

Addison County Regional Planning Commission

14 Seminary Street

Middlebury, VT 05753

Phone: 802.388.3141

Web: <http://acrpc.org>

REQUEST FOR PROPOSALS

Addison Regional Planning Commission

Peddler's Bridge Road Culverts (TH-2) Disaster Resiliency & Town Facility Assessment Study

Contact: Daryl Benoit, 802.388.3141

Date of Issue: 12 May 2014

Deadline: 4 Jun 2013 at 5:00 pm

I. Introduction

The Addison County Regional Planning Commission (ACRPC) is seeking a qualified consultant to perform a Disaster Resiliency & Town Facility Assessment Planning Study which identifies potential issues and alternatives for mitigating impacts of repeated flooding along Peddler's Bridge Road, related to culverts; **B13**, over the Middle Branch of the Middlebury River, and **B5**, over the Sparks Brook in the Town of Ripton, Vermont.

The development of this report should consider innovative disaster-resiliency (DR) solutions to help prevent storm damage during extreme weather events. Planning should take into account the latest FEMA funding guidelines for such events, including the Pre-Disaster Mitigation Competitive grant programs as well any other potential federal and/or state funding sources.

It is anticipated that this project will not exceed a cost of \$15,000 and it will be completed by 30 Sep 2014.

II. Existing Conditions & Problem Description

The Peddler's Bridge Road culverts are located about a 1/2 mile northeast of VT Route 125 in the Village of Ripton. The primary culvert (**B13**) currently passes over the Middle Branch of the Middlebury River as it flows southwest into the Middlebury River which flows adjacent to the south side of VT Route 125. A secondary culvert (**B5**) passes the Sparks Brook, which eventually flows into the Middle Branch of the Middlebury River just downstream from culvert **B13**. Culvert **B13** is a concrete and ballast-armored culvert located just east of the Town Shed on Peddler's Bridge Road (See **Figure 1**). The traffic on the roadway was counted during May/June of 2013 by the Addison County RPC, tallying a seasonally-adjusted Annual Average Daily Traffic (AADT) figure of 160 vehicles per day, and a Truck AADT of 10 vehicles per day.

This study has been commissioned in response to past flood events (2011 & 2005) in the two aforementioned culverts on Peddler's Bridge Road (TH-2) had overflowed. Floodwaters flowed over the road, eroding the road edge, destroying the road surface, and causing other problems downstream (See **Figure 2**). When this occurred in 2005, the fire station and town shed flooded. The fire station was subsequently relocated through FEMA funding. The primary

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Salisbury

Bridport
Middlebury
Shoreham

Bristol
Monkton
Starksboro

Cornwall
New Haven
Vergennes

Ferrisburgh
Orwell
Waltham

Goshen
Panton
Weybridge

Leicester
Ripton
Whiting



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culvert and the town shed remained, where the shed continues to remain vulnerable to flooding events. According to the Town, the culverts have been subject to FEMA Hazard Mitigation Program (HMGP) review. Although the culverts have had a repeated history of damage, they have not managed to pass the current FEMA Benefit/Cost Analysis for their replacement.



FIGURE 1. Peddler's Bridge Culvert (B13) Inlet & Adjacent Town Shed in Ripton, VT ~ May 2013

III. Description Of The Planning Study:

Hydraulic studies for these sites specify larger replacement structures. One culvert replacement was proposed but not permitted. The only alternative approved by FEMA was a bridge structure. Nevertheless, the project was cancelled due to its high cost. After the 2011 floods, Dr. Richard Downer, HMGP Administrator and Associate Professor Emeritus of Engineering, University of Vermont, visited both sites and proposed a new low-cost solution: a water crossing. With excavation, grading, adjustment of the road elevation, placement of riprap and repaving, water would be allowed to flow over the road and into the downstream side in an engineered pathway.

This study should consider ideal strategies (e.g. relocation/realignment alternatives, hydrological mitigation, etc.) that would act to prevent damage, as well as repair costs associated with recurring flood damage along the current alignment within the parameters of the FEMA Benefit/Cost analysis systems.

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This study would consider planning Dr. Downer's water crossing, along with other innovative strategies (e.g. relocation/realignment alternatives, hydrological mitigation, etc.) that would act to prevent the damage to the roadway and the Town Shed, while mitigating potential repair costs associated with recurring flood damage along the current alignment of the roadway, within the parameters of the FEMA Benefit/Cost analysis systems.



FIGURE 2. Peddler's Bridge Road Culvert Flood Damage & Town Shed in Ripton, VT ~ Aug 2011

IV. Scope of Work

As part of this analysis the consultant will advise the Town of Ripton on the current condition and anticipated future maintenance of the Peddler's Bridge Road, its culverts, and how they relate to the function of the adjacent Town Shed. The scope of this project consists of several tasks;

1. Condition inspection of culverts on Peddler's Bridge Road (**B13** and **B5**).
2. Undertake a hydrological and hydraulic (H&H) assessment for culvert **B13** and update/augment the 2008 H&H assessment for culvert **B5** (*available from ACRPC*).
3. Identify potential alternatives to mitigate the impacts of the Middle Branch River and Sparks Brook during extreme weather events.

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4. Identify and evaluate a suite of alternatives (including their cost estimates) and make recommendations on a best long-range plan to protect the Town Shed from extreme weather events and flooding upon its current site. Redundant measures may be recommended in order to help improve the community's disaster-resiliency.
5. Estimate the longevity of the culverts in their current condition, and with any future modifications recommended by the consultant.

Note: ACRPC invites potential consultants to bid on tasks that they feel are affordable within the scope of work.

Some components of the study may include, but are not limited to:

A. Review earlier studies and existing conditions.

The consultant will work with the town, VTrans, and Addison Regional Planning Commission (ACRPC) to review materials related to planned changes in the vicinity of the project area. Other relevant studies and information include:

- 2013 : [“Town of Ripton: Baker Bridge \(TH-1\) Safety & Functional Assessment Study”](#)
- 2010 : [“Middlebury River / Vermont Route 125 Benefit-Cost Analysis”](#)
- 2008 : Hydraulic Study for Ripton TH2 BR5; Peddler's Bridge Road, Sparks Brook
(*available from ACRPC*)
- 2008 : Middlebury River Corridor Conservation Plan
- 2004 : Culvert Assessment, Peddlers Bridge Road in-stream culvert crossing, Middle Branch Middlebury River, Ripton, Addison County, VT (*available from ACRPC*)

- Historical VTrans cost data relevant to flood related repairs and past mitigation activities on bridges and culverts within the vicinity of the study area.

** A summary of damage history is included at the end of this document.

B. Public Feedback Meetings

The consultant will hold one public meeting releasing the results of the study. The project presentation will most likely take place at a scheduled Selectboard meeting. During the study, the consultant will coordinate with relevant VTrans, Addison Regional Planning Commission, FEMA, and Town of Ripton staff. Additional interested parties include (but not be limited to) Ripton Town officials and Emergency Planning managers. The consultant will also be asked to make a brief presentation to the TAC after the submission of the final report in late 2014 or early 2015.

C. Compile Base Plan/Document Existing Conditions

The consultant will compile a base plan using available mapping including Vermont Digital Orthophotos, digital parcel maps for the town and other natural resource-based GIS data available from the ACRPC and VCGI. The compiled information must be displayed in an ArcView-compatible format. Display of typical sections and other engineering type drawings may be done with software other than ArcView. All maps and plans generated as part of this project should also be provided in PDF format.

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D. Identify Right-of-Way Issues and Potential Watershed Impacts

If improvements require the procurement of additional Right-of-Way, the consultant will compile right-of-way and property ownership and potential watershed impact information along any alignments articulated within a stated preferred alternative. This information should identify public/private ownership, any existing easements or restrictions (e.g. Act 250 permits) on affected properties. Right-of-way information should be mapped on the same base mapping as the existing conditions.

E. Identify Natural and Cultural Resource Constraints and Permitting Requirements

Review natural and cultural resource issues including wetlands, surface waters, flora/fauna, endangered species, storm water, hazardous wastes, forestland, historic, archaeological and architectural resources, 4(f) and 6(f) public lands, and agricultural lands. Identify potential impacts on significant resources and permitting requirements, including the potential for review under Act 250. When possible, documentation from appropriate state agencies should be included to summarize the extent to which significant resources may or may not be impacted.

F. Develop Preliminary Cost Estimates

The consultant will develop preliminary cost estimates for alternatives.

G. Project Time Line

The consultant will provide a study timeline addressing all phases of the project. This project must be completed by **30 Sep 2014**.

H. Report Production

Using information gathered from the activities outlined above, the consultant will submit final draft reports outlining the findings. (see Standards and Deliverables for number required).

V. Standards & Deliverables

- A.)** A digital copy of the final report with all illustrations and plans shall be delivered on compact disc in Adobe Acrobat PDF format. The text portion of the final report shall also be provided as a MS Word file. All copies of draft and final reports shall be double-sided.
- B.)** The consultant will provide six (6) copies of the draft report and six (6) bound copies of the final report. Reports must be submitted a minimum of one full week prior to meetings at which they will be discussed. Original copies of the draft and final reports must be submitted to ACRPC.
- C.)** All data, databases, reports, preliminary engineering plans, programs and materials in digital and hard copy format created under this project shall be transferred to ACRPC upon completion of the project and will be treated by ACRPC as public information. Digital map data products shall be compiled and delivered to ACRPC in Vermont State Plane Coordinates (NAD 1983 Meters). Data that is developed must follow all applicable published standards of the Vermont Geographic Information System (VGIS). Preferably, deliverables will be provided in ESRI 'shape' file format. All place or site-related databases must include a valid street address.
- D.)** The recording and distribution of minutes from all project meetings will be the responsibility of the consultant.

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VI. Response Format

Responses to this RFP should consist of the following:

A.) A technical proposal consisting of:

1. A cover letter expressing the firm's interest in the project, including identification of the principal individuals that will be assigned to the project.
2. A description of the general approach to be taken toward completion of the project, an explanation of any variances to the proposed scope of work as outlined in the RFP, and any insights into the project gained as a result of developing the proposal.
3. A scope of work that includes detailed steps to be taken, including any products or deliverables resulting from each task.
4. A summary of estimated labor hours by task that clearly identifies the project team members and the number of hours performed by each team member by task.
5. A proposed schedule that indicates project milestones and overall time for completion.
6. Resumes of individuals that will be committed to this project. The names and qualifications of any sub-consultants shall be included in this list.
7. Demonstration of success on similar projects, including a brief project description and a contact name and address for reference.
8. A representative work sample similar to the type of work being requested.

B.) Please note that Items 1 through 5 should be limited to a total of 10 pages. Resumes, professional qualifications and work samples are not included in this total. However, ACRPC urges consultants to answer efficiently and concisely.

C.) A cost proposal consisting of a composite schedule by task of direct labor hours, direct labor cost per class of labor, overhead rate and fee for the project. If the use of sub-consultants is proposed, a separate schedule must be provided for each.

The selected consultant must be pre-approved by the Vermont Agency of Transportation before work can begin. Consultants not currently on the approved consultant list need to submit a letter of interest along with the Standard Form 330 - Architect-Engineer Qualifications Form to the Vermont Agency of Transportation.

VII. Contractual Information & Requirements

A selection committee will select the consultant as soon as possible. All work on the project must be completed by **30 Sep 2014**. The maximum limiting amount of this contract will be **\$15,000**.

This work is funded by federal planning dollars obtained through the Vermont Agency of Transportation from the Federal Highway Administration ("FHWA"), CFDA# 20.205 . The contract shall not start until the successful applicant enters into a written contract with ACRPC to perform the work subject to this RFP. Sub-contractors must comply with all State and Federal covenants required by virtue of being funded by the Act or contained or referenced in all ACRPC subcontracts including, but not limited to the following provisions:

A. Insurance Coverage

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- B. Indemnification
- C. Workers Compensation
- D. Civil Rights and Equal Opportunity
- E. DBE Obligation
- F. Audit and Record Retention
- G. Taxes due to State of Vermont
- H. Lobbying restrictions

VIII. Consultant Selection

Consultant selection will be made by a committee consisting of representatives of some/all of the following: The Town of Ripton, The ACRPC Transportation Advisory Committee (TAC), a representative of VTrans, and ACRPC staff. The selection committee will review and evaluate all proposals based on the following criteria:

- Qualifications of the firm and the personnel to be assigned to this project. (10 Pts.)
- Experience of the consultant personnel working together as a team to complete similar projects. (10 Pts.)
- Demonstration of overall project understanding and insights into local conditions and potential issues. (15 Pts.)
- Demonstrated knowledge of Project Area (10 Pts.)
- Clarity of the proposal and creativity/thoroughness in addressing the scope of work. (15 Pts.)
- Submission of a complete proposal with all elements required by the RFP (10 Pts.)
- Quality of representative work sample (10 Pts.)
- Cost of Bid (20pts.)

The selection committee may elect to interview consultants prior to final selection.

IX. Submissions

Consultants interested in this project should submit (5) five copies of their technical and cost proposals (including one unbound copy suitable for copying) to:

Daryl Benoit
Addison County Regional Planning Commission
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Proposals must be submitted in a sealed envelope(s) or package(s) with the following information clearly printed on the outside:

- Name and address of prime consultant
- Due date and time
- Envelope contents (proposal)

Proposals should be double-sided and use recycled paper, if possible. Questions about the project should be directed to Daryl Benoit at the above address or at:

Telephone: 802.388.3141
FAX: 802.388.0038

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All proposals must be received by the ACRPC no later than **5:00 p.m. on 4 Jun 2014**. Proposals and/or modifications received after this time will not be accepted or reviewed. No facsimile-machine produced proposals will be accepted.

All proposals upon submission become the property of ACRPC. The expense of preparing and submitting a proposal is the sole responsibility of the consultant. ACRPC reserves the right to reject any or all proposals received, to negotiate with any qualified source, or to cancel in part or in its entirety this RFP as in the best interest of the town. This solicitation in no way obligates ACRPC to award a contract.

FY 2014 Transportation Planning Study Request
Town of Ripton (June 2013)
Peddlers Bridge Road (TH#2) Historic Damages for Culvert B13

Summary: Armored water crossings were suggested by FEMA staff as a potential solution for the problem of storm water overflow on town roads, such as at two Peddlers Bridge Road culverts. The Peddler Bridge Road project did not meet FEMA Hazard Mitigation Program benefit:cost criteria for funding and construction. However, we hope to study the idea and produce a model for regional use.

Damage History: This chart shows the damage history at one culvert (B13) where the culvert over-tops, erodes the road, flows through the town shed and damages the site. It is proposed that a relief channel (armored water crossing) could accommodate overflow and prevent damage to the road and town shed site.

Year	Description of event	Cost of repairs	Loss of function	Construction date or last major repair	Useful life	Next point \$ necessary
2012	repair	\$26,001.50	2	Inlet only 2012	Inlet headwall repair and riprap	
2011	flood – road and shed damage, winter sand pile washed away	\$9,018.42	1	1954	5 years Headwall is gone. Culvert was good in 2003. In fall 2011 the bottom has holes and rust.	2016
2008	flood – road and shed damage	\$8,045.00	2	road repair		
2003	Hydraulic study completed – culvert in good condition. \$51,300 Structures grant awarded for a relief culvert. The Agency of Natural Resources did not permit the relief culvert; would only permit a bridge.					
2000	flood – road, bldg., equip. damage	\$4,198.00 (road and culvert only) \$385,000+ (fire station replacement)	3	road & headwall repair		
1976	flood	\$800.00				
1954	flood	\$5,803.00	3	culvert		