



55 Leroy Road, Suite 15
Williston, VT 05495
Tel: 802-497-3653 Fax: 802-497-3656

November 2nd, 2016

Zapata Courage
District Wetland Ecologist
Vermont Department of Environmental Conservation
Watershed Management Division
One National Life Drive, Main Bldg., 2nd Floor
Montpelier, VT 05620

**Re: Brandon NH 019-3(496)
Vermont General Wetland Permit Application**

Ms. Courage:

EIV Technical Services (EIV) is assisting CLD Consulting Engineers with wetland delineation and environmental permitting for the Brandon NH 019-3(496) project. The project is located on US Route 7 in Brandon, VT. It begins approximately 3.34 miles north of the Pittsford/ Brandon town line and extends northerly 1.15 miles. There is a Class II wetland on the western side of US Route 7, approximately 1550 feet north of the VT Route 73 and US Route 7 intersection in the town of Brandon.

Work to be performed within the contract includes the removal and disposal of the concrete road, widening and full depth reconstruction of US Route 7, reconstruction of side roads, sidewalks, and construction of parking areas. Additionally, grading will be performed, drainage improved, water and sewer lines replaced, aerial and underground utilities relocated as necessary, and the replacing or installing of traffic signals, signs, and pavement markings.

In the location of the wetland, several drop inlets and catch basins will be added to improve the current US Route 7 drainage patterns. The system will discharge via a new 42" RCP Class III culvert to a Type II stone outlet pad. The pad will help trap sediment and dissipate erosive energy before flows enter the wetland.

Included in this submission is a location map with the resource areas demarcated and a plan sheet that shows wetland and buffer impacts.

Wetland Impacts

EIV delineates and characterizes wetlands in the field using methods outlined in the US Army Corps of Engineer's (COE) Northcentral and Northeast Interim Regional Supplement. A field visit was made to the project site on November 1, 2016 by Emmalee Cherington, wetland scientist, to identify hydrophytic plant species and better characterize any wetland habitat occurring in the project area. Zapata Courage met her onsite to confirm the wetland boundary within the project area. Ms. Cherington identified jurisdictional Class II wetland area within the

project area, which is also part of a larger 11.07-acre complex. The wetland complex is an emergent swamp with a forested component, dominated by *Typhia angustifolia*.

Summary

In summary, this submission provides information to address permit requirements for a Vermont Wetland General Permit. This project will require 807 square feet of permanent wetland area impacts, and 1680 square feet of buffer impacts.

Feel free to contact me with any questions regarding this submission, 802-497-3653.

Sincerely,
EIV Technical Services



Emmalee Cherington, E.I., CPESC
Environmental Engineer

Enclosures
cc:

Vermont Wetlands Program General Permit Qualification Form

Under Sections 9
of the Vermont Wetland Rules



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
WATERSHED
MANAGEMENT DIVISION
WETLANDS PROGRAM

1. General Permit Eligibility Checklist:

If you cannot verify all of the following, stop and proceed to the Individual Permit Application.

- The activity does not qualify as an Allowed Use under [Section 6](#) of the Vermont Wetland Rules.
- The activity does not need additional conditions to protect functions and values.
- All impacts have been avoided and minimized to the greatest extent possible.
- The wetland complex is not significant for Function 5.5 Exemplary Wetland Natural Community or 5.6 Rare, Threatened and Endangered Species Habitat, or applicant has received a waiver letter from VT Fish and Wildlife. (attach waiver)
- The activity is not located in or adjacent to a [vernal pool, fen, or bog](#).
- The wetland is not at or above 2,500' in elevation (headwaters wetland).
- The project is not located in a Class I wetland or associated buffer zone.
- The activity is not an as-built project that constitutes a violation of the Vermont Wetland Rules.
- The activity is not associated with an activity which received a Wetland Permit.

2. Project Type *(as described in the General Permit)*

3. Wetland Type Proposed for Impact

4. 50ft Wetland Buffer Proposed for Impact

5. **Activity Threshold** *based on the selections above, select the appropriate threshold. If the activity is greater than the thresholds below, stop and proceed to the Individual Permit Application. eg: Project type is non-linear, wetland and buffer type is managed and natural, and total impacts are 700 sqft → choose option (d) below.*

- (a) The total activity impacts proposed are <3,000 square feet of managed wetland or buffer **and** will not exceed 999 square feet of natural wetland or buffer **and** will not exceed 149 square feet of surface water margins.
- (b) The activity is associated with a linear project **and** total activity impacts proposed are <5,000 square feet of managed wetland or buffer **and** will not exceed 2,999 square feet of natural wetland or buffer **and** will not exceed 149 square feet of surface water margins.

6. **Section 8B Specific Activity Best Management Practices** *All permittees covered under the VT Wetland General Permit must implement best management practices (BMP) under section V. of the permit. Here, identify if the proposed activity must implement special BMPs in accordance with Section 8B*

- 8B(a) Placement, relocation, removal, or upgrade of overhead utility lines
- 8B(b) Installation of underground facilities including utilities, dry hydrants, foundation drains, and wells
- 8B(c) Activities in surface water body margins
- None Apply

The Secretary may require a person applying for an authorization under a general permit to apply for an individual permit. VWR §9.8. Contact your District Ecologist to verify eligibility before submittal.

Vermont Wetlands Program Permit Application Database Form

Under Sections 8 and 9
of the Vermont Wetland Rules



Application Submittal Instructions

- If submitting via US post, include a check in the correct fee amount made payable to the **“State of Vermont,”** and a CD for applications that contain large files (1 MB or greater).

Mail to: Vermont Wetlands Program
 Watershed Management Division
 One National Life Drive, Main 2
 Montpelier, VT 05620-3522

- Applications can also be submitted via email to the following address: anr.wsmdwetlands@vermont.gov
 - If submitting via email, please mail a check in the correct fee amount, made payable to the **“State of Vermont,”** and a copy of the Vermont Wetlands Program Application Database Form (this page) to the address provided above. ***It is not necessary to mail in a copy of the complete application.***

Applicant Name:	Application Preparer Name:
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Town where project is located:	County:
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Span#:	Vermont Wetlands Project (VWP)# if Known:
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Project Location Description:
911 street address or direction from nearest intersection

Brief Project Summary:

Application Type:
 Individual Permit (multiple wetlands)
 After the Fact Permit
 Wetland Determination
 Individual Permit (single wetland)
 General Permit Coverage Authorization
 Permit Amendment: VWP Project # _____

Existing Land Use Type(s): *(Check all that apply)*
 Residential (single family)
 Residential (subdivision)
 Undeveloped
 Agriculture
 Transportation
 Forestry
 Parks/Rec/Trail
 Institutional
 Industrial/Commercial

Proposed Land Use Type(s): *(Check all that apply)*
 Residential (single family)
 Residential (subdivision)
 Undeveloped
 Agriculture
 Transportation
 Forestry
 Parks/Rec/Trail
 Institutional
 Industrial/Commercial

Proposed Impact Type(s): *(Check all that apply)*
 Buildings
 Utilities
 Parking
 Septic/Well
 Stormwater
 Driveway
 Park/Path
 Agriculture
 Pond
 Lawn
 Dry Hydrant
 Beaver Dam Alteration
 Silviculture
 Road
 Aesthetics
 No Impact
 Other: _____

Wetland and Buffer Impact Type: *(Check all that apply)*
 Dredge
 Drain
 Cut Vegetation
 Stormwater
 Trench/Fill
 Other: _____

Wetland Delineation Date(s):

Wetland Improvements	Buffer Zone Improvements	Reason for Improvements
Restoration: s.f.	Restoration: s.f.	<input type="checkbox"/> Correction of Violation <input type="checkbox"/> To offset permit impacts <input type="checkbox"/> Voluntary
Creation: s.f.	Creation: s.f.	
Enhancement: s.f.	Enhancement: s.f.	
Conservation: s.f.	Conservation: s.f.	

Wetland Impact Fee Calculations: *Round to the nearest square foot. Fees will auto-calculate.*

Total Wetland Impact <i>(minus linear clear, including ATF)</i>	square feet (s.f.)	Wetland Impact Fee: (\$0.75/sf)	\$
Total Wetland Clearing <i>(qualified linear projects only)</i>	square feet (s.f.)	Wetland Clearing Fee: (\$0.25/sf)	\$
After The Fact Wetland Impact <i>(to correct a violation)</i>	square feet (s.f.)	After the Fact Wetland Fee: (0.75/sf) <i>(Required for after the fact permit applications)</i>	\$

Total Buffer Zone Impacts and Calculations: *Round to the nearest square foot*

Total Buffer Zone Impact	square feet (s.f.)	Buffer Impact Fee: (\$0.25/sf)	\$
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Additional Fees

	Agricultural Crop Conversion <i>Check here:</i> <i>(Flat fee of \$200.00)</i>	\$
	Minimum Application Fee: (\$50.00) <i>Required when total impact fee is less than \$50.00</i>	\$
	Administrative Fee:	\$

Make Checks Payable to: State of Vermont	Total Check Amount:	\$
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**Application for Authorization Under
the Vermont General Wetland Permit
and Determination Petition**
Under Sections 8 and 9
of the Vermont Wetland Rules



Applicant Information: <i>If the applicant is someone other than the landowner, the landowner information must be included below</i>			
Applicant Name: Daryl Burtlett representing the Town of Brandon			
Address: 49 Center Street	City/Town: Brandon	State: Vermont	Zip: 05733
Phone Number: 802-247-3636 ext. 211	Email Address: dburtlett@townofbrandon.com		
Applicant Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Applicant Signature:			Date: 11-3-16

Landowner Information: <i>Landowner must sign the application. If landowner is different from the applicant this section must be filled out</i>			
<input checked="" type="checkbox"/> Check this box if landowner is the same as the applicant			
Landowner Name:			
Address:	City/Town	State:	Zip:
Phone Number:	Email Address:		
Landowner Easement: <i>Attach copies of any easements, agreements, or other documents conveying permission, and agreement with the landowner stating who will be responsible for meeting the terms and conditions of the permit. List the attachment for this information in this section. Describe the nature of the agreement or easement in the space provided below:</i>			
Landowner Certification: By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Landowner Signature:			Date: 11-3-16

Application Preparer Information: <i>Consultant, engineer, or other representative that is responsible for filling out the application, if other than the applicant or landowner.</i>			
Application Preparer Name: Emmalee Cherington			
Address: 55 Leroy Rd, Suite 15	City/Town: Williston	State: VT	Zip: 05496
Phone Number: (802) 497-3853	Email Address: echerington@elivtech.com		
Application Preparer Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Application Preparer Signature: Emmalee Cherington		Digitally signed by Emmalee Cherington Date: 2016.11.03 12:59:33 -04'00'	Date: 11/03/2016

Handwritten signatures are also accepted.

<p>1. Location of wetland and project: <i>(Individual Permit Application [IPA] Section 1)</i> <i>Location description should include the road the wetland is located on, the compass direction of the wetland in relation to the road, 911 street address if available, and any other distinguishing features.</i></p>	
<p>2. Program Contact: <i>(IPA Section 2)</i> <i>Indicate here if you have been in contact with the Wetlands Program before the application submittal.</i></p>	
<p>2.1 Date of Interaction with State Wetland Ecologist</p>	<p>2.2. State Wetland Ecologist Name</p>

<p>3. Wetland Classification: <i>(IPA Section 3)</i></p>
<p>3.1. The wetland is a class II wetland because: <i>(IPA Section 3.1)</i></p>
<p>3.2. Section 4.6 Presumption <i>(IPA Section 3.2)</i> <i>If the wetland meets the Section 4.6 Presumption, it does so because:</i></p>

<p>4. Description of Entire Wetland: <i>(IPA Section 4)</i> <i>Answer the following questions regarding the entire wetland, which includes all wetland areas connected to the wetland area proposed for impact. Answers may be estimates based on desktop review when wetland extends past the investigation area (parcel boundary). Specific questions about the wetland in the project area will follow.</i></p>
<p>4.1. Size of Complex in Acres: <i>(IPA Section 4.1)</i> <i>The size of the complex can be obtained from the Wetland Inventory Map for mapped wetlands, or best estimation based on review of aerial photography or site visit. This is not the size of the of the delineated wetland on the subject property unless the entirety of the wetland is represented in the delineation.</i></p>
<p>4.2. Vegetation Cover Types Present: <i>(IPA Section 4.2)</i> <i>List all wetland types in the entire wetland and their percent cover.</i> For example: 50 acres of softwood forested swamp; or 30% scrub swamp, 70% emergent wetland</p>
<p>4.3. Pre-project Cumulative Impacts to the Wetland: <i>(IPA Section 4.7)</i> <i>Identify any cumulative ongoing impacts outside of the proposed project that may influence the wetland.</i> Examples include but are not limited to: Wetland encroachments on and off the subject property, land use management in or surrounding the wetland, or development that influences hydrology or water quality. List any past Vermont Wetland Permits or CUD's related to this property.</p>

<p>5. Context of Subject Wetland: <i>(IPA Section 5.1)</i> <i>Describe where the subject wetland is in the context of the larger wetland or wetland complex described above.</i> For example: Upslope/downslope, narrow eastern "finger", 400 ft. from open water portion.</p>

<p>6. Subject Wetland Vegetation: <i>(IPA Section 5.3)</i> <i>List dominant wetland vegetation cover type and associated dominant plant species. For example: emergent marsh with cattails; forested swamp dominated by red maple and yellow birch; shrub swamp dominated by speckled alder and peat moss; wet meadow dominated by reed canary grass.</i></p>

7. Buffer Zone: (IPA Section 5.6)
 Describe the buffer zone of the subject wetland

7.1 Buffer Land Use: (IP Section 5.6.1)
For example: Mowed shoulder, forested, old field, paved road, and residential lawns, etc.
 Describe any previous and ongoing disturbance in the buffer zone.

8. Wetland Function Summary: (IPA Section 6)
 Check which functions are present in the wetland complex

<input type="checkbox"/> Flood/Storm Storage	<input type="checkbox"/> RTE Species
<input type="checkbox"/> Surface & Groundwater Protection	<input type="checkbox"/> Education & Research
<input type="checkbox"/> Fish Habitat	<input type="checkbox"/> Recreation/Economic
<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Open Space/Aesthetics
<input type="checkbox"/> Exemplary Natural Community	<input type="checkbox"/> Erosion Control

9. Overall Project Description: (IPA Section 17)
9.1. Overall Project Purpose: (IPA Section 17.1)
 Description of the basic project.
For example: six-lot residential subdivision; expansion of an existing commercial building, building a single family residence.

10. Project Details: (IPA Section 18)
 Provide details regarding specific impacts to the wetland and buffer zone.

10.1. Specific Impacts to Wetland and Buffer Zone Dimensions: (IPA Section 18.1)
 List portions of the project that will specifically impact the wetland or buffer zone and their dimensions.
For example: driveway crossing with 16' wide fill, installation of buried sewer force main with 5' trench including fill footprint.

10.2. Bridges and Culverts: (IPA Section 18.2)
 Culvert circumference, length, placement and shapes, or bridge details. List any stream alteration permits that are required or obtained where perennial streams or rivers are involved.

11. Wetland and Buffer Zone Impacts: (IPA Section 19)

11.1. Wetland Impacts: (IPA Section 19.1)

Summarize the square footage of impact in the appropriate category. **Round to nearest square foot**

Permanent Wetland Fill	s.f.
Temporary Wetland Impact	s.f.
Other Permanent Wetland Impact <i>(this number includes clearing of woody vegetation, dredging, and does not include fill)</i>	s.f.
Total Wetland Impact:	s.f.

Describe in detail the proposed impact to wetlands

For example: Fill for road crossing, temporary impacts for trench and fill related to utility installation.

11.2. Buffer Zone Impacts: (IPA Section 19.2)

Summarize the square footage of impact in the appropriate category.

Temporary Buffer Impact	s.f.
Permanent Buffer Impact	s.f.
Total Buffer Impact:	s.f.

Describe in detail the proposed impact to buffer zones

For example: Addition of fill along roadway embankment extending into buffer zone.

11.3. Cumulative Impacts: (IPA Section 19.3)

List any potential cumulative or ongoing, direct and indirect impacts on the functions of the wetland.

For example: Increased noise from parking lot, vegetation management, inputs from stormwater pond outlet, reduction in flood storage volume from the addition of fill from the project.

<p>12. Mitigation Sequence: <i>(IPA Section 20)</i> <i>Please refer to Section 9.5b of the rules on Mitigation Sequencing for this section.</i></p>
<p>12.1. Avoidance of Wetland Impacts: <i>(IPA Section 20.1)</i></p>
<p>12.1.1. Can the activity be located on another site owned or controlled by the applicant, or reasonably available to satisfy the basic project purpose? If not, indicate why. Cite any alternative sites and explain why they were not chosen.</p>
<p>12.1.2. Can the proposed activity be practicably located outside the wetland/buffer zone? If not, indicate why. Explain the alternatives you have explored for avoiding the wetland and buffer onsite, And why they are not feasible.</p>
<p>12.2. Avoidance to the Impact to Functions and Values: <i>(IPA Section 20.2)</i></p>
<p>12.2.1. If the proposed activity cannot be practicably located outside the wetland/buffer zone, have all practicable measures been taken to avoid adverse impacts on protected functions?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>12.2.2. What design alternatives were examined to avoid impacts to wetland function? <i>For example: Use of matting, relocation of footprint, etc.</i></p>
<p>12.2.3. What steps have been taken to minimize the size and scope of the project to avoid impacts to wetland functions and values? Include information on project size reduction and relocation.</p>
<p>12.2.4. Explain how the proposed project represents the least impact alternative design. Explain why other alternatives, which you described above, were not chosen.</p>

13. Wetland Determination: (IP Section 21)

If the application involves a wetland determination please answer the following.

- Wetland is mapped or contiguous to the Vermont Significant Wetland Inventory Map
- Wetland is not mapped on or contiguous to the Vermont Significant Wetland Inventory Map

13.1. Reason for Petition: (IP Section 21.1)

Please choose one from the dropdown menu.

13.3. Determination Narrative: (IP Section 21.2)

Please provide any narrative to support the petition for a wetland determination here, including previous decisions by the Secretary or Water Board. Determinations are made based on an evaluation of the functions and values present. Here add narrative description on the functions listed in section 8 of this application and described in section 5 of the Vermont Wetland Rules. **For example:** Wetland provides water storage and surface water protection because it is large in size, concave, and naturally vegetated.

14. Supporting Materials: (IP Section 22)

****ADDITIONAL MATERIALS REQUIRED TO CALL APPLICATION COMPLETE**

14.1. **Location Map: (IP Section 22.1)

Provide a location map that is 8 ½" x 11" and separate from any site plans. The Vermont Natural Resources Atlas is appropriate using USGS topography map base layer, roads, and VSWI wetlands.

Date	Title

14.2. **Site Plan(s): (IP Section 22.2)

Please list by date, date of last revision, author, and title. Plans must include wetland delineation and buffer zones, limits of disturbance, erosion controls, building envelopes, and any permanent memorialization.

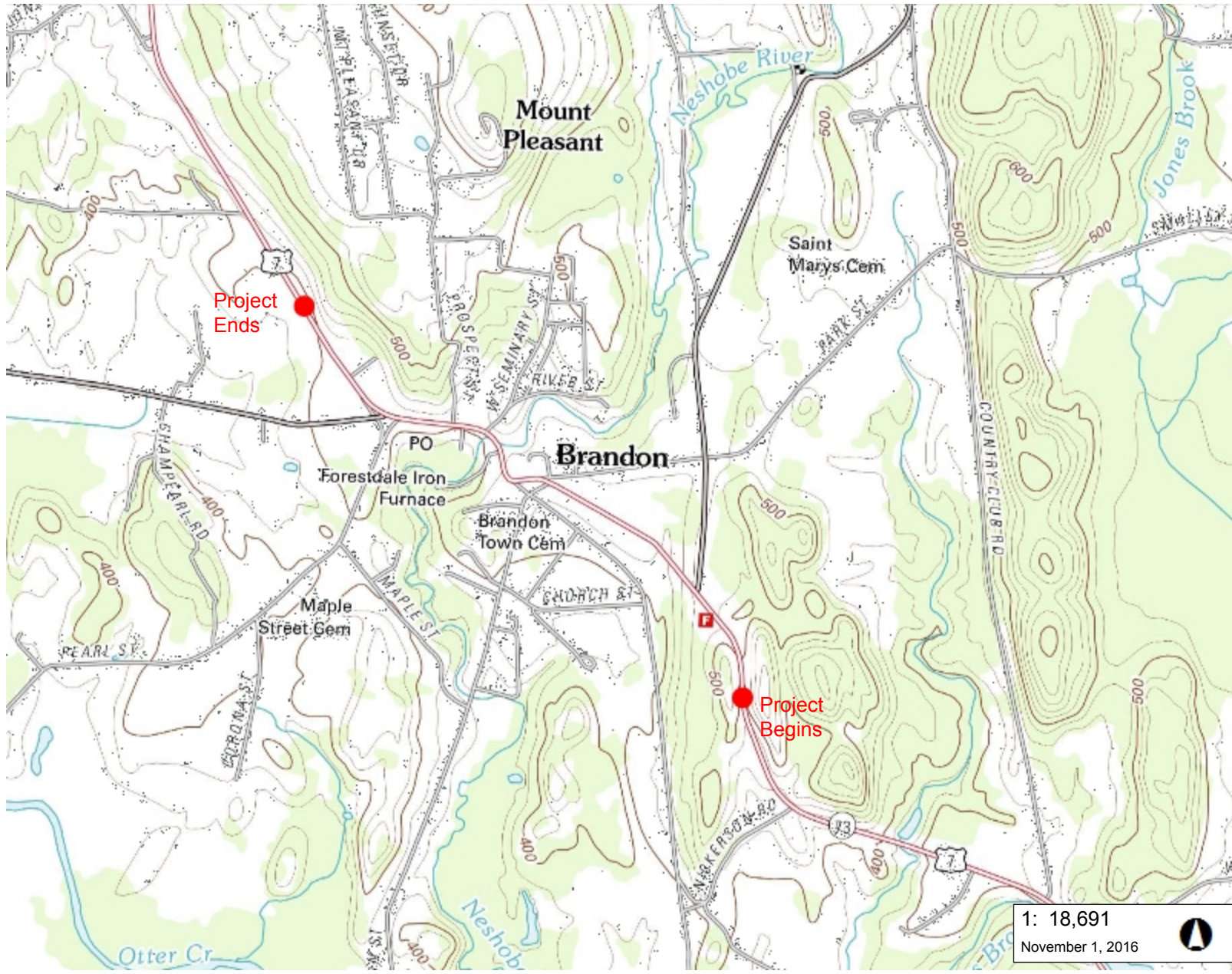
Title	Author	Date	Last Revision Date

14.3. Other Supporting Documents: (IP Section 22.5)

Provide any other documentation that supports the application.

Examples include but are not limited to: Photographs, easements, agreements, restoration/plan, GIS shapefiles, additional ACOE forms.

Date	Last Revision	Author	Title



LEGEND

- Town Boundary

1: 18,691
November 1, 2016

NOTES

Map created using ANR's Natural Resources Atlas

949.0 0 474.00 949.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 1558 Ft. 1cm = 187 Meters
© Vermont Agency of Natural Resources 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

- Wetlands - VSWI
 - Class 1 Wetland
 - Class 2 Wetland
- Rare Threatened Endangered
 - Threatened or Endangered
 - Rare
- Significant Natural Community Uncommon Species and Other
 - Animal
 - Plant
 - Natural Community
- Town Boundary

1: 2,829
October 31, 2016



NOTES

Map created using ANR's Natural Resources Atlas



WGS_1984_Web_Mercator_Auxiliary_Sphere
© Vermont Agency of Natural Resources

1" = 236 Ft. 1cm = 28 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.

Brandon NH 019-3(496)
November 1, 2016



The outlet headwall. The existing culvert is completely silted in and not visible.



Class II Wetland located at the toe of slope of US Route 7. Emergent marsh dominated by *Typha angustifolia*.

Brandon NH 019-3(496)
November 1, 2016



Class II Wetland is located at the toe of Slope of US Route 7.



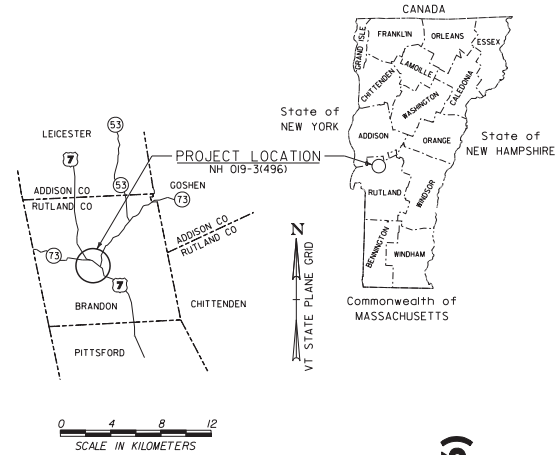
The culvert inlet is not visible. It is located behind the chain-link- fence surrounding the abandoned quarry.

U.S. 7 FROM	BEGIN PROJECT TO VT 73 EAST	VT 73 EAST TO VT 73 WEST	VT 73 WEST TO END PROJECT
2005 ADT	9,000	11,200	8,500
2025 ADT	12,200	15,300	11,500
2025 ADTT	2,100	2,200	1,900
2025 DHV	1,300	1,600	1,200
% D	53% NB	53% NB	53% SB
2025 %T	16%	15%	14%
20 YR ESALS	10,681,000	11,061,000	8,925,000
40 YR ESALS	27,990,000	30,337,000	23,447,000
DESIGN SPEED = 50 KM/HR			
POSTED SPEED = 40 KM/HR			

BITUMINOUS CONCRETE PAVEMENT SUPERPAVE MIXTURE DESIGN CRITERIA	
DESIGN LIFE ESAL'S (DESIGN LANE)	5,862,300
DESIGN NUMBER OF GYRATIONS	100
PERFORMANCE GRADED ASPHALT BINDER	SEE SECTION 490 GENERAL SPECIAL PROVISIONS



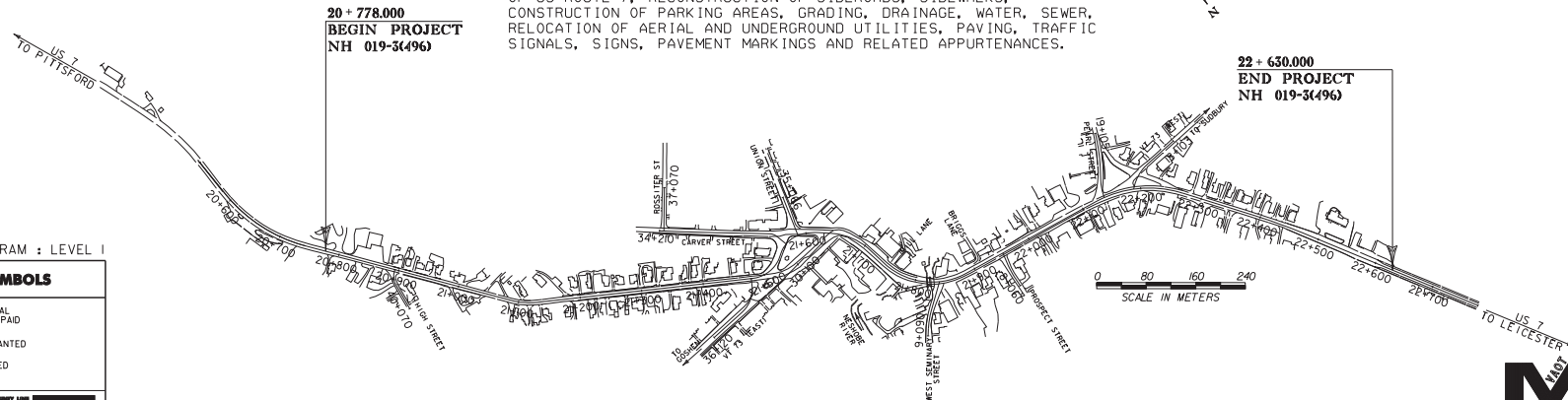
PROPOSED IMPROVEMENT TOWN OF BRANDON COUNTY OF RUTLAND US ROUTE 7 (PRINCIPAL ARTERIAL)



PROJECT LOCATION:
BEGINNING AT A POINT ON US ROUTE 7 APPROXIMATELY 5.373 KM NORTHERLY OF THE PITTSFORD/BRANDON TOWN LINE AND EXTENDING NORTHERLY THROUGH BRANDON VILLAGE 1.852 KM TO A POINT JUST NORTH OF THE VERMONT ROUTE 73 (WEST) INTERSECTION WITH US ROUTE 7.

LENGTH OF ROADWAY 1852.00 METERS
LENGTH OF PROJECT 1852.00 METERS

PROJECT DESCRIPTION:
WORK TO BE PERFORMED INCLUDES THE REMOVAL AND DISPOSAL OF THE CONCRETE ROAD, WIDENING AND FULL DEPTH RECONSTRUCTION OF US ROUTE 7, RECONSTRUCTION OF SIDEROADS, SIDEWALKS, CONSTRUCTION OF PARKING AREAS, GRADING, DRAINAGE, WATER, SEWER, RELOCATION OF AERIAL AND UNDERGROUND UTILITIES, PAVING, TRAFFIC SIGNALS, SIGNS, PAVEMENT MARKINGS AND RELATED APPURTENANCES.



QUALITY ASSURANCE PROGRAM : LEVEL 1

CONVENTIONAL SYMBOLS

⊗	DENOTES TREE OR STUMP REMOVAL (DASHED SIGNIFIES WOODS TREES PAID AS CLEARING/GRUBBING)
⊙	DENOTES TREES TO BE TRANSPLANTED
⊕	DENOTES TREES TO BE PROTECTED DURING CONSTRUCTION
—	COUNTY LINE
—	TOWN LINE
—	LIMITS OF ACCESS
—	POINT OF ACCESS
X	FENCE LINE
○	STONE WALL
—	TRAVELED WAY
—	GUARD RAIL
—	RAILROAD
—	SURVEY LINE
—	CULVERT
⊕	POWER POLE
⊕	TELEPHONE POLE
⊗	TREES
—	CONTROL OF ACCESS
—	PROPERTY LINE
—	R.O.W. TAKING LINE
○	SLOPE RIGHTS
△	TOP OF CUT
△	TOE OF SLOPE
—	(DASHED) SLOPE LINES SIGNIFY TEMPORARY SLOPE LIMITS FOR TRAFFIC CONTROL

SURVEYED BY : VTRANS
SURVEYED DATE : 5-99 (INITIAL)
UPDATED 2003-2005

DATUM
VERTICAL : NAVD 88
HORIZONTAL : NAD 83/92

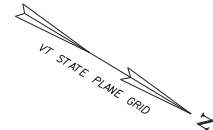


CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

TOWN OF BRANDON
APPROVED _____ DATE _____
PROJECT NAME : BRANDON
PROJECT NUMBER : NH 019-3 (496)
SHEET 1 OF 600 SHEETS

**BRANDON NH 019-3(496)
FINAL PLANS
OCTOBER 4, 2016**

Metric
UNLESS NOTED OTHERWISE
STATIONS ARE IN KILOMETERS
ELEVATIONS ARE IN METERS
DIMENSIONS ARE IN MILLIMETERS



CONSTRUCT DRIVES
 22+544.2 LT (9.1 m WIDE, PAVED - COMM.)
 22+557.4 LT (6.0 m WIDE, PAVED - COMM.)
 22+583.4 LT (16.0 m WIDE, PAVED - COMM.)
 22+624.0 LT (12.0 m WIDE, PAVED - COMM.)

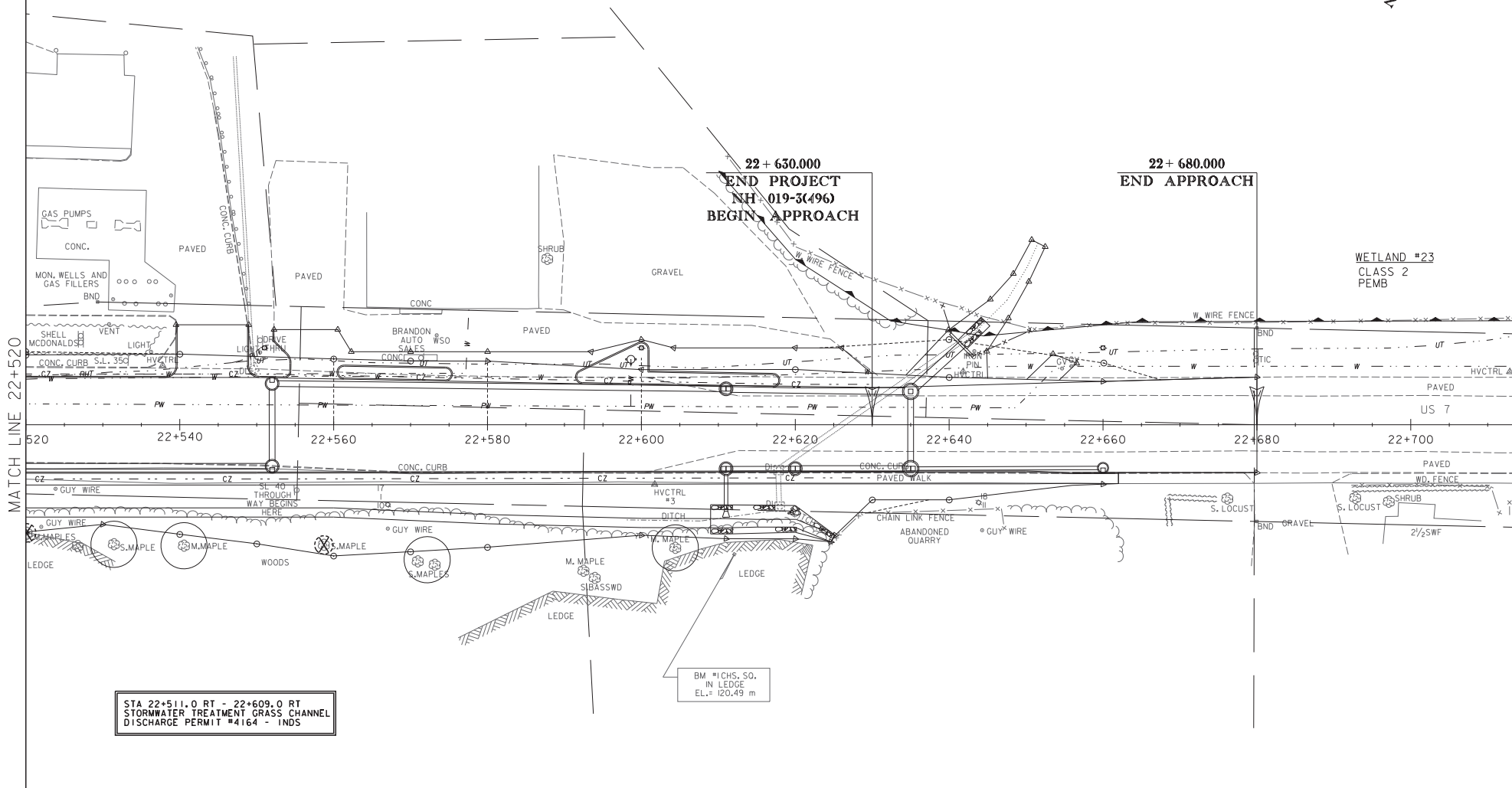
PORTLAND CEMENT CONCRETE SIDEWALK, 125 mm
 22+520.0 - 22+662.0 RT

VERTICAL GRANITE CURB
 22+520.0 - 22+539.6 LT
 22+520.0 - 22+662.0 RT
 22+548.8 - 22+554.4 LT
 22+560.4 - 22+575.4 LT (GRASS ISLAND)
 22+591.4 - 22+618.0 LT (GRASS ISLAND)

REMOVAL OF EXISTING FENCE
 22+639.0 - 22+650.9 LT

WOVEN WIRE FENCE WITH STEEL POSTS
 22+639.0 - 22+640.3 LT
 22+643.2 - 22+650.9 LT

STEEL BRACE FOR WOVEN WIRE FENCE
 22+639.0 LT (2)
 22+640.3 LT
 22+643.2 LT
 22+650.9 LT (2)



MATCH LINE 22+520

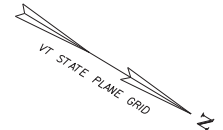
STA 22+511.0 RT - 22+609.0 RT
 STORMWATER TREATMENT GRASS CHANNEL
 DISCHARGE PERMIT #4164 - INDS

BM #1CHS. SO.
 IN LEDGE
 EL. = 120.49 m

ROADWAY LAYOUT 16

PROJECT NAME:	BRANDON	PLOT DATE:	10/4/2016
PROJECT NUMBER:	NH 019-3(496)	DRAWN BY:	N. LEMAY
FILE NAME:	zb008s6-gen.dgn	CHECKED BY:	D. MUNRO
PROJECT LEADER:	C. BEAN	SHEET	128 OF 600
DESIGNED BY:	P. SHEDD		





NEW DRAINAGE

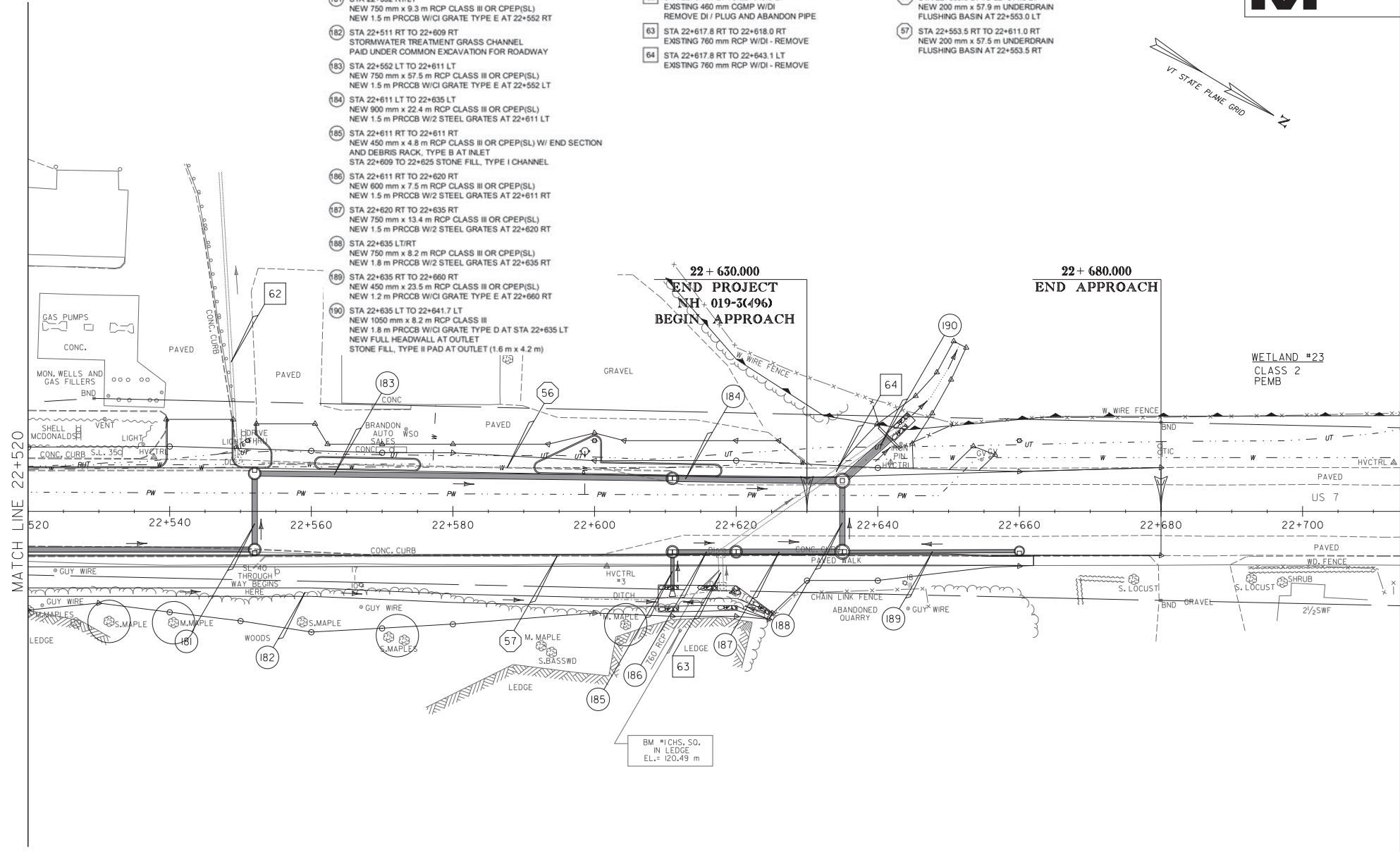
- 181 STA 22+552 RT/LT
NEW 750 mm x 9.3 m RCP CLASS III OR CPEP(SL)
NEW 1.5 m PROCB W/C GRATE TYPE E AT 22+552 RT
- 182 STA 22+511 RT TO 22+609 RT
STORMWATER TREATMENT GRASS CHANNEL
PAID UNDER COMMON EXCAVATION FOR ROADWAY
- 183 STA 22+552 LT TO 22+611 LT
NEW 750 mm x 57.5 m RCP CLASS III OR CPEP(SL)
NEW 1.5 m PROCB W/C GRATE TYPE E AT 22+552 LT
- 184 STA 22+611 LT TO 22+635 LT
NEW 900 mm x 22.4 m RCP CLASS III OR CPEP(SL)
NEW 1.5 m PROCB W/2 STEEL GRATES AT 22+611 LT
- 185 STA 22+611 RT TO 22+611 RT
NEW 450 mm x 4.8 m RCP CLASS III OR CPEP(SL) W/ END SECTION
AND DEBRIS RACK, TYPE B AT INLET
STA 22+609 TO 22+625 STONE FILL, TYPE I CHANNEL
- 186 STA 22+611 RT TO 22+620 RT
NEW 600 mm x 7.5 m RCP CLASS III OR CPEP(SL)
NEW 1.5 m PROCB W/2 STEEL GRATES AT 22+611 RT
- 187 STA 22+620 RT TO 22+635 RT
NEW 750 mm x 13.4 m RCP CLASS III OR CPEP(SL)
NEW 1.5 m PROCB W/2 STEEL GRATES AT 22+620 RT
- 188 STA 22+635 LT/RT
NEW 750 mm x 8.2 m RCP CLASS III OR CPEP(SL)
NEW 1.8 m PROCB W/2 STEEL GRATES AT 22+635 RT
- 189 STA 22+635 RT TO 22+660 RT
NEW 450 mm x 23.5 m RCP CLASS III OR CPEP(SL)
NEW 1.2 m PROCB W/C GRATE TYPE E AT 22+660 RT
- 190 STA 22+635 LT TO 22+641.7 LT
NEW 1050 mm x 8.2 m RCP CLASS III
NEW 1.8 m PROCB W/C GRATE TYPE D AT STA 22+635 LT
NEW FULL HEADWALL AT OUTLET
STONE FILL, TYPE II PAD AT OUTLET (1.6 m x 4.2 m)

EXISTING DRAINAGE

- 62 STA 22+547.1 LT TO 22+549.5 LT
EXISTING 460 mm CGMP W/DI
REMOVE DI / PLUG AND ABANDON PIPE
- 63 STA 22+617.8 RT TO 22+618.0 RT
EXISTING 760 mm RCP W/DI - REMOVE
- 64 STA 22+617.8 RT TO 22+643.1 LT
EXISTING 760 mm RCP W/DI - REMOVE

UNDERDRAIN

- 56 STA 22+553.0 LT TO 22+611.0 LT
NEW 200 mm x 57.9 m UNDERDRAIN
FLUSHING BASIN AT 22+553.0 LT
- 57 STA 22+553.5 RT TO 22+611.0 RT
NEW 200 mm x 57.5 m UNDERDRAIN
FLUSHING BASIN AT 22+553.5 RT



22 + 630.000
END PROJECT
NH # 019-3(496)
BEGIN APPROACH

22 + 680.000
END APPROACH

WETLAND #23
CLASS 2
PEMB

MATCH LINE 22+520



DRAINAGE PLAN 16

PROJECT NAME:	BRANDON
PROJECT NUMBER:	NH 019-3(496)
FILE NAME:	zb008s6-drn.dgn
PROJECT LEADER:	C. BEAN
DESIGNED BY:	M. HALEY
PLOT DATE:	10/4/2016
DRAWN BY:	M. HALEY
CHECKED BY:	D. MUNRO
SHEET	183 OF 600

- **DRAINAGE AREA 5**
DRAINAGE AREA IS FROM W. SEMINARY RD TO NORTH OF PROSPECT ST. RUNOFF IS COLLECTED IN A CLOSED DRAINAGE SYSTEM THAT DISCHARGES TO AN UNNAMED STREAM WHICH CONVEYS TO THE NESHOBIE RIVER. THE TOTAL AREA FOR DRAINAGE AREA 5 IS 17.1 AC.
- **DRAINAGE AREA 6**
DRAINAGE AREA IS FROM NORTH OF PROSPECT ST NORTHERLY TO CRESCENT PARK NEAR THE VT 73 INTERSECTION. RUNOFF IS COLLECTED IN A CLOSED DRAINAGE SYSTEM TO AN OUTFALL LOCATED IN THE WOODS BEHIND THE POST OFFICE BUILDING AT STA. 22+090 LT. THE TOTAL AREA FOR DRAINAGE AREA 6 IS 7.52 AC.
- **DRAINAGE AREA 7**
DRAINAGE AREA IS FROM CRESCENT PARK NEAR THE VT 73 INTERSECTION NORTH TO THE PROJECT LIMIT. RUNOFF IS COLLECTED IN A CLOSED DRAINAGE SYSTEM AND DISCHARGES INTO A CLASS 2 WETLAND ON THE WEST SIDE OF US 7 JUST NORTH OF THE BRANDON AUTO SALES LOT. TOTAL AREA OF DRAINAGE AREA 7 IS 38.4 AC.

DRAINAGE AREA SUMMARY

DRAINAGE AREA	TOTAL DISTURB. (ACRES)	BEGIN - END STATION	DISCHARGE POINT STATION	RECEIVING WATER
1	0.81	218 METERS SOUTH OF BEGIN PROJECT - 20+880	20+880	UNNAMED STREAM
2	2.37	20+880 - 21+240	21+040	UNNAMED STREAM
3A	1.11	21+240 - 21+440	CHURCH ST	UNNAMED STREAM
3B	4.59	21+440 - 21+640	CHURCH ST	UNNAMED STREAM
4	1.27	21+640 - 21+820	21+810	NESHOBIE RIVER
5	1.91	21+820 - 22+020	21+890	NESHOBIE RIVER
6	2.41	22+020 - 22+190	22+090	NESHOBIE RIVER
7	3.52	22+190 - 22+656	22+640	WETLAND

SEE THE EPSC SUMMARY SHEETS FOR FURTHER DETAIL REGARDING DRAINAGE AREAS AND RELATED SLOPE AND SOIL ERODIBILITY.

7. WASTE, BORROW, AND STAGING AREAS

- OFF-SITE WASTE AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. LARGE QUANTITIES OF WASTE ON THE ORDER OF 63,616 CUBIC METERS ARE EXPECTED AS THIS PROJECT HAS SUBSTANTIALLY MORE EXCAVATION THAN EMBANKMENT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE WASTE AREAS THAT WILL BE NEEDED. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER SECTION 105.29 OF THE SPECIFICATIONS.
- LOCATE ADDITIONAL AREAS FOR DISPOSAL OF STUMPS, EXCESS SOILS AND COLLECTED SEDIMENT, IF NECESSARY. DISPOSE OF THESE MATERIALS IN A MANNER THAT WILL NOT RESULT IN SEDIMENTS ENTERING WATERS OF THE STATE.
- DISPOSAL SITES REQUIRE RELATIVELY LEVEL TERRAIN WITH AN ISOLATION DISTANCE OF AT LEAST 30M FROM ANY SURFACE WATERS, INCLUDING WETLANDS.
- VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 300MM OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDED AND MULCHED.
- ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDED AND MULCHED.
- STABILIZED CONSTRUCTION ENTRANCES WILL BE MAINTAINED TO CONTROL VEHICLE TRACKING OFFSITE.

8. WINTER CONSTRUCTION REQUIREMENTS

IT IS EXPECTED THAT CONSTRUCTION ACTIVITIES WILL CONTINUE INTO THE WINTER CONSTRUCTION SEASON, DEPENDING ON ACTUAL FIELD AND WEATHER CONDITIONS. IF ACTIVITIES ARE ON-GOING BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

- ENLARGED ACCESS POINTS STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- DEVELOPMENT OF A SNOW MANAGEMENT PLAN THAT INCLUDES:
 - ADEQUATE STORAGE AND CONTROL OF MELT-WATER
 - STORAGE OF CLEARED SNOW TO BE PLACED DOWN SLOPE OF DISTURBED AREAS AND OUT OF STORMWATER TREATMENT STRUCTURES
- A MINIMUM 7.6-METER (25-FOOT) BUFFER SHALL BE MAINTAINED FROM PERIMETER CONTROLS.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED AHEAD OF FROZEN GROUND.
- MULCH TO BE APPLIED AT TWICE THE REGULAR RATE, AS SHOWN ON THE EPSC DETAILS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- AREAS OF DISTURBED SOILS MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME AREA WITHIN 24 HOURS.
 - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, MUST BE STABILIZED AT THE END OF EACH WORK WEEK.
- PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 25MM (1") THICKNESS.

CONTRACTOR RESPONSIBILITIES, LIMITATIONS & PROHIBITIONS

1. GENERAL NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AMEND/UPDATE ALL PLANS AND EXISTING PERMITS WHEN ADDING DETAILED CONSTRUCTION PHASING OR ANYTHING ELSE THAT MAY DEVIATE FROM THE APPROVED PLANS AS DIRECTED BY THE RESIDENT ENGINEER.
- OTHER THAN THOSE SHOWN ON THE PLANS ALL LAND DISTURBANCES WITHIN 15M (50 FEET) OF ALL WATER BODIES, MEASURED FROM THE TOP OF BANK, AND WETLANDS, ARE PROHIBITED WITHOUT FURTHER REGULATORY REVIEW.
- CONTRACTOR TO MAINTAIN ALL EXISTING STREAMS AND RIPARIAN BUFFER ZONES IN THEIR NATURAL CONDITION.
- OFF-SITE DISCHARGES OF ANY MATERIAL OTHER THAN STORMWATER, SUCH AS VEHICLE AND EQUIPMENT MAINTENANCE SPILLS, FUELS, WASH WATER, CONSTRUCTION DEBRIS, OIL, WET CONCRETE (INCLUDING WASHOUT WATER FROM CONCRETE BATCH TRUCKS OR EQUIPMENT USED TO MIX CONCRETE), AND OTHER SUBSTANCES, ARE PROHIBITED.
- THE FAILURE TO PROMPTLY ABATE THE DISCHARGE OF SEDIMENT OR ANY OTHER WASTE WHICH CAUSES A VISIBLE DISCOLORATION OF SURFACE WATERS (INCLUDING WETLANDS), OR IS FOUND TO BE VIOLATING WATER QUALITY STANDARDS BASED ON MONITORING, IS PROHIBITED. ANY CORRECTIVE ACTION UNDERTAKEN TO REMOVE SEDIMENT FROM A WETLAND IS ALSO PROHIBITED.
- WEATHER CONDITIONS WILL BE MONITORED DURING THE CONSTRUCTION SEASON. IF AN EXTENDED RAIN PERIOD, HEAVY RAIN, OR HEAVY SNOWMELT EVENT IS PREDICTED, EXPOSED SOIL AREAS WILL BE MULCHED PRIOR TO AND DAILY DURING THE RAIN EVENT. IF DETERMINED NECESSARY BY THE RESIDENT ENGINEER, WORK MAY BE SUSPENDED OR LIMITED DURING THE STORM.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED.
- DEWATERING: THE PERMIT WILL REQUIRE A DEWATERING PLAN TO BE APPROVED BY DEC PRIOR TO DEWATERING ACTIVITIES.
- SILT FENCE LOCATIONS SHOWN ON THE FOLLOWING PLAN SHEETS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE SILT FENCE IN ACCORDANCE WITH THE GUIDELINES SET FORTH IN THE VERMONT GENERAL PERMIT FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. THE RESIDENT ENGINEER AND ON-SITE COORDINATOR SHALL APPROVE ALL SILT FENCE LOCATIONS PRIOR TO PLACEMENT.

2. EPSC PLAN

THE CONTRACTOR SHALL SUBMIT AN EPSC PLAN IN ACCORDANCE WITH 652.10 EPSC PLAN AND PROJECT PERMITS. THE PLAN AT A MINIMUM SHALL TAKE INTO CONSIDERATION THE FOLLOWING:

- **DRAINAGE AREA 1**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 0.81 ACRES.
 - STORMWATER RUNOFF TO BE CONTROLLED PRIOR TO, DURING, AND THEN FOLLOWING THE FULL COMPLETION OF THE STONE LINED OUTFALL CHANNEL.

- **DRAINAGE AREA 2**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 2.37 ACRES.
 - INLET CHANNEL, OUTLET CHANNEL AND STORMWATER TREATMENT STRUCTURE SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO RECEIVING RUNOFF FROM THE CLOSED DRAINAGE SYSTEM AND STREAM FLOW.
- **DRAINAGE AREA 3A**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 1.11 ACRES.
 - DRAINAGE AREA 3A TO BE CONNECTED TO DRAINAGE AREA 3B.
- **DRAINAGE AREA 3B**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 4.59 ACRES.
 - PROPOSED SAND FILTER ON ROSSITER ST SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO RECEIVING RUNOFF FROM THE CLOSED DRAINAGE SYSTEM.
 - EXISTING DRAINAGE ON ROSSITER ST BEYOND DMH AT STA. 37+067 WILL NOT BE REPLACED.
- **DRAINAGE AREA 4**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 1.27 ACRES.
- **DRAINAGE AREA 5**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 1.91 ACRES.
 - INLET CHANNEL, OUTLET CHANNEL, OVERFLOW CHANNEL AND STORMWATER TREATMENT STRUCTURE SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO RECEIVING RUNOFF FROM THE CLOSED DRAINAGE SYSTEM AND STREAM FLOW.
- **DRAINAGE AREA 6**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 2.41 ACRES.
 - STONE LINED OUTLET CHANNEL AND STORMWATER TREATMENT STRUCTURE SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO RECEIVING RUNOFF FROM THE CLOSED DRAINAGE SYSTEM.
- **DRAINAGE AREA 7**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 3.52 ACRES.
 - INLET AND OUTLET CHANNELS SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO RECEIVING RUNOFF FROM THE CLOSED DRAINAGE SYSTEM.

THE EPSC PLAN SHALL ALSO INCLUDE INFORMATION REGARDING:

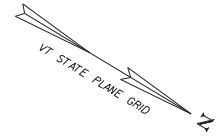
- THE CONSTRUCTION OF STONE PADS, INCLUDING STREAM DIVERSION PLANS
- METHOD FOR TREATMENT OF DISCHARGE FROM DEWATERING.
- STABILIZATION OF OPERATIONAL STORMWATER TREATMENT PRACTICES PRIOR TO DIRECTING RUNOFF TO THEM.

3. INSPECTION & MONITORING NOTES

- CONTRACTOR TO CONDUCT INSPECTIONS AND MONITORING IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND PERMIT SPECIFIC REQUIREMENTS.

EROSION PREVENTION & SEDIMENT CONTROL NARRATIVE

PROJECT NAME:	BRANDON		
PROJECT NUMBER:	NH 019-3(496)		
FILE NAME:	zb008s6-ecnotes.dgn	PLOT DATE:	11/4/2016
PROJECT LEADER:	C. BEAN	DRAWN BY:	N. LEMAY
DESIGNED BY:	N. LEMAY	CHECKED BY:	J. BRZEZOWSKI
		SHEET	190 OF 600



PROJECT DEMARCATION FENCE

22+520.0 - 22+539.0 LT
 22+520.0 - 22+624.5 RT
 22+646.8 - 22+679.0 RT

GEOTEXTILE FOR SILT FENCE,

WOVEN WIRE REINFORCED
 22+626.8 - 22+637.1 LT
 22+636.4 - 22+651.7 LT
 22+650.2 - 22+662.1 LT

BARRIER FENCE

22+625.5 - 22+668.1 LT

TEMPORARY EROSION MATTING

22+520.0 - 22+530.0 RT
 22+520.0 - 22+609.0 RT (DITCH)
 22+605.0 - 22+620.0 RT
 22+626.6 - 22+667.6 LT
 22+640.0 - 22+652.0 LT (DITCH)

INLET PROTECTION DEVICE, TYPE I

22+552.0 RT
 22+552.0 LT
 22+611.0 RT
 22+611.0 LT (PIPE)
 22+620.0 RT
 22+635.0 LT
 22+635.0 RT
 22+660.0 RT

TEMPORARY STONE CHECK DAM, TYPE I

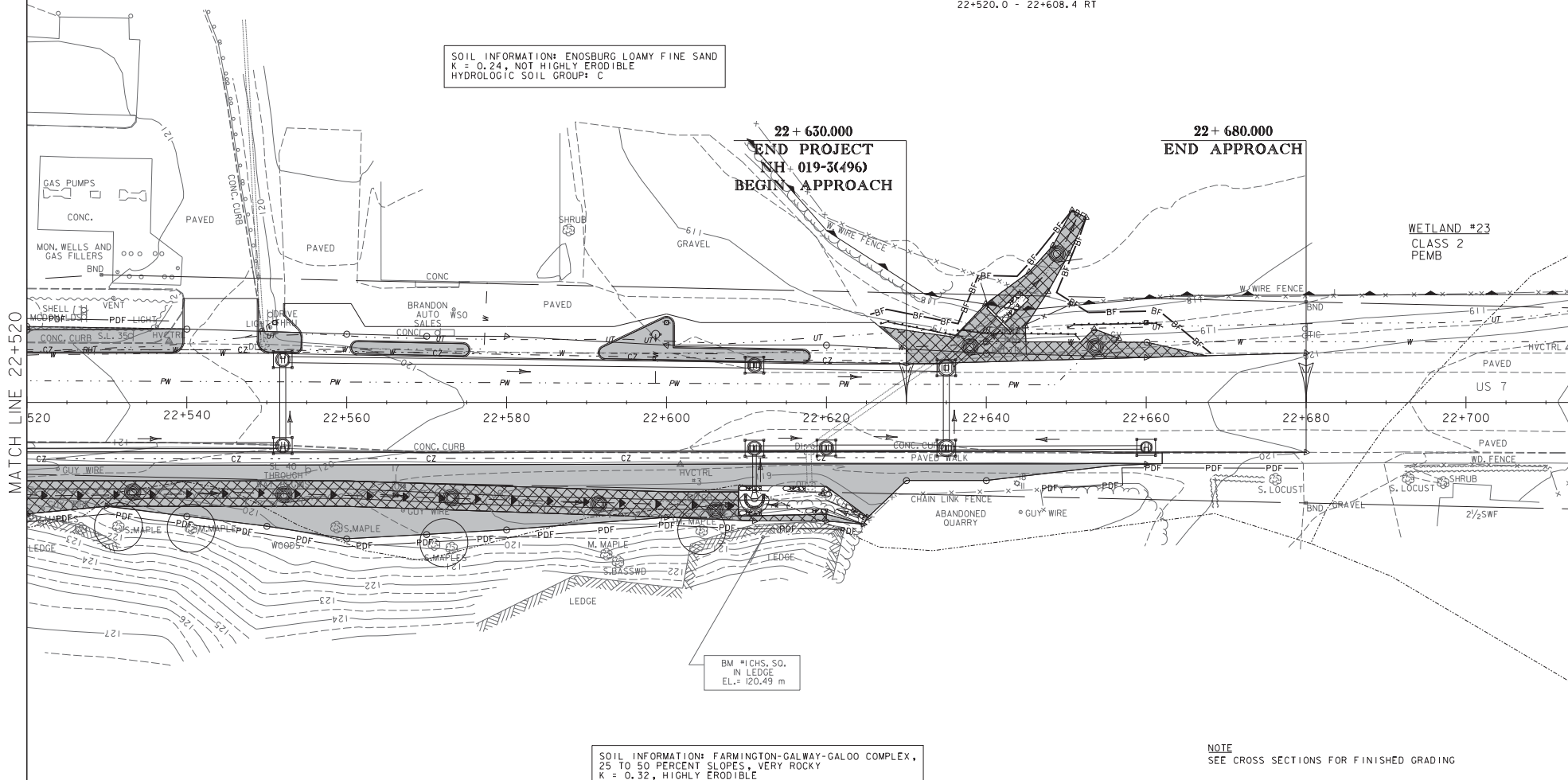
22+520.0 - 22+608.4 RT

SOIL INFORMATION: ENOSBURG LOAMY FINE SAND
 K = 0.24, NOT HIGHLY ERODIBLE
 HYDROLOGIC SOIL GROUP: C

22+ 630.000
END PROJECT
NH 019-3(496)
BEGIN APPROACH

22+ 680.000
END APPROACH

WETLAND #23
CLASS 2
PEMB



SOIL INFORMATION: FARMINGTON-GALWAY-GALOOD COMPLEX,
 25 TO 50 PERCENT SLOPES, VERY ROCKY
 K = 0.32, HIGHLY ERODIBLE
 HYDROLOGIC SOIL GROUP: D

NOTE
 SEE CROSS SECTIONS FOR FINISHED GRADING

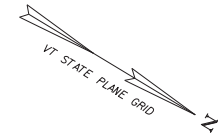
**EROSION PREVENTION
 AND SEDIMENT CONTROL PLAN 16**

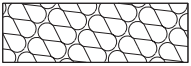
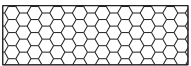
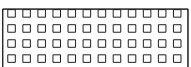
PROJECT NAME: BRANDON
 PROJECT NUMBER: NH 019-3(496)

FILE NAME: zb008s6-ec.dgn
 PROJECT LEADER: C. BEAN
 DESIGNED BY: M. HALEY

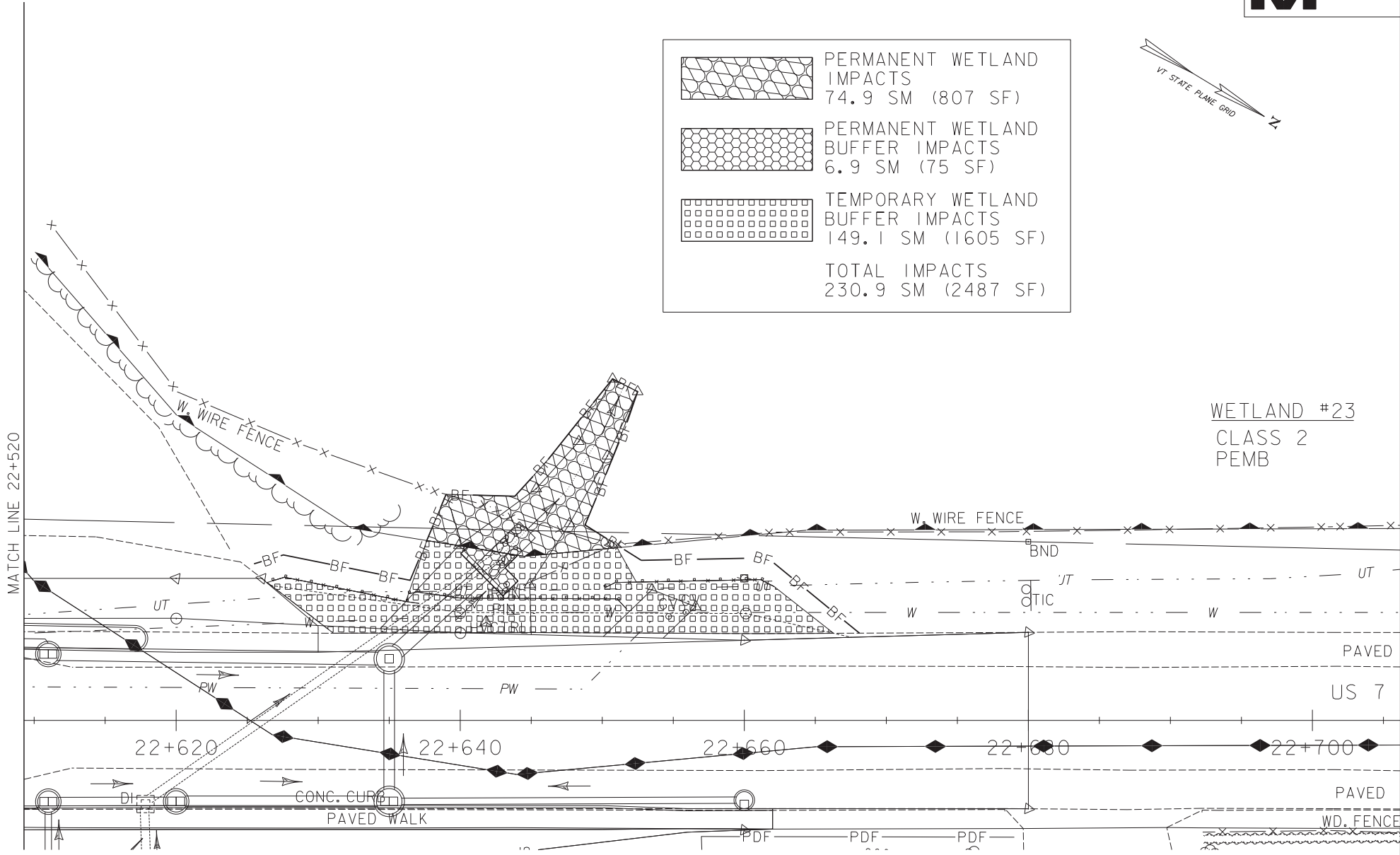
PLOT DATE: 11/4/2016
 DRAWN BY: M. HALEY
 CHECKED BY: D. MUNRO
 SHEET 214 OF 600





	PERMANENT WETLAND IMPACTS 74.9 SM (807 SF)
	PERMANENT WETLAND BUFFER IMPACTS 6.9 SM (75 SF)
	TEMPORARY WETLAND BUFFER IMPACTS 149.1 SM (1605 SF)
TOTAL IMPACTS 230.9 SM (2487 SF)	

WETLAND #23
CLASS 2
PEMB



WETLAND IMPACT AREAS PLAN	
PROJECT NAME: BRANDON	PROJECT NUMBER: NH 019-3(496)
FILE NAME: zb008s6-wetlandImpacts.dgn	PLOT DATE: 11/3/2016
PROJECT LEADER: C. BEAN	DRAWN BY: M. HALEY
DESIGNED BY: M. HALEY	CHECKED BY: D. MUNRO
	SHEET 1 OF 1

C.L.D. 02-0448