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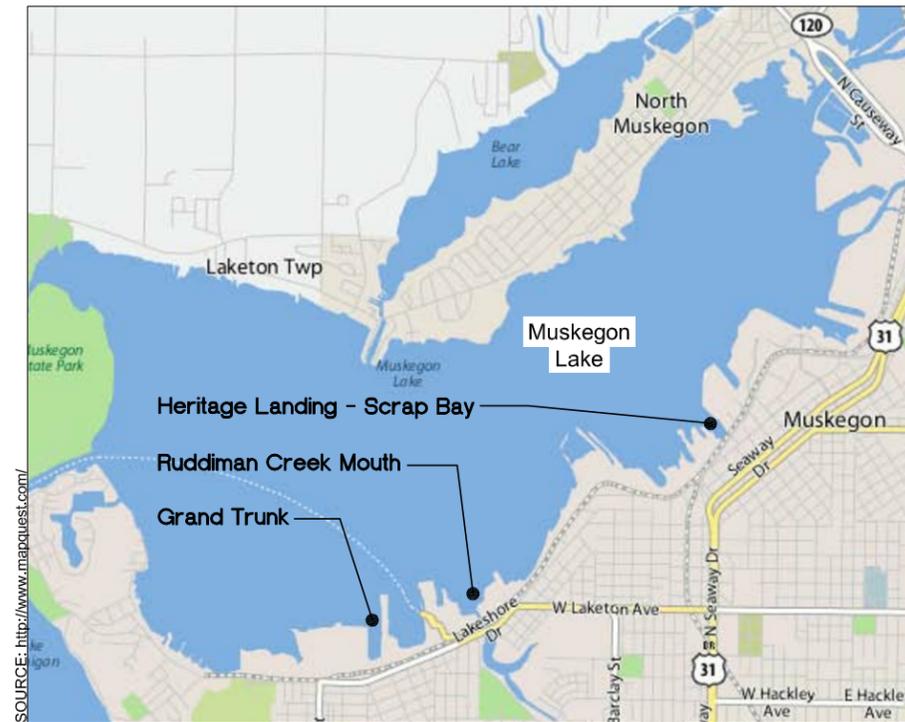
Western Michigan
 11181 Marvill Avenue
 West Olive, Michigan 49460
 616-847-1680 fax 616-847-9970

West Michigan Shoreline Regional Development Commission and the Muskegon Lake Watershed Partnership Marine Debris Removal Project

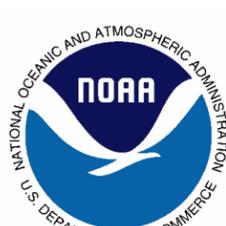
Grand Trunk Sub-site D, Ruddiman Creek Mouth, Heritage Landing Scrap Bay
Muskegon County, Michigan
SEPTEMBER, 2013
AS-BUILT PLANS. APPROVED BY: SCOTT DIERKS, P.E.

SHEET INDEX

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1	Title Sheet and Sheet Index
2	Site Location Maps
3	Grand Trunk - Existing Conditions
4	Grand Trunk - Excavation Plan
5	Grand Trunk - Proposed Cross Sections
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SITE MAP
 NOT TO SCALE



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REVISION

West Michigan Shoreline Regional Development
 Commission and the Muskegon Lake Watershed
 Partnership
 Marine Debris Removal Project
 Grand Trunk, Ruddiman Creek Mouth, Heritage Landing Scrap Bay
 Title Sheet and Sheet Index

DRAWN BY: RAB
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 DATE: 09/26/2013
 JOB NO: 0902035



SHEET NO.

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OF 14



Ruddiman Creek Mouth
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Heritage Landing Scrap Bay
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Grand Trunk
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Commission and the Muskegon Lake Watershed
Partnership
Marine Debris Removal Project
Grand Trunk, Ruddiman Creek Mouth, Heritage Landing Scrap Bay
Site Location Maps

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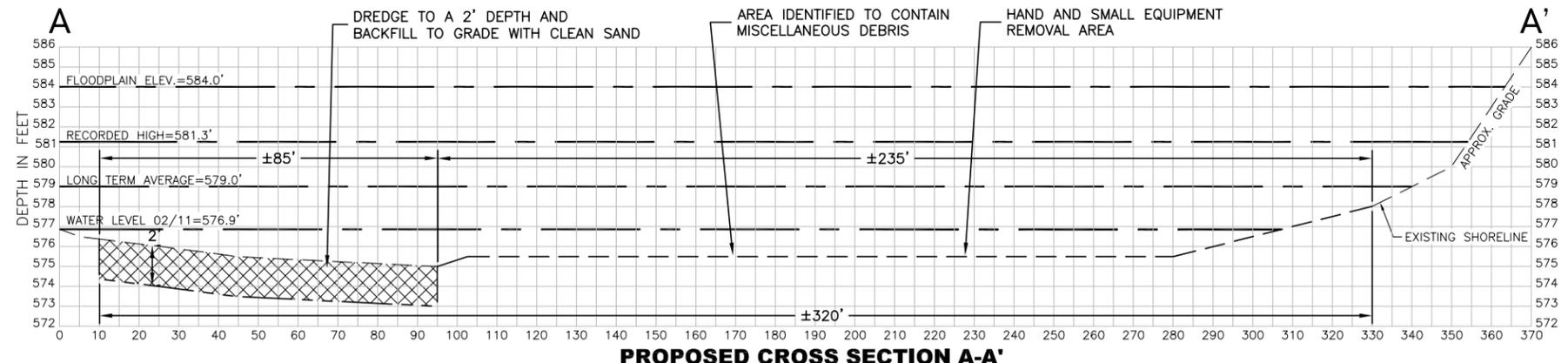
JOB NO: 0902035



SHEET NO.

2

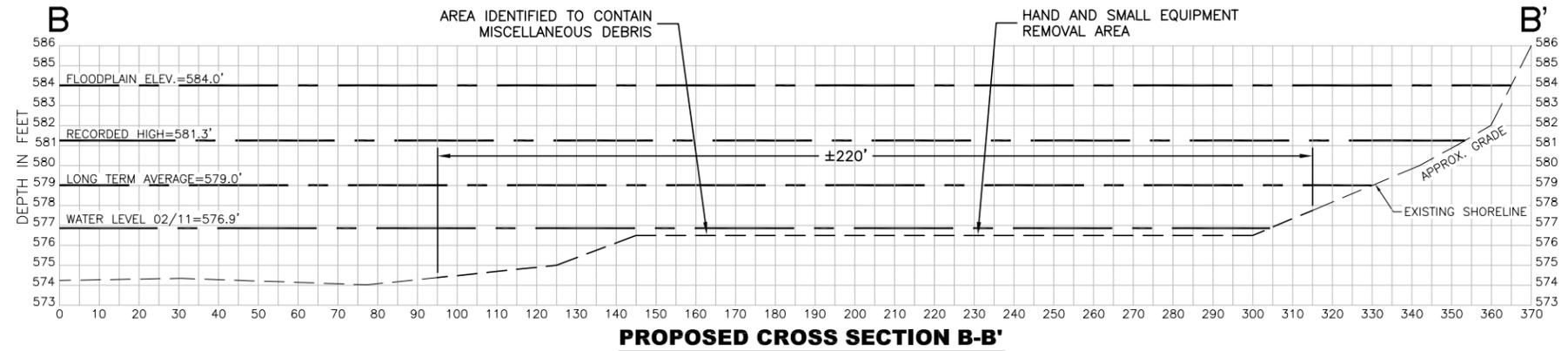
OF 14



PROPOSED CROSS SECTION A-A'



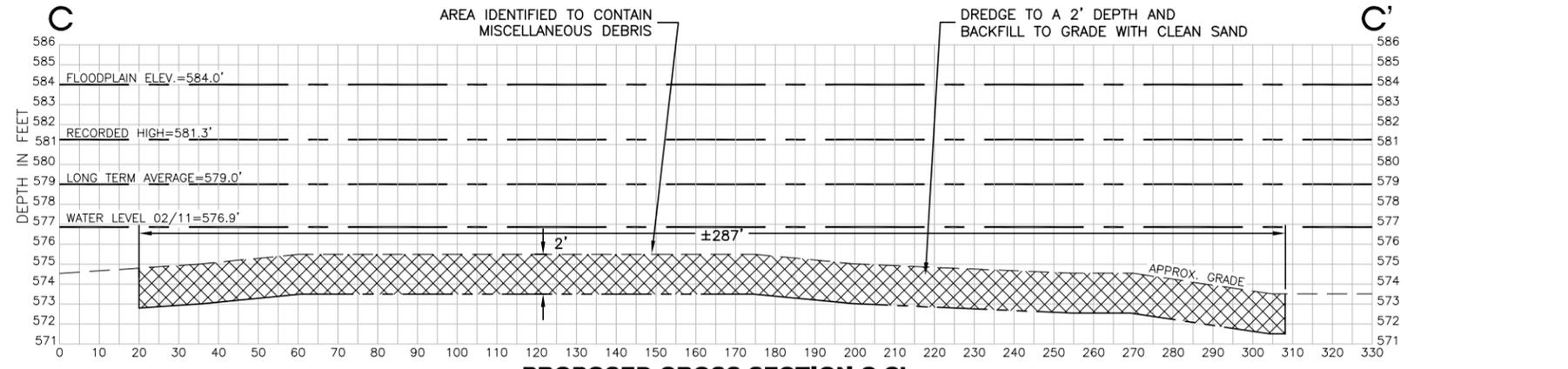
GRAPHIC SCALE VERIFICATION
This bar measures 1" on 22"x34"
or 1/2" on 11"x17" original.
Adjust scale accordingly.



PROPOSED CROSS SECTION B-B'



GRAPHIC SCALE VERIFICATION
This bar measures 1" on 22"x34"
or 1/2" on 11"x17" original.
Adjust scale accordingly.



PROPOSED CROSS SECTION C-C'



GRAPHIC SCALE VERIFICATION
This bar measures 1" on 22"x34"
or 1/2" on 11"x17" original.
Adjust scale accordingly.

LEGEND

- EXISTING GRADE
- LIMITS OF EXCAVATION
- HAND/SMALL EQUIPMENT REMOVAL AREA
- AREA TO BE DREDGED TO A 2' DEPTH AND BACKFILLED TO EXISTING GRADE WITH CLEAN SAND



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Marine Debris Removal Project
Grand Trunk
Proposed Cross Sections

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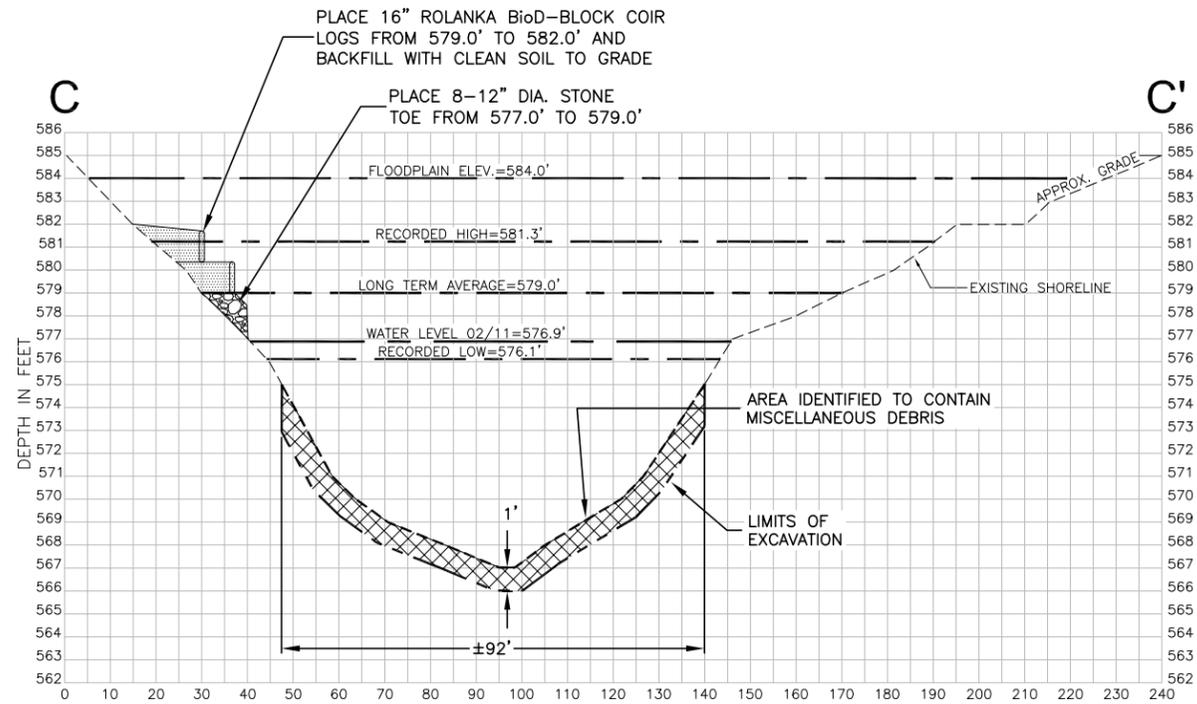
5

OF 14



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CALL 3 FULL WORKING DAYS
811 OR 1-800-482-7171

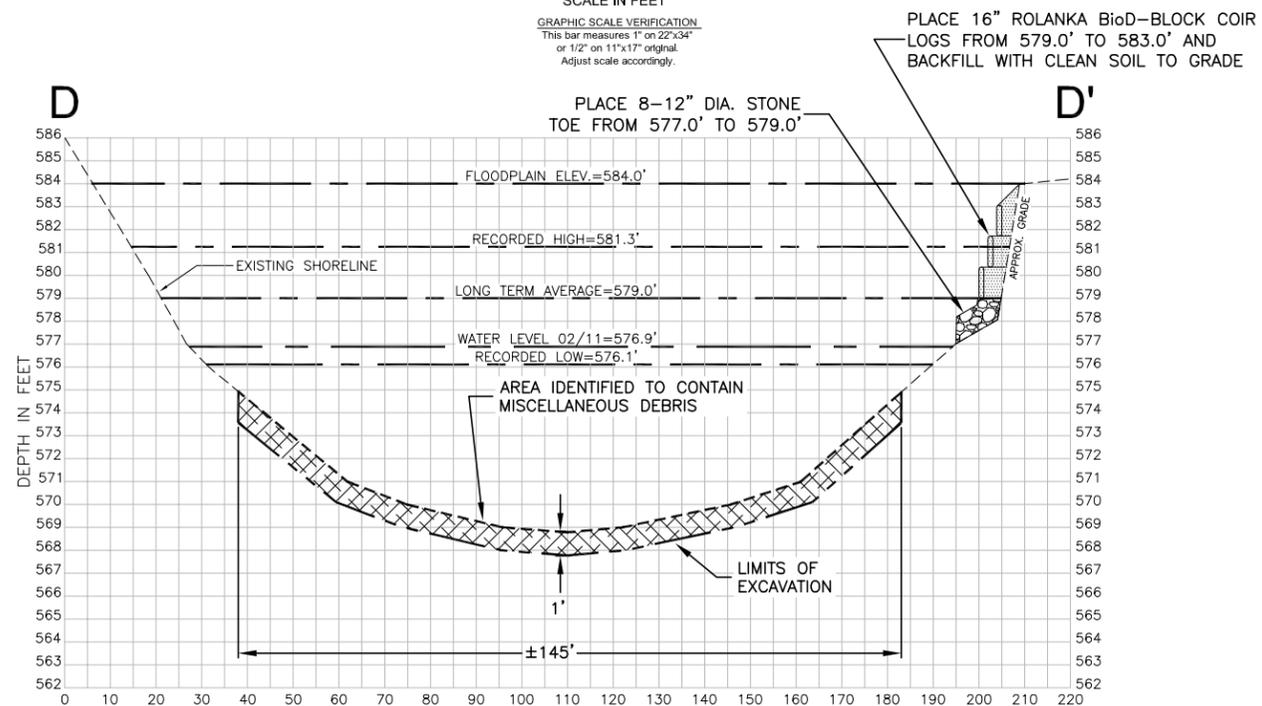
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PROPOSED CROSS SECTION C-C'

0 20'
SCALE IN FEET

GRAPHIC SCALE VERIFICATION
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Adjust scale accordingly.



PROPOSED CROSS SECTION D-D'

0 20'
SCALE IN FEET

GRAPHIC SCALE VERIFICATION
This bar measures 1" on 22"x34"
or 1/2" on 11"x17" original.
Adjust scale accordingly.

- LEGEND**
- EXISTING GRADE
 - - - LIMITS OF EXCAVATION
 - [Hatched Box] AREA TO BE DREDGED TO A 1' DEPTH

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Marine Debris Removal Project
Heritage Landing Scrap Bay
Proposed Cross Sections C-C' & D-D'

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SHEET NO.

13

OF 14

Location: R:\Projects\0902035\WestMichiganShorelineDC_MuskegonLakeWatershed\Scrap Bay\011011\13_Scrap Bay Design.dwg



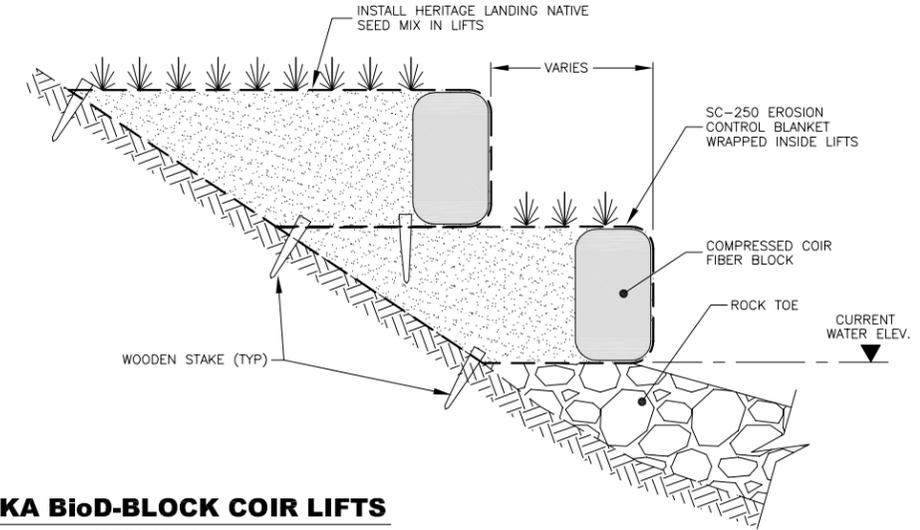
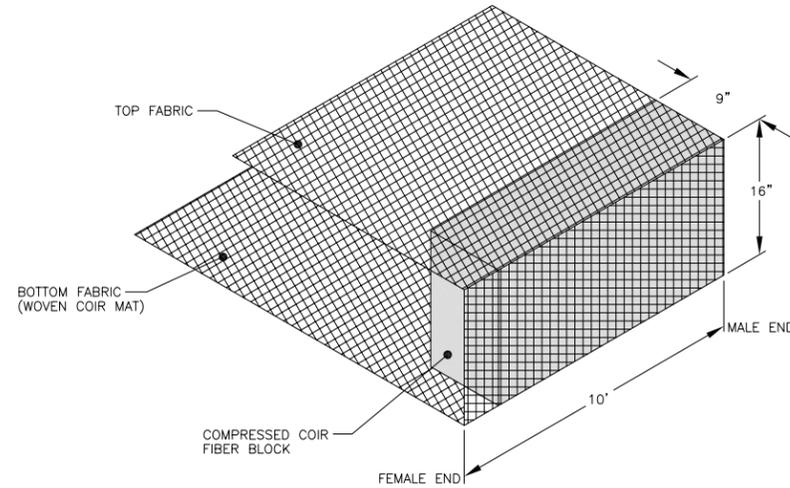
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HERITAGE LANDING NATIVE SEED MIX

Botanical Name	Common Name	Qty. (Total PLS Oz.)
<i>Asclepias incarnata</i>	Swamp milkweed	1.0
<i>Aster novae-angliae</i>	New England aster	0.5
<i>Avena sativa</i>	Seed oats	80.0
<i>Calamagrostis canadensis</i>	Blue joint grass	0.1
<i>Carex comosa</i>	Bristly sedge	0.25
<i>Carex hystericina</i>	Porcupine sedge	0.25
<i>Carex vulpinoidea</i>	Brown fox sedge	1.0
<i>Hibiscus moscheutos</i>	Swamp rose mallow	0.5
<i>Iris virginica shrevei</i>	Blue flag iris	1.0
<i>Juncus effusus</i>	Common rush	0.5
<i>Liatis spicata</i>	Marsh blazing star	0.25
<i>Lobelia cardinalis</i>	Cardinal flower	0.1
<i>Lobelia siphilitica</i>	Great blue lobelia	0.1
<i>Lolium multiflorum</i>	Annual rye	16.0
<i>Mimulus ringens</i>	Monkey flower	0.2
<i>Monarda fistulosa</i>	Wild bergamot	1.0
<i>Panicum virgatum</i>	Switch grass	0.2
<i>Rudbeckia hirta</i>	Black-eyed susan	2.0
<i>Scirpus acutus</i>	Hard-stemmed bulrush	0.5
<i>Scirpus atrovirens</i>	Dark green rush	0.5
<i>Scirpus validus creber</i>	Great bulrush	0.5
<i>Spartina pectinata</i>	Prairie cord grass	1.0
Total		107.45

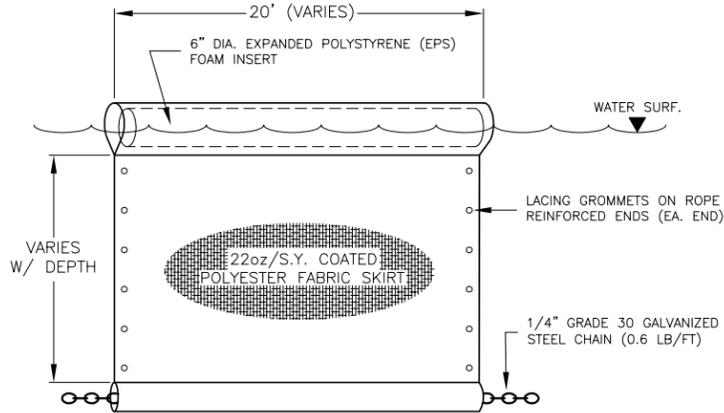
HERITAGE LANDING NATIVE SHRUBS

Botanical Name	Common Name	Qty.
<i>Cornus amomum</i>	Silky dogwood	75
<i>Cornus sericea</i>	Red-osier dogwood	75
<i>Sambucus canadensis</i>	Elderberry	70
Total		220



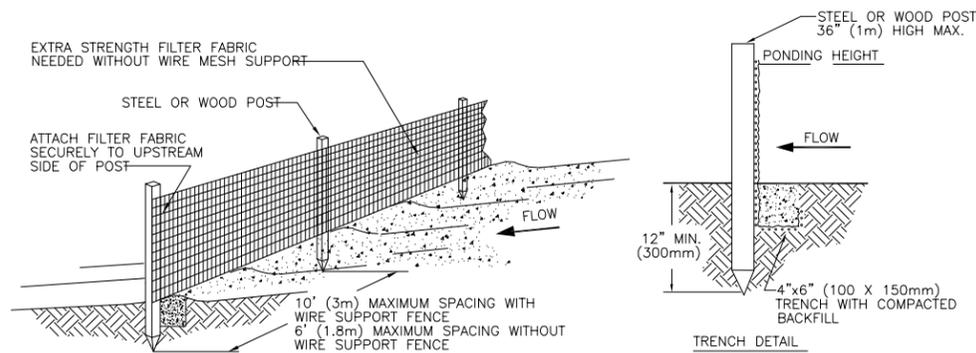
ROLANKA BioD-BLOCK COIR LIFTS

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SILT CURTAIN DETAIL

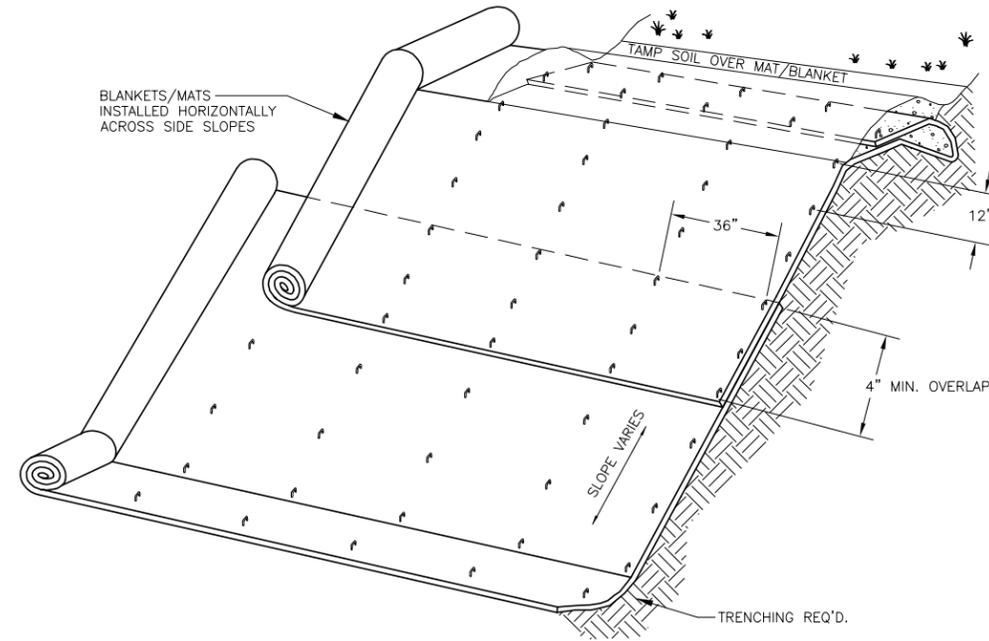
NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

- NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
 3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



TYPICAL NAG C-125BN BLANKET INSTALLATION

NOT TO SCALE

- NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 2. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
 3. NORTH AMERICAN GREEN C-125BN TO BE INSTALLED ON ALL DISTURBED AREAS

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