

Shoreland Permit Application

for a Shoreland Protection Permit under Chapter 49A of Title 10, § 1441 et seq.

LAKES & PONDS PROGRAM				
	For Shoreland Permitting Use Only Application Number: 2238-SP			
Application Number: 2238-3P Public Notice: At the same time this application is filed with Shoreland Permitting, a copy of this application must be provided to the municipal				
clerk for posting in the municipality in which the project is located.				
Submission of this application constitutes notice that the person in Section A intends to create impervious surface and/or cleared area within the Protected Shoreland Area, and certifies that the project will comply with Chapter 49A of Title 10, § 1441 et seq. All information required on this form must be provided, and the requisite fees (Section G) must be submitted made payable to the State of Vermont, to be deemed complete. Refer to The Vermont Shoreland Protection Act - A Handbook for Shoreland Development and related instructions for guidance in completing this application.				
A. Parcel Information				
Landowner's Name: Wesley J. & Patricia A. Eldr	red Trust	RECEILED		
2a. Physical Address (911 Address): 114 Central Ave.	, South Burlington, Ve	ermont NOV -3 mg		
2b. Town - County:	2c. Zip: 0540	03 WSMD		
3. SPAN (The School Parcel Account Number is required for your application to be deeme from your property tax bill. If you cannot locate your property tax bill, please obtain this inform		188-11976		
4. Phone: 802-373-5228	5. Email: wpeldred@cor	ncast.net		
6. Name of Lake/Pond: Champlain Lake (Shelburne Ba	ay) - Shelbu 7. Total Shore	Frontage 334 (Feet)		
8. Was the parcel of land created before July 1, 2014?	✓ Yes □ No			
9. Are there wetlands associated with this parcel? Contact the Wetlands Program (802) 828-1535 or http://dec.vermont.gov/watersh	Yes No			
10. Have you ever applied for a permit with the Department of En	nvironmental Conservation associated No	ated with this parcel?		
11. What is the surface area of your parcel within the Protected Shoreland Area (PSA): 30,084 +- (square feet)				
See the Vermont Shoreland Protection Act – A Handbook for Shoreland Developme 12. What is the surface area of exisiting impervious surface of	on your parcel within the PSA:	2.878+- (square feet)		
See the Vermont Shoreland Protection Act – A Handbook for Shoreland Developme 13. What is the surface area of existing cleared are on your		(square feet)		
See the Vermont Shoreland Protection Act – A Handbook for Shoreland Developme				
B. Applicant Contact Information				
1. Name: Wesley J. & Patricia A. Eldred Trust	b .	-		
2a. Mailing Address: 114 Central Ave.				
2b. Town: South Burlington	2c. State: VT	2d. Zip: 05403		
3. Phone: 802-373-5228	4. Email: wpeldred@comcast.net			
C. Application Preparer Information (If the individual preparing the application is not the landowner.)				
1. Name: Civil Engineering Associates, Inc. Attn: Steve Vock				
2a. Mailing Address: 10 Mansfield View Lane				
2b. Town: South Burlington	2c. State: VT	2d. Zip: 05403		
3. Phone: 802-864-2323	4. Email: svock@cea-vt.com			

D. Project Description	
1. Describe the proposed project. For this application to be considered a and proposed cleared areas and impervious surface and their distances f and dimensions and associated surface areas of cleared areas and impervious	rom mean water level, no fewer than three photos of the project area,
The project involves the stabilization of a failed slop potential slips or rotations of the bank. The top of the existing residence and a failure jeopardizes the surface is proposed and cleared area is minimal ar See attached plan set.	the existing slope reaches the southern edge of integrity of the foundation. No new impervious
2. For developed parcels, how far is the existing habitable st and how far will new cleared area or impervious surface to OR	pe from MWL 16 (feet)?
For undeveloped parcels , how far will new cleared area or i See the Vermont Shoreland Protection Act — A Handbook for Shoreland Developm	
3. Can all new cleared area or impervious surface be set back of no, explain why below (attach support information as need The project is to stabilize an existing failed slope be shoreline of Shelburne Bay. See attached plan set.	k at least 100 feet from MWL? Yes V No ded): etween the 98 foot and 105 foot along the
As Miles in the class of the constant site cases of	
4a. What is the slope of the project site area: 61% See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix B, Determining Slope	4b. Is the slope of the project area less than 20%? ☐ Yes ✓ No If yes, skip 4c.
4c. If no above (4b), describe the measures taken to ensure impacts to water quality (attach support information as nee The project proposes a large boulder retaining wall erosion.	ded):
5a. What is the surface area of new impervious surface associated with this project: 0.00 (Square Feet) See the Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F, Calculating Percent Impervious Surface. 5c. Is the total in 5b. 20% or less of the parcel area within the If 5a is 0, check the n/a box, otherwise divide D5b by A11 and multiply by 100 for p	
5d. If no above (5c), describe the best management practice stormwater form the portion of impervious surface that exce	s used to manage, treat, and control erosion from

6a. What is the surface area of new cle	eared area	6b. What is the total resulting cleared area after		
associated with this project: 625	_ (Square Feet)	completion of the project and prior to implementation of		
See the Vermont Shoreland Protection Act – A Handt Development, Appendix E, Calculating Percent Clearing		best management prac		(Square Feet)
6c. Is the total in 6b. 40% or less of the			ld A13 to D6a	ZNo
If 6a is 0, check the n/a box, otherwise divide D6b by			yes, skip 6d.) 9% %	✓ No N/A
6d. If no above (6c), establishing vegetativ				
a revegetation plan that will be equal to or				
the location on the parcel where the reveg				
information as needed).			a seria la la lace desta serialità la socialità socialità del	10 10 100000
The stabilized slope will be topso	iled, seeded and i	mulched. All disturbe	d areas will be	designated as
"no Mow" and be allowed to retur	n to a naturally ve	getated state. Trees	that have been	removed for
the shoreline stabilization wall wil				
·				
E. Landowner Certification				
As APPLICANT, I hereby certify that the sta	tements presented on t	his application are true and	d accurate and reco	gnize that by
signing this application, I agree to complete				
foregoing may result in violation of the Sho				y of Natural
Resources may bring an enforcement actio	n for violations of the A	ct pursuant to 10 V.S.A. ch	apter 201.	
Applicant/Landowner Signature:	Jesta Cala	Dat	te: 10/3//2	016
F. Application Preparer Certification (if ap	plicable)			
As APPLICATION PREPARER, I hereby certification or supervision in accordance with the information submitted. Based on my in responsible for gathering the information, and complete. I am aware that there are significant in the imprisonment for knowing violations. Application Preparer Signature:	a system designed to a quiry of the person or p the information submit	ssure that qualified person persons who manage the sy ted is, to the best of my kno	nnel properly gather ystem, or those pers owledge and belief, n, including the poss	ed and evaluated ons directly true, accurate,
G. Additional Required Documentation (Please check to ensure you have completed the following)				
All sections of the application are complete (or otherwise indicate "not applicable")				
Application includes site plans denoting existing and proposed cleared area and impervious surface and distances from				
mean water level				
Application description includes dimensions and surface areas of cleared areas and impervious surfaces Application				
includes photos of project area				
H. Permit Application Fees				
Administrative Fee: \$125.00			125.00	
	Enter new impervious	area as entered in item (5a)	123.00	
Impervious Area Fee: \$0.50 per square ft.		x 0.5		
Total Fee due: 125.00				

Submit this form and application fee, payable to:

State of Vermont -Vermont Department of Environmental Conservation
Watershed Management Division -Shoreland Permitting
1 National Life Drive, Main 2
Montpelier, VT 05620-3522

Direct all correspondence or questions to Shoreland Permitting at:

ANR.WSMDShoreland@vermont.gov

For additional information visit: http://dec.vermont.gov/watershed/lakes-ponds



CIVIL ENGINEERING ASSOCIATES. INC.

10 Mansfield View Lane South Burlington, VT 05403 Phone:

802-864-2323

Fax:

802-864-2271

E-Mail: jmilbank@cea-vt.com

October 23, 2016

Michaela Stickney Watershed Management Division 1 National Life Drive, Main 2 Montpelier, Vermont 05620-3522

Re: Wesley and Patricia Eldred

114 Central Avenue, South Burlington, Vermont

Shoreline Slope Stabilization

Dear Michaela:

Please find enclosed a Shoreland Permit Application, application fee, plans and photos for a proposed shoreline stabilization project located at 114 Central Avenue in South Burlington. CEA is in the process of local Development Review Board review and permitting for the proposed stabilization.

The applicants are proposing to construct a large stone retaining wall along the shoreline that has been impacted by erosion. The proposed large stone retaining wall is anticipated to be constructed using Whitcomb Quarry Stone or equivalent. The Eldred's existing shoreline is eroded with many failures along its length that will be stabilized as part of this project. (see attached photos). The proposed wall will be very similar to several recently constructed walls along this section of the lake. The wall will stabilize a large bank with southerly and westerly exposure on the north end of Shelburne Bay and the north side of the mouth of Potash Brook. All disturbed areas will be topsoiled, seeded and mulched and will be allowed to return to a natural vegetated state and are designated as no mow zones on the attached site plan.

If you should have any questions or should need any additional information, please feel free to contact me.

Respectfully,

Stephen A. Vock, P.E.

Principal / Project Engineer

SAV/ilm

Enclosures: Applications, basis of design, plans, photos, fee



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10 Mansfield View Lane South Burlington, VT 05403

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October 23, 2016

Michaela Stickney Watershed Management Division 1 National Life Drive, Main 2 Montpelier, Vermont 05620-3522

Re: Wesley and Patricia Eldred

114 Central Avenue - Shoreline Stabilization

Basis of Design

Dear Michaela:

This letter supports the technical basis for the design of the proposed seawall at the Eldred residence at 114 Central Avenue. This property has shoreline on Lake Champlain and Potash Brook making it susceptible to wind and wave action from high water and high winds and erosion from being the release point at the mouth of the brook. The record high water levels during the spring of 2011 impacted the shoreline which resulted in severe undercutting and erosion from wave action which has continued to get worse over time.

Over the past several years, Civil Engineering Associates, Inc. (CEA) has developed a methodology for addressing lakeshore erosion on Lake Champlain. Particularly for slopes or banks that are relatively steep and/or high and dominantly consist of susceptible soil materials rather than bedrock, we have developed a design that incorporates elements of "armoring" the slope with large quarry stones and backfilling with smaller shot-rock for drainage. The exposed surface visible from the lake is a natural stone product produced by local quarries. These large stones, which are up to five or six feet in maximum dimension, are nested together to provide a relatively continuous surface and sufficient mass to resist most ice and wave action. The fact that they are assembled as natural elements permits some movement of the stones without degrading the structural integrity of the surface armoring and protection of the soils behind the wall. One additional feature of this wall system is the use of a filter fabric (geotextile) layer between the native soil and the shot rock backfill to inhibit the migration (erosion) of the native soil through the coarser materials.

Michaela Stickney October 23, 2016 Page 2

For the exposure conditions at 114 Central Avenue, it is our opinion that a biotechnical solution is not feasible. Wave and wind action are severe enough in storm conditions that using vegetation in combination with other inert materials would not provide sufficient protection against erosion in this environment.

The details of our design are incorporated in the set of drawings submitted with this letter. Should you have any questions or wish to discuss the project in greater detail please let me know.

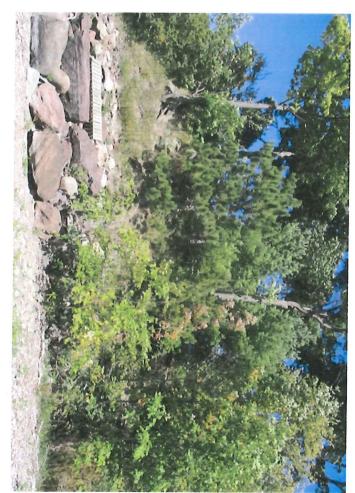
Very truly yours,

Stephen A. Vock, P.E.

Principal / Project Engineer

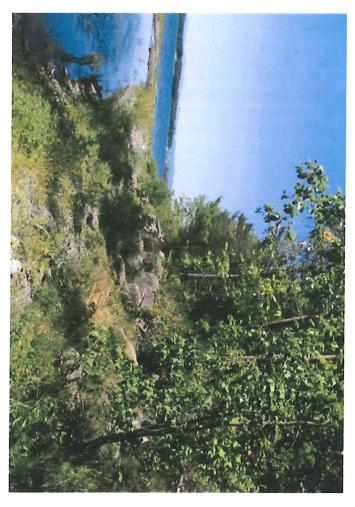
SAV/jlm Cc: file

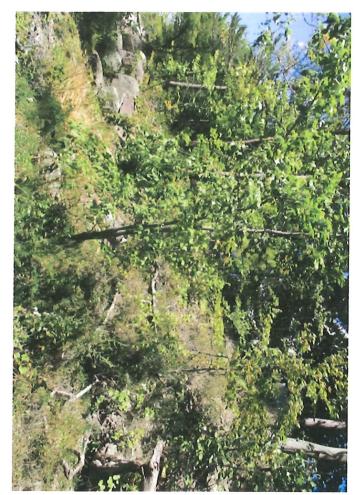














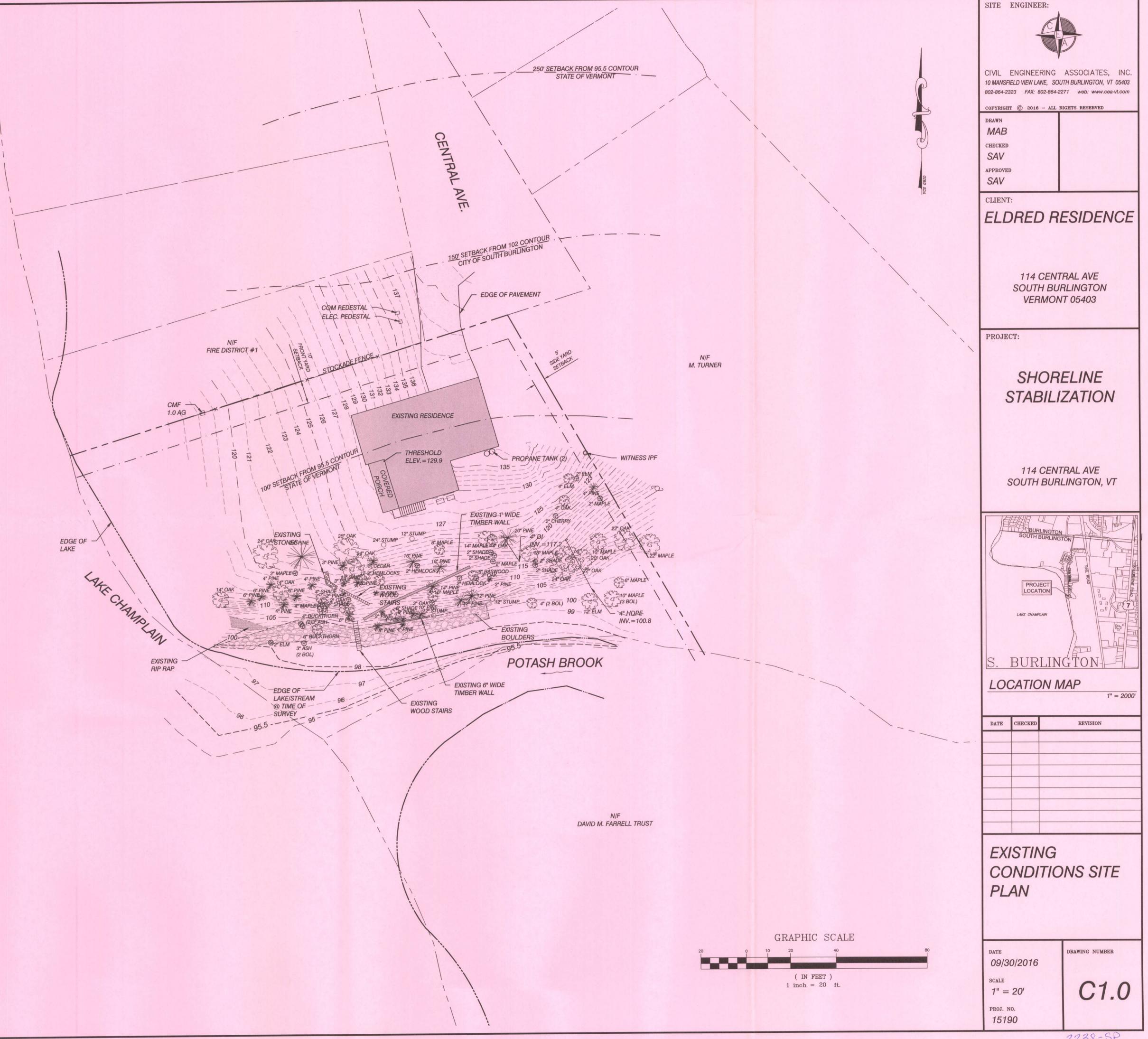


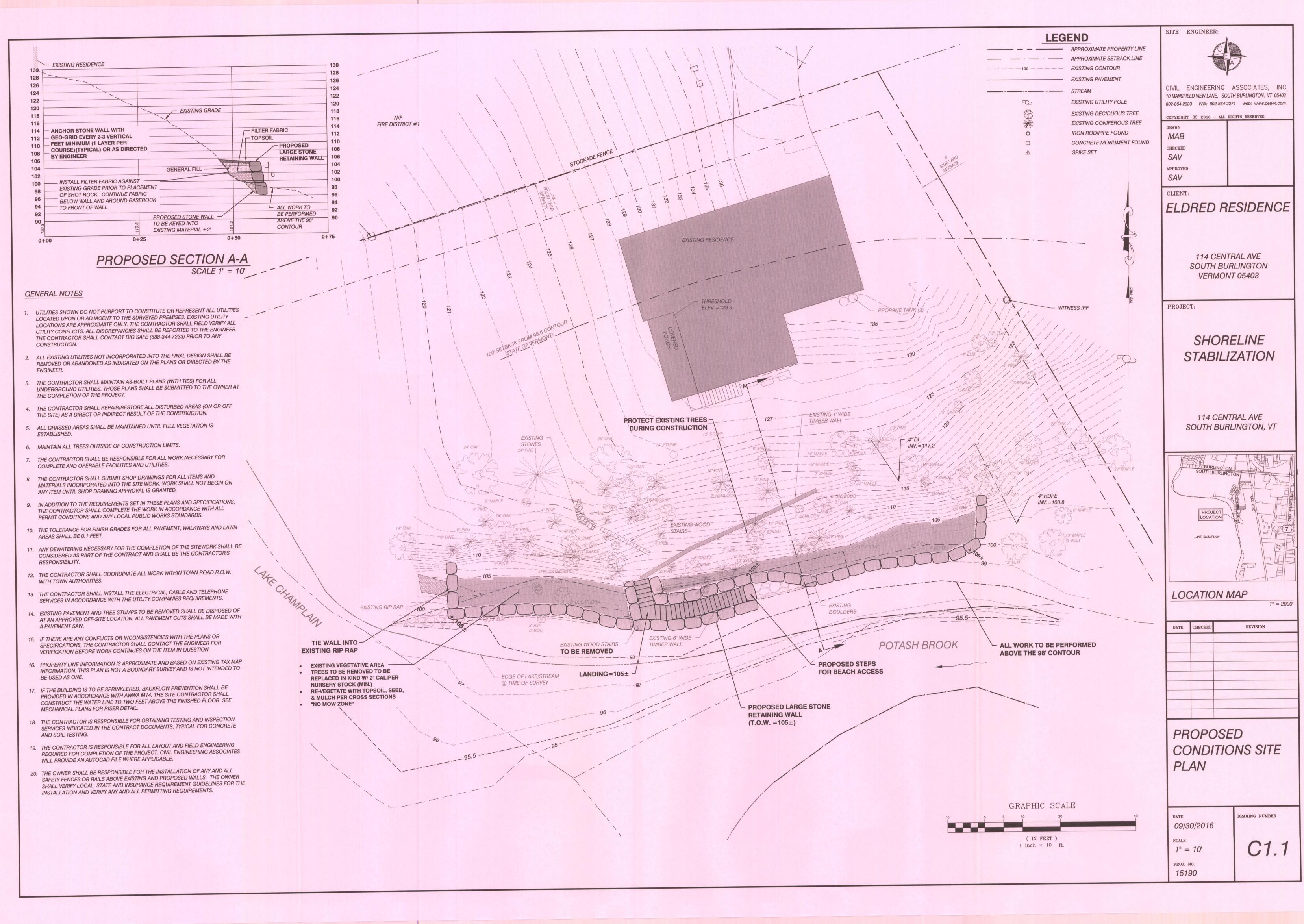
NOTES

- 1. UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REFRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION.
- 2. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE. MONUMENTATION RECOVERED IS CONSISTENT WITH RECORDED DOCUMENTS.
- 4. SITE INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY CIVIL ENGINEERING ASSOCIATES, INC SEPTEMBER 2016. SURVEY ORIENTATION IS "GRID NORTH", VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) ESTABLISHED FROM GPS OBSERVATIONS ON SITE.
- 5. PROJECT BENCHMARK IS LAKE CHAMPLAIN ESTABLISHED FROM THE UNITED STATES GEOLOGICAL SURVEY GAUGING STATION 04294500 LOCATED IN BURLINGTON, VERMONT. (DATUM NGVD 29)

LEGEND

APPROXIMATE PROPERTY LINE
APPROXIMATE SETBACK LINE
EXISTING CONTOUR
EXISTING PAVEMENT
STREAM
EXISTING UTILITY POLE
EXISTING DECIDUOUS TREE
EXISTING CONIFEROUS TREE
IRON ROD/PIPE FOUND
CONCRETE MONUMENT FOUND
SPIKE SET





Introduction

This project is subject to the terms and conditions of the authorization from the State of Vermont to discharge construction related storm water

Coverage under the State Construction General Permit 3-9020 is required for any construction activity that disturbs 1 or more acres of land, or is part of a larger development plan that will disturb 1 or more

This project has been deemed to qualify as a Low Risk Site which is subject to the erosion prevention and sediment control (EPSC) standards set for in the State of Vermont's Low Risk Site Handbook for Erosion Prevention and Sediment

The following narrative and implementation requirements represent the minimum standard for which this site is required to be maintained as regulated by the State of Vermont.

Any best management practices (BMP's) depicted on the project's EPSC Site plan which go beyond the Handbook requirements are considered to be integral to the management of the site and represent components of the municipal EPSC approval for the project which shall be implemented.

The EPSC plan depicts one snap shot in time of the site. All construction sites are fluid in their day to day exposures and risks as it relates to minimizing sediment loss from the site. It is the responsibility of the Contractor to implement the necessary BMP's to comply with the Low Risk Handbook standards outlined on this sheet based on the interim site disturbance conditions which may or may not be shown on the EPSC Site Plan.

Specific BMP's which are critical to allowing the project to be considered a Low risk site include the items checked below:

- Limit the amount of disturbed earth to two acres or less at any one
- There shall be a maximum of 7 consecutive days of disturbed earth exposure in any location before temporary or final stabilization is implemented.

Mark Site Boundaries

Mark the site boundaries to identify the limits of construction. Delineating your site will help to limit the area of disturbance, preserve existing vegetation and limit erosion potential on the site.

Before beginning construction, walk the site boundaries and flag trees, post signs, or install orange safety fence. Fence is required on any boundary within 50 feet of a stream, lake, pond or wetland, unless the area is already developed (existing roads, buildings, etc.)

2. Limit Disturbance Area

Limit the amount of soil exposed at one time to reduce the potential

erosion on site.

The permitted disturbance area is specified on the site's written

authorization to discharge. Only the acreage listed on the authorization form may be exposed at any given time.

Plan ahead and phase the construction activities to ensure that no more than the permitted acreage is disturbed at one time. Be sure to properly stabilize exposed soil with seed and mulch or erosion control matting before beginning work in a new section of the site.

3. Stabilize Construction Entrance

A stabilized construction entrance helps remove mud from vehicle wheels to prevent tracking onto streets.

If there will be any vehicle traffic off of the construction site, you must install a stabilized construction entrance before construction begins.

How to install Rock Size: Use a mix of 1 to 4 inch stone

Depth: 8 inches minimum Width: 12 feet minimum Length: 40 feet minimum (or length of driveway, if shorter)

Geotextile: Place filter cloth under entire gravel bed

Redress with clean stone as required to keep sediment from tracking

onto the street.

Silt fences intercept runoff and allow suspended sediment to settle out.

Requirements:

4. Install Silt Fence

Silt fence must be installed: on the downhill side of the construction activities

- between any ditch, swale, storm sewer inlet, or waters of the State
- and the disturbed soil * Hay bales must not be used as sediment barriers due to their

tendency to degrade and fall apart.

- Place silt fence on the downhill edge of bare soil. At the bottom of slopes, place fence 10 feet downhill from the end of the slope (if space is available).
- Ensure the silt fence catches all runoff from bare soil.
- Maximum drainage area is ¼ acre for 100 feet of silt fence.
- Install silt fence across the slope (not up and down hills!)
- Install multiple rows of silt fence on long hills to break up flow. Do not install silt fence across ditches, channels, or streams or in
- stream buffers.

How to install silt fence:

- Dig a trench 6 inches deep across the slope Unroll silt fence along the trench
- Ensure stakes are on the downhill side of the fence Join fencing by rolling the end stakes together
- Drive stakes in against downhill side of trench
- Drive stakes until 16 inches of fabric is in trench
- Push fabric into trench; spread along bottom Fill trench with soil and pack down

Maintenance:

 Remove accumulated sediment before it is halfway up the fence. Ensure that silt fence is trenched in ground and there are no gaps.

5. Divert Upland Runoff

Diversion berms intercept runoff from above the construction site and direct it around the disturbed area. This prevents clean water from becoming muddied with soil from the construction site.

Requirements: If storm water runs onto your site from upslope areas and your site meets the following two conditions, you must install a diversion berm before disturbing any soil.

1. You plan to have one or more acres of soil exposed at any one time (excluding roads).

2. Average slope of the disturbed area is 20% or steeper.

How to install:

- 1. Compact the berm with a shovel or earth-moving equipment. 2. Seed and mulch berm or cover with erosion control matting
- immediately after installation. 3. Stabilize the flow channel with seed and straw mulch or erosion control matting. Line the channel with 4 inch stone if the channel slope is greater than 20%.
- 4. Ensure the berm drains to an outlet stabilized with riprap. Ensure that there is no erosion at the outlet.
- 5. The diversion berm shall remain in place until the disturbed areas are completely stabilized.

6. Slow Down Channelized Runoff

Stone check dams reduce erosion in drainage channels by slowing down the storm water flow.

Requirements: If there is a concentrated flow (e.g. in a ditch or channel) of storm water on your site, then you must install stone check dams. Hay bales must not be used as check dams.

Height: No greater than 2 feet. Center of dam should be 9 inches lower than the side elevation

Side slopes: 2:1 or flatter Stone size: Use a mixture of 2 to 9 inch stone

Width: Dams should span the width of the channel and extend up the sides of the banks

Spacing: Space the dams so that the bottom (toe) of the upstream dam is at the elevation of the top (crest) of the downstream dam. This spacing is equal to the height of the check dam divided by the channel

Spacing (in feet) = Height of check dam (in feet)/Slope in channel (ft/ft)

Remove sediment accumulated behind the dam as needed to allow channel to drain through the stone check dam and prevent large flows from carrying sediment over the dam. If significant erosion occurs between check dams, a liner of stone should be installed.

7. Construct Permanent Controls

Permanent storm water treatment practices are constructed to maintain water quality, ensure groundwater flows, and prevent downstream flooding. Practices include detention ponds and wetlands, infiltration basins, and storm water filters.

Requirements:

If the total impervious* area on your site, or within the common plan of development, will be 1 or more acres, you must apply for a State Storm water Discharge Permit and construct permanent storm water treatment practices on your site. These practices must be installed before the construction of any impervious surfaces.

How to comply:

Contact the Vermont Storm water Program and follow the requirements in the Vermont Storm water Management Manual. The Storm water Management Manual is available at:

www.vtwaterquality.org/stormwater.htm

*An impervious surface is a manmade surface, including, but not limited to, paved and unpaved roads, parking areas, roofs, driveways, and walkways, from which precipitation runs off rather than infiltrates.

8. Stabilize Exposed Soil

Seeding and mulching, applying erosion control matting, and hydroseeding are all methods to stabilize exposed soil. Mulches and matting protect the soil surface while grass is establishing.

All areas of disturbance must have temporary or permanent stabilization within 7, 14, or 21 days of initial disturbance, as stated in the project

authorization. After this time, any disturbance in the area must be stabilized at the end of each work day.

The following exceptions apply:

- Stabilization is not required if earthwork is to continue in the area within the next 24 hours and there is no precipitation forecast for the next 24 hours.
- Stabilization is not required if the work is occurring in a self-contained excavation (i.e. no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation, utility trenches).

All areas of disturbance must have permanent stabilization within 48 hours of reaching final grade.

How to comply:

Prepare bare soil for seeding by grading the top 3 to 6 inches of soil and removing any large rocks or debris.

Seeding Rates for Temporary Stabilization

April 15 - Sept. 15 --- Ryegrass (annual or perennial: 20 lbs/acre) Sept. 15 - April 15 --- Winter rye: 120 lbs/acre

Seeding Rates for Final Stabilization: Choose

Choose from:	Variety	lbs./acre	lbs./1000 sq.ft.
Birds foot trefoil	Empire/Pardee	51	0.1
or			
Common white clover	Common	8	0.2
plus			
Tall Fescue	KY-31/Rebel	10	0.25
plus			
Redtop	Common	2	
or			
Ryegrass (perennial)	Pennfine/Linn	5	0.1

1-Mix 2.5 each of Empire and Pardee OR 2.5 lbs. of Birds foot

and 2.5 lbs. white clover per acre

Mulching Rates

April 15 - Sept.15 -- Hay or Straw: 1 inch deep (1-2 bales/1000 s.f.) Sept.15 - April 15 -- Hay or Straw: 2 in. deep (2-4 bales/1000 s.f.)

Erosion Control Matting

As per manufacturer's instructions

As per manufacturer's instructions 9. Winter Stabilization

Managing construction sites to minimize erosion and prevent sediment loading of waters is a year-round challenge. In Vermont, this challenge becomes even greater during the late fall, winter, and early spring

'Winter construction' as discussed here, describes the period between October 15 and April 15, when erosion prevention and sediment control is significantly more difficult. Rains in late fall, thaws throughout the winter, and spring melt and rains

can produce significant flows over frozen and saturated ground, greatly

Requirements for Winter Shutdown:

increasing the potential for erosion.

For those projects that will complete earth disturbance activities prior to the winter period (October 15), the following requirements must be

1. For areas to be stabilized by vegetation, seeding shall be completed no later than September 15 to ensure adequate growth and cover. 2. If seeding is not completed by September 15, additional

non-vegetative protection must be used to stabilize the site for the

winter period. This includes use of Erosion Control Matting or netting

of a heavy mulch layer. Seeding with winter rye is recommended to allow for early germination during wet spring conditions. 3. Where mulch is specified, apply roughly 2 inches with an 80-90% cover. Mulch should be tracked in or stabilized with netting in open

Requirements for Winter Construction

areas vulnerable to wind.

If construction activities involving earth disturbance continue past October 15 or begin before April 15, the following requirements must be

- adhered to: 1. Enlarged access points, stabilized to provide for snow stockpiling. 2. Limits of disturbance moved or replaced to reflect boundary of winter
- 3. A snow management plan prepared with adequate storage and control of meltwater, requiring cleared snow to be stored down slope of all areas of disturbance and out of storm water treatment structures. 4. A minimum 25 foot buffer shall be maintained from perimeter controls
- 5. In areas of disturbance that drain to a water body within 100 feet, two rows of silt fence must be installed along the contour. 6. Drainage structures must be kept open and free of snow and ice
- 7. Silt fence and other practices requiring earth disturbance must be
- installed ahead of frozen ground. 8. Mulch used for temporary stabilization must be applied at double the
- standard rate, or a minimum of 3 inches with an 80-90% cover. 9. To ensure cover of disturbed soil in advance of a melt event, areas of disturbed soil 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 disturbed area within 24 hours, daily stabilization is not
- Disturbed areas that collect and retain runoff, such as house foundations or open utility trenches.
- 10. Prior to stabilization, snow or ice must be removed to less than 1 inch thickness. 11. Use stone to stabilize areas such as the perimeter of buildings under construction or where construction vehicle traffic is anticipated. Stone paths should be 10 to 20 feet wide to accommodate vehicular

10. Stabilize Soil at Final Grade

construction continues.

Stabilizing the site with seed and mulch or erosion control matting when it reaches final grade is the best way to prevent erosion while

Within 48 hours of final grading, the exposed soil must be seeded and

mulched or covered with erosion control matting. Bring the site or sections of the site to final grade as soon as possible

after construction is completed. This will reduce the need for additional sediment and erosion control measures and will reduce the total

For seeding and mulching rates, follow the specifications under Rule 8, Stabilizing Exposed Soil.

Dewatering Activities

Treat water pumped from dewatering activities so that it is clear when leaving the construction site.

Water from dewatering activities that flows off of the construction site

wetlands unless the water is clear. Using sock filters or sediment filter bags on dewatering discharge hoses or pipes, discharge water into silt fence enclosures installed in vegetated

must be clear. Water must not be pumped into storm sewers, lakes, or

areas away from waterways. Remove accumulated sediment after the

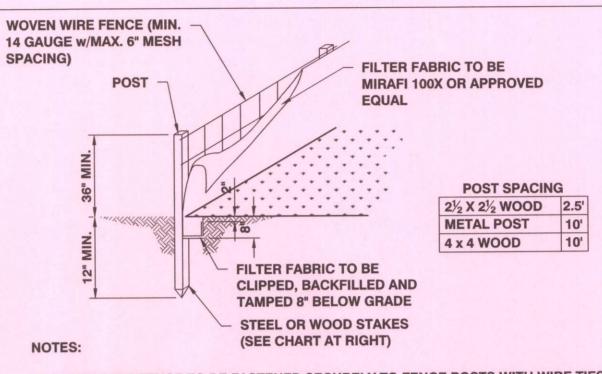
water has dispersed and stabilize the area with seed and mulch.

12. Inspect Your Site

Perform site inspections to ensure that all sediment and erosion control practices are functioning properly. Regular inspections and maintenance of practices will help to reduce costs and protect water quality.

Inspect the site at least once every 7 days and after every rainfall or snow melt that results in a discharge from the site. Perform maintenance to ensure that practices are functioning according to the specifications outlined in this handbook.

In the event of a noticeable sediment discharge from the construction site, you must take immediate action to inspect and maintain existing erosion prevention and sediment control practices. Any visibly discolored storm water runoff to waters of the State must be reported. Forms for reporting discharges are available at: www.vtwaterquality.org/stormwater.htm



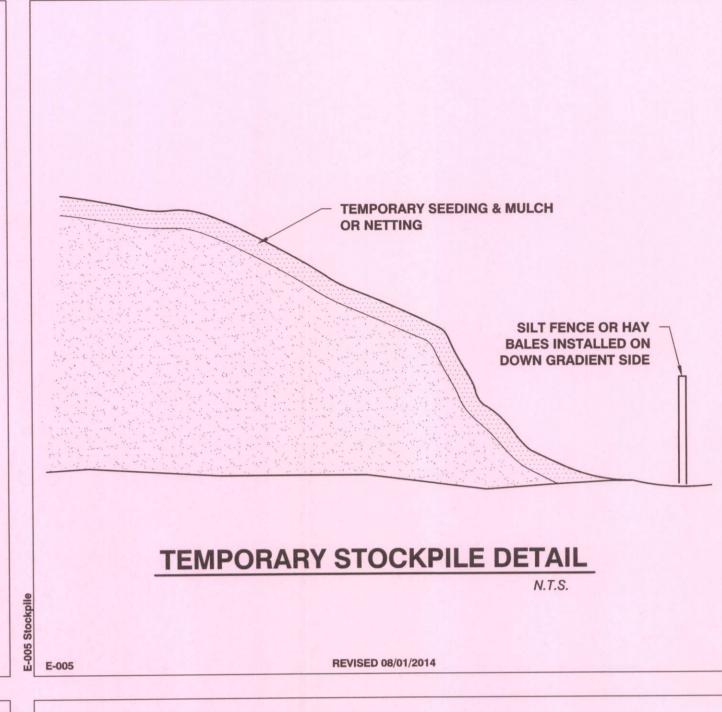
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. WIRE FENCE REINFORCEMENT REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING

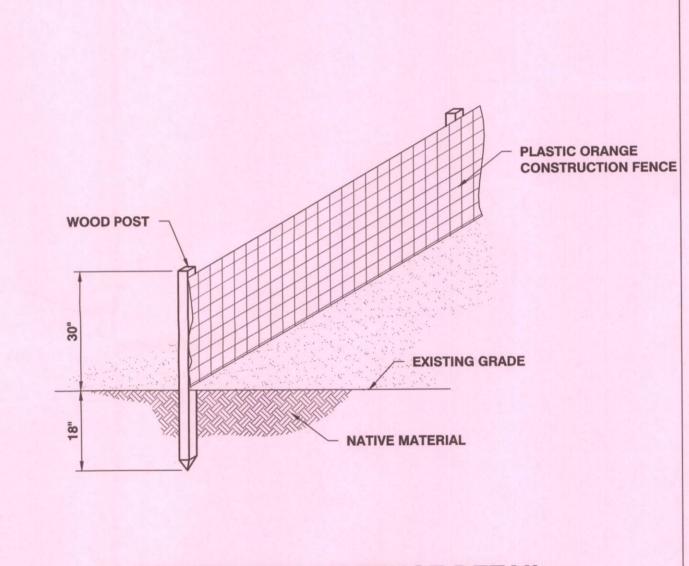
2. INSTALL MIRAFI ENVIROFENCE, OR APPROVED EQUAL OR AS DETAILED HEREIN.

3. INSTALL SILT FENCES AT TOES OF ALL UNPROTECTED SLOPES AND AS PARALLEL TO CONTOURS AS POSSIBLE. THIS INCLUDES ALL FILLED OR UNPROTECTED SLOPES CREATED DURING CONSTRUCTION, NOT NECESSARILY REFLECTED ON THE FINAL PLANS. CURVE THE ENDS OF THE FENCE UP INTO THE SLOPE. REMOVE SEDIMENT WHEN ACCUMULATED TO HALF THE HEIGHT OF THE FENCE. SILT FENCES ARE TO BE MAINTAINED UNTIL SLOPES ARE STABILIZED.

4. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6", FOLDED AND STAPLED.

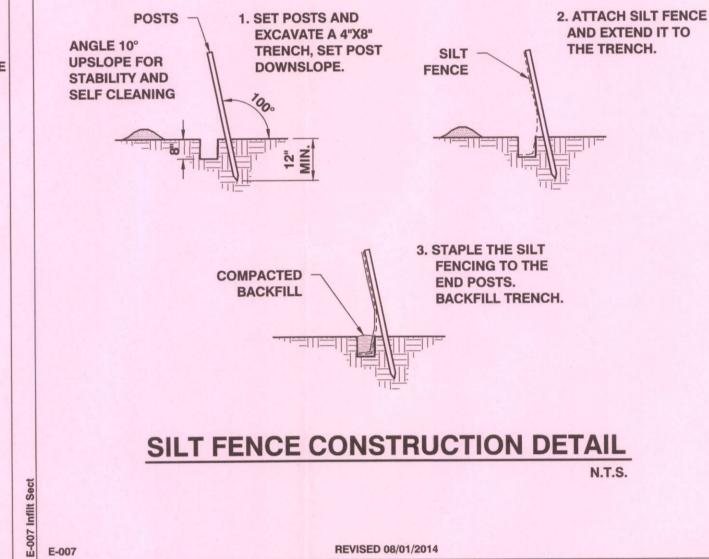
SILT FENCE DETAIL

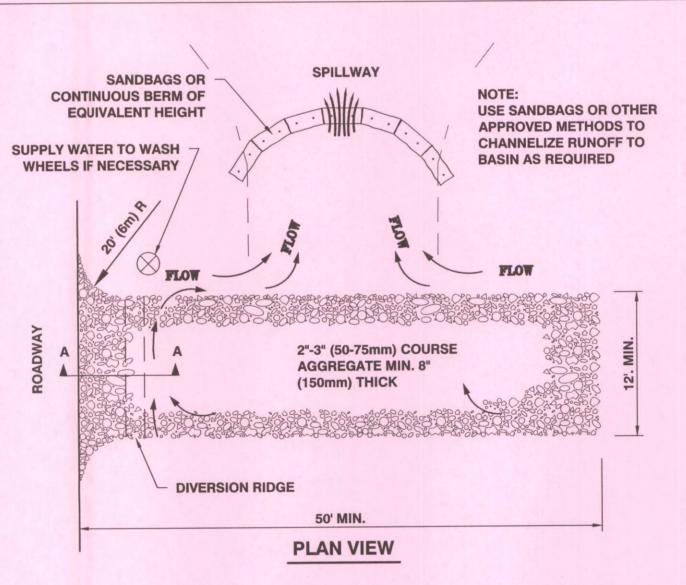




CONSTRUCTION FENCE DETAIL

REVISED 08/01/2014





DIVERSION RIDGE REQUIRED WHERE GRADE EXCEEDS 2% **SECTION A-A**

- 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC
- 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT

STABILIZED CONSTRUCTION ENTRANCE N.T.S.

REVISED 08/01/2014

NOTES:

ELDRED RESIDENCE

CIVIL ENGINEERING ASSOCIATES, INC.

10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403

802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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114 CENTRAL AVE SOUTH BURLINGTON VERMONT 05403

PROJECT:

SITE ENGINEER:

DRAWN

MAB

CHECKED

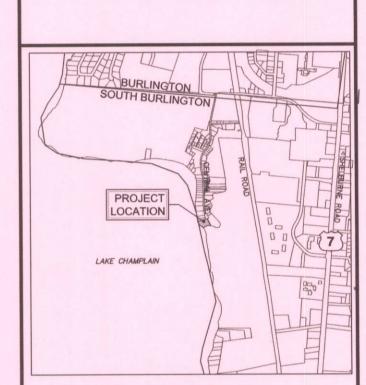
SAV

APPROVED

SAV

SHORELINE STABILIZATION

114 CENTRAL AVE SOUTH BURLINGTON, VT



LOCATION MAP

REVISION

1" = 2000'

EROSION CONTROL DETAILS & SPECIFICATIONS

09/30/2016 SCALE NTS

PROJ. NO. 15190

DRAWING NUMBER