VERMONT

Vermont Department of Environmental Conservation *Agency of Natural Resources*
Watershed Management Division
St. Johnsbury Regional Office
1229 Portland Street, Suite 201
St. Johnsbury, VT 05819 [fax] 802-748-6687
www.watershedmanagement.vt.gov [cell] 802-279-1143

AUTHORIZATION TO CONDUCT STREAM ALTERATION ACTIVITIES

Pursuant to Section C.2.2 of the VT Stream Alteration General Permit (Reporting activities not requiring an application)

Project Number: **SA-3-** 102 **-2016**

Applicant Name: Village of Orleans c/o Larry Wilcox

Mailing Address: One Memorial Square Orleans VT Phone: (802) 754-8584

Project Location Tarbox Hill - Box Culvert Email: —

The Secretary of the Vermont Agency of Natural Resources (VT ANR) has determined that:

1. This project authorizes the replacement of a damaged culvert with a new 8'x8' RCB, with 3' of infill material 'E3'.
2. The proposed activity is eligible for coverage under the VT ANR Stream Alteration General Permit.
3. The proposed activity will meet the terms and conditions of the General Permit provided:
   a) The project will be completed and approved as shown on the plan dated 2/29/16, prepared by Ruggles Engineering, and approved by the Vermont Agency of Natural Resources.
   b) The project will not adversely affect the public safety by increasing flood hazards.
   c) The project will not significantly damage fish life or wildlife.
   d) The project will not significantly damage the rights of riparian owners.
   e) The project will not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
   f) The project is conducted in a manner which minimizes or avoids any discharge of sediment or other pollutants to surface waters in violation of the VT Water Quality Standards.
   g) The River Management Engineer is notified by phone or email when construction begins and when the project is complete.
   h) A final construction inspection is required for all culvert and bridge projects.
   i) In-stream working dates are from July 1st through October 1st; any in-stream work outside these dates will require an Individual Stream Alteration Permit authorization by the River Management Engineer.
   j) This authorization has been posted for three days public comment. This authorization constitutes final approval.
   k) Additional Conditions for this project: Project requires a pre & post construction inspection. PJR

If there are any changes in the project plan or deviation in construction from the plan, the Permittee must notify the River Management Engineer immediately.

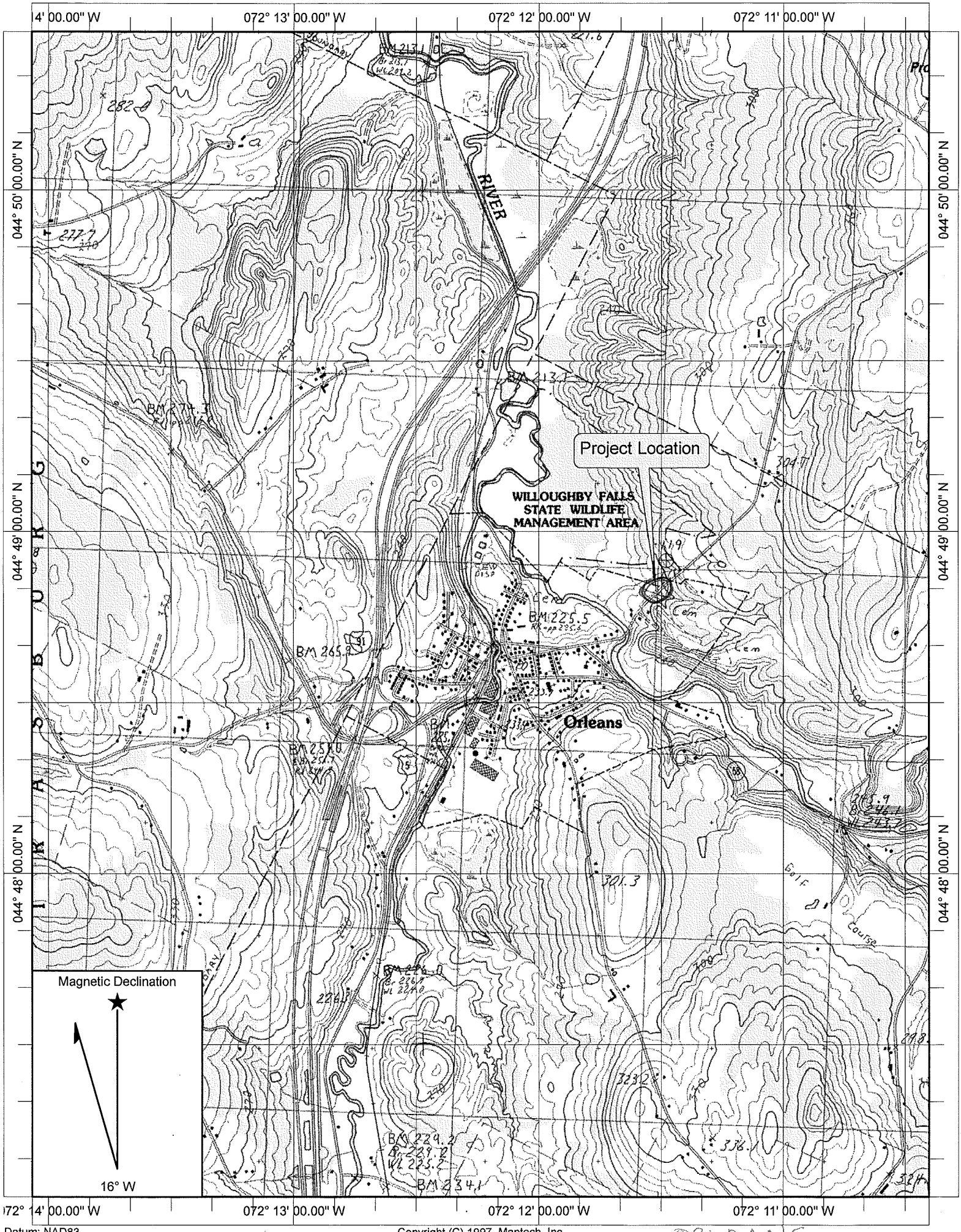
If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

Alyssa B. Schuren, ANR DEC Commissioner

Patrick Ross Dated: 3/14/16

Patrick Ross, P.E., River Management Engineer

Check # 6508



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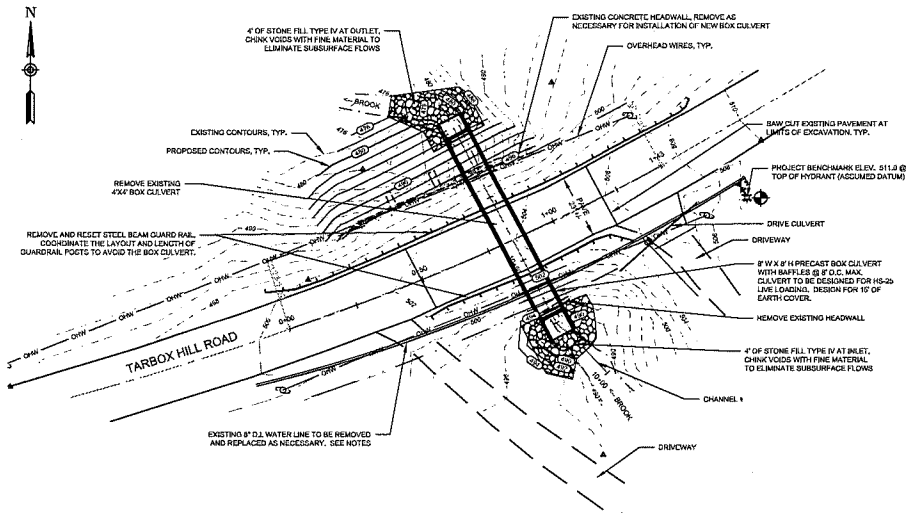
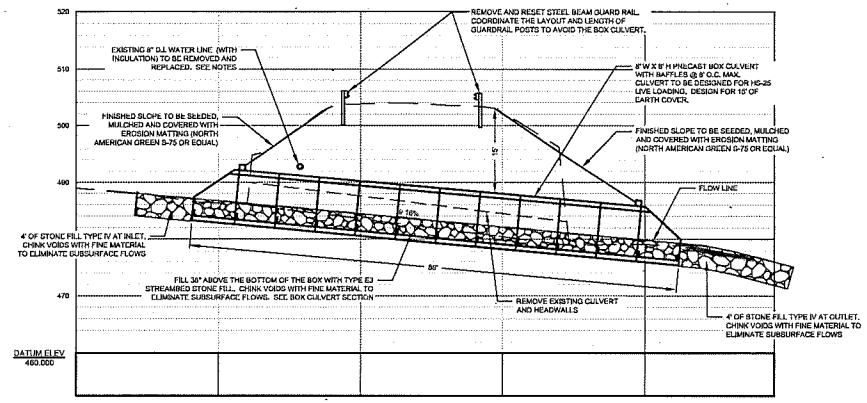


PROJECT PLAN VIEW
1" = 20'



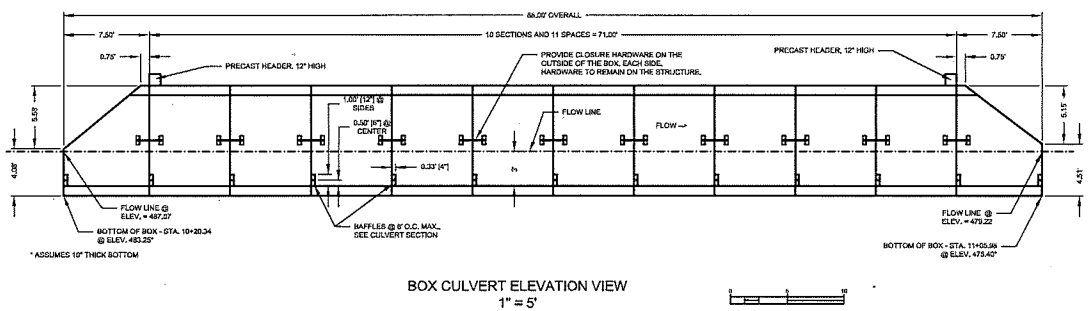
BOX CULVERT PROFILE @ CHANNEL ℄
1" = 10'

GENERAL NOTES:

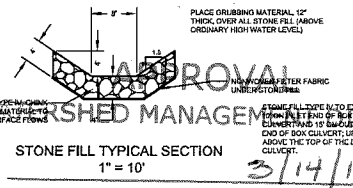
1. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL.
2. THE CONTRACTOR SHALL COORDINATE A PRE CONSTRUCTION AND A POST CONSTRUCTION SITE VISIT BY PATRICK ROSS, RIVER MANAGEMENT ENGINEER (#802-279-1143). AT THE PRE CONSTRUCTION VISIT THE CONTRACTOR SHALL PROVIDE:
   - 2.1. A DETAILED WORK PLAN INCLUDING (BUT NOT LIMITED TO):
     - 2.1.1. DEWATERING AND CONTROL OF WATER DURING CONSTRUCTION (INCLUDING PLACEMENT OF STONE FILL).
     - 2.1.2. EROSION AND SEDIMENT CONTROL MEANS AND METHODS.
3. IN-STREAM CONSTRUCTION SHALL ONLY TAKE PLACE BETWEEN JUNE 1 TO OCTOBER 1.
4. COORDINATE TRAFFIC MAINTENANCE WITH THE VILLAGE OF ORLEANS. A TEMPORARY DETOUR WILL NOT BE REQUIRED. THE ROAD MAY BE CLOSED FOR NO MORE THAN 14 CONSECUTIVE DAYS. CONSTRUCTION SCHEDULE IS TO BE SUBMITTED FOR APPROVAL BY THE VILLAGE AND BY THE STREAM ALTERATIONS ENGINEER.
   - 4.1. ALL FIREWOOD REMOVED FOR THE PROJECT IS TO BE CUT TO LENGTH AND DELIVERED TO EACH OF THE AFFECTED PROPERTY OWNERS.
5. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION (LATEST VERSION)

WATER LINE NOTES:

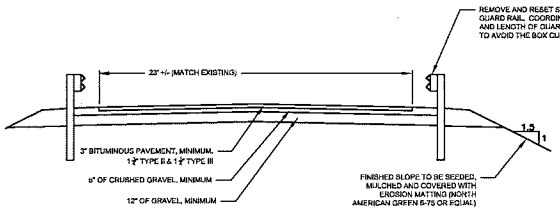
1. THERE IS AN EXISTING 8" DUCTILE IRON WATER LINE WITH PIPE INSULATION ALONG THE SOUTHERLY SIDE OF TARBOX HILL ROAD. A SECTION OF THE WATER LINE AND INSULATION WILL NEED TO BE REMOVED DURING EXCAVATION FOR THE NEW BOX CULVERT. THE CONTRACTOR MUST COORDINATE WITH THE VILLAGE OF ORLEANS PUBLIC WORKS DEPARTMENT TO MAINTAIN FLOW TO CUSTOMERS CONNECTED TO THIS WATER LINE.
2. THE VILLAGE OF ORLEANS WILL INSTALL A TEMPORARY VALVE AND/OR CAPS ON EACH END OF THE REQUIRED PIPE REMOVAL SECTION.
   - 2.1. THE CONTRACTOR MUST PROVIDE EXCAVATION AND BACKFILL FOR THE VILLAGE OF ORLEANS TO PERFORM THIS WORK.
3. THE VILLAGE OF ORLEANS WILL RUN TEMPORARY WATER LINES AS REQUIRED.
4. THE CONTRACTOR MUST REMOVE AND RE-INSTALL THE 8" DUCTILE IRON WATER LINE AND INSULATION AS REQUIRED FOR THEIR WORK.
   - 4.1. THE CONTRACTOR MUST PROTECT PIPING FROM CONTAMINATION DURING STORAGE.
   - 4.2. THE VILLAGE OF ORLEANS WILL SUPPLY ANY ADDITIONAL PIPE, INSULATION, OR FITTINGS REQUIRED FOR THE RE-INSTALLATION. THE CONTRACTOR SHALL SUPPLY LABOR, EQUIPMENT AND BACKFILL.
   - 4.3. THE CONTRACTOR SHALL DISINFECT THE RE-INSTALLED SECTION OF WATER LINE IN ACCORDANCE WITH AWWA STANDARDS.
   - 4.4. THE CONTRACTOR SHALL PERFORM PRESSURE AND LEAKAGE TESTING OF THE RE-INSTALLED SECTION IN ACCORDANCE WITH AWWA STANDARDS.



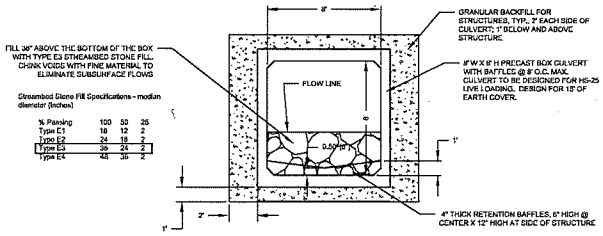
BOX CULVERT ELEVATION VIEW
1" = 5'



STONE FILL TYPICAL SECTION
1" = 10'



ROADWAY TYPICAL SECTION
1" = 4'



% Passing	100	50	25
Type E1	18	12	2
Type E2	24	18	2
Type E3	36	24	2
Type E4	48	36	2

BOX CULVERT TYPICAL SECTION
1" = 4'

APPROVAL
FINISHED MANAGEMENT DIVISION
DATE 3/14/16
BY
THIS APPROVAL IS SUBJECT TO THE TERMS AND CONDITIONS OF STREAM ALTERATION PERMIT# SA-3-102-2016 ISSUED HEREWITH

ORLEANS

RUGGLES ENGINEERING SERVICES, INC.
4000 MAIN STREET, DRIVE, ST. JOHNSBURY, VT 05819
Civil Engineering-Site Development
Septic System Design-Soils Analysis
802-748-5069
JOB No. 15060

PREPARED FOR:
VILLAGE OF ORLEANS
ORLEANS, VT
Address

STRUCTURE REPLACEMENT PROJECT
TARBOX HILL ROAD

REVISIONS

No.	Description	Date

Designed: T.R.
Drawn: -
Checked:
DATE: 02/29/16

Sheet 1 of