



Vermont Better Roads Grant Program



Cover Sheet

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

Town/Organization: Town of Mendon

Primary Contact Person(s): Sara Tully

Title: Town Administrator

Address: 2282 US Route 4, Mendon, VT 05701

Street Address

Town

Zip

Email: mendonadmin@comcast.net Phone: (802) 775 - 1662

DUNS #: 035757004 Fiscal Year End Month (MM):06



Vermont Better Roads Grant Program



MUST BE TOWN ADMINISTRATOR/MANAGER OR SELECT BOARD CHAIR

CATEGORY B/C/D

Please complete one application per project you are applying for.

Please check the Category you are applying for:

- B. Correction of a Road Related Erosion Problem and/or Stormwater Mitigation
- C. Correction of a Stream Bank, Lake Shore or Slope Related Problem
- D. Structure/culvert 36" diameter or greater

Municipality: Mendon

Road Name: Journeys End TH #: 22 Structure # (if applicable): None

Road Type: Paved or Unpaved (select one) Road Class: 1 2 3 4 (select one)

Please provide a thorough description of the erosion/water quality problem (ex. Roadway has steep slope with no ditch which is causing severe roadway erosion, which outlets into the Lamoille River): Water from multiple driveways and from the roadway is causing erosion of the road and filling up the undersized ditch with sediment and gravel. Water sheets across the road causing significant icing in the winter. One section of the road has underground water surfacing in the road further contributing to erosion and ditches filling with sediment. The water then enters a private pond before ultimately entering Mendon Brook. The project is located within the Rutland City Watershed.

Has the town completed an MRGP compliant road erosion inventory?

Yes No In progress

Project Length (linear feet along roadway): 420 ft.

Number of structures/culverts replaced/repared: 2

Average slope of roadway: 0-5% 5-10% >10%

#118474 #118472

Provide a VERY detailed map of project location showing start and end points: Included

Provide a sketch of project location showing distances and project details: Included



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***In order to "Fully Meet" the standards the road segment must have proper crown, removal of shoulder berms, proper ditching, proper conveyance and no erosion present at culvert inlets and outlets.**

Environmental Concerns:

All projects require a review of potential impacts by our environmental team. To expedite the review process, please check the boxes below that describe existing structures/conditions to be replaced/maintained (if any) and the project description that applies (if any).

Existing Structures:	
<input type="checkbox"/> Steel/Plastic Culvert	<input type="checkbox"/> Concrete Box Culvert
<input type="checkbox"/> Stone Culvert – Take pictures	<input type="checkbox"/> Concrete Bridge
<input checked="" type="checkbox"/> Ditch	<input type="checkbox"/> Rolled Beam/Plate Girder Bridge
<input checked="" type="checkbox"/> Foundation remains, mill ruins, stone walls, other – Take pictures <i>Root cellar</i>	<input type="checkbox"/> Stone abutments or piers – Take pictures
<input checked="" type="checkbox"/> Buildings within 300 feet of work - Take pictures <i>See houses</i>	
Project Description:	
<input type="checkbox"/> New ditches will be established	<input checked="" type="checkbox"/> All work will be completed from the existing road or shoulder
<input checked="" type="checkbox"/> Reestablishing existing ditches only	<input checked="" type="checkbox"/> There will be excavation within 300 feet of a river or stream – Take pictures <i>See location map</i>
<input checked="" type="checkbox"/> The structure is being replaced on existing location/alignment <i>Driveway Culvert</i>	<input checked="" type="checkbox"/> Road reclaiming, reconstruction, or widening <i>(part of overall project)</i>
<input type="checkbox"/> Excavation within a floodplain – Take pictures	<input type="checkbox"/> Temporary off-road access is required
<input checked="" type="checkbox"/> Tree cutting/clearing – Take pictures	<input type="checkbox"/> The roadway will be realigned

Please describe the project and how it will create a positive water quality benefit (ex. Reshape 500' of ditch and line with 12 inch minus stone, to prevent sediment from entering the Lamoille River at the bottom of the hill):

The Town of Mendon is committed to solving the water issues on Journeys End that contributes to unsafe driving conditions, increased annual maintenance costs, erosion and diminished water quality in the Rutland City Watershed. The overall project cost is \$175,000 and the town is requesting financial support to assist with implementing the erosion control components of the project. The project will reconstruct .22 miles of Journeys End currently a gravel road and prepare the base for paving. The town will remediate a spot where water is surfacing in the roadway. Tree removal and bank excavation will open up the road to allow for 3' U-shaped ditches grass ditches to be installed on one side of the road. A power pole will be relocated by Green Mountain Power. The project will reconstruct and widen 360' of ditches. The private root cellar located in the right of way will not be impacted (see pictures). The water from the location of the root cellar downhill on the road will be directed off the road with proper crowning of the



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road into appropriate ditches where it will enter the cross culvert and into the pond. The water from beyond the root cellar on the uphill side of the road will be directed off the road with proper crowning and into a catch basin and then a cross culvert to deposit the water into a vegetated area.

Please list any professionals or partners that assisted with planning this project (ANR River Management Engineer, Army Corps of Engineers, VTrans staff, Basin Planner, RPC staff, etc.):

The Town of Mendon has completed site visits and obtained technical advice from Josh Carvajal, ANR Rivers Management, Alan May, Vermont Better Roads Program, and Christine Emmons, Grants in Aid Coordinator, Kyle Cornell, Casella Construction, Dave Conger, Dubois & King Engineers and Devon Neary, Rutland Regional Planning Commission.

Is the project located in the town "Right of Way?" (select one) Yes No Both

Please be aware, Municipalities are required to have an Agreement for Entry & Liability Release for any impacted properties (prior to the start of construction.)

Budget:

Please attach a project budget and confirm below that is attached:

Project budget IS attached

Are you applying to other grant programs to help fund this project? If so, what programs? Please note that Better Roads requires a 20% local match and Better Roads funding may not be used as match for other state or federally funded programs.

Requested Grant Amount:	\$ <u>18,890.00</u>	Requested Grant Amount Max:
+		\$20,000 Category B
Local Match:	\$ <u>4,722.00</u>	\$40,000 Category C
=		\$60,000 Category D
Total Project Cost:	\$ <u>23,612.00</u>	

See page 6 for more information on calculating match

Estimated Completion Date: ~~October 2022~~

REQUIRED ATTACHMENTS: * Amended completion date is October 2024

Please use the documentation checklist below to ensure that all of the relevant items regarding your application have been included. **It is preferred that your application is a single PDF file.**

- Grant application cover sheet
- Grant application form, including chart with RSID and MRGP compliance before and after project completion



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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).

Detailed Project Location Map

Sketch of proposed project and 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 and limits of work

Photos must be color and clear to see.

- Please make sure there are enough photos to get a good idea of the project area**

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:

Name: *Jenna Tully* Title: *Town Administrator*
MUST BE TOWN ADMINISTRATOR/MANAGER OR SELECT BOARD CHAIR

Vermont Better Roads Category B/C/D Grant Proposal Scoring Criteria

All applications will be scored on a sliding scale elected by the Better Roads Grant Selection Committee. Road BMP upgrades are considered the highest priority for grant funding when road segments are "hydrologically-connected," currently "not meeting" MRGP standards, and road slopes are greater than 10%

1. Is the project using Best Management Practices (BMPs) that are proven and likely to maximize long term success, such as practices contained within the new VTrans Better Roads Manual and/or VT DEC MRGP Standards?? [maximum 20 points]

- The proposed project utilizes appropriate BMPs and has maximized the likelihood of long-term success (16-20 points)
- The proposed project utilizes some appropriate BMPs but more could be done to increase the likelihood of success (11-15 points)
- The proposed project does not utilize appropriate BMPs, or it is unclear whether the BMPs will be used appropriately and the likelihood of success is uncertain (0-10 points)

2. What are the expected Water Quality Benefits within the watershed? [maximum 25 points]

- Project will lead to significant improvements to water quality (21-25 points)
- Project will lead to moderate improvements to water quality (16-20 points)
- Project will lead to small improvements to water quality (1-15 points)
- Project will lead to no obvious improvements to water quality (0 points)

3. Is the project in or does stormwater runoff from the project area drain into a hydrologically connected segment? [maximum 20 points]

- Yes; the entire project is in connected segment(s) (20 points)



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- Partially; part(s) of the project are in connected segments (5-19 points)
- No; this project is not in a connected segment (0-5 points)

4. Will the project result in full compliance of one or more segments in accordance with the Municipal Roads General Permit (MRGP)? [maximum 25 points]

- All segments within the project will be in full compliance (25 points)
- One or more segments will be in full compliance, with all other segments in partial compliance (11 – 24 points)
- One or more segments will be a minimum of partial compliance (1- 10 points)
- Project does not meet compliance or not applicable (does not have hydrologically connected segments) (0 points)

5. Is the project cost effective? [maximum 10 points]

- The cost of the project is low and the expected benefits are high (8-10 points)
- The cost of the project is average and the expected benefits are average (5-7 points)
- The cost of the project is high and the expected benefits are low (0-4 points)



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Cost Estimate Worksheet

Town and Road Name: Mendon / Journeys End

Project Name: Journeys End Erosion Control Project

Labor	Rate	# Hours	Total (Rate x Hours)

Labor Total

Equipment	Rate	# Hours	Total (Rate x Hours)
Excavator with operator	230/hr	38	8740
Tri Axle Dump Truck with operator	90/hr	10	900

Equipment Total

Materials	Rate	Amount	Total (Rate x Amount)
24" precast cement catch Basin with shipping			2300
18" drive way ppe culvert	24.50/lin	30	735
24" ppe culvert	41.00/lin	60	2460
gravel 3/4" - 1 1/2" crushed	12.50/tn	100	1250
Hay/mulch	3/bail	15	45
grass seed	7.68/lb	50	384.00
Temporary matting	3.00	600	1800

Materials Total

Miscellaneous	Rate	Amount	Total (Rate x Hours)
Tree Removal	125/hr	40	5,000

Miscellaneous Total

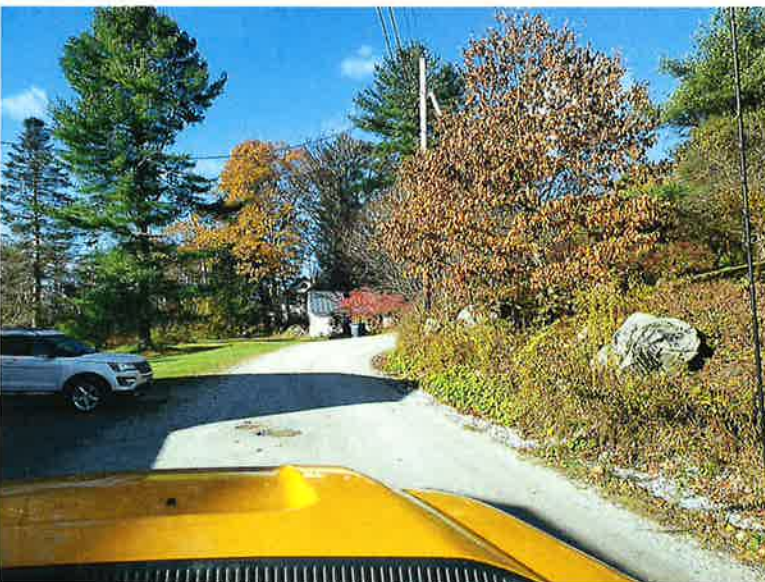
Grand Total 23,612

Match 4,722

grant 18,890



Picture 1



Picture 2



Picture 3

Journeys End

Mendon, Vermont

Picture 1 is the start point of the project as indicated on the project location map. To the left of the truck is a private residence with a pond which is where all the water from the roadway is deposited through culverts. This location is RSID #118474 which is hydrologically connected and currently does not meet standards. After the completion of the project this road segment will fully meet standards.

In 2013, the town installed a catch basin at the corner of this driveway and the road with a driveway culvert. The town installed ditches as wide as they could without major excavation of the bank and stone lined them. The continued erosion and plowing filled the ditches in about 4 years.

The Town has consulted with Josh Carvajal, Rivers Engineer, Devon Neary, Rutland Regional Planning Commission Transportation, Alan May, Better Roads Program, Christine Emmons, Grants in Aid, Kyle Cornell, Casella Construction and Dave Conger, Dubois & King Engineers to develop the erosion control solution proposed in this grant application.

In addition to the erosion control measures proposed in this application, the Town is committing an additional \$150,000 to reconstruct the base of the road the entire project length and pave the road. The beginning of Journeys End is paved until this section of the road. We are asking for assistance from the Better Roads Program to help install the erosion control measures. At the conclusion of the entire project Road segments 118472 and 118474 will meet MRGP standards.



Picture 4



Picture 5



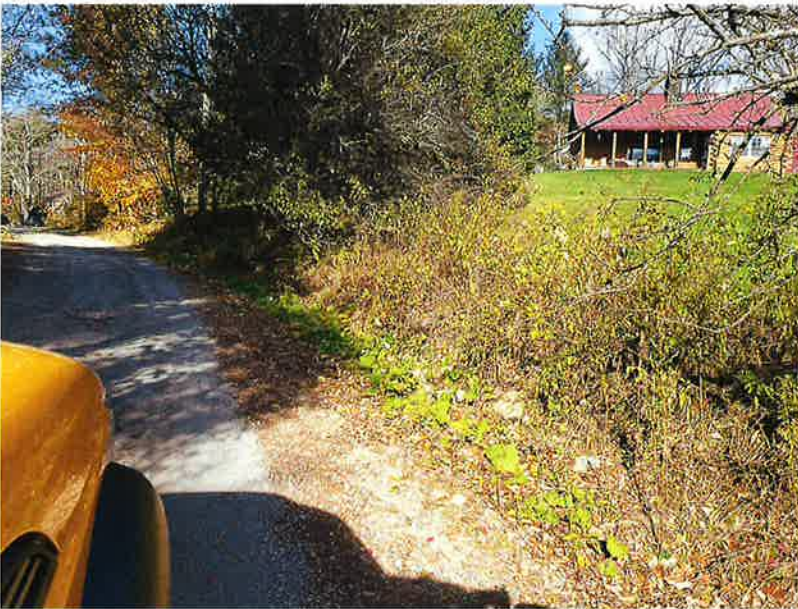
Picture 6

This grant application includes performing best practices erosion control techniques that include remove trees & brush, excavate the bank removing large rocks and opening the visibility of this blind corner, relocate the telephone pole (work by Green Mountain Power costs not included in the grant) and establish 3' wide U-shaped grass ditches. This road segment has an average grade of 5% and with reduced vegetation the grass ditches is the best practices that will be utilized.

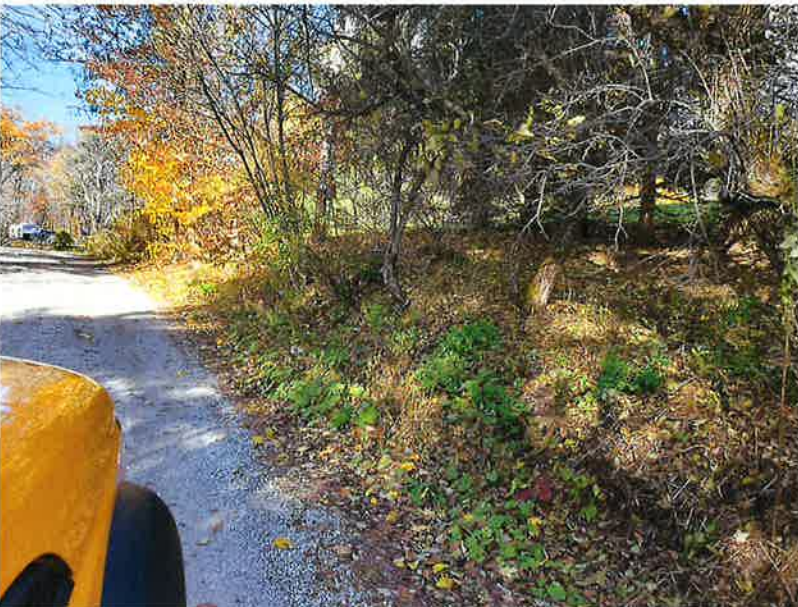
The pictures provided continue to show the entire project length in which the ditches will be constructed on this right side of the road. The road will be banked towards this side of the road around this corner. We expect to conduct the entire project within the town's right of way, but do have the support of this landowner on the right with the red roofed log cabin to remove whatever trees necessary to achieve the desired results.



Picture 7



Picture 8 above and 9 below



The project will continue through pictures 7-9 continuing to remove brush and trees, excavate the bank and install the U shaped grass ditches. We have discussed removal of the large evergreen pictured here with the landowner. It is located just outside the project width, but excavation of the bank may compromise the root structure and it may need to be removed.

In picture 9, there is a second power pole that may need to be relocated by Green Mountain Power. The project will be able to get the ditch installed without removal of the pole, however GMP may choose to relocate based on moving the location of the first pole noted at the start of the project location.

Picture 9 is also the end of RSID 118472. All excavated soils will be seeded and mulched. All exposed soils from excavated banks will be matted to stabilize the soils.



Picture 10



Picture 11



Picture 12

The installation of the ditches continues through picture 10 and stops at the root cellar pictured in #11. The root cellar is privately owned and is located in the town's right of way. It is actually a cement bunker with a stone façade made from locally collected rocks. Although not technically historical, the project scope utilized best practices to avoid disturbing the root cellar.

Currently, some water is directed down the road in front of the root cellar. The reconstruction project will take all water from root cellar down the road back to the project beginning. All water from the root cellar to the end of the road will be directed into a catch basing and deposited to a vegetated area.

The next page will show the installation of a catch basin located behind the pictured mail-boxes in Picture 12.



Picture 12



Picture 13



Picture 14

Pictured here in 12-14, we arrive at the end of Journeys End where 5 driveways to 6 houses all come together. Currently, water sheets across the road from the right of these pictures to the left.

The project scope included in this application would remove the large rock pictured in #13 and install U shaped ditches to a catch basin and then through a 24" culvert (24"X60') to outlet into a vegetated area to the left of the driveway at the blue arrow pictured in #14 (beyond the ferocious dinosaur lawn sculptures—bet that description has never been included in a grant application before)

Some brush removal will clear the outlet of the culvert installation. This is the location most of the water that sheets across the road ends up now. The scope of work also includes the replacement of a 18" driveway culvert (18"X30') for the brown house pictured in #14 and deposits this water into a well formed grass ditch line to the right of the next driveway (opposite site of the blue arrow) where water is able to filter into the ditch line.

Reminder: As part of the overall project and not included in the grant cost is to reconstruct the road base and prepare for paving.

The location picture in #14 is the end of the project location noted on



1 : 2,571
December 13, 2019

131.0
0 66.00 131.0 Meters
1" = 214 Ft. 1cm = 26 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.



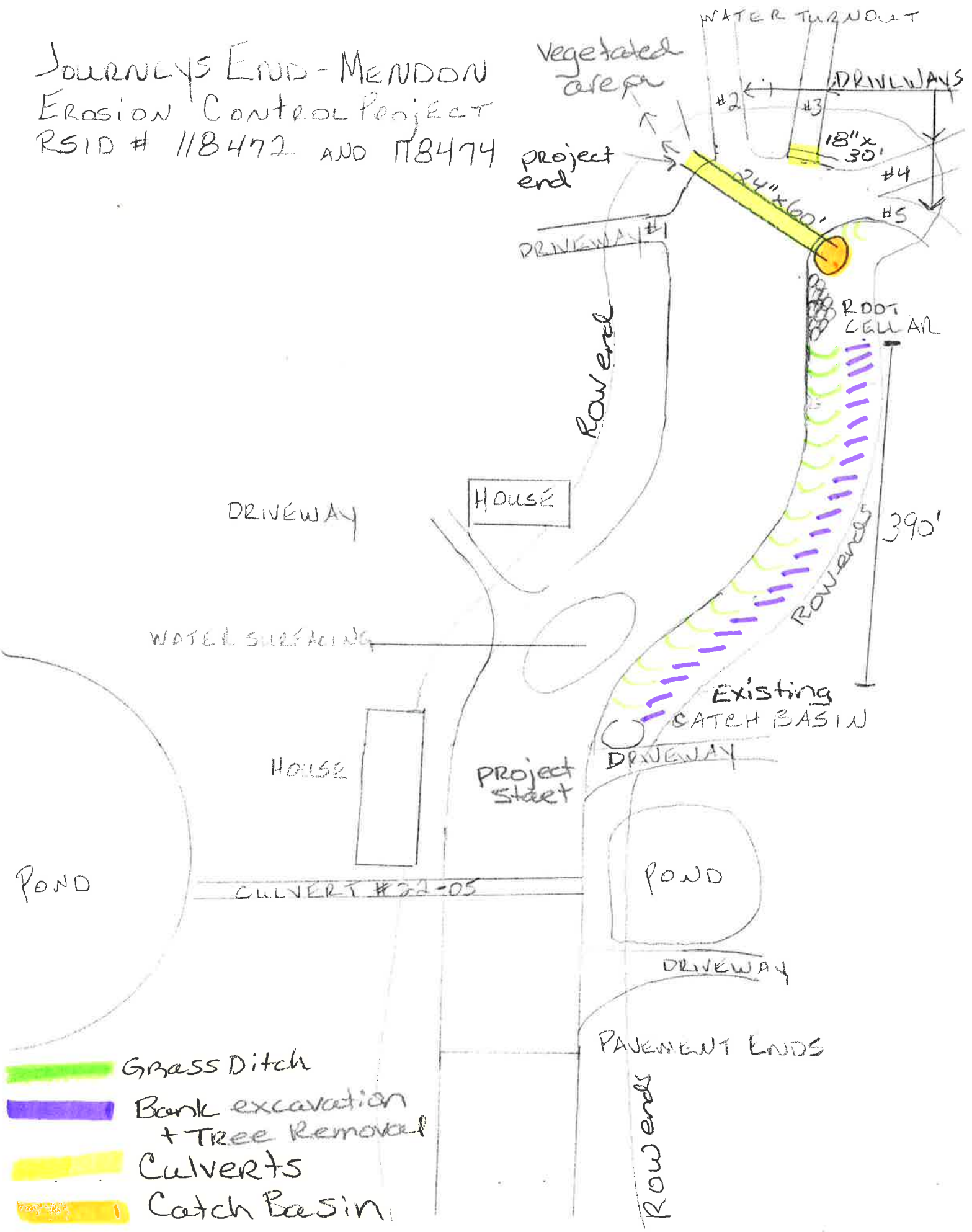
LEGEND

- Hydrologically Connected Roa (MRGP)
 - Yes
 - Yes (Catch Basin)
 - No
- Parcels (standardized)
- Parcels (non-standardized)

NOTES

Map created using ANR's Natural Resources Atlas

JOURNEYS END - MENDON
 EROSION CONTROL PROJECT
 RSID # 118472 AND 118474



- Grass Ditch
- Bank excavation + Tree Removal
- Culverts
- Catch Basin



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River Management Engineer Support Letter

I am providing this letter of support to the Town/City/Village of Mendon for their Better Roads grant application on Journey End 22, which will have an impact on None
Mile Marker, Road Name/TH Number
Name of River/Stream

Stream Alteration Permit Required for this project: Yes No

Upon review of the site, I have determined that the proposed project is eligible for a Stream Alteration Permit. Additionally, if this project is constructed according to the recommendations described below (see Comments), the following stream equilibrium and connectivity benefits will be achieved:

- Restores or enhances floodplain/access to floodplain
- Restores or enhances natural channel dimensions
- Establishes tree/shrub buffer
- Restores habitat (including aquatic organism passage)
- No additional benefits
- Further restricts or impacts the stream

Thank you for your consideration,

Signature

Comments: Josh Carvajal has conducted a site visit of the project location and determined a stream alteration permit is not Required.



RUTLAND REGIONAL PLANNING COMMISSION

December 15, 2021

Mr. Ross Gouin
Better Roads Program Coordinator
Vermont Agency of Transportation
219 N Main Street
Barre, VT 05641

Dear Ross:

The Rutland Regional Planning Commission (RRPC) is pleased to offer its support for the Town of Mendon's Better Roads Category B Grant for Journeys End Rd.

The proposed project will reconstruct the roadway, establish new grass-lined ditches, and install a new drainage culvert. The project will upgrade one road segment ID #118472 (does not meet) to fully meet the MRGP standard. The upgrade to Journeys End Rd will improve drainage, reduce erosion, and prohibit sedimentation of nearby surface waters. The road segment upgrade is a feasible project that will improve water quality within the Rutland City Watershed.

The RRPC fully supports the Town of Mendon and encourages VTrans to fund the Category B Grant on Journeys End Rd.

Thank you,

Devon Neary
Transportation Planner

The Opera House | 67 Merchants Row | Rutland, Vermont

P.O. Box 430 | Rutland, Vermont 05701

RutlandRPC.org | (802) 775-0871

Cooperative planning in the region.