Citrus SO permit file

D.E.P.

AUG 22 1996

SOUTHWEST TAMPA

Board of County Commissioners

Department of Public Works

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460-0340

August 19, 1996 Allison

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Leachate Discharge
Permit No. SO09-187229

Dear Mr. Ford:

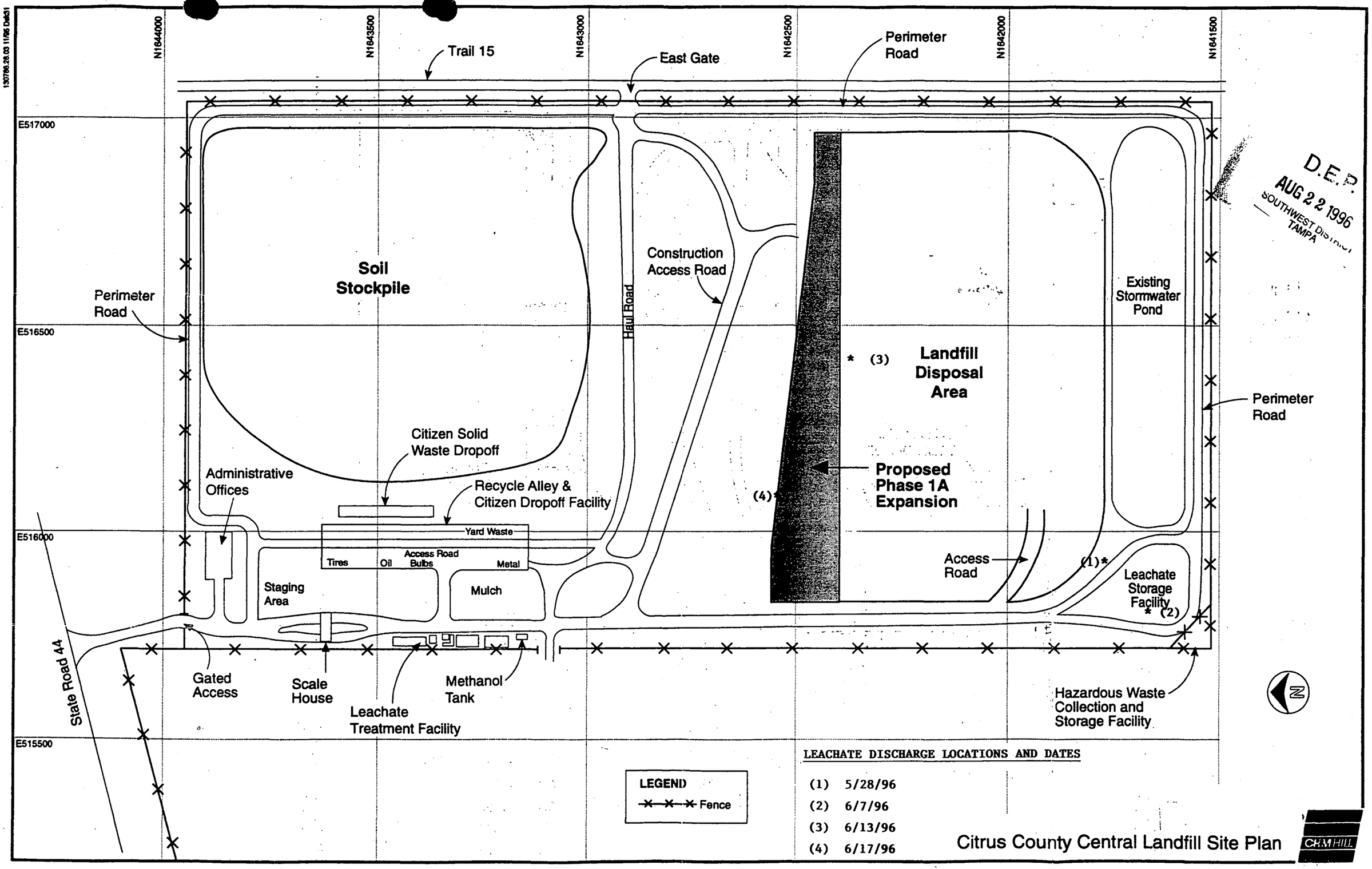
Your letter of August 7, 1996 requested a map of locations of leachate discharges described in my letter of June 17. The enclosed map shows those locations. Please let me know if you need additional information.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, P.G.
Director

CC: Gary Kuhl, Director, Public Works Department
Robert Butera, FDEP, Tampa


N1644000
N1643500
N1643000
N1642500
N1642000
N1641500
E517000
E516500
E516000
E515500
Trail 15
East Gate
Perimeter Road
Soil Stockpile
Construction Access Road
Haul Road
Existing Stormwater Pond
Landfill Disposal Area
* (3)
Perimeter Road
Citizen Solid Waste Dropoff
Administrative Offices
Recycle Alley & Citizen Dropoff Facility
Proposed Phase 1A Expansion
(4)
Yard Waste
Tires
Oil
Access Road
Bulbs
Metal
Staging Area
Mulch
Access Road
(1)*
Leachate Storage Facility
* (2)
State Road 44
Gated Access
Scale House
Leachate Treatment Facility
Methanol Tank
Hazardous Waste Collection and Storage Facility
N
LEGEND
Fence
LEACHATE DISCHARGE LOCATIONS AND DATES
(1) 5/28/96
(2) 6/7/96
(3) 6/13/96
(4) 6/17/96
Citrus County Central Landfill Site Plan
CH2M HILL
D.E.P.
AUG 22 1996
SOUTHWEST DISTRICT
TAMPA

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

August 28, 1996

Ms. Susan Metcalfe, P.G.
Director, Division of Solid Waste
Management, Citrus County
P.O. Box 340
Lecanto, Florida 34460

Mr. Steven Tsangaris, P.E.
CH_2M Hill
P.O. Box 21647
Tampa, Florida 33607-1647

Subject: Contamination Assessment Report for the Citrus County Central Landfill
Permit No. SO09-187229 (pending permit No. SO09-274381), SF09-211030
Citrus County

Dear Ms. Metcalfe and Mr. Tsangaris:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the Contamination Assessment Report (CAR) from CH_2M Hill dated April 25, 1996 addressing the presence of volatile organic compounds (VOC) in the landfill's western monitoring wells. The FDEP has the following comments on this report:

- Section 3.1 calculates a non-limestone aquifer hydraulic conductivity using wells MW-R-1, MW-E, MW-AA and MW-3. Please note that monitoring well MW-E is completed in limestone. Exclusion of this well appears to decrease the average hydraulic conductivity from 15.7 to 1.09 feet per day.

- The report concludes that the VOCs present are at low concentrations, that groundwater flow is slow in the area, and that the nearest groundwater receptor is more than one-half mile downgradient of the site. Based on these conclusions, the report recommends semi-annual monitoring of these wells for VOCs. The FDEP agrees with the monitoring recommendation, but would like to state that the VOCs have been detected in the limestone aquifer, and contaminant transport through the limestone will be faster than through the unconsolidated sediments, based on the information provided in this report.

No further assessment activities appear to be warranted at this time. Monitoring of these wells will be covered in the pending landfill operation permit. If you have any questions, please contact me at 813/744-6100, ext. 336.

Sincerely,

Allison Amram

Allison Amram, P.G.
Solid Waste Section

cc: Gary Kuhl, Citrus County Director of Public Works, P.O. Box 167, Lecanto, FL 34460
Martin Clasen, CH_2M Hill, P.O. Box 21647, Tampa, FL 33622-1647
Kim Ford, P.E., FDEP
Bob Butera, P.E., FDEP

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

August 28, 1996

Ms. Susan Metcalfe, P.G.
Director, Division of Solid Waste
Management, Citrus County
P.O. Box 340
Lecanto, Florida 34460

Mr. Martin J. Clasen, P.G.
CH_2M Hill
P.O. Box 21647
Tampa, Florida 33607-1647

Subject: Sodium Transport Modeling for the Citrus County Central Landfill
Permit No. SO09-187229 (pending permit No. SO09-274381)

Dear Ms. Metcalfe and Mr. Clasen:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the response letter from CH_2M Hill dated June 12, 1996 (received July 25, 1996) addressing the FDEP's comments on the sodium transport model. The objective of this report was to model sodium and chloride concentrations in the aquifer to evaluate the impact of discharging treated leachate to groundwaters through two on-site percolation ponds.

This letter adequately addresses the FDEP's concerns. The treated leachate effluent may be discharged to the on-site percolation ponds when the effluent meets the criteria specified in the landfill's operation permit. The landfill's operation permit will require compliance with the groundwater standards for sodium, chlorides and total dissolved solids at the landfill's downgradient detection wells, and compliance well MW-E.

If you have any questions, please contact me at 813/744-6100, ext. 336.

Sincerely,

Allison Amram

Allison Amram, P.G.
Solid Waste Section

cc: Gary Kuhl, Citrus County Director of Public Works, P.O. Box 167, Lecanto, FL 34460
Steve Roberti, CH_2M Hill, 3011 S.W. Williston Rd, Gainesville, FL 32608-3928
Kim Ford, P.E., FDEP
Bob Butera, P.E., FDEP

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

Date: 8/28/96

Number of pages including cover sheet: 4

To: Susie Metcalfe

Phone:

Fax phone: 352/~~746-1203~~

CC: 527/1204

From: Allison Amram
Solid Waste Section

Phone: (813) 744-6100 x 336

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

Draft SO permit - Changes to Specific Conditions 30, 33 + 35.

30a - 20D - added "... shall extend horiz." as seen in figure —. We need the figure from you!

33 - Clarified compliance points for Na, Cl, TDS

35 - Added sampling of MW-E (compliance well)

Please call me if you have any questions.

Allison

** Transmit Conf.Report **

Aug 28 '96 10:25

---> 813525271204	
No.	0002
Mode	NORMAL
Time	1'57"
Pages	4 Page(s)
Result	O K

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 8/26

Time 11:45

Subject Sodium transport model

Permit No.

County Citrus

M Steve Roberti

Telephone No. 352/335-7991

Representing CH_2MHill

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

MT3D solute-transport package used on MODFLOW - change of 2.8 ft/day to 1.09 ft/day impact? Probably not much impact - used faster flow than average. Steve looked at slug test curves -- thought that some wells were reported "on the low-side". He did not use a strict average because of this.

Model looks ok - FDEP will approve the extension of the ZOD for the treated leachate effluent to the landfill's ZOD.

(continue on another sheet, if necessary)

Signature A Amram

Title PG1

PA-01
1/96
pap

Allison

5. [illegible]
CALLED
SHE SAYS I OWED TO
GET FROM YOU
REVISED #33
AND
Fig — FOR #30

THX

[illegible] 8/23/96

PS SHE SAYS CONDITIONS LOOK
OK EXCEPT
DOESN'T WANT TBS SESSION
OTHERWISE in #33

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 8/21/96 Subject Draft SO permit

Time 9:15 Permit No.

County Citrus

M Susie Metcalfe Telephone No. 352/746-5000

Representing Citrus

[X] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

SC #33 LTP - 3 months of acceptable
pg 14/19 sample results prior to
8/13/96 draft using

except TDS, Chloride, Sodium

She will be submitting info we need once
DEP + Citrus have agreed on the
draft permit conditions

8/23 cl will send her a revised SC #33 by Wed-
8/28. Need to review the Na-transport response
+ exclude TDS, Cl + Na from meeting FL GW stds +
+ criteria in effluent.

(continue on another sheet, if necessary)

Signature A Amram

Title PG1

PA-01
1/96
pap

Transmit Confirmation Report

No.	:	003
Receiver	:	8-1-352-746-1203
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Aug 14 96 7:34
Time	:	18'08
Mode	:	Fine
Pages	:	16
Result	:	OK

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

Date: 8/13/96

Number of pages including cover sheet: 16

To: SUSAN METCALFE

Phone: (352) 7465000

Fax phone: (352) 5271204/7461203

CC:

From: Kim Ford

Phone: (813) 744-6100 x382

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☑ For your review ☑ Reply ASAP ☐ Please comment

ATTACHED IS THE LATEST DRAFT OPERATION PERMIT FOR YOUR COMMENTS. (YOUR FIGURE FOR #30.a. IS NEEDED)

ALSO, FOR APPENDIX M (HHWC/S) - NO COMMENTS ON PLAN SUBMITTED BUT A COVER LETTER FOR THE APPENDIX IS REQUESTED TO DESCRIBE

1. LIQUIDS CONTAINMENT & REMOVAL AT HHWC/S
2. DAILY REMOVAL OF HHW FROM CITIZEN DROP OFF TO HHWC/S
3. PAINT DRYING PROCEDURES IF ANY (UNDER COVER ETC)
4. ALL WASTES COVERED AT ALL TIMES
5. TEMP STORAGE OF ABANDONED HW - (DRUMS) & REMOVAL

THX Kim

PB

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

DRAFT AUG 1 9 [illegible]

PERMITTEE
Citrus County
Board of County Commissioners
c/o Ms Susan Metcalfe, P.G.
Solid Waste Management
P. O. Box 340
Lecanto, FL 34460

PERMIT/CERTIFICATION
GMS ID No: 4009C00086
Permit No: **SO09-274381**
Date of Issue:
Expiration Date: **12/01/98**
County: Citrus
Lat/Long: 28°51'08"N
82°26'38"W
Sec/Town/Rge: 1/19S/21E
Project: Citrus County Central
Class I Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-330, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 80 acres), referred to as the Citrus County Central Class I Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste and leachate, near S.R. 44, 3 miles east of Lecanto, Citrus County, Florida.

1. Class I Landfill Disposal Facility

Replaces Permit No.: SO09-187229

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

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SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-701 and 62-703, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of Phase 1 of the Class I landfill and related facilities in accordance with the reports, plans and other information as follows:

- Groundwater Monitoring Plan by Hydro Q dated April 1995 received July 3, 1995, and revised pages received September 19, 1995;
- October 20, 1995 Operation Permit Application and supporting information by CH2M Hill received October 27, 1995;
- August 1996 Operations Plan by CH2M Hill received August 20, 1996;
- and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** This permit does not authorize Phase 1A operation. Any activities not previously approved as part of this permit may require a separate Department permit unless the Department determines a permit modification to be more appropriate. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification. Upon receipt and approval of a request for a minor permit modification pursuant to F.A.C. 62-4.050(4)(q) to operate Phase 1A, including Certification of Construction Completion for Phase 1A and related supporting documents identified in the construction permit, and detailed drawings for the sequence of filling for Phase 1A, the expiration date of this permit may be extended to allow the operation of the Citrus County Central Landfill for 5 years from the date of issuance of this permit.

4. **Permit Renewal.** No later than **one hundred eighty (180) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(3).

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated by the activities at this facility.

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SPECIFIC CONDITIONS:

6. **Special Wastes.** The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with F.A.C. 62-701.300(8), 62-701.520 and any other applicable Department rules, to protect the public safety, health and welfare.

a. White goods and scrap metal that are held for the purposes of recycling shall be held no longer than one hundred and eighty (180) days, and shall be stored in a manner so as to prevent the discharge of CFCs and other residuals which may cause air or groundwater pollution. Surface water shall be diverted away from all storage or holding areas.

b. All solid wastes, recovered materials or residues handled at the site shall be stored in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local or state regulations. Recovered resources which may be offered for sale shall comply with applicable regulations of all appropriate state agencies.

c. Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months.

d. The operation of the citizen waste drop-off facility shall comply with the following procedures:

(1) Only residential customers shall use the facilities, that is, no solid waste collectors or commercial haulers will be allowed usage;

(2) An attendant shall be on duty when the facility is operating. Operating hours shall be posted, and fencing and gates shall be used to prevent unauthorized access when the facility is closed;

(3) Only roll-off containers and/or dumpsters shall be utilized for waste disposal. No compactors of any type shall be used; and

(4) All processable and non-processable solid waste, with the exception of recyclables, shall be removed from the site at least daily or when a container is full. At the close of business each day when no additional waste will be received all processable and non-processable waste shall be covered with a waterproof tarp until the facility is again receiving solid waste.

(5) The Citizen Drop-off area shall be inspected for unauthorized materials and HHW <u>at least daily</u>.

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SPECIFIC CONDITIONS:

e. The household hazardous waste collection/storage facility shall be operated in accordance with the Operations Plan, Appendix M, by CH2M Hill submitted on August 20, 1996, and as follows:

(1) HHW received at the Citizen Drop-off area shall be identified, and then relocated for storage within the containment area of the HHW Collection/Storage Facility at the end of each collection day.

(2) Spillage shall be removed and properly packaged for disposal. Soils which have been contaminated by spills shall be removed and packaged for proper disposal on the same day as the spill occurred.

(3) Liquids, including contaminated rainwater, shall not be discharged outside of the containment structures.

(4) Containers having greater than one-half inch of liquid or semi-solid latex paint material shall not be air dried. Non-latex paints shall not be air dried.

(5) Waste received at the HHW C/S Facility shall be stored within containment areas at all times.

(6) Records on the quantities of HHW collected and removed for disposal shall be compiled monthly and maintained at the facility for Department review upon request.

f. The Used Oil Collection Center shall comply with FAC Chapter 62-710 and 40 Code of Federal Regulations (CFR) 280 and 281, and all applicable requirements of Department rules. Discharges are not allowed and are subject to FAC Chapter 62-770 for cleanup.

7. **Landfill Operation Requirements.** The permittee shall operate this facility in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the August 1996 Operations Plan by CH2M Hill submitted on August 20, 1996.

8. **Operating Personnel.** As required by F.A.C. 62-701.500(1), at least one operator, trained in accordance with F.A.C. 62-703, shall be at the landfill at all times when the landfill receives waste.

9. **Operation Plan and Operating Record.** Each landfill owner or operator shall have an operational plan which meets the requirements of F.A.C. 62-701.500(2). A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. An operating record as required by F.A.C. 62-701.500(3) is part of the operations plan, and shall also be maintained at the site.

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SPECIFIC CONDITIONS:

10. **Method and Sequence of Filling.** The method and sequence of filling shall be in accordance with the August 1996 Operations Plans, Section 2 and Appendix B, by CH2M Hill submitted on August 20, 1996.

11. **Waste Records.** Waste quantity records shall be compiled monthly as described by F.A.C. 62-701.500(4) and made available to the Department upon request.

12. **Control of Access.** Access to, and use of, the facility shall be controlled as required by F.A.C. 62-701.500(5).

13. **Monitoring of Waste.** Wastes shall be monitored as required by F.A.C. 62-701.500(6), including a load checking program and associated activities.

a. The permittee shall not knowingly accept hazardous waste or any hazardous substance for disposal at this site. Hazardous waste is a waste identified in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with F.A.C. 62-701.300(4) and 62-701.500(6)(b).

b. The operating authority shall maintain a program which prohibits the disposal of bulk industrial wastes which operating personnel reasonably believe to either be or contain hazardous waste, without first obtaining a chemical analysis of the material showing the waste to be non-hazardous. The chemical analysis of any such material so placed in the landfill, along with the customer's name and date of disposal, shall be kept on file by the operating authority on-site.

14. **Waste Handling Requirements.** All solid waste disposed of in the Class I area shall be covered as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class I area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each working day.

b. Alternate initial cover materials shall be approved by the Department prior to use at the facility. For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin. Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in a six (6) inch compacted layer, may be used as initial cover within the bermed working area.

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SPECIFIC CONDITIONS:

c. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.

15. **Working Face.** As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area. **Interceptor berms shall be maintained around the active working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

16. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed in accordance with F.A.C. 62-701.500(7)(g) and all applicable requirements of Department rules.

17. **Leachate Management.** Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8) and the August 1996 Operation Plan, Section 8, by CH2M Hill submitted August 20, 1996.

a. The leachate storage tanks shall be inspected as required by F.A.C. 62-701.400(6)(c).

b. Each pump shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and repaired, and a replacement pump installed if required for continued compliance. Documentation of all inspections shall be kept on file at the facility.

c. Leachate generation reports shall be compiled monthly and submitted to the Department as requested. Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, treated and disposed on-site, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch.

d. **One hundred and eighty (180) days prior to permit expiration,** the entire leachate collection and removal system, force mains and gravity pipelines, shall be video inspected and pressure tested where possible to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The results of the inspection and testing shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

SPECIFIC CONDITIONS:

DRAFT AUG 13 1996

18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.400(10), and the August 1996 Operations Plan, Section 9, by CH2M Hill submitted on August 20, 1996. The results of quarterly monitoring shall be submitted by **January 15th, April 15th, July 15th** and **October 15th** each year. Gas probes GS-1S and GS-1E shall be installed and sampled, and the construction details and sampling results submitted by January 15, 1997.

19. **Gas Monitoring Locations.** The following gas monitoring locations shall be sampled **quarterly** for the Lower Explosive Limit (LEL) of methane, as described in F.A.C. Rule 62-701.400(10)(c).

Monitoring Point	Locations:
Active Landfill	GS-1S and GS-1E, see Figure 1
Closed 60-acre Landfill	See Figure 1 (attached)
Scalehouse	See Figure 3 (attached)

20. **Gas Remediation.** In the event that the Lower Explosive Limit (LEL) is greater than 25% inside structures both on or off of the landfill site, or greater than 100% at the property boundary, the owner shall submit to the Department, **within 7 days of detection,** a remediation plan detailing the nature and extent of the problem and the proposed remedy. The remedy shall be completed **within 60 days of detection** unless otherwise approved by the Department.

21. **Stormwater System Management.** Stormwater shall be managed as required by F.A.C. 62-701.500(10) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Conveyances not performing adequately shall be repaired within three (3) working days. Documentation of all inspections and repairs shall be kept on file at the facility.

22. **Recordkeeping.** Records shall be maintained as required by F.A.C. 62-701.500(13).

23. **Waste Burning.** Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.520(2). Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with F.A.C. 62-296.401(6). Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

24. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, at least **90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by F.A.C. 62-701.600(3).

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SPECIFIC CONDITIONS:

25. **Financial Assurance.** The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. 62-701.630. All costs for closure and long-term care shall be adjusted and submitted **annually, by September 1 each year,** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. The owner or operator shall control mosquitoes and rodents so as to protect the public health and welfare.

27. **Liner Location.** The top edge of the geomembrane liner shall be clearly flagged in as many locations as required to prevent waste disposal and leachate runoff outside the geomembrane liner. The flagging or staking markers shall be maintained at all times.

28. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, gas monitoring system repairs, repair and maintenance of leachate collection and removal systems, and maintenance of the leachate storage and treatment facilities. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems, the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

29. **Water Quality Monitoring Quality Assurance.**

a. All field and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted by a firm possessing a Comprehensive Quality Assurance Plan approved by the Department to meet the requirements of F.A.C. 62-160. The Quality Assurance Plan must specifically address the types of sampling and analytical work that is required by the permit. The Quality Assurance Plan shall be required of all persons performing sampling or analysis, and shall be followed by all persons collecting or analyzing samples related to this permit. Documentation of an approved QAP shall be submitted **annually** to the Department with the groundwater sampling report due **January 15th.** Documentation shall include the completed signature page and the Table of Contents of the approved plan.

SPECIFIC CONDITIONS:

DRAFT AUG 13 1996

b. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with methods approved by the Department in accordance with F.A.C. 62-4.246 and 62-160. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

30. **Zone of Discharge.**

a. The zone of discharge for the site shall extend horizontally landfills and the percolation ponds for treated leachate as shown on Figure ___ (attached), prepared by Citrus County shall extend vertically to the bottom of the first occurring aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II groundwaters will not be exceeded at the boundary of the zone of discharge according to F.A.C. 62-520.420.

31. **Leachate Sampling.** Leachate shall be sampled from the leachate holding tank until the master lift station is installed, at which time leachate shall be sampled from the master lift station. Leachate shall be analyzed **every 6 months** for the following monitoring parameters:

Field parameters	Laboratory parameters
Specific Conductivity	Total Ammonia - N
pH	Bicarbonate
Dissolved oxygen	Chlorides
Colors, sheens (by observation)	Iron
	Mercury
	Nitrate
	Sodium
	Total Dissolved Solids (TDS)
	Those parameters listed in 40 CFR Part 258, Appendix I

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR part 258, Appendix II. If this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials. Any leachate which is not recirculated or taken to a permitted industrial or domestic wastewater treatment facility shall be treated or managed so that no contaminant exceeds the regulatory level. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

DRAFT AUG 13 1996

SPECIFIC CONDITIONS:

32. **Discharges from Percolation Pond.** Direct discharge from the percolation pond system to area surface waters is not allowed. Surface discharge shall be considered a violation of this permit and the permittee shall immediately report any such discharge to the Southwest District office of the Department of Environmental Protection.

33. **Leachate Treatment Plant Testing.** Prior to on-site discharge into the percolation ponds, the permittee shall demonstrate 3 consecutive months of acceptable leachate treatment based on the results from the following daily and weekly sampling. The effluent shall be tested once during the 3 month demonstration period for the parameters listed in Appendix II, 40 CFR Part 258. These test parameters shall meet the Florida Groundwater Standards and minimum criteria listed in F.A.C. 62-520.420.

a. After written approval for discharge of treated leachate into the onsite percolation ponds is obtained from the FDEP- Solid Waste Section, Southwest District, the following effluent testing schedule shall be conducted. Results shall be submitted quarterly. The 1st quarter of a year shall be submitted by **April 15th**, the 2nd quarter by **July 15th**, the 3rd quarter by **October 15th** and 4th quarter by **January 15th**.

Parameter	Unit	Minimum	Maximum	Frequency
flow	gpd	N/A	30,000	Daily
pH	STD UN	6.00	8.50	Daily
Chlorine Residual	mg/l	N/A	N/A	Daily, if using chlorine
$CBOD_5$	mg/l	N/A	20	Weekly
COD	mg/l	(acceptable $CBOD_5$:COD ratio)		Weekly
TSS	mg/l	N/A	20	Weekly
Total Phosphorous	mg/l	N/A	N/A	Weekly
Ammonia Nitrogen	mg/l	N/A	N/A	Weekly
Nitrate-N	mg/l	N/A	12	Weekly
Total Nitrogen	mg/l	N/A	N/A	Weekly
Fecal Coliform	#/100	N/A	200	Weekly
Chloride	mg/l	N/A	N/A	Quarterly
Sodium	mg/l	N/A	N/A	Quarterly
TDS	mg/l	N/A	N/A	Quarterly
Arsenic	mg/l	N/A	N/A	Quarterly
Barium	mg/l	N/A	N/A	Quarterly
Cadmium	mg/l	N/A	N/A	Quarterly
Chromium	mg/l	N/A	N/A	Quarterly
Iron	mg/l	N/A	N/A	Quarterly
Mercury	mg/l	N/A	N/A	Quarterly
Lead	mg/l	N/A	N/A	Quarterly
Selenium	mg/l	N/A	N/A	Quarterly
Silver	mg/l	N/A	N/A	Quarterly
Total THMs	mg/l	N/A	N/A	Quarterly
Benzene	mg/l	N/A	N/A	Quarterly
Toluene	mg/l	N/A	N/A	Quarterly
Ethylbenzene	mg/l	N/A	N/A	Quarterly
Total Xylenes	mg/l	N/A	N/A	Quarterly
Ethylene dibromide(EDB)	mg/l	N/A	N/A	Quarterly

DRAFT AUG 13 1996

SPECIFIC CONDITIONS:

Annually, the effluent shall be tested for the Appendix II parameters listed in 40 CFR Part 258.

If in any two consecutive weeks of effluent sampling, the same listed contaminant exceeds the regulatory level, the permittee shall immediately cease discharge into the percolation ponds and provide off-site disposal for its leachate and/or effluent, until acceptable leachate treatment is again demonstrated.

b. Waste sludge from the leachate treatment plant shall be sampled and analyzed **annually** under an approved Quality Assurance Plan for the following parameters:

Toxic Characteristic Leaching Potential Test (TCLP) for organics, metals and pesticides
pH (standard units)
Solids (percent)

Waste sludge that is not classified as hazardous waste (Chapter 62-730.030, FAC) may be disposed of in the Class I landfill. Based upon the results of the analyses, the Department may require further testing and alternative disposal in order to assure compliance with all Department rules and regulations. The Department shall be notified within thirty (30) days of alternative sludge disposal activities.

34. **Groundwater Monitoring Well Locations.** The Groundwater Monitoring System is designed and constructed in accordance with the "Groundwater Monitoring Plan for the 80-acre Landfill Expansion, Citrus County Central Landfill", report dated April 1995 and revised September 19, 1995 prepared by Hydro Q. The groundwater monitoring wells are located as per Figure 48 of this report:

Well Number	Aquifer	Location
MW-1(R)	Floridan (background)	Figure 48, attached
MW-2	Floridan (background)	Figure 48, attached
MW-3	Floridan (background)	Figure 48, attached
MW-B	Floridan (detection)	Figure 48, attached
MW-4	Floridan (intermediate)	Figure 48, attached
MW-5	Floridan (intermediate)	Figure 48, attached
MW-6	Floridan (intermediate)	Figure 48, attached
MW-AA	Floridan (detection)	Figure 48, attached
MW-C	Floridan (detection)	Figure 48, attached
MW-D	Floridan (detection)	Figure 48, attached
MW-E	Floridan (compliance)	Figure 48, attached
MW-7*	Floridan (background)	Figure 48, attached
MW-8*	Floridan (detection)	Figure 48, attached
MW-9*	Floridan (detection)	Figure 48, attached

*Wells to be constructed prior to use of Phase 1A.

SPECIFIC CONDITIONS: DRAFT AUG 13 1996

35. **Groundwater Sampling.** All detection and background wells, ~~and~~ intermediate well MW-6, and compliance well MW-2 shall be sampled in accordance with F.A.C. 62-701.510(6)(c) and analyzed **every 6 months** for the groundwater monitoring parameters listed as follows:

Field parameters	Laboratory parameters
Static Water Level before purging	Total Ammonia - N
Specific Conductivity	Chlorides
pH	Iron
Dissolved Oxygen	Mercury
Turbidity	Nitrate
Temperature	Sodium
Colors and sheens (by observation)	Total Dissolved Solids (TDS)
	Those parameters listed in 40 CFR Part 258, Appendix I

Water levels shall be measured in all site wells listed in Specific Conditions No. 34.

Additional samples, wells, and parameters may be required based upon subsequent analysis.

36. **Groundwater Monitoring Well Construction.** Any new wells constructed must be approved by the Department through permit modification. The following information shall be submitted to the Department by within 90 days of well completion:

a. Documentation of the following for each well installed:

Well Identification	Boring (Lithology) Log
Aquifer monitored	Total depth of well
Screen type and slot size	Casing diameter
Screen length	Casing type and length
Screen diameter	SWFWMD well construction permit Nos.
Well seal and filter pack type and thickness	

b. **Within one week of well completion** and development, each new well shall be sampled for the parameters listed in F.A.C. Rules 62-701.510(8)(a) and (d).

c. A surveyed drawing shall be submitted in accordance with F.A.C. Rule 62-701.510(3)(d)(1), showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

DRAFT AUG 13 1996

SPECIFIC CONDITIONS:

d. Prior to utilization of Phase 1A, the information required in a-c (above) must be submitted for monitoring wells MW-7, MW-8 and MW-9. These wells are to be constructed as proposed in the groundwater monitoring plan referenced in Specific Condition No. 34.

37. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with F.A.C. 62-532.440, and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing piezometer/well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

38. **Assessment Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's water quality standards or criteria at the edge of the zone of discharge, the permittee has 15 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis representative of current groundwater conditions at the facility, and assessment monitoring/corrective action as described in F.A.C. 62-701.510(7) shall be initiated.

39. **Water Quality and Leachate Reporting Requirements.** All ground water quality monitoring and leachate and sludge analyses shall be reported on the Department Form 62-522.900(2), Ground Water Monitoring Report (attached). This report shall include the items listed in F.A.C. 62-701.510(9)(a). The permittee shall submit to the Department the results of the water quality and leachate analysis **July 15th** and **January 15th** for the semi-annual periods January-June and July-December, respectively. Sludge results shall be submitted **annually** by **January 15th.** The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318, and to the Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, FL 32399-2400.

DRAFT

AUG 13 1996

SPECIFIC CONDITIONS:

40. **Groundwater Monitoring Plan Evaluation.**

Every two years and prior to **180 days before the expiration** of the Department Permit, the permittee shall submit an evaluation of the Groundwater Monitoring Plan as described in F.A.C. 62-701.510(9)(b). The evaluation shall include the applicable information as required by F.A.C. 62-701.510(9), and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of groundwater contamination. Any groundwater contamination that may exist, shall be addressed as part of a groundwater investigation for the landfill assessment. The Groundwater Monitoring Plan shall be adequate to monitor any modifications to the existing landfill site including but not limited to closure. The first evaluation shall be submitted to the Solid Waste Section of the Department by **July 15, 1997.**

41. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

42. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

43. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

44. **Regulations.** F.A.C. 62-701, effective May 19, 1994, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

Attachment 1

DRAFT AUG 13 1996

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
4.	180 days prior to permit expiration	Permit Renewal Application
18. and 33.a	Quarterly, by January 15th, April 15th, July 15th, and October 15th	Gas monitoring results, Leachate treatment results
17.d.	180 days prior to permit expiration	LCRS Inspection
24.	90 days prior to date of final waste acceptance	Closure Permit Application
25.	Annually, by September 1st	Financial assurance cost estimates
29.a.	Annually, by January 15th	Water quality QAP documentation
31.	Every 6 months	Leachate sampled/analyzed
31.	Annually	Leachate sampled/analyzed for 40 CFR Part 258, Appendix II parameters
33.b.	Annually	Leachate treatment - Sludge results
35.	Every 6 months	Groundwater wells sampled/ analyzed
39.	Semi-annually, by January 15th, and July 15th	Water quality and leachate monitoring results
39.	Annually, by January 15th	Leachate treatment plant sludge analyses
40.	July 15, 1997 and every two years by July 15th and 180 days prior to permit expiration	Evaluation of groundwater monitoring plan

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 8/9/96

Time 11:10

Subject Leachate Mgt

Permit No.

County Citrus

M Susie Metcalfe

Telephone No. 352/746-5000

Representing Citrus Co Dept of Public Works

[✓] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

Cl called Susie re her 6/7/96 letter to Kim on leachate management in the SO vs SF permits for the closed 60-acre landfill. Susie will find the letter & call me Monday

Reason for letter: SO permit referenced activities over the 60-acre cell - refers to measuring lift stations - O&M, leachate reporting. Which permit should include leachate O&M over closed cell?

She has no questions on the leachate sampling location.

(continue on another sheet, if necessary)

Signature A Amsam

Title PG1

PA-01
1/96
pap

Board of County Commissioners

Department of Public Works

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

RECEIVED
JUN 12 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

Allison

June 7, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

Re: Citrus County Central Landfill
Pending Permit No. SO09-274381

Dear Mr. Ford:

After review of the proposed terms and conditions presented in the draft operating permit referenced above, I have a specific question/comment concerning leachate management. This permit is for operation of the active landfill located on an 80-acre parcel. An adjacent parcel contains a closed 60-acre landfill under long-term care. My understanding of the scope of the permit is that the two permits (above and SF09-211030) are separate and that leachate management and system maintenance requirements of this permit do not directly apply to the closed site.

It is my interpretation that the Department would encourage use of the same standard of operation, maintenance and reporting related to leachate from the two sites. I would appreciate a written response to this item.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

August 7, 1996

Ms. Susan Metcalfe, P.G.
Solid Waste Management
P O Box 340
Lecanto, FL 34460

Re: Leachate Discharge
Permit No.: SO09-187229, Citrus County

Dear Ms. Metcalfe:

Your June 17 1996 letter indicated several damaged pipes and subsequent leachate discharges associated with new pipe construction and value installations. DEP requests a map of the locations of each leachate discharge. Your assistance is appreciated.

On all future correspondence to the Department please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

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

KBF/ab

cc: Gary Kuhl, P.E., Citrus County
Robert Butera, P.E., FDEP Tampa
Allison Amram, P.G., FDEP Tampa

Board of County Commissioners

Department of Public Works

RECEIVED
AUG 05 1996
Department of Environmental Protection
SOUTHWEST DISTRICT

REPLY TO: BY
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

Bob AA 8-6-96
Allison AA 8/7

July 30, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Citrus County Central Landfill
Permit SF09-211030
Leachate Lift Stations

Dear Mr. Ford:

This letter is to follow up on my letters of February 29 and March 26 to report incidents involving leachate lift stations on the closed 60-acre site. Temporary pumping equipment was placed in those lift stations and leachate was removed on a regular basis, as was indicated in our leachate pumping reports, which were recently submitted to you. Replacement pumps which operate automatically on the basis of float switches have been installed in both lift stations. A copy of the specifications for the pumps is enclosed. Additional fire/explosion protection has also been installed.

This replacement equipment was installed at the depths shown on the attached sketch. This is not the depth of the original design. During investigation of these incidents, it was determined that the previous pumps were also not at the design depth. Sand, apparently from the leachate collection layer has entered the sump. We also discovered that the liner material which had been attached on the inside of the concrete ring sections had come loose in the east lift station and obstructs access to the bottom of the sump. County crews have attempted to correct these conditions but have not been successful. The County is currently seeking bids from firms qualified to perform confined space repairs and cleaning of the lift stations. The scope of work is to remove the loose liner, remove the accumulated sand, clean the collection line, determine if other repairs are needed and to make those repairs. Finally, the pumping equipment will be replaced at the design depth.

I expect this contracting process to take several weeks. The time frame to perform the work will be somewhat dependent on the conditions found. At the very least, the project will require several days. I will keep you informed of our progress.

If you have any questions, please contact me.

Yours truly,

Susan J Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

Goulds

Submersible Effluent Pumps

MODEL

3885

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer Courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent Systems

SPECIFICATIONS

Pump:

- Solids Handling Capabilities: ¾" Maximum
- Discharge Size: 2" NPT
- Capacities: Up to 114 GPM
- Total Heads: Up to 123 Feet TDH
- Mechanical Seal: Carbon-Rotary Seat/Ceramic-Stationary Seat 300 Series Stainless Steel Metal Parts BUNA-N Elastomers
- Temperature: 160°F (71°C) Maximum
- *Fasteners: 300 Series Stainless Steel*
- Capable of Running Dry Without Damage to Components

Motor:

- Single Phase: ⅓ HP-115 or 230 Volt 60 Hz, 1750 RPM ½ HP-115 V, 60 Hz, 3500 RPM ¾ HP thru 1½ HP 230 V, 60 Hz, 3500 RPM Built-In Overload with Automatic Reset Class B Insulation
- Three Phase: ½ HP thru 1½ HP 208/230 V, 460 V, 60 Hz, 3500 RPM Class B Insulation, Overload Protection must be Provided in Starter Unit
- Shaft: Threaded, 400 Series Stainless Steel
- Bearings: Ball Bearings Upper and Lower
- Power Cord: 15 Foot Standard Length (Optional Lengths Available) Single Phase: ⅓ and ½ HP-16/3 SJTO with three prong plug. ¾ thru 1½ HP-14/3 STO with Bare Leads Three Phase: ½ thru 1½ HP-14/4 STO with Bare Leads On CSA Listed Models — 20' Length SJTW and STW are Standard.

FEATURES

Impeller: Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Bronze impeller available as an option.

Casing: Cast iron volute type for maximum efficiency. 2" NPT discharge adaptable for slide rail systems.

Mechanical Seal: Ceramic vs. carbon sealing faces. Stainless steel metal parts BUNA-N elastomers.

Shaft: Corrosion-resistant stainless steel. Threaded design. Locknut on three phase models to guard against component damage on accidental reverse rotation.

Motor: Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage.

Bearings: Upper and lower heavy duty ball bearing construction.

Power Cable: Severe duty rated, oil and water resistant. Epoxy seal on motor-end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking.

O-Ring: Assures positive sealing against contaminants and oil leakage.

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Effective July 1986

Goulds

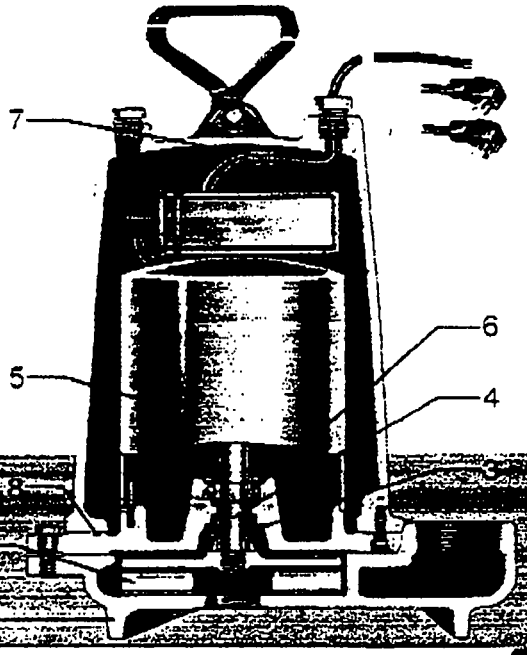
Submersible Effluent Pumps

MODEL

3885

FEATURES

1. Impeller
2. Casing
3. Mechanical Seal
4. Shaft
5. Motor
6. Bearings — Upper & Lower
7. Power Cable
8. O-Ring



MODELS

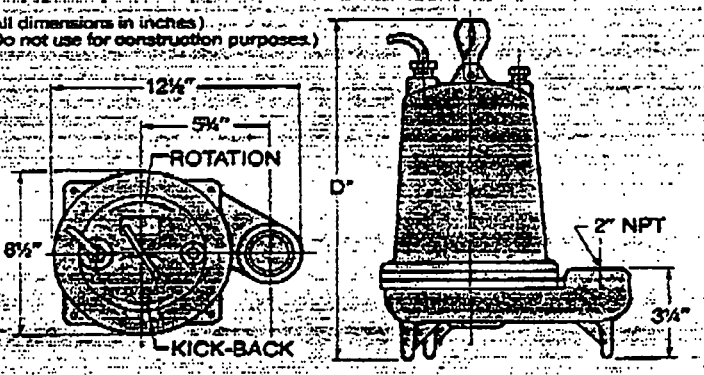
Series No.	HP	Volts	Phase	Max Amps	RPM	Solids	Weight (Lbs.)
WE0311L	1/3	115	1	9.4	1750	1/2"	50
WE0312L		230		4.7			
WE0311M		115		9.4			
WE0312M		230		4.7			
WE0511H	1/2	115		13.0			60
WE0512H		230		6.5			
WE0532H		208/230	3	3.4			
WE0534H		460		1.7			
WE0511HH		115	1	13.0			
WE0512HH		230		6.5			
WE0532HH		208/230	3	3.3			
WE0534HH		460		1.7			
WE0712H	3/4	230	1	9.0	3500	3/4"	70
WE0732H		208/230	3	5.4			
WE0734H		460		2.7			
WE1012H	1	230	1	11.6			
WE1032H		208/230	3	6.4			
WE1034H		460		3.2			
WE1512H	1-1/2	230	1	13.3			80
WE1532H		208/230	3	9.2			
WE1534H		460		4.6			
WE1512HH		230	1	13.3			
WE1532HH		208/230	3	9.2			
WE1534HH		460		4.6			

PERFORMANCE RATINGS

Series No.	WE0311L WE0312L	WE0311M WE0312M	WE0511H WE0512H WE0532H WE0534H	WE0712H WE0732H WE0734H	WE1012H WE1032H WE1034H	WE1512H WE1532H WE1534H	WE0511HH WE0512HH WE0532HH WE0534HH	WE1512HH WE1532HH WE1534HH
RPM	1750	1750	3500	3500	3500	3500	3500	3500
Total Head (Feet of Water)								
0	100	70	90	98	105	111	90	93
5	90	65	85	93	100	106	85	88
10	80	60	79	87	94	100	79	82
15	70	57	71	83	88	93	73	77
20	60	54	65	78	84	89	68	72
25	50	48	59	73	79	84	62	66
30	40	43	50	67	74	78	56	60
35	30	38	40	61	69	72	50	54
40	20	32	29	52	64	66	43	48
45	10	25	19	43	58	60	36	41
50		18	10	30	51	53	28	34
55		10			43	45	19	26
60					34	36	10	17
65					24	26		8
70					16	16		
75					6	5		
80						4		
90								
100								
110								
120								

DIMENSIONS

(All dimensions in inches)
(Do not use for construction purposes.)



D" ⅓, ½, ¾ and 1 HP = 15" except for model WE0712H & WE1012H = 18"; 1½ HP = 18"

EFFLUENT EJECTOR SYSTEM

Effluent ejector system offers ease of ordering and installation. A single ordering number specifies a complete system *designed for most residential* and commercial sump and effluent pump applications.

Package Includes:

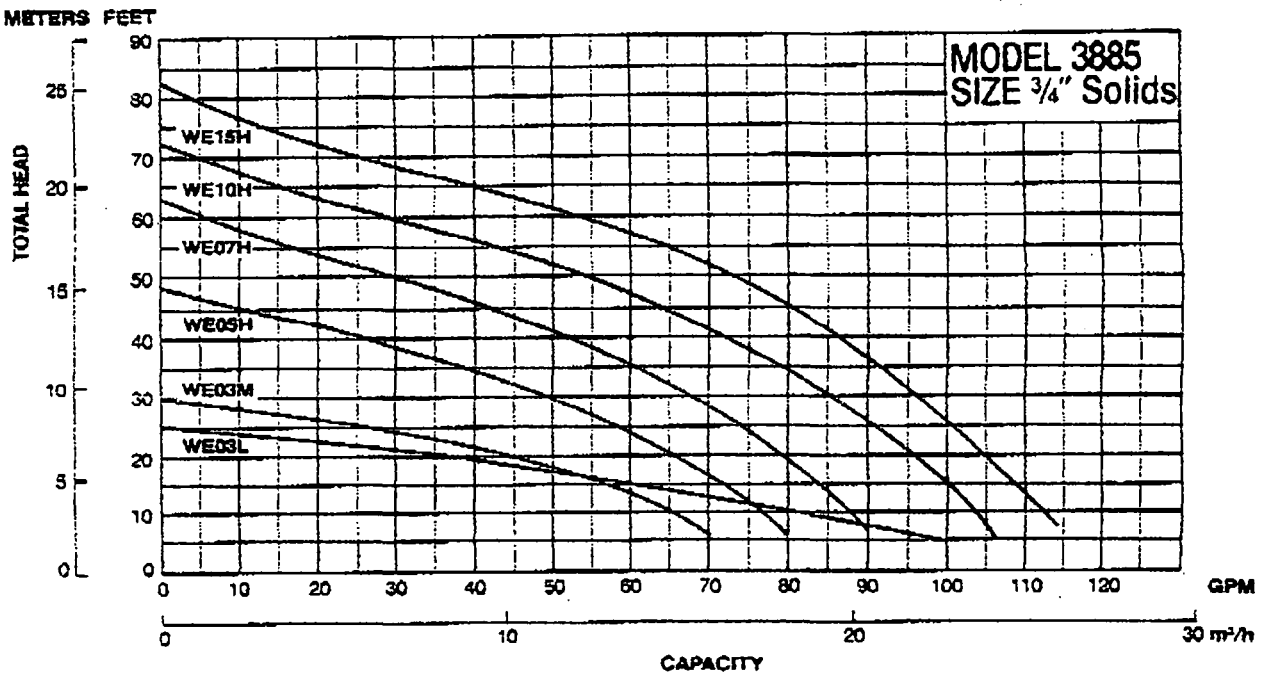
Submersible Effluent Pump, WE0311L, 12L or WE0311M, 12M, WE0511HH, 12HH
Mercury Level Control Switch A2-5 (115 V), A2-6 (230 V)
Basin A7-1801S
Basin Cover A8-1822
Check Valve A9-2P
Order No.: SWE0311L, SWE0312L, SWE0311M, SWE0312M, SWE0511HH, SWE0512HH

Available Certifications: CSA Canadian Standards Association
Pennsylvania Bureau of Mines for non-face applications — BOTE 91.

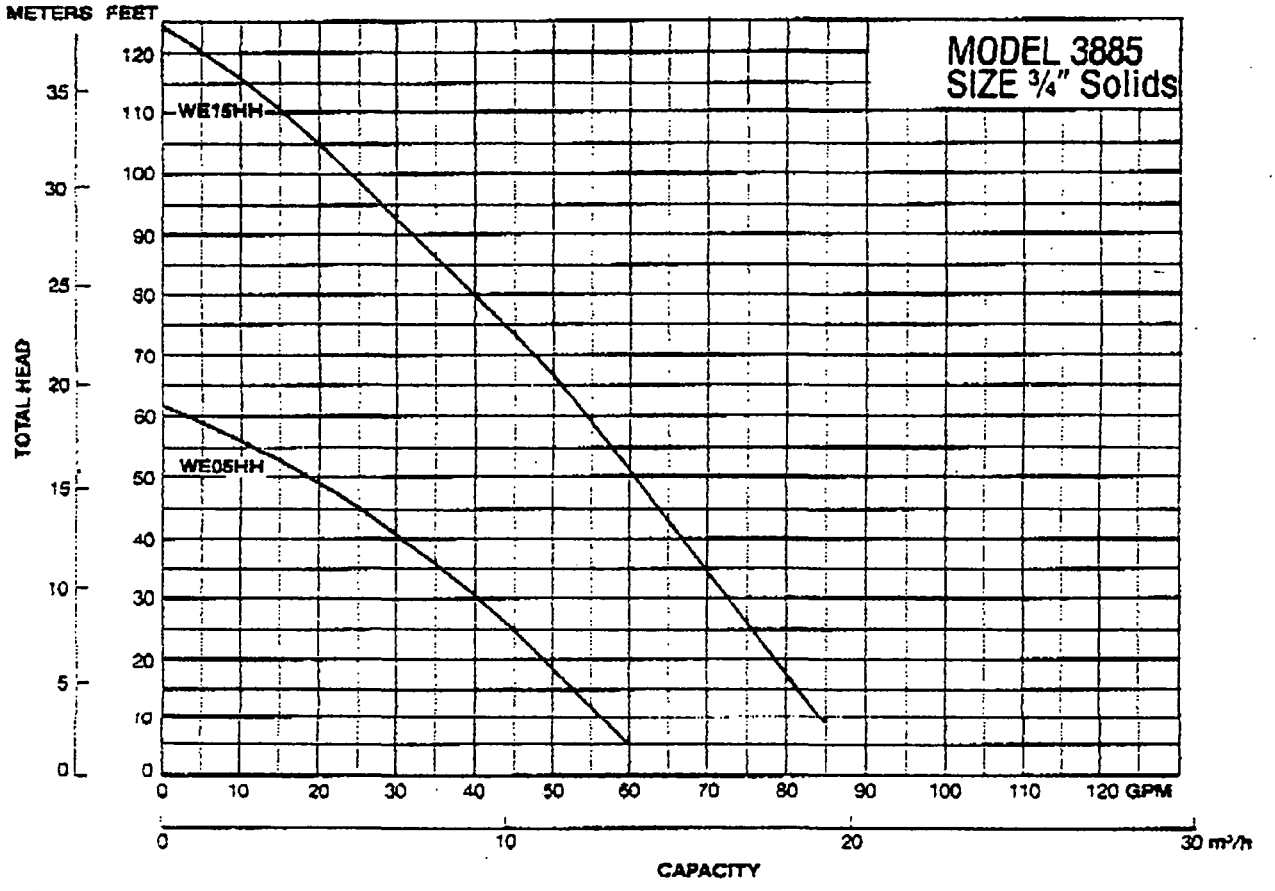
SENECA FALLS, NEW YORK 13148 — SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. — PRINTED IN U.S.A.

Performance Curves

Submersible Effluent Pumps



GOULDS PUMPS, INC.
SENECA FALLS NEW YORK 13148



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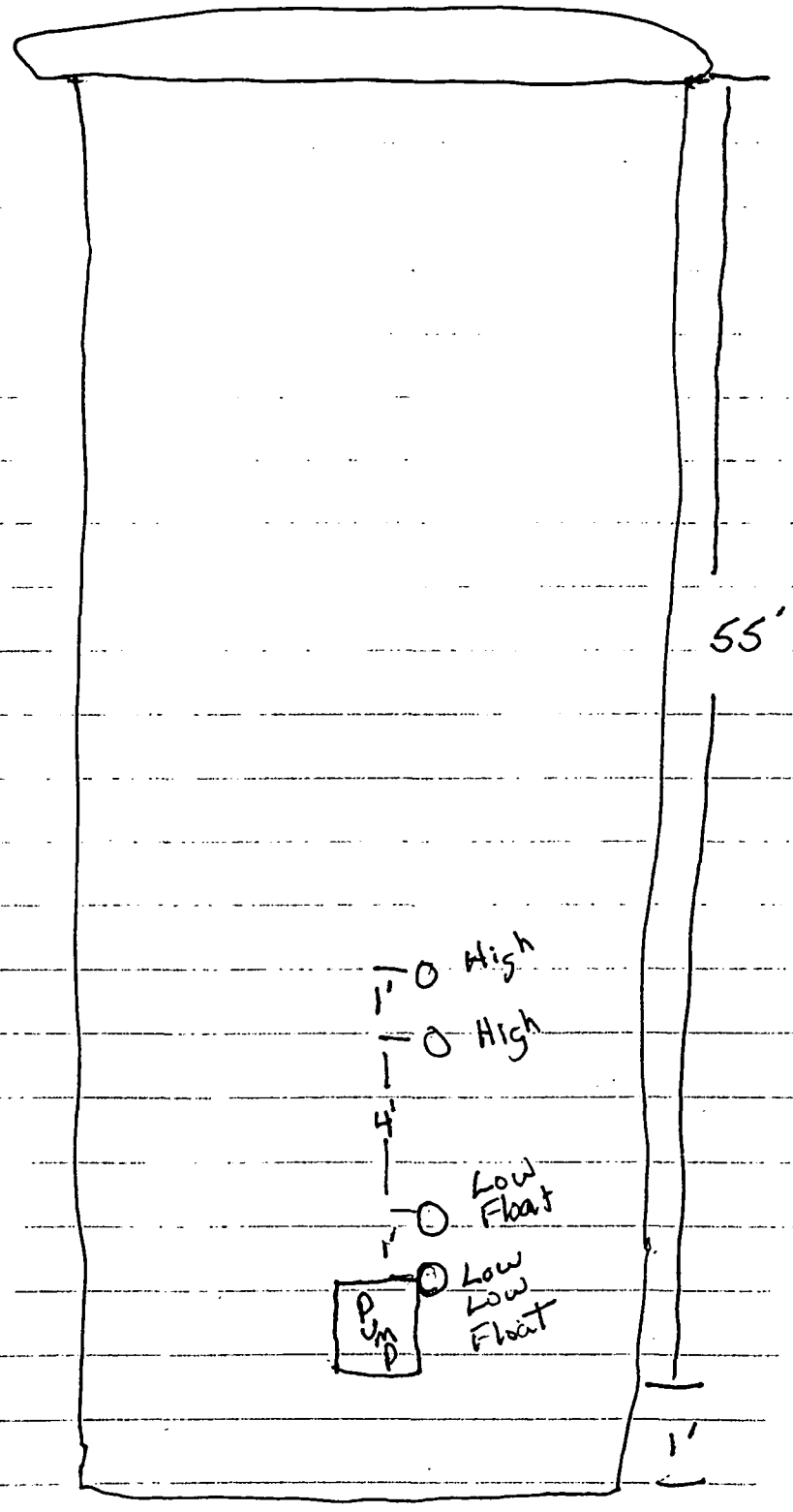
Effective July, 1985

East + West Well



Board of County Commissioners

Department of Public Works

D.E.P.
AUG X 2 1996
SOUTHWEST
TAMPA

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

Bob 8-6-96

July 30, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Citrus County Central Landfill
Permit SO09-187229
Leachate Tank/Lines

Dear Mr. Ford:

This letter is to follow up on my letters of May 28 and June 17 to report incidents involving valves at the new leachate holding tank and lines leading to that tank.

All subsurface valves were found to leak. The supplier provided new valves and the contractor installed them. Testing to confirm the proper operation of the replacement valves was conducted under the direction of Steve Tsangaris of CH2M HILL. All valves are now sealing and operating correctly.

The three line breaks were all repaired within one or two working days and no additional leachate spills resulted from the repair operations.

If you have any questions, please contact me.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

Board of County Commissioners

Department of Public Works

REPLY TO: Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

RECEIVED
AUG X1 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

July 30, 1996

Allison Amram, P.G.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

Re: Citrus County Central Landfill
Permit No. SO09-187229, SF09-211030, Pending Permit SO09-274381
Groundwater Monitoring

Dear Ms. Amram:

Citrus County has previously discussed with you the subject of field filtration of groundwater samples. Your August 15, 1995 comments on the pending permit indicated that filtration would need to be conducted according to the January 1994 Technical Document on the subject. We have provided the TD to our laboratory for inclusion in their sampling procedure.

No other requirements were indicated in your comments, therefore, according to my October 16, 1995 letter to you, we have proceeded with those methods to filter groundwater samples for metals analysis.

Please contact me if you have any questions.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

Bob 8/6/96

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 7/31/96 Subject CITRUS OPS PERMIT

Time 4:35 Permit No.

County CITRUS

M TAMMY MOORE Telephone No.

Representing CH2M HILL

[✓] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

SUSAN METCALFE

Summary of Conversation/Meeting WE DISCUSSED

INFO REQUESTED BY FAX TO COMPLETE OPS PLAN

(1) T.O. & S.M. AGREED TO CHANGE

COVER PAGES TO INCLUDE PHASE I & IA

(2) SM SAID APPENDIX ON TREATMENT PLANT WILL

DESCRIBE T.P CAPACITY, LIMITATIONS, SAMPLING, PERC PONDS

MAINTENANCE & CONTINGENCY AND WILL REFERENCE

OTHER TP DOCUMENT

SM SAID LCRS CLEANING SENT JUNE 14, 1996

I SAID WOT RECEIVED SO PERMIT STILL INCOMPLETE

TO & SM AGREED TO EDITS OF EXEC SUMMARY AS DISCUSSED.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/93
hjs

CH2M HILL Engineers Planners Economists Scientists

FAX

Orlando Office
TEL: 407-423-0030 FAX: 407-839-5901

Bob 8-6-96

Fax #:
To: Kim Ford
Company: FDEP
Project #:

Total Pages: 5
From: Tawny Olore
Date: 7/31/96

Message:

Kim:

Here is the letter you requested.

Tawny

The information in this fax is confidential and proprietary and is intended only for the individual or entity named on the cover shee
If you are not the intended recipient, disclosure, copying, distribution or use of this information is prohibited. If you do not receive all of the pages or have received this fax in error, please notify us immediately at the above telephone number.

Board of County Commissioners

Department of Public Works

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

June 14, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

Re: Citrus County Central Landfill
Permit No. Pending SO09-274381

Dear Mr. Ford:

This letter is to report activities related to cleaning of leachate collection lines in the Phase 1 area of the landfill, as required by the operating permit. Cleaning and and access activities were performed on May 17, 1996 and May 31, 1996. Activities were observed by John J. Wood, P.E. of CH2M HILL and myself. Figure 1 shows the location of the leachate collection lines; the scale is approximately 1 inch to 200 feet. The access points were designated with the numbers 1-8 as shown on that diagram. Citrus County contracted with Professional Piping Service, of Land 'O Lakes Florida, to perform the cleaning.

Two methods were used. The first cleaning was with a high volume(60 to 80 gpm)/"low" pressure (1200-1400 psi)jet. A photo of the jetting tool and hose is attached. The tool is approximately 14 inches long and the rubber hose is about 1 1/2 inches in diameter. Because of a combination of the size/length/flexibility/friction characteristics of this apparatus, and the configuration of fittings on the HDPE pipe, this method was not successful in reaching all portions of the leachate collection system. The apparatus was able to reach the full 650 foot length of the hose at access points 1, 2, and 4. Pipe configuration and configuration limited cleaning from access points 5 and 6 to 200 feet and at points 7 and 8 to 100 feet. Those distances correspond to the location of fittings. The apparatus was able to reach 100 feet at access point 3, where a hard blockage was encountered.

No scale or sediment was carried by the jet back to the access points; the operator thus felt the pipes were quite clean before the procedure. The operator reported that according to the feel of the apparatus, the only constrictions were at welded pipe joints and at fittings. Flow was observed to gradually increase in the lift station during the cleaning period. The character of the flow, color and sediment load, was not

noticeably different than under normal operations. This suggests that very little scale or sediment had built up in the pipes to be dislodged by the cleaning.

The second method that was used was a low volume(15 gpm)/very high pressure (4,000 psi) jet. The tool is approximately 1 1/2 inches long and the plastic hose is about 3/4 inch in diameter. This tool was easier to maneuver around the fittings/pipe joints, however it also encountered some sections where lack of flexibility when the hose was pressurized was a problem. This apparatus reached 800 feet in access points 4, 5, and 6, 740 feet in access point 7 and 425 feet in access point 8. Therefore, all section of the leachate collection piping were cleaned with one or both methods.

Access point 7 was the only pipe in which any debris was encountered. This was located at distances of approximately 180 and 250 feet. After "bumping" the debris one or two times at each location, the jet was removed to allow flushing. Flow rate into the leachate lift station temporarily increased, the color of the fluid was very dark and some sediment/debris was observed entering the lift station. The first flush included a couple of "sticks", all other material was fine grained and rounded. The operator reported that the pipes were clean when the jet was reinserted and run past each of those points.

The lift station was cleaned at the end of the line cleaning episode and was found to have very little solid material in it, an indication that the leachate collection system has not historically carried sediment. This demonstrates that pipe and filter material integrity is effective at letting the liquid pass while holding particulates in the drainage layer.

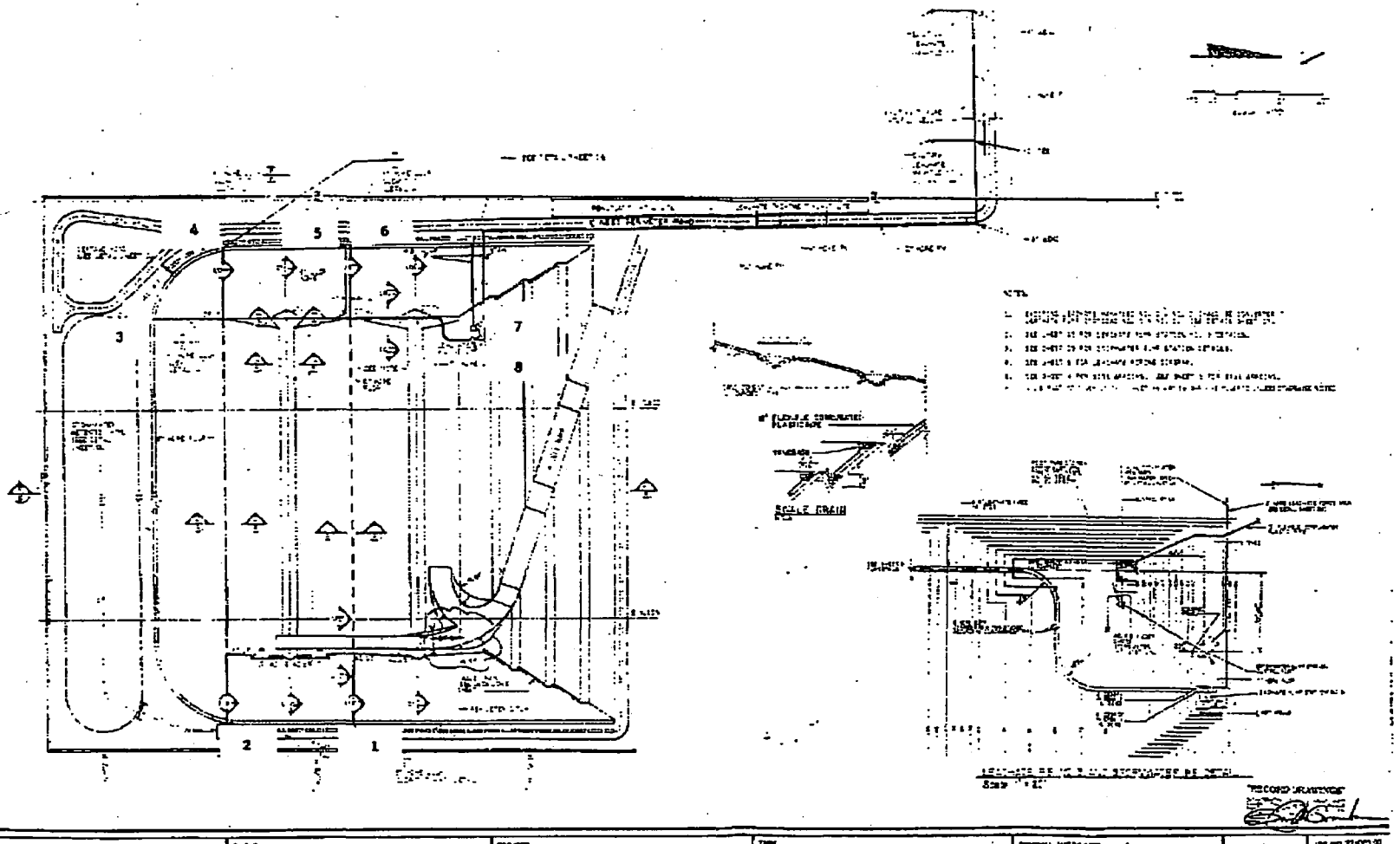
I will be glad to respond to questions you may have.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works
John Wood, CH2M HILL, Deerfield



CITRUS COUNTY, FLORIDA DEPARTMENT OF TECHNICAL SERVICES	CITRUS COUNTY CENTRAL SANITARY LANDFILL EXPANSION	SITE WORK LEACHATE COLLECTION PLAN, SECTION AND DETAIL	ORIGINAL DRAWING REVISIONS	SHEET 7/33

Board of County Commissioners

Department of Public Works

REPLY TO: Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

July 23, 1996

Allison Amram, P.G.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

RECEIVED
JUL 25 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

Re: Citrus County Central Landfill
Permit No. SO09-187229
Solute Transport Modeling

Dear Ms. Amram:

In response to your letter dated May 24, 1996, CH2M HILL has prepared the attached information concerning the solute transport modeling project for this site. I trust that this information will answer your questions. Please contact me if you would like to discuss the project further.

Yours truly,

Susan J Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works
Marty Clasen, CH2M HILL, Tampa

file
task B3

CH2M HILL
Engineers
Planners
Economists
Scientists

RECEIVED
JUN 17 1996
CITRUS COUNTY DPW
SOLID WASTE MANAGEMENT DIV

June 12, 1996

114709.18.03

Ms. Allison Amram, P.G.
Solid Waste Section
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

Dear Ms. Amram:

Subject: Sodium Transport Modeling for the Citrus County Central Landfill Permit No. SO09-187229 (pending permit No. SO09-274381)

CH2M HILL has prepared responses to comments submitted by the Florida Department of Environmental Protection (FDEP) regarding the Sodium Transport Modeling for the Citrus County Central Landfill. The comments addressed were presented in your letter to Susan Metcalfe dated May 24, 1996. Each comment is followed by a response in italics.

Comment 1 Please provide certification of this report by a professional geologist or professional engineer with expertise in groundwater systems. The FDEP cannot accept the report conclusions without this certification.

Response 1 *Enclosed is a letter signed and sealed by Martin J. Clasen, P.G. No. 27, certifying that this report was prepared under the direct supervision of a professional geologist.*

Comment 2 Please clarify the origin of the following model input parameters:

- 17,800 gpd recharge through the site stormwater pond
- 2.8 ft/day Hydraulic Conductivity for the unconsolidated sediments (the Contamination Assessment Report Prepared by CH2M HILL (dated April 1996) for the same site concluded that the average hydraulic conductivity was 0.024 ft/day);
- 0.01 (Kv==0.5 ft/day) Leakance value;
- 280,000 ft2/day Transmissivity for the limestone;

K = 1.09 in CAR

Tampa Office
4350 W. Cypress Street, Suite 600, Tampa, FL 33607-4155
Mailing address: P.O. Box 21647, Tampa, FL 33622-1647
813 874-0777
Fax No. 813 874-3056

Response 2 ***17,800 gpd recharge through the site stormwater pond*** *- The drainage basin for the stormwater pond is approximately 1,000 ft by 805 ft, with a resulting area of 805,000 ft^2. Average annual rainfall for the area is 52 inches. Evapotranspiration is estimated at 39 inches/year. Therefore, recharge is estimated at 13 inches/year (52 inches - 13 inches). Thirteen inches equals 1.08 ft (13/12). Available water infiltrating the stormwater pond is 869,400 ft^3/year (805,000 ft^2 *1.08 ft), or 6,503,112 gallons/year (869,400 ft^3 * 7.48 gal/ft^3). The recharge in gallons per day (gpd) is 6,503,112 gallons/year (1 year/365 days), or 17,800 gpd.*

Response 2 ***2.8 ft/day hydraulic conductivity*** *- The reference of 0.024 ft/day for hydraulic conductivity is not mentioned in the CAR. The CAR references an average hydraulic conductivity of 15.7 ft/day for non-limestone sediments. The range of hydraulic conductivities from onsite slug tests for non-limestone wells used in the CAR is 0.06 ft/day to 62.7 ft/day. The value of 2.8 ft/day is an average of the slug tests excluding well MW-E (62.7 ft/day), which may be completed in the limestone. Using the value of 2.8 ft/day, the mounding condition of July 1994 (when the percolation pond was operating) is mimiced in the model. The hydraulic conductivity of 2.8 ft/day is within the range of values reported onsite. If the permeability of the unconsolidated sediments (on a sitewide scale) were really significantly lower, groundwater mounding in the surficial wells below the percolation ponds would be much greater in magnitude than that actually observed.*

K = 1.09 ft/day
won't change
model significantly
ASA

0.01 leakance value *- The leakance value of 0.01 per day refers to the amount of vertical leakage between the model layers (in ft^3 per day) that will occur across a one ft^2 area do to a 1 ft head difference between the model layers. The value of 0.01 per day is based on a vertical hydraulic conductivity of approximately 0.5 ft/day and a thickness of 50 ft for unconsolidated layered sediments (0.5/50 = 0.01). Horizontal permeability is typically modeled to be between 3 and 10 times greater than the vertical permeability. In this case, the horizontal permeability is 5.6 times the vertical permeability (2.8/0.5 = 5.6). The aquifer is semi-confined to unconfined. Typical leakances for a semi-confined aquifer range from 0.001 to 1. The leakance value of 0.01 is within the acceptable range.*

280,000 ft^2 /day transmissivity for the limestone *- The transmissivity of the limestone unit underlying the unconsolidated sediments is known to be high in this area. Fretwell (1983) reports transmissivities in the Floridan aquifer ranging from 90,000 to 2,000,000 ft^2 per day in western Citrus County. The transmissivity in the model was 280,000 ft^2/day. The slug test for run 2 on the limestone well MW-D was 800 ft/day. The limestone thickness is 350 ft in the model. Transmissivity = 880 ft/day * 350 ft = 280,000 ft^2 /day.*

Comment 3 Were all input parameters descried in the text of this report? If not, please provide a list of all input parameters and a discussion on their origin. Please describe how two models were calibrated. Did the solute transport account for current sodium concentrations in the groundwater at 260 mg/l in monitoring well MW-6?

Response 3 *A table of input parameters and explanations for each value is provided below in Attachment 1. Calibration in the strictest sense of the word is not possible with the data available. However, there are indications that the model provides a reasonable approximation of the interactions between the leachate percolation system and the aquifer system. The mounding of the water table beneath the percolation ponds as observed at monitoring wells MW-4, MW-5, and MW-6 is reasonably well approximated by the models and serves as a psuedo-calibration.*

Current Sodium concentrations of 260 mg/L at MW-6 are reasonably well predicted by a fictitious well placed in the unconsolidated model layer (layer 1) at the position of MW-6. A graph of sodium concentration Vs simulation time at this position is provided as attachment 2. It indicates that with a 30,000 gpd leachate discharge rate, sodium concentrations at MW-6 would reach 270 mg/L after approximately 0.6 years. With a discharge rate of 6,000 gpd, sodium concentrations at MW-6 would reach 270 mg/L after approximately 1.8 years.

Comment 4 In previous discussions concerning the conceptual model, it was mentioned that once the landfill closes, the concentration of solutes is expected to increase, while the volume of leachate generated will decrease. Please describe how this effect was included in the models, or why it was not included in the models.

Response 4 *After the landfill closes, the resultant volume and concentration is difficult to predict. Reliable data to estimate the changes in leachate volume and concentration are not available. The model was never intended to predict the concentration of solutes after closure. It was always intended to run the model for 20 years, the period of operation. The FDEP approved the proposed solute transport model study in a letter dated October 24, 1995, referencing Attachment 3 which states that solute transport will be simulated for up to 20 years. Also, it was agreed at the meeting to present the solute transport model approach on December 20, 1995 to run the model for 20 years. The model was run using two scenarios derived from existing operating data. One scenario uses a high volume and low concentration and the other uses a low volume and high concentration. This method alllowed for changes in leachate volume and concentration.*

Comment 5 The landfill will be treating landfill leachate and monitoring groundwater for a minimum of 30 years after the site is certified closed. What would the sodium and chloride concentrations be at this time?

Response 5 *The curves generated in Figure 10 and Appendix C-3 (Technical Memorandum, February 6, 1996) can be extrapolated to 50 years. The sodium concentration is estimated to be in the range of 4.8 to 12 mg/l in the upper model layer after 50 years, however, this is only an extrapolation. The model was not designed to predict the concentrations after 50 years.*

Sincerely,

CH2M HILL

Martin J. Clasen, P.G.

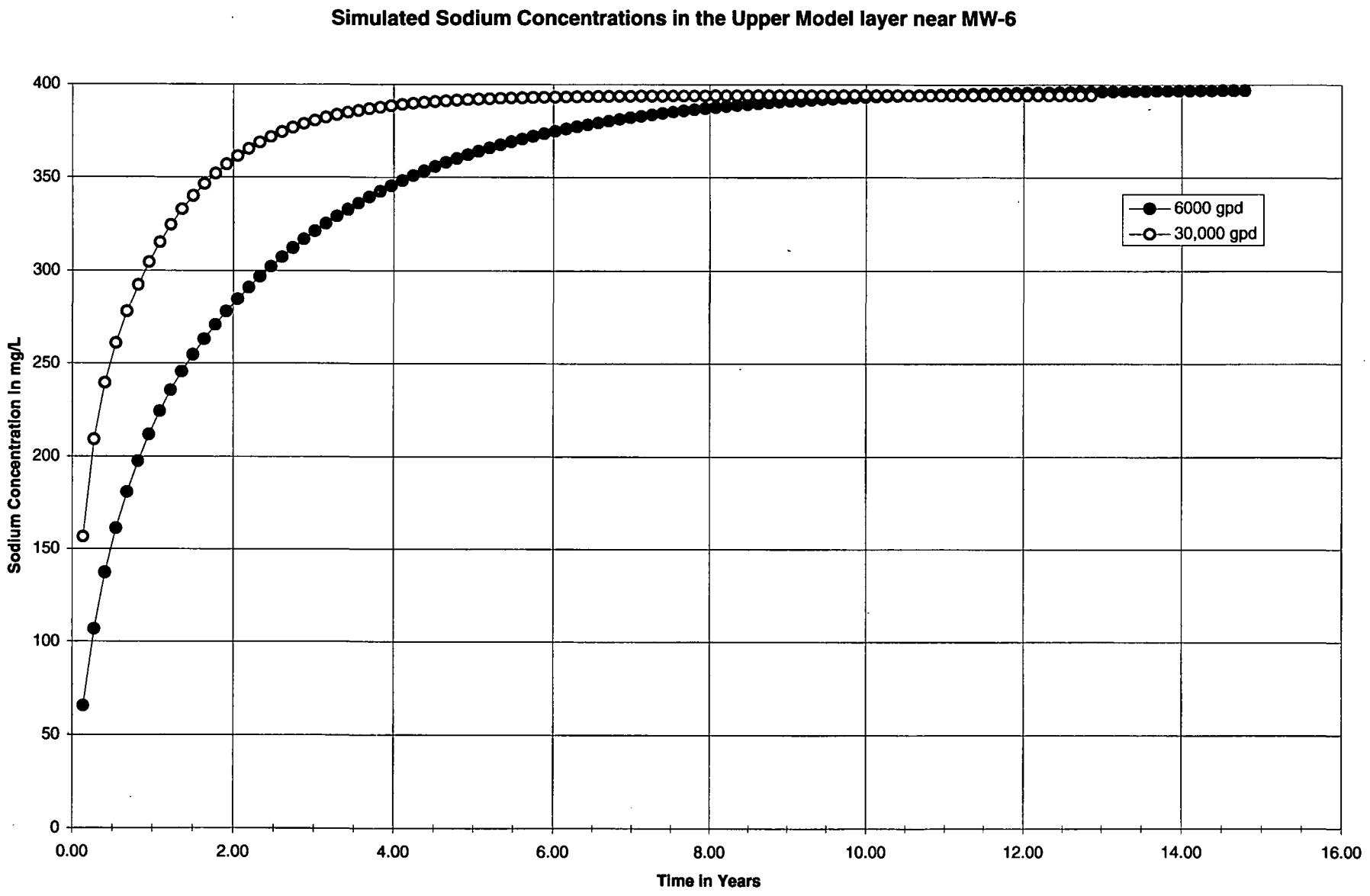
DOCUMENT3

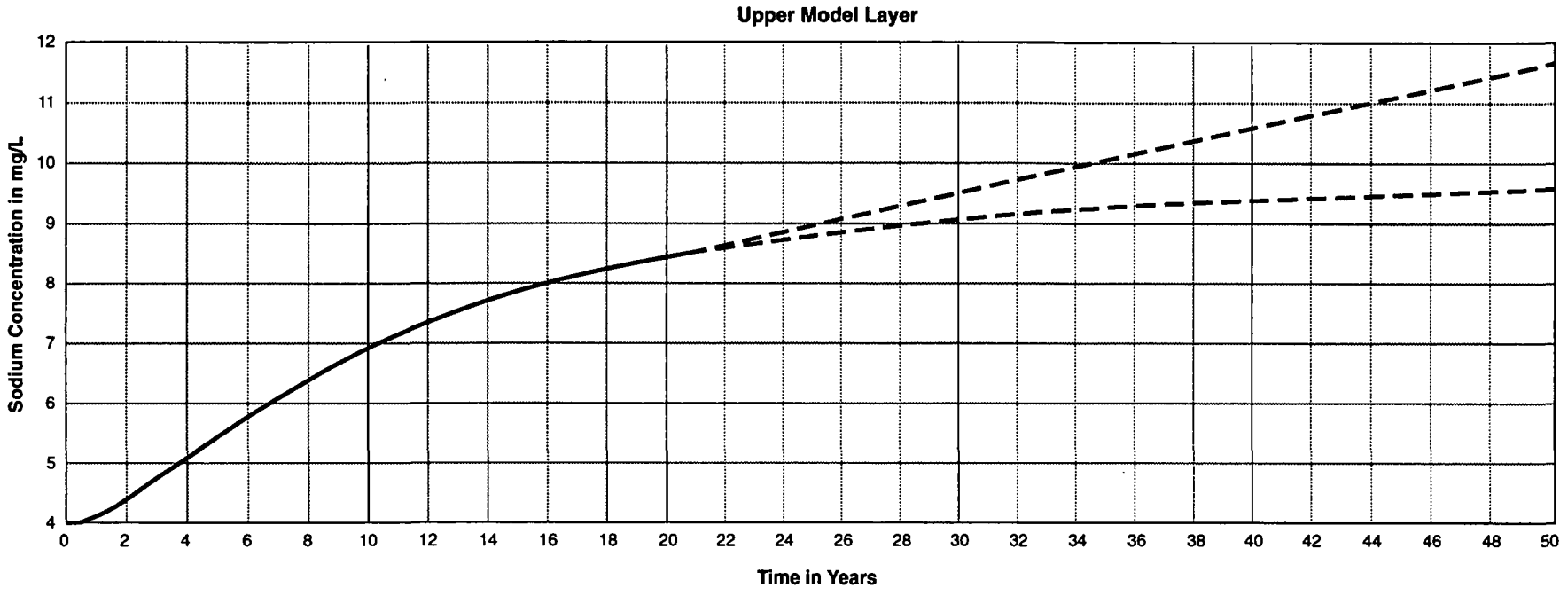
Susan Metcalfe/Citrus County
Steve Roberti/GNV

Attachment 1. Abbreviated Model Input.

Input	Value(s) Used	Explanation
Modflow Model:		
layer 1 hydraulic conductivity	2.8 ft/day	See text, response no. 2, within range of onsite slug tests
layer 1 bottom elevation	-50 ft msl	average elevation in area of perc pond (see Fig. 2 in 2-6-95 TM)
water table elevation, unstressed	+ 4ft to +7 ft msl across site	onsite water table maps
layer 2 transmissivity	280,000 ft^2/day	See text, response no. 2, onsite slug test value * aquifer thickness
Leakance between layers	0.01 day^{-1}	See text, response no. 2, typical for semi-confined aquifers
regional gradient	.00095 ft/ft west	based on SWFWMD maps and onsite measurements. Simulated using constant head boundary cells
storage coefficients	not used	steady state simulations
MT3D Model:		
layer 1 thickness	water table to -50 ft. msl	average elevation in area of perc pond
layer 1 porosity	0.26	typical for unconsolidated formations
layer 1 longitudinal dispersivity	15 ft.	values between 10 and 100 ft typically used for models
layer 1 transverse dispersivity	3 ft	values usually 10% to 40% of longitudinal used for models
layer 2 thickness	350 ft.	based on most productive part of upper Floridan aquifer
layer 2 porosity	0.08	typical for hard, fractured limestone
layer 2 longitudinal dispersivity	30 ft.	flow is more dispersive in fractured rock
layer 2 transverse dispersivity	6 ft.	values usually 10% to 40% of longitudinal used for models
Retardation factor	not used	Retardation of sodium is probable but not quantified in this model.
Other parameters: See Technical Memorandum of February 6, 1996		

Attachment 2





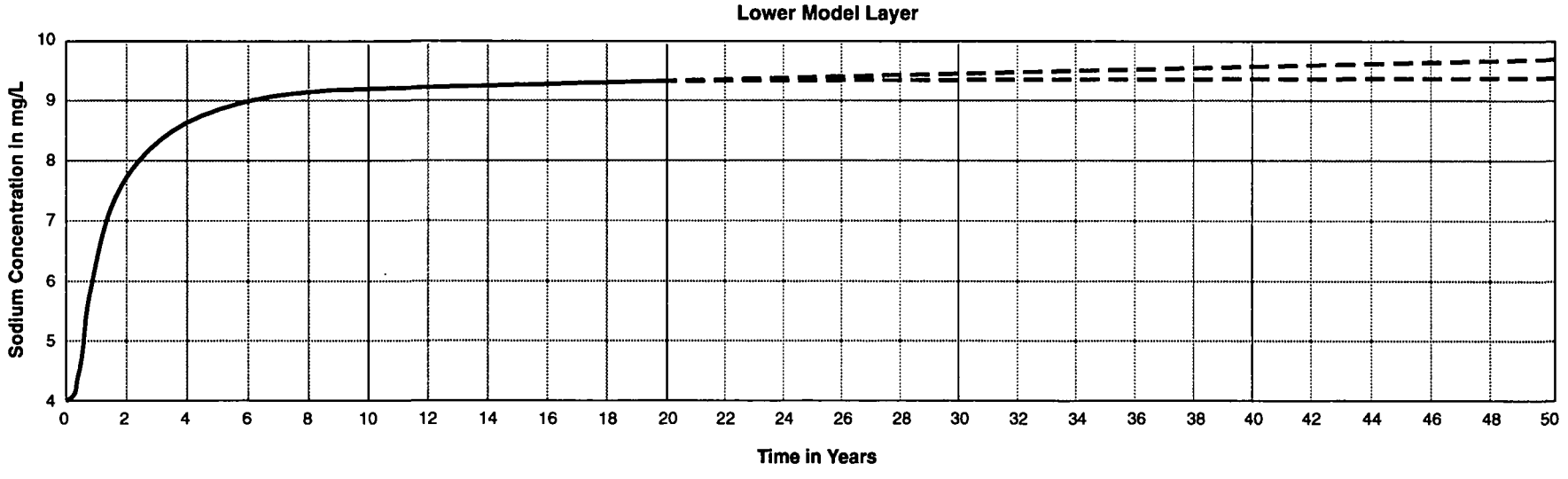
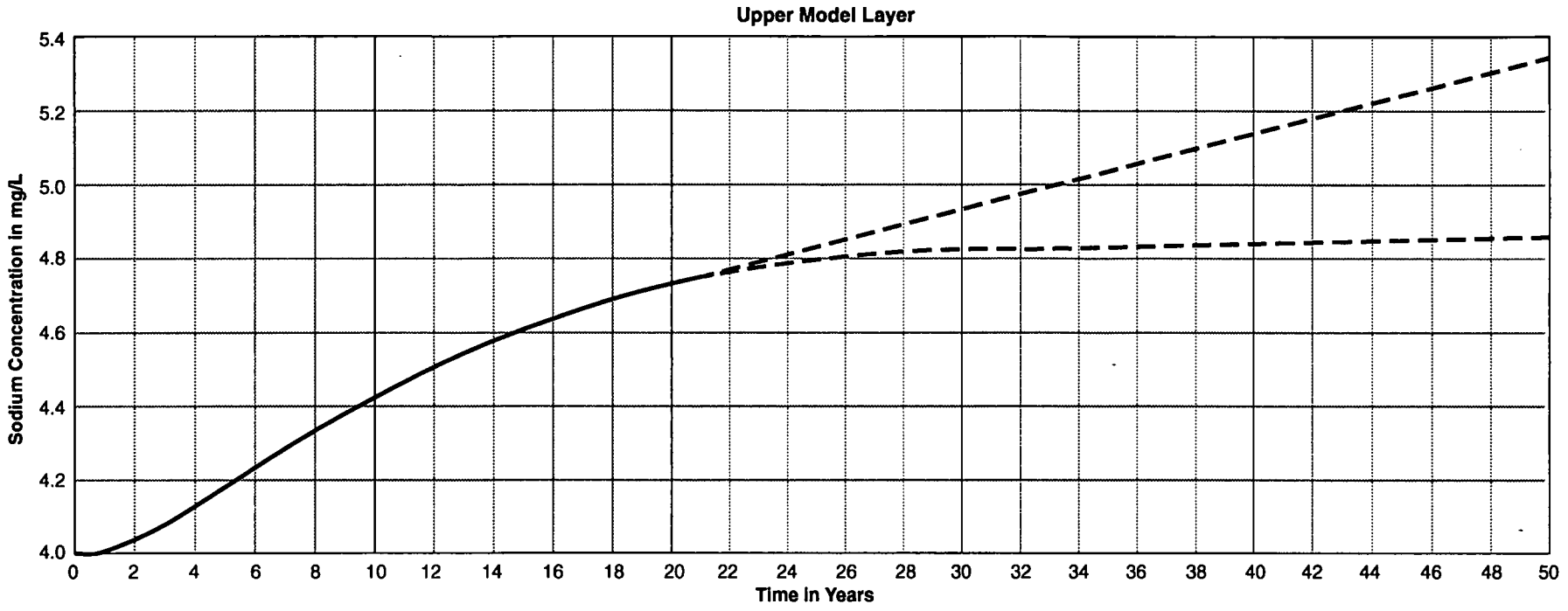
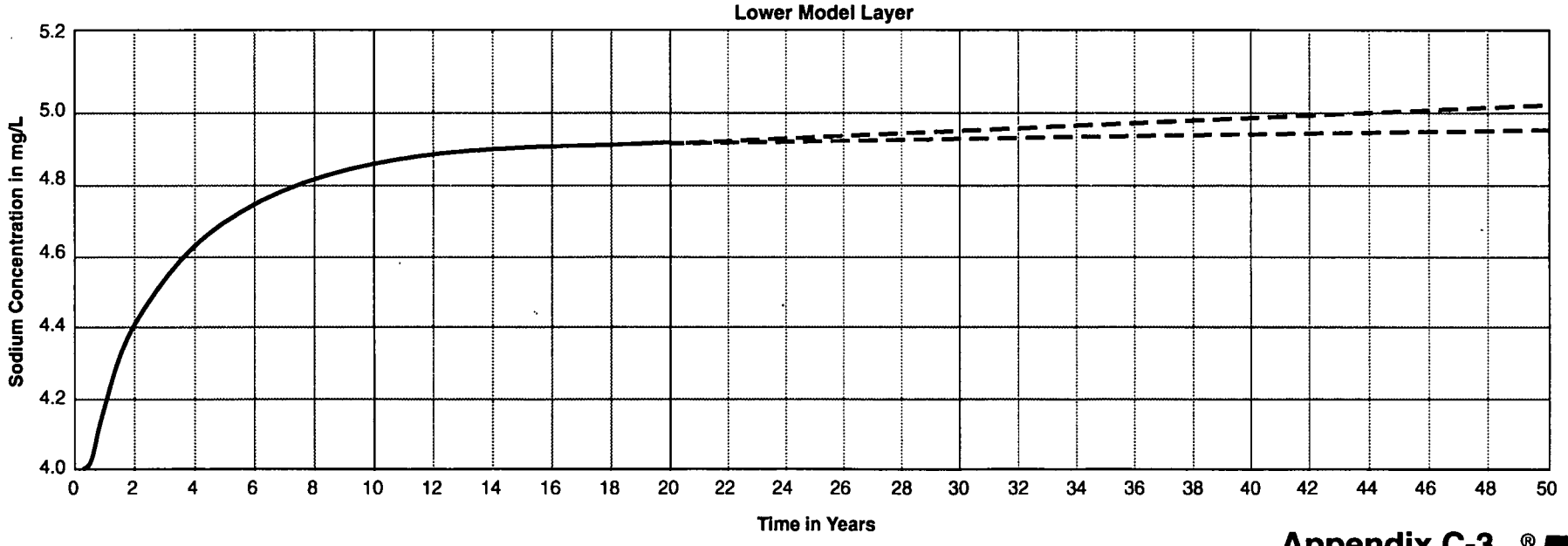


FIGURE 10
Simulated Sodium Concentration at the Site Boundary
Leachate Percolation Rate: 30,000 GPD

CH2M HILL





Appendix C-3

Simulated Sodium Concentrations at the Downgradient Site Boundary
Leachate Percolation Rate: 6,000 GPD

CH2M HILL

CH2M HILL

Engineers
Planners
Economists
Scientists

June 12, 1996

Ms. Allison Amram, P.G.
Solid Waste Section
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

Dear Ms. Amram:

Subject: Certification of Sodium Transport Modeling for the Citrus County Central Landfill by a Professional Geologist

This letter certifies that the Technical Memorandum "Computer Simulation of Solute Concentrations in Groundwater at the Citrus County Central Landfill" dated February 6, 1996, was prepared under the direct supervision of a professional geologist, Martin J. Clasen, P.G. No. 27.

Sincerely,

CH2M HILL

Martin J. Clasen

Martin J. Clasen
P.G.

TPA/DOCUMENT2

Tampa Office
4350 W. Cypress Street, Suite 600, Tampa, FL 33607-4155
Mailing address: P.O. Box 21647, Tampa, FL 33622-1647
813 874-0777
Fax No. 813 874-3056

Transmit Confirmation Report

No.	:	005
Receiver	:	8-1-407-839-5901
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Jul 25 96 14:34
Time	:	00'56
Mode	:	Fine
Pages	:	01
Result	:	OK

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date: 7/24/96

Number of pages including cover sheet: 1

To: TAWNY OLORE
- ELIZ MUTH -

Phone: (407) 4230030
Fax phone: (407) 8395901
CC:

From: KIM FORD

Phone: (813) 744-6100 x 382
Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☐ For your review ☑ Reply ASAP ☐ Please comment

TAWNY — CITRUS RENEWAL —
I NEED TO SEE THE NEW TABLE OF CONTENTS & EACH NEW APPENDIX TO AVOID EDITS ON THE FINAL SUBMITTAL
ALSO REVISED ① COVER OF DOCUMENT, ② INSIDE PAGE, & ③ COVER FOR APPENDIX B TO INCLUDE PHASES 1 & 1A
ALSO WHY DID I GET 2 HHWCC DOCUMENTS? WHICH ONE IS APPENDIX M?
I FOUND SOME EDITS NEEDED IN THE DRAFTS YOU SENT SO YOU CAN CALL ME TO DISCUSS.
THX KF

CH2M HILL TRANSMITTAL

TO: FDEP - Tampa
3804 Coconut Palm Drive
Tampa, FL 33619

FROM: Tawny Olore, TPA
225 East Robinson Street
Suite 405
Orlando, Florida 32801

ATTN: Mr. Kim Ford

DATE: July 18, 1996

RECEIVED
JUL 19 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

RE: Citrus County Central Landfill

PROJECT NUMBER: 130308

WE ARE SENDING YOU:

ATTACHED | UNDER SEPARATE COVER VIA

SHOP DRAWINGS | DOCUMENTS | TRACINGS

PRINTS | SPECIFICATIONS | CATALOGS

COPY OF LETTER | ♦ OTHER: Household Hazardous Waste Operations Plan and Executive Summary

QUANTITY	DESCRIPTION
1	Site Operational Guidelines
1	Facility Standards
1	Executive Summary

IF MATERIAL RECEIVED IS NOT AS LISTED, PLEASE NOTIFY US AT ONCE

REMARKS:

Kim: Please call Susan Metcalfe with changes to the Executive Summary and Household Hazardous Waste Operations Plan

COPY TO:

Susan Metcalfe, Citrus County

225 East Robinson Street
Suite 405
Orlando, Florida 32801 **Voice: 407-423-0030** **FAX: 407-839-5901**

RECEIVED
JUL 19 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

SITE OPERATIONAL GUIDELINES

for the

HAZARDOUS WASTE COLLECTION AND STORAGE FACILITY

located at the

Citrus County Central Landfill

230 West Gulf-to-Lake Highway

Lecanto, Florida

prepared by the

Department of Public Safety
Hazardous Material Section

July, 1996

RECEIVED
JUL 19 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

FACILITY STANDARDS

for the

CITRUS COUNTY

HAZARDOUS WASTE COLLECTION AND STORAGE FACILITY

located at the

Citrus County Central Landfill

230 West Gulf to Lake Highway

Lecanto, Fl

prepared by

Department of Public Works
Division of Solid Waste Management

July, 1996

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 7/18/96

Time 11:45

Subject Draft operations permit

Permit No.

County Citrus

M Susie Metcalfe

Telephone No. 352/746-5000

Representing Citrus Co - Solid Waste

[X] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

- Leachate sampling point - master lift station is where they can 1st sample

- Acetone in gw - did not show up the following quarter (just submitted report)

- She asked what the status of sodium transport model is - I have not received any further info from Citrus or Steve Roberti

(continue on another sheet, if necessary)

Signature Allison Amram

Title PG1

PA-01
1/96
pap

Board of County Commissioners

Department of Public Works

Bob 8-6-96

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

July 9, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

RECEIVED
JUL 12 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

Re: Citrus County Central Landfill
Permit No. SO09-187229

Dear Mr. Ford:

As you requested in a phone conversation yesterday, I am enclosing photocopies of the drawings for the shelter to be constructed over the household hazardous waste storage building at our site. The technical specifications pertinent to the structure itself are also enclosed. Please let me know if you need additional information.

Yours truly,

Susan J Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

silt barriers will be an acceptable means of control. Payment for erosion control work shall be considered incidental to the project work.

SP.13.0 CLEARING AND GRUBBING

The work specified in this section shall consist of all clearing, grubbing and fine grading within the limits of the building foundations, as necessary to construct the building subgrade as shown in the plans.

Payment for clearing & grubbing and fine grading work shall be considered incidental to the project work.

SP 14.0 PRE-ENGINEERED BUILDING MATERIALS

The work specified in this section consists of designing and providing, all materials for the proposed building or approved equal, including provision of construction plans and specifications prepared, signed, and sealed by an engineer registered in Florida. The materials shall includle the anchor bolts for the building.

The northeast end of the building shall be open and free of all obstructions, including bracing, to allow equipment access to the building. The building shall be open with no doors or siding, or insulation. Approximately fifteen (15) signed and sealed sets of plans will be required to be provided for review by the County and transmittal to other reviewing agencies. The design, plans, and specifications, shall be subject to review and approval by the Citrus County Dept. of Public Works and the construction, methods, equipment, and materials shall conform to the requirements of the Citrus County Building Department, and/or the Standard Building Code, and other applicable Codes.

Payment for the pre-engineered building, including all engineering and anchor bolts, shall be made for the quantity required, measured per each at the price bid for the item "Pre-engineered Building and Anchor Bolts, Complete Including Engineering" in the bid form, which price and payment shall be full compensation for all technical and engineering services, and furnishing and installing all labor, materials, equipment, and all else incidental therefor and necessary to complete the work.

The County shall issue a Purchase Order to the building manufacturer upon request by the Contractor for the building components. Upon delivery to the site, payment for the building components will be made directly to the building manufacturer. Thus the direct sale of the building components to Citrus County shall be tax exempt.

SP 14.1 BUILDING ERECTION

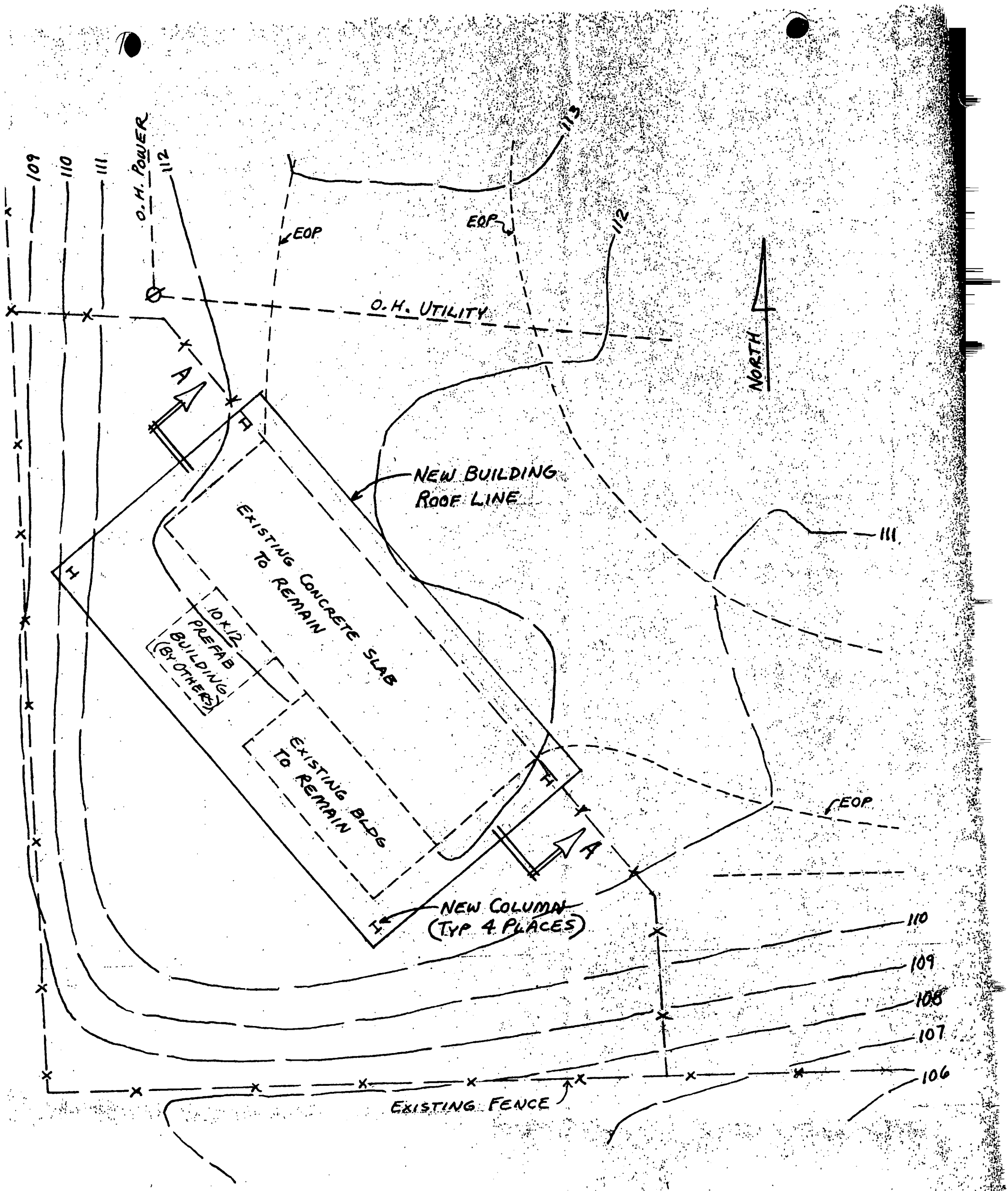
The Work specified in this section consists of properly installing the Pre-Engineered Building as shown in the plans, and required in the specifications. The Contractor shall place the anchor bolts for the building and shall coordinate placement with the foundation work. It shall be the sole responsibility of the Contractor to assure the correct and proper placement of anchor bolts for the building.

Payment for the building erection, including placement of anchor bolts and building permit services shall be made for the quantity required, measured per each at the lump sum price bid for the item "Building Erection" in the Bid Form, which price and payment shall be full compensation for all technical services, and furnishing and installing all labor, materials, equipment, and all else incidental therefore and necessary to complete the Work.

SP. 15.0 PRE-ENGINEERED CONCRETE FOUNDATION, AND BUILDING ANCHORAGE FOR BUILDING

The work specified in this section consists of designing, providing, and properly installing a pre-engineered concrete foundation, and building anchorage system for the specific building proposed to be installed under the associated building bid item, including provision for construction plans prepared, signed, and sealed by a geotechnical, structural, or other appropriate engineer registered in Florida as appropriate to the item. Approximately fifteen (15) signed and sealed sets of plans will be required to be provided for review by the Citrus County Department of Public Works and to other reviewing agencies. The design plans and specifications shall be subject to review and approval by the Citrus County Dept. of Public works, and the construction methods, equipment and materials and shall conform to the requirements of the Citrus County Building Department, and/or the Standard Building Code, and other applicable Codes.

Payment for the pre-engineered concrete foundation, and building anchorage system for the building, including all engineering services, shall be made for the quantity required, measured per each, at the price bid for the item "Pre-engineered Concrete Foundation and Anchoring System Complete Including Engineering" in the bid form, which price and payment shall be full compensation for all technical and engineering services, and furnishing and installing all labor, materials, equipment, and all else incidental therefor and necessary to complete the work.

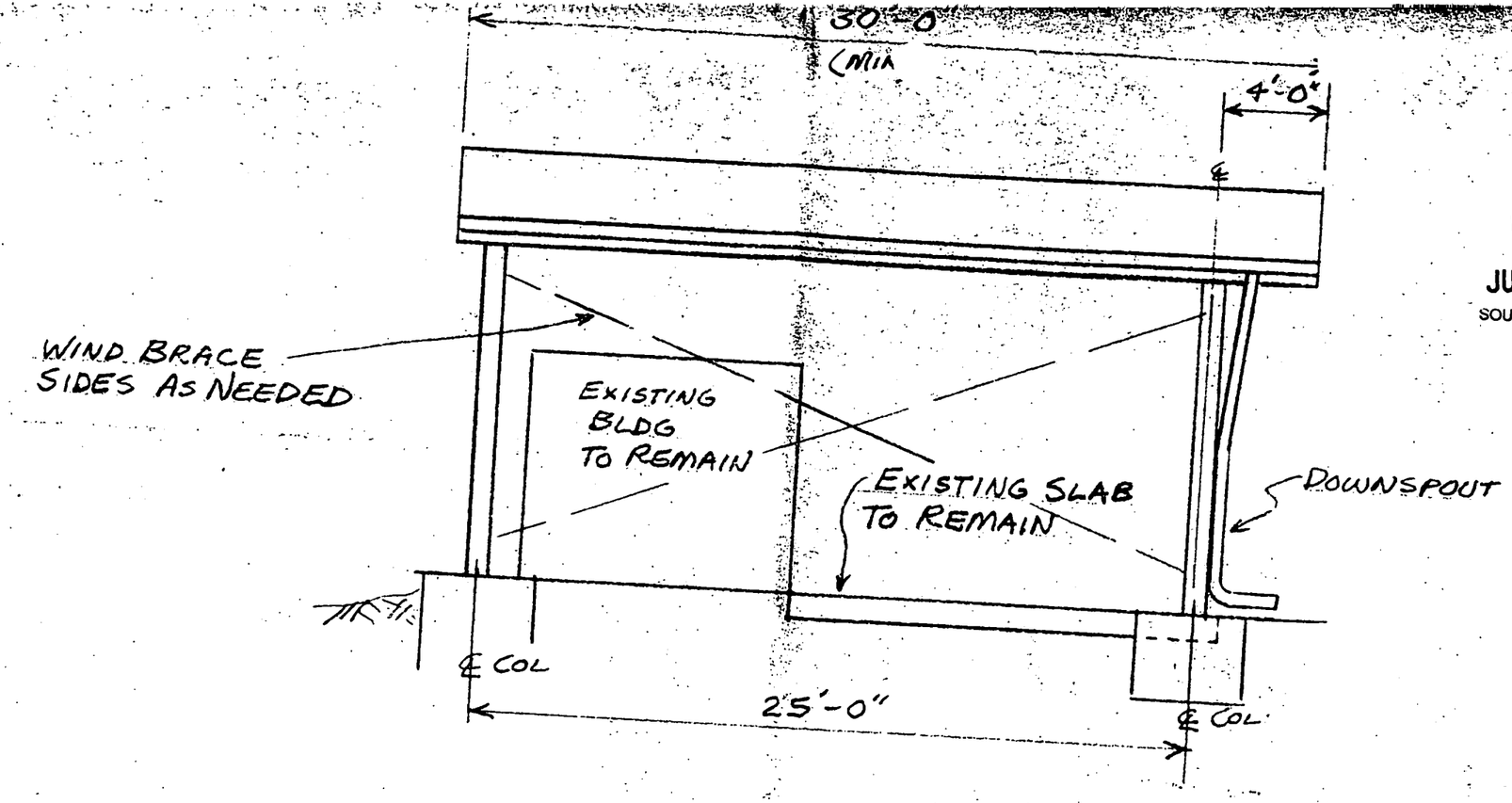


PLAN

0 10 20

SCALE: IN FEET

D.E.P.
JUL 12 1996
SOUTHWEST DISTRICT
TAMPA



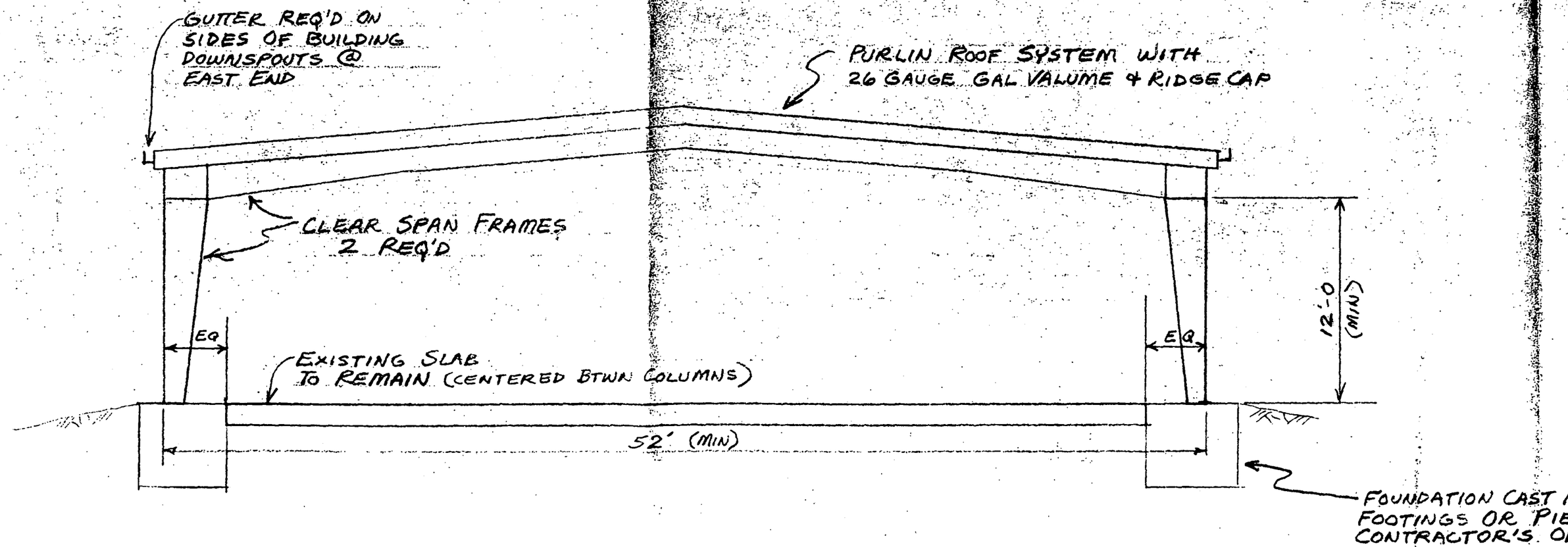
SOUTH ELEVATION

NTS

D.E.P.
JUL 12 1996
SOUTHWEST D...
TAMPA

HAZ

D.E.P.
JUL 12 1996
SOUTHWEST DISTRICT
TAMPA



SECTION A-A

NTS

RECEIVED
JUL 12 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 7/8/96

Time 10:50

Subject Canopy & ops plan

Permit No.

County Citrus

M Susan Metcalfe

Telephone No. (352) 746-5003

Representing Citrus

[ ] Phoned Me [✓] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

I asked for the HHWCC canopy design. S.M. said she will send specs & I requested a drawing also. We discussed that I'd like a ops plan. I suggested she send a draft of the part significantly revised before printing all copies. S.M. said she will let me know about ops plan this week.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/93
hjs

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

Ms. Susan J. Metcalfe, P.G., Director
Citrus County Solid Waste Division
PO Box 340
Lecanto, Fl. 34460-0340

June 26, 1996

RE: Citrus County Landfill Financial Assurance Cost Estimates
Permit Nos.: SO09-187229 and SF09-211030, Citrus County

Dear Ms. Metcalfe:

This letter is to acknowledge receipt of the additional information dated June 7, 1996 (received June 10, 1996), submitted in support of the cost estimates for long-term care of the Citrus County Landfill old Closed 60-acre portion.

Pursuant to FAC 62-701.610(6), if only a portion of the landfill has been closed, the long-term care period will begin upon the closing of the entire landfill, unless the portion which has been closed can be monitored and maintained separately from the rest of the landfill. Since the old closed 60-acre portion is not monitored separately, for the purposes of the financial assurance requirements of FAC 62-701.630, the Department does not consider that the long-term care period has begun. However, please be reminded that pursuant to FAC 62-701.630(5)(d)2. owners or operators of government-owned landfills are only required to deposit sufficient funds to cover the following year's long-term care costs (after the long-term care period has begun) for the closed portions of the site. Please contact Mr. Fred Wick at (904) 488-0300 for more information concerning the required funding.

The following cost estimates are **APPROVED for 1996:**

	Acreage	Closure	Long-term care
Phase 1 & 1A August 31, 1995	18.3 acres	$2,032,751	$311,146/yr x 30 years $9,334,380 total
Closed 60-Acre June 7, 1996	49.6 acres	N/A	$43,236/yr x 30 years $1,297,080 total

Since the mechanism used for the financial assurance is an escrow account, the next annual update (revised or inflation-adjusted) estimates is due no later than September 1, 1997.

If you have any questions, you may contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, E.I.
Solid Waste Section
Division of Waste Management

sjp
cc: Gary Kuhl, P.E., Director, Citrus Co. Dept. of Public Works, PO Box 340, Lecanto, Fl. 34461
R.J. Bruner III, P.E., CH2M Hill, 3011 SW Williston Road, Gainesville, Fl. 32608-3928
Fred Wick, FDEP, Tallahassee, w/attachment
RB Robert Butera, P.E., FDEP Tampa
Steve Morgan, FDEP Tampa
Kim Ford, P.E., FDEP Tampa

Board of County Commissioners

Department of Public Works

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, FL 34460-0340

RECEIVED
JUN 24 1996
Protection
SOUTHWEST DISTRICT
BY

June 17, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Fl 33619

RE: Citrus County Central Landfill
Permit No. SO09-187229

Dear Mr. Ford:

According to conditions of the referenced permit, we are required to report instances in which equipment or facilities may not be operating according to the permit. The following have occurred recently.

On Friday, June 7, an equipment operator working for the leachate tank contractor broke a leachate line while uncovering it to replace faulty valves. The total loss was approximately 100 gallons. The liquid that did not soak into the excavations immediately was pumped into the secondary containment and then into the holding tank.

On Thursday, June 13, a County crew which was installing the contaminated stormwater line, cut into the leachate line before it was flushed with water and depressurized. The total liquid lost was approximately 200 gallons. The location was near the north edge of the lined area, most of the liquid soaked in on the lined side; a small amount may have soaked in on the north side of the isolation berm.

On Monday, June 17, 1996 piping at both the stormwater lift station and the Phase 1A leachate lift station was observed to be damaged. Because the break occurred above the check valve, the leachate line drained, releasing approximately 200 gallons of leachate. It is expected that piping at both will be replaced within 2 days.

Please let me know if you have any questions.

Yours truly,

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

KF
FILE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/19/96

Time 3:50 P.M.

Subject HHW Handling Procedures

Permit No. —

County Citrus

Mr. Randy Messer

Telephone No.

Representing Citrus County Code Enforcement

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

Requested procedures for handling HHW in Citrus County. Only collect one day/mo. @ CF - Solid Waste has key to HHW facility. Randy has no staff to visit the landfill daily to remove HHW from convenience drop-off center to HHW storage facility. He agreed that it would be a quick and painless task for landfill staff to check daily and remove to HHW storage facility.

(continue on another sheet, if necessary)

Signature Robert J. Butler

Title P.E. III

PA-01
1/93
hjs

KBF

Board of County Commissioners

Department of Public Works

JUN 12 1996

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

June 7, 1996

Danielle Nichols
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

Re: Citrus County Central Landfill
Permit No. SO09-187229

Dear Ms. Nichols:

The items you described in your letter of May 23 which were noted during the site inspection on May 14 have been addressed. The berm on the south side of Phase 1 has had litter removed in areas which will remain throughout this rainy season. For areas that will flow directly to the gutter system, the berm has been removed and intermediate cover has been placed. The leachate seep noted at the culvert on the centerline stormwater ditch has been stopped by sealing the swale liner to the culvert. In addition, the recently graded top segment of the north slope has been seeded and areas draining to the edge gutter will have sod placed at the edge to reduce erosion.

I believe that all deficiencies noted during the inspection have been remedied.

Yours truly,

Susan J Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public WorksYours truly,

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

DATE: 6/11/96

TIME: 2:50

SUBJECT: Citrus pharmacy

A T T E N D E E S

Name	Affiliation	Telephone
Kim Ford	DEP	744 6100 x 382
Robert Bunera	FDEP	" x 451
Allison Amram	"	" x 336
John Wood	CH2M Hill	954-426-6112
Susan Metcalfe	Citrus County	352-746-5000

1/2

CLIENT MEETING

2:45 TO DISCUSS DRAFT
SO 21C PERMITS

DISCUSSED SPECIFIC CONDITIONS FOR OPERATION PERMIT AND AGREED TO EDIT
AS DISCRIBED in ALLISON'S NOTES AND
in REVISED DRAFT

DISCUSSED SPECIFIC CONDITIONS
SM - DEADLINE FOR CONSTRUCTION IS OK
(SP COND # 1)
KF - AGREED TO CHANGE #7 C.1.d
TO CORRECT SUBBASE JUST PRIOR TO
LINER INSTALLATION
BB - # 12 & 13 WILL REFERENCE
SPECIFIC PERMIT #
SPEC COND # 15 - ALL DECIDED TO
ALLOW 3 WORKING DAYS TO CORRECT
STORM WATER SWALES.

WE DISCUSSED REASON WHY PERMIT RENEWAL
TOOK 1 YEAR
JOB ASKED FOR LETTER FROM SWITZERLAND
ON DELAYS - REASONS & POSSIBLE SOLUTIONS

J WOOD POINTED OUT 4 PERMITS
(2 ISSUED) IN THAT 1 YEAR
S M. & J.W POINTED OUT
INCONSISTENCY BETWEEN DISTRICTS
(SW DISTRICT REQUIRES MORE DETAIL)
KF POINTED OUT THAT DEP
RESIDENT ENGINEER MUST LOOK OUT
FOR THE INTEREST OF THE
SUPERVISORS & MANAGERS
JW SAID CONFERENCE CALLS WERE
VERY HELPFUL AND PREFERRED
RATHER THAT LETTERS
KF SAID NO STANDARD PERMIT LANGUAGE
OR FORMAT FOR ALL DISTRICTS
BOB REQUESTED SUMMARY LETTER
GO TO DICK G AND SAID
INCONSISTENCY IS A BIG ISSUE
JW SAID 2 CHANGE ORDERS
WERE NECESSARY FOR CONSULTANT
SERVICES - 1. SEQ DEFIN DRAWINGS,
AND 2. ALT PROCEDURE SUBMITTALS.

6/11/96

Citrus meeting p1/4

SO permit. - reviewed specific conditions

expiration date: 12/1/98. Will stand.

#3 S: What else needed for sequence of filling?
K- Conveyances - refer to a previous list for Phase I

#4 6 - Wants to switch 60 day to 180 day for permit renewal deadline.
J - Works out ok w/ their new filling sequence
S - 180 more realistic

#6.d. HHW open (attended) 1 day/month
- SW can't open door - only haz. mat. team has key.
- Don't have much HHW @ citizen drop-off - usu. remove to Admin Bldg
- Bob wants to discuss w/ Jan Kleman
- K - requested alt. language from Susie stating contingency plans when HHW appears @ citizen drop-off
6.d.4 - Latex paint - Bob concerned w/ public perception -- objective is to reuse/recycle, not disposed. Drying paint w/ depth in containers may form a crust, & then liquid would be going into the LF

Bob will talk w/ Jan K. & Randy (Citrus Hay Mat Coord) - Bob will let Susie know results of discussion. Kim still needs Appendix P.

#6.e.1 - Citrus does not allow mechanically-loaded (unloaded) vehicles @ citizen drop off.

#13 - add "knowingly"...accept Hay waste....

#14b - tarp use allowed by rule. Susie looking at alternative - 3 mil plastic - roll out 15' wide strip & put dirt in 4 rows to anchor plastic. DEP would like to see what the specifics of operation - it ~~a~~may not ~~that~~ need a permit mod.

#17a - Replacement pump for leachate - if > $1000 - Susie has to go to Co. Commissioners Board. No spare pump - yet - she hopes to get one. All lift stations have redundant pumps.

When modifying the SF permit - add 176 for replacement pump - remove pump if not functioning as designed (work on wording)

#17c (now d) - can't video Phase I -- lines & bends are too small. ~~Susie wants "video" removed. Kim will check on it.~~

#20 Gas remediation - will be addressing problems in structures immediately, but offsite concerns they won't know what their plans are w/in 7 days. I requested notification & schedule w/in 7 days, remedy in 60 days.

#21 - "shall prevent" stormwater from entering waste areas. S. Requested change to "shall minimize". "Repairs shall be initiated w/in 3 working days"

#18 Kim - mentioned installing gas vents by 10/15/96. Citrus can't meet that -- not budgeted until 10/1/96. Change to 1/15/97

#27 - Bob mentioned maintaining liner stakes.

#30. a. Citrus will draw a map for us.
b. No changes

#33

check w/ IW on in-house/QA testing

NO_3^- – testing accuracy 1-10 mg/l good
<1 not good

Susie will look @ comparisons >10 ?
& see if lab analysis tracks ~~&~~ in-house testing

Total P ≤1 mg/l – Move to quarterly?

"If in any 2 weeks.... specify pH, $CBOD_5$, COD, NO_3^-, Fecal....

#39 - I will add Tallahassee address for water quality monitoring

end operating permit conditions

AAman

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/10/96

Time 8:30

Subject Citrus Co Const Permits

Permit No. Pending

County Citrus

M Susan McTraute

Telephone No. (352) 746 5000

Representing Citrus County

[ ] Phoned Me [✓] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting I called to tell her that the draft construction permit was fax to her Friday (p.m.). Also we discussed operation permit issues & delays. She said she got the 2nd draft on Friday about noon. After she talked to Bob and told him that her comments were discussed and would be resolved in 2nd draft (which she had not received at the time) I explained I still can't issue the operation permit because I have not received the inspection/cleanup results, or the construction permit because I have not received the approval of alt. proc.

(continue on another sheet, if necessary)

Signature [illegible]

Title

PA-01
1/93
hjs

Ann

Allison & I
took care of S. Metcalfe
LSE comments on
1st draft that was
sent to her while you
were on vacation —
We resolved them
and need the comments
on 2nd draft sent
this AM. Sg Allison

Kim
6/1/96

Best Available Copy

Board of County Commissioners

Department of Public Works

Post Office Box 167, Lecanto, Florida 34460
(904) 746-4107 Fax (904) 746-1203

Reply To:

Div. Solid Waste Mgmt.
Susan J. Metcalfe, Director
904/746-5000
FAX: 904/527-1204

6/6/98

TIME: 1130

NO. PAGES: 4 including cover sheet

TO: Kim Ford + Allison Amram
FDEP - Tampa
813-744-6125

FROM: Susie Metcalfe
SWM

RE: comments on draft operating permit

MESSAGE: For your review before our 6/11 2PM meeting

Citrus County Central Landfill

Operating Plan - Contents

Executive Summary

1.0 Training and Certification
2.0 Standard Landfill Operations and Maintenance
3.0 Operating Records
4.0 Waste Records
5.0 Access Control
6.0 Waste Monitoring
7.0 Waste Handling Requirements
8.0 Leachate Management
9.0 Landfill Gas Management
10.0 Stormwater Management System Operations and Management
11.0 Equipment and Operation Features
12.0 All-weather and Other Access road
13.0 Recordkeeping

Appendices
Appendix A: Operator Training Forms
Appendix B: Phase 1A Filling Plan
Appendix C: Load Checking Program
Appendix D: Unauthorized Waste Training
Appendix E: Maintenance Summary Form
Appendix F: Agreements to Offsite Leachate Treatment and Discharge
Appendix G: October 27 submission
Appendix H: Leachate/Contaminated Stormwater Piping
Appendix I: Land Lease
Appendix J: Cleaning of Leachate Lines
Appendix K: temporary Transfer Stations
Appendix L: Phase 1 Fill Sequences
Appendix M: Gas Monitoring Plan
Appendix N: Citizens Drop-off Area
Appendix O: Access Road
Appendix P: Household Hazardous Waste
Appendix Q: Leachate Treatment Plant and Tank
Appendix R: Removal of Old Barn
Appendix S: HHW Canopy

COMMENTS AND QUESTIONS ON DRAFT OPERATING PERMIT

SC 2. We are submitting an outline of final submittal attached.

SC 3. What more are we expected to submit to get Phase 1A authorized for operation? What is the cost of application? When? – OPERATION PERMIT FOR BOTH PHASES.

SC 6. We currently remove freon, capacitors, and compressors from white goods. Is this considered processing? Our loader currently pushes scrap metal to the corner of the bin for space conservation. Is this considered volume reduction?

– No Permit – EXEMPT

We intend to use the generic HHW plan. Is this acceptable?

COMMERCIAL C/O GO TO HHW.

We would prefer that the description of the "citizen waste dropoff" and the recycling facilities be separated. Haulers and commercial customers are allowed to use the yard waste, white goods, fluorescent bulb and waste tire sections of the recycling facility

MUST BE A TRANSFER STA.

There is no onsite fuel storage except in a truck. – OK

SC 10. Filling sequence for Phase 1 will be as indicated on the attached outline.

SC 14. Tarps were previously authorized as alternate daily cover for use at this site. Although we are not using them at present, we wish to keep that open as an option. If a different style of ADC is to be used, we would expect to submit a permit modification request. – TARPS NEED NO MOD. Sec 62-701.500 (7)(c) 1.

SC 17. Need to add "treated and disposed onsite". Does this include both sites? – YES

MUST QUALIFY WITH APPROVAL BY THE DEPT.

SC 30. Please sketch this ZOD. The language is not clear.

SC 31. The master lift station will not be installed until Phase 1A is constructed. Until that time, we would like to sample from the leachate holding tank, the first mix point from which to get a representative composite sample. – OK

SC 33. The requirement for three consecutive months of offsite discharge for treated leachate is a financial burden because it really takes over four months to get authorization. We suggest one month instead; lab results have a two week turnaround under our contract, then submittal, review and approval take another two weeks. We have had the cost of both running the plant and hauling offsite for further treatment and disposal for over a year now.

Treatment has not been consistent – no assurance unless they can demonstrate trend of adequate treatment

Re-complete ... Find out what is wrong w/ system

see Jay

SC33.(cont) What is the consequence if any parameter on the annual or "prior to onsite discharge" Appendix II list is exceeded? Some parameters in App. II don't have regulatory levels. – Right.

Please clarify the "any two consecutive weeks" regulatory levels. The permit regulates only flow, pH, CBOD5, TSS, Nitrate and coliform. Are these the only parameters with regulatory levels?

SC 39. The attached groundwater monitoring report form lists the number as 600(11), while the text lists the number as 900(2). Which is correct number and are there any differences in the form?

ok

Is Tampa the only location for submittal? add SW-Tall.

Anna is making changes

Best Available Copy

Board of County Commissioners

Department of Public Works

Post Office Box 167, Lecanto, Florida 34460
(904) 746-4107 Fax (904) 746-1203

Reply To:

Div. Solid Waste Mgmt.
Susan J. Metcalfe, Director
904/746-5000
FAX: 904/527-1204

DATE: 6/6/96

TIME: 1130

NO. PAGES: 4 including cover sheet

TO: Kim Ford + Allison Amram
FDEP - Tampa
813-744-6125

FROM: Susie Metcalfe
SWM

RE: comments on draft operating permit

MESSAGE: For your review before our 6/11 2PM meeting

Citrus County Central Landfill

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Appendix S: HHW Canopy

COMMENTS AND QUESTIONS ON DRAFT OPERATING PERMIT

SC 2. We are submitting an outline of final submittal attached.

SC 3. What more are we expected to submit to get Phase 1A authorized for operation? What is the cost of application? When?

SC 6. We currently remove freon, capacitors, and compressors from white goods. Is this considered processing? Our loader currently pushes scrap metal to the corner of the bin for space conservation. Is this considered volume reduction?

We intend to use the generic HHW plan. Is this acceptable?

We would prefer that the description of the "citizen waste dropoff" and the recycling facilities be separated. Haulers and commercial customers are allowed to use the yard waste, white goods, fluorescent bulb and waste tire sections of the recycling facility

There is no onsite fuel storage except in a truck.

SC 10. Filling sequence for Phase 1 will be as indicated on the attached outline.

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SC 17. Need to add "treated and disposed onsite". Does this include both sites?

SC 30. Please sketch this ZOD. The language is not clear.

SC 31. The master lift station will not be installed until Phase 1A is constructed. Until that time, we would like to sample from the leachate holding tank, the first mix point from which to get a representative composite sample.

SC 33. The requirement for three consecutive months of offsite discharge for treated leachate is a financial burden because it really takes over four months to get authorization. We suggest one month instead; lab results have a two week turnaround under our contract, then submittal, review and approval take another two weeks. We have had the cost of both running the plant and hauling offsite for further treatment and disposal for over a year now.

SC33.(cont) What is the consequence if any parameter on the annual or "prior to onsite discharge" Appendix II list is exceeded? Some parameters in App. II don't have regulatory levels.

Please clarify the "any two consecutive weeks" regulatory levels. The permit regulates only flow, pH, CBOD5, TSS, Nitrate and coliform. Are these the only parameters with regulatory levels?

SC 39. The attached groundwater monitoring report form lists the number as 600(11), while the text lists the number as 900(2). Which is correct number and are there any differences in the form?

Is Tampa the only location for submittal?

SO permit file

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/6/96

Subject Draft SO permit conditions

Time 3:50

Permit No.

County Citrus

M Susie Metcalfe

Telephone No.

Representing Citrus County

[X] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

SC#30 - I asked Susie to draw a map w/ the ZOD - she will
#31 - ok to sample
#33 - Will keep leachate treatment for 3 consecutive, satisfactory months -- no records of consistent treatment

(continue on another sheet, if necessary)

Signature Allison Amram

Title PG1

PA-01
1/93
hjs

FOR FILE

** Transmit Conf.Report **

Jun 7 '96 8:39

---> 813525271204	
No.	0001
Mode	NORMAL
Time	7'23"
Pages	16 Page(s)
Result	O K

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

Date: 6/7/96

Number of pages including cover sheet: 16

To: SUSAN METCALFE

Phone: (352) 7465000

Fax phone: (352) 5271204/7461203

CC:

From: KIM FORD
ALLISON AMRAM

Phone: (813) 744-6100 382/336

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☑ For your review ☐ Reply ASAP ☐ Please comment

DRAFT OPERATION PERMIT
FOR YOUR COMMENTS

THX
KIM

PLS CALL WITH COMMENTS ASAP
THX
(IF NO PROBLEMS I WOULD LIKE TO
CANCEL THE SUNE 11 MEETING)

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

PERMITTEE
Citrus County
Board of County Commissioners
c/o Ms Susan Metcalfe, P.G.
Solid Waste Management
P. O. Box 340
Lecanto, FL 34460

PERMIT/CERTIFICATION
GMS ID No: 4009C00086
Permit No: **SO09-274381**
Date of Issue:
Expiration Date: **12/01/98**
County: Citrus
Lat/Long: 28°51'08"N
82°26'38"W
Sec/Town/Rge: 1/19S/21E
Project: Citrus County Central
Class I Landfill

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This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-330, 62-522, 62-550, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 80 acres), referred to as the Citrus County Central Class I Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste and leachate, near S.R. 44, 3 miles east of Lecanto, Citrus County, Florida.

1. Class I Landfill Disposal Facility

Replaces Permit No.: SO09-187229

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

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SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-550, 62-701 and 62-703, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of Phase 1 of the Class I landfill and related facilities in accordance with the reports, plans and other information as follows:

- Groundwater Monitoring Plan by Hydro Q dated April 1995 received July 3, 1995, and revised pages received September 19, 1995;
- October 20, 1995 Operation Permit Application and supporting information by CH2M Hill received October 27, 1995;
- June 1996 Operations Plan by CH2M Hill received June 20, 1996;
- and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** This permit does not authorize Phase 1A operation. Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification. Upon receipt and approval of a request for minor permit modification pursuant to F.A.C. 62-4.050(4)(q) to operate Phase 1A, including Certification of Construction Completion for Phase 1A and related supporting documents identified in the construction permit, and detailed drawings for the sequence of filling for Phase 1A, the expiration date of this permit may be extended to allow the operation of the Citrus County Central Landfill for 5 years from the date of issuance of this permit.

4. **Permit Renewal.** As required by F.A.C. 62-4.090(1), no later than **sixty (60) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Failure to comply with this condition may result in facility operation without a permit. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(3).

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated by the activities at this facility.

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SPECIFIC CONDITIONS:

6. **Special Wastes.** The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with F.A.C. 62-701.300(8), 62-701.520 and any other applicable Department rules, to protect the public safety, health and welfare.

a. White goods and scrap metal that are held for the purposes of recycling shall be held no longer than one hundred and eighty (180) days, and shall be stored in a manner so as to prevent the discharge of CFCs and other residuals which may cause air or groundwater pollution. Surface water shall be diverted away from all storage or holding areas.

b. All solid wastes, recovered materials or residues handled at the site shall be stored in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local or state regulations. Recovered resources which may be offered for sale shall comply with applicable regulations of all appropriate state agencies.

c. Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months.

d. The household hazardous waste collection/storage facility shall be operated in accordance with the Operations Plan, Appendix P, by CH2M Hill submitted on June 20, 1996, and as follows:

(1) Materials deposited at the Citizen Drop-off area shall be identified, and then relocated for storage within the containment area of the HHW Collection Center Facility at the end of each day.

(2) At least weekly, spillage at the Citizen Drop-off area and the HHW Collection Center Facility shall be removed and properly packaged for disposal. Each day, soils which have been contaminated by spills at the Citizen Drop-off area and HHW Collection Center Facility shall be removed and packaged for proper disposal.

(3) Liquids shall not be discharged outside of the containment structures of the Citizen Drop-off area and/or the HHW Collection Center.

(4) Containers having greater than one-half inch of liquid or semi-solid latex paint material shall not be air dried. Non-latex paints shall not be air dried.

(5) Materials shall be stored within containment areas at all times.

(6) The Citizen Drop-off area shall be inspected for unauthorized materials at least daily.

(7) Records on the quantities of HHW collected and removed for disposal shall be compiled monthly and maintained at the facility for Department review upon request.

e. The operation of the citizen waste dropoff facility shall comply with the following procedures:

(1) Only residential customers shall use the facilities, that is, no solid waste collectors or commercial customers will be allowed usage;

(2) An attendant shall be on duty when the facility is operating. Operating hours shall be posted, and fencing and gates shall be used to prevent unauthorized access when the facility is closed;

(3) Only roll-off containers and/or dumpsters shall be utilized for waste disposal. No compactors of any type shall be used; and

(4) All processable and non-processable solid waste, with the exception of recyclables, shall be removed from the site at least daily or when a container is full. At the close of business each day when no additional waste will be received all processable and non-processable waste shall be covered with a waterproof tarp until the facility is again receiving solid waste.

f. The Used Oil Collection Center shall comply with FAC Chapter 62-710 and 40 Code of Federal Regulations (CFR) 280 and 281, and all applicable requirements of Department rules. Discharges are not allowed and are subject to FAC Chapter 62-770 for cleanup.

7. **Landfill Operation Requirements.** The permittee shall operate this facility in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the June 1996 Operations Plan by CH2M Hill submitted on June 20, 1996.

8. **Operating Personnel.** As required by F.A.C. 62-701.500(1), at least one operator, trained in accordance with F.A.C. 62-703, shall be at the landfill at all times when the landfill receives waste.

9. **Operation Plan and Operating Record.** Each landfill owner or operator shall have an operational plan which meets the requirements of F.A.C. 62-701.500(2). A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. An operating record as required by F.A.C. 62-701.500(3) is part of the operations plan, and shall also be maintained at the site.

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10. **Method and Sequence of Filling.** The method and sequence of filling shall be in accordance with the June 1996 Operations Plans, Section 2 and Appendix B, by CH2M Hill submitted on June 20, 1996.

11. **Waste Records.** Waste quantity records shall be maintained as required by F.A.C. 62-701.500(4) and submitted **quarterly; by January 15th, April 15th, July 15th, and October 15th.**

12. **Control of Access.** Access to, and use of, the facility shall be controlled as required by F.A.C. 62-701.500(5).

13. **Monitoring of Waste.** Wastes shall be monitored as required by F.A.C. 62-701.500(6), including a load checking program and associated activities. The permittee shall not accept hazardous waste or any hazardous substance for disposal at this site. Hazardous waste is a waste identified in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with F.A.C. 62-701.300(4) and 62-701.500(6)(b).

The operating authority shall maintain a program which prohibits the disposal of bulk industrial wastes which operating personnel reasonably believe to either be or contain hazardous waste, without first obtaining a chemical analysis of the material showing the waste to be non-hazardous. The chemical analysis of any such material so placed in the landfill, along with the customer's name and date of disposal, shall be kept on file by the operating authority on-site.

14. **Waste Handling Requirements.** All solid waste disposed of in the Class I area shall be covered as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class I area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each working day.

b. Alternate initial cover materials shall be approved by the Department prior to use at the facility. For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin. Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in a six (6) inch compacted layer, may be used an initial cover within the bermed working area.

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c. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.

15. **Working Face.** As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate vehicles discharging waste and to minimize the exposed area. Interceptor berms shall be maintained around the active working area to prevent leachate runoff from the working face from entering the stormwater management system. Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

16. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed in accordance with F.A.C. 62-701.500(7)(g) and all applicable requirements of Department rules.

17. **Leachate Management.** Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8) and the June 1996 Operation Plan, Section 8, by CH2M Hill submitted Juen 20, 1996.

a. The leachate storage tanks shall be inspected as required by F.A.C. 62-701.400(6)(c). Each pump station shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and a replacement pump installed immediately. Documentation of all inspections shall be kept on file at the facility.

b. Leachate generation reports shall be compiled monthly and submitted to the Department as requested. Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, treated and disposed on-site, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch. Leachate discharge to areas outside of the geomembrane liner is a violation of Department rules.

c. **One hundred and eighty (180) days prior to permit expiration,** the entire leachate collection and removal system, force mains and gravity pipelines, shall be video inspected and pressure tested where possible to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired immediately. The results of the inspection and testing shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

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18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.400(10), and the June 1996 Operations Plan, Section 9, by CH2M Hill submitted on June 20, 1996. The results of quarterly monitoring shall be submitted by **January 15th, April 15th, July 15th** and **October 15th** each year.

19. **Gas Monitoring Locations.** The following gas monitoring locations shall be sampled **quarterly** for the Lower Explosive Limit (LEL) of methane, as described in F.A.C. Rule 62-701.400(10)(c).

Monitoring Point	Locations:
Active Landfill	GS-1S and GS-1E, see Figure 1
Closed 60-acre Landfill	See Figure 1
Scalehouse	See Figure 3

20. **Gas Remediation.** In the event that the Lower Explosive Limit (LEL) is greater than 25% inside structures both on or off of the landfill site, or greater than 100% at the property boundary, the owner shall submit to the Department, **within 7 days of detection,** a remediation plan detailing the nature and extent of the problem and the proposed remedy. The remedy shall be completed **within 60 days of detection** unless otherwise approved by the Department.

21. **Stormwater System Management.** Stormwater shall be managed as required by F.A.C. 62-701.500(10) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall prevent stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Conveyances not performing adequately shall be repaired immediately. Documentation of all inspections and repairs shall be kept on file at the facility.

22. **Recordkeeping.** Records shall be maintained as required by F.A.C. 62-701.500(13).

23. **Waste Burning.** Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.520(2). Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with F.A.C. 62-296.401(6). Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

24. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, at least **90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by F.A.C. 62-701.600(3).

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25. **Financial Assurance.** The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. 62-701.630. All costs for closure and long-term care shall be adjusted and submitted **annually, by September 1 each year,** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. The owner or operator shall control mosquitoes and rodents so as to protect the public health and welfare.

27. **Liner Location.** The top edge of the geomembrane liner shall be clearly flagged. Waste disposal and leachate runoff outside the geomembrane liner is prohibited.

28. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, gas monitoring system repairs, repair and maintenance of leachate collection and removal systems, and maintenance of the leachate storage and treatment facilities. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems, the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

29. **Water Quality Monitoring Quality Assurance.**

a. All field and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted by a firm possessing a Comprehensive Quality Assurance Plan approved by the Department to meet the requirements of F.A.C. 62-160. The Quality Assurance Plan must specifically address the types of sampling and analytical work that is required by the permit. The Quality Assurance Plan shall be required of all persons performing sampling or analysis, and shall be followed by all persons collecting or analyzing samples related to this permit. Documentation of an approved QAP shall be submitted **annually** to the Department with the groundwater sampling report due **January 15th.** Documentation shall include the completed signature page and the Table of Contents of the approved plan.

SPECIFIC CONDITIONS:

b. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with methods approved by the Department in accordance with F.A.C. 62-4.246 and 62-160. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

30. **Zone of Discharge.**

a. The zone of discharge for the site landfills and the percolation ponds for treated leachate as shown on Figure ___ (attached), prepared by Citrus County and shall extend vertically to the bottom of the first occurring aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II groundwaters will not be exceeded at the boundary of the zone of discharge according to F.A.C. 62-520.420.

31. **Leachate Sampling.** Leachate shall be sampled from the leachate holding tank until the master lift station is installed, at which time leachate shall be sampled from the master lift station. Leachate shall be analyzed **every 6 months** for the following monitoring parameters:

Field parameters	Laboratory parameters
Specific Conductivity	Total Ammonia - N
pH	Bicarbonate
Dissolved oxygen	Chlorides
Colors, sheens (by observation)	Iron
	Mercury
	Nitrate
	Sodium
	Total Dissolved Solids (TDS)
	Those parameters listed in 40 CFR Part 258, Appendix I

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR part 258, Appendix II. If this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials. Any leachate which is not recirculated or taken to a permitted industrial or domestic wastewater treatment facility shall be treated or managed so that no contaminant exceeds the regulatory level. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

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SPECIFIC CONDITIONS:

32. Direct discharge from the percolation pond system to area surface waters is not allowed. Surface discharge shall be considered a violation of this permit and the permittee shall immediately report any such discharge to the Southwest District office of the Department of Environmental Protection

33. **Leachate Treatment Plant Testing.** Prior to on-site discharge into the percolation ponds, the permittee shall demonstrate 3 consecutive months of acceptable leachate treatment based on the results from the following daily and weekly sampling. The effluent shall be tested once during the 3 month demonstration period for the parameters listed in Appendix II, 40 CFR Part 258. These test parameters shall meet the Florida Groundwater Standards listed in F.A.C. 62-520.420.

After written approval for discharge of treated leachate into the onsite percolation ponds is obtained from the FDEP- Solid Waste Section, Southwest District, the following effluent testing schedule shall be conducted. Results shall be submitted quarterly. The first quarter of a year shall be submitted on **April 15th**, the second quarter on **July 15th**, the third quarter on **October 15th** and fourth quarter on **January 15th**.

Parameter	Unit	Minimum	Maximum	Frequency
flow	gpd	N/A	30,000	Daily
pH	STD UN	6.00	8.50	Daily
Chlorine Residual	mg/l	N/A	N/A	Daily, if using chlorine
$CBOD_5$	mg/l	N/A	20	Weekly
COD	mg/l	(acceptable $CBOD_5$:COD ratio)		Weekly
TSS	mg/l	N/A	20	Weekly
Total Phosphorous	mg/l	N/A	N/A	Weekly
Ammonia Nitrogen	mg/l	N/A	N/A	Weekly
Nitrate-N	mg/l	N/A	12	Weekly
Total Nitrogen	mg/l	N/A	N/A	Weekly
Fecal Coliform	#/100	N/A	200	Weekly
Chloride	mg/l	N/A	N/A	Weekly
Sodium	mg/l	N/A	N/A	Weekly
TDS	mg/l	N/A	N/A	Weekly
Arsenic	mg/l	N/A	N/A	Quarterly
Barium	mg/l	N/A	N/A	Quarterly
Cadmium	mg/l	N/A	N/A	Quarterly
Chromium	mg/l	N/A	N/A	Quarterly
Iron	mg/l	N/A	N/A	Quarterly
Mercury	mg/l	N/A	N/A	Quarterly
Lead	mg/l	N/A	N/A	Quarterly
Selenium	mg/l	N/A	N/A	Quarterly
Silver	mg/l	N/A	N/A	Quarterly
Total THMs	mg/l	N/A	N/A	Quarterly
Benzene	mg/l	N/A	N/A	Quarterly
Toluene	mg/l	N/A	N/A	Quarterly
Ethylbenzene	mg/l	N/A	N/A	Quarterly
Total Xylenes	mg/l	N/A	N/A	Quarterly
Ethylene dibromide(EDB)	mg/l	N/A	N/A	Quarterly

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SPECIFIC CONDITIONS:

Annually, the effluent shall be tested for the Appendix II parameters listed in 40 CFR Part 258.

If in any two consecutive weeks of effluent sampling, the same listed contaminant exceeds the regulatory level, the permittee shall immediately cease discharge into the percolation ponds and provide off-site disposal for its leachate and/or effluent, until acceptable leachate treatment is again demonstrated.

Waste sludge from the leachate treatment plant shall be sampled and analyzed **annually** under an approved Quality Assurance Plan for the following parameters:

Toxic Characteristic Leaching Potential Test (TCLP) for organics, metals and pesticides
pH (standard units)
Solids (percent)

Waste sludge that is not classified as hazardous waste (Chapter 62-730.030, FAC) may be disposed of in the Class I landfill. Based upon the results of the analyses, the Department may require further testing and alternative disposal in order to assure compliance with all Department rules and regulations. The Department shall be notified within thirty (30) days of alternative sludge disposal activities.

34. **Groundwater Monitoring Well Locations.** The Groundwater Monitoring System is designed and constructed in accordance with the "Groundwater Monitoring Plan for the 80-acre Landfill Expansion, Citrus County Central Landfill", report dated April 1995 and revised September 19, 1995 prepared by Hydro Q. The groundwater monitoring wells are located as per Figure 48 of this report:

Well Number	Aquifer	Location
MW-1(R)	Floridan (background)	Figure 48, attached
MW-2	Floridan (background)	Figure 48, attached
MW-3	Floridan (background)	Figure 48, attached
MW-B	Floridan (detection)	Figure 48, attached
MW-4	Floridan (intermediate)	Figure 48, attached
MW-5	Floridan (intermediate)	Figure 48, attached
MW-6	Floridan (intermediate)	Figure 48, attached
MW-AA	Floridan (detection)	Figure 48, attached
MW-C	Floridan (detection)	Figure 48, attached
MW-D	Floridan (detection)	Figure 48, attached
MW-E	Floridan (compliance)	Figure 48, attached
MW-7*	Floridan (background)	Figure 48, attached
MW-8*	Floridan (detection)	Figure 48, attached
MW-9*	Floridan (detection)	Figure 48, attached

*Wells to be constructed prior to use of Phase 1A.

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SPECIFIC CONDITIONS:

35. **Groundwater Sampling.** All detection and background wells and intermediate well MW-6 shall be sampled in accordance with F.A.C. 62-701.510(6)(c) and analyzed **every 6 months** for the groundwater monitoring parameters listed as follows:

Field parameters	Laboratory parameters
Static Water Level before purging	Total Ammonia - N
Specific Conductivity	Chlorides
pH	Iron
Dissolved Oxygen	Mercury
Turbidity	Nitrate
Temperature	Sodium
Colors and sheens (by observation)	Total Dissolved Solids (TDS)
	Those parameters listed in 40 CFR Part 258, Appendix I

Water levels shall be measured in all site wells listed in Specific Conditions No. 34.

Additional samples, wells, and parameters may be required based upon subsequent analysis.

36. **Groundwater Monitoring Well Construction.** Any new wells constructed must be approved by the Department through permit modification. The following information shall be submitted to the Department by within 90 days of well completion:

a. Documentation of the following for each well installed:

Well Identification	Boring (Lithology) Log
Aquifer monitored	Total depth of well
Screen type and slot size	Casing diameter
Screen length	Casing type and length
Screen diameter	SWFWMD well construction permit Nos.
Well seal and filter pack type and thickness	

b. **Within one week of well completion** and development, each new well shall be sampled for the parameters listed in F.A.C. Rules 62-701.510(8)(a) and (d).

c. A surveyed drawing shall be submitted in accordance with F.A.C. Rule 62-701.510(3)(d)(1), showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

d. Prior to utilization of Phase 1A, the information required in a-c (above) must be submitted for monitoring wells MW-7, MW-8 and MW-9. These wells are to be constructed as proposed in the groundwater monitoring plan referenced in Specific Condition NO. 34.

37. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with F.A.C. 62-532.440, and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing piezometer/well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

38. **Assessment Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's water quality standards or criteria at the edge of the zone of discharge, the permittee has 15 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis representative of current groundwater conditions at the facility, and assessment monitoring/corrective action as described in F.A.C. 62-701.510(7) shall be initiated.

39. **Water Quality and Leachate Reporting Requirements.** All ground water quality monitoring and leachate and sludge analyses shall be reported on the Department Form 62-522.900(2), Ground Water Monitoring Report (attached). This report shall include the items listed in F.A.C. 62-701.510(9)(a). The permittee shall submit to the Department the results of the water quality and leachate analysis **July 15th** and **January 15th** for the semi-annual periods January-June and July-December, respectively. Sludge results shall be submitted **annually** by **January 15th.** The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

40. **Groundwater Monitoring Plan Evaluation.**

Every two years and prior to **90 days before the expiration** of the Department Permit, the permittee shall submit an evaluation of the Groundwater Monitoring Plan as per F.A.C. 62-701.510(9)(b). The evaluation shall include the applicable information as required by F.A.C. 62-701.510(9), and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of groundwater contamination. Any groundwater contamination that may exist, shall be addressed as part of a groundwater investigation for the landfill assessment. The Groundwater Monitoring Plan shall be adequate to monitor any modifications to the existing landfill site including but not limited to closure. The first evaluation shall be submitted to the Solid Waste Section of the Department by **July 15, 1997.**

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SPECIFIC CONDITIONS:

41. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

42. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

43. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

44. **Regulations.** F.A.C. 62-701, effective May 19, 1994, is incorporated into this permit by reference, In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

Attachment 1

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SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
4.	60 days prior to permit expiration	Permit Renewal Application
11., 18. and 33.	Quarterly, by January 15th, April 15th, July 15th, and October 15th	Waste quantity reports, Gas monitoring results, Leachate treatment results
17.c.	180 days prior to permit expiration	LCRS Inspection
24.	90 days prior to date of final waste acceptance	Closure Permit Application
25.	Annually, by September 1st	Financial assurance cost estimates
29.a.	Annually, by January 15th	Water quality QAP documentation
31.	Every 6 months	Leachate sampled/analyzed
31.	Annually	Leachate sampled/analyzed for 40 CFR Part 258, Appendix II parameters
35.	Every 6 months	Groundwater wells sampled/ analyzed
39.	Semi-annually, by January 15th, and July 15th	Water quality and leachate monitoring results
39.	Annually, by January 15th	Leachate treatment plant sludge analyses
40.	Every two years by July 15th and 90 days prior to permit expiration	Evaluation of groundwater monitoring plan

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/6/96

Subject CITRUS TANK

Time 9:30

Permit No.

County CITRUS

M SUSAN HEALY

Telephone No. 352 746 5000

Representing CITRUS County SW Dept

[ ] Phoned Me [✓] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

I CALLED TO ASK ABOUT THE CONDITION OF THE TREATMENT BATCH TANKS. SUE SAID NO LEAKS OR CORROSION. ALL ARE EMPTY NOW. I ASKED HER TO REVIEW 62-701.400(6) TO MAKE SURE OF NO DEFECTS OR RETROFITTING IS REQUIRED - EXTRA COATINGS ETC AS PER THE RULE. I SUGGESTED A P.E CERTIFY THE TANK INSPECTION.
SUSAN SAID ANOTHER 200 GALLON DISCHARGE OF LEACHATE OCCURRED WHEN REPLACE DEFECTIVE VALVES ON OPEN TANK. I ASKED HER TO DOCUMENT CORRECTIVE ACTIONS IN LETTER.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/93
hjs

NOTICE OF MEETING

Today's date: 6/6/96 Writer: K FORD

Date of meeting: JUNE 11

Time: 2pm

Place: WASTECONF RM

Subject: CITRUS OPERATION PERMIT
DRAFT CONDITIONS

Explanation: TO DISCUSS DRAFT CONDITIONS

Requested by: SUSAN METCALFE Ph.# _____

Names of attendees other than DER: JOHN WOODS CHRISTMAS

Local Program notified: ___/yes ✓/no Attending? _____

Copies to anticipated in-house attendees:
ALISON AMRAN
KIM FORD

Information copies to:
BOB BURNS

TPA-04
07/88

SO permit file

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

May 24, 1996

Ms. Susan Metcalfe, P.G.
Director, Division of Solid Waste
Management, Citrus County
P.O. Box 340
Lecanto, Florida 34460

Mr. Steve Roberti
CH_2M Hill
3011 S.W. Williston Road
Gainesville, Florida 32608-3928

Subject: Sodium Transport Modeling for the Citrus County Central Landfill
Permit No. SO09-187229 (pending permit No. SO09-274381)

Dear Ms. Metcalfe and Mr. Roberti:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the Technical Memorandum from CH_2M Hill titled "Computer Simulation of Solute Concentrations in Groundwater at the Citrus County Central Landfill", dated February 6, 1996. The objective of this report was to model sodium and chloride concentrations in the aquifer to evaluate the impact of discharging treated leachate to groundwaters through two on-site percolation ponds. The FDEP requests clarification on the following points:

1. Please provide certification of this report by a professional geologist or professional engineer with expertise in groundwater systems. The FDEP cannot accept the report conclusions without this certification.

2. Please clarify the origin of the following model input parameters:

   - 17,800 gpd recharge through the site stormwater pond;

   - 2.8 ft/day Hydraulic Conductivity for the unconsolidated sediments (the Contamination Assessment Report prepared by CH_2M Hill (dated April 1996) for the same site concluded that the average hydraulic conductivity was 0.024 ft/day);

   - 0.01 (Kv==0.5 ft/day) Leakance value;

   - 280,000 ft2/day Transmissivity for the limestone;

3. Were all input parameters described in the text of this report? If not, please provide a list of all input parameters and a discussion on their origin. Please describe how the two models were calibrated. Did the solute transport account for current sodium concentrations in the groundwater at 260 mg/l in monitoring well MW-6?

4. In previous discussions concerning the conceptual model, it was mentioned that once the landfill closes, the concentration of solutes is expected to increase, while the volume of

leachate generated will decrease. Please describe how this effect was included in the models, or why it was not included in the models.

5. The landfill will be treating landfill leachate and monitoring groundwater for a minimum of 30 years after the site is certified closed. What would the sodium and chloride concentrations be at this time?

Please respond to these items by June 28, 1996. If you have any questions, please contact me at 813/744-6100, ext. 336.

Sincerely,

Allison Amram

Allison Amram, P.G.
Solid Waste Section

cc: Gary Kuhl, Citrus County Director of Public Works, P.O. Box 167, Lecanto, FL 34460
Marty Clasen, CH_2M Hill, P.O. Box 21647, Tampa, FL 33622-1647
John Wood, CH_2M Hill, P.O. Box 21647, Tampa, FL 33622-1647
Kim Ford, P.E., FDEP
Bob Butera, P.E., FDEP

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

Date: 5/23/96

Number of pages including cover sheet: 21

FAXED

To: SUSAN METCALFE

Phone: (352) 7465000

Fax phone: (352) 5271204 / 746 1203

CC:

From: TIM FORD

Phone: (813) 744-6100 x382

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☑ For your review ☐ Reply ASAP ☐ Please comment

DRAFT OPERATION PERMIT
FOR YOUR COMMENTS
AS YOU REQUESTED.

(GENERAL CONDITIONS NOT FAXED)

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

PERMITTEE
Citrus County
Board of County Commissioners
110 North Apopka Avenue
Inverness, Florida 34450

DRAFT

PERMIT/CERTIFICATION
GMS ID No: 4009C00086
Permit No: **SO09-274381**
Date of Issue:
Expiration Date: **05/15/2001**
County: Citrus
Lat/Long: 28°51'08"N
82°26'38"W
Sec/Town/Rge: 1/19S/21E
Project: Citrus County Central
Class I Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-522, 62-550, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 80 acres), referred to as the Citrus County Central Class I Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste and leachate, near S.R. 44, 3 miles east of Lecanto, Citrus County, Florida.

1. Class I Landfill Disposal Facility

Replaces Permit No.: SO09-187229

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

DRAFT

SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-520, 62-522, 62-550, 62-701 and 62-703, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of the Class I landfill and related facilities in accordance with the reports, plans and other information as follows:

- October 20, 1995 Operation Permit Application and supporting information by CH2M Hill submitted on October 27, 1995;
- May 1996 Operations Plan by CH2M Hill submitted May 31, 1996;
- and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** This permit does not authorize Phase 1A operation. Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

4. **Permit Renewal.** As required by F.A.C. 62-4.090(1), no later than **sixty (60) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Failure to comply with this condition may result in facility operation without a permit. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(3).

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated.

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SPECIFIC CONDITIONS:

6. **Special Wastes.** The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with F.A.C. 62-701.300(8), 62-701.520 and any other applicable Department rules, to protect the public safety, health and welfare.

- White goods or other discarded materials that are held for the purposes of recycling shall be held no longer than thirty (30) days unless covered, and shall be stored in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local and state regulations. Surface water shall be diverted away from all storage or holding areas. Any processing or volume reduction of white goods or other discarded materials will require a modification of this permit. ?

See the Sotos operating plan

- All solid wastes, recovered materials or residues handled at the site shall be stored in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local or state regulations. Recovered resources which may be offered for sale shall comply with applicable regulations of all appropriate state agencies.

- Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months.

- The household hazardous waste collection/storage facility shall be operated in accordance with the Operations Plan by CH2M Hill submitted on May 31, 1995.

"CITIZEN WASTE DROP-OFF" RB

- The operation of the ~~recycling and transfer site~~ shall comply with the following procedures:

  (1) Only residential customers shall use the facilities, that is, no solid waste collectors or commercial customers will be allowed usage;

  (2) An attendant shall be on duty when the facility is operating. Operating hours shall be posted, and fencing and gates shall be used to prevent unauthorized access when the facility is closed;

  (3) Only roll-off containers and/or dumpsters shall be utilized for waste disposal. No compactors of any type shall be used; and

  (4) All processable and non-processable solid waste, with the exception of recyclables, shall be removed from the site at least daily or when a container is full. At the close of business each day when no additional waste will be received all processable and non-processable waste shall be covered with a waterproof tarp until the facility is again receiving solid waste.

DRAFT

SPECIFIC CONDITIONS:

- The Used Oil Collection Center shall comply with FAC Chapter 62-710 and 40 Code of Federal Regulations (CFR) 280 and 281, and all applicable requirements of Department rules. Fuel storage shall comply with FAC Chapter 62-761, 62-762, and 40 CFR 280 and 281. Discharges are not allowed and are subject to FAC Chapter 62-770 for cleanup.

7. **Landfill Operation Requirements.** The permittee shall operate this facility in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the May 1996 Operations Plan by CH2M Hill submitted on May 31, 1996.

8. **Operating Personnel.** As required by F.A.C. 62-701.500(1), at least one operator, trained in accordance with F.A.C. 62-703, shall be at the landfill at all times when the landfill receives waste. The permittee shall notify the Department in writing of a change of the primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Copies of the training certificates for the newly assigned individual shall also be submitted.

9. **Operation Plan and Operating Record.** Each landfill owner or operator shall have an operational plan which meets the requirements of F.A.C. 62-701.500(2). A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. An operating record as required by F.A.C. 62-701.500(3) is part of the operations plan, and shall also be maintained at the site.

10. **Method and Sequence of Filling.** The method and sequence of filling shall be in accordance with the Section 2 and Appendix B of the May 1996 Operations Plans by CH2M Hill submitted on May 31, 1996.

11. **Waste Records.** Waste quantity records shall be maintained as required by F.A.C. 62-701.500(4) and submitted **quarterly; by January 15th, April 15th, July 15th, and October 15th.**

12. **Control of Access.** Access to, and use of, the facility shall be controlled as required by F.A.C. 62-701.500(5).

13. **Monitoring of Waste.** Wastes shall be monitored as required by F.A.C. 62-701.500(6). The permittee shall not accept hazardous waste or any hazardous substance for disposal at this site. Hazardous waste is a waste identified in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule.

DRAFT

SPECIFIC CONDITIONS:

The operating authority shall maintain a program which prohibits the disposal of bulk industrial wastes which operating personnel reasonably believe to either be or contain hazardous waste, without first obtaining a chemical analysis of the material showing the waste to be non-hazardous. The chemical analysis of any such material so placed in the landfill, along with the customer's name and date of disposal, shall be kept on file by the operating authority on-site.

14. **Waste Handling Requirements.** All solid waste disposed of in the Class I area shall be handled as required by F.A.C. 62-701.500(7). Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f).

All solid waste disposed of in the Class I area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each working day. Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in a six (6) inch compacted layer, may be used ~~an~~ as initial cover within the bermed working area.

An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.

15. **Working Face.** As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate vehicles discharging waste and to minimize the exposed area. Interceptor berms shall be maintained around the active working area to prevent leachate runoff from the working face from entering the stormwater management system. Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

16. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed in accordance with F.A.C. 62-701.500(7)(g) and all applicable requirements of Department rules.

DRAFT

SPECIFIC CONDITIONS:

17. **Leachate Management.** Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8) and Section 8 of the May 1996 Operations Plan by CH2M Hill submitted May 31, 1996. Each pump station shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and a replacement pump installed immediately. Leachate generation reports shall be compiled monthly and submitted to the Department as requested. Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch. Leachate discharge to areas outside of the geomembrane liner is a violation of Department rules.

18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.400(10), and Section 9 of the May 1996 Operations Plan by CH2M Hill submitted on May 31, 1996. The results of quarterly monitoring shall be submitted by **January 15th, April 15th, July 15th** and **October 15th** each year.

19. **Gas Monitoring Locations.** The following gas monitoring locations shall be sampled **quarterly** for the Lower Explosive Limit (LEL) of methane, as described in F.A.C. Rule 62-701.400(10)(c).

Monitoring Point	Locations:
Active Landfill	GS-1S and GS-1E, see Figure 1
Closed 60-acre Landfill	See Figure 1
Scalehouse	See Figure 3

20. **Gas Remediation.** In the event that the Lower Explosive Limit (LEL) is greater than 25% inside structures both on or off of the landfill site, or greater than 100% at the property boundary, the owner shall submit to the Department, **within 7 days of detection,** a remediation plan detailing the nature and extent of the problem and the proposed remedy. The remedy shall be completed **within 60 days of detection** unless otherwise approved by the Department.

21. **Stormwater System Management.** Stormwater shall be managed as required by F.A.C. 62-701.500(10) to meet applicable standards of F.A.C. and 62-302.

22. **Recordkeeping.** Records shall be maintained as required by F.A.C. 62-701.500(13).

DRAFT

SPECIFIC CONDITIONS:

23. **Waste Burning.** Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.520(2). Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with F.A.C. 62-2.500(1)(e). Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

24. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, at least **90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by F.A.C. 62-701.600(3).

25. **Financial Assurance.** The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. 62-701.630. All costs for closure and long-term care shall be adjusted and submitted **annually, by September 1 each year**, to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. The owner or operator shall control mosquitoes and rodents so as to protect the public health and welfare.

27. **Liner Location.** The top edge of the geomembrane liner shall be clearly flagged. Waste disposal and leachate runoff outside the geomembrane liner is prohibited.

28. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, gas monitoring system repairs, repair and maintenance of leachate collection and removal systems, and maintenance of the leachate storage and treatment facilities. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems, the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

DRAFT

SPECIFIC CONDITIONS:

29. **Water Quality Monitoring Quality Assurance.**

a. All field and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted by a firm possessing a Comprehensive Quality Assurance Plan approved by the Department to meet the requirements of F.A.C. 62-160. The Quality Assurance Plan must specifically address the types of sampling and analytical work that is required by the permit. The Quality Assurance Plan shall be required of all persons performing sampling or analysis, and shall be followed by all persons collecting or analyzing samples related to this permit. Documentation of an approved QAP shall be submitted **annually** to the Department with the groundwater sampling report due **January 15th**. Documentation shall include the completed signature page and the Table of Contents of the approved plan.

b. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with methods approved by the Department in accordance with F.A.C. 62-4.246 and 62-160. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

30. **Zone of Discharge.**

a. The zone of discharge for the site landfills and the percolation ponds for treated leachate shall extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the first occurring aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II groundwaters will not be exceeded at the boundary of the zone of discharge according to F.A.C. 62-520.420.

31. **Leachate Sampling.** Leachate shall be sampled from the master lift station and analyzed **every 6 months** for the following monitoring parameters:

Field parameters	Laboratory parameters
Specific Conductivity	Total Ammonia - N
pH	Bicarbonate
Dissolved oxygen	Chlorides
Colors, sheens (by observation)	Iron
	Mercury
	Nitrate
	Sodium
	Total Dissolved Solids (TDS)
	Those parameters listed in 40 CFR Part 258, Appendix I

DRAFT

SPECIFIC CONDITIONS:

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR part 258, Appendix II. If this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials. Any leachate which is not recirculated or taken to a permitted industrial or domestic wastewater treatment facility shall be treated or managed so that no contaminant exceeds the regulatory level. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

32. Direct discharge from the percolation pond system to area surface waters is not allowed. Surface discharge shall be considered a violation of this permit and the permittee shall immediately report any such discharge to the Southwest District office of the Department of Environmental Protection

33. **Leachate Treatment Plant Testing.** Prior to on-site discharge into the percolation ponds, the permittee shall demonstrate 3 consecutive months of acceptable leachate treatment based on the results from the following daily and weekly sampling. The effluent shall be tested once during the 3 month demonstration period for the parameters listed in Appendix II, 40 CFR Part 258. These test parameters shall meet the Florida Groundwater Standards listed in F.A.C. 62-520.420.

After written approval for discharge of treated leachate into the onsite percolation ponds is obtained from the FDEP- Solid Waste Section, Southwest District, the following effluent testing schedule shall be conducted. Results shall be submitted quarterly. The first quarter of a year shall be submitted on **April 15th,** the second quarter on **July 15th,** the third quarter on **October 15th** and fourth quarter on **January 15th.**

Parameter	Unit	Minimum	Maximum	Frequency
flow	gpd	N/A	30,000	Daily
pH	STD UN	6.00	8.50	Daily
Chlorine Residual	mg/l	N/A	N/A	Daily, if using chlorine
$CBOD_5$	mg/l	N/A	20	Weekly
COD	mg/l	(acceptable $CBOD_5$:COD ratio)		Weekly
TSS	mg/l	N/A	20	Weekly
Total Phosphorous	mg/l	N/A	N/A	Weekly

DRAFT

SPECIFIC CONDITIONS:

Parameter	Unit	Minimum	Maximum	Frequency
Ammonia Nitrogen	mg/l	N/A	N/A	Weekly
Nitrate-N	mg/l	N/A	12	Weekly
Total Nitrogen	mg/l	N/A	N/A	Weekly
Fecal Coliform	#/100	N/A	200	Weekly
Chloride	mg/l	N/A	N/A	Weekly
Sodium	mg/l	N/A	N/A	Weekly
TDS	mg/l	N/A	N/A	Weekly
Arsenic	mg/l	N/A	N/A	Quarterly
Barium	mg/l	N/A	N/A	Quarterly
Cadmium	mg/l	N/A	N/A	Quarterly
Chromium	mg/l	N/A	N/A	Quarterly
Iron	mg/l	N/A	N/A	Quarterly
Mercury	mg/l	N/A	N/A	Quarterly
Lead	mg/l	N/A	N/A	Quarterly
Selenium	mg/l	N/A	N/A	Quarterly
Silver	mg/l	N/A	N/A	Quarterly
Total THMs	mg/l	N/A	N/A	Quarterly
Benzene	mg/l	N/A	N/A	Quarterly
Toluene	mg/l	N/A	N/A	Quarterly
Ethylbenzene	mg/l	N/A	N/A	Quarterly
Total Xylenes	mg/l	N/A	N/A	Quarterly
Ethylene dibromide(EDB)	mg/l	N/A	N/A	Quarterly

Annually, the effluent shall be tested for the Appendix II parameters listed in 40 CFR Part 258.

If in any two consecutive weeks of effluent sampling, the same listed contaminant exceeds the regulatory level, the permittee shall immediately cease discharge into the percolation ponds and provide off-site disposal for its leachate and/or effluent, until acceptable leachate treatment is again demonstrated.

Waste sludge from the leachate treatment plant shall be sampled and analyzed **annually** under an approved Quality Assurance Plan for the following parameters:

Toxic Characteristic Leaching Potential Test (TCLP) for organics, metals and pesticides
pH (standard units)
Solids (percent)

Waste sludge that is not classified as hazardous waste (Chapter 62-730.020, FAC) may be disposed of in the Class I landfill. Based upon the results of the analyses, the Department may require further testing and alternative disposal in order to assure compliance with all Department rules and regulations. The Department shall be notified within thirty (30) days of alternative sludge disposal activities.

DRAFT

SPECIFIC CONDITIONS:

34. **Groundwater Monitoring Well Locations.** The Groundwater Monitoring System is designed and constructed in accordance with the "Groundwater Monitoring Plan for the 80-acre Landfill Expansion, Citrus County Central Landfill", report dated April 1995 and revised September 19, 1995 prepared by Hydro Q. The groundwater monitoring wells are located as per Figure 48 of this report:

Well Number	Aquifer	Location
MW-1(R)	Floridan (background)	Figure 48, attached
MW-2	Floridan (background)	Figure 48, attached
MW-3	Floridan (background)	Figure 48, attached
MW-B	Floridan (detection)	Figure 48, attached
MW-4	Floridan (intermediate)	Figure 48, attached
MW-5	Floridan (intermediate)	Figure 48, attached
MW-6	Floridan (intermediate)	Figure 48, attached
MW-AA	Floridan (detection)	Figure 48, attached
MW-C	Floridan (detection)	Figure 48, attached
MW-D	Floridan (detection)	Figure 48, attached
MW-E	Floridan (compliance)	Figure 48, attached
MW-7*	Floridan (background)	Figure 48, attached
MW-8*	Floridan (detection)	Figure 48, attached
MW-9*	Floridan (detection)	Figure 48, attached

*Wells to be constructed prior to use of Phase 1A.

35. **Groundwater Sampling.** All detection and background wells and intermediate well MW-6 shall be sampled in accordance with F.A.C. 62-701.510(6)(c) and analyzed **every 6 months** for the groundwater monitoring parameters listed as follows:

Field parameters	Laboratory parameters
Static Water Level before purging	Total Ammonia - N
Specific Conductivity	Chlorides
pH	Iron
Dissolved Oxygen	Mercury
Turbidity	Nitrate
Temperature	Sodium
Colors and sheens (by observation)	Total Dissolved Solids (TDS)
	Those parameters listed in 40 CFR Part 258, Appendix I

Water levels shall be measured in all site wells listed in Specific Conditions No. 34.

Additional samples, wells, and parameters may be required based upon subsequent analysis.

DRAFT

SPECIFIC CONDITIONS:

36. **Groundwater Monitoring Well Construction.** Any new wells constructed must be approved by the Department through permit modification. The following information shall be submitted to the Department by within 90 days of well completion:

a. Documentation of the following for each well installed:

Well Identification
Aquifer monitored
Screen type and slot size
Screen length
Screen diameter
Well seal and filter pack type and thickness
Boring (Lithology) Log
Total depth of well
Casing diameter
Casing type and length
SWFWMD well construction permit Nos.

b. **Within one week of well completion** and development, each new well shall be sampled for the parameters listed in F.A.C. Rules 62-701.510(8)(a) and (d).

c. A surveyed drawing shall be submitted in accordance with F.A.C. Rule 62-701.510(3)(d)(1), showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

d. Prior to utilization of Phase 1A, the information required in a-c (above) must be submitted for monitoring wells MW-7, MW-8 and MW-9. These wells are to be constructed as proposed in the groundwater monitoring plan referenced in Specific Condition NO. 34.

37. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with F.A.C. 62-532.440, and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing piezometer/well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

DRAFT

SPECIFIC CONDITIONS:

38. **Assessment Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's water quality standards or criteria at the edge of the zone of discharge, the permittee has 15 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis representative of current groundwater conditions at the facility, and assessment monitoring/corrective action as described in F.A.C. 62-701.510(7) shall be initiated.

39. **Water Quality and Leachate Reporting Requirements.** All ground water quality monitoring and leachate and sludge analyses shall be reported on the Department Form 62-522.900(2), Ground Water Monitoring Report (attached). This report shall include the items listed in F.A.C. 62-701.510(9)(a). The permittee shall submit to the Department the results of the water quality and leachate analysis **July 15th** and **January 15th** for the semi-annual periods January-June and July-December, respectively. Sludge results shall be submitted **annually** by **January 15th.** The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

40. **Groundwater Monitoring Plan Evaluation.**

Every two years and prior to **90 days before the expiration** of the Department Permit, the permittee shall submit an evaluation of the Groundwater Monitoring Plan as per F.A.C. 62-701.510(9)(b). The evaluation shall include the applicable information as required by F.A.C. 62-701.510(9), and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of groundwater contamination. Any groundwater contamination that may exist, shall be addressed as part of a groundwater investigation for the landfill assessment. The Groundwater Monitoring Plan shall be adequate to monitor any modifications to the existing landfill site including but not limited to closure. The first evaluation shall be submitted to the Solid Waste Section of the Department by **July 15, 1997.**

41. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

42. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

DRAFT

SPECIFIC CONDITIONS:

43. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

Attachment 1

DRAFT

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
4.	60 days prior to permit expiration	Permit Renewal Application
11., 18. and 33.	Quarterly, by January 15th, April 15th, July 15th, and October 15th	Waste quantity reports, Gas monitoring results, Leachate treatment results
24.	90 days prior to date of final waste acceptance	Closure Permit Application
25.	Annually, by September 1st	Financial assurance cost estimates
29.a.	Annually, by January 15th	Water quality QAP documentation
31.	Every 6 months	Leachate sampled/analyzed
31.	Annually	Leachate sampled/analyzed for 40 CFR Part 258, Appendix II parameters
35.	Every 6 months	Groundwater wells sampled/ analyzed
39.	Semi-annually, by January 15th, and July 15th	Water quality and leachate monitoring results
39.	Annually, by January 15th	Leachate treatment plant sludge analyses
40.	Every two years by July 15th and 90 days prior to permit expiration	Evaluation of groundwater monitoring plan

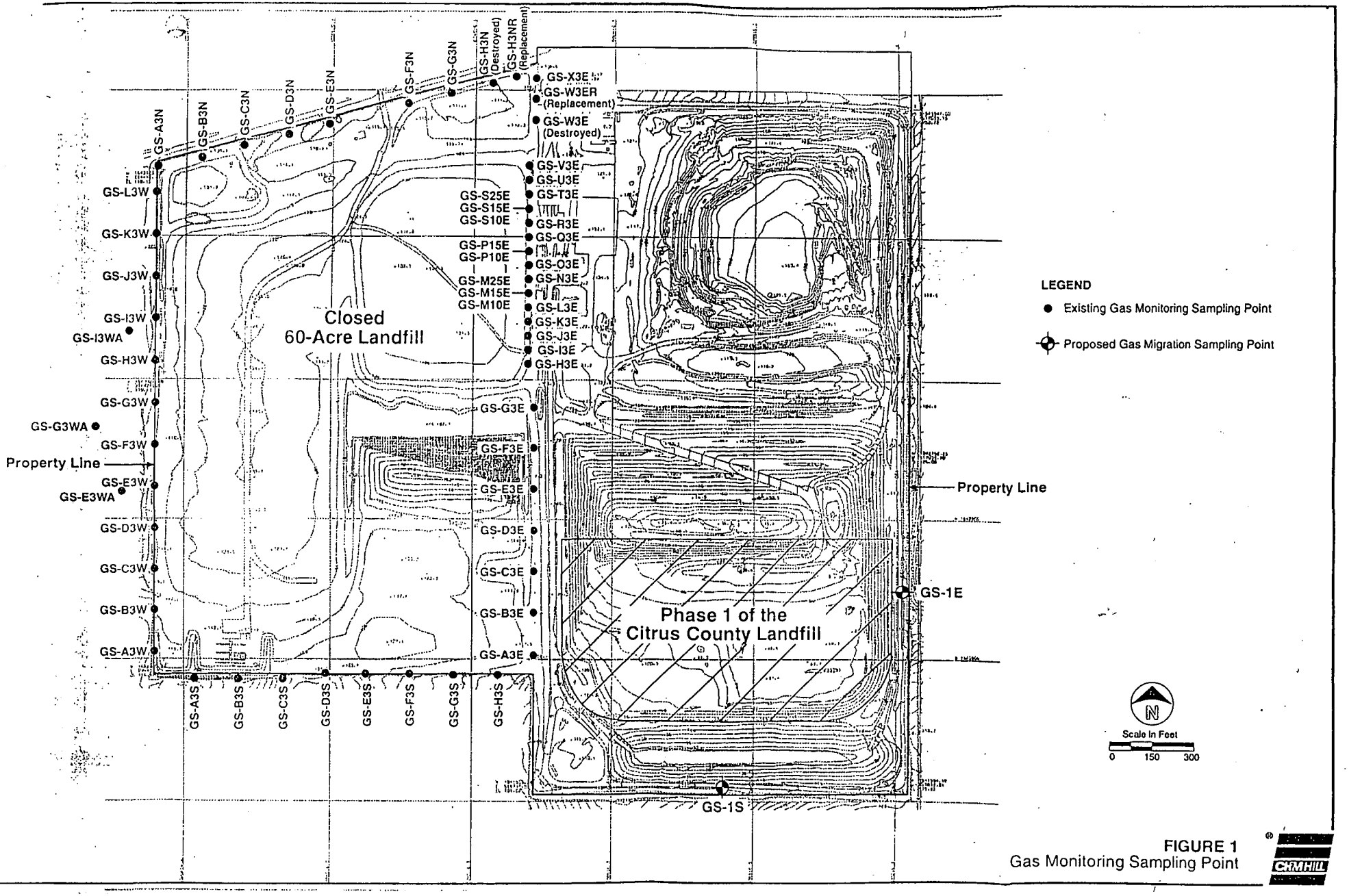
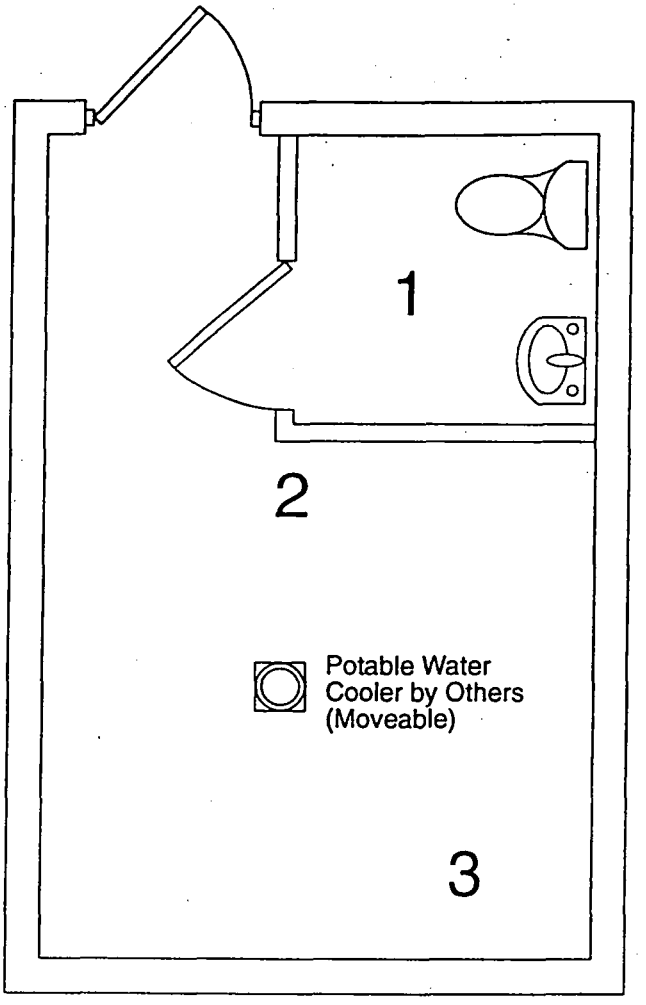


FIGURE 1
Gas Monitoring Sampling Point

CH2M HILL



1 - Bathroom Floor Drain
2 - Electric Connections for Scale Meter - West Side
3 - Electric Conections for Scale Meter - East Side

FIGURE 3
Scalehouse Gas onitoring Points

CH2M HILL

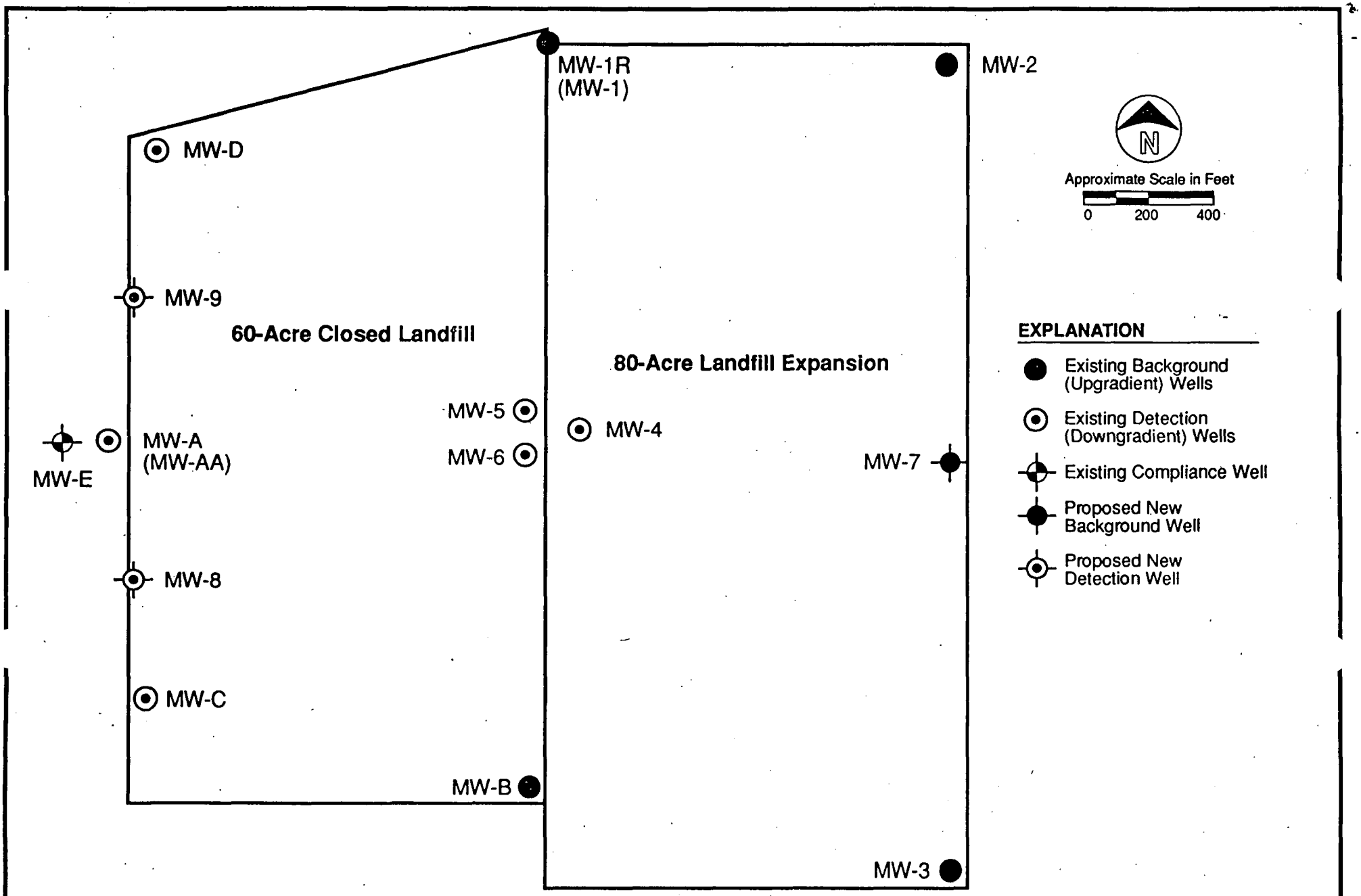


FIGURE 48
Proposed New Monitoring Wells

HYDRO Q

DEP Form # 62-522.900(2)

Form Title GROUND WATER MONITORING REPORT

Effective Date _____

DEP Application No. _____

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

GROUND WATER MONITORING REPORT

Rule 62-522.600(11)

PART I GENERAL INFORMATION

(1) Facility Name _____

Address _____

City _____ Zip _____

Telephone Number (_____) _____

(2) The GMS Identification Number _____

(3) DEP Permit Number _____

(4) Authorized Representative Name _____

Address _____

City _____ Zip _____

Telephone Number (_____) _____

(5) Type of Discharge _____

(6) Method of Discharge _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Date: _____ _____

Signature of Owner or Authorized Representative

PART II QUALITY ASSURANCE REQUIREMENTS

Sample Organization Comp QAP # _____

Analytical Lab Comp QAP #/HRS Certification # _____

*Comp QAP #/HRS Certification # _____

Lab Name _____

Address _____

Phone Number (_____) _____

PART III ANALYTICAL RESULTS

Facility GMS #: _____ Sampling Date/Time: _____

Test Site ID #: _____ Report Period: _____ (year/quarter)

Well Name: _____ Well Purged (Y/N): _____

Classification of Ground Water: _____ Well Type: ( ) Background
( ) Intermediate
( ) Compliance
( ) Other

Ground Water Elevation (NGVD): _____

or (MSL): _____

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	*Analysis Results/Units	Detection Limits/Units

* Attach Laboratory Reports

Transmit Confirmation Report

No.	:	007
Receiver	:	813527461203
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	May 23 96 14:01
Time	:	21'16
Mode	:	Fine
Pages	:	21
Result	:	OK

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

May 23, 1996

Ms. Susan Metcalfe, P.G.
Solid Waste Management
110 North Apopka Avenue
Inverness, FL 34450

RE: Citrus County Landfill
SO09-187229, Citrus County

Dear Ms. Metcalfe:

The purpose of this letter is to follow up on the Department's inspection on May 14, 1996. Some deficiencies that were noted and needed to be addressed were:

1) The leachate seep at the culvert of the centerline stormwater ditch.

2) Litter (waste) embedded in the berm on the south side of Phase I.

In addition, Department personnel noticed several acres of recently graded side slopes which were not stabilized with vegetation. Stabilization minimizes erosion and the exposure of waste and thus prevents subsequent mixing of stormwater and leachate. The Department suggests that you consider stabilizing these slopes prior to the rainy season in order to avoid problems.

Thank you for your attention to these matters. If you have any questions please feel free to call me at 813/744-6100, ext. 375.

Kind regards,

Danielle Nichols

Danielle Nichols
Environmental Specialist
Solid Waste Section

cc: Kim Ford
Robert Butera

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 5/22/96 Subject Pending SO permit

Time 7:50 Permit No.

County Citrus

M Susan Metcalfe Telephone No. 352/746-5000

Representing Citrus

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

Leave it out of permit

→ Status of field filtering - Never received sealed request certifying proper well construction + submittal of both filtered + unfiltered gw samples for comparison (requested 11/20/95)
Orlando Cabs handling?

→ GWMP does not include new ZOD - has wells 4,5,6 for LTP effluent modeling. Include MW-6 only as intermediate well for sampling purposes? Yes water levels in 4,5 to see gw mound.

→ New wells - MW 7, 8, 9 not required until expand - can put in SO permit or SC permit.
Phase 1A can't operate until wells info submitted

(continue on another sheet, if necessary)

Signature A Amram

Title PG1

PA-01
1/93
hjs

→ Quarterly sampling of compliance wells proposed - CAR not yet reviewed. Will list well E, not include sampling

→ Discussed LTP sampling - adding EDB quarterly, having in condition which requires 3 months adequate treatment prior to discharge to perc pond

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 5/21/96 Subject Na - solute modeling

Time 3:00 Permit No.

County Citrus

M Steve Roberti Telephone No. 352/335-7991 x312

Representing CH2M Hill

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting I Called to discuss the sodium transport model

- Left a voice mail message

- PG/PE seal - needed - he will check w/ Marty
- Need backup for some input parameters
- Discussed worst case: sodium stays in sediments - would be more concentrated @ ZOD. Na in limestone very quickly diluted - probably less of a chance for a gw exceedance. Would need very low K zone to exceed
- Discussed calibration of Na concentrations - He doesn't think they included current Na conc. in gw in this model.

(continue on another sheet, if necessary)

Signature AAmram

Title PG1

PA-01
1/93
hjs

- Discussed leachate strengths open vs. closed landfill. They did some research - couldn't find conclusive data.
- Discussed conc. vs. time graphs - Fig 10 - curve is basically the same for both units but w/ diff. time scale
- Vertical leakance is one of the sensitive parameters

Came from calibration of MODFLOW – K_v is ~1/5 K_h

Higher mounding is worse case

Site conditions show generally <2' mound, but wells MW4, 5+6 have not been observed during peak (30K gpd) flow.

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

May 20, 1996

Ms. Susan Metcalfe, P.G.
Solid Waste Management
P O Box 340
Lecanto, FL 34460

Re: Household Hazardous Waste Center Canopy
Permit No.: SO09-187229, Citrus County

Dear Ms. Metcalfe:

In response to your May 14, 1996 letter, a permit is not required from DEP for the installation of the proposed "canopy structure". However, you are advised that permits may be required by other agencies such as your local building department.

If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

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

KBF/ab

cc: Robert Butera, P.E., FDEP Tampa
Jan Kleman, FDEP Tampa

Florida Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619
813-744-6100

Virginia B. Wetherell
Secretary

FAX TRANSMITTAL SHEET

5/17/96
Date

FAXED

TO: Tawny Olore
DEPT.: Chamath
FAX #: (813) 8743056
FROM: Kim Ford
DEPT.: D.E.P., Tampa Office
PHONE: 813-744-6100 or SunCom 542-6100 Ext. 382
FAX(local)744-6125 or (SunCom) 542-6125
SUBJECT: HH Waste Center

COMMENT: General Plan Developed
by DEP & others.
You can use this.
(I hear Citrus already has this.)

TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE: 14

RECEIVED BY: _____

PHONE: _____

HHW FACILITY STANDARDS (draft 3)

Permanent HHW programs should use the following recommendations as guidance:

I. Applicability

These standards are proposed primarily for facilities which collect HHW with in-house staff and:

1. also bulk, neutralize or otherwise treat waste, or:

2. also collect CESQG waste with in-house staff, or:

3. both 1 and 2 above

Subsets of these standards may be appropriate for other types of facilities.

II. Physical Facility Minimum Standards

A. Containment

1. All waste should be stored either in buildings or in drums or in some other location which is sheltered and contained and will not pollute stormwater if a container leaks.

2. All liquid waste should be stored within secondary containment structures capable of containing the entire contents of the largest two (2) containers in storage or 10% of the total volume of liquid in storage, whichever is greater.

3. Containers holding liquids should be placed so that material escaping from a small leak in a non-pressurized container will not fall outside the containment structure.

4. All non-liquid waste should be stored within secondary containment structures capable of containing all stormwater reasonably expected to fall or run onto the structure in a 25 year flood or on a paved and sheltered surface which would be substantially unaffected by a 25 year flood.

5. Stormwater should be prevented from accumulating within in-service containment structures in amounts in excess of 10% of their volume.

6. Containers should be protected from deterioration due to excessive exposure to stormwater or condensation.

(Note: Some of the standards in this section are more restrictive than requirements applicable to RCRA facilities. We believe that they are appropriate because wastes received by HHW facilities are often received in containers in poor condition, and thus HHW facilities will experience more leaking containers than RCRA facilities. The same logic is applied in section V.E.)

B. Required Equipment

All facilities should be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

1. An internal communication or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

2. A device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning emergency assistance from local police department, fire department, or State or local emergency response teams;

3. fire control equipment, including portable fire extinguishers, (including special extinguishing equipment, such as those using foam, inert gas, or dry chemicals),

4. spill control equipment, including appropriate protective clothing and equipment and decontamination equipment

5. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems for fire suppression and/or decontamination.

6. Emergency shower and eyewash

III. Waste Acceptance Criteria

A. Household Waste

Facilities should only accept waste if:

1. they have a disposal arrangement or contract for that specific material

2. they have sufficient funds to pay for its disposal

3. they can safely store it pending disposal

B. CESQG Waste

Facilities should meet the following additional criteria with respect to any CESQG waste that they accept (note that this section applies to wastes that the facility accepts, not to waste accepted directly by the disposal contractor):

1. They should verify that the source is Conditionally Exempt.

2. They should not accept unknowns from CESQG's. The generator should be required to identify the process generating the waste and all materials that were used in that process. From that information, either the generator or the facility manager should be able to determine which EPA waste codes are applicable to that waste.

3. They should only accept waste if they can verify that it is what the generator says it is. (note: A good way to do this is to find out what tests the permitted disposal facilities use to verify a material and do the same thing yourself)

IV. Personnel

A. Training

Facility personnel should successfully complete a training program that teaches them to perform their duties in a way that ensures the facility is operated in a manner that protects them and the public from potential health and safety hazards at the site and is protective of the environment.

1. The program should be taught by a person trained in hazardous waste management procedures, and should include instruction that teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. The person providing the training should have no less than 40 hours training in appropriate aspects of hazardous waste/material management including selection of protective clothing and equipment and emergency response.

2. At a minimum, the training program should be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

   a. Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

   b. Communications or alarm systems;

   c. Response to fires or explosions;

   d. Response to discharges to the land surface; incidents; and

   e. Shutdown of operations.

3. All personnel who handle hazardous waste (or items which would be hazardous waste if regulated) should be trained in sorting materials by hazard class and compatibility group.

4. Facility personnel should successfully complete the program required above within six months after the date of their employment or assignment to a facility. New employees should not work in unsupervised positions until they have completed the training requirements.

5. Facility personnel should take part in an annual review of the initial training required.

6. Facilities which receive CESQG waste or bulk or otherwise treat any waste should have on staff, at least one person who has no less than 40 hours training in appropriate aspects of hazardous waste/material management including selection of protective clothing and equipment and emergency response. One such person should be on site whenever CESQG waste is being received and whenever any hazardous material ~~waste~~ is being bulked or otherwise treated.

B. Records

The owner or operator should maintain the following documents and records at the facility or at the facility manager's office:

1. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

2. A written job description for each position. This description may be consistent in its degree of specificity with descriptions for other similar positions at the same site, but should include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; and

4. Record that documents that the training or job experience required for each position has been completed by facility personnel.

V. Operations

A. Maintenance and Operation of Facility

1. Facilities should be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

2. All facility communications or alarm system, fire protection equipment, spill control equipment, and decontamination equipment, where required, should be tested and maintained in accordance with manufacturer's recommendations and as necessary to assure its proper operation in time of emergency.

3. The owner or operator should maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

4. Whenever hazardous waste is being poured, mixed, or otherwise handled, all personnel involved in the operation should have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not necessary.

5. If there is ever just one employee on the premises while the facility is operation, he should have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not necessary. Telephones and radios shall not be placed in areas where the atmosphere may become explosive due to the presence of flammable vapors, dusts, or gases.

B. Accumulation Time

1. An operator of a permanent HHW collection site may accumulate hazardous waste on-site, provided that:

   a. The waste is placed in containers (note: a container is a storage building or a DOT shippable drum) and the operator follows the recommendations of this document;

   b. The amount of waste accumulated does not place the facility in violation of any part of section II.A, V.D, or V.E; and

   c. While being accumulated on-site, each container is labeled with the appropriate DOT label, if any, and a description of the contents (e.g., used oil, paints, batteries). (note: this does not require labeling each original consumer container. A proper label on a drum or storage building door is sufficient provided it describes all the hazardous properties of the materials inside.)

2. It is recommended that HHW accumulated for treatment or disposal not be accumulated on site for more than 210 days. Once the capacity limit of a collection site or time limit is reached, all hazardous waste collected should be shipped to a permitted hazardous waste facility for treatment or disposal. The operator may request DEP approval of a longer accumulation time period for specific wastes which are accumulated slowly.

C. Management of Containers

1. If a container holding hazardous waste is not in good condition or if it begins to leak, the operator should pack the container and its contents in a larger container that is in good condition, or manage the waste in some other way that complies with the requirements of this part.

2. The operator should use containers made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

3. A container holding hazardous waste should always be closed during storage, except when it is necessary to add or remove waste.

4. A container holding hazardous waste should not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

5. The operator should inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors. The operator should keep records and results of inspections.

D. Special Requirements for Ignitable or Reactive Waste

1. Containers holding ignitable or reactive waste should be located at least 50 feet from the facility's property line.

2. The operator should take precautions to prevent accidental ignition of ignitable waste. This waste should be separated and protected from sources of ignition including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable waste is being handled, the owner or operator should confine smoking and open flame to a specially designated location. "No Smoking" signs should be conspicuously placed wherever there is a hazard from ignitable waste.

3. Reactive wastes shall receive such special handling and storage as needed to prevent unintentional reactions.

E. Special Requirements for Incompatible Wastes

The purpose of this Section is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible waste or if a container breaks or leaks.

1. Incompatible waste, or incompatible waste and materials (for examples, see Attachment 2), should not be placed in the same container;

2. Hazardous waste should not be placed in an unwashed container that previously held an incompatible waste or material (for examples, see Attachment 2); and

3. Incompatible wastes should be stored separately. They should be separated by a minimum of two impervious barriers such that, should any one container fail, no waste or vapors will come into contact with incompatible material or containers.

F. Handling Requirements for Ignitable, Reactive, or Incompatible Wastes

Repackaging or treatment, including bulking, or neutralizing of ignitable, reactive, or incompatible waste, should be conducted so that it does not:

1. Generate extreme heat or pressure, fire or explosion, or violent reaction;

2. Produce uncontrolled toxic vapors, dusts, or gases in sufficient quantities to threaten human health;

3. Produce uncontrolled flammable vapors, dusts, or gases in sufficient quantities to pose a risk of fire or explosion;

4. Damage the structural integrity of the device or facility containing the waste; or

5. Threaten human health or the environment.

G. Material Redistribution Guidelines

1. Selection of Materials for Redistribution to the Public

Materials selected for exchange programs should meet the following minimum criteria:

a) original containers only

b) original label including ingredients, instructions for use, and warnings must be present and readable

c) contents should be visually inspected and should look like correct material in new condition

d) containers should be at least 3/4 full except pesticides, which should be full and, where applicable, sealed (NOTE: Facilities which choose to include pesticides must maintain a current list of banned, canceled, and restricted use pesticides.)

The following items should be excluded from redistribution programs:

a) ammunition

b) reactive materials

c) canceled or banned products

Each item selected for redistribution should be approved by the facility manager or his/her designee.

2. Storage

a) Materials designated for redistribution should be stored in a separate area of the facility. This area should be clearly marked and secured from unauthorized access.

b) As a minimum, secondary containment sufficient to contain the entire contents of the largest two containers in storage should be provided. Secondary containment which also provides for the separation of incompatibles is preferred.

3. Customers

a) All customers should be at least 18 years of age

b) Customers should be allowed to "shop" only in the designated area.

4. Documentation

Each redistribution program should develop and use a waiver/inventory form which includes the following elements:

a) Customer's name and signature

b) name and quantity if each material received

c) liability waiver ("hold harmless" statement)

The above document should be reviewed by the county attorney.

VI. Preparedness and Prevention

A. Arrangements with Local Authorities

1. The operator should attempt to make the following arrangements, as appropriate for the type of waste handled at this facility and the potential need for the services of these organizations:

   a. Arrangements to familiarize police, fire department, and emergency response teams with the layout of the facility, properties of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

   b. Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any other to provide support to the primary emergency authority;

   c. Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

   d. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

VII. CONTINGENCY PLAN AND EMERGENCY PROCEDURES

A. Purpose and Implementation of Contingency Plan

1. Each owner or operator should have a contingency plan for his facility. The contingency plan should be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

2. The provisions of the plan should be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

B. Content of Contingency Plan

1. The contingency plan should describe the actions facility personnel should take to protect the public from potential health and safety hazards in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

2. If the owner or operator has already prepared some other emergency or contingency plan in the normal permit application for the solid waste management facility, he/she need only amend that plan to incorporate hazardous waste management provisions that are applicable to the HHW collection site.

3. The plan should describe arrangements agreed to by local police department, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services as previously described.

4. The plan should list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (as described later). This list should be kept up to date. Where more than one person is listed, one should be named as primary emergency coordinator and others should be listed in the order in which they will assume responsibility as alternates.

5. The plan should include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems [internal and external], and decontamination equipment, where this equipment is required. This list should be kept up to date. In addition, the plan should include the location and a physical description of each item on the list, and a brief outline of its capabilities.

6. The plan should include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan should describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

C. Copies of Contingency Plan

A copy of the contingency plan and all revisions to the plan should be maintained at the facility, submitted to the local police and fire departments, hospitals, and State and local emergency response teams that would be called upon to provide emergency services.

D. Changes of Contingency Plan

The contingency plan should be reviewed, and immediately changed if necessary, whenever:

1. The plan fails in an emergency;

2. The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

3. The list of emergency coordinators changes; or

4. The list of emergency equipment changes.

E. Emergency Coordinator

At all times, there should be at least one employee either on the facility premises or on call (i.e. , available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator should be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the locations and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person should have the authority to commit the resources needed to carry out the contingency plan.

The emergency coordinator's responsibilities vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility. "Emergency procedures" outlines the activities which the coordinator is responsible for.

F. Emergency procedures

1. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) should immediately:

   a. Activate internal facility alarms or communication systems, where applicable, to notify all facility alarms or communication systems.

   b. Notify appropriate State of local agencies with designated response roles if their help is needed

2. Whenever there is a release, fire, or explosion, the emergency coordinator should immediately identify the character, exact source, amount, and areal extent of any released materials. He or she may do this by observation or review of facility records, or if necessary, by chemical analysis.

3. Concurrently, the emergency coordinator should assess possible hazards to human health or the environment that my result from the release, fire, or explosion. This assessment should consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire, or heat-induced explosions).

4. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he should report his findings as follows:

a. If his assessment indicates that evacuation of local areas may be advisable, he should immediately notify appropriate local authorities. The emergency coordinator should be available to help appropriate officials decide whether local areas should be evacuated; and

b. He should immediately notify either the government official designated as the on-scene coordinator for that area or the State Warning Point (using their 24-hour number 904/488-1320). The report should include:

   i. Name and telephone number of reporter;

   ii. Name and address of facility;

   iii. Time and type of incident (e.g., release, fire);

   iv. Name and quantity of material(s) involved, to the extent known;

   v. The extent of injuries, if any; and

   vi. The possible hazards to human health, or the environment, outside the facility.

5. During an emergency, the emergency coordinator should take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other areas of the facility. These measures should include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

6. During an emergency, the emergency coordinator should monitor for leaks, pressure buildup, gas generation, or ruptures in containers and/or equipment, wherever this is appropriate.

7. Immediately after an emergency, the emergency coordinator should provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material contaminated by a release, fire, or explosion at the facility.

8. The emergency coordinator should ensure that, in the affected area(s) of the facility;

   a. No waste that may be incompatible with the released material is stored or handled until cleanup procedures are complete; and

   b. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

9. The owner or operator should notify appropriate State and local authorities, in writing, that the facility is once again functional before operations are resume in the affected area(s) of the facility.

10. The owner or operator should note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 24 hours after the incident, incidents shall be reported to the Department of Environmental Protection (District Office Hazardous Waste Supervisor), and a written report on the incident should be submitted within 15 days. The report should include:

    a. Name, address, and telephone number of the owner or operator;

    b. Name, address, and telephone number of the facility;

    c. Date, time and type of incident (e.g., fire, explosion)'

    d. Name of quantity of material(s) involved;

    e. The extent of injuries, if any;

    f. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

    g. Estimated quantity and disposition of recovered material that resulted from the incident.

EXHIBIT 1.
SUGGESTED OUTLINE
HAZARDOUS WASTE MANAGEMENT FACILITY CONTINGENCY PLAN

I. Facility Identification and General Information
   1. Name of Facility
   2. Location
   3. Owner's Name, Address, and Telephone Numbers (office and hours)
   4. Type of Facility
   5. Facility Site Plan
   6. Description of Treatment, Storage and Disposal Activities

II. Emergency Coordinator(s)
   1. Primary Coordinator
   2. Alternate Coordinator(s)
   3. Emergency Duties and Authority to Commit Facility Resources

III. Implementation of Contingency Plan

IV. Emergency Response Procedures
   1. Notification
   2. Control Containment
   3. Follow-up

V. Emergency Equipment
   1. Emergency Equipment Inventory
   2. Location of Emergency Equipment
   3. Equipment Capabilities
   4. Emergency Equipment Available from Other Sources

VI. Coordination Arrangements
   1. Police
   2. Fire
   3. Other Emergency Response Units
   4. Hospital

VII. Evacuation Plan
   1. When to Evacuate
   2. Signals to Begin Evacuation
   3. Primary Evacuation Routes
   4. Alternate Evacuation Routes

Transmit Confirmation Report

No.	:	004
Receiver	:	9-874-3056
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	May 17 96 9:20
Time	:	12'08
Mode	:	Fine
Pages	:	14
Result	:	OK

Board of County Commissioners

Department of Public Works

Post Office Box 167, Lecanto, Florida 34460

(352) 746-4107 FAX (352) 746-1203

RECEIVED
MAY 17 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

REPLY TO:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

May 14, 1996

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Dr.
Tampa, Florida 33619

Re: Citrus County Central Landfill
Permit No. SO09-187229
Household hazardous waste storage facility

Dear Mr. Ford:

Citrus County intends to construct a canopy structure over the household hazardous waste storage unit. The structure will provide shade for the storage unit and will reduce the rain falling on the spill containment slab between the storage unit and the access road. During your site visit today, you indicated that no DEP permit is required for this activity. I would appreciate a written confirmation. Thank you.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

Ms. Susan J. Metcalfe, P.G., Director
Citrus County Solid Waste Division
PO Box 340
Lecanto, Fl. 34460-0340

May 3, 1996

RE: Citrus County Landfill Financial Assurance Cost Estimates
Permit Nos.: SO09-187229 and SF09-211030, Citrus County

Dear Ms. Metcalfe:

This letter is to acknowledge receipt of the additional information dated April 2, 1996, submitted in support of the cost estimates for long-term care of the Citrus County Landfill old Closed 60-Acre portion. The cost estimates submitted are not approved, at this time. Please respond to the following comments:

GENERAL:

1. The Department has not received a request, or documentation supporting a request, to monitor the Closed 60-Acre portion of the site separately from the active 80-acre area. Pursuant to FAC 62-701.610(6), if only a portion of the landfill has been closed, the long-term care period will begin upon the closing of the entire landfill, unless the portion which has been closed can be monitored and maintained separately from the rest of the landfill. Since the leachate is not managed separately, and the groundwater monitoring system may not accommodate separate monitoring, the Department does not consider that the long-term care period for the 60-acre portion of the site has begun.

2. Pursuant to FAC 62-701.630(7) and (8), financial assurance shall be provided for corrective actions at the site. The Department has received the Contamination Assessment Report, prepared by CH2MHill, dated April 1996. In the event that corrective actions, additional monitoring, or other remedial activities are required at the site, the financial assurance cost estimates shall be revised to include these activities.

3. The cost estimates dated August 31, 1995 for 18.3 acres closure ($2,032,751 total) and long-term care ($311,146 per year for 30 years, $9,334,380 total) are acceptable for that acreage (Phase 1 & 1A). However, several costs submitted for the Closed 60-acre portion do not correlate with the costs for the 80-acre portion of the site. Since the long-term care costs for the 80-acre portion are approved, the costs for the 60-acre portion should correlate with the approved costs. If the costs are different, an explanation, and supporting documentation, for the difference should be provided.

LONG-TERM CARE COSTS:

1. Gas Monitoring.
   The cost submitted seems low. Please explain why the cost for gas monitoring at this portion of the facility ($7/location/event) is less than the cost listed for the 80-acre portion($25/location/event). Please provide a revised cost as appropriate.

2. Administrative/Overhead.
   The cost submitted seems low. The costs for this item for the 80-acre portion are approximately 6 times greater than the costs listed for this portion of the site ($933/acre vs. $172/acre). Please explain this difference, or provide a revised cost for this item.

3. Liner Repair.
   Please explain why a cost for liner repair was not included, or provide a revised cost.

The Department requests that all information be provided to the Solid Waste Section, FDEP, Tampa office within thirty (30) days of this notice. If you have any questions, you may contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, E.I.
Solid Waste Section
Division of Waste Management

sjp
cc: Gary Kuhl, P.E., Director, Citrus Co. Dept. of Public Works, PO Box 340, Lecanto, Fl. 34461
R.J. Bruner III, P.E., CH2M Hill, 3011 SW Williston Road, Gainesville, Fl. 32608-3928
Fred Wick, FDEP, Tallahassee, w/attachment
Robert Butera, P.E., FDEP Tampa
Steve Morgan, FDEP Tampa
Kim Ford, P.E., FDEP Tampa
Allison Amram, P.G., FDEP Tampa

Permit File
Citrus SO09-187229

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

May 3, 1996

Ms. Susan Metcalfe, P.G.
Director, Division of Solid Waste Management
Citrus County Department of Public Works
P.O. Box 167
Lecanto, Florida 34460

Subject: Acetone in Groundwater, Citrus County Landfill
Permits Nos. SO09-187229 and SF09-211030

Dear Ms. Metcalfe:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the groundwater monitoring results for the first quarter sampling event at the landfill. These results noted exceedances of Florida's groundwater guidance concentrations for acetone in many wells. As discussed in your transmittal letter, it is unusual for a contaminant to appear at once in all wells. Please evaluate the quality control practices used in the sampling and analyses for the January 1996 sampling event, and the February 1996 resampling. Can any potential contamination sources of acetone be identified (use in decontamination?)?

Please provide a copy of the field sampling notes with a written evaluation of this anomaly prior to the next sampling event at the landfill. If you have any questions, please contact me at 813/744-6100, ext. 336.

Sincerely,

Allison Amram

Allison Amram, P.G.
Solid Waste Section

cc: Gary Kuhl, Director, Department of Public Works - Citrus County
Bob Butera, P.E., FDEP

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

March 27, 1996

Ms. Susan Metcalfe, P.G.
Solid Waste Management
Citrus County Public Works
Post Office Box 340
Lecanto, FL 34460-0340

Re: Citrus County Central Landfill, Phase I
Pending Permit No.: SO09-274381, Citrus County

Dear Ms. Metcalfe:

This is to acknowledge receipt of the additional information received March 1 and 20, 1996 submitted in support of your permit application to operate the existing solid waste management facility referred to as the Citrus County Central Landfill Phase I.

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 62-701, Florida Administrative Code (F.A.C.)]. Please provide:

1. The results of the proposed inspection and cleaning with a performance evaluation for the existing LCRS piping to verify that the LCRS system is not clogged and is functioning properly. A procedure to clean the LCRS system shall be included with the performance evaluation.

Please provide all responses that relate to engineering required for operation, signed and sealed by a professional engineer. If some information has been previously submitted, please reference it specifically rather than resubmit.

"NOTICE! Pursuant to the provisions of Section 120.600, F.S. and Chapter 62-12.070(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. 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

cc: Gary Kuhl, P.E., Citrus County Public works
Gary Panozzo, P.E., CH2M Hill
John Wood, CH2M Hill
Steve Tsangaris, CH2M Hill
RB Robert Butera, P.E., FDEP Tampa

Citrus SO - permit file

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3/25/96

Time 3:15

Subject Sodium Transport Model

Permit No.

County Citrus

M Susie Metcalfe

Telephone No. 352/746-5000

Representing Citrus

[X] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

In January the WWTP operator made progress w/ leachate treatment - still don't have the right balance w/ the methanol feed + other variables. She is putting together more info for ZIMPRO to look at to improve the plant's performance.

cl should go ahead + review the transport model - should include w/ SO renewal conditions

(continue on another sheet, if necessary)

Signature Allison Amsam

Title PG1

PA-01
1/93
hjs

CH2M HILL TRANSMITTAL

TO	Florida Dept. of Environmental Protection Solid Waste Section 3804 Coconut Palm Drive Tampa, FL 33619	FROM	Steve Tsangaris P.O. Box 21647 Tampa, FL 33622-1647
ATTN	Kim B. Ford, P.E.	DATE	3/21/96
RE	Citrus County Central Landfill	PROJ #	

RECEIVED
MAR 21 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

WE ARE SENDING YOU

- [X] ATTACHED
- [ ] UNDER SEPARATE COVER VIA
- [ ] SHOP DRAWINGS
- [ ] DOCUMENTS
- [ ] TRACINGS
- [ ] PRINTS
- [ ] SPECIFICATIONS
- [ ] CATALOGS
- [ ] COPY OF LETTER
- [ ]

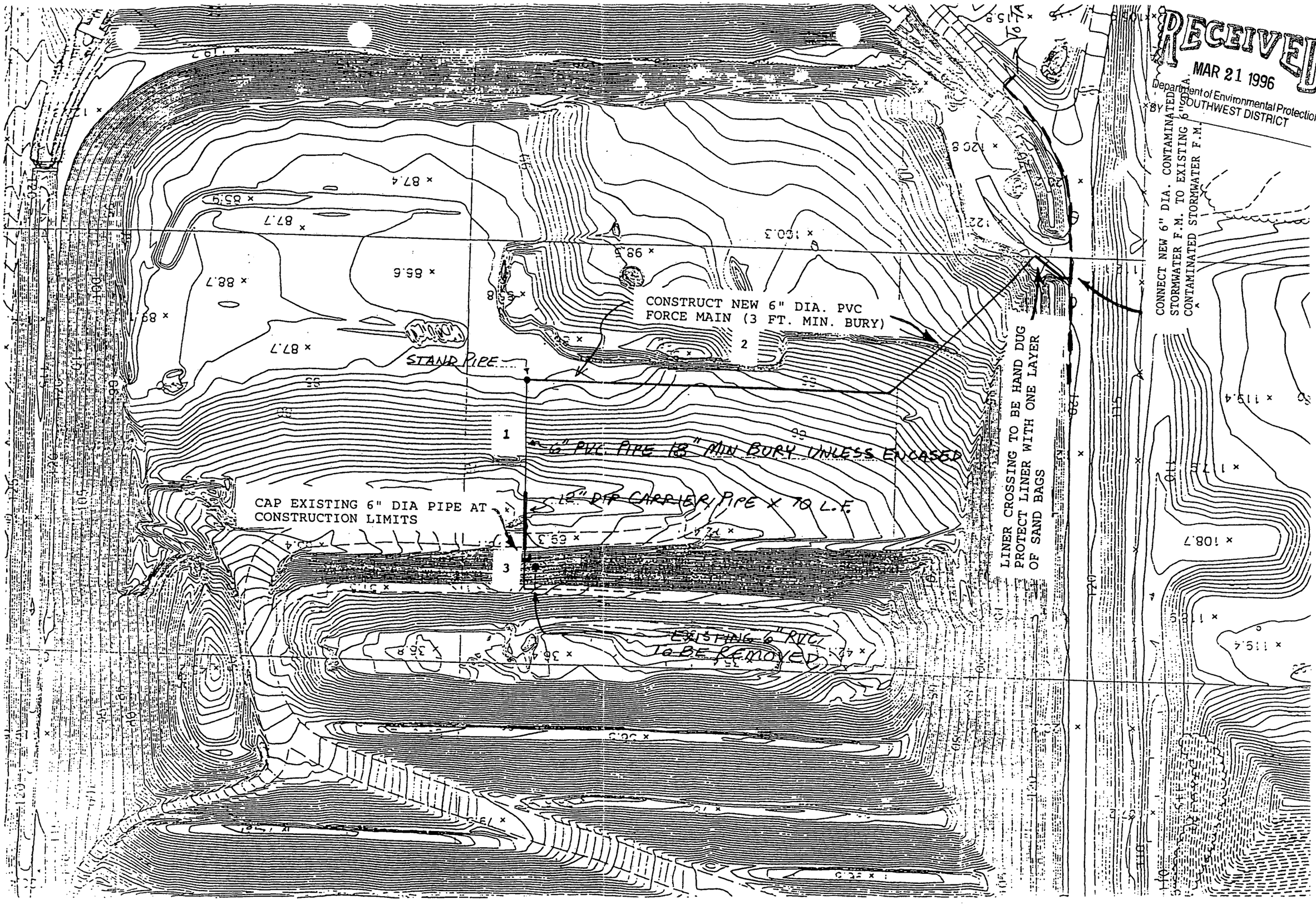
QUANTITY	DESCRIPTION
2	Revised leachate hardpiping drawing

IF MATERIAL RECEIVED IS NOT AS LISTED, PLEASE NOTIFY US AT ONCE

REMARKS

COPY TO

ORDER OF CONSTRUCTION SHOWN
BY NUMBERS.



RECEIVED
MAR 21 1996
Department of Environmental Protection
SOUTHWEST DISTRICT

CH2M HILL TRANSMITTAL

TO	Florida Department of Environmental Protection Solid Waste Section 3804 Coconut Palm Drive Tampa, FL 33619	FROM	Steve Tsangaris P.O. Box 21647 Tampa, FL 33622-1647
ATTN	Kim B. Ford, P.E.	DATE	3/19/96
RE		PROJ #	

RECEIVED
MAR 20 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

WE ARE SENDING YOU

- [X] **ATTACHED**
- [ ] **UNDER SEPARATE COVER VIA** _____
- [ ] SHOP DRAWINGS
- [ ] DOCUMENTS
- [ ] TRACINGS
- [ ] PRINTS
- [ ] SPECIFICATIONS
- [ ] CATALOGS
- [ ] COPY OF LETTER
- [ ] _____

QUANTITY	DESCRIPTION
1	Revised filling sequence drawings
1	Revised LFG Monitoring Plan

IF MATERIAL RECEIVED IS NOT AS LISTED, PLEASE NOTIFY US AT ONCE

REMARKS **Please review and call with comments! Thanks.**

COPY TO

Gas Monitoring Program
Citrus County Central Landfill

RECEIVED
MAR 20 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

Introduction

Background

This landfill gas (LFG) monitoring program for the Citrus County Central Landfill has been prepared in accordance with the provisions of Rule 62-701.400(10), F.A.C. This plan includes measures for comprehensive monitoring of LFG from the existing landfill (Phase 1/1A), and the closed 60-acre landfill (located adjacent to and west of the existing landfill).

The Phase 1/1A landfill has a geomembrane bottom lining. The bottom depth of refuse in the existing landfill is approximately 80 feet below ground surface. Groundwater is approximately 100 feet from the surface. The soil at the site is primarily silty and clayey sand. Based on experience with other landfills, the geomembrane lining can be expected to serve as an effective barrier and prevent LFG from migrating into the adjacent soils. Therefore LFG migration is not anticipated from the existing landfill.

The closed 60-acre landfill is unlined. This landfill has been closed and capped with a geosynthetic membrane and protective soil cover. During operation, solid waste was placed in excavations up to approximately forty feet below ground surface. Subsurface gas migration has been detected in shallow landfill gas monitoring probes (approximately 3 feet deep) to the west and south of the closed landfill, as well as to the east of the closed landfill where the Phase 1/1A landfill currently exists.

Landfill gas has also been detected in several buildings at the facility. Historically, gas migration in buildings has been most prevalent along the eastern boundary of the closed landfill adjacent to the scale building and treatment plant. Landfill gas has the potential to enter these structures through underground electrical conduits. Since December 1992, LFG levels have been monitored in several of the facility structures, and preventive measures have been implemented to minimize the risk of explosion and risk to human health and the environment. Continued monitoring of facility structures and implementation of preventive measures are included as part of this LFG monitoring plan. Descriptions of the monitoring activities since 1992, and preventative measures and corrective actions after 1992, are included in Citrus County's Gas Migration Monitoring Report, dated March 1, 1994. The 1994 Monitoring Report is referenced for informational purposes only; the monitoring plan described in the 1994 report has been replaced by this LFG Monitoring Program.

Landfill Gas Generation

Landfill gas is generated by the bacterial decomposition of organic refuse in an anaerobic environment within a landfill. LFG is typically composed of 55 percent methane and 45

percent carbon dioxide. Landfill gas is dangerous because it is explosive at methane concentrations between 5 and 15 percent, it is an asphyxiant, and it contains trace contaminants that are often malodorous and sometimes toxic.

Landfill Gas Migration

LFG movement occurs primarily due to the pressure gradient produced by the continuous generation of LFG within a landfill. If the LFG is uncollected, it will eventually escape to the atmosphere, either directly through the landfill surface or after migrating laterally through the surrounding soil. Lateral LFG movement is influenced by several factors: the pressure gradient described above, the permeability of the landfill lining and cover, and the permeability of the surrounding soils. LFG movement into structures usually occurs through underground conduits that provide electrical or other services to the structures.

Landfill Gas Monitoring Probes

Installation of permanent LFG monitoring probes around the perimeter of the closed 60-acre landfill was completed in February 1993. The locations of these gas monitoring probes are shown on Figure 1. These probes were generally constructed to a depth of approximately 3 feet below ground surface. Gas probes were installed to deeper depths along the eastern boundary of the closed 60-acre landfill to better define the degree of migration. Multi-level gas probes were installed at locations GS-M_E and GS-S_E (10, 15, and 25 feet below ground surface at both locations) and GS-P_E (10 and 15 feet below ground surface).

Two (2) replacement LFG monitoring probes will be installed to a depth of 3 feet below ground surface at locations GS-H3NR and GS-W3ER. These probes will replace probes GS-H3N and GS-W3E that were destroyed during construction of an access road.

Two (2) additional LFG monitoring probes will be installed on the east (probe designated GS-1E) and south (designated GS-1S) sides of the Phase 1/1A facility where the landfill is in close proximity to the property line, as shown in Figure 1. A probe will not be installed on the north side because the north property boundary is approximately 1,700 feet from Phase 1/1A and future landfill expansion is planned in this area.

The probes will be installed in borings drilled to a depth which approximates the depth of the refuse (80 feet). The probe will consist of one monitoring zone beginning at approximately 6 feet below ground surface extending to 80 feet.

The probes will be constructed with 1/2-inch-diameter PVC casing and screen (Figure 2). The annular space in the slotted zone will be filled with pea gravel and a bentonite seal will be installed above the gravel. A vault box will be installed at the surface of each probe to protect the PVC sampling pipes. Labcock sampling valves will be installed at the top of each PVC pipe to allow for a direct connection to the instruments.

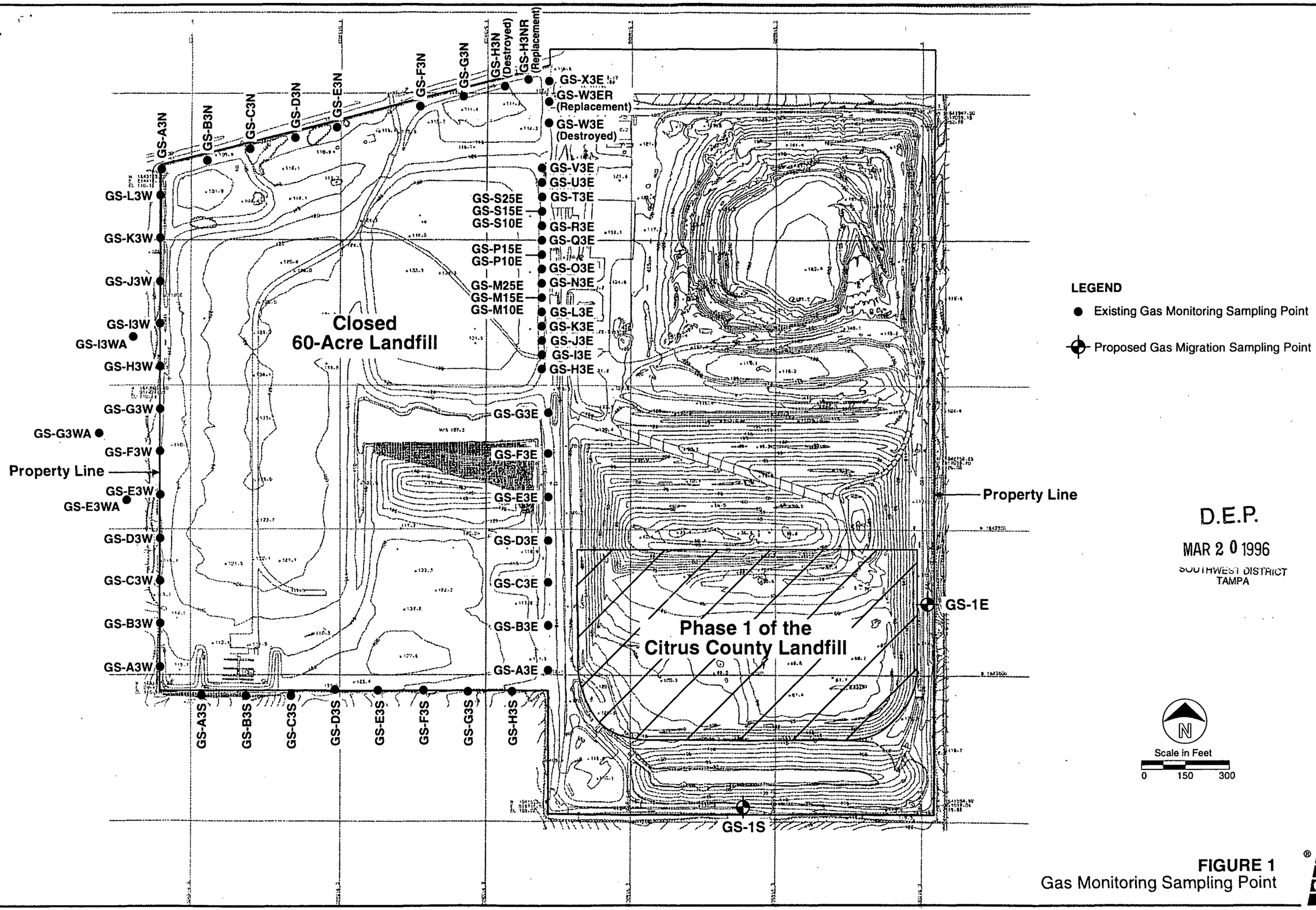
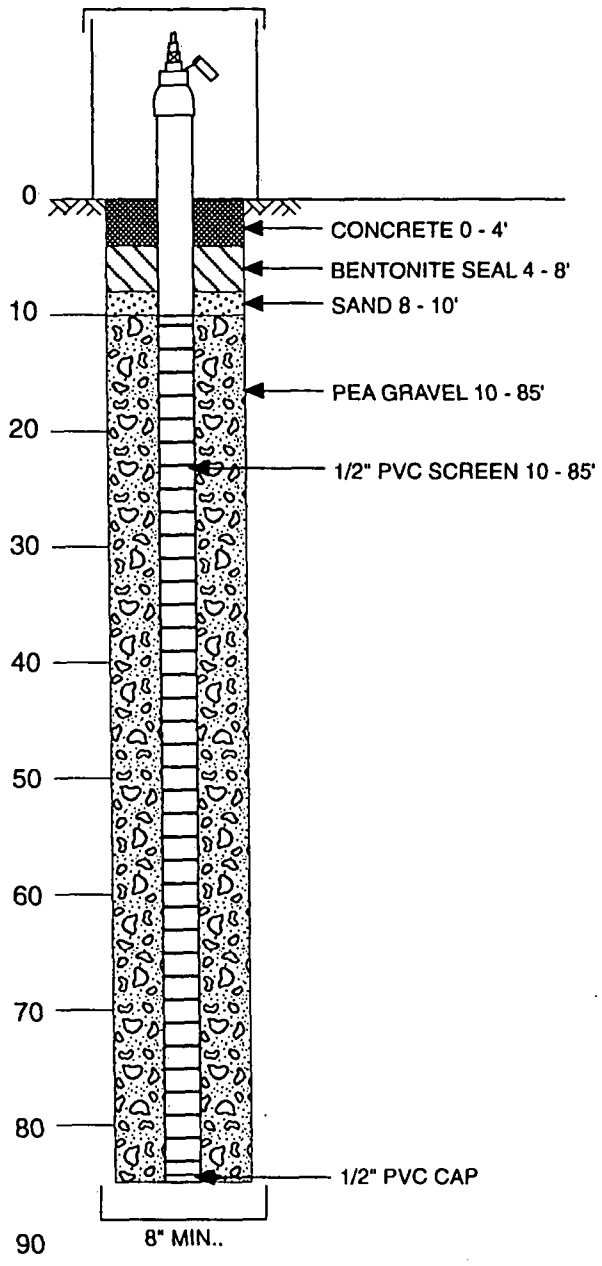
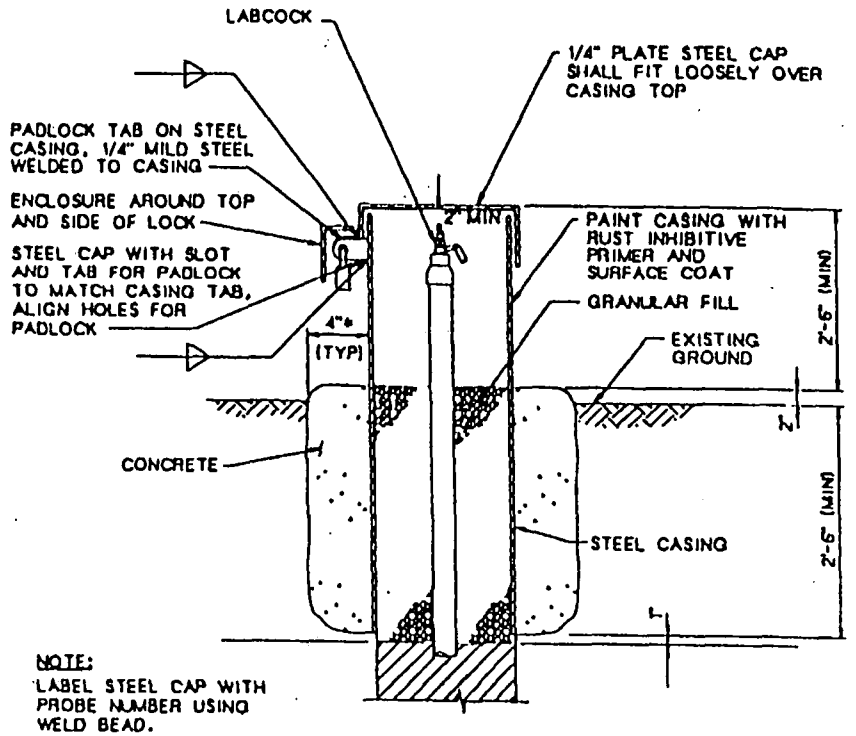


FIGURE 1
Gas Monitoring Sampling Point

117596.28.01 2/96 dsk31





NOTE:
LABEL STEEL CAP WITH PROBE NUMBER USING WELD BEAD.

DETAIL 1
NTS

NOTES:
1 - ACTUAL DIMENSIONS WILL DEPEND ON ACTUAL HYDROGEOLOGY ENCOUNTERED DURING DRILLING AND THE CORRESPONDING ELEVATIONS OF CASING AND SCREEN PLACEMENT.

FIGURE 2
Gas Probe Construction Detail

CH2M HILL

Gas Probe Monitoring

LFG monitoring will be performed at the locations shown on Figure 1 in accordance with the schedule described below:

1. Gas monitoring probes located along the north (locations GS-A3N through GS-H3N), west (locations GS-A3W through GS-L3W), and south (locations GS-A3S through GS-H3S) boundaries of the closed 60-acre landfill, and the two probes east and south of the Phase 1 landfill, will be sampled on a quarterly basis for static pressure and concentrations of methane and oxygen.

2. Gas monitoring probes located along the east boundary of the closed 60-acre landfill (locations GS-A3E through GS-X3E) will be sampled on a monthly basis for static pressure and concentrations of methane and oxygen.

Pressure will be measured prior to the other parameters. A hose leading from the pressure gage will be attached to the labcock valve, and the valve will be opened to measure the pressure. The valve will be closed and kept closed when an instrument is not attached.

Methane concentration will be monitored using a Gastech Model GP-204 combustible gas indicator, or equivalent, to provide a direct reading of percent of the lower explosive limit (LEL) and percent oxygen. The gas instrument will be calibrated with calibration gas each day before monitoring is performed. The gas instrument will have a water filter upstream of the instrument to protect it from any water which might be pulled into the instrument from the probes.

In addition to gas parameters, the time of day and barometric pressure will be recorded at the beginning and end of the monitoring round. The measurement of barometric pressure is important and an accurate, calibrated gauge should be used. Barometric pressures should be measured at the site; readings from remote weather stations are not acceptable.

Any problems encountered during monitoring, observations, or other pertinent information that could impact the interpretation of the data will be recorded. For example, if a probe is full of groundwater or suspected of being so, indicate in comments for the monitoring round.

Gas Monitoring in Structures

The following gas monitoring will be performed in structures at the facility:

- Natural gas alarms located in the scalehouse building and leachate treatment plant electrical room will provide continuous monitoring. These monitors are designed to sound an alarm when methane concentrations exceed 25 percent LEL. The signal remains on as long as gas is present, and a red alarm light stays on after an alarm to alert personnel that methane was detected during their absence. Log

sheets will be kept at each location to record when the alarm has been triggered, and each alarm will be calibrated on a quarterly basis.

- The bathroom floor drain and electrical connections for the scale meter in the scalehouse building will be monitored using a combustible gas meter on a monthly basis. The monitoring locations in the scalehouse building are shown on Figure 3.

- Monthly monitoring of methane gas levels inside and under the site administrative office trailer and operations trailer. Sampling locations inside the trailers will include floor drains and electrical/telephone junction boxes. Sampling locations under the trailers will include areas where underground conduits become exposed and enter the trailers.

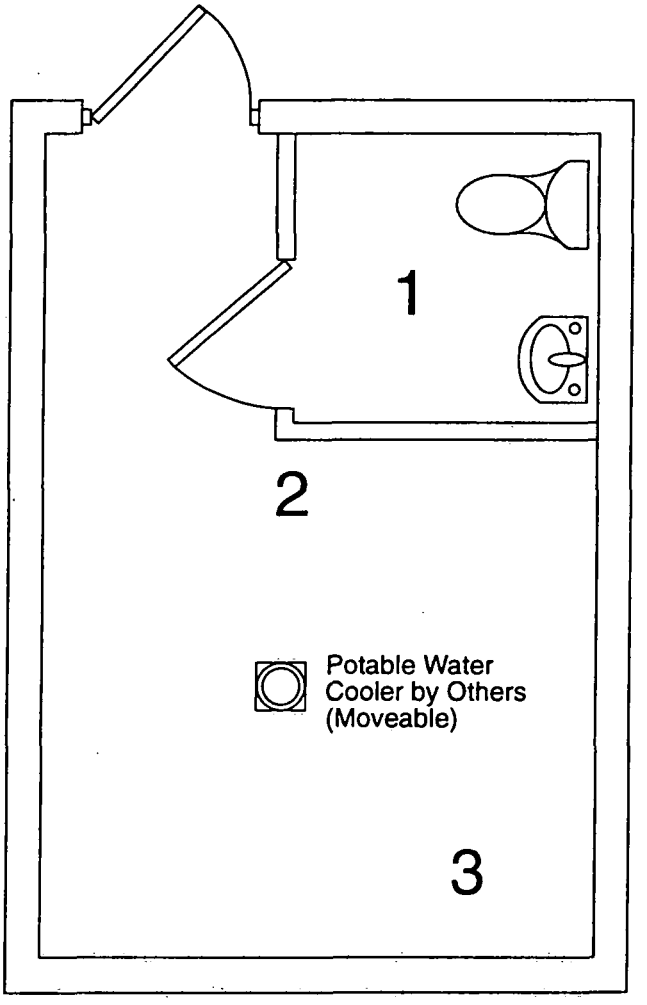
- Potential gas entry points within facility structures that have been sealed should be tested annually and resealed, if necessary

Reporting

Monitoring reports will be submitted on a quarterly basis to the Florida Department of Environmental Protection (FDEP).

Any odor complaints due to landfill gas at or beyond the property boundary will be recorded and submitted in the quarterly reports. If methane gas is measured above the LEL in the probes, or above twenty-five percent of the LEL in any structures, Citrus County will immediately take all necessary steps to ensure protection of human health. A description of the nature and extent of any exceedances and measures implemented in response to the exceedances will be included in the quarterly reports.

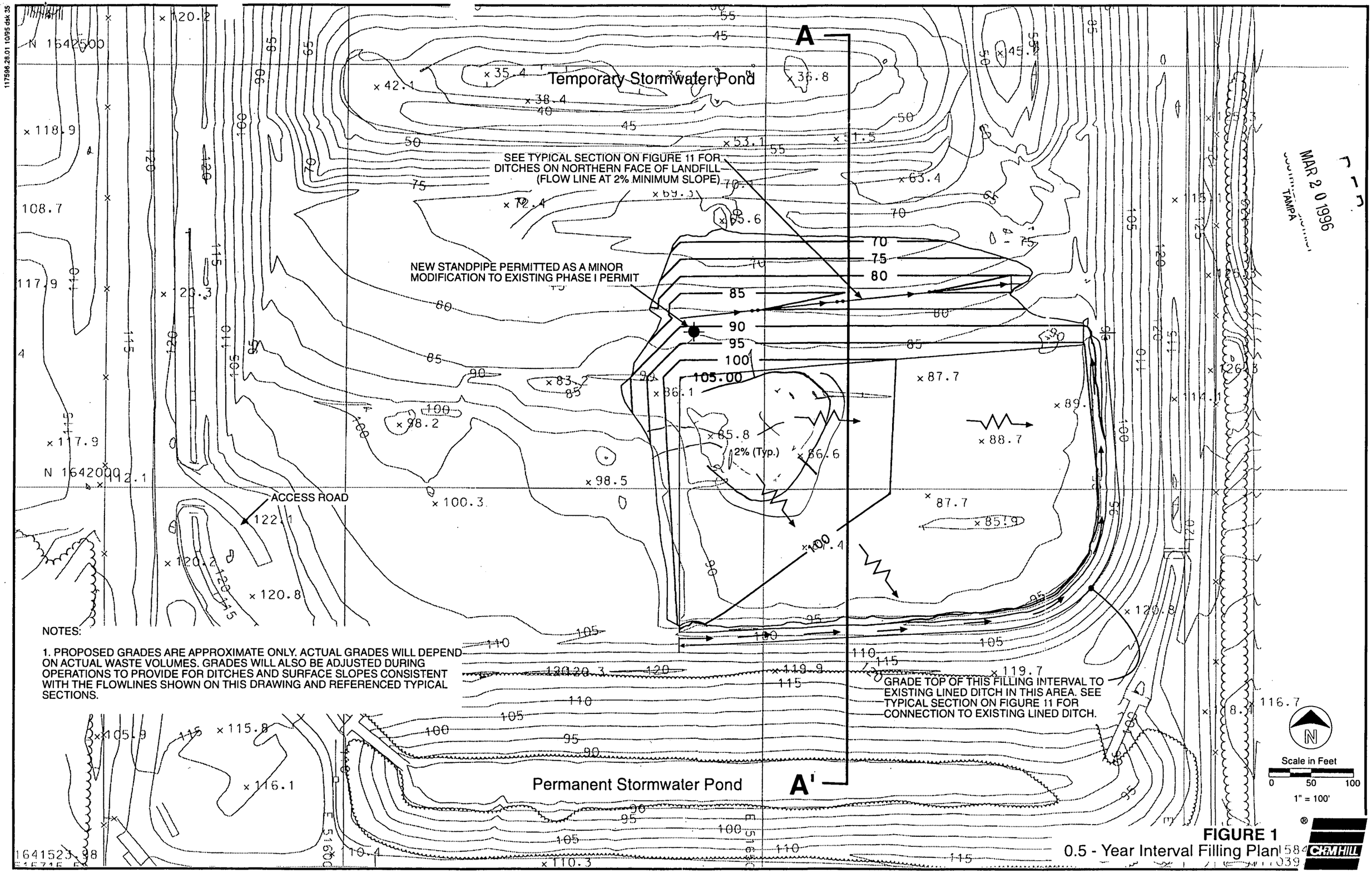
117956.28.01 3/96 Dsk35



1 - Bathroom Floor Drain
2 - Electric Connections for Scale Meter - West Side
3 - Electric Conections for Scale Meter - East Side

FIGURE 3
Scalehouse Gas Monitoring Points

CH2M HILL



NOTES:

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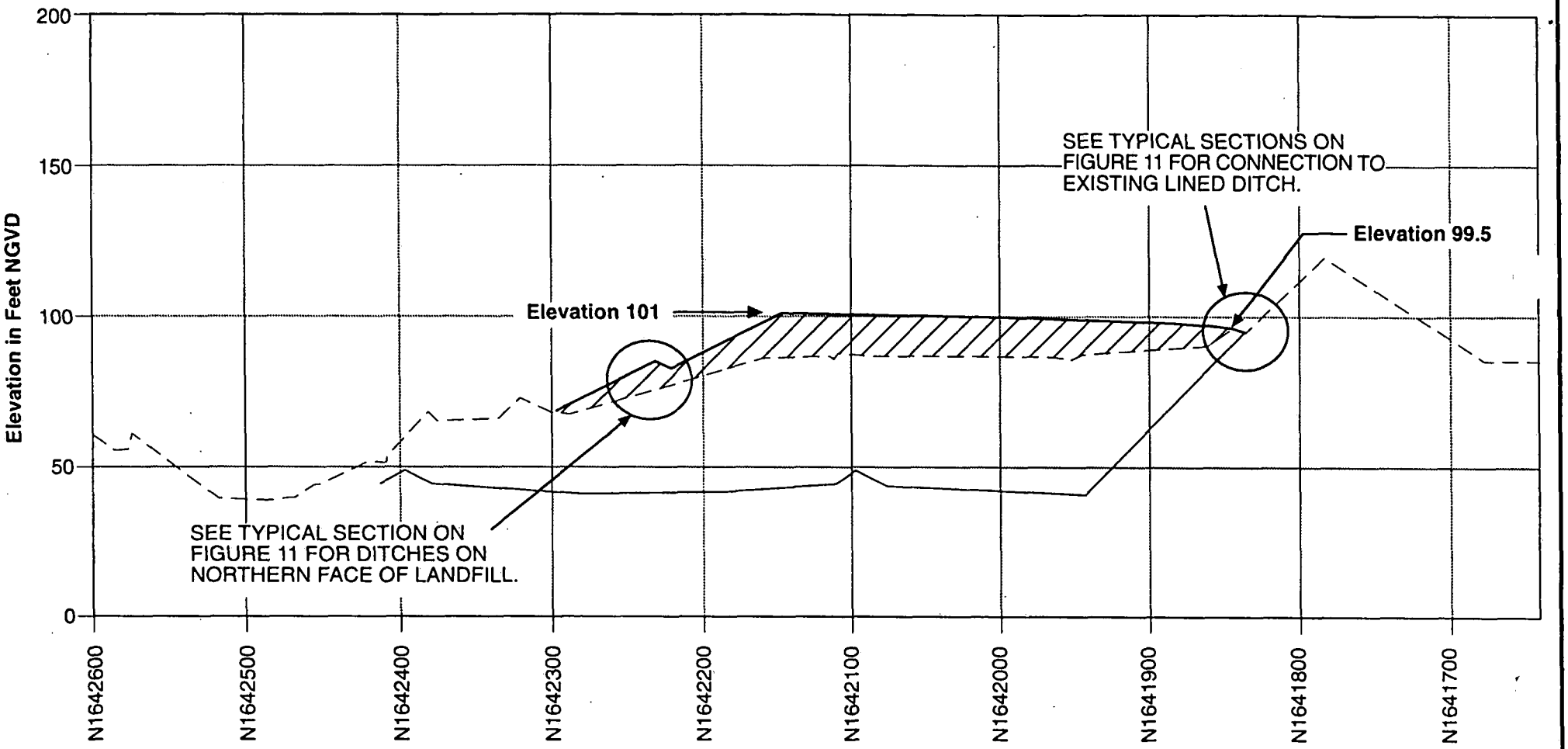
FIGURE 1
0.5 - Year Interval Filling Plan

CH2M HILL

117596.28.01 10/95 dsk 35



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Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

FIGURE 2
0.5 - Year Interval Filling Section A - A'

CH2M HILL

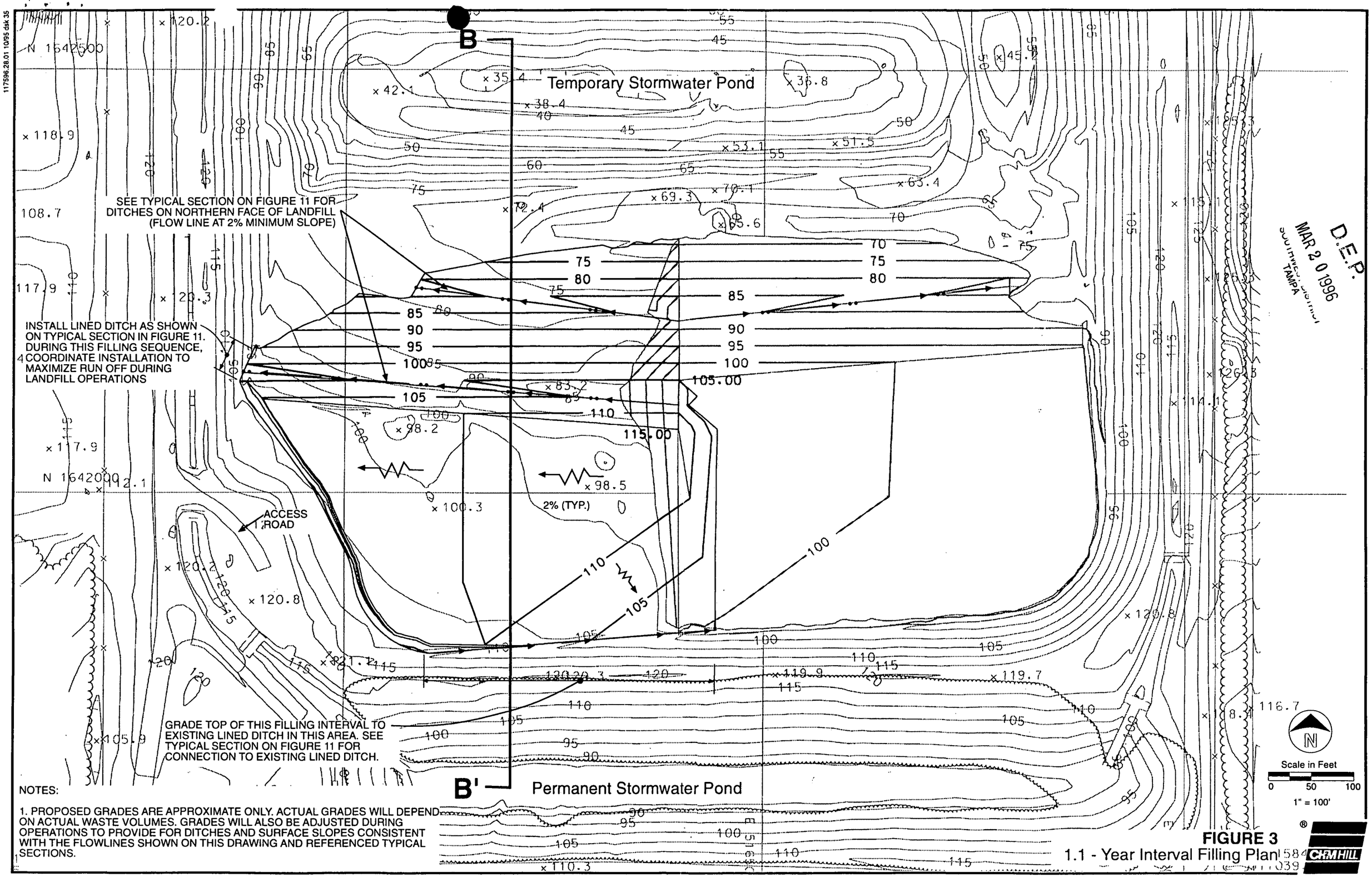

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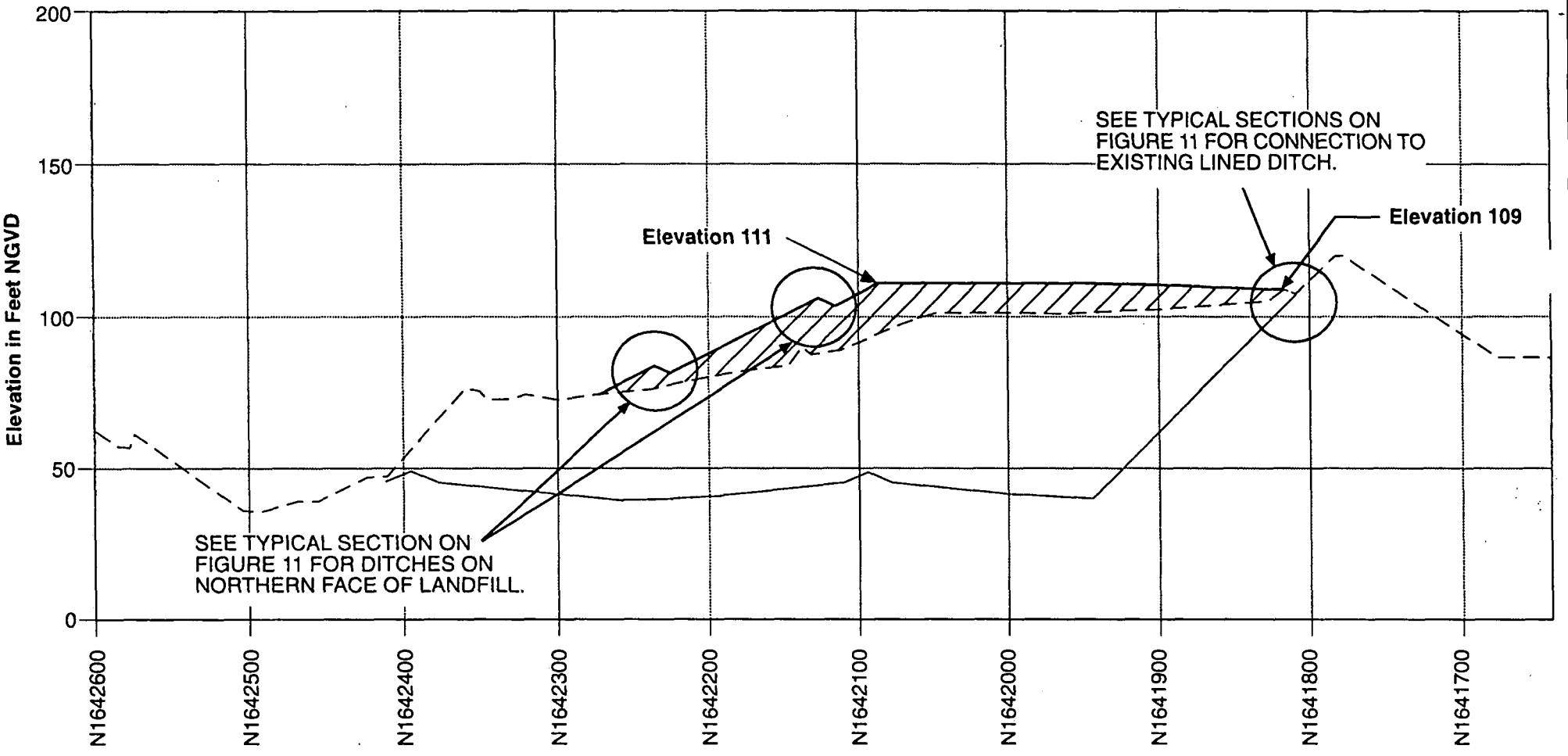
FIGURE 3
1.1 - Year Interval Filling Plan

CH2M HILL



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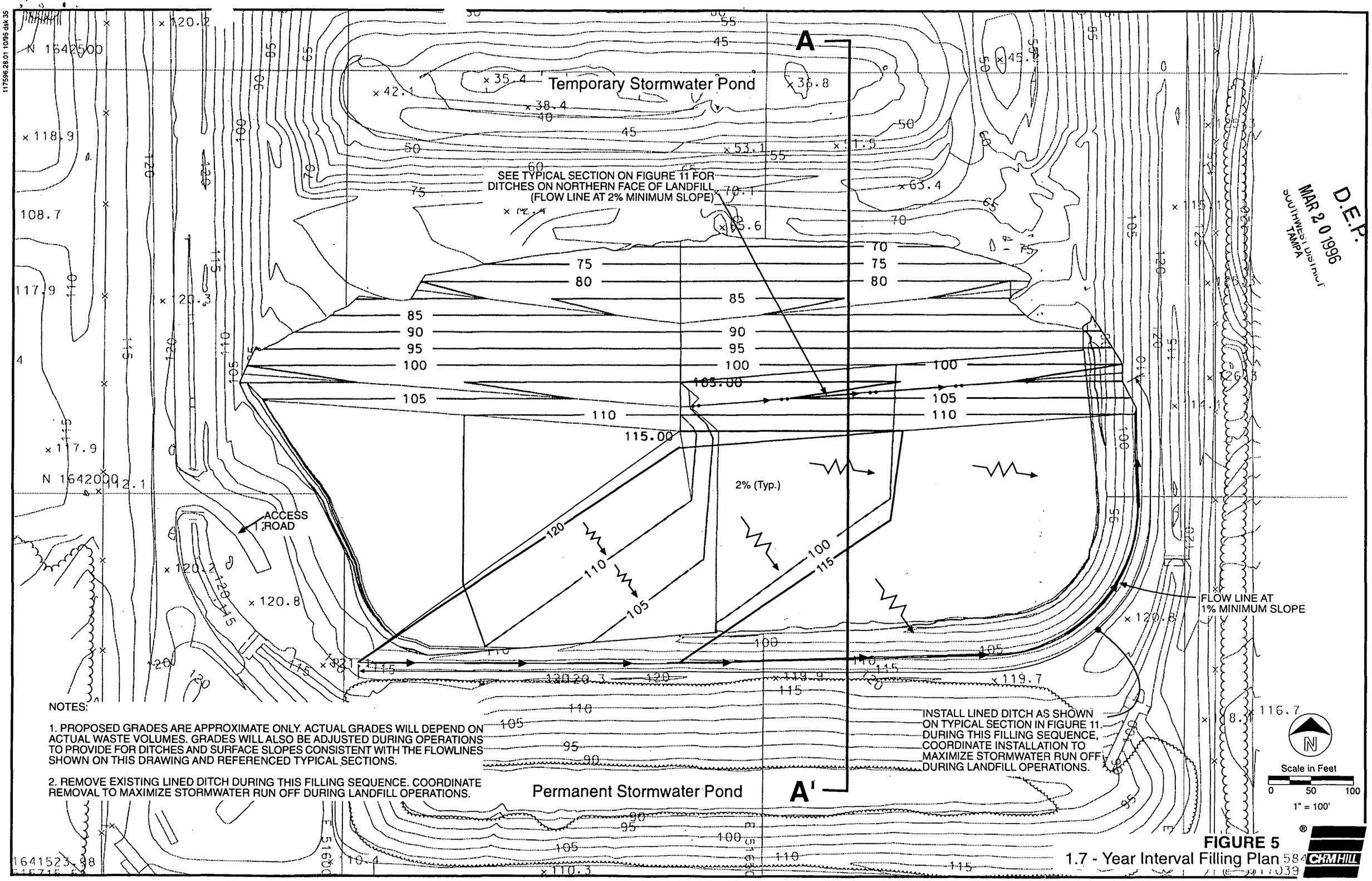
Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

FIGURE 4

1.1 - Year Interval Filling Section B - B'

CH2M HILL



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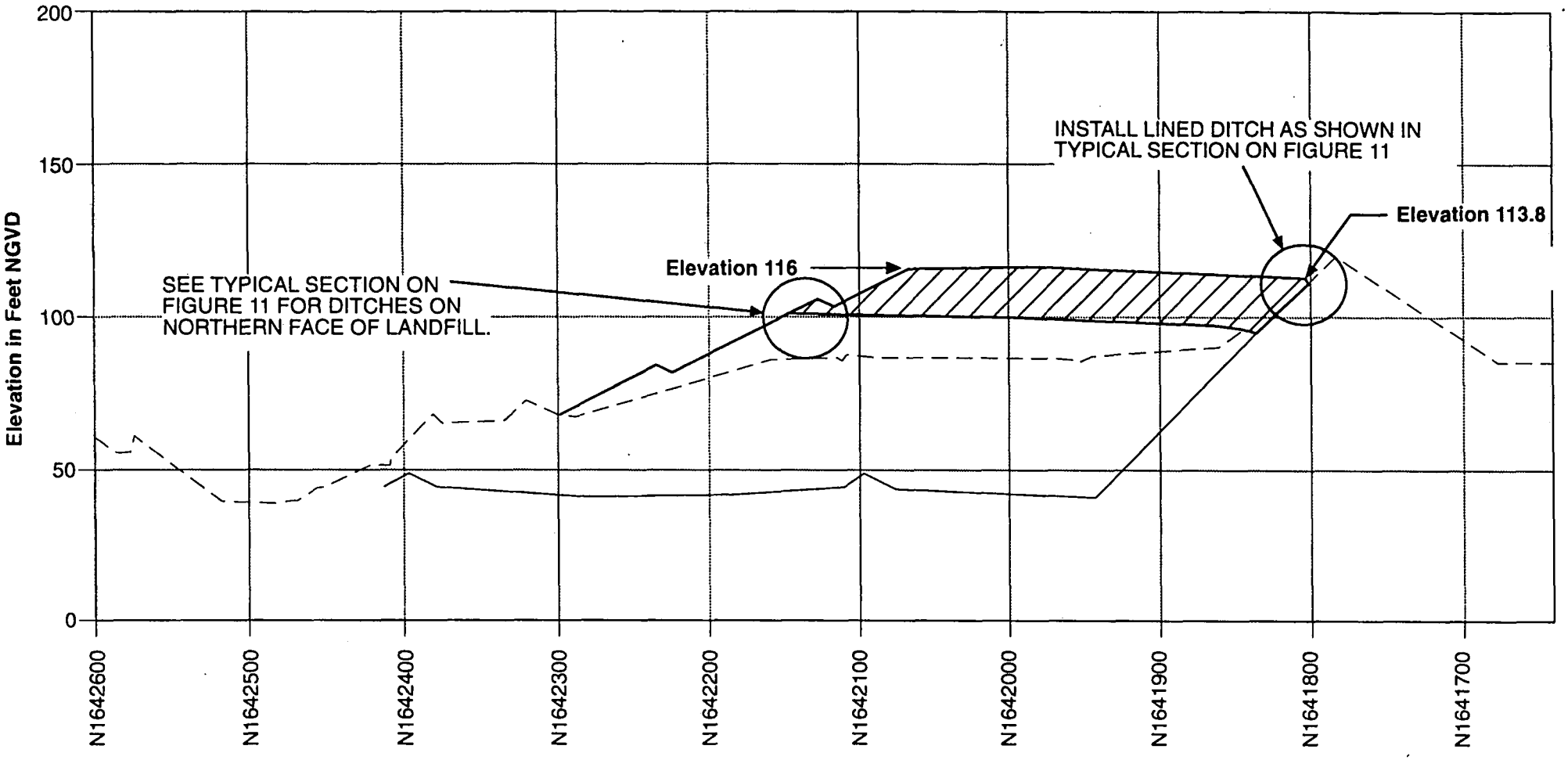
2. REMOVE EXISTING LINED DITCH DURING THIS FILLING SEQUENCE. COORDINATE REMOVAL TO MAXIMIZE STORMWATER RUN OFF DURING LANDFILL OPERATIONS.

FIGURE 5
1.7 - Year Interval Filling Plan



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Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

FIGURE 6
1.7 - Year Interval Filling Section A - A'

CH2M HILL

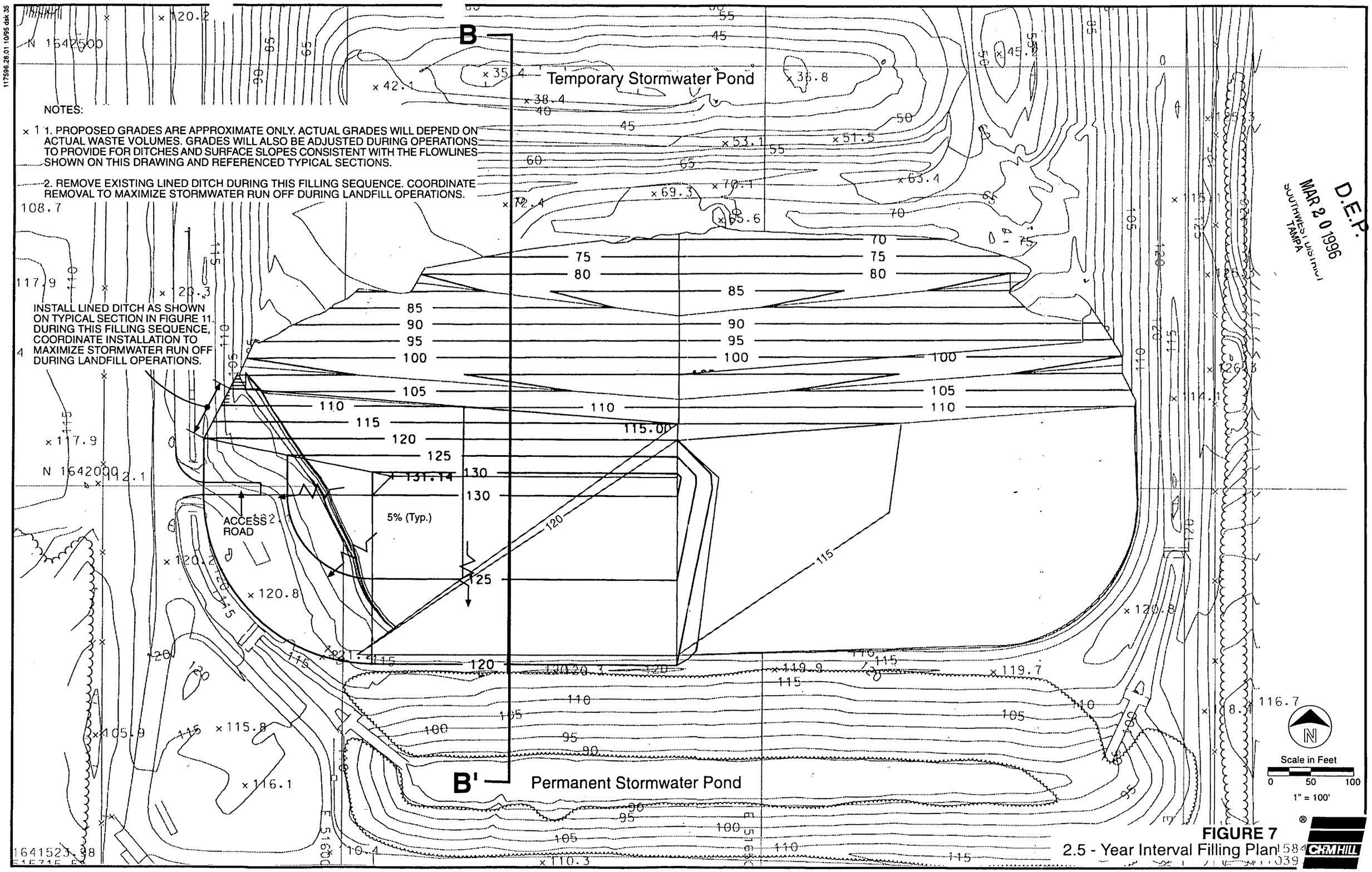
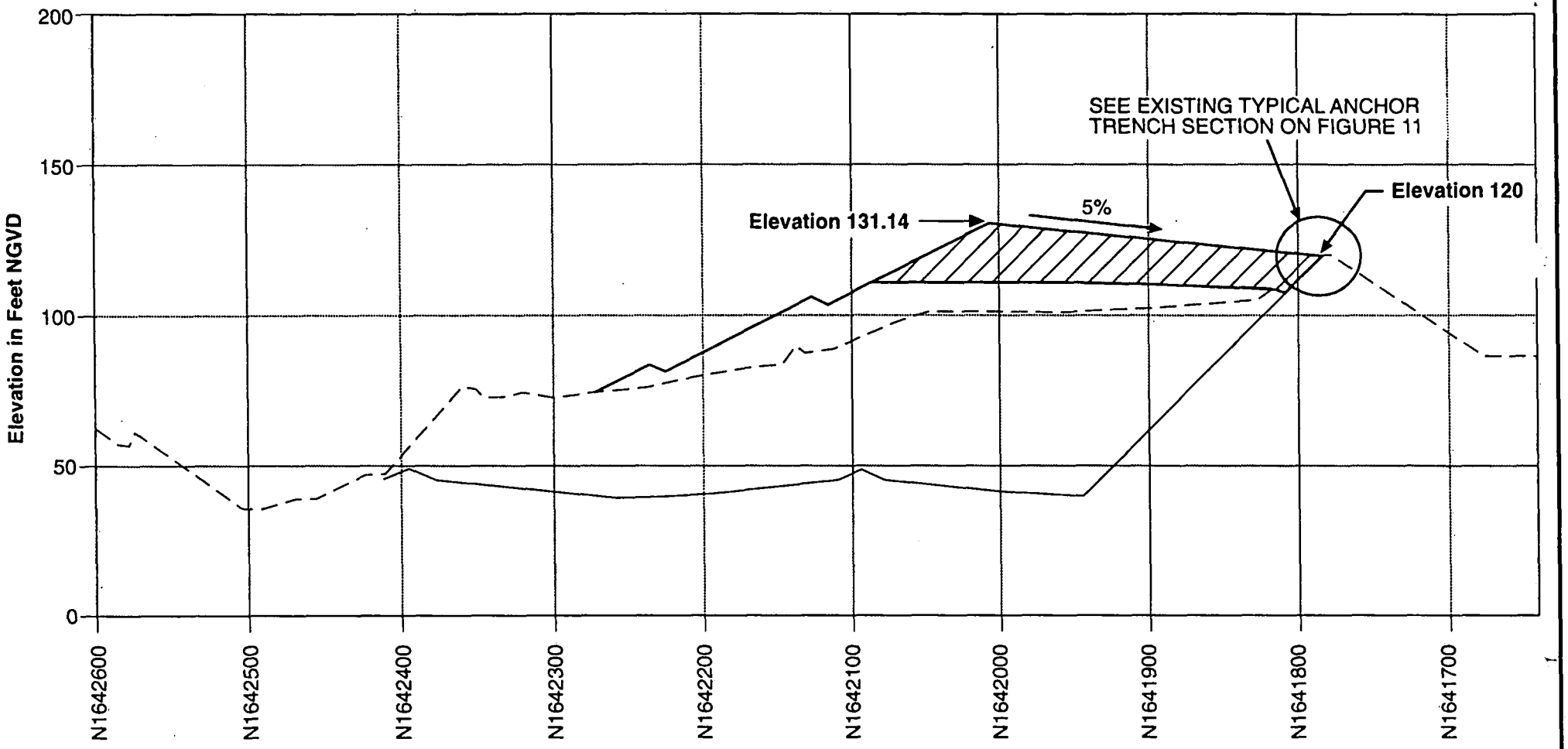


FIGURE 7
2.5 - Year Interval Filling Plan



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Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

FIGURE 8
2.5 - Year Interval Filling Section B - B'

CH2M HILL

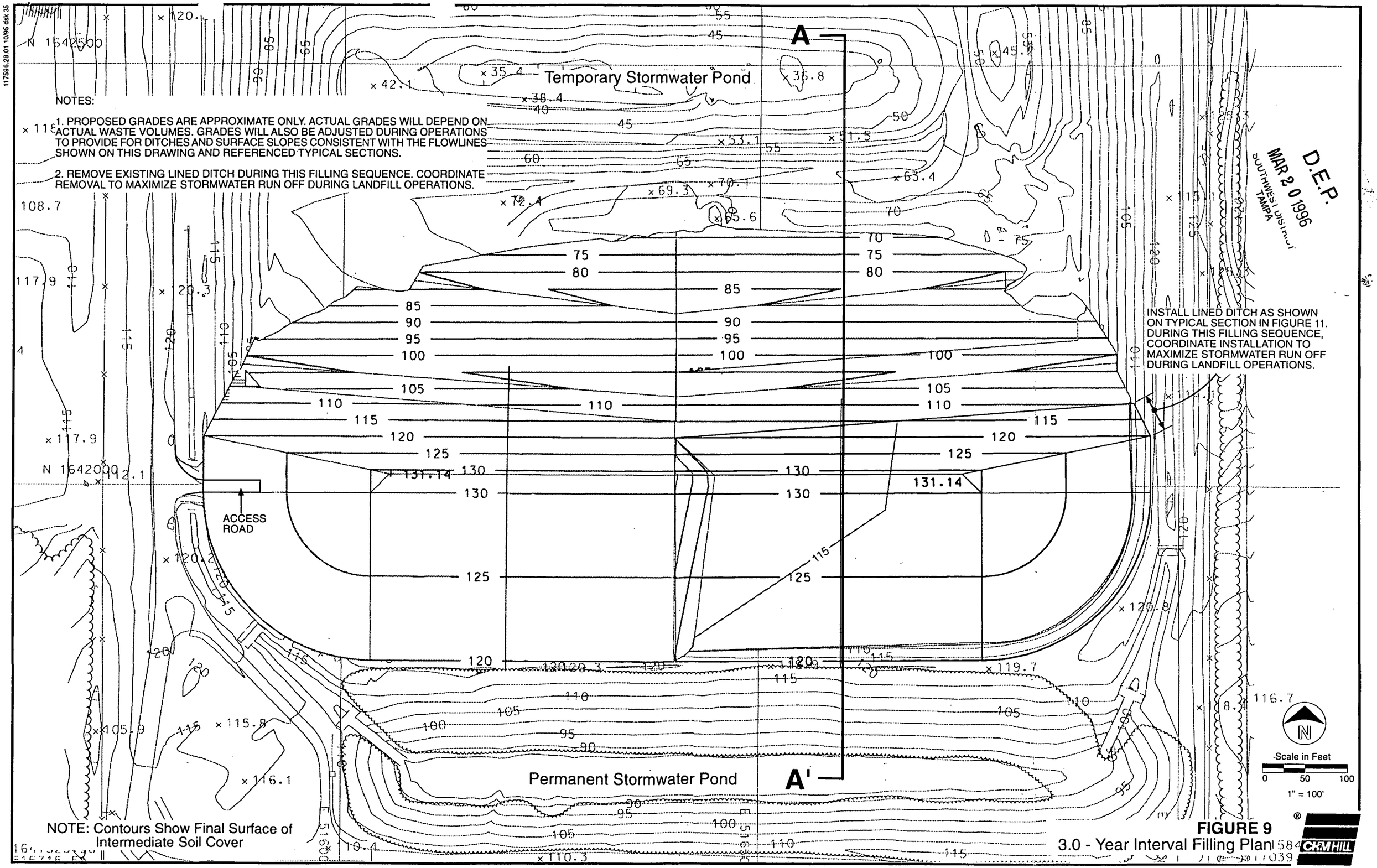
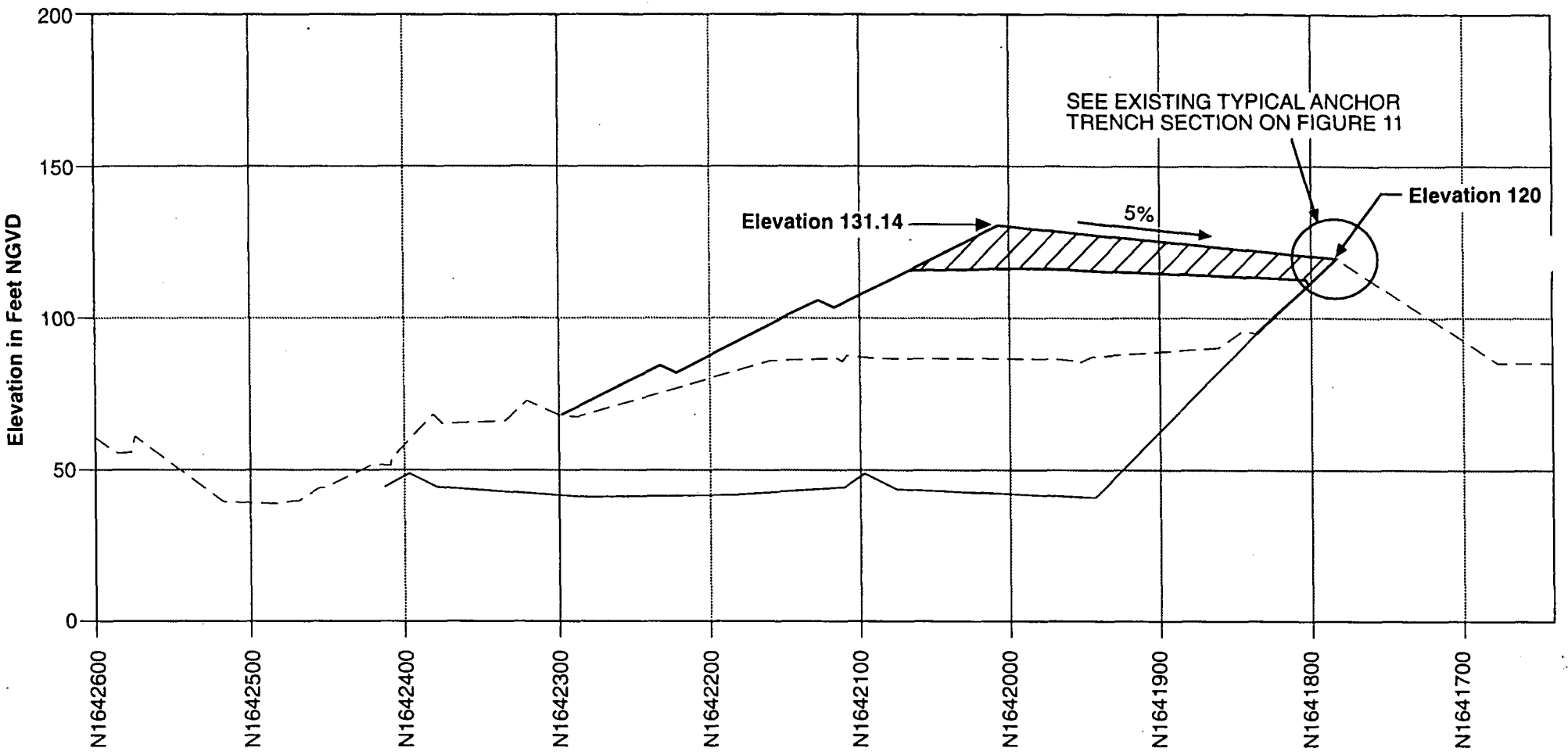


FIGURE 9
3.0 - Year Interval Filling Plan



Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

NOTES:

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2. CONTOURS SHOW FINAL SURFACE OF INTERMEDIATE SOIL COVER.

FIGURE 10

3.0 - Year Interval Filling Section A - A'

CH2M HILL

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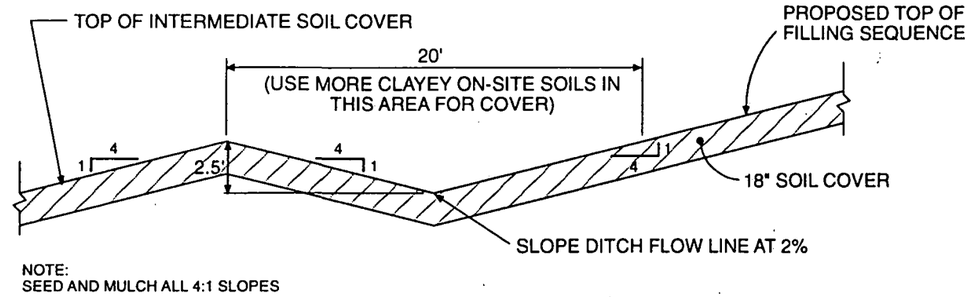
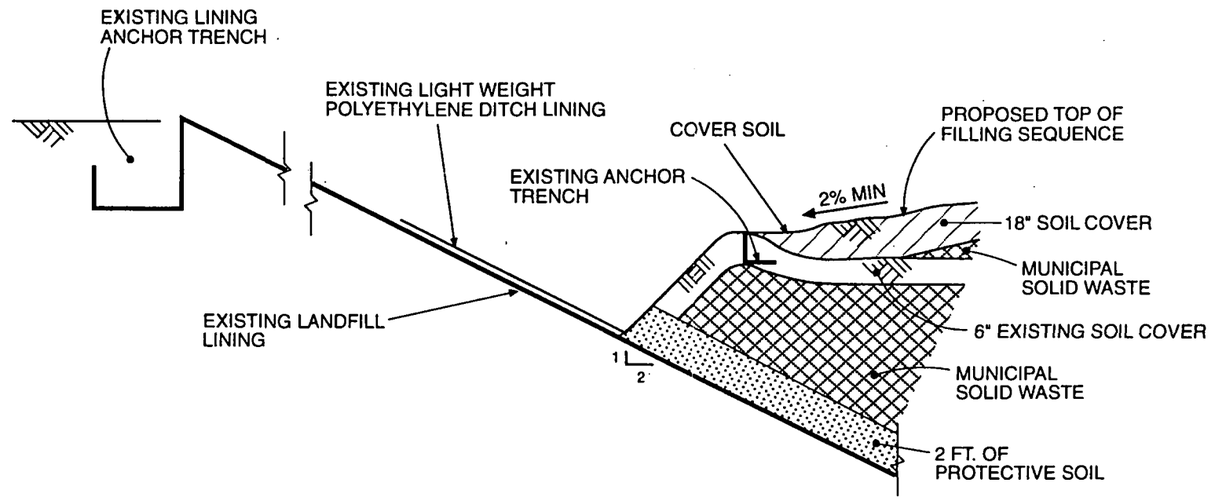
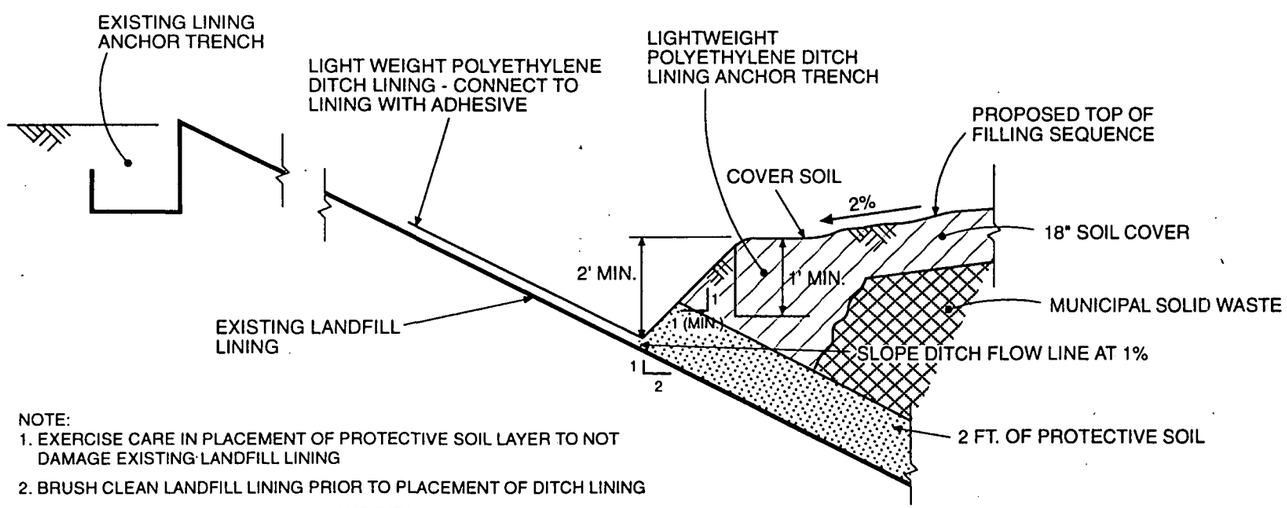


NOTE:
SEED AND MULCH ALL 4:1 SLOPES

DITCHES ON NORTHERN FACE
NTS

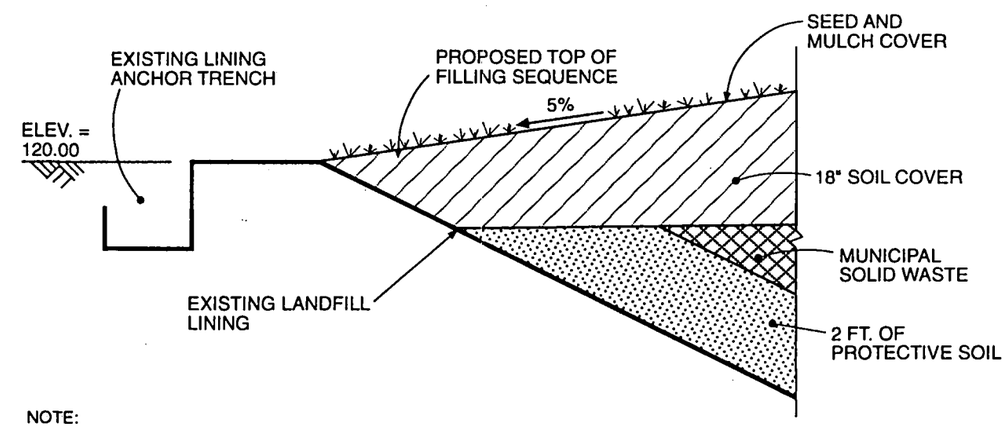


CONNECTION TO EXISTING LINED DITCH
NTS



NOTE:
1. EXERCISE CARE IN PLACEMENT OF PROTECTIVE SOIL LAYER TO NOT DAMAGE EXISTING LANDFILL LINING
2. BRUSH CLEAN LANDFILL LINING PRIOR TO PLACEMENT OF DITCH LINING
3. APPLY ADHESIVE BETWEEN LINING AND DITCH LINING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
4. DO NOT APPLY ADHESIVE IF LINING IS WET

NEW LINED DITCH
NTS



NOTE:
1. EXERCISE CARE IN PLACEMENT OF PROTECTIVE SOIL LAYER TO NOT DAMAGE EXISTING LANDFILL LINING
2. DO NOT ALLOW SOIL COVER TO MIX WITH UNDERLYING WASTE DURING PLACEMENT

EXISTING ANCHOR TRENCH DETAIL
NTS

Figure 11
Typical Sections

CH2M HILL

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3/11/96

Time 2:05 - 2:50

Subject Citrus Op. Renewal

Permit No. #274381, pending

County Citrus

M Susan Mutlaffe

Telephone No. (904) 7465000

Representing Citrus County

[✓] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Conf call: John Woods & Gary Pannozzo - CH2M Hill

Summary of Conversation/Meeting

We discussed the Feb 29 submittal. CH2M Hill will add notes to clarify when and where liner ditch will be installed, how it will be constructed, correct top slopes to show 5%, correct typical sections on Figure 11, describe use of hand-pump system, and provide clarification on the GWS monitoring plan.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/93
hjs

CH2M HILL
Engineers
Planners
Economists
Scientists

RECEIVED
MAR - 1 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

February 29, 1996

117956.28.01

Kim B. Ford, P.E.
Solid Waste Section
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

Dear Mr. Ford:

Subject: Citrus County Central Landfill
Phase 1 Operating Permit Renewal
Permit No.: SO09-274381

The purpose of this correspondence is to provide the additional requests in your letter dated January 17, 1996 to renew the Phase 1 operating permit for the Citrus County Central Landfill. Your requests for additional information are restated below with our response.

Request No. 1 *Revised drawings for sequence of filling and access roads across previously filled areas which show top slopes that promote drainage and allow runoff to enter existing and proposed stormwater conveyances, including:*

A. *Revised cross-sections drawn to scale which show the proposed 2 percent minimum top slope (and note for a percent maximum top slope), with elevations of the top slope at each cross-section where connections are made to existing or proposed ditches.*

3/20/96

B. *Revised typical sections drawn to scale for connections to existing and proposed lined ditches, which show existing landfill liner anchor trench, depth of cover, erosion control, location of waste, and construction notes for:*

1. *Percent maximum top slope*
2. *Limits of waste in vicinity of lined ditches*
3. *Type of soil cover*
4. *Depth of cover*
5. *Erosion control*
6. *Lining proposed ditches*
7. *Removing existing ditch liner*
8. *Placement of drainage and protective layer on landfill liner sideslopes*
9. *Construction over and/or around temporary hard-piping for leachate*

4350 W. Cypress Street, Suite 600, Tampa, FL 33607-4155
Mailing address: P.O. Box 21647, Tampa, FL 33622-1647
813 874-0777
Fax No. 813 874-3056

C. *Revised typical sections for each type of temporary and permanent, existing and proposed storm water conveyances for above and below ground filling with the same level of detail and construction notes requested in 1.B.*

Response No. 1 Revised drawings for sequence of filling are provided in Attachment A. Issues related to hard-piping for leachate are addressed on the proposed layout drawing in Attachment B.

Request No. 2 *Description of methods used to minimize ponding in stormwater conveyances and the subsequent infiltration of stormwater into waste filled areas, including but not limited to the type of cover and depth of cover over the wastes in the conveyance, as well as erosion control and maintenance.*

Response No. 2 Methods used to minimize ponding in stormwater conveyances and the subsequent infiltration of stormwater into waste filled areas are shown on the drawings for sequence of filling in Attachment A. These methods include the placement of lower permeability soil cover (from existing on-site soil stockpile) in the stormwater conveyances, seeding and mulching in the conveyances to control erosion, and regular intervals of maintenance.

Request No. 3 *A performance evaluation of the existing LCRS piping based on an inspection and verification that the LCRS is not clogged and is functioning properly. A procedure to clean the LCRS system shall be included in the performance evaluation.*

Response No. 3 Citrus County is making arrangements to have the Phase 1 leachate collection pipes cleaned and inspected using water jetting techniques. Results of the inspection and cleaning will be provided to your office upon completion. Completion is expected sometime in March.

Request No. 4 *Revised comprehensive gas monitoring program that describes in detail all on-site gas monitoring, and specific protective measures and equipment, including but not limited to a comprehensive drawing that shows all specific sampling and testing locations and the recommendations in Citrus County's March 1, 1994 Gas Migration Monitoring Report which may be referenced or resubmitted as an attachment, as well as clarification for:*

3/20/96

A. *The statement in the third paragraph, second sentence on page 1 of Attachment C that migrating gas "will eventually escape to the atmosphere" since at least one explosion has occurred at the site.*

B. *The testing equipment that seems to require a mathematical conversion to percent LEL after each test.*

C. *The fourth paragraph, second sentence on page 3 of Attachment C which reads in part "The is to first attach the hose...".*

D. *The need for two bentonite seals between each gas monitoring zone as shown on Figure 2 of Attachment C.*

E. *The method of "continuous monitoring' proposed in the last paragraph on page 5 of Attachment C.*

Response No. 4 A revised gas monitoring program is provided in Attachment C.

As you have requested in our previous conversations we are submitting three copies of this correspondence to your office and one copy to Mr. Robert Butera - FDEP Tampa. Please do not hesitate to contact me to discuss our application or if you need additional information.

Sincerely,

CH2M HILL

Gary L. Panozzo, P.E.
Geoenvironmental Engineer

LET016.DOC
c: Robert Butera, FDEP Tampa
Gary Kuhl, Citrus County
Susan Metcalfe, Citrus County

Attachment A

Sequence of Filling Drawings

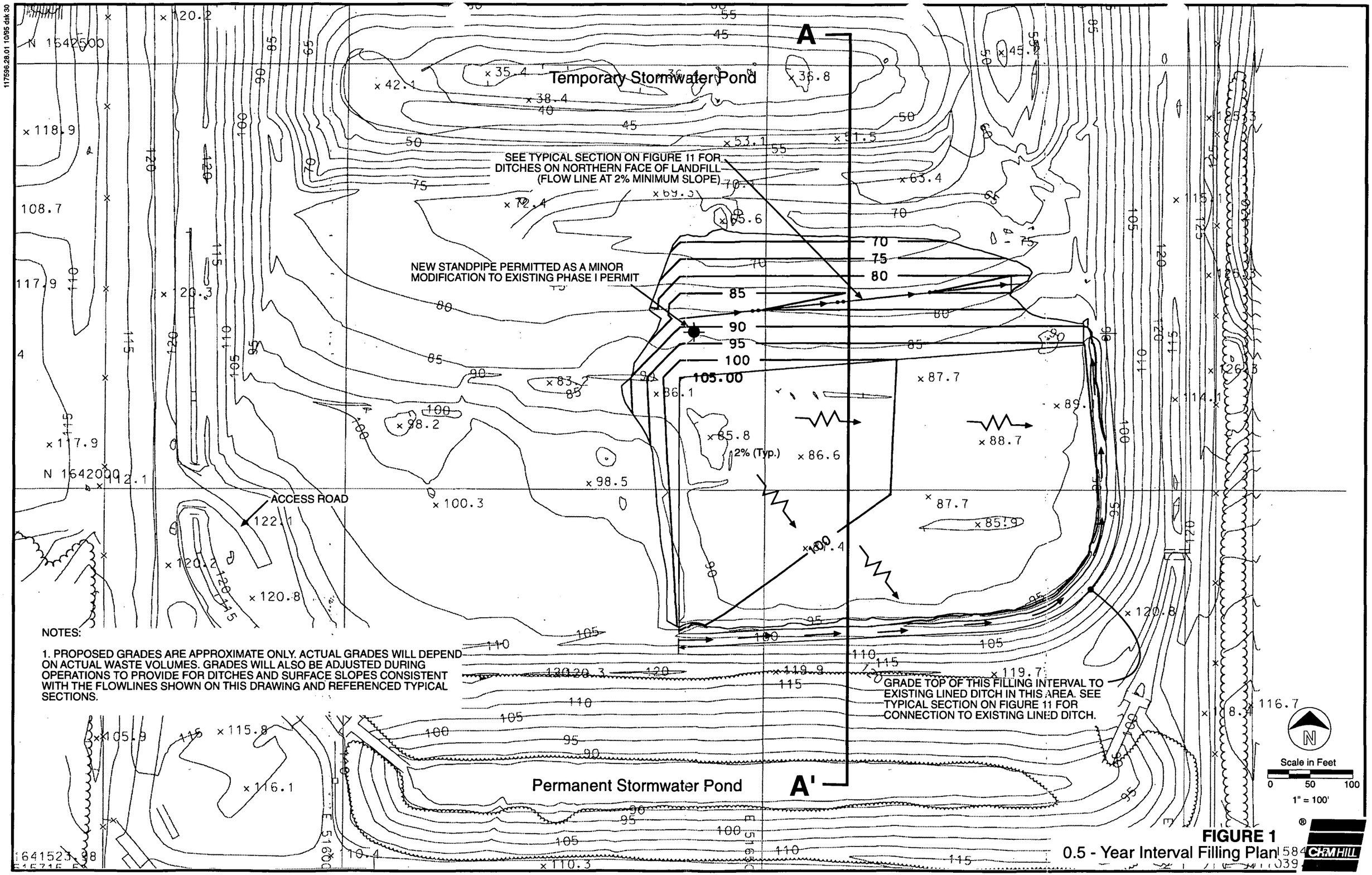


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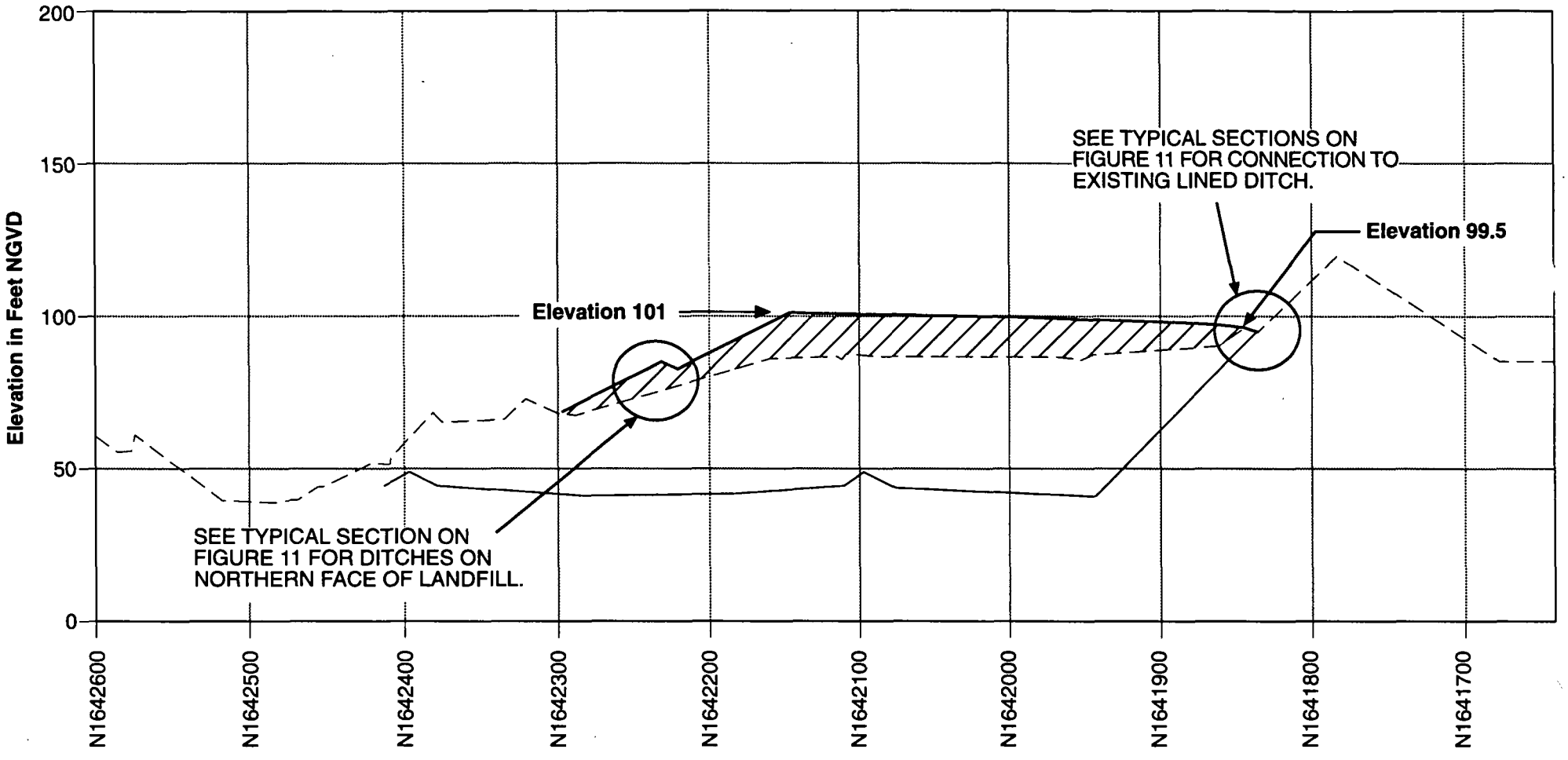
FIGURE 1
0.5 - Year Interval Filling Plan

CH2M HILL



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Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

FIGURE 2
0.5 - Year Interval Filling Section A - A'

CH2M HILL

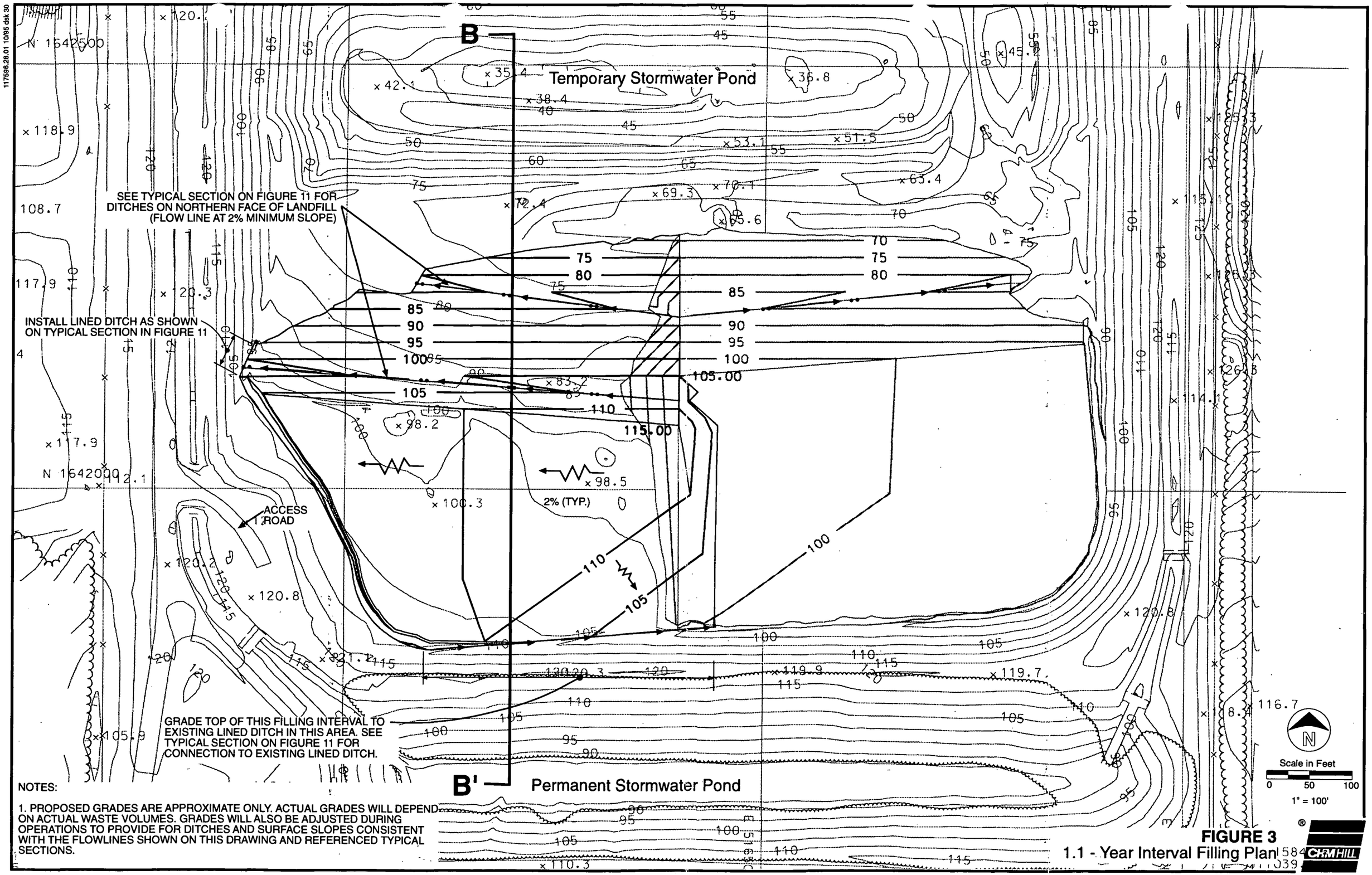

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FIGURE 3

1.1 - Year Interval Filling Plan

CH2M HILL

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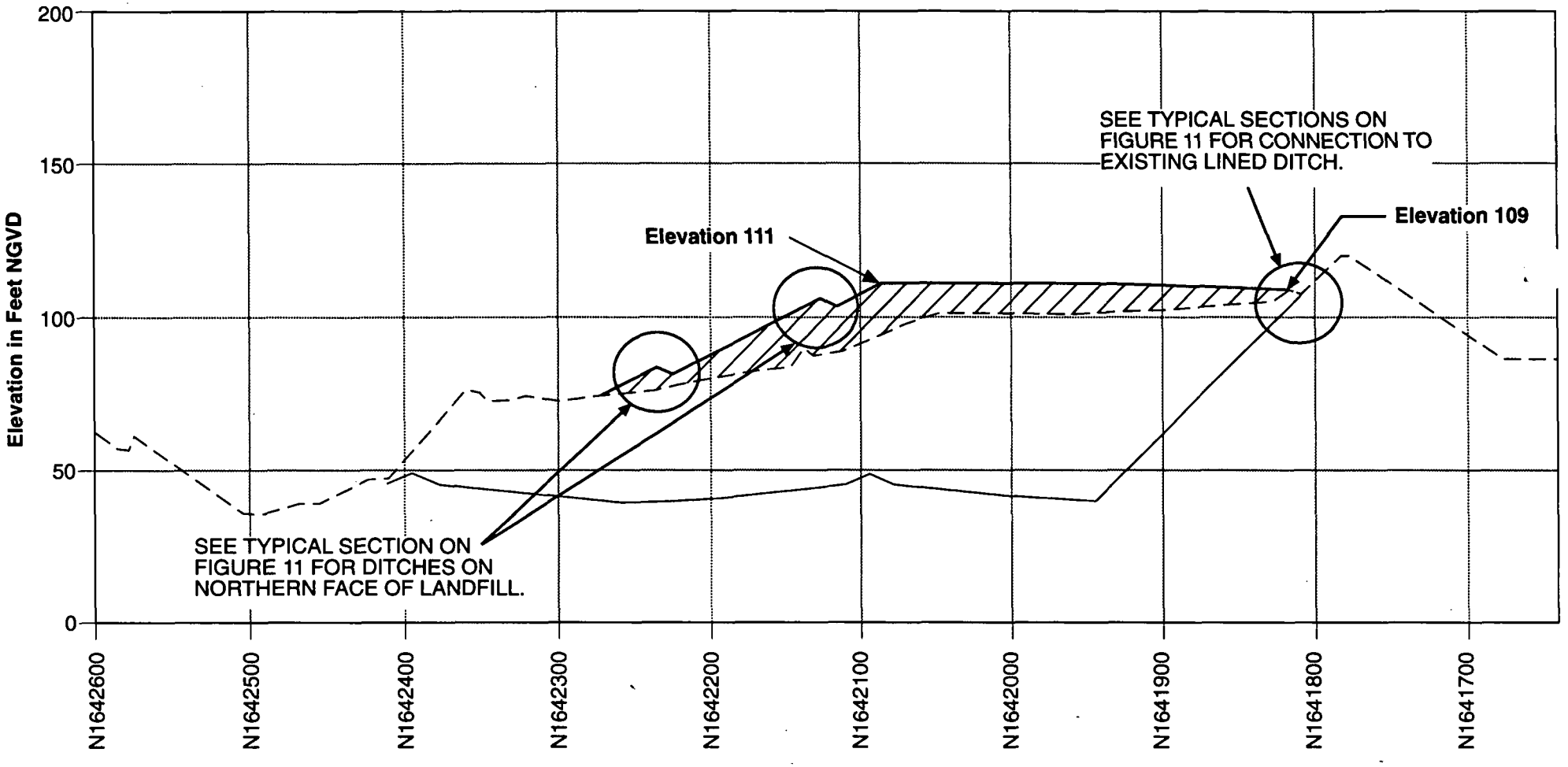

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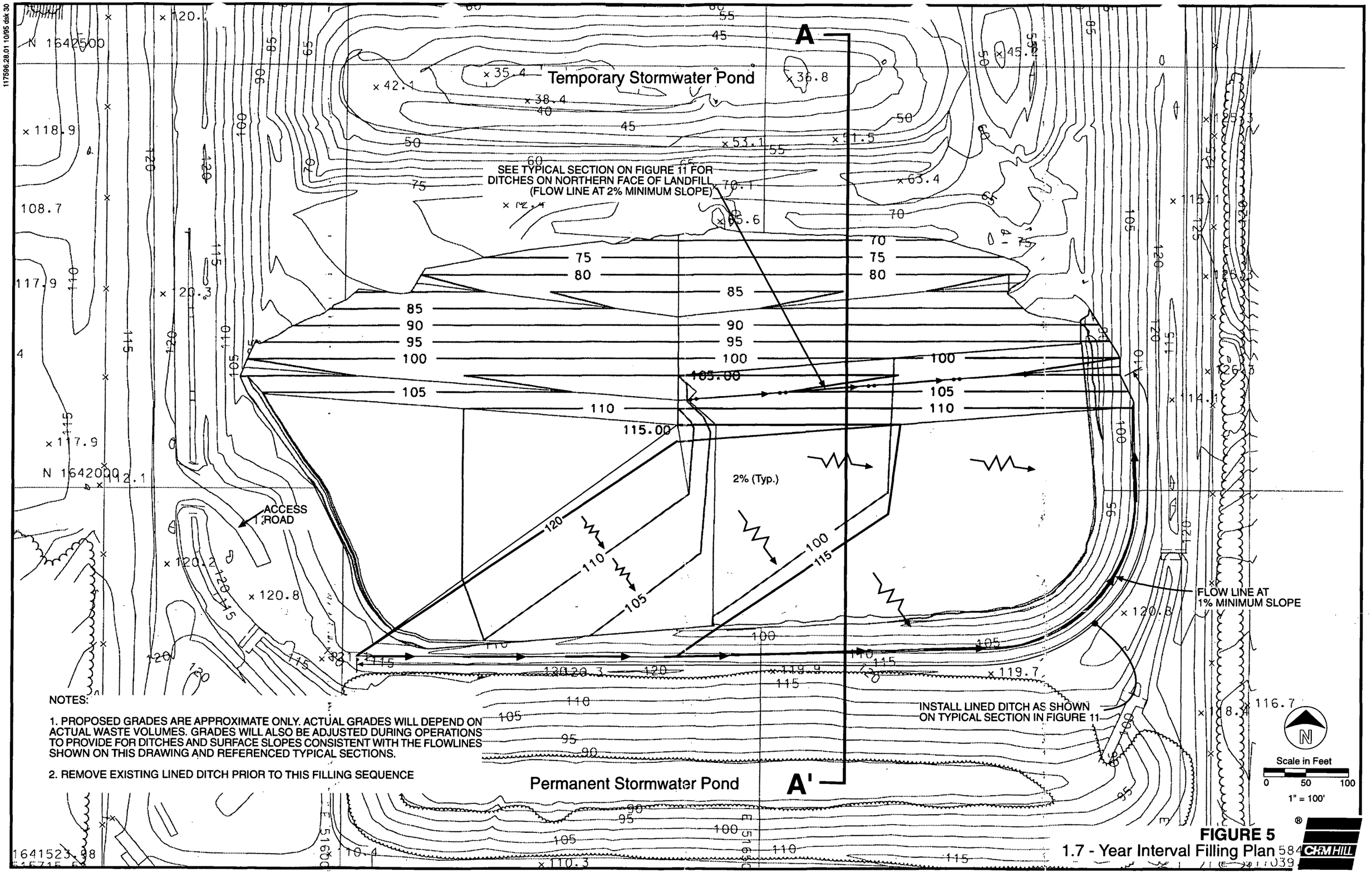
Vertical Scale
1" = 50' NGVD

FIGURE 4
1.1 - Year Interval Filling Section B - B'

CH2M HILL



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2. REMOVE EXISTING LINED DITCH PRIOR TO THIS FILLING SEQUENCE

FIGURE 5
1.7 - Year Interval Filling Plan

CH2M HILL

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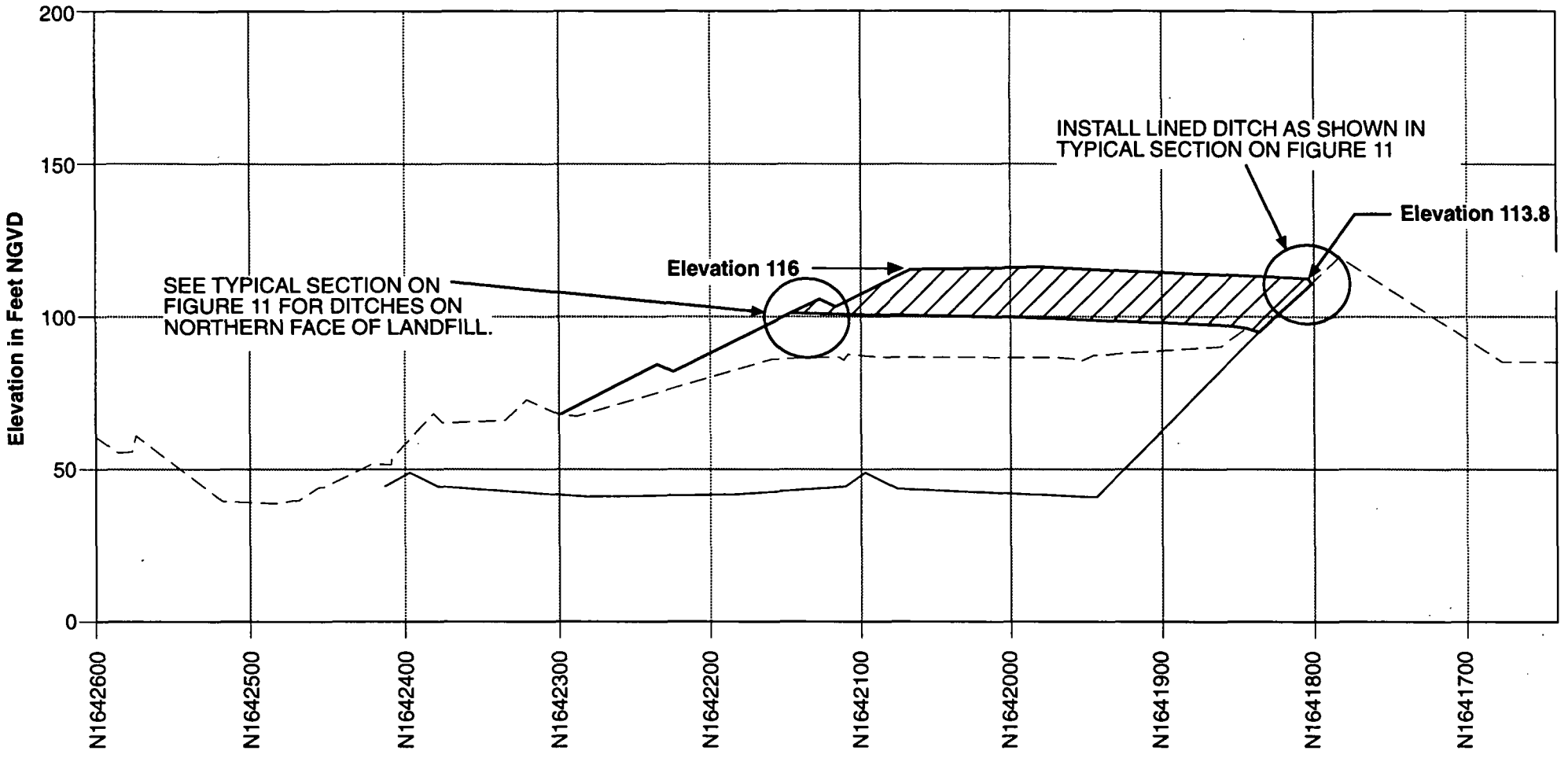

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Vertical Scale
1" = 50' NGVD

FIGURE 6
1.7 - Year Interval Filling Section A - A'

CH2M HILL

117598.28.01 10/95 dsk 30

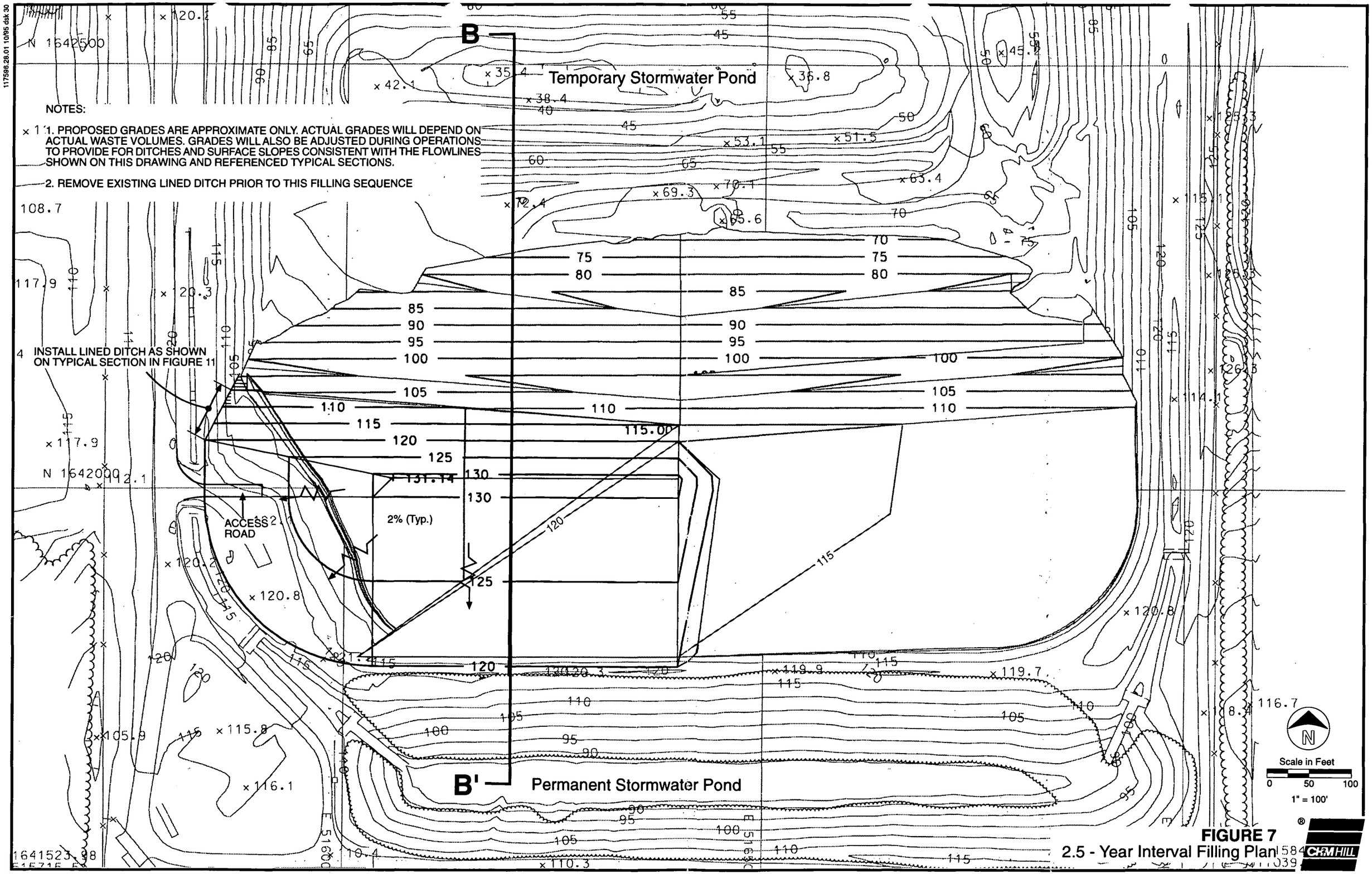
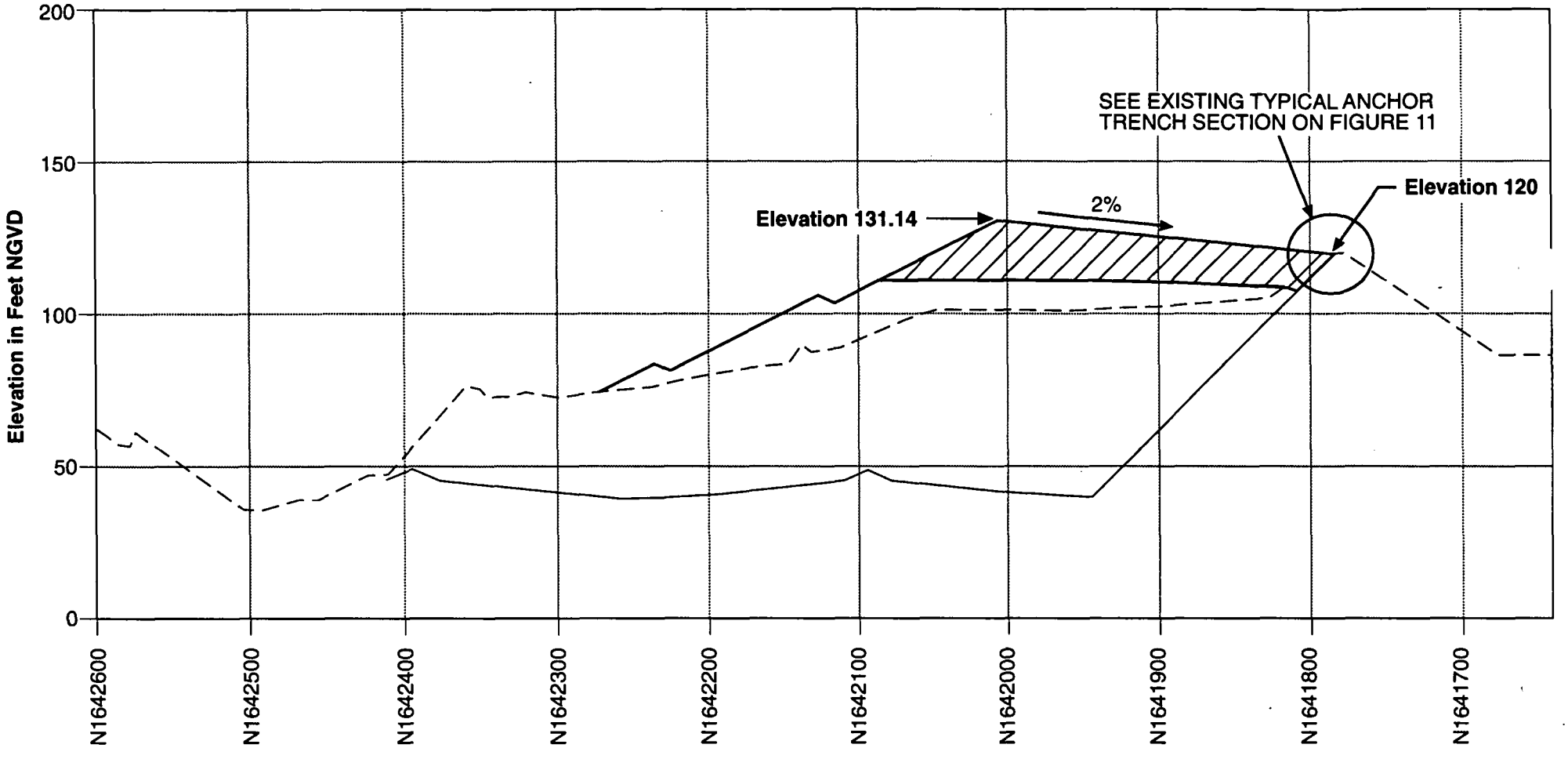


FIGURE 7
2.5 - Year Interval Filling Plan

CH2M HILL



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Horizontal Scale
1" = 100'
Vertical Scale
1" = 50' NGVD

FIGURE 8
2.5 - Year Interval Filling Section B - B'

CH2M HILL

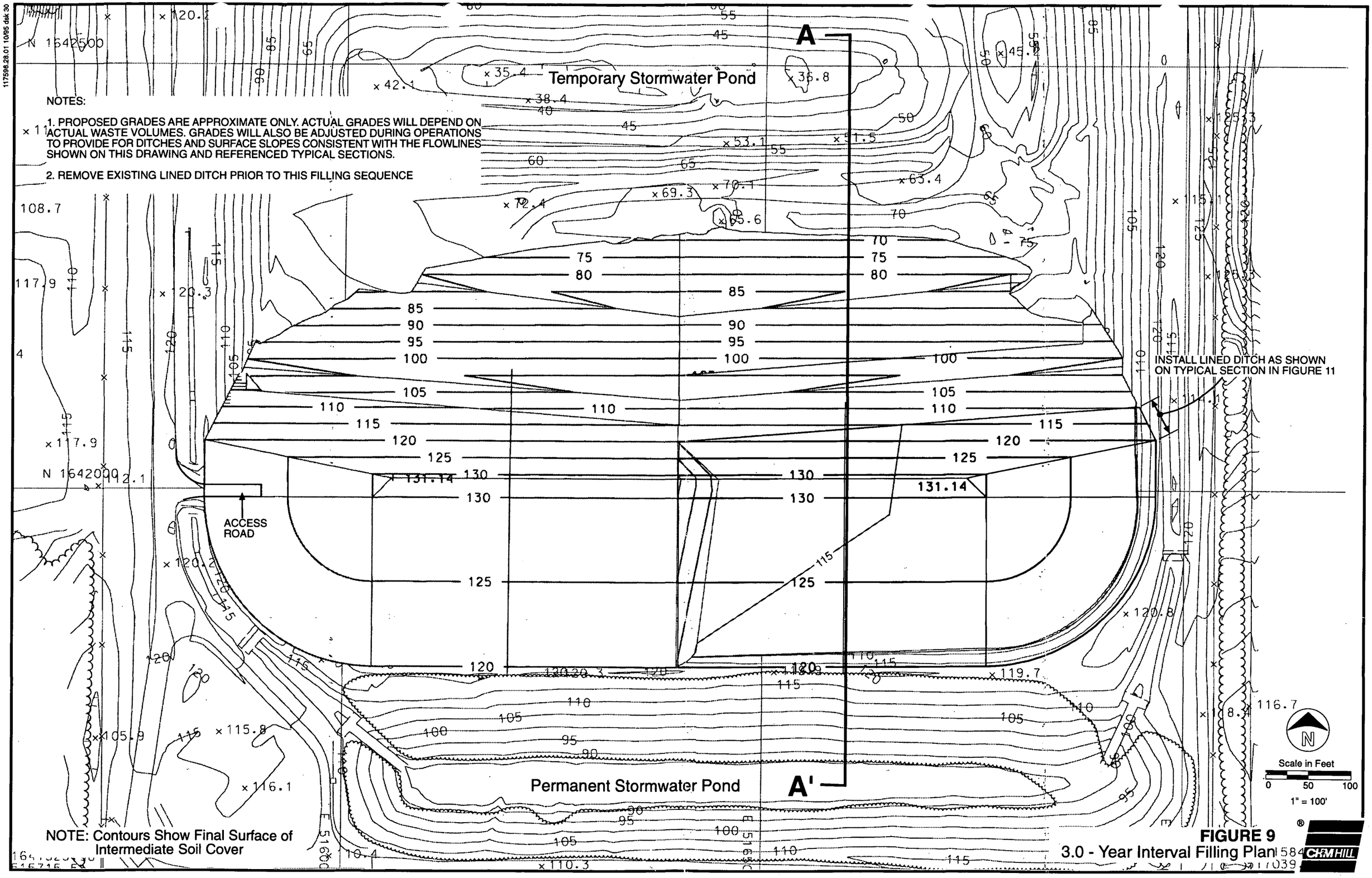

FIGURE 9
3.0 - Year Interval Filling Plan

CH2M HILL

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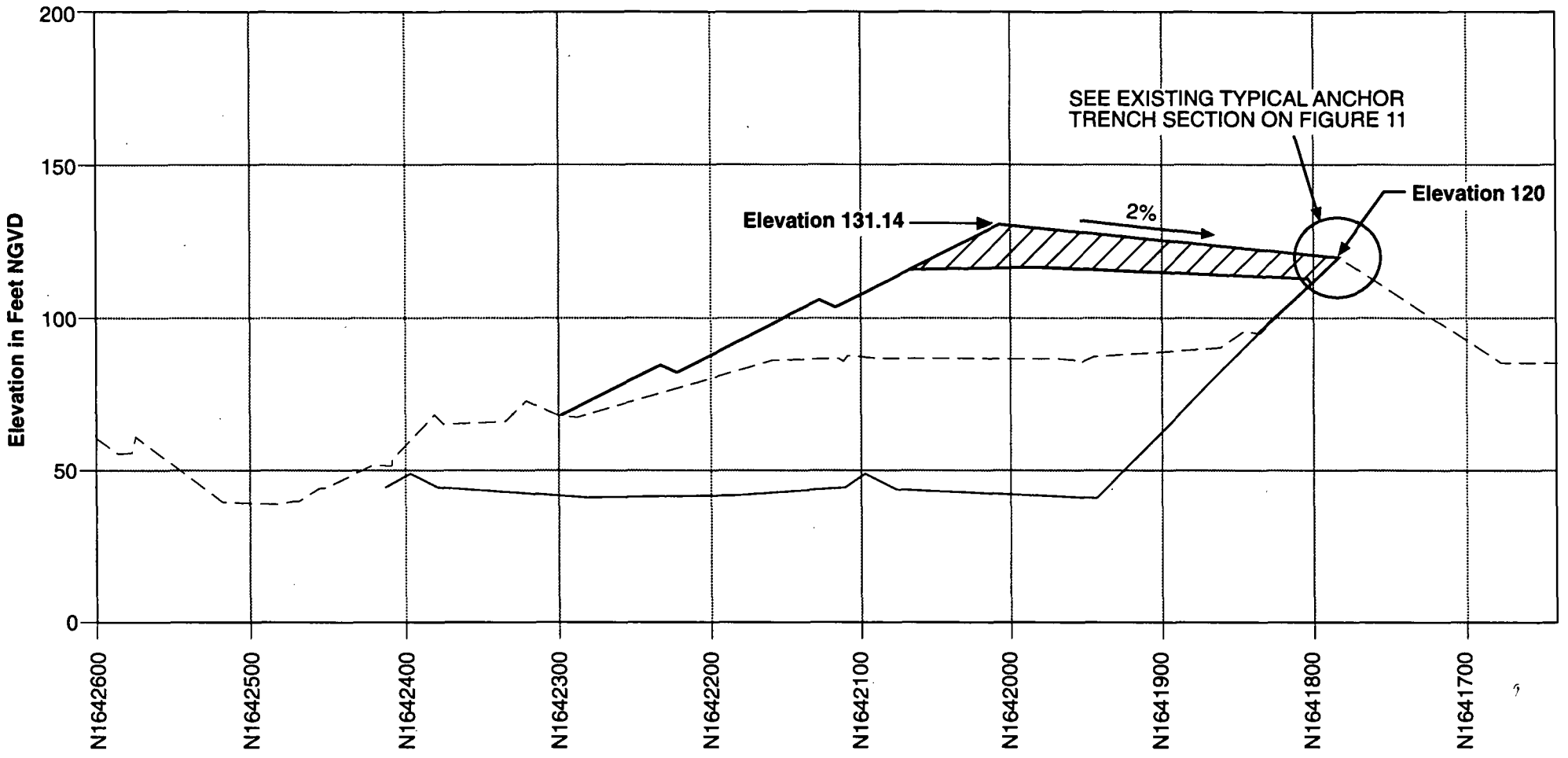

Horizontal Scale
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Vertical Scale
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2. CONTOURS SHOW FINAL SURFACE OF INTERMEDIATE SOIL COVER.

FIGURE 10

3.0 - Year Interval Filling Section A - A'

CH2M HILL

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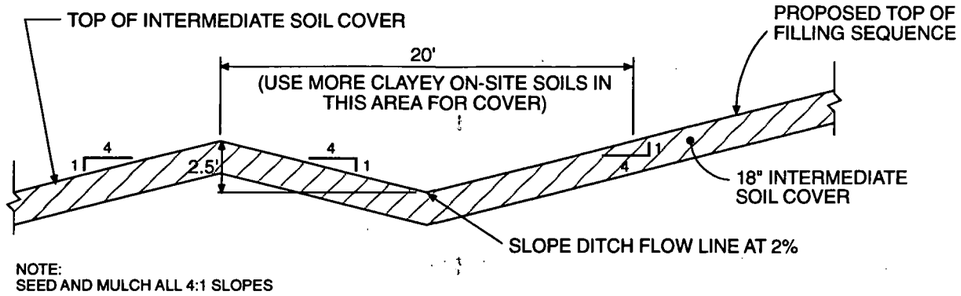
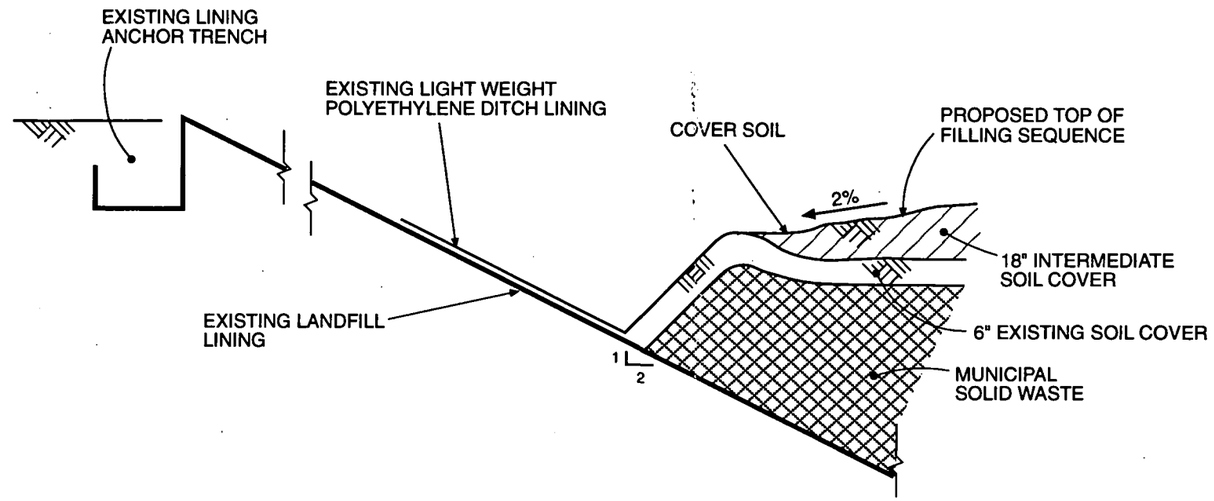
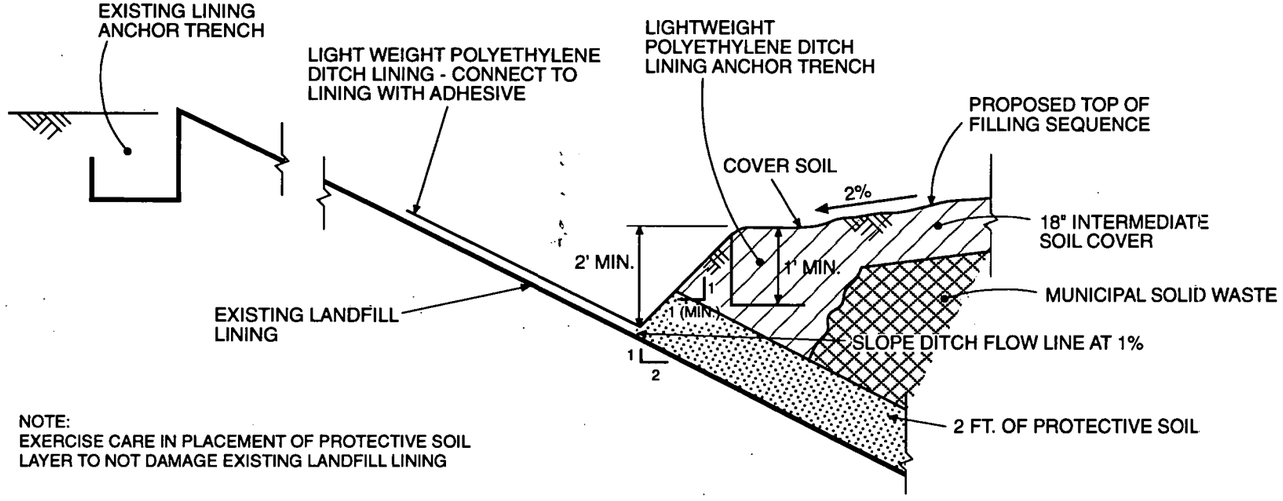


NOTE:
SEED AND MULCH ALL 4:1 SLOPES

DITCHES ON NORTHERN FACE
NTS

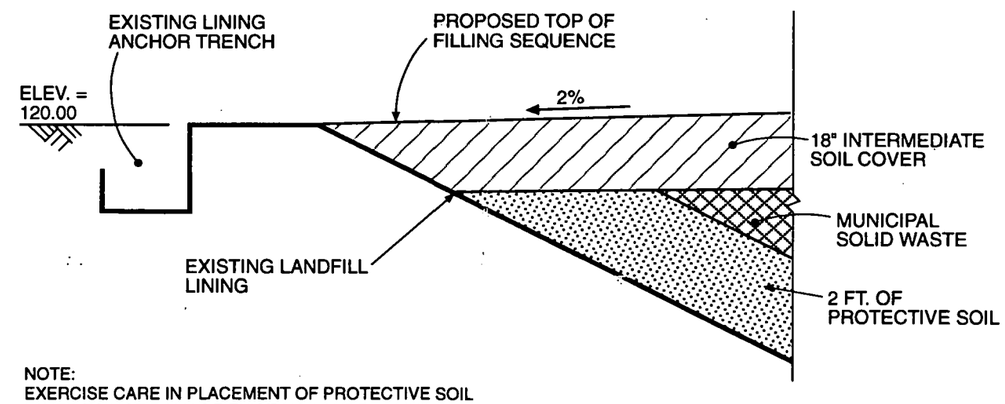


CONNECTION TO EXISTING LINED DITCH
NTS



NOTE:
EXERCISE CARE IN PLACEMENT OF PROTECTIVE SOIL LAYER TO NOT DAMAGE EXISTING LANDFILL LINING

NEW LINED DITCH
NTS



NOTE:
EXERCISE CARE IN PLACEMENT OF PROTECTIVE SOIL LAYER TO NOT DAMAGE EXISTING LANDFILL LINING

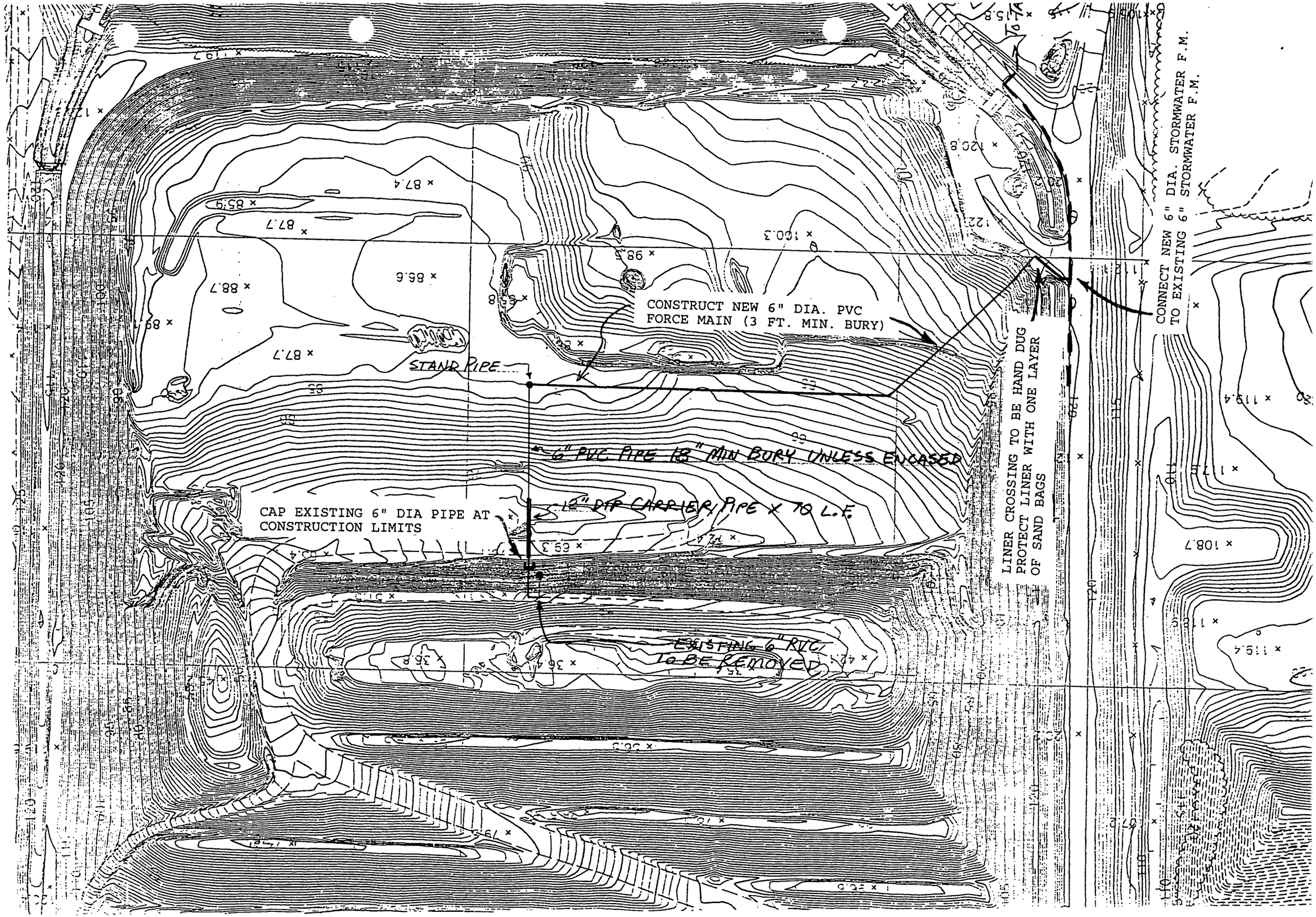
EXISTING ANCHOR TRENCH DETAIL
NTS

Figure 11
Typical Sections

CH2M HILL

Attachment B

Leachate Hard-Piping


CONNECT NEW 6" DIA. STORMWATER F.M.
TO EXISTING 6" STORMWATER F.M.
CONSTRUCT NEW 6" DIA. PVC
FORCE MAIN (3 FT. MIN. BURY)
STAND PIPE
6" PVC PIPE 18" MIN BURY UNLESS ENCASED
12" DIP CARRIER PIPE X 70 L.F.
CAP EXISTING 6" DIA PIPE AT
CONSTRUCTION LIMITS
EXISTING 6" RCC
TO BE REMOVED
LINER CROSSING TO BE HAND DUG
PROTECT LINER WITH ONE LAYER
OF SAND BAGS

Attachment C

Routine Gas Monitoring Program

Gas Monitoring Program
Phase 1 of the Citrus County Central Landfill

Introduction

Background

This landfill gas (LFG) monitoring program for Phase 1 of the Citrus County Central Landfill has been prepared in accordance with the provisions of Rule 62-701.400(10), FAC. This plan includes measures for comprehensive monitoring of LFG from the existing landfill (Phase 1), and the closed 60-acre landfill (located adjacent to and west of the existing landfill).

The existing landfill has a geomembrane bottom lining. The bottom depth of refuse in the existing landfill is approximately 80 feet below ground surface. Groundwater is approximately 100 feet from the surface. The soil at the site is primarily silty and clayey sand. Based on experience with other landfills, the geomembrane lining can be expected to serve as an effective barrier and prevent LFG from migrating into the adjacent soils. Therefore LFG migration is not anticipated from the existing landfill.

The closed 60-acre landfill is unlined. This landfill has been closed and capped with a geosynthetic membrane and protective soil cover. During operation, solid waste was placed in excavations up to approximately forty feet below ground surface. Subsurface gas migration has been detected in shallow landfill gas monitoring probes (approximately 3 feet deep) to the west and south of the closed landfill, as well as to the east of the closed landfill where the Phase 1 landfill currently exists.

Landfill gas has also been detected in several buildings at the facility. Historically, gas migration in buildings has been most prevalent along the eastern boundary of the closed landfill adjacent to the scale building and treatment plant. Landfill gas enters these structures through underground electrical conduits. Since December 1992, LFG levels have been monitored in several of the facility structures, and preventive measures have been implemented to prevent the risk of explosion and risk to human health and the environment. Continued monitoring of facility structures and implementation of preventive measures are included as part of this LFG monitoring plan. A description of the monitoring activities since 1992 is included in Citrus County's Gas Migration Monitoring Report, dated March 1, 1994.

Landfill Gas Generation

Landfill gas is generated by the bacterial decomposition of organic refuse in an anaerobic environment within a landfill. LFG is typically composed of 55 percent methane and 45 percent carbon dioxide. Landfill gas is dangerous because it is explosive at methane concentrations between 5 and 15 percent, it is an asphyxiant, and it contains trace contaminants that are often malodorous and sometimes toxic.

Landfill Gas Migration

LFG movement occurs primarily due to the pressure gradient produced by the continuous generation of LFG within a landfill. If the LFG is uncollected, it will eventually escape to the atmosphere, either directly through the landfill surface or after migrating laterally through the surrounding soil. Lateral LFG movement is influenced by several factors: the pressure gradient described above, the permeability of the landfill lining and cover, and the permeability of the surrounding soils. LFG movement into structures usually occurs through underground conduits that provide electrical or other services to the structures.

Landfill Gas Monitoring Probes

Installation of permanent LFG monitoring probes around the perimeter of the closed 60-acre landfill was completed in February 1993. The locations of these gas monitoring probes are shown on Figure 1. These probes were generally constructed to a depth of approximately 3 feet below ground surface. Gas probes were installed to deeper depths along the eastern boundary of the closed 60-acre landfill to better define the degree of migration. Multi-level gas probes were installed at locations GS-M_E and GS-S_E (10, 15, and 25 feet below ground surface at both locations) and GS-P_E (10 and 15 feet below ground surface).

Two (2) replacement LFG monitoring probes will be installed to a depth of 3 feet below ground surface at locations GS-H3NR and GS-W3ER. These probes will replace probes GS-H3N and GS-W3E that were destroyed during construction of an access road.

Two (2) additional LFG monitoring probes will be installed on the east and south sides of the Phase 1 facility where the landfill is in close proximity to the property line, as shown in Figure 1. A probe will not be installed on the north side because the north property boundary is approximately 1,700 feet from Phase 1 and future landfill expansion is planned in this area.

The probes will be installed in borings drilled to a depth which approximates the depth of the refuse (80 feet). The probe will consist of one monitoring zone beginning at approximately 6 feet below ground surface extending to 80 feet.

The probes will be constructed with 1/2 inch diameter PVC casing and screen (Figure 2). The annular space in the slotted zone will be filled with pea gravel and a bentonite seal will be installed above the gravel. A vault box will be installed at the surface of each probe to protect the PVC sampling pipes. Labcock sampling valves will be installed at the top of each PVC pipe to allow for a direct connection to the instruments.

117596.28.01 2/96 dsk31

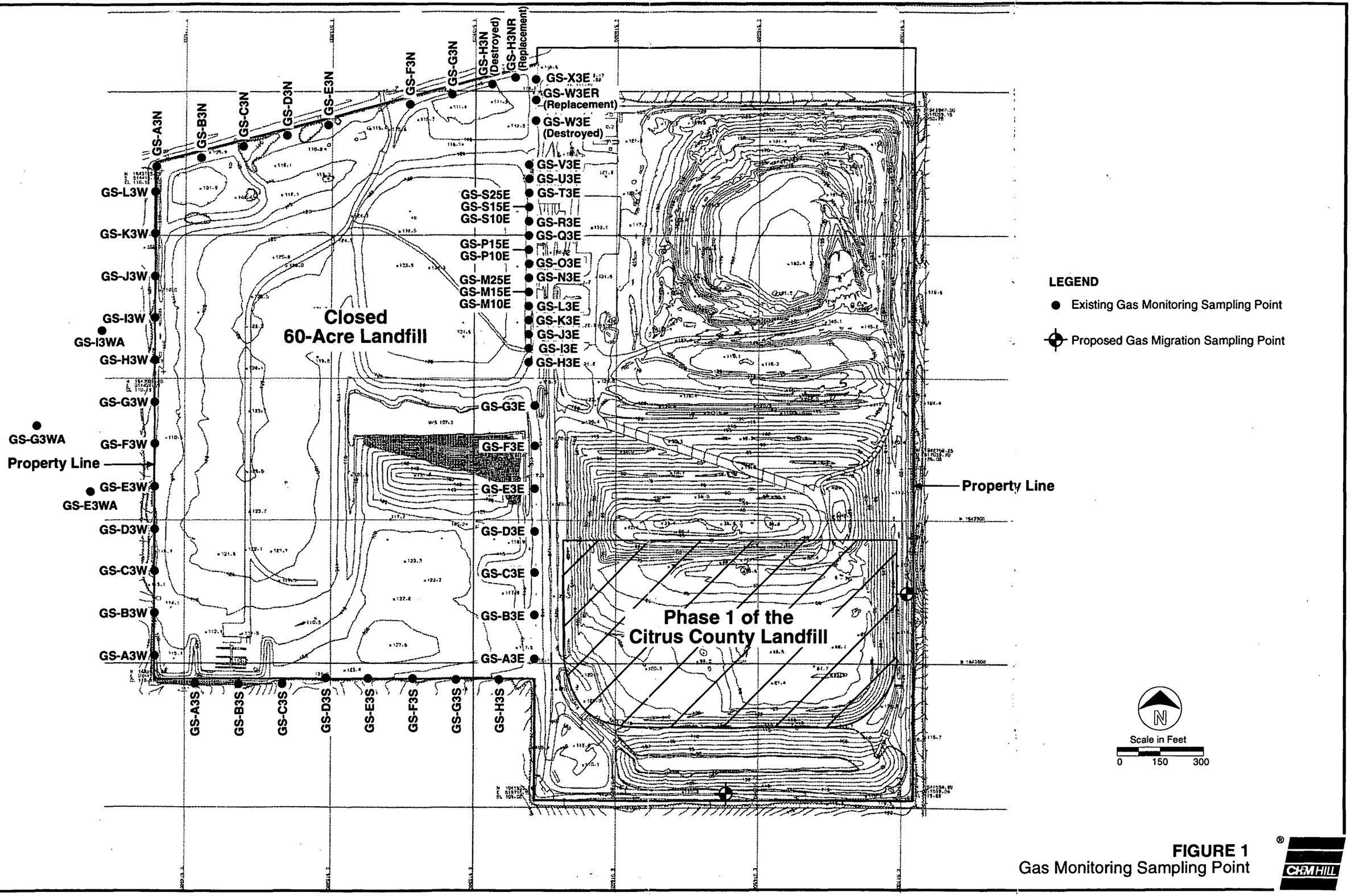
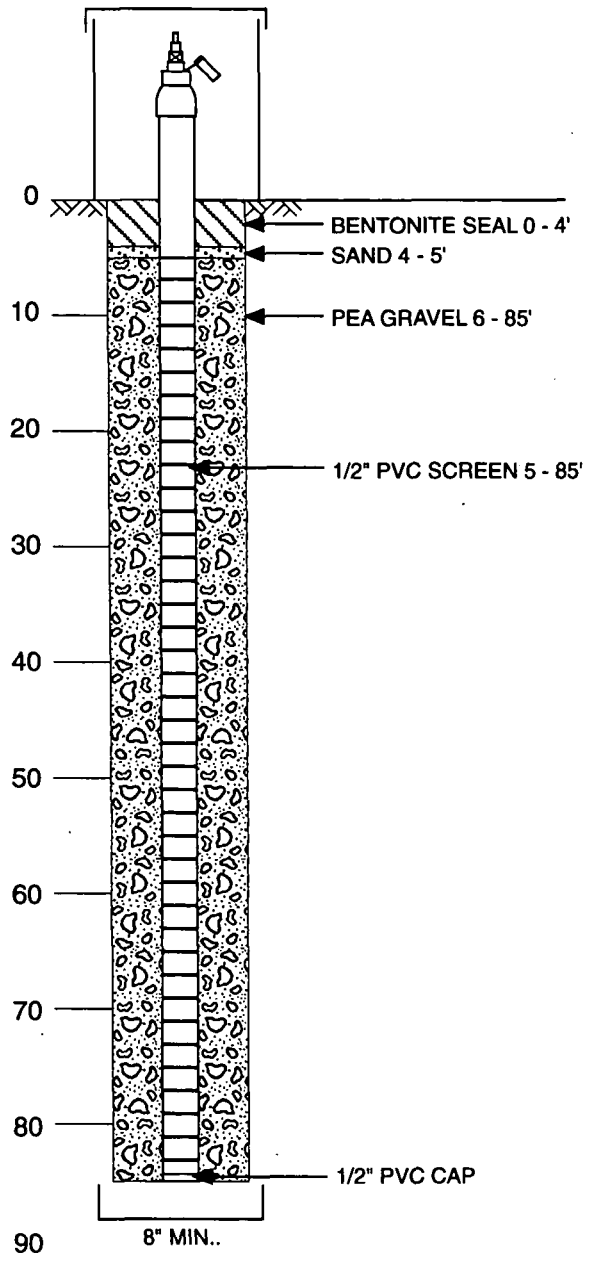
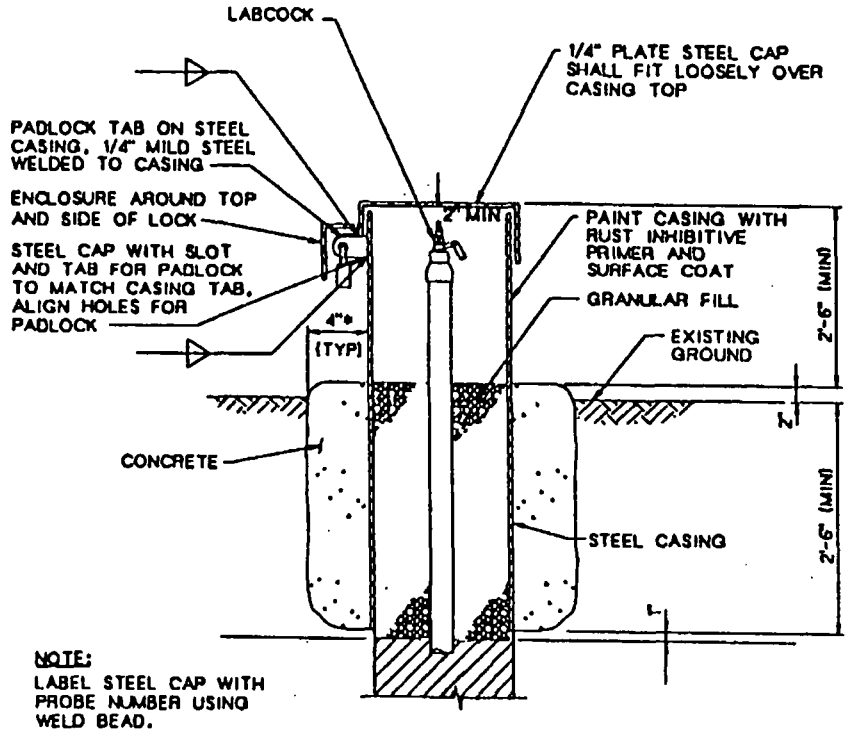


FIGURE 1
Gas Monitoring Sampling Point

CH2M HILL





NOTE:
LABEL STEEL CAP WITH PROBE NUMBER USING WELD BEAD.

DETAIL 1
NTS

NOTES:
1 - ACTUAL DIMENSIONS WILL DEPEND ON ACTUAL HYDROGEOLOGY ENCOUNTERED DURING DRILLING AND THE CORRESPONDING ELEVATIONS OF CASING AND SCREEN PLACEMENT.

FIGURE 2
Gas Probe Construction Detail

CH2M HILL

Gas Probe Monitoring

LFG monitoring will be performed at the locations shown on Figure 1 in accordance with the schedule described below:

1. Gas monitoring probes located along the north (locations GS-A3N through GS-H3N), west (locations GS-A3W through GS-L3W), and south (locations GS-A3S through GS-H3S) boundaries of the closed 60-acre landfill, and the two probes east and south of the Phase 1 landfill, will be sampled on a quarterly basis for static pressure and concentrations of methane and oxygen.

2. Gas monitoring probes located along the east boundary of the closed 60-acre landfill (locations GS-A3E through GS-X3E) will be sampled on a monthly basis for static pressure and concentrations of methane and oxygen.

Pressure will be measured prior to the other parameters. A hose leading from the pressure gage will be attached to the labcock valve, and the valve will be opened to measure the pressure. The valve will be closed and kept closed when an instrument is not attached.

Methane concentration will be monitored using a Gastech Model GP-204 combustible gas indicator, or equivalent, to provide a direct reading of percent of the lower explosive limit (LEL) and percent oxygen. The gas instrument will be calibrated with calibration gas each day before monitoring is performed. The gas instrument will have a water filter upstream of the instrument to protect it from any water which might be pulled into the instrument from the probes.

In addition to gas parameters, the time of day and barometric pressure will be recorded at the beginning and end of the monitoring round. The measurement of barometric pressure is important and an accurate, calibrated gauge should be used. Barometric pressures should be measured at the site; readings from remote weather stations are not acceptable.

Any problems encountered during monitoring, observations, or other pertinent information that could impact the interpretation of the data will be recorded. For example, if a probe is full of groundwater or suspected of being so, indicate in comments for the monitoring round.

Gas Monitoring in Structures

The following gas monitoring will be performed in structures at the facility:

- Natural gas alarms located in the scalehouse building and leachate treatment plant electrical room will be monitored daily by plant personnel. These monitors are designed to sound and alarm when methane concentrations exceed 95 percent (25 percent LEL). The signal remains on as long as gas is present, and a red alarm light stays on after an alarm to alert personnel that methane was detected during

their absence. Log sheets will be kept as each location to record when the alarm has been triggered, and each alarm will be calibrated on a quarterly basis.

- The bathroom floor drain and electrical connections for the scale meter in the scalehouse building will be monitored using a combustible gas meter on a monthly basis.
- Monthly monitoring of methane gas levels inside and under the site administrative office trailer and operations trailer.
- Potential gas entry points within facility structures that have been sealed should be tested annually and resealed, if necessary

Reporting

Monitoring reports will be submitted on a annual basis to the Florida Department of Environmental Protection (FDEP).

Any odor complaints due to landfill gas at or beyond the property boundary will be recorded and submitted in the annual reports. If methane gas is measured above the LEL in the probes, or above twenty-five percent of the LEL in any structures, Citrus County will immediately take all necessary steps to ensure protection of human health. A description of the nature and extent of any exceedances and measures implemented in response to the exceedances will be included in the annual reports.

SO permit file

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 2/12/96

Time 2:15

Subject Leachate Treatment Plant

Permit No.

County Citrus

M Susie Metcalfe

Telephone No. 352/746-5000

Representing Citrus

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

Called to see how the leachate treatment plant is functioning — biological organisms are still alive - good nitrate treatment through the last week.

She has lab results from leachate effluent - will be asking for on-site discharge to percponds this week.

Received sodium solute-transport model 2/7 - I plan to evaluate it w/ her request for use of ponds.

(continue on another sheet, if necessary)

Signature Allison Amram

Title PG1

PA-01
1/93
hjs

Best Available Copy

Board of County Commissioners

30 DAY FILE

Department of Public Works

Post Office Box 167, Lecanto, Florida 34460

(352) 746-4107 FAX (352) 746-1203

Reply to:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

February 6, 1996

Allison Amram, P.G.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33609

Post-it® Fax Note 7671	Date 2-7-96	# of pages ▶ 1
To ALLISON AMRAN	From SUSIE METCALFE	
Co./Dept. FDEP	Co. CC SWM	
Phone # 813-744-6100	Phone # 352-746-5000	
Fax # 813-744-6084	Fax # 352-527-1204	

Re: Solute Transport Model
Permit No. SO09-187229
Pending Permit SO09-274381

Dear Ms. Amram:

The solute transport modeling report required by the Department for evaluation of the long-term effects of use of onsite treated leachate disposal percolation ponds has been completed. Two copies are being transmitted under separate cover from CH2M HILL. I am pleased to report that the results of the model show that no adverse impacts will result.

After you have an opportunity to review the report, we will be glad to discuss it with you if you wish. I would like to request that the temporary permission, granted for use of the percolation ponds for treated leachate disposal in Robert Butera's letter dated October 24, 1995, be extended for all normal operations in the operating permit for the site which is now pending.

Thank you for your consideration.

Yours truly,

Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works
Marty Clasen, CH2M HILL, Tampa
John Wood, CH2M HILL, Deerfield
Kim Ford, DEP, Tampa
Robert Butera, DEP, Tampa

CH2M HILL TRANSMITTAL

RECEIVED
FEB - 7 1996
Department of Environmental Protection
BY SOUTHWEST DISTRICT

TO	Department of Environmental Protection Solid Waste Section Southwest District 3804 Coconut Palm Drive Tampa, FL 33619	FROM	Marty Clasen P.O. Box 21647 Tampa, FL 33622-1647
ATTN	Allison E. Amram, P.G.	DATE	2/7/96
RE	Citrus County Central Landfill	PROJ #	132139.33.01

WE ARE SENDING YOU

- [X] **ATTACHED**
- [ ] **UNDER SEPARATE COVER VIA** _____
- [ ] SHOP DRAWINGS
- [ ] DOCUMENTS
- [ ] TRACINGS
- [ ] PRINTS
- [ ] SPECIFICATIONS
- [ ] CATALOGS
- [ ] COPY OF LETTER
- [ ] _____

QUANTITY	DESCRIPTION
2	Technical Memorandum "Computer Simulation of Solute Concentrations in Groundwater at the Citrus County Central Landfill"

IF MATERIAL RECEIVED IS NOT AS LISTED, PLEASE NOTIFY US AT ONCE

REMARKS _____

COPY TO _____

permit file

Board of County Commissioners

Department of Public Works

Post Office Box 167, Lecanto, Florida 34460

(352) 746-4107 FAX (352) 746-1203

RECEIVED
FEB - 9 1996
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

Reply to:
Solid Waste Management
P.O. Box 340
Lecanto, Florida 34460

February 6, 1996

Allison Amram, P.G.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33609

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Permit No. SO09-187229
Pending Permit SO09-274381

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Thank you for your consideration.

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Susan J. Metcalfe

Susan J. Metcalfe, Director
Division of Solid Waste Management

cc: Gary Kuhl, Dir. Dept. of Public Works
Marty Clasen, CH2M HILL, Tampa
John Wood, CH2M HILL, Deerfield
Kim Ford, DEP, Tampa
Robert Butera, DEP, Tampa

(bound report attached)

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

February 2, 1996

Ms. Susan Metcalfe, P.G.
Citrus County
Solid Waste Management
P O Box 340
Lecanto, FL 34460-0340

Re: Temporary piping for surface leachate
Citrus County Central Landfill
Permit No.: SO09-187229

Dear Ms. Metcalfe:

The Department has no objection to installation of the temporary piping for surface leachate described in your December 8, 1995 letter with design detail by Mr. Moore dated December 12, 1995. Pending modification #277526 has been withdrawn as you requested.

Subsequent submittals for the pending permit for Phase 1A show that all or part of this piping will be disturbed by future construction. This issue should be addressed as part of the response to DEP's January 29, 1996 letter regarding pending permit #SC09-282375.

If you have any questions, you may call me at (813) 744-6100, extension 382.

Sincerely,

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

KBF/ab

cc: Gary Kuhl, P.E., Citrus County
Robert Butera, P.E., FDEP Tampa