Haley Griffith (adpce.ad)

Subject: RE: Green Bay Packaging Minor Permit Modification Application (AFIN: 15-00001; Permit 0284-S3N)

From: Brad Fureigh <bfureigh@promusengineering.com>
Sent: Friday, August 16, 2024 4:40 PM
To: Richard Bennett (adpce.ad) <Richard.Bennett@adeq.state.ar.us>; Greg Banic (adpce.ad) <Greg.Banic@adeq.state.ar.us>
Cc: Wesson, Jacob <jwesson@gbp.com>; Jonathan King <jking@promusengineering.com>; Hence Hooper <hhooper@promusengineering.com>
Subject: Green Bay Packaging Minor Permit Modification Application (AFIN: 15-00001; Permit 0284-S3N)

Good afternoon Mr. Bennett,

On behalf of our client, Green Bay Packaging, Inc. (GBP), please see attached a minor permit modification pertaining to the GBP Arkansas Kraft Division Class 3N Landfill, located near Morrilton, AR. The proposed minor modification includes a revision to the Closure Plan that will eliminate the need to install final cover over interim slopes, illustrates removal of existing final cover over interim slopes for additional waste placement to final grades, and shows updated final cover sequencing. Updated Closure and Post-Closure cost estimates are also included.

We appreciate your consideration and review of the attached submittal. Please let us know if you have any questions or need additional information.

Thanks, and have a great weekend!

Brad N. Fureigh, PE
Principal Engineer | Promus Engineering, LLC
M: (501) 554-4547
bfureigh@promusengineering.com
www.promusengineering.com

GREEN BAY PACKAGING
ARKANSAS KRAFT DIVISION

Mr. Richard Bennett, PE
Arkansas Department of Energy and Environment
DEQ – Office of Land Resources
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Minor Permit Modification Application
Green Bay Packaging Inc., Arkansas Kraft Division Class 3N Landfill
AFIN: 15-00001; Permit: 0284-S3N

Mr. Bennett,

Green Bay Packaging Inc., Arkansas Kraft Division is submitting the attached Minor Permit Modification, prepared by Promus Engineering, for your consideration. Please direct any questions or comments to me at the contact information below.

Thank you,
Jacob Wesson
(501) 354-9518
jwesson@gbp.com

MINOR PERMIT MODIFICATION APPLICATION

Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill

Morrilton, Arkansas

Permit No.: 0284-S3N
AFIN: 15-00001

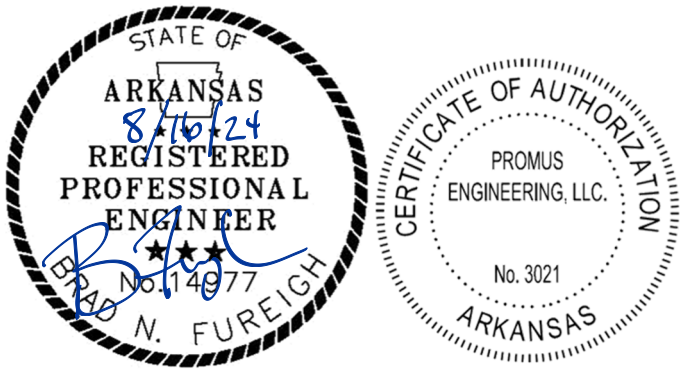
August 2024
Promus Project No. 240207

Prepared for:

Green Bay Packaging, Inc. – Arkansas Kraft Division
338 Highway 113 South
Morrilton, Arkansas 72110

Prepared by:

PROMUS ENGINEERING



Brad N. Fureigh, PE
Principal Engineer

PROMUS ENGINEERING

T. (888) 811-9066
www.promusengineering.com

August 16, 2024

Mr. Richard Bennett, PE
Arkansas Dept. of Energy and Environment
DEQ – Office of Land Resources
5301 Northshore Drive
North Little Rock, AR 72118-5317
via Email: Richard.bennett@adeq.state.ar.us

RE: Minor Permit Modification Application
Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill
AFIN: 15-00001; Permit: 0284-S3N

Dear Mr. Bennett:

On behalf of our client, Green Bay Packaging – Arkansas Kraft Division, Promus Engineering, LLC (Promus) has prepared and submits for your review and approval a Minor Permit Modification for the GBP-AKD Class 3N Landfill, located near Morrilton, Arkansas.

BACKGROUND

The Green Bay Packaging – Arkansas Kraft Division (GBP-AKD) owns and operates the Class 3N Landfill (Facility) in accordance with DEQ Solid Waste Permit 0284-S3N. The GBP-AKD Facility is located approximately one mile southeast of Oppelo in Conway County, Arkansas. The site is generally located in portions of Sections 7, 8, 17 and 18, Township 5 North, Range 16 West in Conway County, Arkansas. The GBP-AKD, situated on the southern side of the roughly 700-acre mill site, is currently designed with a total waste disposal footprint of 100 ± acres and a total waste disposal capacity of 4,172,662 cubic yards.

PURPOSE

This document is intended to comply with Rule 22.308 for modification to the currently permitted disposal area at the Class 3N Landfill. Rule 22.308(c) defines the criteria that constitutes a major modification and therefore, GBP-AKD considers this to be a minor modification request because:

1. there will be no increase in permitted disposal capacity,
2. no increase in permitted site life,
3. no change to the landfill classification,
4. no increase in total land area permitted for waste disposal, and
5. no changes that may result in significant environmental impact.

The modification includes a revision to the existing Closure Plan and corresponding closure sequencing. This modification includes an updated Closure Plan and updated Closure and Post-Closure Cost Estimates. The existing Closure Plan and sequencing require final cover installation over interim slopes. The intent of the updated Closure Plan will be to not close areas until final waste grades have been achieved.

We respectfully submit this minor modification application for your review and approval. Should you have any questions or comments regarding this submittal, please contact me via phone at (501) 554-4547 or email at bfureigh@promusengineering.com.

Sincerely,
PROMUS ENGINEERING, LLC

Jonathan B. King, PE
Project Engineer

Brad N. Fureigh, PE
Principal Engineer

Enclosed: Minor Permit Modification Application

APPENDIX A
PERMIT APPLICATION FORM

SOLID WASTE FACILITY
PERMIT MODIFICATION APPLICATION

DIVISION OF ENVIRONMENTAL QUALITY
OFFICE OF LAND RESOURCES
5301 NORTHSHORE DRIVE
NORTH LITTLE ROCK, ARKANSAS 72118

Note: This modification application is to be used for all modifications to solid waste disposal and processing facilities. The Division will classify this modification as major or minor in accordance with the provisions of Section 22.308 of Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation No. 22. Major modifications will be subject to the provisions of APC&EC Regulation No. 8.

I. FACILITY TYPE

____ Class 1 Landfill	____ Transfer Station (TS)
____ Class 4 Landfill	____ Composting Facility (Y, O or S)
____ Class 3C Landfill	____ Solid Waste Recovery Facility (WRF)
X Class 3N Landfill	____ Construction and Demolition Recovery Facility (CDRF)
____ Class 3T Landfill	

II. FACILITY IDENTIFICATION

Facility Name: Green Bay Packaging Inc-Arkansas Kraft Division Class 3N Landfill Permit Number: 0284-S3N AFIN: 15-00001

Facility Address: 338 Highway 113 South

City: Morrilton State: AR Zip: 72110

County: Conway Telephone Number: (501) 354-9518 Fax Number: N/A

III. APPLICANT

Applicant Name: Green Bay Packaging, Inc - Arkansas Kraft Division

Applicant Address: 338 Highway 113 South

City: Morrilton State: AR Zip: 72110

Contact Person: Jacob Wesson Phone Number: (501) 269-4535

Contact Person Email Address: jwesson@gbp.com

PERMIT HISTORY

(Complete for each permit and modification to date)

	Number	Date Issued
Permit Number:	0176-SR-1	03/27/1981
Modification #1:	0176-SR-2	07/01/1992
Modification #2:	0284-S3N	11/08/1996
Modification #3:		
Modification #4:		

MODIFICATION DESCRIPTION

(Complete each part below as it applies to this modification - if an item doesn't apply, mark it "N/A")

CHANGE IN PERMITTED CAPACITY *(Specify whether yards or tons)*

Original Cubic Yards 4,172,662
(This includes the volume of solid waste and any daily or intermediate soil cover)

Modified Cubic Yards _____

Cubic Yards Increase (Decrease) _____

SITE LIFE & SERVICE AREA

Current Service Area Green Bay Packaging Inc-Arkansas Kraft Division

Current Tons per year through the gate _____ (tons/year)

Current Landfill Utilization Rate _____ (cu. yards/year)

Estimated remaining site life (after this modification) _____ years

CHANGE IN PERMITTED DISPOSAL ACREAGE

Original Site Acres ±100

Modified Site Acres _____

Site Acres Increase (Decrease) _____

CHANGE IN OPERATING PROCEDURES *(Provide brief description of each proposed modification)*

CHANGE IN FACILITY DESIGN *(Provide brief description of each proposed modification)*

REASON FOR MODIFICATION *(Check one or specify below)*

Change in Regulation _____

Additional Site Life _____

Improve Site Operations X

Correct Past Violation _____

Other *(Specify)* The closure plan will be updated to no longer show final cover installation over interim slopes. Additionally, existing final cover on interim slopes will be removed to continue waste placement of final permitted grades.

DRAWING REVISIONS

(Identify below each drawing that was revised or added as a result of this modification. Each revised or added drawing should be included as an attachment to this application.)

Drawing Number	Title	Date	Revision Number

OPERATING NARRATIVE REVISIONS

(Identify below each change to the operating narrative as a result of this modification. Revised narrative pages should be included as an attachment to this application. Deletions from the previous narrative should be indicated by strikeout, additions should be redlined.)

Page Number	Change Description

SUPPLEMENTAL DATA SUBMITTED

(Any report, study, data, information, etc. that was not part of previous permit documents should be identified below. In addition, any data identified below should be included as an attachment to this Application).

Description

SIGNATURE AND CERTIFICATION

(The application should be signed by an authorized representative of the applicant as well as the Consultant that prepared this application. By signing below, the representatives certify that all the information in this modification is accurate and truthful.)

APPLICANT

Signature & Title	Printed Name	Date
VP/GM	Brad Harville	8/14/2024

ENGINEER/CONSULTANT

Signature & Title	Printed Name	Date
	Brad N. Fureigh, PE	8/16/2024

CONFIDENTIALITY: *This application shall be available for public inspection, provided, however, that the Division shall not disclose, except to authorized persons, any information which the Director determines is entitled by law to protection as trade secrets without the consent of the applicant. Trade secrets shall not include the name and address of the applicant, nor any information necessary, as determined by the Director, for the public to evaluate the hazards associated with the proposed operation, nor any other information required by law to be available to the public.*

APPENDIX B
CLOSURE & POST-CLOSURE CARE PLAN

CLOSURE & POST-CLOSURE CARE PLAN

Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill

Morrilton, Arkansas

Permit No.: 0284-S3N

AFIN: 15-00001

August 2024

Promus Project No. 240207

Prepared for:

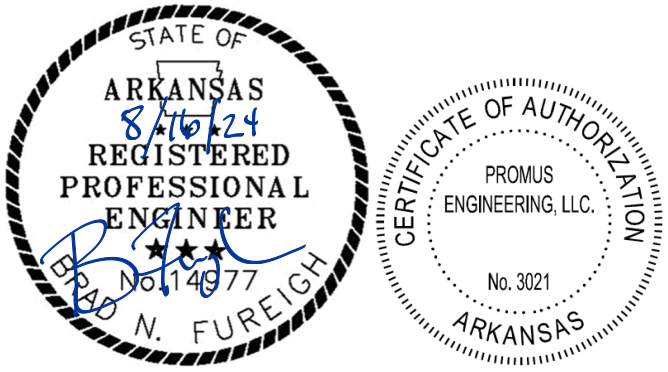
Green Bay Packaging, Inc. – Arkansas Kraft Division

338 Highway 113 South

Morrilton, Arkansas 72110

Prepared by:

PROMUS ENGINEERING



Brad N. Fureigh, PE
Arkansas Professional Engineer License No. 14966

TABLE OF CONTENTS

TABLES

ATTACHMENTS

CLOSURE & POST-CLOSURE CARE PLAN

Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill
Morrilton, Arkansas

1.0 INTRODUCTION

1.1. Purpose, Scope, and Applicability

This Closure and Post-Closure Care Plan addresses Chapters 13 and 14 of Regulation 22, approved by the Pollution Control and Ecology Commission (PCEC) on March 28, 2008 (Solid Waste Management Rules), for the Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill (GBP-AKD or Facility). This plan includes a description of the steps that will be taken to close each landfill unit (i.e., Area), a general schedule for closure, a description of the final cover system and the methods used to install the cover, and a description of post-closure care activities. The Permit Drawings (DEQ Doc. ID 28317) created by Garver + Garver, P.A., which is now known as Garver, LLC (Garver), in 1995 were utilized in developing this Closure Plan. A copy of the Closure and Post-Closure Plan will be placed in the Facility permanent operating record (POR) and notification will be provided to the Arkansas Energy and Environment, Department of Environmental Quality (DEQ) as required by *Reg.22.1301(d)*.

1.2. Facility Description and Design

Arkansas Kraft Division owns and operates the GBP-AKD in accordance with DEQ Solid Waste Permit 0284-S3N. The GBP-AKD is located approximately one mile southeast of Oppelo in Conway County, Arkansas. The site is generally located in portions of Sections 7, 8, 17 and 18, Township 5 North, Range 16 West in Conway County, Arkansas. The GBP-AKD, situated on the southern side of the roughly 700-acre mill site, is currently designed with a total waste disposal footprint of 100 ± acres and a total waste disposal capacity of 4,172,662 cubic yards.

2.0 CLOSURE PLAN

The following sections describe the general layout, design, and operations of the GBP-AKD. This Closure Plan has been developed as a site plan that addresses the waste management and disposal areas at the Facility.

2.1. General Site Layout

The GBP-AKD site consists of approximately 185 acres and includes an active Class 3N Landfill and various support facilities including the vehicle/equipment maintenance facilities, borrow area(s) and surface water drainage systems. The landfill is utilized only for disposal of waste generated on the mill site in conjunction with the pulp and paper manufacturing process.

2.2. Solid Waste Disposal Area

The bottom liner system, leachate collection system, stormwater control system, and final cover system design are described in the permit modification application (PMA) prepared by Garver in 1995 (DEQ Doc. ID 28002). As illustrated on the proposed closure sequencing presented in Attachment A, the final cover system for the GBP-AKD will require three additional closure sequences, not including the areas that have already received final cover. A copy of the closure sequencing drawing is included in Attachment A.

2.3. Closure Requirements

This Closure Plan includes the steps that are necessary to close the landfill units at any point during its active life in accordance with the requirements of ***Reg.22.1301*** and the permitted final cover design.

2.3.1. Description of Final Cover System - (Reg.22.1301(c)(1))

The Landfill will be closed in phases throughout the life of the Facility. The acreage to be closed during each phase will generally be in accordance with the acreages presented in Table 1. A generalized sequence of filling and capping is presented in Attachment A, An estimated closure schedule is presented in Table 2. The scheduling of interim closure will take into account seasonal weather conditions. As illustrated in the Permit Drawings for Areas 1-7 (DEQ Doc. ID 28317), one final cover design is proposed for the facility. In general, according to Permit Condition 15, the final cover system will consist of from top to bottom:

Final Cover System

- 6-inch thick vegetative cover; and
- 24-inch thick compacted clay liner (k≤1.0E-7 cm/sec).

Construction drawings and specifications will be prepared for each phase of closure in accordance with the approved final cover design and this Closure Plan. The closure cost estimates for the Facility will be adjusted annually to account for inflation and any partial closures or modified permit conditions. Closure construction will be monitored and documented in accordance with Permit Condition 15 of the Solid Waste Permit 0284-S3N, and Reg.22.428((b)-(i)). Documents related to final cover system construction activities will be placed in the POR and the DEQ will be notified of such activity.

2.3.2. Estimate of Largest Area - (Reg.22.1301(c)(2))

The estimated largest area of a landfill unit ever requiring closure at any time during the active life of the Landfill will vary based on the closure sequencing referenced in Table 1 and as illustrated by Sheet 6 of the Permit Drawings (located in Attachment A).

2.3.3. Maximum Inventory - (Reg.22.1301(c)(3))

The estimated maximum inventory of waste on-site over the active life in the GBP-AKD is the design capacity of approximately 4,172,662 cubic yards.

2.3.4. Schedule for Closure - (Reg.22.1301(c)(4))

Closure of the Facility will begin following the final receipt of waste in a given unit (i.e., area or phase); or if the Facility has remaining capacity and there is a reasonable likelihood that it will receive additional waste, no later than one year after the most recent receipt of waste. An estimated schedule, based on the largest area of the Facility unit requiring a final cover at any time during the active life, for completing all activities necessary for closure is presented in Table 2.

2.3.5. Closure Plan Approval - (Reg.22.1301(d))

If there are any proposed changes to the Closure Plan, the Facility will submit the revised Closure Plan and receive approval from the DEQ, prior to beginning any closure activities.

2.3.6. Notification Requirements - (Reg.22.1301(e))

The DEQ will be notified when a unit of the Facility stops receiving waste for disposal. The Director of the DEQ will be notified, prior to the beginning of closure of each unit, that the intent to close the unit has been placed in the POR.

2.3.7. Estimated Closure Costs - (Reg.22.1402)

In accordance with ***Reg.22.1402***, estimated costs for closing the Facility will be developed, based on hiring a third-party contractor to close the largest area requiring final cover at any given time during the operation of the Class 3N Facility. The Estimated Closure Cost for the Facility is updated annually in the Annual Engineering Inspection Report (AEIR).

2.3.8. Facility Recordkeeping and Report Requirements - (Reg.22.520(a)(6))

A copy of the approved Closure and Post-Closure Plan will be kept in the POR (***Reg.22.520(a)(6)***). The Director of the DEQ will be notified that the Closure and Post-Closure Plan has been prepared and placed in the POR (***Reg.22.1302(e)***). The records will be permanently maintained in the Facility operating record unless destruction of the records is authorized by the Director of the DEQ following the completion of the post-closure monitoring period (***Reg.22.1301(d)***). The Director of the DEQ will be provided with the initial and updated Closure and Post-Closure Cost Estimates for the Class 3N Facility. These estimates will also be placed within the POR (***Reg.22.1301(d)***).

2.3.9. Financial Assurance

Evidence of a financial assurance mechanism for closure and post-closure care will be placed in the POR and provided to the DEQ annually.

2.3.10. Site Survey (Reg.22.1301(i))

Upon completion of installing the final cover system over the entire Facility, the site will be surveyed by a registered professional engineer or surveyor to document the final elevations of the Class 3N Facility, the location of surface improvements, site boundaries, and areas that received waste. Final closure of the site will be achieved when all permitted cells have been filled and have the final cover system installed. Closure will be considered complete after the final cover has been inspected and approved by the DEQ. The final cover plan and typical final cover details for the GBP-AKD are included in the Permit Drawings (DEQ Doc. ID 28317).

Table 1. Proposed Closure Sequencing[a]

Phases Requiring Closure	Total Area Constructed (Acres)	Total Area Closed (Acres)	Total Area Requiring Closure (Acres)[b]
Existing	92.3	69.2	23.1
Sequence No. 1	96.1	62.6	33.5
Sequence No. 2	100.0	75.3	24.7
Sequence No. 3	100.0	100.0	0.0

a. Acreages include the existing closed permitted landfill area south of areas 1-7 as shown on the permit drawings. DEQ Doc ID# 28317.
b. Estimate of largest area ever requiring final cover at any time during the active life of the Landfill based on the sequencing illustrated in Attachment A.

Table 2. Estimated Closure Schedule

Closure Activity/Task	Number of Days to Complete
Notify the DEQ of intent to perform closure for each cell	1
Begin closure activities	19
Perform grading of waste	10
Install final cover system	120
Seed and mulch	10
Installation of erosion and sediment control structures	10
Complete certification report	10
Estimated Total Time to Complete Closure	180

It is estimated that closure of each unit (i.e., area or phase) at the Facility will be completed no later than 180 days following the beginning of closure activities. If necessary, due to inclement weather or other circumstances (*Reg.22.1301(g)*), a request to extend this schedule may be made to the Director of the DEQ.

2.4. Closure Documentation

2.4.1. Land Use Restrictions (Reg.22.1301(j) and (k))

Following placement of final cover over the entire Facility, a notation will be recorded on the deed to the property. The Director of the DEQ will be notified that the notation has been recorded and a copy has been placed in the POR. The notation on the deed must inform any potential purchaser of the property of the following:

- The past use of the land was as a solid waste disposal facility;

- Future use shall comply with the PCEC regulations and shall not disturb the integrity of the final cover system or any other components of the containment or monitoring system; and
- It shall be unlawful for any person, partnership, company, corporation or other entity to build, erect, or construct any house, home, or building to be used for residential purposes. The restriction of residential construction applies only to the areas actually used for solid waste disposal. The owner may request permission from the Director of the DEQ to remove the notation from the deed if all wastes are removed from the Facility.

2.4.2. Closure Certification (Reg.22.1301(l))

Following closure of the Facility, the Director of the DEQ will be provided a certification, signed by a registered professional engineer, verifying that closure has been completed in accordance with the closure plan, and that the certification has been placed in the POR. A final closure report shall accompany the certification that includes:

- The final survey, in accordance with *Reg.22.1301(i)*;
- Quality control and quality assurance data documenting proper construction and installation of the cover system;
- A copy of the deed notation required under *Reg.22.1301(j)*; and
- Other information that the DEQ may deem necessary to making the certification described in *Reg.22.1302(m)*.

3.0 POST-CLOSURE PLAN

The post-closure period shall be two years following the date of written confirmation by the DEQ that the Facility has been closed in accordance with the approved closure plan, unless the period is decreased or increased by the Director of the DEQ (*Reg.22.1302(c)(4)*). The period may be decreased if the Facility demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the Director of the DEQ (*Reg.22.1302(c)(4)(i)*). Conversely, the period may be increased if the Director determines that the lengthened period is necessary to protect human health and the environment (*Reg.22.1302(c)(4)(ii)*). During the post-closure care period, the closure cover shall be maintained and monitoring activities shall be performed as described in the following subsections.

3.1. Post-Closure Monitoring and Maintenance (Reg.22.1302)(b))

Access to the site after closure will be controlled through maintenance of existing fencing and signs, and access gates will be locked to discourage unauthorized entry. The integrity of the final cover shall be maintained, including repair of the cover, as necessary to correct the effects of settlement, subsidence, and erosion, and prevent runoff and run-on from damaging the cover. Vegetation shall be mowed at least annually to control the growth of unwanted vegetation that may interfere with integrity of the final cover. Surface areas that are cracked, eroded and uneven must be filled and reseeded and ditches maintained (*Reg.22.1302(b)(1)*).

The leachate collection system will be maintained and properly operated during the post-closure period in accordance with the requirements of *Reg.22.529* (reference *Reg.22.1302(b)(2)*). However,

the Facility may demonstrate to the Director of the DEQ that leachate no longer poses a threat to human health and the environment in order to stop managing leachate.

The Facility will continue to monitor the groundwater in accordance with the requirements of Chapter 12 and maintain the groundwater monitoring system (*Reg.22.1302(b)(3)*).

The surface water control systems will be operated and maintained in accordance with *Reg.22.517* and *Reg.22.518* or until at such time that permanent erosion control measures have been established at the site.

3.2. Contact Persons (Reg.22.1302)(d)(2))

The name, address, and telephone number of the person to contact about the Facility during the post-closure period will be provided upon notice of closure.

3.3. Post-Closure Cost Estimate (Reg.22.1403))

An estimate of the cost to perform post-closure activities is based on the estimated cost of hiring a third party to conduct the activities. The cost estimate is based on the most expensive costs of post-closure care during the post-closure care period. The Estimated Post-Closure cost for the Facility is updated annually during the life of the Facility to account for inflation or other changes in unit rates and is included in the AEIR.

3.4. Certification of Completion (Reg.22.1302(f))

Following completion of the post-closure care period for the Facility, the Director of the DEQ will be notified that a certification has been placed in the POR. The certification, signed by an independent registered engineer and approved by the Director of the DEQ, will verify that post-closure care has been completed in accordance with the Post-Closure Plan.

3.5. Site Management and Use (Reg.22.1302(h))

It is anticipated that upon completion of post-closure care, the Facility will become open grassland. The actual long-term use of the land will be determined upon notice of closure. The Facility final cover will not be disturbed without prior approval from the Director of the DEQ.

4.0 REFERENCES

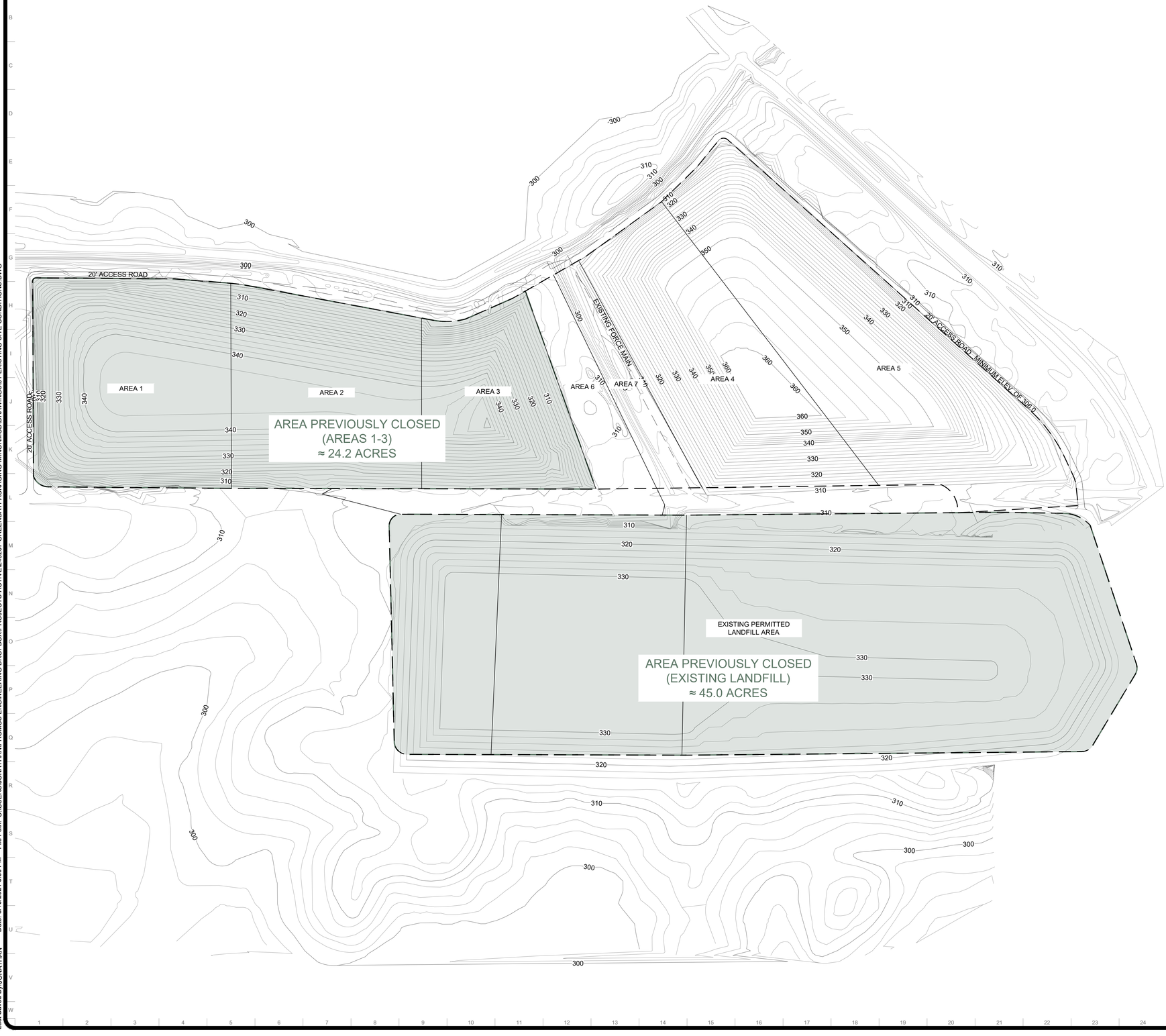
Garver + Garver, P.A., "Permit Application and Operations Methods, Green Bay Packaging, Inc. – Arkansas Kraft Class 3N Landfill, Morrilton, AR", November 1995. DEQ Doc. ID 28002.

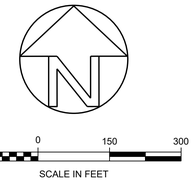
Garver + Garver, P.A., "Permit Plans, Green Bay Packaging, Inc. – Arkansas Kraft Class 3N Landfill, Morrilton, AR", November 1995. DEQ Doc. ID 28317.

DEQ Solid Waste Permit 0284-S3N, Effective November 8, 1996, Reissued May 23, 2008

Attachment A

Closure Sequencing





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Sequence No. 3	100.0	100.0	0.0

a. Acreages include the existing closed permitted landfill area south of areas 1-7 as shown on the permit drawings. DEQ Doc ID# 28317.
b. Estimate of largest area ever requiring final cover at any time during the active life of the Landfill based on the sequencing illustrated in Attachment A.

LEGEND

- PROPERTY BOUNDARY
- PERMITTED LANDFILL BOUNDARY
- CELL BOUNDARY
- INDEX CONTOURS
- APPROXIMATE AREA OF EXISTING FINAL COVER
- APPROXIMATE AREA OF EXISTING FINAL COVER REMOVAL
- APPROXIMATE AREA OF PROPOSED FINAL COVER

NOTES:

1. CONTOURS OUTSIDE THE LANDFILL FOOTPRINT WERE TAKEN FROM DRAWINGS DEVELOPED BY GARVER & GARVER AND PROVIDED BY MASON SURVEYING.
2. CONTOURS INSIDE THE LANDFILL FOOTPRINT ILLUSTRATE INTERIM GRADES MERGED WITH FINAL GRADES FROM THE 1995 PERIMT DRAWINGS DEVELOPED BY GARVER & GARVER, DEQ DOC ID# 28317.
3. EXISTING FINAL COVER ON INTERIM SLOPES WILL BE REMOVED TO CONTINUE WASTE PLACEMENT TO FINAL PERMITTED GRADES.
4. COORDINATES ARE BASED ON THE SITE SPECIFIC GRID SYSTEM AND TIED TO THE FOLLOWING PERMANENT SITE BENCHMARKS:

NUMBER	NORTHING	EASTING	ELEVATION
B-11	976.0600	4088.0700	304.2000
BM-2	965.3200	3100.5400	310.6800
BM-3	950.0000	3300.0000	313.0200

REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION
0	-	-	-	-	-

PREPARED FOR:

PREPARED BY:
PROMUS ENGINEERING
1200 MOUNTAIN CREEK ROAD CHATTANOOGA, TENNESSEE, 37405

EXISTING SITE CONDITIONS

CLOSURE & POST-CLOSURE CARE PLAN
GREEN BAY PACKAGING
CLASS 3N LANDFILL
MORRILTON, ARKANSAS

PROJECT NO.: 240207
SHEET NUMBER
1

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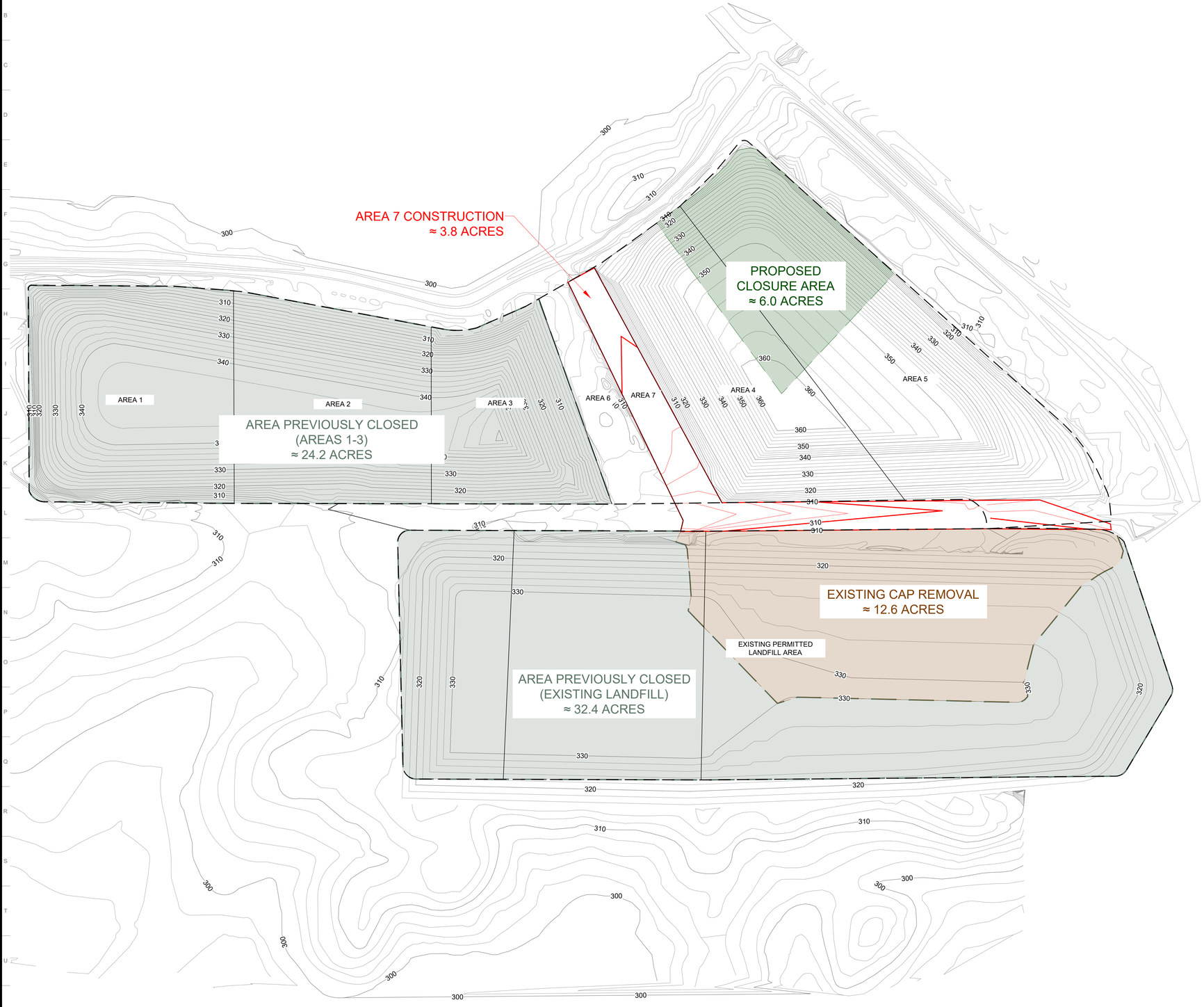

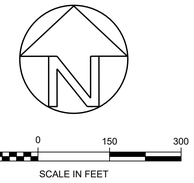

Table 1. Proposed Closure Sequencing[a]

Phases Requiring Closure	Total Area Constructed (Acres)	Total Area Closed (Acres)	Total Area Requiring Closure (Acres)[b]
Existing	92.3	69.2	23.1
Sequence No. 1	96.1	62.6	33.5
Sequence No. 2	100.0	75.3	24.7
Sequence No. 3	100.0	100.0	0.0

a. Acreages include the existing closed permitted landfill area south of areas 1-7 as shown on the permit drawings. DEQ Doc ID# 28317.
b. Estimate of largest area ever requiring final cover at any time during the active life of the Landfill based on the sequencing illustrated in Attachment A.

LEGEND

- PROPERTY BOUNDARY
- PERMITTED LANDFILL BOUNDARY
- CELL BOUNDARY
- INDEX CONTOURS
- APPROXIMATE AREA OF EXISTING FINAL COVER
- APPROXIMATE AREA OF EXISTING FINAL COVER REMOVAL
- APPROXIMATE AREA OF PROPOSED FINAL COVER

NOTES:

1. CONTOURS OUTSIDE THE LANDFILL FOOTPRINT WERE TAKEN FROM DRAWINGS DEVELOPED BY GARVER & GARVER AND PROVIDED BY MASON SURVEYING.
2. CONTOURS INSIDE THE LANDFILL FOOTPRINT ILLUSTRATE INTERIM GRADES MERGED WITH FINAL GRADES FROM THE 1995 PERIMT DRAWINGS DEVELOPED BY GARVER & GARVER, DEQ DOC ID# 28317.
3. EXISTING FINAL COVER ON INTERIM SLOPES WILL BE REMOVED TO CONTINUE WASTE PLACEMENT TO FINAL PERMITTED GRADES.
4. COORDINATES ARE BASED ON THE SITE SPECIFIC GRID SYSTEM AND TIED TO THE FOLLOWING PERMANENT SITE BENCHMARKS:

NUMBER	NORTHING	EASTING	ELEVATION
B-11	976.0600	4088.0700	304.2000
BM-2	965.3200	3100.5400	310.6800
BM-3	950.0000	3300.0000	313.0200

REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION
0	-	-	-	-	-

PREPARED FOR:

PREPARED BY:
PROMUS ENGINEERING
1200 MOUNTAIN CREEK ROAD CHATTANOOGA, TENNESSEE, 37405

CLOSURE SEQUENCE 1

CLOSURE & POST-CLOSURE CARE PLAN
GREEN BAY PACKAGING
CLASS 3N LANDFILL
MORRILTON, ARKANSAS

PROJECT NO.: 240207
SHEET NUMBER
2

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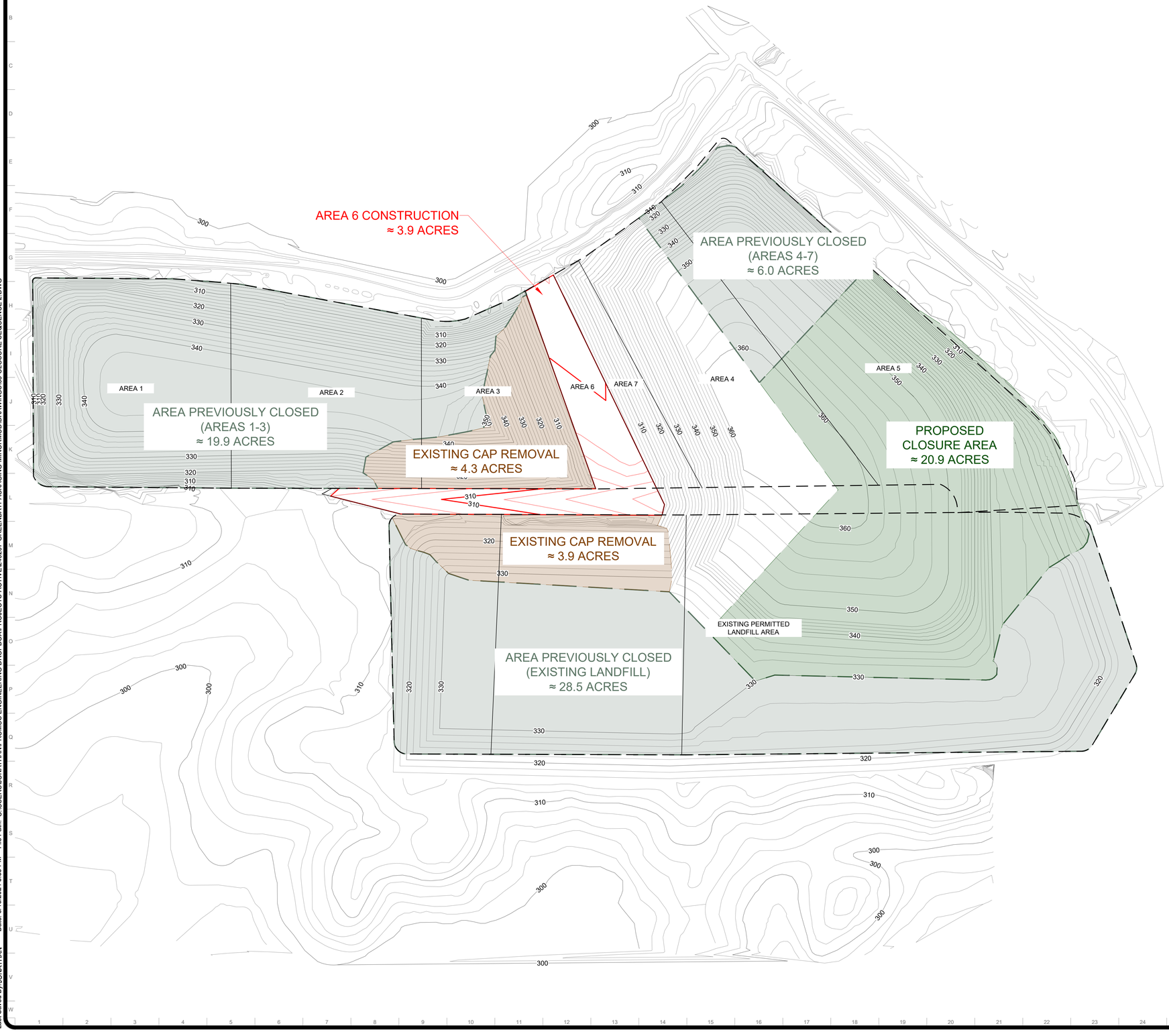

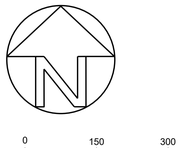

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LEGEND

- PROPERTY BOUNDARY
- PERMITTED LANDFILL BOUNDARY
- CELL BOUNDARY
- INDEX CONTOURS
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REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION
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PREPARED FOR:

PREPARED BY:
PROMUS ENGINEERING
1200 MOUNTAIN CREEK ROAD CHATTANOOGA, TENNESSEE, 37405

CLOSURE SEQUENCE 2

CLOSURE & POST-CLOSURE CARE PLAN
GREEN BAY PACKAGING
CLASS 3N LANDFILL
MORRILTON, ARKANSAS

PROJECT NO.: 240207
SHEET NUMBER
3

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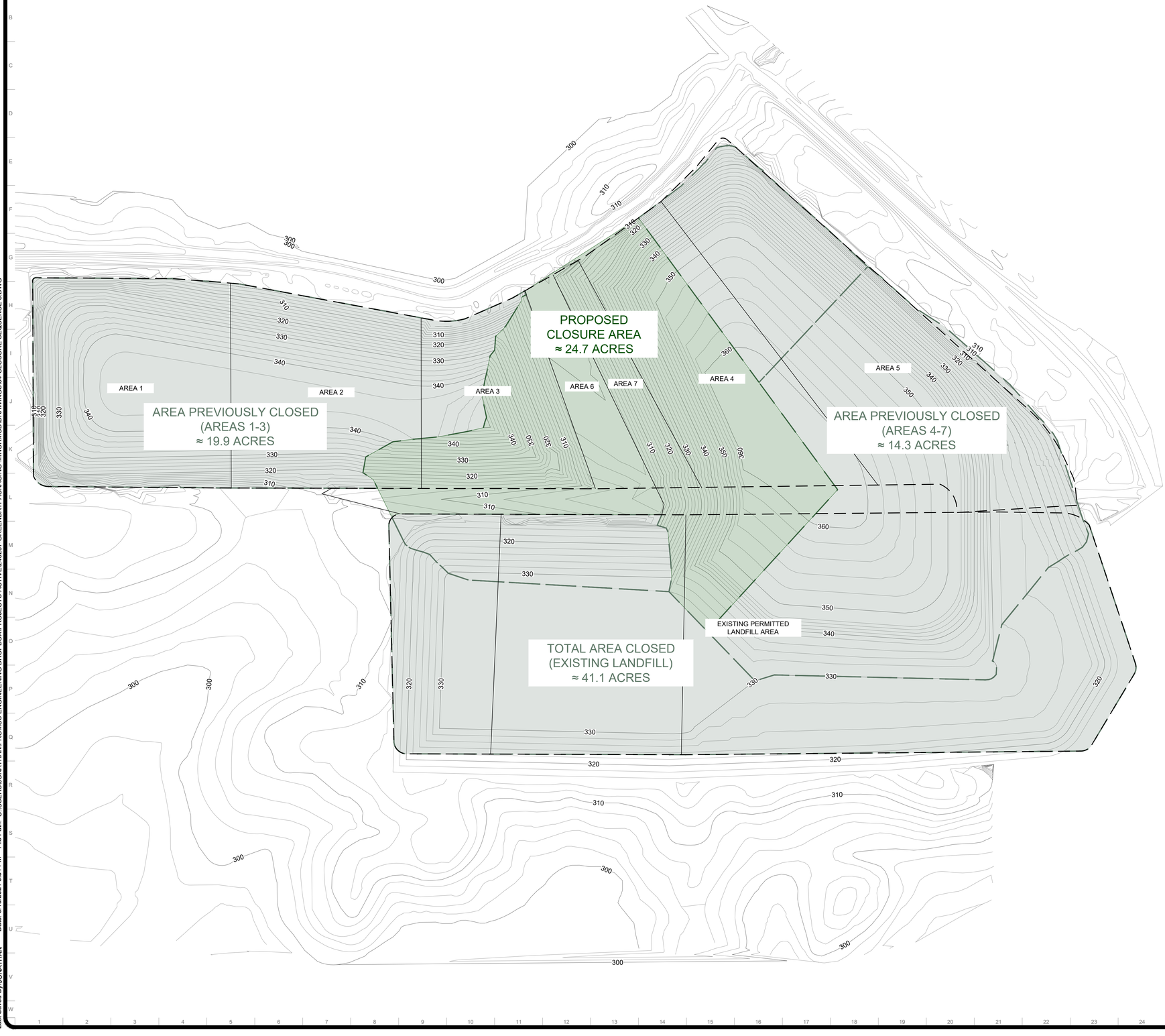

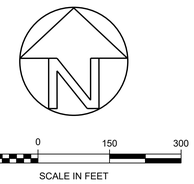

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REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION
0	‡	‡	‡	‡	‡

PREPARED FOR:

PREPARED BY:
PROMUS ENGINEERING
1200 MOUNTAIN CREEK ROAD CHATTANOOGA, TENNESSEE, 37405

CLOSURE SEQUENCE 3

CLOSURE & POST-CLOSURE CARE PLAN
GREEN BAY PACKAGING
CLASS 3N LANDFILL
MORRILTON, ARKANSAS

PROJECT NO.: 240207
SHEET NUMBER
4

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Attachment B

Closure & Post-Closure Cost Estimates

LANDFILL CLOSURE - COST ESTIMATE WORKSHEET

OWNER: Arkansas Kraft Division | **PERMIT No** 0284-S3N | **AFIN No:** 15-00001

OPERATOR: Green Bay Packaging Inc | **ESTIMATOR:** Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977) | **DATE**: August 1, 2024

TOTAL PERMITTED WASTE DISPOSAL ACRES: ±100

TOTAL PERMITTED ACRES CERTIFIED CLOSED: ±69.2 | **ACRES CURRENTLY OPEN:** 23.1

LARGEST ACREAGE EVER REQURING FINAL COVER OVER ACTIVE LANDFILL LIFE: ±33.5

LANDFILL CLOSURE COST ESTIMATE WORKSHEET — Permit: 0284-S3N — AFIN: 15-00001

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
1.0.0	**PROFESSIONAL SERVICES**						
1.1.0	Engineering (Design, Bid Documents, Procurement, Construction Contract Mangement)	1	Lump Sum	$50,000	$ 50,000		Engineer's Estimate
1.2.0	Topographic and Boundary Survey	33.5	ACRE	$915	$ 30,653		Engineer's Estimate
1.3.0	Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	$159,125	$ 159,125		Engineer's Estimate
	Professional Services Subtotal					$ 239,778	
2.0.0	**FINAL COVER**						
2.1.0	**Low Permeability Soil Layer**						
2.1.1	Contractor Mobilization/Demobilization	1	ACRE	$75,000	$ 75,000		Engineer's Estimate
2.1.2	Preparation of landfill to receive cover (final grading)	33.5	ACRE	$1,500	$ 50,250		Engineer's Estimate
2.1.3	Geosynthetic Clay Liner	0	SQ. FT.	$0.00	$ -		N/A
2.1.4	Clay, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	108,093	CU. YD.	$10.00	$ 1,080,933		Engineer's Estimate
	Low Permeability Soil Layer Subtotal					$ 1,206,183	
2.2.0	**Geomembrane and Drainage Layer**						
2.2.1	Drainage material--sand	0	CU. YD.	$0.00	$ -		N/A
2.2.2	Drainage material--geocomposite (purchase + install)	0	SQ. FT.	$0.00	$ -		N/A
2.2.3	Geomembrane (40 mil HDPE)	0	SQ. FT.	$0.00	$ -		N/A
	Geomembrane and Drainage Layer Subtotal					$ -	
2.3.0	**Protective Soil and Vegetative Layer**						
2.3.1	Protective Soil, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance and must be guaranteed for future availability)	0	CU. YD.	$0.00	$ -		N/A
2.3.2	Protective Soil, Off-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	0	CU. YD.	$0.00	$ -		N/A
2.3.3	Vegetative Soil (Topsoil), On-site (excavate, transport, place) (Quantity must match earthwork balance and must be guaranteed for future availability)	0	CU. YD.	$0.00	$ -		N/A
2.3.4	Vegetative Soil (Topsoil), Off-site (excavate, transport, place) (Quantity must match earthwork balance)	27,023	CU. YD.	$20.00	$ 540,467		Engineer's Estimate
2.3.5	Seeding and mulching	33.5	ACRE	$4,000	$ 134,000		Engineer's Estimate
2.3.6	Fertilizer	33.5	ACRE	$750	$ 25,125		Engineer's Estimate
	Protective Soil and Vegetative Layer Subtotal					$ 699,592	
3.0.0	**EROSION CONTROL**						
3.1.0	Temporary Stormwater Control & Management During Construction	1.0	LS	$25,000	$ 25,000		Engineer's Estimate
3.2.0	Checkdams, filters, inlet/outlet protection	1	Lump Sum	$20,000	$ 20,000		Engineer's Estimate
3.3.0	Grass ditching/channels	0	Lin. FT.	$0.00	$ -		N/A
3.4.0	Concrete ditch lining & Concrete Culverts	0	Lin. FT.	$0.00	$ -		N/A
	Erosion Control Subtotal					$ 45,000	
4.0.0	**GAS SYSTEM**						
4.1.0	Gas vents, vents, _____ average depth	0	Lin. FT.	$0.00	$ -		N/A
4.2.0	**Passive System**						
4.2.1	Passive well head flare	0	EACH	$0.00	$ -		N/A
4.3.0	**Active System**						
4.3.1	Flare, ___ BTU/hour	0	EACH	$0.00	$ -		N/A
4.3.2	Additonal Well Installation	0	ACRE	$0.00	$ -		N/A
4.3.4	Ancillary gas equipment (piping, blowers, condensate collection)	0	ACRE	$0.00	$ -		N/A
	Gas System Subtotal					$ -	
5.0.0	**GROUNDWATER MONITORING SYSTEM**						
5.1.0	Well installation		EACH	$0.00	$ -		N/A
5.2.0	Upgrade existing wells	1	LS	$5,000.00	$ 5,000		Engineer's Estimate
5.3.0	Dedicated pump/sampling system installation/upgrade	1	EACH	$3,000.00	$ 3,000		Engineer's Estimate
5.4.0	Baseline sample collection (4 events per first year, 2 samples per event)	4	EVENT	$4,000.00	$ 16,000		Engineer's Estimate
5.5.0	Baseline sample analysis and reporting (4 events per first year, 2 samples per event))	4	EVENT	$2,500.00	$ 10,000		Engineer's Estimate
	Groundwater Monitoring System Subtotal					$ 34,000	
6.0.0	**LEACHATE COLLECTION SYSTEM**						
6.1.0	Additional/upgrades for collection piping	0	Lin. FT	$0.00	$ -		N/A
6.2.0	Additonal/upgrades to pumps	2	EACH	$3,000.00	$ 6,000.00		Engineer's Estimate
6.3.0	Additional/upgrades to storage containers	0	EACH	$0.00	$ -		N/A
6.4.0	Baseline sample collection	1	EACH	$5,000.00	$ 5,000.00		Engineer's Estimate
6.5.0	Baseline sample analysis and reporting	1	EACH	$10,000.00	$ 10,000.00		Engineer's Estimate
	Leachate Collection System Subtotal					$ 21,000	
7.0.0	**OPERATIONS AND INVENTORY REMOVAL**						
7.1.0	Excess solid waste	0	CU. YD.	$0.00	$ -		N/A
7.2.0	Mobile equipment/machinery (e.g., containers, tanks, etc…)	0	Lump Sum	$0.00	$ -		N/A
7.3.0	Stored leachate	0	GAL.	$0.000	$ -		N/A
7.4.0	Contaminated soils	0	CU. YD.	$0.00	$ -		N/A
	Operations and Inventory Removal Subtotal					$ -	
8.0.0	**DEMOLITION/REMOVAL SITE IMPROVEMENTS**						
8.1.0	Office/shop/maintenace and other ancillary buildings	0	Lump Sum	$0	$ -		N/A
8.2.0	Equipment to be decommisioned (e.g., weigh scales, bulking/solidification pits, collection pits/sumps, piping, etc…)	1	Lump Sum	$25,000	$ 25,000		Engineer's Estimate
8.3.0	Site Utilities	1	Lump Sum	$10,000	$ 10,000		Engineer's Estimate
	Demolition/Removal Site Improvements Subtotal					$ 35,000	
9.0.0	**REPLACE/REBUILD SITE ACCESS CONTROLS**						
9.1.0	Fencing	0	Lin. FT.	$0	$ -		N/A
9.2.0	Gates	2	Lump Sum	$20,000	$ 40,000		Engineer's Estimate
9.3.0	Access barriers	2	Lump Sum	$5,000	$ 10,000		Engineer's Estimate
9.4.0	20' Wide Perimeter Access road	1,000	LF	$150	$ 150,000		Engineer's Estimate
	Replace/Rebuild Site Access Controls Subtotal					$ 200,000	
10.0.0	**BORROW AREA RECLAMATION**						
10.1.0	Regrade and site prep	5	ACRE	$7,000	$ 35,000		Engineer's Estimate
10.2.0	Soil, On-site (excavate, transport, place, compact)	0	CU.YD.	$0.00	$ -		N/A
10.3.0	Soil, Off-site (excavate, transport, place, compact)	0	CU. YD.	$0.00	$ -		N/A
10.4.0	Seeding and mulching	5	ACRE	$4,000	$ 20,000		Engineer's Estimate
10.5.0	Fertilizer	5	ACRE	$750	$ 3,750		Engineer's Estimate
	Borrow Area Reclamation Subtotal					$ 58,750	
				Total Closure Cost Subtotal		$ 2,539,303	
11.0.0	**MISCELLANEOUS**						
11.1.1	Administration and Contingency	1	LS	$253,930	$ 253,930		Approximately 10% of Total Closure Cost
	Misc. Subtotal					$ 253,930	
				TOTAL CURRENT CLOSURE COST		**$ 2,793,233**	

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET

OWNER: Arkansas Kraft Division	**PERMIT NO.** 0284-S3N		**AFIN:** 15-00001
OPERATOR: Green Bay Packaging Inc	**ESTIMATOR:** Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)		**DATE:** August 1, 2024
TOTAL PERMITTED WASTE DISPOSAL ACRES: ±100			
TOTAL PERMITTED ACRES CERTIFIED CLOSED: ±69.2			

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET Permit: 0284-S3N AFIN: 15-00001

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
1.0.0	**PROFESSIONAL SERVICES**						
1.1.0	Engineering (Annual inspection and reporting, corrective action design and bid, contract management)	1	Lump Sum	$4,500	$ 4,500		Engineer's Estimate
1.2.0	Topographic and Boundary Survey (annual, final, and corrective action, if required)	1	Lump Sum	$3,500	$ 3,500		Engineer's Estimate
1.3.0	Corrective Action Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	$60,000	$ 60,000		Engineer's Estimate
	Professional Services Annual Subtotal					$ 68,000	
2.0.0	**FINAL COVER ROUTINE MAINTENANCE**						
2.1.0	Inspect soil cover, vents, flares, drainage letdowns and outfalls, etc...	2	EVENT	$5,000	$ 10,000		Engineer's Estimate
2.2.0	Mowing/Trimming (100 acres twice per year)	200	ACRE	$60	$ 12,000		Engineer's Estimate
2.3.0	Clean Drain/Vent Openings	0	EVENT	$0	$ -		N/A
							N/A
	Final Cover Routine Maintenance Annual Subtotal					$ 22,000	
3.0.0	**FINAL COVER REPAIRS**						
3.1.0	Remove/incorporate unacceptable materials (e.g., dead vegetation, solid waste)	10	ACRE	$55	$ 550		Engineer's Estimate
3.2.0	Scarify and prepare surface	10	ACRE	$1,500	$ 15,000		Engineer's Estimate
3.3.0	Soil, On-Site (excavate, transport, place, compact)	32,267	CU. YD.	$7.00	$ 225,867		Engineer's Estimate
3.4.0	Soil, Off-site (excavate, transport, place, compact)		CU. YD.	$0.00	$ -		N/A
3.5.0	Seeding and mulching	10	ACRE	$2,500	$ 25,000		Engineer's Estimate
3.6.0	Fertilizer	10	ACRE	$500	$ 5,000		Engineer's Estimate
	Final Cover Repairs Annual Subtotal					$ 271,417	
4.0.0	**ACCESS ROADS REPAIRS**						
4.1.0	Reshape/regrade subgrade	1,000	SQ. FT.	$2.30	$ 2,300		Engineer's Estimate
4.2.0	Gravel (transport, place, compact)	37	TON	$45	$ 1,667		Engineer's Estimate
4.3.0	Drainage Structures (e.g., culverts,	0	LS	$0	$ -		N/A
4.4.0	Concrete lined ditching/channels	0	LS	$0	$ -		N/A
	Access Roads Repair Annual Subtotal					$ 3,967	
5.0.0	**SURFACE WATER MANAGEMENT OPERATION AND MAINTENANCE (O&M)**						
5.1.0	Collection system operation and maintenance (ditches, piping conveyances, outfalls, sampling points repair/replace)	0	Lump Sum	$0	$ -		N/A
5.2.0	Stormwater storage (sediment pond) operation/repairs	0	Lump Sum	$0	$ -		N/A
5.3.0	Sample collection	0	EVENT	$0	$ -		N/A
5.4.0	Sample analysis and reporting	0	EVENT	$0	$ -		N/A
	Surface Water Management O&M Annual Subtotal					$ -	
6.0.0	**LEACHATE COLLECTION SYSTEM O&M**						
	Generation Rate = 35,000,000 gal/yr.						
6.1.0	Collection operation/maintenance (pump, piping, storage...operation/repair/replace)	1	YEAR	$3,500	$ 3,500		Engineer's Estimate
6.2.0	Leachate loading, off-loading and off-site transportation		EVENT	$0.00	$ -		N/A
6.3.0	Leachate Treatment/Disposal	0	GAL.	$0.000	$ -		N/A
6.4.0	Additional/upgrades for piping, pumps and storage	0	Lump Sum	$0	$ -		N/A
6.5.0	Leachate sample collection	0	YEAR	$0	$ -		N/A
6.6.0	Leachate sample analysis and reporting	1	YEAR	$3,500	$ 3,500		Engineer's Estimate
	Leachate Collection System O&M Annual Subtotal					$ 7,000	
7.0.0	**GROUNDWATER MONITORING SYSTEM O&M**						
	Number of Wells in Approved System = 11						
7.1.0	Well maintenance (e.g., protective casing (lock & hinges) repair/replacement, well pad repair/replace, etc...)	1	LS	$1,350	$ 1,350		Engineer's Estimate
7.2.0	Upgrade/redevelop existing wells	1	LS	$1,100	$ 1,100		Engineer's Estimate
7.3.0	Well Replacement	1	LS	$1,100	$ 1,100		Engineer's Estimate
7.4.0	Sample collection (2 events per year)	2	EVENT	$5,300	$ 10,600		Engineer's Estimate
7.5.0	Sample analysis and reporting (2 events per year)	2	EVENT	$14,500	$ 29,000		Engineer's Estimate
	Groundwater Monitoring System O&M Annual Subtotal					$ 43,150	
8.0.0	**GAS MONITORING SYSTEM O&M**						
8.1.0	Number of Gas Monitoring Probes/Wells						
8.2.0	Methane monitoring of probes/wells (4 per year)	0	EVENT	$2,300	$ -		N/A
8.3.0	Methane monitoring at site boundary and structures (4 per year)	0	EVENT	$1,700	$ -		N/A
8.4.0	Sample analysis and reporting	0	EVENT	$550	$ -		N/A
	Gas Monitoring System O&M Annual Subtotal					$ -	
9.0.0	**GAS EXTRACTION SYSTEM O&M**						
9.1.0	**Passive System**						
9.1.1	Passive well head flare maintenance	0	EACH	$0	$ -		N/A
9.2.0	**Active System**						
9.2.1	Flare	0	EACH	$0	$ -		N/A
9.2.2	Additional Well Installation/Upgrades	0	EACH	$0	$ -		N/A
9.2.3	Ancillary gas equipment repair/replacement (piping, blowers, condensate collection)	0	Lump Sum	$0	$ -		N/A
	Gas Extraction System O&M Annual Subtotal					$ -	
10.0.0	**CORRECTIVE ACTION EVALUATION AND IMPLEMENTATION**						
10.1.0	Resurvey monitoring well reference points and site benchmarks (prorate for annual expenses)	1	EACH	$2,500	$ 2,500		Engineer's Estimate
10.2.0	Remove sediments from stormwater basin(s) (prorate for annual expenses)	1	EACH	$4,000	$ 4,000		Engineer's Estimate
10.3.0	Groundwater exceedances statistical evaluation	1	EACH	$5,000	$ 5,000		Engineer's Estimate
10.4.0	Groundwater alternate source determination) (prorate for annual expenses)	1	EACH	$7,500	$ 7,500		Engineer's Estimate
10.5.0	Groundwater compliance monitoring (prorate for annual expense)	11	EACH	$3,000	$ 33,000		Engineer's Estimate
10.6.0	Other: _____		EACH		$ -		N/A
	Corrective Action Evaluation and Implementation Annual Subtotal					$ 52,000	
	Total Post-Closure Care Annual Cost Subtotal					$ 467,533	
11.0.0	**MISCELLANEOUS**						
11.1.0	Administration and Contingency				$ 46,753		Approximately 10% of Total Post Closure Cost
	Misc. Subtotal					$ 46,753	
	TOTAL ESTIMATED ANNUAL POST-CLOSURE CARE COST					$ 514,287	
	ESTIMATED 2 YEAR POST-CLOSURE CARE PERIOD	2 x "Total Estimated Annual Post-Closure Care Cost".				$ 1,028,573	
	CERTIFICATE OF INSURANCE (COI) - ADJUSTED TOTAL	20% of Total Post-Closure Care Cost				$ 205,715	