SMITH+GARDNER
ENGINEERS

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November 4, 2014

Permit No.	Date	Document ID No.
43-03	November 04, 2014	22245

Mr. Ming-Tai Chao, P.E.
Environmental Engineer
NC DENR - Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699

Received by an e-mail
Date: **November 04, 2014**
Solid Waste Section
Raleigh Central Office

RE: Harnett County Anderson Creek C&DLF (Permit No. 43-03)
Phases I & II Extension - Revised Final Cover Grading Plan

Dear Mr. Chao:

Per your request and on behalf of Harnett County, Smith Gardner, Inc. (S+G) would like to provide the **attached** revised final cover grading plan. This plan revises the final grading plan shown in the approved permit drawings to reflect the as-built berm location for the Phases I & II Extension which was documented in the recently submitted CQA report.

In order to demonstrate that the revised grading plan provides essentially the same capacity as that previously approved, the net volume between the as-built grades for the Phases I & II Extension and 2013 topography was determined. This volume (37,787 CY from 2013 topography to top of intermediate cover) was compared with the volume for the previously permitted grading plan (36,871 CY from 2013 topography to top of intermediate cover) (see **attached** cut/fill isopachs). Given that the net volume figures are within approximately 2.5% of each other, the capacity of the revised grading plan is essentially the same capacity as that previously approved.

Please contact me at your earliest convenience if you should have any questions or comments or if additional information is required.

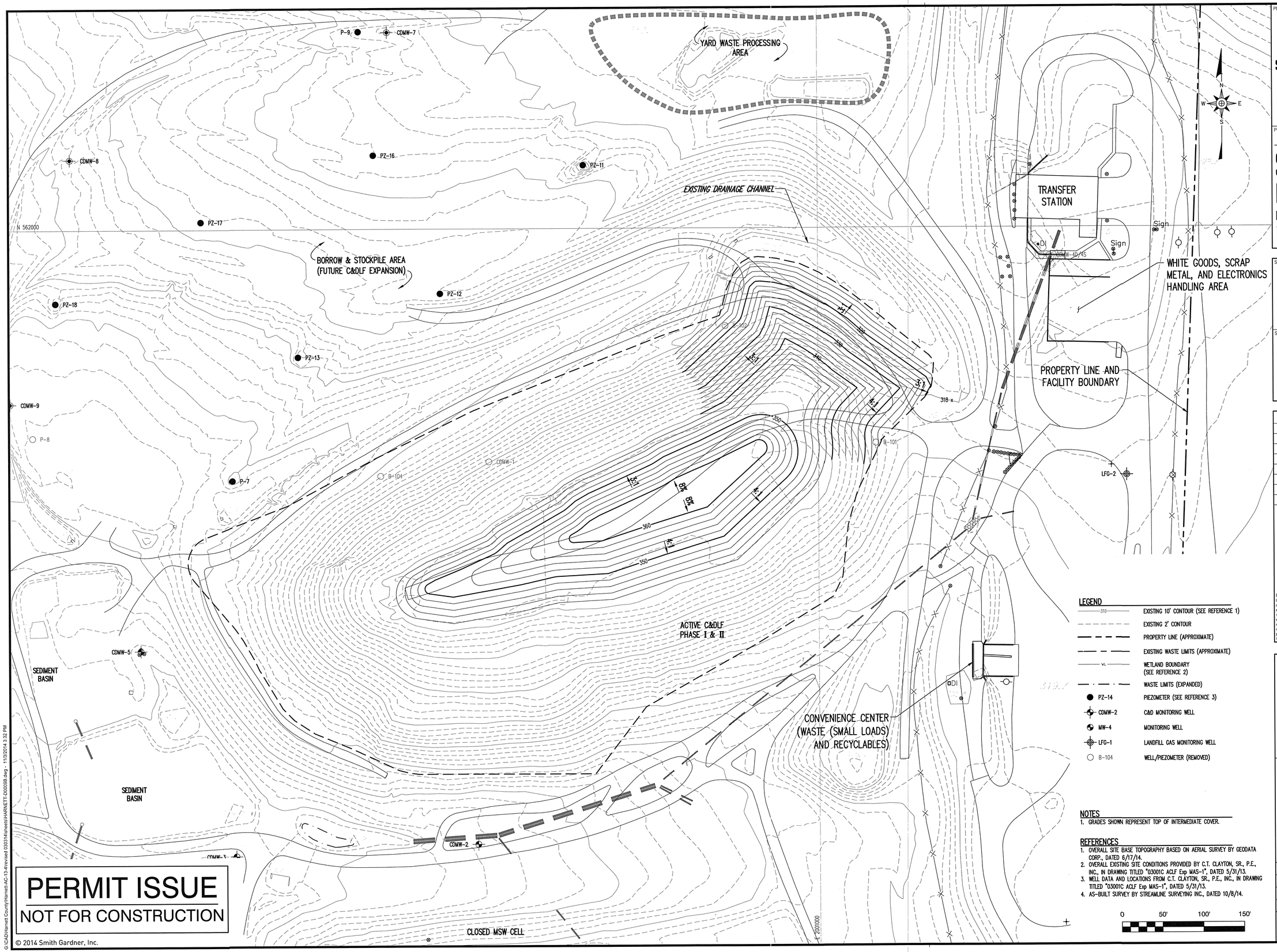
Sincerely,
SMITH GARDNER, INC.

NORTH CAROLINA PROFESSIONAL SEAL 021666 ENGINEER PIETER K. SCHEER
11/4/14

Pieter K. Scheer, P.E.
Vice President, Senior Engineer
pieter@smithgardnerinc.com

Attachments: Revised Final Cover Grading Plan
Cut/Fill Isopach - Revised Grades to 2013 Topo.
Cut/Fill Isopach - Permit Grades to 2013 Topo.

cc: Amanda Bader, P.E., Harnett County
Randy Smith, Harnett County
Andrew Holland, Harnett County



PERMIT ISSUE
NOT FOR CONSTRUCTION

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G:\CAD\Harnett County\Harnett-AC-13-4\revised 030314\sheets\HARNETT-D0009B.dwg - 11/3/2014 3:32 PM

LEGEND

310	EXISTING 10' CONTOUR (SEE REFERENCE 1)
	EXISTING 2' CONTOUR
	PROPERTY LINE (APPROXIMATE)
	EXISTING WASTE LIMITS (APPROXIMATE)
WL	WETLAND BOUNDARY (SEE REFERENCE 2)
	WASTE LIMITS (EXPANDED)
PZ-14	PIEZOMETER (SEE REFERENCE 3)
CDMW-2	C&D MONITORING WELL
MW-4	MONITORING WELL
LFG-1	LANDFILL GAS MONITORING WELL
B-104	WELL/PIEZOMETER (REMOVED)

NOTES

1. GRADES SHOWN REPRESENT TOP OF INTERMEDIATE COVER.

REFERENCES

1. OVERALL SITE BASE TOPOGRAPHY BASED ON AERIAL SURVEY BY GEODATA CORP., DATED 6/17/14.
2. OVERALL EXISTING SITE CONDITIONS PROVIDED BY C.T. CLAYTON, SR., P.E., INC., IN DRAWING TITLED "03001C ACLF Exp MAS-1", DATED 5/31/13.
3. WELL DATA AND LOCATIONS FROM C.T. CLAYTON, SR., P.E., INC., IN DRAWING TITLED "03001C ACLF Exp MAS-1", DATED 5/31/13.
4. AS-BUILT SURVEY BY STREAMLINE SURVEYING INC., DATED 10/8/14.

0 50' 100' 150'

PREPARED FOR:

HARNETT COUNTY
NORTH CAROLINA
SOLID WASTE DEPARTMENT

PREPARED BY:

NC LIC. NO. C-0828 (ENGINEERING)

SMITH+ GARDNER
ENGINEERS
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 021666 ENGINEER PIETER K. SCHEER 11/4/14

SEAL

REV.	DATE	DESCRIPTION
1	3/14	REVISIONS PER DWM
		COMMENTS

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PROJECT TITLE:

ANDERSON CREEK C&D LANDFILL PHASES I & II

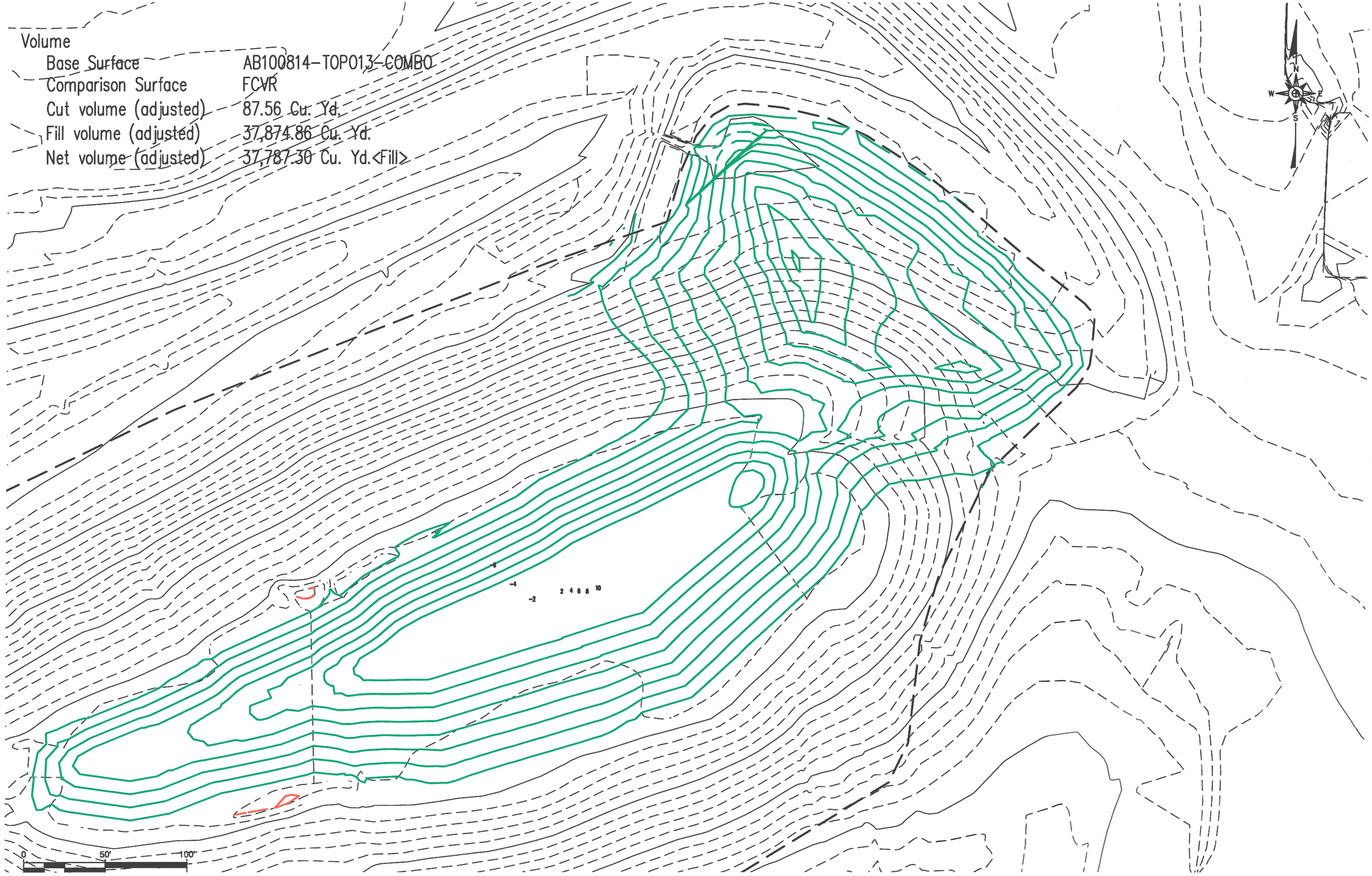
DRAWING TITLE:

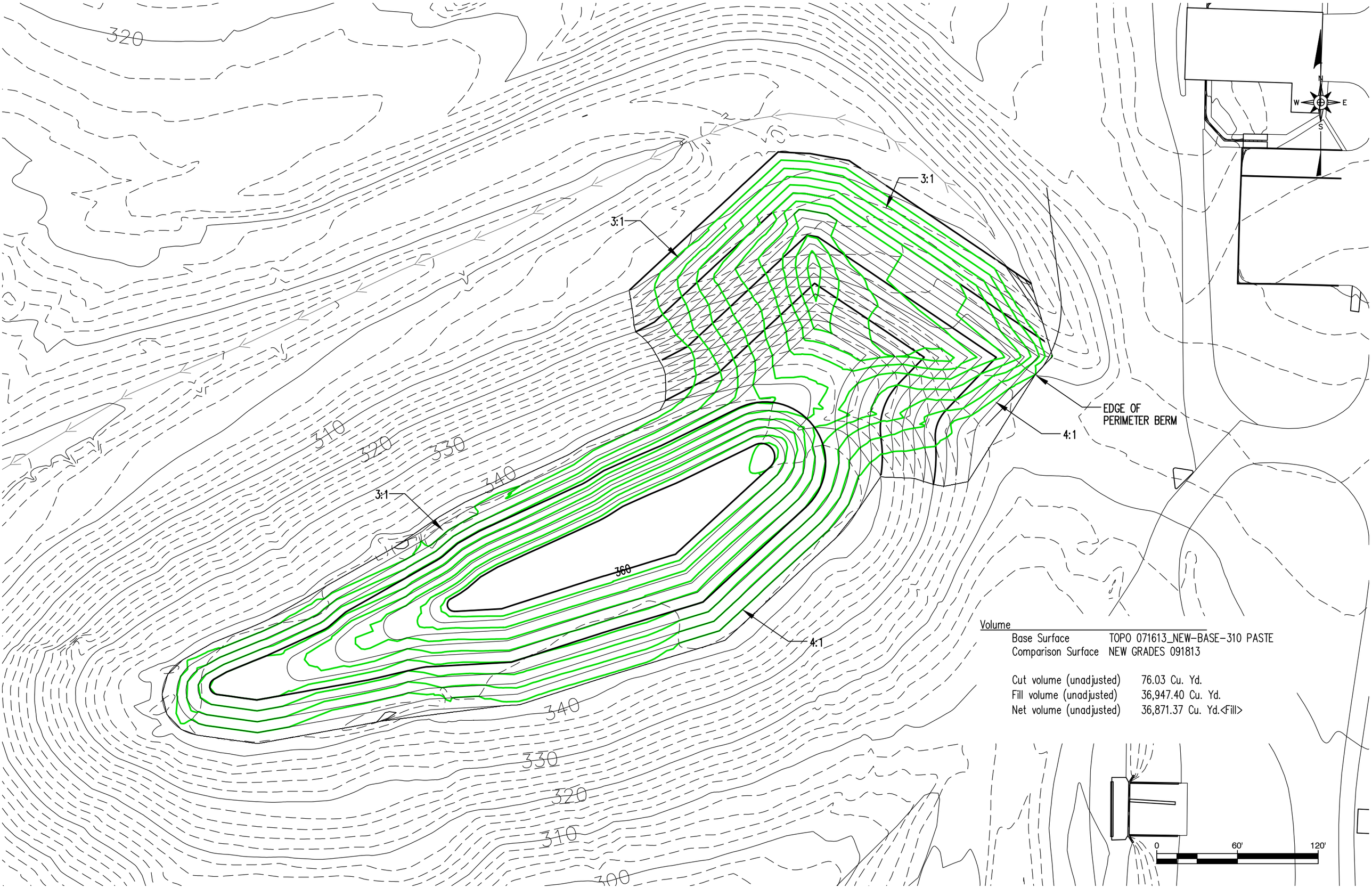
REVISED FINAL COVER GRADING PLAN

DESIGNED: P.K.S.	PROJECT NO: HARNETT-AC-13-4
DRAWN: K.C.B.	SCALE: AS SHOWN
APPROVED: PKS	DATE: JAN. 2014
FILENAME: HARNETT-D0009B	
SHEET NUMBER:	DRAWING NUMBER: FIG. 1

Volume

Base Surface	AB100814-TOP013-COMBO
Comparison Surface	FCVR
Cut volume (adjusted)	87.56 Cu. Yd.
Fill volume (adjusted)	37,874.86 Cu. Yd.
Net volume (adjusted)	37,787.30 Cu. Yd.<Fill>





Volume

Base Surface	TOPO 071613_NEW-BASE-310 PASTE
Comparison Surface	NEW GRADES 091813
Cut volume (unadjusted)	76.03 Cu. Yd.
Fill volume (unadjusted)	36,947.40 Cu. Yd.
Net volume (unadjusted)	36,871.37 Cu. Yd.<Fill>

From:	Pieter Scheer
To:	Chao, Ming-tai
Cc:	Amanda Bader; Randy W. Smith; Andrew Holland; Scheer, Pieter
Subject:	Harnett County - Anderson Creek C&DLF - Phases I & II Extension - Revised Final Cover Grading Plan
Date:	Tuesday, November 04, 2014 10:42:03 AM
Attachments:	DWM (Chao) AC C&DLF Revised Grading Plan 11-04-14.pdf

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Ming:

Attached is a letter transmitting the revised grading plan and documenting that the capacity is essentially the same as previously approved. Please let me know if you have any questions or comments or need anything further on this.

Thanks.

Pieter

Pieter K. Scheer, P.E.
Vice President, Senior Engineer

SMITH + GARDNER

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