



TOWN OF BRISTOL

Crosswalk Engineering Quote

BID | SEPTEMBER 8, 2021

Submitted To:

Valerie Capels
Town of Bristol
1 South Street
P.O. Box 249
Bristol, VT 05443

Submitted By:

Jenny Austin, PE
DuBois & King
27 Center St.
Brandon, VT 05733





227466X
September 8, 2021

Valerie Capels
Town of Bristol
1 South Street, P.O. Box 249
Bristol, VT 05443

Subject: Crosswalk Engineering Quote

Dear Ms. Capels and Members of the Selection Committee:


Over the years, the Town of Bristol (Town) has continued to flourish and implement improvements. In 2016, the Town finished developing the Bristol Fire Station at 79 West Street, and Fire House Drive was established as new Town Highway #347. Currently, the Town is in the various stages of development of a new commercial business park and affordable housing development along Firehouse Drive. This expanding area has led to the need for a crosswalk to connect pedestrians and other modal means to and from the Firehouse Drive area to the north side of West Street. The Town's public trail network is also in the vicinity of Firehouse Drive and will rely on the sidewalk associated with these developments in order to connect pedestrians with the trails and West Street.

The Town is seeking engineering services to evaluate and identify the preferred location for a new crosswalk across West Street in the vicinity of Fire House Drive and to develop plan sheets for the proposed crosswalk. DuBois & King (D&K) is a multidisciplined consulting engineering firm with the ability and experience to assist the Town with completing the design for this crosswalk. Our well-rounded, in-house project team comprises professionals with experience in transportation planning and engineering on a wide array of Vermont projects for municipalities, regional planning commissions, and state agencies.

I will serve as Project Manager for D&K's services and will be the main contact for the Town. I have 22 years of experience managing, planning, and designing transportation and traffic improvement projects. Chris Lathrop, PE, will provide QA/QC Review. Chris is a resident of the Town of Bristol and the manager of D&K's Highway Department. He has 26 years of experience and is well versed in engineering transportation projects. Additionally, I am supported by Project Engineer Stephanie Solla, PE. Stephanie has seven years of experience in the design and development of sidewalk, pathway, and roadway projects for municipal, state, and federally-funded projects throughout Vermont. Members of the project team are familiar with the project area, having provided engineering services for various projects throughout the Town. I am currently serving as Project Manager for an intersection study at the intersection of VT 116/Lincoln Road/ Briggs Hill Road, and both Chris and Stephanie developed the Bristol Class 1 paving project.

The following proposal offers an efficient and targeted approach to designing a safer and more accommodating Fire House Drive. We look forward to continuing to work collaboratively with the Town of Bristol and community stakeholders to develop improvements that are locally supported. D&K appreciates the opportunity to submit our proposal. Should you have any questions or wish to discuss the project further, do not hesitate to contact me at (802) 465-8396 ext. 4813 or at justin@dubois-king.com.

Sincerely,
DuBois & King, Inc.



Jenny Austin, PE
Project Manager

FIRM OVERVIEW

Founded in 1962, D&K is a Vermont-based firm that provides multidisciplinary planning, design, and construction phase services to federal, state, and municipal clients. With offices in Randolph, Brandon, South Burlington, Springfield, and Waterbury, Vermont, and additional offices in New Hampshire, New York, and Maine, D&K has a staff of 120 engineers, planners, surveyors, technicians, environmental and permitting specialists, and support personnel. D&K has advanced planning studies, conceptual through final design, environmental documentation, and construction services on hundreds of projects. The integration of D&K staff on a range of project types enables D&K to provide successful outcomes and deliverables to our clients. The D&K staff assigned to this project include individuals that overlap in both planning and transportation engineering expertise.

Project Team Experience. Our transportation staff are well versed in the planning and engineering phases of intersection, roadway, and bridge projects; multimodal land use/transportation planning; evaluation of road diets; development of Complete Streets designs; and pedestrian/bicycle infrastructure. D&K's transportation planners and engineers provide services for municipal, regional, and state agencies. Our team offers complete transportation services to guide municipalities, starting early in the planning stage with the preparation of scoping studies and extending through the design phase with the preparation of contract plans and documents. We are also able to offer municipalities resident engineering services during construction for these projects.

The firm's proposed team includes transportation/traffic planners and engineers experienced with a diverse range of municipal, regional, and state transportation projects. Assignments include new alignments, traffic analyses and reports, intersection scoping and safety assessments, sidewalks, traffic calming, Complete Streets, and more. Our transportation team offers a comprehensive understanding of transportation programs and compliance with the Manual on Uniform Traffic Control Devices (MUTCD), American Association of State Highway and Transportation Officials (AASHTO) Green Book, as well as other guidelines as needed, depending on the nature of the project. It is D&K's understanding that coordination with VTrans for the proposed crosswalk will not be needed as the project area is on a Class 1 Town Highway.



PROJECT APPROACH

D&K's project approach is crafted to specifically meet the needs of each project. Our approach for the Design of the West Street Crosswalk is as follows:

- Conduct a Kickoff Meeting to review project goals, project assumptions, any relevant project-related background, and the project schedule.
- Complete a site visit to review the project area, measure sight distances at various locations, and make notes regarding the project area as it relates to a proposed crosswalk location.
- Review available sight distances measured in the field with AASHTO sight distance criteria to determine if sight distance criteria are met. Based on D&K's knowledge of the project area, we feel that the proposed location will meet sight distance criteria. However, D&K will check and confirm this in the field.
- Develop recommendations for the proposed crosswalk location and coordinate with the Town to confirm the proposed location.
- Finalize the crosswalk layout and develop an opinion of probable construction cost.
- Present the crosswalk layout and anticipated cost at a Selectboard Meeting.
- Develop specifications for the crosswalk.

PROJECT TEAM

Descriptions of DuBois & King team members assigned to this project follow.



Jenny Austin, PE, Project Manager, has 22 years of experience providing management and design for civil engineering projects. Focused largely on transportation planning and design, as well as traffic engineering for municipal, regional, and state projects, she has experience with projects from the scoping level through contract plan development. Jenny has worked on a wide range of transportation planning and design projects, including scoping and design for transportation projects, primarily municipally and VTrans MAB funded. Her traffic engineering experience ranges from the preparation of traffic impact studies (TIS) to peer review of TIS reports and site evaluations as they relate to safety concerns. Jenny has worked on a number of projects specific to intersection evaluations, including the VT 116/Lincoln Road/Briggs Hill Road Intersection Study project in Bristol, which involves evaluating intersection improvements due to a sight distance concern; an intersection study which reviewed whether or not a 4-way stop should be installed for the Town of Salisbury; and an intersection planning study which included conceptual sketches for intersection improvements focused mainly on grade adjustments to the side road to be able to meet VTrans standards for the Town of Monkton. In addition, Jenny has worked on a safety review of an intersection for a private developer looking to develop on a local road in Landgrove. This project included concerns regarding the potential new traffic that the development would add to the existing roadway system. Jenny is also currently working in the Municipal Project Manager role for four VTrans MA projects, including a shared-use path, sidewalk, culvert, and a sand/salt shed projects. *Project Role: Jenny will be the primary contact for the project and will assist in all aspects of the project.*



Chris Lathrop, PE, QA/QC Review, has 26 years of professional experience developing the preliminary and final design of a variety of sidewalk, pathway, highway, and roadway projects for VTrans and numerous Vermont municipalities. As a Senior Transportation Engineer and the Highway Department Manager at D&K, Chris 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. His pathway and roadway experience ranges from the reconstruction of low-volume local roadways and intersection improvement projects to pathways and sidewalks. Chris is familiar with the Town of Bristol, having provided engineering services on a variety of projects for the Town. His specific project experience includes serving as Project Manager for the Bristol Safe Routes to School Sidewalk Feasibility Study and West Pleasant Street Sidewalk Design project, as well as serving as Project Manager for the VTrans-funded Bristol Class 1 paving project and as Construction Inspector for lighting design and park amenity improvements for Bristol's Village Green. *Project Role: Chris will provide quality assurance and quality review for this project.*



Stephanie Solla, PE, Project Engineer, has seven years of experience in the design and development of sidewalk, pathway, and roadway projects for municipal, state, and federally-funded projects in Vermont and throughout New England. Stephanie has provided roadway geometric design and layout, signing, pavement marking layout, quantity calculations, cost estimating, grading, and drainage design. Under D&K's VTrans High Highway Resurfacing IDC, Stephanie provided pavement marking layout, parking spot layout, sign and plan review, and quantity estimating for the VT 116 Resurfacing project in Bristol. Her additional project experience includes serving as the Design Engineer for design and construction phase services for sidewalks, streetscape enhancement, and other pedestrian facilities in Fairfield and Saxton's River and serving as Project Engineer for the design of pedestrian enhancements for US Route 2 in East Montpelier. *Project Role: Stephanie will be responsible for the design and development of plan production and specifications and cost estimates.*

Resumes

Professional resumes for key team members are included at the end of the document.

PRIOR EXPERIENCE

Detailed descriptions of D&K's relevant project experience follow.

Familiarity with Pedestrian Facility Design Standards

DuBois & King has extensive experience working on pedestrian facility design projects, as well as roadway safety projects, across Vermont. We have worked on several municipal and state projects in both the scoping and design phases, and are familiar with the current standards for pedestrian facility design. For many years, the 2002 Pedestrian and Bicycle Design Manual was the primary resource for these types of projects. In 2020, VTrans “retired” this manual and instead references a plethora of resources on the VTrans Bicycle & Pedestrian Design Resources website. D&K will use several resources on this website as needed over the course of a project. Proposed signage will be in compliance with the latest Manual on Uniform Traffic Control Devices (MUTCD). D&K will utilize the VTrans Guidelines for Pedestrian Crossing Treatments throughout the project as needed.

Safety is one important piece to selecting an appropriate location for the proposed crosswalk. D&K has the experience working on projects for municipalities and regional planning commissions to recommend safe alternatives within the project area to locate the new crosswalk. We are familiar with the VTrans High Crash Location (HCL) Report and have accessed and evaluated crash data at a number of locations across the state to determine whether a given project area is located at a high crash segment or intersection. D&K has provided services for sidewalks projects that focused on reviewing sightlines to address municipal and public safety concerns. D&K's planners and engineers have overlapping skill sets that enable our planners to anticipate potential safety concerns and allow our engineers to be able to see the project's big-picture while working on the design phase.

Example Projects

Summaries of D&K projects that required similar services follow.

Bristol Intersection Planning Study, ACRPC, Bristol, VT

D&K is developing a planning study to address three hazards at the intersection of Vermont 116, Lincoln Road, and Briggs Hill Road. The area encompassing the VT 116/ Lincoln Road/ Briggs Hill Road intersection has a number of challenges. The VT 116 bridge to the west of the intersection was designed and constructed where it exists today due to subsurface conditions. However, the bridge and guardrail limit the sight distance for vehicles stopped at the Lincoln Road intersection looking west towards VT 116. Added complexities of the project area include the grade of Briggs Hill Road as it approaches Lincoln Road, as well as vehicles parking along Lincoln Road in the summer months. These factors have led the Town of Bristol to apply for and receive an Addison County Transportation Planning Initiative grant to study this project area and develop potential improvements that can make traveling through the project area safer.

The three focus areas of this study come with their own unique challenges, and each will have different options for improvements. D&K has developed alternatives for this project, and we are currently evaluating the alternatives. This project is scheduled to wrap up in September 2021, culminating in a Scoping Report that summarizes the project for the Town to use as a tool for future planning of improvements in the project area.



West Pleasant Street Sidewalk Design, Bristol, VT

This Safe Routes to School project involved the evaluation and design of a 425-ft sidewalk along West Pleasant Street within Bristol Village. The sidewalk extends from Munsill Avenue to Liberty Street, and along Liberty Street to the existing pathway on the Mount Abraham Union High School property. The project included the design of two crosswalks. D&K provided engineering services, including alternatives analysis and the development of conceptual designs through Contract Plans and Documents. As part of this project, a Categorical Exclusion document was developed to satisfy the NEPA documentation requirement.



Pedestrian Path Scoping Study, ACRPC, Bristol, VT

Funded through the Addison County Regional Planning Commission, D&K conducted the Bristol Pedestrian Pathway Scoping Study to investigate the development of pedestrian pathways to link downtown Bristol with a densely settled neighborhood that has long had the state highway of Route 17 as its only connection to town and the regional high school. The public outreach process for this project adapted to the onset of the COVID-19 pandemic by engaging a broad spectrum of the community through online surveys, video conferences, and maintaining a dedicated project website. The study report provided detailed cost estimates and visualizations for a 10-foot-wide path along Route 17 and alternatives for natural surface trail corridors. Deliverables included landowner outreach, project alternative maps and visualizations, and digital GPS files to assist in future trail development efforts.



STP PC20(2) Bristol, VT 116 Mill/Fill, VTrans, VT

Under an ongoing, multi-year retainer contract to provide design services, D&K provided design for a Class 1 paving project. The project included the design of several sidewalk bulb outs/islands to improve pedestrian safety, installation of rectangular rapid flashing beacons, traffic signal system improvements, installation of a new pedestrian ramp, and redesign of a downtown area parking to meet MUTCD requirements. D&K evaluated the option to widen narrow sections of roadway and incorporated them into the plans where possible. Services included sign inventory, base mapping, engineering design and plan development, pavement markings, signage, rehabilitation of drainage structures, pavement widening and cost/quantity estimation. The design services are in English units and MicroStation/InRoads.



Salisbury Intersection Study, ACRPC, Salisbury, VT

D&K recently completed a planning study for the intersection of Lake Dunmore Road/Route 53 and Upper Plains Road Road/West Shore Road. The primary objective of this study was to assess whether a four-way stop was warranted at the intersection that is currently a two-way stop controlled intersection. D&K services included researching prior intersection reviews, reviewing existing conditions and crash data, developing traffic volumes, evaluating multi-way stop criteria, reviewing sight distances, and preparing a Technical Memorandum.



Commercial Gas Storage Facility, Blue Flame Gas, Landgrove, VT

D&K completed a traffic study for a private development project. The purpose of the study was to evaluate an intersection along VT 11 to determine if the private development project would adversely impact traffic operations at the intersection. Services included reviewing sight distances at the intersection, reviewing VTrans crash data, and preparing a technical memorandum summarizing a safety review of the proposed site as it relates to traffic safety. The primary concern that the D&K team needed to consider for this project was the addition of trucks at the intersection. This presented a unique element of this project compared to most safety reviews. As a result, D&K evaluated the sight distance as it relates to what the intersection sight distance criteria would be for trucks utilizing equations in the AASHTO guidelines, versus the standard sight distance tables provided in AASHTO and VTrans guidelines.



Village Sidewalk and Lighting Study, ACRPC, Salisbury, VT

DuBois & King completed a study to address pedestrian safety concerns for the village area. The village area has seen an increase in pedestrian travel even though there are no sidewalks. In addition to safety concerns for pedestrians within the roadway, there is limited lighting throughout the project area. The lighting is inconsistent, with lights located high on utility poles, poles setback substantially from the roadway, and low wattage due to light pollution concerns. D&K recommended new historical lighting because several buildings in the village are listed as historic by the State of Vermont. Our team collected input from stakeholders and the general public and presented our findings at a Selectboard meeting. This study is intended to lay the groundwork for improvements, budget projections, and grant assistance for future planning in the village area. D&K collected data to analyze road conditions, existing land use, natural resources, and lighting needs throughout the project area. Natural resources information from the VCGI database and cultural and historic resources were identified on the base map developed in ArcGIS. This project included a final presentation of the report to the Selectboard.



PROPOSED SCHEDULE

D&K has the capacity to begin the project upon notice of award. As noted in the proposal, construction of the proposed crosswalk would ideally be incorporated in the existing Stoney Hill Business Park and Sidewalk Construction project. Per discussion with the Town, it is our understanding that the new sidewalk part of this existing construction contract is anticipated to be constructed in the second week of November 2021. The schedule we show below assumes incorporation of this crosswalk project into the current Stoney Hill Business Park and Sidewalk Construction project. Therefore, we assume that bid phase services are not needed as part of the crosswalk project. D&K estimates the following approximate timetable for this project:

	2021											
	September			October			November			December		
Consultant Selection				(Sept. 13 per RFP)								
Notice to Proceed (signed contract)												
Task 1: Project Kickoff Meeting												
Task 2: Review Existing Conditions												
2.1: Site Visit												
2.2: Develop Base Map												
2.3: Review Existing Site Conditions												
Task 3: Develop Plan Sheets for Crosswalk												
3.1: Develop Plan Sheets												
3.2: Coordinate with Town												
3.3: Finalize Crosswalk Layout												
Task 4: Develop Opinion of Probable Construction Cost Estimate												
Task 5: Review Potential Permitting Requirements												
Task 6: Presentation at Selectboard Meeting												
Task 7: Develop Specifications for Crosswalk												
Task 8: Construction Phase (limited to answering design questions)												

- Key:
-  Meeting
 -  Deliverable

NOT-TO-EXCEED COST

The following table shows our labor hours for team members and proposed not-to-exceed quote to complete this project.

Project Phases & Tasks	Labor Categories			
	QA/QC Reviewer	Project Manager	Project Engineer	Total Hours
1. Kickoff Meeting		2		2
2. Review Existing Conditions				
2.1 Site Visit			2	2
2.2 Develop Base Mapping			2	2
2.3 Review Existing Conditions		2		2
3. Develop Plan Sheets for Crosswalk				
3.1 Develop Plan Sheets	2	2	8	12
3.2 Coordinate with Town	2		1	3
3.3 Finalize Crosswalk Layout	1	1	2	4
4. Develop Opinion of Probable Construction Cost Estimate		2	4	6
5. Review Potential Permitting Requirements			1	1
6. Presentation at Selectboard Meeting	4		2	6
7. Develop Specifications for Crosswalk	1	2		3
8. Construction Phase (limited to answering design questions)		1	2	3
Total Hours:	10	12	24	46
Direct Labor				
Total Hours:	10	12	24	46
Hourly Rate:	\$155	\$110	\$100	
Labor Cost:	\$1,550	\$1,320	\$2,400	\$5,270
Direct Expenses				
I. Subsistence				
Transportation:	Vehicles	70	Miles @ \$0.560 / Mile =	\$39
				Subsistence Total = \$39
II. Miscellaneous Expense:				
				Plotting Charges = \$41
				Miscellaneous Total = \$41
				Total Direct Expenses = \$80
Cost Summary				
				Labor Cost \$5,270
				Direct Expenses \$80
				Total Price \$5,350

EDUCATION

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

REGISTRATIONS

Professional Engineer: VT 8551

Ms. Austin has 22 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 MAB 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.

Bristol Intersection Study, ACRPC, Bristol, VT. Project Manager for the development of a scoping study to address three hazards at the intersection of Vermont 116, Lincoln Road, and Briggs Hill Road. The area encompassing the VT 116/Lincoln Road/Briggs Hill Road intersection has a number of challenges. The VT 116 bridge to the west of the intersection was designed and constructed where it exists today due to subsurface conditions. However, the bridge and guardrail limit the sight distance for vehicles stopped at the Lincoln Road intersection looking west towards VT 116. Added complexities of the project area include the grade of Briggs Hill Road as it approaches Lincoln Road, as well as vehicles parking along Lincoln Road in the summer months.

Salisbury Intersection Study, ACRPC, Salisbury, VT. Project Manager for a planning study for the intersection of Lake Dunmore Road/Route 53 and Upper Plains Road/West Shore Road. The primary objective of this study was to assess whether a four-way stop was warranted at this currently two-way stop controlled intersection. Served as the primary contact and engineer for this project. Tasks involved a review of prior intersection reviews, review of existing conditions, crash data review, development of traffic volumes, multi-way stop criteria evaluations, sight distance review, and preparation of a Technical Memorandum.

Commercial Gas Traffic Study, Blue Flame Gas, Langrove, VT. Project Manager for a traffic study for a private development project. The purpose of the study was to evaluate an intersection along VT 11 to determine if the private development project would adversely impact traffic operations of the intersection. Tasks included the review of sight distances at the intersection and VTrans crash data and preparation of a technical memorandum summarizing a safety review of the proposed site as it relates to traffic safety. A unique element of this project compared most safety reviews was that the primary concern was the addition of trucks at the intersection. This resulted in the evaluation of the sight distance as it relates to what the intersection sight distance criteria would be for trucks utilizing equations in the AASHTO guidelines, versus the standard sight distance tables provided in AASHTO and VTrans guidelines. Served as the primary point of contact.

Planning Study for the Intersection of States Prison Hollow Road and Monkton Ridge Road, ACRPC, Monkton, VT. Project Manager for a planning study and conceptual plans for intersection improvements. This project follows the VTrans MAB process. Project responsibilities include attending committee meetings, reviewing and evaluating the intersection, preparation of conceptual plans, and general project management tasks. The project goal will be to have a conceptual design for this intersection, which includes straightening the States Prison Hollow Road approach of the intersection, associated grading needed to tie into existing conditions, and the adjacent side street, and other incidentals for the project.

US 2/Oak Hill Road/North Williston Road Scoping Study, Williston, VT. Provided development of a scoping study for the CCRPC at an intersection which is known to be a high crash location. Alternatives developed included signalization of the intersection and a new roundabout. Project tasks include assessment of existing conditions, alternatives investigation, development of alternatives in AutoCAD, preparation of the scoping report, and assistance with the selection of a preferred alternative.

Boulder Beach Road/VT302 Intersection Study, Groton, VT. Conducted study for Regional Planning Commission to evaluate "y" intersection with safety issues. Involved with every aspect of this project, including analyzing tube count data, conducting a turning movement count, safety analysis, development and evaluation of alternatives, preparation of Study Report, and public presentations.

Bicycle and Pedestrian Scoping Study, Weston, VT. Project Manager for a study to evaluate opportunities to improve the streetscape and encourage walking and cycling within the village's VT 100 corridor. The project received funds administered by the VTrans Municipal Assistance Bureau.

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 specializing 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 Vermont and New Hampshire municipalities.

Chris's pathway and roadway experience ranges from the reconstruction of low-volume local roadways and intersection improvement projects, to 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.

Sidewalk Design, West Pleasant Street, Safe Routes to School Program, VTrans, Bristol, VT.

Project Manager for evaluation and design of a 425-ft sidewalk along West Pleasant Street within Bristol Village. The sidewalk extends from Munsill Avenue to Liberty Street and along Liberty Street to the existing pathway on the Mount Abraham Union High School property. In addition to the sidewalk along West Pleasant, the project includes two or three crosswalks. Chris also provided construction inspection services for the construction phase of the project.

Bristol Sidewalk Feasibility Study, Safe Routes to School, STP SRIN(1), Bristol, VT. Project Manager responsible for a feasibility study to determine the feasibility of constructing sidewalks and pathways along several streets within the Village of Bristol. The study, which involved evaluating the feasibility of constructing 5-ft concrete sidewalks and 10-ft pathways, included evaluating the potential impacts on ROW, utilities, drainage, and the cost of using different materials. Conducted public participation meetings and coordinated with the Town Manager and Selectboard.

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.

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.

Rehabilitation and Resurfacing, Highway Resurfacing On-Call Contract, VTrans, Statewide, VT.

Project Manager/Senior Highway Engineer for multi-year retainer contracts (2007–2010, 2010–2015 and 2015–2020). Providing preliminary and final design services for pavement resurfacing and rehabilitation projects statewide. Design includes 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 "mill and fill" resurfacing, pavement widening, and pavement reclamation projects. Responsible for managing development of detailed project plans, specifications, and estimates, and QA/QC of all assignments. Projects have included:

- **VT 116, STP PC20(2), Bristol (Class 1), 1.2 mi.**
- **US 7, NH PC20(3), Middlebury (Class 1), 1.5 mi.**
- **VT 30 & VT 125, STP PC20(3), Middlebury (Class 1), 2.4 mi.**
- **VT 22A, STP PC20(1), Vergennes (Class 1), 2.8 mi.**
- **VT 100, STP PS19(3), Stowe-Morristown (Class 1), 7.7 mi.**

Bristol Green, Bristol, VT. Construction Inspector for lighting design and park amenity improvements to Bristol's village green. Addressed codes and standards, metering, capacity, panel boards, wiring, and grounding and lightning protection. Presented three site lighting alternatives and preliminary and construction documents of the preferred alternative. The project included landscaping hardscape considerations including benches and park features. Design and construction is being coordinated with ongoing construction projects adjacent to the green. The project was funded through the VTrans LTF Section and followed LTF, AASHTO, and IESNA guidelines for design and procedures.

EDUCATION

B.S. Civil Engineering, Clarkson University, 2013

REGISTRATIONS

Civil Engineer: VT 130771

Ms. Solla is a civil engineer with 7 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.

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(2), VT 116 Resurfacing, Bristol, VT.** Project Engineer responsible for pavement marking layout, parking spot layout, sign and plan review and quantity estimating.
- **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.

US Route 2 Pedestrian Improvements, East Montpelier, VT. Project Engineer for design of pedestrian enhancements as recommended in the Town's Scoping Study, also prepared by D&K. Approximately 2,000 feet 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 is largely being funded through a federal and administered through the VTrans Municipal Assistance Bureau (MAB), and is being developed in accordance with Municipal Assistance Bureau Local Projects Guidebook. Responsible for quantity estimation and review of drainage design.

STP BP 13(7), Fairfield Center Pedestrian Safety Improvements, Fairfield, VT. Design Engineer for design and construction phase services for sidewalks, streetscape enhancement, and other pedestrian facilities in the core of the village. Provided assistance with alignments, profiles, and cross-section design as well as EPSC plans and quantities.

Sidewalk Design, Safe Routes to School, VTrans, Saxton's River, VT. Design Engineer for design and construction phase services for sidewalks, streetscape enhancement, and other pedestrian facilities in the core of the village. Provided quantity calculations.

Crescent Connector, Village of Essex Junction, VT. Design Engineer for \$7.5 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 Bureau (MAB). Provided drafting and addressed comments from the Village.