Box 32

HW

Site #

905025

The electronic version of this file/report should have the file name:

Type of document . Site Number . Year-Month . File *Year-Year* or Report name . pdf

_____.pdf

example: *letter . Year-Month . File Year-Year . pdf*

workplan.HW.905004.1989-08-01.Closure_workplan_VOL1.pdf

example: *report . Site Number . Year-Month . Report Name . pdf*

Project Site numbers will be proceeded by the following:

Municipal Brownfields - B
Superfund - HW
Spills - SP
ERP - E
VCP - V
BCP - C

905004

Engineering Report

PALMER STREET LANDFILL CLOSURE/POST CLOSURE PLAN (EPA ID NYD002126910)

VOLUME I : REPORT

Moench Tanning Company
Division of Brown Group, Inc.
Gowanda, New York

October 4, 1985
Revised November 1987
Revised February 1989
Revised August 1989

Project No. 0605-12-1

MALCOLM PIRNIE

ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

August 30, 1989

New York State Department of
Environmental Conservation
50 Wolf Road
Albany, NY 12233

Attention: Mr. Paul R. Counterman, P.E., Director
Bureau of Hazardous Waste Facility Permitting
Division of Hazardous Substances Regulation

Re: Moench Tanning Company
Palmer Street Landfill
Closure/Post-Closure Plan

Gentlemen:

On behalf of Moench Tanning Company and Brown Shoe, Inc., and in accordance with our telephone conversations on August 29, 1989, enclosed are two (2) final copies of the above-referenced Closure/Post-Closure Plan. The public notice for the closure/post-closure plan will be published in the Dunkirk Observer on August 31, 1989.

As you are aware, recent revisions to the Quality Assurance (QA) Plan (which is referenced in and attached to the closure/post-closure plan) have involved incorporation of extensive on-site testing and routine reporting requirements. Although Moench Tanning, Brown Shoe, and Malcolm Pirnie, Inc. fully intend to implement the QA Plan as specified, it is also our intention to request relief from these requirements as justified by on-site experience or further research ragarding required QA procedures.

If you have any questions in regard to this matter, please contact us.

Very truly yours,

MALCOLM PIRNIE, INC.

Kent R. McManus, P.E.
Project Manager

Enclosures (2)

c: N. Schnabel (NYSDEC, Buffalo) w/ 1 copy
R. Aldrich (NYSDEC, Albany
L. Witbeck (NYSDEC, Albany)
L. Brunkhurst (Brown Shoe Co.) w/1 copy
R. Fetterick (Moench Tanning) w/ 2 copies
E. Ford (Nixon Hargraves) w/ 1 copy
J. Greenthal (Nixon Hargraves)

S. 3515 ABBOTT ROAD P.O. BOX 1938 BUFFALO, NY 14219 716-828-1300 TELEX 137364

MALCOLM PIRNIE

CERTIFICATIONS

C. Moench and Sons Co.
Established 1865
MOENCH TANNING COMPANY
MOENCH, FISHER & GAENSSLEN, GOWANDA, N.Y.
GOWANDA, NEW YORK 14070
TEL. 716-532-2201
TELEX 91-502

Moench Tanning Company
Division of Brown Group, Inc.
Gowanda, New York
NYD 002126910

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Robert M. Fetterick
General Manager of Operations

Brown Group, Inc.

8400 maryland avenue
post office box 29
st. louis. missouri 63166
(314) 854-4000

Brown Group

Robert Douglas Pickle
vice president
general counsel and corporate secretary
(314) 854-4110

October 11, 1985

U. S. Environmental Protection Agency
Region II, Information Services Center
26 Federal Plaza
New York, New York 10007

Attention: Regional Administrator

Re: Signature Authorization -
40 CFR 270.11
Moench Tanning Company
265 Palmer Street
Gowanda, New York

Gentlemen:

This letter is evidence of the authority of Mr. Robert Fetterick, General Manager of Operations, Moench Tanning Company to sign applications, reports and other documents as may be required on behalf of Moench Tanning Company, Division of Brown Group, Inc., in accordance with the 40 CFR 270.11 regulations.

Very truly yours,

BROWN GROUP, INC.

Robert D. Pickle.

Robert D. Pickle
Vice President, General Counsel
and Corporate Secretary

RDP:laa

MALCOLM PIRNIE

PROJECT ENVIRONMENTAL ASSESSMENT FORM

617.21 SEQR

Appendix A

State Environmental Quality Review

FULL ENVIRONMENTAL ASSESSMENT FORM

Purpose: The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasureable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2: Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

DETERMINATION OF SIGNIFICANCE—Type 1 and Unlisted Actions

Identify the Portions of EAF completed for this project: ☒ Part 1 ☒ Part 2 ☒ Part 3

Upon review of the information recorded on this EAF (Parts 1 and 2 and 3 if appropriate), and any other supporting information, and considering both the magitude and importance of each impact, it is reasonably determined by the lead agency that:

☐ A. The project will not result in any large and important impact(s) and, therefore, is one which **will not** have a significant impact on the environment, therefore **a negative declaration will be prepared.**

☐ B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required, therefore **a CONDITIONED negative declaration will be prepared.***

☐ C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore **a positive declaration will be prepared.**

* A Conditioned Negative Declaration is only valid for Unlisted Actions

Palmer Street Landfill Closure

Name of Action

Name of Lead Agency

Print or Type Name of Responsible Officer in Lead Agency

Title of Responsible Officer

Signature of Responsible Officer in Lead Agency

Signature of Preparer (If different from responsible officer)

Date

PART 1—PROJECT INFORMATION

Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

NAME OF ACTION MOENCH TANNING COMPANY - PALMER STREET LANDFILL CLOSURE		
LOCATION OF ACTION (Include Street Address, Municipality and County) 265 Palmer Street, Gowanda, New York - Cattaraugus County		
NAME OF APPLICANT/SPONSOR MOENCH TANNING COMPANY	BUSINESS TELEPHONE (716) 532-2201	
ADDRESS 265 Palmer Street		
CITY/PO Gowanda	STATE NY	ZIP CODE 14070
NAME OF OWNER (If different)	BUSINESS TELEPHONE ( )	
ADDRESS		
CITY/PO	STATE	ZIP CODE
DESCRIPTION OF ACTION LANDFILL CLOSURE		

Please Complete Each Question—Indicate N.A. if not applicable

A. Site Description

Physical setting of overall project, both developed and undeveloped areas.

1. Present land use: ☐Urban ☒Industrial ☐Commercial ☐Residential (suburban) ☐Rural (non-farm)
   ☐Forest ☐Agriculture ☐Other _____

2. Total acreage of project area: 25 acres.

APPROXIMATE ACREAGE	PRESENTLY	AFTER COMPLETION
Meadow or Brushland (Non-agricultural)	_____ acres	_____ acres
Forested	_____ acres	_____ acres
Agricultural (Includes orchards, cropland, pasture, etc.)	_____ acres	_____ acres
Wetland (Freshwater or tidal as per Articles 24, 25 of ECL)	_____ acres	_____ acres
Water Surface Area	_____ acres	_____ acres
Unvegetated (Rock, earth or fill)	_____ acres	_____ acres
Roads, buildings and other paved surfaces	_____ acres	_____ acres
Other (Indicate type) Landfill	25 acres	25 acres

3. What is predominant soil type(s) on project site? Glaciolacustrine
   a. Soil drainage: ☐Well drained _____ % of site ☒Moderately well drained 100 % of site
   ☐Poorly drained _____ % of site
   b If any agricultural land is involved, how many acres of soil are classified within soil group 1 through 4 of the NYS Land Classification System? N/A acres (See 1 NYCRR 370).

4. Are there bedrock outcroppings on project site? ☐Yes ☒No
   a. What is depth to bedrock? 15-110 (in feet)

5. Approximate percentage of proposed project site with slopes: ☐0-10% 92 % ☐10-15% 8 %
☐15% or greater _____ %

6. Is project substantially contiguous to, or contain a building, site, or district, listed on the State or the National Registers of Historic Places? ☐Yes ☒No

7. Is project substantially contiguous to a site listed on the Register of National Natural Landmarks? ☐Yes ☒No

8. What is the depth of the water table? 2-10 (in feet)

9. Is site located over a primary, principal, or sole source aquifer? ☒Yes ☐No

10. Do hunting, fishing or shell fishing opportunities presently exist in the project area? ☐Yes ☒No

11. Does project site contain any species of plant or animal life that is identified as threatened or endangered?
☐Yes ☒No According to _____
Identify each species _____

12. Are there any unique or unusual land forms on the project site? (i.e., cliffs, dunes, other geological formations)
☐Yes ☒No Describe _____

13. Is the project site presently used by the community or neighborhood as an open space or recreation area?
☐Yes ☒No If yes, explain _____

14. Does the present site include scenic views known to be important to the community?
☐Yes ☒No

15. Streams within or contiguous to project area: Yes
a. Name of Stream and name of River to which it is tributary Cattaraugus Creek located adjacent to site, discharges to Lake Erie.

16. Lakes, ponds, wetland areas within or contiguous to project area: None
a. Name _____ b. Size (In acres) _____

17. Is the site served by existing public utilities? ☐Yes ☒No
a) If Yes, does sufficient capacity exist to allow connection? ☐Yes ☐No
b) If Yes, will improvements be necessary to allow connection? ☐Yes ☐No

18. Is the site located in an agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☒No

19. Is the site located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617? ☐Yes ☒No

20. Has the site ever been used for the disposal of solid or hazardous wastes? ☒Yes ☐No

B. Project Description

1. Physical dimensions and scale of project (fill in dimensions as appropriate)
a. Total contiguous acreage owned or controlled by project sponsor 35 acres.
b. Project acreage to be developed: 25 acres initially; 25 acres ultimately.
c. Project acreage to remain undeveloped 0 acres.
d Length of project, in miles: N/A (If appropriate)
e. If the project is an expansion, indicate percent of expansion proposed N/A %;
f. Number of off-street parking spaces existing N/A ; proposed _____
g. Maximum vehicular trips generated per hour N/A (upon completion of project)?
h. If residential: Number and type of housing units: N/A

	One Family	Two Family	Multiple Family	Condominium
Initially				
Ultimately				

i. Dimensions (in feet) of largest proposed structure _____ height; _____ width; _____ length N/A
j. Linear feet of frontage along a public thoroughfare project will occupy is? NA ft.

2. How much natural material (i.e., rock, earth, etc.) will be removed from the site? 0 tons/cubic yards

3. Will disturbed areas be reclaimed? ☐Yes ☐No ☒N/A

   a. If yes, for what intended purpose is the site being reclaimed? _____

   b. Will topsoil be stockpiled for reclamation? ☐Yes ☒No

   c. Will upper subsoil be stockpiled for reclamation? ☐Yes ☒No

4. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? 2 acres.

5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project? ☐Yes ☒No

6. If single phase project: Anticipated period of construction 24 months, (including demolition).

7. If multi-phased:

   a. Total number of phases anticipated _____ (number).

   b. Anticipated date of commencement phase 1 _____ month _____ year, (including demolition).

   c. Approximate completion date of final phase _____ month _____ year.

   d. Is phase 1 functionally dependent on subsequent phases? ☐Yes ☐No

8. Will blasting occur during construction? ☐Yes ☒No

9. Number of jobs generated: during construction 10 ; after project is complete 0 .

10. Number of jobs eliminated by this project 0 .

11. Will project require relocation of any projects or facilities? ☐Yes ☒No If yes, explain National Fuel gas lines are located on-site - relocation need uncertain.

12. Is surface liquid waste disposal involved? ☐Yes ☒No

   a. If yes, indicate type of waste (sewage, industrial, etc.) and amount _____

   b. Name of water body into which effluent will be discharged _____

13. Is subsurface liquid waste disposal involved? ☐Yes ☒No Type _____

14. Will surface area of an existing water body increase or decrease by proposal? ☐Yes ☒No
   Explain _____

15. Is project or any portion of project located in a 100 year flood plain? ☐Yes ☒No

16. Will the project generate solid waste? ☐Yes ☒No

   a. If yes, what is the amount per month _____ tons

   b. If yes, will an existing solid waste facility be used? ☐Yes ☐No

   c. If yes, give name _____ ; location _____

   d. Will any wastes **not** go into a sewage disposal system or into a sanitary landfill? ☐Yes ☒No

   e. If Yes, explain _____

17. Will the project involve the disposal of solid waste? ☐Yes ☒No

   a. If yes, what is the anticipated rate of disposal? _____ tons/month.

   b. If yes, what is the anticipated site life? _____ years.

18. Will project use herbicides or pesticides? ☐Yes ☒No

19. Will project routinely produce odors (more than one hour per day)? ☐Yes ☒No

20. Will project produce operating noise exceeding the local ambient noise levels? ☒Yes ☐No

21. Will project result in an increase in energy use? ☐Yes ☒No
   If yes , indicate type(s) _____

22. If water supply is from wells, indicate pumping capacity N/A gallons/minute.

23. Total anticipated water usage per day N/A gallons/day.

24. Does project involve Local State or Federal funding? ☐Yes ☒No
   If Yes, explain _____

25. Approvals Required:

		Type	Submittal Date
City, Town, Village Board	☐Yes ☒No		
City, Town, Village Planning Board	☐Yes ☒No		
City, Town Zoning Board	☐Yes ☒No		
City, County Health Department	☐Yes ☒No		
Other Local Agencies	☐Yes ☒No		
Other Regional Agencies	☐Yes ☒No		
State Agencies	☒Yes ☐No	NYSDEC	2/89
Federal Agencies	☐Yes ☒No		

C. Zoning and Planning Information

1. Does proposed action involve a planning or zoning decision? ☐Yes ☒No

   If Yes, indicate decision required:

   ☐zoning amendment ☐zoning variance ☐special use permit ☐subdivision ☐site plan

   ☐new/revision of master plan ☐resource management plan ☐other _____

2. What is the zoning classification(s) of the site? Industrial

3. What is the maximum potential development of the site if developed as permitted by the present zoning?

   N/A

4. What is the proposed zoning of the site? No change

5. What is the maximum potential development of the site if developed as permitted by the proposed zoning?

   N/A

6. Is the proposed action consistent with the recommended uses in adopted local land use plans? ☒Yes ☐No

7. What are the predominant land use(s) and zoning classifications within a ¼ mile radius of proposed action?

   Industrial/Commercial/Residential

8. Is the proposed action compatible with adjoining/surrounding land uses within a ¼ mile? ☒Yes ☐No

9. If the proposed action is the subdivision of land, how many lots are proposed? _____

   a. What is the minimum lot size proposed? _____

10. Will proposed action require any authorization(s) for the formation of sewer or water districts? ☐Yes ☒No

11. Will the proposed action create a demand for any community provided services (recreation, education, police, fire protection)? ☐Yes ☒No

    a. If yes, is existing capacity sufficient to handle projected demand? ☐Yes ☐No

12. Will the proposed action result in the generation of traffic significantly above present levels? ☒Yes ☐No

    a. If yes, is the existing road network adequate to handle the additional traffic? ☐Yes ☐No

D. Informational Details

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

E. Verification

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name MOENCH TANNING COMPANY Date 2/6/89

Signature ✕ _____ Title President, Brown Shoe Company

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment.

Part 2—PROJECT IMPACTS AND THEIR MAGNITUDE

Responsibility of Lead Agency

General Information (Read Carefully)

- In completing the form the reviewer should be guided by the question: Have my responses and determinations been **reasonable?** The reviewer is not expected to be an expert environmental analyst.
- Identifying that an impact will be potentially large (column 2) does not mean that it is also necessarily **significant.** Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.
- The **Examples** provided are to assist the reviewer by showing types of impacts and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential Large Impact response, thus requiring evaluation in Part 3.
- The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- The number of examples per question does not indicate the importance of each question.
- In identifying impacts, consider long term, short term and cumlative effects.

Instructions (Read carefully)

a. Answer each of the 19 questions in PART 2. Answer **Yes** if there will be **any** impact.

b. **Maybe** answers should be considered as **Yes** answers.

c. If answering **Yes** to a question then check the appropriate box (column 1 or 2) to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check column 1.

d. If reviewer has doubt about size of the impact then consider the impact as potentially large and proceed to PART 3.

e. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the **Yes** box in column 3. A **No** response indicates that such a reduction is not possible. This must be explained in Part 3.

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated By Project Change	
IMPACT ON LAND				
1. Will the proposed action result in a physical change to the project site? ☐NO ☒YES				
Examples that would apply to column 2				
• Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.	☒	☐	☐Yes	☒No
• Construction on land where the depth to the water table is less than 3 feet.	☒ (Positive Impact)	☐	☐Yes	☒No
• Construction of paved parking area for 1,000 or more vehicles.	☐	☐	☐Yes	☐No
• Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.	☐	☐	☐Yes	☐No
• Construction that will continue for more than 1 year or involve more than one phase or stage.	☒	☐	☐Yes	☒No
• Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year.	☐	☐	☐Yes	☐No
• Construction or expansion of a sanitary landfill.	☐	☐	☐Yes	☐No
• Construction in a designated floodway.	☐	☐	☐Yes	☐No
• Other impacts Closure/Capping of industrial landfill will have a large beneficial impact.	☐	☒ (Positive Impact)	☒Yes	☐No
2. Will there be an effect to any unique or unusual land forms found on the site? (i.e. cliffs, dunes, geological formations etc.) ☒NO ☐YES				
• Specific land forms	☐	☐	☐Yes	☐No

IMPACT ON WATER

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated By Project Change
3. Will proposed action affect any water body designated as protected? (Under Articles 15, 24, 25 of the Environmental Conservation Law, ECL) ☒NO ☐YES			
Examples that would apply to column 2			
• Developable area of site contains a protected water body.	☐	☐	☐Yes ☐No
• Dredging more than 100 cubic yards of material from channel of a protected stream.	☐	☐	☐Yes ☐No
• Extension of utility distribution facilities through a protected water body.	☐	☐	☐Yes ☐No
• Construction in a designated freshwater or tidal wetland.	☐	☐	☐Yes ☐No
• Other impacts: _____	☐	☐	☐Yes ☐No
4. Will proposed action affect any non-protected existing or new body of water? ☒NO ☐YES			
Examples that would apply to column 2			
• A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.	☐	☐	☐Yes ☐No
• Construction of a body of water that exceeds 10 acres of surface area.	☐	☐	☐Yes ☐No
• Other impacts: _____	☐	☐	☐Yes ☐No
5. Will Proposed Action affect surface or groundwater quality or quantity? ☐NO ☒YES			
Examples that would apply to column 2			
• Proposed Action will require a discharge permit.	☐	☐	☐Yes ☐No
• Proposed Action requires use of a source of water that does not have approval to serve proposed (project) action.	☐	☐	☐Yes ☐No
• Proposed Action requires water supply from wells with greater than 45 gallons per minute pumping capacity.	☐	☐	☐Yes ☐No
• Construction or operation causing any contamination of a water supply system.	☐	☐	☐Yes ☐No
• Proposed Action will adversely affect groundwater.	☐	☐	☐Yes ☐No
• Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.	☐	☐	☐Yes ☐No
• Proposed Action would use water in excess of 20,000 gallons per day.	☐	☐	☐Yes ☐No
• Proposed Action will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.	☐	☐	☐Yes ☐No
• Proposed Action will require the storage of petroleum or chemical products greater than 1,100 gallons.	☐	☐	☐Yes ☐No
• Proposed Action will allow residential uses in areas without water and/or sewer services.	☐	☐	☐Yes ☐No
• Proposed Action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities.	☐	☐	☐Yes ☐No
• Other impacts: Action should improve ground water and surface water quality.	☒ (Positive Impact)	☐	☐Yes ☒No
6. Will proposed action alter drainage flow or patterns, or surface water runoff? ☐NO ☒YES			
Examples that would apply to column 2			
• Proposed Action would change flood water flows.	☐	☐	☐Yes ☐No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated By Project Change	
• Proposed Action may cause substantial erosion.	☐	☐	☐Yes	☐No
• Proposed Action is incompatible with existing drainage patterns.	☐	☐	☐Yes	☐No
• Proposed Action will allow development in a designated floodway.	☐	☐	☐Yes	☐No
• Other impacts: Proposed action will improve on-site drainage.	☒ (Positive Impact)	☐	☐Yes	☒No
IMPACT ON AIR				
7. Will proposed action affect air quality? ☐NO ☒YES **Examples** that would apply to column 2				
• Proposed Action will induce 1,000 or more vehicle trips in any given hour.	☐	☐	☐Yes	☐No
• Proposed Action will result in the incineration of more than 1 ton of refuse per hour.	☐	☐	☐Yes	☐No
• Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour.	☐	☐	☐Yes	☐No
• Proposed action will allow an increase in the amount of land committed to industrial use.	☐	☐	☐Yes	☐No
• Proposed action will allow an increase in the density of industrial development within existing industrial areas.	☐	☐	☐Yes	☐No
• Other impacts: Potential for occasional odor during grading of waste fill. Various mitigative measures have been built into the Closure Plan.	☒	☐	☒Yes	☐No
IMPACT ON PLANTS AND ANIMALS				
8. Will Proposed Action affect any threatened or endangered species? ☒NO ☐YES **Examples** that would apply to column 2				
• Reduction of one or more species listed on the New York or Federal list, using the site, over or near site or found on the site.	☐	☐	☐Yes	☐No
• Removal of any portion of a critical or significant wildlife habitat.	☐	☐	☐Yes	☐No
• Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.	☐	☐	☐Yes	☐No
• Other impacts:	☐	☐	☐Yes	☐No
9 Will Proposed Action substantially affect non-threatened or non-endangered species? ☒NO ☐YES **Examples** that would apply to column 2				
• Proposed Action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.	☐	☐	☐Yes	☐No
• Proposed Action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.	☐	☐	☐Yes	☐No
IMPACT ON AGRICULTURAL LAND RESOURCES				
10 Will the Proposed Action affect agricultural land resources? ☒NO ☐YES **Examples** that would apply to column 2				
• The proposed action would sever, cross or limit access to agricultural land (include cropland hayfields, pasture, vineyard, orchard, etc.)	☐	☐	☐Yes	☐No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated By Project Change
• Construction activity would excavate or compact the soil profile of agricultural land.	☐	☐	☐Yes ☐No
• The proposed action would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultutal District, more than 2.5 acres of agricultural land.	☐	☐	☐Yes ☐No
• The proposed action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g. cause a farm field to drain poorly due to increased runoff)	☐	☐	☐Yes ☐No
• Other impacts: _____	☐	☐	☐Yes ☐No
IMPACT ON AESTHETIC RESOURCES			
11. Will proposed action affect aesthetic resources? ☒NO ☐YES (If necessary, use the Visual EAF Addendum in Section 617.21, Appendix B.)			
Examples that would apply to column 2			
• Proposed land uses, or project components obviously different from or in sharp contrast to current surrounding land use patterns, whether man-made or natural.	☐	☐	☐Yes ☐No
• Proposed land uses, or project components visible to users of aesthetic resources which will eliminate or significantly reduce their enjoyment of the aesthetic qualities of that resource.	☐	☐	☐Yes ☐No
• Project components that will result in the elimination or significant screening of scenic views known to be important to the area.	☐	☐	☐Yes ☐No
• Other impacts: _____	☐	☐	☐Yes ☐No
IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES			
12. Will Proposed Action impact any site or structure of historic, pre-historic or paleontological importance? ☒NO ☐YES			
Examples that would apply to column 2			
• Proposed Action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or National Register of historic places.	☐	☐	☐Yes ☐No
• Any impact to an archaeological site or fossil bed located within the project site.	☐	☐	☐Yes ☐No
• Proposed Action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.	☐	☐	☐Yes ☐No
• Other impacts: _____	☐	☐	☐Yes ☐No
IMPACT ON OPEN SPACE AND RECREATION			
13. Will Proposed Action affect the quantity or quality of existing or future open spaces or recreational opportunities?			
Examples that would apply to column 2 ☒NO ☐YES			
• The permanent foreclosure of a future recreational opportunity	☐	☐	☐Yes ☐No
• A major reduction of an open space important to the community.	☐	☐	☐Yes ☐No
• Other impacts: _____	☐	☐	☐Yes ☐No

IMPACT ON TRANSPORTATION

14. Will there be an effect to existing transportation systems?

☐NO ☒YES

Examples that would apply to column 2

- Alteration of present patterns of movement of people and/or goods.
- Proposed Action will result in major traffic problems.
- Other impacts: _____

IMPACT ON ENERGY

15 Will proposed action affect the community's sources of fuel or energy supply?

☒NO ☐YES

Examples that would apply to column 2

- Proposed Action will cause a greater than 5% increase in the use of any form of energy in the municipality.
- Proposed Action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two family residences or to serve a major commercial or industrial use.
- Other impacts: _____

NOISE AND ODOR IMPACTS

16. Will there be objectionable odors, noise, or vibration as a result of the Proposed Action?

☐NO ☒YES

Examples that would apply to column 2

- Blasting within 1,500 feet of a hospital, school or other sensitive facility.
- Odors will occur routinely (more than one hour per day).
- Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures.
- Proposed Action will remove natural barriers that would act as a noise screen.
- Other impacts: Temporary noise during construction.

IMPACT ON PUBLIC HEALTH

17. Will Proposed Action affect public health and safety?

☐NO ☒YES

Examples that would apply to column 2

- Proposed Action may cause a risk of explosion or release of hazardous substances (i.e. oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there may be a chronic low level discharge or emission.
- Proposed Action may result in the burial of "hazardous wastes" in any form (i.e. toxic, poisonous, highly reactive, radioactive, irritating, infectious, etc.)
- Storage facilities for one million or more gallons of liquified natural gas or other flammable liquids.
- Proposed action may result in the excavation or other disturbance within 2,000 feet of a site used for the disposal of solid or hazardous waste
- Other impacts: Proposed Closure Plan incorporates various mitigation measures.

1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated By Project Change
☐	☐	☐Yes ☐No
☒	☐	☒Yes ☐No
☐	☐	☐Yes ☐No
☐	☐	☐Yes ☐No
☐	☐	☐Yes ☐No
☐	☐	☐Yes ☐No
☐	☐	☐Yes ☐No
☐	☐	☐Yes ☐No
☐	☐	☐Yes ☐No
☒	☐	☐Yes ☒No
☒	☐	☒Yes ☐No
☐	☐	☐Yes ☐No
☒	☐	☒Yes ☐No
☐	☐	☐Yes ☐No
☒	☐	☒Yes ☐No

IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD

18 Will proposed action affect the character of the existing community? ☒NO ☐YES

Examples that would apply to column 2

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated By Project Change
• The permanent population of the city, town or village in which the project is located is likely to grow by more than 5%.	☐	☐	☐Yes ☐No
• The municipal budget for capital expenditures or operating services will increase by more than 5% per year as a result of this project.	☐	☐	☐Yes ☐No
• Proposed action will conflict with officially adopted plans or goals.	☐	☐	☐Yes ☐No
• Proposed action will cause a change in the density of land use.	☐	☐	☐Yes ☐No
• Proposed Action will replace or eliminate existing facilities, structures or areas of historic importance to the community.	☐	☐	☐Yes ☐No
• Development will create a demand for additional community services (e.g. schools, police and fire, etc.)	☐	☐	☐Yes ☐No
• Proposed Action will set an important precedent for future projects.	☐	☐	☐Yes ☐No
• Proposed Action will create or eliminate employment.	☐	☐	☐Yes ☐No
• Other impacts:_____	☐	☐	☐Yes ☐No

19. Is there, or is there likely to be, public controversy related to potential adverse environmental impacts? ☒NO ☐YES

If Any Action in Part 2 Is Identified as a Potential Large Impact or If You Cannot Determine the Magnitude of Impact, Proceed to Part 3

Part 3—EVALUATION OF THE IMPORTANCE OF IMPACTS

Responsibility of Lead Agency

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

Instructions

Discuss the following for each impact identified in Column 2 of Part 2:

1 Briefly describe the impact.

2 Describe (if applicable) how the impact could be mitigated or reduced to a small to moderate impact by project change(s)

3. Based on the information available, decide if it is reasonable to conclude that this impact is **important.**

To answer the question of importance, consider:

- The probability of the impact occurring
- The duration of the impact
- Its irreversibility, including permanently lost resources of value
- Whether the impact can or will be controlled
- The regional consequence of the impact
- Its potential divergence from local needs and goals
- Whether known objections to the project relate to this impact.

(Continue on attachments)

STATE ENVIRONMENTAL QUALITY REVIEW

ENVIRONMENTAL ASSESSMENT FORM
PART 3

This project involves the closure of the Palmer Street Landfill in Gowanda, NY owned by Moench Tanning Company. The work will involve regrading the project site to provide positive drainage and construction of a cover system with a recompacted soil barrier layer to reduce infiltration. No significant adverse environmental affects are anticipated as a result of this project. In fact, this project will have a beneficial effect on the environment as follows:

1. The project site will be regraded through the use of off-site fill material. This will significantly improve the slope of the ground surface to provide positive drainage. A minimum of a 2 percent slope will be maintained to promote surface runoff.

2. The Proposed Action should have a beneficial impact on ground water quality since the amount of infiltration into the landfill will be significantly reduced. As infiltration is reduced, the potential for contamination of the deep regional ground water is also reduced.

3. The Proposed Action will alter drainage flow patterns on the site by providing a more positive slope for surface water runoff. Existing low spots and ponding areas will be eliminated.

4. There is some potential for odor during the regrading of the waste fill material. Odors will be controlled through the placement of lime and a six inch thick layer of soil material whenever this occurs.

5. Some erosion is possible during construction as a result of surface water runoff containing soil sediment. This will be controlled through the placement of hay bales and siltation screens to control turbidity. Also construction activities will be limited to dry weather conditions as much as possible.

6. Due to the amount of material which must be hauled to the site for construction of the cover system, a two year construction period is proposed to minimize traffic problems.

Engineering Report

PALMER STREET LANDFILL CLOSURE/POST CLOSURE PLAN (EPA ID NYD002126910)

VOLUME I : REPORT

Moench Tanning Company
Division of Brown Group, Inc.
Gowanda, New York

October 4, 1985
Revised November 1987
Revised February 1989
Revised August 1989

Project No. 0605-12-1

MALCOLM PIRNIE

ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

MALCOLM PIRNIE

MOENCH TANNING COMPANY
PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

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Volume II

Appendix

MALCOLM PIRNIE

1.0 FACILITY DESCRIPTION

The following information is submitted in accordance with the requirements for a general description of the facility as contained in 40 CFR 270.14(b)(1) and 6 NYCRR 373-1.5(a)(2)(1) and related Subparts. All hazardous wastes currently generated at Moench Tanning are transported off-site for treatment/disposal at a permitted TSD facility. These wastes are not stored on-site for any period exceeding 90 days. Therefore, Moench Tanning is not required to obtain a 40 CFR 264 or 6 NYCRR 373 Hazardous Waste Permit for the current tannery operation. All information presented herein is submitted for use in evaluating the proposed closure plan for the Palmer Street Landfill.

1.1 GENERAL DESCRIPTION

The Moench Tanning Company, a division of Brown Group, Inc. is located near the southeast corner of the Village of Gowanda, Cattaraugus County, New York.

The address is:

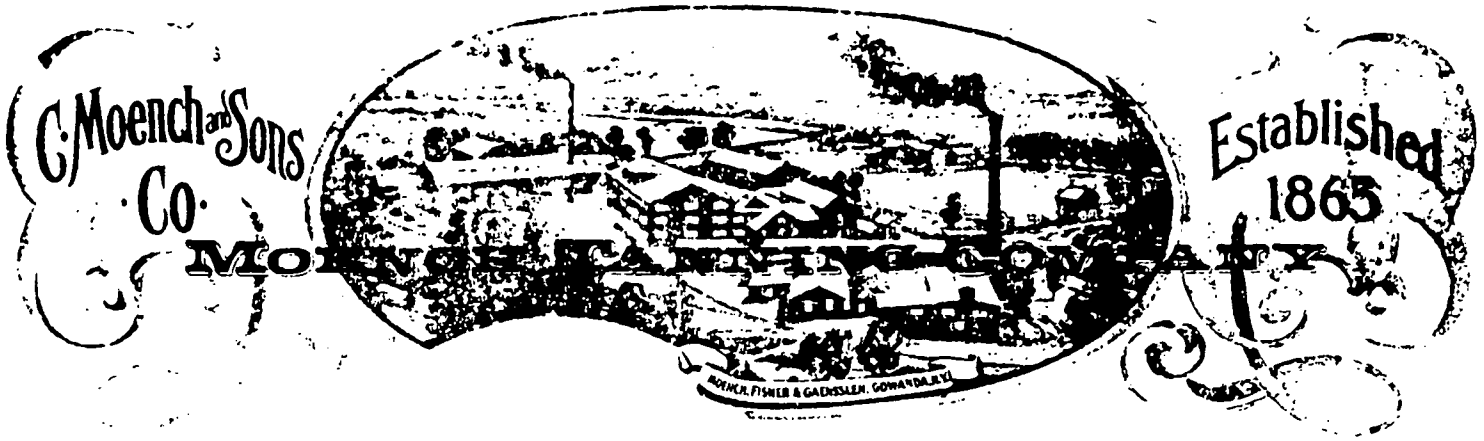
Moench Tanning Company
265 Palmer Street
Gowanda, New York 14070

The contact and party responsible for hazardous waste management activities at Moench Tanning is:

Jeff Smith
Plant Engineer
(716) 532-2201

1.1.1 Products Produced

Moench Tanning Company is a leather tanning facility that has been in operation for approximately 120 years. A brief discussion of leather tanning processes is provided in Appendix 1-A and a summary of Moench Tanning's company history is presented on Figure 1-1.



GOWANDA, NEW YORK 14070

TEL. 716-532-2201 TELEX 91-502

The original Moench Tanning Company was founded by Christopher Moench at Cattaraugus, New York in 1896.

In 1888, Mr. Henry Moench joined his father in the business and became Plant Manager. In 1895, the Moench family purchased a sole leather tannery in Alpena, Michigan and in 1902, they purchased the Gaensslen and Fisher tannery in Gowanda, New York, the plant's present location. Later in 1902, the Cattaraugus plant was totally destroyed by fire.

In 1914, Moench Tanning Company consolidated its' upper, sole and split tanneries in their present location, Gowanda, New York. The Alpena, Michigan plant was dismantled, moved to Gowanda and re-assembled to house the sole leather yards and finishing operations. In 1919, Harmon Moench, a brother of Henry, joined the firm and succeeded his brother as General Manager after Henry's death in 1924.

Moench Tanning company was purchased by Brown Shoe Company of St. Louis, Missouri in 1925, operating as a wholly owned subsidiary of Brown Shoe until 1978 at which time they became a division of Brown Group, Inc.

Harmon Moench was replaced by Louis Klancer as General Superintendent after his death in 1948. Mr. Klancer was replaced upon retirement in 1971 by Howard Beaver. Robert Fetterick became the Manager of Operations in 1983.

Over the years, Moench Tanning has specialized in sole leather, upper leather and quality ooze linings. In 1967, they closed their sole leather operation and expanded their upper leather operations by renovating the sole leather buildings and transforming them into modern finishing and shipping departments that cover approximately 43,000 square feet of floor space. A vast modernization program over the past ten years has transformed Moench Tanning into one of the most modern and successful tanneries in the country.

To help solve the area water pollution problem, Moench Tanning completed construction of a wastewater treatment abatement plant in May of 1971, and now treats all of its' own wastewater. The wastewater treatment plant sludge was disposed of in the adjacent Palmer Street Landfill until 1982 when a new industrial landfill site was designed and permitted.

Personnel practices that maintain an informal relationship between management and labor have been successful at Moench Tanning. As Gowanda's largest industrial employer, an excellent relationship prevails within the community.

Moench Tanning Company employs 270 people and produces approximately 15,000,000 square feet of upper leather and 3,000,000 square feet of linings.

1.1.2 Site Description

The Palmer Street Landfill was operated by Moench Tanning from 1900 through July, 1983. (See Figure 1-2 for Location Map) The site occupies approximately 25 acres in size and is bound on the west and south by a steeply-sloped wooded area, on the northwest by a swampy area and on the east by Cattaraugus Creek. The Tannery complex serves as the northeast boundary of the site. Moench Tanning owns approximately ten houses located adjacent to the tannery complex near the north boundary of the site.

1.2 WASTE GENERATION

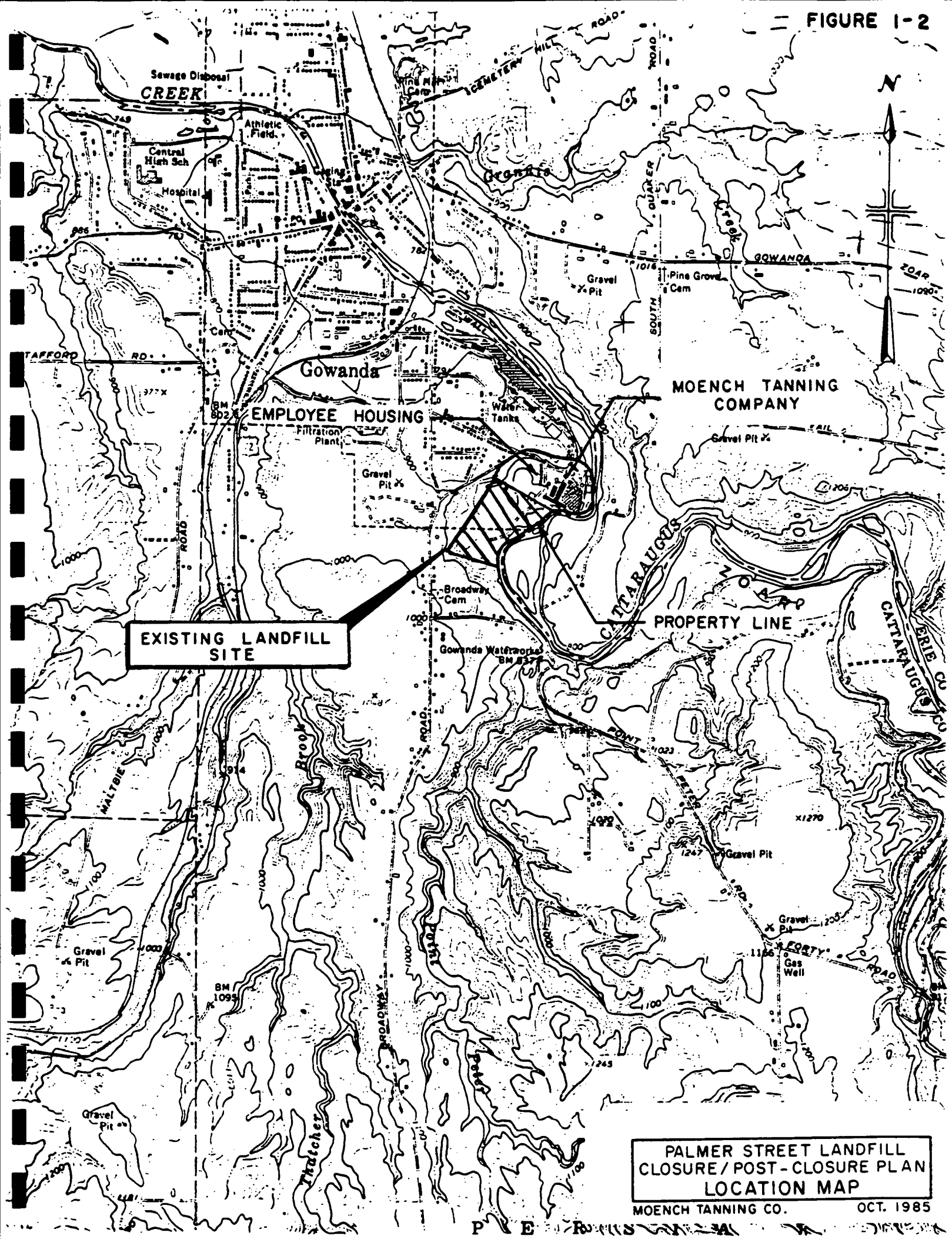
A variety of wastes generated at Moench Tanning were disposed of at the landfill site. Unless otherwise noted, each waste stream was deposited in the landfill after 1900. The landfill was not used for disposal of wastes generated from outside sources. Brief descriptions of the types of wastes known to have been disposed of at the landfill site are presented below:

- Sole Leather Extract - Sole leather extract waste consisted of exhausted vegetable tanning solution (primarily bark and wood extract) used in the tanning of shoe sole, luggage and upholstery leathers. The waste has not been generated at the tannery since 1967. No estimates of the quantity of this non-hazardous waste disposed of at the site is possible.

- Rendering Waste - The rendering waste (sometimes referred to as scutch liquor) was the residual waste generated from the sulfuric acid grease rendering operation. It contained hair and other suspended solids and was acidic in nature. This waste has not been generated at Moench Tanning since 1983 and was not placed in the landfill after 1979. No estimate of the quantity of this non-hazardous waste placed at the site is possible.

- Spray Booth Clean-up Waste - Spray booth clean-up waste consists of materials generated from the clean-up of the spray finishing booths (which apply various colors to the leather) and conveyors. Two different materials are generated from the spray booth clean-up operations. They are spray booth sludge and band cleaning residue. These wastes have not been placed in the Palmer Street Landfill since July 1983. It is estimated that approximately 2 tons per week of spray booth clean-up wastes were disposed at the landfill from 1972 to 1983. Waste

FIGURE 1-2



PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN
LOCATION MAP

MOENCH TANNING CO. OCT. 1985

characterization results for non-representative samples of this waste have indicated a potential for failure of the EP Toxicity Test for lead. The results of this testing should not be considered representative of the waste disposed of in the landfill both because the band cleaning wastes can differ significantly in chemical content (depending on such factors as pigments being utilized for a particular batch, etc.) and because the band cleaning wastes were mixed with varying other solid waste prior to deposition in the landfill. No sampling and analysis of actual waste materials were undertaken at the time that the band cleaning wastes were being disposed of at the landfill. The first sample of spray booth waste that was analyzed for EP Toxicity was collected on August 23, 1983, a point in time following the cessation of disposal of the waste stream at the landfill. In addition, there are no records documenting the procedures for collecting and handling the sample, and therefore there is no indication that standard quality assurance and quality control practices were followed. Further, since there are no longer production records for this period, accurate information regarding the pigments that were being used and that may have led to the elevated lead level does not exist. In short, it cannot be concluded that this wastestream, if disposed of today would be classified a hazardous waste because the analytical results for post-disposal samples are unreliable. These wastes are currently classified as a nonhazardous industrial waste and disposed of off-site at a permitted disposal facility.

- Waste Finish - Waste finish material consists of spent resins, pigments, waxes, dyes, detergents, lacquer emulsions, and solvents. Prior to 1979, approximately 50 tons per year of waste finish was disposed of at the landfill site. This represents approximately 3950 tons of waste finish disposed of at the landfill site since 1900. Waste finish material has been transported to a permitted TSD facility for treatment/disposal or reclaimed on-site since 1979.

- Waste Hair - Waste hair consists of hair removed from hides during the dehairing process. Waste hair was not disposed of at the landfill site after September, 1982. Waste hair is currently disposed of off-site at a permitted disposal facility. No estimate of the quantity of this non-hazardous waste disposed of at the site is possible. The volume of waste hair generated at the facility has been substantially reduced due to a conversion from hair pulp to hair burn which occurred in late 1986.

- Leather Scraps - Leather scraps included unuseable pieces of finished leather, blue stock, and shavings. These wastes were not placed in the landfill after September 1982. They are currently processed off-site for use as a fertilizer.

- Wastewater Treatment Plant Sludge - The total volume of wastewater treatment plant sludge estimated to have been disposed of at the site between 1972 and 1982 is approximately 100,000 tons. Wastewater treatment plant sludge is the dewatered biological residue produced by the activated sludge wastewater treatment system operated by Moench Tanning. The sludge (viz. approximately 200 cubic yards per week) disposed of at the landfill site was first mixed with lime (for stabilization and as a dewatering aid) and dewatered on a rotary vacuum filter. Sludge was not disposed of at the landfill site after September, 1982. The sludge is currently disposed of off-site at a permitted disposal facility.

- Occasional Construction Debris - Construction debris (viz. building demolition debris) was placed in the landfill through July, 1983. It is currently disposed of off-site. No estimate of the quantity of this non-hazardous waste disposed of at the site is possible.

Available data related to the waste types described above can be found in Appendix 1-B.

1.2.1 Maximum Hazardous Waste Inventory

As discussed previously, Spray Booth Clean-up waste is the only potentially hazardous material landfilled at the Palmer Street site since the effective date of the Resource Conservation and Recovery Act (RCRA). Moench Tanning maintains that these wastes were not hazardous when disposed of at the landfill. Currently, these wastes are classified as a nonhazardous industrial waste and disposed of at a permitted disposal facility.

The actual quantities of Spray Booth Clean-up waste located on the site can only be approximated due to the incomplete nature of landfill operation records. Based upon conversations with Moench Tanning personnel, it has been estimated that approximately two tons per week of spray booth clean-up wastes were disposed of at the landfill from 1972 to 1983 (viz. approximately 1250 tons).

1.3 LANDFILL OPERATION

There is virtually no documented information on the operation of Palmer Street Landfill because records/logs were not maintained. All information presented herein regarding operational practices and the location of wastes is based on interviews with plant personnel actually involved in the landfill operation. As shown on Plate 1 (Topographic Map), the landfill is segregated into three areas (viz. Areas 1, 2 and 3) by two ditches which collect surface water runoff.

Area 1 is the oldest portion of the landfill and received the majority of the potentially hazardous wastes which were disposed of at the landfill site. As shown on Plate 2, several types of solid waste management units were operated in Area 1. A brief discussion of each unit is presented below:

- Dump Pits/Waste Piles - These units were first utilized as dump pits for the disposal of sole leather extract, rendering waste and finishing materials. They were later used as waste piles for the disposal of plant garbage, construction debris, leather scraps, hair, spray booth sludge and waste finishing materials.

- Dump Pits/Landfills - These units were first used as dump pits for disposal of sole leather extract, rendering waste and waste finishing materials. They were later used for the disposal of wastewater treatment plant sludge, hair, leather scraps and spray booth sludge.

- Dump Pit - The dump pit was utilized for disposal of rendering waste and waste finishing materials.

- Container Storage - This portion of the landfill was used for the temporary storage of waste finish materials in 55 gallon drums. The drums were stored at this location prior to off-site incineration or reclamation at a permitted TSD facility. Storage of the waste finish material at this location was stopped in 1984.

- Landfill - The majority of Area 1 was utilized to landfill (viz. narrow trench method) wastewater treatment plant sludge, hair, leather scraps and spray booth sludge. These portions of Area 1 were trenched 2 to 3 times in various directions. Therefore, the surface of Area 1 is a mixture of in-situ soils and waste materials.

Areas 2 and 3 are the newest portions of the landfill. They were utilized to landfill (viz. narrow trench method) wastewater treatment plant sludge, hair, leather scraps and spray booth sludge. No other wastes are known to have been disposed in these areas. Much of Area 2 was trenched 2 to 3 times in various directions. Therefore, the surface of Area 2 is a mixture of in-situ soils and waste materials. Area 3 was trenched one time and all waste materials were covered with one to two feet of clean fill excavated from the trench.

1.4 TOPOGRAPHIC MAP

Plate 1 is a topographic map with existing contours, site property lines and drainage. Figure 1-2 is a location map showing topography in the vicinity of the landfill site. Plate 1 also shows site property lines, site drainage control and the 100 year floodplain. A wind rose (Figure 1-3) of the prevailing winds at the Buffalo International Airport was provided by the National Weather Service (NWS). The NWS indicated that this wind rose would be applicable to any site, including the Moench Tanning Site, in the western New York State Region.

1.5 FACILITY LOCATION INFORMATION

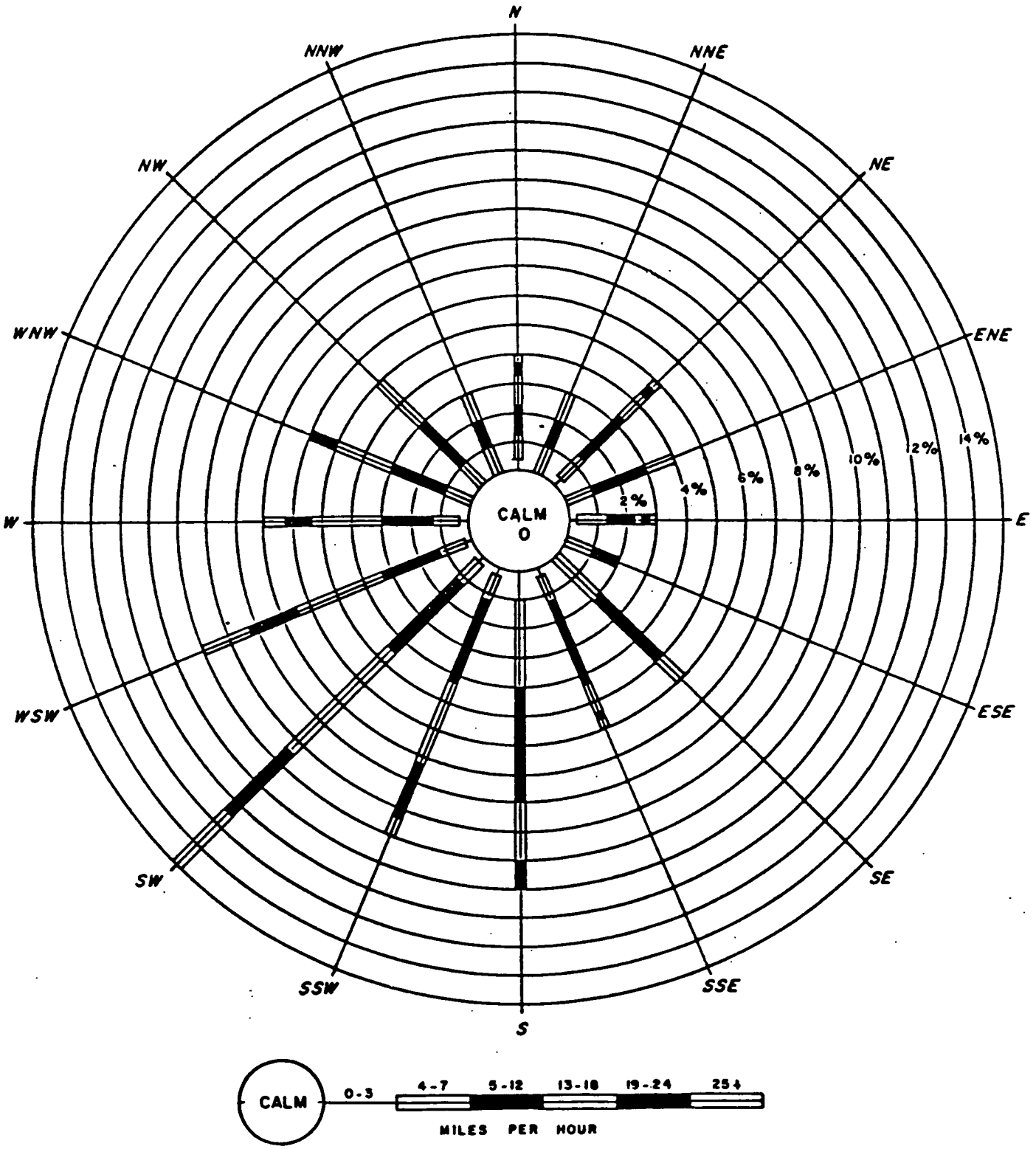
1.5.1 Seismic Standard

Because this is an existing rather than a new facility, the seismic standard of Part 270 does not apply. In addition, the facility is not located in a political jurisdiction listed in Appendix VI of Part 264.

1.5.2 Floodplain Standard

The limits of the floodplain shown on Plate 1 were developed from the Federal Insurance Administration (FIA) floodmap for the Village of Gowanda, New York (Flood Hazard Boundary Map H-01, Community Panel Numbers 360075A, effective Date: June 1, 1977. The Moench Tanning Palmer Street Landfill is located immediately adjacent to Cattaraugus Creek.

FIGURE 1-3



MEAN SPEED: 12 MPH

PREVAILING DIRECTION: SOUTHWEST

MAXIMUM SPEED: 91 MPH

DATA SOURCE: NOAA, DECENNIAL CENSUS OF UNITED STATES CLIMATE, SUMMARY OF HOURLY OBSERVATIONS, BUFFALO.

PALMER STREET LANDFILL
CLOSURE / POST-CLOSURE PLAN
ANNUAL WINDROSE

MOENCH TANNING CO. OCT. 1985

Review of Plate 1 indicates that the 100-year floodplain peaks at elevation 797. The minimum top-of-bank elevation along Area 1 is approximately 798. The lowest point on the landfill surface occurs in the northeast corner in the vicinity of Monitoring Wells Nos. 5 and 6, and is approximately 794 feet. The ground surface slopes upward from the low point of the landfill to meet the minimum top-of-bank elevation of 798 feet. As is shown on Plate 1, riprap has been placed along the creek bank in the northeast corner of the site to maintain bank integrity and provide a minimum top-of-bank elevation above that of the 100-year flood elevation.

1.5.3 Demonstration of Compliance

As discussed above, the landfill top-of-bank is above the 100-year flood elevation of 797 feet; therefore, no flooding and no release of potentially hazardous waste would occur during a 100-year storm.

1.5.4 Plan for Future Compliance

Moench Tanning believes that there would be no release of potentially hazardous wastes or their constituents during a 100-year flood. Therefore, no additional flood prevention work is considered necessary to comply with 40 CFR Part 264 or 6 NYCRR Part 373 regulations.

1.6 TRAFFIC PATTERNS

Access to Moench Tanning Palmer Street Landfill will be restricted except for maintenance vehicles such as gas line maintenance, cover maintenance or water quality sampling vehicles. To facilitate access to surface water runoff monitoring sites and ground water monitoring wells, dirt and cinder roadways currently in existence in Areas 1, 2 and 3 will be maintained. Access roadways will also allow for maintenance of the cap and gas collection system.

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1.7 RESTRICTION OF ACCESS

The existing fence along the north, south and west boundaries of the facility and landfill will be maintained to discourage unauthorized access to the site. The natural boundary of Cattaraugus Creek on the east should be sufficient to restrict access from this direction.

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2.0 GROUND WATER MONITORING SYSTEM

2.1 GROUND WATER MONITORING WELLS

2.1.1 Number and Location

The ground water monitoring system at Palmer Street Landfill presently consists of thirteen (13) monitoring wells. One of the monitoring wells, MW-2, was recently damaged and will be replaced to continue monitoring.

Monitoring wells are as follows:

MW-1	MW-3DR	MW-7
MW-2	MW-4	MW-7S
MW-3	MW-5	MW-7D
MW-3D	MW-6	MW-8
		MW-8D

Well locations are shown on Figure 2-1.

2.1.2 Design and Construction

Monitoring well design and construction is presented in Appendix 2-A. Drilling methodologies employed in the design and construction of the monitoring wells identified in Section 2.1.1 are given in References 1 and 16.

2.2 GROUND WATER SEEP STATIONS

2.2.1 Number and Locations

Monitoring is required at two (2) bank or seep ground water stations designated as BS-1 and BS-3. Locations of these seep stations are shown on Figure 2-1.

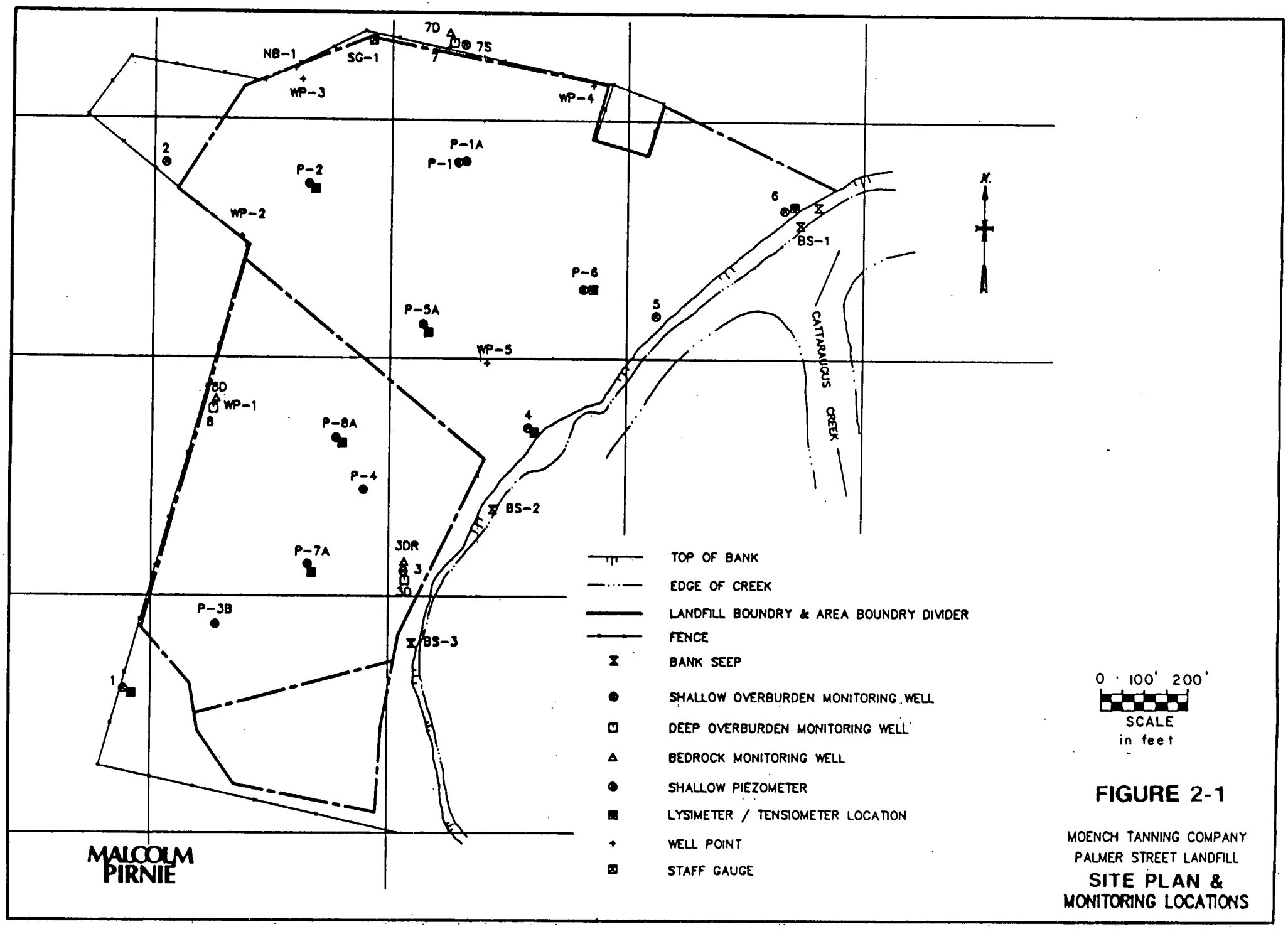

FIGURE 2-1

MOENCH TANNING COMPANY
PALMER STREET LANDFILL
SITE PLAN & MONITORING LOCATIONS

2.2.2 Description

1. Bank seep BS-1 will be collected where ground water enters a drainage ditch along the north landfill boundary, directly southeast of monitoring well MW-6.

2. Bank seep BS-3 will be collected along the bank of Cattaraugus Creek directly south of monitoring well MW-3.

2.3 GROUND WATER MONITORING PROGRAM

A conceptual detection monitoring program including wells sampled, sampling frequency, analytical parameter, and reporting requirements is discussed in Section 4.4.2

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3.0 SITE CLOSURE PLAN

3.1 GENERAL

The following information is submitted in accordance with the requirements for landfill closure as contained in 6NYCRR Parts 373-3.7(b), 373-3.14(d)(1) and 373-1.5(a)(2)(xiii), and in 40 CFR 265.111, 265.111, 265.310 and 270.14(b)(13) and related Subparts. A discussion of existing site topography is presented in Section 1.4 of this Closure Application. The site closure plans with sections and details of the cap, drainage ditches, gas vents, and other design features are presented as Plates 4 and 5. The proposed design attempts to minimize the need for post-closure maintenance and minimize the potential for release of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground water, surface waters, and atmosphere.

Two copies of the Closure Plan for the Palmer Street Landfill will be kept on file at Moench Tanning. The procedure for updating the closure plan will be as follows:

- Submit proposed changes to the Closure Plan to the appropriate regulatory agencies for review and approval.
- Implement proposed changes following regulatory review and approval.

3.2 SITE PREPARATION

As discussed in Sections 1.3 (viz. Landfill Operation) of this Closure Application, the site is segregated into three areas which received varying degrees of cover. Area 1 is the oldest portion of the landfill and has received little to no cover. It is relatively flat and poorly drained. Area 2 also received little cover but is relatively well drained with surface slopes that vary from one to ten percent (1-10%). Area 3 received one to two feet of cover and is well drained with surface slopes of eight to thirteen percent (8-13%).

Area 1 will be extensively regraded and fill material will be added (see Plate 4) to promote surface water run-off and minimize percolation. The regraded surface will have minimum slopes of two percent (2%).

Approximately 25,200 cubic yards of fill material (compacted volume) will be required to accomplish the proposed regrading of Area 1. Area 1 will be segregated into three major subareas (see Plate 4) to facilitate placement of the fill and final cover. The majority of Area 1 will drain to the south to Discharge Point A with a minor portion draining to the north to Discharge Point C. A minor portion will also drain to the northeast.

As shown on Plate 4, a small portion of Area 1 will be paved. This paved area will be used to store empty drums or other miscellaneous non-hazardous materials until they are used on-site or are sent off-site for reclamation. The pavement will be placed above the barrier layer as shown on Plate 5.

Areas 2 and 3 are currently well drained with existing slopes ranging from one to thirteen percent (1-13%). Area 2 will be regraded with approximately 2,800 cubic yards of fill material (compacted volume) to achieve a minimum slope of two percent (2%). Area 3 will not be regraded, other than improving perimeter surface water ditches, as it is currently well drained with slopes greater than 2 percent.

A drainage ditch system will be installed to control surface water runoff, as shown on Plate 4.

3.3 INTERMEDIATE COVER/GENERAL FILL

Excess material from the regrading operations will be used to the maximum extent possible as general fill for the subgrade preparation. Approximately 28,000 cubic yards (compacted volume) of additional off-site material will also be necessary to complete the proposed grading plan.

Soil used for general fill will be thoroughly compacted and graded to a uniform slope prior to placement of the barrier layer. The fill material will not contain large quantities of rock, wood or other foreign

matter that might cause construction or settlement problems in regard to the barrier layer placement.

Potential negative environmental impacts during the regrading of the landfill include:

- temporary erosion and other drainage problems;
- temporary odor and dust; and
- personnel health and safety problems.

Procedures to mitigate these impacts are described below.

- Erosion and other drainage problems will be controlled during regrading by using hay bales and sediment traps. Drainage ditches will be constructed as soon as possible to minimize sheet erosion. Regrading will take place only during favorable weather conditions; work will be stopped during rain events, or on occasions when temperature inversions or wind conditions prevent odor dissipation.

- Grading into partially decomposed pockets of hair may create temporary odor problems. If odor problems are encountered, both lime and a six inch layer of soil will be spread over the waste as soon as the regrading is completed for each day. Dust will be controlled by spreading water as necessary.

- A health and safety plan will be prepared for the site prior to construction. The plan will address procedures to be followed during decontamination of equipment and personnel. It will also address safety procedures and use of safety equipment. Recommended safety equipment will include disposable coveralls, boots, hard hats, dust masks and safety glasses. All equipment or material which comes into contact with waste material during regrading, hauling or placing activities will be decontaminated or disposed of in a permitted treatment, storage, disposal facility.

3.4 FINAL COVER

3.4.1 General

Once acceptable slopes are achieved with placement of general fill, maximum six inch (after compaction) lifts of soil with a permeability of 1×10^{-7} cm/sec will be placed over the entire area, including drainage ditches up to a total minimum compacted thickness of twenty-four inches. Twelve (12) inches of top soil with a loamy-sand or sandy-loam composition

will be used to cover the compacted soil layers. The topsoil will be limed, if necessary, to bring the pH of the soil to 6.5. Cover material will be obtained from an off-site source. All areas (with the exception of the portion of Area 1 which will be paved - see Plate 4), will then be seeded and mulched to prevent erosion. A cross section of the cover and ditches is presented on Plate 5.

The proposed final cover design was selected based on its ability to comply with the 6NYCRR Part 373 closure performance standard (see Reference 16) which, among other things, demonstrated that this cover system provides a level of protection substantially equivalent to EPA's recommended RCRA cap.

The compacted soil layer will be monitored during the post-closure period to ensure that the cover system is functioning as intended. Infiltration through the final cover will be monitored with the aid of five specially designed "infiltrometers" as shown on Plate 4. The infiltrometers will capture infiltration through a 16-square foot area of the two-foot compacted soil layer. Semi-annual inspections will measure and record the level of captured water in each of them . The sumps will then be evacuated. The sump on each infiltrometer has been sized to contain the infiltration expected for a two-year period (4 cubic feet).

3.5 GAS VENTING SYSTEM

The decomposition of biodegradable wastes produces various gases, of which methane is of the most concern. The build-up and migration of methane gas must be controlled to prevent explosive hazards. Gas control at the Palmer Street landfill will be accomplished through the installation of a passive gas venting system.

A gas venting system consisting of 10 PVC riser pipes (approximately six inches in diameter) will be installed to facilitate gas ventilation through the cap. The proposed gas vents have been strategically placed to facilitate venting of gas which tends to migrate along the base of the low permeability cover material towards peak elevations on the landfill surface. No gas vents will be placed within the paved portion of Area 1.

In addition, gravel-filled trenches will be constructed at the locations designated on Plate 4 immediately beneath the cover material to facilitate gas migration to the vents on the side slopes.

The pipes will be installed vertically in the cap during placement of the general fill and the final cover. They will extend a minimum of 2'-6" into the existing waste material and protrude three feet above the final grade. The pipes will be filled with gravel and will be perforated to allow gas to move freely into the pipe and vent to the atmosphere. The gas vents will be installed in a crushed stone envelope which will be no less than 2'-6" deep. In addition, filter fabric will line these gravel envelopes to further prevent migration of soils into the vent which would cause a reduction of void space and render the gas vents less effective over time. Gas vents will terminate with an 180-degree return bend and a bird and insect screen. Locations of gas vents and trenches are presented on Plate 4. Details of gas vents are presented on Plate 5.

3.6 FINAL GRADES

Final grades will provide positive drainage of the entire landfill area. Final grades for all areas of the landfill surface will have a slope of no less than two percent (2%) to promote run-off and minimize infiltration and no greater than thirteen percent (13%) to prevent erosion. Areas 1 and 2 will be filled and regraded to provide a minimum slope of two percent (2%). Area 3 will not be regraded. Slope preparations will require the regrading of existing waste materials in addition to the placement of general fill for subgrade preparation. All drainage ditches will have slopes greater than or equal to two percent (2%) with the exception of the ditch between Areas 1 and 2. This ditch will slope at one percent due to off-site topographic constraints. In order to compensate for the lower slope, a pipe will be used to convey runoff in this ditch. Following regrading, the capped portion of the site will occupy approximately 25 acres with peak elevations of approximately 806 in Area 1, approximately 820 in Area 2 and approximately 834 in Area 3.

Final subgrades are shown on the proposed final grading plan provided as Plate 4.

As required by the NYSDEC, the USDA Universal Soil Loss Equation was utilized to evaluate the erosion potential of the landfill surface. It was determined that the proposed surface slopes are acceptable after comparing the calculated amount of erosion to recommended to State guidance. The soil loss calculations are included in Appendix 3A.

3.7 SURFACE WATER CONTROL

A surface water control system will be constructed to prevent erosion caused by storm water runoff. This surface water control system is designed for a minimum 25-year, 24-hour storm as required by the NYSDEC. Drainage ditches will be constructed along the perimeter and on the surface of the landfill to convey surface run-off to four discharge points (viz. A, B, C and D). All ditches will be modified as necessary to provide adequate drainage.

Storm water run-on from west of Area 1, along with a portion of the Area 1 runoff, will drain to perimeter ditches which flow to Discharge Point C. Under the proposed grading plan, approximately 4.1 acres (including off-site run-on areas) will discharge at Point C. Approximately 6.5 acres of Area 1, 8.3 acres of Area 2 and 14.8 off-site acres will drain to the ditch located between the two areas and discharge at Point A. Discharge Point B will control the runoff from a minor portion of Area 2 and all of Area 3, in addition to run-on from off-site. The total drainage area for Point B is approximately 7.1 acres. Discharge Point D will control the runoff from the 0.9-acre paved area.

Discharge Points A, B, C and D will be monitored throughout the post-closure period. Locations of Discharge Points A, B, C and D are presented on Plate 4.

All new and existing drainage ditches will be equipped with erosion control mats. Ditches exceeding five percent (5%) bottom slope shall be lined with non-biodegradable anti-erosion matting. Drainage ditches with bottom slopes less than five percent (5%) will be lined with biodegradable

anti-erosion matting to aid establishment of turf. All of the ditches with the exception of the ditch between Areas 1 and 2 shall be constructed to a depth of two feet with a minimum bottom slope of two percent (2%) and maximum side slopes of 1:1. The minimum two percent slope will provide adequate drainage to prevent vegetation failure due to prolonged exposure to wetness. Drainage ditches in all areas will be constructed with the same cover requirements as the landfill surface. All ditches will be grass-lined to prevent soil washout during periods of high rain fall. Drainage ditch locations are shown on Plate 4, and details of drainage ditch cross sections are presented on Plate 5.

A buried storm water conduit (viz. galvanized CMP) will be used between Areas 1 and 2 to promote gravity flow/discharge of storm water drainage. The slope of the conduit will be a minimum of one (1) percent. This design was selected in lieu of a surface drainage ditch with a two (2) percent slope due to the topographic limitations (viz. relatively low topography) of the area located west/northwest of the site. Specifically, it appeared that, given the constraints of the discharge point elevation at the creek, use of a surface drainage ditch with a two (2) percent slope would result in water ponding in the topographic low area located west/northwest of the site on property <u>not</u> owned by Moench Tanning. Use of a slope of one (1) percent with buried pipe/conduits is considered sufficient for gravity sewer design where slopes as low as 0.113 percent are recommended for 18-inch sewers (Reference 8).

The proposed design consists of an 18-inch galvanized corrugated metal pipe buried along the line of the existing ditch between Point A and the northwest corner of Area 2. The pipe will transport run-on from off-site to Point A. It will also convey runoff from Areas 1 and 2 to Point A by way of three (3) drop inlets spaced along the pipe route. The recompacted earth barrier layer will be constructed above the pipe. To ensure that leachate cannot enter the pipe, a 60-mil HDPE synthetic liner will be placed in the trench, as detailed on Plate 5.

Estimated peak runoff volumes for each monitoring point were calculated as follows:

- Point A - 1.6 CFS
- Point B - 0.4 CFS
- Point C - 0.2 CFS
- Point D - 0.3 CFS

Drainage ditches discharging to Cattaraugus Creek at Points A, B and D will discharge to the creek through corrugated metal pipes. Runoff and culvert sizing calculations presented in Appendix 3-B were based on assumed restraints of 80 percent (80%) full capacity of the pipe and a 25-year, 24-hour storm event. Riprap will be installed five feet past end sections of all culverts to aid in erosion protection. Locations of culverts are described on Plate 4. Details of culvert end sections are presented on Plate 5.

3.8 VEGETATIVE GROWTH

The entire surface of the landfill will be seeded with 100 lbs/acre of seed conforming to the following mix (by weight):

- Perennial Ryegrass	10 lbs/acre
- Kentucky Bluegrass	20 lbs/acre
- Strong Creeping Red Fescue	20 lbs/acre
- Chewings Fescue	20 lbs/acre
- Hard Fescue	20 lbs/acre
- White Clover	10 lbs/acre

In addition to the seed mixtures listed above, one bushel per acre of oats or rye seed will be sowed over the entire area, including drainage ditches, to provide a quick shade cover and to prevent erosion during turf establishment. As an aid to turf establishment, seeded areas will be fertilized with 300 pounds per acre of 10-20-10 fertilizer and covered with two (2) tons per acre of straw mulch to prevent erosion during initial establishment.

The landfill will be seeded and fertilized immediately following placement of topsoil.

3.9 LEACHATE COLLECTION/TREATMENT

A leachate collection/treatment system will not be developed for the site because the site is currently having no impact on the water quality of Cattaraugus Creek or the deep regional ground water flow system, nor is it expected to in the future (see Section 2.0 and Reference 16).

3.10 QUALITY ASSURANCE/QUALITY CONTROL

3.10.1 General

The final cover system for the landfill is designed to provide long-term minimization of liquid migration and leachate formation in the closed landfill by limiting the infiltration of surface water into the facility for the post-closure period. The final cover system will be constructed so that it functions with minimum maintenance, promotes drainage and minimizes erosion of the cover, accommodates settlement and subsidence so that the cover's integrity is maintained.

Assurance that the earth materials of the final cover system for the landfill are constructed in accordance with the project closure plans and specifications and/or regulatory requirements shall be accomplished by the judicious use of quality assurance testing. Prior to construction, project specifications will be prepared by a registered Professional Engineer for review by the NYSDEC. All construction activities will be monitored under the supervision of a registered Professional Engineer. A construction monitoring report will be prepared by a registered Professional Engineer and submitted to the NYSDEC following completion of cover system construction activities in order to document that the cover system was constructed as designed. It will be submitted jointly by the Engineer and Moench Tanning Company.

3.10.2 Quality Control

A Quality Assurance (QA) Plan has been prepared for construction of the final cover system and is included in Appendix 3-C (Volume II).

3.11 EQUIPMENT DECONTAMINATION

The equipment used to accomplish site grading and construction of the cap at the Palmer Street Landfill which excavates through the existing cover and into waste material will be decontaminated prior to final placement of the cover material. The equipment will be decontaminated on top of the landfill. All large solids adhering to the equipment will be removed manually with shovels. The equipment will then be washed using low-volume, high-pressure water sprays. The small amount of water expected to result from the washing of the equipment will be allowed to seep back into the surface of the landfill. Hay bales will be placed around the decontamination area to minimize potential runoff.

3.12 SCHEDULE FOR CLOSURE

Closure of the Palmer Street Landfill will be initiated upon approval of the closure/post closure plan by the NYSDEC. As shown in Table 3-1, it is estimated that two full construction seasons will be required for closure.

TABLE 3-1

MOENCH TANNING COMPANY
PALMER STREET LANDFILL

CLOSURE CONSTRUCTION SCHEDULE[1][2]

MILESTONE	ESTIMATED NUMBER OF MONTHS TO ACCOMPLISH MILESTONE
Regulatory Approval of Closure/ Post-Closure Plan	-
Preparation of Bid Documents/ Specifications	2
Solicit Bids	2
Selection of Contractor	1
Execute Contract	1
Closure of Landfill Areas 2 & 3	7
Closure of Landfill Area 1/ Complete Construction	7
TOTAL	20

NOTES:

(1) Schedule assumes that no work will be performed between November 30 and April 1.

(2) Schedule assumes two (2) full construction seasons.

MALCOLM PIRNIE

4.0 POST-CLOSURE CARE AND MONITORING

This information is submitted to comply with 40 CFR 270.14(b)(13) and 6 NYCRR 373-1.5(a)(2)(xiii) and related Subparts.

4.1 POST-CLOSURE PERIOD

Post-closure activities for the Moench Tanning Palmer Street Landfill will extend over a 30-year period.

4.2 INSPECTION AND MAINTENANCE

4.2.1 Site Inspections

Moench Tanning Company will be responsible for site inspection and maintenance. The site will be inspected on a quarterly basis throughout the entire post-closure period. The landfill site will be inspected for:

- Integrity of structures;
- Visible debris, litter and waste;
- Loss of vegetative cover or growth of undesirable species;
- Integrity of drainage ditches including:
  - sediment build-up,
  - pooling or ponding,
  - slope integrity, and
  - overall adequacy of surface runoff collection system;
- Integrity of gas venting system;
- Integrity of access roads, gates and fences;
- Integrity of ground water monitoring system;
- Integrity of landfill cap including:
  - erosion or settling of cap material,
  - leachate breakthroughs; and
- Maintenance of existing benchmarks.

All records on frequency of inspection, maintenance, detection monitoring and maintenance of bench marks will be submitted to the NYSDEC Region 9 Office, Attention: Regional Solid and Hazardous Waste Engineer, on an annual basis.

4.2.2 Cover Maintenance

Cover maintenance will be performed as necessary over the entire post-closure care period. Any signs of erosion, settling, cracking or other site maintenance problems detected during routine site inspections will be corrected as soon as possible. All eroded areas will be brought back to original grade according to the procedures described for constructing the final cover. Settling which results in ponding of water will be regraded and revegetated as necessary to eliminate the ponding. All bare spots in the final cover will be reseeded and fertilized as necessary, but no less than once every year. Seed and fertilizer will be of the same type and quality as specified in Section 3.8. "First-moving will be done with light equipment so as not to impart excessive wheel-injury to seedlings. Successive mowing will be undertaken with a frequency to minimize the accumulation of clippings that would smother grass. Six months after seeding, the cover will be fertilized with 400 lb/acre of 10-10-10 fertilizer. The same fertilizer mix will be applied each fall to assure maintenance of a good grass cover. Any undesirable species (i.e. large tree growth) will be removed if their presence is suspected to have the potential to deteriorate the integrity of the final cover.

The need for cover repairs due to subsidence and/or settling will be determined based on an evaluation of whether the functions of the final cover in the affected area has been impaired. Those areas where the function has been impaired or will be impaired will be repaired to ensure that the integrity of the final cover is maintained. These repair actions may include, but will not be limited to:

- strip and stockpile topsoil from the affected area;
- regrade the affected area in accordance with the grading plan;

- using clay or a bentonite-soil admixture, fill cracks and re-establish the recompacted low permeability soil layer to a depth of twenty-four inches at a maximum permeability of $1x10^{-7}$ cm/s; and

- replace topsoil and revegetate affected area in accordance with Section 3.8.

4.2.3 Maintenance of Site Structures

Maintenance of structures for surface water control and ground water monitoring will be performed by Moench Tanning as necessary during the post-closure period.

All eroded areas in the drainage ditches will be repaired and regraded. Reseeding will be carried out using the recommended seed mixture given in Section 3.8. Sediment build-up in the ditches will be removed if it restricts flow in the ditches. Any other areas in the ditches where the cross-section or slope has been altered to the extent that flow does not occur as desired will be reworked and regraded as necessary.

Gas vents will be repaired or rebuilt to restore them to the original design configuration. Monitoring wells which sustain damage or cannot provide representable ground water samples will be examined to determine whether the problem can be corrected. In particular, attention will be given to:

- Signs of encrustation and corrosion;

- An exceptional increase in solids content (due to the breakdown of the screening arrangement); or

- An appreciable decrease in ground water elevation.

Remedial actions will be determined by the expected impact of the loss of data on the overall monitoring program.

The access road to the landfill site will be maintained in good condition so that routine inspections and required maintenance activities can be carried out. Gates will be kept in good repair to prevent unauthorized access onto the landfill site.

4.2.4 Contingency Plans

The objective of the contingency plan is to address events which occur outside the scope of the routine maintenance program. The contingency plan will be implemented following the discovery of a condition at the landfill which is not covered by the routine maintenance plan.

Natural occurrences such as storms, drought and subsidence should be considered as "expected occurrences" and are addressed in the maintenance program and are not addressed in this contingency plan. Certain problems which cannot be reasonably expected to occur, such as earthquakes or war, are also not addressed in this contingency plan.

The following problems may not be reasonably expected to occur, yet may be discovered during a routine post-closure inspection and monitoring program:

- Leachate significantly impacting ground or surface water quality;
- Failure of the final cover integrity which may be a result of, or indicated by:
- waste protruding through the final cover,
- soil erosion or other drainage problems, and/or
- uncontrolled burrowing by pests; and
- Vegetative cover missing despite repeated efforts at revegetation.

The following guidelines are offered to determine when the contingency plan should be implemented and to determine possible corrective actions when responding to a contingency. All corrective actions, where appropriate, will be executed in a timely fashion after notifying the appropriate regulatory agencies.

4.2.4.1 Leachate Breakout Repair Procedure

Leachate breakouts through the landfill cover system will be discovered during regularly scheduled site inspections. Should such a breakout occur, the damage will be repaired as quickly as possible.

Repairs will be made with materials and methods as specified in previous sections of the closure plan. Areas where leachate breakouts have occurred will receive additional cover material which shall be compacted and overlaid with topsoil for vegetative growth.

If Moench Tanning believes a substantial threat of water pollution exists as a result of leachate draining from the site, Moench Tanning will prepare a work plan to determine appropriate response efforts including:

- whether leachate should be contained and treated on-site;
- whether leachate should be collected and transported to an off-site treatment facility; and
- actions to control, minimize or eliminate the conditions which are contributing to leachate production.

4.2.4.2 Fire

A fire at the landfill will be immediately reported to the local fire department. Appropriate response measures, including personnel safety, will be the responsibility of the fire department. Underground fires will be controlled as necessary. Above ground fires will be quenched according to approved fire department protocol. Damage to the surface drainage system or final cover will be repaired where these systems have been compromised.

4.2.4.3 Vandalism

Vandalism will be reported to the local enforcement authorities. If vandals have gained entry to the landfill, appropriate measures will be taken to eliminate or restrict future access. Vandalism to monitoring wells will be repaired as appropriate. Damage caused by off-road vehicles will be repaired, where the damage is determined to have compromised the integrity of the final cover or the functions of the gas vents or surface drainage system.

4.2.4.4 Air Contamination

Methane gas venting to the atmosphere should not present a risk to human health due to the rural nature of the landfill and the relative lack

of human population adjacent to the landfill. It is conceivable although highly unlikely that a build-up of gas within the landfill may occur.

Should it be suspected that methane gas generation may be presenting an explosion or other hazard, Moench Tanning will notify the NYSDEC and New York State Department of Health (NYSDOH). If it is determined that such a hazard is present, a work plan will be developed to determine if the venting system is functioning properly and to determine the appropriate response actions. Possible response actions include replacing portions of the venting system, adding new vents, or installing an active gas withdrawal system. Any proposed remedial actions would be approved through the NYSDEC prior to implementation.

4.2.4.5 Unauthorized Dumping or Disposal

Unauthorized dumping or waste disposal by other parties will be reported to the NYSDEC, and local enforcement officials. In the event that such disposal occurs, efforts will be taken to eliminate further dumping and to restrict subsequent entry to the site. Moench Tanning will assist the NYSDEC and/or USEPA in the prosecution of persons found in the act of illegal dumping and in seeking reimbursement from the responsible party for all costs incurred in the removal and disposal of the waste.

4.2.5 Quality Assurance/Quality Control

To assure the performance of site inspection and maintenance, a reporting procedure has been established. A site inspection checklist and maintenance schedule is provided in Appendix 4B. The site inspection checklist was developed in accordance with the parameters identified in Section 4.2. The maintenance schedule will be completed after regularly scheduled site inspections and will be submitted to the NYSDEC on an annual basis.

Moench Tanning personnel responsible for performing site inspections and supervising maintenance operations will be fully qualified to perform the work. The site inspection checklist and maintenance schedule will be signed by authorized personnel. Maintenance and repair work shall conform to the requirements set forth in Section 4.0 of this report.

4.3 NEED FOR CORRECTIVE ACTION

Ground and surface water quality data collected to date indicates that the Palmer Street Landfill is not having a significant impact on the ground and surface water quality in the vicinity of the site (Reference 16). No other corrective actions, in addition to those specified in Section 3.0, are considered necessary at this time.

4.4 CONCEPTUAL DETECTION MONITORING PROGRAM

4.4.1 General

The principal purpose of any landfill monitoring system is to provide a mechanism for initiating corrective actions if the impairment of ground water or surface water is apparent. Remediation is triggered by comparison of water quality at preestablished points of monitoring/compliance with appropriate and applicable standards. The monitoring system should be site specific, in other words the system design should be capable of detecting landfill derived contaminants along the principal pathways of contaminant movement.

It has been determined that much of the leachate produced at the landfill is currently moving with the shallow ground water either towards the east with discharge to Cattaraugus Creek or northwards across the landfill boundary. A lesser volume of leachate is moving to depth through the lower overburden (overburden aquitard) to the regional ground water flow system. The existing monitoring well system, which includes a total of seven shallow wells (viz. MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7S), three wells completed in the lower overburden (viz. MW-7, MW-3D and MW-8), and three bedrock wells (viz. MW-7D, MW-3DR and MW-8D), has provided the historical water quality data base. MW-2 has been damaged and will be replaced to continue the monitoring program. This distribution of wells is considered adequate for monitoring existing shallow leachate and ground water flow. The adequacy of monitoring installations in the lower overburden and regional ground water systems is still under investigation.

Construction of the recommended landfill cover system (Section 3.0) will have an influence on the existing pattern of ground water flow with flow reversal anticipated along the northern landfill boundary (inflow as opposed to outflow). It is also likely to result in measurable changes in ground water quality due to the reduction in infiltration. These changes are likely to take place over several years and will be difficult to monitor until such time as steady state flow conditions and chemical equilibrium are reestablished. This may necessitate specifying a "grace" period of sufficient duration until sufficient water quality data are collected to redefine the site's baseline geochemistry.

Future monitoring at the Palmer Street Landfill must be cognizant of anticipated changes to the ground water flow pattern. The following have to be factored into the proposed detection monitoring program:

- With reversal of shallow ground water movement along the northern boundary, well MW-7S will be physically upgradient of the landfill. Any improvement in water quality monitored at this location however will be gradual because it will likely take some time for the contaminant plume in this area to disperse.

- Monitoring wells MW-4, MW-5 and MW-6 although hydraulically downgradient from the landfill are screened within waste fill. Because of their physical position within the waste, water samples from these wells are representative of leachate quality rather than true downgradient ground water quality. It is conceivable that once the landfill is covered, the observed water quality in these wells will deteriorate further as infiltration through the landfill is reduced. Although these wells will not be suitable for monitoring ground water quality improvement, they can be used to monitor contaminant loadings to Cattaraugus Creek. Contaminant loadings will decrease proportional to the decline in water levels as measured in these wells.

- The bedrock wells can continue to be used to monitor water quality changes attributable to the landfill in the regional ground water flow system. The lower overburden wells will provide a measure of early detection of water quality changes in the lower overburden prior to detection in the regional aquifer. It should however, be recognized that because ground water flow and any contaminant movement through the confining aquitard is slow, it may take several years for an existing contaminant plume to disperse. Therefore, it is possible that

monitoring could indicate some impairment of water quality even after the landfill cap is in place and loadings are reduced.

- Although limited hydrogeologic information is available on the aquitard which separates the shallow overburden and deep regional ground water flow systems, it is reasonable to assume based on observed downward gradients across the aquitard, that leachate contaminants have penetrated some undefined distance into the aquitard. The extent of contaminant penetration would be a function of the hydraulic gradient, porosity, and hydraulic conductivity of the aquitard material.

The two-phased detection monitoring program which is described below is based on the premise that it would be premature to attempt to evaluate the impacts of the cover system construction until such time as steady-state flow conditions and chemical equilibrium are re-established. The first phase of the monitoring program will, however, assess applicable technologies which could be implemented to provide early warning of contaminant movement through the aquitard to the regional flow system.

4.4.2 Phase I: Continued Routine Monitoring/Further Assessment

Phase I of the detection monitoring program will involve continued routine monitoring of selected existing monitoring wells in accordance with requirements of 40 CFR Part 265.93 and 6NYCRR Part 373-3.6. Monitoring wells MW-1, MW-2 (once replaced), MW-3, MW-4, MW-5, MW-6, MW-7S, MW-3DR, MW-7D and MW-8D plus two bank seeps will be monitored for the contaminants-of-interest (viz. arsenic, barium, chromium, lead and volatile organics) on a quarterly basis. All remaining monitoring wells will be monitored annually for the contaminants-of-interest. All monitoring wells will be monitored quarterly for pH, conductivity, turbidity as well as elevation data. Quarterly and annual reports summarizing the routine monitoring data will be submitted to the NYSDEC.

Phase I of the detection monitoring program will also involve further assessment of the site including:

- better definition of the hydrogeologic and chemical characteristics of the overburden aquitard and the identification of an appropriate technology for assessing contaminant movement through the aquitard;

- evaluation of the integrity of the existing deep overburden and bedrock monitoring wells for use as long-term points of monitoring/ compliance;
- evaluation of the need for additional deep/bedrock monitoring wells to serve as points-of-monitoring/compliance; and
- establishment of detection monitoring parameters.

The first step of the assessment will involve preparation of a Work Plan for approval by the NYSDEC. The Work Plan will include the following components:

- An Introduction specifying purpose, scope and approach;
- field investigation methods and procedures;
- data evaluation procedures; and
- an implementation schedule.

Phase I routine monitoring will be initiated in March 1989 and will continue on a quarterly basis until the proposed site assessment is complete and the report is approved by the NYSDEC. The work plan for the proposed assessment is scheduled for submission to the NYSDEC in November 1989 with preliminary work scheduled to begin in January 1990, subject to timely NYSDEC review, drilling contractor availability and weather conditions.

4.4.3 Phase II - Post-Closure Detection Monitoring

Phase II of the detection monitoring program (viz. long-term post-closure detection monitoring) will be initiated upon NYSDEC approval of the Phase I report. The details of the post-closure monitoring program will be presented to the NYSDEC for review/approval as part of the ongoing ground water monitoring assesment program. Although the details of the long-term post-closure detection monitoring program cannot be established until the further site assessment is completed, the current concept for post-closure monitoring has been established as follows:

- Routine monitoring of the shallow overburden ground water/leachate flow system throughout the closure and post-

closure periods for periodic evaluation of cap performance and to determine when steady-state flow conditions and chemical equilibrium have been reestablished;

- Routine monitoring of the lower overburden and/or bedrock ground water flow system for purposes of demonstrating compliance with 40 CFR Part 264.98 and 6NYCRR Part 373-2.6(i); and

- Establishment of an early warning/immediate detection system within the overburden aquitard.

4.5 MAINTENANCE OF BENCHMARKS

A benchmark is located on a corner of the Moench Tanning water reservoir (See Plate 1). This benchmark will be maintained throughout the closure/post-closure care period.

4.6 NOTICE TO COUNTY CLERK

A survey plan indicating the location and dimension of landfill disposal areas with respect to permanent survey benchmarks will be submitted within 90 days after closure is completed to the offices of the Erie County Clerk and the Commissioner of the NYSDEC. A copy of the Modified Deed as well as evidence that it has been properly filed will be submitted under separate cover prior to approval of the Closure/Post-Closure Plan. The modified deed will include a notice that the landfill has been used to manage hazardous wastes, that the subject use of the property is restricted, and that details of the landfill operation were filed with the local zoning authority, the Regional Administrator of the USEPA and the Commissioner of the NYSDEC.

4.7 SITE SECURITY

Following site closure, the property will not be used for any purpose that may jeopardize the integrity of the cap, venting system or monitoring system. Site access will be restricted except for those vehicles and personnel necessary to provide routine inspection and maintenance as

described in Sections 4.1 and 4.2 of this Closure Plan. Unauthorized access to the site will be discouraged by virtue of the existing fence on the north, south and west boundaries. The natural boundary of the steep creek bank on the east should be sufficient to restrict unauthorized access which might lead to potential damage of the closure appurtenances of the site from this direction.

4.8 POST-CLOSURE NOTICES

A notice will be submitted to the offices of the Erie County Clerk and the NYSDEC Region 9 office, Attention: Regional Solid and Hazardous Waste Engineer within 60 days after certification of closure indicating the type, location and quantity of waste disposed of in the landfill. This information will reflect all known records and information maintained by Moench Tanning Company.

MALCOLM PIRNIE

5.0 CLOSURE AND POST-CLOSURE COST AND FINANCIAL ASSURANCE

5.1 CLOSURE AND POST-CLOSURE COST ESTIMATES

Closure costs developed in accordance with Section 3 of this Closure/Post-Closure Plan are presented in Table 5-1. Preliminary post-closure costs associated with ground and surface water monitoring and site maintenance as described in Section 4 of the Closure/Post-Closure Plan are presented in Table 5-2. The post-closure costs will be updated once the long-term post-closure detection monitoring program has been defined (see Section 4.4). The closure activities are scheduled for completion in 1990. The post-closure cost estimate will be adjusted annually for inflation and will be revised whenever a change in the plans increase costs.

5.2 FINANCIAL ASSURANCE AND LIABILITY COVERAGE

As required by 40 CFR 264.143(f) and 264.147(f) and 6 NYCRR 373-2.8(g)(h), documentation that the Brown Group Inc. meets the requirements for financial assurance and liability coverage for both closure and post-closure periods is included as Figure 5-1.

MALCOLM PIRNIE

TABLE 5-1

MOENCH TANNING COMPANY
PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

ITEM:	UNIT OF MEASURE	QUANTITY	UNIT COST($)*	ESTIMATED COST($)
1. COVER MATERIAL:(1)				
(FOR 25 ACRES)				
Excavation at Pt.Peter	CY	108,000	5.00	540,000
Hauling	CY	108,000	2.00	216,000
Screening	WEEKS	9	800.00	7,200
Place and Compact	CY	108,000	5.00	540,000
2. TOP SOIL:				
Strip at Pt.Peter	CY	20,200	5.00	101,000
Hauling	CY	20,200	2.00	40,400
Place and Grade	CY	20,200	2.00	40,400
3. GENERAL FILL(1)				
Deliver to Site	CY	35,000	5.00	175,000
Place, Grade, Compact	CY	35,000	3.00	105,000
Clear and Grub	SY	24,200	0.40	9,680
4. GAS VENT SYSTEM				
Gas Vents	EACH	10	200.00	2,000
Gravel Trench (5,350'x2'x2')	CY	800	15.00	12,000
5. SURFACE WATER DRAINAGE SYSTEM:				
Ditch Excavation	CY	2,100	3.50	7,350
Anti-Erosion Mat	SY	3,770	1.00	3,770
Riprap	CY	6	75.00	450
60 Mil HDPE Liner	SF	20,000	2.00	40,000
Geotextile	SY	2,500	7.00	17,500

MALCOLM PIRNIE

TABLE 5-1 (continued)

MOENCH TANNING COMPANY
PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

ITEM:	UNIT OF MEASURE	QUANTITY	UNIT COST($)*	ESTIMATED COST($)
5. SURFACE WATER DRAINAGE SYSTEM: (cont.)				
Concrete	CY	1	350.00	350
CMP End Sections	EACH	4	250.00	1,000
CMP	FT	775	20.00	15,500
Drop Inlets	EACH	3	2,500.00	7,500
6. SEED AND MULCH (INC. PT. PETER & AREAS 1,2 & 3)	ACRE	54	1,500.00	60,250
7. PAVED AREA	SY	4,400	14.00	61,600
8. INFILTROMETERS	EACH	5	1,500.00	7,500
SUB-TOTAL				$2,011,450
EQUIPMENT MOBILIZATION/DEMOBILIZATION				5,000
SOILS TESTING AND CAP CERTIFICATION (25 ACRES)				80,000
HEALTH AND SAFETY @ 5%				100,000
ENGINEERING				250,000
CONTINGENCIES @ 10%				201,150
TOTAL CLOSURE COST				$2,647,600

NOTES

(1) Quantity assumes 25% swell factor.
* Prices assume all work to be performed by Contractor.

MALCOLM PIRNIE

TABLE 5-2

MOENCH TANNING COMPANY
PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

POST-CLOSURE COSTS

ITEM:		UNIT OF MEASURE	QUANTITY	UNIT COST($)*	ESTIMATED COST($)
1.	LABORATORY TEST (QRTLY. SAMPLING)	SAMPLE OCCASION	120	6,000	720,000
2.	LABORATORY TEST. (ANNUAL SAMPLING)	SAMPLE OCCASION	30	3,000	90,000
3.	SAMPLE COLLECTION	MANHOURS	5,760	40	230,400
4.	ANNUAL REPORT	MANHOURS	1,200	50	60,000
5.	SITE INSPECTION	MANHOURS	240	50	12,000
6.	SITE MAINTENANCE	YEARS	30	2,500	75,000
	SUB-TOTAL				$1,187,400
	CONTINGENCIES @ 10%				118,600
	TOTAL POST-CLOSURE COST				$1,306,000
	ANNUAL COST FOR 30 YEARS				$43,533

NOTES

See Page 2.

MALCOLM PIRNIE

TABLE 5-2 (continued)

MOENCH TANNING COMPANY
PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

POST-CLOSURE COSTS

NOTES:

(1) Post-Closure costs are to be considered preliminary until post-closure monitoring requirements can be determined.

(2) Laboratory testing based on 30-year post-closure period.

(3) Sample collection based on 2 people for 12 days per year = 192 manhours per year x 30 years = 5,760 manhours.

(4) Quarterly reports by Moench Tanning/Brown Shoe; annual reports by Licensed Professional Engineer. Annual report based on 40 manhours per year for 30 years = 1,200 manhours.

(5) Quarterly inspections by Moench Tanning/Brown Shoe; annual inspections by Licensed Professional Engineer. Site inspection based on one person for one day per year = 8 manhours per year times 30 years = 240 manhours.

(6) Costs are based on 1987 dollars; actual costs may vary depending on cost inflation.

(7) Annual sampling assumes one well (viz. point-of-compliance) and two QA/QC samples will be analyzed for the full 6NYCRR Appendix 23 parameters at a laboratory cost of $3,000 per sample.

(8) Quarterly sampling assumes that 12 monitoring wells plus four surface water plus four QA/QC samples = 20 samples per sample occasion will be analyzed for total and soluble arsenic, barium, chromium, lead, volatile organics, pH, conductivity, Eh, and turbidity at a laboratory cost of 300 per sample.

(9) We have assumed a lump sum unit cost for site maintenance because the scope of work is not yet known.

FIGURE 5-1

Ernst & Whinney

Gateway One, Suite 1400
701 Market Street
St. Louis, Missouri 63101

314/231-7700

Board of Directors
Brown Group, Inc.
St. Louis, Missouri

We have compared the data in the accompanying letter from Mr. Harry Rich, Chief Financial Officer of Brown Group, Inc., which is specified as having been derived from the independently audited financial statements for the year ended January 30, 1988, with the amounts in such financial statements. In connection with that procedure, no matters came to our attention which caused us to believe that the specified data should be adjusted.

This report is intended solely for the use of the Board of Directors of Brown Group, Inc. and the U.S. Environmental Protection Agency.

Ernst & Whinney

St. Louis, Missouri
February 10, 1989

Brown Group, Inc.

8400 maryland avenue
post office box 29
st. louis, missouri 63166
(314) 854-4000

Brown Group

Harry E. Rich
executive vice president
and chief financial officer
(314) 854-4107

February 10, 1989

Commissioner
New York State Department
of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

Re: Closure of the Palmer Street Landfill
Moench Tanning Company, Gowanda, New York

Gentlemen:

I am the Chief Financial Officer of Brown Group, Inc., 8400 Maryland Avenue, St. Louis, Missouri 63105. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in 6 NYCRR 373-2.8 and 373-3.8.

The firm identified above is the owner or operator of the following facilities for which liability coverage for both sudden and non-sudden accidental occurrences is being demonstrated through the financial test specified in 6 NYCRR 373-2.8 and 373-3.8: EPA Identification Number NYD002126910; Moench Tanning Company, Gowanda, New York 14070.

The firm identified above guarantees, through the corporate guarantee specified in 6 NYCRR 373-2.8 and 373-3.8

liability coverage for both sudden and non-sudden accidental occurrences at the following facilities owned and operated by the following subsidiaries of the firm: EPA Identification Number NYD002126910; Moench Tanning Company, Gowanda, New York 14070.

1. The firm identified above owns or operates the following facilities for which financial assurances for closure or post-closure care is demonstrated through the financial test specified in 6 NYCRR 373-2.8 and 373-3.8. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: EPA Identification Number NYD002126910; Moench Tanning Company, Gowanda, New York 14070; current closure cost estimate: $2,647,600; current post-closure cost estimate: $1,306,000.

2. The firm identified above guarantees, through the corporate guarantee specified in 6 NYCRR 373-2.8 and 373-3.8, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: EPA Identification Number NYD002126910; Moench Tanning Company, Gowanda, New York 14070; current closure cost estimate: $2,647,600; current post-closure cost estimate: $1,306,000.

3. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40CFR Part 144 (see 6 NYCRR 370.1(e)). The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: None.

This firm is required to file a Form 10-K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on the Saturday nearest to each January thirty-first. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended January 30, 1988.

Part B. Closure or Post-Closure Care and Liability Coverage.

ALTERNATIVE I

1.	Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)	$ 3,953,600
2.	Amount of annual aggregate liability coverage to be demonstrated	$ 9,000,000
3.	Sum of lines 1 and 2	$12,953,600
4.	Total liabilities (if any portion of your closure or post-closure cost estimate is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6)	$328,872,000

5.	Tangible net worth	$337,145,000
6.	Net worth	$355,001,000
7.	Current assets	$504,121,000
8.	Current liabilities	$187,803,000
9.	Net working capital (line 7 minus line 8)	$316,318,000
10.	The sum of net income plus depreciation, depletion and amortization.	$ 74,134,000
11.	Total assets in U.S. (Required only if less than 90% of assets are located in the U.S.)	$_____

		Yes	No
12.	Is line 5 at least $10 million?	X	____
13.	Is line 5 at least 6 times line 3? . . .	X	____
14.	Is line 9 at least 6 times line 3? . . .	X	____
15.	Are at least 90% of assets located in the U.S.? If not, complete line 16. . . .	X	____
16.	Is line 11 at least 6 times line 3? . . .	N/A	____
17.	Is line 4 divided by line 6 less than 2.0?	X	____
18.	Is line 10 divided by line 4 greater than 0.1?	X	____
19.	Is line 7 divided by line 8 greater than 1.5?	X	____

I hereby certify that the wording of this letter is identical to the wording specified in 6 NYCRR 373-2.8(j)(9) as such regulations were constituted on the date shown immediately below.

By: _____
Harry E. Rich
Executive Vice President and
Chief Financial Officer
February 10, 1989

HER:tht

CORPORATE GUARANTY

February 10, 1989 St. Louis, Missouri

WHEREAS, Brown Group, Inc., a corporation organized under the laws of the State of New York, (hereinafter called the "Guarantor"), desires to promote the business activities of Moench Tanning Company, guarantor's operating division and

WHEREAS, the New York State Department of Environmental Conservation (hereinafter referred to as "Obligee" or "NYSDEC") is unwilling to issue a permit to, or otherwise authorize or approve the operation or continued operation by, Moench Tanning Company of certain hazardous waste management facilities or facility, referred to in paragraph "2" below (hereinafter referred to as the "Facility(ies"), unless NYSDEC receives a guarantee of the undersigned covering the obligations and liabilities of Moench Tanning Company to NYSDEC arising out of the performance of facility closure and post-closure facility monitoring and maintenance (hereinafter referred to as "closure and post-closure care") by Moench Tanning Company of the hazardous waste management facility(ies),

NOW, THEREFORE, in consideration of these premises and of other good and valuable consideration, and in order to induce NYSDEC now, and from time to time, in its discretion, to issue permits to Moench Tanning

Company for the ownership or operation of the hazardous waste management facility(ies) or to allow or authorize Moench Tanning Company to continue to conduct the operation or ownership of the hazardous waste management facility(ies), the undersigned hereby guarantees, absolutely and unconditionally, to NYSDEC the payment of all liabilities of Moench Tanning Company of whatever nature, whether now existing or hereinafter incurred, and whether absolute or contingent, arising out of the obligation of Moench Tanning Company to NYSDEC to perform the required closure and post-closure care, as hereinbefore stated, to or for the facility(ies) in accordance with the plans and permits submitted by or issued to Moench Tanning Company in accordance with New York State Environmental Conservation Law, article 27, and 6 NYCRR Part 370 et seq., (all of which are hereinafter collectively referred to as the "Liabilities of the Moench Tanning Company".

The Guarantor further states as follows:

1. Guarantor meets or exceeds the financial test criteria of New York State Environmental Conservation Law, article 27 (hereinafter referred to as "ECL art. 27") and 6 NYCRR Part 370 et seq., and agrees to comply with the reporting requirements for Guarantors as specified in 6 NYCRR Part 370 et seq.

2. Moench Tanning Company owns or operates the following hazardous waste management facility(ies) covered by this Guarantee: EPA Identification Number NYD002126910; Moench Tanning Company, 365 Palmer Street, Gowanda, New York 14070. For each facility, the activities covered

by this guarantee are facility closure and post-closure facility monitoring and maintenance.

3. "Closure plans" and post-closure plans", (such plans include, where applicable, those agreements between the owner and operator of the subject facility(ies) and NYSDEC as to closure and post-closure care) as used below refer to the plans prepared, submitted, and maintained as required by ECL art. 27 and 6 NYCRR Part 370 et seq., for the closure and post-closure care of the facilities as identified in paragraph 2 above.

4. For value and consideration received from Moench Tanning Company, Guarantor guarantees to NYSDEC that in the event that Moench Tanning Company fails to perform closure or post-closure care of the above facility(ies), as referred to in paragraph 2 above, in accordance with the closure or post-closure plans and other permit requirements whenever required to do so by the Commissioner of NYSDEC (hereinafter referred to as the "Commissioner"), the Guarantor shall do so and shall make payment in the name of Moench Tanning Company in the amount of the current closure and post-closure cost estimates or as specified by the Commissioner.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this Guarantee, the Guarantor fails to meet the financial test criteria, Guarantor shall send, within ninety (90) days, by certified mail, return receipt requested, notice of the Commissioner and to Moench Tanning Company that the Guarantor intends to provide alternate financial assurance as specified in 6 NYCRR Part 370 et seq., as

applicable, in the name of Moench Tanning Company. Within 120 days after the end of such fiscal year, the Guarantor shall establish such financial assurance unless Moench Tanning Company has done so.

6. The Guarantor agrees to notify the Commissioner, by certified mail return receipt requested, of a voluntary or involuntary case or proceeding under 11 USCA (Bankruptcy) naming Guarantor as Debtor, within ten (10) days after commencement of the case or proceeding.

7. Guarantor agrees that within thirty (30) days after being notified by the Commissioner, of a determination that Guarantor no longer meets the financial test criteria, or that the Guarantor is disallowed from continuing as a Guarantor of closure or post-closure care, the Guarantor shall establish alternate financial assurance as specified in 6 NYCRR Part 370 et seq., as applicable, in the name of Moench Tanning Company unless Moench Tanning Company has done so.

8. Guarantor agrees to remain bound under this Guarantee notwithstanding any or all of the following:

(a) Amendment or modification of the closure or post-closure plan,

(b) Amendment or modification of the permit,

(c) The extension or reduction of the time of performance of closure or post-closure care, or

(d) Any other modification or alternation of an obligation of the owner or operator pursuant to 6 NYCRR Part 370 et seq.

9. Guarantor agrees to remain bound under this Guarantee for so long as Moench Tanning Company must comply with the applicable financial assurance requirements of 6 NYCRR Part 370 et seq., for the above-listed facility(ies), except that the Guarantor may cancel this Guarantee by sending notice by certified mail return receipt requested to the Commissioner, such cancellation to become effective no earlier than 120 days after receipt of such notice by NYSDEC and Moench Tanning Company, as evidenced by the return receipts. Such notice will only terminate this Guarantee with respect to all liabilities of Moench Tanning Company incurred or owed by Moench Tanning Company to NYSDEC after the expiration of the 120 day period following receipt of such notice by both NYSDEC and Moench Tanning Company, as evidenced by the return receipts.

10. Guarantor agrees that if Moench Tanning Company fails to provide alternate financial assurance as specified in 6 NYCRR Part 370 et seq., as applicable, and obtain written approval of such assurance from the Commissioner, or the Commissioner's designee, within 90 days after a notice of cancellation by the Guarantor is received by the Commissioner from the Guarantor, Guarantor shall provide such alternate financial assurance in the name of Moench Tanning Company.

11. The undersigned hereby waives any or all of the following:

(a) Notice of acceptance of this Guarantee by the Commissioner or by Moench Tanning Company;

(b) Notice of amendments or modification of the closure and/or post-closure plan;

(c) Amendments or modifications of the facility(ies) permit(s); and

(d) Any demand to Moench Tanning Company for payments which this instrument guarantees.

12. All monies available to NYSDEC for application in payment or reduction of the liabilities of Moench Tanning Company may be applied by NYSDEC in such manner and in such amounts and at such time or times as NYSDEC may see fit to the payment or reduction of such of the liabilities of Moench Tanning Company as NYSDEC may elect.

13. This is a guarantee of payment and not of collection and the undersigned further waives any right to require that any action be brought against Moench Tanning Company or any other person, or to require that resort be had to any security or to any balance of any trust account, letter of credit, insurance policy, or surety bond, to the benefit of NYSDEC.

14. Each reference herein to NYSDEC shall be deemed to include its successors and assigns, in whose favor the provisions of this Guarantee shall also enure. Each reference herein to the undersigned shall be deemed to include the heirs, executors, administrators, legal representatives, successors and assigns of the undersigned, all of whom shall be bound by the provisions of this Guarantee.

15. If any party hereto shall be in partnership, the agreements and obligations on the part of the undersigned herein contained shall remain in force and applicable notwithstanding any changes in the individuals composing the partnership and the term "undersigned" shall include any altered or successive partnership, but the predecessor partnerships and their partners shall not thereby be released from any obligation or liability.

16. No delay on the part of NYSDEC in exercising any right hereunder, or failure to exercise the same shall operate as a waiver of such right; no notice to or demand on the undersigned shall be deemed to be a waiver of the obligation of the undersigned or of the right of NYSDEC to take further action without notice or demand as provided herein, nor in any event shall any modification or waiver of the provisions of this Guarantee be effective unless in writing, nor shall any such waiver be applicable, except in the specific instance for which given.

17. This Guarantee is, and shall be deemed to be, a contract entered into under and pursuant to the laws of the State of New York and

shall be in all respects governed, construed, applied and enforced in accordance with the laws of said State; and no defense given or allowed by the laws of any other state or country shall be interposed in any action hereon unless such defense is also given or allowed by the laws of the State of New York.

18. The undersigned hereby certifies that the wording of this Guarantee is identical to the wording specified in 6 NYCRR Part 370 et seq., as such regulations were constituted on the day first above written.

BROWN GROUP, INC.

By _____

Harry E. Rich
Executive Vice President and
Chief Financial Officer
8400 Maryland Avenue
St. Louis, Missouri 63105

ATTEST:

_____

Robert D. Pickle
Vice President, General Counsel
and Corporate Secretary

STATE OF MISSOURI)
)SS
COUNTY OF ST. LOUIS)

On this 10th day of February, 1989, before me personally came Harry E. Rich, to me known, who, being by me duly sworn, did depose and say that he is Executive Vice President and Chief Financial Officer of Brown Group, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

Notary Public

RONALD O. HEIER
NOTARY PUBLIC STATE OF MISSOURI
ST. LOUIS CO
MY COMMISSION EXPIRES JULY 10 1989

CORPORATE GUARANTEE FOR LIABILITY COVERAGE

February 10, 1989 St. Louis, Missouri

WHEREAS, Brown Group, Inc., a corporation organized under the laws of the State of New York, (hereinafter called the "Guarantor"), desires to promote the business activities of Moench Tanning Company, guarantor's operating division of 365 Palmer Street, Gowanda, New York 14070; and

WHEREAS, the New York State Department of Environmental Conservation (hereinafter referred to as "NYSDEC") is unwilling to issue a permit to, or otherwise authorize or approve the operation or continued operation by, Moench Tanning Company of certain hazardous waste management facilities or facility, unless NYSDEC receives a guarantee of the undersigned covering the obligations and liabilities of Moench Tanning Company to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or non-sudden) accidental occurrences arising from the operation of the facilities covered by this guarantee.

NOW, THEREFORE, in consideration of these premises and of other good and valuable consideration, and in order to induce NYSDEC now, and from time to time, in its discretion, to issue permits to Moench Tanning Company for the ownership or operation of the hazardous waste management facility(ies) or to allow or authorize Moench Tanning Company to continue to conduct the operation or ownership of the hazardous waste management facility(ies), the undersigned hereby guarantees, absolutely and unconditionally, to such third parties payment of all liabilities of Moench Tanning Company of whatever nature, whether now existing or hereinafter incurred, and whether absolute or contingent, caused by (sudden and/or non-sudden) accidental occurrences arising from the operation of the facility(ies) covered by this guarantee.

The Guarantor further states as follows:

1. Guarantor meets or exceeds the financial test criteria of New York State Environmental Conservation Law, article 27 (hereinafter referred to as ECL article 27) and 6 NYCRR 370 et seq. and agrees to comply with the reporting requirements for Guarantors as specified in 6 NYCRR Part 370 et seq.

2. Moench Tanning Company owns or operates the following hazardous waste facility(ies) covered by this Guarantee: EPA Identification Number NYD002126910; Moench Tanning Company, 365 Palmer Street, Gowanda, New York 14070. This corporate guarantee satisfies NYSDEC third party liability

requirements for both sudden and non-sudden accidental occurrences in above named owner or operator facility(ies) for $9,000,000 of coverage.

3. For value and consideration received from Moench Tanning Company, Guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or non-sudden) accidental occurrences, arising from operations of the facility(ies) covered by this guarantee that in the event that Moench Tanning Company fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by (sudden and/or non-sudden) accidental occurrences, arising from the operation of the above-named facility(ies) or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s), or settlements agreement(s) up to the limits of coverage identified above.

4. Guarantor agrees that if, at the end of any fiscal year before termination of this Guarantee, the Guarantor fails to meet the financial test criteria, Guarantor shall send within 90 days, by certified mail, return receipt requested, notice to the commissioner and to Moench Tanning Company that the Guarantor intends to provide alternative liability coverage as specified in 6 NYCRR Part 370 et seq. in the name of Moench

Tanning Company. Within 120 days after the end of such fiscal year, the Guarantor shall establish such liability coverage unless Moench Tanning Company has done so.

5. The Guarantor agrees to notify the commissioner, by certified mail, return receipt requested, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming Guarantor as Debtor, within ten days after commencement of the proceeding.

6. Guarantor agrees that within 30 days after being notified by the commissioner, of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a Guarantor, the Guarantor shall establish alternate liability coverage as specified in 6 NYCRR Part 370 et seq. in the name of Moench Tanning Company, unless Moench Tanning Company has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by 6 NYCRR Part 370 et seq. provided that such modification shall become effective only if the commissioner does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this Guarantee for so long as Moench Tanning Company must comply with the applicable requirements

of 6 NYCRR Part 370 et seq. for the above-listed facility(ies), except as provided in paragraph 9 of this agreement.

9. Guarantor may terminate this guarantee by sending notice, by certified mail, return receipt requested to the commissioner and to Moench Tanning Company, provided that this guarantee may not be terminated unless and until Moench Tanning Company obtains, and the commissioner approves alternate liability coverage complying with 6 NYCRR Part 370 et seq.

10. Guarantor agrees to remain bound under this Guarantee notwithstanding any or all of the following:

(a) amendment or modification of the permit; or

(b) any other modification or alternation of an obligation of the owner or operator pursuant to 6 NYCRR Part 370 et seq.

11. This Guarantee is, and shall be deemed to be, a contract entered into under and pursuant to the laws of the State of New York and shall be in all respects governed, construed, applied and enforced in accordance with the laws of said State; and no defense given or allowed by the laws of any other state or country shall be interpreted in any action hereon unless such defense is also given or allowed by the laws of the

State of New York.

12. The undersigned hereby waives any or all of the following:

(a) notice of acceptance of this Guarantee by the commissioner or by Moench Tanning Company or by any party;

(b) amendments or modifications of the facility(ies) permit(s); and

(c) any demand to Moench Tanning Company for payments which this instrument guarantees.

13. This is a guarantee of payment and not of collection and the undersigned further waives any right to require that any action be brought against Moench Tanning Company or any other person, or to require that resort be had to any security or to any balance of any trust account, letter of credit, insurance policy, or security bond, to the benefits of such third party.

14. Each reference herein to such third parties shall be deemed to include their respective successors and assigns, in whose favor the provisions of this Guarantee shall also enure. Each reference herein to the undersigned shall be deemed to include the heirs, executors, administrators, legal representatives, successors and assigns of the

undersigned, all of whom shall be bound by the provisions of this Guarantee.

15. If any party hereto shall be in partnership, the agreements and obligations on the part of the undersigned herein contained shall remain in force and applicable notwithstanding any changes in the individuals composing the partnership and the term "undersigned" shall include any altered or successive partnership, but the predecessor partnerships and their partners shall not thereby be released from any obligation or liability.

16. No delay on the part of such third parties in exercising any right hereunder, or failure to exercise the same shall operate as a waiver of such right; no notice to or demand on the undersigned shall be deemed to be a waiver of the obligation of the undersigned or of the right of such third parties to take further action without notice or demand as provided herein, nor in any event shall any modification or waiver of the provisions of this Guarantee be effective unless in writing, nor shall such waiver be applicable, except in the specific instances for which given.

17. The undersigned hereby certifies that the wording of this guarantee is identical to the wording specified in 6 NYCRR Part 370 et seq.

as such regulations were constituted on the day first above written.

BROWN GROUP, INC.

By: _____
Harry E. Rich
Executive Vice President and
Chief Financial Officer
8400 Maryland Avenue
St. Louis, Missouri 63105

ATTEST:

_____
Robert D. Pickle.
Vice President, General Counsel
and Corporate Secretary

STATE OF MISSOURI)
) SS.
COUNTY OF ST. LOUIS)

On this 10th day of February, 1989, before me personally came Harry E. Rich, to me known, who, being by me duly sworn, did depose and say that he is Executive Vice President and Chief Financial Officer of Brown Group, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Ronald O. Heier

Notary Public

RONALD O. HEIER
NOTARY PUBLIC STATE OF MISSOURI
ST. LOUIS CO.
MY COMMISSION EXPIRES JULY 16 1989

MALCOLM PIRNIE

REFERENCES

1. MALCOLM PIRNIE, NOVEMBER 1987. Palmer Street Landfill, Supplemental Hydrogeologic Investigation.

2. MALCOLM PIRNIE, AUGUST 1985. Ground Water Quality Assessment Program, Palmer Street Landfill

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9. Lutton, R. J., "Evaluating Cover Systems for Solid and Hazardous Waste," U. S. Environmental Protection Agency, Report SW-867, Washington, D.C., September 1982.

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MALCOLM PIRNIE

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PLATE 7

MOENCH TANNING COMPANY
DIVISION OF BROWN GROUP INC.
GOWANDA, NEW YORK

LAND USE MAP FOR 3 AND 4 MILE RADII

2000 1000 0 0 2000
SCALE IN FEET

LEGEND

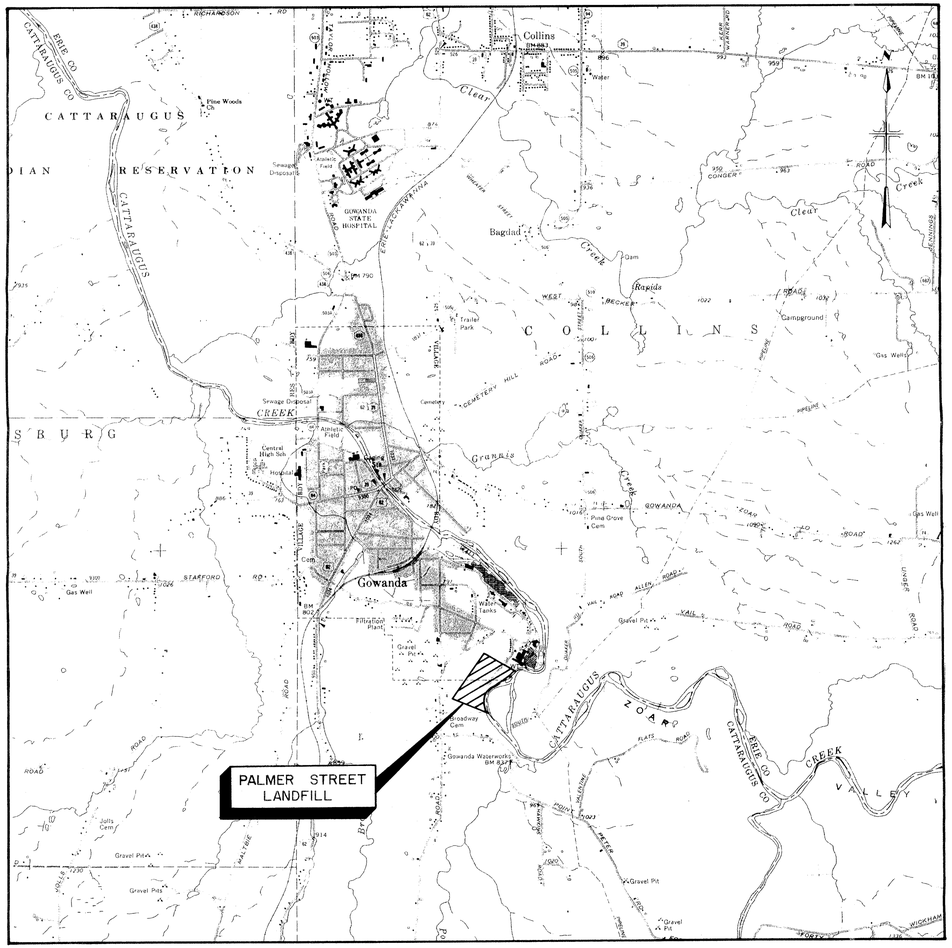
- RESIDENTIAL (SINGLE OR MULTI FAMILY)
- PUBLIC/RECREATIONAL
- INDUSTRIAL/COMMERCIAL
- OPEN SPACES/FOREST/AGRICULTURAL
- WETLANDS

NOTE: 1. BASE MAP COMPILED FROM U.S. GEOLOGICAL SURVEYS:
LANGFORD, N.Y.-1943-60 PERRYSBURG, N.Y.-1979
FARNHAM, N.Y.-1943-60 NORTH COLLINS, N.Y.-1943-60
GOWANDA, N.Y.-1963 COLLINS CENTER, N.Y.-1963

2. INFORMATION UNAVAILABLE FOR TOWN OF OTTO, AND CATTARAUGUS INDIAN RESERVATION

MOENCH TANNING FACILITY

MALCOLM PIRNIE, INC.
DATE FEBRUARY 1989
SHEET 10 OF 10
DWG. NO. 0605Z-88.010-0



LOCATION PLAN
SCALE: 1" = 2000'

INDEX TO PLATES	
NUMBER	DESCRIPTION
1	SITE TOPOGRAPHY MAP
2	FILL AREA LOCATION MAP
3A	PLAN VIEW OF HYDROGEOLOGIC CROSS-SECTIONS
3B	HYDROGEOLOGIC CROSS-SECTION ALONG LINE A-A'
3C	HYDROGEOLOGIC CROSS-SECTION ALONG LINES B-B' AND C-C'
3D	HYDROGEOLOGIC CROSS-SECTION ALONG LINES D-D
4	PROPOSED GRADING PLAN
5	MISCELLANEOUS DETAILS
6	ZONING MAP
7	LAND USE MAP

MOENCH TANNING COMPANY
DIVISION OF
BROWN GROUP, INC.
GOWANDA, NEW YORK

PALMER STREET
LANDFILL
CLOSURE / POST-CLOSURE
PLAN

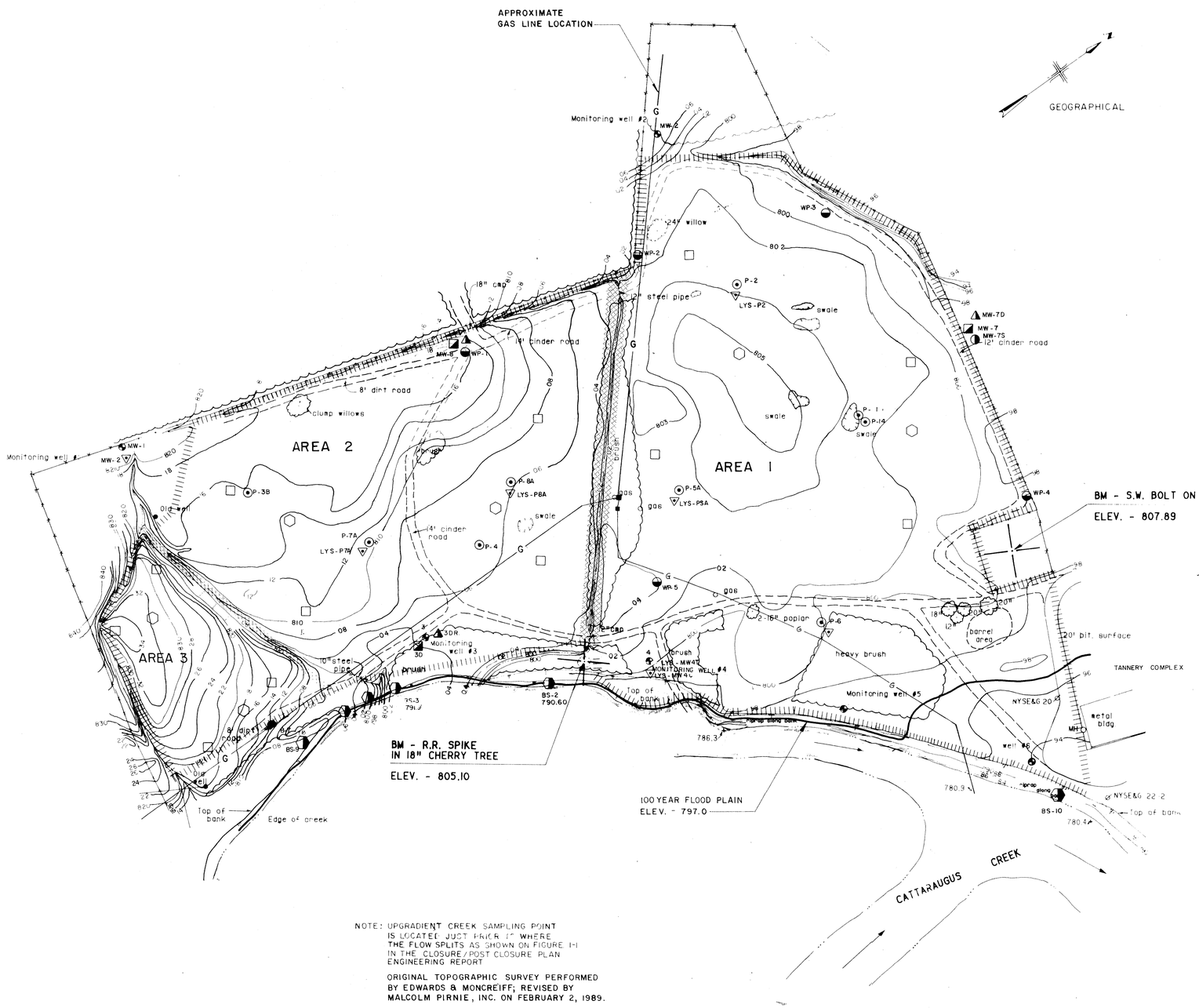
(EPA ID NYD002126910)

OCTOBER 1985
REVISED - NOVEMBER 1987
REVISED - FEBRUARY 1989

APPROVED _____
MALCOLM PIRNIE, INC.

APPROVED Henry C. Druve
MOENCH TANNING COMPANY

PLATE 1



MONITORING WELL ELEVATION TABLE		
WELL NO.	GROUND ELEVATION	TOP OF 2"PVC
1	822.00	825.00
2	808.00	811.42
3	804.20	807.21
3D	804.49	807.22
3DR	804.79	806.96
4	800.50	803.85
5	795.60	798.91
6	795.60	798.65
7	797.60	800.50
7S	797.60	800.38
7D	797.60	800.40
8	816.00	818.31
8D	816.00	818.45

LEGEND

- AREA BOUNDARY DIVIDER
- LANDFILL BOUNDARY
- FENCE
- BANK SEEP
- EXISTING SHALLOW OVERBURDEN MONITORING WELL (1983)
- EXISTING BORING LOCATION (1983)
- NEW SHALLOW OVERBURDEN MONITORING WELL (1987)
- NEW DEEP OVERBURDEN MONITORING WELL (1987)
- NEW BEDROCK MONITORING WELL (1987)
- gas — GAS PIPELINE LOCATION MARKER
- CATTARAUGUS CREEK SAMPLING LOCATION
- Old well — ABANDONED WATER SUPPLY WELL WITH STEEL CASING NO ADDITIONAL INFORMATION AVAILABLE REGARDING DEPTH OR MATERIALS OF CONSTRUCTION
- PERCOLATION TEST LOCATIONS
- SURFACE SOIL SAMPLE LOCATIONS

NOTE: UPGRADIENT CREEK SAMPLING POINT IS LOCATED JUST PRIOR TO WHERE THE FLOW SPLITS AS SHOWN ON FIGURE 1-1 IN THE CLOSURE/POST CLOSURE PLAN ENGINEERING REPORT

ORIGINAL TOPOGRAPHIC SURVEY PERFORMED BY EDWARDS & MONCREIFF; REVISED BY MALCOLM PIRNIE, INC. ON FEBRUARY 2, 1989.

MALCOLM PIRNIE

REVISIONS

DES. RHC
DWN RAG
CKD PMJ

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL CLOSURE/POST-CLOSURE PLAN

SITE TOPOGRAPHY MAP

SCALE: 1" = 100'

MALCOLM PIRNIE, INC.

DATE FEBRUARY 1989

SHEET 1 OF 10

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35840

PLATE 2

LEGEND

- DUMP PITS / WASTE PILES
- DUMP PITS / LANDFILLS
- DUMP PIT
- FILL BOUNDARY
- CONTAINER STORAGE

ALL OTHER AREA - LANDFILL

NOTE: ALL FILL AREA BOUNDARIES ARE APPROXIMATED

MALCOLM PIRNIE

STATE OF NEW YORK ROBERT P. HARTFORD NO. 047973 LICENSED PROFESSIONAL ENGINEER

REVISIONS			
NO	BY	DATE	REMARKS

DES KRM
DWN RHR
CKD PHH

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL CLOSURE / POST-CLOSURE PLAN

FILL AREA LOCATION MAP

SCALE: 1" = 100'

MALCOLM PIRNIE, INC.

DATE FEBRUARY 1989

SHEET 2 OF 10

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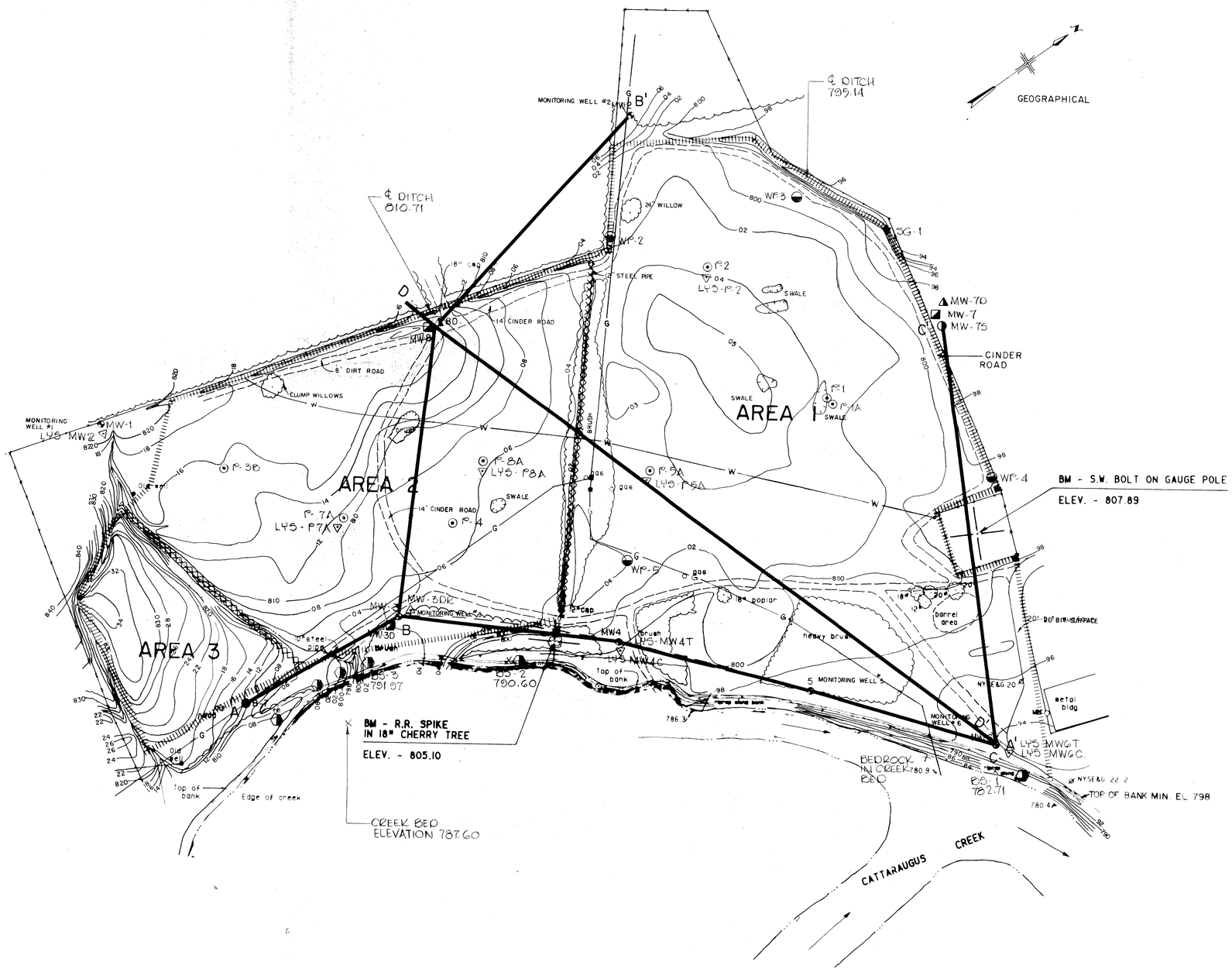

MONITORING WELL ELEVATION TABLE		
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1	822.00	825.00
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6	795.60	798.65
7	797.60	800.50
7S	797.60	800.38
7D	797.60	800.40
8	816.00	818.31
8D	816.00	818.45

LEGEND

- AREA BOUNDARY DIVIDER
- LANDFILL BOUNDARY
- FENCE
- BANK SEEP
- EXISTING SHALLOW OVERBURDEN MONITORING WELL (1983)
- EXISTING BORING LOCATION (1983)
- NEW SHALLOW OVERBURDEN MONITORING WELL (1987)
- NEW DEEP OVERBURDEN MONITORING WELL (1987)
- NEW BEDROCK MONITORING WELL (1987)
- B——B' CROSS - SECTION LINE
- PIEZOMETER (P)
- LYSIMETER/ TENSIOMETER
- WELL POINT (WP)
- STAFF GAUGE (SG)

MALCOLM PIRNIE

STATE OF NEW YORK — ROBERT R. MAYER — LICENSED PROFESSIONAL ENGINEER — NO. 047912

REVISIONS

DES. RHO
DWN RAG
CKD PHD

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL CLOSURE/POST-CLOSURE PLAN

PLAN VIEW OF HYDROGEOLOGIC CROSS-SECTIONS

SCALE: 1"=100'

MALCOLM PIRNIE, INC.
DATE: FEBRUARY 1989
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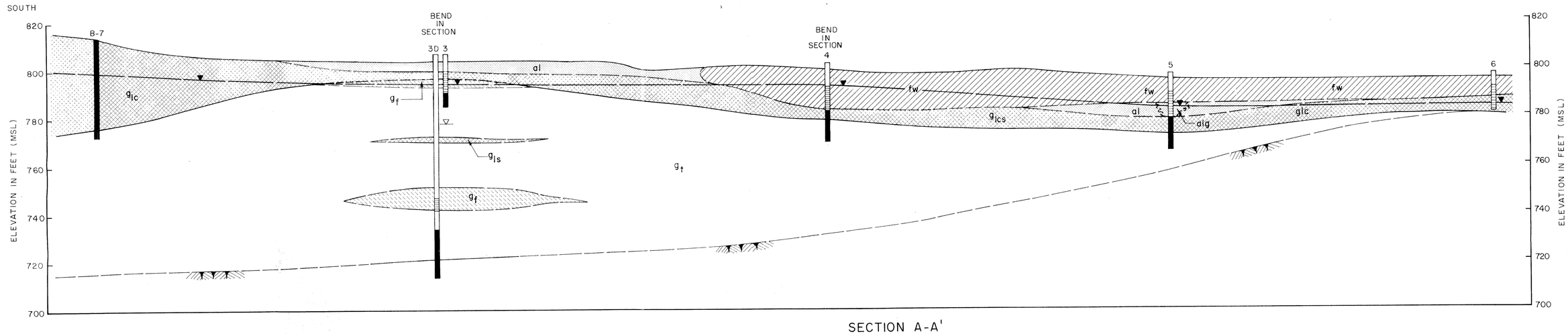
LEGEND:

- FILL: f - CONSTRUCTION FILL
  fw - IN-SITU SOILS MIXED WITH WASTE
- ALLUVIUM: al - SILTS AND SANDS
  alg - GRAVELS
- GLACIOLACUSTRINE: g_{lc} - CLAYS
  g_{ls} - SILTS
  g_{lcs} - CLAYS AND SILTS
- GLACIOFLUVIAL: g_f - ICE-CONTACT OR OUTWASH SANDS AND GRAVELS
- GLACIAL TILL: g_t
- BEDROCK
- 4 MONITORING WELL NUMBER
- LITHOLOGIC CONTACT
- SCREENED INTERVAL
- BACKFILL
- SHALLOW (UNCONFINED) GROUND WATER SURFACE (SHALLOW WELLS - 10/2/87)
- GROUND WATER ELEVATION (DEEPER WELLS - 10/2/87)
- INFERRED

NOTE:
ORIGINAL SURFACE TOPOGRAPHY BASED ON TOPOGRAPHIC SURVEY PERFORMED BY EDWARDS & MONTCREIFF, PC AND MALCOLM PIRNIE, INC.



SECTION A-A'

MALCOLM PIRNIE

REVISIONS

NO.	BY	DATE	REMARKS

DES RHO
DWN RAG
CKD PHW

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL CLOSURE/POST-CLOSURE PLAN

HYDROGEOLOGIC CROSS-SECTION ALONG LINE A TO A'

SCALE: HORIZ. 1" = 50', VERT. 1" = 20'

MALCOLM PIRNIE, INC.

DATE FEBRUARY 1989

SHEET 4 OF 10

DWG NO. 0605Z-88.004-0

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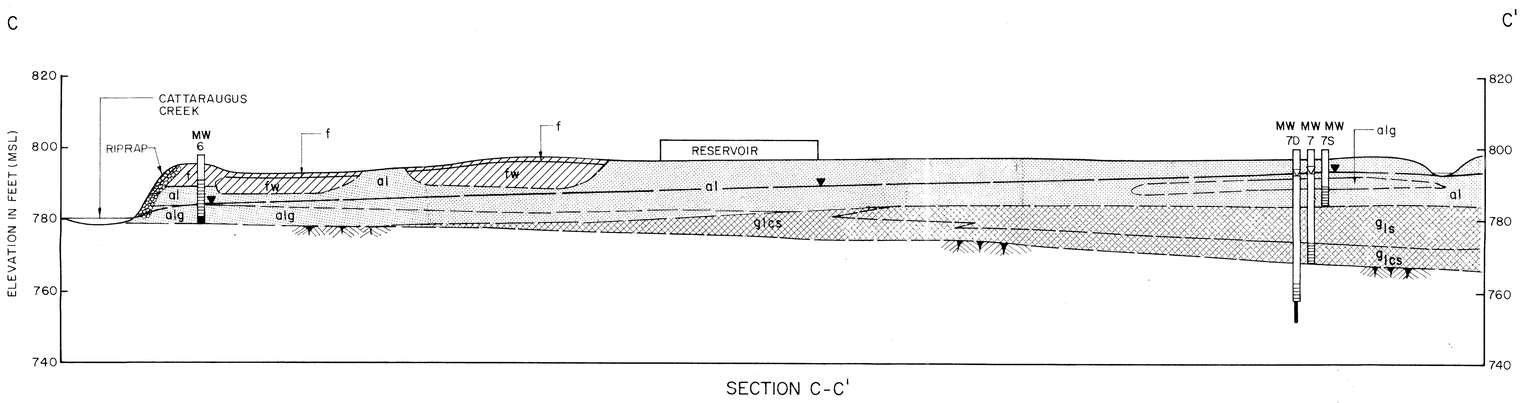
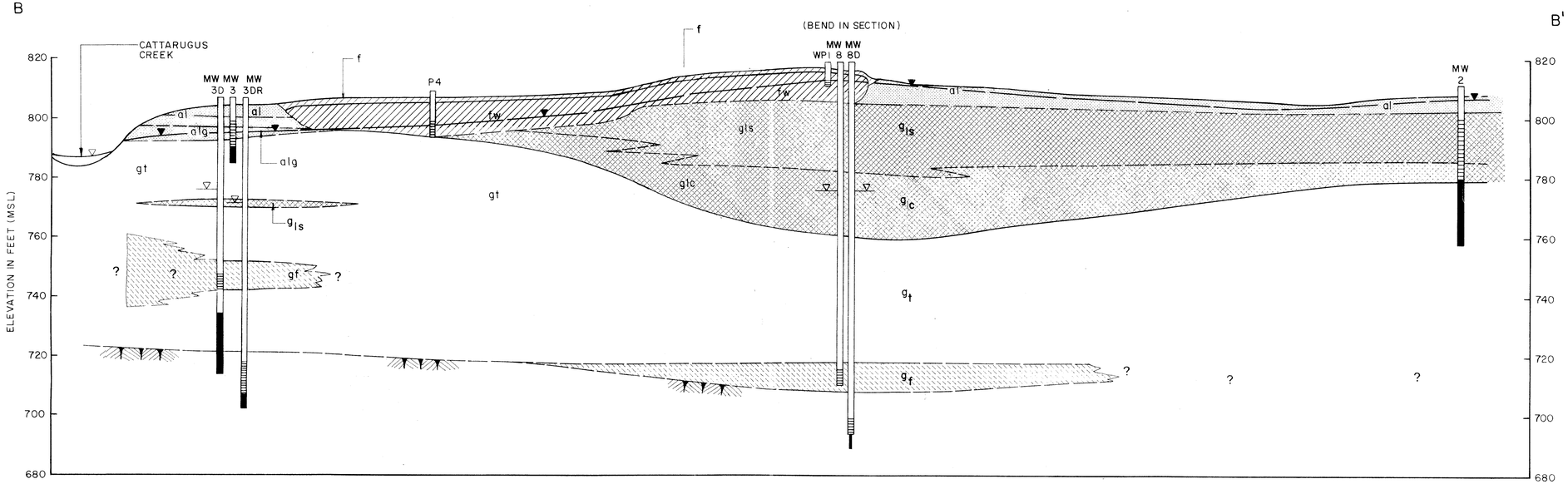


SECTION C-C'

LEGEND:

- FILL: f - CONSTRUCTION FILL AND COVER MATERIAL; fw - IN-SITU SOILS MIXED WITH WASTE
- ALLUVIUM: al - SILTS AND SANDS; alg - GRAVELS
- GLACIOLACUSTRINE: g_{lc} - CLAYS; g_{ls} - SILTS; g_{lcs} - CLAYS AND SILTS
- GLACIOFLUVIAL: g_f - ICE-CONTACT OR OUTWASH SANDS AND GRAVELS
- GLACIAL TILL: g_t
- BEDROCK
- MW 4 — MONITORING WELL PIEZOMETER OR WELL POINT NUMBER
- LITHOLOGIC CONTACT
- SCREENED INTERVAL
- BACKFILL
- SHALLOW (UNCONFINED) GROUND WATER SURFACE (SHALLOW WELLS - 10/27/88)
- GROUND WATER ELEVATION (IN BEDROCK WELLS - 10/27/88)
- INFERRED

NOTE:
ORIGINAL SURFACE TOPOGRAPHY BASED ON TOPOGRAPHIC SURVEY PERFORMED BY EDWARDS & MONTCREIFF, PC AND MALCOLM PIRNIE, INC.



SECTION B-B'

MALCOLM PIRNIE

REVISIONS

NO.	BY	DATE	REMARKS

DES RHG
DWN BJG
CKD

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

HYDROGEOLOGIC CROSS-SECTIONS
ALONG LINES B TO B' AND C TO C'

SCALE: HORIZ. 1" = 50', VERT. 1" = 20'

MALCOLM PIRNIE, INC.

DATE FEBRUARY 1989

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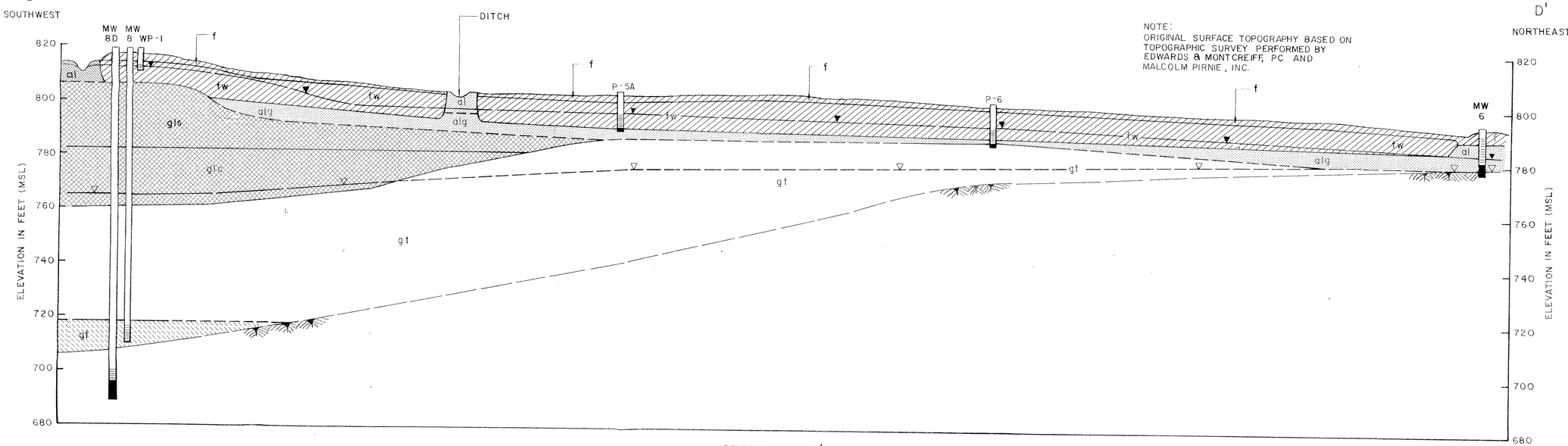
D

SOUTHWEST



D'

NORTHEAST

SECTION D-D'

LEGEND:

- FILL: f - CONSTRUCTION FILL AND COVER MATERIAL; fw - IN-SITU SOILS MIXED WITH WASTE
- ALLUVIUM: al - SILTS AND SANDS; alg - GRAVELS
- GLACIOLACUSTRINE: g_{lc} - CLAYS; g_{ls} - SILTS; g_{lcs} - CLAYS AND SILTS
- GLACIOFLUVIAL: g_f - ICE-CONTACT OR OUTWASH SANDS AND GRAVELS
- GLACIAL TILL: g_t
- BEDROCK
- MW 4 — MONITORING WELL PIEZOMETER OR WELL POINT NUMBER
- LITHOLOGIC CONTACT
- SCREENED INTERVAL
- BACKFILL
- SHALLOW (UNCONFINED) GROUND WATER SURFACE (SHALLOW WELLS - 10/27/88)
- GROUND WATER ELEVATION (IN BEDROCK WELLS - 10/27/88)
- INFERRED

NOTE:
ORIGINAL SURFACE TOPOGRAPHY BASED ON TOPOGRAPHIC SURVEY PERFORMED BY EDWARDS & MONTCREIFF, PC AND MALCOLM PIRNIE, INC.

MALCOLM PIRNIE

REVISIONS			
NO	BY	DATE	REMARKS

DES SMF
DWN DJG
CKD GRF

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL
CLOSURE/POST-CLOSURE PLAN

HYDROGEOLOGIC CROSS-SECTION
ALONG LINE D TO D'

SCALE: HORIZ. 1" = 50', VERT. 1" = 20'

MALCOLM PIRNIE, INC.
DATE FEBRUARY 1989
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DWG NO. 0605Z-88.006-0

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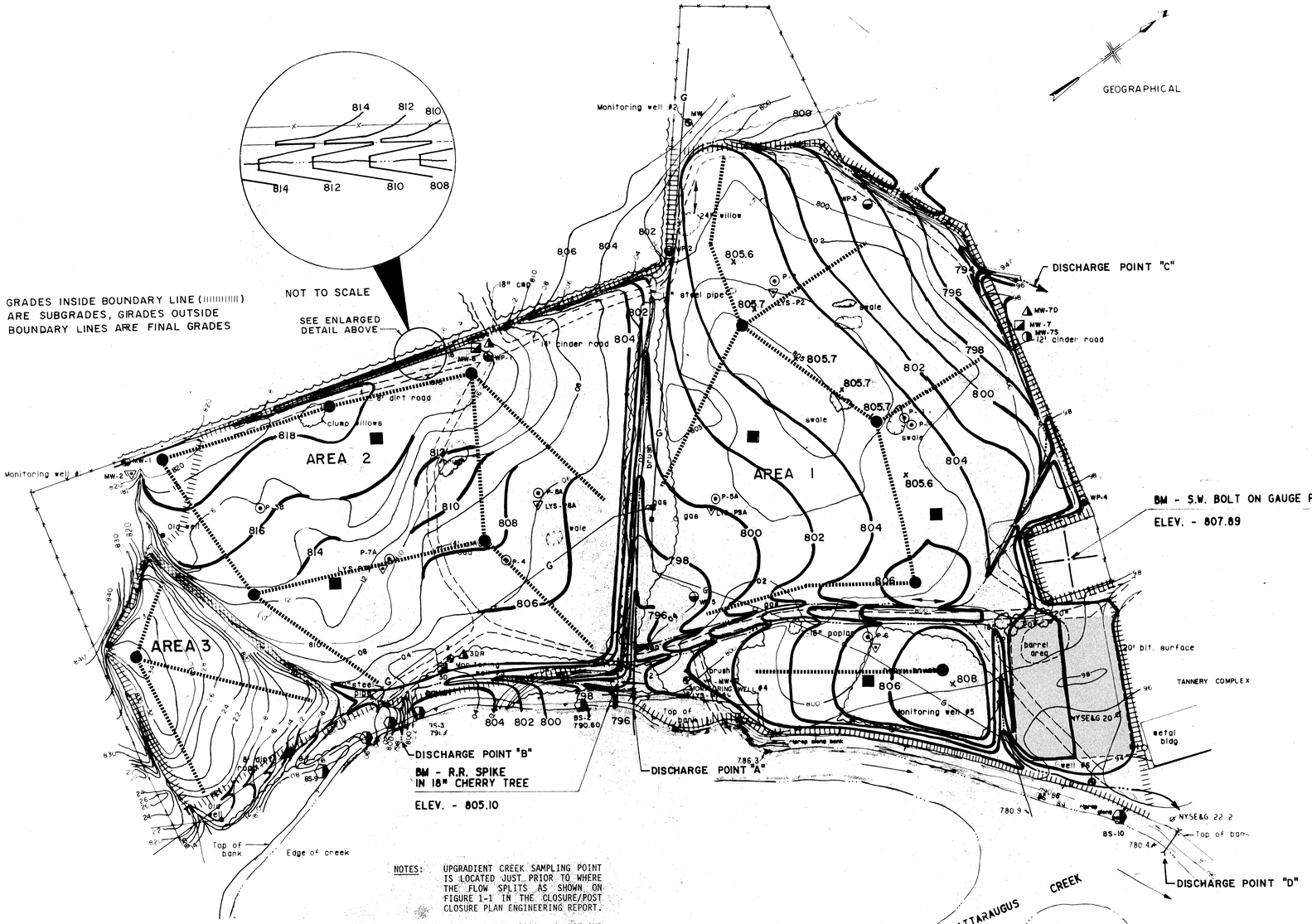
PLATE 4



MONITORING WELL ELEVATION TABLE		
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7	797.60	800.50
7S	797.60	800.38
7D	797.60	800.40
8	816.00	818.31
8D	816.00	818.45

LEGEND

- AREA BOUNDARY DIVIDER
- LANDFILL BOUNDARY
- FENCE
- BANK SEEP
- EXISTING SHALLOW OVERBURDEN MONITORING WELL (1983)
- NEW SHALLOW OVERBURDEN MONITORING WELL (1987)
- NEW DEEP OVERBURDEN MONITORING WELL (1987)
- NEW BEDROCK MONITORING WELL (1987)
- INFILTROMETER
- GAS PIPELINE LOCATION MARKER
- CATTARAUGUS CREEK SAMPLING LOCATION
- ABANDONED WATER SUPPLY WELL WITH STEEL CASING NO ADDITIONAL INFORMATION AVAILABLE REGARDING DEPTH OR MATERIALS OF CONSTRUCTION
- PIEZOMETER
- LYSIMETER
- GAS VENTING
- 805.7 PROPOSED HIGH POINT
- PROPOSED CONTOUR LINES
- EXISTING CONTOUR LINES
- PROPOSED PAVEMENT AREA

NOTES:

UPGRADIENT CREEK SAMPLING POINT IS LOCATED JUST PRIOR TO WHERE THE FLOW SPLITS AS SHOWN ON FIGURE 1-1 IN THE CLOSURE/POST CLOSURE PLAN ENGINEERING REPORT.

APPROXIMATELY 700' of 18" CMP WITH 3 EVENLY-SPACED CATCH BASINS TO BE LOCATED BETWEEN AREAS 1 AND 2 AND DRAINING TO DISCHARGE POINT "A".

APPROXIMATELY 30' OF 18" CMP TO BE PLACED BENEATH ENTRANCE ROAD IN SOUTHEAST CORNER OF AREA 1 TO CONNECT ROADSIDE DITCHES TOGETHER AND DRAIN TO POINT "A".

APPROXIMATELY 30' of 18" CMP TO BE PLACED BENEATH ROAD IN NORTHEAST CORNER OF AREA 3 TO DRAIN TO POINT "B".

MALCOLM PIRNIE

REVISIONS

DES WA RHO
DWN EAG
CKD PMJ

MOENCH TANNING COMPANY
GOWANDA, NEW YORK

PALMER STREET LANDFILL CLOSURE/POST-CLOSURE PLAN

PROPOSED GRADING PLAN

SCALE: 1"= 100'

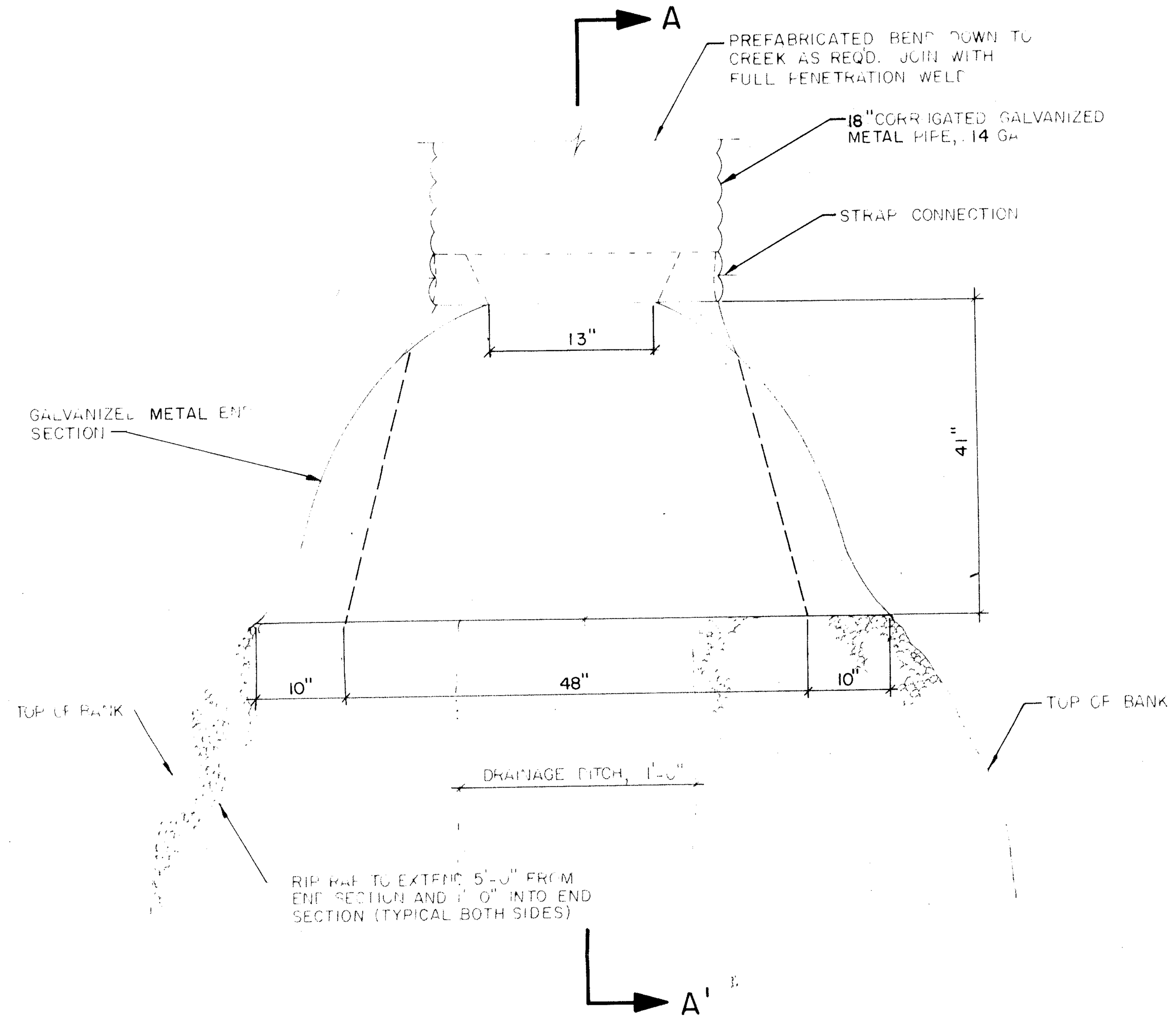
MALCOLM PIRNIE, INC.

DATE FEBRUARY 1989

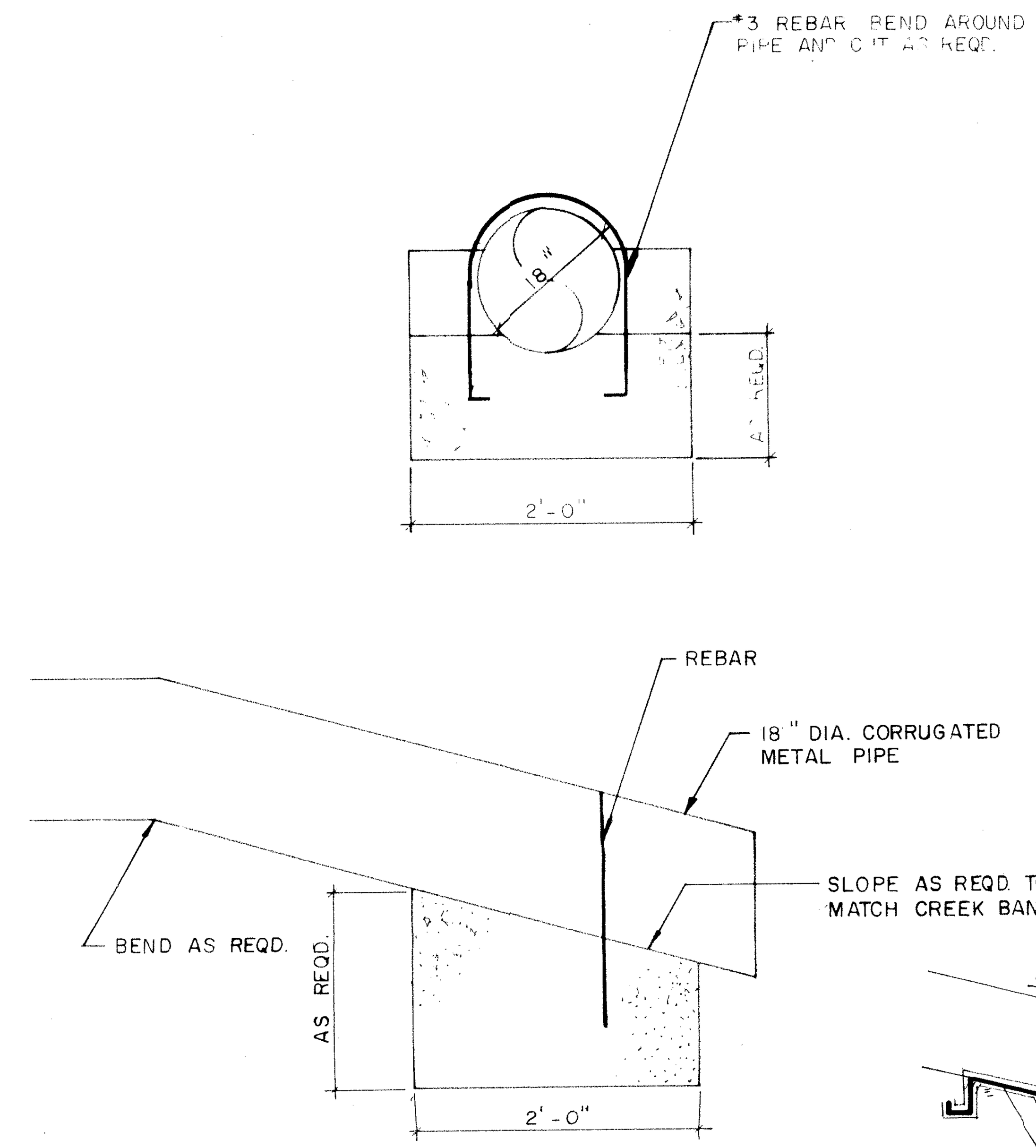
SHEET 7 OF 10

DWG NO 0605Z-88.001-0

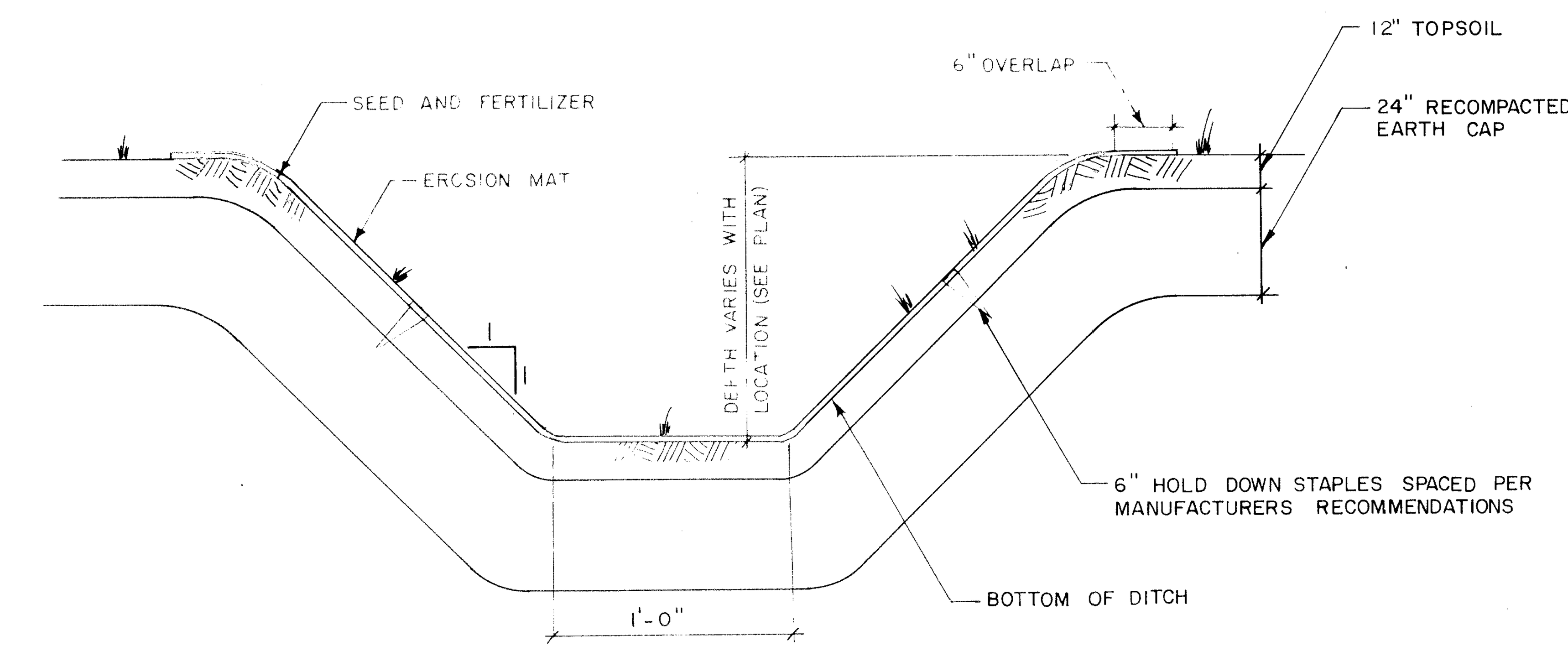
35840



DRAINAGE DITCH END CONDITION DETAIL

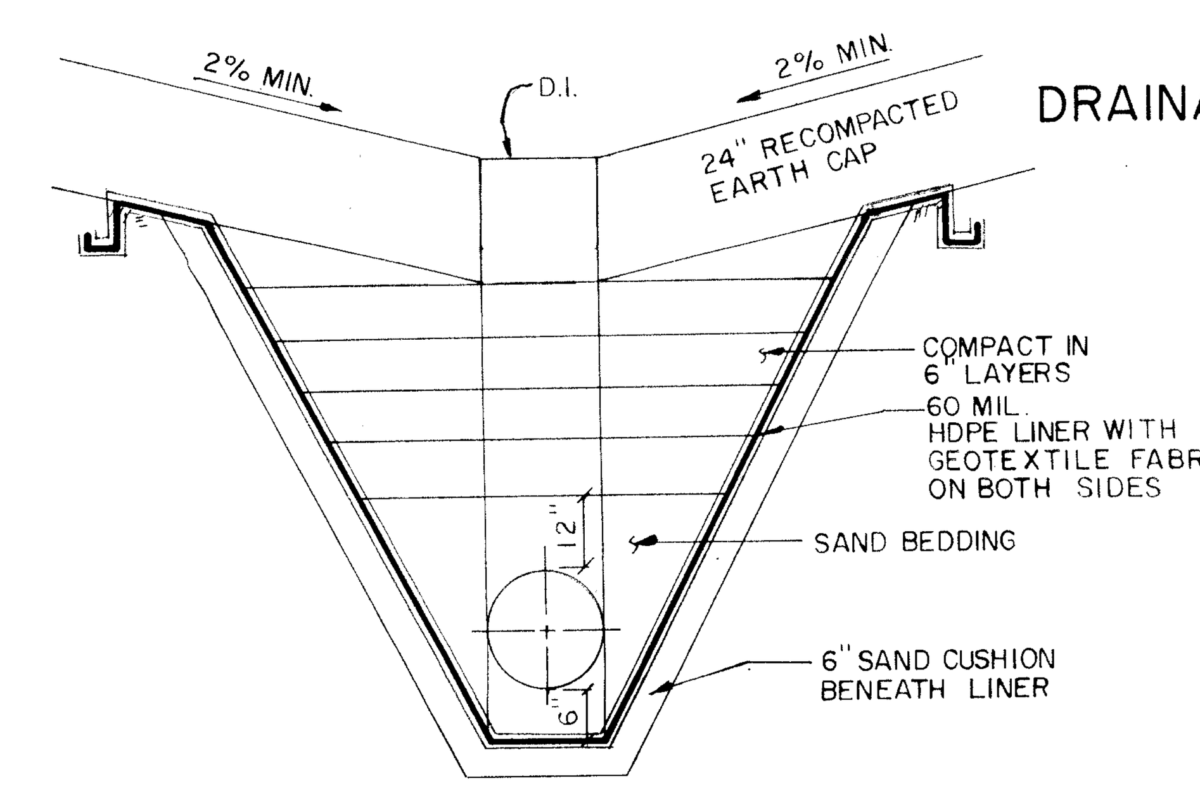


TYPICAL DRAINAGE DITCH DISCHARGE AT CREEK BANK

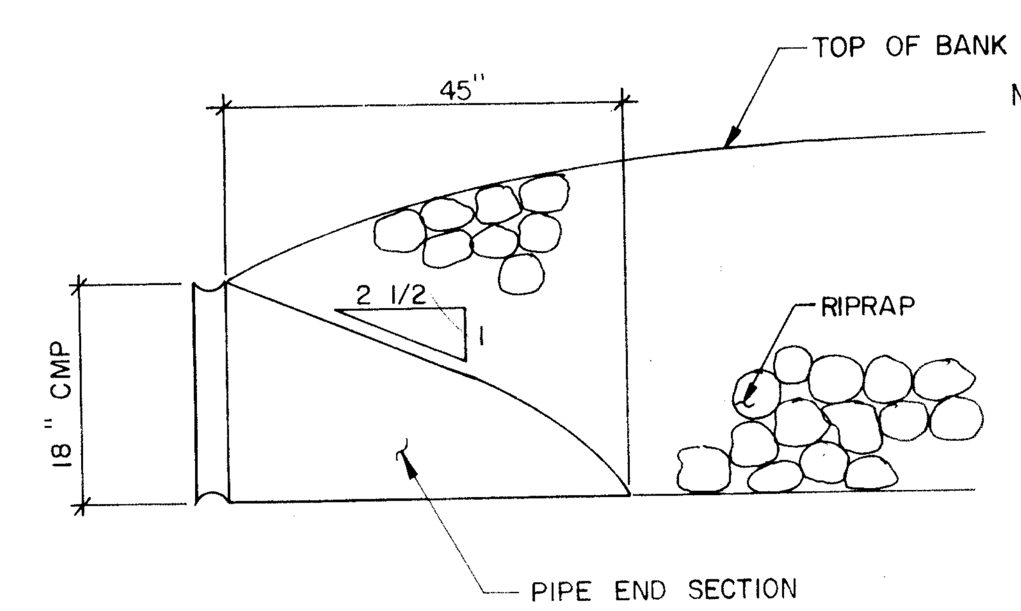


NOTES:
1. NON-BIODEGRADABLE ANTI-EROSION MATTING AND STAPLES WILL BE INSTALLED FOR ALL DITCHES WHICH EXCEED 5% SLOPE.
2. BIODEGRADABLE ANTI-EROSION MAT WILL BE INSTALLED ON ALL DITCHES LESS THAN 5% TO AID IN ESTABLISHING VEGETATION FOR EROSION CONTROL.

DRAINAGE DITCH CONSTRUCTION DETAIL

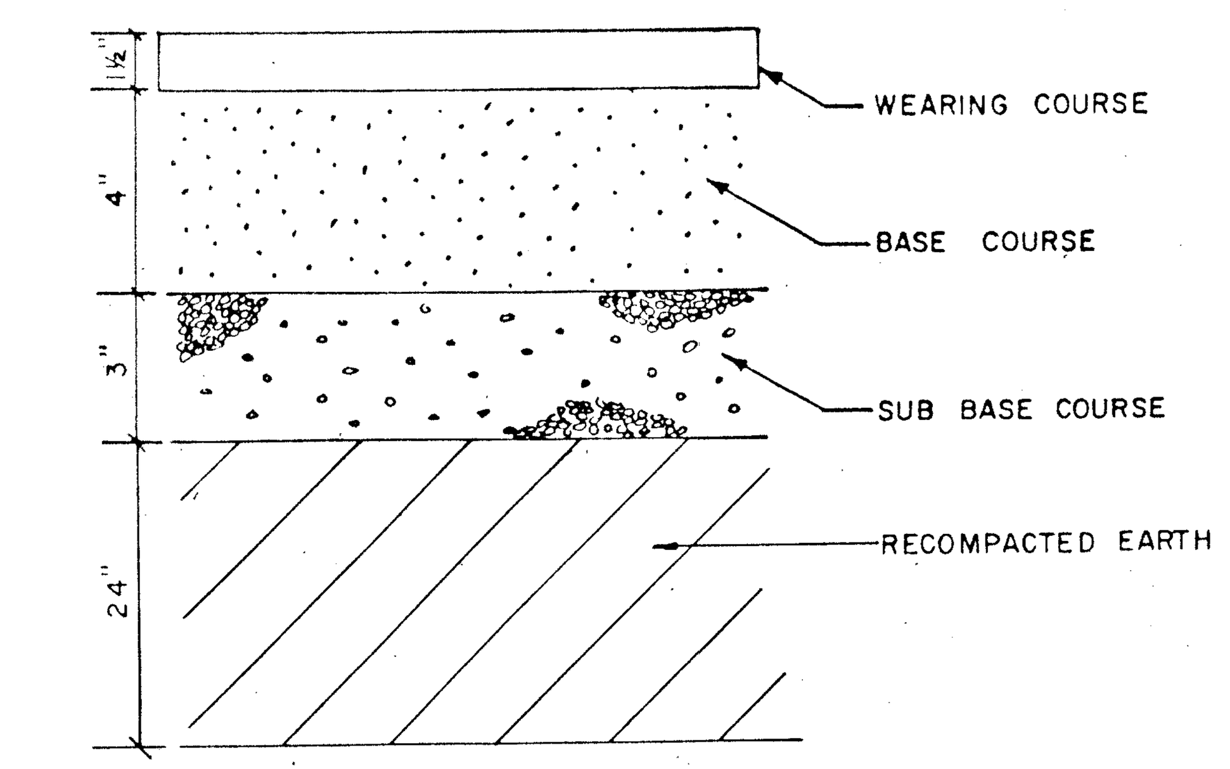


TRENCH DETAIL BETWEEN AREAS 1 & 2

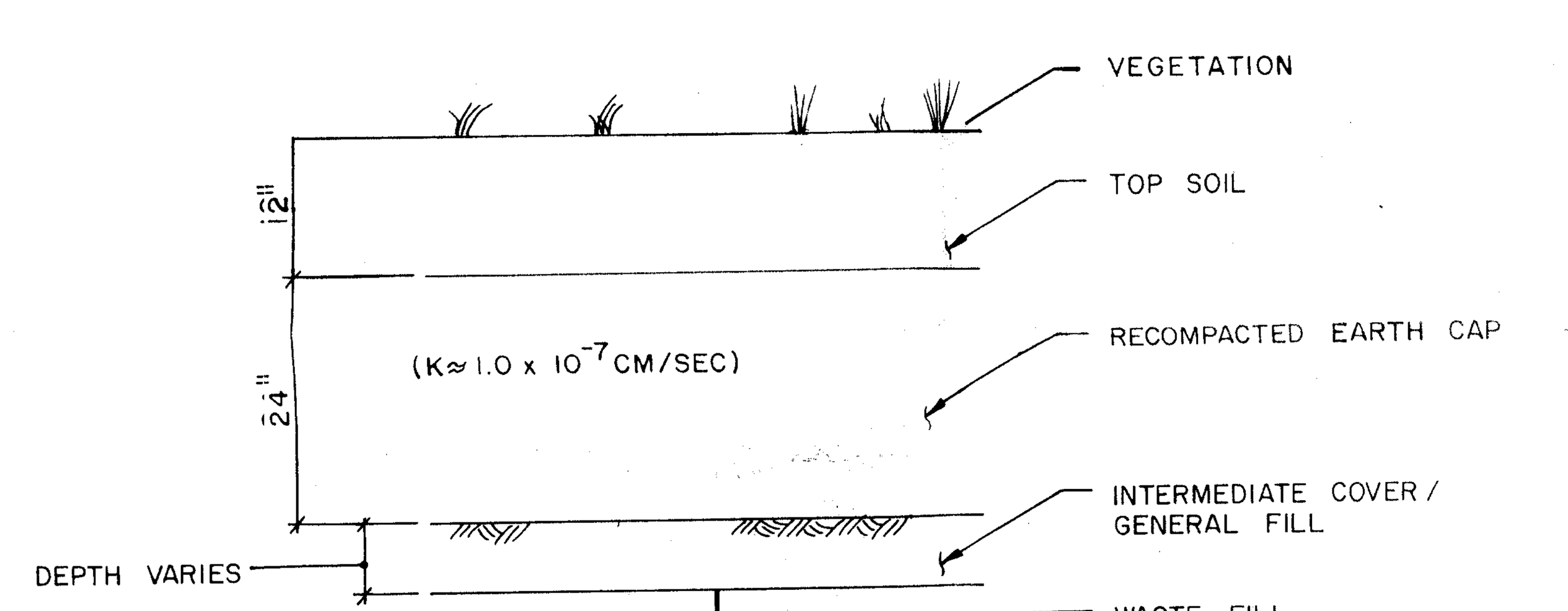


NOTES:
1. RIPRAP MATERIAL SHALL CONFORM TO NYSDOTSS ITEM NO. 620.06. RIPRAP SHALL CONSIST OF STONES SHAPED AS NEARLY AS PRACTICABLE IN THE FORM OF RIGHT RECTANGULAR PRISMS. AT LEAST 50%, BY WEIGHT, OF THE STONES SHALL WEIGH IN EXCESS OF 25 LBS. EACH, AND THE REMAINDER OF THE STONES SHALL WEIGH FROM 10 TO 25 LBS. EACH. THE THICKNESS OF EACH OF THE STONES FURNISHED SHALL BE AT LEAST FOUR (4) INCHES, BUT NOT MORE THAN EIGHT (8) INCHES.
2. BEDDING MATERIAL SHALL CONFORM TO NYSDOTSS ITEM NO. 620.08. BEDDING MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL; FREE OF SOFT, NON-DURABLE PARTICLES, ORGANIC MATERIAL, AND THIN OR ELONGATED PARTICLES IN EXCESS OF THOSE APPROVED BY THE ENGINEER.

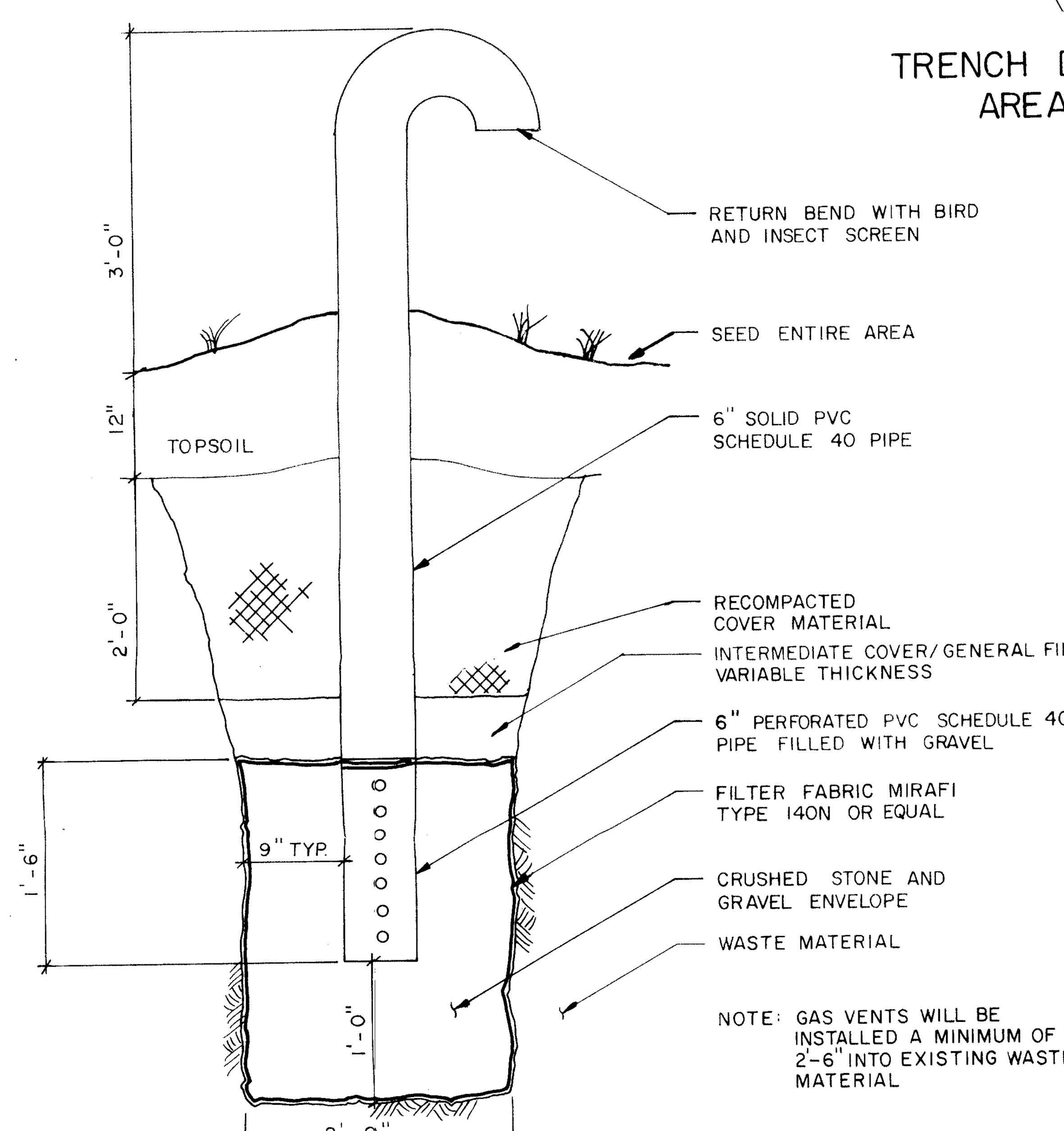
SECTION A-A'



ASPHALT PARKING AREA SECTION (TYP.)

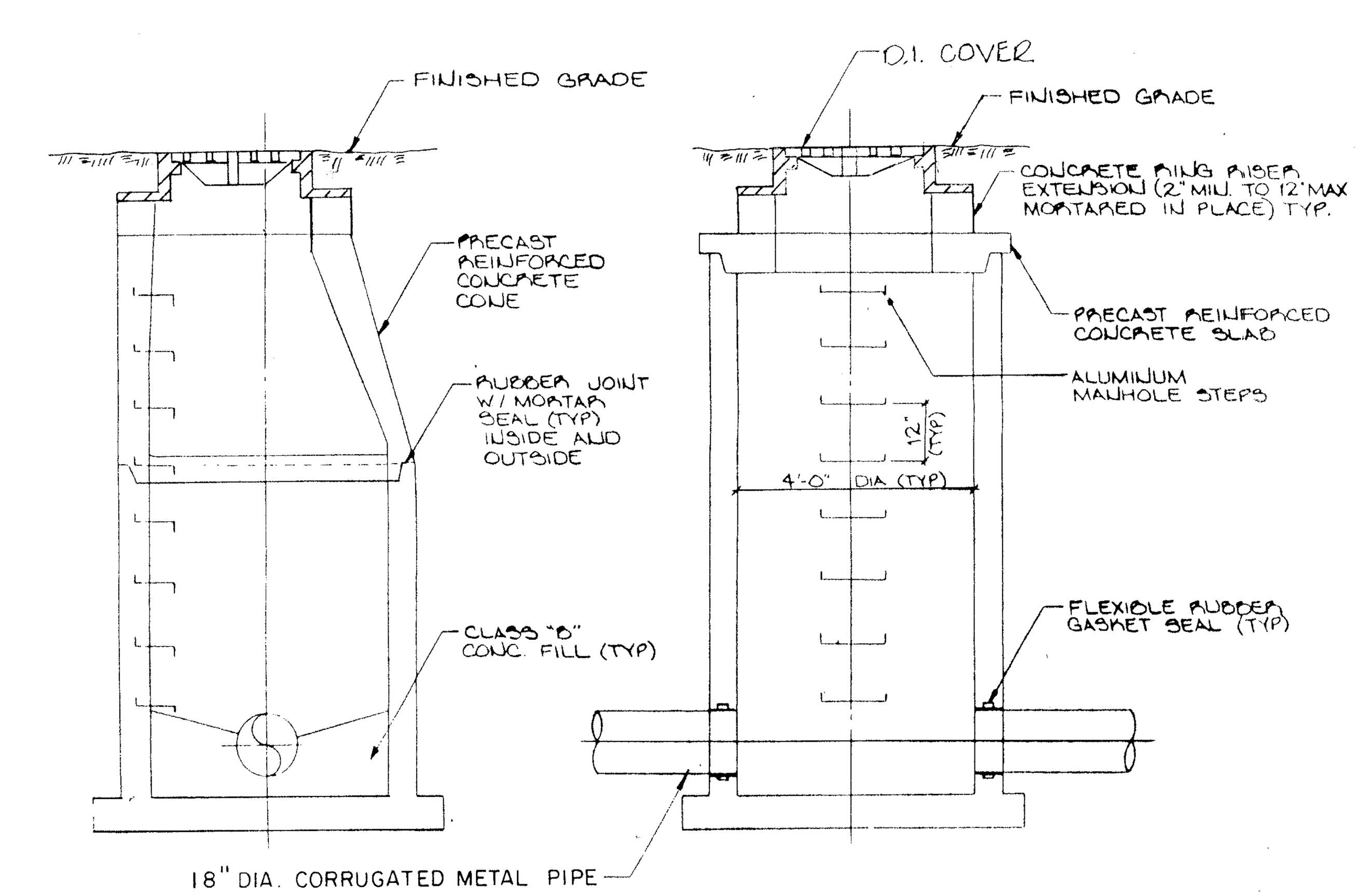


TYPICAL CAP DETAIL



NOTE: GAS VENTS WILL BE INSTALLED A MINIMUM OF 2'-6" INTO EXISTING WASTE MATERIAL

TYPICAL FINAL CAP AND GAS VENT DETAIL



PRECAST CONCRETE MANHOLE DETAIL

MALCOLM PIRNIE	REVISIONS				MOENCH TANNING COMPANY GOWANDA, NEW YORK	MISCELLANEOUS DETAILS	MALCOLM PIRNIE, INC.
	△	ESK	7/7/89	CHANGED TOPSOIL THICKNESS TO 12"	DES KRM	PALMER STREET LANDFILL	DATE FEBRUARY 1989
					DWN OLW	CLOSURE / POST-CLOSURE PLAN	SHEET 8 OF 10
					CKD PWD		DWG NO. 0605Z-88.008-1

35840

PLATE 6

MOENCH TANNING COMPANY
DIVISION OF BROWN GROUP INC.
GOWANDA, NEW YORK

ZONING MAP FOR 3 AND 4 MILE RADII

2000 1000 0 0 2000
SCALE IN FEET

LEGEND

- RESIDENTIAL (SINGLE OR MULTI FAMILY)
- BUSINESS / COMMERCIAL
- INDUSTRIAL / MANUFACTURING
- AGRICULTURAL - RESIDENTIAL / FOREST
- FLOODWAY

NOTE: 1. BASE MAP COMPILED FROM U.S. GEOLOGICAL SURVEYS:
LAINGFORD, N.Y. - 1943-60 PERRYSBURG, N.Y. - 1979
FARNHAM, N.Y. - 1943-60 NORTH COLLINS, N.Y. - 1943-60
GOWANDA, N.Y. - 1963 COLLINS CENTER, N.Y. - 1963

2. INFORMATION UNAVAILABLE FOR TOWN OF OTTO, AND CATTARAUGUS INDIAN RESERVATION

MOENCH TANNING FACILITY

MALCOLM PIRNIE, INC.

DATE FEBRUARY 1989

SHEET 9 OF 10

DWG. NO. 0605Z-88.009-0