



Portofino Shores
Community Development District

Albert Zemola, Chairman

Henry Schmitz Jr., Vice Chairman

Deborah Pariseau, Assistant Secretary

Ingrid Raad Grubb, Assistant Secretary

Alice Schmitz, Assistant Secretary

February 4, 2020

Portofino Shores

Community Development District

5385 N. Nob Hill Road, Sunrise, Florida 33351
Phone: 954-721-8681 - Fax: 954-721-9202

January 28, 2020

Board of Supervisors Portofino Shores Community Development District

Dear Board Members:

The regular meeting of the Board of Supervisors of **Portofino Shores Community Development District** is scheduled for **February 4, 2020 at 2:30 p.m. at the Shores Clubhouse at 5720 Spanish River Road, Ft. Pierce, Florida 34951**. Following is the advance agenda:

1. Roll Call
2. Approval of the Minutes of the November 5, 2019 Meeting
3. Staff Reports
 - A. Attorney
 - B. Engineer
 - C. Manager
4. Financial Reports
 - A. Approval of Check Register
 - B. Balance Sheet and Income Statement
5. Supervisors Requests and Audience Comments
 - A. Update on Lake Restoration Project *(requested by Supervisor Zemola)*
 - B. Discussion of Encroachment of the CDD Property by Homeowners behind Houses between Homeowners Lots and the Preserves *(requested by Supervisor Zemola)*
 - C. Discussion on Weeds Overtaking the Lake *(requested by Supervisor Zemola)*
 - D. Discussion Regarding Bat Houses in the Preserve *(requested by Supervisor Grubb)*
 - E. Discussion Regarding Traffic Bumps on CDD Roads *(requested by Supervisor Grubb)*
6. Adjournment

Meetings are open to the public and may be continued to a time, date and place certain. For more information regarding this CDD please visit the website: <http://www.portofinoshorescdd.com>

**MINUTES OF MEETING
PORTOFINO SHORES
COMMUNITY DEVELOPMENT DISTRICT**

The regular meeting of the Board of Supervisors of the Portofino Shores Community Development District was held on Tuesday, November 5, 2019 at 2:30 p.m. at the Shores Clubhouse, 5720 Spanish River Road, Fort Pierce, Florida 34951.

Present and constituting a quorum:

Al Zemola
Henry Schmitz, Jr.
Alice Schmitz

Chairman
Vice Chairman
Assistant Secretary

Also present were:

Rich Hans
William Capko
Stefan Matthes
Ann Marie Cogniglio
Numerous residents

District Manager
District Counsel
District Engineer
POA

FIRST ORDER OF BUSINESS

Roll Call

Mr. Hans called the meeting to order and called the roll.

SECOND ORDER OF BUSINESS

**Approval of the Minutes of the
July 2, 2019 Meeting**

Mr. Hans: Item 2 is our minutes from our July 2, 2019 meeting. If anyone has any comments on those minutes we will take those.

Mr. Zemola: On page 12 on the top it says Mr. Tippmann. I don't think Mr. Tippmann was in here.

Mr. Hans: No.

Mr. Zemola: I don't believe he was. I don't know who that was talking.

Mr. Hans: Alright. We will change it to unknown resident. Anything else?

Mr. Zemola: On page 14 halfway down there it says Mr. Zemola. I have seen that and that looks as though it is a hole from the drain between the houses where it comes down the slope. I don't believe that was me that spoke. It might have been Stef.

Mr. Hans: It might have been. Does that sound like it could have been? It is really not substantial if we don't have the right person. We will just put unknown speaker. It is not really going to effect the minutes. Anything else? Then a motion accepting the minutes with those two changes will be in order.

On MOTION by Ms. Schmitz seconded by Mr. Zemola with all in favor the minutes of the July 2, 2019 meeting was approved.

THIRD ORDER OF BUSINESS

Consideration of Engagement Letter with Grau & Associates to perform the audit for Fiscal Year Ending September 30, 2019

Mr. Hans: The next item is consideration of the engagement letter with Grau & Associates to perform the audit for the fiscal year ending September 30, 2019. Remember we went out for the audit selection committee, it was a five year process and they come back each year with an engagement. Their fee is within the budgeted amount. If there is no questions or discussion, a motion approving the engagement would be in order.

On MOTION by Ms. Schmitz seconded by Mr. Zemola with all in favor accepting the engagement letter with Grau & Associates to perform the audit for the fiscal year ending September 30, 2019 was approved.

FOURTH ORDER OF BUSINESS

Staff Reports

A. Attorney

Mr. Capko: It has been very quick since last meeting.

Mr. Hans: Ok.

B. Engineer

1) Blacktop Resealing Recommendation

Mr. Hans: Under engineering we have a couple items for Stef. One of the items is the POA wants to do some blacktop resurfacing/resealing. They provided some

proposals. They asked that the CDD take a look at them and kind of rank them. That is why they are in the book. Our engineer can enlighten us on these.

Mr. Matthes: Is this being done for an esthetic purposes, just for esthetics because blacktop resealing is not going to wind up with any kind of structural improvement to it. It really will be esthetics so then I really don't have a position on it. Resealing it makes it look prettier to some people. You are going to have to strip it. It does wear out over time so once you start going down that path you probably go down that path more often. From an engineering standpoint I have nothing for or against it.

Mr. Hans: I guess what we would need then because it is the CDD's ownership of the roads and the POA wants to reseal the blacktop to make them look better.

Mr. Matthes: And it is just the entrance and parking lot right? The two entrances, the exits and the parking lot.

Mr. Hans: As long as the Board doesn't have any objection to the POA doing that, just a motion saying you have no objection.

On MOTION by Mr. Zemola seconded by Ms. Schmitz with all in favor, authorizing the POA to proceed with the blacktop resealing was approved.

2) Acceptance of CDD Owned and Maintained Infrastructure 2019 Annual Report

Mr. Hans: You also have based on the bonds, an annual report that needs to be provided by the District's engineer. It is an annual report and it basically just goes over all the infrastructure that is owned by the CDD and any recommendations and if there is any corrections in the recommendations from the engineer. It is in your packet. There is not a whole lot in here that you would really need to address. If Stef wants to elaborate on it or no.

Mr. Matthes: Just a quick synopsis of the report is on generally the shape of the infrastructure hasn't changed much in the last year. It is still in good condition. We are seeing more and more issues with the sanitary services over the last year. A lot of that has to do with root intrusion from the trees. We are going to see that continue to happen as the trees grow bigger unless we come up with a prudent solution. Also the lake we

have had a lot of discussion about the lake. There is some areas that need to be repaired. There is some shelving in the south end of the main lake that needs to be dredged out. All in all, it is not something that is life threatening/health safety welfare but it is something that should be addressed. My next issue that I'm going to bring up is something that I handed out to you with regards to the pricing in that you asked me to do for lake bank restoration as well as dredging that lake system and those things. ADA compliance, we still have the root trees are pushing up some of the sidewalks and they are going to have to be ground. All in all the system is in fair condition.

Mr. Zemola: I did notice that you mentioned that there was also some pushing up from the root system into the road.

Mr. Matthes: That has been going on for the last ten years. It is not getting any worse but you can see especially if you look at the edge of the pavement you will see little cracking and humping going on and that is the root trees doing the same thing to the pavement.

Mr. Zemola: Nothing can be done about it?

Mr. Matthes: You can saw cut off the roots. You can saw cut out the area and replace it but in my opinion at this point it is not doing anything to the safety of the roadway. It is not really jeopardizing the roadway itself.

Mr. Zemola: You did mention exotic vegetation around the area too and I hope Ann Marie can see that. I think that would be part of her job and the job of the HOA too if they see any exotic vegetation around the common areas that they get rid of it. I know we do have some. We also had some around that house, 5665 Spanish Lakes Boulevard and Ann Marie I think got rid of that vegetation back there. I did notice the other day when I went back there to check that they cut off the plants but now the roots are still growing and they are about a foot high now. They should have just removed the roots as well. I'm sure there are other places around the area that there is exotic vegetation. I believe the HOA should look at that. That is all I have to say about this here. Anybody else?

Mr. Hans: Then a motion to accept the report would be in order.

On MOTION by Ms. Schmitz seconded by Mr. Zemola with all in favor accepting the CDD Owned and Maintained Infrastructure 2019 Annual Report was approved.
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Mr. Matthes: At the last meeting you had requested that we do some research on lake bank restoration, what areas should be done for your phase 2 work, what the costs are and what the different viable options are. What I have given you is a budgetary memo with backup. We went around to a lot of different communities and got pricing from contractors who have done various different types of lake bank restoration projects. I have given you a synopsis along with some pictorial efforts of what the different types of restorations could look like in the past, during and after condition. What it boils down to is the prices have gone up since we did it ten years ago. I think our average price was somewhere about \$45 a linear foot for the geo-tube and it was just slightly higher at \$60 a foot for the rip-rap rubble. Right now the pricing that we are getting ranges from just under \$60 a linear foot for just putting back what was there. In other words the material that has slumped off into the lake, bringing it back, shaping it like he did behind Mr. DiSisto's house a couple of months ago when we redid the pipe and sodding over it all the way up to \$140 for some of the more innovative types of geo-fabrics that get laid and tucked in underneath the sod to hold it in place. What I added it to this time is a life cycle cost. We took into account the longevity of the different types of restorations you have and then also added in what your standard maintenance would be. This is from averages that we took with South Florida in mind. What I have in front of you now is the three different lakes that we have with the linear footage that I garnered that could be considered to be restored and worked on. Then I have the unit prices for the different types of restorations just put it back like it was, using the geo-fabric, using rip rap rubble at the base or going back with the geo-tube. I also added something that has started to become popular especially with governmental agencies and that is called the living shoreline. South Florida Water Management District and many of the other environmental communities right now prefer that you use plantings as opposed to sod, that you use plantings as opposed to rip rap. The benefits of the system are much greater than just basic sod. It also tends to hold up a lot longer because the root systems actually dig into the banks and they stabilize it and hold it a lot better. Of course it is a completely different

look because now you have vegetation of some kind. Sometimes it could be cypress trees, it could be thrush, all sorts of different things dispersed together but you would no longer have a clear vista for your lake. I just threw it out there to let you know. I always gotten from you that was not the look that this community wanted but I wanted to throw out something that is occurring and is becoming more and more prevalent in South Florida. So from a budgetary standpoint, that is what this little column is there for. I do believe that the prices will be less but when we go out and start working on things we like to put a budget together that you feel comfortable with before we start physically and go out to construction. Also behind the 11 by 17 sheets is we did up the surveys of the lakes and I have much bigger easier to see graphics. The blue on the line, that is the area that have not been done with any kind of slope protection. We added in the shallow areas and the shelving areas. We also added behind it the cross sections which lets you see what the standard template would be versus what we found in the field. The dash line in those cross sections is what we found at each location. The solid line would be the standard template that would have been the design and build.

Mr. DiSisto: Excuse me. There is a correction on the south end lake. The builder did that with the plastic under the sod, if you look at it, nothing came down.

Mr. Matthes: The south end does have plastic under it. Good to know. Maybe that is why it is holding its shape so well.

Mr. DiSisto: Yes it has been 15 years.

Mr. Matthes: I will tell you what. After the meeting, can you get with this map and maybe you can show me on my big map?

Mr. DiSisto: Yes.

Mr. Matthes: Thank you. If that does need to be done in those areas, what we would do is change, everything is based on a linear foot cost so the main lake with, Al the stuff that you gave me last time, out of the total lake remaining we figured somewhere about 2,000 – 2,300 linear foot could be done. Front lake #2 which is the one on the right, if you do the entire circumference, it is about 1,350 linear feet and the front lake on the left is about 1,400 linear feet that could be done. There are drop offs in all those areas. I know it is a lot to digest but I wanted to at least get started with the conversation what preferences were, what budgets we want to set so I can put together a program of action

for doing more lake bank restoration. With that with the numbers I gave you I'm assuming that we can take the additional material that is in the south end of the existing lake and use that for re-stabilizing banks and not have to import that much so we can kind of do two projects at the same time.

Mr. DiSisto: I was looking at the lake today with another company, Wetlands Management. You have the lake restoration but you also have the bank. Some of the banks are a 3:1. Some of the banks are 5:1. You can't have that. You almost have to redo that whole bank so the dirt that you have in the lake, you are going to need it. You can't go over 4:1 on the bank.

Mr. Matthes: Actually it could be flatter.

Mr. DiSisto: It can be 3:1 but you can't go over 4 because if somebody happens to fall in the lake and dies we have a problem. The front ones over there are more than 4:1. I went and checked it personally.

Mr. Matthes: Those are all in the costs that I have put in.

Mr. DiSisto: That which was put underground is now 15 years. That is the part that you would think you would have more erosion. Fortunately, it is not that bad, you know what I mean. It is pretty nice. It kept it up for 15 years. If we can do the rest like that and it holds for 15 years, a lot of us aren't going to be here by that time.

Mr. Zemola: I think we are going to have to go over this and really study this. I do believe that a lot of people bought in here so they can use the lake for fishing and boating and to view the lake. I personally don't believe planting things in the lake like we have now, we have some weeds or grass in there that are showing up. People just can't use the lake anymore.

Mr. Matthes: Some grasses are definitely healthy for the lake. They are good for the small fish population. Some are exotics and need to be removed. It all depends on what it is.

Mr. DiSisto: Talking to the Wetland Management, it is beneficial to the lake however we can have it either way. It is not mandatory you have to have that for the lake. If it is managed properly you could have some of that the way it is and you stop the people from fishing. Some people bought so that they could fish. You can have a small track of two feet but then it has to be maintained at two feet. You can't let it go wild. The lake

where you come in on the south side, it is wild. There is grass all over. Now we have to spray. You have to maintain it. He said that either or you can have it with the planted or nothing says that we have to have those grasses in the water. He's making a report and I would like to pass that onto you for the preserve. He has noticed a lot of vines in the preserve, a lot of poison ivy that needs to be removed. I am allergic to poison ivy but nothing gets done. The company that we have now, I'm going to get a report with information, pass it onto you and you guys can look at it.

Mr. Zemola: We would like to see that. That would be great.

Mr. DiSisto: And another thing not to go against anything, but this company does everybody around us and also, they do their own management of the lake, their own restoration. They do the banks and they don't sub it out. They do it themselves.

Mr. Matthes: They can do dredging?

Mr. DiSisto: Yes. I will give you the phone number. I told him I will give you Stef's phone number. He said we do it all in house. They have people that have done this for a long time. I would rather not disclose which other ones they do but I went to see one that they do and it is maintained properly. Nice. No grass on the lake. Nothing. It is beautiful. He also mentioned that the lake level is very important. The lake goes up and down, that is what makes your bank come down further. You would agree with that, right?

Mr. Matthes: Without a doubt.

Mr. DiSisto: Thank you. As soon as I get the recommendation I will pass it onto you and then we will see.

Mr. Matthes: If you could give me his number I would like to call him. I would like to give him my plans and let him look them over and come up with some pricing. That would be good. I can send him the plans that I have and would love for him to look at them and tell me what he thinks the price would be. That would be good.

Mr. DiSisto: I like when we work together.

Mr. Zemola: Moving on I think the Board should study this here report from Stef and look at it again next meeting.

Mr. Hans: Ok. Hopefully we will have some more pricing.

Mr. Matthes: What I will do is as soon as I get the pricing back, what I will do is update this for more current information. I will send it back out. Just remember take this

with what it is. It is average pricing throughout South Florida that we have taken through a lot of different communities and a lot of different contractors and averaged them together. It is by no means a specific price that I think that you are going to get. I honestly believe that whatever pricing we do will be less but this is for budgetary purposes and for comparison purposes only.

Mr. Hans: Ok so there is just direction, there is no specific action that the Board needs to take on that. Thank you Stef. Anything else?

Mr. Matthes: That is enough for today.

C. Manager

Mr. Hans: Under manager's report I just want to bring up at 5657 Spanish River we had one of those instances where our roots have gone into the sanitary sewer line on the other side of the sidewalk pass, the cleanout. The homeowner had hired a plumber to clear it from inside and realized it was on our side. They notified us. We typically reimburse for the plumber clearing our line and then we have a company that has gone out because the pipes are cracked from the tree roots so they replace it. That has been done. We have offered to reimburse the homeowner for his plumbing costs but he also has extra costs for drying out and fans like a restoration amount which is about \$1,400. He is looking for reimbursement. As it has been in the past, I don't recall us ever reimbursing for those types of damages. I said I would bring it up to the Board and see if there is any changes but I think the best that we could probably do is submit to our insurance company and see if CDD insurance would address it. I'm not sure if they would or not because it is not like our sewage was flowing up his pipe into his place. His drains had to be running slow and he must have continued running water from maybe upstairs and it leaked down. I don't know the exact details.

Mr. DiSisto: He has actually his own insurance that can pay that.

Mr. Hans: I asked him if he went to his insurance. He said no not yet. If the Board feels we did the appropriate action as far as cleaning the pipe, replacing the broken pipe from our side, we will reimburse him his \$195 for his plumber for the clearing. We have reimbursed other residents for that portion. We will go ahead and reimburse that and we

will say we will submit to our insurance company but the CDD is not going to write a check if that is the route the Board wants to take, just give me direction.

Mr. Matthes: Just one point of clarification. The way I read this is this isn't the last bill.

Mr. Hans: Correct, that is drying out and clean-up.

Mr. Matthes: He still has putting drywall back, painting it and putting everything back together. This was just demolition.

Mr. Hans: You are correct.

Mr. Matthes: There may be more coming.

Mr. DiSisto: The lady next door to me had the same situation. What happened was the truck that was delivering tiles just went right over and two months later his pipe was broke. They put it through the insurance and I know that is what happened. If you start paying one like that, you are going to have others.

Mr. Hans: Alright so I have direction. We will pay the \$195 and we will submit to our insurance company and let him know he needs to submit it under his insurance as well. I got my direction from the Board thanks. Our next meeting isn't for a while, February 4th unless something comes up where we have to have a special meeting. We will schedule one but our next meeting is February 4, 2020.

FIFTH ORDER OF BUSINESS

Financial Reports

A. Approval of Check Register

B. Balance Sheet and Income Statement

Mr. Hans: Financial reports. There is a check register and a balance sheet and income statement. Is there any questions or discussions on those, we will take it, if not a motion accepting those would be in order.

On MOTION by Ms. Schmitz seconded by Mr. Zemola with all in favor the check register, balance sheet and income statement were approved.

SIXTH ORDER OF BUSINESS

**Supervisor Requests and
Audience Comments**

Mr. Hans: Any Supervisors requests for today?

Mr. Zemola: I wanted to know a little more about the pipe flap, what is happening with that?

Mr. Matthes: Didn't they put the chain on it?

Mr. Zemola: I looked at it yesterday and all there was a board underneath the flap holding it up with rocks on top of it.

Mr. Matthes: I apologize, I will find out. I thought that the chain was taken care of.

Mr. Zemola: I think when it is done it has to be working perfectly.

Mr. Matthes: We're thinking about pulling that out and putting what they call a burper on it anyway. It is a rubber gasket that lets water through and closes back down so nothing is going to get in the way. You won't have any problem opening and closing it. It automatically works. I am supposed to get a price for that from the guys who fixed the drain the other day.

Mr. Zemola: The only other thing I was going to ask if Ann Marie has any report on the police and the traffic situation. Have they issued anymore tickets or any price on that for the month?

Ms. Cogniglio: I know of only one citation that was issued. I don't know of anything since then. I don't know the exact figure but the billing was about \$1,000 since we started.

Mr. Zemola: That is about all I have.

Mr. Hans: Any others? Any audience comments? If not a motion by the Board to adjourn.

SEVENTH ORDER OF BUSINESS

Adjournment

On MOTION by Mr. Zemola seconded by Ms. Schmitz with all favor the meeting was adjourned.

Assistant Secretary/Secretary

Chairman/ Vice Chairman

Portofino Shores
Community Development District

Check Run Summary - General Fund

January 27, 2020

Date	Check Numbers	Amount
November 6, 2019	961-965	\$3,922.30
November 7, 2019	966	\$3,876.00
November 26, 2019	967	\$195.00
December 2, 2019	968	\$1,200.00
December 13, 2019	969-978	\$254,999.72
January 15, 2020	979-981	\$39,670.80
Total		\$303,863.82

*** CHECK DATES 10/16/2019 - 01/27/2020 ***

PORTOFINO SHORES - GENERAL

BANK A GENERAL FUND

CHECK DATE	VEND#	.....INVOICE..... DATE INVOICE	...EXPENSED TO... YRMO DPT ACCT# SUB SUBCLASS	VENDOR NAME	STATUS	AMOUNT	....CHECK..... AMOUNT #
11/06/19	00014	10/26/19 86881	201909 310-51300-31100	CULPEPPER & TERPENING, INC	*	1,782.80	1,782.80 000961
SEP 19 - ENGINEERING FEES							
11/06/19	00006	10/01/19 74053	201910 310-51300-54000	DEPARTMENT OF ECONOMIC OPPORTUNITY	*	175.00	175.00 000962
SPECIAL DISTRICT FEE FY20							
11/06/19	00023	11/06/19 11062019	201911 300-20700-10000	PORTOFINO SHORES C/O US BANK	*	1,374.93	1,374.93 000963
TAX COLLECTION EXCESS FEE							
11/06/19	00047	11/01/19 29007	201910 320-53800-46000	SOUTH EAST SERVICES OF THE	*	475.00	475.00 000964
SANITARY SEWER REPAIRS							
11/06/19	00005	9/30/19 2869527	201909 310-51300-48000	TREASURE COAST NEWSPAPERS	*	114.57	114.57 000965
NOTICE OF MEETING DATES							
11/07/19	00021	11/01/19 184	201911 310-51300-34000	GOVERNMENTAL MANAGEMENT SERVICES -	*	3,508.42	3,876.00 000966
NOV 19 - MGMT FEES							
		11/01/19 184	201911 310-51300-44000		*	200.00	
NOV 19 - RENT							
		11/01/19 184	201911 310-51300-35100		*	83.33	
NOV 19 - COMPUTER TIME							
		11/01/19 184	201911 310-51300-49500		*	83.33	
NOV 19 - WEBSITE ADMIN							
		11/01/19 184	201911 310-51300-42000		*	.92	
NOV 19 - POSTAGE							
11/26/19	00057	9/27/19 5874	201909 320-53800-46000	DAVID YONCHAK	*	195.00	195.00 000967
SNAKE MAIN LINE REIMBURSE							
12/02/19	00058	8/14/19 014279	201908 320-53800-46100	WETLANDS MANAGEMENT SF, LLC	*	1,200.00	1,200.00 000968
LAKE TESTING							
12/13/19	00014	11/19/19 87176	201910 310-51300-31100	CULPEPPER & TERPENING, INC	*	586.40	586.40 000969
OCT 19 - ENGINEERING SVC							
12/13/19	00002	11/05/19 68294922	201911 310-51300-42000		*	118.27	
DELIVERIES THRU 11/5/19							

PORS --PORT SHORE-- ACOOPER

*** CHECK DATES 10/16/2019 - 01/27/2020 ***

PORTOFINO SHORES - GENERAL
BANK A GENERAL FUND

CHECK DATE	VEND#	INVOICE DATE	EXPENSED TO... YRMO DPT ACCT# SUB SUBCLASS	VENDOR NAME	STATUS	AMOUNT	CHECK... AMOUNT #
11/19/19		68430752	201911 310-51300-42000		*	29.78	
			DELIVERIES THRU 11/19/19				
			FEDEX				148.05 000970
12/13/19	00021	12/01/19	185 201912 310-51300-34000		*	3,508.42	
			DEC 19 - MGMT FEES				
12/01/19		185	201912 310-51300-44000		*	200.00	
			DEC 19 - RENT				
12/01/19		185	201912 310-51300-35100		*	83.33	
			DEC 19 - COMPUTER TIME				
12/01/19		185	201912 310-51300-49500		*	83.33	
			DEC 19 - WEBSITE ADMIN				
12/01/19		185	201912 310-51300-51000		*	20.00	
			DEC 19 - OFFICE SUPPLIES				
12/01/19		185	201912 310-51300-42000		*	2.30	
			DEC 19 - POSTAGE				
12/01/19		185	201912 310-51300-42500		*	61.70	
			DEC 19 - COPIES				
			GOVERNMENTAL MANAGEMENT SERVICES -				3,959.08 000971
12/13/19	00003	11/06/19	WGC-1328 201910 310-51300-31500		*	667.50	
			OCT 19 - ATTORNEY FEES				
12/05/19		WGC-1332	201911 310-51300-31500		*	81.20	
			NOV 19 - ATTORNEY FEES				
			LEWIS, LONGMAN & WALKER, PA				748.70 000972
12/13/19	00023	12/13/19	12132019 201912 300-20700-10000		*	240,817.66	
			TAX RECEIPTS FY2020				
			PORTOFINO SHORES C/O US BANK				240,817.66 000973
12/13/19	00041	11/01/19	20161001 201911 310-51300-31301		*	5,078.77	
			2018 TRIM NOTICE & ROLL				
			MICHELLE FRANKLIN				5,078.77 000974
12/13/19	00059	11/06/19	11062019 201911 320-53800-46000		*	291.00	
			REIBURSE FOR REPAIRS				
			WILLIAM RUTNIK				291.00 000975
12/13/19	00047	11/11/19	29020 201911 320-53800-46000		*	1,075.00	
			SEWER BACK UP REPAIRED				
			SOUTH EAST SERVICES OF THE				1,075.00 000976
12/13/19	00005	10/31/19	00029521 201910 310-51300-48000		*	114.57	
			NOTICE OF MEETING DATES				
			TREASURE COAST NEWSPAPERS				114.57 000977
			PORS --PORT SHORE-- ACOOPER				

*** CHECK DATES 10/16/2019 - 01/27/2020 ***

PORTOFINO SHORES - GENERAL

BANK A GENERAL FUND

CHECK DATE	VEND#	.....INVOICE..... DATE INVOICE	...EXPENSED TO... YRMO DPT ACCT# SUB SUBCLASS	VENDOR NAME	STATUS	AMOUNT	....CHECK..... AMOUNT #
12/13/19	00003	12/03/19	WGC-1332 201911 310-51300-31500		*	2,180.50	
			NOV 19 - ATTORNEY FEE BAL				
				LEWIS, LONGMAN & WALKER, PA			2,180.50 000978
1/15/20	00014	12/16/19	87342 201911 310-51300-31100		*	1,102.43	
			NOV 19 - ENGINEERING SVC				
				CULPEPPER & TERPENING, INC			1,102.43 000979
1/15/20	00021	1/01/20	186 202001 310-51300-34000		*	3,508.42	
			JAN 20 - MANAGEMENT FEES				
		1/01/20	186 202001 310-51300-44000		*	200.00	
			JAN 20 - RENT				
		1/01/20	186 202001 310-51300-35100		*	83.33	
			JAN 20 - COMPUTER TIME				
		1/01/20	186 202001 310-51300-49500		*	83.33	
			JAN 20 - WEBSITE ADM				
		1/01/20	186 202001 310-51300-42000		*	5.00	
			JAN 20 - POSTAGE				
				GOVERNMENTAL MANAGEMENT SERVICES -			3,880.08 000980
1/15/20	00023	1/15/20	01152020 202001 300-20700-10000		*	34,688.28	
			TXFER TAX RCPTS 01/15/20				
				PORTOFINO SHORES C/O US BANK			34,688.28 000981
				TOTAL FOR BANK A		303,863.82	
				TOTAL FOR REGISTER		303,863.82	

PORS --PORT SHORE-- ACOOPER

Portofino Shores
Community Development District
Tax Collections
Fiscal Year Ending September 30, 2020

						001.300.36300.10000	021.700.36300.1000		
						\$ 162,643.00	\$ 314,762.00	\$	477,405.00
						\$ 173,024.22	\$ 334,853.19	\$	507,877.41
								Net Gross	
Date Received	Gross Tax Received	Commissions	Discounts (Penalties)	Interest	Net Amount Received	General Fund 34.07%	Debt Service Fund 65.93%	Total 100.00%	
11/7/2019	\$ 5,366.40	\$ 102.32	\$ 262.11	\$ 11.78	\$ 5,013.75	\$ 1,708.09	\$ 3,305.66	\$	5,013.75
11/15/2019	\$ 20,762.07	\$ 398.63	\$ 830.55	\$ -	\$ 19,532.89	\$ 6,654.49	\$ 12,878.40	\$	19,532.89
11/21/2019	\$ 32,626.11	\$ 626.42	\$ 1,305.15	\$ -	\$ 30,694.54	\$ 10,457.05	\$ 20,237.49	\$	30,694.54
12/2/2019	\$ 67,229.56	\$ 1,290.81	\$ 2,689.39	\$ -	\$ 63,249.36	\$ 21,547.86	\$ 41,701.50	\$	63,249.36
12/6/2019	\$ 267,619.13	\$ 5,138.28	\$ 10,705.49	\$ -	\$ 251,775.36	\$ 85,775.10	\$ 166,000.26	\$	251,775.36
12/12/2019	\$ 24,716.75	\$ 474.55	\$ 988.75	\$ -	\$ 23,253.45	\$ 7,922.01	\$ 15,331.44	\$	23,253.45
12/19/2019	\$ 8,242.74	\$ 159.65	\$ 260.51	\$ -	\$ 7,822.58	\$ 2,665.00	\$ 5,157.58	\$	7,822.58
12/30/2019	\$ 6,920.69	\$ 133.86	\$ 227.40	\$ -	\$ 6,559.43	\$ 2,234.67	\$ 4,324.76	\$	6,559.43
1/3/2020	\$ 8,898.03	\$ 172.42	\$ 276.83	\$ -	\$ 8,448.78	\$ 2,878.34	\$ 5,570.44	\$	8,448.78
1/8/2020	\$ 3,862.72	\$ 75.69	\$ 78.47	\$ -	\$ 3,708.56	\$ 1,263.44	\$ 2,445.12	\$	3,708.56
1/9/2020	\$ 2,966.01	\$ 57.54	\$ 88.98	\$ -	\$ 2,819.49	\$ 960.55	\$ 1,858.94	\$	2,819.49
1/14/2020	\$ -	\$ -	\$ -	\$ 28.87	\$ 28.87	\$ 28.87	\$ -	\$	28.87
1/16/2020	\$ 3,954.68	\$ 76.72	\$ 118.64	\$ -	\$ 3,759.32	\$ 1,280.73	\$ 2,478.59	\$	3,759.32
1/24/2020	\$ 2,966.01	\$ 58.14	\$ 59.32	\$ -	\$ 2,848.55	\$ 970.45	\$ 1,878.10	\$	2,848.55
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
TOTALS	\$ 450,764.50	\$ 8,662.71	\$ 17,629.48	\$ 28.87	\$ 424,501.18	\$ 144,638.55	\$ 279,862.63	\$	424,501.18

88.75%

YTD gross collections	\$ 153,566.93	\$ 297,197.57	\$ 450,764.50
Remaining gross to collect	\$ 19,457.29	\$ 37,655.62	\$ 57,112.91
Commissions	\$ 2,951.22	\$ 5,711.49	\$ 8,662.71
Discount/Penalties	\$ 6,006.03	\$ 11,623.45	\$ 17,629.48
Interest	\$ 9.84	\$ 19.03	\$ 28.87
YTD Net Collections	\$ 144,619.52	\$ 279,881.66	\$ 424,501.18

Date	Amount	Check No.
12/13/2019	\$ 240,817.66	973
1/15/2020	\$ 34,688.28	981

	\$ 275,505.94
To Debt Service	V#23 001.300.20700.10000
Balance to Transfer	\$ 4,356.69

PORTOFINO SHORES
COMMUNITY DEVELOPMENT DISTRICT
COMBINED BALANCE SHEET
December 31, 2019

	<u>Governmental Fund Types</u>			<u>Totals</u> <u>(Memorandum Only)</u>
	<u>General</u>	<u>Debt Service</u>	<u>Capital Projects</u>	<u>2020</u>
<u>ASSETS:</u>				
Cash	\$245,633	---	---	\$245,633
Investments:				
State Board	\$357,157	---	---	\$357,157
<u>Series 2013:</u>				
Reserve	---	\$317,787	---	\$317,787
Revenue	---	\$326,174	---	\$326,174
Prepayment	---	\$2,074	---	\$2,074
Cost of Issuance	---	---	\$8,235	\$8,235
Due from General Fund	---	\$28,119	---	\$28,119
TOTAL ASSETS	<u>\$602,789</u>	<u>\$674,154</u>	<u>\$8,235</u>	<u>\$1,285,179</u>
<u>LIABILITIES:</u>				
Accounts Payable	\$1,102	---	---	\$1,102
Due to Debt Service	\$28,119	---	---	\$28,119
<u>FUND BALANCES:</u>				
Restricted for Debt Service	---	\$674,154	---	\$674,154
Restricted for Capital Projects	---	---	\$8,235	\$8,235
Unassigned	\$573,568	---	---	\$573,568
TOTAL LIABILITIES & FUND BALANCES	<u>\$602,789</u>	<u>\$674,154</u>	<u>\$8,235</u>	<u>\$1,285,179</u>

PORTOFINO SHORES
COMMUNITY DEVELOPMENT DISTRICT

GENERAL FUND

Statement of Revenues & Expenditures
& Changes in Fund Balances
For the Period Ended December 31, 2019

	ADOPTED BUDGET	PRORATED BUDGET THRU 12/31/19	ACTUAL THRU 12/31/19	VARIANCE
<u>REVENUES:</u>				
Maintenance Assessments	\$162,643	\$138,964	\$138,964	\$0
Interest/Misc Income	\$0	\$0	\$1,786	\$1,786
TOTAL REVENUES	\$162,643	\$138,964	\$140,750	\$1,786
<u>EXPENDITURES:</u>				
<u>ADMINISTRATIVE:</u>				
Engineering	\$15,000	\$3,750	\$1,689	\$2,061
Assessment Roll	\$5,600	\$5,600	\$5,600	\$0
Property Appraiser	\$5,100	\$5,100	\$5,079	\$21
Attorney	\$35,000	\$8,750	\$2,929	\$5,821
Annual Audit	\$3,600	\$3,600	\$0	\$3,600
Trustee Fees	\$4,000	\$4,000	\$0	\$4,000
Management Fees	\$42,101	\$10,525	\$10,525	(\$0)
Computer Time	\$1,000	\$250	\$250	\$0
Telephone	\$100	\$0	\$0	\$0
Postage	\$1,200	\$300	\$154	\$146
Printing & Binding	\$865	\$216	\$62	\$154
Rentals & Leases	\$2,400	\$600	\$600	\$0
Insurance	\$6,515	\$6,515	\$6,193	\$322
Legal Advertising	\$1,000	\$250	\$115	\$135
Other Current Charges	\$1,250	\$313	\$247	\$66
Website Compliance	\$1,000	\$250	\$250	\$0
Office Supplies	\$400	\$100	\$23	\$77
Dues, Licenses, Subscriptions	\$175	\$175	\$175	\$0
Capital Outlay	\$250	\$63	\$0	\$63
Contingencies	\$5,000	\$1,250	\$0	\$1,250
Total Administrative	\$131,555	\$51,607	\$33,890	\$17,717
<u>FIELD:</u>				
Repairs & Maintenance	\$10,000	\$2,500	\$1,841	\$659
Roadway Maintenance	\$5,000	\$1,250	\$0	\$1,250
Lake Bank Restoration	\$25,000	\$6,250	\$0	\$6,250
Total Field	\$40,000	\$10,000	\$1,841	\$8,159
TOTAL EXPENDITURES	\$171,555	\$61,607	\$35,731	\$25,876
Excess (deficiency) of revenues over (under) expenditures	(\$8,912)	\$77,358	\$105,019	\$27,662
Net change in fund balance	(\$8,912)	\$77,358	\$105,019	\$27,662
FUND BALANCE - Beginning	\$296,146		\$468,548	
FUND BALANCE - Ending	<u>\$287,234</u>		<u>\$573,568</u>	

PORTOFINO SHORES
COMMUNITY DEVELOPMENT DISTRICT

DEBT SERVICE FUND

Statement of Revenues & Expenditures
& Changes in Fund Balances

For the Period Ended December 31, 2019

	<u>ADOPTED BUDGET</u>	<u>PRORATED BUDGET THRU 12/31/19</u>	<u>ACTUAL THRU 12/31/19</u>	<u>VARIANCE</u>
<u>REVENUES:</u>				
Special Assessments-On Roll	\$315,378	\$268,937	\$268,937	\$0
Interest Income	\$0	\$0	\$1,664	\$1,664
<i>TOTAL REVENUES</i>	<u>\$315,378</u>	<u>\$268,937</u>	<u>\$270,601</u>	<u>\$1,664</u>
<u>EXPENDITURES:</u>				
<i>Series 2013:</i>				
Interest Expense - 11/1	\$62,928	\$62,928	\$62,928	\$0
Interest Expense - 05/1	\$62,928	\$0	\$0	\$0
Special Call - 11/1	\$0	\$0	\$0	\$0
Principal Expense - 5/01	\$190,000	\$0	\$0	\$0
<i>TOTAL EXPENDITURES</i>	<u>\$315,856</u>	<u>\$62,928</u>	<u>\$62,928</u>	<u>\$0</u>
Excess (deficiency) of revenues over (under) expenditures	<u>(\$478)</u>	<u>\$206,009</u>	<u>\$207,673</u>	<u>\$1,664</u>
<u>OTHER FINANCING SOURCES/(USES)</u>				
Interfund Transfer In/(out)	\$0	\$0	\$31	\$31
<i>TOTAL OTHER FINANCING SOURCES/(USES)</i>	<u>\$0</u>	<u>\$0</u>	<u>\$31</u>	<u>\$31</u>
Net change in fund balance	<u>(\$478)</u>	<u>\$206,009</u>	<u>\$207,703</u>	<u>\$1,694</u>
FUND BALANCE - Beginning	\$142,521		\$466,451	
FUND BALANCE - Ending	<u>\$142,043</u>		<u>\$674,154</u>	

PORTOFINO SHORES
COMMUNITY DEVELOPMENT DISTRICT

CAPITAL PROJECTS FUND
Statement of Revenues & Expenditures
For the Period Ended December 31, 2019

	<u>ADOPTED BUDGET</u>	<u>PRORATED THRU 12/31/19</u>	<u>ACTUAL THRU 12/31/19</u>	<u>VARIANCE</u>
<u>REVENUES:</u>				
Interest Income	\$0	\$0	\$31	\$31
<i>TOTAL REVENUES</i>	<u>\$0</u>	<u>\$0</u>	<u>\$31</u>	<u>\$31</u>
<u>EXPENDITURES:</u>				
Cost of Issuance	\$0	\$0	\$0	\$0
<i>TOTAL EXPENDITURES</i>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Excess (deficiency) of revenues over (under) expenditures	<u>\$0</u>	<u>\$0</u>	<u>\$31</u>	<u>\$31</u>
<u>OTHER FINANCING SOURCES/(USES)</u>				
Interfund Transfer In/(Out)	\$0	\$0	(\$31)	(\$31)
<i>TOTAL OTHER FINANCING SOURCES/(USES)</i>	<u>\$0</u>	<u>\$0</u>	<u>(\$31)</u>	<u>(\$31)</u>
Net change in fund balance	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
FUND BALANCE - Beginning	\$290,053		\$8,235	
FUND BALANCE - Ending	<u>\$290,053</u>		<u>\$8,235</u>	

PORTOFINO SHORES

COMMUNITY DEVELOPMENT DISTRICT

Bond Issue:	<u>Series 2013 Special Assessment Refunding Bonds</u>
Original Issue Amount:	\$4,450,000
Interest Rate:	3.68%
Maturity Date:	May 1, 2033
Reserve Fund Requirement:	Lesser of: (i) Max Annual Debt Service for Bonds Outstanding (ii) 125% of Average Debt Service for Bonds Outstanding (iii) 10% of Original proceeds

Bonds outstanding - 9/30/13	\$4,450,000
Less: 5/1/2014	(\$155,000)
5/1/2015	(\$160,000)
11/1/2015	(\$5,000)
5/1/2016	(\$165,000)
11/1/2016	(\$10,000)
5/1/2017	(\$170,000)
5/1/2018	(\$175,000)
11/1/2018	(\$5,000)
5/1/2019	(\$185,000)

Current Bonds Outstanding:	<u><u>\$3,420,000</u></u>
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CULPEPPER & TERPENING, INC.
CONSULTING ENGINEERS | LAND SURVEYORS

Sender's Email: smatthes@ct-eng.com

MEMORANDUM

TO: CDD Board Members
FROM: Stefan K. Matthes, P.E.
DATE: November 05, 2019
JOB: Portofino Shores CDD
RE: Lake Bank Restoration Phase 2

As requested by the Board, we have prepared an analysis of the options available for the restoration of the remaining lake banks within the Community. Our analysis includes various methods of lake bank stabilization along with the expected costs for initial construction, annual maintenance, and replacement/repairs as found throughout the industry to result in a 20-year life cycle cost. Additionally, we have procured additional lake bank survey of the community to help establish the areas of need.

The following is a brief summary of the anticipated initial costs (construction and technical services), and expected 20-year life cycle cost to provide both lake bank repairs and dredging of the southern portion of the main lake. The cost estimates include the use of the existing materials within southern portion of the main lake to supply the fill needed to recreate the lake bank slopes:

Main Lake: 2300 LF

<u>Option</u>	<u>Unit Cost</u>	<u>Const Price</u>	<u>Life Cycle Cost</u>
Restore to original design (Fill & Sod)	\$58/LF	\$133,400	\$708,400
Original design w/ Geofabric	\$108/LF	\$248,400	\$784,300
Original design w/ Rip-Rap	\$109/LF	\$250,700	\$788,900
Original design w/ Geotube	\$82/LF	\$188,600	\$609,500
Living Shoreline	\$100/LF	\$230,000	\$556,600

Front Lake 2: 1350 LF

<u>Option</u>	<u>Unit Cost</u>	<u>Const Price</u>	<u>Life Cycle Cost</u>
Restore to original design (Fill & Sod)	\$58/LF	\$ 78,300	\$415,800
Original design w/ Geofabric	\$108/LF	\$145,800	\$460,350
Original design w/ Rip-Rap	\$109/LF	\$147,150	\$463,050
Original design w/ Geotube	\$82/LF	\$110,700	\$357,750
Living Shoreline	\$100/LF	\$135,000	\$326,700

Front Lake 3: 1440 LF

<u>Option</u>	<u>Unit Cost</u>	<u>Const Price</u>	<u>Life Cycle Cost</u>
Restore to original design (Fill & Sod)	\$58/LF	\$ 83,520	\$442,520
Original design w/ Geofabric	\$108/LF	\$155,520	\$491,040
Original design w/ Rip-Rap	\$109/LF	\$156,960	\$493,920
Original design w/ Geotube	\$82/LF	\$118,080	\$381,600
Living Shoreline	\$100/LF	\$144,000	\$348,480

LAKE BANK STABILIZATION - COST COMPARISON

Cost per 1,000.00 lf

1	Restore to original design		
	Initial Cost	\$58,000	
	Annual O&M	\$14,000	
	Cost over 20 years	\$308,000	
2	Restore to original design with geofabric or coconut liner under sod		
	Initial Cost	\$108,000	
	Annual O&M	\$13,000	
	Cost over 20 years	\$341,000	
3	Restore to original design with geoweb under sod		w/ plantings instead of sod
	Initial Cost	\$124,000	\$103,000
	Annual O&M	\$10,000	\$11,000
	Cost over 20 years	\$311,000	\$309,000
4	Restore to original slopes with rip-rap protection		w/ plantings instead of sod
	Initial Cost	\$109,000	\$87,000
	Annual O&M	\$13,000	\$12,000
	Cost over 20 years	\$343,000	\$305,000
5	Restore to original slopes with geotube protection		w/ plantings instead of sod
	Initial Cost	\$82,000	\$82,000
	Annual O&M	\$10,000	\$13,000
	Cost over 20 years	\$265,000	\$311,000
6	Living Shoreline		
	Initial Cost	\$100,000	
	Annual O&M	\$8,000	
	Cost over 20 years	\$242,000	
7	Bulkhead		
	Initial Cost	\$578,259	
	Annual O&M	\$19,133	
	Cost over 20 years	\$941,552	

2019 estimates - for comparison only. Actual project costs are dependent on final design.

ECO FILTER-TUBE (EFT®)

Many of our projects involve the installation of our Eco-Filter Tube (EFT®). It is an extremely economical erosion control solution. The material for the tubes is made of permeable polypropylene, filled with sand and organic matter, pumped hydraulically from the site's lake bottom, or if the sand is inadequate in quantity or quality, then sand is brought to the job site. Once filled and properly placed based on engineering specifications and depending on the number of tubes required, the EFT®s will endure for many years.

The implementation of our EFT® system makes the tubes ideal for many shoreline restoration situations. The flexibility of our EFT® allows the shape to conform to the flow of the original shoreline. The weight-filled tubes become a permanent structure providing strength for controlling future erosion and weight for soil stability. This process results in the ultimate goal of land reclamation for our clients.

The use of EFT® bypasses the need to bring heavy equipment to the job site, preventing the possibility of damage from the large weight of the equipment. By minimizing the use of heavy equipment, costs are lowered as well. The EFT® also allows for easily maneuvering through small areas and heavily wooded shorelines. Another advantage to using our EFT® to restore a shoreline: any type of plant, shrub, or ground cover is feasible. Once a project is completed and sod put down, hidden tubes allow for an aesthetically pleasing appearance.

Dewatering

EFT® systems for dewatering have proven themselves to be extremely efficient for containment and dewatering of pump slurry by-products, industrial waste, municipal sludge, pulp and paper sludge, and other marine sediments. They are custom manufactured in circumferences and lengths for each particular application with prefabricated filling ports and tie down straps along the length of the tubes. They will work well with any hydraulically transported material. The dewatering tubes are especially designed for the mechanical stresses associated with the filling and placement processes, including abrasion, tearing, puncturing, and flattening.



EROSION CONTROL PANEL (ECP)

The modern, lightweight and durable Erosion Control Solution



The Erosion Control Panel (ECP) is a patented restoration product and licensed to Landshore® exclusively for installation. The ECP stabilizes soils on shoreline embankments, creating a low-maintenance and structurally stable environment for long-term sustainability. The ECP is especially beneficial for non-cohesive granular infill materials. The ECP system minimizes erosion problems caused by water contact, surface flow and wave action.

At its core, the ECP has a cellular structure that improves resistance to erosion forces on steep, unstable ground or slopes exposed to severe hydraulic and mechanical stresses. The cellular confinement improves the performance of vegetated slopes by reinforcing root systems and directing hydraulic flows over the top of the cells. The cells therefore acts as a series of small 'check dams', preventing formation rills and gullies. It dissipates energy throughout and underneath the cells and confines the fill materials within the cells.

Typical installation consists of two panel sections centered at the main water table elevation. This reinforces the upper soil layer and resists erosive conditions as well as sliding forces beyond the limits of other systems. The ECP provides a long-term solution with sustainable vegetation and permeable aggregate. During water fluctuations, it offers better resistance to soil loss caused by saturation. Studies show that the effectiveness of the ECP with established vegetation handles flow velocities up to 30 feet per second.

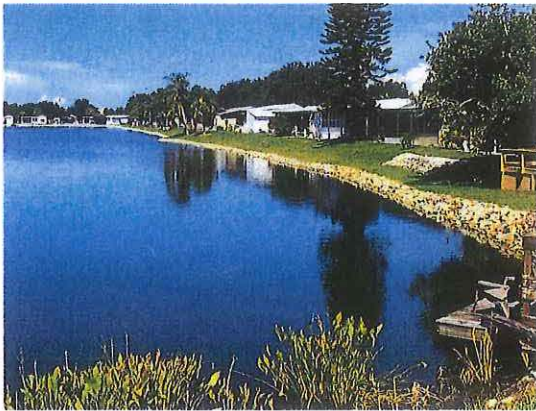
The ECP allows for affordable lake maintenance as it stabilizes infill and controls shearing, lateral and vertical movements. The cell size allows for smaller, less expensive fill materials with poor physical properties to be used on steeper slopes. The open mesh design promotes dense grass growth, increases system stability, reduces visibility and blends naturally with the environment.

ROCK AND CEMENT RIP RAP

Rip Rap is a shoreline protection method using multiple rocks, normally made from limestone or granite that are loosely placed together to stabilize shorelines. The primary purpose of Rip Rap is that of a defense mechanism. The rocks absorb the impact of energy from water or waves by capturing or trapping water in the gaps between the rocks which allows for slow drainage.

Please see below for two installation examples of rock rip rap: along a lake shoreline, and within a creek for embankment protection and to create stepping pools to slow the velocity of rushing water.

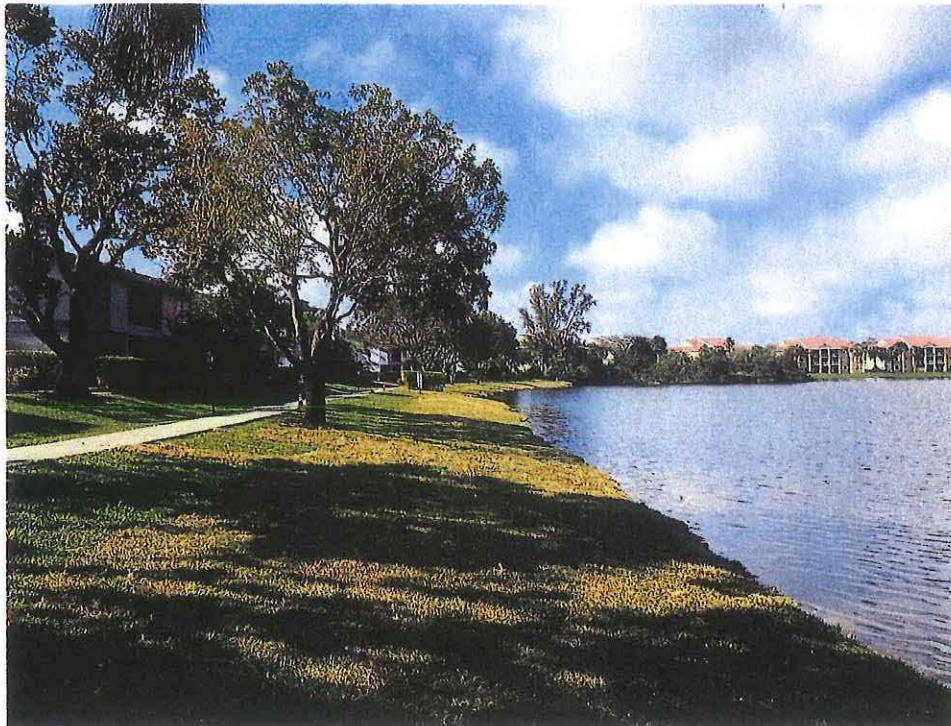
Rip Rap



ARTICULATED CONCRETE BLOCK MAT

Articulated Concrete Block Mat (Flexamat®) is a tied concrete block mat used to control erosion in swales, slopes, ditches, channels, shorelines, and any area where soil sediment may be lost due to water runoff. Flexamat® consists of pyramidal concrete blocks that are interconnected utilizing a rough-service polyester geogrid. The completed mat yields a high strength, ultra-flexible hard armor system of Erosion Control. Flexamat's superior Percentage of Open Area (POA) affords an ideal zone for vegetation growth while remaining a permanent armor against long-term erosional forces.

Process



COMMUNITY AND YARD DRAINAGE

Along many shorelines, the worst cases of erosion often appear at the tail end of swales. Without proper drainage installed, these swales accumulate surprising amounts of water from rainfall, sprinkler runoff, and other water events.

Swales are intended to mitigate stormwater runoff and channel the flow away from structures and off the property. Unfortunately, when directed at the shoreline, this rush of water acts as small river and drives with such force that it can exacerbate erosion, gutting material along the shoreline and depositing it into the lake.

Restoring the shoreline becomes an inevitability as the eroding force of rushing water takes its toll. When Landshore® is presented with these challenges, we look to solve the problem at the source. In combination with shoreline restoration efforts, we strongly recommend the installation of drainage systems to funnel the flow of water underneath the shoreline and into the lake, preventing further erosion.

Landshore® drainage installations include a grate with a berm on the downhill side to capture the rushing water and divert it through a piping system under our erosion control products and efficiently into the lake.

If you would like additional information on how Landshore®'s erosion control services can benefit you and your community, please contact us at (941) 303-5238 or via email at Info@Landshore.com.

Process

