Engineering, Planning,
Landscape Architecture
and Environmental Science

MILONE & MACBROOM®

November 5, 2013

Mr. Ernest Steinauer, Chairman
Nantucket Conservation Commission
2 Bathing Beach Road
Nantucket, MA 02554

RE: Project Update
Baxter Road Temporary Stabilization Application
Town of Nantucket
Nantucket, Massachusetts
MMI #2967-11-4

Dear Chairman Steinauer and Members of the Conservation Commission:

Milone & MacBroom, Inc. (MMI) wanted to take a moment prior to the hearing on November 6, 2013 to address a few minor points relating to the application.

1. Revised project plans (dated November 5, 2013) are attached to this letter. A record set will be brought to the November 6, 2013 hearing. Revisions reflect minor changes as follows:

    a. The scour anchor at the upper project limit is eliminated. Current plans call for the scour apron to be wrapped around the upper tube. This was done to eliminate the need to cut into the bank.
    b. The Flanking Detail presented at the hearing of October 30, 2013 is included in the plan set.
    c. The construction staging area detail presented at the hearing of October 30, 2013 is included in the plan set.

2. We have reviewed the comments submitted by the Nantucket Land Council (NLC) and, while we expect that NLC's consultants may have lingering concerns to be addressed at the meeting, in our opinion the design team has provided a response in our November 1 letter that substantively addresses their concerns. The following is provided as clarification to specific points:

    a. Applied Coastal Research and Engineering remains concerned about the beach mitigation volume and the availability of the mitigation volume. We are evaluating this and will discuss this in more detail at the hearing.
    b. ACRE requested additional monitoring cross sections around the ends of the project. Attached is a Figure depicting proposed additional monitoring cross sections that the town is proposing to provide as part of the monitoring program.
    c. ACRE expressed concern about lack of quantitative failure criteria. We disagree that the criteria as presented are quantifiable but offer the following clarification:
        i. Complete failure means 100% loss of sand from one or more bags that necessitates replacement of the bag. Partial loss of sediment from a bag would not constitute failure so long as the manufacturer agrees the bag is repairable.

ii. If the system is flanked, the repair will be corrected as soon as possible after the failure occurs. ACRE suggests seven days to correct flanking, but this may or may not be possible depending on storm movements through the area. If this must be quantified, then we suggest 30 days would be an appropriate window to require repair.

We appreciate the Conservation Commission's continued consideration of this application and look forward to discussing this with you in more detail on November 6, 2013.

Very truly yours,

MILONE & MACBROOM, INC.

Nicolle E. Burnham, P.E., CFM
Principal

Enclosures
Project Plans dated October 25, 2013, revised November 5, 2013
Figure 1 – WHG Survey Lines prepare by Epsilon

cc: Kara Buzanoski, Public Works Director

2967-11-4-n513-ltr.docx

BAXTER ROAD TEMPORARY STABILIZATION NOI SUBMISSION

BAXTER ROAD
NANTUCKET, MASSACHUSETTS

October 25, 2013
REVISED: NOVEMBER 5, 2013

PROJECT SITE VICINITY MAP:

NOT TO SCALE

LOCATION MAP:

NOT TO SCALE

PREPARED FOR:

TOWN OF NANTUCKET
NANTUCKET, MASSACHUSETTS

LIST OF DRAWINGS

SHEET NO.	TITLE
1	TITLE SHEET
2	EXISTING CONDITIONS
3	GENERAL PLAN
4	TYPICAL CROSS SECTION
5	FLANKING DETAIL
6	CONSTRUCTION STAGING AREA
7-11	CROSS SECTIONS

PREPARED BY:

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

DESIGNER: MILONE & MACBROOM, INC.

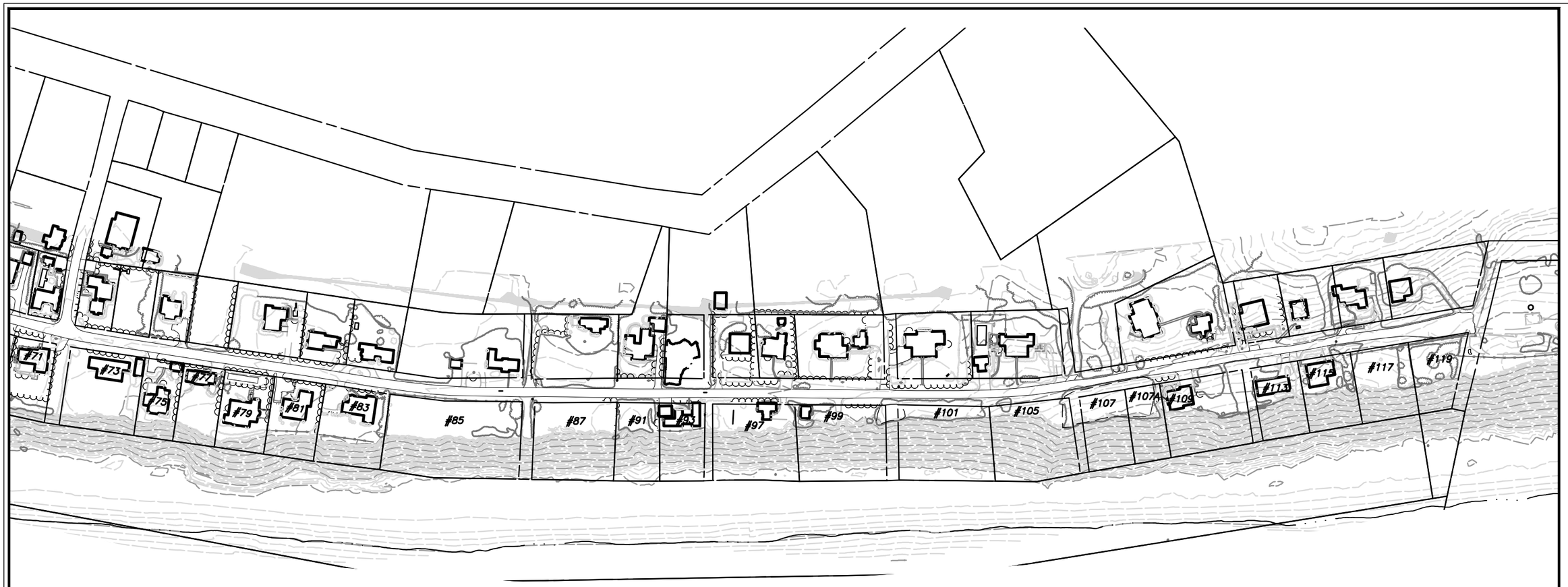
BY: James Macbroom

DATE: November 5, 2013

P.E. NO.: 43052

COMMONWEALTH OF MASSACHUSETTS
JAMES G. MacBROOM
CIVIL
No. 43052
REGISTERED PROFESSIONAL ENGINEER

Milone & MacBroom, Inc. - 2013



ATLANTIC OCEAN

GENERAL NOTES

1. ALL ELEVATIONS ARE BASED ON MEAN LOW WATER DATUM (M.L.W.=0.0')
2. CONTOURS SHOWN IN 2 FOOT INTERVALS.
3. EXISTING TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN TAKEN FROM A LIDAR SURVEY PROVIDED BY COL–EAST AND BLACKWELL & ASSOCIATES, INC. PERFORMED ON JULY 15, 2013, AND CAN ONLY REFLECT CONDITIONS AS THEY EXISTED AT THE TIME OF THE SURVEY.

0' 100' 200'
0 1/2" 1"

FOR PERMITTING PURPOSES ONLY

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

EXISTING CONDITIONS - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD	SMW	--
DESIGNED	DRAWN	CHECKED

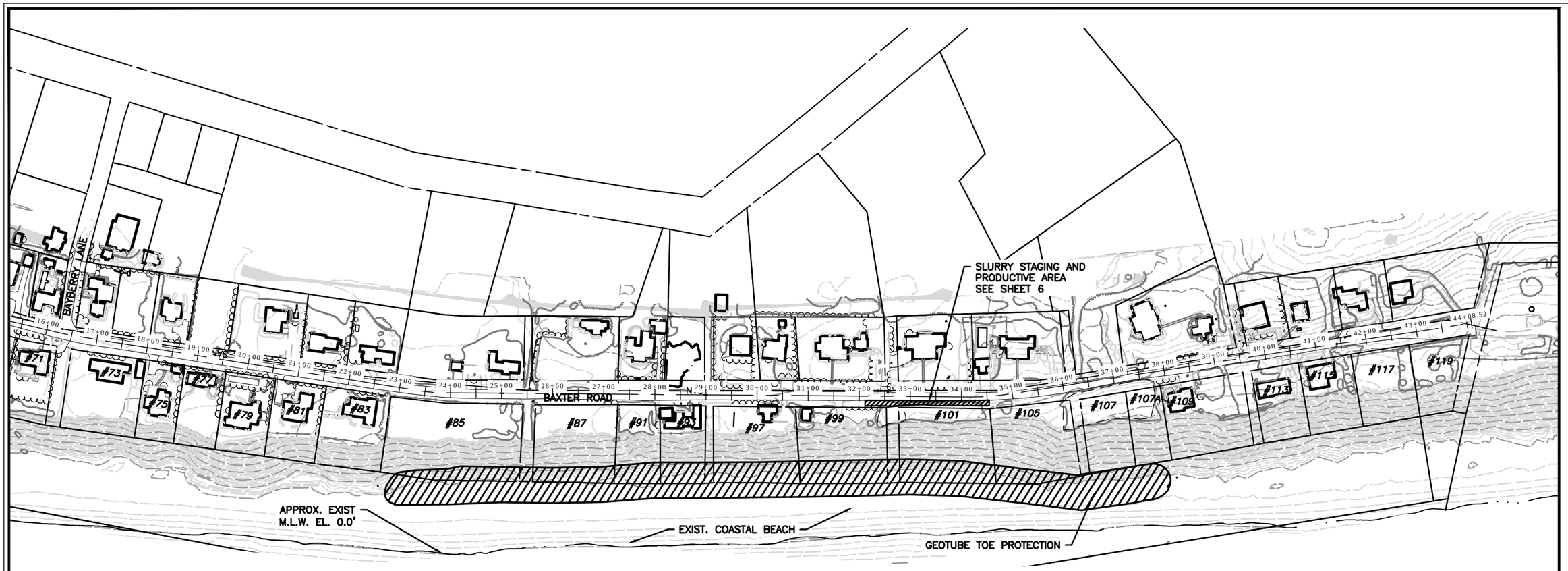
SCALE: 1" = 200'

DATE: OCT. 25, 2013

PROJECT NO.: 2967-11

SHEET NO.: 2 OF 11

SHEET NAME: EXIST



ATLANTIC OCEAN

NOTE:

LENGTH = 1,500 LF
AREA OF IMPACT = 105,320 SF

GENERAL NOTES

1. ALL ELEVATIONS ARE BASED ON MEAN LOW WATER DATUM (M.L.W.=0.0')
2. CONTOURS SHOWN IN 2 FOOT INTERVALS.
3. EXISTING TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN TAKEN FROM A LIDAR SURVEY PROVIDED BY COL–EAST AND BLACKWELL & ASSOCIATES, INC. PERFORMED ON JULY 15, 2013, AND CAN ONLY REFLECT CONDITIONS AS THEY EXISTED AT THE TIME OF THE SURVEY.
4. LIMITS OF SAND COVER OVER THE GEOTEXTILE TUBES NOT SHOWN FOR CLARITY. FOR LIMITS SEE TYPICAL SECTION ON SHEET 4 AND CROSS SECTIONS SHEETS 7 THRU 11.
5. GEOTUBE LIMITS, ELEVATIONS AND SLOPE IS BASED ON DESIGN PROVIDED BY MACAFFERI AND OCEAN & COASTAL CONSULTANTS.

0' 100' 200'
0 1/2" 1"

FOR PERMITTING PURPOSES ONLY

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

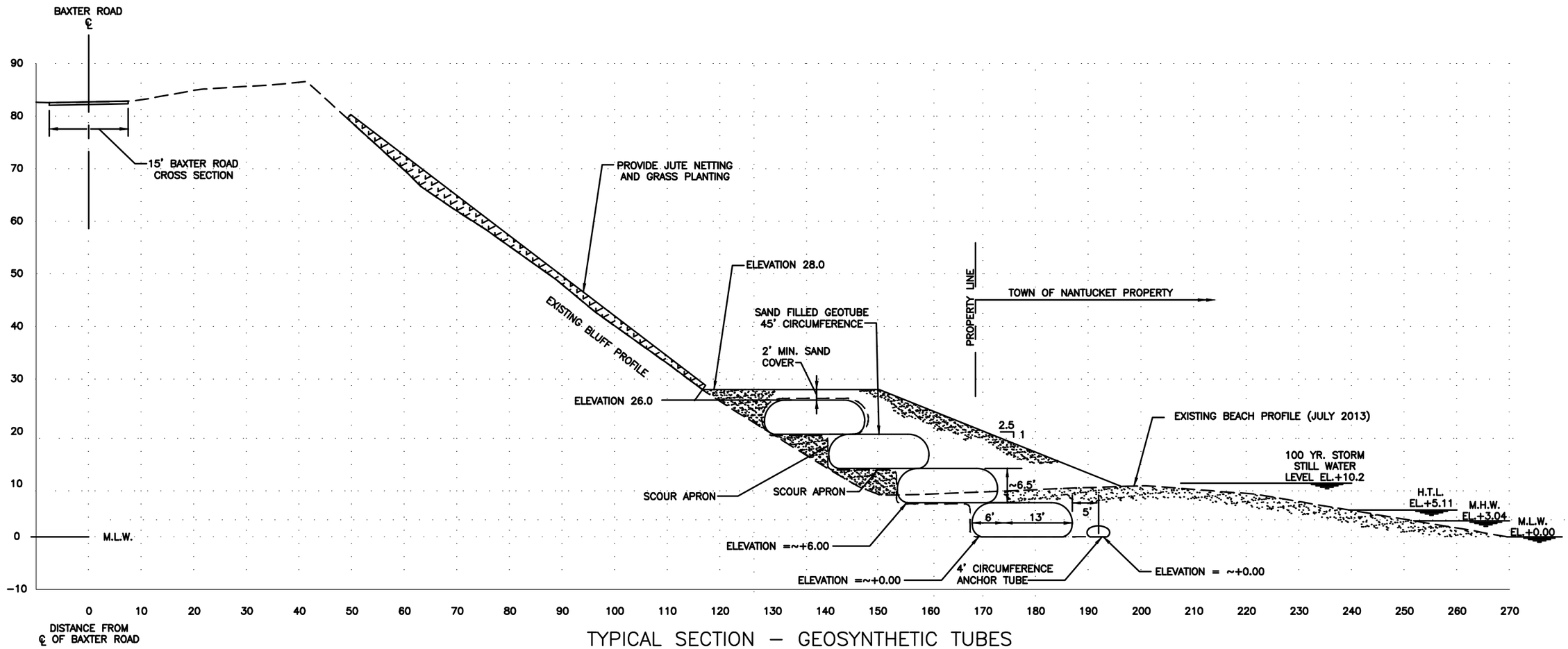
GENERAL PLAN - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD	SMW	--
DESIGNED	DRAWN	CHECKED

SCALE: 1" = 200'
DATE: OCT. 25, 2013
PROJECT NO.: 2967-11
SHEET NO.: 3 OF 11
SHEET NAME: GEN

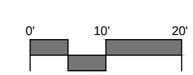


TYPICAL SECTION – GEOSYNTHETIC TUBES

GENERAL NOTES

1. THIS GEOTEXTILE TUBE SLOPE PROTECTION IS SUBMITTED FOR TEMPORARY SHORT–TERM STABILIZATION OF THE BLUFF ENVIRONMENT AND IS NOT INTENDED TO BE INSTALLED AS A PERMANENT STRUCTURE.
2. ALL ELEVATIONS ARE BASED ON MEAN LOW WATER DATUM (M.L.W.=0.0').
3. GEOTEXTILE TUBES SHALL OVERLAP IN STEPPED LAYERS WITH THE WIDTH OVERLAPPED TO PROVIDE AN EFFECTIVE SLOPE OF 2:1.
4. SLOPE OF GEOTEXTILE TUBE STACK SHALL NOT BE STEEPER THAN 1:2.
5. GEOTEXTILE TUBE FABRIC SHALL BE MACCAFERRI MACTUBE OS 500, OR APPROVED EQUAL, WITH EITHER A COMPOSITE OR SHROUD ATTACHED TO THE TOP OF THE GEOTEXTILE TUBE WHERE EXPOSED TO ELEMENTS.
6. SCOUR APRON SHALL BE APPROXIMATELY 60' WIDE SO AS TO EXTEND ALONG THE BOTTOM CONTOUR OF STACKED GEOTEXTILE TUBE CONFIGURATION.
7. SAND BACKFILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED PRIOR TO PLACEMENT OF UPPER GEOTEXTILE TUBE LAYER, SO AS TO PROVIDE A FLAT STABLE BENCH FOUNDATION FOR THE GEOTEXTILE TUBE INSTALLATION.
8. CONTRACTOR SHALL UTILIZE CONSTRUCTION TECHNIQUES WHICH ELIMINATE THE POSSIBILITY OF RIPPING/PUNCTURING GEOTEXTILE TUBE SYSTEM.

FOR PERMITTING PURPOSES ONLY



MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

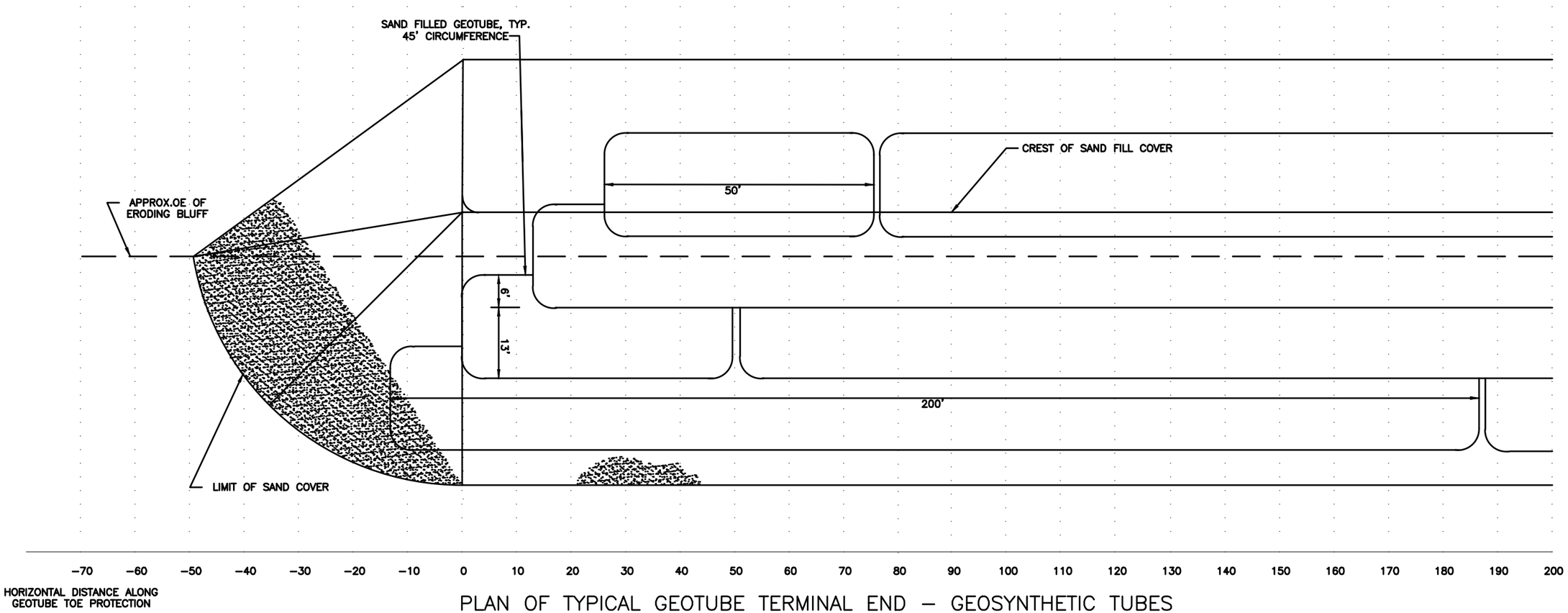
REVISIONS

TYPICAL CROSS SECTION - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

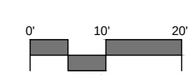
NANTUCKET, MASSACHUSETTS

RSD (DESIGNED)	SMW (DRAWN)	-- (CHECKED)
SCALE	HOR: 1"=20' VERT: 1"=20'	
DATE	OCT. 25, 2013	
PROJECT NO.	2967-11	
SHEET NO.	4 OF 11	
SHEET NAME	TYP	



PLAN OF TYPICAL GEOTUBE TERMINAL END – GEOSYNTHETIC TUBES

FOR PERMITTING PURPOSES ONLY



MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

TYPICAL FLANKING DETAIL - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD DESIGNED	SMW DRAWN	-- CHECKED

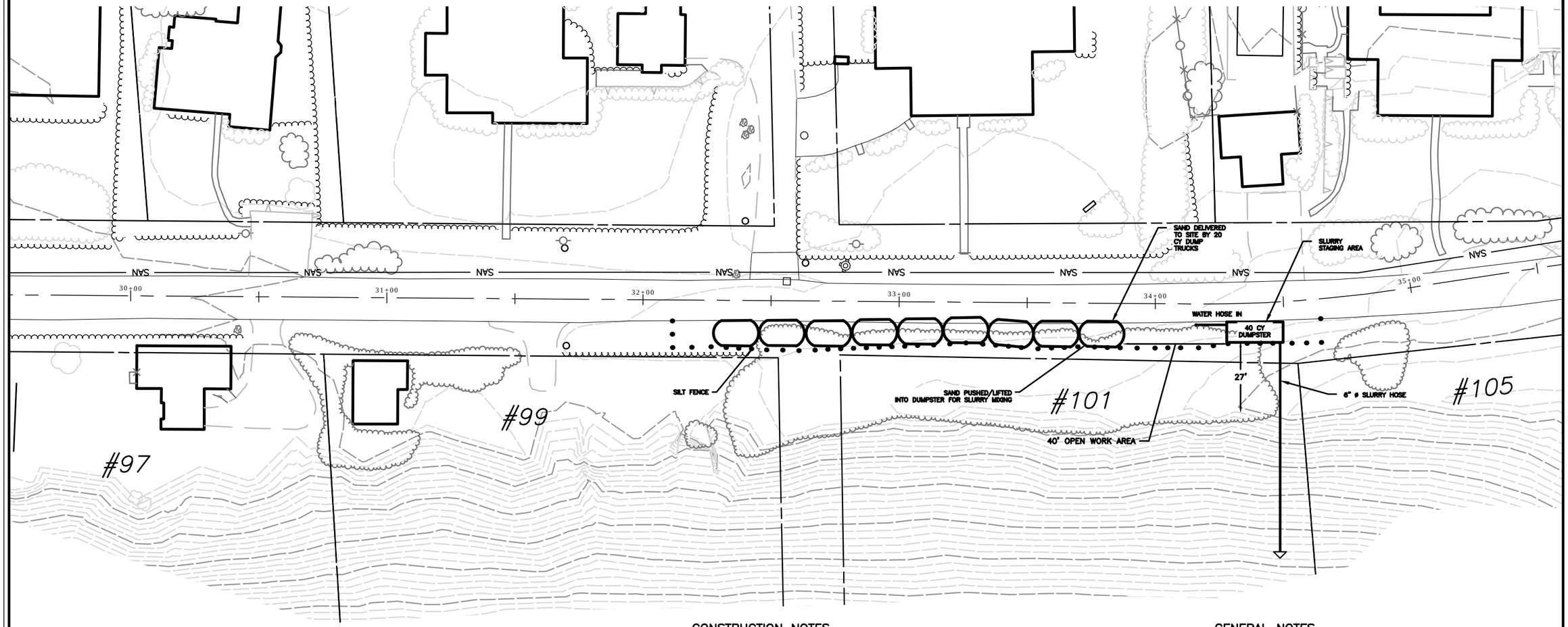
SCALE HOR: 1"=20'
VERT: 1"=20'

DATE OCT. 25, 2013

PROJECT NO. 2967-11

SHEET NO. 5 OF 11

SHEET NAME TYP



CONSTRUCTION NOTES

1. INSTALL SILT FENCE 25' FROM TOP OF BANK
2. EXISTING VEGETATION IS TO BE REMOVED FROM THE WORK AREA
3. DUMPSTER AND STOCK PILES TO BE LOCATED 25' FROM TOP OF BANK
4. CONTRACTOR TO PROVIDE POLICE DETAIL OR OTHER TRAFFIC CONTROL DEVICE AS REQUIRED BY NANTUCKET DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

1. ALL ELEVATIONS ARE BASED ON MEAN LOW WATER DATUM (M.L.W.=0.0')
2. CONTOURS SHOWN IN 2 FOOT INTERVALS.
3. EXISTING TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN TAKEN FROM A LIDAR SURVEY PROVIDED BY COL–EAST AND BLACKWELL & ASSOCIATES, INC. PERFORMED ON JULY 15, 2013, AND CAN ONLY REFLECT CONDITIONS AS THEY EXISTED AT THE TIME OF THE SURVEY.

0' 20' 40'
0 1/2" 1"

FOR PERMITTING PURPOSES ONLY

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

STAGING PLAN - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD	SMW	--
DESIGNED	DRAWN	CHECKED

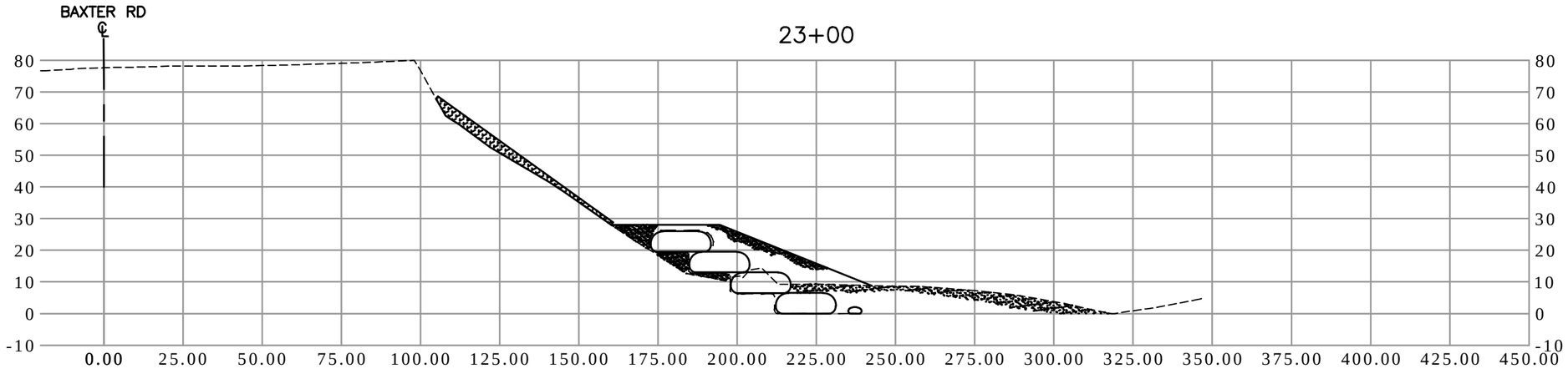
SCALE: 1" = 40'

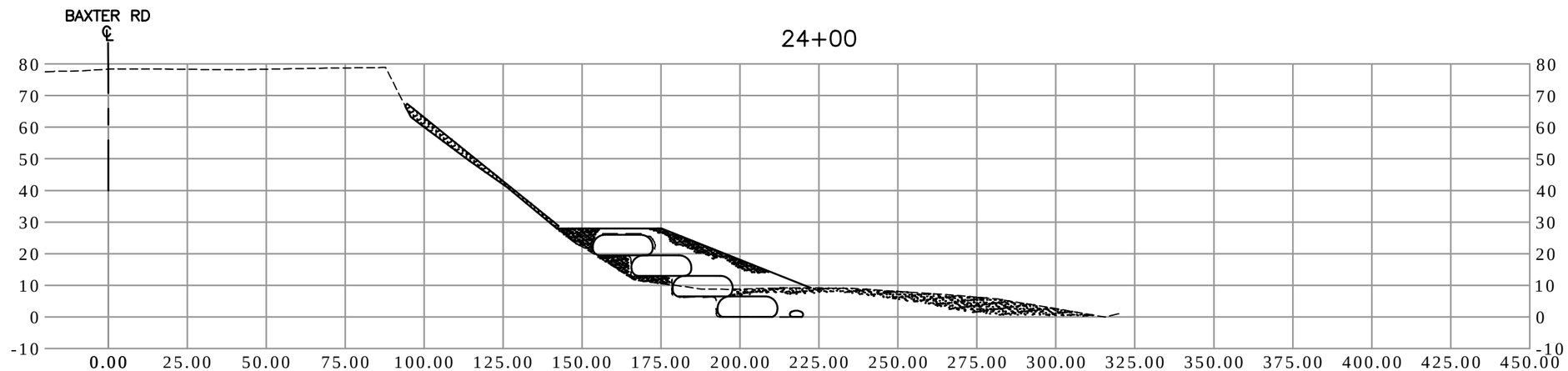
DATE: OCT. 25, 2013

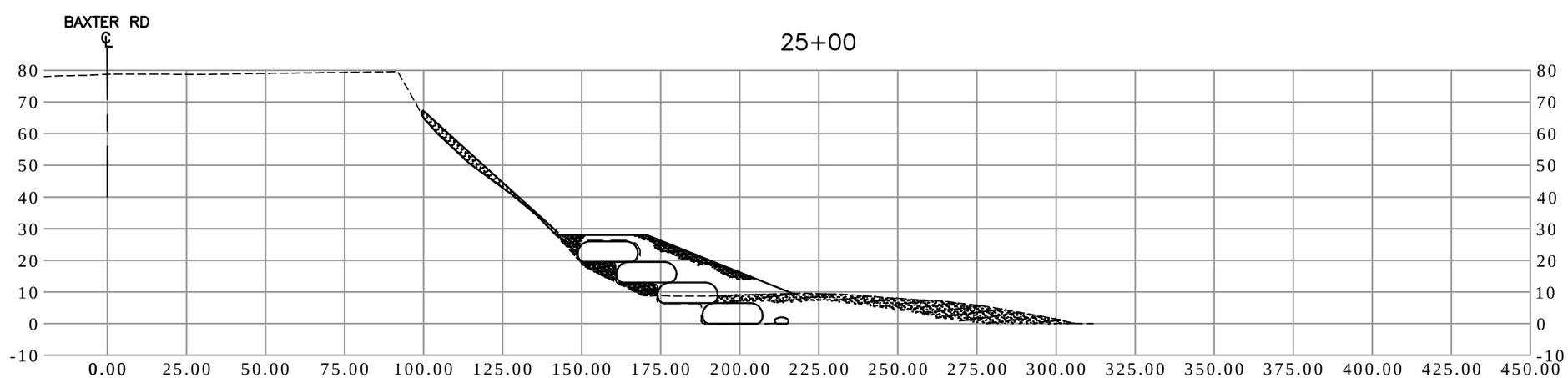
PROJECT NO.: 2967-11

SHEET NO.: 6 OF 11

SHEET NAME: STAGING







FOR PERMITTING PURPOSES ONLY

0' 20' 40'
0 1/2" 1"

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

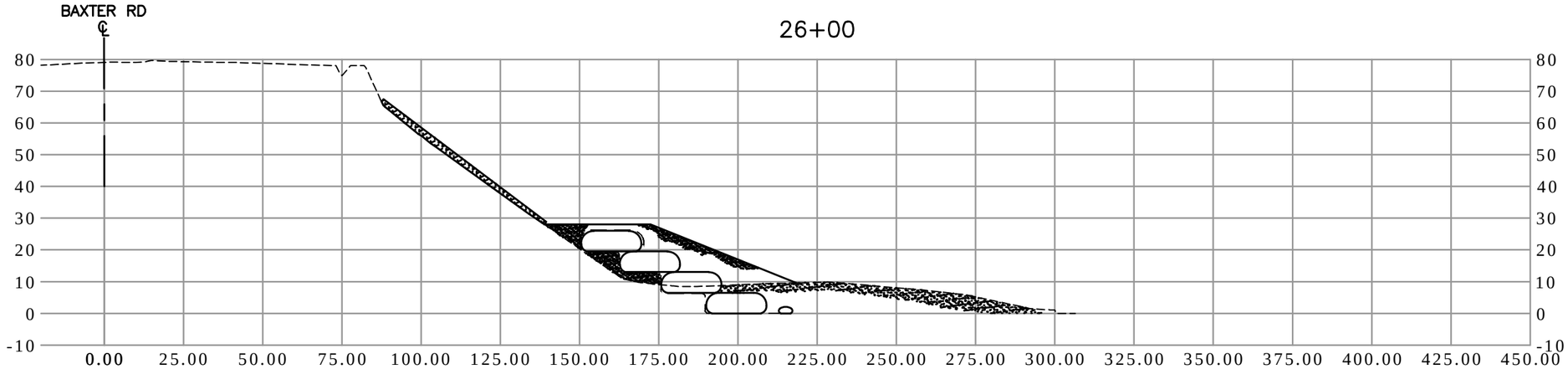
REVISIONS

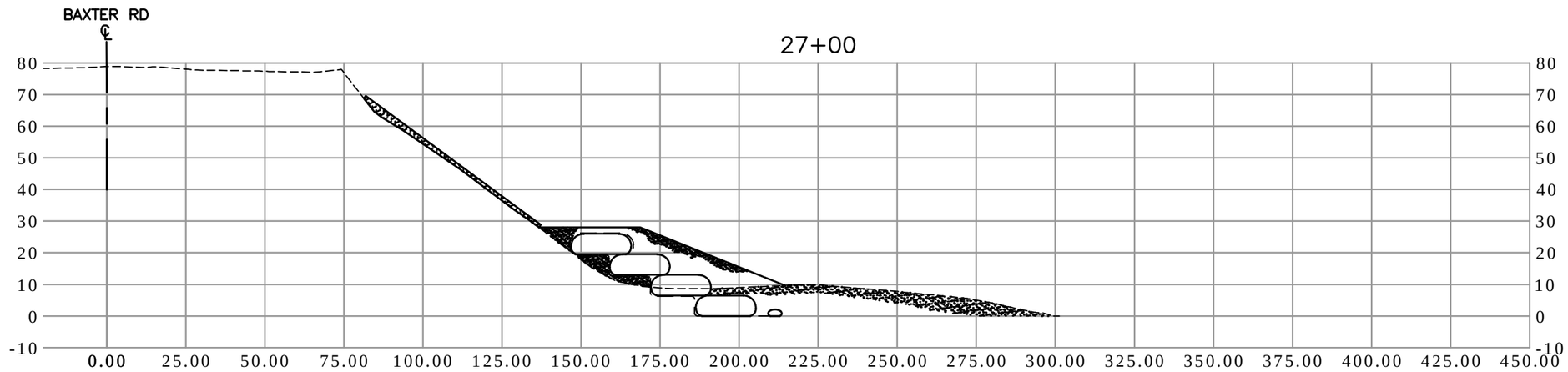
CROSS SECTIONS - TEMPORARY SLOPE STABILIZATION

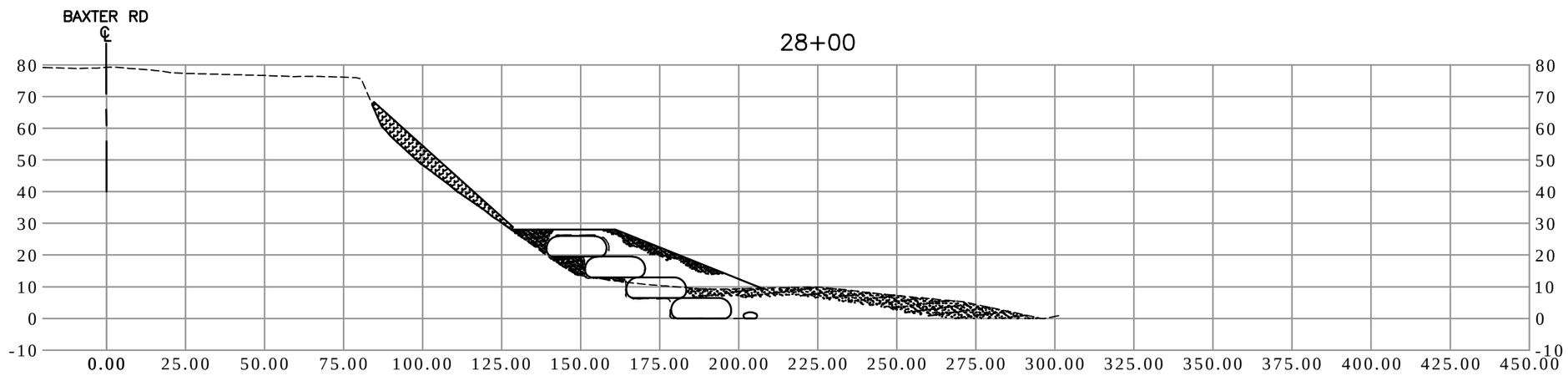
BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD DESIGNED	SMW DRAWN	-- CHECKED
SCALE	HOR: 1"=40' VERT: 1"=40'	
DATE	OCT. 25, 2013	
PROJECT NO.	2967-11	
SHEET NO.	7 OF 11	
SHEET NAME	X-SECTION	







FOR PERMITTING PURPOSES ONLY

0' 20' 40'
0 1/2" 1"

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

CROSS SECTIONS - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD	SMW	--
DESIGNED	DRAWN	CHECKED

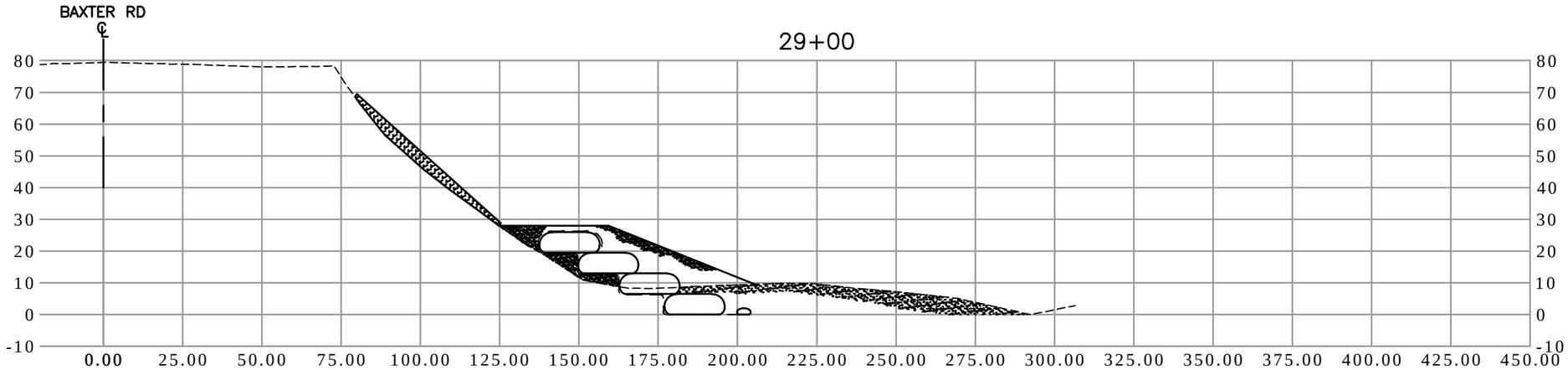
SCALE: HOR: 1"=40'
VERT: 1"=40'

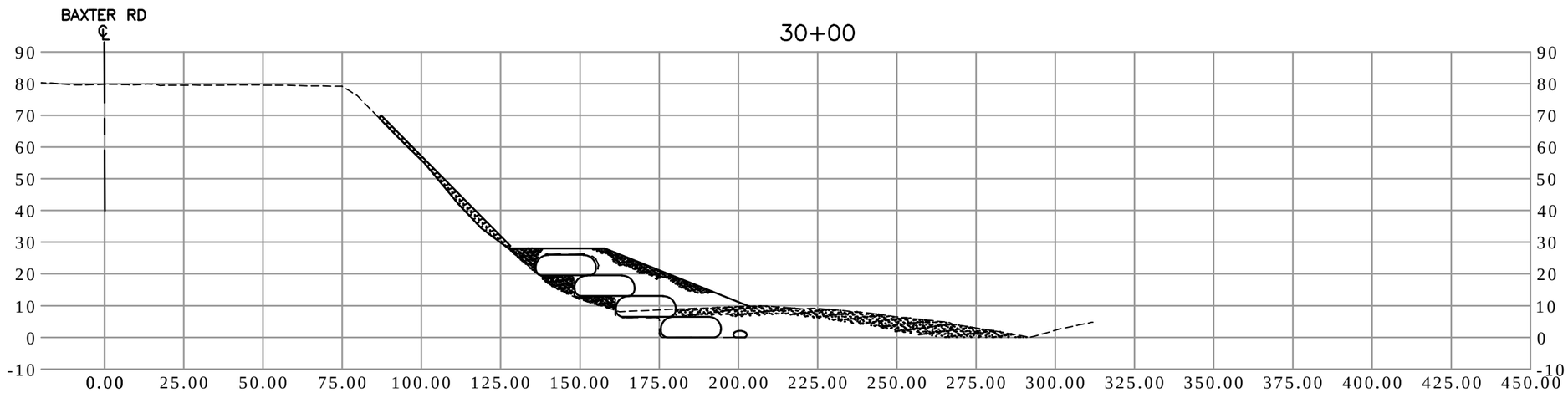
DATE: OCT. 25, 2013

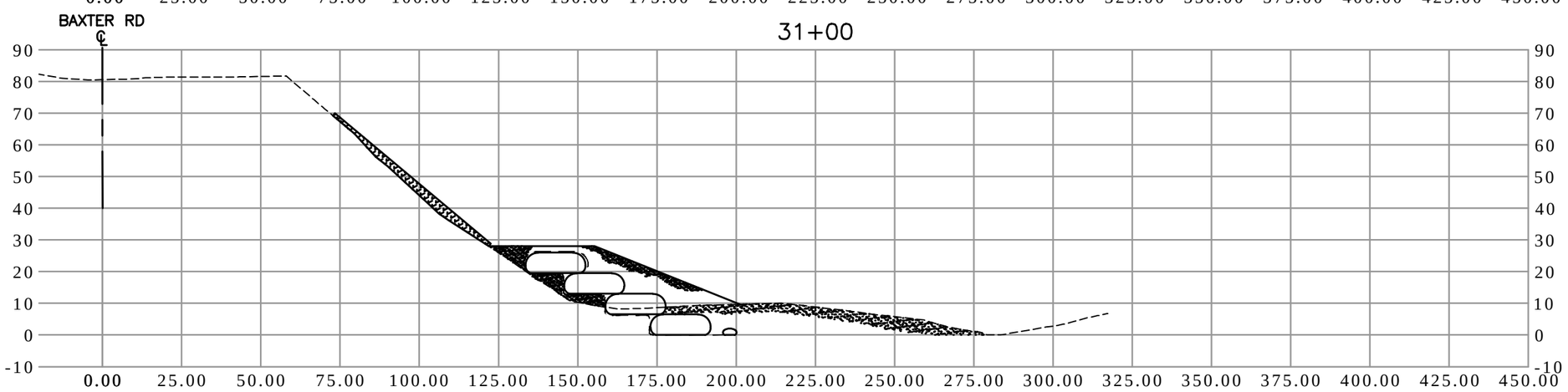
PROJECT NO. 2967-11

SHEET NO. 8 OF 11

SHEET NAME: X-SECTION







FOR PERMITTING PURPOSES ONLY

0' 20' 40'
0 1/2" 1"

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

CROSS SECTIONS - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD	SMW	--
DESIGNED	DRAWN	CHECKED

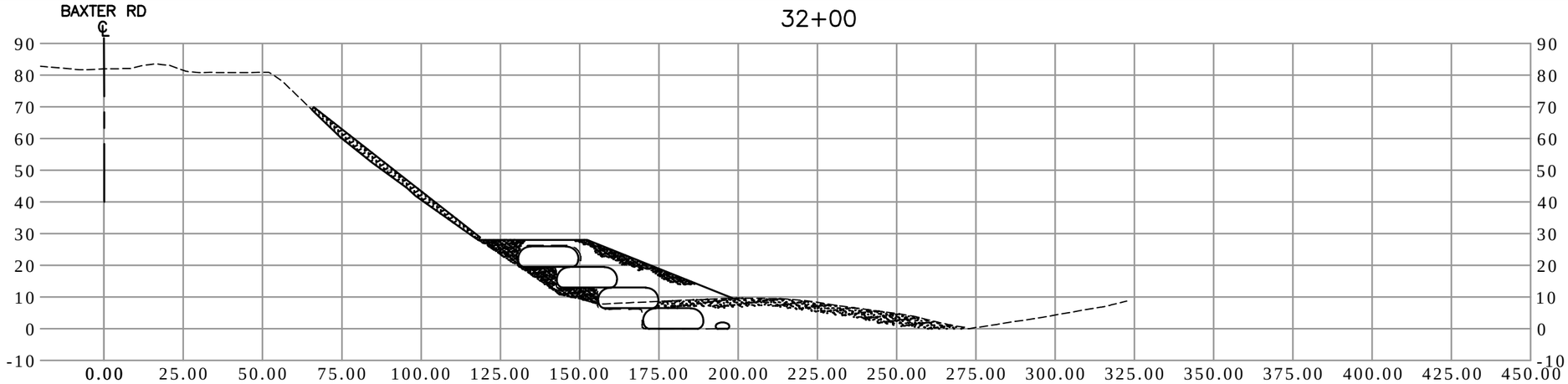
SCALE: HOR: 1"=40'
VERT: 1"=40'

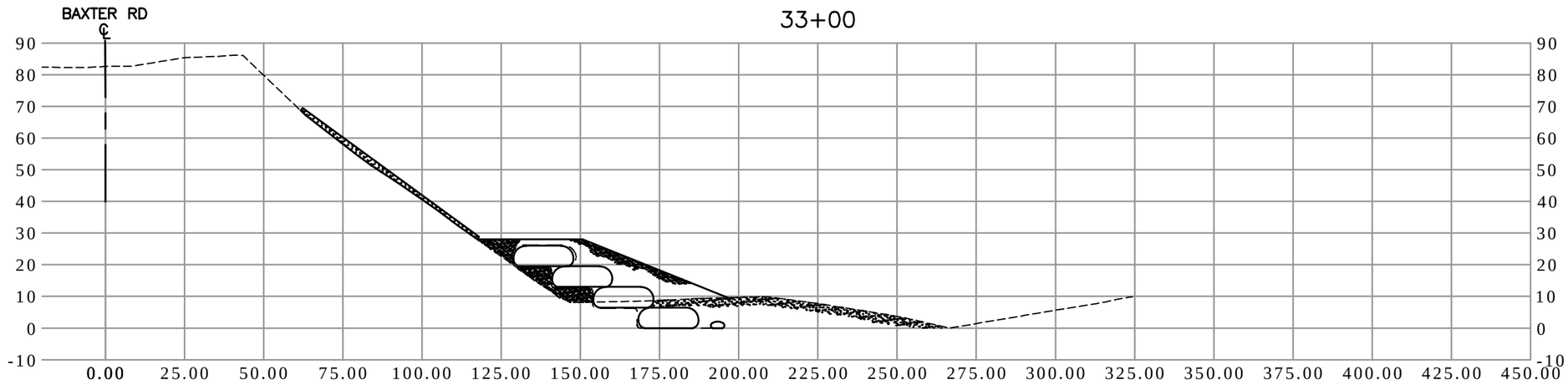
DATE: OCT. 25, 2013

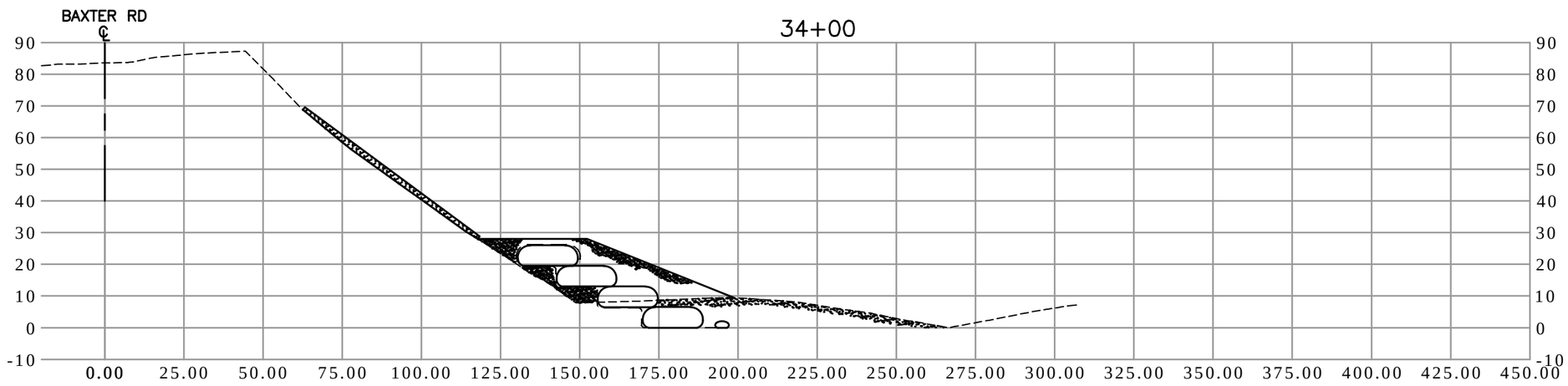
PROJECT NO. 2967-11

SHEET NO. 9 OF 11

SHEET NAME: X-SECTION







FOR PERMITTING PURPOSES ONLY

0' 20' 40'
0 1/2" 1"

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

CROSS SECTIONS - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD	SMW	--
DESIGNED	DRAWN	CHECKED

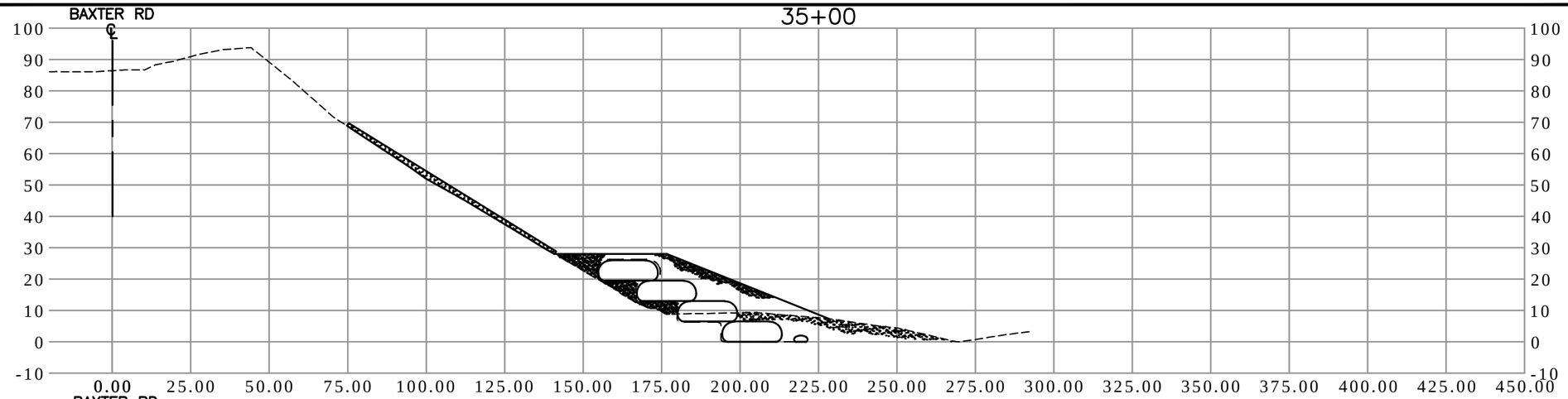
SCALE HOR: 1"=40'
VERT: 1"=40'

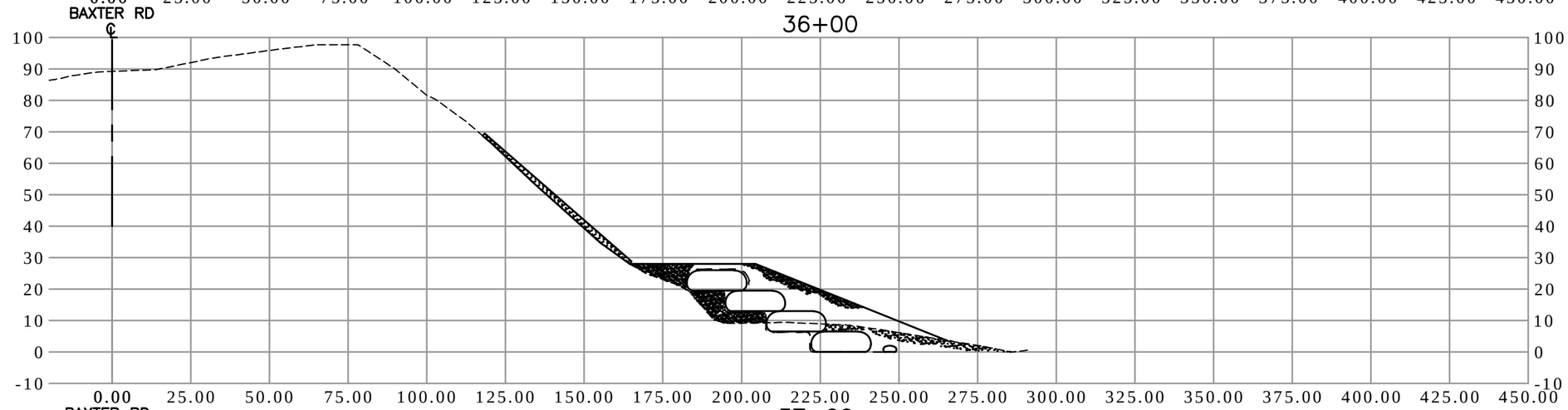
DATE OCT. 25, 2013

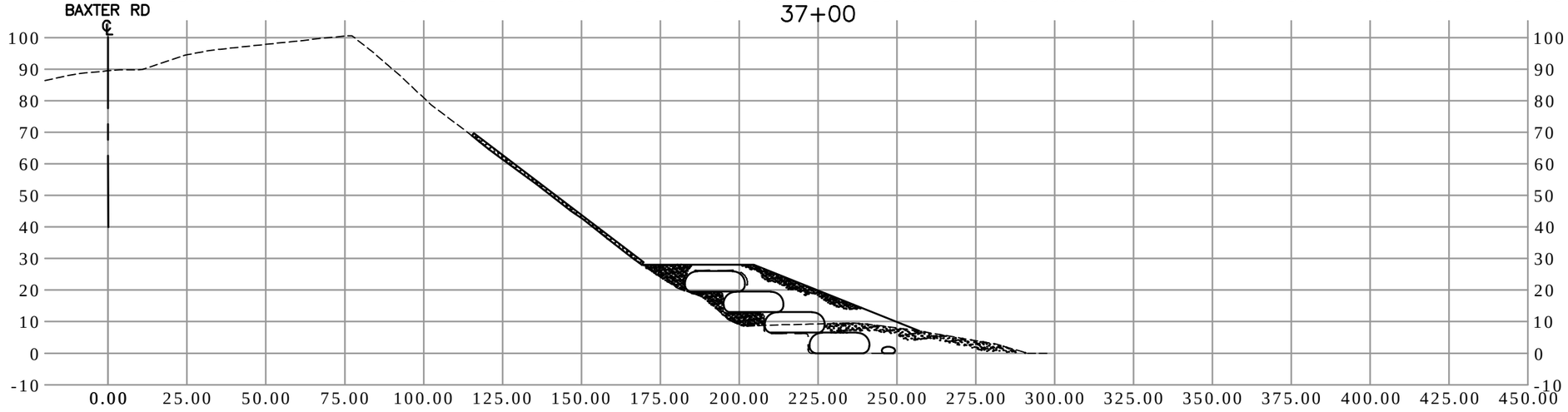
PROJECT NO. 2967-11

SHEET NO. 10 OF 11

SHEET NAME X-SECTION







FOR PERMITTING PURPOSES ONLY

0' 20' 40'
0 1/2" 1"

MILONE & MACBROOM®
One Financial Plaza
1350 Main Street, Suite 1012
Springfield, Massachusetts 01103
(413) 241-6920 Fax (413) 241-6911
www.miloneandmacbroom.com

REVISIONS

CROSS SECTIONS - TEMPORARY SLOPE STABILIZATION

BAXTER ROAD
SLOPE STABILIZATION

NANTUCKET, MASSACHUSETTS

RSD DESIGNED	SMW DRAWN	– CHECKED

SCALE: HOR: 1"=40' VERT: 1"=40'

DATE: OCT. 25, 2013

PROJECT NO. 2967-11

SHEET NO. 11 OF 11

SHEET NAME: X-SECTION

G:\Projects\Lighthouse\2013\WHG_Profiles\profiles_REV1.mxd

Baxter Road Nantucket, MA

Figure 1
WHG Survey Lines