

*Ron Fazzalara
1424 Gleneagles Drive
Venice, FL 34292-4305
941-330-5126*

April 19, 2021

Mr. Richard Hale, Commissioner
City of Venice Planning Commission
401 West Venice Avenue
Venice, FL 34285

RECEIVED
APR 20 2021
PLANNING & ZONING

Dear Mr. Hale;

Thank you for the opportunity to express my opinion and recommend changes to the Land Development Regulations of the City of Venice. The topic I will address is retention pond construction, and my recommendations are based on my extensive experience with Waterford's storm water management system – specifically, pond bank erosion.

Background

I served over 15 years on the Waterford Master Owners Association Board of Directors from 2003-2021. In 2006 I identified and documented significant lake bank erosion problems in all twenty retention ponds in Waterford, after only sixteen years. The banks were steadily collapsing, and there were numerous washouts and dangerous holes. In several ponds more than twelve feet of pond bank was eroded and the soil deposited in the retention ponds. We estimated the capacity of the retention system was reduced over forty percent, jeopardizing the ability of the system to manage large scale rainfall without experiencing flooding in the community.

Subsequently, I wrote and presented an erosion position paper, which identified the causes of our pond bank erosion. Unanimous board support was achieved to formally address the problem. The paper noted the main cause of bank erosion is the uncontrolled runoff from homeowner properties.

In 2011 we initiated a Proof-of-Concept project on a section of one pond. The intent was to demonstrate the installation of erosion control products and visibly note the effectiveness of stabilizing the pond bank. The project was successful, and in 2012 we evaluated all twenty pond banks (approximately eight miles of shoreline) for stability, amount of erosion, safety and priority for repair. We hired a professional engineer as engineering consultant and developed the Waterford Storm Water Operation and Maintenance Plan. A bid specification for implementing the repair of all pond banks was developed and issued.

In 2013 a Request for Proposal (RFP) was issued, bids evaluated, and a contractor selected (Landshore Enterprises, LLC). We selected one pond with significant bank erosion as a pilot project, to evaluate both the full application of the chosen solution and the contractor. Results were incredibly positive, and a full project plan was developed. The board approved moving forward with a four-year, \$1.75 million project to repair and stabilize all retention pond banks in the Waterford system.

Between 2014-2019 all twenty pond banks were fully repaired by Landshore, on schedule and within the \$1.75M budget. Since 2013 I have been approached by about fifteen other Sarasota county homeowner associations to share my Waterford project experience. Meeting with each, I can say that they are realizing the scope of the erosion problem and the major expense it will take

to effect repair. Most of the problems experienced by all of these homeowner associations could have been avoided with better retention pond construction.

Recommendations

Venice should take a leadership role to strengthen the Land Development Regulations by including the following recommendations for constructing storm water retention ponds to a higher standard than exists today.

1. Reinforce storm water retention ponds at the time they are constructed.

This will prevent pond bank erosion, control surface runoff, and mitigate what will likely be a very costly homeowner repair expense in the future. There are many materials and methods to do this, but I recommend the use of geotextile materials like EcoTube© or GeoTube©. These materials are constructed from high strength, polypropylene geotextiles, are resistant to ultra-violet light, relatively inexpensive, are cost effective, have minimal environmental impact, and, when installed properly, are long-lasting.

It is important that the height, depth and location of the retention material installation should be specified by engineering analysis. If not installed properly the long-term stability of the pond banks will not happen.

Direct the flow of water from the land to underground storm drains, not directly into retention ponds.

It is important that surface water runoff drains properly into retention ponds. Runoff water should not flow directly into the retention ponds, because uncontrolled runoff is by far the largest contributor to pond bank erosion. This includes directing lot drainage to the roadways rather than directly to retention ponds.

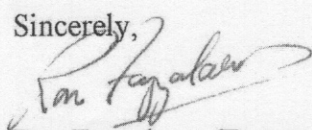
2. Install gutters, downspouts, and underground drainpipe connected to the storm water management system.

Collecting runoff water from hard surfaces like roofs and controlling the water flow to retention ponds will avoid erosion of pond banks.

Improved construction of retention ponds will stop pond bank erosion before it even starts. It will also avoid future major expense to home buyers by preventing the problem before it starts. Other solutions, like the implementation of so-called "green barriers" and the use of aquatic plants, are relatively ineffective in stopping major erosion as they do little to stop uncontrolled runoff leading to erosion.

I would be honored to meet with the Commission to elaborate on these recommendations and discuss further. Please do not hesitate to contact me in that regard.

Sincerely,



Ron Fazzalano, (Former) President
Waterford Master Owners Association, Inc.
941-330-5126