

GREEN MOUNTAIN ENGINEERING, INC.

1438 South Brownell Road
P.O. Box 159
Williston, VT 05495
(802) 862-5590 (Fax) 862-7598

via email

April 23, 2019

Ms. Valerie Caples, Town Administrator
1 South St.
PO Box 249
Bristol, VT 05443

RE: Annual Inspection for Bristol Landfill
GME Project No. 25-015


Dear Ms. Caples;


Green Mountain Engineering, Inc. (GME) conducted the annual inspection of the landfill cap on April 23rd, 2019, for the Bristol Landfill site located on Pine Street in Bristol, Vermont. Enclosed, please find the Explanation of Findings and Photos from the inspection.

A summary of the issues identified during the inspection include minor soil erosion that occurred in many areas, some damage from mowing machinery, and some washouts along the northern drainage swale. GME recommends that areas of disturbance and erosion be restored by scarifying, filling (if needed) and seeding.

If you have any questions regarding these documents, please feel free to contact our office.

Respectfully,
GREEN MOUNTAIN ENGINEERING, INC.


Benjamin P. Cayer
Engineering Technician


Alan Huizenga, P.E.
President

enc.

cc:

**Explanation of Findings
Bristol Landfill Inspection Report - 2019**

Green Mountain Engineering, Inc. performed the inspection for the Bristol Landfill and has recommended the following items be considered for maintenance and/or repair:

1. Several areas of the cap showed erosion as can be seen in attached photos and marked up site plan. The areas shown on the marked plans are approximate, and GME recommends that all areas of erosion be scarified, filled and reseeded to prevent erosion through the cap.
2. The area shown in photo #7 the plan appears to have been damaged by mowing and should be addressed the same way as erosion.
3. The drainage swale along the north limits of the landfill cap is showing some erosion as shown in photo #6 - #9. Any areas where the outer drainage swale is eroded should be restored.

Bristol Landfill Inspection Report – April 2019
Inspection Photographs

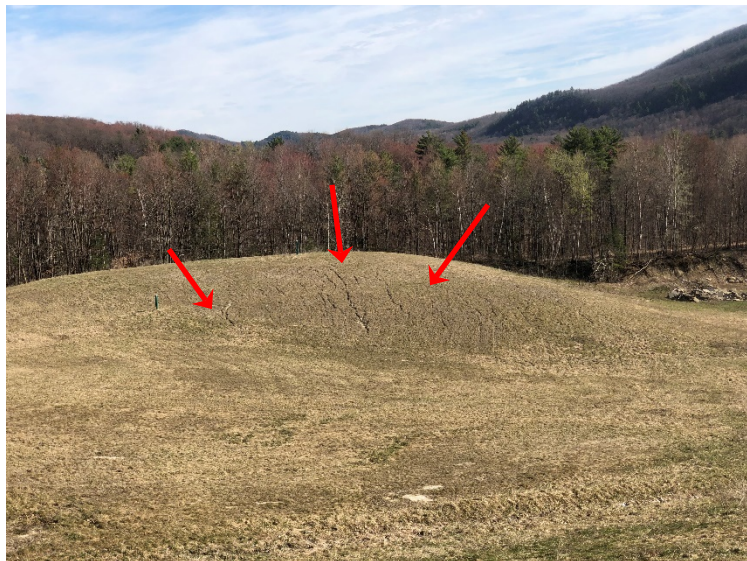


Photo #1: Erosion along southern facing slope



Photo #2: Closeup of eroded areas on north facing southern limit



Photo #3: Closeup of eroded area on south facing slope



Photo #4: Closeup of eroded area on north facing slope

Bristol Landfill Inspection Report – April 2019
Inspection Photographs

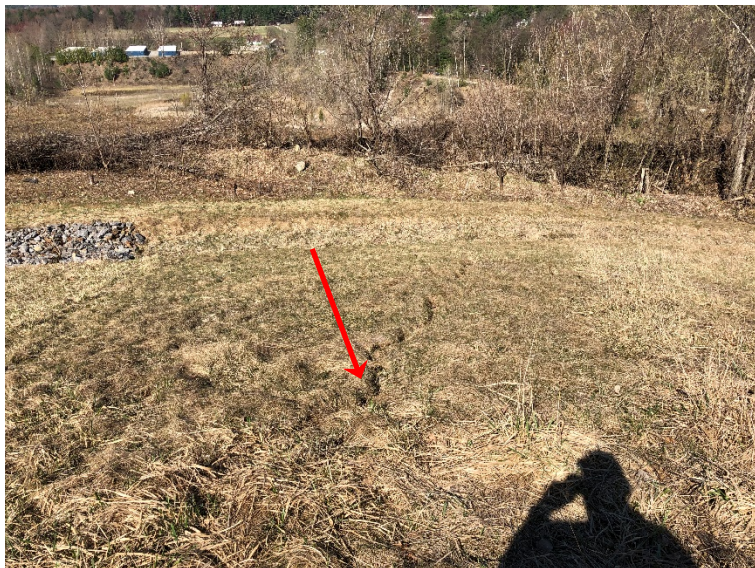


Photo #5: Eroded area on West facing slope



Photo #6: Eroded area on north facing drainage swale



Photo #7: Damage showing some erosion
Green Mountain Engineering, Inc.



Photo #8: Closeup of erosion on north facing swale

Bristol Landfill Inspection Report – April 2019
Inspection Photographs



Photo #9: Erosion along drainage swale on northern limits



Photo #10: Erosion on northeast slope

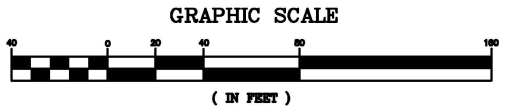
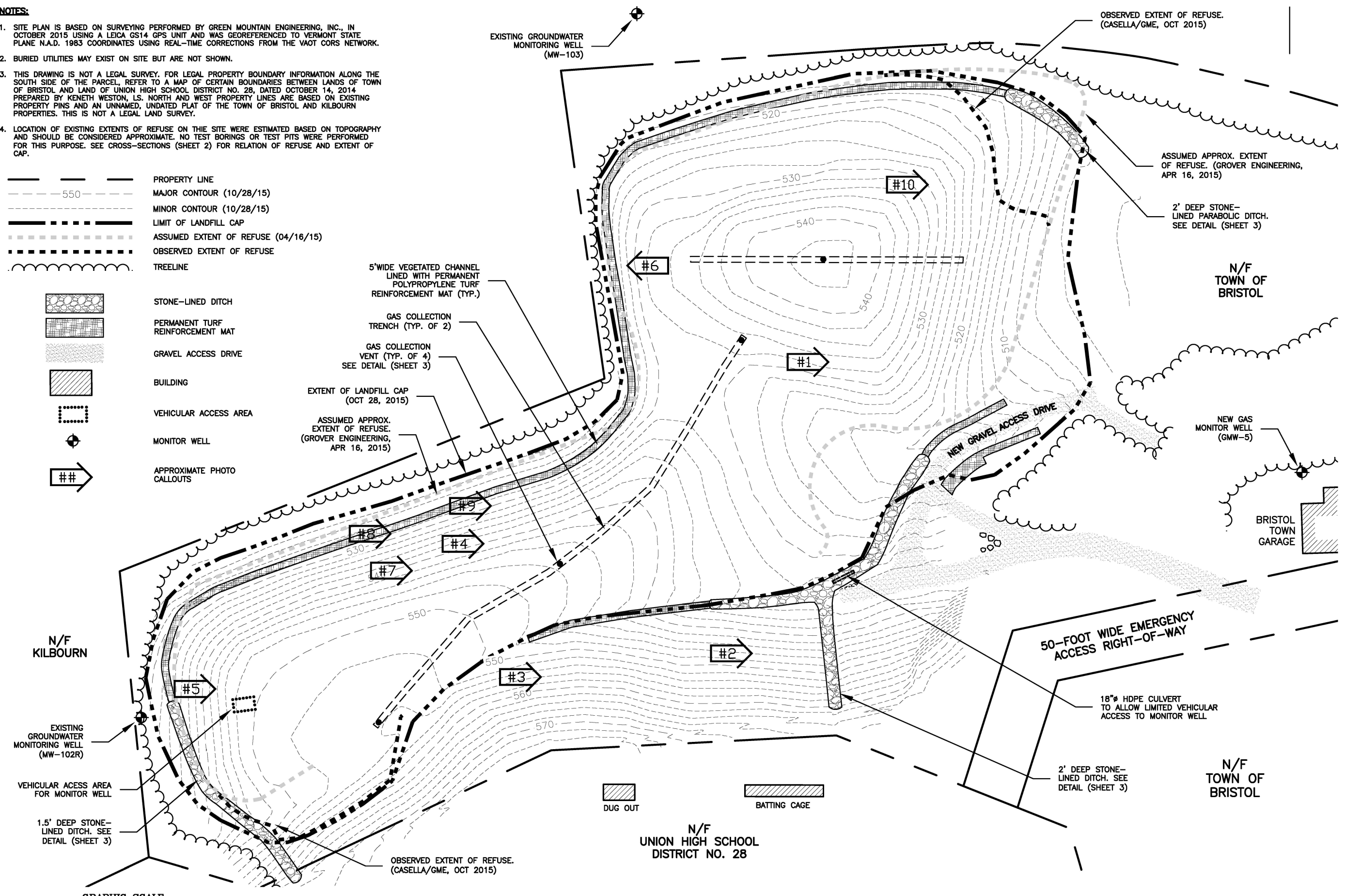
NOTES:

1. SITE PLAN IS BASED ON SURVEYING PERFORMED BY GREEN MOUNTAIN ENGINEERING, INC., IN OCTOBER 2015 USING A LEICA GS14 GPS UNIT AND WAS GEOREFERENCED TO VERMONT STATE PLANE N.A.D. 1983 COORDINATES USING REAL-TIME CORRECTIONS FROM THE VAOT CORS NETWORK.
2. BURIED UTILITIES MAY EXIST ON SITE BUT ARE NOT SHOWN.
3. THIS DRAWING IS NOT A LEGAL SURVEY. FOR LEGAL PROPERTY BOUNDARY INFORMATION ALONG THE SOUTH SIDE OF THE PARCEL, REFER TO A MAP OF CERTAIN BOUNDARIES BETWEEN LANDS OF TOWN OF BRISTOL AND LAND OF UNION HIGH SCHOOL DISTRICT NO. 28, DATED OCTOBER 14, 2014 PREPARED BY KENNETH WESTON, L.S. NORTH AND WEST PROPERTY LINES ARE BASED ON EXISTING PROPERTY PINS AND AN UNNAMED, UNDATED PLAT OF THE TOWN OF BRISTOL AND KILBOURN PROPERTIES. THIS IS NOT A LEGAL LAND SURVEY.
4. LOCATION OF EXISTING EXTENTS OF REFUSE ON THIS SITE WERE ESTIMATED BASED ON TOPOGRAPHY AND SHOULD BE CONSIDERED APPROXIMATE. NO TEST BORINGS OR TEST PITS WERE PERFORMED FOR THIS PURPOSE. SEE CROSS-SECTIONS (SHEET 2) FOR RELATION OF REFUSE AND EXTENT OF CAP.

- — — — — PROPERTY LINE
- - - - - MAJOR CONTOUR (10/28/15)
- - - - - MINOR CONTOUR (10/28/15)
- — — — — LIMIT OF LANDFILL CAP
- - - - - ASSUMED EXTENT OF REFUSE (04/16/15)
- - - - - OBSERVED EXTENT OF REFUSE
- ~ ~ ~ ~ ~ TREELINE

- STONE-LINED DITCH
- PERMANENT TURF REINFORCEMENT MAT
- GRAVEL ACCESS DRIVE
- BUILDING
- VEHICULAR ACCESS AREA
- MONITOR WELL
- APPROXIMATE PHOTO CALLOUTS

- 5' WIDE VEGETATED CHANNEL LINED WITH PERMANENT POLYPROPYLENE TURF REINFORCEMENT MAT (TYP.)
- GAS COLLECTION TRENCH (TYP. OF 2)
- GAS COLLECTION VENT (TYP. OF 4) SEE DETAIL (SHEET 3)
- EXTENT OF LANDFILL CAP (OCT 28, 2015)
- ASSUMED APPROX. EXTENT OF REFUSE. (GROVER ENGINEERING, APR 16, 2015)



SITE PLAN - 2018 INSPECTION RESULTS
SCALE: 1"=80'

RECORD DRAWING

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WILLISTON, VERMONT 05495
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FAX: (802)862-7598

GREEN MOUNTAIN ENGINEERING
CIVIL WATER WASTEWATER

DRAWING TITLE	FINAL CLOSURE SITE PLAN
	BRISTOL TOWN LANDFILL
PROJECT	TOWN OF BRISTOL, VERMONT
CLIENT	
DESIGNED	PROJECT NO. 25-014
DRAWN	RSO
CHECKED BY	AH
PLOT DATE	04/23/19
SCALE	DRAWING NO. 1
DATE	AS SHOWN
JUN 2018	SHEET 1 OF 1