



FY17 Vermont Better Roads Grant Application

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

Town/Organization: Town of Kirby Contact Person(s): Wanda Grant, Rebecca Hill-Larsen

Address: 346 Town Hall Rd Lyndonville VT 05851
Street Address Town Zip

Email: townclerk.kirbyvermont@gmail.com Phone: (802) 626-9386

DUNS #: 949868111 Fiscal Year End Month (MM): 12/31

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, VTTrans 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 Kirby

Project Name: Barnes Brook Rd Project

Road Name: Barnes Brook Rd TH #: 6 Structure # (if applicable): _____

Road Type: Paved or Unpaved (circle one) Curbed or Uncurbed (circle one)
Class 1 Class 2 Class 3 Class 4 (circle one)

Watershed: Passumpsic River

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

The roadway has a steep (10%) grade with an old ditch that is silted in and not deep enough. The ditch runs into an undersized culvert that has clogged and resulted in ice over the road some winters.

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):

Ditch to ledge depth 695' of south roadway ditch and 480' of north roadway ditch. SLD and grass lined ditch will be used, along with cutting away berm, replacing two culverts, one 18" driveway and one 30" across the Ridge Road.

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

Erosion will be eliminated by creating a deeper stone lined ditch. Water will flow through the larger culvert and not go over the road. The sediment will not flow through the field toward the Simpson Brook watershed.



Distance from end of project to nearest water (stream, lake, or stormwater system that outlets directly to water). Please circle one: 0-50' 50-250' 250'+

Progress to Date:

Identified scope of ditching project with Ben Copans.

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:

Identified on a site visit April 8, 2016 with Ben Copans. 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.):

Shauna Clifford, Vtrans

Ben Copans, Watershed Coordinator - letter of support attached

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

Yes, ditching is in ROW, culvert goes across town road or town ROW

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

Some. Kirby is a small town and doesn't own an excavator. Alliance Construction will provide excavator work, the Road Foreman will do trucking of materials.



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

see attached Cost Estimate Worksheet

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

Road forman, equipment time, stone and grass materials

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): \$ 26,254.99

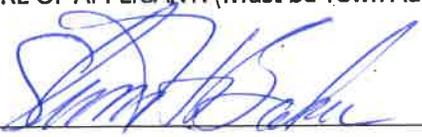
Estimated Completion Date: 10/31/2016

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.
- letters of support

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: Selectboard - Chair

State of Vermont
Department of Environmental Conservation
Watershed management Division
St. Johnsbury Regional Office
1229 Portland Street, Suite 201
St. Johnsbury, VT 05819
www.vtwaterquality.org

Agency of Natural Resources
[phone] 802-751-2610
[Cell] 802-490-6143
[fax] 802-748-6687
[Email] ben.copans@vermont.gov

Alan May
Better Backroads Coordinator
Municipal Assistance Bureau
Highway Division
1 National Life Drive
Montpelier, VT 05633

April 13, 2016

Dear Alan May,

As a Basin Planner with the Vermont Department of Environmental Conservation I am writing to express my support for the Town of Kirby's applications for Better Roads Category A and B grants. I met with selectboard Member Rebecca Hill-Larsen in early April to discuss these grant applications and feel that these projects are a priority for addressing water quality in the Passumpsic River watershed.

The Category A grant proposal will help the town of Kirby develop designs and budging necessary to address a number of roads which currently present known maintenance and water quality challenges. The inventory and capital budget will also allow for a full evaluation of conditions of roads across town and is likely to identify other locations where road related water quality issues could be addressed by the town. The town appears supportive of addressing such issues on an ongoing basis with town maintenance funds and through better roads grant support for larger projects and with tight budgets this inventory and capital budget will allow the town to plan for and prioritize this work.

I also reviewed a project proposal for Barnes Brook Road and make some suggestions to more fully address water quality impacts from this road at the intersection with Ridge Road including some additional rock lined ditches, removal of berms along the edge of the road and grass lined ditches. This project would significantly reduce erosion of the Barnes Brook Road which currently crosses Ridge Road through a culvert which then flows down a steep bank into Simpson Brook. Additional runoff from eroding sections of this road flows down a ditch along Ridge Road and then through a second culvert across Ridge Road and enters Simpson Brook with little opportunity for filtration.

Because of the potential for significant water quality improvements through these projects I strongly support Kirby's Category A and B grant applications. Please contact me if you have any questions.

Sincerely,



Ben Copans

Ben Copans
Vermont Dept. of Environmental Conservation
Watershed Management Division
1229 Portland Street, Suite 201
St Johnsbury, VT 05819

State of Vermont
District 7
1068 US Route 5, Suite 2
St. Johnsbury, VT 05819-8501
www.aot.state.vt.us

Agency of Transportation

[phone] 802-748-6670
[fax] 802-748-6671
[ttd] 800-253-0191

April 15, 2016

RE: Kirby TH 6 Barnes Road - Better Roads Grant

To Whom It May Concern:

I have met with Rebecca Hill-Larsen, selectboard member for the town of Kirby, to review a proposed Better Roads project on Town Highway 6 – Barnes Brook Road. This letter is to convey my endorsement for the proposed project.

My observation of this site is that there is road erosion and subsequent sediment transfer that makes its way into a cross culvert under Ridge Road running then into Simpson Brook. Establishing ditches and removing roadside berms will greatly enhance the water quality from this area.

The work proposed within the roadway includes:

- Adding gravel material and reshaping Barnes Brook Road to allow the runoff to sheet from the town highway into the ditch
- Removing berms along the roadway shoulder so that water sheets into ditches
- Developing existing ditches to have capacity to carry the water away from the road
- Armoring ditches to reduce erosion

I feel that this project is a great candidate for the Better Roads program and have encouraged the town to take advantage of this program by applying for a grant.

If you have any questions, please do not hesitate to contact me at 748-6670.

Sincerely,



Shauna P. Clifford
District 7 Project Manager

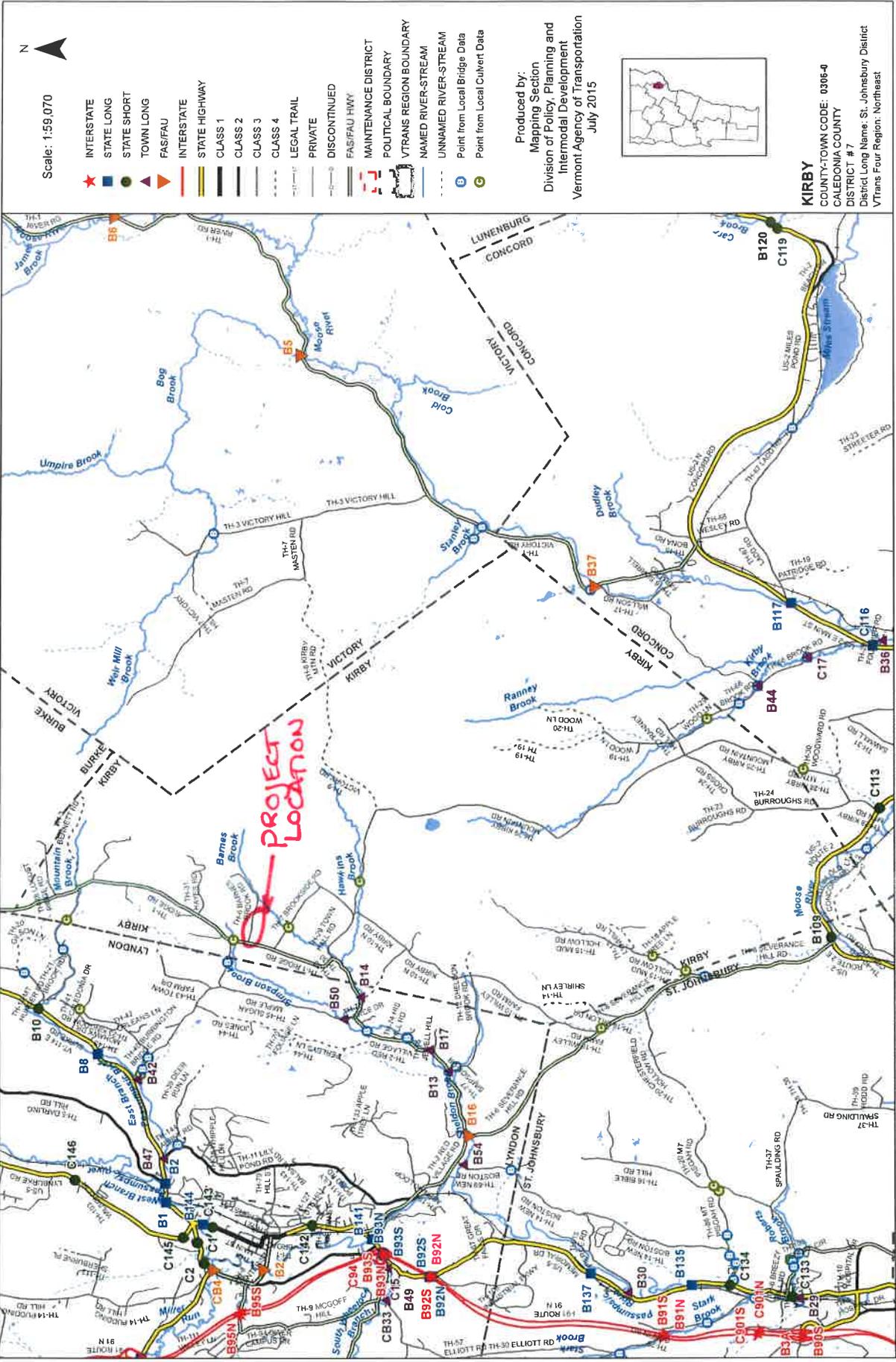
Cost Estimate Worksheet

Town and Road Name:

Project Name:



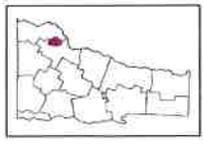
Labor	Rate	# Hours	Total (Rate x Hours)
Town Road Foreman	\$25/hr	48	\$1200.00
LABORER	\$13/hr	48	\$624.00
Labor Total			\$1,824.00
Equipment*	Rate*	# Hours	Total (Rate x Hours)
*GRADER	\$82.04/hr	32	\$2625.28
*LOADER	\$52.72/hr	16	\$843.52
*TANDEM AXLE TRUCK	\$128.56/hr	48	\$6170.40
EXCAVATOR W/OPERATOR (CONTRACTOR)	\$125.00/hr	40	\$5000.00
*USED VTTRANS CENTRAL GARAGE	FY 2010 RATES		\$14,639.20
Materials	Rate	Amount	Total (Rate x Amount)
TYPE 1 STONE FILL	\$13/cy	277 cy	\$3601.00
SEED/MULCH/HYDRSEEDER	\$1,000/DAY	1 DAY	\$1000.00
30" X 50' C.S.P	\$25.01/LF	50 LF	\$1250.50
18" X 40' C.S.P	\$15.25/LF	40 LF	\$610.00
AGGREGATE SURFACE COARSE	\$20/cy	162 cy	\$3240.00
30" PIPE COUPLING	\$37.52/EA	2 EA	\$75.04
18" PIPE COUPLING	\$15.25/EA	1 EA	\$15.25
Materials Total			\$9,791.79
Miscellaneous	Rate	Amount	Total (Rate x Hours)
Miscellaneous Total			
Grand Total			\$26,254.99
Match			\$10,254.99



Scale: 1:59,070

- ★ INTERSTATE
- STATE LONG
- STATE SHORT
- ▲ TOWN LONG
- ▲ FAS/FAU
- INTERSTATE
- STATE HIGHWAY
- CLASS 1
- CLASS 2
- CLASS 3
- CLASS 4
- LEGAL TRAIL
- PRIVATE
- DISCONTINUED
- FAS/FAU HWY
- MAINTENANCE DISTRICT
- POLITICAL BOUNDARY
- VTRANS REGION BOUNDARY
- NAMED RIVER-STREAM
- UNNAMED RIVER-STREAM
- Point from Local Bridge Data
- Point from Local Culvert Data

Produced by:
 Mapping Section
 Division of Policy, Planning and
 Intermodal Development
 Vermont Agency of Transportation
 July 2015



KIRBY
 COUNTY-TOWN CODE: 0306-4
 CALEDONIA COUNTY
 DISTRICT # 7
 District Long Name: St. Johnsbury District
 Vtrans Four Region: Northeast

This map was funded in part through grants from the Federal Highway Administration, U.S. Department of Transportation. The representation of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

Barnes Brook Rd Project Location Map



Natural Resources Atlas

Vermont Agency of Natural Resources

vermont.gov



LEGEND

- Stream
- Town Boundary

← Barnes Brook Rd

NOTES

Map created using ANR's Natural Resources Atlas



1: 6,447

April 14, 2016



328.0 164.00 328.0 Meters

1" = 537 Ft. 1cm = 64 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Barnes Brook Road Proposed Erosion Control Measures



Natural Resources Atlas
Vermont Agency of Natural Resources

vermont.gov

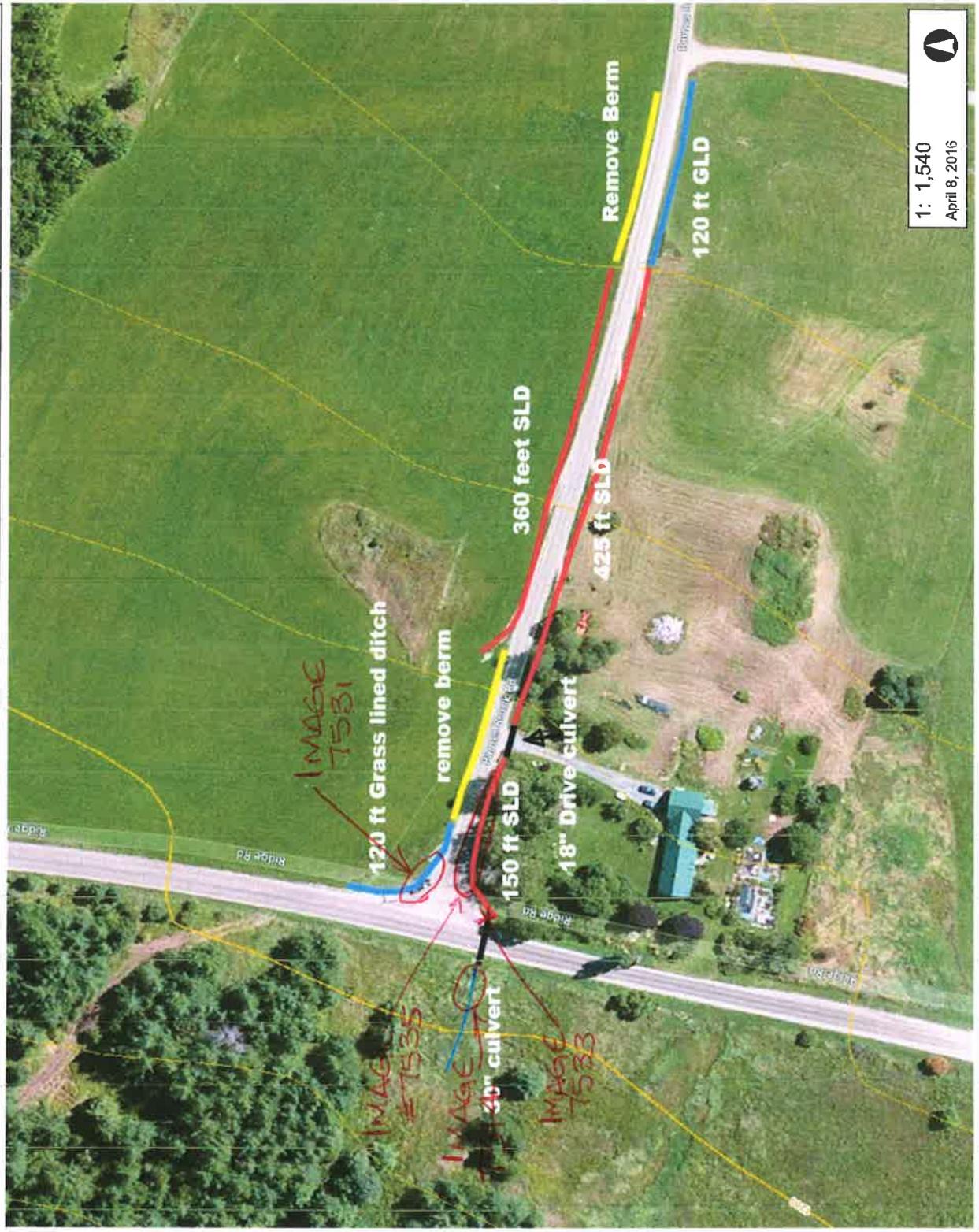


LEGEND

Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas



1: 1,540
April 8, 2016

78.0 0 39.00 78.0 Meters

1" = 128 Ft. 1cm = 15 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere
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IMAGE # 7533 PATH LEADING UP TO CULVERT ON RIGHT SIDE OF PICTURE



IMAGE #
7535

DITCH ABOVE THE CULVERT ACROSS THE ROAD TO THE CULVERT ACROSS DRIVE



IMAGE # 7544 : SEOWMELT FROM C/DIVLET - WEST SIDE OF RIDGE PO HEADLINE THUNDERS SIMDSON BK



GRASS LINED DITCH ON LEFT SIDE OF INTERSECTION

IMAGE # 7531