

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

January 26, 1995

41193
4029C 30075
Mr. Daryl Smith, Director
Hillsborough County
Department of Solid Waste
Post Office Box 1110
Tampa, FL 33601

DRAFT

Re: Southeast Landfill, Hillsborough County
Operation Permit Renewal
Pending Permit No.: SO29-256427

Dear Mr. Smith:

This is to acknowledge receipt of the additional information in support of your permit application received January 13, 1995 to operate the solid waste management facility referred to as Southeast Class I Sanitary Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your application for a permit remains incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste application [Chapter 17-701, Florida Administrative Code (F.A.C.)]:

1. According to SCS's January 13, 1995 letter, calculations indicate temporary drainage ditches and swales are designed for a maximum flow of 50 cfs with a maximum velocity not greater than 6 ft/sec. Are the designs shown in Exhibit "H" for both the existing and proposed temporary conveyances? Are all existing drainage ditches and swales constructed as shown in Exhibit "H", and are they handling a maximum flow of 50 cfs with a maximum velocity not greater than 6 ft/sec?
2. Please provide revised plans showing the location of future sprinkler heads and anticipated dates for installation. Will the future sprinkler heads be installed and operated in the same manner as the existing sprinkler heads? SCS's January 13, 1995 letter states that "the sprinkler system will be expanded into the inactive areas of Phases III and IV". Sheet C3 does not include such expansion.

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"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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3. Please explain how the 3.6 feet head was derived from Ardaman's Figures 12 and 13. Ardaman's reports do not explain how the static pore pressure line was estimated as shown in Figures 12 and 13 or why the leachate level was assumed to be 2 feet rather than the actual depth of leachate observed at the time of testing. Did Ardaman measure and record the actual depth of leachate at each test location? Figures 12 and 13 represent conditions that exists at two specific locations, but neither represents the worst case. The test location in Phase I has not been loaded for more than 8 years, has a clay thickness of only 3.5 feet, and represents the existing worst case condition for hydraulic head over the liner. Please provide an additional figure such as Figures 12 and 13 that represents the expected worst case condition for hydraulic head at the test location in Phase I. Since loading in Phase I has been delayed for more than the recommended "7 year waiting period", the additional figure is requested to represent conditions that would exist at the latest time of placing an additional lift in Phase I. The additional figure should be supported by the equations used for calculating the hydraulic head over the liner as a result of depth of leachate.
4. Please describe all methods and frequencies of reporting the depth of leachate throughout the landfill, and procedures the County will implement for corrective action to bring the landfill into compliance. Daily logs provided by Waste Management indicate that leachate has been impounded within most of the waste-filled disposal areas since 1990. Recent measurements have shown the depth of leachate to be greater than six feet.
5. Please provide the established minimum and maximum waiting period to ensure sufficient consolidation and a hydraulic head not greater than 12 inches over the liner. SCS states "the lapsed time in Phase I is over 8 years. According to current projections, the time interval between successive lifts should not exceed 7 years again". Ardaman's March 7 and October 25, 1994 reports recommend a "minimum" waiting period for loading Phase I of 7 years. The waiting period can "not exceed 7 years" and be a "minimum" of 7 years.
6. The Department issued its most recent permit renewal in 1989 with the condition that "The leachate depth on top of the liner shall not exceed one foot depth of leachate". SCS and HCDSW expressed a desire to modify its previous design and operation plans allowing up to 4.6 feet of leachate to be stored within the landfill over the liner. This change subjects the Southeast Landfill to the Department's current design criteria which the County does not comply with. If the County wishes to pursue authorization for this modification, please comply with FAC Rule 62-701.310, Approval of Alternative Procedures and Requirements.

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7. Please describe methods and frequencies of all monitoring for the elevations at the top of clay as it settles and the depth of leachate throughout the landfill to ensure that all leachate is conveyed to points of removal. Ardaman's February 22, 1983 report Figure 6.12 shows the clays are thicker in Phases IV and VI and should settle more than Phase I. SCS's November 18, 1994 report Figure 2 shows that the top of clay is lower in Phase I than Phases IV or VI. FAC Rule 17-701.400(4) requires that the LCRS convey leachate to collection points for removal. Could the top of clay in portions of Phase I settle more than other portions of the landfill and prevent some leachate from being conveyed for removal? SCS has indicated that HCDSW intends to maintain landfill leachate levels as low as possible. What is the lowest depth to which leachate may possibly be removed?
8. Please provide a copy of the long-term agreement with HCPUD for the disposal of leachate at its off-site WWTPs. How many gallons of leachate may be accepted at each WWTP included in the agreement?
9. Please provide a copy of the previously approved designs for each temporary sump in Phase VI, the permanent sump design north of the landfill, and a record drawing for the actual construction of each. If record drawings are not available, please explain why not and provide a current survey to show the elevations of the piping, structure, and top of clay bottom liner at each location. SCS's January 13, 1995 letter explains that the reason for ignoring Waste Management's daily logs that indicated excess leachate over the liner was because "HCDSW and SCS believed the temporary sump had been installed as designed".
10. Please explain the condition of Basin "D". Is this basin performing as designed?
11. Please provide your response to Ms. Allison Amram's concerns in her January 25, 1995 memorandum attached. You may contact Ms. Amram at (813) 744-6100, extension 336.

Please be advised that a separate construction permit is required for the review and approval of permanent site improvements such as the future downchutes, leachate collection gallery in Phase VI, and closure.

"NOTICE! Pursuant to the provisions of Section 120.600, F.S. and Chapter 17-12.070(5), F.A.C., if the Department does not receive a complete response to this request for information within 30 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you received this letter, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration.

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Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of a timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available."

You are requested to submit your response to this letter as one complete package. On all future correspondence to the Department, please include Robert Butera on distribution. If there are points which must be discussed and resolved, please contact me at (813) 744-6100, extension 382.

Sincerely,

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab
Attachment

cc: Patricia V. Berry, Hillsborough County DSW
Paul Schipfer, HCEPC
Robert Gardner, P.E., SCS Engineers
William Kutash, Program Administrator, Waste Management
Robert Butera, P.E., FDEP Tampa
Allison Amram, P.G., FDEP Tampa
Steve Morgan, FDEP Tampa
Richard Tedder, P.E., FDEP Tallahassee

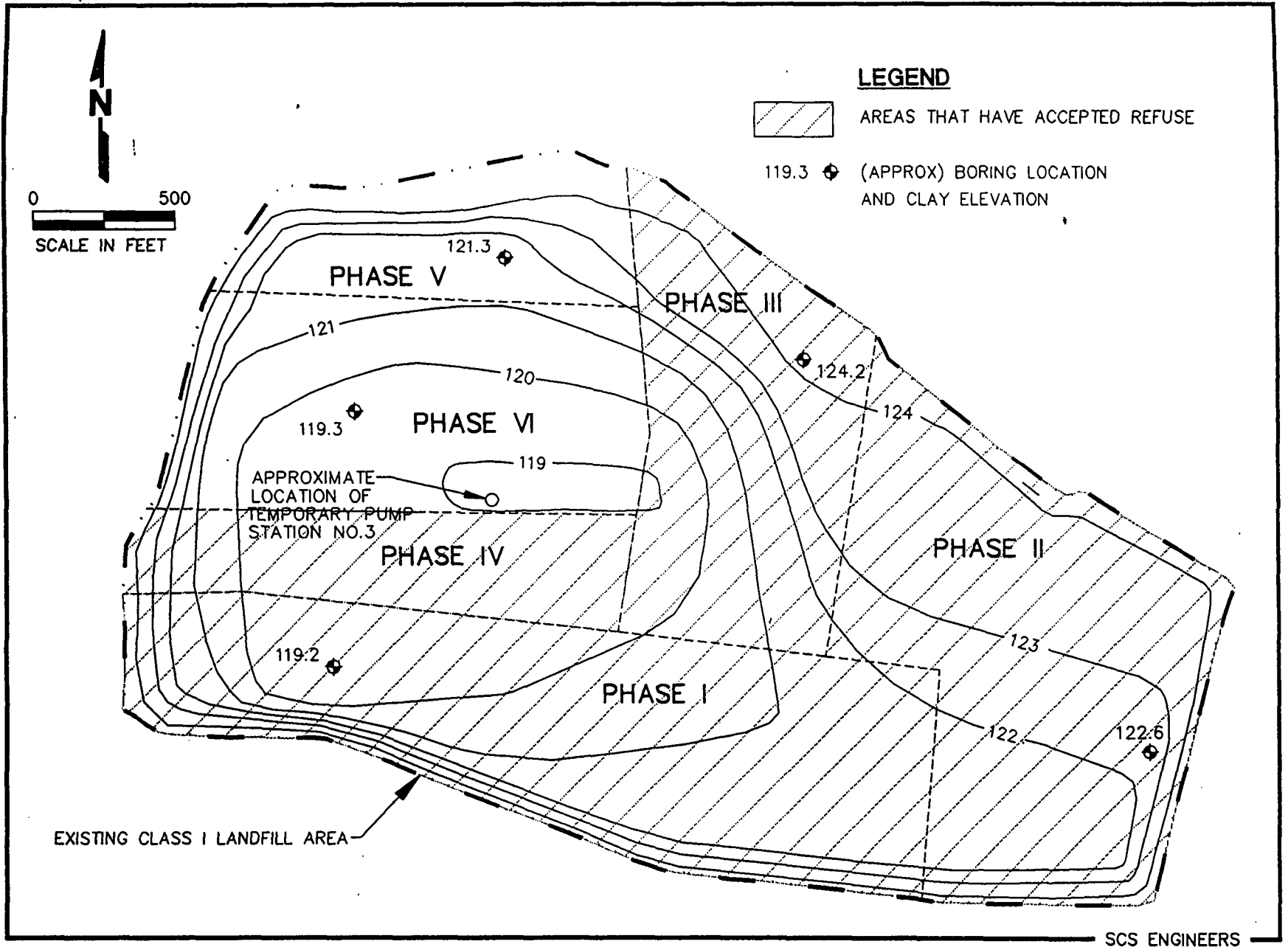


Figure 2. Approximate Top of Clay Elevation (8/4/93)

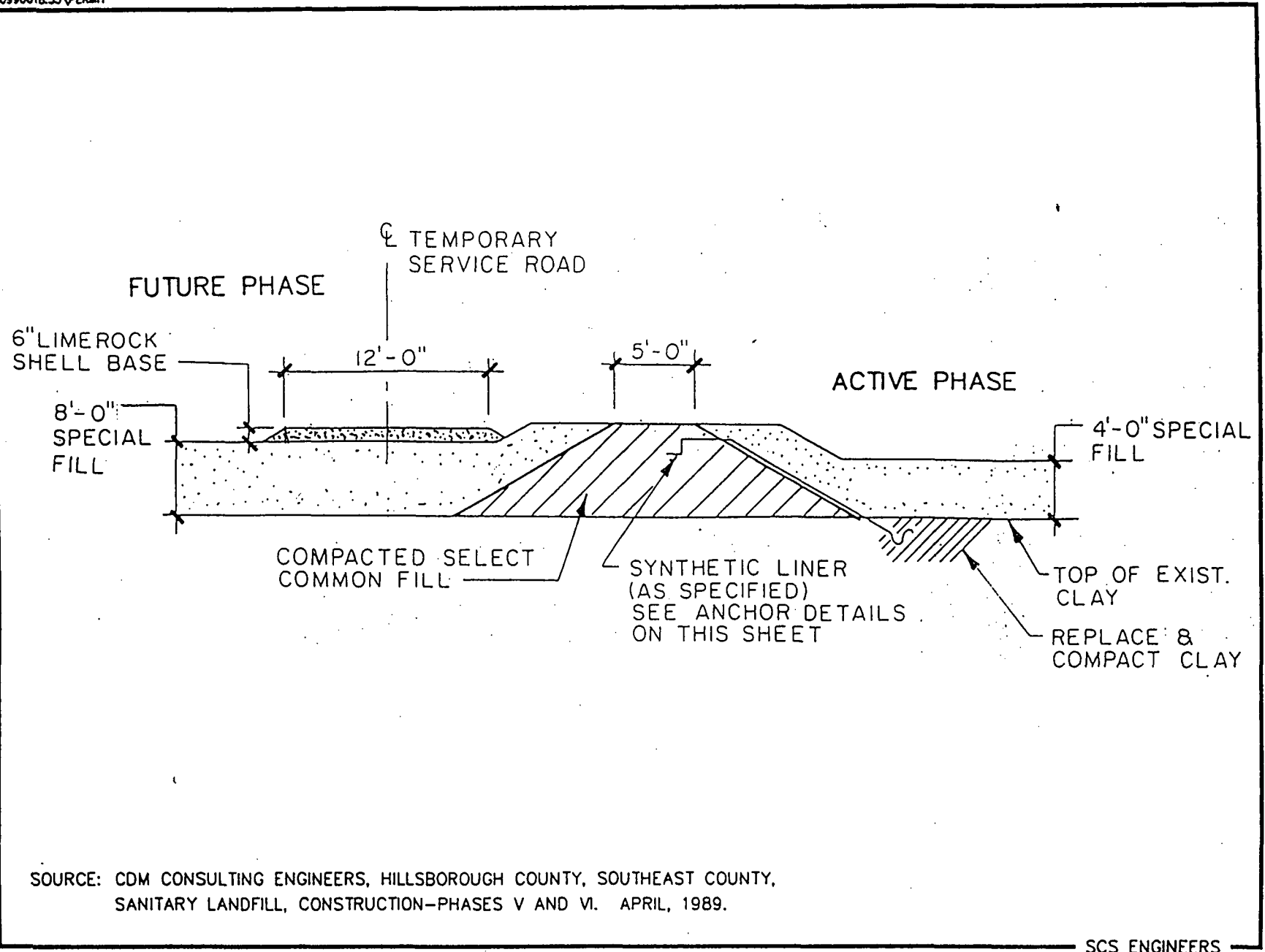
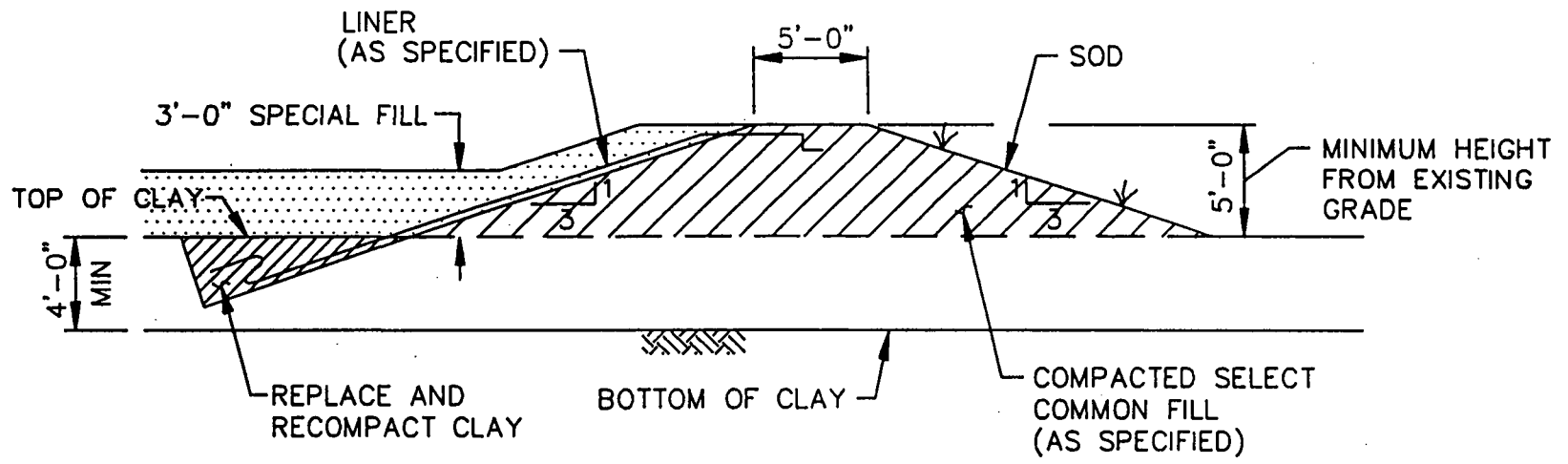
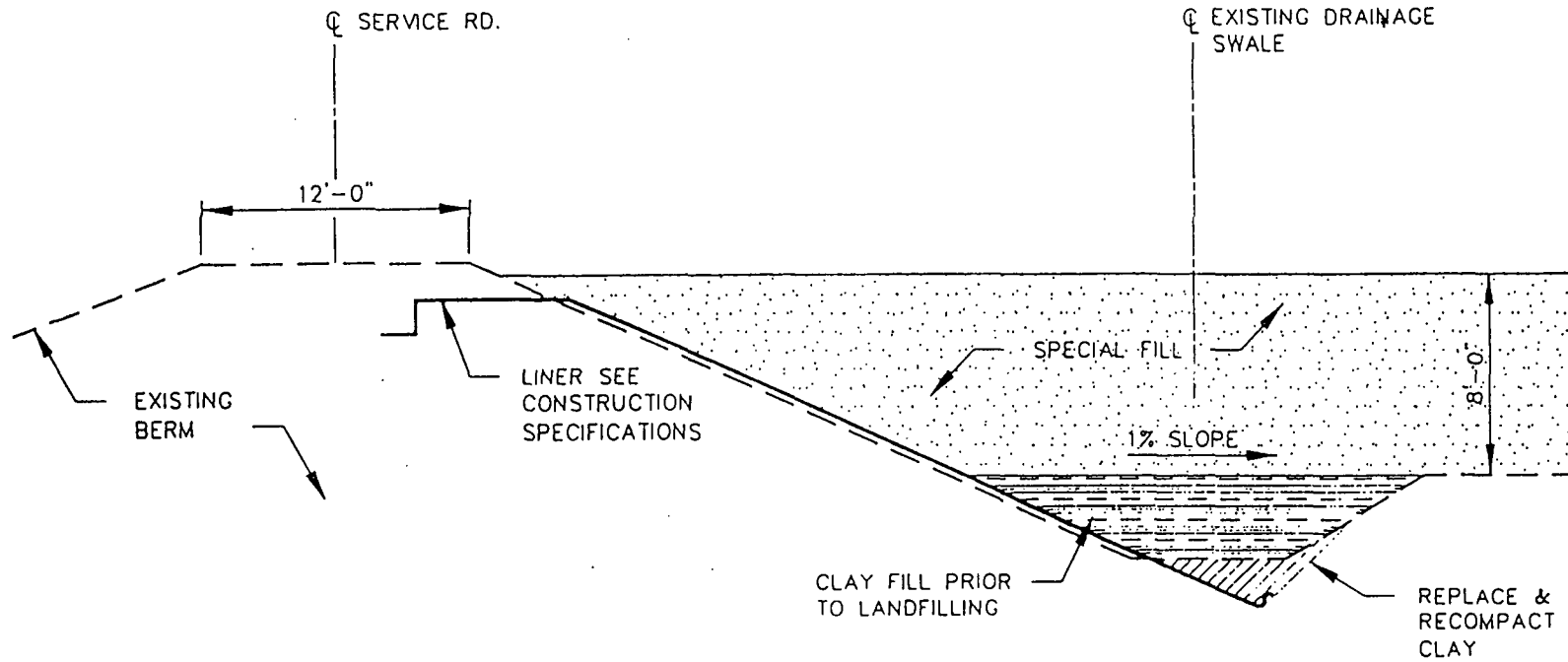


Figure 9. Phases I to VI Typical Interior Berm.



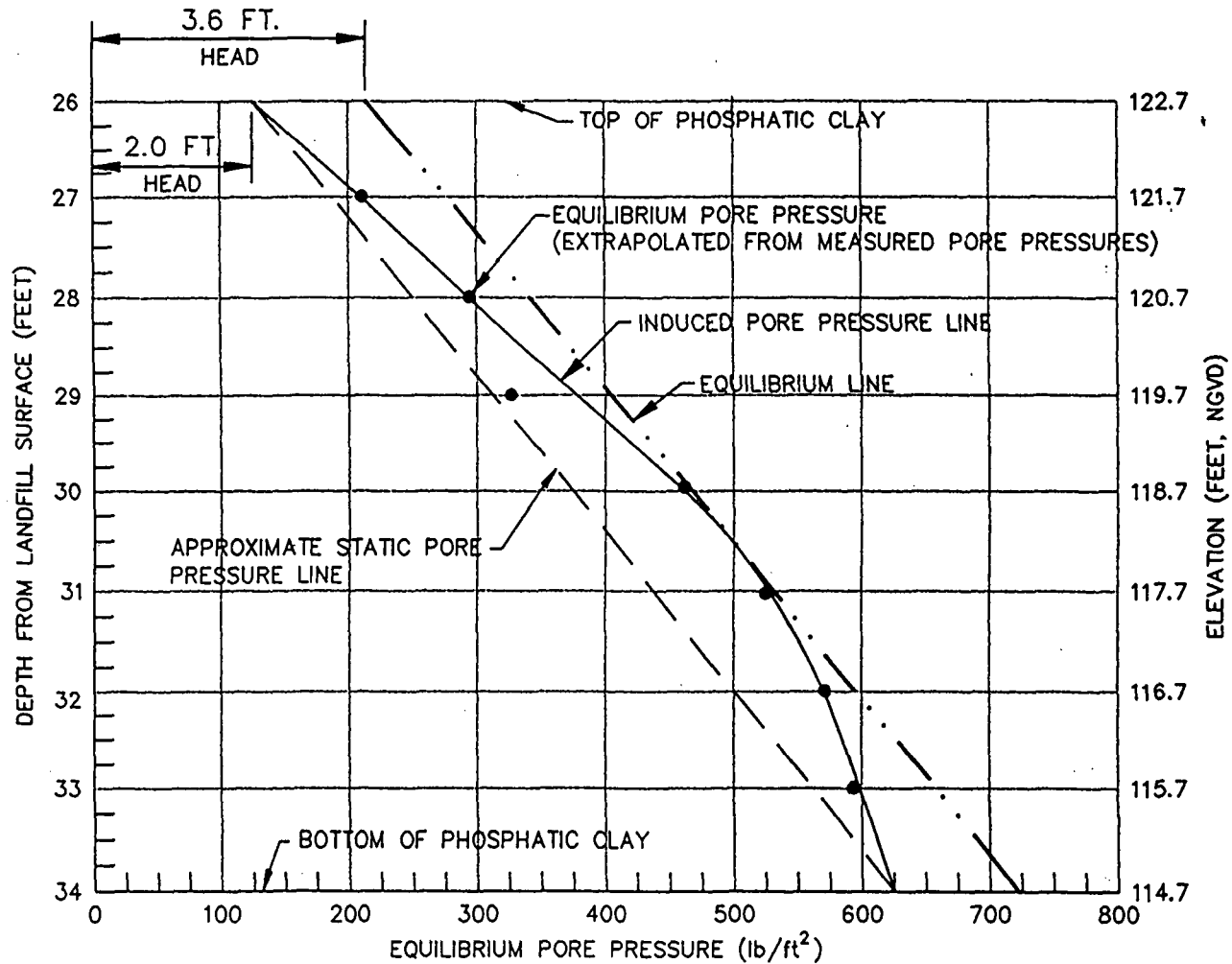
SOURCE: CDM CONSULTING ENGINEERS, HILLSBOROUGH COUNTY, SOUTHEAST COUNTY, SANITARY LANDFILL, CONSTRUCTION-PHASES V AND VI. APRIL, 1989.

Figure 7. Phases I, II, III, IV and VI Typical Perimeter Berm.



SOURCE: SCS ENGINEERS, HILLSBOROUGH COUNTY, SOUTHEAST LANDFILL
PROPOSED MODIFICATIONS TO PHASES V AND VI. JUNE, 1990.

Figure 8. Phase V Perimeter Berm.

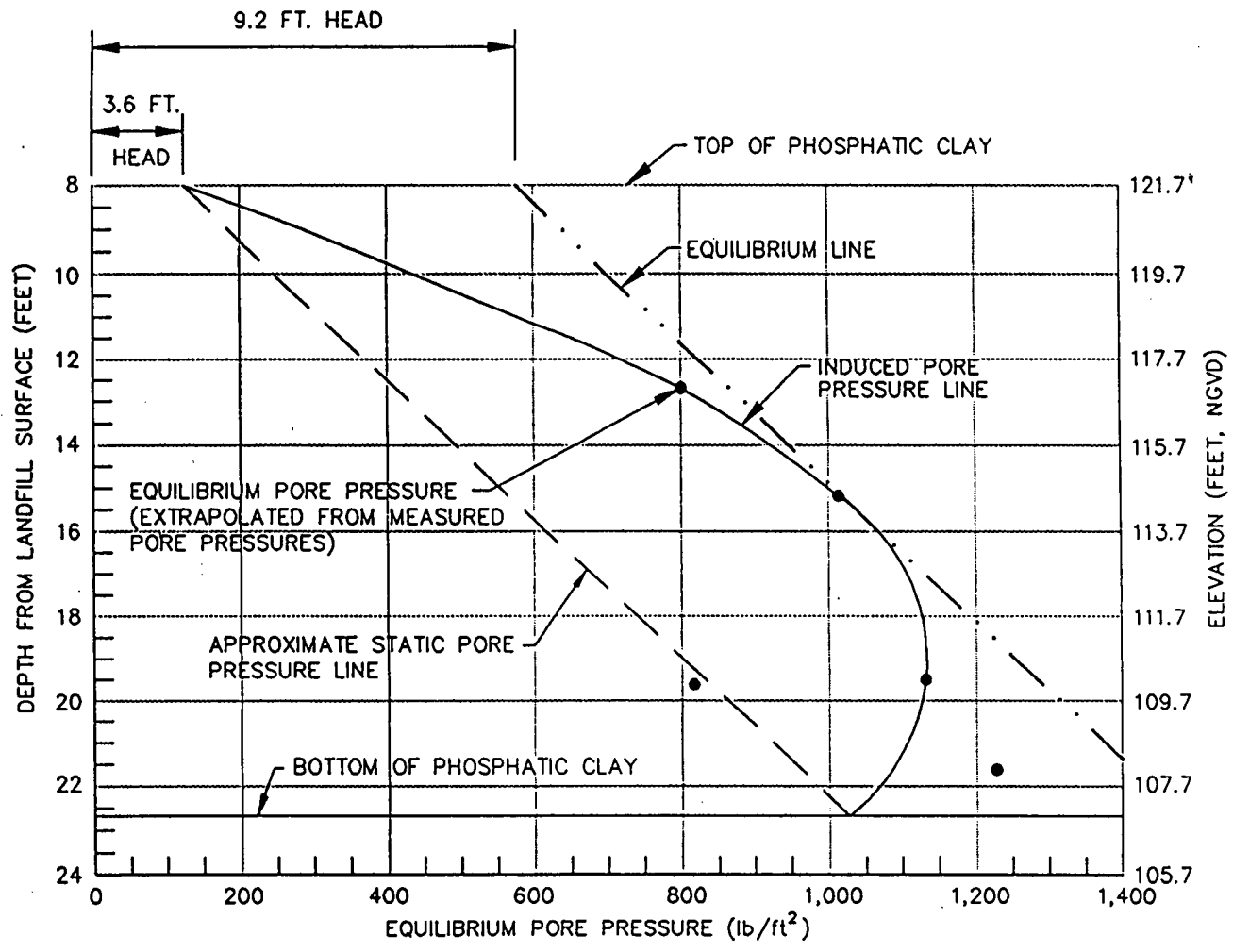


SOURCE: GEOTECHNICAL INVESTIGATION BY ARDAMAN & ASSOCIATES, INC.
DATED MARCH 7, 1994.

SCS ENGINEERS

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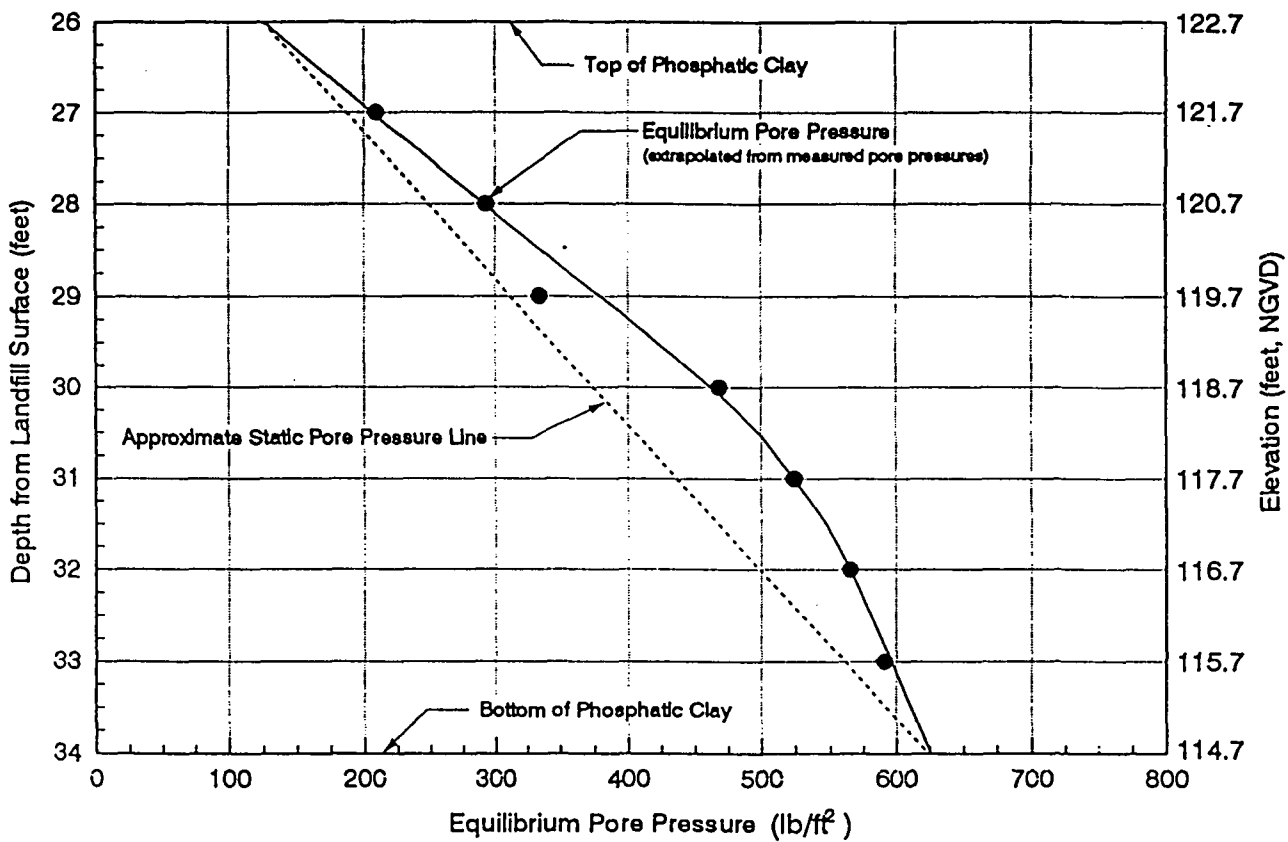
Figure 3-3. Pore Pressure Versus Depth Relationship From Piezoprobe Test Results at PP-2.



SOURCE: GEOTECHNICAL INVESTIGATION BY ARDAMAN & ASSOCIATES, INC.
 DATED MARCH 7, 1994.

SCS ENGINEERS

Pore Pressure Versus Depth Relationship From Piezoprobe Test Results at PP-6.



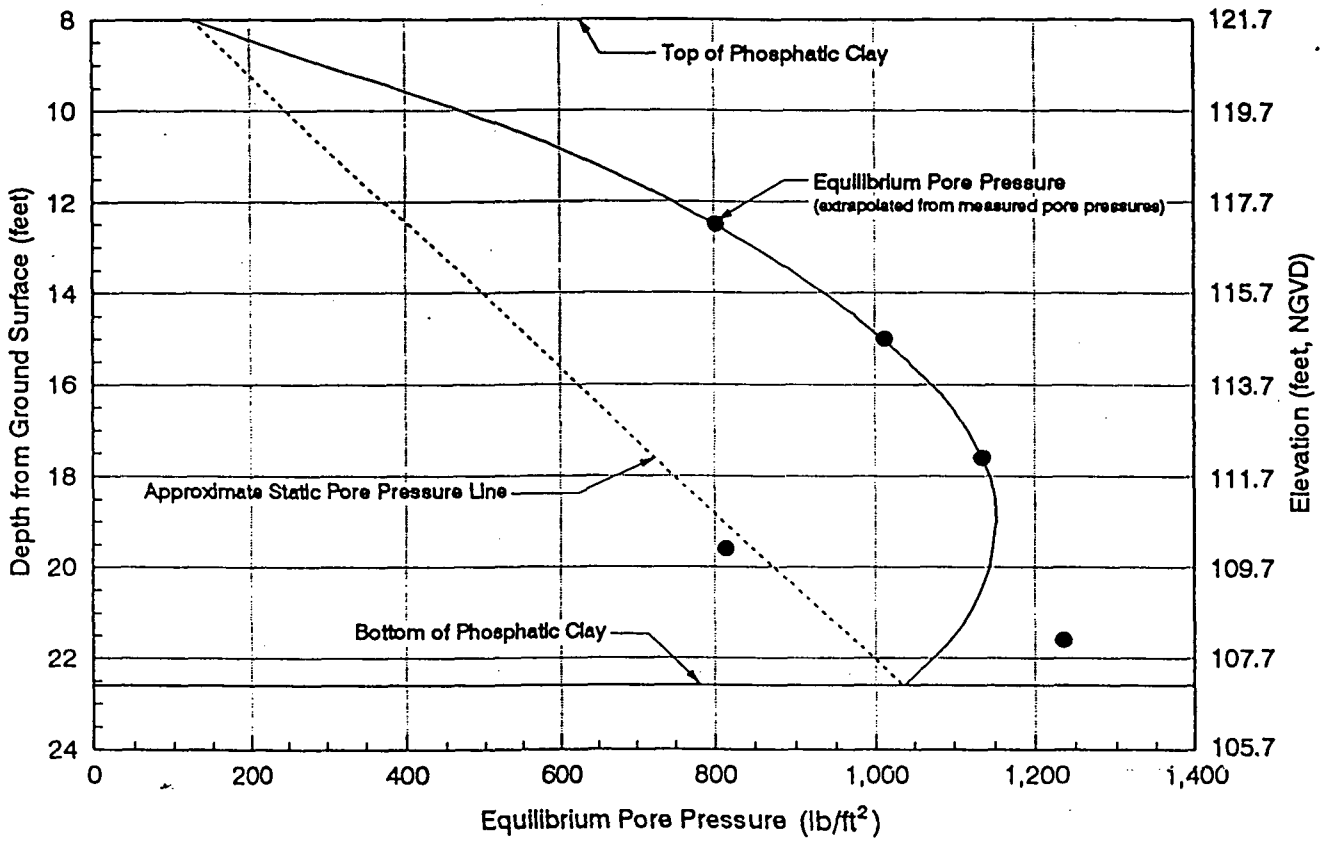
**PORE PRESSURE VERSUS DEPTH RELATIONSHIP
FROM PIEZOPROBE TEST RESULTS AT PP-2**

Ardaman & Associates, Inc.
Geotechnical, Environmental and
Materials Consultants


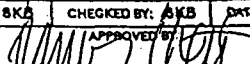
**GEOTECHNICAL INVESTIGATION
SOUTHEAST LANDFILL
HILLSBOROUGH COUNTY, FLORIDA**

DRAWN BY: BKB	CHECKED BY: BKB	DATE: 03-03-94
FILE NO. 93-029	APPROVED BY <i>[Signature]</i>	FIGURE NO. 12

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**PORE PRESSURE VERSUS DEPTH RELATIONSHIP
FROM PIEZOPROBE TEST RESULTS AT PP-6**

 Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants		
GEOTECHNICAL INVESTIGATION SOUTHEAST LANDFILL HILLSBOROUGH COUNTY, FLORIDA		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 03-03-94
FILE NO. 93-029	APPROVED BY: 	FIGURE NO. 13

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