

D&K

Vermont Agency of Transportation

AT-THE-READY CONSULTANT
ENGINEERING SERVICES FOR
MUNICIPALITIES

2023 DESIGN



DuBois
& King INC.

February 9, 2023

A. COVER LETTER





628793X
February 9, 2023

Nydia Lugo, Civil Engineer
Vermont Agency of Transportation
Highway Division - Municipal Assistance
219 North Main Street
Barre, VT 05641

Subject: RFQ—Two-Tier Qualifications-Based Selection for At-The-Ready Consultant Engineering Services for Municipalities 2023—Design Services

Dear Ms. Lugo and Members of the Selection Committee:

DuBois & King (D&K) is pleased to submit our Statement of Qualifications for Design Services in response to your Request for Qualifications for At-the-Ready (ATR) Consultant Engineering Services for Municipalities 2023. D&K offers significant experience working with VTrans on numerous ATR projects and other municipal projects.

For more than 100 projects, D&K has provided scoping, design, municipal project management, and/or construction phase services for Municipal Assistance Section projects since the program's inception in the 1990s. D&K regularly leads projects receiving grants from the State of Vermont, FHWA, FEMA, FAA, and EPA throughout Vermont and New England. Our firm has a clear understanding of the requirements of federally funded, municipally managed transportation projects and the needs of municipal governments ranging in size from Vermont's smallest town to its largest city. Our staff maintain positive working relationships with Vermont's regional planning commissions and the regulatory community. We are committed to providing qualified, well-equipped, experienced, and responsible professionals who provide high-quality services on a consistent basis.

D&K's team of over 130 includes dedicated planning, design, and construction professionals who have provided services on hundreds of projects throughout Vermont over our 61-year history. Our project management and design experience includes roadway/highway reconstruction, paving and pavement management, bridges, intersections, culverts, dams, water/wastewater, sidewalks/pathways, historic facilities, utility reconstruction and replacement, stormwater, riverbank and slope stabilization, building construction, and site improvements.

D&K's team includes multidisciplinary, in-house personnel supported by multiple subconsultants to address the needs of municipal projects. We appreciate your consideration of our qualifications and look forward to continuing to support Vermont municipalities on state- and federally funded transportation and infrastructure improvement projects. We would be pleased to answer any questions you may have. Please do not hesitate to give me a call at 802-728-7238 or contact me via email at krobie@dubois-king.com.

Sincerely,
DuBois & King

Ken Robie, PE
Contract Manager

B. GENERAL FIRM INFORMATION



GENERAL FIRM INFORMATION



CONTACT INFORMATION

DUBOIS & KING, INC.
KEN ROBIE, PE
6 GREEN TREE DRIVE
SOUTH BURLINGTON, VT 05403
802-728-7238
KROBIE@DUBOIS-KING.COM

DUBOIS & KING

Established in 1962, DuBois & King (D&K) is a Vermont-based consulting engineering firm with 130 professional engineers, planners, designers, surveyors, technicians, environmental and permitting specialists, and support personnel. Our firm has provided engineering, planning, and construction phase services for over 100 Municipal Assistance Section (MAS) projects.

The following pages detail our areas of service that pertain to the Request for Qualifications (RFQ).

TRANSPORTATION ENGINEERING

D&K's transportation and traffic engineering teams include planners and engineers experienced with a diverse range of municipal, regional, and state transportation projects. Assignments include roadways, realignments and improvements, repairs and widening projects, new alignments, bridge rehabilitation and replacement, utility relocation, sidewalks, intersections, traffic calming, complete streets, and bicycle and multi-use pedestrian paths.

D&K offers transportation engineering, survey, and permitting to guide MAS projects from scoping through construction. Fully staffed to support transportation projects, our in-house team consists of qualified professionals from survey through design and construction administration/inspection services. D&K offers a comprehensive understanding of state and



Management Personnel

Corporate Officers

Jeffrey Tucker, PE, LEED AP, CEO

Charles Goodling, PE, President

John Baumann, Senior VP, CFO

Alan Gould, PE, VP, Director, Building Services Div.

Melissa Stephen, Director, Marketing & Business Development Div.

Operational Officers and Managers

David Conger, PE, VP, Director, Site & Land Div.

Andy Hoak, PE, PG, Director, Environmental Services Div.

Jonathan Ashley, PE, Director, Public Works and Facilities Div.

Guy Rouelle, CM, Director, Aviation Div.

Timothy Dall, PE, SE, LEED AP, Director, Structures Div.

Megan Ooms, PE, Manager, Bridge Dept.

Robert Kischko, PE, Manager, Electrical Dept.

Steve Dumas, PE, CxA, BCxP, LEED AP, Manager, Mechanical Dept.

Chris Lathrop, PE, Manager, Highway Dept.

Chris Sargent, AICP, CFM, Manager, Planning Dept.

Randall Otis, LS, Manager, Survey Dept.

federal transportation programs and compliance with the Manual on Uniform Traffic Control Devices (MUTCD), the AASHTO Green Book, and NEPA, ACOE, and VT ANR regulations and processes.

Associated in-house services include survey; assistance in right-of-way acquisition; public engagement; wetlands science; environmental, railway, and geotechnical engineering; and bid phase services.

- Roadway Evaluation, Reconstruction, and Rehabilitation
- Scoping and Planning
- Slope Stabilization
- Signalized and Unsignalized Intersections
- Roundabouts
- Right-of-Way Acquisition
- Landscape Design
- Road Diets
- Complete Streets
- Sidewalks - Concrete, Asphalt, Pavers
- Bike Lanes - Protected, Enhanced
- Multi-use Paths
- Parking Lots
- Railroad Engineering
- Public Engagement
- Street Lighting
- Salt Sheds

UTILITIES AND ENVIRONMENTAL

On an ongoing basis since 1962, D&K professionals have planned and designed water distribution and wastewater collection systems. D&K engineers provide proactive coordination with regulatory agencies and utilities to obtain permits and approvals. We provide services for investigations, assessments, compliance, and monitoring of sites containing hazardous materials and solid waste. D&K environmental professionals have in-depth knowledge of federal and state regulations to effectively manage and guide clients through regulatory processes.

TRANSPORTATION PLANNING

D&K's transportation planning staff includes planners and engineers experienced in working with communities, agencies, and the public on a variety of transportation planning projects. Transportation investments are an opportunity for communities to set the stage to achieve their goals and visions for growth and development.

Our approach to transportation planning considers public and community concerns and the important influences between land use and transportation design. Our staff is well-versed in the latest innovations of multimodal land use/transportation planning, including mode share analysis for developments, evaluation of road diets, and development of Complete Streets designs.

We work throughout the Northeast and are familiar with emerging planning priorities and the need for cost-effective strategic transportation investments. Our planning work is strengthened by our comprehensive understanding of local transportation facilities programs and applicable federal and state permitting requirements.

TRANSPORTATION STRUCTURES

D&K offers a full range of bridge-related services. For MAS projects, D&K's bridge engineers prepare condition assessments, calculate load ratings, make recommendations for rehabilitation and replacement, and perform bridge inspections in accordance with the guidelines outlined in the Federal Highway Administration's National Bridge Inspection Program and Bridge Inspector's Training Manual. D&K staff use the latest AASHTO, state design codes and specifications, and principles of Accelerated Bridge Construction.

D&K engineers design single-span and multi-span bridges. Designs include concrete, steel, and timber bridges; spread footings bearing on soil and directly on ledge; pile foundations; and mechanically stabilized earth (MSE) abutments and retaining walls. The firm's expertise includes the assessment and repair of historic structures, including timber covered, steel truss, and suspension bridges.

PERMITTING AND NATURAL RESOURCES

D&K's environmental permitting staff guide projects through local, state, and federal regulatory documentation, clearances, and permitting. With expertise in documentation, alternative analysis, and resource identification, delineation, and mitigation, D&K staff have provided NEPA, environmental, and permitting services for a full range of assignments, including both large and complex and small and routine transportation projects. D&K staff have completed NEPA documents guided by federal agencies, including the DOD, FHWA, DOE, FAA, and EPA.

When supporting a planning or engineering effort or conducting a natural resources investigation independent of a development project, D&K engineers, environmental planners, permit specialists, GIS specialists, wetlands scientists, field naturalists, surveyors, and landscape architects are highly experienced in providing services for compliance with regulatory agencies.

WETLANDS

D&K's certified wetland scientists provide technical expertise to assist owners and municipalities with regard to restoration plans, revegetation plans, invasive species control plans, erosion control, streambank stabilization, monitoring plans, and guidance on compliance with state wetlands regulations. D&K wetland scientists and field naturalists provide wetland delineation on all types and sizes of transportation projects and design wetland mitigation sites to compensate for resource impacts.

WATER RESOURCES

D&K has over 60 years of water resources engineering experience. Typical assignments include stormwater management, river restoration, streambank stabilization, flood damage surveys, subsurface investigations, evaluation of alternative solutions, economic evaluations, environmental analysis, and public engagement. Studies include dam break analyses, flood routing, floodplain/floodway delineation, scour analysis, scour countermeasure analysis, ice jam analyses, flood frequency/low flow evaluations, reservoir routing, and environmental impact assessments.

The firm's engineers are thoroughly familiar with the hydrologic, hydraulic, and physical characteristics of the northeastern United States. In-house staff use HEC-RAS 5.0 and HEC-HMS and related software, as well as other hydrologic and hydraulic software packages to provide 1D and 2D modeling. Individuals described in this proposal have a solid understanding of state and federal regulations and procedures for transportation projects and expertise in wetlands, stormwater, dredge-and-fill, dam safety, and discharge and withdrawal permits.

SURVEY AND MAPPING

D&K utilizes multiple two-person surveying crews equipped with modern robotic total stations and RTK GPS systems for data collection. The crew also has an in-house Part 107 drone pilot and stationary scan crew to augment traditional measurements on an as-needed basis. Two-person crews are always utilized for safety when working around traffic or other hazardous site conditions. With safety in mind, our field crews utilize approved signage, flashing lights on company vehicles, retro-reflective safety vests, hard hats, steel-toed boots, gloves and safety glasses. By utilizing both survey grade RTK GPS, as well as Robotic total stations, and drone flights, the two field technicians can potentially work as two separate crews to increase the efficiency of data collections and quality control. Taking advantage of these efficiencies reduces the hours needed to capture site conditions or reduce return trips because our team can use the imagery captured to compare tasks. This is only done when site conditions permit and a safe working environment can be maintained.

D&K's survey department is experienced in boundary line maintenance, including blazing trees, setting markers, and property corners. D&K is also experienced in topographic survey operations for quantities or settlement, subsurface utility investigations, general mapping of existing conditions, route surveying, construction layout, and sUAS drone operations. Crews are based out of Randolph and South Burlington, Vermont. The crews set #5 rebar control points that are tied off to be semi-permanent in nature, such that they establish a horizontal and vertical control for future construction or survey work.



SUBCONSULTANTS

GEODESIGN, INC.

Role: Geotechnical Engineering

Jacob Wimett, PE
85 Granite Shed Ln, Unit 1
Montpelier, VT 05602
802.674.2033; jwimett@
geocompanies.com

GEODesign, Inc. was founded in 1995 to provide quality geotechnical engineering and geoenvironmental consulting services to the design and construction community.

GEODesign is headquartered in Middlebury, Connecticut, with offices in New Jersey, New York City, and Vermont on the east coast, and GEOMechanics in Oregon on the west coast. GEODesign has over 30 engineers, geologists, environmental scientists, technicians, and support staff. Their experience has included serving VTrans and other state transportation agencies, design consultants, municipalities, and contractors on transportation projects in Vermont, New England, and New York.

Having performed geotechnical engineering services for over 1,100 projects in Vermont, the Vermont operation is intimately familiar with Vermont's complex array of soil conditions, ranging from deep varved clay deposits to dense glacial tills, hard bedrock, and everything in-between. This includes over 90 VTrans projects since 2000, current and prior VTrans On-Call Geotechnical Services contracts, as well as work performed directly for a municipality or as a subconsultant to the prime engineering consultant. D&K and GEODesign have significant shared experience in Vermont.

COMPANY PRINCIPALS, CORPORATE MANAGEMENT, & FIRM OFFICERS

- Thomas Thomann, PhD, PE, Senior Principal & Chief Executive Officer
- Theodore von Rosenvinge, PE, DGE, Senior Principal
- Jonathan Ciampi, PE, Principal & Chief Financial Officer, Oregon Operations Manager
- Anthony Felicetta, PE, Associate & NY/NJ Operations Manager
- Jacob Wimett, PE, Associate/VT Operations Manager
- Sandra Trudeau, Chief Operations Officer

PROJECT-LEVEL MANAGEMENT PERSONNEL

Project-level management personnel and their anticipated roles on potential VTrans At-the-Ready Consultant Engineering Services for Municipalities (VTrans ATR) projects follow.

- Jacob Wimett, PE, Contract Manager/Project Manager/Engineering Analysis
- Daniel Howey, PE, Project Manager/Engineering Analysis
- Theodore von Rosenvinge, PE, Principal-In-Charge/Technical Review
- Thomas Thomann, PE, Ph.D., Principal-In-Charge/Technical Review

HARTGEN ARCHEOLOGICAL ASSOCIATES, INC.

Role: Archeological and Cultural Resources

Hartgen is an award-winning provider of cultural resource management solutions serving the private and public sectors since 1973. The firm has completed over 6,000 projects throughout the Northeast and is among the largest cultural resource management firms in the Northeast. Hartgen is headquartered in Rensselaer, New York, and maintains an office in Putney, Vermont.

Brant Venables
P.O. Box 81
Putney, VT 05346
802.387.6020; bvenables@
hartgen.com

Hartgen comprises 25 well-qualified, experienced professionals, including 36 CFR 61-qualified archeologists, architectural historians, laboratory staff, documentary researchers, GIS specialists, and support personnel. The firm's staff are well-versed in cultural resource regulations, including Section 106 of the National Historic Preservation Act (NHPA), Vermont Act 250, Section 14.09 of the New York State Historic Preservation Act, and the State Environmental Quality Review Act (SEQRA). Hartgen's team includes staff members trained in HAZWOPER (29 CFR 1910.120), the Native American Graves Protection and Repatriation Act (NAGPRA) training, and remote sensing methods.

Hartgen's experience covers all phases of cultural resource management, including Phase IA, IB, II and

III archeological investigations; National Register eligibility assessments; architectural history; HABS/HAER documentation; historical deed and document research; tribal consultation; design and presentation of public information signs, pamphlets, and exhibits; and public outreach.

Hartgen holds on-call contracts with VTrans, VT Forest Parks and Recreation, and VT Fish and Wildlife to provide archeological services statewide and serves as a subconsultant on numerous VTrans engineering term contracts. D&K and Hartgen have significant shared experience in the State of Vermont.

COMPANY PRINCIPALS, CORPORATE MANAGEMENT, & FIRM OFFICERS

- Justin DiVirgilio, President
- Matthew J. Kirk, Vice-President
- Darryl Straight, Chief Financial Officer

SANBORN HEAD & ASSOCIATES, INC.

Role: Geotechnical Engineering

Shawn Kelley, PhD, PE
187 St. Paul St., Suite 201
Burlington, VT 05401
802.391.8514; skelly@
sanbornhead.com

Since its founding in 1993, Sanborn Head has organized its professional practice around its clients to provide the specific expertise and experience that each project requires.

Sanborn Head is an employee-owned, 180-person multidisciplinary engineering consulting firm with a resource pool of over 95 technical staff in the areas of geotechnical, environmental, and site/civil professionals who specialize in integrating their core expertise in earth, energy, and environment.

Sanborn Head staff are deeply rooted in New England. For over 20 years, they have served clients from their Vermont office, which is located in Burlington. The firm is able to utilize resources from its headquarters in Concord, New Hampshire, along with support from their Boston and Westford, Massachusetts, Philadelphia, Pennsylvania, and Denver, Colorado offices.

GEOTECHNICAL CAPABILITIES

Understanding subsurface conditions and developing effective geotechnical solutions are the keys to initiating a successful construction project. Sanborn Head starts by getting to know clients' goals and expectations to develop a design strategy suited to project uncertainties and complexities. By integrating geotechnical expertise with capabilities in environmental services and knowledge of construction practices, Sanborn Head delivers practical yet creative approaches to complex underground engineering and environmental challenges.

Sanborn Head's geotechnical design expertise ranges from foundation systems for urban high-rise buildings, to suburban mixed-use developments, to university campuses, and to infrastructure, such as dams, landfills, and natural gas facilities. The firm complements skills in traditional geotechnical engineering practices with state-of-the-art geotechnical investigation testing methods, which are particularly valuable where soils are less than ideal for foundation construction. These testing methods help identify and optimize foundation design options to limit construction costs. Sanborn Head and D&K have significant shared experience.

SPECIALTY AREAS

- Pavement Design
- Retaining Wall Design
- Mechanically Stabilized Earth (MSE) Berms
- Excavation Support
- Construction Monitoring
- Specialty Testing
- Foundation Design (Shallow & Deep)

COMPANY PRINCIPALS, CORPORATE MANAGEMENT, & FIRM OFFICERS

- Barrett Cole, PG, LEP, President and CEO
- Matt Poirier, PE, Executive Vice President/COO
- Chip Crocetti, PhD, CG, PG, Founding Principal
- Charlie Head, PE, PG, Founding Principal
- Douglas Barboas, Director of IT
- Monica Mayott, Director of HR
- Richard Mechaber, Director of Digital Services
- Michael Potter, Marketing Director
- Lisa Thompson, Esq., Director of Risk Management and Corporate Counsel

UNIVERSITY OF VERMONT CONSULTING ARCHAEOLOGY PROGRAM

Role: Archeological and Cultural Resources

John Crock, PhD.
111 Delehanty Hall
Burlington, VT 05405
802.656.4310; john.crock@uvm.edu

The University of Vermont Consulting Archaeology Program (UVM CAP) assists state and federal agencies, communities, and private developers in addressing their obligations with respect to archaeological resources, as required by state and federal laws and regulations. Established in 1978, UVM CAP has conducted more than 350 archaeological investigations as a direct consultant to VTrans and as a subconsultant to private engineering firms, cities, towns and planning commissions for transportation-related projects. UVM CAP is well-qualified to evaluate any and all archaeological issues associated with transportation projects of all types and sizes, located in both rural and urban settings throughout Vermont.

With a permanent full-time staff of eight leading crews of trained seasonal field technicians, UVM CAP is prepared to respond rapidly to requests for services. In the context of highway, road, bridge, airport, bike, and pedestrian projects, they have assessed the archaeological sensitivity of project areas and identified, evaluated, and mitigated archaeological sites representing the full span of human occupation in the state of Vermont. D&K and UVM CAP have worked together on many projects.

WALL CONSULTANT GROUP

Role: Transportation Planning and Engineering

Corey Mack, PE
87 Doane Ln.
Londonderry, VT 05148
802.297.7759; corey.mack@wcg.us

WCG is an employee-owned and -managed company of over 80 experienced professionals, including planners, engineers, data scientists, project managers, designers, technicians, statisticians, inspectors, and administration professionals; each employee is fully focused on meeting clients' needs. The company began in Utah, recently expanding their geographic area to include

transportation expertise in northern New England. The firm's focus on quality work has allowed them to maintain consistent relationships with all its clients, many of which have been working with WCG since its founding in 2005.

WCG is a full-service engineering firm with over 17 years of experience providing consultant services across a broad range of public, private, and institutional clients serving multiple markets and geographic locations. This includes all aspects of civil engineering, planning, design, construction, operations, and maintenance. In Vermont, WCG's staff focuses on transportation planning and engineering projects, supporting state, local, institutional, and private clients to meet their infrastructure needs. Past services have included: traffic volume data collection and analysis; GIS documentation and ArcGIS StoryMaps; regional modeling; corridor studies; intersection scoping studies; sidewalk and path feasibility studies; public outreach and presentations; traffic capacity, congestion, and impact analyses; transportation master plans; impact fee analyses; traffic signal engineering design; and associated transportation planning and engineering tasks.

WCG will identify and utilize staff with appropriate expertise to provide exceptional service throughout projects, and any necessary changes in staffing will be coordinated with the project team. WCG and D&K have significant shared experience.

COMPANY PRINCIPALS, CORPORATE MANAGEMENT, & FIRM OFFICERS

- Dan Young, SE
- Aaron Wall, PE
- Tim Taylor, PE, PTOE
- Gary Horton, SE
- Ryan Nuesmeyer, PE
- Clancy Black, PE
- Corey Mack, PE

PROCESS UNDERSTANDING AND APPROACH

PROJECT DEFINITION



During this phase, D&K will seek local input to get a thorough understanding of the needs and objectives of the project. As part of this step, D&K will lead and attend a Local Concerns Meeting. After gathering local input, D&K will develop a Purpose and Need Statement to create the backbone of the project and clearly state the objectives the project team must work to solve. Once the objective is defined, the team develops alternatives using the appropriate design standards, guidelines, and specifications. During this phase, all potentially affected resources are identified and documented. The design team then presents alternatives and potentially affected resources at a community meeting. Based on public input, the municipality will choose a preferred alternative to serve as the basis of design for conceptual level plans. The final step of the project definition phase

is NEPA documentation and approval based on the conceptual plans. D&K's critical steps during the project definition phase include:

- Lead a project kickoff meeting
- Lead/Attend a Local Concerns Meeting
- Draft a Purpose and Need Statement
- Investigate and evaluate alternatives
- Coordinate with resource agencies
- Lead/Attend a public Alternative Presentation Meeting
- Work with the community to select a preferred alternative
- Develop conceptual plans
- Prepare environmental documentation



PROJECT DESIGN

The project design phase commences once the conceptual plans and the federal environmental document (most commonly, a Categorical Exclusion, programmatic or otherwise) has been completed and VTrans has authorized the project to move to the next phase. D&K will develop Preliminary Plans, further refining the project footprint, and evaluate and document impacts to utilities, either modifying the design or developing utility relocation options, coordinating with utility owners, as necessary. If required, D&K will coordinate utility agreements.



D&K will identify and document right-of-way impacts and may assist the municipality with obtaining any necessary properties or permanent or temporary easements following the VTrans right-of-way process. All environmental permits and right-of-way easements will be obtained before proceeding to Final Plan development. During Final Plan development, D&K will coordinate with VTrans to obtain any utility or railroad agreements (when applicable), develop project special provisions, determine material sampling and testing requirements, and provide further detail on project plans. D&K will then submit Final Plans and



construction estimates to the municipality and VTrans for review. The contract plan submission will incorporate any final plan comments and include a revised construction estimate and contract bid documents for final review and approval by the municipality and VTrans. Once approved, VTrans will give written authorization to advertise the project for bid. D&K's critical steps during the project design phase include:

- Develop Preliminary Plans
- Coordinate utility relocations
- Develop right-of-way plans
- Perform property owner visits
- Assist municipality with property acquisitions
- Obtain utility and railroad agreements
- Obtain necessary local, state, and federal permits
- Develop Final Plans
- Check that environmental document (CE) is current
- Certify design
- Prepare and submit Contract Plans, specifications and estimate

CONSTRUCTION



Once authorization to advertise a project has been received from VTrans, an invitation to bid is developed and posted. During the bidding period, D&K may be expected to answer contractor questions clarifying the design plans via an addendum. At the end of the bidding period, a public bid opening is held and an apparent low bidder is announced. D&K will analyze the bids to determine if all bids are accurate and responsive and there are no disadvantages to the municipality with corresponding advantages to the contractor. The low bidder is then determined and D&K will provide to the municipality and VTrans a recommendation to award the project. After the project is awarded to the contractor, D&K may be asked to attend the preconstruction meeting. D&K will be available to review shop drawings and other contractor submittals,

answer design-related questions that may arise during construction, and provide on-site review and guidance as needed. D&K may also attend the final inspection. Critical steps during the Construction Phase include:

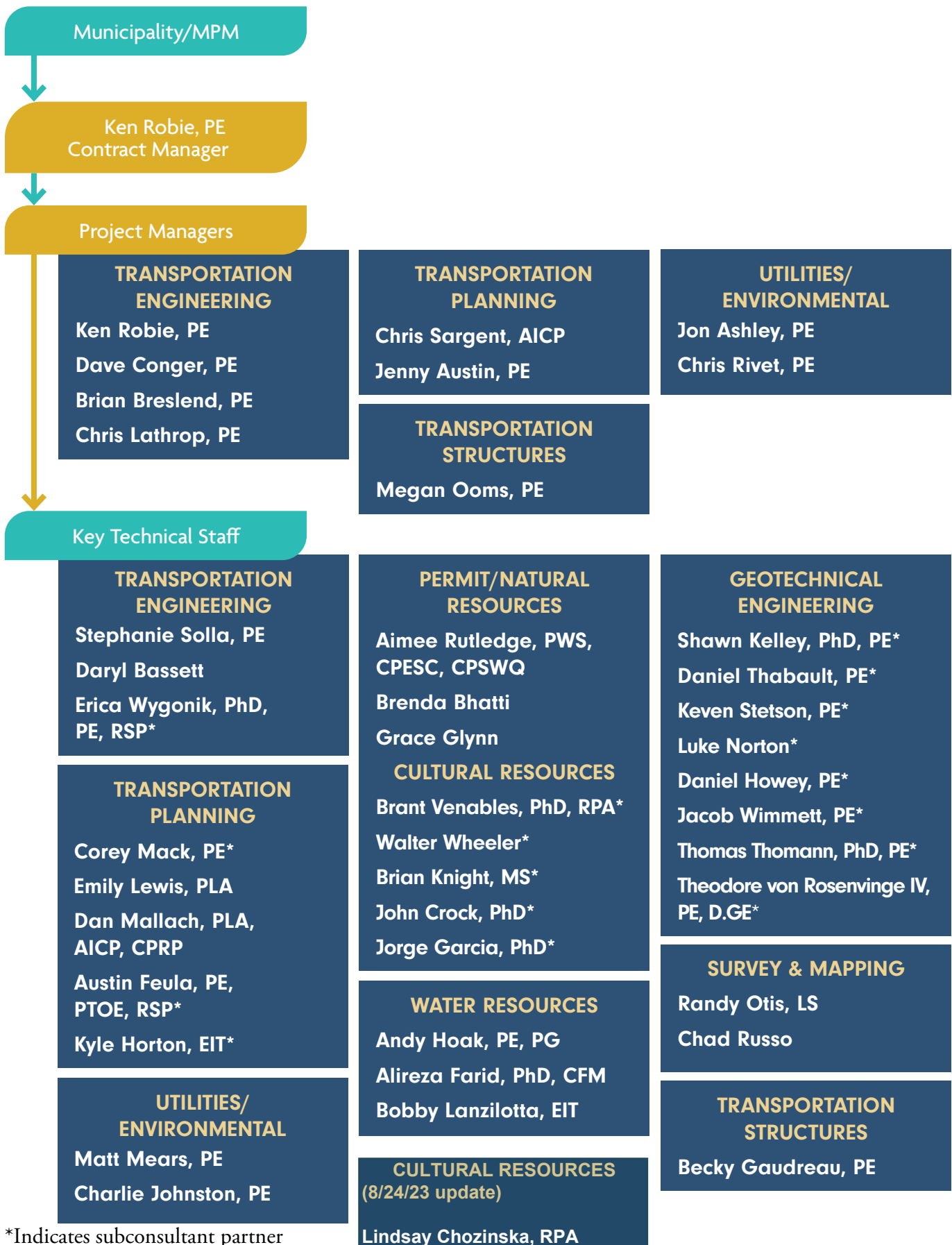
- Invitation to bid
- Answering contractor questions via addenda
- Bid opening and analysis
- Recommendation to award
- Contract Award
- Preconstruction conference
- Construction
- Final Inspection

C. ORGANIZATIONAL CHART



ORGANIZATIONAL CHART

Following are key staff available for municipal projects.



*Indicates subconsultant partner

D. AVAILABILITY CHART



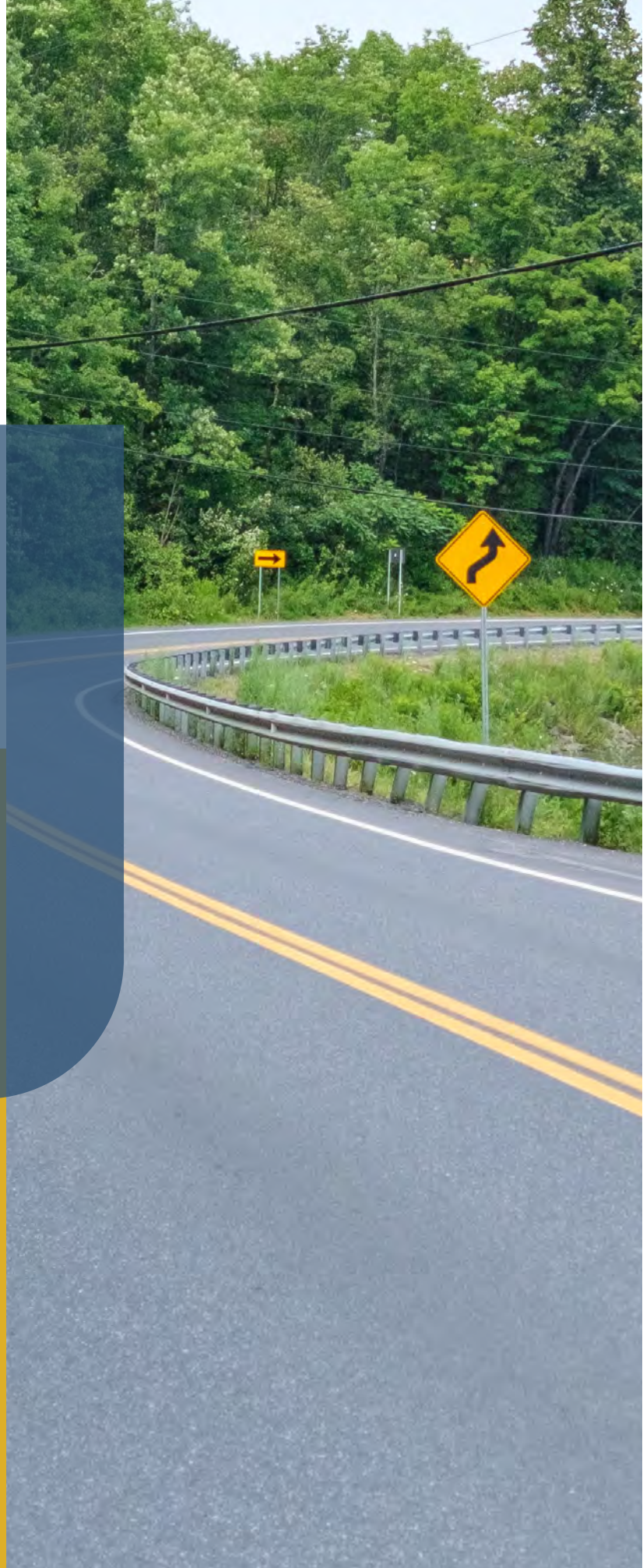
AVAILABILITY CHART

Provided below is an overview of staff availability based on typical levels of effort for MAS and other federally funded, municipally managed projects. The availability indicated will be adjusted to suit the needs of individual projects.



*Indicates subconsultant partner

E. TECHNICAL CAPABILITY

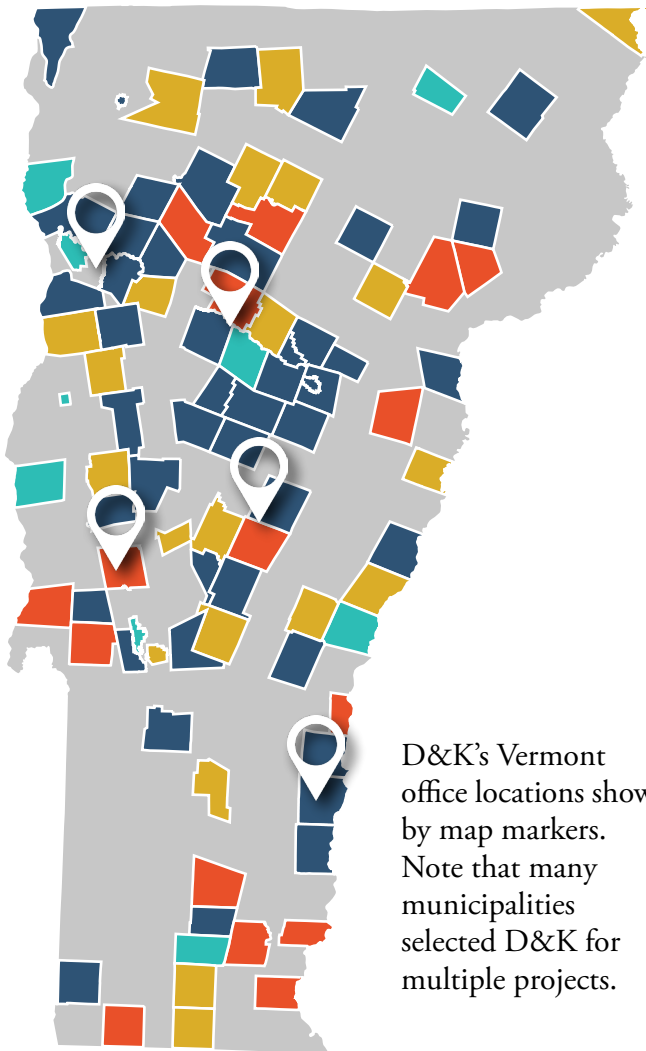


TECHNICAL CAPABILITY

QUALIFICATIONS AND EXPERIENCE OF THE FIRM

D&K has been providing services to municipalities through the VTrans Municipal Assistance Section (MAS) since the program's inception. Over this period, D&K has developed a thorough understanding of the MAS process and several of our design project managers also serve as municipal project managers on behalf of municipalities. D&K has a clear understanding of the requirements and expectations for delivering design services on MAS projects.

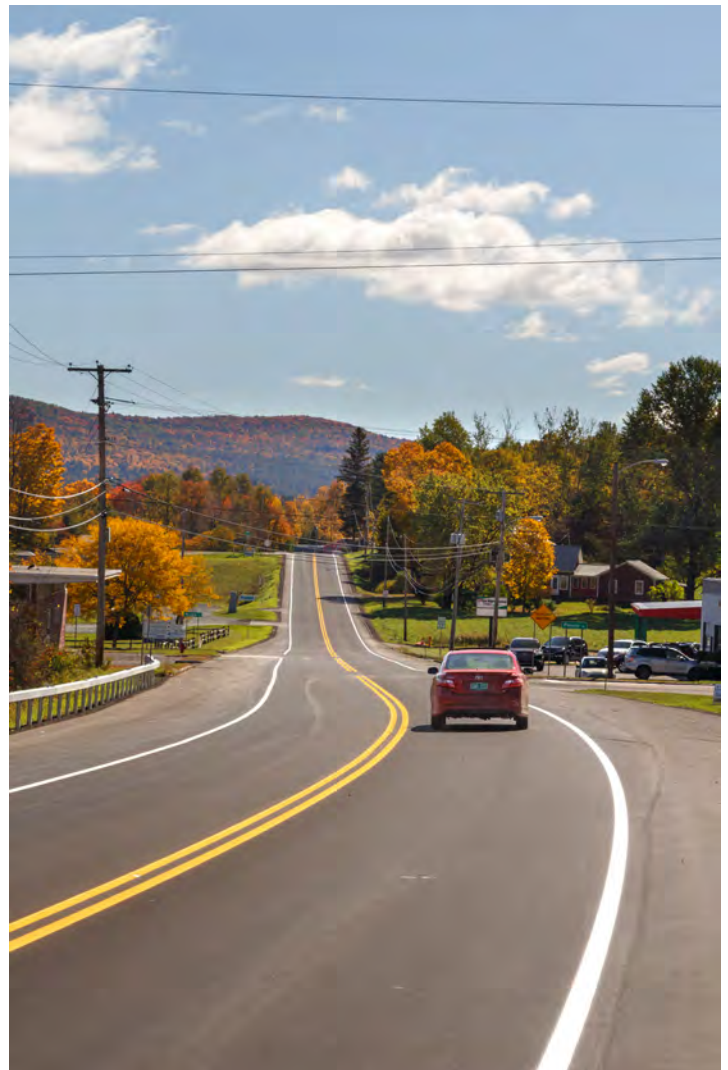
D&K'S VTRANS ATR EXPERIENCE MAP



D&K's Vermont office locations shown by map markers. Note that many municipalities selected D&K for multiple projects.

MUNICIPAL EXPERIENCE

- 100+ MAS projects in Vermont (see experience map)
- 50+ federally funded municipal projects in New Hampshire and Maine
- Municipal projects constitute the largest share of D&K's work



PROJECT EXAMPLES

CRESCENT CONNECTOR, CITY OF ESSEX JUNCTION

D&K led design, survey, permitting, and ROW for an \$8M FHWA-funded project on 1,800 ft of roadway on a new alignment to relieve pressure from the Five Corners Intersection.

Key Staff: Ken Robie, Chris Lathrop, Brian Breslend, Stephanie Solla, Emily Lewis, Chris Rivet, Randy Otis, Corey Mack (WCG)

- MAS Process
- Roadway
- ROW Acquisition
- Complete Streets
- Stormwater
- Landscape Arch.
- Street lighting
- NEPA EA
- Intersections & Rail



Regina Mahony,
City Manager
802.878.6944; rmahony@essexjunction.org

ROADWAY AND SLOPE STABILITY, TOWN OF DUXBURY

D&K led roadway, stormwater, and slope stability design, permitting, and construction phase services for Scrabble Hill Road.

Key Staff: Ken Robie, Brian Breslend, Chris Lathrop, Shawn Kelley (Sanborn Head), Randy Otis

- Roadway
- Stormwater
- Permitting
- Slope Stability

Mari Pratt,
Selectboard Chair
802.279.6470; mari.duxburyvt@gmail.com

SALT SHED, TOWN OF DUXBURY

D&K led design and permitting for the construction of a 60-ft by 30-ft insulated municipal salt shed near a waterway.

Key Staff: Dave Conger and Matt Mears

- MAS Process
- Site/Civil
- Stormwater
- Facilities
- NEPA CE

Mari Pratt,
Selectboard Chair
802.279.6470; mari.duxburyvt@gmail.com

PARKING/STORMWATER IMPROVEMENTS, LAMOILLE CTY PLANNING COMMISSION

D&K led survey, design, and permitting to improve parking functionality for five parking lots, highway safety, and stormwater management along the VT 108 corridor through Smugglers' Notch.

Key Staff: Ken Robie and Emily Lewis

- MAS Process
- Slope Stabilization
- Roadway
- Recreation
- Site/Civil
- Stormwater
- Stakeholder Engagement

Seth Jensen,
LCPC Principal Planner
802.851.6337; seth@lpcvt.org



SIBOINEBI MULTI-USE PATH, CITY OF MONTPELIER

D&K led design, extensive ROW, and public coordination, survey, and permitting for this \$6M project for a two-mile pathway on a new alignment.
Key Staff: Brian Breslend, Jon Ashley, Dave Conger, Jenny Austin

- MAS Process
- Rail Relocation
- Stormwater
- Public Engagement
- Landscape Architecture
- NEPA CE



William Fraser
City Manager
802.223.9502; wfraser@montpelier-vt.org

COVERED BRIDGE REHABILITATION, TOWN OF WARREN

D&K led design for a project that repairs the west abutment and wing walls and completes selective restoration of the timber covered bridge.
Key Staff: Megan Ooms

- MAS Process
- Timber Bridge
- Historic Structure



Cindi Jones
Town Administrator
802.496.2709 ext. 5;
forevermont@hotmail.com

CULVERT REPLACEMENT, TOWN OF GRANVILLE

D&K led hydraulics and hydrology, precast reinforced concrete, roadway, and site design, permitting, survey, and ROW plan production to enlarge the 18-ft Post Office Hill Road Culvert.
Key Staff: Jon Ashley and Randy Otis

- Water Resources
- Structural Design
- Wetlands Permit
- ROW



Bruce Hyde
Selectboard Chairman
802.279.1811; granilletown@gmavt.net

ST. PAUL STREET, CITY OF BURLINGTON

D&K led civil, utility, transportation, and stormwater design, survey, permitting, hazmat mitigation, and construction phase services as part of the Great Streets BTV implementation, which included streetscape design and road reconstruction.
Key Staff: Dave Conger, Matt Mears, Chris Lathrop, Jon Ashley, Randy Otis

- MAS Process
- Complete Streets
- LID Stormwater
- Parking
- Water/Sewer

Kirsten Merriman-Shapiro
802.865.7284; kmerriman@burlingtonvt.gov

BETHEL MT. ROAD AND SLOPE, TOWN OF ROCHESTER

D&K led civil, roadway, and stormwater design; survey; permitting; and construction phase services for six slope sites and reconstruction of 2,800 ft of roadway. A storm event rendered the road unusable and roadside slopes severely damaged; construction was completed six months after the event.

Key Staff: Jon Ashley, Brian Breslend, Chris Lathrop, Shawn Kelley (Sanborn Head), Randy Otis

- FHWA ER Funds
- Emergency Project
- Stormwater
- Permitting/NEPA CE



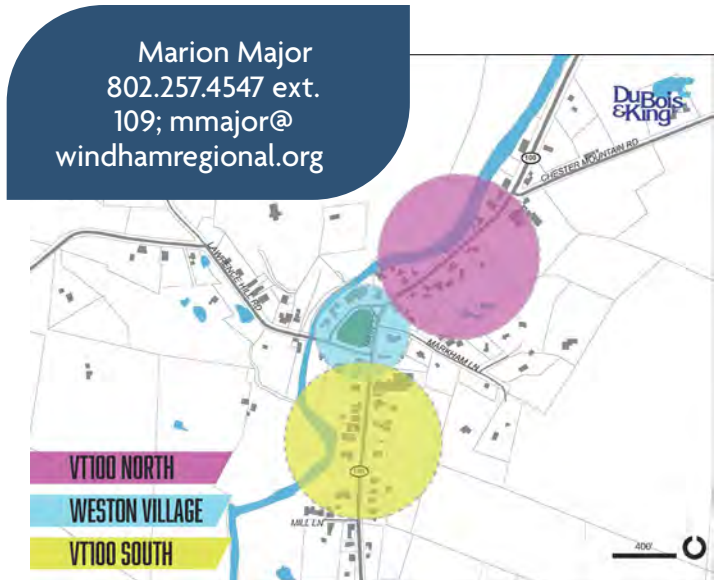
Joan Allen
Selectboard Assistant
802.767.3631;
rochesterassistant@
comcast.net

BICYCLE AND PEDESTRIAN STUDY, WINDHAM REGIONAL COMMISSION

D&K led planning for a project focusing on easily implementable measures to encourage walking and biking within Weston's VT 100 village corridor.

Key Staff: Jenny Austin and Chris Sargent

- MAS Process
- Downtown Streetscape Planning
- Scoping
- Complete Streets
- Walkability
- Stormwater
- Public Engagement



Marion Major
802.257.4547 ext.
109; mmajor@
windhamregional.org

KNIGHT LANE SIDEWALK, TOWN OF WILLISTON

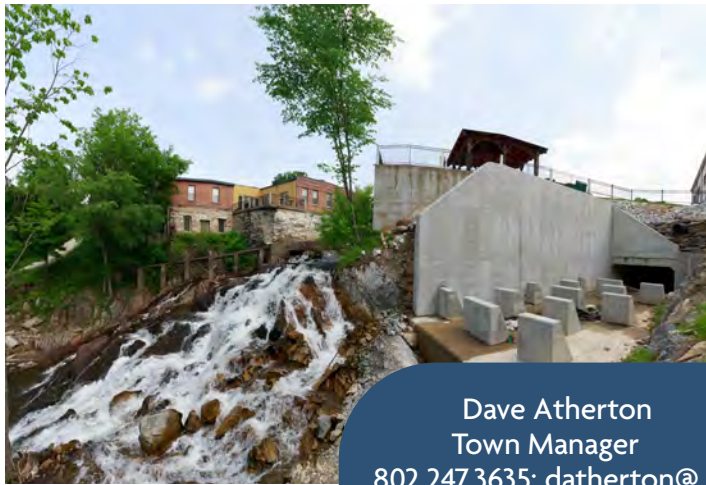
D&K led stormwater, civil design, ROW, utility coordination, permitting, survey, and cultural resource services for 242 ft of new sidewalk to improve connectivity within the town.

Key Staff: Dave Conger and Randy Otis

- MAS Process
- Complete Streets
- Walkability
- Stormwater
- Public Engagement
- NEPA CE



Lisa Schaeffler
Asst. Public Works Dir.
802.878.1239; lschaeffler@
willistontown.com



Dave Atherton
Town Manager
802.247.3635; datherton@townofbrandon.com

OVERFLOW CULVERT, TOWN OF BRANDON

D&K led civil, hydraulic, and structural design, survey, and permitting of a new 278-ft-long, 6-ft-high precast culvert that relieves pressure from an adjacent large, stone arch bridge and properties from flooding up to the 500-year storm.

Key Staff: Dave Conger and Randy Otis

- FEMA HMGP Funding
- Flood Resiliency
- Baffle Blocks
- Complex Routing

ADDITIONAL PROJECTS IN PROGRESS

Project	Location	Stage
VT 104 Main Street Sidewalks	Fairfax	Design
VT 22A Main Street Sidewalks	Vergennes	Out for construction
Sidewalks, Parking, Lighting	Fair Haven	Design
South Street Sidewalk	Proctor	Design
Hazen’s Notch Road Bridge	Lowell	Design
Hogback Road Culvert	Cambridge	Design
Peddlers Bridge Road Culvert	Ripton	Design

KEY PERSONNEL

PROJECT MANAGERS

Ken Robie, PE, Contract Manager, has 33 years of experience in transportation engineering, primarily with VTrans. His background includes project management and design for all types of highway projects. He has experience supervising project teams, setting budgets and schedules, reviewing cost proposals and consultant scopes of work, and coordinating all aspects of project development involving VTrans, the Federal Highway Administration, other state and federal agencies, Vermont municipalities, and the public.

David Conger, PE, Project Manager, is a Civil Engineer who has managed numerous scoping studies, as well as major transportation studies related to environmental impact statement evaluations. His technical expertise includes stormwater utility, design, MS4 permits, an understanding of engineering functions specific to the design of green stormwater infrastructure, drainage, and water quality systems.

Brian Breslend, PE, Project Manager, is a civil engineer with experience including the preparation of alternatives analyses; preliminary and final designs; cost estimation; plan development; field survey; and utility coordination for a variety of federally funded pathway, sidewalk, and roadway projects.

Chris Lathrop, PE, Project Manager, has 27 years of experience in transportation improvement projects. His experience includes the preliminary and final design of a variety of transportation projects for VTrans and numerous municipalities. Chris’s roadway experience includes the reconstruction of local roadways and state highways, resurfacing and safety improvements for interstate highways, intersection improvements, pathways, and sidewalks. He has been involved in all phases of project development, from project conception through construction, including design, public participation, contract documents, utility coordination, traffic management plans, bidding, and construction administration and inspection.

Megan Ooms, PE, Project Manager, has 14 years of experience providing design for rehabilitation and replacement of conventional, complex, and historic bridges. Her responsibilities include managing multidisciplinary bridge design projects throughout all phases of design and construction. She has experience managing projects that have high public interest, complex utility relocations, construction staging, structural design components, and multiple subconsultants and interagency coordination. Megan has served under the VTrans Structures Engineering Services contract as a Project Manager/Senior Bridge Engineer for the US 2 Bridge Rehabilitation in Waterbury and the VT 102 Truss Bridge Rehabilitation in Bloomfield.

Jenny Austin, PE, Project Manager, has experience providing design and analysis for signalized and unsignalized intersection projects, bicycle and pedestrian scoping studies, roadways, and multiuse pathway projects. She has led scoping studies, managed design projects, and served as MPM.

Chris Sargent, AICP, Project Manager, has 20 years of experience in community planning with expertise in municipal planning and government, zoning regulation, permit analysis, facilitation, and public process. He has worked with over 30 communities to develop their own municipal visions for the future. Chris has overseen the development of long-range regional planning policy, including land use and natural resource protection. He has assisted municipalities with local planning, including zoning, flood hazard, and subdivision regulations, and assisted state agencies with the development of land use and energy planning policy that guides regional and municipal renewable energy planning. As a Community Planner, he has a firm understanding of planning, permitting, and public process for the development of transportation and planning projects for local, state, and federal clients.

Jon Ashley, PE, Project Manager, has 29 years of environmental and civil engineering experience. The Director of the D&K Public Works Division, Jon's experience includes planning, management, and design of water and sewer projects, hazardous waste and brownfield remediation, road and slope projects, stormwater collection and treatment, and site/civil development projects for municipal, state, local, and private clients. Jon has supported environmental documentation and permitting for infrastructure and site projects and maintains strong working relationships with regulatory officials.

Chris Rivet, PE, Project Manager, has 12 years of stormwater engineering experience. His project expertise includes the design, construction, and compliance inspection for site development projects throughout Vermont. Chris has served as the project manager and lead engineer for sand and salt shed projects going through the VTrans MAS process. He has prepared designs, observed construction, and performed compliance requirements for projects that cover the current stormwater permitting programs. His design work includes a range of site development, renewable energy, and culvert projects.

KEY TECHNICAL STAFF



Stephanie Solla, PE, Project Engineer, has seven years of experience providing roadway, drainage, and transportation design for municipal, state, and federally funded projects. She has provided roadway geometric design, traffic signalization and analysis, signing, cost estimating, hydraulic analysis, and design of profiles, alignments, grading, and drainage. Stephanie regularly uses MicroStation/OpenRoads, AutoTURN, AutoCAD, and Estimator software packages, and she has working knowledge of the AASHTO "Green Book" and the MUTCD.

Daryl Bassett, Constructability Review, has 22 years of relevant experience, including serving as an inspector, resident engineer, and technician for VTrans for 21 years. Prior to joining VTrans, he served in the Army and National Guard as a combat engineer. Daryl has hands-on project experience serving as a construction inspector, resident engineer, and resident project representative for bridge, roadway, slope rehabilitation, ledge removal, stream relocation, and

general maintenance projects. His bridge experience includes accelerated bridge construction, design-build, plate girder, precast concrete, timber, interstate, rail, and historic rehabilitation projects.

Emily Lewis, PLA, LEED AP, Planner/Landscape Architect, has 15 years of experience with multidisciplinary projects, including transportation, complete streets, parks, and trails, as well as land planning projects and stormwater management facilities. In addition to landscape planning and design services, Emily has served as the landscape construction administrator and inspector for large-scale, suburban, and rural highways, as well as provided environmental site assessments, forest delineation, and environmental restoration. She has significant experience in community outreach, including facilitating meetings and design charrettes.

Dan Mallach, PLA, AICP, CPRP, Planner/Landscape Architect, is a Certified Planner (AICP), Registered Landscape Architect, Certified Park and Recreation Professional and ISA Certified Arborist with expertise in planning, design, ecology and regulatory processes. His professional practice includes 17 years in transportation and community planning, planting, park and recreation design, natural and cultural feature stewardship, bylaw implementation, and working to achieve place-making and land management objectives.

Erica Wygonik, PhD, PE, RSP, Project Engineer (WCG), has over 18 years' experience identifying optimal strategies across all transportation modes to reduce local and system-wide impacts, and she has particular skills at developing simple, yet robust solutions to serve public agencies. For UDOT, she has worked to understand the relationship between Strava data and bicycle use, as well as identifying appropriate locations for pedestrian improvements in areas with latent pedestrian demand. For Vermont, she developed an award-winning method for identifying bicycle priority corridors, using a mix of crowd-sourced data, big data, and land use information. She has developed tools for estimating demand at park-and-ride facilities, used to support statewide park-and-ride planning for the Vermont Agency of Transportation and the New Hampshire Department of Transportation. She has also used big data to understand the influences on travel speeds in work zones. She has served as a Consultant for the UDOT Traffic & Safety Traffic Studies Retainer and supported safety efforts for the department

through crash data analysis, site-specific evaluations, and contributing to the development of the new Speed Management study and guidelines.

Corey Mack, PE, Planner and Engineer (WCG), has over 15 years' experience planning, permitting, designing, and constructing transportation infrastructure, Corey has supported cities and towns, MPOs and DOTs, and institutions and private developers of all sizes in making informed decisions on transportation investments. Whether leading a public intersection scoping process, analyzing traffic congestion for a proposed development, or preparing final design plans for signalization upgrades, he understands the impact transportation has on our communities. Corey seeks to work collaboratively with stakeholders to identify their challenges, inform discussion and decisions, and develop innovative and intuitive solutions to achieve project goals.

Austin Feula, PE, PTOE, RSP, Planner and Engineer (WCG), has 10 years of traffic engineering, travel demand modeling, safety analysis, and transportation planning experience that includes solutions development studies, safety program support, transportation master plans, corridor studies, active transportation plans, and complex micro- and macro-simulation modeling. Austin has a broad range of transportation planning experience from public involvement to travel demand forecasting.

Kyle Horton, EIT, Planner and Engineer (WCG), has five years of work experience in roadway design, GIS, and transportation analysis for UDOT and local government projects. He is trained to work in Microstation, Synchro, and ESRI programs. Kyle's experience in roadway design includes utility conflict coordination, signing and striping design, and general design support. He led the Eastern Summit County traffic and utility system planning effort using ArcGIS Online Story Maps to display results in GIS.

Matt Mears, PE, Project Engineer, has experience managing municipal salt shed projects, designing green stormwater infrastructure with significant site constraints and permitting requirements, and leading design of roadway and multimodal projects.

Charlie Johnston, PE, Project Engineer, has a significant range of experience in the day-to-day planning, evaluation, permitting, design and construction of structures. He has provided engineering services on numerous dam rehabilitation and removal

projects throughout New England and developed professional relationships with regulators. Charlie has experience in site design, water and wastewater, road reconstruction, construction review, permitting, and hazardous waste/brownfield site investigation and remediation projects. His responsibilities include AutoCAD design, permit preparation and submissions, written reports, budgeting, probable construction estimation, contractor selection, communication between clients and contractors, and meetings with clients.

Becky Gaudreau, PE, Senior Bridge Engineer, has been a key member of several complex projects in New England. She has experience in load rating steel truss bridges, traditional girder bridges, and rail bridges. Becky has been the lead designer for the replacement of several structures including mixed-use rail/vehicular bridges and several bridges as part of the widening of I-93 in New Hampshire. She has experience with ABC projects, construction phase services, and QC reviews. Becky has served as the Design Quality Control Manager for two New England design-build projects and has served under the VTrans Structures Engineering Services contract as a Senior Bridge Engineer for the US 2 Bridge Rehabilitation in Waterbury and the VT 102 Historic Truss Bridge Rehabilitation in Bloomfield.

Aimee Rutledge, PWS, CPESC, CPSWQ, Senior Environmental Technical Lead, has 22 years of experience in a broad range of environmental work, including NEPA documentation, wetlands, water resources, stormwater, wildlife studies, and permitting. Aimee has strong relationships with many federal, state, and local regulatory agencies in the Northeast. She has worked with a wide range of clients on project types, including FAA/airports, bridges, roadways, dams, landfill sampling, SWPPP, industrial stormwater, wetlands restoration, corrective action plans, Phase I Environmental Site Assessments, SPCC plans, Act 250, wind turbines, solar, categorical exclusions, and environmental impact statements. Aimee manages project staff, budgets, schedules, contract agreements, and quality control and has acted as environmental technical lead for large environmental assessments and design/construction projects. Aimee was part of the team that provided services to the VT 102 Bridge over the Nulhegan River in Bloomfield, and she has worked on other bridge projects, including Cole's Hill Road and Newhall Road Bridge in Maine.

Brenda Bhatti, Ecologist/Biologist, has over 20 years of natural resources, environmental planning, and regulatory permitting experience throughout New England. Brenda has significant experience in environmental and land use project planning and management, ecological fieldwork, land protection, community and stakeholder engagement, and regulatory and permitting strategy. She has worked on hundreds of environmental, wetlands, wildlife and permitting projects as part of transportation, commercial, industrial, and residential construction and environmental compliance projects. Her work has included preparation of permit applications and documentation under NEPA, VANR DEC wetlands, and the VT Natural Resources Board Act 250 programs.

Grace Glynn, Wetland Scientist, brings experience with botany, forestry, invertebrate biology, ornithology, microbiology, macrobiology, evaluating inland and coastal aquatic ecosystems, vernal pools, landscapes, and soils, and developing ecological inventories. She has significant, hands-on experience completing research and providing public interpretation and technical writing for municipalities, nonprofit organizations, and universities for large-scale resource inventories, planning studies, mapping programs, and educational projects. Grace has worked on teams for bridge projects, including VT 58/ Hazen's Notch Road in Lowell and Cole's Hill Road and Newhall Hill Road Bridge projects in Wells, Maine.

Brant Venables, PhD, RPA, Archeologist (Hartgen), started as a project manager with the Vermont office of Hartgen in 2022 and has already completed several projects. Previously, he worked on projects for SUNY Binghamton's Public Archaeology Facility and on projects sponsored by Ithaca College, Cornell University, and the National Park Service.

Walter Wheeler, Senior Architectural Historian (Hartgen), has 35 years of experience in the architectural history field, and has been with Hartgen Archeological Associates since 1999. He has conducted numerous surveys in Vermont and throughout the Northeast. Walter has extensive experience working on transportation projects for VTrans and other state departments of transportation. He has participated in dozens of cultural resource surveys for VTrans projects under Hartgen's term agreements. He is a qualified professional under the Vermont Community Development Program and has taken annual trainings with the VDHP as an Architectural History Consultant.

Resume added 8/24/23: Lindsay Chozinska, RPA, Archaeologist

Brian Knight, MS, Architectural Historian (Hartgen), with 25 years of experience in the historic preservation field, joined Hartgen in 2022. Since joining, he has worked on projects for VTrans as a subconsultant to D&K, including the Newfane STP BP21 Scoping Study and the Pittsford TAP TA 20 (19).

John Crock, PhD, Archeologist (UVM CAP), is an associate professor at UVM and is part of the Consulting Archaeology Program. He has a PhD in Anthropology and has acted as the director of the CAP program since 2000.

Jorge Garcia, PhD, Archeologist (UVM CAP), is a research assistant professor at UVM and is part of the Consulting Archaeology Program. He has a PhD in Anthropology and has acted as an archeologist and cultural resource specialist for the Department of Agriculture Natural Resources and Conservation Service.

Shawn Kelley, PhD, PE, Geotechnical Principal (Sanborn Head), has over 20 years of geotechnical engineering experience, including development and slope stabilization projects. As a highly sought-after expert, he has worked on numerous projects in Vermont, including the I-89 Pedestrian Bridge in South Burlington and Bethel Mountain Road Emergency Repair in Rochester, VT. Shawn is a specialist in geotechnical engineering design, geotechnical instrumentation, and geotechnical soil testing, and he has authored numerous publications, reports and presentations. Shawn values building strong relationships with his clients and working alongside them to fully understand their needs. He believes that successful projects are grounded by strong client relationships. He is an active member of the American Society of Engineers (ASCE), Director for the Vermont Society of Engineers (VSE), and a member of the American Council of Engineering Companies (ACEC). He is a corresponding member of ASCE's Leadership Training Committee and is the ACEC/PAC champion for the Vermont Member Organization. He also serves as the chairperson for Vermont's ACEC Legislative Committee.

Daniel Thabault, PE, Geotechnical Lead Engineer (Sanborn Head), is responsible for providing technical expertise for projects throughout Vermont. He has extensive experience in both soil and rock engineering and has assisted with design and analysis of deep and shallow foundation systems, soil and rock slopes, and dewatering and excavation support systems. His

experience includes complex geotechnical explorations and construction management for public and private sector projects such as the I-89 Pedestrian Bridge.

Kevin Stetson, PE, Geotechnical Technical Review (Sanborn Head), has close to 20 years of geotechnical engineering experience. He is astute at bringing together civil, environmental, and geotechnical engineering disciplines to provide big-picture strategies for clients. His geotechnical experience includes shallow and deep foundations, design of temporary excavation support systems, ground improvement methods, retaining wall systems, and slope stability.

Luke Norton, Geotechnical Technical Advisor (Sanborn Head), advises clients on geotechnical design and construction, hydrogeological design and permitting support, and environmental due diligence and regulatory compliance. He is frequently sought out for his expertise on subsurface explorations, construction observation/quality control, and construction instrumentation programs. Luke's work experience includes design and construction of transportation projects, such as the NH Route 119 Bridge between Hinsdale, New Hampshire, and Brattleboro, Vermont.

Daniel Howey, PE, Geotechnical Engineer (GEODesign), will serve as a project-level manager and lead engineer for individual VTrans ATR projects. An Associate in his 19th year of geotechnical experience with the firm, Dan's experience spans a wide range of geotechnical engineering services including geostructural analysis and design; oversight of geotechnical instrumentation and geostructural testing programs; engineering analyses of shallow and deep foundations; and embankments and retaining wall design. Dan is the Contract Manager for GEODesign's current On-Call Geotechnical Engineering Services contract with VTrans.

Jacob Wimmatt, PE, Geotechnical Engineer (GEODesign), will be GEODesign's contract manager as well as a project-level manager and lead engineer on individual VTrans ATR projects. Jacob has been with the firm for 18 years and manages GEODesign's Vermont Operations based in Montpelier. Jacob has served as lead geotechnical engineer and project manager on multiple projects throughout New England covering a wide range of geotechnical services, including projects for GEODesign's current On-Call Geotechnical Engineering Services contract with VTrans.

Thomas Thomann, PhD, PE, Principal Geotechnical Engineer (GEODesign), is a Senior Principal and CEO of the firm. With over 30 years of experience that spans hundreds of successful projects including many major buildings and structures, he is intimately involved in the technical oversight and management of the firm's work. Overall, his role for VTrans research assignments is expected to be focused primarily on tasks that may involve earthquake engineering and technical review of rock mitigation measures. His wide range of expertise includes the design of driven and drilled pile systems, support of excavation (SOE), underpinning, earthquake engineering, rock engineering, ground improvement, slope stability and instrumentation.

Theodore von Rosenvinge IV, PE, D.GE, Principal Geotechnical Engineer (GEODesign), is a Senior Principal with GEODesign with over 40 years of geotechnical experience in the construction industry. In 1995, he co-founded GEODesign, Inc. Ted is an authority on drilled shaft foundations and has published on the topic and trained DOT inspection staff through NETTCP. He is also published on a variety of other geotechnical topics, including pile capacity testing, rock slope failure, blast densification of loose sands, and tort reform.

Andy Hoak, PE, PG, Hydrogeologist, the Director of D&K's Environmental Services Division, has extensive experience in the design and permitting of stormwater management controls. He has modeled sediment and nutrient loading to receiving streams and calculated resulting reductions due to engineering controls. Andy has prepared plans and supporting permit application materials for numerous on-site wastewater discharge permit applications and municipal sewer connections. Andy has performed hydraulic analysis for culverts and bridges, including the Whitcomb Island and Garfield Road Bridges in Hyde Park and the Arnold District Road Bridge in Brandon.

Alireza Farid, PhD, EIT, CFM, Hydrologist, has 15 years of experience in hydraulics and hydrology, civil engineering, and drainage projects. Alireza's project experience includes analyzing stormwater and drainage processes and procedures; conducting H&H analysis; creating hydraulic models; performing flood risk assessments using flood inundation maps; evaluating water cycle and drainage structures; gathering information from clients, morphological information, and UAS approaches; and documenting process flows.

Alireza has a background in modeling software data analysis tools including HEC-HMS, HEC-RAS, PC-Hydro, Flow Master, AutoCAD, WaterGEMS, WEAP, and the remote sensing analysis programs ENVI and SURFER.

Bobby Lanzilotta, EIT, H&H Analysis, is a Staff Engineer with experience working with HEC-RAS, HydroCAD, GIS, AutoCAD, GeoStudio, and SOLIDWORKS software. He assists with hydraulic and HydroCAD drafting, Act 250 permitting, and boundary line maintenance.

Randy Otis, LS, Survey Manager, is a licensed land surveyor and senior party chief with 20 years of experience in boundary and topographic surveying. The head of DuBois & King's Survey Department, Randy has performed survey services for municipal, state, private, and public clients throughout New England and New York. His specific experience includes performing topographic and boundary surveys, ROW determination, monumentation, stakeout, boundary research and plats, and deed preparation and research. His many culvert and bridge projects have included the Whittier Covered Bridge Rehabilitation, the bridge carrying NH 12A over NH RR, and replacement of the US 7 Overflow Culvert in Brandon.

Chad Russo, Survey Party Lead, has experience with topographic and boundary surveying, including construction layouts, level loops, three wire leveling, route surveying, geodesk, and deed research. Chad has experience working with GPS, GIS, and CADD.

F. RESUMES





KEN ROBIE, PE

Contract Manager

Total Years of Experience: 33

Years with D&K: 3

EDUCATION

B.S., Civil Engineering, University of Vermont, 1989

REGISTRATIONS

Professional Engineer: VT 6524

Mr. Robie has 33 years of experience in transportation engineering, primarily with the Vermont Agency of Transportation (VTrans). His background includes project management and design for all types of highway projects. He has experience supervising project teams, setting budgets and schedules, reviewing cost proposals and consultant scopes of work, and coordinating all aspects of project development involving VTrans, the Federal Highway Administration, other state and federal agencies, Vermont municipalities and the general public.

CRESCENT CONNECTOR, CITY OF ESSEX JUNCTION, VT. Project Manager for a FHWA-funded roadway project providing a 1,800 LF bypass around the Five Corners intersection. The \$8M project included coordination of five traffic signals and five railroad crossings. Responsible for client coordination and quality assurance. The project follows the VTrans MAS process.

SCRABBLE HILL ROAD STABILIZATION, DUXBURY STP MM19(9), DUXBURY, VT. Project Manager leading engineering and permitting services for this multiphase project to identify options to address ongoing erosion and stabilize the roadway embankments. Firm services include survey, geotechnical investigations, hydrologic and hydraulic analysis, right-of-way and deed information, utility relocation, alternatives analysis, traffic impact assessment, permitting, preparation of bid documents and engineering assistance during construction. Responsibilities include leading engineering services, and coordination with subconsultants, Town of Duxbury, and VTrans. This project follows the VTrans MAS process.

MAIN STREET (VT 104) SIDEWALK, FAIRFAX, VT. Project Manager leading the design and permitting of a new 1,300-ft section of sidewalk, providing connectivity between residential areas, the Town Offices and local businesses in a historic village setting.

SMUGGLERS' NOTCH SCENIC HIGHWAY PARKING AREA AND STORMWATER IMPROVEMENTS, STOWE AND CAMBRIDGE, VT. Project Manager leading the project to design improvements to parking and stormwater management along this sensitive route between Cambridge and Stowe on VT 108, also known as the Smugglers' Notch Scenic Highway. The project includes the design and permitting of off-street parking areas, roadside stabilization, and revegetation of woodland and stream buffers throughout this steep and narrow mountain pass. This project follows the VTrans MAS process.

CHAMPLAIN PARKWAY PROJECT, BURLINGTON, VT. Assisting Municipal Project Manager for this major transportation connection to the City's Downtown District through the final phases of Act 250, NEPA Environmental Impact Analysis, and contract plan development. This project improves traffic circulation, alleviates motorist capacity overburdens, and improves vehicular and pedestrian safety in the South End of the City through a combination of new alignment limited access highway and complete street upgrades to the Pine Street corridor. Being a complicated project with a long history of opposing views, the City required additional assistance and expertise in the day-to-day coordination with the extensive design and permitting team, VTrans and FHWA. Assisted with the NEPA Environmental Justice evaluation, Act 250 review, other state and federal permits, regional project coordination, and development of construction contract documents.



DAVE CONGER, PE

Project Manager

Total Years of Experience: 30

Years with D&K: 12

EDUCATION

B.S., Civil Engineering, University of Vermont, 1992

REGISTRATIONS

Professional Engineer: VT 7689

David Conger has 30 years of experience as a Civil Engineer and Project Manager for municipal, private, and federal clients. The Director of D&K's Site and Land Division, David's experience includes management of multidisciplinary design teams for significant term contracts and large-scale projects. His technical expertise includes stormwater utility, design, MS4 permits, an understanding of Total Maximum Daily Loads, and other engineering functions specific to the design of alternatives for stormwater management, drainage, and water quality systems. David is thoroughly familiar with the FEMA HMGP program, USACE standards, environmental permitting, and NPDES stormwater program compliance.

GREAT STREETS BTV, BURLINGTON, VT. Senior Project Engineer for the design implementation of reenvisioned downtown Burlington into a vibrant, walkable, and sustainable urban center. Efforts are focused twofold. The first is in assisting and vetting team design standards being established for the downtown core. The second is the development of design documents to meet these goals with the reconstruction of downtown streets and City Hall Park.

US ROUTE 2 PEDESTRIAN IMPROVEMENTS, EAST MONTPELIER, VT. Senior Transportation Engineer for MAS-administered transportation study to identify options, issues, and costs to develop safety improvements for pedestrians along U.S. Route 2 in the center of East Montpelier. The study considered both traditional pedestrian enhancements and streetscape element improvements in response to recommendations included in the Central Vermont Regional Planning Commission's Village Study Report on East Montpelier. Considerations included sidewalk lighting and landscaping, crosswalks, signing, traffic calming measures, and access control.

MAPLE AND UNION STREET SIDEWALKS, VTRANS, BRANDON, VT. Project Manager for design of new sidewalks along Maple and Union Streets in the Town of Brandon. This municipally managed project was developed through the VTrans MAS Section. The new sidewalks extend a length of approximately 2,500 ft and include a new pedestrian bridge over the Neshobe River, as well as an at-grade crossing of the Vermont Railway. Design services include conceptual layout and alignment of sidewalks, development of preliminary plans, utility coordination, development of right-of-way plans, attendance at local concerns and alternatives presentation meetings, bridge alternatives report, preparation of CE documentation, permitting, and final design plans.

WILLISTON ROAD CORRIDOR STUDY, CHITTENDEN COUNTY METROPOLITAN PLANNING ORGANIZATION (CCMPO), VT. Project Engineer for the project work that included an evaluation of existing roadway with multiple curb cuts in an effort to reduce turning conflicts associated with the curb cuts. Design options consolidated curb cuts of adjacent properties with the addition of signalization at larger accesses. Services included field evaluation of individual sites, and the layout of parking and site roadways to accommodate the reduction of curb cuts.

BAY ROAD, TOWN OF COLCHESTER, COLCHESTER, VT. Design Engineer for the reconstruction of Bay Road. Assisted in the preparation of as-built plans depicting constructed utility locations for an approximate 6,000-linear-foot road reconstruction. Work included field surveys, plan review, and updates. Additional duties included the preparation of State Act 250 and local permits, permit hearings, construction inspection, and soil testing.



BRIAN BRESLEND, PE

Project Manager

Total Years of Experience: 15

Years with D&K: 15

EDUCATION

B.S., Civil Engineering, University of Vermont, 2007

REGISTRATIONS

Professional Engineer: VT 79076, NH 15117, ME 14272; NHDOT LPA Certification: 2043

Mr. Breslend is a Civil Engineer with 15 years of experience providing management and design of transportation projects. Brian's project experience includes roadway, bridges and culverts, rail, sidewalk, pathways, and slope stabilization. He provides a range of services, including the preparation of alternatives analyses, preliminary and final design, quantity calculations, cost estimation, plan development, field survey, and utility coordination. Brian is proficient in CADD software including MicroStation and AutoCAD, as well as Trns-port Estimator cost estimating software.

ROADWAY AND SAFETY ENGINEERING CONTRACT, VTRANS, STATEWIDE, VT. Project Manager for on-call contract to assist with the development of roadway, intersection, and other safety-related transportation projects. Projects include:

- VT 125, ER STP 0174(19), Slope Stabilization, Ripton
- ER STP 013-3(9) VT Route 100 Roadway Corridor, Ludlow-Bridgewater
- STP 013-4(41) VT Route 100 Roadway Corridor, Stockbridge to Rochester
- VT Route 100, Slope Stabilization, Granville
- VT Route 100B, Slope Stabilization, Moretown
- VT Route 14, Slope Stabilization, Sharon
- VT Route 125, Slope Stabilization, Ripton
- Statewide-Northeast STPG SIGN (56), Intersection Evaluations and Signing, Northeast Kingdom
- Statewide-Northwest STPG SIGN (58), Signing, Northwest VT
- Statewide-Northeast STPG SIGN (62), Signing, Northeast Kingdom
- Statewide-Northwest STPG SIGN (65), Signing, Northwest VT
- ER STP 0174(18), VT Route 125 Culvert Replacement, Hancock

ROADWAY, DRAINAGE, BICYCLE IMPROVEMENTS, SOUTH HERO, VT. Municipal Project Manager who served as a liaison between the Town and VTrans. Specific responsibilities included advising the Town regarding the MAB Project Development Process, preparing a Request for Proposals (RFP) for the design, reviewing the engineering consultant's progress as the design is developed, acting on behalf of Town for right of way negotiations, and facilitating public meetings and discussions. The total project length is 3 miles along the route marked as the Champlain Bikeway, a popular cycling route. Assisted in the review of construction bid documents, performed administrative duties during construction, and kept records of project correspondence and files.

SIDEWALKS AND PEDESTRIAN IMPROVEMENTS, FAIRFIELD, VT. Project Manager for design and of sidewalks, streetscape enhancements, and other pedestrian facilities in the core of the village. Improvements address unsafe conditions that include minimal pedestrian facilities, ill-defined parking lots, and wide unmarked roadways with narrow shoulders. Responsible for management of scheduling and budgeting of firm resources; coordination of VT Construction General, VT ANR Wetlands, and VTrans 11/11 permits; and design of horizontal and vertical alignments. The project received funds administered by the VTrans MAS.

US 2 PEDESTRIAN IMPROVEMENTS, EAST MONTPELIER, VT. Project Manager for design of pedestrian enhancements as recommended in the Town's Scoping Study, also prepared by D&K. Approximately 2,000 ft long, the project includes the design of sidewalk and crosswalk improvements, relocation of a water line and hydrant, consolidation of driveway openings, property owner coordination to understand and mitigate concerns, and extensive VTrans coordination due to location along a state highway. The project received funds administered by VTrans MAS.



CHRIS LATHROP, PE

Project Manager

Total Years of Experience: 27

Years with D&K: 16

EDUCATION

B.S., Civil Engineering, Norwich University, 1995; A.S., Civil Engineering, Vermont Technical College, 1992

REGISTRATIONS

Professional Engineer: VT 8769,
NH 10682

Mr. Lathrop is a Senior Transportation Engineer and the Highway Department Manager at D&K with 27 years of experience in transportation improvement projects. His professional experience includes the preliminary and final design of a variety of transportation projects for the Vermont Agency of Transportation, New Hampshire Department of Transportation, and numerous municipalities.

SIDEWALK DESIGN, ROUTE 116, SAFE ROUTES TO SCHOOL PROGRAM, VTRANS, HINESBURG, VT. Project Manager responsible for the preliminary and final design of a 5-ft-wide concrete sidewalk along Route 116. The sidewalk includes a 5-ft green strip beginning at the Hinesburg Elementary School and extends 950 ft along the west side of Hinesburg Road to Charlotte Road. The project included ROW acquisition, utility relocation, crosswalks, pedestrian ramps, concrete curbing, drainage improvements, environmental permitting, erosion control narrative, and parking and driveway improvements to a number of properties.

VT 116 SIDEWALK AND STREETScape IMPROVEMENTS, HINESBURG, VT. Quality Assurance Manager for review for final CADD standards, including stationing, sheet layout, Right of Way lines, existing and proposed monuments, area calculations, and developing ROW detail sheets for conceptual through final design of 1,100 ft of sidewalk, on-street parking, and streetscape improvements along the west side of VT 116.

SIDEWALK DESIGN, MT. PHILO ROAD, SHELBURNE, VT. Project Manager responsible for the preliminary and final design of a 5-ft-wide concrete sidewalk. The sidewalk, which includes a 5-ft green strip, begins at Wild Ginger Road and extends 2,500 ft along the east side of Mount Philo Road to Falls Brook Road. The project included crosswalks, pedestrian ramps, concrete curbing, drainage improvements, environmental permitting, erosion control narrative, and utility relocation coordination.

CROSS AND RAILROAD STREET SIDEWALKS, BRIGHTON, VT. Senior Project Engineer for planning and design of improvements to new and existing pedestrian facilities (0.9 miles) which were causing significant safety concerns for Town and nearby Brighton Elementary School. Responsible for project definition and design phases including input from stakeholders, conceptual plans, Categorical Exclusion Document, survey, right-of-way, utility relocation, base map preparation, and identification of environmental resources. Project developed through the MAS program and funded through FHWA Transportation Enhancement Grant and Town funds.

ROADWAY RECONSTRUCTION AND MULTIMODAL FACILITIES, SOUTH HERO, VT. Municipal Project Manager for a project that reconstructs three miles of roadway and reconfigures the road to accommodate bike lanes. Specific responsibilities included advising the town regarding the MAS Project Development Process, preparing a request for proposals, soliciting engineering proposals for design of the project, reviewing the engineering consultant's progress as the design is developed, acting on behalf of the town for right of way negotiations, and facilitating public meetings and discussions.



MEGAN OOMS, PE

Project Manager

Total Years of Experience: 14

Years with D&K: 1

EDUCATION

M.S., Structural Engineering, Rutgers University, New Brunswick, NJ 2016
B.S., Civil Engineering University of Delaware, Newark, DE 2008

REGISTRATIONS

Professional Engineer: VT 133532, DE 18110, NY 101653
NHDOT LPA Certification

Ms. Ooms is a Project Manager and Senior Bridge Engineer with 14 years of experience providing design for rehabilitation and replacement of conventional, complex, and historic bridges. Her responsibilities include managing bridge design and rehabilitation projects throughout all phases of design and construction. She has experience managing projects that have high public interest, complex utility, and structural design components as well as subconsultants and interagency coordination.

STRUCTURES ENGINEERING SERVICES IDC, VTRANS, STATEWIDE, VT. Senior Bridge Engineer for planning, inspection, design, permitting, and bid phase services for state-managed bridge replacement and rehabilitation projects throughout Vermont. Projects included bridges carrying US, state, and Class 1 town highways. The projects received a combination of state and federal funding and followed the VTrans Project Development Process. Assignments include:

- **US 2 BRIDGE REHABILITATION, WATERBURY.** Project Manager/Senior Bridge Engineer responsible for leading design of superstructure replacement and substructure repairs to a 243-ft-long, 3-span, rolled beam bridge crossing the Little River. Project challenges include safely detouring large trucks, passenger cars, pedestrians, and cyclists through a tight site during construction.
- **VT 102 HISTORIC TRUSS BRIDGE REHABILITATION, BLOOMFIELD.** Project Manager/Senior Bridge Engineer for evaluation and design for the rehabilitation of Bridge 9, a circa-1937, 130-ft-span steel-through-truss bridge over the Nulhegan River. The project addresses corrosion throughout the superstructure as well as appurtenant improvements to the substructure. Adjacent to a recreational easement and the VT/NH border, the project includes substantial stakeholder engagement.

WARREN COVERED BRIDGE #6 RESTORATION, WARREN, VT. Project Manager for restoration design of a 42-ft-long timber bridge constructed in 1880. The one-lane bridge spans the Mad River in downtown Warren, utilizes Queenpost trusses spaced approximately 15 ft apart, and is listed on the National Register of Historic Places. The project replaces the west abutment and wingwalls while preserving the bridge's appearance. The project includes selective restoration of the superstructure. The project receives federal funding and follows the VTrans MAS process.

VT 58 BRIDGE REPLACEMENT, LOWELL, VT. Project Manager for replacement of a short-span bridge carrying VT 58/Hazens Notch Road over the Burgess Branch. The project receives state and federal funds and follows the VTrans Municipal Assistance Section (MAS) process.

HOGBACK ROAD CULVERT REPLACEMENT, CAMBRIDGE, VT. Project Manager for the replacement of a short span, municipally-owned culvert carrying a low-volume town highway over Judevine brook. The existing structure is a 11-foot by 7-foot corrugated metal plate pipe culvert. The bridge will be replaced with a precast rigid frame to reduce costs and construction duration as well as provide a minimal-maintenance structure with a long service life. The project is largely being funded through a federal grant administered through the VTrans Municipal Assistance Section.

PEDDLERS BRIDGE ROAD CULVERT REPLACEMENT, RIPTON, VT. Project Manager supporting replacement design for a 16-ft-span corrugated metal arch culvert, which has overtopped seven times in the past 20 years during storm events.



JENNY AUSTIN, PE

Project Manager

Total Years of Experience: 23

Years with D&K: 11

EDUCATION

B.S., Civil Engineering, University of Vermont, 1999

REGISTRATIONS

Professional Engineer: VT 8551

Ms. Austin has 23 years of experience providing management and design for civil engineering projects.

Her experience focuses on traffic engineering to support future growth for public and private entities, as well as transportation planning and design for municipal, regional, and state projects. Jenny has worked on a range of projects, including Municipal Project Manager services on VTrans MAS projects and project engineer for a pilot project to support the monitoring and performance evaluation of a road diet. She provides transportation master planning and has provided peer reviews of traffic impact studies. Jenny has experience with all phases of transportation design from scoping through contract plans and bid documents. Jenny was the recipient of the Vermont Young Engineer of the Year for 2009.

SIDEWALK REPLACEMENT, CASTLETON, VT. Assisted with construction administration for a 2,800-LF sidewalk project along VT 4A and VT 30 in Castleton. Responsibilities included spreadsheet tracking of construction quantities and review of quantities in construction payroll requests; certified payroll review; assistance with construction-related materials forms, RFIs, and change orders; coordination with VTrans and the contractor regarding VTrans required documentation; and maintaining the file-sharing site for the project.

BASIN HARBOR ROAD CULVERT REPLACEMENT, BRIDPORT, VT. Serving as Municipal Project Manager (MPM) to assist the town with the removal of a 208-in x 57-ft squashed corrugated metal pipe and replacement with a 20-ft-wide x 9-ft-high x 43-ft-long precast concrete box culvert. Responsibilities include the review of design engineers' plans and invoices; review of invoices from design engineer and construction engineer; and serving as a liaison between the Town, VTrans, design engineer, and construction engineer. This project is in the construction phase.

BEAVER POND SHARED USE PATH PROJECT, MPM SERVICES, PROCTOR, VT. Municipal Project Manager (MPM) assisting the Town with the design phase of the shared-use path project. Responsibilities include preparation of a design engineering services RFP; serving on the selection committee meeting; coordinating meetings with the Path Committee, including engaging Doodle Polls for collecting input from meeting attendees and attended meetings; reviewing design engineers' plans and invoices; and serving as a project liaison between VTrans and the design engineer.

WINOOSKI TRANSPORTATION MASTER PLAN, CCRPC, WINOOSKI, VT. Project to develop a comprehensive Transportation Plan for the City to use as a planning tool for future transportation projects. Responsible for an inventory of existing conditions, developing an online survey and evaluating results, high crash location reviews, worked with the client to develop a "wish list" of improvements, developed cost estimates, and served as the primary author of the City's Transportation Master Plan.

BARRE-MONTPELIER ROAD DIET, VTRANS, BERLIN, VT. Project Engineer on a pilot project for VTrans to support the monitoring and performance evaluation of the Barre-Montpelier Road Diet project. Responsible for public outreach process and summarizing hundreds of survey responses, development of a Road Diet Evaluation Matrix with scoring criteria, preparation of a Road Diet Assessment Report, traffic analyses, before and after evaluations, and project management coordination with VTrans. This project was featured in FHWA's Innovator newsletter.

BARTON-ORLEANS PARK & RIDE STUDY, VTRANS, BARTON, VT. Project Engineer to assist with preparation of a Scoping Study to evaluate potential park and ride locations. Reviewed similar studies by other firms to develop a report format, evaluation matrix, and scoring criteria measures that is consistent with similar projects prepared for VTrans.



CHRIS SARGENT, AICP

Project Manager

Total Years of Experience: 21

Years with D&K: 5

EDUCATION

M.S., Resource Management & Administration, Antioch New England Graduate School, 2001
B.A., Johnson State College, 1993

CERTIFICATIONS

M.S., Resource Management & Administration, Antioch New England Graduate School, 2001
B.A., Johnson State College, 1993

Mr. Sargent has 21 years of experience in community planning with expertise in municipal planning and government, zoning regulation, permit analysis, facilitation, and public process. He has extensive experience working with communities to engage the public, having worked with over 30 communities to develop their own municipal vision for the future. Chris has overseen the development of long-range regional planning policy, including land use, natural resource protection, and energy. He has assisted multiple municipalities with local planning, including zoning, flood hazard, and subdivision regulations, and assisted state agencies with the development of land use and energy planning policy that guides regional and municipal renewable energy planning. As a Community Planner, he has a firm understanding of planning, permitting, and public process for the development of transportation and planning projects for local, state, and federal clients.

BEAVER MEADOW SIDEWALK SCOPING STUDY, NORWICH, VT. Project Manager for a scoping study to develop a plan to enhance connectivity and safety for pedestrians and cyclists traveling along Beaver Meadow Road between Huntley Avenue and Morre Road, and eventually to Ballard Trail trailhead. When complete, this project will create a contiguous safe walking route linking the Town center, Huntley Meadows, and some of Norwich's most densely settled neighborhoods. Responsible for managing day-to-day development, public engagement, senior-level planning, scheduling, budgeting, and QA review of deliverables. This project is funded in part by the Federal Highway Administration, the Town of Norwich, and VTrans MAS.

TRI-PARK MASTER PLAN, BRATTLEBORO, VT. Project Manager responsible for developing a master plan and approach to moving more than 40 mobile homes located near or inside a floodway to other areas within the Park. Located at the confluence of Whetstone Brook and two other waterways, homes within Tri-Park have encountered damage and in some cases have been removed as a result of flooding in 2005 and 2011. Tri-Park is the largest manufactured housing cooperative in Vermont with 323 homes located on site. Responsible for working with Tri-Park and Town officials, completing a large-scale public engagement initiative to gather input, and overseeing concurrent economic analysis and hydraulic and hydrologic analysis as part of the project. Utilizing GIS to develop flood hazard and master plan maps. Developed a narrative and graphical report that summarizes existing conditions, steps forward, costs, and coordination with funding and regulatory officials to remove homes from hazardous areas within the park. *The project received a Grand Award for Engineering Excellence and Green Mountain (overall) Award from ACEC-VT and a Certificate of Merit from the Vermont Planners Association.*

DESIGN OF FIVE CORNERS, CCRPC, ESSEX, VT. Project Manager/Senior Planner responsible for land use planning and public engagement for a plan that explored the benefits of reconfiguring the five-way intersection as a four-way junction to improve traffic flow for people driving through, and reduce crossing distances and exposure to traffic for pedestrians. The project included documenting parking utilization throughout the Village to determine the community's parking needs and how to best accommodate them. The project also included a detailed step-by-step implementation plan, and development of language to modify the village plan to set the project on a path for implementation. Public engagement included hosting a booth at the local farmers market and community presentation held at an art gallery.

BRADFORD TOWN PLAN, TRORC, BRADFORD, VT. Lead Author/Project Manager working with the Town of Bradford to develop a new Municipal Plan that was consistent with the community's vision for the future. The project utilized two forms of public engagement, a written survey, and a hands-on charrette-style event that allowed residents to identify areas where conservation was a priority. The information collected resulted in a significantly improved plan that defined how and where the community would encourage growth, and how natural resources should be protected for the future.



JON ASHLEY, PE

Project Manager

Total Years of Experience: 30

Years with D&K: 7

EDUCATION

B.S., Environmental Engineering, Rensselaer Polytechnic Institute, 1992
M.S. Course, Advanced Hydrology, Kansas State University, 2001
M.S. Course, Physical and Chemical Hydrogeology, University of Massachusetts, Lowell, 1996
M.S. Courses, Wastewater Treatment and Engineering; Open Channel Hydraulics, University of New Haven, Connecticut, 1994-95

REGISTRATIONS

Professional Engineer: VT 7350, NH 9709, NY 79818
Certified Vermont Class 2 Public Water System Operator
40-hour OSHA HAZWOPER Course
8-hour OSHA HAZWOPER Course
Firefighter I Certification

Mr. Ashley has 30 years of environmental and civil engineering experience. Director of the Public Works Division, Jon's experience includes planning, management, and design of water and sewer projects, hazardous waste and brownfield remediation, road and slope projects, stormwater collection and treatment, and site/civil development projects for municipal, state, local, and private clients. Jon has supported environmental documentation and permitting for infrastructure and site projects and maintains strong working relationships with regulatory officials

CREEK ROAD STREETScape PLANNING, DESIGN, AND RECONSTRUCTION, ADDISON COUNTY TRANSIT RESOURCES, MIDDLEBURY, VT.

Senior Project Manager for town road reconstruction design, drainage improvements, high school athletic fields and facilities, Addison County Transit Resources (ACTR) headquarters planning, and sidewalk projects on Creek Road with various funding sources including VTrans MAS; town, school, and boosters; and Federal Highway Administration (FHWA). Provided sidewalk planning assistance including Safe Routes to School application support. Designed sidewalks to integrate with ACTR Facility, new concrete bleachers for the lacrosse and soccer field, Trail Around Middlebury, new Town Parks and Recreation Building, as well as existing residences and commercial properties. Provided stormwater permitting assistance, gravel wetland design, and bid and construction administration assistance for the sidewalk project.

ROUTE 53 ROAD RECONSTRUCTION, SALISBURY, VT.

Project Director and Engineer-of-Record for design, permitting, bid and construction of road reconstruction work to address issues with shoreline erosion, drainage, poor road subbase material, slope instability, and banking. The project included gabion baskets for protection of shoreline from erosion, and timber guardrails to fit into the rural setting. Assisted the Town with securing state funding, and with project administration related to VTrans highway and structures grants during construction.

JAMES ROAD RECONSTRUCTION, TOWN OF WEYBRIDGE, VT.

Designed road reconstruction, drainage improvements, and slope stabilization to repair a Town road damaged by slope movement. The project was funded by VTrans and won an Engineering Excellence Award for innovation in using lightweight foam blocks to rebuild the road, taking weight off the weak clay slope.

PEARSON ROAD RECONSTRUCTION, NEW HAVEN, VT.

Designed road reconstruction, drainage improvements, and slope stabilization measures to repair a Town road damaged by significant flooding. The FEMA-funded project included topographic surveying, conceptual design, cost opinions, coordinating underground utility relocation, final design, and construction review.

LOWER PLAINS ROAD AND CROSS STREET BRIDGE PROJECTS, TOWN OF MIDDLEBURY, VT.

Project Manager for topographic surveying and coordination of boundary surveying for two Middlebury design-build bridge projects (one new bridge and one destroyed by flooding). One of the projects also included replacement design for a damaged water main.



CHRIS RIVET, PE

Project Manager

Total Years of Experience: 12

Years with D&K: 4

EDUCATION

B.S., Civil Engineering, Norwich University, 2010

REGISTRATIONS

Professional Engineer: VT 109341

Mr. Rivet has 12 years of stormwater engineering experience. His project expertise includes the design, construction, and compliance inspection for site development projects throughout Vermont. Christopher has served as the project manager and lead engineer for sand and salt shed projects going through the VTrans MAS process. He has prepared designs, observed construction, and performed compliance requirements for projects that cover the current stormwater permitting programs. His design work includes a range of site development, renewable energy, and culvert projects.

US 5, VERMONT AGENCY OF TRANSPORTATION, BRATTLEBORO, VT. Project Engineer to evaluate and design stormwater, support Act 250 permitting, and account for right-of-way impacts caused by redesign of a 1.25-mile section of US 5. The project includes four roundabouts and private property access points. Providing engineering and analysis for stormwater treatment practices.

STORMWATER DESIGN PERMITTING, CRESCENT CONNECTOR, ESSEX JUNCTION, VT. Project Engineer responsible for revising the stormwater treatment system based on design revisions to the \$7.5 million FHWA-funded Crescent Connector roadway, an 1,800-LF bypass around the Five Corners intersection. The project included the use of porous pavement in parking areas to promote groundwater recharge. The design included an underground sand filter that was used to treat stormwater runoff due to extremely limited space and flat grades within the project area. Responsible for the preparation and submission of the stormwater discharge permit amendment application.

WYE, CULVERT, AND EMBANKMENT REHABILITATION, LEICESTER WCRS (23)C-1, LEICESTER, VT. Project Engineer to prepare an Erosion Prevention and Sediment Control (EPSC) Plan for the Contractor's use on site during construction of 6 rail culverts and 2,600 of track and embankment rehabilitation. Responsible for the preparation of the EPSC Plan.

DELAWARE & HUDSON RAIL TRAIL EROSION PREVENTION AND SEDIMENT CONTROL PLAN, RUPERT, PAWLET, POULTNEY, AND CASTLETON, VT. Lead Engineer to prepare an Erosion Prevention and Sediment Control (EPSC) Plan for the Contractor's use on-site during construction of rail-trail improvements along a 19.8-mile shared use path.

US 7 RECONSTRUCTION, MARKOWSKI EXCAVATING, PITTSFORD, VT. Lead Engineer for the preparation of various plans, documents, and permit applications needed to proceed with the reconstruction of a 1.37-mile section of US 7. Prepared an Erosion Prevention and Sediment Control Plan and Water Diversion Plans to divert streams around the work area during the replacement of three bridges/culverts under the roadway. Responsible to prepare an Act 250 Permit Application for the use of an adjacent farm property as a material storage area, sand borrow area, and soil disposal area.

ONE TAYLOR STREET MULTI-MODAL TRANSIT CENTER, MONTPELIER, VT. Project Engineer for a State of Vermont Visitors Center and Transit Facility to support public bus operations. The Center includes traveler and parking accommodations, green space, residential units, and an extension of the Montpelier Bike Path. Responsible for revising the stormwater discharge permit due to design changes made during the construction of the project. Performed on-site Environmental Professional services, including observation and documentation of contaminated soil management and disposal and inspection of erosion prevention and sediment control measures implemented to prevent off-site migration of contaminated soils.



STEPHANIE SOLLA, PE

Project Engineer

Total Years of Experience: 9

Years with D&K: 7

EDUCATION

B.S. Civil Engineering, Clarkson University, 2013

REGISTRATIONS

Civil Engineer: VT 130771

Ms. Solla is a civil engineer with 9 years of experience providing roadway, drainage, and transportation design for municipal, state, and federally-funded projects. She has provided roadway geometric design, traffic signalization and analysis, signing, cost estimating, hydraulic analysis, and design of profiles, alignments, grading, and drainage. Stephanie regularly uses MicroStation/OpenRoads, AutoTURN, AutoCAD, and Estimator software packages and she has working knowledge of the AASHTO "Green Book" and the MUTCD.

CRESCENT CONNECTOR, CITY OF ESSEX JUNCTION, VT. Design Engineer for \$8 million Federal Highway Administration-funded Crescent Connector Road project, a 1,800-ft-long bypass around the east side of the Five Corners intersection for traffic that is traveling between Maple Street, Main Street, and Park Street. Scope of work includes design plans and cost estimates, permitting, right-of-way acquisition and utility relocation assistance, public outreach, preparation of bid documents, and engineering design services during construction. The project is administered through the VTrans Municipal Assistance Section. Provided drafting and addressed comments from the Village.

BRIDGE. NO. 150/106 NH 113 OVER BEARCAMP RIVER, NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, TAMWORTH, NH. Design Engineer for a one-span replacement of an existing three-span bridge. Completed design and drafting for striping and signing and bridge approach rail.

HIGHWAY RESURFACING IDC, VTRANS, STATEWIDE, VT. Transportation Engineer for multi-year on-call contracts (2010–2015, 2016–2019). Providing preliminary and final design services for pavement resurfacing and rehabilitation projects statewide. Design elements include initial field reconnaissance, typical section development, pavement markings, roadway signing, guardrail and bridge rail upgrades, sidewalk ramp upgrades, traffic signal equipment upgrades, traffic control, development of banking diagrams, cross-sections, and minor drainage improvements. Projects include "level overlay and cold plane" resurfacing, pavement widening, and pavement reclamation projects. Design services are in English units and MicroStation/InRoads. Projects include:

- **STP PC20(3) AND NH PC20(3), VT 7, VT 30, VT 125, RESURFACING, MIDDLEBURY, VT.** Project Engineer for mill and fill resurfacing of 3.9 miles of urban streets. Responsible for plan review, parking review, and striping layout.
- **STP PS19(3), VT 100, RESURFACING, STOWE-MORRISTOWN, VT.** Project Engineer for a 7.7-mile reclamation project. Responsible for design of horizontal and vertical alignments and banking. Reviewed underdrain alignment, redesigned the Randolph Road intersection, provided turn lane layout, completed sign and plan review and provided quantity estimating.
- **STP PS19(11), VT 15, RESURFACING, UNDERHILL-CAMBRIDGE, VT.** Project Engineer responsible for design of horizontal alignment, review of underdrain design, turn lane layout, quantity estimating, and plan review.
- **STP PS19(6), VT 15, ESSEX-UNDERHILL, VT.** Project Engineer responsible for pavement marking layout, plan review, and quantities.

NH ROUTE 3A/DUNKLEE ROAD INTERSECTION, BOW, NH. Design Engineer to provide safe and efficient access from the Dunklee Road commercial, industrial area onto Route 3A. The improvements are needed to address difficult turning conditions for trucks and delays for traffic entering 3A from Dunklee Road. The project includes signal design, stormwater, utilities, survey, and permitting. Completed right-of-way plans and quantities.



DARYL BASSETT

Constructability Review

Total Years of Experience: 22

Years with D&K: 1

EDUCATION

A.E., Civil and Environmental Engineering, Vermont Technical College, 1999
Magna Cum Laude

CERTIFICATIONS

ACI Concrete Field-Testing Technician, Grade I
NETTCP Driven Pile Foundation Inspector

Mr. Bassett is a senior resident project representative who has 22 years of relevant experience, including serving as an inspector, resident engineer, and technician for the Vermont Agency of Transportation (VTrans) for 21 years. Prior to joining VTrans, he served in the Army and National Guard as a combat engineer. Daryl's hands-on project experience includes serving as a construction inspector, resident engineer, and resident project representative for bridge, roadway, slope rehabilitation, ledge removal, stream relocation, and general maintenance projects. His bridge experience includes accelerated bridge construction, steel, plate girder, precast concrete, timber, interstate, rail, and historic rehabilitation projects.

CONSTRUCTABILITY AND BIDDABILITY REVIEW, MULTIPLE PROJECTS, VTRANS, STATEWIDE, VT. Constructability Reviewer responsible for providing engineering review services through the scoping, conceptual, preliminary, final, and contract plan phases that focus on project constructability and limiting change orders during the construction phase. Also responsible to perform field visits to confirm the existing conditions of structures, to provide an intensive review of project-specific documentation, and to review the project scope for appropriateness. This information is used to collaborate with VTrans Project Managers throughout the plan development phases to develop alternatives, mitigate risk, and ensure overall project success. Reviews support the delivery of high-quality project plans and contracts prepared by D&K and other consultants.

- **US 2 BRIDGE REHABILITATION, WATERBURY.** Constructability Review of design of superstructure replacement and substructure repairs to a 243-ft-long, 3-span, rolled-beam bridge crossing the Little River. Project challenges include safely detouring large trucks, passenger cars, pedestrians, and cyclists through a tight site during construction.
- **VT 102 HISTORIC TRUSS BRIDGE REHABILITATION, BLOOMFIELD.** Constructability Review for evaluation and design for the rehabilitation of Bridge 9, a circa-1937, 130-ft-span steel through truss bridge over the Nulhegan River. The project addresses corrosion throughout the superstructure as well as appurtenant improvements to the substructure. Adjacent to a recreational easement and the VT/NH border, the project includes substantial stakeholder engagement.

BRIDGE IMPROVEMENTS, WINDSOR IM 091-1(64) AND ROCKINGHAM IM 091-1(66), WINDSOR AND ROCKINGHAM, VT. VTrans Resident Engineer for two design-build projects of large bridges in and over streams. Oversaw Environmental Compliance Officers for both projects. Responsible for oversight of work and adherence to permitting requirements.

RIVER/STREAM STABILIZATION, WOODSTOCK ER 0241(40), WOODSTOCK, VT. VTrans Resident Engineer for a stream restoration and roadway stabilization project that required a complete stream diversion during construction.

- **BRIDGE AND INTERSTATE, US, AND STATE HIGHWAY PROJECTS, VTRANS, VARIOUS LOCATIONS, VT.** Resident Engineer and/or Resident Inspector responsible for observing contractor activities, completing daily reports, coordinating testing, supporting construction contract administration, and/or coordinating between project parties for the following projects:



EMILY LEWIS, PLA, LEED AP

Planner/Landscape Architect

Total Years of Experience: 15

Years with D&K: 3

EDUCATION

M.S., Environmental Sciences and Policy,
Johns Hopkins University, 2016
Bachelor of Landscape Architecture,
Pennsylvania State University, 2007

REGISTRATIONS

Professional Landscape Architect: VT
133745; MD 3695

CERTIFICATIONS

LEED AP-US Green Building Council
Erosion and Sediment Control Qualified
Professional-Maryland DEP

Ms. Lewis has 15 years of experience with multidisciplinary projects, including transportation, complete streets, parks, and trails, as well as land planning projects and stormwater management facilities. In addition to landscape planning and design services, Emily has served as the landscape construction administrator and inspector for large-scale, suburban, and rural highways, as well as provided environmental site assessments, forest delineation, and environmental restoration. She has significant experience in community outreach, including facilitating meetings and design charrettes, and presenting to community groups and local governments.

NEW TOWN COMMON MASTER PLAN, HINESBURG, VT. Project Manager and Landscape Architect for the conceptual design of a town common park adjacent to Hinesburg's VT 116 commercial corridor and new and proposed residential developments. Currently without a central town gathering space, Hinesburg envisions this 2.5-acre parcel becoming a hub for the community with space for events and active and passive recreation. The proposed design includes a large central green, walking paths, natural playscape, skating rink, splash pad, and new shade trees. The Town Common reflects the character of Hinesburg with agricultural elements, local materials such as stacked stone walls, and native plants. Developed conceptual layouts and precedent imagery, coordinated with the volunteer committee and planning director, synthesized public and volunteer committee comments into the final design, developed all renderings.

CRAFTSBURY VILLAGE MASTER PLAN, CRAFTSBURY, VT. Landscape Architect working with the Town to develop a Village Plan to address a key dilemma faced by the town; the town's infrastructure has not kept up with the town's growth and the increasing numbers of visitors to the Village. Leading an ongoing series of public meetings and direct focus groups to engage key landowners and stakeholders, Responsible to develop the master plan based on the input from the public meetings. The plan will provide guidance to developing future road designs, parking, and access solutions, and active transportation networks for the heart of this thriving northern Vermont community. The project is funded through the Municipal Planning Grant Program administered by the Vermont Agency of Commerce and Community Development and the Town of Craftsbury with GIS and some planning support provided by the Northeastern Vermont Development Association.

WEST SWANZEY AA MEMORIAL PARK REDEVELOPMENT, SWANZEY, NH. Landscape Architect responsible for planning, design, and assisting with permitting for the revitalization of a river access park in a residential area. Improvements include a basketball court, reconfigured parking and dropoff, a kayak/canoe launch, and appurtenant placemaking and bank stabilization improvements. The project involves working closely with NHDES regulators to avoid endangered species in the Ashuelot River and minimizing or eliminating disturbance to the river.

SUBSTATION RECONSTRUCTION, VERMONT ELECTRIC COOP, SHELDON SPRINGS, VT. Landscape Architect responsible for supporting an Aesthetic Impact Assessment reviewing the visual impacts of the rebuilding of the substation. Provided a landscape screening plan to minimize the visibility of the proposed project to the surrounding area.

MIDDLESEX WALKABLE VILLAGE MASTER PLAN, MIDDLESEX, VT. Landscape Architect/ Environmental Planner for Middlesex Village master planning effort to develop improved downtown streetscape and community center. Provided support for conceptual designs and environmental resource review. *This project was awarded Plan of the Year in 2021 by the VT Planners' Association.*



DAN MALLACH, PLA, AICP, CPRP

Planner/Landscape Architect

Total Years of Experience: 17

Years with D&K: 1

EDUCATION

Master in Landscape Architecture,
University of New Mexico, 2009
B.A., Music, Minor in Plant Ecology,
Middlebury College, 1995

CERTIFICATIONS

Professional Landscape Architect: VT, PA
American Institute of Certified Planners
Certified Park and
Recreation Professional
ISA Certified Arborist PD-2782A, TRAQ

Mr. Mallach is a Certified Planner (AICP), Registered Landscape Architect, Certified Park and Recreation Professional and ISA Certified Arborist with expertise in planning, design, ecology and regulatory processes. His professional practice includes 17 years in transportation and community planning, planting, park and recreation design, natural and cultural feature stewardship, bylaw implementation and working with public and private clients to achieve place-making and land management objectives.

RICHFORD STREETScape MASTER PLAN, RICHFORD, VT. Project Lead working closely with the Northwest Regional Planning Commission (NRPC) and the Town of Richford to develop a master plan for future streetscape improvements. In addition to conceptual design, this effort involves a significant public engagement process, including a design charrette-style, hands-on workshop that will build public excitement for the project.

BERLIN ROAD DIET SCOPING STUDY, BERLIN, VT. Planner working with the town to develop a gateway to the Community's New Town Center along Fisher Road. The project involves a robust stakeholder engagement process that includes one-on-one interviews with key stakeholders, public input meetings, online surveys and a project web site. D&K's design team will be developing conceptual alternatives that improve bicycle and pedestrian access and aesthetics while maintaining a high level of service based on current and future uses. Supporting stakeholder interviews, existing conditions analysis and alternative design process.

MUNSIL AVENUE SCOPING STUDY, BRISTOL, VT. Lead Planner and Landscape Architect working with the town to identify possible locations for a sidewalk extension on Munsil Avenue that will provide much needed pedestrian access to a key employment center in the community. Responsible for conducting public engagement meetings, and working with team members to assess existing conditions, develop alternatives and cost estimates.

CENTER STREET SCOPING STUDY, RUTLAND, VT. Planner and Landscape Architect responsible for design development, evaluation of existing conditions and preparation of presentation graphics. The project aims to encourage residents and visitors to linger longer in an attractive and inviting mixed-use, pedestrian-friendly downtown context. Concepts include plantings, hardscape amenities, public art and improvements for pedestrian safety and ADA access.

GREENSBORO BEND REVITALIZATION PLAN, GREENSBORO, VT. Planner and Landscape Architect responsible for design of streetscape improvements to encourage human-powered transportation and enjoyment of local businesses and recreational resources, particularly by users of the centrally-located Lamoille Valley Rail Trail (LVRT). A village area that is rich in history and natural beauty, "The Bend" features greenspace in a mixed use, rural context, with the LVRT making a sweeping 180-degree curve as it crosses the community's Main Street.

HEART OF GLOVER VILLAGE PLAN, GLOVER, VT. Planner and Landscape Architect responsible for design for improvements along the Village streetscape and at the Village Green. The project proposes amenities including a pavilion, community gardens, a variety of seating, and accessible connections along Glover Road (VT 16) and to the Barton River. Glover's tight-knit community and renown as the home of the Bread & Puppet Theatre make this an engaging opportunity to think big, build better, and plan for people.



MATT MEARS, PE

Project Engineer

Total Years of Experience: 18

Years with D&K: 9

EDUCATION

B.S., Civil Engineering, University of Vermont, 2004

REGISTRATIONS

Professional Engineer: VT 66112

Mr. Mears has 18 years of experience with transportation, water resources, and site design projects in New England and has significant working knowledge of the following software packages: AutoCAD Civil 3D, Autodesk Storm and Sanitary Analysis, and HydroCAD. Matt has participated as an engineer and manager in both rural and urban street/roadway design and reconstruction projects, as well as the design, permitting, and implementation of many commercial and municipal site improvement projects.

MAIN STREET LIGHTING AND SIDEWALK IMPROVEMENTS, BRISTOL, VT. Senior Civil Engineer providing design services for the main street lighting and sidewalk improvements project. D&K is providing design, permitting, and construction services to the Town for the project. The municipal lighting portion of work requires vintage lampposts and associated electrical service to be upgraded. The sidewalk improvements include replacing 711 linear feet of brick pavers with stamped concrete and resetting the existing granite curb for the designated downtown area.

KNIGHT LANE SIDEWALK, WILLISTON, VT. Transportation Engineer for design and construction phase services for over 400 lf of sidewalk in a suburban area. This project included survey, right-of-way, conceptual through final plans, bidding assistance, environmental resource impacts, and cultural resource review. This municipally managed project was developed through VTrans MAS.

ONE TAYLOR STREET REDEVELOPMENT, MONTPELIER, VT. Project Engineer for the redevelopment of the old scrap yard and train depot into a transportation and housing center. The site provides Green Mountain Transit a welcoming transit center in the midst of Montpelier's business district. The City's shared use path was incorporated into the site design to extend through the parcel in order to provide easy access for bicyclists, walkers, and runners to the transit center or to pass through while enjoying their view of Winooski River from the new overlook patio. The design of the one-acre property included complex bus and pedestrian vehicle circulation, the multimodal transit hub, 30 housing units, parking, the shared use path and while providing green pedestrian areas and the use of stormwater best management practices, including rain gardens, pervious pavers, infiltration basins, and roof water infiltration. Other design considerations included contaminated soil remediation and flood zone analysis.

MARKET STREET, SOUTH BURLINGTON, VT. Project Engineer for the utility design and coordination for the Market Street roadway improvements project. The project will develop the infrastructure needed to bring a town center to the City of South Burlington between Hinesburg Road and Dorset Street. D&K worked with private developers and the City to ensure that their combined needs will be met.



CHARLIE JOHNSTON, PE

Environmental Engineer

Total Years of Experience: 7

Years with D&K: 7

EDUCATION

B.S., Civil Engineering, Geotechnical Concentration, Rensselaer Polytechnic Institute (RPI), Troy, NY, 2014

REGISTRATIONS

Professional Engineer: VT 134594, NH 16389

Mr. Johnston is a Civil Engineer with a significant range of experience in the day-to-day planning, evaluation, permitting, design and construction of municipal, state and federally owned dams. He has provided engineering services on numerous dam rehabilitation and removal projects throughout New England, and has developed strong professional relationships with regulatory officials. Charlie also has experience in site design, water and wastewater, road reconstruction, construction review, permitting, and hazardous waste/brownfield site investigation and remediation projects. His responsibilities include AutoCAD design, permit preparation and submissions, written reports, budgeting, probable construction estimation, contractor selection, communication between clients and contractors, and meetings with clients.

CONSTRUCTION REVIEW, ONE TAYLOR STREET WALL RECONSTRUCTION, MONTPELIER, VT. Resident Engineer for a federally funded, granite retaining wall reconstruction project that includes environmental remediation, site preparation for future development, and coordination with regulatory agencies for the redevelopment of this brownfield site. Responsible for conducting sampling and characterization of contaminated soils, organizing and leading project meetings, and managing zoning permitting for the floodway. Other duties included full-time construction observation, as well as serving as the site Health and Safety Coordinator.

GOOSE POND DAM REHABILITATION, KEENE, NH. Project Engineer and Resident Project Representative for the design and permitting of a 22-ft-high, 300-ft-long earthen dam and 10-ft-high, 200-ft-long dike. Duties included field engineering; structural & geotechnical engineering; participation in biweekly site construction meetings between the Owner, New Hampshire Dam Safety program, and the contractor; and review of shop drawings and submittals, RFIs and substantial/final design certifications.

SITE INVESTIGATION AND CAP, MONTPELIER-BERLIN BIKE PATH, MONTPELIER, VT. Staff Engineer for completion of a Phase II ESA on a former automotive maintenance site bisected by two railroad rights of way. Soil sampling the area of a proposed bike path showed evidence of petroleum, polycyclic aromatic hydrocarbons, and low-level VOC contamination from the former auto undercoating operations and historic property uses.

WILSON DAM, KEENE SCHOOL DISTRICT, KEENE, NH. Project Engineer responsible to observe existing conditions at the dam, identify alternatives to repair the dam and to lower its height to below the 6-ft NHDES jurisdictional threshold. Constructed in the 1920s, the earthen dam has a stone covered surface and a stonewall serving as the downstream slope and creates the 10-acre Wilson Pond. The project included an evaluation of the pond water level and impacts to wetlands and other resources, a bathymetric survey, the development of engineering sketches to illustrate the alternatives, the preparation of an opinion of probable costs for each alternative, a hydrologic and hydraulic analysis of the dam, preliminary geotechnical investigations, and a topographic survey of the dam. D&K also assisted the school district with an emergency lowering of the water level to address a clogged spillway.

CREEK ROAD RECONSTRUCTION AND SIDEWALK, MIDDLEBURY, VT. Staff Engineer for design support for road reconstruction, stormwater and drainage improvements, stormwater treatment, and sidewalk construction project funded through the VTrans MAS program. Services included plan preparation, traffic control plan, cost estimating, permit applications, bid document preparation, regular communication with VTrans, and assistance with final design and bid authorization approvals.



BECKY GAUDREAU, PE

Bridge Engineer

Total Years of Experience: 15

Years with D&K: 1

EDUCATION

M.S. Civil Engineering, University of New Hampshire, Durham, NH, 2007

B.S. Civil Engineering, University of New Hampshire, Durham, NH, 2005

REGISTRATIONS

Professional Engineer: NH 13317, VT 10072, ME 13417

Rebekah Gaudreau is an experienced bridge engineer with strong technical design and presentation skills. She has been a key member of several complex projects in the New England region. She has extensive experience in load rating steel truss bridges, traditional girder bridges, and rail bridges. Becky has been the lead designer for the replacement of several structures in the northeast including mixed-use rail/vehicular bridges and several bridges as part of the widening of Interstate 93 in New Hampshire. She also has experience with accelerated bridge construction projects, construction phase services, and quality control reviews. In the past two years, Becky has served as the Design Quality Control Manager for two New England design-build projects.

VT 58 BRIDGE REPLACEMENT, LOWELL, VT. Senior Bridge Engineer for replacement of a short-span bridge carrying VT 58/Hazens Notch Road over the Burgess Branch. The project receives state and federal funds and follows the VTrans Municipal Assistance Section (MAS) process.

STRUCTURES ENGINEERING SERVICES IDC, VTRANS, STATEWIDE, VT. Senior Bridge Engineer for planning, inspection, design, permitting, and bid phase services for state-managed bridge replacement and rehabilitation projects throughout Vermont. Projects included bridges carrying US, state, and Class 1 town highways. The projects received a combination of state and federal funding and followed the VTrans Project Development Process. Assignments include:

- **US 2 BRIDGE REHABILITATION, WATERBURY.** Senior Bridge Engineer responsible for leading design of superstructure replacement and substructure repairs to a 243-ft-long, 3-span, rolled beam bridge crossing the Little River. Project challenges include safely detouring large trucks, passenger cars, pedestrians, and cyclists through a tight site during construction.
- **VT 102 HISTORIC TRUSS BRIDGE REHABILITATION, BLOOMFIELD.** Senior Bridge Engineer for evaluation and design for the rehabilitation of Bridge 9, a circa 1937, 130-ft-span steel through truss bridge over the Nulhegan River. The project addresses corrosion throughout the superstructure as well as appurtenant improvements to the substructure. Adjacent to a recreational easement and the VT/NH border, the project includes substantial stakeholder engagement.

REPLACEMENT OF BRIDGE 10, VTRANS, NEW HAVEN, VT. Senior Bridge Engineer for a two-span continuous curved girder bridge with integral abutments and an integral pier cap on a single drilled shaft. Work included full 3D modeling of the curved, integral system, and seismic analysis given that the structure was in seismic zone 2. Completed work on the primary steel system and deck designs. Construction was completed in 2016. Presented a paper on this structure at the 2017 International Bridge Conference and 2017 Accelerated Bridge Conference. *This project was the recipient of the 2018 ACEC-VT Engineering Excellence Award for Transportation Projects.*

TWO SEAWALL AND THREE BRIDGE PROJECTS, WELLS, ME. Senior Bridge Engineer responsible for observing conditions at each site and the development of engineering reports. Bridge structures included an arched pipe culvert, a bridge with reinforced concrete deck beams and substructure and a bridge with a timber deck and abutments. The seawalls consisted of reinforced concrete cantilevers retaining walls, as well as a concrete-backed wave sheet pile retaining wall. Conducted engineering studies for each location which highlighted structural deficiencies and outlined maintenance and rehabilitation options for each location. For each location, developed opinions of probable construction costs of rehabilitation measures.



AIMEE RUTLEDGE, PWS, CPESC, CPSWQ

Senior Environmental Technical Lead

Total Years of Experience: 23

Years with D&K: 1

EDUCATION

B.S., Environmental Management,
University of Rhode Island, 1999

REGISTRATIONS

Society of Wetland Scientists,
Professional Wetland Scientist: 2238
Certified Professional in Erosion and
Sediment Control: 4647
Certified Professional in Stormwater
Quality: 732
VT Natural Shoreland Erosion Control
Practices Certification

Ms. Rutledge has 23 years of experience in a broad range of environmental work, including NEPA documentation, wetlands, water resources, stormwater, wildlife studies, and permitting. Aimee has strong relationships with many federal, state, and local regulatory agencies in the Northeast. She has worked with a wide range of clients on project types, including FAA/airports, bridge, roadway, dams, landfill sampling, SWPPP, industrial stormwater, wetlands restoration, corrective action plans, Phase I Environmental Site Assessments, SPCC plans, Act 250, wind turbines, solar, categorical exclusions, and environmental impact statements. Aimee has provided management of numerous projects, including staff, project budgets, schedules, contract agreements, and quality control and has acted as environmental technical lead for large environmental assessments and design/construction projects. She is proficient in ArcGIS and Trimble GPS/GPS Pathfinder and is knowledgeable in the use of AutoCAD and HydroCAD.

FAIR HAVEN CULVERT (62) IMPROVEMENTS, VTRANS, FAIR HAVEN, VT. Senior Environmental Analyst and Project Manager responsible for managing natural resource identification and permitting for a culvert lining project along US 4. The project involved coordination with VTrans environmental and VTDEC personnel. The project involved the preparation of a VT Wetland General Permit. The work was completed within a tight schedule requested by VTrans.

ALBURGH VILLAGE WATER SYSTEM, ALBURGH, VT. Senior Environmental Technical Lead responsible for natural resource inventory for the relocation of the town's existing water storage tank. The project area was reviewed for threatened, endangered, and rare species, wildlife habitat, wetlands, cultural, and other natural resources which could potentially be impacted by the project. The information gathered was used to complete a VTDEC Environmental Report.

MONKTON ROAD STABILIZATION, CHARLOTTE, VT. Senior Environmental Technical Lead responsible for permitting of a slope stabilization project. The project involved an expedited review of project plans and the development of permit plans for a VT Wetlands General Permit application.

VT 104A BRIDGE OVER ARROWHEAD MOUNTAIN LAKE, VTRANS, GEORGIA, VT. Senior Environmental Analyst responsible for performing natural resource identification and permitting for the Highbridge Road bridge replacement project. Responsibilities included wetland and waterway delineation, identification of rare, threatened, and endangered species, and state and federal permitting review.

MATTISON ROAD STREAMBANK/SLOPE STABILIZATION, FORT ANN, NY. Project Manager and Senior Environmental Technical Lead responsible for a channel and slope stability project on a segment of Halfway Creek. Project objectives include reducing erosion and sediment contribution to downstream reaches, stabilizing deep-seated slope movement, stabilizing streambanks, and protecting municipal utilities and private property within the project reach. Efforts include topographic survey and base mapping, hydrologic and hydraulic analysis, alternative analysis, 100% design, and permitting.

STORMWATER ASSET MANAGEMENT PLAN, PEMBROKE, NH. Senior Environmental Technical Lead responsible for coordinating scheduling and budgeting, working with the town to develop a vision statement and stakeholder list, assisting with level of service workshop, utilizing ArcGIS for asset inventory and criticality ratings, and development of implementation plan.



BRENDA BHATTI

Ecologist/Biologist

Total Years of Experience: 21

Years with D&K: 1

EDUCATION

M.S., Environmental Studies, Antioch New England Graduate School, 2001
B.S., Zoology/Wildlife Biology, Ohio University, 1991

Ms. Bhatti has over 25 years of natural resources, environmental planning, and regulatory permitting experience throughout the Northeast and beyond. Brenda has significant experience in environmental and land use planning and management, ecological fieldwork, land protection, community and stakeholder engagement, state and federal agency coordination and negotiation, and regulatory and permitting strategy. She has worked on hundreds of environmental, conservation, wetlands, wildlife, and permitting projects as part of transportation, transmission, commercial, industrial, and residential construction and environmental compliance projects. Her work has included the preparation and support of permit applications and documentation under NEPA, state wetlands and natural resource programs, and federal regulations that include USFWS, USFS, FAA, and USACE. She has served on boards, commissions, and committees at local, regional, and state levels, including as the former Chair of the Legislative Committee for the NH Association of Natural Resource Scientists.

GREEN MOUNTAIN POWER (GMP) TRANSMISSION LINE BOTANICAL SURVEY, VERNON, VT.

Ecologist assisting with botanical inventory, bat roost and bird nest observations, and inputting data to a GPS receiver during multi-day investigation along a two-mile segment of a GMP line slated for vegetation management.

SLOPE STABILIZATION, SEVENSON ENVIRONMENTAL (PRIME), NASHUA, NH. Assisted with development of planting plan for Superfund remediation site along the Nashua River. Participated in installation of plants along the riverbank of Nashua River to prevent erosion following contaminated sediment removal by the engineer.

WEST SWANZEY AA MEMORIAL PARK REDEVELOPMENT, SWANZEY, NH. Senior Environmental Planner on a municipal project using federal funding. Responsible for evaluating impacts to jurisdictional natural resources adjacent to the Ashuelot River, including field studies to determine the Ordinary High Water (OHW); permitting to include state permits under the NH Department of Environmental Services (NHDES) wetlands, shoreland, and Alteration of Terrain (AOT) programs and regulations; and collaborating with the Town Planner, NHDES, and USFWS agents to confirm jurisdictional and permit concerns.

ENVIRONMENTAL IMPACT ASSESSMENT OF WATERSHED, AMESBURY, MA. Environmental Planner/Wildlife Biologist to perform a site inspection, compile existing information, and author the Environmental Impact Assessment chapter of Safe Yield Analysis for a three-pond area immediately upstream of Tuxbury Dam in the Merrimack River watershed. Provided recommendations for future site work.

MULTIPLE TRAIL DEVELOPMENT PROJECTS, PETERBOROUGH AND JAFFREY, NH. Environmental Biologist to analyze topographic constraints and wildlife compatibility for a mountainside spur trail off the Wapack Trail in the Wapack National Wildlife Refuge (administered out of the Parker River NWR in Newburyport, MA). Conducted a turtle nesting habitat analysis for a rail trail that extends from the Massachusetts border through NH towns. Participated in regular maintenance of trails at Monadnock State Park during nine-year stint as seasonal park ranger.

USACE MUDDY RIVER PHASE 2 RESTORATION, BOSTON, MA. Environmental Planner and pursuit lead for major dredge and restoration effort on river in Boston and Brookline. Stakeholders included Boston and Brookline Conservation Commissions and Boston Parks and Recreation. Responsibilities included oversight of preliminary project phasing and sequencing for ecological and biological aspects, especially fisheries, wetlands, and turtles. Served as subconsultant lead in team meetings and developed phasing schedule for Time of Year restrictions for in-water work to avoid impacts to species of concern, including blueback herring, which resulted in substantive modifications to approach and sequencing by engineers. Researched preliminary background information to inform proposal effort that resulted in ~\$35M project win and subsequent avoidance of impacts.



GRACE GLYNN

Wetland Scientist

Total Years of Experience: 6

Years with D&K: 2

EDUCATION

M.S., Field Naturalist and Ecological Planning, University of Vermont, 2020
B.A., Botany, Connecticut College, 2014
Courses, Evolutionary Biology and Ecology, Universidad San Francisco De Quito, 2013

CERTIFICATIONS

VT Natural Shoreland Erosion Control Practices Certification

Ms. Glynn is a field naturalist who brings experience with botany, forestry, invertebrate biology, ornithology, microbiology, macrobiology, evaluating inland and coastal aquatic ecosystems, vernal pools, landscapes, and soils, and developing ecological inventories. She has significant, hands-on experience completing research, providing public interpretation, and technical writing for municipalities, nonprofit organizations, and universities for large-scale resource inventories, planning studies, mapping programs, and educational projects.

WHITCOMB ISLAND AND GARFIELD ROAD BRIDGE, LCPC, VT. Field Naturalist/Permitting Specialist assisting the replacement of two culverts downstream of the Green River Reservoir Dam, which is in the process of relicensing and will be altering its flow rate. The culverts are hydraulically inadequate and the reaches of stream channel adjacent to the culverts are in need of stabilization. Responsible for desktop review and natural resource assessment in the field, including wetland delineation, invasive species mapping, rare species inventory, and mapping of other notable habitat features. Also responsible for evaluation of required permitting and making recommendations for improvements to aquatic organism passage.

GROVE STREET BRIDGE REHABILITATION, RUTLAND, VT. Field Naturalist/Permitting Specialist for the completed the study and is advancing design of substructure rehabilitation and replacement of the joints and bearings for a 3-span, non-continuous 169-ft-long steel stringer bridge with a concrete deck. Responsible for natural resource assessment in the field, including wetland delineation, invasive species mapping, rare species inventory, and stream mapping. Also responsible for evaluation of required permitting, making recommendations for improvements to aquatic organism passage, and coordinating with relevant state and federal regulatory agencies to complete necessary regulatory review.

ARCHERTOWN ROAD OVER JACOBS BROOK BRIDGE REPLACEMENT, ORFORD, NH. Field Naturalist/Permitting Specialist for a bridge study for the replacement of Bridge No. 080/120 on Archertown Road over Jacobs Brook. The project includes an alternatives evaluation and recommendations to replace the existing bridge, permit application assistance, preparation of final engineering plans and specifications. Responsible for natural resource assessment in the field, including wetland delineation, invasive species mapping, rare species inventory, and stream mapping. Also responsible for evaluation of required permitting, making recommendations for improvements to aquatic organism passage, and coordinating with relevant state and federal regulatory agencies to complete necessary regulatory review.

ALLEN STREET CULVERT REPLACEMENT, RUTLAND, VT. Field Naturalist/Permitting Specialist for the completed the study and is advancing design of a new a precast concrete box culvert with a span of 12 ft and a vertical opening of 3 ft. Responsible for natural resource assessment in the field, including wetland delineation, invasive species mapping, rare species inventory, and stream mapping. Also responsible for evaluation of required permitting, making recommendations for improvements to aquatic organism passage, and coordinating with relevant state and federal regulatory agencies to complete necessary regulatory review.



ANDREW HOAK, PE, PG

Hydrogeologist

Total Years of Experience: 29

Years with D&K: 7

EDUCATION

M.S., Hydrogeology, Clemson University, 1994

B.A., Geology, Environmental Studies, Alfred University, 1993

REGISTRATIONS

Professional Engineer: VT 8929, NY 101102

Professional Geologist: NH 388, NY 1131
Certified Wastewater Site Technician
Type B: VT 487

Grade 2 Domestic Wastewater Operator:
VT 1421

OSHA 40-Hour HAZWOPER Certificate
OSHA 8-Hour Supervisor Certificate
TSP-20-23000 NY, VT

Mr. Hoak has 29 years of experience working with municipal, nonprofit, and commercial clients on a diverse portfolio of design, construction management, and environmental planning projects.

He serves as Director of D&K's Environmental Services Division, and oversees civil/site, natural resources, utility and hazardous material projects, including drinking water, wastewater, and stormwater infrastructure and design of water quality projects. With specialties in hydrogeology and environmental engineering, Andy has successfully completed environmental investigations and remediation, water supply development and protection, decentralized wastewater disposal, site development and land use planning. He has a proven track record of developing innovative stormwater management controls, advanced sediment and nutrient treatment methods and extensive experience in stormwater permitting.

EMBANKMENT ASSESSMENT REPORT, NO. 9 ROAD, FAYSTON, VT. Project Manager and Hydrogeologist responsible to complete an Engineering Assessment Report to evaluate existing conditions of the roadway embankment of the Number 9 Road and assess the stability of the slope along a section of failing roadway due to slope instability and movement. A large crack in the pavement extended longitudinally along the road for approximately 110 feet and sat over an embankment retained by a stacked stone wall. The Class 3 Town Highway connects several roads in Fayston to Route 17 including Bragg Hill Road and Phen Basin Road. Completed a series of soil borings to identify on-site soil conditions and establish the depth to groundwater. Collected field data supported completion of a seepage and stability analysis using the GeoStudio software.

PARKING LOT AND SIDEWALK IMPROVEMENTS, SOAR LEARNING CENTER, ST. ALBANS, VT. Civil Engineer to support development of an underutilized facility to serve special needs students in Franklin County. The St. Albans Bay Elementary School was closed in the mid-1980s, but reopened years later by the Northwest Counseling and Support Services to serve as a school once again. Several facility improvements were needed in order for the school to meet current building codes. Assisted the school in identifying, permitting and testing a new Non Transient Non Community Public Water System and designed and supervised construction of a parking lot expansion with additional spaces and improved maneuverability for school buses and ADA handicap accessible sidewalks.

HYDRAULIC ANALYSIS FOR REPLACEMENT CULVERT, SAUGUS, MA. Senior Water Resources Engineer serving on a consultant team in charge of D&K's hydraulic modeling services for the replacement of a MassDOT structure carrying Water Street/Route 129 over the Saugus River. Services included survey of cross sections that were merged with available LiDAR to create a hydraulic model. Provided technical review of the hydrology, hydraulics, and no-rise analysis, recommendations for alternative structures, and final report.

HYDRAULIC ANALYSIS FOR REPLACEMENT BRIDGE, WESTFORD, MA. Senior Water Resources Engineer serving on a consultant team in charge of D&K's hydraulic modeling services for the replacement of a MassDOT structure carrying Route 40 over Gilson Brook. Provided technical review of the hydraulic analysis, recommendations for alternative structures, and final report.

FLOOD STUDY OF THE MAD RIVER AREA, CENTRAL VERMONT REGIONAL PLANNING COMMISSION, WAITSFIELD, WARREN AND MORETOWN, VT. Water Resources Manager to provide technical review and oversight of a flood study of the Mad River, Thatcher Brook and Graves Brook in the Towns of Warren, Waitsfield, and Moretown. The project team developed high-quality hydraulic models of the subject streams using HEC-RAS software and generating inundation maps for flows ranging from the 10- to 500-year flood flows. The maps and models are to be used to identify the most vulnerable infrastructure, such as roads, bridges, culverts, utilities, homes, and businesses, guiding the development of flood mitigation actions.



ALIREZA FARID, PHD, EIT, CFM

H&H Analysis

Total Years of Experience: 15

Years with D&K: 1

EDUCATION

Ph.D., Hydrology, University of Arizona,
Tucson, Arizona
M.S., Hydrology, University of Arizona,
Tucson, Arizona
B.S., Civil Engineering, Ferdowsi
University of Mashhad, Mashhad, Iran

REGISTRATIONS

Engineer-in-Training, NJ
Association of State Floodplain
Managers (ASFPM --- CFM Certificate)
SoloLearn Certificate for Data Science
and Python Core

Mr. Farid has 15 years of experience in hydraulics and hydrology, civil engineering, and drainage projects. Alireza's project experience includes analyzing stormwater and drainage processes and procedures; conducting H&H analysis; creating hydraulic models; performing flood risk assessments using flood inundation maps; evaluating water cycle and drainage structures; gathering information from clients, morphological information, and UAS approaches; and documenting process flows. Alireza has a background in modeling software data analysis tools including HEC-HMS, HEC-RAS, PC-Hydro, Flow Master, AutoCAD, WaterGEMS, WEAP, and the remote sensing analysis programs ENVI and SURFER.

SLOPE STABILIZATION, CHROMA TECH, BELLOWS FALLS, VT. Water Resource Engineer providing hydrologic modeling to support evaluation, design, and permitting services to stabilize a failed embankment abutting a stream. The slope project is located on a light industrial site. The project also aims to improve on-site stormwater collection and treatment practices. The size of the slope experiencing failure is approximately 0.3 acres and the approximate size of the site is 12 acres.

STORMWATER SYSTEM IMPROVEMENTS, NAHANT, MA. Water Resource Engineer evaluating the existing stormwater collection and conveyance system and assessing the effects related to historical stormwater issues in the vicinity of Castle Road. Responsible for H&H modeling of the stormwater system in support of an alternatives analysis for stormwater system improvements, and conceptual design recommendations.

GREEN SCHOOLS, STATEWIDE, VT. Water Resource Engineer responsible for providing hydrologic analyses for an on-call contract to develop stormwater retrofits that use green stormwater practices that manage, collect, and treat site stormwater with the overall goal of compliance with Vermont's Three-Acre Stormwater Rule.

JENNESS COVE, WINDY WATERS CONSERVANCY, MEREDITH, NH. Water Resource Engineer responsible for hydrologic modeling of the watershed and the cove culvert, using HydroCAD, to determine existing conditions and evaluation of the culvert. Conducted EPA STEPL modeling to determine pollutant loading to the cove. This data and analysis were included in a recommendations report that addressed sedimentation of Jenness Cove in Lake Waukewan, a tributary of Lake Winnepesaukee.

WOONASQUATUCKET, NRCS-RI, PROVIDENCE, RI. Water Resource Engineer responsible for developing hydrology for a Watershed Plan-EA document that seeks to identify flood mitigation strategies along the Woonasquatucket River for the purpose of reducing chronic and damaging flooding in the City's urban core. The Plan-EA is a comprehensive planning document that considers the potential impacts of alternatives on environmental and social resources, as well as their flood benefits.

MARTINS CREEK, NRCS-PA, NICHOLSON BOROUGH, PA. Water Resource Engineer responsible for developing hydrology for a Watershed Plan-EA document that seeks to identify flood mitigation strategies along Martins Creek for the purpose of reducing chronic and damaging flooding in the village. The Plan-EA is a comprehensive planning document that considers the potential impacts of alternatives on environmental and social resources, as well as their flood benefits.



BOBBY LANZILOTTA, EIT
Staff Engineer

Total Years of Experience: 3

Years with D&K: 3

EDUCATION

B.S., Environmental Engineering,
University of Vermont, 2019

REGISTRATIONS

Engineer Intern: 017.0134191

Mr. Lanzilotta is a Staff Engineer with experience working with HEC-RAS, HydroCAD, GIS, AutoCAD, GeoStudio, and SOLIDWORKS software. He assists with hydraulic and HydroCAD drafting, Act 250 permitting, and boundary line maintenance.

WHEELERVILLE ROAD CULVERT, MENDON, VT. Staff Engineer for design of culvert repair and revision of grading for a culvert replacement.

BETHEL MOUNTAIN ROAD SLOPE STABILIZATION, ROCHESTER, VT. Staff Engineer for evaluation, survey, permitting and final design for a 2,800-LF emergency roadway repair project. The project implements long-term repairs to sections of embankment that failed during a heavy spring rainfall and snowmelt event that closed the road, including upgraded drainage systems and structures, slope repair, and roadway reconstruction and minor realignment. Serving as a valuable mountain connector road between VT 100 and VT 12, rapid reopening and stabilization of the roadway was a critical need, which dictated a significantly compressed schedule. The project was managed by the Town of Rochester and receives FHWA-ER funding. Responsible for supporting fieldwork and conceptual drawings for the emergency roadway repair.

WEST RUTLAND SIDEWALK, RUTLAND, VT. Staff Engineer responsible revisions to cost estimates and rebid analysis for the development of cost estimates for sidewalks, crosswalks, streetscape enhancements, and pedestrian improvements for five sidewalk segments.

US ROUTE 7 SEGMENT 6 CONSTRUCTION INSPECTION, BRANDON, VT. Staff Engineer for drafting support as part of a major roadway and underground infrastructure reconstruction project through the heart of downtown Brandon. The project consists of roadway widening, sidewalks and curbs, pavement markings, traffic signs, signal, water main, sanitary sewer, aerial & underground utilities and stormwater improvements for the Brandon Village portion of U.S. Route 7. Included are portions of Franklin Street, Park Street, Center Street, Conant Square, Grove Street, and associated intersections and side roads. The project reconstructs a major north-south highway link through downtown to create a geometric configuration that will serve the high traffic volumes and access of abutting properties.



RANDY OTIS, PE

Survey Manager

Total Years of Experience: 21

Years with D&K: 16

EDUCATION

B.S., Business Administration, Southern New Hampshire University, 2019
A.S., Survey and Applied Science, Paul Smith's College of Arts and Sciences, 2002

REGISTRATIONS

Land Surveyor: VT 60852, NH 01060
OSHA 40-Hour HAZWOPER Certification
FAA Part 107 sUAS Pilot

Mr. Otis is a licensed land surveyor and senior party chief with 21 years of experience in boundary and topographic surveying. The head of DuBois & King's Survey Department, Randy has performed survey services for municipal, state, private, and public clients throughout New England and New York. His specific experience includes performing topographic and boundary surveys, right-of-way determination, monumentation, stakeout, boundary research and plats, and deed preparation and research.

RIGHT-OF-WAY AND BOUNDARY SERVICES, VERMONT AGENCY OF TRANSPORTATION, VARIOUS LOCATIONS, VT. Project Manager for successive on-call contracts to provide a range of right-of-way and boundary survey services for the inventory of VTrans real property throughout the State. Delivery of services conform to VTrans standards and guidelines and rules of the Vermont Board of Land Surveyors.

CRESCENT CONNECTOR ROAD SURVEY SERVICES, CITY OF ESSEX JUNCTION, VT. Survey Party Crew Chief for a \$8M Federal Highway Administration-funded Crescent Connector Road project, a bypass around a five-way intersection. Project consisted of deed research on 15 parcels and 3 state highways. Field survey required location of existing conditions of 3 highways, 1 active railway, and all private lands abutting the 1,800 ft proposed route. Record documents were compared with existing monuments to establish both private and public boundaries. Plans were drafted identifying all existing and proposed boundaries. The project is administered through the VTrans Municipal Assistance Section (MAS).

MAPLE AND UNION STREET SIDEWALK, BRANDON, VT. Topographic survey for new sidewalk along Maple and Union Streets in the Town of Brandon. The project is a municipally managed project developed through the VTrans MAS.

ESSEX STP WALK (21), ESSEX, VT. Surveying services for new 1,330-ft-long by 8-ft-wide bituminous sidewalk along a segment of VT 15.

THREE RIVERS TRANSPORTATION PATH, ST. JOHNSBURY, VT. Survey Party Chief for a new 1.1-mile shared use transportation path connecting Western Avenue with a new trailhead at South Main Street.

WAITSFIELD VILLAGE COVERED BRIDGE EMERGENCY REPAIRS ENGINEERING DESIGN SERVICES, WAITSFIELD, VT. Survey Party Chief to assess and evaluate damages to the historic 1833 covered bridge that resulted from Tropical Storm Irene. D&K inspected the bridge for damages immediately following the storm, evaluated damaged components, and made recommendations for emergency repairs. Oversaw survey of cross sections of river and to locate low chord of bridge.

PRESCOTT ROAD RECONSTRUCTION, BRENTWOOD, NH. Survey Party Chief for a topographic and boundary survey for a municipal road reconstruction project. Project control was established with static GPS observations and reduced with OPUS software from NGS. Services included reconnaissance for existing property corners and field survey locating existing features. Final deliverable consisted of revised right-of-way for highway improvements and the setting of new highway bounds.



CHAD RUSSO

Survey Party Lead

Total Years of Experience: 13

Years with D&K: 4

EDUCATION

A.S., Surveying Technology,
Paul Smith's College, 2008

Mr. Russo's topographic and boundary surveying experience includes construction layouts, level loops, three wire leveling, route surveying, geodesy, and deed research. Chad has experience working with GPS, GIS, and CADD.

RIGHT-OF-WAY AND BOUNDARY SERVICES, VERMONT AGENCY OF TRANSPORTATION, STATEWIDE, VT. Retainer contract to provide a range of right-of-way and boundary survey services for the inventory of VTrans real property throughout the State. Delivery of services conforms to VTrans standards and guidelines and rules of the Vermont Board of Land Surveyors. Task orders include:

- **CASTLETON SWRT(4).** Survey Party Chief for the topographic survey of South Street including culvert crossing and Hudson Rail Trail Bridge #721 concurrent crossings. Field data collection was compiled and developed into MicroStation survey files for use by VTrans Rail & Aviation Bureau
- **PLYMOUTH BF 013-3(17).** Survey Party Chief for the static terrestrial LiDAR scanning (STLS) services for a corrugated metal culvert in Plymouth, VT on VT 100. Field scan was georeferenced to existing survey control points on site. Data for scan were registered in LAS format with an RAW copy as well as a processing copy that is registered and georeferenced. Scan will be used by VTrans to provide rapid and accurate pre-construction, post-construction, and asset inventory monitoring services.
- **ROCHESTER CULVERTS ER 013-4(53).** Survey Party Chief for the record topographic survey for two constructed culverts. Topographic survey focused on the determination of construction elements including fill which may have extended outside of the ROW limits. Survey data was supplied to VTrans for use in project ROW acquisition as needed.
- **RESURVEY OF ROUTE 17,** Addison, VT. Survey Technician responsible for acquisition of relevant field information and setting of monuments in regards to Route 17 location and width.
- **RESURVEY OF US ROUTE 7, PITTSFORD, VT.** Survey Technician for historic right-of-way determination for US 7 segments 1 and 2 and side streets in village. Set monumentation on Route 7 and adjoining side street right-of-way limits. Instrument man and rod man for data collection for improvements and revisions in the final phase of the project.
- **NH ROUTE 3A/DUNKLEE ROAD INTERSECTION, BOW, NH.** Survey Technician to provide safe and efficient access from Dunklee Road commercial, industrial area onto Route 3A. Performed topographic survey supported intersection improvements. Located all stormwater, utilities, bridge, and property corners to support a taking by the Town.

CLAREMONT SRTS PEDESTRIAN ENHANCEMENT PROJECT, NHDOT, CLAREMONT, NH. Survey Technician to support a study, design and construction oversight and inspection services for 1,500 lf of sidewalks in downtown Claremont. The City intends to increase student pedestrian travel to and from Bluff and Disnard schools and the immediate neighborhood; project elements include installation of ADA tip-downs, and detectable warning surfaces, and replacement of selected sections of sidewalk on Belding Street from North Street to Hanover Street and the north side of Myrtle Street from Forest Street to Tyler Street. Provided topographic survey for sidewalk improvements throughout the site. Located structures, utilities, any existing sidewalks, roads and sidewalks.



LINDSAY CHOZINSKA, RPA

ARCHAEOLOGIST

EDUCATION

M.A., Anthropology with Archaeology Focus, Trent University, Peterborough, ON, 2016
B.A., Archaeology, minor in Geological Sciences, University of North Carolina, Chapel Hill, NC, 2013

REGISTRATIONS

Registered Professional Archaeologist (RPA)

AFFILIATIONS

Montpelier Historic Preservation Commission
Montpelier Conservation Commission

Ms. Chozinska is an archaeologist and collections specialist with seven years of experience in archaeology, collections, and conservation. She meets the Secretary of the Interior's professional qualifications in Archaeology and History. Lindsay has performed archaeological and historical research in Vermont, the Southeastern U.S., Peru, and Southeast Asia. Lindsay is experienced in Phase 1s, field excavation, lab processing, collections, and conservation of archaeological and historical artifacts. In her previous role, she was the Curator of Collections for a history museum in the Southeastern U.S., responsible for 10,000+ historic and prehistoric artifacts. In addition to archaeology and curation, Lindsay has researched, developed, and designed 10+ exhibits for U.S. history and pre-history.

Socioecological Entanglement in Tropical Societies (SETS) Project,

Peterborough, Ontario. Research Associate for Phase I studies at archaeological sites in Southeast Asia and Mesoamerica to understand the causes of collapse for tropical civilizations around the time of the Medieval Climate Anomaly. The project is a grant-funded, non-profit, multi-year endeavor exploring five different aspects of ancient tropical civilizations through the lens of resilience and entanglement theories. These five aspects include: epicenters/city centers, agriculture, water management, integrative mechanisms, and settlement. Responsible for aspects of the project surrounding the city center, including city structures, architectural features, city layout, and cultural impacts and aspects of the city. Developed a new methodology linking resilience and entanglement theories to examine the interconnectedness of environmental and cultural factors, leading to a theory on the ultimate collapse of the city and civilization. Deliverables included site reports, a preliminary research report, and a final thesis.

- **Phase I, Epicentral Studies, Sukhothai, Thailand.** Provided literature review, site visits, and photography for a 1.2-by-1-mile city center consisting of a royal palace and twenty-six temples and a greater region of 27 square miles.
- **Phase I, Epicentral Studies, Bagan, Myanmar.** Provided literature review, site visits, and photography for a 8.1-by-5.0-mile site with over 20 archaeological features, including temples, pagodas, city walls, city gates, stupas, and water structures.
- **Phase I, Epicentral Studies, Angkor, Cambodia.** Provided literature review, site visits, and photography for an 150-square-mile area with 37 major archaeological sites and several minor sites.

Environmental Report, Sanborn Covered Bridge Rehabilitation, Lyndon,

VT. Archaeologist to perform an archaeological review of a project site for an environmental report. Reviewed historic documents, the Vermont Archaeological Inventory, and the Vermont Division of Historic Preservation's (VDHP) Online Resource Center, and used the VDHP's archaeological site predictive model.

Emergency Field Excavation, Chimu Village, Huanchaco, Peru. Field Technician performing emergency excavations of a coastal fishing village at an illegal quarrying site. Responsible for excavation, photography, documentation, sorting, and transport of artifacts.

Native American Artifact Identification, Gordon R. Nielsen Collection, Vermont Archaeological Society and NRCS-VT, Berlin, VT. Volunteer for three sessions to identify and catalog pre-contact artifacts for logging into the state database.

Conservation Assessments, Sculpture Collection, Barre Granite Museum, Barre, VT. Conservation Volunteer to inventory and assess the condition of the museum's sculpture collection of over 650 pieces. Responsibilities included photographing, logging measurements and conditions, and prioritizing pieces for conservation.

EXPERIENCE

GEODesign, Inc – July 2004 to Present (18 Years)

EDUCATION

M.S., 2004 Civil Engineering (Geotechnical Specialization),
University of Massachusetts

B.S., 2002 Civil Engineering, University of Massachusetts

A.S., 2000 Civil Engineering, Springfield (MA) Technical
Community College

**PROFESSIONAL REGISTRATION**

Registered Professional Engineer: VT, NH, and MA.

AREAS OF SPECIALIZATION

Geotechnical Engineering
Construction Engineering

PROFESSIONAL EXPERIENCE:

Dan is an associate in his 19th year with GEODesign. His project management and engineering experience has encompassed a wide array of geotechnical and construction projects including field exploration programs; geostructural analysis and design; overseeing geotechnical instrumentation and geostructural testing programs; engineering analyses of shallow and deep foundations, embankments and retaining wall design; preparation of plans and specifications; and overseeing field personnel during construction monitoring.

REPRESENTATIVE PROJECT EXPERIENCE

Rockingham IM 091-1(66) - Replacement of I-91 Bridges 24N&S, Rockingham, Vermont – Project manager and lead geotechnical engineer for replacement of twin 4-span bridges approximately 850 feet in length carrying I-91 over the Williams River and Green Mountain Railroad. Responsible for overseeing and/or performing subsurface exploration and lab testing program, geophysical surveys of river channel for scour analysis, pile group design, and slope stability analysis.

Rutland Airport Runway 1 Retaining Wall, North Clarendon, Vermont – Project Engineer responsible for design of a 60-foot tall, tiered, mechanically stabilized earth (MSE) wall including evaluating internal and external stability. Key site challenges included the presence of soft/weak fine grained natural soils at proposed foundation levels and a need for special grid connection details at bottom of the wall.

Manhattan Drive Slope Failure, Burlington, Vermont – Project Manager responsible for overseeing subsurface explorations and designing a slope stabilization repair for a slope failure caused by a large rain event adjacent to a busy intersection. Design duties included global stability evaluations, stone fill slope protection design and detailing, and design of a permanent cantilevered soldier pile and lagging wall to protect an existing storm water outlet structure at the toe of the slope. Also oversaw and coordinated construction observation and consultation services.

Rock Slope Stabilization, Dummerston, Vermont – Project Manager working in concert with our rock engineering subconsultant to perform rock slope evaluation/mapping and stabilization design for a rock slope over 1,000 feet in length and up to 40 feet in height that had experienced multiple rockfall event along VT-30 (construction planned for 2022). The stabilization design consists scaling, rock doweling, rock drains, shotcrete reinforcement and two sections of anchored wire mesh.

Lake Dunmore Road (Route 53) Erosion & Drainage Improvements, Salisbury, Vermont – Project Manager responsible for overseeing a subsurface exploration program, designing gabion and boulder walls, preparing construction documents in concert with civil engineer, and overseeing construction observation activities for erosion and drainage improvement for a 1,000-ft long section of roadway adjacent to Lake Dunmore.

EXPERIENCE

GEODesign, Inc – January 2005 to Present (18 Years)

EDUCATION

BSME, 2003 Clarkson University

PROFESSIONAL REGISTRATION

Registered Professional Engineer: VT, NH, and MA.

**AREAS OF SPECIALIZATION**

Geotechnical Engineering
Compressible Soils Evaluation
Ground Improvement
Pavement Evaluation
Geotechnical Data Collection

PROFESSIONAL EXPERIENCE:

Jacob is an associate entering his 19th year at GEODesign. His overall experience has included serving as lead engineer and project manager on multiple projects throughout New England; which have included a wide range of geotechnical topics including subsurface explorations; geotechnical instrumentation; engineering analyses of shallow and deep foundations; embankments and retaining wall design; ground improvement methods; slope stabilization; dam rehabilitation and maintenance oversight; and construction monitoring.

SELECTED PROJECT EXPERIENCE

Hartford STP PS24(2) – Hartford, VT (*Construction Pending*) – Project manager responsible for providing VTrans with geotechnical data collection and engineering recommendations for the proposed rehabilitation of Vermont Route 5 through Hartford, VT. Project included subsurface explorations, laboratory index testing, and Dynamic Cone Penetrometer data of existing subbase and subgrade materials to develop associated parameters to be used in pavement design. Included GPR evaluation of existing concrete underlying the existing pavement, and an evaluation of weather the current road section could support the removal of the existing concrete base underlying the majority of the road as part of the rehabilitation.

Rutland Southern Regional Vermont Airport Improvements – North Clarendon, VT Project engineer responsible the design of an approximately 30' high, 700' long mechanically stabilized earth wall to support a new taxiway, and assisting with geotechnical evaluation for new taxiway and runway improvements at the Rutland Southern Regional Vermont Airport. Performed Dynamic Cone Penetrometer testing and data reduction/correlation to California Bearing Ratio for use in pavement design.

SAB Municipal Airfield Runway 14-32 Extension Embankment Design – Rangeley, ME – Project Manager responsible for the design and construction oversight of geotechnical aspects of the approximately 1,100-foot extension of Runway 14-32 at the SAB Municipal Airfield in Rangeley, Maine. Design services for this project included design of embankments up to 75-feet high to support fills required for the runway extensions. Embankments were designed at a 1.5 Horizontal: 1 Vertical slope constructed with rock fill to limit encroachment into adjacent wetlands. Also performed an evaluation of the existing runway section soil and asphalt for potential reclamation and reuse in construction of the new runway and performed an evaluation of a proposed borrow site as a source for the generation of rock fill materials.

Tropical Storm Irene Repairs – Vermont Route 107, Stockbridge, VT – Project Engineer responsible for the onsite supervision of subsurface explorations and the preparation of conceptual repair solutions for multiple Tropical Storm Irene related slope failures along Vermont Route 107. Provided extensive construction oversight for one slope repair that included the construction of a 1.4H:1V rip-rap slope which required careful placement and orientation of individual stones to maximize stone-to-stone contact and achieve acceptable factors of safety against deep seated global stability failures. An additional challenge to this repair included the presence of a historical dry-laid stone retaining wall that ran through the center of the project. This historical wall was successfully incorporated into the repair, and remained undisturbed by construction activities.

EXPERIENCE

GEODesign, Inc- March 2015 to present (8 Years)
Woodward-Clyde and URS - 25 Years

EDUCATION

PhD/1990/Geotechnical Engineering/University of Michigan
MS/1986/Geotechnical Engineering/University of Michigan
BS/1985/Civil Engineering/ Manhattan College

AREAS OF SPECIALIZATION

Geotechnical Engineering
Earthquake Engineering
Support of Excavation
Deep Foundations
Rock Engineering

PROFESSIONAL REGISTRATION

Registered Professional Engineer, NJ, NY, and MD

PROFESSIONAL EXPERIENCE:

Dr. Thomann is a geotechnical engineer that is intimately involved in the technical and management aspects of projects while maintaining strong client relationships. He has performed civil/geotechnical services for hundreds of projects covering a wide range of services including driven and drilled pile systems, support of excavation (SOE) design, underpinning design, earthquake engineering, rock engineering, ground improvement, slope stability, and instrumentation. His approach to design and construction results in practical, cost effective, and constructible designs that are appreciated by clients and contractors, which results in repeat and expanding business opportunities.

REPRESENTATIVE PROJECT SUMMARY:

- **Deep Foundations** including H piles, pipe piles, tapered piles and drilled shafts and caissons.
 - **Driscoll Bridge**- Responsible for design of 6 ft diameter drilled shafts socketed into rock and 24-inch
- **Geotechnical Earthquake Engineering** including liquefaction evaluation, site specific analyses, soil structure interaction (SSI), and foundation vulnerability assessment.
 - **New NY Bridge (New Tappan Zee Bridge)** - Geotechnical earthquake engineering task leader for a new \$4 billion crossing over the Hudson River.
 - **Manhattan Bridge**- Responsible for all geotechnical evaluations including subsurface investigations, liquefaction, site response, SSI analyses of the massive anchorages and tower foundations.
 - **Brooklyn Bridge**- Responsible for performance of test borings, parallel seismic testing, cross-hole testing, cross-hole tomography, SASW testing, and foundation performance of extensive ramp system.
- **Rock Foundation and Slope Engineering** including expertise in rock excavation, bolting, scaling, cable mesh, shotcreting, buttressing, ring nets, and rock fence.
 - **Metro-North Commuter Railroad** - Responsible for over 10 years of inspection and remediation of 260 rock slopes.
 - **Rock Quarry Stabilization** - Responsible for directing the design remediation of an 80 ft high limestone rock slope adjacent to an LNG tank in an inactive quarry.
- **Slope Stability/Retaining Wall Engineering** including landfill slope design, new retaining wall design, and forensic evaluations.
 - **Route 49 over Salem River** - Geotechnical Task Leader for evaluation of a bridge that experienced several feet of settlement after construction. Designed lightweight Geofam system to replace soil and reduce load on soft soils thereby reducing long term settlement potential.
 - **Driscoll Bridge**- Responsible for the design of a 35 ft high Two-Stage Mechanically Stabilized Earth (MSE) retaining wall on stone columns and a curved MSE wall on a steep slope.



Theodore von Rosenvinge IV, P.E., D.GE
Senior Principal

EXPERIENCE

GEODesign, Inc. - 2/95 to Present (28 Years)
 Berger, Lehman Associates, P.C. - 5/92 to 1/95
 GZA GeoEnvironmental, Inc. – Boston & CT 7/80 to 4/92
 T.W. Lambe (MIT) 1979-80, other firms - 2 years 1975-78 co-op
 Composite Construction 1973-1975



EDUCATION

M.S., 1980, Civil Engineering (geotechnical specialization), **MIT**
 B.S., 1978, Civil Engineering, **Northeastern University**
 M.B.A., 1993, **University of Connecticut** (Finance)
 Dispute Resolution Board Training, 2003

AREAS OF SPECIALIZATION

Geotechnical Engineering
 Constructability Review
 Foundation Engineering
 Soil and Rock Mechanics
 Deep Foundations/Excavation

PROFESSIONAL REGISTRATION

Registered Professional Engineer: NY, TN, NJ, CT, MA, ME, VT, MI, RI, NH, TX, FL, PA, CO
 LEED AP (BD +C)

PROFESSIONAL EXPERIENCE:

Geotechnical engineering experience includes field engineer to principal in the responsible charge of hundreds of projects involving foundation engineering for hi-rise buildings, major bridges, rail facilities, marine projects, earthwork/underground construction, soil mechanics, forensic/expert witness, field and lab testing, geotechnical instrumentation. Founding GEODesign, Inc. in 1995 the consulting firm currently has 30 employees in five states (CT/VT/NJ/OR/NYC) specializing in geotechnical, geostructural and construction engineering. He published numerous professional papers and articles on underground construction, analysis and foundation engineering.

SELECTED PROJECT EXPERIENCE

Emergency Response – geotechnical consultant to Vermont Agency of Transportation (VTrans) during Tropical Storm Irene – Fast track design of emergency measures to address storm damage causing miles of highway embankment failures, design of remedial measures, slope stability analysis, remediation of foundation collapses and erosion including highway and railroad bridge replacements. Member of onsite emergency response team.

I-95 Pearl Harbor Memorial Bridge Replacement, New Haven, CT (\$500+ million) - Geotechnical consultant for replacement/widening project including new cable-stayed Extradosed Bridge (under construction) over New Haven Harbor/Quinnipiac River. 8 foot diameter drilled shafts to 200 feet. 110 foot long 20 inch precast friction piles for approach viaduct (client URS/ConnDOT).

MetroNorth Hudson Line Embankment Stabilization, Hudson River – Peekskill, NY – Geotechnical engineer in charge of rock embankment stabilization to support Hudson Line tracks next to 100 feet deep river. Design (currently underway) considering drilled shaft tangent retaining wall socketed into underwater bedrock slope. **ENR 2014 Merit Award. ACEC NY 2016 Engineering Excellence Award.**

VTrans I-91 Bridges, Brattleboro and Rockingham, VT – Principal geotechnical consultant for two major Design Build bridge replacements (Brattleboro for VTrans, Rockingham for DB team).

Shawn P. Kelley, PH.D., PE

Principal-in-Charge



Key Areas of Practice

Geotechnical Engineering
In Situ Testing
Geotechnical Instrumentation
Geo-Environmental Engineering

Education

Ph.D., Civil Engineering, University of Massachusetts, Amherst, 2003
M.S., Civil Engineering, University of Massachusetts, Amherst, 1997
B.S., Civil Engineering, University of Massachusetts, Amherst, 1994

Registrations

Professional Engineer – VT

Professional Affiliations

American Society of Civil Engineering (ASCE) – Member
American Council of Engineering Companies (ACEC) – State of Vermont Legislative Committee Chairperson
Vermont Society of Engineers
Geo-Institute of ASCE
International Society of Soil Mechanics and Geotechnical Engineering
Chi Epsilon Civil Engineering Honor Society
Order of Engineer

With Sanborn Head Since

2018

Relevant Experience

I-89 Exit 14 Pedestrian Bridge, Geotechnical Engineering Services, South Burlington, VT

Project Director for subsurface investigation for a new interstate pedestrian bridge. Geotechnical services include evaluation of subsurface conditions for support of bridge and approach ramps, including consolidation settlement analysis and deep foundation recommendations.

VTrans, Route 2 Intersection Redesign, Geotechnical Engineering, Plainfield, VT

Project Director responsible for a subsurface evaluation program including soil borings, rock probes, and ground penetrating radar. Geotechnical services include retaining wall design, pavement design, bedrock profiling, and mast arm design in support of proposed improvements to U.S. Route 2 in Plainfield, VT.

Middlebury Bridge & Rail Launch Shaft, Geotechnical Services, Middlebury, VT

Project Director responsible for on-site field observation of exposed bedrock surfaces of a 40-foot diameter 35-foot-deep launch shaft used for rock tunneling activities to install a 42" storm water drainage pipes and structures.

River Road Bike Lane, Geotechnical Engineering, Underhill, VT

Project Director responsible for subsurface exploration program, evaluation of existing pavement condition, recommendation for a new bike lane, geotechnical report, and providing input to final plans.

Route 12A rehabilitation project, Lebanon, NH

Project Manager responsible for site evaluation program for a roadway evaluation of a section of Rt 12A in Lebanon, NH. Project scope included an evaluation of the pavement section and roadway base for full reconstruction. Pavement recommendations were given.

Brook Road Bridge, Geotechnical Engineering Services, Plainfield, VT

Project Director responsible for site evaluation program and foundation design recommendations for the repair of a bridge over Great Brook in Plainfield, VT.

West Hill Road Bridge, Geotechnical Engineering Services, Rochester, VT

Project Director responsible for site evaluation program and foundation design recommendations for the repair of a bridge over Brandon Brook in Rochester, VT.

Lowell ER P20-(908), Geotechnical Engineering, Lowell, VT

Project Director for the replacement of bridge #10 on Hazen Notch Road in Lowell, VT. This site was unique because there was the potential to encounter native asbestos in the rock which required additional safety measures. Coordinated subsurface evaluation program and foundation engineering report.

Daniel Thabault, PE

Project Manager



Key Areas of Practice

Geotechnical Engineering
Construction Quality Assurance
Geotechnical Investigations and Report Preparation
Slope Stability Analysis and Repair

Education

B.S., Civil and Environmental Engineering,
University of Pittsburgh, 2015

Registrations

Professional Engineer – VT

Professional Affiliations

American Society of Civil Engineers

With Sanborn Head Since

2021

Relevant Experience

I-89 Exit 14 Pedestrian Bridge, Geotechnical Engineering Services, South Burlington, VT

Project Manager for subsurface investigation for a new interstate pedestrian bridge. Geotechnical services include evaluation of subsurface conditions for support of bridge and approach ramps, including consolidation settlement analysis and deep foundation recommendations.

Gillette Stadium North Endzone Renovation, Geotechnical Engineering Services, Foxborough, MA

Project Manager for subsurface investigation and construction quality assurance program for large renovation to the north end of Gillette Stadium, including a new 23-story lighthouse tower and large outdoor scoreboard. Geotechnical services include evaluation of subsurface conditions through new and existing test borings, recommendations for new and augmented shallow foundations, recommendation for micropile supported and micropile retrofitted foundations, soil nail wall recommendations, tower crane support recommendations, and managing field staff for the construction quality assurance of all the elements listed above.

Dewey Avenue Slide, Slope Repair, West Rutland, VT

Performed slope stability analysis and prepared slope repair recommendations for a slope failure along Dewey Avenue in West Rutland, Vermont.

Burlington Steam District Energy System, Geotechnical Engineering Services, Burlington, VT

Project Manager for subsurface investigation for a proposed steam line between McNeil Generating Station and the University of Vermont Medical Center. Coordinated drilling through downtown Burlington and provided geotechnical recommendations for the construction of an underground steam line with associated infrastructure.

Pike Industries, Hartland Gravel Pit, Geotechnical Engineering, Hartland, VT

Project Manager overseeing geotechnical engineering services for the Hartland Gravel Pit. Tasks include coordinating drilling, observation of test borings, preparation of geotechnical summary report, and slope stability analysis.

Kevin P. Stetson, PE

Technical Reviewer



Key Areas of Practice

Geotechnical Engineering
Urban Construction
Contaminated Site Redevelopment
Geotechnical In-Situ Specialty Testing
Geothermal Engineering

Education

M.S., Civil Engineering, University of New Hampshire, 1999
B.S., Civil Engineering, University of New Hampshire, 1996

Registrations

Professional Engineer (Civil) – MA, VT, ME, RI, CT, NH

Professional Affiliations

Boston Society of Civil Engineers
American Society of Civil Engineers
ADSC – The International Association of Foundation Drilling
Deep Foundations Institute
NAIOP - Commercial Real Estate Development Association
ULI – Urban Land Institute

With Sanborn Head Since

2001

Relevant Experience

Assembly Innovation Park, Geotechnical and Environmental Services, Somerville, MA

Principal-in-Charge for an 814,000 s.f. life sciences development with above and below-grade parking located adjacent to Assembly Row. The development includes three 12- to 13-story buildings with an 8-story parking garage. Geotechnical and environmental services include due diligence through construction. The at-grade structures are supported on piles and the 2-level below grade parking will be supported on a mat foundation with a perimeter slurry wall.

Union Square Revitalization, Geotechnical and Environmental Engineering, Somerville, MA

Geotechnical Principal-in-Charge for the design and construction of the first phase of work that was conducted on the D2 Block, where an 8-story lab building, and a 27-story residential tower with above-grade parking garage were built. The project area on the D2 Block has a history of past industrial uses including Kiley Barrel, a former barrel cleaning company. The project was adjacent to the MBTA Green Line Extension and included a new elevator and stairs for the Union Square station. The structures are supported on steel H-piles, pre-cast concrete piles and ground improvement.

MIT Building 54 Addition and Lecture Hall Renovation, Geotechnical and MCP/LSP Services, Cambridge, MA

Geotechnical engineering and MCP/LSP services for an 11,600 s.f. Building 54 Addition and 5,800 s.f., 300-seat lecture hall renovation. The addition will be constructed at grade and supported on friction piles bearing the sand layer.

University of Vermont On-Campus Multipurpose Center, Geotechnical Engineering, Burlington, VT

Responsible for subsurface exploration program without interrupting the facility functions. Worked collectively with the design team to develop the appropriate foundation system that addressed the site and design constraints given the adjacent structures.

Encore Boston Harbor Casino, Hydrogeological Engineering, Everett, MA

Oversaw the design and installation of the temporary dewatering and depressurization system for the below grade parking garage. Services included groundwater modeling of both the overburden soils and bedrock to evaluate pumping rates, drawdown and zone influence beyond the perimeter slurry wall.

New England Revolution Stadium, Geotechnical Engineering, Boston, MA

Oversaw geotechnical subsurface exploration program through the construction documents phase. Prepared geotechnical analyses, primary design options and geotechnical engineering report.

Luke Norton

Technical Advisor



Key Areas of Practice

Geotechnical Engineering
Construction Monitoring
Hydrologic & Hydraulic Investigation
MCP Regulatory Compliance

Education

B.S., Civil Engineering,
University of New Hampshire, 2006

Registrations

Professional Engineer – MA
MA Title 5 Soil Evaluator Certification

Professional Affiliations

American Society of Civil Engineers

With Sanborn Head Since

2006

Relevant Experience

VHB, Geotechnical & Hydrogeological Services for Interstate 95 Interchange Improvements, Waltham, MA

Oversaw multi-phased subsurface exploration programs for I-95, Exit 26 and Exit 27 improvements, including existing MassDOT right-of-way and roadway. Responsible for development of geotechnical and hydrogeological recommendations for bridge construction and rehabilitation, new retaining walls and roadways, and new stormwater BMPs.

Gutierrez, Geotechnical & Construction Administration Services for Westborough Office Park, Westborough, MA

Oversaw geotechnical engineering services for new office building, including test pit explorations for due diligence, subsurface explorations for design phase, design phase soil laboratory testing, and geotechnical engineering and report. Additionally, oversaw construction administration and testing services during earthwork and blasting construction activities, as well as SWPPP inspections.

University Station, Geotechnical Engineering, Hydrogeological Evaluation & Construction Services, Westwood, MA

Developed recommendations for large scale, multi-phased, mixed-used redevelopment site including geotechnical design and management of blasting operations during bedrock excavation to protect groundwater quality near public water supply wells. Completed field-testing program in support of an innovative design for subsurface infiltration of stormwater to meet strict local requirements for groundwater recharge. Performed groundwater contaminant transport analyses to model nitrate impacts to the wells prior to construction. Responsible for day-to-day execution including coordination of field staff, review of data, designing, planning and deliverable preparation through construction.

Charles River Bridge, Construction Monitoring Services, Milford, MA

Provided earthwork monitoring and field-testing services during preparation of roadway and the precast concrete bridge, and field density testing of compacted fill. Collected samples of the fill materials and performed geotechnical laboratory testing for compliance. Documented observations and the results of field tests in weekly field reports.

NH Route 119 Bridge, Geotechnical Engineering, Hinsdale, NH & Brattleboro, VT

Managed the drilling of the western bank of the Connecticut River for the replacement bridge. Prepared logs for the subsurface conditions encountered during drilling of test borings.



EDUCATION:

Binghamton University
Doctor of Philosophy, Anthropology, May 2018
Master of Arts, Anthropology, May 2013
Ithaca College
Bachelor of Arts, Anthropology, May 2009, Magna Cum Laude, Honors in Anthropology

EXPERIENCE:

- 2022 St. Johnsbury LaPierre Solar (HAA# 5883-21), St. Johnsbury, Caledonia County, VT
Conducted a Phase IB archeological investigation on a 5.25-acre property overlooking the Passumpsic River. While several 19th-century cut nails were found on the eastern side of the property, no other artifacts or features were discovered, and no further archeological work was recommended. Duties included supervising the investigation, interpreting the results, and writing the report.
Project sponsor: Norwich Solar
- 2022 South Burlington Stormwater (HAA# 5869-11), South Burlington, Chittenden County, VT
Conducted an archeological resource assessment for a stormwater system upgrade for four areas in South Burlington, totaling 129 acres. Through background research and field inspection, it was determined that two of the four areas had a low to moderate sensitivity for precontact and historic sites and were recommended for Phase IB testing. Duties included conducting the field inspections, interpreting the results, and writing the report.
Project sponsor: Fitzgerald Environmental Services
- 2022 Beaver Brook Dam Removal (HAA# 5725-21), Wilmington, Windham County, VT
Conducted a Phase IB archeological investigation of a proposed earthen dam removal impacting an 8.85-acre property. The remains of the dam and an adjacent sawmill/sugar house were mapped and photographed, and shovel tests in five-meter intervals were excavated near these remains, though the footprint of the sawmill structure was excluded (as per VDHP). No significant artifacts were found and no further archeological work was recommended. Duties included assisting in the investigation, interpreting the results, and writing the report (currently in draft).
Project sponsor: Connecticut River Conservancy
- 2007-2020 Hamlet of Enfield Falls, Ithaca, NY
Created and maintained extensive Excel spreadsheets of artifacts excavated from multiple residential and business structures from the 19th century community of Enfield Falls. Assisted in the preparation and writing of numerous reports submitted to New York State Parks. Head of laboratory photography.
Project sponsor: Cornell University
- 2010, 2014-2017 The Eight Square Schoolhouse, Ithaca, NY
Co-led preliminary subsurface testing of coal midden at rear of the National Register schoolhouse (1827). Directed subsequent shovel testing and excavations of what was determined as a sheet midden in the front yard area of site. The yard area excavation location and strategy was based off of a ground penetrating radar survey conducted by faculty and students from Ithaca College. Instructed public archaeology program participants in excavation methods, artifact identification, and site protection ethics.
Project Sponsor: The History Center in Tompkins County
- 2012 John Moore Farm Site, Binghamton, NY
Graduate Assistant for Binghamton University field school excavating pre-contact Native American site. Instructed undergraduate participants in excavation methods. Handled daily logistics of unloading/loading field equipment and cross-checked artifact bags field inventory with archaeology lab records at the end of the workday.
Project Sponsor: Binghamton University
- 2011 Newtown Battlefield, Elmira, NY



EDUCATION:

Rensselaer Polytechnic Institute
Bachelor of Architecture May 1987
Bachelor of Science, Building Science, May 1986

QUALIFICATIONS:

36 CFR Part 61 Qualified Architectural Historian

SPECIAL TRAINING:

Architectural History Consultant Training
VDHP, Montpelier, VT, April 2019.
Vermont Community Development Program Qualified Professionals Training
VDHP, Montpelier, VT, September 2016.
Evaluating Significance of Historic and Archeological Resources Workshop
Vermont College, Montpelier, VT, May 2001
Historic Preservation Consultant training and Section 106 training

PROFESSIONAL EXPERIENCE:

- June 1999 – Present Senior Architectural Historian
Hartgen Archeological Associates, Inc.
Oversee and prepare architectural resource surveys, including pre-assessments, literature reviews and historical documentation; field reconnaissance; report and proposal preparation. Responsible for preparing documents to be reviewed by VAOT, VDHP, and USACOE, for SEQR, Section 106 and NEPA. Preparation of reports generated under ACT 250 and the FCCs Nationwide Programmatic Agreement, including preparation of forms 620 and 621.
- November 1992 – June 1999 Architectural History Consultant
Identified, analyzed, and assessed historic structures; researched and wrote for exhibitions and publications including Historic Structures Reports; executed drawings in connection with restoration projects. Clients included Rensselaer County Historical Society; Robert Pierpont, both in Troy, NY; towns of Durham and Oak Hill, NY; Albany Institute of History and Art; Metropolitan Museum of Art; the New York Public Library, and John G. Waite Associates, Albany, NY.
- May 1984—November 1992 Junior Architect
Worked for the Office of the New York State Architect, Wagoner & Reynolds, and in the office of Robert N. Pierpont as a Junior Architect. Responsible for restoration projects including the Governor’s Mansion, the New York State Capitol, and Wilborn Temple (all in Albany, NY), and the Knickerbocker Mansion, in Schaghticoke, NY.

PRINCIPAL PUBLICATIONS:

- 2020 “Post-Colonial New World Dutch Framing Innovations and the Development of the Balloon Frame,” in James W. P. Campbell et al eds., *Proceedings of the Seventh Annual Conference of the Construction History Society*. Cambridge, England: The Construction History Society.
- 2016 “Magical Dwelling: Apotropaic Building Practices in the New World Dutch Cultural Hearth,” in Christiane Bis-Worch and Claudia Theune, eds., *Ruralia XI: Religion, Cults & Rituals in the Medieval Rural Environment*. Leiden, Netherlands: Sidestone Press, 373-396.
- 2010 “Once adorned with quaint Dutch tiles...: A Preliminary Analysis of Delft Tiles Found in Archaeological Contexts and Historical Collections in the Upper Hudson Valley,” in Penelope Ballard Drooker and John P. Hart, eds., *Soldiers, Cities and Landscapes: Papers in Honor of Charles L. Fisher*. New York State Museum Bulletin 513, 107-150. Albany, NY: New York State Museum.
- 2009 *Architects in Albany*. Diana S. Waite, editor. Albany, NY: Mt Ida Press/ Historic Albany Foundation. Contributed two biographical essays.
- 2005 *The Encyclopedia of New York State*, Peter Eisenstadt, editor. Syracuse, NY: Syracuse University Press, 2005. Author of entries “Philip Hooker,” “Archimedes Russell,” “Upright and Wing Houses,” “Cobblestone Architecture,” “Empire State Plaza,” and “Architects and Architecture of Syracuse and Central New York.”
- 2000 *The Marble House in Second Street: Biography of a Town House and its Occupants, 1825-2000*. Troy, NY: Rensselaer County Historical Society.
- 1993 *A Neat Plain Modern Style: Philip Hooker and His Contemporaries, 1796-1836*. University of Mass. Press, Amherst, Mass.



EDUCATION:

The University of Vermont
Master of Arts, Historic Preservation, May 1997

The University of Vermont
Bachelor of Arts, Political Science May 1993

EXPERIENCE:

Hartgen Archaeological Associates, Rensselaer, NY
Architectural Historian, 2022-Present

Brian Knight Research
Historic Preservation Consultant, 1997-Present

PROJECTS:

- 2022 *Newfane STP BP21 (18) Scoping Study, Newfane, VT*
Conducted an Historic Resources Identification Assessment
Project Sponsor: DuBois & King, Inc
- 2022 *Pittsford Tap TA 20 (19)*
Conducted an Historic Resources Identification Assessment
Project Sponsor: DuBois & King, Inc
- 2022 *Castleton TAP TA 20(2) Scoping Study, Castleton, VT*
Conducted an Historic Resources Identification Assessment
Project Sponsor: Fuss & O'Neill, Inc
- 2022 *Bennington High School Tax Credit, Bennington, VT*
Assisted in preparation of Parts 1-3 of Rehabilitation Investment Tax Credit Application
Project sponsor: Hale Resources
- 2022 *Shelburne Shipyard, Shelburne, VT*
Researched and prepared National Register nomination
Project sponsor: Town of Shelburne
- 2022 *Maple Corner, Calais, VT*
Researched and prepared National Register nomination
Project sponsor: Town of Calais
- 2022 *Vermont Sanitarium/Vermont Police Academy, Pittsford, VT*
Prepared a Historic Structures Report
Project sponsor: State of Vermont
- 2022 *Wallace Dam/Reynolds Dams, Dorset, VT*
Prepared a Historic Resources Documentation Package for two dams
Project sponsor: Poultney Mettonewee Natural Resources Conservation District
- 2021 *Arlington Common, Arlington, VT*
Conducted a Section 106 Review and prepared a VARI Form
Project sponsor: Arlington Arts Enrichment Program
- 2021 *Roxbury Fish Hatchery, Roxbury, VT*
Researched and prepared National Register nomination
Project sponsor: Vermont Department of Fish and Wildlife

PUBLICATIONS:

Snowboarding in Southern Vermont: From Burton to the US Open (2018): Documents the birth of east coast snowboarding in southern Vermont and the evolution of the sport from the fringe to the mainstream; No Braver Deeds: The Northshire in the Civil War (2004): Documents the soldiers of the Equinox Guards during the Civil War.

Contact Information:

Jorge L. Garcia Research Assistant Professor
UVM Anthropology/Consulting Archeology Program 111
Delehanty Hall, Burlington, Vermont 05405 (802)-656-1346 E-mail:
Jorge.garcia@uvm.edu

Research Interests: Archaeology, cultural resources management, and biochemistry. Historical Ecology, mobility, and dietary reconstructions through stable isotope analysis.

Education:

2019 Ph.D, in Anthropology University of Florida,
2012 M.A. in Anthropology and Maya Studies, University of Central Florida.
2005 B.A. in Anthropology. and Multicultural Studies, University of Central Florida.

Research and Teaching Experience

2022-Present Archaeologist and Research Assistant Professor, Department of Anthropology and Consulting Archaeology Program, University of Vermont.
2021-2022 Archeologist and Cultural Resources Specialist for the Department of Agriculture Natural Resources and Conservation Service
2013-2019 Research Assistant at the Historical ecology laboratory the bone chemistry laboratory, University of Florida.
2003-2013 Senior Field Supervisor Caracol Archaeological Project. Cayo District, Belize.
2017-2021 Assistant Professor of Anthropology, Stetson University.
2007-2009 Assistant Professor of Anthropology, University of Central Florida.

Selected Publications and Reports

Garcia, J.L.
2023. *Archaeological Resources Assessment of the Town of Sheffield Dane Road Parcel Project*. Sheffield, Vermont. Submitted by the University of Vermont Consulting Archaeology Program, Burlington, Vermont. (Report No 1453).
2022 *Archaeological Resources Assessment of the Proposed VTrans Lyndon IM 091-3(53)*. Lyndon, Vermont. Submitted by the University of Vermont Consulting Archaeology Program, Burlington, Vermont. (report No 1438).
2019. *Ecological change and dietary social inequality in La Tolita a complex society in northern South America*. Ph.D. Dissertation, University of Florida, Gainesville, Florida.
2012. *Foods and Crops of the Muisca: A dietary reconstruction of the chiefdoms of Bacata and Hunza*. M.A. Thesis., University of Central Florida, Orlando, Florida.
Garcia, J. L., with Oyuela-Caycedo, A., and Rojas, A.
2014. *Holocene paleoclimate reconstruction from Neocyclotus opercula a morphometric analysis of their variation at the archaic Site of San Jacinto1 Colombia*. The Paleontological Society Special Publications, 13, 45.
Lord, E., with Collins, C., deFrance, S., LeFebvre, M.J., Pigière, F., Eeckhout, P., Erauw, C., Fitzpatrick, S.M., Healy, P.F., Martínez-Polanco, M.F. and Garcia, J.L.,
2020. Ancient DNA of Guinea pigs (*Cavia* spp.) indicates a probable new center of Domestication and pathways of Global Distribution. *Scientific reports*, 10(1), pp.1-9.
Rivera, J. with J.L. Garcia, J.G. Martín, J. Krigbaum and J. Escobar.
2018. *Reconstrucción de la paleodieta a través de la isotopía estable en una serie osteologica Prehispanica de la costa Caribe de Colombia*. Informe FIAN No. 480. Universidad del Norte: Barranquilla, Colombia.

JOHN GORDON CROCK, PH.D.

University of Vermont Consulting Archaeology Program

111 Delehanty Hall, Burlington, Vermont 05405. (802) 656-4310. John.Crock@uvm.edu

EDUCATION:

- 2000 Ph.D. in Anthropology, University of Pittsburgh
 1989 B.A. University of Vermont. Major: Anthropology; Minor: Religion

RESEARCH INTERESTS:

Archaeology of New England and northeastern North America; Archaeology and ethnohistory of the Caribbean Region; World Heritage; Cultural Resource Management; Trade and exchange; Maritime adaptations; Development of inequality; Human colonization of islands; Lithic analysis.

TEACHING:

- 2011-present Associate Professor University of Vermont Department of Anthropology
 Courses include *Introduction to Prehistoric Archaeology*; *Indians of the Northeast: Vermont*; *Preserving the Past*; *Caribbean Archaeology*; *Anthropology of Islands*; *Field Work in Archaeology*; *Archaeological Laboratory Methods*.
 2005-2011 Assistant Professor, University of Vermont Department of Anthropology.

CULTURAL RESOURCE MANAGEMENT:

2000-present Director, Consulting Archaeology Program, Department of Anthropology, University of Vermont. Principal Investigator and Chief Administrator. Exceeds 36CFR Qualifications.

SELECTED REFEREED PUBLICATIONS:

- 2021 A Deer Camp Forever: Archaeofauna from the Ewing Site. Nanny Carder and John G. Crock. *Archaeology of Eastern North America* 69:103-132.
- 2019 Natural and Anthropogenic Landscape Change and the Submergence and Emergence of Archaic Age Settlement on the Eastern Edge of the Anegada Passage. John G. Crock. Chapter 5 in *Early Settlers of the Insular Caribbean: Dearchaizing the Archaic*, edited by C. Hofman and A. Antczak, pp. 65-76. Sidestone Press.
- 2018 Paleoindian Sites, Site Patterning, and Travel Corridors along the Southern Arm of the Champlain Sea. Francis Robinson, IV, John G. Crock and Wetherbee Dorshow. Chapter 17 in: *In the Eastern Fluted Point Tradition, Volume 2*, edited by Joseph Gingerich, pp. 326-350. University of Utah Press.
- 2017 Early and Middle Paleoindian Settlement Patterns and the Late Pleistocene Environment along the Champlain Sea. Francis Robinson, IV, John G. Crock and Wetherbee Dorshow. *PaleoAmerica*. DOI=10.1080/20555563.2017.1380997
- 2017 "Marineness," the Underwater Seascape and Variability in Maritime Adaptations in the Late Ceramic Age Northern Lesser Antilles. John G. Crock, Nanny Carder and Wetherbee Dorshow. *Environmental Archaeology* 24(10):199-210.
- 2012 Maritime Mountaineers: Paleoindian Settlement Patterns on the West Coast of New England. John G. Crock and Francis W. Robinson, IV. In *Late Pleistocene Archaeology and Ecology in the Far Northeast*, edited by Claude Chapdelaine. Texas A&M University Press.
- 2012 A Pre-Columbian Fisheries Baseline from the Caribbean. Nanny Carder and John G. Crock. *Journal of Archaeological Science*. 39(10):3115-3124.
- 2011 Diet and Rank in a Caribbean Maritime Society. John G. Crock and Nanny Carder. *Latin American Antiquity* 22(4):1-22.
- 2009 Jackson-Gore: An Early-Paleoamerican Occupation in the Green Mountains of Vermont. John G. Crock and Francis Robinson, IV. *Current Research in the Pleistocene* 26:40-42.

OTHER:

33 other publications, 65 professional papers, 28 invited lectures; 150+ technical reports for regulatory archaeology and historic preservation projects.



COREY MACK, P.E.
**Transportation Planner and
Engineer, Project Manager**

17 years' experience

Transportation Planning & Engineering, Traffic Signal
Design, Traffic Operations & Traffic Impact Studies

TRANSPORTATION PLANNING & ENGINEERING

Corey has supported public, private, and institutional clients of all sizes in making informed decisions on transportation investments. Whether leading a public intersection scoping process, analyzing traffic congestion at intersections or along corridors, identifying environmental impacts of conceptual designs, or recommending short- and long-term solutions to identified issues, he understands the impact transportation has on our communities. Corey seeks to work collaboratively with stakeholders to identify their challenges, inform discussion and decisions, and develop innovative and intuitive solutions to achieve project goals.

- St. Albans STP 044-1(2) Intersection Scoping, St. Albans, VT
- East Hardwick LVRT Trailhead Scoping, East Hardwick, VT
- Winooski Avenue Corridor Study, Burlington VT
- Lyndon Area Transportation Study, Lyndonville, VT
- Road Diet / Road Space Reallocation Projects:
 - Colchester Avenue, Burlington VT
 - Williston Road, South Burlington VT
 - VT-10A, Norwich VT

TRAFFIC SIGNAL DESIGN

Corey has analyzed, optimized, modernized, designed, and supported installation of traffic signal systems in Vermont and New Hampshire. Intersections have included single, isolated intersections and complex coordinated systems. In many cases, simple retiming and controller setting updates have resulted in simple, inexpensive solutions to congestion.

- Crescent Connector Signal Design, Essex Junction VT
- Weathersfield STPG SGNL(72), Weathersfield VT
- College Park Drive Sidewalk, Hookset NH
- Prospect Street Signal Design, White River Junction VT
- US-7 Milton Marketplace Signal Design, Milton VT

TRAFFIC OPERATIONS & TRANSPORTATION IMPACT STUDIES

Corey has prepared traffic impact studies and operational analyses, collected bicycle, pedestrian, and traffic data in all seasons and environments, documented design hour volumes for build year and future year scenarios, evaluated delay, level of service, and queuing, and peer reviewed plans and studies on behalf of cities and towns.

- Cambrian Rise Traffic Impact Study, Burlington VT
- Ski Corridor Travel Time Model Tool Assessment, Ludlow, VT
- Railyard Enterprise Traffic Data Collection, Burlington VT
- Killington Town Ski Data Collection, Killington VT
- Dunkin TIS Peer Review, Winooski VT

EDUCATION

- B. Eng., McGill University,
Montréal, Quebec, Canada, 2005

CERTIFICATIONS

- Professional Engineer, State of Vermont (63093)
- Professional Engineer, State of New Hampshire (16977)
- Professional Engineer, State of California (72780)

AFFILIATION

- Institute of Transportation Engineers (ITE) – Member

EXPERIENCE

- Project Engineer
WCG
Londonderry, VT
July 2021 – current
- Project Engineer
RSG
Burlington, VT
June 2008 – July 2021
- Project Engineer
Dokken Engineering
San Diego, CA
June 2005 – November 2007

SERVICE

- Winooski City Council (2019)
- Winooski Public Works
Commission (2014-current)
- Winooski Environmental Board
(2011-2014)
- Winooski GMTA Commissioner
(2009-2012)
- Vermont STEM Fair Judge (2017-
2018)



ERICA WYGONIK, PhD, P.E., RSP₁
Transportation Engineer

19 years' experience
 Traffic Operations & Traffic Impact Studies, Safety Analysis,
 Transportation & Bicycle/Pedestrian Planning

TRANSPORTATION SAFETY

Erica Wygonik is a certified Road Safety Professional and conducts both retrospective and prospective safety analysis, using historical crash data and predictive analysis to identify and prioritize potential roadway improvements. She has also used her background in traffic operations and transportation planning to develop thoughtful safety plans and complete streets designs. Erica supports safety efforts for the Utah DOT through crash data analysis and site-specific evaluations to mitigate crash patterns using treatments appropriate to the road context. She also conducts predictive safety analysis for intersections that warrant signalization. An excellent facilitator, Erica has led numerous road safety audits throughout New Hampshire. In New Hampshire, she has also used big data to study the influences on travel speeds in work zones, finding particular value in down posting speed limits during work hours supported by speed feedback signs. Erica has worked to match appropriate road design to the road context and user group through multiple bicycle, pedestrian, transit, and park and ride projects throughout New England.

- UDOT Traffic & Safety Support including:
 - Project Safety Analysis (PSAs)
 - SPICE & CAP-X Intersection Analysis
 - Speed Management
- NHDOT On-Call Safety Retainer:
 - 2016 Strategic Highway Safety Plan
 - Work Zone Speed Management Strategy Evaluation
 - Multiple Road Safety Audits
- Sego Lily Drive Safety & Traffic Calming Analysis
- NHDOT Dover-Somersworth-Rochester NH-108 Complete Streets Improvement Project
- US 40 Predictive Safety Assessment

TRAFFIC OPERATIONS/TRANSPORTATION PLANNING

Erica Wygonik, PhD PE, leads WCG's Northeast Region Transportation Practice, completing traffic impact analysis and campus and community planning for a wide range of organizations including private developers, public agencies, and non-profit institutions. She excels at identifying optimal strategies across all transportation modes to reduce local and system-wide impacts. Erica has been involved in all aspects of traffic analysis and transportation planning for over fifteen years, conducting data collection and field work, analysis and modeling, and public involvement and testimony.

- Vermont State Highways On-Road Bicycle Facilities Plan & Bicycle and Pedestrian Strategic Plan
- NHDOT Statewide Strategic Transit Assessment Plan
- UDOT Traffic Operations On-Call Support Services
- Campus Planning & Traffic Impact Studies for Dartmouth College

EDUCATION

- PhD, Civil & Environmental Engineering, University of Washington (2014)
- MSE, Civil & Environmental Engineering, University of Washington (2010)
- BE, Engineering, Dartmouth College (2007)
- BA, Cognitive Science, Dartmouth College (2000)

CERTIFICATIONS

- Professional Engineer, State of New Hampshire (12551)
- Roadway Safety Professional (Level 1) (RSP₁)

EXPERIENCE

- Vice President
 WCG
 Portsmouth, NH
 September 2021 – current
- Director
 RSG
 White River Junction, VT
 August 2014 – September 2021
- Senior Analyst
 RSG
 White River Junction, VT
 July 2000 – July 2008

SERVICE

- Portsmouth (NH) Parking & Traffic Safety Committee (2019-present)
- Hanover (NH) Bicycle & Pedestrian Committee (2014-2018)
- Norwich (VT) Development Board of Review (2003-2004)
- Board of Directors, Upper Valley Transportation Management Association (2002-2008, Chair 2008)
- Urban Freight Committee (AT025) of the Transportation Research Board (2015-present, Vice Chair 2021-2022, Chair 2022+)



AUSTIN FEULA, P.E., PTOE, RSP₁ Transportation Planner & Engineer

11 years' experience
Traffic Engineering, Travel Demand Modeling, Safety Analysis, Transportation Master Plans, and Complex Micro- and Macro-Simulation Modeling

TRANSPORTATION PLANNING & MODELING

Austin has a broad range of transportation planning experience from public involvement to travel demand forecasting. Through involvement in all steps in the planning process Austin understand analyses need to be robust and accurate, but most importantly digestible and straightforward for the public and key stakeholders.

Representative projects include:

- Portsmouth, NH microsimulation model development and support
- I-89 in Chittenden Co. microsimulation modeling support
- UNH & Durham, NH microsimulation model
- Logan airport traffic analysis model
- F.E. Everett Turnpike microsimulation model
- US-40 & US-89 solutions development studies
- Herriman City active & transportation master plans
- UDOT traffic study support
- Oquirrh connection feasibility study
- Payson 800 South corridor study

TRANSPORTATION SAFETY & CONTEXT SENSITIVE DESIGN

Austin specializes in safety analyses, specifically in environments with complex combinations of high vehicle speeds and volumes and bicycles/pedestrians. Since joining WCG, Austin has performed over 100 project safety analyses for the Utah Department of Transportation (UDOT). This experience in safety analysis, along with traffic operations analysis, helped him create the speed management study and information sheets.

Austin currently provides transportation planning and operations support for the Daybreak master planned community. Efforts for Daybreak include providing travel forecasts (traffic volumes, transit ridership, and active transportation), multimodal corridor analysis, and context sensitive street design.

Representative projects include:

- UDOT speed management
- UDOT project safety analysis
- UDOT latent pedestrian demand research
- Daybreak master planned community

ACTIVE TRANSPORTATION

Austin has been involved in all aspects of active transportation projects. This includes managing data collection, performing site visits, leading public outreach efforts, performing analysis, and tying all of this together into final recommendations and reports. Currently, Austin is working with UDOT to help them understand how pedestrian treatment can encourage pedestrian travel.

EDUCATION

- Master of Science in Transportation Engineering, University of Massachusetts-Lowell, 2015
- Bachelor of Science in Civil and Environmental Engineering, University of Massachusetts-Lowell, 2011

CERTIFICATIONS

- Professional Engineer (PE)
License Number: 9871986-2202 (UT)
- Professional Traffic Operations Engineer (PTOE): 4324
- Roadway Safety Professional – RSP₁ (Institute of Transportation Engineers)

AFFILIATION

- Institute of Transportation Engineers (ITE) – Member

EXPERIENCE

- Transportation Planner & Engineer
WCG
Nov 2020 – Present
- Transportation Engineer
RSG
Feb 2013 – Nov 2020
- Research Assistant
University of Massachusetts-Lowell
Jun 2010 – Jan 2013

VOLUNTEER

- Upper Valley Mountain Bike Association – Board Member
- Lebanon, NH Youth Cycling – Coach



KYLE HORTON, EIT Transportation Planner & Engineer

6 years' experience
Traffic Simulation, Transportation Master Planning, Corridor Studies, Mapping and Spatial Analysis using GIS

Kyle is proficient in ESRI products such as ArcGIS Pro, ArcGIS Online, and ArcGIS Desktop. Kyle is also an expert in using Synchro/SimTraffic for traffic operations analysis.

MAPPING AND SPATIAL ANALYSIS

Kyle has vast experience using GIS in transportation planning for UDOT and local governments. He is trained to work with ESRI products such as ArcGIS Pro, ArcGIS Online, and ArcGIS Desktop. Kyle specializes in creating intuitive and interactive web mapping applications using ArcGIS StoryMaps to communicate the strategic transportation planning process. Kyle understands the importance of properly communicating geospatial data to assist in transportation planning decisions.

Kyle has led the GIS effort on projects including:

- St. Albans Exit 19 / SASH & VT-104 Intersection Scoping Refresh
- U.S. 40 Corridor Study
- SR-258 & SR-118 Corridor Study
- Eastern Summit County Transportation Master Plan
- Garland Transportation Master Plan
- West Point Transportation Master Plan
- South Weber Transportation Master Plan
- Salem Transportation Master Plan

TRANSPORTATION PLANNING

Kyle has extensive transportation planning experience having led the analysis efforts for various corridor studies and transportation master plans. Representative projects include:

- Daybreak Urban Core Transportation Master Planning
- Eastern Summit County Transportation Master Plan
- Salem Transportation Master Plan
- South Weber Transportation Master Plan
- Riverdale General Plan

EDUCATION

- Master of Science in Transportation Engineering, Utah State University, 2022
- Bachelor of Science in Civil and Environmental Engineering, Utah State University, 2021

AFFILIATION

- Institute of Transportation Engineers (ITE) – Member

EXPERIENCE

- Transportation Planner & Engineer
WCG
May 2017 – Present