



610800X
January 19, 2024

Gina Jenkins, Town Administrator
Town of East Montpelier
40 Kelton Road PO Box 157
East Montpelier, VT 05651

**SUBJECT: Town of East Montpelier
Sodom Pond Road – Engineering and Design Proposal**

Dear Gina:

In response to the Town of East Montpelier's (Town) Request for Bids (RFB), Dubois & King, Inc. (D&K) is pleased to submit our proposal for the engineering and design to replace the culvert on Sodom Pond Road that was damaged during the July 2023 flooding event.

Per the RFB, the Town requires documentation on relevant experience, qualifications and licenses. D&K proposes to use staff with experience and licenses identified in the Statement of Qualifications (SOQ) submitted to the Town on November 15, 2023.

On behalf of D&K, we appreciate the opportunity to assist the Town with this project. If you have any questions or wish to discuss our submittal in further detail, please do not hesitate to contact me at (802) 878-7661 or bbreslend@dubois-king.com.

Sincerely,

A handwritten signature in blue ink that reads 'Brian M. Breslend'.

Brian M. Breslend, PE
Project Manager



Project Understanding

The Town of East Montpelier (Town) is requesting proposals for engineering and design services for a culvert damaged during the July 2023 flooding event. The proposed culverts will be required to meet Vermont Codes and Standards including being sized for hydraulics requirements at this crossing. Design will confirm requirements for hydraulics, aquatic organism passage and bankfull width requirements. D&K anticipates utilizing a (<15' wide) embedded culvert or precast four sided concrete box culvert with flared inlet and outlet for this project.

Scope of Services

Project Definition

1. *Project kickoff.* D&K will coordinate and schedule a virtual project kickoff meeting to discuss the Town's goals, objectives, and schedule. Available information relevant to the project will be collected by D&K, and we will take meeting notes documenting the discussions and decisions and distribute them to interested parties.
2. *Topographic Survey:* D&K will perform a topographic survey of the project area along the project limits. The survey envelope will include both sides of the road with an approximate 80-foot envelope. Features including the roadway and shoulder widths, drainage, above ground utilities, appropriate contour intervals, and other information required to properly design the improvements will be collected. Vertical and horizontal control points and benchmarks will be established and will be shown on the drawings. Project control will be based on NAD 83(1996) datum and the Vermont State Plane Coordinates. D&K will prepare a base plan from the information obtained from the survey.

Prior to entering on private property, D&K understands that the Town will notify and get approval from adjacent property owners.

3. *Right-of-Way and Deed Information.* D&K will develop a base map that shows the approximate limits of the existing right-of-way. The Town will provide available roadway plans, land records, property deeds and tax maps on file for the properties within the project limits. The purpose will be to document the approximate property lines and owners within the project limits. The right-of-way and property information will be presented on the base map.



Acquiring temporary and/or permanent easement rights will be the responsibility of the Town. If additional assistance is required to obtain these rights, then this work will be performed under a supplemental agreement.

4. *Resource Constraints and documentation.* D&K's Environmental/Permitting Lead will visit the site to evaluate the presence or absence of known natural resources in the project vicinity. These will include any wetlands, rare, threatened or endangered (RTE) flora/fauna. In addition to the above evaluation, field measured stream bank full width determinations will be made. This information will be shown on the base map.
5. *Hydologic and Hydraulic Analysis.* D&K's hydrologic analysis will be performed utilizing Streamstats. Hydraulic analysis of the crossing will utilize HY8 model for a 25-year design storm.
6. *Subsurface investigations.* D&K and GZA Geoenvironmental, Inc. (GZA) will coordinate the performance of soil borings at the project site. The goal for these borings will be to determine the presence of shallow ledge. This task will include pre-marking the site and contacting Dig Safe. If poor soils/ledge are present at the site, GZA will provide a recommendation on if additional laboratory testing and geotechnical evaluations are required. This work will be performed under a supplemental agreement.

A temporary road closure may be required to accommodate the boring equipment. The Town will be responsible for all traffic control when this operation occurs.

7. *Preliminary plans.* D&K will prepare Preliminary Plans for the improvements. The Preliminary Plans will indicate the existing topography, as well as the proposed work. The design will be developed in accordance with:
 - 2019 East Montpelier Road and Bridge Standards
 - Manual on Uniform Traffic Control Devices
 - Other guidelines as applicable.

Identified rights-of-way, utilities, natural and cultural resources, and other features affecting the design will be indicated on the plans. The Conceptual Plans are anticipated to consist of:

- Title Sheet
- Conventional Symbolology and Legend Sheet
- Typical Section Sheet
- Road and culvert details
- Layout Sheet



- Erosion Prevention and Sediment Control sheet

The Preliminary Plans will illustrate the information necessary to define the project for permitting purposes. The plans will include information such as gravel type and thickness, construction limits, existing right-of-way, location of property lines, existing utilities, etc.

Project Design.

8. Permitting

- U.S. Army Corps of Engineers (USACE) permit.* Based on project assumptions for amounts of fill proposed below the OHWM, a USACE self-verification form is assumed. If during the design process a general permit is triggered, then this work will be performed under a supplemental agreement.
- Stream Alteration permit.* D&K anticipates that a VTDEC Stream Alteration General Permit Registration will be required to address impacts to the Sodom Pond Brook. A Stream Alteration General Permit package will be prepared and submitted to the VTDEC River Management Program. The application package will consist of the application form, Site Location Map, Site Plans, and supporting documents, such as photographs.

Vermont General and/or Individual Wetlands Permit. D&K has assumed that project limits will not affect any wetlands or buffers. If project limits do impact these resources, then a wetland permit will be required. This work will be conducted under a supplemental agreement.

Construction Stormwater General Permit. The current threshold for this permit is 1-acre. It is assumed this permit is not required. If the project does trigger this permit, then this work will be performed under a supplemental agreement.

Construction Stormwater Operational Permit. The current threshold to trigger this permit is ½ of an acre of impervious construction. It is assumed that this permit is not required. If it is, then this work will be performed under a supplemental agreement.

Local Zoning. D&K is unaware of any local zoning requirements that would require permitting, hearings, meetings, etc. If any local permitting or coordination is required, then this work will be performed under a supplemental agreement.



9. *Final Plans, Specifications and Bidding Documents.* D&K will prepare a final design plans, specifications, front-ends and bid documents, utilizing VTrans technical standard specifications.

Additional Services (not listed in RFB):

10. *Bid Process.* D&K will assist the Town during the bid phase, as outlined below:

- a. *Draft a Bid Advertisement for publishing*
- b. *Answer questions to provide clarification of the design*
- c. *Issuance of addendum (up to 1)*
- d. *Perform bid analysis to establish the lowest responsive bidder*
- e. *Prepare a Recommendation of Award letter*

The Bid Advertisement will not go in the local paper. It will be submitted to at least three electronic sites. D&K anticipates posting the bid to D&K's website, the Town's, and VT Business Registry. Additionally, at the Town's request, D&K will contact specific contractors to inform them of the project.

It has been assumed that D&K will not need to be present at the public bid opening. Town staff shall facilitate the bid opening, then submit the bid packages to D&K to perform the analysis of the bids.

11. *Construction Phase Assistance.* Upon commencement of construction, D&K will provide construction support services to determine contractor compliance with the plans and specifications, and shop drawing and material submittals review to confirm compliance with the project's requirements. The project team will provide on-site field observations of critical construction activities. We will document observations in field inspection logs. Upon substantial completion of the work, D&K will attend a final inspection with the contractor and the Town to generate a final punch list. We have included up to four site visits in our proposal for the construction support services scope. Up to four (4) field visits have been incorporated in the project scope.



Understanding of the Scope of Services

1. All permit fees are the responsibility of the Town.
2. During construction the project will be closed to traffic. Detour plans will be provided by the contractor.
3. Alternative analysis is not scoped for this project.
4. Wetlands and buffers will not be impacted.
5. There are no underground utilities within the project area.
6. Utility location or coordination is not scoped.
7. There are no rare, threatened, or endangered species
8. Historical and Archaeological resource assessments are not required.
9. National Environmental Policy Act (NEPA) documentation is not required.
10. D&K and subconsultant(s) will have access to the project site.

Services beyond those specifically outlined above, or resulting from unforeseen circumstances beyond our control, shall be considered as Additional Services. The Engineer will also furnish such Additional Services as Client may request for an additional fee.

Proposed fee structure

The client shall reimburse the Engineer on a Lump Sum basis. Invoices will be submitted monthly based on actual man-hours spent to date.

Basic Services	\$35,000
Additional Services (not listed in RFB)	\$8,500
Total (if Town request Additional Services)	\$43,500

Time, benchmarks, and anticipated completion date

- See attached schedule

Concurrence, Authorization to Proceed

Dated

Per this scope of work

Sodom Pond Road Culvert Replacement

Project No.: 610800X

**DuBois
& King inc.**

Round trip: East Montpelier - S. Burlington 90 miles

Standard Rates Cost Estimate Template-July 2023.xlsx, Page 1 of

TOWN OF EAST MONTPELIER, VERMONT
Sodom Pond Road Culvert Replacement
Project No.: 610800X
BASE BID



Round trip: East Montpelier - Randolph 80 miles
Round trip: East Montpelier - S. Burlington 90 miles

<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 250px;">Project Work Breakdown Structure</div>		Labor Categories										Total Hours
		Highway Department Manager	Project Manager	Sr. Bridge Engineer	Senior Project Engineer	Environmental/ Permitting Lead	Licensed Surveyor	Survey Party Chief	Survey Technician	Construction Inspector	Administrative Support	
Total Hours:		3	33	0	106	22	1	10	10	0	0	185
Standard Rates		\$190.00	\$175.00	\$175.00	\$135.00	\$150.00	\$160.00	\$110.00	\$90.00	\$120.00	\$85.00	
Cost:		\$570	\$5,775	\$0	\$14,310	\$3,300	\$160	\$1,100	\$900	\$0	\$0	\$26,115
Direct Labor												
Direct Expenses												
I. Subsistence <div style="display: flex; justify-content: space-between;"> <div> Transportation: Vehicles 260 Miles @ \$0.670 / Mile = \$174 Travel-Air / Ground / Parking Allowance = \$0 Meals: Partial Per Diem Days @ \$44.25 / Day = \$0 Full Per Diem Days @ \$59.00 / Day = \$0 Rooms & Lodging: Hotel Days @ \$96.00 / Day = \$0 </div> <div></div> </div>												
II. Support Expenses												
<div style="display: flex; justify-content: space-between;"> <div> Telephone/Fax = Postage = Reproduction = Copying = </div> <div></div> </div>												
III. Subcontractors												
<div style="display: flex; justify-content: space-between;"> <div>GZA GEOENVIRONMENTAL, INC</div> <div></div> </div>												
IV. Miscellaneous Expenses												
<div style="display: flex; justify-content: space-between;"> <div> Computer Charges = Plotting Charges = Special Equipment = Miscellaneous = </div> <div></div> </div>												
												\$100
												\$60
												\$7,934
												\$952
												\$8,886
Cost Summary												
<div style="display: flex; justify-content: space-between;"> <div> Direct Labor Cost \$26,115 General & Administrative Cost Total Labor Cost <u>\$26,115</u> </div> <div> Total Labor Cost \$26,115 Fixed Fee \$0.00 Direct Expenses \$8,886 Total Price \$35,000 </div> </div>												

**DuBois
& King^{INC.}**

Round trip: East Montpelier - Randolph	80 miles
Round trip: East Montpelier - S. Burlington	90 miles

Project Work Breakdown Structure	Labor Categories										
	Highway Department Manager	Project Manager	Sr. Bridge Engineer	Senior Project Engineer	Environmental/ Permitting Lead	Licensed Surveyor	Survey Party Chief	Survey Technician	Construction Inspector	Administrative Support	Total Hours
Site visit S. Burlington Randolph											
Additional Services											0
11 Bid Process											4
a Draft a Bid Advertisement for publishing		2								2	4
b Answer questions to provide clarification of the design		4		2							6
c issuance of addendum (1)		2								2	4
e Perform a bid analysis to establish the lowest responsive bidder		2		4							6
f Prepare a Recommendation of Award letter		2		1							3
Construction											0
12 Construction Phase Services											0
a Shop Drawing review		2		4							6
b Request For Information (RFI)		4									4
c Field Inspections									24		24
											0
											0
											0
											0
											0
											0
Total Hours:	0	18	0	11	0	0	0	0	24	4	57

TOWN OF EAST MONTPELIER, VERMONT
Sodom Pond Road Culvert Replacement
Project No.: 610800X
ADDITIONAL SERVICES



Round trip: East Montpelier - Randolph 80 miles
Round trip: East Montpelier - S. Burlington 90 miles

<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 250px;">Project Work Breakdown Structure</div>		Labor Categories										Total Hours
		Highway Department Manager	Project Manager	Sr. Bridge Engineer	Senior Project Engineer	Environmental/ Permitting Lead	Licensed Surveyor	Survey Party Chief	Survey Technician	Construction Inspector	Administrative Support	
Total Hours:		0	18	0	11	0	0	0	0	24	4	57
Standard Rates		\$190.00	\$175.00	\$175.00	\$135.00	\$150.00	\$160.00	\$110.00	\$90.00	\$120.00	\$85.00	
Cost:		\$0	\$3,150	\$0	\$1,485	\$0	\$0	\$0	\$0	\$2,880	\$340	\$7,855
Direct Labor												
Direct Expenses												
I. Subsistence												
<div style="display: flex; justify-content: space-between;"> <div> Transportation: Vehicles 320 Miles @ \$0.670 / Mile = \$214 Travel-Air / Ground / Parking Allowance = \$0 Meals: Partial Per Diem Days @ \$44.25 / Day = \$0 Full Per Diem Days @ \$59.00 / Day = \$0 Rooms & Lodging: Hotel Days @ \$96.00 / Day = \$0 </div> <div style="text-align: right;">\$214</div> </div>												
II. Support Expenses												
<div style="display: flex; justify-content: space-between;"> <div> Telephone/Fax = Postage = Reproduction = Copying = </div> <div style="text-align: right;">\$0</div> </div>												
III. Subcontractors												
IV. Miscellaneous Expenses												
<div style="display: flex; justify-content: space-between;"> <div> Computer Charges = Plotting Charges = Special Equipment = Miscellaneous = </div> <div style="text-align: right;"> \$250 \$110 <hr/> \$574 \$69 <hr/> \$643 </div> </div>												
Cost Summary												
<div style="display: flex; justify-content: space-between;"> <div> Direct Labor Cost \$7,855 General & Administrative Cost Total Labor Cost <u>\$7,855</u> </div> <div> Total Labor Cost \$7,855 Fixed Fee \$0.00 Direct Expenses \$643 Total Price \$8,500 </div> </div>												

[illegible]