

Subject: FW: Shoppes @ Apple Greene Drip Irrigation and Waste Water Treatment Plant
From: "Rick Bailey" <rbailey@marrickinc.com>
Date: Mon, 1 Sep 2008 14:17:14 -0400
To: <RKlein@ceds.org>, "lisa yankanich" <lyankanich@yahoo.com>, <vocalcalvert@aol.com>

Richard:

Attached are copies of the following items concerning the proposed waste water treatment system and drip irrigation for Shoppes @ Apple Greene:

- 1) Marrick letter of 5 August 2008 which I think summarizes the questions and issues you raised during our meeting of August 4th.
- 2) R. A. Barrett Associates letter of 28 August 2008 that responded to the Marrick letter.
- 3) Drawings of the original and the revised layout of the holding pond for the treatment system.

These are forwarded for your review. I think we have made some positive changes per your request as follows:

- 1) The configuration of the holding pond was changed to increase its buffer from the Apple Greene Subdivision.
- 2) The buffer for the discharge area "C" was increased.
- 3) We were able to confirm that the largest drip irrigation field is not uphill from the Apple Greene subdivision.
- 4) WE are committed to install a berm between the drip irrigation Field "C" per your request to insure no discharge could flow toward Apple Greene residents.
- 5) We can not eliminate discharge field "C" due to the flow quantity it would eliminate from the Shoppes project. It however is not a primary field and will not be initially be used.

We hope that you find the revisions we have made positive. We are still working on the storm water management and storm drain issues that you raised during our meeting. As soon as we receive the response from Barrett associates, I will forward them to you.

If you would like to meet to meet to review the waste water treatment and drip irrigation questions, I am available to meet during the evenings of September 8th, 9th or 10th week after next. I will be out of town this week and will not return to the office until Monday September 8th.

I look forward to hearing from you.

Rick

-----Original Message-----

From: Marrick Properties Production Dept. Copier
[mailto:ecopy@marrickinc.com]
Sent: Monday, September 01, 2008 1:36 PM
To: Rick Bailey
Subject: Shoppes @ Apple Greene Drip Irrigation and Waste Water Treatment Plant

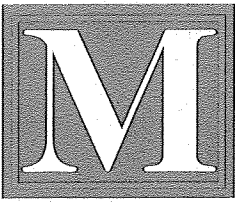
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Date: 09/01/2008 12:35

Pages:6

Resolution:300x300 DPI

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MARRICK
PROPERTIES

5 August 2008

Mr. Mike Rodevick
R. A. Barrett & Associates
100 Jibsail Drive, Suite 103
Prince Frederick, MD 20678

Re: Shops at Apple Greene

Dear Mike:

I had a meeting yesterday with several of the residents of Apple Greene plus their consultant Richard Klein of Community & Environmental Defense Services. The major issues concerning only the proposed waste water treatment plant and the drip irrigation system are as follows:

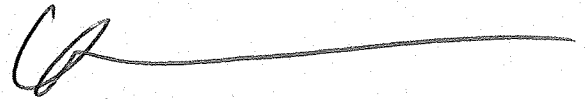
- 1) Mr. Klein stated that there are two (2) existing operational drip irrigation systems currently in the State of Maryland. Is this the case?
- 2) Are there any other MDE permitted drip irrigation systems in the State of Maryland? If so, where are they planned and are they private or public planned systems?
- 3) Does the State of Maryland consider drip irrigation systems experimental and if so, what is their definition of experimental?
- 4) Do other states permit drip irrigation systems and if so, are they widely used and where?
- 5) What is the buffer between drip field "F" and Apple Green? What is the buffer between drip field "C" and Apple Green?
- 6) If drip field "C" is deleted, how many gallons per day of discharge capacity would be lost?
- 7) Is drip field "F" uphill from Apple Greene?
- 8) Is drip field "C" uphill from Apple Greene?
- 9) If either or both of drip fields "C" and "F" are uphill from Apple Greene, can an earth berm be added along the property line closest to Apple Greene to prevent any runoff migrating off of our property?
- 10) Can the holding pond be constructed underground considering its size?
- 11) Can the holding pond be reconfigured to increase its buffer from Apple Greene? If so, please provide us with a new plan for it.
- 12) If the capacity of the holding pond is reduced from 60 day to 30 day storage how much will that affect our discharge capacity?
- 13) What is the storage capacity of the holding pond at Capital Gateway, the Giant shopping center in Dunkirk?

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- 14) Can the nitrogen standard for the effluent be reduced to 4 mg/l utilizing the system we plan to install?
- 15) What was the nature of the recent problem at the Marley Run drip irrigation field? Has it been corrected? Was the problem significant enough to create a wetland due to saturated ground?

Please provide me with your response to these questions as soon as possible.

Sincerely,



C. R. Bailey, Jr.
Vice President

CRB/bas
cc: File
Correspondence



R.A. Barrett
& Associates, Inc.

ENGINEERS • SURVEYORS • LAND PLANNERS

100 Jibsail, Suite 103, Prince Frederick, MD 20678 ♦ 410-257-2255 ♦ 301-855-5554 ♦ Fax: 410-257-3782 ♦ E-Mail: mrodevick@rabarrett.com

August 28, 2008

Mr. C. R Bailey
Vice President
Marrick Properties
3150 West Ward Road, Ste 401
Dunkirk, MD 20754

Re: Shoppes at Apple Green

Dear Mr. Bailey:

This is in response to your request, dated August 5, 2008, for information regarding wastewater disposal at the referenced project. This is a point-by-point response to your questions:

- 1) There are 2 operational drip irrigation systems in Maryland. They are Marley Run and Calvert Gateway.
- 2) The following is a listing of permitted (by MDE) but not constructed facilities:
 - a) Town of Berlin – 8,400 gpd - public;
 - b) Eagles Nest Campground – Worcester Co. – 45,000 gpd - private;
 - c) Island Resort Campground – Worcester Co. – 9,600 gpd - private;
 - d) Life in Jesus Camp – Frederick – 18,900 gpd - private;
 - e) Mountainside Day Camp – Frederick – 880 gpd - private;
 - f) River Valley Ranch – Carroll – 5,000 gpd- private; and
 - g) Cedarville Trailer Park – Prince Georges - private.
- 3) Per MDE the State of Maryland currently considers drip irrigation as experimental. Their definition of experimental is that there are so few facilities in operation. As the number of facilities increases to some point the term “experimental” will be dropped.
- 4) Other states permit the use of drip irrigation systems. The ones I am aware of are Delaware, Pennsylvania, Virginia, North Carolina, Michigan, and California.
- 5) The narrowest buffer between Area F and Apple Green is in excess of 76 ft. The narrowest buffer between Area C and Apple Green is 38 ft. This will be revised to 50 ft.
- 6) If Drip Field C is eliminated the discharge would have to be reduced by 6,596 gpd.
- 7) Drip Field F is not uphill from Apple Green. A stream also separates Drip Field F from Apple Green.

- 8) Drip field C is up hill from Apple Green.
- 9) Yes.
- 10) No. It is impracticable from a volume and size standpoint.
- 11) The holding pond can be reconfigured to increase the distance from the high water level to the lots in Apple Green. Enclosed is a revised plan.
- 12) I am waiting on information from our Hydrogeologist pertaining to the impact of the reduced storage on the nitrogen balance.
- 13) Capital Gateway has a 60 day holding capacity (per MDE).
- 14) The supplier maintains that we can achieve total nitrogen in the effluent of 4 mg/l. The subsurface drip irrigation system is designed with nitrogen uptake in mind. The nitrogen uptake is provided by plants. If the nitrogen level in the effluent is too low additional nitrogen will have to be applied to the ground in order for the plants to grow and thrive.
- 15) The nature of the recent problem at Marley Run was caused by a problem with the control system. The problem has been corrected. A recent visual inspection of the drip field area did not show any indication of being a wetland.

If you have any questions or need additional information please contact me.

Sincerely,



Michael L. Rodevick, PE
For R.A. Barrett & Associates, Inc.

WILLIAM BRADLEY +
BARBARA K. SMITH
A.B.E.585/176

MARSHALL K. +
TERESITA G. COFFMAN
J.L.B.209/131

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