



A. Morton Thomas and Associates, Inc.
Consulting Engineers

BID ADDENDUM #2
South Anna 52-B Wave Berm Repair
June 27, 2022

The primary purpose of this bid addendum is to address the questions received prior to the bid question deadline on **Friday, June 24th at 5pm.**

1. Topsoil: I don't think there will be enough topsoil generated from the boat ramp to install 6" across the wave berm. From the pre-bid the minimum is 3", what topsoil thickness should we base our bid on?

Answer: Please review project specification **VA-447, Section 9. Topsoiling** for requirements. Topsoil should be stripped and stockpiled from all disturbed areas including the borrow site (boat ramp), wave berm, and the onsite disposal area on the training dike, and then spread or re-applied to a relatively uniform 6-inch loose lift thickness on the wave berm. For other areas, a minimum loose lift thickness of 4" topsoil will be allowed.

2. Fill: Can you elaborate on how you came up with the estimate of fill as shown in the plans? The fill generated from the boat ramp does not seem to be balanced with the fill needed for the wave berm, per the engineers estimate.

Answer: See attached engineering calculations on page #2 of this bid addendum for the balanced earthwork estimates in the engineering design. The boat ramp borrow site should yield approximately 364 cubic yards of borrow material, and the wave berm construction requires 361 cubic yards of fill placement including the 18" undercut excavation in the base bid. Depending on the waste material found on the wave berm and the thickness of existing topsoil stripped from disturbed areas, these quantities will vary somewhat and any additional cut or borrow excavation that is required can be obtained onsite from the cut slope on the south side of the boat ramp. The lump sum earthwork for this project does not include any excavation to undercut below or beyond the 18" undercut specified for the wave berm. For this, 100 cubic yards was added to the Bid Form in Bid Addendum #1 and payment shall be made per cubic yard additionally to excavate and remove poor soils and replace them with suitable onsite borrow excavation soils in compacted lifts, as directed by the SWCD or their QA testing agency.

3. Does the engineer's estimate for fill include the 18" of undercut that will be removed with the vegetation?

Answer: Yes. See answer to Question #2.

4. For the proposed boat ramp area, do you think it would be best to install a toe drain / french drain on both sides at the toe of the slope (just a 4" perforated pipe with sock and covered in 57 stone) to help catch the water from the slopes to direct to the lake as not to wash down the stone and wash it into the lake?

Answer: While some type of underdrain could help manage groundwater concerns, there is no expectation of a groundwater concern for this project given the prevailing terrain and location of the proposed cut excavation. For now, the construction work should be limited to what is shown currently on the plans for bidding purposes.

Bids are still due no later than **Friday, July 1st, 2pm** at the SWCD Office as described in the Instructions to Bidders. Bids will be opened and publicly read aloud immediately after the time for receipt of bids in the Suite 101 conference room. Please be sure to check the SWCD website for this bid addendum and any other bid addenda prior to the date and time for bids due and be sure to **acknowledge all bid addenda on your bid form to be submitted.**

PROJECT: 19-0710.006
 TASK: 01
 LAKE: Springfield Lake
 SITE: Hanover-Caroline Dam 52B
 DATE: 4/13/2021

Boat Ramp

Total Section:	6	inches
Cut Area:	1,955	SF
Shallow Fill Area*:	260	SF
Deep Fill Area:	880	SF
Total Ramp Area:	3,095	SF

Boat Ramp Earthworks

	CUT		FILL	
Raw Earthwork:	406.49	CY	89.69	CY
Ramp Overcut 1:	36.20	CY		
Ramp Overcut 2**:	2.41	CY		
Total Cut:	445.10	CY		
Reduced Fill:			16.30	CY
Net Fill:			73.39	CY
Shrinkage:		10%	7.34	CY
Total Fill Required:			80.73	CY
Net BR Earthwork:	364.37	CY		

Wave Berm Earthworks

	CUT		FILL	
Raw Earthwork:	17.48	CY	121.69	CY
Wave Berm Area:	4,000	SF		
Assumed Undercut:	18	IN		
Undercut Volume:	222.22	CY		
Net Fill:			343.91	CY
Shrinkage:		10%	34.39	
Total Fill Required:			378.30	CY
Net WB Earthwork:			360.82	CY

Training Dike Earthworks

	CUT		FILL	
Available Fill Material:	225.77	CY		
Raw Earthwork:			205.89	CY
Shrinkage:		10%	20.59	CY
Total Fill Required:			226.48	CY
Net Total:			0.71	CY

	CUT		FILL	
Total Earthwork:	684.80	CY	685.52	CY

Notes

* Shallow Fill areas require 0.01-0.50' of fill. Fill depth is less than or equal to boat ramp stone thickness.

** Assumes that the average overcut required in Shallow Fill zone is 3".