

May 21, 2013

Mr. Andy Mackintosh PV I LLC 262 West Patrick Street Frederick, MD 21701

Ref: Canal Run HOA Storm Water Lake Repairs

Dear Andy,

Thank you working with the Canal Run Homeowners Association on the repairs identified by the Frederick County Environmental Compliance Section. Based on recent discussions ending in e-mail correspondence between you and Ed Thomas on 20 May 2013, the following terms are proposed and agreed on by signature of this letter agreement:

- PV I, LLC and/or its subcontractors will perform all required repairs outlined in the May 2, 2013
 Frederick County Environmental Compliance Inspection Report (Exhibit A and supplemental
 County guidance provided as Exhibit B) and all other deficiencies discovered while making the
 repairs to cause the Storm Water Management Lake to pass inspection with County.
- The Canal Run Homeowners Associations will deposit \$9,500 in escrow with PMP and release these funds to PV I, LLC or it's subcontractor after receiving a "passed" inspection report from the County.
- The Canal Run Homeowners Association releases PV I and it's subcontractors from future liabilities arising from issues with the referenced Storm Water Management Lake, be it known or unknown by the Homeowners Association.

As evidenced by the respective signatures below I/we agree to the terms of this letter as stated above.

Edward D. Thomas, as authorized by the Canal Run HOA Board of Directors

Andrew Mackintosh, as authorized representative of PV I, LLC

FREDERICK COUNTY ENVIRONMENTAL COMPLIANCE

RMASSER INSPECTED BY	INSPECTOR'S REPORT		531046 <i>INSPECTION #</i>	
11434 PERMIT #	CANAL RUN REGIONAL SWM/LAKE PROJECT NAME			
1	TRIENNIAL INSP	Thu - 05/02 INSPECTION DA		

COMMENTS:

05/02/2013 @ 14:00

Observations and recommendations regarding repair of lake deficiencies.

Inspector: Rick Masser

Present: Andy Mackintosh, Terry Green, Leann Miller, Michelle Doster

All observations are referenced to lake plan, (Attachment #1).

Begin at point (A) and proceeding counter clockwise.

01-Rock outcroppings visible. Determination of repair (if necessary) to be made by geotechnical professional.

02-Depressions visible above seawall. Fill with clayey material.

03-Depression/Trench Failure visible at electrical conduit penetration of seawall. Seal penetration point. Fill depression with clayey material.

04-Erosion rills/washouts visible in varying degrees of severity in slope between seawall and 10' out. Re-grade and stabilize slope as necessary. Fill larger washouts with stone then fill with clayey material. Mechanically compact fill.

05-Scour visible along seawall. Fill with clayey material and compact as able.

06-Sediment apparent in forebay. Remove accumulated sediment from forebay.

07-Stone window of forebay blocked/dysfunctional. Clear/clean inside of stone window to allow water to flow through. Water is currently being pushed to corner of forebay and creating washout.

08-Earthen portion of forebay window washed away. Replace with clayey material, compact and stabilize.

09-Repair and replace earth-lock pavers as necessary.

10-Large washouts visible along both sides and void present under grouted rip-rap. Recommend removing grouted rip-rap in its entirety and replacing with gabion baskets of appropriate size, type and configuration as per manufacturer and/or civil engineer. Unless otherwise determined, baskets should start at the pipe outlet with the top of the baskets level with the pipe invert. The baskets should be placed in a fan configuration of sufficient width to capture edge surge. Baskets should follow the earthen slope gradient and be depressed in a manner to channel the flow across the baskets as the low point.

11-Repair sinkholes as directed by geotechnical professional.

12-Remove filter fabric and hardware cloth from dewatering device.

FREDERICK COUNTY ENVIRONMENTAL COMPLIANCE

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- 13-Large washouts visible along both sides of rip-rap outlet. Proceed as in item #10.
- 14-Stone window of forebay blocked/dysfunctional. Proceed as in item #07.
- 15-Sediment apparent in forebay. Proceed as in item #06.
- 16-Earthen portion of forebay window washed away. Proceed as in item #08.
- 17-Scour visible along seawall. Proceed as in item #05.
- 18-Rock outcroppings visible. Proceed as in item #01.
- 19-The edges of the rip-rap outlet channels are eroded. Install additional rip-rap as needed to fill eroded areas.
- 20-Sediment accumulation is apparent in the concrete flume and in the rip-rap outlet channel. Remove all sediment deposits. Repair rip-rap as necessary to restore trapezoidal design shape.

THIS REPORT ISSUED TO:

LEANN MILLER	PROPERTY MANAGEMENT PEOP	LE
	92 THOMAS JOHNSON DRIVE	
	SUITE 170	
leann.miller@pmpbiz.com	FREDERICK	MD 21701

			
INSPECTOR CONTACT INFO:	RICK MASSER	(301)600-3507 x	RMasser@FrederickCountyMD.gov

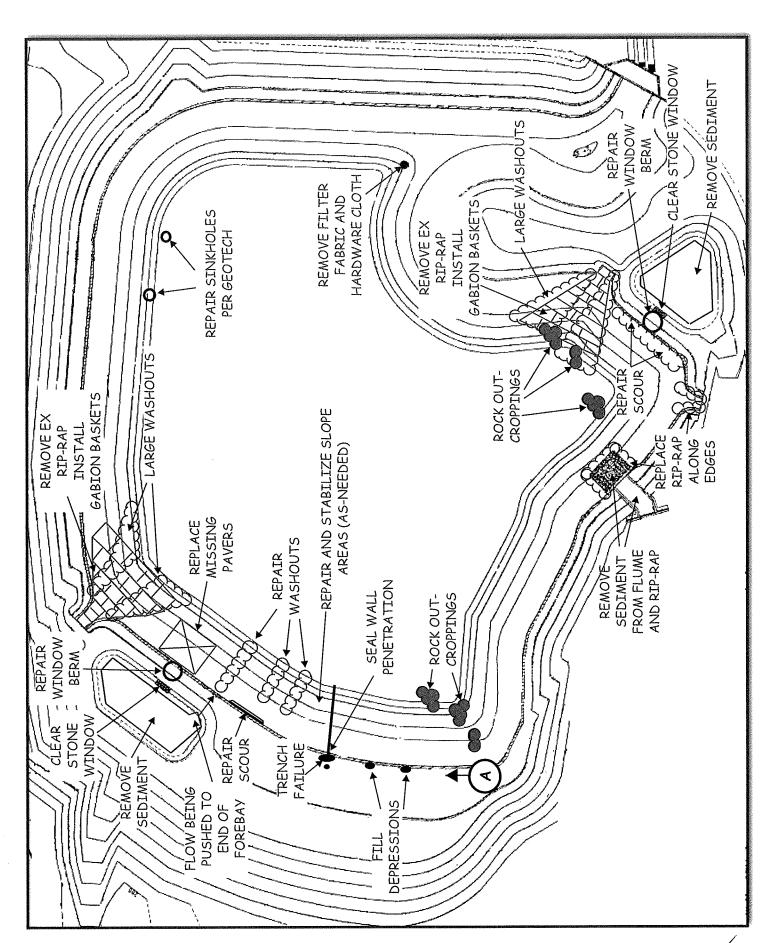
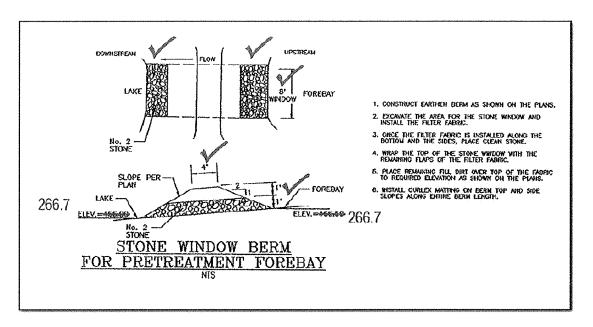


Exhibit B - Supplemental Guidance to Exhibit A

Item #1: The sinkhole repair guidelines, delivered by Specialized Engineering, represent an industry 'typical' and acceptable method for repairing sink-holes. The County takes no exception to this method of repair.

Item #2: Forebay outlet window repair. Please refer to the following:

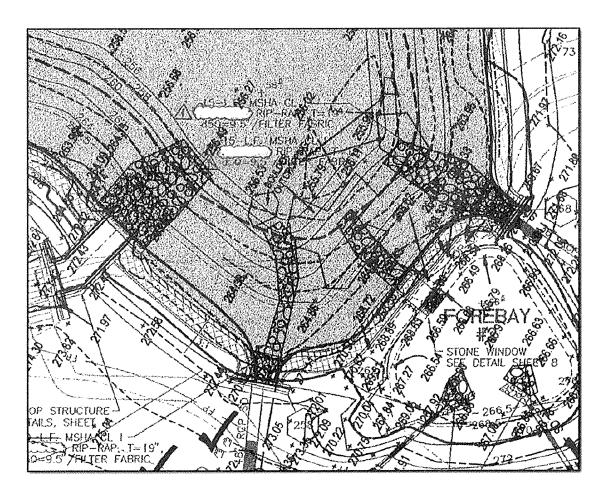


Above is an excerpt from the approved as-built redlines drawing.

The area of the drawing detail I've highlighted in yellow represents where the
earthen berm portion is currently missing [washed away] from the forebay
outlets. The additionally highlighted numbers 5 and 6 are those steps required
to repair these devices.

Item #3: Rip-Rap Outlet Protection [RROP] Repair.





Above is an excerpt from the approved as-built redlines drawing.

• depicts an area in the southwest corner of the lake, where a lot [not all] of the damage occurred to the RROP.

*This depiction of the detail may not transmit with optimum clarity, so please allow me to clarify and more plainly state it.

Designed RROP:

- MSHA Class I Rip-Rap [Stones weighing no less than 2-LBS and no more than 150-LBS]
- Installed in a bed depth of 19-IN [Bed depth is measured below surrounding grade]
- d50 = 9.5 [50% of the stone diameter will be above 9.5-IN and 50% of the stone diameter will be below 9.5-IN]
- Installed over filter fabric

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^{*}Please note the Highlighted 'clouds' and 'call-out' symbol /1\.

The clouds cover what was originally specified to be "Grouted" [high slump concrete poured into the rip-rap bed]. This measure is generally used to fill the voids and lock the rip-rap together, making it a more cohesive unit that is less likely to be displaced.

However, call-out /1\ below states "Rev[ised] per MDE Comments"

Photo complete construction					T
A	SEWERLINE AND INTERSECTION REVISIONS			MLB	3/23/0
<u>a</u>	BORROW PIT A			MLB	8/05
2	REMOVE DRY SEWER FROM CONTRACT			MLB	10/04
Δ	REV. PER MDE COMMENTS			CEP	1/20/0
3.	REV. TO PROVIDE FILL FOR WL CONSTRUCTION		CEO	11/7/2003	
2	PER MAY 21 03 SCD, AND JUNE 23 DPW COMMENTS		MLB/KC	6/24/200	
1	PER APRIL 29 03 DPW COMMENTS		MLB	5/16/200	
NO.	REVISIONS			BY	DATE
Date:	DECEMBER, 2002	CAD Standards Versions			······································
Designed: LDN/CED		Technician: MAS/MLS	Checked:	MJS	

- This would appear to suggest that grouting the rip-rap bed was not recommended by MDE.
- Based on the failure of the non-grouted rip-rap to hold in these areas, I
 recommend that grouting of the RROP be revisited with MDE (if necessary) and
 be restored as the recommended detail or be replaced with another detail.
 Options may include using larger rip-rap, embrocated rip-rap, gabion mattress or
 another material or procedure that can withstand the apparent velocity of flow
 entering the channels.

Item #4: Boulder Outcroppings (as referred to on the above redline drawings). Specifically, do the outcroppings represent a breach of the clay liner and if so, how should it be remedied?

- The outcroppings are sufficiently sealed by virtue of the clay liner already encompassing it.
- The stone itself is adequate to prevent seepage.
- The outcroppings should be further sealed with bentonite or other mastic type of sealing material.
- The outcroppings should be removed to a point below the lake bottom and covered with a clay liner.

Em