

Revised December 22, 2023



Bid/Technical Proposal

Town of Richmond

Engineering Services for Bridge St. Northern Sidewalk Project



RICHMOND BRIDGE ST. NORTHERN SIDEWALK PROJECT

BID FORM

Submit this page along with supporting documents as your complete bid proposal

Lump Sum Engineering Services:

\$: 49,493


The Town of Richmond reserves the right to accept or reject any or all bids, or parts thereof, or to select the bid to be in the best interest of the Town.

Bid submitted by:

Contractor: Vanasse Hangen Brustlin, Inc. (VHB)

Address: 40 IDX Drive, Building 100, Suite 200, S. Burlington, VT 05403

Phone: 802.497.6100 E-mail: dsaladino@vhb.com

Contractor Authorized Agent Signature: 

Printed Name and Title: David Saladino, PE - Managing Director VT

Date bid Signed: December 22, 2023



Revised: December 22, 2023

Mr. Josh Arneson
Town of Richmond
203 Bridge Street, PO Box 285
Richmond, VT 05477

Dear Mr. Arneson,

The Town of Richmond desires to construct a new section of sidewalk along Bridge Street between Jolina Court/Railroad Street and US Route 2. VHB has intimate knowledge of the project area, having prepared the Richmond Bridge Street Complete Streets Corridor Study from which the preferred alternative for this project was identified, as well as recently being selected to design a connecting section of sidewalk on Bridge Street, with our proposed Project Manager, Cierra Ford, PE, ENV SP, serving the same role for that project. This familiarity means there is no learning curve with VHB and will allow us to hit the ground running if selected for this project.

At VHB, we believe that infrastructure projects should not only meet practical needs but also contribute to the overall quality of life in a community. Our approach to sidewalk design is holistic, considering factors such as pedestrian safety, accessibility, aesthetics, and environmental impact. We use advanced technologies and innovative design techniques to create sidewalks that are durable, easy to maintain, and visually appealing.

We are excited about the opportunity to continue to collaborate with the Town of Richmond, and we are confident that we can deliver a sidewalk design that meets your needs and exceeds your expectations. Should you need any further information or have any questions, please contact me via email or phone at edetrick@vhb.com or 802.497.6179. Enclosed, please find the revised proposal based on a discussion with the Town on December 21, 2023. Thank you for considering our proposal.

Sincerely,

VHB

A handwritten signature in black ink that reads "Evan P. Detrick". The signature is fluid and cursive, with the first name "Evan" and last name "Detrick" clearly legible.

Evan Detrick, PE
Vermont Director of Transportation

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Project Understanding

The Town of Richmond, working with the Chittenden County Regional Planning Commission (CCRPC), recently commissioned a scoping study (Bridge Street Complete Streets Corridor Study) to identify and prioritize multimodal improvements along the Bridge Street corridor. VHB developed this study, working through a public process to evaluate options for improved bicycle and pedestrian infrastructure while supporting local businesses and continuing to serve vehicular traffic. Extensive public input as well as a feasibility and cost analysis led to a preferred alternative to improve connectivity and mobility.

Upon the completion of the scoping study, the Town applied for and was awarded American Rescue Plan Act (ARPA) funds to design and construct the preferred alternative identified in the study. Now that the Town has secured the funds for the project, the Town is seeking engineering firms to submit proposals to complete the design, permitting, bid, and construction oversight of the project. The project includes a new section of sidewalk on the east side of Bridge Street between Jolina Court and the existing sidewalk to the north, a new section of sidewalk on the west side of Bridge Street between Railroad Street and Depot Street, and one new crossing of Bridge Street in addition to restriping the existing crosswalks within the project area.

During the scoping process, VHB conducted a Local Concerns Meeting and Alternatives Presentation Meeting and developed a set of Preliminary Plans for the preferred alternative based on Town and public input. VHB will begin this project with these Preliminary Plans, coordinate with the Town on any modifications to the preferred alternative, and revise the plans based on this input to submit a set of Revised Preliminary Plans.

VHB anticipates that no public meetings will be necessary for the project moving forward, and instead will set up coordination meetings with the Town and selected stakeholders to receive and incorporate feedback.

VHB has extensive experience developing sidewalk projects and advancing projects under state and municipal requirements. We are very interested and excited about the prospect of working with Richmond to bring this project to construction.

Local Knowledge/Project Insight

Having developed Corridor Study, VHB has extensive knowledge of the project area as well as the overall vision for the project itself. There are key areas that were identified and discussed during the scoping phase that will allow VHB to hit the ground running with progressing the preferred alternative through design.

The first key area is the Richmond Community Kitchen. With the limited area to provide parking, sidewalk, and a safe refuge for crossing pedestrians, the tradeoffs associated with this design detail were thoroughly examined. The preliminary plans VHB developed as part of the scoping phase show a 24' driveway access and sidewalk tipping down to the driveway on either side. VHB understands that there may be a desire from the Town to maintain the pull-in parking access from Bridge Street instead of this option, and is prepared to continue to investigate this area as the plans progress. In these continued conversations, it will be important to consider

ADA compliance and the accessibility and safety of pedestrians in addition to the parking configuration and the use of the railroad ROW.

The railroad crossing is the next area of interest for this project. **VHB has worked on several projects in Chittenden County that required extensive coordination with the NECR and adhering to Federal Railroad Administration requirements.** VHB is equipped to lead these conversations and begin them early in the design process to gain the proper permissions and design adequate crossing treatments that satisfy all stakeholders.

The northwest corner of the intersection between Railroad Street and Bridge Street is another location where there is a critical infrastructure gap that was thoroughly vetted during the scoping phase. VHB can verify the truck turning movements to address the property owner's concerns, as well as assist with property owner conversations. VHB has experience preparing and utilizing exhibits to clearly communicate with property owners.

The Town wants a crosswalk across Bridge Street at the intersection of Depot Street. The preferred alternative shows a bumpout at the northwest corner of this intersection to provide a safer and more visible crossing for pedestrians. VHB understands that the Town wants to keep the existing crossing at 39 Bridge Street, and therefore will continue the conversation with the Town on the best location for a new crossing south of the existing crossing. VHB will consider accessibility, visibility, desire lines for foot traffic, and safety for all modes when approaching these discussions.

Northfield Savings Bank's parking lot is located behind a short retaining wall just outside the roadway curb. In both of the favored alternatives (Alternative 1 and 2), the retaining wall would have to be removed and reset or replaced because of the proximity to the sidewalk excavation and the uncertainty of the depth of the existing wall. **VHB understands the importance of maintaining business relationships in the downtown area, and has experience leading property owner conversations to accommodate the needs of all stakeholders as best possible in design.** VHB will provide solutions to maintain the existing parking at the bank.

Having performed a thorough analysis of each alternative presented in the scoping study, VHB is equipped to lead conversations weighing pros and cons of each alternative in order to produce a blend of the two favored alternatives that suites the Town's vision for the project.

If desired by the Town, VHB can lead a Sustainability Workshop with the Town at the beginning of the design phase to guide our integrated approach and align the project's goals with the Town's environmental, social, and economic needs.

VHB was recently selected to design a connecting section of sidewalk on Bridge Street, from Jolina Court to Volunteers Green. The VHB team for both projects will be the same, allowing the projects to seamlessly integrate with each other. Less coordination efforts will be required to achieve the Town's goals for the two projects.

VHB recognizes the importance of maintaining business operations, parking, and pedestrian and vehicular traffic in downtown areas, and will determine the best solutions for traffic control and construction phasing to minimize disruptions from the project.

Scope of Work

1.0 Project Kickoff, Coordination, and Administration

VHB will organize and attend an in-person project kickoff meeting to introduce the project team to the stakeholders, discuss project goals, define the exact limits of the project corridor, and determine the appropriate project timeline to bring the entire package together into construction. This meeting will include a review of the Preliminary Plans developed during the scoping phase to gather input on proposed modifications and better define the preferred alternative to move forward with in design. At the conclusion of the meeting the team will define desired routine check-ins and reiterate the next steps.

We anticipate the VHB project manager and project engineer will participate in up to six virtual coordination meetings (in addition to the kickoff meeting) throughout the development of the project to ensure project stakeholders remain informed of progress, challenges, and opportunities as they are identified. Additionally, VHB will provide project management and administration activities including managing the VHB staff, reviewing and updating the project schedule and budget, coordinating necessary permits and approvals, and project invoicing.



Deliverables: Kickoff Meeting Agenda and Meeting Notes

2.0 Topographic Survey and Base Mapping

With the defined limits of the project corridor discussed in the kickoff meeting, VHB will compile a Base Map to include ground survey, utility locations, and existing Right-of-Way (ROW) information. VHB conducted topographic survey as part of the scoping phase, but VHB understands that there have since been modifications to drainage infrastructure, curb lines, and some sidewalk. VHB will use ground surveying methods to collect the new and updated topography and merge it with the previous data to produce a topographic map showing one-foot contour intervals. The horizontal and vertical control will be based on VT State Plane coordinates NAD83(2011) and NAVD88. The survey will result in a three-dimensional base plan of the project area's current conditions including horizontal and vertical control points and roadway approaches. VHB anticipates that the project survey limits will extend from the south side of the Jolina Court and Railroad Street intersection to the intersection of Bridge Street with US Route 2. The survey limits will be sufficiently wide to cover Bridge Street and lawn areas between Jolina Court and the existing crosswalk at 39 Bridge Street where the sidewalk is proposed. VHB can also combine this survey data with that of the TAP TA23(17) project just south of this one. This will enable the Town to maintain a comprehensive and uniform survey of Bridge Street for their records.

The topographic survey will also include updates on the location of existing utilities visible from the ground surface. Invert elevations, pipe size, pipe type, and direction of flow will be field located, where accessible. All additional utility information that is subsurface will be compiled using available as-builts from previous roadway project(s) and coordination with the utility companies. VHB will work with the Town and public and private utility agencies to make appropriate updates to the utility information that was gathered during the scoping phase.

VHB will compile the municipality provided roadway plans, land records, property deeds, and tax maps to indicate the existing ROW of the project corridor. This ROW will be utilized throughout the plan set development phase of this project, in addition to supporting the Right-of-Way Plans and Acquisition Process (Task 5.0).



Deliverables: Three-dimensional base plan with ROW limits delineated and shown on base plan.

3.0 Resource Constraints and NEPA Documentation

VHB will identify natural and cultural resources on the project plans to support the Town in satisfying the National Environmental Policy Act (NEPA) process which is required due to the use of Federal funding for the project. This project is expected to be at the level of Categorical Exclusion (CE).

3.1 Natural Resources

VHB will conduct a natural resource assessment to identify the presence of any known natural resources in the project vicinity and identify these resources on the Revised Preliminary Plans. Based on an initial review of previously mapped natural resources via the Agency of Natural Resources (“ANR”) Natural Resources Atlas and the “downtown” nature of the project corridor, we do not anticipate encountering any significant natural resources along Bridge Street. A VHB Environmental Scientist will complete a site visit to review the project area and collect representative photographs. Following the site visit, we will prepare a memorandum describing the methodology used to evaluate the project corridor for resources, the findings, a map of previously mapped and VHB-observed natural resources, and any recommendations for additional studies. This task does not include a wetland and waters delineation or rare, threatened or endangered plant survey as none of those features are thought to be present within the project limits.



Deliverables: Natural Resources Memorandum in PDF format.

3.2 Cultural Resources

3.2.1 Section 106 Review

VHB will coordinate with the VTrans Historic Preservation Officer and Historic Preservation Specialists to confirm the appropriate pathway to ensure Section 106 and Section 4(f) compliance and to determine the Area of Potential Effect (“APE”). In advance of fieldwork, VHB will conduct various desktop research including a review of the Vermont Division for Historic Preservation’s (“DHP”) Online Resource Center (“ORC”) for Vermont Historic Sites and Structures Survey (“VHSS”), State Register (“SR”) listings, and National Register (“NR”) listings, as well as the University of Vermont’s Landscape Change photograph collections, and other available sources as necessary. VHB will match VHSS and SR and NR listings and boundaries to e911 addresses, if applicable. VHB will complete a field visit to photograph each resource in the APE and obtain additional relevant information from records at town libraries and historical societies (if applicable). This includes VHB collecting digital scans of historic photographs, drawings, maps, and/or paintings (if available).

VHB will prepare a draft Section 106 Project Review Memorandum using the current VTrans template. The draft memorandum will include a description of the Project, a Project Area

overview and discussion of the APE, a brief historic context, description of above-ground resources to include:

- » Photographs of each property
- » Descriptions of the properties
- » Discussion of integrity and recommendations of eligibility for the NR
- » Identification of section 4(f) resources

The memorandum will also include a location map, historic photographs and maps (as appropriate, a discussion of Public Consultation (as applicable and summarized from existing records), an analysis of effects, stipulation(s) (if required), maps, design plans, and other supporting information as appropriate. VHB assumes that no Vermont Architectural Resource Inventory ("VARI") forms for above-ground historic resources will be required.

VHB will use the findings of the Archaeological Resources Assessment developed as part of the scoping study to complete the Archaeological Resources section of the memorandum.



Deliverables: Section 106 Project Review Memorandum in Word format.

Assumptions/Limitations

- » This scope of services assumes one report of the deliverable noted above, and that the Project (or cultural resources investigations) will not be broken into separate phases.

VHB will submit the revised preliminary plans to the VTrans Historic Preservation office for their review.

3.3 Permitting

VHB will work with the Town to apply for federal, state, and local permits necessary to complete the project. VHB will prepare construction stormwater permitting documents, assumed to include a cover letter, Risk Evaluation, Notice of Intent, EPSC details, narrative, and calculations (VHB assumes this work will be required and that the Project will qualify as Low Risk under Construction General Permit 3-9020). Although the sidewalk construction is anticipated to disturb less than the half-acre threshold for State operational stormwater discharge permits, we anticipate working closely with the Town to ensure that the project design maximizes the opportunities to retain and infiltrate stormwater in the project area to the extent possible.

VHB does not anticipate the need for a Section 1111 State Highway Access and Work Permit as Bridge Street is a Class 2 Town Highway.

We do not anticipate the need for any operational stormwater or wetlands permits.

VHB will reach out to the Act 250 District Commission Coordinator to determine if any existing Act 250 permits exist within the project area, and whether any permit amendments would be triggered by the project. We do not anticipate that any Act 250 permits will need to be amended as part of this project.

Should additional permitting efforts be required, VHB can provide these services under a supplemental agreement.

3.4 NEPA Review

VHB assumes that the appropriate Class of Action for the project will be a Categorical Exclusion ("CE"). VHB will prepare a CE Environmental Analysis Sheet. VHB will draft the appropriate cover letter to the Federal Highway Administration and then we will forward it to the VTrans Environmental Section. VHB will also complete the VTrans Natural Resources Clearance Memorandum, Environmental Specialist Resources Memorandum, and Resource Identification Completion Memorandum.

To complete this task, VHB will use information from field survey, Town and VHB resource identification research, and the Preliminary Plans.

VHB will use the Preliminary Design and the environmental studies described above to assess the project's potential impacts on:

- » Historic and Archaeological Resources (Section 106)
- » Public Lands, Wildlife and Waterfowl Refuges, and Historic Properties [Section 4(f)]
- » Private properties through Right of Way impacts

A draft of the CE documents will be provided electronically to VTrans for review, and VHB will incorporate their comments into the final document.



Deliverables: Categorical Exclusion worksheet and supporting documentation

4.0 Revised Preliminary Plans

In conjunction with working through the NEPA process, VHB will develop Revised Preliminary Plans based on the Town's input from the project kick-off meeting. These plans will be completed in accordance with the Vermont Agency of Transportation Specifications as well as any applicable municipal standards to provide consistency with the abutting TAP TA23(17) project. The revised preliminary plan set will include:

- » Title Sheet
- » Project Notes
- » Typical Sections and Details
- » Quantity Sheet(s)
- » Tie Sheet(s)
- » Layout Sheet(s) with detailed definition of slope and construction limits
- » Traffic Signs & Pavement Markings Sheet(s)
- » Traffic Sign Summary Sheet
- » Erosion Control Notes applicable to a low-risk project
- » Cross Sections at critical locations
- » Preliminary Construction Cost Estimate
- » Work Zone TMP Checklist with applicable supplemental documents

VHB will provide the plans to Town Officials and VTrans in PDF format for review. We will coordinate a submission review meeting to discuss comments received and determine the required design modifications prior to proceeding into the ROW Acquisition process. VHB

anticipates that a Revised Preliminary submission will not be required prior to proceeding into the ROW phase.

This task also includes coordinating and attending a public meeting at the Town offices. VHB will prepare a PowerPoint presentation for the meeting. VHB will present the revised Preliminary Design and cost estimates, describe the project in detail, discuss the schedule and next steps, and solicit input from the Selectboard and the public. VHB will prepare an agenda for the meeting and prepare notes as a record of what was discussed. We assume that the town will arrange for the meeting and provide a public venue.



Deliverables: Revised Preliminary Plans, Cost Estimate, and TMP Checklist; Public Meeting materials and notes.

5.0 Right-of-Way Plans and Acquisition Process

5.1 Right-of-Way Plans

Using the project construction limits and any anticipated need for temporary rights during construction, VHB will determine the need for additional right-of-way (ROW), including permanent and temporary easements, beyond the existing ROW to construct the project.

Existing ROW, and all areas of additional ROW, whether temporary or permanent, will be clearly indicated on ROW plans in accordance with standard survey practices. Draft ROW plans and draft deeds (deeds to be prepared by the Town) will be submitted to VTrans for review and approval prior to negotiating with property owners. Easement language will be consistent with guidance provided by the VTrans ROW section. ROW plans will include all the Revised Preliminary Plan elements of with the addition of the following:

- » Right-of-Way detail sheet
- » Property Acquisition Table



Deliverables: ROW Plans with Acquisition Table

5.2 Right-of-Way Coordination

For the purposes of this proposal, we have assumed that the Town will be responsible for all necessary appraisals, property owner negotiations, and acquisitions needed to complete the project. The VHB Project Manager will attend up to two ROW meetings with impacted property owners. VHB anticipates the need to meet with officials from the Northfield Savings Bank to discuss impacts to, and possible relocation of, their wall. VHB can assist by providing our opinion if the wall needs to be relocated, and if so, what would be entailed in such a move and how it may affect their parking layout. Additionally, VHB anticipates the need to meet with the owner of Richmond Home Supply to discuss potential impacts to their property, and solutions to better accommodate pedestrians and trucks on the corner of that property.

6.0 Final Plan Development

VHB will complete Final Plans, quantities, and cost estimates according to VTrans and municipal specifications. VHB will prepare draft bid documents and special provisions based on the VTrans standard MAS boilerplate templates. We will finalize the project TMP Checklist and

supplemental documents. VHB will submit these final plan documents to the Project Stakeholders for distribution and review.



Deliverables: Final Plans, Cost Estimate, TMP Checklist, and draft Bid Documents

7.0 Develop Contract Plans

Upon receipt of comments from the final plan submission, VHB will prepare stamped Contract Plans, Specifications, and Estimates to complete the preparation of the Bidding Documents for this project. VHB will also prepare the Designer's Certification attesting to the completeness of the plans and documents.

VHB has extensive experience bringing projects from design phases through to construction, and will assist the Town as necessary during the final stages of design into bidding.



Deliverables: Contract Plans, Cost Estimate, Final Bid Documents, and Designer's Certification

8.0 Bid Analysis

VHB assumes that the Town will administer the bidding process; however, VHB will be available to answer bidding and design questions during the bidding period and provide support to the Town during the bid opening to ensure all required components of the bid have been submitted. VHB will conduct a bid analysis of the bids provided by the Town and will make a recommendation to the Town on the project award.



Deliverables: Bid Analysis with Recommendation to Award/Not Award

9.0 Construction Services

VHB will be available to assist the Town during the construction phase. Because construction phase services are largely dependent on the construction contractor and their schedule, it is inappropriate to provide a scope of work and fee for this work at this stage of the project. VHB will provide a scope and fee for construction support services under a supplemental agreement once the construction contractor is selected. The personnel expected to support the Town during construction and their direct labor rates are shown on the attached fee spreadsheet for reference. Additionally, a ballpark estimate for the construction phase services with some general assumptions is included below the summary cost proposal.

Project Schedule

Assuming a Notice to Proceed is provided by mid-December 2023, and that no unforeseen delays or obstacles are encountered during the course of the project, we anticipate the project to proceed along the following schedule. This project will run concurrently with the Richmond TAP TA23(17) project, so we have factored the proposed schedule for TAP TA23(17) into the planning of this one.

TASK	ANTICIPATED SCHEDULE
Project Kickoff Meeting	January 2024
Topographic Survey and Base Mapping (weather permitting)	January 2024
Revised Preliminary Plans	January 2024 – April 2024
Resource Constraints and CE Documentation	January 2024 – April 2024
VTrans Review of CE Documentation	April – December 2024
Right-of-Way Plans and Acquisition Process	May - December 2024
Final Plan Development	January – February 2025
Develop Contract Plans	April 2025
Construction	Summer 2025

Assumptions

VHB has made the following assumptions for the preparation of this scope and fee estimate:

- » The Town will provide all existing ROW documentation to include roadway plans, land records, property deeds, and tax maps, which VHB will utilize to produce a ROW base file. If additional ROW investigative services are required, VHB can provide these services under a supplemental agreement.
- » VHB assumes that the Project will qualify as Low Risk under Construction General Permit 3-9020, and does not anticipate the need for any operational stormwater or wetlands permits. Should additional permitting efforts be required, VHB can provide these services under a supplemental agreement.
- » We assume no lighting is required due to the fact the corridor contains cobra style lighting on the existing utility poles. Should lighting design be determined necessary as part of this project, VHB can provide these services under a supplemental agreement.
- » We assume no contaminated soil investigations are required due to the disturbed nature of the project area.
- » Due to the nature of the project, VHB assumes Necessity and Condemnation meetings will not be required. Should further support be required during the ROW process, VHB can prepare graphics and attend Necessity and Condemnation meetings under a supplemental agreement.

Key Personnel

Our Vermont engineering staff brings passion for improvement to mobility for pedestrians and cyclists. We are well versed in planning, designing, permitting, and constructing facilities in Vermont's downtown areas. VHB also brings a strong component for environmental assessments, inclusive of supporting disciplines such as historic analysis. VHB personnel can provide a full range of services from project administration, sidewalk design, crosswalks, signing, and survey, to environmental permitting and historic preservation, public engagement, and construction services. Our integrated team is committed to this project and has extensive experience providing similar services for communities throughout Vermont.



Cierra Ford, PE – Project Manager | 5 years of professional experience

Cierra is a Transportation Engineer, with experience in roadway, bicycle, and pedestrian facility design, as well as field inspection experience. She has an extensive background performing tasks including horizontal and vertical alignment design, roadway modeling and cross section development, sidewalk and pathway design, closed and open system drainage design, pavement markings and signing, and quantities. Cierra is the Project Manager for the Richmond TAP TA23(17) project that abuts this one. Cierra was the primary designer for the recently completed Village South Sidewalk Project along VT 116 in Hinesburg and managed the construction phase services. Additionally, Cierra is managing the development of a scoping study for the 3-mile-long Health Path in St. Albans. Following the completion of the ROW phase on the Wilmington East Main Street Sidewalk project, Cierra took over the Lead Design Engineer and Project Manager role to work through the final design and utility relocation aspects of the project.



Evan Detrick, PE – Technical Advisor, QA/QC Manager | 39 years of professional experience

Evan is a Civil Engineer with over 35 years of experience supporting federal, state, municipal, and private sector projects. As Director of Transportation, Evan's responsibilities include scoping and budgeting, personnel and work assignment scheduling, project management, and quality control. He has completed the planning and design of projects, including traffic signal and roadway reconstruction; a variety of sidewalks, pathways, and trails; property and topographic surveys; and stormwater improvement projects. He has managed more than 75 projects developed for municipalities through the VTrans MAS/MAB. He served as Project Manager for the design of several sidewalk enhancement and complete streets projects like the Wilmington East Main Street, Montpelier Elm Street, Winooski Main Street, and Burlington Great Streets projects.



Brad Ketterling – Lead Environmental Scientist | 27 years of professional experience

Brad works as an environmental scientist specifically in the fields of wetland mitigation site feasibility and design, stream assessment, watershed planning, state and federal permitting, and NEPA compliance. As Director of Environmental Services, Brad helps clients navigate complex regulatory requirements and achieve successful results by identifying and assessing natural and cultural resource issues and constraints and developing strategies to obtain authorizations that are in the best interest of the client and the environment. For this project, Brad will have a key role leading our environmental team through the NEPA process.



Ryan Cloutier, LS – Right-of-Way and Survey | 25 years of professional experience

Ryan provides overall program management for the Vermont office’s survey team. Ryan has over 25 years of experience surveying projects across New England for both public and private sector clients. He has in-depth experience planning, collecting, analyzing and managing right-of-way information for transportation projects. Ryan held senior positions at VTrans including head of plans and titles and survey in the VTrans ROW section. He spent nearly a decade making right of way information more accessible by improving processes, implementing standards, developing interoperability, modernizing right of way data, and integrating systems.



Kaitlin O’Shea – Historical/Cultural Resources | 12 years of professional experience

Kaitlin is a Preservation Planner with a strong background in and understanding of preservation principles and practices. With ten years of professional preservation experience, Kaitlin provides expertise in regulatory processes and compliance, particularly Section 106 review and Section 4(f) evaluations, as well as historic documentation, historic resource identification, and project management in the government framework. Kaitlin meets the Secretary of the Interior’s Professional Qualification Standards for Architectural Historian and Historian (36 CFR 61).



Shayna Lillis, EIT – Project Designer | 4 years of professional experience

Shayna is a transportation designer in VHB’s South Burlington, VT office. She has worked on a variety of projects throughout the State for VTrans and various municipalities. Shayna has recently served as a transportation designer on a Sidewalk and Signal Project for the Town of Brattleboro, the City of Burlington’s Great Streets Main Street Revitalization, and the City of South Burlington’s East-West Alternative Transportation Crossing over I-89’s Exit 14, assisting in sidewalk layout, relocation of pedestrian facilities, and incorporation of bike lanes into the city center. In addition to her transportation design experience, Shayna brings an additional two years of Transportation Construction Inspection experience to the VHB team.

Similar Projects



Elm Street Sidewalk

Montpelier, Vermont

Under an At-The-Ready contract, the City of Montpelier selected VHB to provide design and permitting services associated with the construction of new concrete sidewalk along Elm Street (VT Route 12) in Montpelier, Vermont.

The project extends 1,300 feet along the east side of Elm Street from North Park Drive to the Community College of Vermont. The sidewalk extended the City's existing Elm Street sidewalk system from its former northern terminus to the Community College, a daycare center, and the Montpelier Recreational Field complex. VHB worked closely with City staff to make sure that an optimal alignment was selected for the sidewalk to minimize overall utility or ROW impacts while maximizing the opportunity for additional green space and future landscaping and streetscape amenities along the corridor.

VHB Schedule: Start: August 2017 - Completion: November 2019



Middlebury Sidewalks

Middlebury and Weybridge, VT

VHB provided engineering services for plan development and bid documents for a new section of sidewalk approximately 2,700 feet in length along Seymour Street in Middlebury and along the length of Pulp Mill Road in Weybridge and Middlebury. The project included:

- Rectangular rapid flash beacon at one of the crosswalks
- Planting of numerous trees to address property owner concerns
- Construction of a Redi-Rock retaining wall with custom cap and railing to minimize impacts to a property owner's driveway

VHB Schedule: Started: August 2015 - Completed: October 2019



Stowe Sidewalk Reconstruction and Utility Relocation

Stowe, Vermont

As design consultant for the Town of Stowe, VHB developed plans for improving streetscapes along 1.5 miles of existing sidewalks adjacent to Class 1 Highways. This locally-funded project encompassed some of the Town's major roadways, including South Main Street, Maple Street, Mountain Road, Main Street, and the Town's historic commercial corridor of the Old Stowe Village. VHB's deep understanding of the Town's goals and budget was paramount. The team was responsible for reconstructing new concrete and concrete with paver accent sidewalks, ADA compliant crosswalks and ramps, interfaces with abutting sidewalks, patios, and driveway entrances, and miscellaneous stormwater and streetscape improvements. Additionally, the VHB team provided landscape architecture plans, including new street trees with structural soil and

VHB | Bridge Street Northern Sidewalk Project

the relocation of existing light fixtures, and added new light fixtures along both the north and south side of Main Street.

VHB Schedule: Started: March 2018 - Completed: December 2020

Village South Sidewalk

Hinesburg, VT


VHB is responsible for the design of a sidewalk on VT 116 in Hinesburg. The project scope includes design, coordination with the Town, assistance with property owner meetings, development of ROW plans, and management of project records.

VHB Schedule: Started: May 2017 - Completed: February 2023



Cost Summary

Cost Proposal - Summary

VHB 40 IDX Drive, Building 100, Suite 200 South Burlington, VT 05403		COST SUMMARY Bridge Street Northern Sidewalk Design 				
PHASE DESCRIPTION		Labor Hours	Direct Labor Cost	Overhead 169.86%	Fee 10%	Task Totals
1.0	Project Kick-Off Meeting & Project Management	44	\$1,980	\$3,363	\$534	\$5,877
2.0	Topographic Survey and Base Mapping	50	\$1,866	\$3,170	\$504	\$5,540
3.0	Resource Constraints and CE Documentation	72	\$2,850	\$4,841	\$769	\$8,460
4.0	Revised Preliminary Plans	95	\$3,787	\$6,433	\$1,022	\$11,242
5.0	Right-of-Way Plans and Acquisition	37	\$1,532	\$2,602	\$413	\$4,547
6.0	Final Plan Development	66	\$2,788	\$4,736	\$752	\$8,276
7.0	Contract Plan Development	29	\$1,208	\$2,052	\$326	\$3,586
8.0	Bid Analysis	14	\$517	\$878	\$140	\$1,535
9.0	Construction Services (not included in this Contract)	0	\$0	\$0	\$0	\$0
Labor Subtotal		407	\$16,528	\$28,075	\$4,460	\$49,063
PROJECT LABOR GRAND TOTAL		407	\$16,528	\$28,075	\$4,460	\$49,063
VHB DIRECT EXPENSE TOTAL						\$430
PROJECT GRAND TOTAL						\$49,493
Construction Phase Services ballpark cost estimate assuming an 8 week construction, a construction inspector on site for 24 hours per week, attending biweekly construction coordination meetings, and materials testing.						\$ 30,000.00


COST PROPOSAL - VHB LABOR SUMMARY

TASK DESCRIPTION		Technical Advisor	Project Manager	Project Engineer	Senior Environmental Scientist	Natural/Cultural Resources	Survey Chief/ROW	Survey Crew Chief	Surveyor	Total Hours	Direct Labor Costs
		<i>Evan Detrick</i>	<i>Cierra Ford</i>	<i>Shayna Lillis</i>	<i>Ketterling</i>	<i>Slaney / O'Shea</i>	<i>Cloutier</i>	<i>Watuch</i>	<i>Goodwin</i>		
1.0	Project Kick-Off Meeting & Project Management										
	Prepare for, Attend, and Document Kick-Off meeting		6	6				0.5	0.5	13	\$ 521
	Coordination Meetings and Project Administration	1	30							31	\$ 1,459
2.0	Topographic Survey and Base Mapping										
	Collect Supplemental Ground Survey as needed		2					16	12	30	\$ 1,059
	Existing Utility Location and Coordination			4					4	8	\$ 294
	Existing Right-of-Way Compilation			2			2		8	12	\$ 513
3.0	Resource Constraints and CE Documentation										
	Natural Resource Identification				0.5	2				2.5	\$ 107
	Section 106 Review					30				30	\$ 1,080
	Archaeological Resources Assessment					1				1	\$ 36
	Permitting		2	4	0.5	2				8.5	\$ 340
	NEPA Documentation				6	24				30	\$ 1,287
4.0	Revised Preliminary Plans										
	Revised Preliminary Planset Development	1	20	60						81	\$ 3,134
	Preliminary Construction Estimate and TMP Checklist		4	8						12	\$ 466
	Quality Control and Submission	2								2	\$ 187
	Selectboard/Public Meeting		4	4						8	\$ 324
5.0	Right-of-Way Plans and Acquisition										
	Right-of-Way Plans	1	4	8						13	\$ 560
	Right-of-Way Coordination		12	12						24	\$ 972
6.0	Final Plan Development										
	Final Planset Development	0.5	16	32						48.5	\$ 1,911
	Finalize Construction Estimate and TMP Checklist		1	4						5	\$ 188
	Develop Bid Docs	0.5	8							8.5	\$ 411
	Quality Control and Submission	2	2							4	\$ 278
7.0	Contract Plan Development										
	Final Plan Review Meeting and Revisions	1	12	16						29	\$ 1,208
8.0	Bid Analysis										
	Assist in Bid Process and Complete Bid Analysis		2	12						14	\$ 517
9.0	Construction Services (not included in this Contract)										
	Construction Phase Services		X*	X*						0	\$ -
TOTAL HOURS:		9	125	172	7	59	2	16.5	24.5	415	
DIRECT HOURLY RATES:		\$ 93.50	\$ 45.50	\$ 35.50	\$ 70.47	\$ 36.00	\$ 68.80	\$ 32.00	\$ 38.00		\$ 16,852

* Cost of Construction Phase Services will depend on the Contractor selected and the Construction Schedule proposed. Cells marked with an X are the personnel to be involved with Construction Phase Services to point to the respective rates to be used in this Task. Travel costs associated with visiting the project site should be considered in addition to these rates.

DIRECT LABOR COSTS: \$ 16,852

Direct Expenses Sheets

 40 IDX Drive, Building 100 Suite 200 South Burlington, VT 05403		DIRECT EXPENSES			
		Bridge Street Northern Sidewalk			
	DESCRIPTION	Unit	Unit Costs	Quantity	ESTIMATED DIRECT EXPENSES
1	Full Size Plotting - Working Drawings	SF	\$0.300	0	\$0.00
2	Half Size Printing - Working Drawings	EA	\$0.081	0	\$0.00
3	Full Size Plotting	SF	\$0.30	0	\$0.00
4	Large Format Photocopying (Black & White)	SF	\$0.500	0	\$0.00
5	Color Plots	SF	\$3.25	0	\$0.00
6	Photocopying (Black & White)	EA	\$0.081	210	\$17.00
7	Photocopying (Color)	EA	\$0.47	25	\$12.00
8	Travel	Mile	\$0.655	460	\$301.00
9	Miscellaneous	LS	\$100.00	1	\$100.00
Grand Total =					\$430.00