

MATERIAL SUBMITTAL & SUBSTITUTION REQUEST

TO:

FROM:

DATE:

PROJECT NAME:

SUBJECT: Request for Material Substitution – "Or Approved Equal"

1. Proposed Material Substitution

In accordance with the project contract specifications regarding shoreline stabilization and erosion control materials, permission is hereby requested to utilize the **Patens Perimeter Log (PPL)** as an approved equal to the specified standard imported coconut coir logs.

- **Specified Material:** Standard 12-inch diameter Coconut Coir Log 7-9 lbs/ft³
- **Proposed Alternative:** 12-inch diameter Patens Perimeter Log (PPL) packed with native *Spartina patens* (Salt Hay) matrix at a compressed target density of 7-9 lbs/ft³

2. Technical Profile Comparison

The proposed Patens Perimeter Log (PPL) meets or exceeds the structural and physical performance criteria required for intertidal and brackish wetland stabilization:

Physical Property	Standard Specification (Coir)	Proposed Alternative (PPL Salt Hay)
Diameter	12 inches	12 inches
Available Lengths	10 feet / 20 feet	10 feet / 20 feet
Packing Density	7-9 lbs/ft ³ nominal	7-9 lbs/ft ³ engineered matrix
Dry Weight (10' Unit)	approx. 55 lbs	approx. 55 lbs

Physical Property	Standard Specification (Coir)	Proposed Alternative (PPL Salt Hay)
Dry Weight (20' Unit)	approx. 110 lbs	approx. 110 lbs
Netting / Containment	Coir twine or synthetic mesh	100% natural, biodegradable hemp burlap (net-free)
Composition	Imported Coconut Coir Fiber	Domestically sustainably grown, native <i>Spartina patens</i>

3. Ecological and Operational Justification

Utilizing the Patens Perimeter Log (PPL) provides distinct ecological and logistical advantages over standard imported coir alternatives for this specific coastal environment:

- **100% Net-Free and Wildlife Safe:** The PPL utilizes a 100% organic, natural-fiber containment. This completely eliminates the risk of wildlife/avian entanglement, aligning directly with strict state and federal mandates for high-priority coastal bird nesting habitats.
- **Native Species Synergy:** Unlike coconut coir, *Spartina patens* is a native cornerstone species of the Atlantic coastal high marsh. The natural waxy cuticle of salt hay provides exceptional rot-resistance in brackish and high-salinity zones, ensuring structural longevity (3-5 years) while native vegetation establishes.
- **Local Economic Resilience:** The PPL is a domestic, agriculturally sourced product manufactured locally using regional labor. Sourcing this material directly supports local green-collar job creation and insulates the project timeline from international shipping bottlenecks and maritime supply chain volatility.

4. Contractor Warranty & Submittals Attached

The contractor warrants that the performance, dimensions, and functional design life of the substituted product will be equal or superior to the specified material. This substitution will result in no additional cost to the project owner or funding agency.

Attached for your review:

- Manufacturer Technical Data Sheet (TDS)

- Field Installation Guidelines & Staking Specifications

Submitted By: