CMA Engineers, Inc.

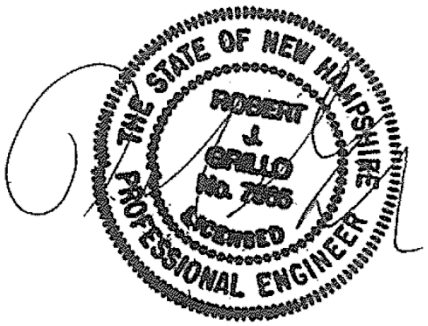
Digitally signed by CMA Engineers, Inc.
Date: 2020.04.03 13:49:45 -04'00'

DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

Type I-A Modification to Solid Waste Management Facility and Waiver Application
Stage VI Landfill Expansion Operating Plan Replacement Pages
North Country Environmental Services Landfill
581 Trudeau Road
Bethlehem, NH 03574

NHDES Site #: 198704033
Project Type: SW-LNDFILL
Project Number: 0021939

Prepared For:
North Country Environmental Services
1855 VT Route 100
Hyde Park, VT 05655
Phone Number (802) 651-5454
RP Contact Name: John Gay
RP Contact Email: john.gay@casella.com



Prepared By:
CMA Engineers, Inc.
35 Bow Street
Portsmouth, NH 03801
Phone Number: (603) 431-6196
Contact Name: Robert J. Grillo, P.E.
Contact Email: rgrillo@cmaengineers.com

Date of Submittal: April 3, 2020

north country ENVIRONMENTAL SERVICES
A Casella Company

1855 Route 100 • Hyde Park, VT 05655 p. 802.223.7045

April 2, 2020

Ms. Jaime Colby, P.E.
Solid Waste Management Bureau
New Hampshire Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

RE: North Country Environmental Services, Inc.
Lined Landfill – Bethlehem, New Hampshire
Type 1-A Permit Modification – Stage VI (DES-SW-SP-03-002)

Dear Ms. Colby:

North Country Environmental Services, Inc. (NCES) writes to provide a replacement page to the proposed Facility Operating Plan pursuant to our Microsoft Team meeting earlier today. This replacement page clarifies the design and operating depth for the first layer of waste to be placed over the containment system within Section 3.7.1 of the proposed Facility Operating Plan for the proposed Stage VI development expansion.

In addition, we are providing the cross-section drawings (S-1 & S-2) that were inadvertently not stamped by the Registered Professional Engineer. Should you have any questions, please do not hesitate to contact me at (802) 651-5454.

Sincerely,

NORTH COUNTRY ENVIRONMENTAL SERVICES, INC.

J. Gay

John Gay, E.I.
Permits, Compliance & Engineering

Encl.

c. Town of Bethlehem, NH
NH Department of Justice/Office of the Attorney General
NH Fish and Game Department
NH Department of Resources and Economic Development
Kevin Roy, NCES
Bryan Gould, Esquire, Cleveland, Waters and Bass, P.A.
Bob Grillo, CMA Engineers

access roads are to be constructed. Swales may be constructed on slopes above the active fill area to divert stormwater runoff away from the landfill.

The filling of the landfill will be under the supervision of the landfill General Manager and in accordance with the fill sequencing Engineering drawings (Appendix H) provided with the pertinent permit ~~modification~~ application.

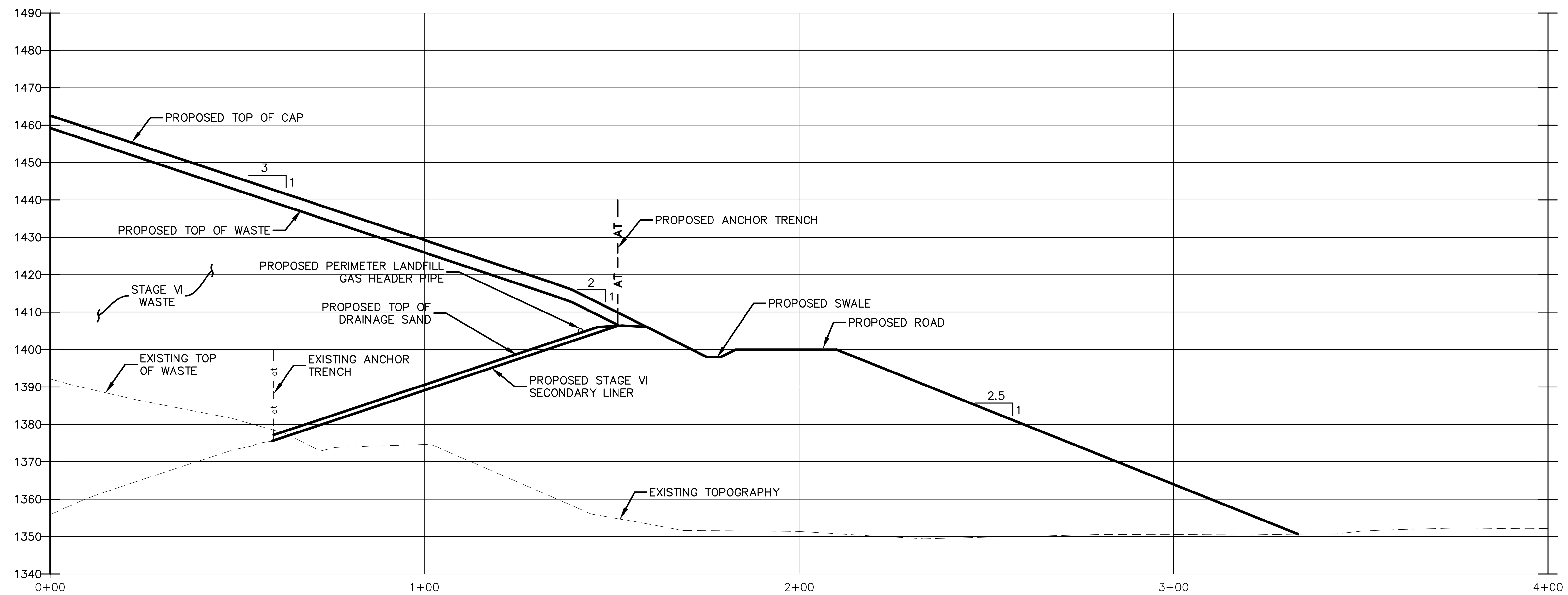
3.7.1 Initial Lift in Base Areas

An initial +/- ~~65~~-foot lift of select refuse (typically household trash) is to be placed above the liner system. Care is to be taken during initial refuse placement in these areas to remove items from the waste that could damage the liner system. During placement of the initial lift in the base areas, a full-time spotter is to observe the placement of refuse onto the base area of the landfill and remove items such as poles, pipes, and steel rods. Compaction of the initial lift in the base area will be performed with a bulldozer or similar equipment to ~~limit the potential for~~avoid damage to the liner system.

3.7.2 Subsequent Lifts

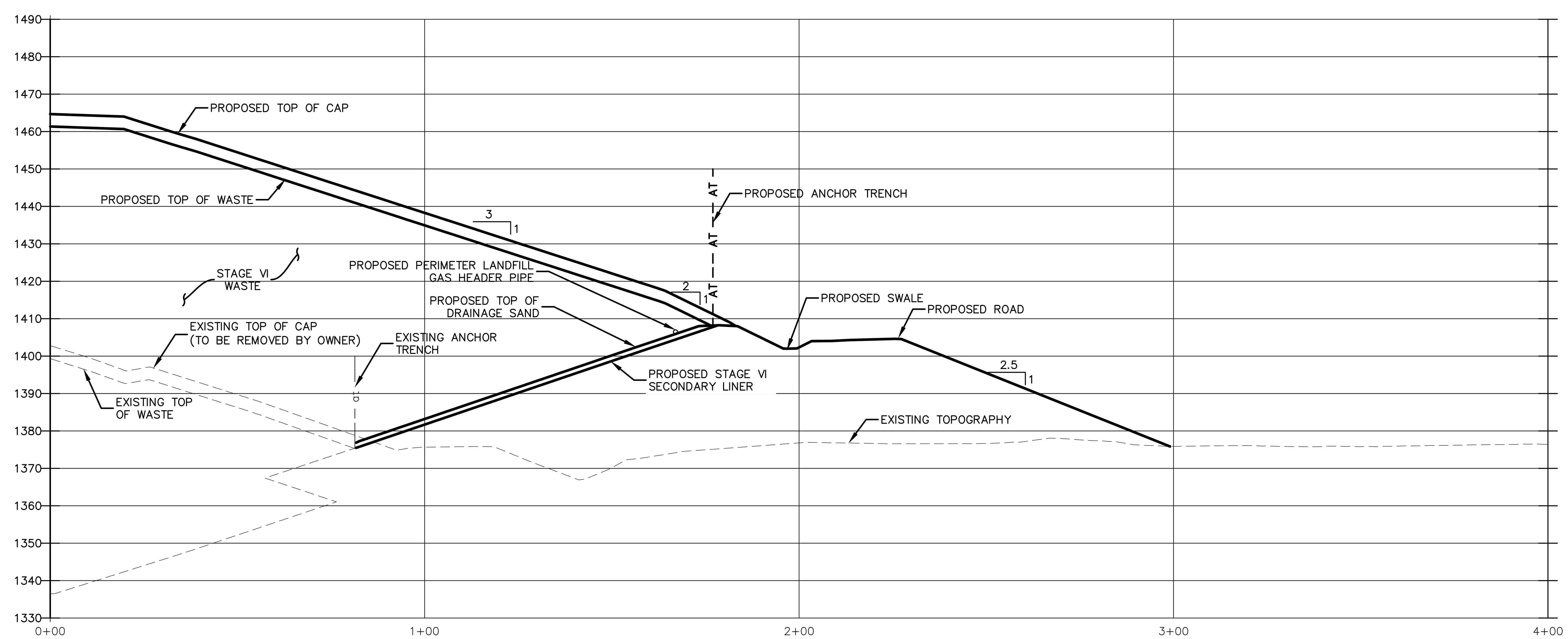
Once the initial lift is placed, additional waste is spread and compacted in shallow layers generally about 2 feet thick with a landfill compactor. Following placement of the initial lift, fill placement is to proceed in daily cells built in successive compacted layers to a height typically between 6 and 15 feet depending upon the incoming refuse volume. Once filling proceeds above perimeter anchor trench grades, lifts will be graded to drain to the perimeter slopes to promote run-off to the perimeter swale. Grading of the top of each daily cell is to slope away from the active face to direct run-off away from the operating area.

It is noted that actual day-to-day operations are left to the



Section A-A'

Horizontal: 1" = 20'
Vertical: 1" = 20'



Section B-B'

Horizontal: 1" = 20'
Vertical: 1" = 20'

no.	revision	date	by

CMA ENGINEERS
CIVIL/ENVIRONMENTAL/STRUCTURAL
Portsmouth, NH • Manchester, NH • Portland, ME
603/431-6196 • 603/627-0708 • 207/541-4223
c m a e n g i n e e r s . c o m

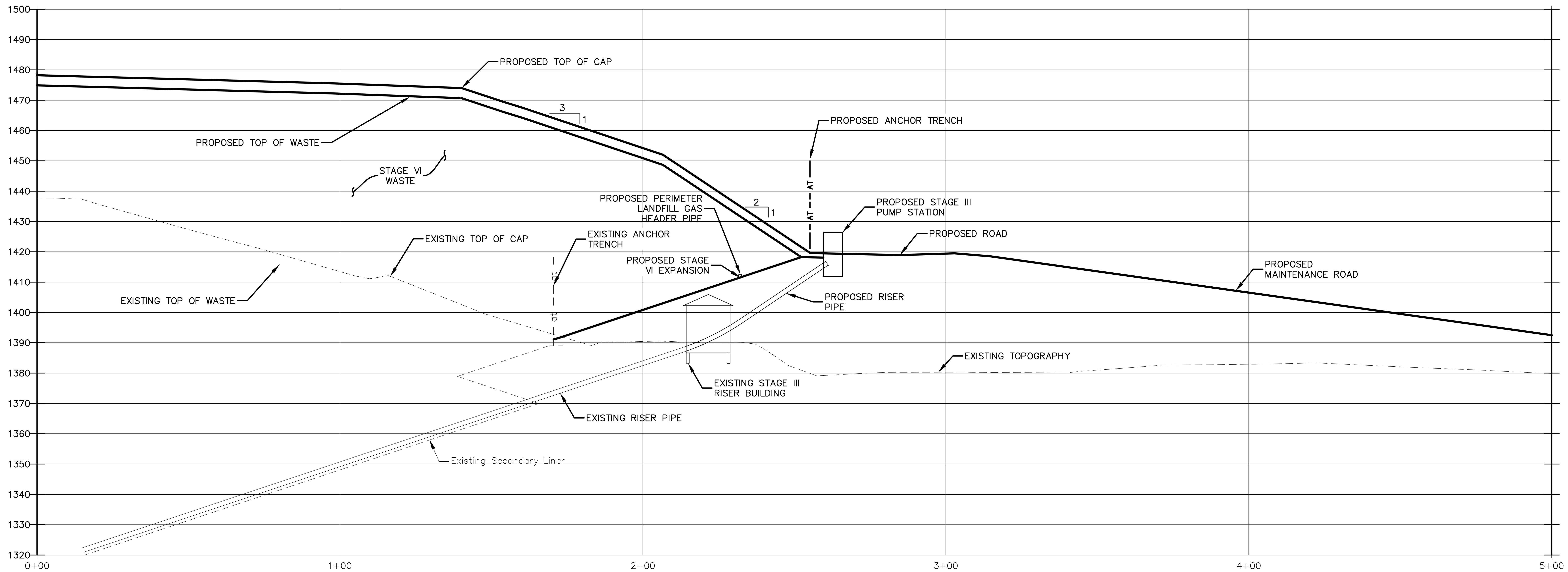
designed by: RJG/AJS
drawn by: ATR/AJS
approved by: RJG
date: March 2020
project no: 1063
file name: 1063- SECTIONS.dwg
scale:

North Country Environmental Services, Inc.
Design Drawings
Stage VI Landfill Expansion
DES-SW-SP-03-002
Landfill Cross Sections

drawing no.
S1

sheet: 15 of 16

F:\CADD\PROJECTS\1063 NCES Southern Expansion\Production\AJS-Type IA - Resubmittal\1063- SECTIONS.dwg Date Plotted: Apr 02, 2020 - 3:51pm Plotted By: ASANDAHL



Section C-C'
Horizontal: 1" = 20'
Vertical: 1" = 20'

no.	revision	date	by

CMA ENGINEERS
CIVIL/ENVIRONMENTAL/STRUCTURAL
Portsmouth, NH • Manchester, NH • Portland, ME
603/431-6196 • 603/627-0708 • 207/541-4223
c m a e n g i n e e r s . c o m

THE STATE OF NEW HAMPSHIRE ROBERT J. GRILLO No. 7866 LICENSED PROFESSIONAL ENGINEER

designed by: RJG/AJS
drawn by: ATR/AJS
approved by: RJG
scale:
date: March 2020
project no: 1063
file name: 1063- SECTIONS.dwg

North Country Environmental Services, Inc.
Design Drawings
Stage VI Landfill Expansion
DES-SW-SP-03-002
Landfill Cross Sections

drawing no.
S2
sheet: 16 of 16

F:\CADD\PROJECTS\1063 NCES Southern Expansion\Production\AJS-Type IA – Resubmittal\1063- SECTIONS.dwg Date Plotted: Apr 02, 2020 – 3:52pm Plotted By: ASANDAHL