Silver Palms Community Development District

First Supplemental Engineer's Report
Infrastructure Improvements

Prepared for
Silver Palms Community Development District
Board of Supervisors

Miami-Dade County, Florida

Prepared by
Alvarez Engineers, Inc.

8935 NW 35 Lane, Suite 101
Miami, FL 33172
Telephone 305-640-1345
Facsimile 305-640-1346
E-Mail Address: Info@Alvarezeng.com

Accepted
May 22, 2023

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8935 NW 35 Lane, Suite 101 Doral, Florida 33172
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I. Introduction.

In May of 2004 the Silver Palms Community Development District, (the "District" or "CDD") issued Special Assessment Revenue Bonds, Series 2004 in the amount of $2,015,000 to finance District-related public infrastructure consisting of roads, stormwater management, drainage, water, sewer and landscaping improvements (the "Series 2004 Project"). Such public infrastructure was described in the Engineer's Report prepared by E.R. Brownell & Associates, Inc., dated October 22, 2003 (the "Original Engineer's Report"). The Series 2004 Project has been completed.

As of the date of this First Supplemental Engineer's Report, the CDD Board of Supervisors (the "Board") intends to finance the restoration of the banks of the CDD-owned stormwater management lake, which present signs of erosion. The banks restoration project is described in more detail below and in composite Exhibit 1 attached to this report (the "2023 Project").

The lake is located within Tract "A" of the plat of Silver Palm Lake, as recorded in Plat Book 161, Page 71 of the public records of Miami-Dade County. The tract was assigned Folio Number 30-6018-026-2020 by the County and was transferred to the CDD in December of 2003 as shown in Special Warranty Deed recorded at ORB 24901, PG 4407 in the public records of Miami-Dade County, Florida.

II. Purpose of this First Supplemental Engineer's Report.

This First Supplemental Engineer's Report is being prepared to describe the supplemental public improvements that make up the 2023 Project, and to give an estimate of their construction costs.

III. Description of the 2023 Project and Estimated Costs

The 2023 Project consists of filling and regrading the eroded banks along the perimeter of the lake with a combination of suitable fill material and geotextile tubes filled with sand. The tubes will be covered with an erosion-control blanket and sod on top. On the discharge side of the outfalls, the bottom of the banks will be lined with 15' x 10' concrete block mats just below the flowline of the pipes. (Refer to the Typical Sections in Exhibit 1).

The 2023 Project may be constructed all at once to restore the entire perimeter of the lake, or in phases, giving priority to the portions of the lake that need them most. It is more economically efficient to restore the entire lake all at once as shown in the section below.

IV. Estimated Costs of the 2023 Project.

At the discretion of the Board, the 2023 Project may be constructed in phases (Priority 1 and Priority 2) or the entire lake at once. For the location of the portions of the lake labeled Priority 1 and 2, refer to the "Priority Plan" in composite Exhibit 1.

The estimated costs in the tables below have been rounded up to the nearest $1,000 and a 20% contingency factor has been applied to include permits, professional costs, and unforeseen conditions.

Table 1 - Estimated Costs if the 2023 Project is Constructed in Phases

Description	Hard Costs	Contingency	Total Estimate
Priority 1 -- (Approximately 1,282 LF of Lake Bank)	$184,000	$37,000	$221,000
Priority 2 -- (Approximately 1,698 LF of Lake Bank)	$231,000	$47,000	$278,000
Total			$499,000

Table 2 - Estimated Costs if the 2023 Project is Constructed All at Once			
Description	Hard Costs	Contingency	Total Estimate
Entire Lake -- (Approximately 2,980 LF of Lake Bank)	$400,000	$80,000	$480,000
Total			$480,000

V. Engineer's Certification.

It is our opinion that the proposed improvements constituting the 2023 Project and their estimated costs are fair and reasonable, and that the assessable land within the District will receive a direct and special benefit equal to or greater than the cost of such improvements. We believe that the improvements can be permitted, constructed and installed at the costs described in this report.

I hereby certify that the foregoing is a true and correct copy of the First Supplemental Engineer's Report for the Silver Palms Community Development District.

Juan R. Alvarez, PE
Florida Registration No. 38522
Alvarez Engineers, Inc.

COMPOSITE EXHIBIT 1

THE 2023 PROJECT

8935 NW 35 Lane, Suite 101 Doral, Florida 33172
Telephone (305) 640-1345 E-Mail: Info@AlvarezEng.com

Landshore® Enterprises, LLC
Streambank & Shoreline protection/stabilization/reclamation
Environmental Engineering, Erosion Control, Construction Management
d/b/a Erosion Restoration, LLC

December 06, 2022

Silver Palms Community Development District
c/o: Alvarez Engineers, Inc., District Engineer
Attn: Mr. Angel Camacho

Dear Mr. Camacho,

Please see attached our estimates for lake shoreline restoration at Silver Palms Community Development District.

Attachments include:

- **#4017:** Estimate is for shoreline restoration of the entire lake.
- **#4018:** Estimate is for shoreline restoration of Phase I for 1,282 liner feet.
- **#4019:** Estimate is for shoreline restoration of Phase II for 1,698 linear feet.

Attached to this letter, you will find an aerial identifying the proposed phases, as well as typical sections illustrating our proposed methods.

Findings:

Landshore conducted a field visit on the 14th of November. We have determined that for most of the shoreline, the slope leading from the top of the slope to the waterline is very steep, ranging from 2H:1V to 3H:1V, these steep slopes are a concern and potentially a safety hazard, South Florida Water Management BMPs recommend a Side Slope factor of 4H:1V.

If you have any additional questions, require further information, or would like to discuss this estimate, do not hesitate to contact us at (941) 303-5238 or via email at info@landshore.com.

Thank you for the opportunity to provide you with these estimates.
We look forward to having the pleasure of doing business with you.

Sincerely,
André van den Berg
Landshore® Enterprises, LLC

REVISIONS		
DATE	BY	DESCRIPTION
11/8/2022	MR	LABEL UPDATE

Erosion and Sedimentation Control Plan for
SILVER PALM CDD

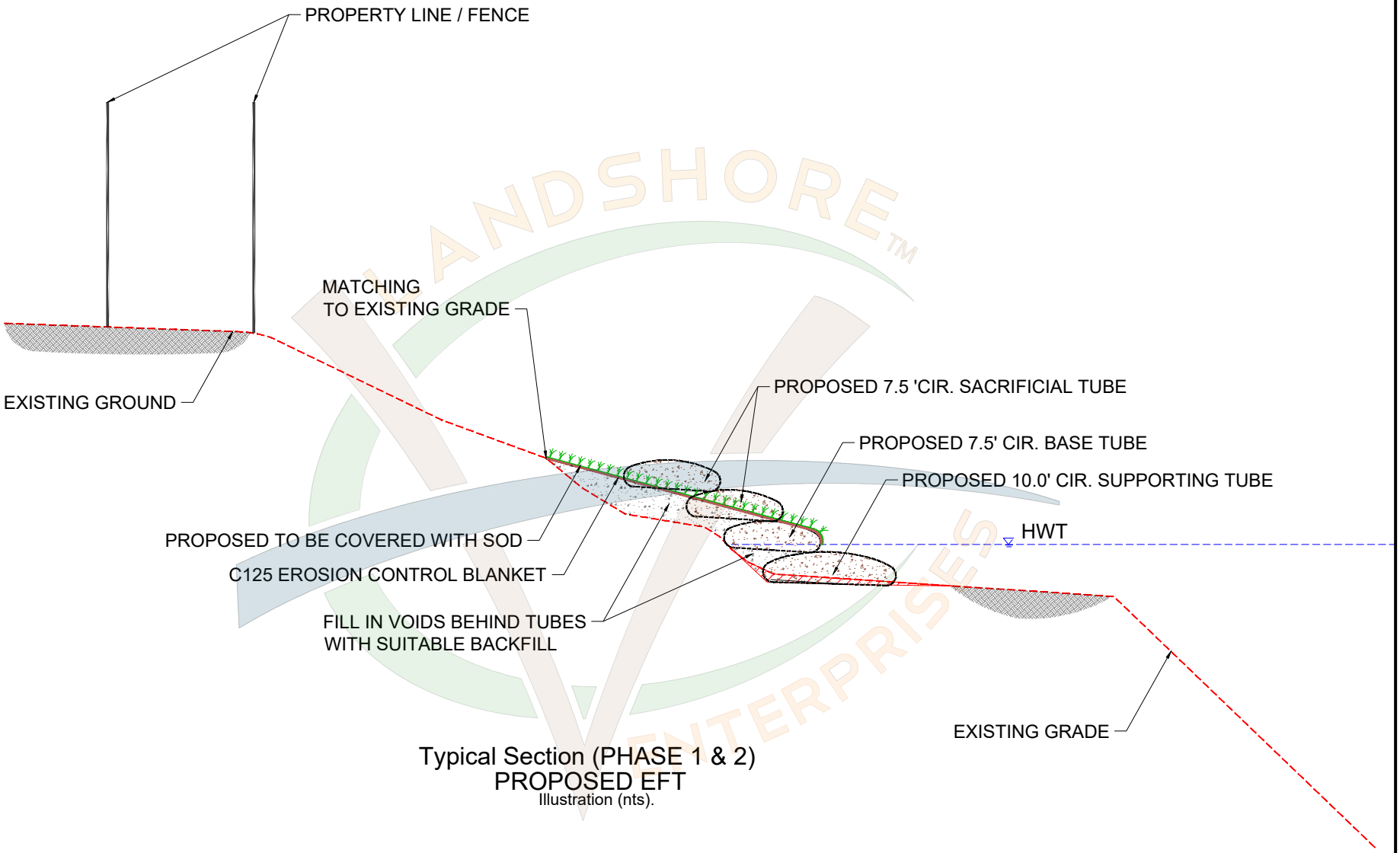
Landshore Enterprises, LLC
Environmental Engineering, Erosion Control & Construction Management
d/b/a Erosion Restoration, LLC
"Your Shoreline Protection Specialists"

188 Triple Diamond Blvd., Ste. #A4
North Venice, FL 34275
Office: 941-303-5238
Fax: 941-218-6113
E-mail: info@landshore.com

BY: _____
PIETER M. LOMBARD, P.E.
FL LIC. No. 66596
ENGINEER OF RECORD

PRIORITY PLAN

PROJECT NO.	SHEET	OF
	1	1
DRAWN BY:	DATE:	SCALE:
J.P	11/29/2022	1" = 80'



Typical Section (PHASE 1 & 2)
PROPOSED EFT
Illustration (nts).

REVISIONS		
DATE	BY	DESCRIPTION

Landshore Enterprises, LLC
Environmental Engineering,
Erosion Control & Construction Management
d/b/a Erosion Restoration, LLC
"Your Shoreline Protection Specialists"

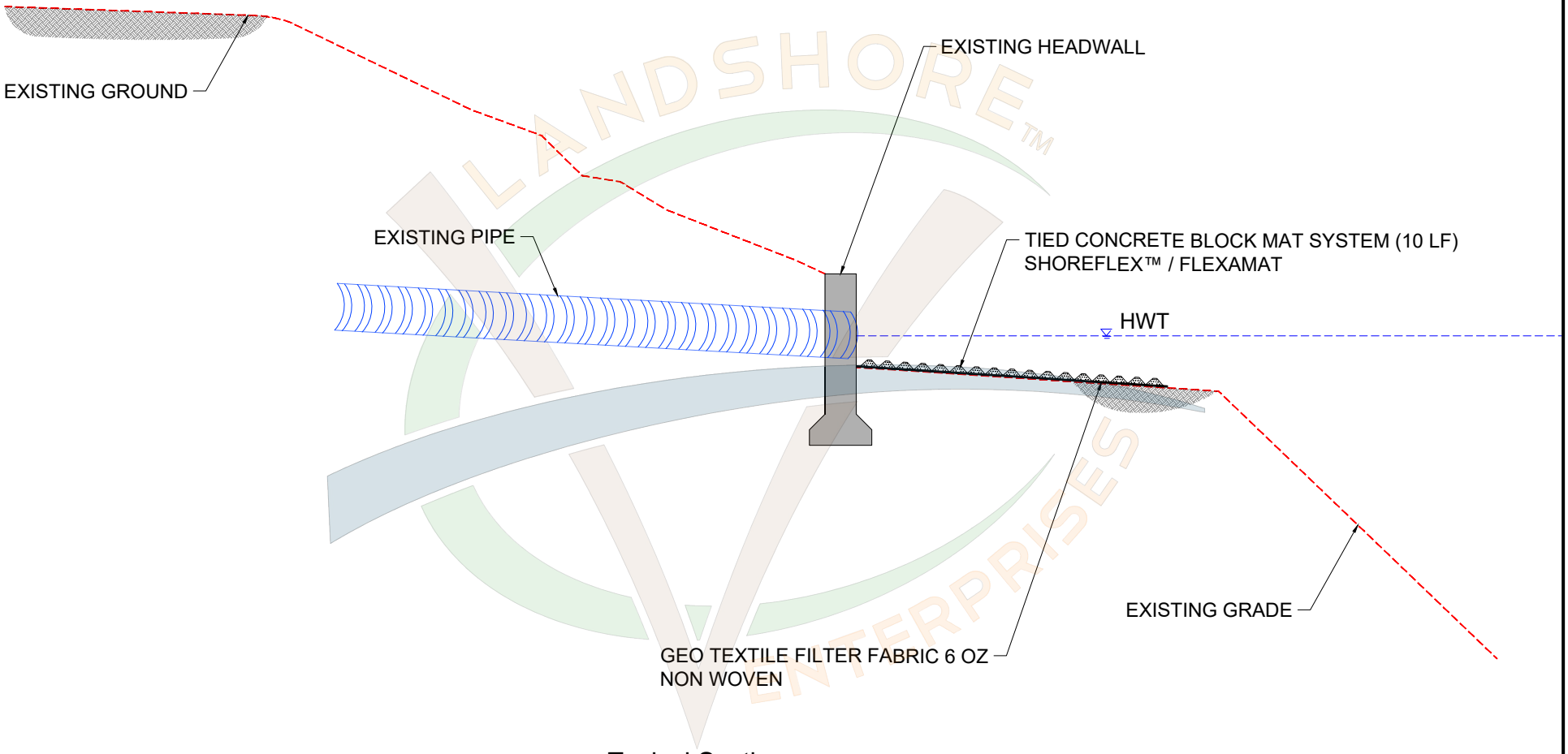
6555 N. Powerline Road, Ste. #302
Fort Lauderdale, FL 33309
Tel: 954-327-3300, Fax: 954-533-1556

118 Shamrock Blvd.
Venice, FL 34293
Office: 941-303-5238
Fax: 941-218-6113

Web site: https://landshore.com
E-mail: info@landshore.com

SILVER PALM CDD

PROJECT NO.	SHEET	OF
	1	1
DRAWN BY:	DATE:	SCALE:
JP	11/29/2022	N.T.S



Typical Section
PROPOSED CONCRETE BLOCK MAT
Illustration (nts).

REVISIONS		
DATE	BY	DESCRIPTION

Landshore Enterprises, LLC
Environmental Engineering,
Erosion Control & Construction Management
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SILVER PALM CDD

PROJECT NO.	SHEET	OF
	1	1
DRAWN BY:	DATE:	SCALE:
JP	11/29/2022	N.T.S

Landshore Enterprises, LLC

Streambank & Shoreline protection/stabilization/reclamation
Environmental engineering, Erosion control, Construction management
d/b/a Erosion Restoration, LLC

Silver Palms Community Development District
c/o: Alvarez Engineers
Attn: Mr. Angel Camacho
8935 NW 35 Lane, Suite 101, Doral, FL 33172

ESTIMATE: 4017
DATE: 12/6/2022

Project: Shoreline Restoration for Approximately 2,980 LF of Embankment

PRODUCT DESCRIPTION

Eco-Filter Tube (EFT®) construction uses a woven or non-woven geotextile fabric that is formed into the shape of a tube. The tube is filled with sand by direct coupling to a hydraulic dredge. The tube is designed to retain the granular fill portion of the dredge slurry, while appropriately sized openings in the geotextile allow the excess water in the slurry to permeate through the tube walls. The procedure can be implemented in both dry and underwater conditions. The tubes can be fabricated in various circumferences, which, when inflated, will form a roughly elliptical shape. The Landshore® engineered EFT® system consists of a spun bound polyester filter fabric that is sewn together to form a tube specifically calculated for particular level of service, pressure, strength, stability and safety - is placed along the edge of water on prepared terrace and filled with sand to form an erosion barrier that has the characteristics of a permeable, gravity type retaining wall.

JOB SCOPE

Landshore® will install Eco-Filter Tube (EFT®) as follows: One (1) layer of Submerged Tube to reaffirm the underwater shelf; One (1) layer of Base Tube to provide stabilization and allow for land reclamation; One (1) layer of Sacrificial Tube to fill voids and for final grading to match existing slope. Importing the fill material for the tubes.

Landshore® will install a 15' x 10' concrete block mat below the existing pipe/headwall.

ITEMIZED ESTIMATE: TIME AND MATERIALS

Section	Description	Units	Estimated Quantities	Total
2,980'	Mobilization / General preparation	EA	1	
	Maintenance of Traffic	EA	1	
	Clearing and Grubbing	EA	1	
	Installation and maintenance of stormwater pollution prevention measures	EA	1	
	Embankment/Regular Excavation	CY	175	
	Grading and Shaping	SF	29,797	
	Installation of EFT®			
	EFT® 7.5' Cir. Sacrificial Tube	LF	5,960	EFT
	EFT® 7.5' Cir. Base Tube	LF	2,980	
	EFT® 10' Cir. Supporting Tube	LF	2,980	
	Turf Reinforcement Mat - C125 Coconut	SY	3,311	
	Concrete Block Erosion Control Mat	SF	150	
	Sod (St. Augustine)	SF	29,797	
	Demobilization	EA	1	
TOTAL JOB COST				**$399,148.00**

Excluding any permit fees and fees for a payment and performance bond, if any.

PAYMENT SCHEDULE
Landshore® Enterprises' payment policy is as follows: 10% Booking Date 15% Mobilization Date 65% Progress work based on percentage of completion 10% Completion of project **Invoice is due upon receipt**

SPECIAL CONDITIONS
1. Landshore® is not responsible for damage to utilities outside of easement along shoreline if as-built drawings or locations are not provided by the Client. 2. Landshore® reserves the right to change this estimate unless an agreement is reached within 30 days of the original estimate date. 3. At this time, staging areas and site access has not been defined by Client. Therefore, any damages caused to access (curbing, sidewalk, road, etc.) are not included in this estimate. 4. Landshore® is not responsible for any damages to the work by any natural disaster. 5. In case there are any unstable submerge slopes that have not been identified by the client, Landshore® will not be held responsible for any under water land slide caused by any additional load on top of submerge slope. 6. Following sod installation, any sod maintenance activities, such as watering, is to be administered by Owner(s). 7. If there are 4" stormwater drainage pipes at shoreline edge, Landshore® will extend the pipes for no additional cost. Any other size will be determined as needed. **8. All information provided by Landshore® is to be shared only with the Owner(s) and those with authority to make decisions on behalf of the Owner(s). This information is by no means to be shared to solicit competing entities.** **9. The Client is responsible to adhere to all applicable Federal, State, County, City, District and any other municipal or local laws, regulations, rules, ordinances and guidelines. Unless specifically hired to obtain all necessary permits - Landshore® will not be liable for any construction or design issues, violations, fines or claims received due to nonconformance and noncompliance to standards or absence of permits (submittal of permit application does not guarantee the approval, additional services such as expediting, meetings with reviewer, etc. may be performed at an hourly rate, at the Client's request).**

This proposal is for completing the job described above, based on our evaluation. It does not include unforeseen price increases or additional labor and materials which may be required should problems arise.

Client's Representative Signature _____ Date _____

Landshore® Enterprises Representative Signature _____ Date _____

Landshore Enterprises, LLC

Streambank & Shoreline protection/stabilization/reclamation
Environmental engineering, Erosion control, Construction management
d/b/a Erosion Restoration, LLC

Silver Palms Community Development District
c/o: Alvarez Engineers
Attn: Mr. Angel Camacho
8935 NW 35 Lane, Suite 101, Doral, FL 33172

ESTIMATE: 4018
DATE: 12/6/2022

Project: Shoreline Restoration for Approximately 1,282 LF of Embankment

PRODUCT DESCRIPTION

Eco-Filter Tube (EFT®) construction uses a woven or non-woven geotextile fabric that is formed into the shape of a tube. The tube is filled with sand by direct coupling to a hydraulic dredge. The tube is designed to retain the granular fill portion of the dredge slurry, while appropriately sized openings in the geotextile allow the excess water in the slurry to permeate through the tube walls. The procedure can be implemented in both dry and underwater conditions. The tubes can be fabricated in various circumferences, which, when inflated, will form a roughly elliptical shape. The Landshore® engineered EFT® system consists of a spun bound polyester filter fabric that is sewn together to form a tube specifically calculated for particular level of service, pressure, strength, stability and safety - is placed along the edge of water on prepared terrace and filled with sand to form an erosion barrier that has the characteristics of a permeable, gravity type retaining wall.

JOB SCOPE

Landshore® will install Eco-Filter Tube (EFT®) as follows: One (1) layer of Submerged Tube to reaffirm the underwater shelf; One (1) layer of Base Tube to provide stabilization and allow for land reclamation; One (1) layer of Sacrificial Tube to fill voids and for final grading to match existing slope. Importing the fill material for the tubes.

Landshore® will install a 15' x 10' concrete block mat below the existing pipe/headwall.

ITEMIZED ESTIMATE: TIME AND MATERIALS

Section	Description	Units	Estimated Quantities	Total
PHASE I	Mobilization / General preparation	EA	1	
	Maintenance of Traffic	EA	1	
	Clearing and Grubbing	EA	1	
	Installation and maintenance of stormwater pollution prevention measures	EA	1	
	Embankment/Regular Excavation	CY	75	
	Grading and Shaping	SF	12,818	
	Installation of EFT®			
	EFT® 7.5' Cir. Sacrificial Tube	LF	2,564	EFT
	EFT® 7.5' Cir. Base Tube	LF	1,282	
	EFT® 10' Cir. Supporting Tube	LF	1,282	
	Turf Reinforcement Mat - C125 Coconut	SY	1,424	
	Concrete Block Erosion Control Mat	SF	150	
	Sod (St. Augustine)	SF	12,818	
	Demobilization	EA	1	
TOTAL JOB COST				**$183,957.00**

Excluding any permit fees and fees for a payment and performance bond, if any.

PAYMENT SCHEDULE
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SPECIAL CONDITIONS
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Client's Representative Signature _____ Date _____

Landshore® Enterprises Representative Signature _____ Date _____

Landshore Enterprises, LLC

Streambank & Shoreline protection/stabilization/reclamation
Environmental engineering, Erosion control, Construction management
d/b/a Erosion Restoration, LLC

Silver Palms Community Development District
c/o: Alvarez Engineers
Attn: Mr. Angel Camacho
8935 NW 35 Lane, Suite 101, Doral, FL 33172

ESTIMATE: 4019
DATE: 12/6/2022

Project: Shoreline Restoration for Approximately 1,698 LF of Embankment

PRODUCT DESCRIPTION

Eco-Filter Tube (EFT®) construction uses a woven or non-woven geotextile fabric that is formed into the shape of a tube. The tube is filled with sand by direct coupling to a hydraulic dredge. The tube is designed to retain the granular fill portion of the dredge slurry, while appropriately sized openings in the geotextile allow the excess water in the slurry to permeate through the tube walls. The procedure can be implemented in both dry and underwater conditions. The tubes can be fabricated in various circumferences, which, when inflated, will form a roughly elliptical shape. The Landshore® engineered EFT® system consists of a spun bound polyester filter fabric that is sewn together to form a tube specifically calculated for particular level of service, pressure, strength, stability and safety - is placed along the edge of water on prepared terrace and filled with sand to form an erosion barrier that has the characteristics of a permeable, gravity type retaining wall.

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ITEMIZED ESTIMATE: TIME AND MATERIALS

Section	Description	Units	Estimated Quantities	Total
PHASE II	Mobilization / General preparation	EA	1	
	Maintenance of Traffic	EA	1	
	Clearing and Grubbing	EA	1	
	Installation and maintenance of stormwater pollution prevention measures	EA	1	
	Embankment/Regular Excavation	CY	100	
	Grading and Shaping	SF	16,979	
	Installation of EFT®			
	EFT® 7.5' Cir. Sacrificial Tube	LF	3,396	EFT
	EFT® 7.5' Cir. Base Tube	LF	1,698	
	EFT® 10' Cir. Supporting Tube	LF	1,698	
	Turf Reinforcement Mat - C125 Coconut	SY	1,887	
	Sod (St. Augustine)	SF	16,979	
	Demobilization	EA	1	
TOTAL JOB COST				**$230,930.00**

Excluding any permit fees and fees for a payment and performance bond, if any.

PAYMENT SCHEDULE
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