

**ZONING PERMIT
CERTIFICATE OF APPROPRIATENESS**

City of Burlington, Vermont
Department of Planning and Zoning

Application Date: 05/30/2019

Appeal Expiration Date: 07/10/2019

Project Location: 221-223 SAINT PAUL STREET

District: FD5

Owner: Dennis Ailor

Ward: 5S

Address: 221 SAINT PAUL ST
BURLINGTON VT 05401

Tax ID: 049-4-048-000

Project Type: Residential - Site Imp/Landscaping/Parking/Fence

Project Description: Re-grade and stabilize slope where prior retaining wall was removed.

Construction Cost:	\$20,000.00	Lot Size (Sq Ft):	8,772
Net New Habitable Sq Ft:	0.00	Net New # of Housing Units:	0
Existing % Lot Coverage:	40.00	Existing # of Parking Spaces:	3
Proposed % Lot Coverage:	40.00	Proposed # of Parking Spaces:	3
Net New % Lot Coverage:	0.00	Required # of Parking Spaces:	3

Zoning Permit #: 19-0930CA

Decision By: Administrative

Level of Review: 1

Decision: Approved w/ Pre-Release Conditions

See Requirements for Permit Release

Decision Date: June 25, 2019

Project File: NA

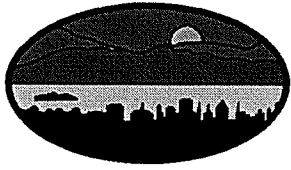
Zoning Administrative Officer

An interested person may appeal a decision of the Zoning Administrator to the Development Review Board until 4 pm on July 10, 2019.

Fee Type	Amount	Paid in Full	Balance Due: \$0.00
Application Fee(s):	\$70.00	Y	Date Paid: _____
Development Review Fee:	\$0.00	NA	Check # _____
Land Records Filing Fee:	\$10.00	Y	
Impact Fees:	<i>Not Applicable</i>		Building Permit Required: Yes

Permit Received by: _____

Date: _____



City of
Burlington, Vermont
149 Church Street

Zoning Permit - COA Level I – Conditions of Approval

ZP #: 19-0930CA

Tax ID: 049-4-048-000

Issue Date: June 25, 2019

Decision: Approved w/ Pre-Release
Conditions

Property Address: 221-223 SAINT PAUL STREET

Description: Re-grade and stabilize slope where prior retaining wall was removed.

Project Permit Conditions:

1. **Prior to release of the zoning permit**, a revised site plan clearly depicting the limits of the proposed grading work and impacts, if any, to onsite parking shall be submitted subject to staff review and approval.
2. **Prior to release of the zoning permit**, the applicant shall fully resolve the outstanding Dangerous Building Order and Stop Work Order issued by the Department of Public Works and currently affecting the property.

Standard Permit Conditions:

1. **Other City, State or Federal Permits.** The owner is solely responsible for obtaining all other required City, state and federal approvals. Failure to do so may invalidate this Zoning Permit and result in enforcement actions.

Note: All projects receiving a Zoning Permit also require a Construction Permit or written confirmation that a Construction Permit is not required from Department of Public Works-Inspection Services Division (DPW-ISD). All construction permits must be closed out by way of approved inspections by DPW-ISD before issuance of a Unified Certificate of Occupancy (UCO) by the Code Enforcement Office as per Condition 3, below.

2. **Time Limits.** This zoning permit shall become invalid unless work or action authorized by the permit is commenced by **June 25, 2020**. The owner shall complete the approved project and obtain a UCO (combined Zoning and Building certificates of occupancy, still applicable even if a zoning or building permit was not required) by **June 25, 2022**, or be subject to enforcement actions.

These time limits are binding upon the owner unless one of the following apply: a) longer or shorter time limits are specifically imposed by a condition of approval; or b) the time limits are tolled by additional state or federal permitting for the project or by an appeal; or c) an extension of time has been granted. An extension of time must be requested in writing PRIOR to the expiration of the permit. If the owner has enacted the permit and it lapses, the owner may be responsible to obtain a new zoning permit, if required, which shall be subject to the current Comprehensive Development Ordinance (CDO).

3. **Unified Certificate of Occupancy (UCO):** It shall be unlawful to use or occupy (or allow the use or occupancy of) any land or structure or part thereof which has been created, changed, converted, or wholly or partly altered or enlarged in its use or structure without a UCO.

If the project is partially completed, meets “prior to issuance of a UCO” conditions of approval, meets all health and safety standards, and all municipal fees for the project are paid, a Temporary Zoning CO may be requested and issued. **Upon completion of the project**, applicant shall request and obtain a Final UCO from the Code Enforcement Office (located at 645 Pine Street). Additional information on how to request and obtain this UCO is available at this office. **Failure to obtain a certificate of occupancy** places the property in violation of the CDO and is subject to enforcement.

In addition, **Failure to obtain a UCO within the time limits above is subject to** “after the fact” fees ranging from \$75 - \$1500 (in addition to the UCO fee).

4. **Project Modifications.** The project shall be completed as shown on the plans, which have been stamped “approved” and dated by the administrative officer. The project shall not deviate from the approved plans or conditions of approval without prior written approval from the administrative officer.
5. **Property Inspection.** By acceptance of this permit, the owner authorizes City Officials and/or their authorized representatives, access to the subject property for the purpose of observing work in progress, inspecting and/or measuring the property or improvements until such time the project has been issued a Final UCO.
6. **Completion and Maintenance of Improvements and Landscaping.** Owner or successor in interest is responsible for completing all improvements shown on approved plans. By acceptance of this permit, Owner agrees to maintain all improvements in a satisfactory condition. Any landscaping installed according to the approved plan which becomes diseased or dies shall be replaced by similar species and size no later than the first available planting season.
7. **Off-Site Drainage.** Issuance of this permit does not authorize the discharge of stormwater runoff or other surface drainage from the subject premises onto adjoining property or properties including but not limited to the public Right of Way.
8. **Errors.** The owner is solely responsible for the accuracy of all information contained in the Zoning Permit application. Any errors contained therein may invalidate the Zoning Permit and may result in enforcement action by the City.
9. **Transfer of Ownership. All zoning permits run with the land.** In the event of a transfer of ownership, partial or whole, of the subject premises, the transferee shall become permittee and subject to compliance with the terms and conditions of this permit.
10. **Violations/Penalties.** A violation of any of the conditions of this permit or of any provision of the CDO may result in enforcement actions, including but not limited to a penalty of up to two hundred dollars (\$200) per day, municipal tickets, and/or additional permitting fees.
11. **Incorporation and Reference of All Plans Presented.** This approval incorporates by reference all plans and drawings presented and all verbal representations by the applicant on the subject application to the extent that they are not in conflict with other stated conditions or regulations.
12. **For Properties Involved in Boundary Disputes.** Boundary disputes are not within the jurisdiction of the administrative officer or the Development Review Board. When an application is submitted and the boundary of the subject property is called into question, the boundary will be determined based upon the best evidence available, for instance a survey or other official document. If a permit is issued and contrary evidence is presented to the City after the fact, such as a survey or Superior Court ruling with respect to the boundary lines, the permit may be amended or revoked by the City.

If the permit is amended or revoked, owner shall bear all costs to remedy the situation, including removal of the structure(s) if necessary, that is if the structure(s) is/are unable to meet the requirements of the CDO and receive an amended permit in light of the actual boundary line.

13. **Damage to City Property.** The Owner is responsible for any damage to the City of Burlington's property, including but not limited to its right-of-way, sewer/water lines, etcetera, that occurs during the site improvements authorized by this permit. If damage occurs, the Owner shall restore the property to a condition equal to or better than the condition of the property prior to such damage.
14. **City Rights-of-Way and Ownership.** Permit approval does NOT authorize any work to be undertaken within the public ROW. Any work in the ROW can only occur with prior authorization by DPW and City Council, as required. Any work or improvements that are taken within the City's right of way does not diminish the City's ownership or authority regarding said right of way.
15. **Liquor License Required.** An approval of any use that includes the sale of alcoholic beverages is contingent upon the receipt of a liquor license from the City of Burlington or the State of Vermont, whichever is applicable.



Department of Planning and Zoning

149 Church Street, City Hall
Burlington, VT 05401-8415
Phone: (802) 865-7188
Fax: (802) 865-7195

www.burlingtonvt.gov/pz

RECEIVED

DEPARTMENT OF PLANNING & ZONING
MAY 30 2019

Zoning Permit Application

Use this form for ALL zoning permit applications. See the relevant checklist for specific requirements.

PROJECT LOCATION ADDRESS: 221/223 Saint Paul St

PROPERTY OWNER*: Dennis Ailor

*If condominium unit, written approval from the Association is also required

APPLICANT: Dennis Ailor

POSTAL ADDRESS:

POSTAL ADDRESS: 221 St. Paul St

CITY, ST, ZIP:

CITY, ST, ZIP: Burlington Vt

DAY PHONE:

DAY PHONE: 520-203-5487

EMAIL:

EMAIL: ailorinc@msk.com

SIGNATURE: [Signature]

SIGNATURE: [Signature]

I am the owner. In addition, I duly authorize the applicant (if noted) to act on my behalf for all matters pertaining to this zoning permit application.

Description of Proposed Project: see attached

Existing Use of Property: [] Single Family [] Multi Family: # ___ Units [] Other: ___

Proposed Use of Property: [] Single Family [] Multi Family: # ___ Units [] Other: ___

- Does your project involve new construction, addition, alteration, renovation, or repair to a structure that is heated or cooled? Yes [] No [X]
Will 400 sq ft or more of land be disturbed, exposed and/or developed? Yes [] No [X]
For Single Family & Duplex, will total impervious area be 2500 sq ft or more? Yes [] No [X]
Are you proposing any work within, below, or above the public right of way? Yes [] No [X]
Are you proposing any onsite food or beverage production/manufacturing? Yes [] No [X]

Estimated Construction Cost (value)*: \$ 20K

(*Estimated cost a typical contractor would charge for all materials and labor, regardless of who physically completes the work)

Within 30 days of submission, the permit application will be reviewed for completeness, and, if complete, will be processed administratively or referred to a board for review. All permit approvals or denials are subject to an appeal period (15 days for administrative permit; 30 days for board permit). A building (and/or electrical, mechanical, plumbing, curb cut) permit will also be required. Contact the Department of Public Works at 802-863-9094 to inquire. Please ask for assistance if you have any questions about filling out this form. Call the Planning and Zoning at 802-865-7188, or visit the office in the lower level of City Hall, 149 Church Street.

Office Use Only: Zone: FDS Eligible for Design Review? y Age of House Lot Size 871A

Type: SN ___ AW ___ FC ___ BA ___ COA 1 [X] COA 2 ___ COA 3 ___ CU ___ MA ___ VR ___ HO ___ SP ___ DT ___ MP ___

Check No. C.C. Amount Paid 80 Zoning Permit # 19-0930 CA

Remove failed Portions of Key Block concrete block wall. Mitigate erosion + sediment control as specified by Geo Design Inc. (see Attached specifications)

A new wall will not be constructed. Permanent erosion and sediment control as specified by Geo Design will be implemented

NOTE! All of the existing 100yr old wall built with granite, marble and red stone was on M^N side of the property line, as proven by two recent surveys. All of the old stones are on the lot, as are some of the key lock blocks from the failed wall. ~~Some~~ Some of the key lock blocks "may" be used for permanent erosion mitigation per Geo Design specifications. There is also ~~as~~ a slight ^{rise in} elevation in the site as a result of All the stone blocks from the 100yr old wall ~~is~~ ^{from the site} not being removed. They also will be used by the landscape architecture going forward.

MAY 30 2019

DEPARTMENT OF PLANNING & ZONING

The site is also currently under sketch plan review to construct a Bluff in Back existing

RECEIVED
MAY 30 2019
DEPARTMENT OF
PLANNING & ZONING

MEMORANDUM

To: Dennis Ailor

From: Alan J. Baribault, P.E. – GeoDesign, Inc.
Theodore von Rosenvinge, P.E. – GeoDesign, Inc.

Date: May 29, 2019

Re: Long-term remediation and stabilization of Retaining Wall / Slope

File No.: 1390-001

Attachments: Figure Nos. 1 to 3, Selected VTrans details

SUMMARY

You installed a concrete block retaining wall (see attached plan for approximate location) on your property in the fall of 2018. We understand the purpose of the proposed retaining wall was to increase the parking/driveway area up slope of the wall.

This spring, the wall was observed to be distressed and bowing outward and onto the adjacent property. GeoDesign personnel (Mr. Baribault) visited the site on May 16, 2019 per your request. While on site, you also noted the base of the wall was mistakenly constructed in part on the adjacent property. We understand that the majority of the wall (concrete blocks and much of the fill material) was removed the week of May 20.

GeoDesign was contracted to provide recommendations for re-grading the slope to reduce erosion in the work area shown in the attached Figure 1. We have not been contracted to provide recommendations for the concrete wall to remain as shown on Figure 1.

SITE RECONNAISSANCE

During our site visit, we observed that the wall consisted of three levels of 2' x 2' x 6" concrete blocks with pressure treated timber/2x boards retaining up to an additional 18" of soil above the blocks, for a total retained height of about 6.5 to 7.5 feet. The wall did not appear to have a drainage system behind the wall, which you confirmed.

You also reported the backfill consisted of a mixture of sure-pack and on-site topsoil. Mr. Baribault visually observed the backfill soils near the surface to generally consist of fine to coarse SAND, some Silt, some fine Gravel with variable organics content. Wet soils were observed at the toe.

DISCUSSION

There are multiple options to accommodate the grade between the upper parking grade and lower adjacent property. These options include a soil or rock (riprap) slope, terraced wall/slope (i.e., with offset rows of concrete block), concrete wall (precast, cast in place) or a mechanically stabilized earth (MSE) wall.

We understand that there is no intent at this time to replace the wall with another wall and that your preference is construct a vegetated slope or terraces set back within his property. As discussed on site, you will protect the site from short term erosion using typical erosion control techniques (e.g. silt fence, coir logs, erosion matting, etc.) and then plant shrubs and trees over time to create a natural slope appearance.

RECOMMENDATIONS

We are providing three repair options for the project that will provide a long term solution. The three options are depicted in Figures 2 and 3 for Cross Section A-A' on Figure 1. Brief descriptions of each option are as follows:

- 1. Soil slope** – Excavate existing soil to achieve an overall slope of 2H : 1V or flatter. Construct this slope as shown on Figure 2. This would be likely be the simplest solution, but would require the largest reduction in area to the existing parking lot. Erosion and sediment control would be required while vegetation becomes established. Additional topsoil, compost, or fertilizer may be required to help establish vegetation.
- 2. Rock (riprap) slope** – Remove existing soil to an overall slope of about 1.5H : 1V or flatter, as shown on Figure 2. Excavate a keyway and install nonwoven geotextile and rippap (VTrans 706.04, Type I) as according to Figure 2. This solution does not require establishment of vegetation. While this solution would result in a reduction to the parking lot area, it would be less compared to the soil slope option.
- 3. Concrete block toe buttress** – One row of blocks could be installed at the toe of a regraded slope as shown in Figure 3. The slope above the toe blocks may be composed of either soil or rippap, following the recommendations in Options 1 or 2 above. This option (if used with a rippap slope) would require the least reduction in parking lot area.

With all options, we recommend that erosion control measures (silt fence and berm) should be installed as shown on Figures 2 and 3 until vegetation is established (or construction is complete for Option 2). The berm should either be soil or coir log material, and will divert water or slow high flows and protect the slope during construction and vegetation establishment. A vehicle barrier

RECEIVED
MAY 30 2019
DEPARTMENT OF
PLANNING & ZONING

Permanent Slope Remediation
Recommendation Memo
221 St Paul St
File No. 1390-001 – May 29, 2019
Page No. 3

should be installed at the slope crest (shown concrete blocks in Figures 2 and 3) but could be constructed from a variety of materials.

Selection between the options above will be based on a review with the City of Burlington and/or others, and your preference. Construction of slope offset from the property line (proposed toe of slope or toe buttress) must comply with City codes and ordinances, and should be submitted for City review and approval.

CONSTRUCTION CONSIDERATIONS

Our recommendations assume that earthwork is performed by an experienced contractor, and any loose soils or newly placed soil should be compacted. Establishment of vegetation should be performed in accordance with the attached VTrans guidelines, using the "Urban mix" attached or similar, protected by mulch (hay, straw, or jute erosion control blanket). Additional erosion control such as straw wattles may be added in the benches as shown on Figures 2 and 3 if erosion is an issue while vegetation is becoming established. Erosion control products (silt fencing or straw wattles) should be installed according to manufacturer's recommendations.

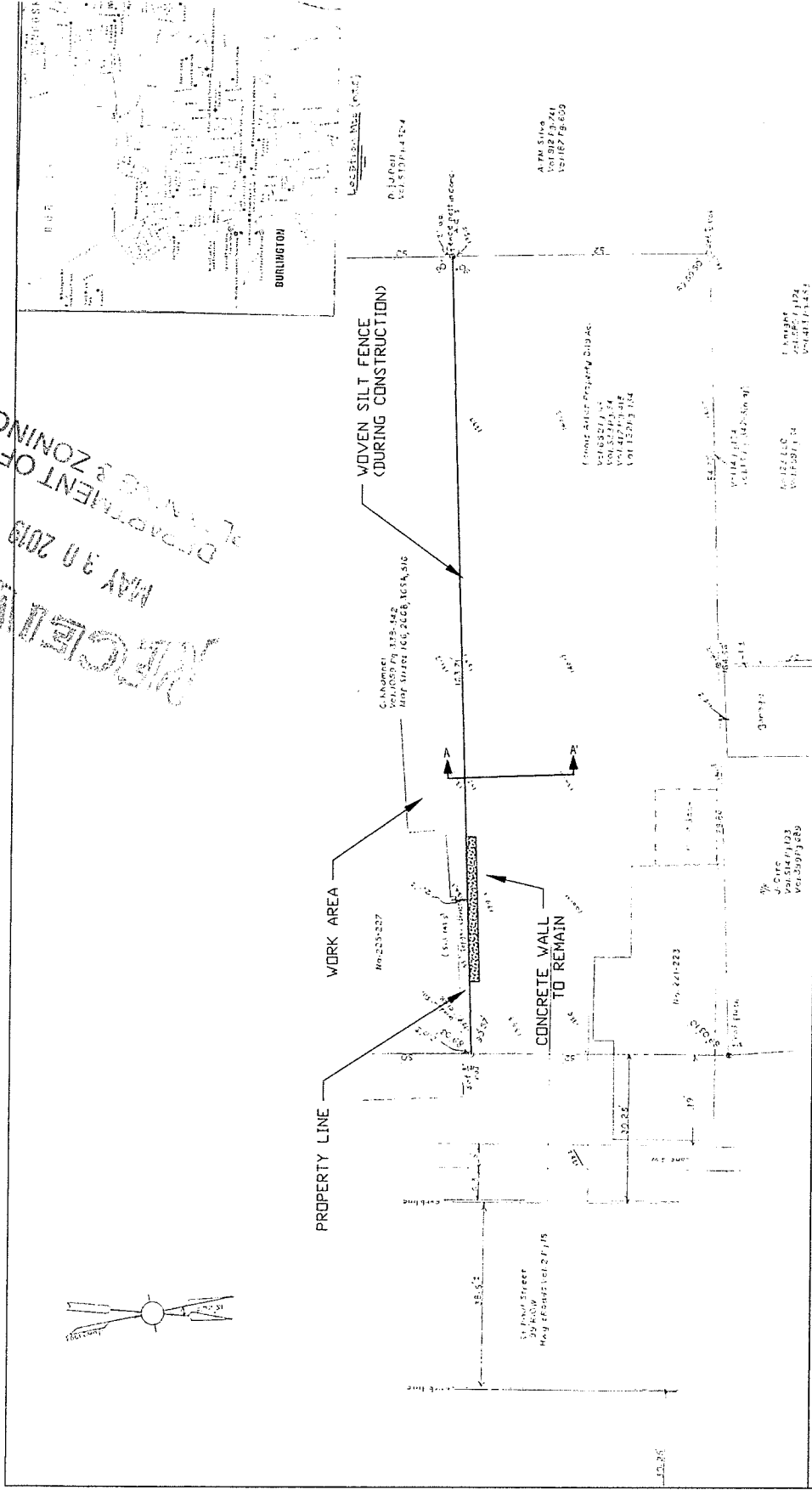
LIMITATIONS

Our recommendations are based on commonly used soil slope angles, VTrans specifications and details, and the Vermont DEC low risk site handbook for erosion prevention and sediment control. Our scope is specific to the slope repair / work area of the property as shown on Figure 1, and excludes other areas of the property and off-site support activities (staging/material disposal areas).

DOCUMENT

RECEIVED
MAY 30 2019
DEPARTMENT OF
PLANNING & ZONING

RECEIVED
 MAY 9 9 2019
 DEPARTMENT OF
 PLANNING & ZONING



SITE PLAN
221 ST PAUL STREET SLOPE
BURLINGTON, VERMONT
 FILE NO. 1390-01

GEODESIGN
 INCORPORATED
 Geotechnical | Construction | Environmental
 Engineers and Scientists
 54 MAIN STREET, P.O. BOX 699
 WOODS BORO, VERMONT 05586
 VERMONT, VT 05586-0699

LEGEND
 SLOPE REPAIR OPTION
 TYPICAL SECTION

NOTES:
 1. BASEMAP PROVIDED BY DENNIS ALOR VIA E-MAIL ON MAY 28, 2019.
 PREPARED BY W. A. ROSENSTEIN AND DATED JULY 24, 2017. ORIGINAL
 SCALE: 1" = 10'.
 2. SUBSURFACE DATA IS NOT AVAILABLE FOR THIS SITE.

SCALE IN FEET
 1" = 20'
 0 10 20 30 40

DRAWN BY: AJB
 REVIEWED BY: TYR

DATE: MAY 29, 2019
 FIGURE NO. 1

RECEIVED
 MAY 30 2013
 DEPARTMENT OF
 PLANNING & ZONING

VAOT URBAN LAWN MIX					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM PURITY
42.5%	34	68	CREeping RED FESCUE	FESTUCA RUBRA X RUBRA	85%
20.0%	16	32	PERENNIAL RYE GRASS	LOLIUM PERENNE	90%
32.5%	26	52	KENTUCKY BLUE GRASS	POA PRATENSIS	85%
5.0%	4	8	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%
100%	80	160			95%

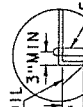







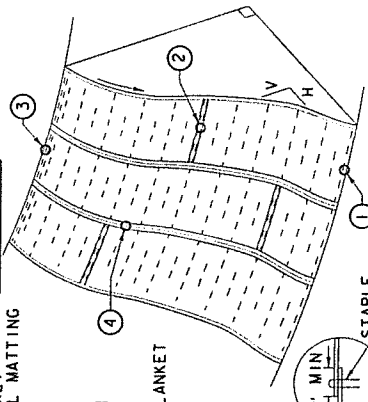

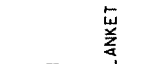
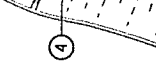

GENERAL AMENDMENT GUIDANCE	
FERTILIZER	LIME
10720/10	16 LIME
500 LBS/AC	2 TONS/AC
	1 TONS/AC

CONSTRUCTION GUIDANCE

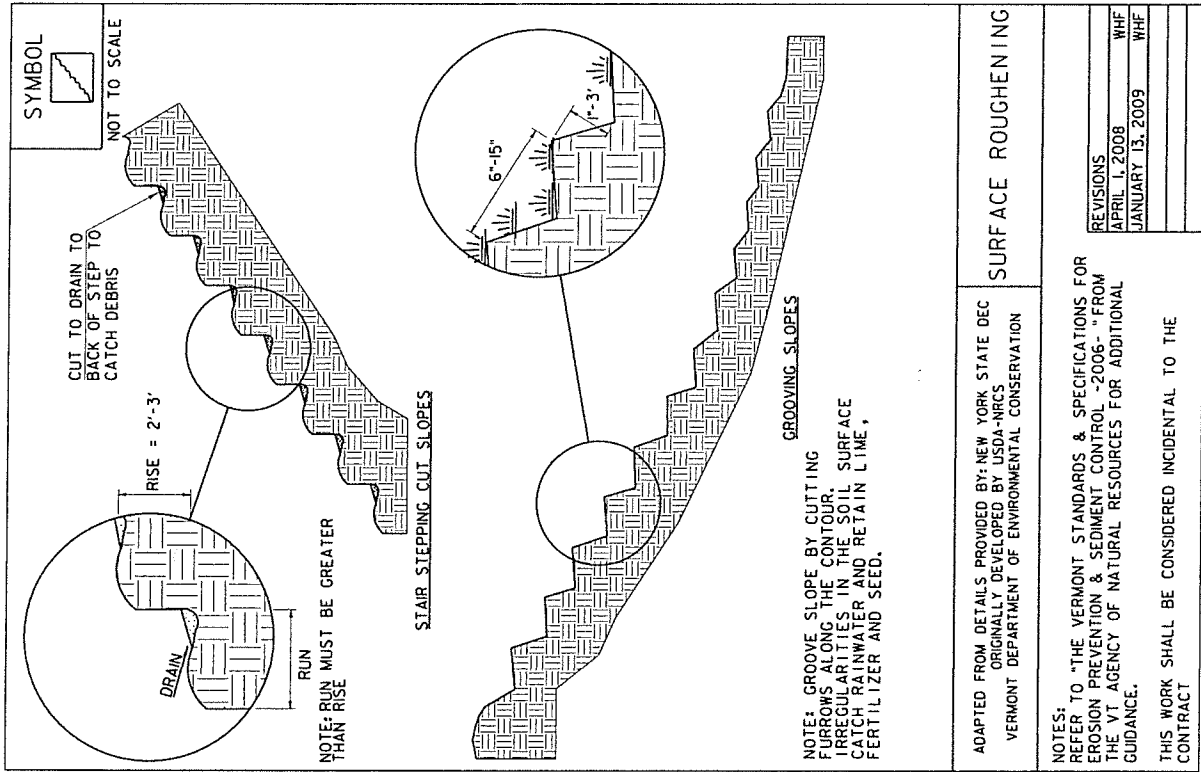
- SEED MIX: THE URBAN AREA MIX SHALL NOT BE USED IN WETLANDS OR ANY WATERS OF THE STATE OF VERMONT.
- SEED MIX: USE ONLY AS INDICATED IN THE PLANS.
- SEED MIX: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
- HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
- HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
- TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES	TURF ESTABLISHMENT
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651FOR SEED (PAY ITEM 651J5)	REVISIONS
	JANUARY 22, 2015
	WHF

RECEIVED
 MAY 30 2019
 DEPARTMENT OF
 PLANNING & ZONING

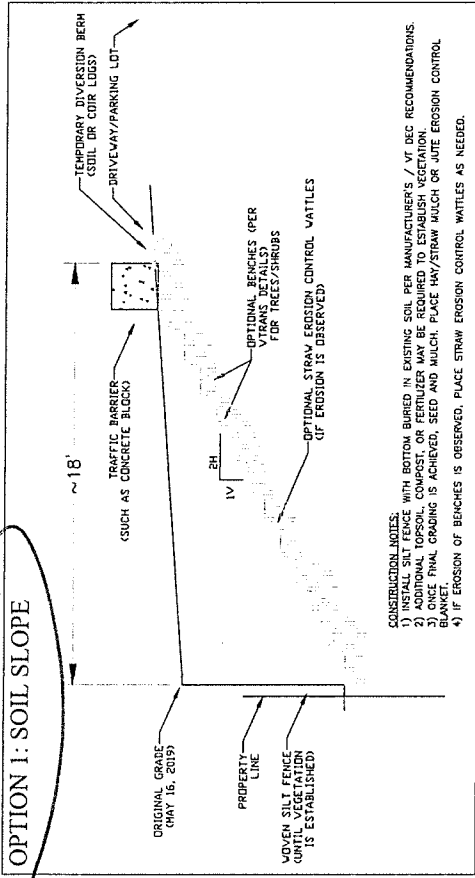
	SYMBOL										
 <p>4" MIN STAPLE</p>  <p>6"-12" STAPLE</p>  <p>6"-12" STAPLE</p>  <p>6"-12" STAPLE</p>  <p>6"-12" STAPLE</p>  <p>6"-12" STAPLE</p>  <p>6"-12" STAPLE</p>	<p>NOT TO SCALE</p> 										
<p>1" MIN STAPLE DETAIL</p> 											
<p>DETAIL 1 TERMINAL FOLD</p> 											
<p>DETAIL 2 JUNCTION SLOT</p> 											
<p>DETAIL 3 ANCHOR SLOT</p> 											
<p>DETAIL 4 LAP JOINT</p> 											
<p>CONSTRUCTION SPECIFICATIONS</p>											
<p>1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.</p>											
<p>2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.</p>											
<p>3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.</p>											
<p>4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.</p>											
<p>5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.</p>											
<p>ADAPTED FROM DETAILS PROVIDED BY NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION</p>	<p>ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE</p>										
<p>NOTES: REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).</p>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">REVISIONS</th> <th style="width: 20%;">DATE</th> </tr> </thead> <tbody> <tr> <td>APRIL 16, 2007</td> <td>JMF</td> </tr> <tr> <td>JANUARY 13, 2009</td> <td>WHF</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS	DATE	APRIL 16, 2007	JMF	JANUARY 13, 2009	WHF				
REVISIONS	DATE										
APRIL 16, 2007	JMF										
JANUARY 13, 2009	WHF										

RECEIVED
 MAY 30 2019
 DEPARTMENT OF
 PLANNING & ZONING

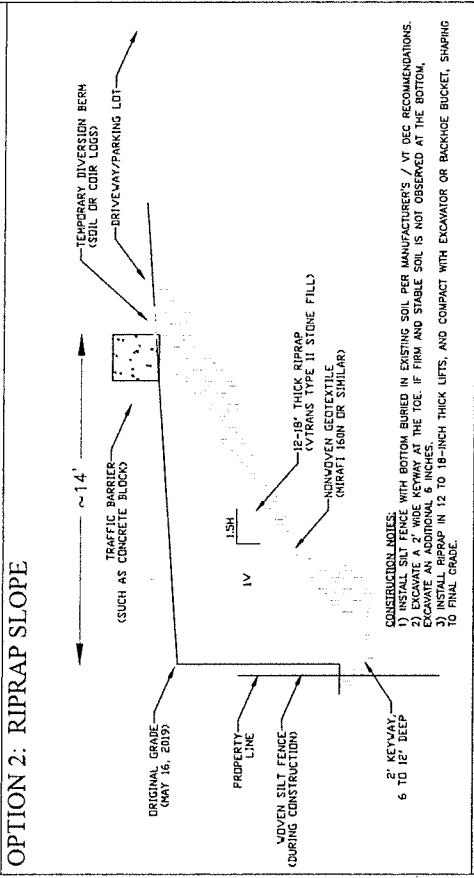


SURFACE ROUGHENING

RECEIVED
 MAY 30 2019
 DEPARTMENT OF
 PLANNING & ZONING



CONSTRUCTION NOTES:
 1) WITH BOTTOM BERMED IN EXISTING SOIL PER MANUFACTURER'S / VT DEC RECOMMENDATIONS.
 2) ADDITIONAL TOPSOIL, COMPOST OR FERTILIZER MAY BE REQUIRED TO ESTABLISH VEGETATION.
 3) ONCE FINAL GRADING IS ACHIEVED, SEED AND MULCH PLACE HAY/STRAW MULCH OR JUTE EROSION CONTROL BLANKET.
 4) IF EROSION OF BENCHES IS OBSERVED, PLACE STRAW EROSION CONTROL MATS AS NEEDED.



CONSTRUCTION NOTES:
 1) INSTALL SILT FENCE WITH BOTTOM BERMED IN EXISTING SOIL PER MANUFACTURER'S / VT DEC RECOMMENDATIONS.
 2) EXCAVATE A 2' WIDE KEYWAY AT THE TOE. IF FIRM AND STABLE SOIL IS NOT OBSERVED AT THE BOTTOM, EXCAVATE TO A MINIMUM OF 18" BELOW FINISHED GRADE.
 3) INSTALL RIPRAP IN 12 TO 18-INCH THICK LIFTS, AND COMPACT WITH EXCAVATOR OR BACKHOE BUCKET, SHAPING TO FINAL GRADE.

OPTION 1 AND 2
221 ST PAUL STREET SLOPE
 BURLINGTON, VERMONT
 FILE NO. 1390-01

G E O D E S I G N
 I N C O R P O R A T E D
 Geotechnical | Construction | Environmental
 Engineers and Scientists
 54 MAIN STREET, P.O. BOX 699 • WOODS, VERMONT 05099
 TEL: (802) 934-2000 • FAX: (802) 934-2000
 www.gdsinc.com

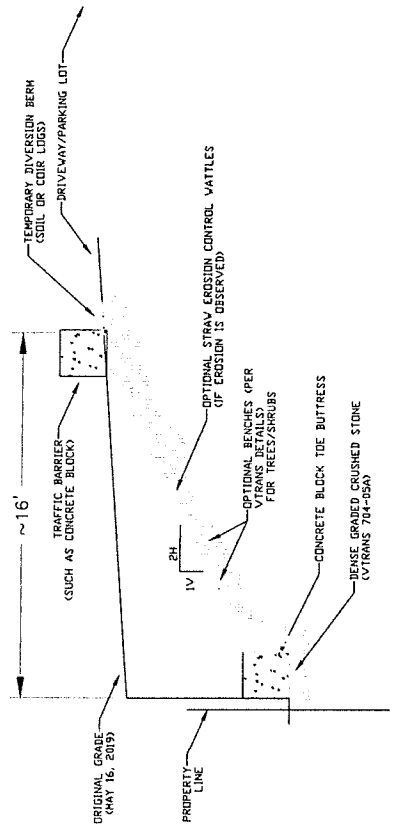
SCALE IN FEET
 0 2.5 5 10
 1" = 5'

DATE: MAY 21, 2019
 FIGURE NO. 2

DRAWN BY: AJB
 REVIEWED BY: TVR

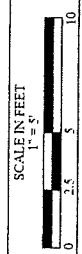
RECEIVED
 MAY 30 2019
 DEPARTMENT OF
 PLANNING & ZONING

OPTION 3: SOIL SLOPE WITH TOE BUTTRESS



- CONSTRUCTION NOTES:**
- 1) INSTALL SILT FENCE WITH BOTTOM BURIED IN EXISTING SOIL PER MANUFACTURER'S / VT DEC RECOMMENDATIONS.
 - 2) EXCAVATE A 2.5 TO 3-FOOT WIDE TRENCH AT THE TOE, 6 INCHES DEEP. IF FIRM AND STABLE SOIL IS NOT OBSERVED, OVER EXCAVATE ANOTHER 6 INCHES.
 - 3) PLACE BENCHES AND CRUSHED STONE (VTRMANS 704-054) AND COMPACT WITH A VIBRATORY PLATE COMPACTOR.
 - 4) PLACE CONCRETE BLOCKS AT TOE, WITH SUFFICIENT OFFSET FROM PROPERTY LINE.
 - 5) BACKFILL BEHIND BLOCKS WITH 6 TO 8-INCH LOOSE LIFTS OF 704-054, AND COMPACT.
 - 6) SHAPE SOIL SLOPE AS WITH OPTION 1.
 - 7) IF A RIPRAP SOLUTION IS USED (NOT SHOWN), CONSTRUCT THAT PORTION AS WITH OPTION 2.

OPTION 3
221 ST PAUL STREET SLOPE
BURLINGTON, VERMONT
 FILE NO. 1390-01



DATE: MAY 31, 2019
 FIGURE NO. 3

G E O D E S I G N
I N C O R P O R A T E D
 Geotechnical | Construction | Environmental
 Engineers and Scientists
 55 MAIN STREET, SUITE 200
 BURLINGTON, VERMONT 05401
 TEL: 802.254.1010
 FAX: 802.254.1011
 WWW.GEODESIGNVT.COM

DRAWN BY: AJB
 REVIEWED BY: TVR