



# FY17 Vermont Better Roads Grant Application

**Please complete this page ONCE and return with your Grant Category Application(s)**

Town/Organization: Town of Highgate Contact Person(s): Andrew King

Address: PO Box 189, Highgate, VT 05459

Email: aking@highgatevt.org Phone: (802) 868 - 4697

DUNS #: 31966211 Fiscal Year End Month (MM): 6

Accounting System:  Automated  Manual  Combination

Please use the suggested documentation checklist below to ensure that all of the relevant items regarding your application have been included.

- Grant application cover sheet (Only submit one)
- Grant application form (One per category/project)
- Itemized Cost estimate for labor, equipment, and materials (see enclosed Cost Estimate Worksheet). If applicable, please break down funding by source (i.e. different grant sources)
- Project Location Map (please show location of affected water)
- Sketch of proposed erosion control measures or other management practices, including distances in feet
  - Also show approximate location of town/other right-of-way and/or property lines
- Photo(s) of the project area
- Letters of Support (RPC, VT Trans District Technical Staff, ANR Rivers and Streams Engineers, etc.)
- If Category C River/Road Conflict or Category D River/Stream Structure or Culvert, you must attach ANR/ACOE consultation



# 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 Highgate

Project Name: Shipyard Bay Storm water Management Project

Road Name: Shipyard TH #: 15 Structure # (if applicable): \_\_\_\_\_

Road Type: Paved Uncurbed

Class 3

Watershed: Missisquoi Bay

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

Culvert design inefficiency and partial obstruction is causing high levels of erosion and loss of important filtration characteristics dramatically decreasing water quality as it directly ingresses into Missisquoi Bay.

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):

see attached narrative from Smith Technical Design

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

the amount of phosphorus laden sediment entering the bay will be dramatically reduced by slowing down and filtering a drainage area that is currently being directly loaded to the bay. The outdated infrastructure will be replaced with updated functional designs to ensure efficient filtration of storm-water.



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

**Progress to Date:**

engineering design in place and support of surrounding property owners and water quality advocates.

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: tactical basin plan and stormwater plan created by Stone Environmental

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.):

Friends of Northern Lake Champlain, Denise Smith; Chris Brunelle, Stream Alteration Specialist; Jim Cota, District 8 Project Manager; John Wilkins, AOT technician.

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

yes

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

The town will complete the project in conjunction with contracted services.



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

How do you plan to meet the required 20% match on this grant?:  
in-kind force labor and equipment

Requested Grant Amount (\$20,000 max Category B, \$40,000 max Categories C & D): \$ 20,000.00

Estimated Total Project Cost (including 20% local match): \$ 25,000.00

Estimated Completion Date: 11/01/2016

**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)**

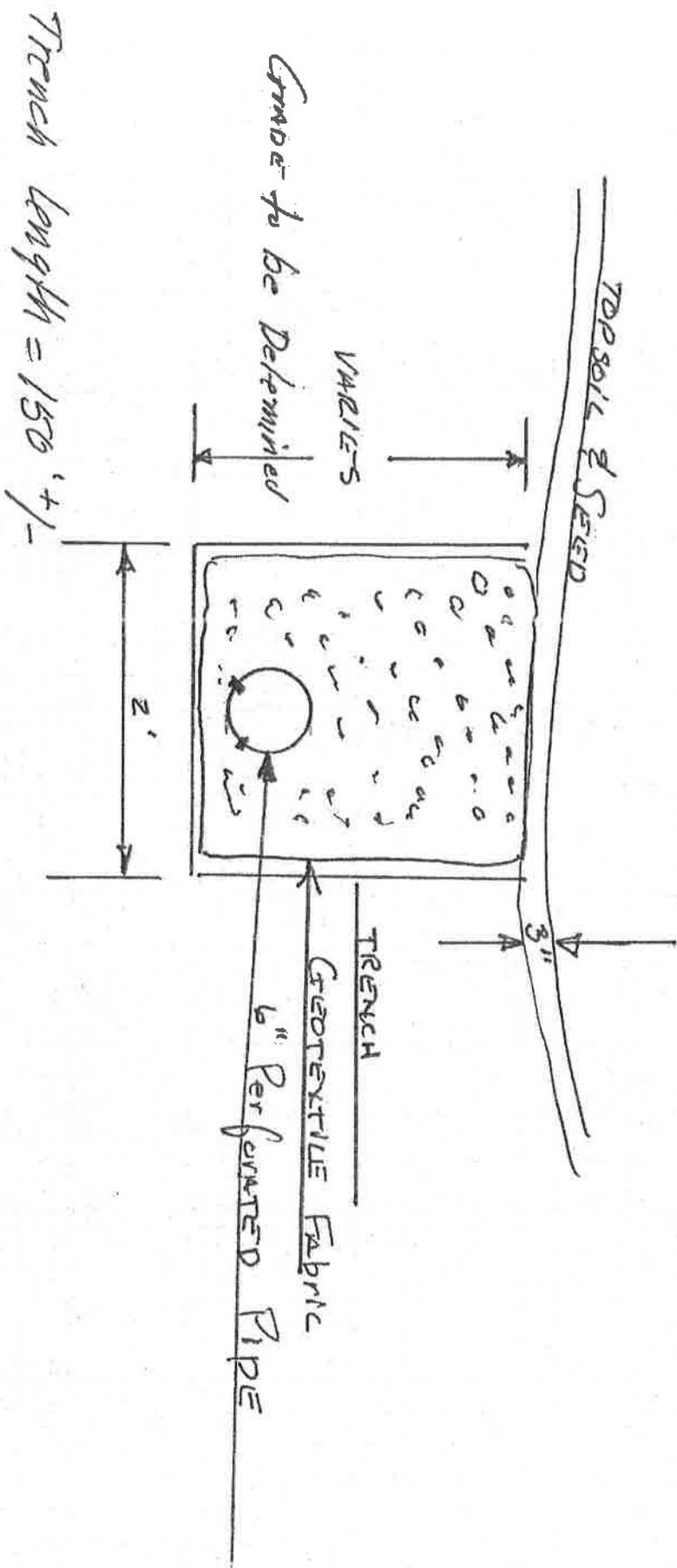
Name: Hedi Britch-Valenda Title: 415-16

## Highgate – Shipyard Road Better Roads Proposed Project

The intent of the project is to enhance the roadway runoff and other drainage in the area. It is presently draining directly into Lake Champlain, via some older drainage that may not be functioning for the best water quality. The project proposal is to collect the roadway and other drainage into a so-called Dry Well and transfer it slowly through a stone filter basin which will discharge into a stream on the south side of the Shipyard Road.

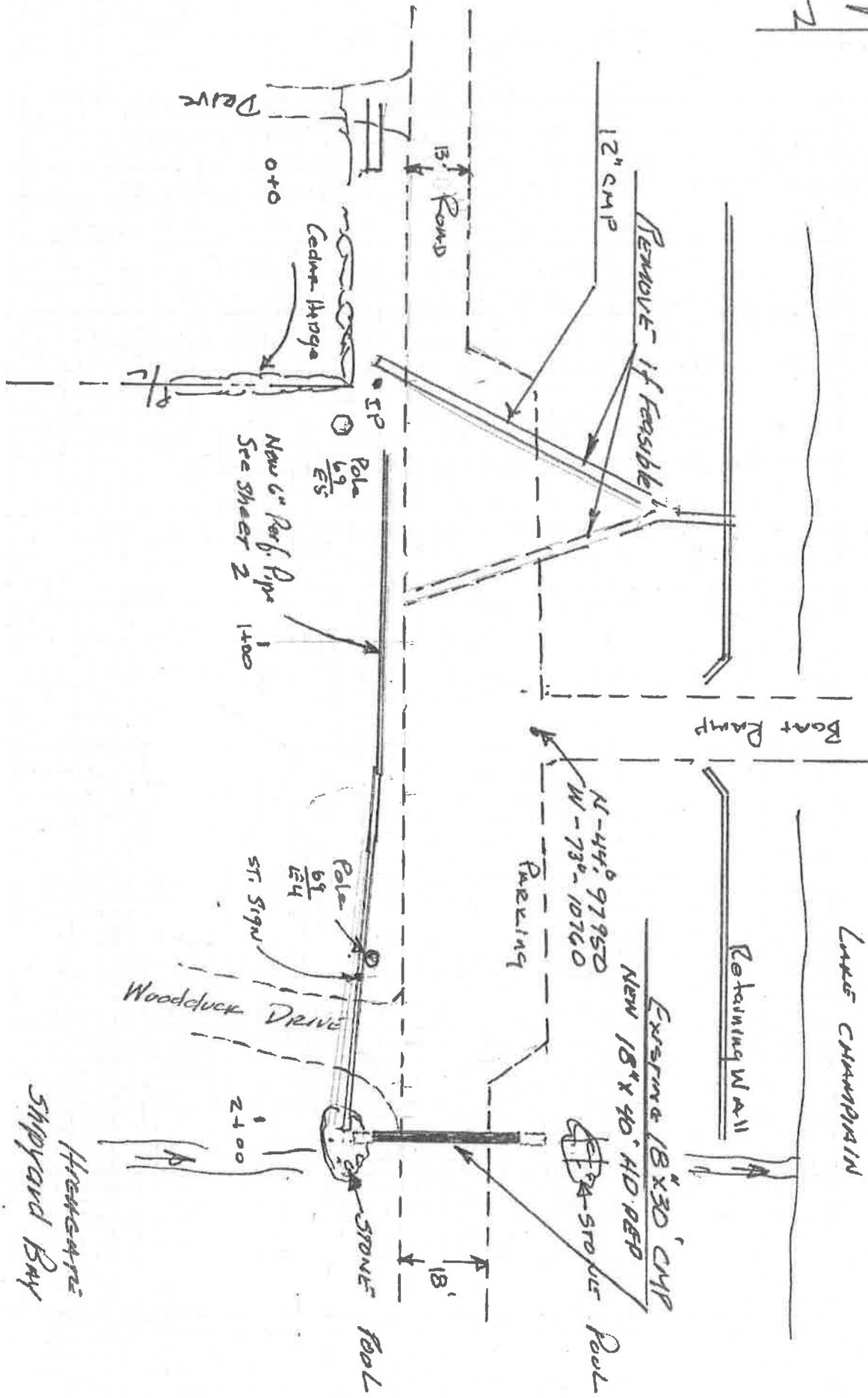
### Scope of Work:

- Complete engineering to determine maximum beneficial grades for proposed drainage.
- Investigate the location of buried culverts and eliminate if feasible, from flowing into the Lake.
- Replace existing 18"X 30" Corrugated Metal Culvert with a new 24"X 40' HDPEP at a possible lower inlet grade.
- Install a new 6" Perforated Schedule 40 or equal drainage pipe in a 2' wide trench of variable depths as engineering dictates, enclosed entirely in Geotextile Fabric and Drainage Stone of specified size.
- Apply a minimum 3" depth of suitable topsoil graded as required for drainage.
- Seed, Fertilize, and Mulch all disturbed areas.
- Apply Temporary Filter Sock Check Dams as required



Highgate  
 Shipped By

Sheet 2







Shipyard Bay Drainage Project 2016



Shipyard Bay Drainage Project 2016





April 14, 2016

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

RE: Town of Highgate BBR Grant Application  
Shipyard Bay Stormwater Management Project

Dear Mr. May,

I would like to express solid support for the above referenced application by the Town of Highgate to address stormwater issues in Highgate Springs. We met with the town last year to bring this issue to their attention. We have met on site with representatives from the Friends of Northern Lake Champlain, other landowners, and the Town to discuss options to reduce the amount of phosphorus laden runoff making it into the Missisquoi Bay. We support this project and will be working on projects on our adjoining property to reduce erosion and runoff. We have reviewed the plans and agree with the strategy to install this drainage basin. This project will make a big difference in our area and we request your support to make it happen.

Sincerely,

A handwritten signature in blue ink, appearing to read "C Tyler", is written over a light blue circular stamp.

Chad Tyler  
The Tyler Place Resort

April 14, 2016

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



PO BOX 58 • SWANTON, VT 05488

RE: Town of Highgate BBR Grant Application  
Shipyard Bay Stormwater Management Project

Dear Mr. May,

We would like to express our solid support for the above referenced application by the Town of Highgate to address stormwater issues in Highgate Springs. Representatives from the Friends of Northern Lake Champlain have visited the site with the Town and landowners to brainstorm about the best way to slow the flow of stormwater into the Missisquoi Bay. This solution is a very important step forward in treating water prior to reaching the very impaired Missisquoi Bay. The creation of a filter lined drainage trench is a practical and attractive solution to a very serious issue.

This type of project is aligned with strategies that were identified in the Missisquoi Bay Tactical Basin Plan in order to address water quality issues. The strategies mentioned include: "Expanding Better Back Roads program outreach and technical assistance" and "Reducing stormwater flows and erosion from homes, businesses, and construction sites". Currently, the nutrient and sediment rich runoff from adjacent homes and roads is discharging directly into the Missisquoi Bay. As you know, the Missisquoi Bay is one of the most impaired waterways in the Lake Champlain Basin. We think that the creation of a filter lined drainage trench lines up with the goals and actions mentioned in the Tactical Basin Plan and is an important action for the health of the Lake.

We request your serious consideration for this important work.

Sincerely,

A handwritten signature in black ink, appearing to read "Denise Smith". The signature is fluid and cursive, written over the printed name.

Denise Smith  
Executive Director  
Friends of Northern Lake Champlain

April 14, 2016

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

Received

APR 19 2016

VTrans  
PDD-LTF

Parker  
P. O. Box 8722

Burlington, VT.

05402 - 8722

(e) 802-355-9213

(cd) " - 229-2000

RE: Town of Highgate BBR Grant Application  
Shipyard Bay Stormwater Management Project

Dear Mr. May,

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Sincerely,

ERIK PARKER - shorefront landowner