

Mailing Address
PO BOX 656
MONROE, NEW YORK 10949

Address For All Deliveries Other Than US Postal Service
307 MUSEUM VILLAGE ROAD
MONROE, NEW YORK 10950

Sender's Email: b.bell@cea-enviro.com

August 21, 2006

Lothian Civic Association
c/o Amanda Gibson

Reference: Proposed Target Retail Development Centre at Wayson's Corner Stormwater
Review
CEA No. 06044

Dear Ms. Gibson,

On behalf of the Lothian Civic Association, Carpenter Environmental Associates, Inc. (CEA) has reviewed the reports and drawings provided by you and offer the following comments:

- The Maryland Stormwater Design Manual requires that the flow path through the detention basin be maximized. The proposed location of the effluent structure with no baffling to force a long flow path through the basin will promote short circuiting of the flow through the basin. The basin should be modified to promote maxim flow path.
- No emergency spillway is provided. Instead, freeboard has been increased to two feet. The additional freeboard does not address the case where the outlet is plugged with debris. In that event, the pond can overflow resulting in discharge to an unplanned location and potentially catastrophic failure of the wall of the pond due to erosion. Such failure would direct flooding to a point downstream of wherever the failure occurred. An armored emergency spill way is required to direct overflows to a location where no downstream damage can occur and to prevent catastrophic failure of the pond.
- It is not apparent what rainfall amounts were used for the 10 year, 25 year, and 100 year storms in the calculations.
- Extended Detention Pond Computations show no discharge from the orifice designated as discharge structure number 1. This is not possible when discharging the 10 year through 100 year storms.

- The Stormwater Management Pond Computations table in the Extended Detention Pond Computations section of the report does not appear to show the required storage shown in the Stormwater Management Summary Table. The Stormwater Management Summary Table calls for 12.27 ac-ft of storage for the 10 year storm and 13.12ac-ft for the 25 year storm. Stormwater Management Pond Computations table shows only 12.163 ac-ft of storage for the 10 year storm and 12.919 acre feet for the 25 year storm. The Stormwater Management Pond Computations show approximately 34,783 gallons and 65,343 gallons less for the 10 and 25 year storms respectively than does the Summary Table. This conflict must be resolved.

Sincerely,

Carpenter Environmental
Associates, Inc.

A handwritten signature in black ink, appearing to read "Bruce A. Bell". The signature is written in a cursive, flowing style.

Bruce A. Bell, Ph.D., P.E., BCEE
President