Sampling & Analysis
Solid Waste

Environmental Compliance

Air Emissions
Drinking Water Operations
Environmental Monitoring
Petroleum, Hazardous Materials, Hazardous Waste
Stormwater Compliance
Wastewater Operations & Compliance

Environmental Investigation

Brownfields Redevelopment
Environmental Site Assessments

Natural Resources

Permitting & Licensing
Wetland Habitat Mapping

Industrial Hygiene

Indoor Air Quality Assessments
Asbestos, Lead, & PCB Management Service

Surveying

Surveying Services

DIRECTORS

ROLE

Denis St. Peter, PE	President/CEO
Travis Noyes, PE	Executive VP, Engineering Division Director
John Pond, CWWO	Executive VP, Environmental Division Director
Jeff Teunisen, PLS	Executive VP, Surveying Division Director

PROFESSIONALS ON STAFF

CATEGORY NUMBER

Professional Engineers (PE)	23
Civil	15
Environmental	2
Structural	4
Mechanical	3
Electrical	2
Degreed Engineers-In-Training (EI)	6
Certified Geologists (CG)	3
Environmental Scientists	19
Professional Foresters (PF)	1
Professional Land Surveyors	11
GIS Professionals	2
Radon Service Providers	2
Wastewater Treatment Plant Operators	3
Drone Operators	4
Licensed Architects	1



CDBG EXPERIENCE

CES, Inc. has significant experience with projects funded through the Community Development Block Grant Program and has developed a good working relationship with the Office of Community Development. We have assisted communities and their partners with preliminary planning and grant writing, project design and engineering, bid document compilation, project management, and Federal labor standards compliance. Our staff includes a certified CDBG Program Administrator. Following is a chart outlining our project experience with the CDBG program.

CLIENT	PROJECT SUMMARY
Town of Addison	Economic Development Planning
City of Bath	Market Research and Site Planning for Development of Business Park
Town of Trenton/Morris Yachts	Project Management, Structural Engineering, Site Design, Bid Documents for New Production Facility
Town of Millinocket	The Pines Neighborhood Municipal Infrastructure Project
Town of Sebec	Renderings / Sketches of new Walking Park: Landscaping, Walking Paths, Picnic Area, Gazebo, Parking Area
City of Brewer - Eastern Fine Mill Site	Preliminary Site Plan, Conceptual Planning Study, Redevelopment Options, Ordinance Review, and Renderings
Town of Machias	Site Plan and Conceptual Building Plan for Machias TeleBusiness Center
Town of Greenville /Greenville Wood Products	Industrial Wood Products Building
Town of Orono	Street Reconstruction, Sidewalk, Sanitary & Storm Sewers
Town of Lincoln	Sidewalks, Pedestrian Amenities, Storm Sewers, Utility Relocation
Town of Newport	Sanitary Sewers, Parking, Riverside Parks
Town of Mars Hill	Sanitary & Storm Sewers, Watermain, Sidewalks
Town of Osborne	Fire Protection Water Line
Town of Limestone	Community Pond Sewer Rehabilitation
Town of Milford	Morin Subdivision Storm Drainage Improvements



CLIENT	PROJECT SUMMARY
Town of Woodland	Fowler Road Reconstruction
Town of Mattawamkeag	Upgrade of Fire Protection System
Monson Utility District	Wastewater Disposal System
Town of Cherryfield	Sidewalk Design and Construction
Town of Millinocket	Water and Sewer Improvements
Town of Hartland	Wastewater Improvements
Pleasant River Lumber	Fire Protection System
City of Brewer - Liberty Drive	Road Reconstruction with Sewer and Water to Serve an Industrial Subdivision

WORKLOAD AND SCHEDULE

Haley Ward is capable of providing \$400,000.00 of engineering, architectural, environmental, and surveying services per week. Our current workload and the projected workload of key personnel are such that any reasonable time schedule which may be established for this project can be met. Since each of our personnel is trained in several different service categories, availability of personnel is assured, and schedules are maintained. Project scheduling, personnel scheduling, and resource allocation are done on a weekly basis to identify potential conflicts and to adjust schedules accordingly.

Our present workload will not affect our ability to provide the service you should expect. We anticipate being able to meet your scheduling needs.



SECTION 2 | QUALIFICATIONS

The success of our business has been built over the last 43 years primarily through the relationships we have been able to develop, and the on-going business we obtain from our repeat clients. Many of our clients have been with us since our beginning in the late 1970's, which we feel is a testament to the importance we place on relationships.

One of the reasons we believe Haley Ward would be an excellent choice as a partner for your multi-year, multi project goal is our ability to provide not only the services that you know you will need, but also those services that you may not have anticipated.

We have grown to a firm size of over 115 professionals capable of providing services in the engineering, environmental, and surveying disciplines. We support clients in a variety of sectors including governmental, municipal, private, industrial, and commercial. In any given year Haley Ward staff work on 600 to 700 projects

We have provided information regarding the services we provide that focus on the needs of the Town.



ELECTRICAL ENGINEERING

Our electrical engineering team instinctively communicates with project stakeholders, keeps projects on budget, and yields desired results for private and government clients.

As an integral part of the building design services team at Haley Ward, our electrical engineering team works with the structural and mechanical engineering teams on new construction or renovation and repair projects.

Demonstrated through our experts' project experience, we distinguish ourselves by recognizing that to reach clients' goals we understand their big picture while maintaining strong attention to details. Given that this is our standard approach, our electrical engineering unit instinctively communicates with project stakeholders, keeps projects on budget, and yields desired results for private and government clients.

WHAT WE DO:

Building Electrical Systems

- Interior Electrical Systems
- Lighting
- Power Distribution
- Specialty Systems

Lighting

- Interior Lighting
- Exterior Area Lighting
- Roadway Lighting
- Interior/Exterior Lighting Controls

Specialty Systems

- Communications
- Fire Alarm
- Security
- Healthcare Systems
- Grounding

Power Distribution

- Medium Voltage
- Low Voltage
- Site Distribution

Energy Conservation Power Generation Systems

- Emergency/Standby
- Solar PV
- Cogeneration

System Studies

- Short Circuit,
- Coordination

Arc Flash analysis

LIST OF RECENT PROJECTS

The following table includes a short list of projects within the last five years that are relevant to the services the Town is requesting:

MEP ENGINEERING	
CLIENTS	SERVICES PROVIDED
City of Bangor	Willard Orr Bridge Replacement

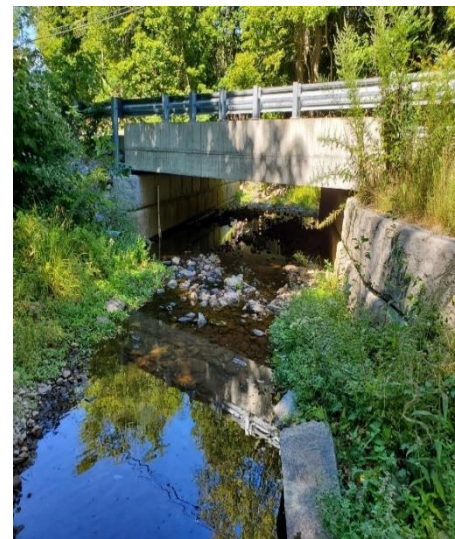


Mount Desert	Marina Development
Mount Desert	Village Center Utilities Reconfiguration
KOA	Bar Harbor Campground Development
City of Brewer	Brewer High School Athletic Field Renovations
Maine Air National Guard	Bangor Resiliency Lighting
Bay Ferries/CBP	MDI Ferry Terminal
Foxcroft Academy	Piscataquis Ice Arena

CIVIL ENGINEERING

Haley Ward provides a full range of planning, design, and construction management services related to municipal infrastructure. We have expertise in road and street design, multi-modal trails and paths, water conveyance, wastewater treatment and conveyance, and other municipal infrastructure needs which can assist the Town to fulfill its engineering priorities.

Over the past 43 years, we have been involved with countless municipal projects that have focused on infrastructure maintenance. We have also assisted communities with permitting and engineering design of commercial and industrial parks as well as municipal utility and road extensions. Our engineering staff members are well versed at municipal budgeting and can assist the Town with project development activities which include budget estimation, funding application, and administration services.



Haley Ward has experience in all phases of municipal water/sewer systems including facilities planning, design, funding assistance, construction administration, inspection, and startup. We have performed numerous sanitary sewer, storm sewer, water system, and road reconstruction studies and designs. We have assisted a variety of clients from individuals to municipalities to industries in the development of strategies for infrastructure improvements. We have experience with the development of combined sewer overflow (CSO) master plans which assist communities with the planned reduction of overflow events and eventual elimination of CSOs, if possible.

We are LPA certified and have assisted a number of clients with LPA projects that necessitate a firm understanding of the Maine Department of Transportation



(MaineDOT) requirements for design and construction oversight. We have also assisted a number of municipal clients with obtaining funding for their projects. We have worked closely with representatives from the United States Department of Agriculture Rural Development (USDA/RD), the State of Maine Revolving Loan Fund (SRF) program, the Maine Department of Economic and Community Development's Community Development Block Grant (CDBG) program, and also the Economic Development Authority (EDA).

CADD

We employ five CADD designers. In a consulting firm such as Haley Ward, CADD designers are primarily utilized to develop drawings and details that are needed for construction projects. This would include development of plan view drawings, plan and profile drawings, sections, and details. Recent trends in the industry have shifted design and drawing development towards more information system modeling. The advantage of this type of design development is the ability to visualize the various systems in all three dimensions. This allows us to more easily recognize potential conflicts between various design elements. Our staff are fully capable of this and routinely utilize AutoDesk Civil 3D for civil/site projects and AutoDesk Revit for building design projects (architectural/structural/MEP).

Aside from assisting with the development of design drawings, our CADD staff routinely work with people outside of our firm to develop drawings that suit their needs. In residential settings we are often given hand drawn sketches and are asked to develop them into floor plans with renderings to help our clients visualize the end product.

We have created tax maps for municipal clients and have worked on municipal cemetery design projects. It is likely that we could help the City push through a project regardless of the stage by getting our CADD designers involved. If for one reason or another City staff is unable to get to some of the drafting work required, we could pick up where you left off and complete the tasks.

LIST OF RECENT PROJECTS

The following table includes a short list of projects within the last five years that are relevant to the services the Town is requesting:

CIVIL ENGINEERING	
CLIENTS	SERVICES PROVIDED
City of Lewiston	Hart Brook Sewer Stabilization Project
City of Waterville	Concourse Parking Lot Redesign
City of Bangor	Odlin Road Pump Station



Town of Mount Desert	Crosswalk work
Town of Skowhegan	Intersection Design
Town of Lubec	Washington Street Sidewalk
Town of Milford	Sewer Projects
Old Town Water District	Water Main Projects
Town of Norridgewock	Roadway Design/Construction Observation
City of Bangor	City Hall Parking Lot improvements related to Park Street Retaining wall repairs
Town of Orrington	Business Park Design and Permitting
City of Westbrook	Park Rehabilitation/Design
City of Bangor	Master planning for Parks and Recreation
Town of Hermon	Performed construction observation for the Town for 2 roadways in a residential subdivision (Coldbrook Estates Subdivision)
Town of Hermon	Drainage analysis, design, construction administration and construction management in support of a underdrained trench between two subdivisions.
Town of Lancaster	15,000 Linear Foot Water System Upgrade
Town of Natick	Sewer System Asset Management Plan – Sewer System Modelling Phase
Town of Marblehead	Systemwide Sewer Pump Station Evaluation
University of Maine Augusta – Bangor Campus	Sidewalk Projects

CONSTRUCTION MANAGEMENT

Haley Ward provides a full range of planning, design, and construction management services related to municipal infrastructure. We have expertise in road and street design, multi-modal trails and paths, water conveyance, wastewater treatment and conveyance, and other municipal infrastructure needs.

Haley Ward is capable of successfully providing the following construction management services:

- Submittal and shop drawing review, RFIs,
- Construction monitoring,
- Pay requisitions,
- Evaluation of proposed field changes
- Change orders,
- Coordinate material testing services,
- specification certification,
- special inspections for construction,



- quantity verification and
- record keeping.

Our construction management team members have been working for municipalities for decades. We have a thorough understanding of the fixed budgets, development constraints, funding agency coordination and design or construction techniques required to resolve issues. We have assisted numerous communities, districts and private entities in Maine with construction administration and construction monitoring.

Our team's ability to listen to our clients' needs and respond to project goals has been the key to all of our lasting client and project team relationships. This does not end at the design phase of a project, but continues through the construction management phase of a project as well. This helps ensure that the completed project meets our clients' expectations and timeline.

LIST OF RECENT PROJECTS

The following table includes a short list of projects within the last five years that are relevant to the services the Town is requesting:

CONSTRUCTION MANAGEMENT	
CLIENTS	SERVICES PROVIDED
City of Bangor	Odlin Road Pump Station Replacement
Mount Desert	Northeast Harbor Village Center Improvements and Crosswalk Improvements
Town of Rumford	Downtown Infrastructure Improvements
Town of Lubec	Washington Street Sidewalk (MDOT LPA)
Town of Milford	Call Road Roadway and Utility Improvements Phase 2 & 3, Main Road Water and Sanitary Sewer Improvements (MDOT project)
Old Town Water District	College Avenue Water Main Replacement
Town of Cutler	Public Access Improvements Cutler Harbor (MDOT LPA)
Plymouth REIT	Fire Main Replacement 56 Milliken Street

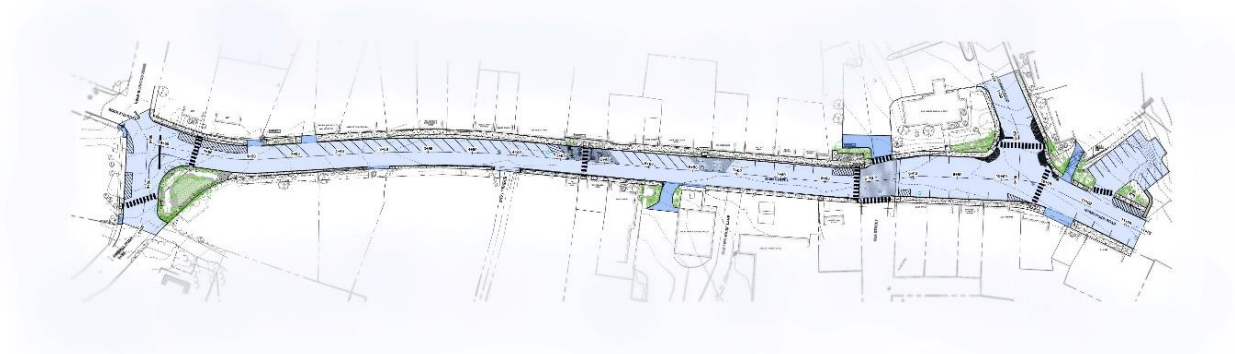


SIMILAR PROJECTS

NORTHEAST HARBOR VILLAGE CENTER PLAN

MOUNT DESERT, MAINE

In the summer of 2017, Haley Ward and Richardson and Associates were retained by



the Town of Mount Desert to design improvements to Main Street. The improvements were consistent with the vision created during an earlier planning project undertaken and directed by the design team. The design included new sidewalks, drainage system, sewers, and roadway improvements. A major portion of the work was to underground power, telephone, and cable and serve each individual property along Main Street. By undergrounding the overhead utilities, it allowed for the inclusion of new above grade streetscape amenities including parks, bus stops, surface textural improvements using granite and other stones, and pedestrian scale lighting.

Due to the amount of utility work sidewalks needed to be reconstructed which led to a process of rethinking how pedestrians and bicycles interacted with motorists in the downtown area. This comprehensive review included input from Town Staff, the Village Center Planning Committee, the Town Design Review Team and the Public, to meet the project goals and objectives. Our team led two public hearings to solicit input on the design, including lengthy discussions on how to improve the flow and safety for all traffic modes (pedestrian/bicycle/vehicles). The design included removal of several crosswalks and the relocation of many to adhere to MaineDOT safety recommendations for crossings.

The project is currently under construction and has a projected cost of \$2,200,000.



SCHOODIC WOODS

TOWN OF WINTER HARBOR, MAINE

PROJECT HIGHLIGHTS:

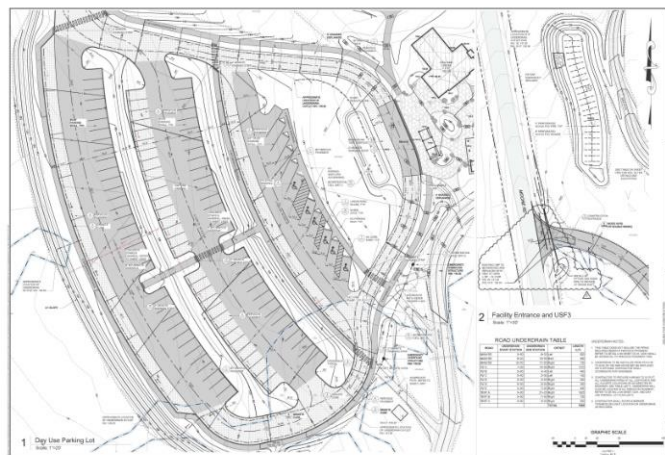
- Designed entire campground civil elements including park trails and accessways, water system, wastewater system
- Utilized Low Impact Development measures to manage stormwater
- Performed construction assistance
- SLODA/NRPA/ACOE permitting
- Wetland/ natural resource survey on development and mitigation area and development of mitigation plan for resource impacts

PROJECT DESCRIPTION

Haley Ward and Coplon Associates provided master planning, design, and permitting services for a 100-site campground adjacent to Acadia National Park on the Schoodic Peninsula. The campground was designed to National Park Service (NPS) standards in anticipation of donating the facility to the NPS upon construction completion.

This project developed eight miles of day use bike trails that traverse the Peninsula; a 150-acre, 100-site campground; a visitor center and supporting infrastructure. The campground was designed to National Park Service standards in anticipation of donating the facility to the Park Service upon construction completion. Haley Ward completed natural resource survey, impact analyses, regulatory consultation and environmental permitting. The design of site improvements included low-impact development stormwater treatment measures for both quantity and quality using underdrain soil filters, level spreaders with buffers, pervious pavement, and pervious pavers. During the design and permitting process, the Haley Ward team consulted with and coordinated the input of numerous stakeholders, such as: National Park Service, Emera Maine, Maine DOT, Maine Coast Heritage Trust, to streamline the permitting process. Haley Ward was responsible for the design of the Subsurface Wastewater Disposal System, Water Source Development, and Water Treatment and Distribution design. This project was completed in the summer of 2015. Permits obtained included natural resource impact permit from MDEP and the Army Corps, a Site Location of Development Permit with the MDEP, and a Traffic Movement Permit with the MaineDOT, and local permits from the Towns of Gouldsboro and Winter Harbor.

Cost of the total project Exceeded \$20M.
This project received an award from ACEC.





BLUEBERRY LANE LIGHTING

FALMOUTH, MAINE

In 2018 Haley Ward was hired to provide electrical lighting and power engineering services for the reconstruction of Blueberry Lane in Falmouth. The project consisted of 2,800 feet of roadway and sidewalk improvements, the removal of 6 existing streetlights, installation of a new electrical service for the 16 new streetlights and convenience receptacles.

The project included two road intersections, multiple residential and business entrances, and a public bus stop. The lighting was designed to provide appropriate light levels along the sidewalk while also maintaining appropriate min to max lighting ratios and uniformity along the entire length of the project. The overall project budget was estimated at \$500,000 and the final construction cost was \$486,434.



ODLIN ROAD PUMP STATION

BANGOR, MAINE

In the summer of 2017, Haley Ward, Inc. was hired by the City of Bangor to complete the design of improvements related to the upgrade of the Odlin Road Pump Station. Under the auspices of a Consent Decree from the EPA, the City has been required to address CSO's throughout the community. The Odlin Road Pump Station is inundated with high flows during wet weather months. Given this, an outdated gravity sewer, once utilized as a main combined sewer, had been used in recent years as an overflow pipe. The trunk line passed flow during wet weather periods. This led to CSO events.



The upgrade to the pump station included a completely new station that had the capacity to accommodate the high flows measured during wet weather periods and abandonment of the overflow trunk line. The station was designed to include submersible dry well pumping, wet well storage, metering, SCADA and telemetry components, and backup power generation and associated building. The capacity of the station was increased to 1,000 gallons per minute. The project design was completed at the end of 2017 and construction took place in 2018.

OLD TOWN WATER DISTRICT

Since the mid 1990's, Haley Ward has assisted the Town of Milford with sanitary sewer, storm drainage and road design services and the Old Town Water District with water design and evaluation services. We have designed improvements to pump stations, force main sewers, gravity sewers, roads, water mains, and drainage systems.

We have assisted the Town with removal of identified Sanitary Sewer Overflows and licensing of one Combined Sewer Overflow (CSO). We continue to assist the Town with monitoring of the CSO and updates to their CSO Master Plan. Through our diligent work over the last 10 years, we have been able to identify sources of infiltration and inflow that have impacted the municipal sanitary sewer system during high groundwater and rainfall/snowmelt conditions. Our



recommendations for improvements, including replacing or relining sewers and manholes throughout Town, has led to a significant reduction in the volume of sanitary sewer that must be treated annually. Some of these projects included the design of a new 12" gravity sewer across the new Milford to Old Town bridge, completing upgrades to four below grade dry pit pump stations, lining of sanitary sewer gravity mains along Main Street, drainage and road design improvements for the Emerald Woods Development which included removal of direct stormwater connections to the sanitary system, design of a new permanent flow metering station, and improvements to Sandy Point Road sewers.

Haley Ward developed and calibrated the water distribution system model for the Old Town Water District. The model has been utilized for the last 20 years as a planning tool for the District as they continue to improve deficient areas of their system. In 2009, Haley Ward assisted the District with the upgrade to their water treatment facility. The



project was funded in part by the Drinking Water SRF Program. The upgrade included complete reconstruction of filter beds with new piping, valving, and filter media. The project also included the design of main improvements to service their existing well field including ports to allow for regular maintenance due to deposition of iron/manganese.

In a joint effort, we completed designing improvements and overseeing the construction of existing roads, sidewalks, drainage systems, sewer systems, and water systems throughout the Davenport Street and Main Road neighborhoods. We successfully assisted the Community and the District with obtaining loan and grant funding from USDA/RD and Drinking Water SRF. Because the project was so successful, Haley Ward moved on to a second joint project with the Town and District to design similar improvements.

We have ongoing work with the district.



SECTION 3 | TEAM

At Haley Ward, we are always seeking to hire the best professionals in their prospective field, as well as external team members that meet the specific needs of our potential clients. We are pleased to provide the following team members that we believe will bring about the desired successful outcome for the Town:

PROJECT ROLE	KEY PROJECT PERSONNEL
Principal-in-Charge	Travis Noyes, PE
Travis Noyes, PE will act as the Principal in Charge for this project, providing technical support and peer review at Haley Ward to ensure product quality is maintained and to ensure that adequate resources are made available.	
Project Manager/Electrical Engineer	Phil Badger III, PE
Phil Badger, III, PE will be the point of contact, Project Manager and lead electrical Engineer for this project.	
MEP Engineer	Jared Merry, PE
Jared Merry, PE will provide necessary Mechanical Engineering services.	
Senior Civil Engineer	Nate Gustafson, PE
Nate Gustafson, PE will be the Lead Civil Engineer for this project.	
Senior Structural Engineer	Pete Tuell, PE
Pete Tuell, PE will provide Structural Engineering services required for the project.	
Senior Designer	Russell Baillargeon
Russell Baillargeon will support the design aspects of the project.	
Engineer	Jeremy Beaulieu
Jeremy Beaulieu will support the engineering efforts.	

RESUMES

Resumes for key personnel listed above have been included as **Attachment A**.



SECTION 4 | BUDGET AND COST CONTROL

Haley Ward is proud of the fact that we are able to scale our services to the needs of a client. We can perform services for projects that need quick turnarounds with limited budgets (ESA, building inspections) but can also provide the guidance to assist clients through complex design, permitting and construction of large scale projects, similar to those undertaken by many larger municipalities in the State of Maine.

Most projects that have a construction component can be divided into stages or phases, based on the level of completion and amount of detail that is required. The phases are typically as follows: Data Gathering, Concept Design, Preliminary Design, Permitting, Final Design, Bidding and Award, and Construction. During the Construction Phase, the Consultant typically provides both Administration and Inspection services. Our team is well versed in this process.

Many projects, especially those with significant planning elements may require a somewhat modified process that includes gaining support and receiving input from the public. We are experienced at working with our clients to help assemble a representative group of stakeholders and facilitate the concept development and consensus building phase for these types of projects. An ideal group would consist of decision makers at the City (council, department heads, etc.) representation from the business community, adjacent property owners, and maybe a few people representing a completely different interest. Our team would consist of trained facilitators and skilled professionals.

BUDGETARY MANAGEMENT

From a budget perspective, we view a client's money as if it were our own, which means we take a fiscally conservative approach. We begin our discussion with a client to gain an understanding of their project's budget. Once the budget is known, we can design the project to fall within the estimated costs. We typically provide cost estimates twice during design, once with the preliminary design submission and once with the final design submission. We carry contingencies in our pricing, typically based on a percentage of the total cost, which changes as more information is developed. The contingency provided during conceptual design is more than that presented with the final design because less information is known at that point. We feel strongly that our clients should budget for unknowns through a contingency. We have found that being able to provide our client with realistic budgeting allows successful project implementation.



The following table lists recent projects and associated costs and illustrates our proven success with budgetary management for our clients.

PROJECT	EST. COST	BID AMOUNT	FINAL COST
Sylvan Road Drainage – Town of Mount Desert	\$569,050	\$372,051	\$413,035
Call Road Phase II & III – Milford/OTWD	\$1,000,000	\$750,461	\$720,942
Oak Grove Sewer – Veazie Sewer District	\$377,119	\$294,652	\$304,687
Odlin Road Pump Station – City of Bangor	\$1,019,430	\$970,150	\$959,059
Bridge/Culvert Replacement – DVEM T2R9	\$303,000	\$203,000	\$203,000
Sand/Salt Shed – Town of Burlington	\$393,558	\$319,495	\$319,495

COMMUNICATION

Our overall approach to a project can be summarized in one word - collaboration. We value the institutional knowledge that our clients possess, and we routinely look to build on their local experiences. We see our role, besides providing technical expertise, as helping our client coordinate efforts to achieve future growth and development goals. Effective coordination, good project planning and consistent communication are instrumental in our overall relationship and for our approach to specific projects.

Change is the only constant with any project. Our staff members are adept at identifying the changes that occur throughout the progress of the design and construction and effectively communicate the resulting impact with our clients. Since change can impact schedule and budget, timely and effective communication with all involved parties is necessary. Our goal is to minimize the unknowns for the bidders in order to decrease and hopefully eliminate change orders.

We will provide architectural and technical engineering expertise for the project and will also help coordinate with all parties involved to provide a systematic design for the project. This coordination and project planning will minimize inconveniences to any public access spaces, or people working in close proximity to the project area. This collaborative approach will also ensure the desired work is completed within the desired timetable. Our focus on communication gives us the ability to successfully guide the bid, construction administration and oversight processes.



SECTION 5 | REFERENCES

We are proud of the fact that a large portion of our business is repeat business. We strive to develop long-term relationships with our clients, and it shows. Our client relations goal is for our clients to be confident that the products we produce will be of high quality and completed in a timely and cost-effective manner. Please feel free to contact any of the references listed below regarding our team members' ability to complete the project.

Tony Smith
Public Works Director
Town of Mount Desert, PO Box 248
Mount Desert, ME 04662
207-276-5743

Norm Burdzel, PE
The Jackson Laboratory
600 Main Street
Bar Harbor, ME 04609
207-288-6142
Norm.Burdzel@jax.org

Sam Coplon
Coplon Associates
scoplon@coplonassociates.com
207-288-4122



ATTACHMENT A: Resumes



HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING

Travis E. Noyes, PE

Principal-in-Charge

Executive Vice President

tnoyes@haleyward.com | 207.989.4824

Travis E. Noyes has over 24 years of civil engineering experience related to site development and infrastructure design and analysis. Travis has worked on a wide range of projects including roads, trails, and site design, wastewater treatment plant upgrades; pump station design; water system analysis and design; civil utility; Capital Improvement Plan for development for water utilities; and project management. Travis also has experience coordinating with State and Federal funding agencies for sewer and water projects. Along with his project management experience, Travis serves as the Engineering Division Director where he is responsible for ensuring appropriate resources are allocated to meet the goals and milestones of each project.

PROFESSIONAL HISTORY

2008 – Present

Haley Ward, Inc., formerly CES, Inc.
Executive Vice President
Principal-in-Charge

2003 – 2008

Woodard and Curran
Project Manager / Team Leader / Regional Delivery Manager

2001 – 2003

City of Brewer
Assistant City Engineer

1996 – 2001

CES, Inc.
Project Engineer



CORE EXPERTISE:

*Site Design and Permitting
Utilities and Roads
Capital Improvement
Planning*

EDUCATION:

*B.S. (1996) Civil and
Environmental
Engineering, University of
Maine*

REGISTRATIONS:

*Professional Engineer
State of Maine (#9713)
State of New York (#100504)
State of Florida (#PE86088)*

AFFILIATIONS:

*American Council of
Engineering Companies,
State of Maine Chapter
Board Member*



PROJECT EXPERIENCE

Campground Development | Winter Harbor, Maine

Travis acted as project manager for the development of a 150-acre campground which includes approximately 100 sites and a variety of mixed use non-motorized vehicular trails. There are approximately five miles of trails associated with the project. The project construction start date was summer 2013. The project required a SLODA permit, local permitting, and a NRPA permit for wetland and vernal pool impacts.

Verso | Bucksport, Maine

Travis served as Project Manager and Project Engineer for the site design and permitting of a new wood yard associated with a wood handling process upgrade. The site design focused on balancing stormwater collection needs with maximizing the wood yard area within the constraints of the new process. Travis was responsible for coordinating all tasks with the lead engineering firm, our direct client for this work, BE&K Engineering from North Carolina. SLODA permit amendments were required.

Maine Veterans Home | Machias, Maine

As Project Engineer for the design of new utilities to service facility, including storm water collection, wastewater collection, water distribution, electrical, and communications, Travis assisted in site design review and specification production. He was responsible for coordinating all tasks with the lead Architectural firm. Amendments to the site SLODA were required.

The Jackson Laboratory | Bar Harbor, Maine

Travis served as Project Engineer for the design of new utilities to service an expansion of the existing facility and a new 150 space parking lot. Design included storm water collection and wastewater collection. Travis also assisted in site design and specification production, coordinated all tasks with the lead Architectural firm and Laboratory. This work also resulted in a need to amend the SLODA permit for the site.

Hartt Transportation | Auburn, Maine

Travis managed the design of a seven-acre site expansion, road design, and utilities within an existing business park in Auburn. Follow up services include assisting the owner with obtaining SLODA amendments for future expansion needs.

Site and Utility Design | SeDoMoCha Middle School | Dover-Foxcroft, Maine

Travis served as Project Engineer for site design and utility design for the expansion of an existing elementary school. The utility design included replacement of existing sewer piping, a new stormwater collection system, and water mains. Site design focused on an expansion of access to the site and significant improvements to existing parking conditions as well as improvements to the existing athletic fields. He was responsible for coordinating all tasks with lead Architectural firm.



Site Design | Hope School | Hope, Maine

Travis was Project Engineer for site design for the expansion of an existing elementary school. The site design focused on an expansion of access to the site and significant improvements to existing parking conditions as well as improvements to the existing athletic fields.

Utility Design | Maine Veterans Home | Machias, Maine

Travis assisted in site design review and specification production in his capacity as Project Engineer for this site. His duties included the design of new utilities to service facility, including storm water collection, wastewater collection, water distribution, electrical, and communications. He also coordinated all tasks with lead Architectural firm.

Utility Service Design | The Jackson Laboratory | Bar Harbor, Maine

Travis served as Project Engineer for the design of new utilities to service an expansion of the existing facility. The design included stormwater collection and wastewater collection. He also assisted in site design and specification production, as well as coordinated all tasks with lead architectural firm.

Facility Expansion | USDA National Cold Water Marine Aquaculture Center | Franklin, Maine

Travis was Project Engineer for the site design and utility design for the expansion of an existing aquaculture research facility. The utility design included effluent discharge piping and influent fresh and salt water lines. Site design focused on significant grade changes and new access roads to accommodate new buildings. Travis helped to produce specifications for the construction project, and coordinated all tasks with lead Architectural firm.

Infrastructure Improvements | Milford, Maine

CES was hired by the Town of Milford and the Old Town Water District to prepare the design of improvements within the Davenport Street neighborhood. The improvements included the design of new road, stormwater collection and conveyance, sanitary sewer collection and conveyance, potable water distribution, sidewalks and roadways. The value of the work was nearly \$2.5 million.

Infrastructure Improvements | Castine, Maine

CES was hired by the Town of Castine to design Phase I of their Long Term Infrastructure Improvements project. Phase I included approximately \$2,000,000 worth of improvements. The project included the design of improvements to roads, stormwater systems, water mains, and sewers for portions of Battle Avenue, Perkins Street, and Wadsworth Cove Road. Travis served as Project Manager for this project.

Commercial Park | Baileyville, Maine

Travis assisted the Town of Baileyville with the permitting and design of the extension of an existing Commercial Park. The Park is currently capable of serving two lots and the Town has plans to extend the road and utilities out approximately 1,700 feet to serve



approximately eight more lots. Phase II of construction included the construction of a road, sewer, water, and electrical extensions.

Large Retail Commercial Development | Bangor, Maine

CES recently completed the evaluation and design of nearly 2,000 feet of sanitary sewer improvements and nearly 4,200 linear feet of storm drainage improvements. The project includes the design of pervious pavement to be utilized as a stormwater treatment mechanism.

Road Reconstruction | Newcastle, Maine

Travis served as Project Manager for the design of the reconstruction of three roads in Newcastle. The projects included full-depth reconstruction, reclaim and pave, and drainage improvements.

Road Reconstruction | Veazie, Maine

Travis was Project Manager for the design of the reconstruction of seven roads/streets in Veazie. The projects included full-depth reconstruction, drainage improvements, and sewer and water improvements.

Capital Improvement Planning | Bar Harbor, Maine

Travis served as Project Engineer assisting the community with the development of a Comprehensive Master Plan. The work included utilizing the previously-developed distribution system model to identify problem areas within the system and develop potential improvements to remedy the problems, making recommendations for future projects, developing cost estimates for the proposed improvements, and development of a unidirectional flushing program.

Capital Improvement Plan, Richmond Utilities District | Richmond, Maine

Travis acted as Project Manager for the Capital Improvement Plan. The project included GPS location of all available water system components, development of a System Map, development and calibration of a WaterCAD water system distribution model, analysis of the system to identify deficiencies, a prioritized listing of recommended improvements for the District, and a report summarizing our findings along with cost estimates for each recommendation. The Plan outlined Short Term and Long Term recommendations.



HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING

Philip E. Badger III, PE

Senior Project Engineer

pbadger@haleyward.com | 207.989.4824

Philip Badger has over 28 years of experience in electrical engineering and as a project manager. Philip led an engineering project team in design of a \$250 million-dollar indoor Theme Park. Philip has provided leadership and created BIM (Building Information Modeling) standards for several healthcare facilities throughout southern Maine. In his management role, Philip both directly supervised office staff and coordinated the efforts of others in multiple disciplines (e.g. construction) on projects throughout Maine. To advance his practice area and management knowledge, Philip has completed various Project Management Workshops addressing Leadership, Time Management, and Supervisory skills.

PROFESSIONAL HISTORY

2018 – Present

Haley Ward, Inc., formerly CES, Inc.
Senior Project Engineer

2012 – 2018

DiGiorgio Associates, Inc.
Vice President

2010 – 2012

Amec
Senior Electrical Engineer

2007 – 2010

exp (formerly X-nth)
Electrical Engineer II

2005 – 2007

TLC Engineering for Architecture
Electrical Engineer



CORE EXPERTISE:

*Project Management
Electrical Engineering
Building Information
Modeling Standards
AutoDesk*

EDUCATION:

*B.S. (2003) Electrical
Engineering Technology,
University of Maine, Orono*

REGISTRATIONS:

*Maine Master Electrician
#MS60020325*

*Professional Licensed
Engineer in Maine (#12480),
New Hampshire (#13739),
Massachusetts (#50069),
Connecticut (#29030),
New York (#90843),
California (#E19762),
Virginia (#4020-49032), and
Washington (#49143)*

AFFILIATIONS:

*Brewer Youth Hockey
Volunteer*



PROJECT EXPERIENCE

Healthcare Facility Design | Portland, Maine

Working as Vice President Electrical Engineer, Philip developed electrical engineering designs for a new healthcare facility including the construction and repairs, as well as upgrades to existing facilities. The design process comprised of plans, specifications, cost estimates, schedules, record drawings, material submittal reviews, construction inspection, and development of construction programming documents. This project included primary and secondary electrical distribution, transformers, wiring, interior electrical systems, communications, nurse calling system, security, lighting, lighting controls, and energy conservation. Philip provided leadership for the electrical engineering department and for the Building Information Modeling team to develop standards and compliance to those standards using AutoDesk Revit and Naviswork software programs.

Government Facility Design | Portland, Maine

As Senior Electrical Engineer, Philip was tasked with the designs and development for a new Government Facility which included plans, specifications, cost estimates, scheduling, record drawings, material submittal reviews, construction inspection and development of construction programming documents. This project included primary and secondary electrical distribution, transformers, wiring, interior electrical systems, communications, security, lighting, and energy conservation. Philip worked closely with Government agencies to ensure design compliance with multiple design guideline, standards, and codes.

Merck Research Facility | Boston, Massachusetts

As Project Manager/Superintendent, Philip directed all phases of installation and inspection of electrical systems at a \$350 million-dollar research facility in Boston, MA. He provided installation inspections, work progress, pay requests, and change order verifications for the electrical, fire alarm, and security systems. Philip worked closely with all contractors and sub-contractors involved with the project, to ensure the work schedule would meet or exceed the overall project schedule. Philip also worked with engineers to deliver innovated changes that would assist in keeping the project on schedule and within budget constraints.

Placemaker Properties – Thompson Point | Portland, Maine

As Senior Electrical Engineer, Philip was tasked with the designs and development for an extension of the underground utility plans for an additional phase of the project which included plans, specifications, cost estimates, material submittal reviews, construction inspection and development of construction programming documents. This project included primary and secondary electrical distribution, transformers, wiring, communications, and lighting for a new Hotel, the Ice rink, concert venue and a



performing arts building. Philip worked closely with the local utility agencies to ensure design compliance with multiple design guideline, standards, and codes.

Blueberry Lane | Falmouth, Maine

As Senior Project Engineer, Philip was tasked with the electrical design and specifications for a roadway, sidewalk and roadway lighting renovations for the town of Falmouth which included plans, specifications, cost estimates, scheduling, record drawings, material submittal reviews, construction inspection and development of construction programming documents for a ¾ mile road and sidewalk lighting plan.

Additional Experience

Massachusetts

Winchester Hospital – Winchester, MA

- Rapid Response Lab

Winchester Hospital – Woburn, MA

- Core Lab
- Microbiology Lab

Harrington Hospital – Webster MA

- Emergency Department Addition
- In Patient Psychology Renovation
- Out Patient Psychology Renovation
- Sleep Lab Renovations
- Endoscopy Relocation

Harrington Hospital - Southbridge, MA

- Central Sterile Room Renovation
- Ambulatory Care Unit Renovation
- AHU replacement

Brockton Neighborhood Healthcare – Brockton, MA

- Medical Office – Vincente's Market
- Substance Abuse Clinic Renovations
- Ultrasound Renovation

UMass Health Alliance – Leominster, MA

- 4th Floor Medical Surgery Renovation
- Emergency Department Expansion and Renovations
- Campus Lighting Upgrade
- Medium Voltage Electrical Infrastructure Renovations
- Medical Office building – Outpatient Center
- Urgent Care
- Pharmacy Relocation

UMass Health Alliance – Clinton, MA

- Cardiac Rehab renovation

UMass Health Alliance – Burbank, MA

- Medical Office expansion
- Community Center

North Adams Regional Hospital – North Adams, MA

- MRI addition

Lowell General Hospital – Lowell, MA

- Cafeteria Renovations
- Cath Lab Expansion

Lahey Hospital – Peabody, MA

- Linear Accelerator replacement
- Medical office building renovation
- Entry Vestibule Renovations

Flatley Company Schraffts Center – Boston, MA



- 3rd Floor Office Renovations

Charles River Community Health Center
– Waltham, MA

- Medical Office renovation
- Dental Clinic
- Business office relocation
- Pharmacy

Golden Pond, MA

- Phase III the Lofts Expansion

Maine

Franklin Memorial Hospital – Farmington, ME

- Switchgear Replacement

Mayo Regional Hospital – Dover
Foxcroft, ME

- Mechanical and Electrical Infrastructure Renovation.
- Patient Floor and SCU Renovation.
- Oncology Relocation
- Central Sterile Room Renovation
- Dryer replacement
- Combustion Air renovation

Downeast Community Hospital –
Machais, ME

- Emergency Department Expansion and Renovations
- Urgent walk in care clinic

Readington Fairview General Hospital –
Skowhegan, ME

- Emergency Department Addition and Renovations
- Patient Floor Renovation
- Lab Renovation
- Oncology Relocation
- Lightning Protection

Millinocket General Hospital –
Millinocket, ME

- Oncology renovations

Mount Desert Island Hospital – MDI, ME

- Emergency Power Replacement

St Joseph's Hospital – Bangor, ME

- Electrical One-Line documentation

Jackson Lab – MDI, ME

- Deaerator replacement

Sebago Technics – Falmouth, ME

- Blueberry Lane Falmouth roadway lighting

Placemakers Properties – Portland, ME

- Thompson Point site Infrastructure

Connecticut

CCMC – Hartford CT

- Emergency Department Psychiatric Care Unit
- Data Closet HVAC upgrades
- Cardiology Department relocation
- Family Resource Center
- Sleep lab
- 1st Floor Renovations
- 6th floor Room Renovation
- PACU power renovation
- ED Radiology Replacement
- Fluoroscopy Renovation
- 3rd Floor Electrical Room Expansion

CCMC – Farmington, CT

- Ambulatory Surgery Center
- Ambulatory Surgery Center Expansion

New Hampshire

Lakes Region General Hospital –
Laconia, NH

- 4th Floor Patient room Renovation
- 2nd floor Women's center



- Walk in Urgent Care
- Emergency Department Renovation and Expansion
- Urology department

Rhode Island

South County Hospital – Wakefield, RI

- Generator Replacement

Other

Ellsworth YMCA – Ellsworth, ME

- Day Care Center

The Nature Conservancy – Brunswick, ME

- Office relocation – LEED and WELL certified

MDI Biological Lab – MDI, ME

- Biological Lab Building

Darlings – Bangor, ME

- Showroom renovation

UMPI – Presque Island, ME

- Greenhouse building

RFGH – Skowhegan, ME

- MRI addition

Maine Maritime Academy – Castine, ME

- Shore Power renovations



HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING

Jared Merry, PE

Professional Engineer

jmerry@haleyward.com | 207.989.4824

Jared Merry has 15 years of engineering experience related to the design of mechanical and electrical systems. Jared has worked on a wide range of projects including HVAC systems and controls analysis and design, boiler plant systems, including oil, gas, and wood pellet fired boilers, chiller/refrigeration systems, air handling systems, as well as plumbing design and analysis and electrical design and analysis systems. Jared also has experience in Alternative Energy analysis, review and design, fire protection and alarm systems design, and construction estimating. As project manager, Jared is responsible for scheduling, feasibility, monitoring, pre-bid meetings, and commissioning report reviews.

PROFESSIONAL HISTORY

Present

Haley Ward, Inc., formerly CES, Inc.
Professional Engineer

2017 – 2019

Mike Marquis Mechanical, Inc
Project Engineer / Project Manager / Project Estimator

2013 – 2017

Edison Chouest Offshore
Marine Engineer

2003 – 2013

Carpenter Associates Consulting Engineers
Project Engineer / Project Manager



CORE EXPERTISE:

*Mechanical Design
Electrical Design
Auto CAD*

EDUCATION:

*B.S. (2003) Mechanical
Engineering, University of
Maine*

REGISTRATIONS:

*Professional Engineer,
State of Maine (#11679)*



PROJECT EXPERIENCE

VA Medical Center | White River Junction, VT

Jared evaluated, recommended, and designed the upgrades to the existing HVAC system for a 3 story (80,000sq.ft.) research laboratory building. He performed Heating/Cooling and Ventilation calculations to meet the clients' specific needs and selected the required equipment which included three large handlers, rooftop chillers with buffer tanks, laboratory hood exhaust fans, a steam reduction station, steam to hydronic heat exchanger, implementation of DDC controls, minor duct revisions, and incidental power upgrades. Jared reviewed submittals, and monitored construction progress intermittently for the duration of the project.

Downeast Orthopedics | Bangor, ME

Jared was responsible for designing the HVAC and Electrical Systems for a new MRI Suite at Downeast Orthopedics.

Machias Savings Bank | Brewer, Maine

Jared was responsible for designing the HVAC system, electrical system, and plumbing system for a two-story bank. He was responsible for the sizing, selection, zoning, and layout of all the MEP systems. The HVAC consisted of a variable speed air handler with an exterior chiller, variable air volume boxes, hydronic radiant heating, and a radiant snow melt system, and DDC Control System. The electrical design included planning the service entrance size and location with the local utility company, layout of power devices, equipment connections, wire and conduit sizes, constructing one-line diagrams for power distribution and tel/data, calculating lighting levels and controls, and balancing power loads on the panels. Plumbing design included sizing and layout of sanitary, vent, and potable water distribution piping, and selecting and locating plumbing fixtures to meet standard and ADA requirements.

Bangor International Airport | Bangor, Maine

Jared worked to obtain existing structural, site, and utility conditions for 15 buildings of variable size, construction type, and occupancies at BIA for sprinkler systems. His scope of work included providing existing building floor plans and specifications via CAD, submittal review, and construction monitoring. The sprinkler systems included wet systems, dry systems, and high expansion foam systems. Obtaining existing conditions entailed working with the Bangor Water District to plan, analyze, and recommend improvements to the existing water distribution system to provide adequate supply water for the sprinkler systems.

Bangor High School | Bangor, Maine

Jared was responsible with assisting in the design and specifications needed in order to draft plans for a replacement theater lighting system for the Peaks Auditorium in the Bangor High School.



Penquis Cap | Bangor, Maine

Jared provided the design, CAD drafted plans, and specifications of MEP systems for a new 7 building, 28-unit apartment complex. His work included limited construction monitoring and submittal review. Jared worked on the plumbing, lighting, electricity, telecommunications system, data communications systems, as well as the heating and ventilation systems.

Maine Air National Guard | Bangor, Maine

Jared worked to design plans, specifications and CAD draft plans for an Air Dehydration system, lighting system, and power system for a new 15,000 sf building of the Maine Air National Guard.

Mary Snow School | Fruit Street School | Bangor, Maine

Jared was Project Engineer for boiler replacements and required upgrades of 2 low pressure steam boilers, vacuum pump systems, combustion and ventilation air systems, and an oil supply system for both schools. .

Bangor International Airport | Bangor, Maine

Obtain existing conditions, design and CAD draft plans; provide specifications for a new PVC roof system for a 13,500-sf building.

Assist in obtaining existing electrical conditional and future electrical requirements for conversion of 240/460 volt to 120/208-volt electrical system for an airplane hangar.

Assess multiple heating systems for a 60,000-sf airplane hangar.

CAD draft plans, provide specifications for a new 10,000 sf building.



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

Nathan A. Gustafson, PE

Senior Project Engineer

ngustafson@haleyward.com | 207.989.4824

Nathan Gustafson holds a B.S. in Mechanical Engineering Technology from the University of Maine. Nate has over a decade of civil engineering experience related to infrastructure analysis, design, and construction. Nate has worked on a wide range of projects including road and utility analysis and design, water and wastewater treatment plant upgrades, and pump station design. Nate has also assisted industrial clients with planning, preparation, procurement, supervision, and inspection during major and minor maintenance outages. Additionally, Nate has served as a Field Inspector for complex municipal sewer pump stations, sewer and water systems, and road construction work in a number of Maine municipalities.

PROFESSIONAL HISTORY

2019 - Present

Haley Ward, Inc., formerly CES, Inc.
Senior Project Engineer

2004 – 2019

Haley Ward, Inc., formerly CES, Inc.
Project Engineer

2002 – 2004

Old Town Water District
Engineering Technician



CORE EXPERTISE:

*Infrastructure Analysis,
Design, & Construction*

*Wastewater Treatment
Plant Upgrades*

Pump Station Design

Field Inspector

EDUCATION:

*B.S. (2003) Mechanical
Engineering Technology,
University of Maine, Orono*

REGISTRATIONS:

*Professional Engineer, State
of Maine #13589*

CERTIFICATIONS:

*Maine Class I & II Water
Treatment System License*

*Maine Class I & II Water
Distribution System License*



PROJECT EXPERIENCE

Sewer Main Design, Town of Hampden | Hampden, Maine

Nate managed and designed the improvements to serve a potential industrial development and a proposed waste to energy facility. The design included approximately 2,000 linear feet of gravity sewer, a pump station, and for the City of Bangor. The station was upgraded to provide 1,000 gpm of pumping capacity. The project included new wet wells, dry wells, metering, SCADA, generator, and associated operations building. The project was designed in 2017 and is scheduled for construction in 2018.

Odlin Road Pump Station Upgrade, City of Bangor | Bangor, Maine

Nate managed and designed the improvements to the Odlin Road Pump Station for the City of Bangor. The station was upgraded to provide 1,000 gpm of pumping capacity. The project included new wet wells, dry wells, metering, SCADA, generator, and associated operations building. The project was designed in 2017 and is scheduled for construction in 2018.

MRC/Fiberight Pump Station, MRC | Hampden, Maine

Nate managed and designed a pump station to serve the MRC/Fiberight waste to energy facility in Hampden. The pump station was sized to handle the anticipated load from the Facility as well as accommodation for future growth potential for industrial development in close proximity to the project site. The station was designed to provide 325 gpm of pumping capacity. The project included new wet well, SCADA, generator, and associated building. The project was designed in 2017 and is scheduled for construction in 2018.

Infrastructure Improvements | Milford, Maine

For the last 8 years, Nate has been responsible for the design of infrastructure improvements for a number of projects in Milford including, but not limited to, the Davenport Street neighborhood for the Town of Milford and Old Town Water District as well as the Call Road and Route 2/Main Road. The improvements included the design of new road, stormwater collection and conveyance, sanitary sewer collection and conveyance, potable water distribution, sidewalks and roadways. The value of the work was nearly \$5 million.

Infrastructure Improvements | Castine, Maine

Nate was responsible for the design Phase I of a Long Term Infrastructure Improvements project for the Town of Castine. Phase I included approximately \$2,000,000 worth of



improvements. The project included the design of improvements to roads, stormwater systems, water mains, and sewers for portions of Battle Avenue, Perkins Street, and Wadsworth Cove Road.

Bennoch Road Culvert Rehabilitation | Orono, Maine

Nate acted as Project Engineer for the culvert rehabilitation on the Bennoch Road in the Town of Orono. This project included the replacement of a culvert which was approximately 35 feet below the road surface and the reconstruction of 400 feet of roadway. The project was a Locally Administered Project (LAP) through the MDOT. Nate completed the LAP design and construction requirements for the Town.

Primary Clarifier Improvements, Downeast Correctional Facility | Bucks Harbor, Maine

Nate designed the design of improvements to the primary clarifier at the Downeast Correctional Facility. The facility receives on average 20,000 gallons per day however during rainfall and high groundwater events, that influent flow rate can double or triple. The improvements included replacing existing mechanical equipment associated with sludge removal from the clarifier.

Sewer Pump Stations Replacement | Town of Milford, Maine

Nate was the Construction Representative for the replacement of four of the Town's existing below-grade sanitary sewer pump stations with aboveground pump stations, designed by Haley Ward. The project was funded by Rural Development.

Sewer Line Design for Bridge Project | Milford, Maine

Nate was the Construction Representative for the installation of a new main intercept line across the new bridge between Milford and Old Town, Maine. The project was incorporated into an MDOT Bridge Construction Project.

Solids Handling: Orono-Veazie Water District | Orono and Veazie, Maine

In 2010, Haley Ward was hired by the Orono-Veazie Water District to evaluate options for solids handling related to a change in their treatment process. The District was in the middle of an upgrade project which included changing filter media. As Assistant Engineer Nate's analysis yielded an approach that was agreed upon by the District and Haley Ward was then retained to provide design services to implement the solids handling solution. The solution was to design a drying/dewatering pond for sludge removed from the backwash process. The project is still under design and will be implemented in the spring of 2011.



Municipal Building | Town of Lowell, Maine

Nate designed the plumbing and HVAC systems for the Town of Lowell Municipal Building, which contains the Town Hall and Fire Station. The heating system was designed with radiant floor heating for the Fire Station and Adjacent Town Hall.

Fire Stations | Towns of Roque Bluffs and Cranberry Isle, Maine

Nate designed the HVAC systems for the Fire Stations serving the communities of Roque Bluffs and Cranberry Isle. Both Fire Stations use radiant floor heating in the buildings.

Capital Improvement Plan: Richmond Utilities District | Richmond, Maine

Nate acted as Project Engineer for the Capital Improvement Plan. The project included GPS location of all available water system components, development of a System Map, development and calibration of a WaterCAD water system distribution model, analysis of the system to identify deficiencies, a prioritized listing of recommended improvements for the District, and a report summarizing our findings along with cost estimates for each recommendation. The Plan outlined Short Term and Long Term recommendations.

Master Plan: Washburn Water and Sewer District and the Town of Washburn | Washburn, Maine

Nate acted as Project Engineer for the Master Plan developed for the Washburn Water and Sewer District and the Town of Washburn. Work included a cursory level infiltration and inflow study to identify areas within the wastewater collection system where extraneous flows were an issue. It included the collection of hydrants and manholes with GPS equipment to assist with flow estimates and water model creation. Nate assisted in creating a WaterCAD water distribution system model and performed analysis to identify deficiencies within the system. Additionally, Nate evaluated the condition of the existing drainage system components and performed a HydroCAD analysis for each major drainage area. The work included several recommendations for improvements to each of the three systems throughout the community. The recommendations were prioritized and costs for implementing each were developed in current dollars.

Otter Creek Pump Station and Force Main Project | Mount Desert, Maine

As Construction Representative, Nate oversaw the construction of a new pump station and the installation of approximately three miles of 8" diameter force main. The project required a pump station to match current park architecture building features.

**Landfill Leachate Pump Station | Hartland, Maine**

Nate designed pump systems for the Landfill Leachate Pump Station for the Town of Hartland to transfer leachate from the landfill to the waste water treatment facility. The pump systems include the main conveyance pump system and the leak detection pump system.

Marina and Public Waterfront Improvement Project | Mount Desert, Maine

Nate assisted with the design and acted as Construction Representative for the Marina and Public Waterfront Improvements for the Town of Mount Desert. As Construction Representative, Nate oversaw the replacement of the Town's Harbor Master's and Yachtsmen's buildings and the construction of a new Visitor's Center building. The project included improvements to the parking areas and sidewalks along with improvements to the storm drain and water systems.

Davenport Street Area Roadway and Utility Improvements | Milford, Maine

Nate acted as Project Engineer for the roadway and utility improvements to several roads in the Town of Milford. Six roads in the center of the Town were rebuilt and the water, sanitary sewer, and storm drain systems were also replaced. The project was funded by Rural Development and the Drinking Water Program.



HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING

Peter J. Tuell, PE

Vice President / Project Manager

ptuell@haleyward.com | 207.989.4824

Pete Tuell holds a B.S. in Civil Engineering from the University of Maine and has been serving clients of CES for over 30 years with his specialized knowledge in Structural and Geotechnical Engineering. As a project engineer, Pete works on projects ranging from landfill closures to building retrofits and major treatment plant rehabilitations. Pete has a strong understanding and experience in all phases of design and construction activity, from obtaining permits to coordinating with architects and contractors.

PROFESSIONAL HISTORY

2015 – Present

Haley Ward, Inc., formerly CES, Inc.
Senior Project Manager/Vice President

2009 – Present

CES, Inc.
Director of Structural Engineering

1993 – Present

CES, Inc.
Project Engineer

1988 – Present

CES, Inc.
Engineer



CORE EXPERTISE:

*Structural Engineering
Geotechnical Engineering
Expert Witness Testimony*

EDUCATION:

*B.S. Engineering, University
of Maine, Orono*

*A.S. Civil Engineering,
University of Maine, Orono*

REGISTRATIONS:

Professional Engineer,
State of Maine (#7695)

Affiliations

National Society of
Professional Engineers

American Society of
Civil Engineers

Maine Society of
Professional Engineers
Maine Section of American
Society of Civil Engineers



PROJECT EXPERIENCE

Cianbro Corporation – Eastern Manufacturing Development | Brewer Maine

Over the years Pete provided structural engineering services to the Eastern Paper facility in Brewer, Maine. When that facility closed and came under the ownership of Cianbro Corporation, they turned to CES to help them in the renovation/remake of the facility into their vision of a new manufacturing facility to serve their industrial clients. Pete worked closely with the Cianbro Team to provide structural engineering services for those buildings that were to remain and re-purposed to meet the proposed new facility. Design tasks included Life Safety review, floor load ratings, Elevator design and placement, exterior envelop improvements, and general site design/infrastructure improvements.

Nine Dragon Paper Structural Improvements / Old Town, Maine

Nine Dragons Paper recently purchased the former Georgia Pacific Mill in Old Town, Maine with the goal of resurrecting operations at that facility. As part of the start-up process, many improvements needed to be made to the various buildings and support structures. Pete has overseen a team of CES engineers and designers to evaluate, design, and coordinate with local contractors throughout this process. Given the tight timeframes and schedules, projects had to be completed within the specified windows to meet production goals. Projects have been ongoing in 2019 and will continue through 2020.

Brookfield Renewable Energy /Dolby Dam Floor Analysis

Brookfield Renewable Energy owns and operates several hydroelectric dams that used to power the Mills of Great Northern Paper in Millinocket and East Millinocket. One of those Dams is located in Dolby Township on a section of the West Branch of the Penobscot River. Pete provided the structural engineering support to Brookfield as they prepared to remove and replace one of the Rotor units within the dam complex. Tasks entailed reviewing old drawings of the structure, analyzing the floor system to determine load limits and ratings, design support structures to aid in Rotor removal, and providing drawings that showed the limits for travel paths on the floor system for large crane units. The project was completed in the fall of 2018.

Town of Carrabassett Valley: Recreation Bridge Design / Carrabassett Valley, Maine

During the fall of 2017, the area surrounding Carrabassett Valley experienced a large storm event that caused the Carrabassett River to flood into low areas and cause damage to structures within the flood path. One of the structures effected was an existing pedestrian bridge located within a strategic section of Town and was part



of a trail system that supported biking, skiing, and hiking. As a Project Manager, Pete oversaw the design of a new steel bridge structure, including flood evaluation and placement, foundation design, fabrication oversight, and construction oversight. The project was completed in the fall of 2018.

Sargent Corporation : Penstock Replacement for Brookfield Energy / Millinocket, Maine

Sargent Corporation of Stillwater, Maine was retained by Brookfield Renewable Energy to replace some sections of existing Penstocks that run from Ferguson Lake to the Powerhouse on the site of the former Great Northern Mill in Millinocket, Maine. Sargent Corporation turned to CES to help complete the design and plan development for these projects. Pete oversaw the re-design and alignment requirements, permitting, and construction drawing development. The first project was completed in the summer of 2017, and the second in the summer of 2018. The first project received an ACEC Engineering Excellence Award.

City of Bangor Finson Road Bridge Replacement | Bangor, Maine

The City of Bangor solicited Design-Build bids for the replacement of an aging bridge on the Finson Road in 2014. Pete secured the services of a local contractor familiar with the project and working for the City of Bangor. With the Project Team in place, Pete oversaw the design process for pricing and submission to the City. Pete's innovative approach to the project allowed for final budget that was below the City's estimate, but also allowed for a shorter construction time frame and less impact on local residents and traffic. The project was completed in August of 2015.

City of Bangor Park Street Retaining Wall Stabilization | Bangor, Maine

The Park Street Retaining Wall is an important piece of infrastructure that abuts City Hall and provides the structural integrity of Park Street. Originally constructed in the early 1900's, it has become a focal point of the City and is part of the City's Historical District. Over the years the wall has experienced significant deterioration that required the City to seek solutions. The project was put out to bid in a Design-Build format and Pete teamed with a local contractor to develop a design solution, bid pricing, and time frame that met the City's objectives. As the project commenced, the City took the opportunity to make changes to the existing site, parking, and drainage. Pete managed all aspects of the design, including working with a local Architect to develop a submission package for approval by the local Historical Preservation Committee. The initial project scope was completed in November 2017. Additional scope items were completed in 2018.



Pier Evaluations | Various Locations

Pete has been involved in numerous pier and associated structural support systems over his career. Some of these projects include the renovation of the Bar Harbor Pier, evaluation of the piles and cathodic protection system of the main pier for Verso Paper in Bucksport, Load Rating various deck structures for industrial and commercial piers such as the one used by Cooke Aquaculture in Machiasport, Maine and in Southwest Harbor, Maine. In addition to the pier evaluations and analysis, Pete has designed and/or load rated hoist systems tied to these structures for commercial use.

Blue Hill School District K-8 School Renovations | Blue Hill, Maine

The Blue Hill School Consolidated School District received grant to improve access to its existing K-8 School. Pete secured the services of a local Architectural firm to develop solutions to these issues. As the project evolved, the School was determined to reprogram existing space and make the layout more efficient. Pete managed the Project Team through these issues and changes. The project is scheduled for bidding and construction in 2018.

Bar Harbor Municipal Pier / Parking Lot Rehabilitation | Bar Harbor, Maine

As Project Manager, Pete provided an evaluation of the condition of the pier, designed a retrofit, prepared bidding documents, and performed construction management. The process of creating the new road base and pavement included design and/or rehabilitation of a new water meter station and conveyance systems, as well as storm water drains, catch basins, and conveyance systems. In addition, new walkways were constructed, as was a concrete dock to serve local fishermen. The project was completed within a time frame that did not disrupt the tourist season.

Design Group Collaborative / Long Logan Outdoor Center

This project entailed the development of a new outdoor recreation center in north central Maine. CES teamed with a local Architectural firm to design the site, trail system, and buildings associated with the property. Pete oversaw the structural and mechanical designs of the buildings and worked directly with the local contractors during construction. The project was completed in 2018 and ready for operation for winter use for the 2018-19 season.



Penobscot Energy Recovery Company (PERC) | Orrington, Maine

Pete has served as the primary contact and engineer for many services performed for PERC. Pete's most recent work has involved secondary shredder improvements, fabrication drawings, fire suppression system improvements, platform designs, load ratings for OSHA requirements, gas absorber analysis, design and rebuild; lift beam design, foundation retrofit and site and foundation design; among other things.

Treats Falls House | Orono, Maine

Pete served as the Project Manager for the structural design for the renovations and additions to the 16,000 sf Intermediate Care Facility in Orono. The project was financed by a \$5 million USDA RD Loan and included two building additions and a renovation of the existing structure. The additions and renovations were phased to accommodate use of the existing facility during construction. Materials included conventional dimensional lumber, pre-engineered trusses, composite framing, and structural steel.

Town of Burlington Sand Salt Shed Development / Burlington, Maine

Pete provided oversight the design of a new Sand Salt storage facility for the Town of Burlington, Maine. The project entailed site selection and design, foundation and superstructure design, contract document development, and contract administration during construction. The project was completed in 2017.



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

Russell Baillargeon

Senior Designer

rbailargeon@haleyward.com | 207.989.4824

Russell Baillargeon has over 40 years of engineering and architectural experience related to industrial infrastructure design and analysis.

PROFESSIONAL HISTORY

2019 – Present

Haley Ward, Inc., Formerly CES, Inc.
Senior Designer

2018 – 2019

Mid-South Engineering
Senior Mechanical Designer

2017 – 2018

Washburn & Doughty Associates
Production Designer

2012 – 2017

American Bureau of Shipping
Structural Modeler

2008 – 2012

Bath Iron Works
Structural Design Apprentice / 1st Class Designer

2007 – 2008

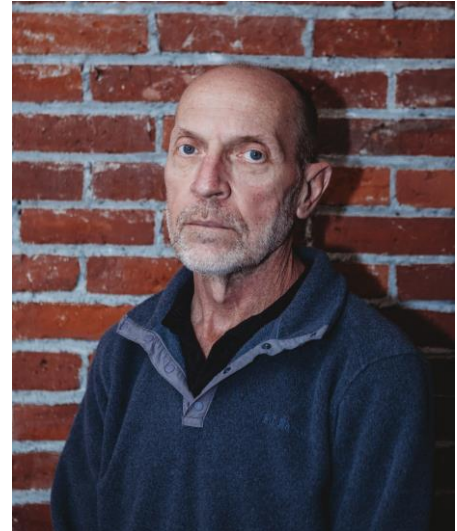
Olver Associates
Engineering Technician / Field Engineer

2006 – 2007

Louisiana Pacific Corporation
QA Field Engineer

1980 – 2006

Georgia Pacific Corporation
Engineering Technician



CORE EXPERTISE:

*Mechanical Designs
Structural Designs
Engineering*

EDUCATION:

*Maine Maritime Academy
Eastern Maine Technical
College
University of Maine
Central Maine Technical
College*



PROJECT EXPERIENCE

Paper Mill Pulper Installation | Baileyville, Maine

Structural / mechanical design and construction monitoring of a pulper installation including associated pumps, agitators, deflakers, conveyors, piping, and storage chest.

Paper Machine Fourdrinier and Winder Installation | Erving, Massachusetts

Structural / mechanical design of a fourdrinier and winder installation including associated drives, pumps, conveyors, piping, and mechanical equipment.

Underground Piping and Utilities Installation | Machias, Maine

Field engineering and survey control of various underground piping projects.

Oriented Strand Lumber Mill Expansion | Houlton, Maine

Engineering / construction liaison and construction monitoring of a lumber mill expansion including all associated wood handling and processing equipment.



HALEY WARD

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Jeremy N. Beaulieu

Engineer

jbeaulieu@haleyward.com | 207.989.4824

Jeremy Beaulieu has worked on a wide range of engineering projects. He has processed change orders from initial stages to incorporation of design, determined impacted engineering disciplines for change proposals, as well as held various meetings related to changes for designers and other engineers. Jeremy has designed, developed and created architectural, structural and MEP plans and design schemes, calculated cost estimates for structures and remodeling, and conducts follow-up meetings with clients regarding plans and code restrictions/requirements. He has experience from the beginning stages of building design through construction.

PROFESSIONAL HISTORY

2019 – Present

Haley Ward, Inc., CES, Inc.
Engineer

2012 – 2019

Merritt Associates
Architectural Draftsperson / Assistant

Summer 2018

General Dynamics: Bath Iron Works
Combat Systems Engineering Intern

2016

Artic Storm Management Group
Engine Cadet, Arctic Fjord



CORE EXPERTISE:

AutoCAD
Architectural, Structural &
MEP Drafting & Design
Client Relations

EDUCATION:

Marine Systems Engineering
5-Year Program,
Maine Maritime Academy,
Castine, ME

REGISTRATIONS:

Engineer Intern
TWIC and MMC, 3rd
Engineer Position, US Coast
Guard



PROJECT EXPERIENCE

The Jackson Laboratory | Ellsworth, Maine

Performed roof bar joist analysis of joists impacted by the addition of mechanical equipment and associated piping and ductwork. Developed possible solutions to remove or distribute loads from overstressed roof joists.

Bay Ferries Terminal | Bar Harbor, Maine

Designed and drafted steel canopy structures and foundations.

S&S Weapons Shooting Range | E. Millinocket, Maine

Designed and developed architectural, electrical, mechanical, and plumbing plans. Coordinated plans with shooting range ventilation engineers and met with the clients to discuss and review plans.

Stephen B. Mooers Village Elderly Housing | Bangor, Maine

Drafted and designed architectural plans. Collaborated with engineers and the client to incorporate plan changes throughout building design. Reviewed plans and developed addenda to assist the bidding process.



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