



# Vermont Better Roads Grant Program Application

Please complete one application per category and/or project you are applying for. You may make copies of the application for multiple applications per category and/or multiple categories.

Please check the Category you are applying for:

- B. Correction of a Road Related Erosion Problem and/or Stormwater Mitigation Retrofit for both gravel and paved roads
- C. Correction of a Stream Bank or Slope Related Problem
- D. Structure/culvert upgrades

Town/Organization: Town of Windsor

Project Name: Brook Road Bank Stabilization

Road Name: Brook Road TH #: 6 Structure # (if applicable): \_\_\_\_\_

Road Type: Unpaved Uncurbed  
Class 3

Watershed: Mill Brook

Please provide a thorough description of the problem (ex. Roadway has steep slope with no ditch which is causing roadway erosion):

A steep roadside bank that was previously protected from the river by an unpaved road started to destabilize after Tropical Storm Irene destroyed the adjacent road. The road has been rebuilt further away from the river (southern side of the road), but the bank along the northern side of the road has not been fully stabilized. The site also includes two culverts which have direct outputs into the adjacent Mill Brook. The roadway has no ditch and roadway runoff flows across the roadway into the river presently

Description of Project and how you plan to complete the work (ex. Stone line 500' of ditch by reshaping ditch and stone lining, working from the top of the project down to the bottom):

The project involves installing an I-beam and timber retaining wall with an underdrain. Backfill would be placed behind and above the retaining wall, and vegetated to stabilize the bank. A new grass-lined drainage ditch will be established between the road and retaining wall. The roadway will be graded at a 2% pitch away from the Mill Brook, directing the roadway runoff into the ditch and avoiding erosion along the stream bank.

Expected Effects (+ & -) on water quality (ex. Erosion will be eliminated by placing the stone ditch):

The project will stabilize the bank and, therefore, reduce future erosion of the site. Regrading the roadway away from the river will eliminate sheet flow and sediment into the river. Establishing a grass-lined ditch will facilitate the sediment to settle out before entering the surface water, which was identified as a problem with the two existing culverts in the 2015 Mill Brook River Corridor Plan.



Distance from end of project to nearest water (stream, lake, or stormwater system that outlets directly to water). 0-50'

Progress to Date:

The town hired an engineer to help develop this application. No additional work has been completed to date.

Is there an emergency reason this project must be completed quickly? If yes, please explain:

No

Has this project been identified through a municipal road inventory, capital budget plan, tactical basin plan, culvert inventory, or other management plan? If yes, please list which.

Yes: Mill Brook River Corridor Plan 2015

No

Please list any professionals you may have contacted for assistance with this project (ANR River Management Engineer, Army Corps of Engineers, VTrans District Technical staff, Basin Planner etc.):

Alan May, Better Roads Program  
Jason Rasmussen and Katharine Otto, SWCRPC  
Todd Menees, Stream Alteration Engineer  
Chris Bump, VTrans District 4  
Michael Hildenbrand, DuBois and King

Is the project located in the town "Right of Way?" Yes, No, Both (if "Both" please explain further).

Both. Most of the work is located within the town ROW. However, a portion of the slope work appears to be on private property (2712 Brook Road). See the attached form signed by the property owner.

Will the town road crew complete this work? Yes, No, Some (if "some" please explain further).

No, the town intends to hire a contractor to complete this work.



Describe how the grant funds will be spent and/or attach a project budget:

The grant funds will be used to hire a contractor to complete the project as described in this application and detailed in the attached project budget.

How do you plan to meet the required 20% match on this grant?:

The required local match will be met using approved municipal highway bond funds.

Requested Grant Amount (\$20,000 max Category B, \$40,000 max Categories C & D): \$ 24,010.69

Estimated Total Project Cost (including 20% local match): \$ 30,013.36

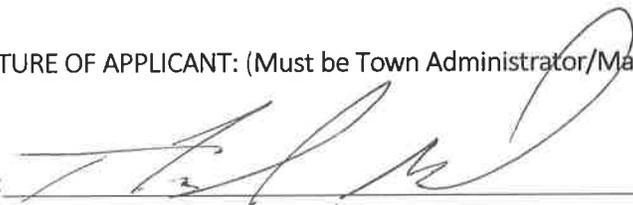
Estimated Completion Date: 09/30/2016

REQUIRED ATTACHMENTS:

- Itemized Cost Estimate (labor, equipment, materials)  
(For assistance, call Better Backroads at 802-828-4585)
- Project Location Map  
(Please show location of affected water; 1:12,000 USGS map, if possible)
- Sketch of proposed erosion control measures, including:
  - Distances (ft.)
  - Estimate of waste & borrow quantities
  - Approx. location of town/other right-of-way and/or property lines
- Photo(s) of the project area.
- Agreement for Entry and/or Deed of Easement (if project is outside Town ROW).
- If project involves stream or river/road conflict, include documentation of consultation with a River Management Engineer.
- Other appropriate supporting documents.

By signing this application I certify that all the information provided is accurate to the best of my knowledge. We will comply with all the requirements of the grant including making our books available for audit if required.

SIGNATURE OF APPLICANT: (Must be Town Administrator/Manager or Select Board Chair)

Name: 

Title: Town Manager

# Cost Estimate Worksheet

Town and Road Name:

Project Name:

Labor	Rate	# Hours	Total (Rate x Hours)
<b>Labor Total</b>			

Equipment	Rate	# Hours	Total (Rate x Hours)
<b>Equipment Total</b>			

Materials	Rate	Amount	Total (Rate x Amount)
<b>Materials Total</b>			

Miscellaneous	Rate	Amount	Total (Rate x Hours)
<b>Miscellaneous Total</b>			

**Grand Total** \_\_\_\_\_  
**Match** \_\_\_\_\_



FY17 Vermont Better Roads Grant Application  
Town of Windsor  
Brook Road Bank Stabilization Project



*Figure 1: The proposed project site along Brook Road in Windsor. The bank along the northern side of the roadway is eroding. There is no functioning ditch line at this time.*



*Figure 3: Sheet flow currently comes off of the road and flows into Mill Brook, causing some minor damage around the guardrail posts and sediments entering the brook. The proposed project will regrade the roadway to direct water away from the Brook and into a new grass-lined ditch.*



*Figure 2: The Mill Brook parallels Brook Road.*



*Figure 4: This culvert is located on the eastern end of the proposed project site. Note the lack of a ditch line on the northern side of Brook Road.*

## Photos of the Project Area



*Figure 5: This photo shows Fairpoint utility pole 15/38 on Brook Road, Windsor. GMP has recently installed new utility poles in this area. Fairpoint has not yet relocated the phone line onto the new poles. However, they have scheduled that work for this year (FairPoint Work Order #296703).*



*Figure 6: The proposed retaining wall will be similar to the one shown in this picture. This retaining wall is located in West Windsor along Brook Road to the west of this proposed project.*

TOWN OF WINDSOR, VERMONT

**AGREEMENT FOR ENTRY; LIMITED RELEASE**

**THIS AGREEMENT**, made and entered into this 10 day of April, 2016 by and between the Town of Windsor, in the State of Vermont, (hereinafter “Town”), and Mary Jane Estey (Name), of 2712 Brook Road (address), in the Town of Windsor, Vermont (hereinafter “Owner”).

**WHEREAS**, the Owner owns certain land and premises in the Town of Windsor, which adjoin Town Highway No. 6 (Brook Road) maintained by the Town; and

**WHEREAS**, the Town desires, at its own expense, to perform certain work on or for the benefit of the highway (described more particularly below) (hereinafter “the Work”), which Work also will be of benefit to the Owner’s property; and

**WHEREAS**, performance of the Work may require the Town, with its own forces or those of contractors, to enter upon the Owner’s property, in areas outside the existing highway right-of-way;

**NOW, THEREFORE**, the parties, intending to be legally bound, hereby agree as follows:

**1. Description of the Work.** The Work will consist of the following:  
Construct an I-beam and timber retaining wall and plant vegetation in order to correct the ongoing erosion of the steep bank that is located north of Brook Road. This project will also involve establishing a new drainage ditch and re-grading the roadway in order to reduce sedimentation entering the Mill Brook.

**2. Right of Entry; Limited Release.** The Owner hereby grants the Town, with its own forces or those of contractors, the right to enter upon the Owner’s property, with workers and equipment, for the purpose of undertaking the Work, and hereby waives, releases and discharges any claims, whether styled as trespass or otherwise, that may arise from such entry.

**3. Retention of Certain Other Rights.** Notwithstanding paragraph 2 of this Agreement, the Owner retains the right to assert against the Town, its contractors or other parties any claims that may arise from negligent acts or omissions during performance of the Work.

(Over)

4. **Waiver:** The Owner having been informed of its right to an appraisal to estimate the value of the right-of-entry herein granted and to receive just compensation based on that appraisal, hereby waives these rights.

5. This Agreement for Entry; Limited Release is not binding unless one of the parties signing below receives a Better Backroads grant to perform the Work set forth above in Paragraph 1.

For The Town:

Lynn Grace  
Signature

LYNN GRACE  
Printed Name

Acting Town Manager  
Title (must be authorized agent)

Owner:

Mary Jane Estey  
Signature

Mary Jane Estey  
Printed Name (must be owner)

In Presence of:

Sandra H. Miska  
Signature

Sandra H. Miska  
Name of Witness

4/5/2016  
Date

In Presence of:

Robin Whipple  
Signature

Robin Whipple  
Name of Witness

4/10/16  
Date



Ascutney Professional Building, Route 5  
Post Office Box 320, Ascutney, VT 05030  
802 674-9201      www.swcrpc.org

April 11, 2016

Alan May  
Vermont Agency of Transportation Municipal Assistance Bureau  
1 National Life Drive  
Montpelier, VT 05633

**Subject: Brook Road Project in Windsor - 2016 Better Roads Application**

Dear Alan,

We are writing in support of Windsor's application for the Brook Road project. Katharine Otto from our office visited the site in January 2016 with Alan May and town representatives, and March 2016 with Todd Menees and town representatives. An engineer hired by the Town to assist with the application also visited the site in March 2016. The proposed work should significantly improve slope instability issues and reduce water quality issues along Brook Road. This project supports the following goals and policies of the 2014 Southern Windsor County Regional Transportation Plan:

- Goal 6 - Strive to provide transportation infrastructures that are resilient to changing weather patterns and that efficiently and safely handle traffic during natural hazard events and other emergency situations.
- Policy 11 - Maintenance of the existing transportation system shall minimize water pollution, in accordance with the current *Vermont Town Highway Codes and Standards*, State stormwater rules and other best management practices.

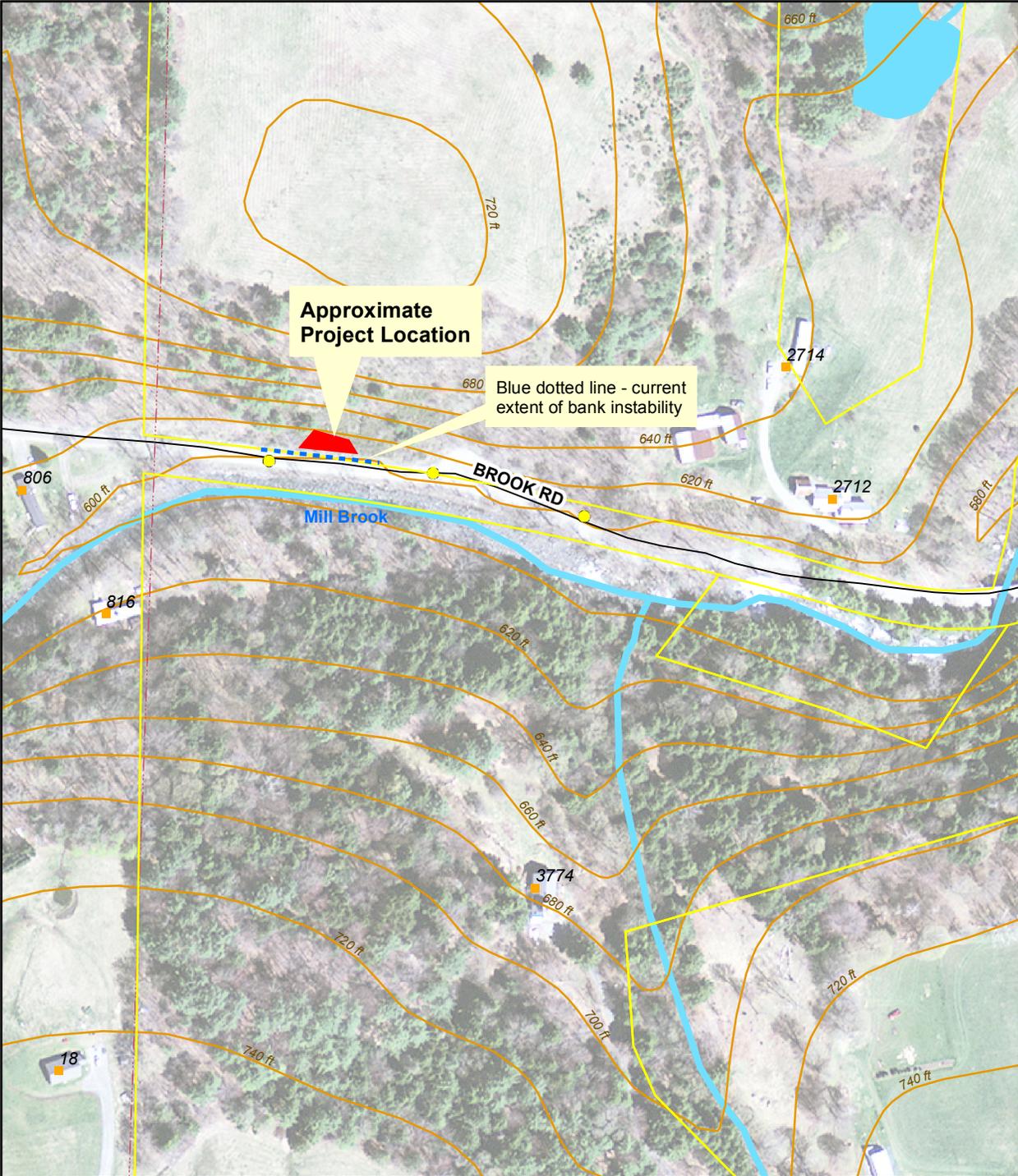
This is a high priority project for the town due to the increasing slope instability in the last few years which is now resulting in some road erosion next to the Mill Brook. We look forward to working with Windsor on their Road Erosion Inventory next year where we will help to identify other priority sites.

Thank you for your consideration of this important project.

Sincerely,

  
Thomas Kennedy  
Executive Director

**Brook Road Bank Stabilization  
Town of Windsor  
Better Roads Application - April 2016**



- Building
- Culvert (owned by Windsor)
- Culvert (owned by West Windsor)
- Parcels
- Interstate Highway
- State or US Highway
- Town Highway
- Other
- Railroad
- 20ft Contours
- Rivers and Streams
- Lakes and Ponds
- - - Town Boundary

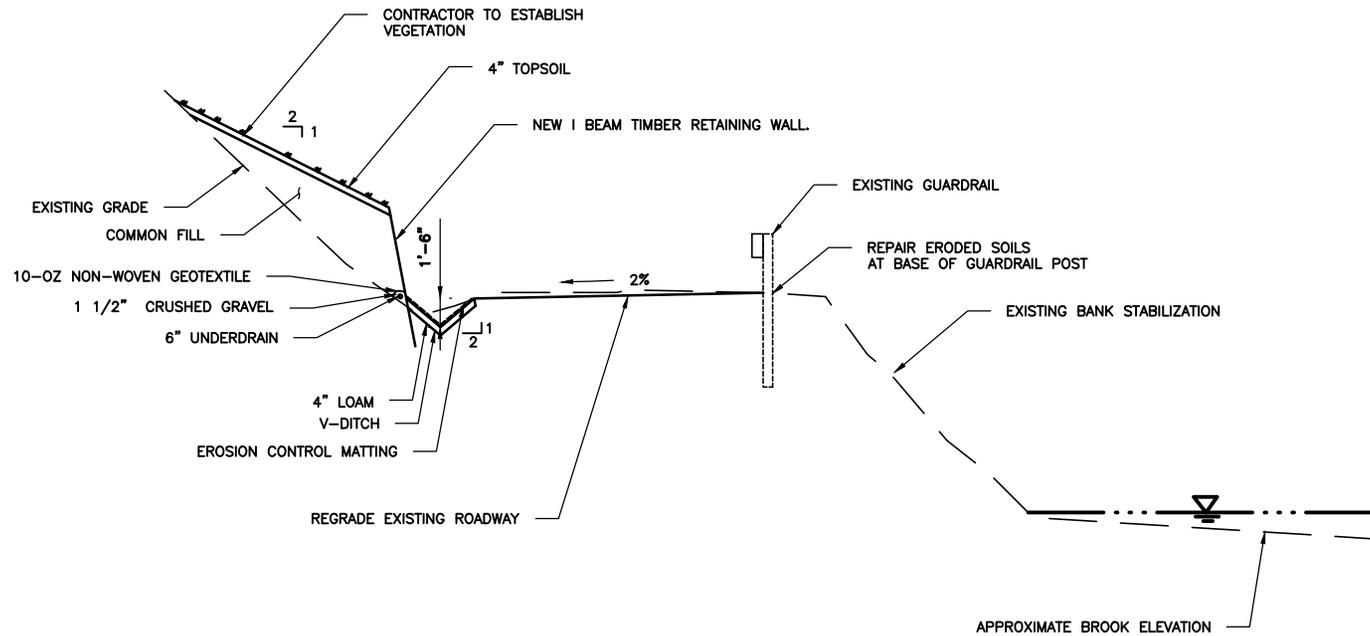
Data Sources: Roads (Vermont Agency of Transportation 2015),  
20ft Contour Lines (United States Geological Survey 2012),  
Rivers and waterbodies (Vermont Hydrographic Dataset 2008),  
Parcels (Russell Graphics 2014),  
Town Boundaries (Vermont Center for Geographic Information 2012),  
Culverts (vtculverts.org Inventories for both towns updated 2013),  
Buildings (VT E911 Esite July 2015),  
Railroad (Vermont Agency of Transportation 2014),  
Aerial (National Agricultural Imagery Program 2011)

VT State Plane Meters, NAD 83

Map for planning purposes only.  
Not for regulatory interpretation.

Map drawn March 18, 2016





**NOTE:**

1. CONTRACTOR TO INSTALL UNDERDRAIN SO THAT FLOW IS DIRECTED TOWARD THE END OF THE RETAINING WALL.

**DuBois & King inc.**

ENGINEERING • PLANNING •  
MANAGEMENT • DEVELOPMENT

SOUTH WINDSOR COUNTY REGIONAL PLANNING COMMISSION

BROOK ROAD

BANK STABILIZATION DETAIL

DRAWN BY SANZ	DATE APR. 2016
CHECKED BY MH	D&K PROJECT # 622961P1
PROJ. ENG. MH	SCALE 1"=10'

FIGURE

1