

ISSUE REMARKS/DATE

2024-08-13, INITIAL SUBMITTAL CITY PH.2 2024-11-08, REVISED PER CITY COMMENTS 2025-01-03, REVISED PER CITY COMMENTS 2025-02-11, REVISED PER CITY COMMENTS

Date: 02-11-2025 Michael G. Boerding License No. MO E-28643

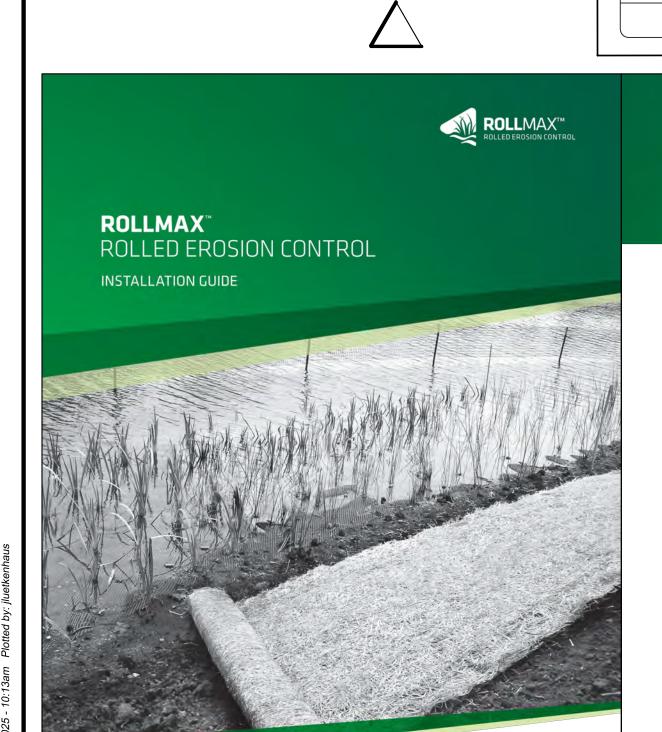
Professional Engineer

P+Z No. 21-004994

City No. 21-011444 02-11-2025 Date: **Job No.** 20-09-327

Page No.

6.93 2.25 perimental for practice and/or limited availability in commercial trade



ELEV. A-A

60" ROUND SERIES

TRASH RACK

performance-guaranteed erosion control solutions. For more We are the industry leader when it comes to providing products has kept our customers on solid ground. Our short-term and long-term Erosion Control Blankets (ECBs) and Turf Reinforcement Mats (TRMs) keep you one step

RollMax[™] Installation Guidelines:

PART NO

ahead of just about any erosion challenge. North American Green provides everything you need to know for quick, accurate erosion control installation tailored to your site. From start to finish, the North American Green® RollMax extensive research and field-proven techniques to ensure project success. The following pages offer instructions and guidelines for several scenarios you may encounter during the installation of the RollMax System.

reinforcement solutions. We have developed integrated systems and products with the sole objective to ensure absolute customer satisfaction. Our products are backed by the most thorough quality assurance practices in the industry. In addition, we provide comprehensive design

assistance for every North American Green system. For additional installation assistance with the RollMax System, please visit www.nagreen.com, e-mail info@nagreen.com, or call 800-772-2040 and we will be happy to put you in touch with an erosion control specialist

TRASH RACK ASSEMBLY

PLASTIC SOLUTIONS INC.



STAPLE PATTERN GUIDE A T slopes (A) O T hand Streeper slopes (D) (2 m) (0.6 m) 20 (0.5m) 13'() m)

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Installation Made Easy

yet all-natural anchoring option, our wood EcoStakes® are available in 6 in., 12 in., 18 in. and 24 in. lengths.

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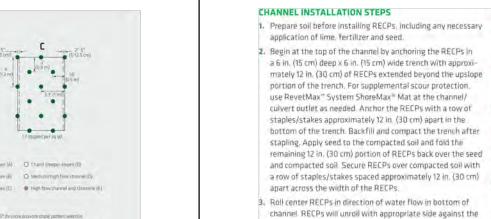
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every application and soil type.

top pins are available.

erosion control products can't function to their full potential hold, try our 12 in. and 18 in. rebar staples, our 12 in. plastic without proper installation and anchoring. North American Green supplies a wide variety of fastener options for nearly anchors. The earth anchors reach deep into the soil strata to offer enhanced anchoring in the worst conditions. Our variety of earth anchors are designed for durability and holding power For use in cohesive soils, wire staples are a cost-effective under extreme hydraulic stresses and adverse soil conditions. means to fasten RollMax™ System Rolled Erosion Control

Products (RECPs). Available in 6 in., 8 in., 10 in. and 12 in. lengths, our U-shaped staples reach various depths to ensure Proper staple patterns must be used to achieve optimal adequate pull-out resistance. For installation using our handy results in RECP installation. We recommend the following Pin Pounder installation tool, 6 in. V-top staples or 6 in. circle general stapling patterns as guidance for use with our RECPs as seen in (Figure 1). Site-specific staple pattern recommen-Our biodegradable BioStakes® are available in 4 in. and 6 in. dations based on soil type and severity of application may lengths and provide an environmentally friendly alternative be acquired through our Erosion Control Materials Design to metal staples. For an even more durable, deeper reaching Software (ECMDS®), www.ecmds.com.



with a 4 in.-6 in. (10-15 cm) overlap. Use a double row of staples staggered 4 in. (10 cm) apart and 4 in. (10 cm) on center to secure RECPs. 5. Full-length edge of RECPs at top of side slopes must be

Place consecutive RECPs end-over-end (shingle style)

anchored with a row of staples/stakes approximately 12 in. (30 cm) apart in a 6 in. (15 cm) deep x 6 in. (15 cm) wide french. Backfill and compact the trench after stapling. culvert outlet as needed. Anchor the RECPs with a row of 6. Adjacent RECPs must be overlapped approximately 2 in-5 in. (5-12 5 cm) (depending on RECP type) and stapled." bottom of the trench. Backfill and compact the trench after 7. In high flow channel applications a staple check slot is recommended at 30 to 40 ft (9-12 m) intervals. Use a

 $The following channel \ guide \ outlines \ general \ recommendations for installing \ RollMax \ System \ temporary \ and/or \ permanent \ RECPs \ in \ Application \ App$

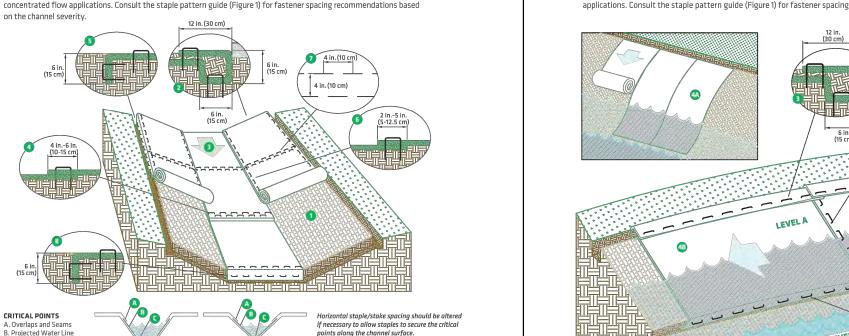
4 in. (10 cm) on center over entire width of the channel. a row of staples/stakes spaced approximately 12 in. (30 cm)

8. The terminal end of the RECPs must be anchored with a and compact the trench after stapling. soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations

may be necessary to properly secure the RECPs.

Shoreline Installation

Below are recommendations for installing RollMax System temporary and/or permanent RECPs along shoreline and stream bank applications. Consult the staple pattern guide (Figure 1) for fastener spacing recommendations based on the bank severity.



SHORELINE/STREAMBANK INSTALLATION STEPS

1. For easier installation, lower water level from Level A to Level B before installation to allow bottom trenching.

application of lime, fertilizer and seed.

row of staples/stakes approximately 12 in. (30 cm) apart in a 6 in. (15 cm) deep x 6 in. (15 cm) wide trench. Backfill





2. Prepare soil before installing RECPs, including any necessary 5. The edges of all horizontal and vertical seams must be stapled with an approximately 2 in.-5 in. (5-12.5 cm) overlap. In streambank applications, seam overlaps should be 3. Begin at the top of the shoreline by anchoring the RECPs in shingled in the predominant flow direction. a 6 in. (15 cm) deep x 6 in. (15 cm) wide trench with approximately 12 in. (30 cm) of RECPs extended beyond the upslope 6. The edges of the RECPs at or below normal water level must be anchored by placing the RECPs in a 12 in. (30 cm) deep x portion of the trench. Anchor the RECPs with a row of 6 in. (15 cm) wide anchor trench. Anchor the RECPs with a staples/stakes approximately 12 in. (30 cm) apart in the row of staples/stakes spaced approximately 12 in. (30 cm)

bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold apart in the trench. Backfill and compact the trench after stapling (stone or soil may be used as backfill). For installathe remaining 12 in. (30 cm) portion of RECPs back over tion at or below normal water level, use of a ShoreMax Mat the seed and compacted soil. Secure RECPs over compacted on top of the RECP or geotextile may be recommended. soil with a row of staples/stakes spaced approximately Bottom anchor trench can be eliminated when using a 12 in. (30 cm) apart across the width of the RECPs. ShoreMax Mat over RECP along the bottom edge. 4. Roll RECPs either (A) down the shoreline for long banks NOTE: In adverse soil conditions longer staples/stakes or earth anchors may

(top to bottom) or (B) horizontally across the shoreline slope. RECPs will unroll with appropriate side against the

be necessary to properly secure the RECPs.

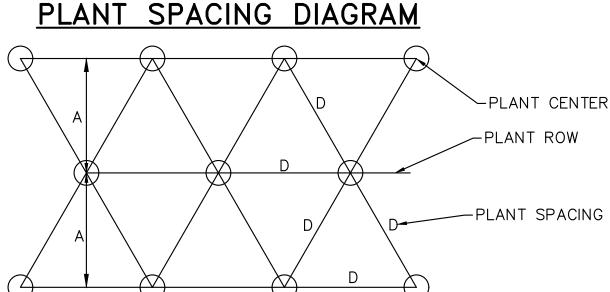
as shown in the staple pattern guide.

Channel Installation

on the channel severity.

FOREBAY BERM PLANTINGS AQUATIC PLANT SPECIES CAN INCLUDE BUT NOT LIMITED TO SOFT RUSH, HORSETAIL RUSH, WATER HYACINTH, WIL CANNA, ARROWLEAF, WATER LILY, PICKEREL WEED, BLUE FLAG IRIS, FANWORT OR A MIXTURE OF ANY OF THESE; SPECIMENS SHOULD BE PLANTED ON A 12" MAXIMUM SPACING GRID, 2 QUART MIN. PLANT CONTAINER SIZE

PLANT SPACING DIAGRAM



PLANT SPACING TABLE

	<u>- =: </u>	<u> </u>
SPACING "D"	ROW "A"	NUMBER OF PLANTS/SQ.F
30 "	26"	0.160
24"	20.8"	0.25
18"	15.6"	0.450
15 "	13.0"	0.640
12"	10.4"	1.00
10"	8.66"	1.44
۶"	6 93"	2 25

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NORTH AMERICAN GREEN*

Local Ecotype Rule: Plants of Missouri or Southern Illinois ecotype are required Must use a minimum of 5 grass/sedge species and 8 forb species for each BMP. It is recommended that this list be provided to landscape contractors/buyers in case substitutions are required. Each species must consist of between 5% - 15% of the total plant count for each BMP.

Refer to Planting, Water, and Mulch Requirements for Stormwater BMP's for plant sizes and irrigation requirements Biodegradable erosion blanket must be used on slopes greater than 10%. Erosion blankets must be coarse to allow varying leaf sizes (examples include Geojute, Curlex #1 and NorthAmerican Green S75 single net straw blanket, or equivalent)

"FINAL PLAN" Approval Date: Dec. 16, 2021