



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL
Ty L. Howard
Director

April 1, 2020

Eric Logsdon
The David J. Joseph Company
300 Pike street
Cincinnati, OH 45202

RE: Draft Permit and Public Comment Period for Western Metals Plymouth Class IIIb Landfill

Dear Mr. Logsdon:

The Division of Waste Management and Radiation Control has completed its review of the permit renewal request for the Western Metals Plymouth Class IIIb Landfill. The permit renewal has been determined complete.

The public notice for the draft permit will be published in the Salt Lake Tribune, the Deseret News and the Box Elder News Journal on April 8, 2020. The public comment period will begin April 9, 2020 and end on May 11, 2020. Following the public comment period and resolution of any comments, final action will be taken on the draft permit.

Enclosed is the draft permit and associated attachments for your review.

If you have any questions, please call Roy Van Os at (801) 536-0245.

Sincerely,

T. Allan Moore, Solid Waste Program Manager
Division of Waste Management and Radiation Control

TAM/RVO/al

Enclosures: Draft Permit (DSHW-2020-004888)
Permit Attachments (DSHW-2019-016820)

c: Lloyd Berentzen, MBA, Health Officer, Bear River Health Department
Grant Koford, EHS, Environmental Health Director, Bear River Health Department

DSHW-2020-004983

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144880 • Salt Lake City, UT 84114-4880
Telephone (801) 536-0200 • Fax (801) 536-0222 • T.D.D. (801) 536-4284
www.deq.utah.gov
Printed on 100% recycled paper

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL
SOLID WASTE LANDFILL PERMIT

Western Metals Recycling Class III Landfill

Pursuant to *Utah Solid and Hazardous Waste Act*, Title 19, Chapter 6, Part 1, Utah Code Annotated (Utah Code Ann.) (the Act) and the *Utah Solid Waste Permitting and Management Rules*, Utah Administrative Code R315-301 through 320 adopted thereunder, a Permit is issued to

Western Metals Recycling, LLC
as owner and operator,

to own and operate the Western Metals Class IIIb Landfill located in Box Elder County, Utah as shown in the Permit Renewal Application that was determined complete on **INSERT LETTER DATE**.

The Permittee is subject to the requirements of R315-301 through 320 of the Utah Administrative Code and the requirements set forth herein.

All references to R315-301 through 320 of the Utah Administrative Code are to regulations that are in effect on the date that this permit becomes effective.

This Permit shall become effective _____.

This Permit shall expire at midnight _____.

Closure Cost Revision Date:_____.

Signed this ____ day of _____, 2020.

Ty L. Howard, Director
Utah Division of Waste Management and Radiation Control

FACILITY OWNER/OPERATOR INFORMATION

LANDFILL NAME: Western Metals Recycling Landfill

OWNER NAME: Western Metals Recycling, LLC

OWNER ADDRESS: 200 West Civic Center Drive
Sandy, Utah 84070

OWNER PHONE NO.: (801) 972-0304

OPERATOR NAME: Western Metals Recycling, LLC

OPERATOR ADDRESS: P.O. Box 38
Plymouth, Utah 84330

OPERATOR PHONE NO.: (801) 458-3851

TYPE OF PERMIT: Class IIIb Landfill

PERMIT NUMBER: 9616R3

LOCATION: Landfill site is located in Township 13 north, Range 3
west, Section 4, SLMB; Box Elder County, Lat. 41° 53'
36", Long. 112° 12' 05"
The facility is located at 7400 West Cemetery Road,
Plymouth

PERMIT HISTORY Permit Effective Date:

The term, "Permit," as used in this document is defined in R315-301-2(55) of the Utah Administrative Code. Director as used throughout this permit refers to the Director of the Division of Solid and Hazardous Waste.

The permit renewal application for the Western Metals Recycling Landfill submitted on, February 8, 2018 was deemed complete on the date shown on the signature page of this Permit. All representations made in the attachments of this permit are enforceable under R315-301-5(2) of the Utah Administrative Code.

This Permit consists of the signature page, Facility Owner/Operator Information section, sections I through V, and all attachments to this Permit.

The facility as described in this Permit consists of the Class III disposal cells at the facility.

Compliance with this Permit does not constitute a defense to actions brought under any other local, state, or federal laws. This Permit does not exempt the Permittee from obtaining any other local, state or federal permits or approvals required for the facility operation.

The issuance of this Permit does not convey any property rights, other than the rights inherent in this Permit, in either real or personal property, or any exclusive privileges other than those inherent in this Permit. Nor does this Permit authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations, including zoning ordinances.

The provisions of this Permit are severable. If any provision of this Permit is held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this Permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

By this Permit, the Permittee is subject to the following conditions.

PERMIT REQUIREMENTS

I. GENERAL COMPLIANCE RESPONSIBILITIES

I.A. General Operation

I.A.1. The Permittee shall operate the landfill in accordance with all applicable requirements of R315-304 of the Utah Administrative Code, that are in effect as of the date of this Permit unless otherwise noted in this Permit. Any permit noncompliance or noncompliance with any applicable portions of Utah Code Ann. § 19-6-101 through 126 and applicable portions of R315-301 through 320 of the Utah Administrative Code constitutes a violation of the Permit or applicable statute or rule and is grounds for appropriate enforcement action, permit revocation, modification, or denial of a permit renewal application.

I.B. Acceptable Waste

I.B.1. This permit is for disposal of nonhazardous industrial waste, as defined in Utah Administrative Code R315-301-2(35), generated by Western Metals Recycling, LLC and as described in the permit application. The Permittee may accept PCB's as specified by Utah Administrative Code R315-315-7(2).

I.C. Prohibited Waste

I.C.1. Hazardous waste as defined by R315-260 and R315-261 of the Utah Administrative Code;

I.C.2. PCB's as defined by R315-301-2(53) of the Utah Administrative Code, except PCB's specified by R315-315-7(2)(a) and (c) of the Utah Administrative Code;

I.C.3. Household waste;

I.C.4. Municipal waste;

I.C.5. Special waste except as specified in this Permit;

I.C.6. Commercial waste;

I.C.7. Containers larger than household size (five gallons) holding any liquid, non-containerized material containing free liquids or any waste containing free liquids in containers larger than five gallons; and

I.C.8. Regulated asbestos-containing material.

I.C.9. Any prohibited waste received and accepted for disposal at the facility shall constitute a violation of this Permit, of Utah Code Ann. § 19-6-101 through 126 and of R315-301 through 320 of the Utah Administrative Code.

I.D. Inspections and Inspection Access

- I.D.1. The Permittee shall allow the Director or an authorized representative, or representatives from the Bear River Health Department, to enter at reasonable times and:
 - I.D.1.a Inspect the landfill or other premises, practices or operations regulated or required under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;
 - I.D.1.a.(i) Have access to and copy any records required to be kept under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;
 - I.D.1.a.(ii) Inspect any loads of waste, treatment facilities or processes, pollution management facilities or processes, or control facilities or processes required under this Permit or regulated under R315-301 through 320 of the Utah Administrative Code; and
 - I.D.1.a.(iii) Create a record of any inspection by photographic, video, electronic, or any other reasonable means.
- I.E. Noncompliance
 - I.E.1. If monitoring, inspection, or testing indicates that any permit condition or any applicable rule under R315-301 through 320 of the Utah Administrative Code may be or is being violated, the Permittee shall promptly make corrections to the operation or other activities to bring the facility into compliance with all permit conditions or rules.
 - I.E.2. In the event of noncompliance with any permit condition or violation of an applicable rule, the Permittee shall promptly take any action reasonably necessary to correct the noncompliance or violation and mitigate any risk to the human health or the environment. Actions may include eliminating the activity causing the noncompliance or violation and containment of any waste or contamination using barriers or access restrictions, placing of warning signs, or permanently closing areas of the facility.
 - I.E.3. The Permittee shall:
 - I.E.3.a Document the noncompliance or violation in the daily operating record, on the day the event occurred or the day it was discovered;
 - I.E.3.b Notify the Director of the Utah Division of Waste Management and Radiation Control by telephone within 24 hours, or the next business day following documentation of the event; and
 - I.E.3.c Give written notice of the noncompliance or violation and measures taken to protect human health and the environment within seven days after Director notification.

- I.E.4. Within thirty days after the documentation of the event, the Permittee shall submit to the Director a written report describing the nature and extent of the noncompliance or violation and the remedial measures taken or to be taken to protect human health and the environment and to eliminate the noncompliance or violation. Upon receipt and review of the assessment report, the Director may order the Permittee to perform appropriate remedial measures, including development of a site remediation plan for approval by the Director.
- I.E.5. In an enforcement action, the Permittee may not claim as a defense that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with R315-301 through 320 of the Utah Administrative Code and this Permit.
- I.F. Revocation
- I.F.1. This Permit is subject to revocation if the Permittee fails to comply with any condition of the Permit. The Director will notify the Permittee in writing prior to any proposed revocation action and such action shall be subject to all applicable hearing procedures established under R305-7 of the Utah Administrative Code and the Utah Administrative Procedures Act.
- I.G. Attachment Incorporation
- I.G.1. Attachments to the Permit Application are incorporated by reference into this Permit and are enforceable conditions of this Permit, as are documents incorporated by reference into the attachments. Language in this Permit supersedes any conflicting language in the attachments or documents incorporated into the attachments.
- II. DESIGN AND CONSTRUCTION**
- II.A. Design and Construction
- II.A.1. The landfill shall be constructed according to the design outlined in Attachment 1 and in the area designated in Attachment 1, including landfill cells, fences, gates, and berms.
- II.A.2. The Permittee shall notify the Director upon completion of construction of any landfill cells or run-on and run-off diversion systems. No landfill cells or run-on and run-off diversion system may be used until construction is approved by the Director and this permit is modified.
- II.A.3. The Permittee shall notify the Director of the completion of construction of any final cover system and shall provide all necessary documentation and shall apply for approval of the construction from the Director and modification of this permit.
- II.A.4. If ground water is encountered during excavation of the landfill, the Permittee shall notify the Director immediately, and shall develop and submit to the Director for approval an alternative construction design.
- II.A.5. All engineering drawings submitted to the Director shall be stamped by a professional engineer with a current registration in Utah.

II.B. Run-On Control

- II.B.1. The Permittee shall construct drainage channels and diversions as specified in Attachment 1 and shall maintain them at all times to effectively prevent runoff from the surrounding area from entering the landfill.

III. LANDFILL OPERATION

III.A. Operations Plan

- III.A.1. The Permittee shall keep the Operations Plan included in Attachment 2 on site at the landfill or at the location designated in section III-H of this Permit. The Permittee shall operate the landfill in accordance with the operations plan. If necessary, the Permittee may modify the Operations Plan, provided that the modification meets all of the requirements of R315-301 through 320 of the Utah Administrative Code, is as protective of human health and the environment as the Operations Plan approved as part of this Permit, and is approved by the Director as a permit modification under R315-311-2(1) of the Utah Administrative Code. The Permittee shall note any modification to the Operations Plan in the daily operating record.

- III.A.2. The Permittee shall submit any modification to the Operations Plan to the Director for approval.

III.B. Security

- III.B.1. The Permittee shall operate the Landfill so that unauthorized entry to the facility is restricted. The Permittee shall:

III.B.1.a Lock all facility gates and other access routes during the time the landfill is closed.

III.B.1.b Have at least one person employed by the Permittee at the landfill during all hours that the landfill is open.

III.B.1.c Construct all fencing and any other access controls as shown in Attachment 2 to prevent access by persons or livestock by other routes.

III.C. Training

- III.C.1. The Permittee shall provide training for on-site personnel in landfill operation, including waste load inspection, hazardous waste identification, and personal safety and protection.

III.D. Burning of Waste

III.D.1. Intentional burning of solid waste is prohibited and is a violation of R315-303-4(2)(b) of the Utah Administrative Code.

III.D.2. The Permittee shall extinguish all accidental fires as soon as reasonably possible.

III.E. Cover

- III.E.1. The Permittee shall cover wastes to prevent fires that are capable of attracting vectors, that may become windblown litter, or fine materials that may become fugitive dust with a minimum of six inches of earth as necessary, no less than once each quarter. The Permittee may use an alternative cover material when the material and operation meets the requirements of R315-303-4(4)(b) through (e) of the Utah Administrative Code.
- III.E.2. The Permittee shall record in the daily operating record and the operator shall certify, at the end of each day of operation when soil or an alternative cover is placed, the amount and type of cover placed and the area receiving cover.

III.F. Waste Inspections

- III.F.1. The Permittee shall visually inspect incoming waste loads to verify that no wastes other than those allowed by this permit are disposed in the landfill. The Permittee shall conduct a complete waste inspection at a minimum frequency of 1% of incoming loads, but no less than one complete inspection per day. The Permittee shall select the loads to be inspected on a random basis.
- III.F.2. The Permittee shall inspect all loads suspected or known to have one or more containers capable of holding more than five gallons of liquid to ensure that each container is empty.
- III.F.3. The Permittee shall inspect all loads that the Permittee suspects may contain a waste not allowed for disposal at the landfill.

III.G. Self Inspections

- III.G.1. The Permittee shall inspect the facility to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes or contaminated materials to the environment or create a threat to human health or the environment. The Permittee shall complete these general inspections no less than quarterly and shall cover the following areas: Waste placement, compaction, cover; fences and access controls; roads; run-on/run-off controls; final and intermediate cover; litter controls; and records. The Permittee shall place a record of the inspections in the daily operating record on the day of the inspection. The Permittee shall correct the problems identified in the inspections in a timely manner and document the corrective actions in the daily operating record.

III.H. Recordkeeping

- III.H.1. The Permittee shall maintain and keep on site at the Western Metals Recycling office a daily operating record and other general records of landfill operation as required by R315-302-2(3) of the Utah Administrative Code. The landfill operator, or other designated personnel, shall date and sign the daily operating record at the end of each operating day. Each record to be kept shall contain the signature of the appropriate operator or personnel and the date signed. The Daily operating record shall consist of the following two types of documents:

III.H.1.a Records related to the daily landfill operation or periodic events including:

III.H.1.a.(i) The number of loads of waste and the weights or estimates of weights or volume of waste received each day of operation and recorded at the end of each operating day;

III.H.1.a.(ii) Major deviations from the approved plan of operation recorded at the end of the operating day the deviation occurred;

III.H.1.a.(iii) Results of monitoring required by this Permit recorded in the daily operating record on the day of the event or the day the information is received;

III.H.1.a.(iv) Records of all inspections conducted by the Permittee, results of the inspections, and corrective actions taken shall be recorded in the record on the day of the event.

III.H.1.b Records of a general nature including:

III.H.1.b.(i) A copy of this Permit, including all attachments;

III.H.1.b.(ii) Results of inspections conducted by representatives of the Director of the Division of Waste Management and Radiation Control, and of representatives of the local Health Department, when forwarded to the Permittee;

III.H.1.b.(iii) Closure and Post-closure care plans; and

III.H.1.b.(iv) Records of employee training.

III.I. Reporting

III.I.1. The Permittee shall prepare and submit to the Director an Annual Report as required by R315-302-2(4) of the Utah Administrative Code. The Annual Report shall include: the period covered by the report, the annual quantity of waste received, an annual update of the financial assurance mechanism, and all training programs completed.

III.J. Roads

III.J.1. The Permittee shall improve and maintain all access roads within the landfill boundary that are used for transporting waste to the landfill for disposal as necessary to assure safe and reliable all-weather access to the disposal area.

III.K. Litter Control

III.K.1. Litter resulting from operations of the landfill shall be minimized. In addition to the litter control plans found in Attachment 2, the Permittee shall implement the following procedures when high wind conditions are present:

III.K.1.a Reduce the size of the tipping face;

III.K.1.b Reduce the number of vehicles allowed to discharge at the tipping face at one time;

III.K.1.c Orient vehicles to reduce wind effects on unloading and waste compaction;

III.K.1.d Reconfigure tipping face to reduce wind effect;

III.K.1.e Use portable and permanent wind fencing as needed; and

III.K.1.f Should high winds present a situation that the windblown litter cannot be controlled, the Permittee shall cease operations of the landfill until the winds diminish.

IV. CLOSURE REQUIREMENTS

IV.A. Closure

IV.A.1. Final cover of the landfill shall be as shown in Attachment 3. The final cover shall meet, at a minimum, the standard design for closure as specified in R315-305-5(5)(b) of the Utah Administrative Code.

DRAFT

IV.B. Title Recording

IV.B.1. The Permittee shall meet the requirements of R315-302-2(6) of the Utah Administrative Code by recording a notice with the Box Elder County Recorder as part of the record of title that the property has been used as a landfill. The notice shall include waste disposal locations and types of waste disposed. The Permittee shall provide the Director the notice as recorded.

IV.C. Post-Closure Care

IV.C.1. The Permittee shall perform post-closure care at the closed landfill in accordance with the Post-Closure Care Plan contained in the Permit Application. Post-closure care shall continue until all waste disposal sites at the landfill have stabilized and the finding of R315-302-3(7)(c) of the Utah Administrative Code is made.

IV.D. Financial Assurance

IV.D.1. The Permittee shall keep in effect and active the currently approved financial assurance mechanism or another approved mechanism that meets the requirements of R315-309 of the Utah Administrative Code and is approved by the Director to cover the costs of closure and post-closure care at the landfill. The Permittee shall adequately fund and maintain the financial assurance mechanism to provide for the cost of closure at any stage or phase or anytime during the life of the landfill or the permit life, whichever is shorter.

IV.E. Financial Assurance Annual Update

IV.E.1. The Permittee shall submit an annual revision of closure and post-closure costs for inflation and financial assurance funding as required by R315-309-2(2) of the Utah Administrative Code, to the Director as part of the annual report.

IV.F. Closure Cost and Post-Closure Cost Revision

IV.F.1. The Permittee shall submit a complete revision of the closure and post-closure cost estimates by the Closure Cost Revision Date listed on the signature page of this Permit and any time the facility is expanded, any time a new cell is constructed, or any time a cell is expanded.

V. ADMINISTRATIVE REQUIREMENTS

V.A. Permit Modification

V.A.1. Modifications to this Permit may be made upon application by the Permittee or by the Director following the procedures specified in R315-311-2 of the Utah Administrative Code. The Permittee shall be given written notice of any permit modification initiated by the Director.

V.A.2. Permit Transfer

V.A.2.a This Permit may be transferred to a new permittee or new permittees by complying with the permit transfer provisions specified in R315-310-11 of the Utah Administrative Code.

V.B. Expansion

V.B.1. This Permit is for the operation of a Class IIIb Landfill according to the design and Operation Plan described and explained in the Permit Application. Any expansion of the current footprint designated in the description contained in the Permit Application, but within the property boundaries designated in the Permit Application, shall require submittal of plans and specifications to the Director. The plans and specifications shall be approved by the Director prior to construction.

V.B.2. Any expansion of the landfill facility beyond the property boundaries designated in the description contained in the Permit Application shall require submittal of a new Permit Application in accordance with the requirements of R315-310 of the Utah Administrative Code.

V.B.3. Any addition to the list of acceptable waste in Section I-B shall require submittal of all necessary information to the Director and the approval of the Director.

V.C. Expiration

V.C.1. If the Permittee desires to continue operating this landfill after the expiration date of this Permit, the Permittee shall submit an application for permit renewal at least six months prior to the expiration date, as shown on the signature page of this Permit. If the Permittee timely submits a permit renewal application and the permit renewal is not complete by the expiration date, this Permit shall continue in force until renewal is completed or denied.

Attachments

Attachment 1 – Landfill Design and Construction Plans

Attachment 2 – Plan of Operation

Attachment 3 – Closure and Post-Closure Plans

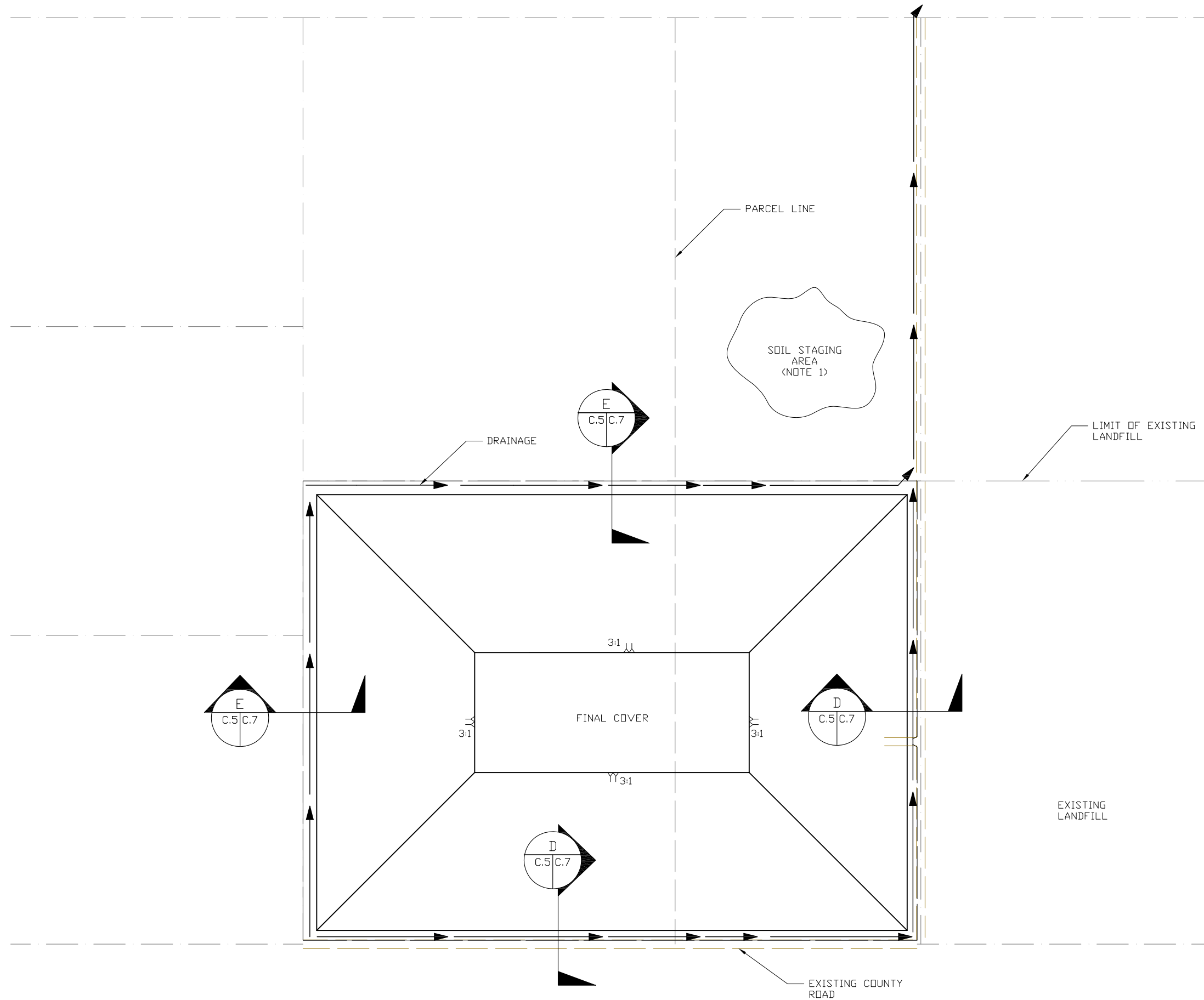
DRAFT

ATTACHMENT 1

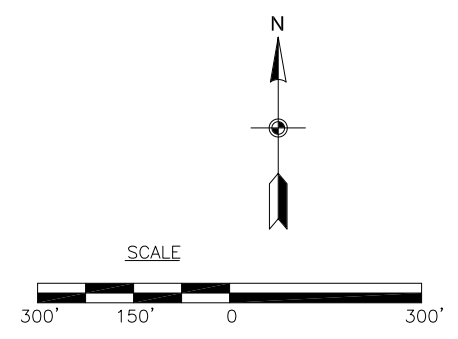
LANDFILL DESIGN AND CONSTRUCTION PLANS

Submitted with the Permit Application
Dated February, 2018

##date##
##file##



- NOTES:
1. SOIL STAGING AREA MAY BE AT A DIFFERENT LOCATION.
 2. THE LANDFILL COVER SHAPE SHOWN ON THIS DRAWING IS APPROXIMATE FOR ILLUSTRATIVE PURPOSES ONLY. FOR COVER DESIGN POINT AND LOCATION SEE SHEET C.6.
 3. THIS DRAWING IS FOR LANDFILL EXPANSION PERMIT APPLICATION.



REV.	DATE	DESCRIPTION	APP BY
C	06/23/10	ITR COMMENTS	
B	05/26/10	DRAFT	
A	04/29/10	DRAFT CONCEPT DRAWINGS	

DES BY	CPB	04/29/10
DR BY	LMR	04/29/10
CHK BY	BSM	04/29/10
APP BY	MSD	04/29/10

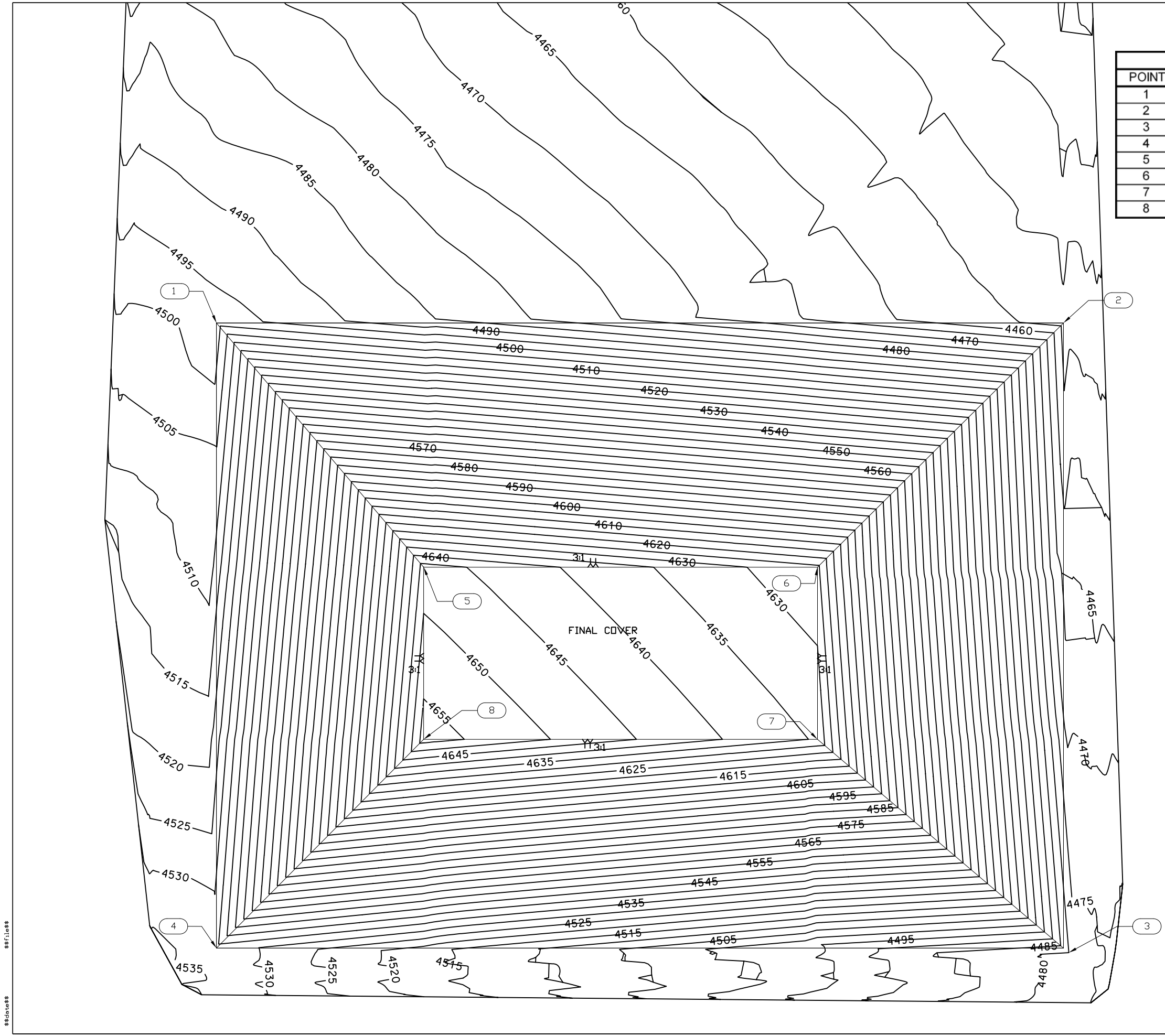
PROJECT NO.
URDD.DWAURS02100918.001

URS
756 East Winchester Street
Suite 400
Salt Lake City, Utah 84107
(801) 904-4100

The David J. Joseph Company

PLYMOUTH LANDFILL EXPANSION
FINAL COVER PLAN

SHEET REFERENCE NUMBER
C.5



LANDFILL COVER POINT SUMMARY TABLE			
POINT	NORTHING	EASTING	ELEVATION
1	4638004.79	398270.28	4499
2	4638027.28	399952.13	4454
3	4636785.39	399968.74	4480
4	4636762.9	398286.89	4530
5	4637525.21	398688.24	4645
6	4637535.66	399470.17	4626
7	4637193.69	399474.75	4633
8	4637183.24	398692.82	4655

NOTE: COORDINATES IN UTM, NAD 83, ZONE 12

REV.	DATE	DESCRIPTION	APP BY
C	06/23/10	ITR COMMENTS	
B	05/26/10	DRAFT	
A	04/29/10	DRAFT CONCEPT DRAWINGS	

DES BY	04/29/10	CBIB
DR BY <td>04/29/10 <td>LMR</td> </td>	04/29/10 <td>LMR</td>	LMR
CHK BY <td>04/29/10 <td>BSM</td> </td>	04/29/10 <td>BSM</td>	BSM
APP BY <td>04/29/10 <td>MSD</td> </td>	04/29/10 <td>MSD</td>	MSD

PROJECT NO.
URDD.DWAURS02100918.001

URS
756 East Winchester Street
Suite 400
Salt Lake City, Utah 84107
(801)904-4100

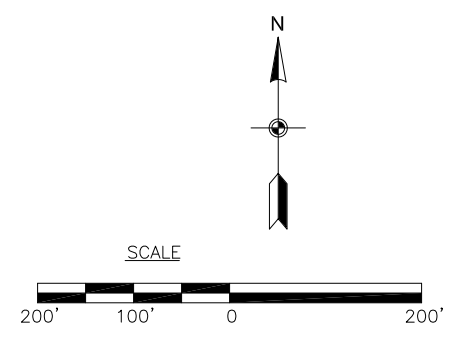
The David J. Joseph Company



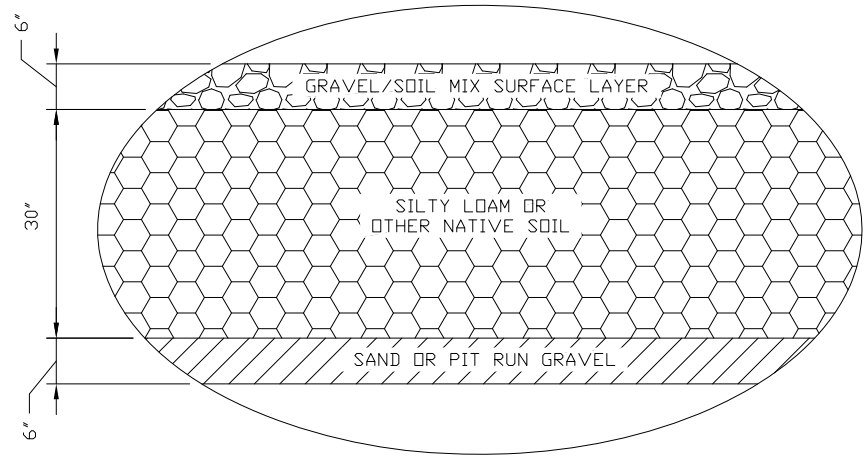
PLYMOUTH LANDFILL
EXPANSION
**FINAL COVER PLAN
WITH ELEVATION
CONTOURS**

SHEET
REFERENCE
NUMBER
C.6

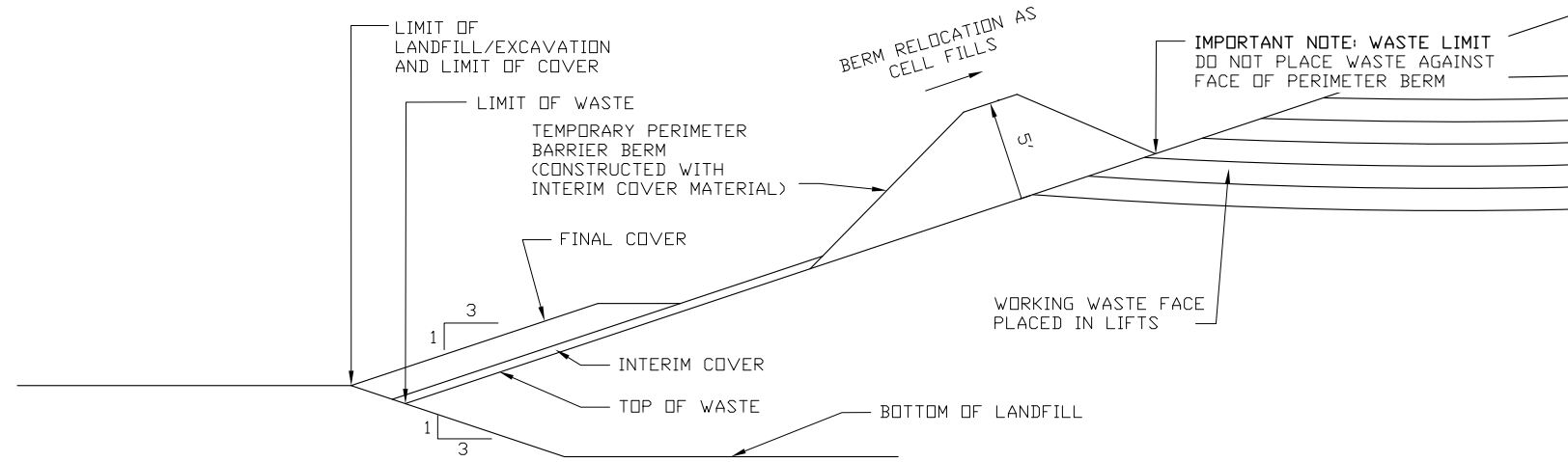
- NOTES:
1. SOIL STAGING AREA MAY BE AT A DIFFERENT LOCATION.
 2. THIS DRAWING IS FOR LANDFILL EXPANSION PERMIT APPLICATION.



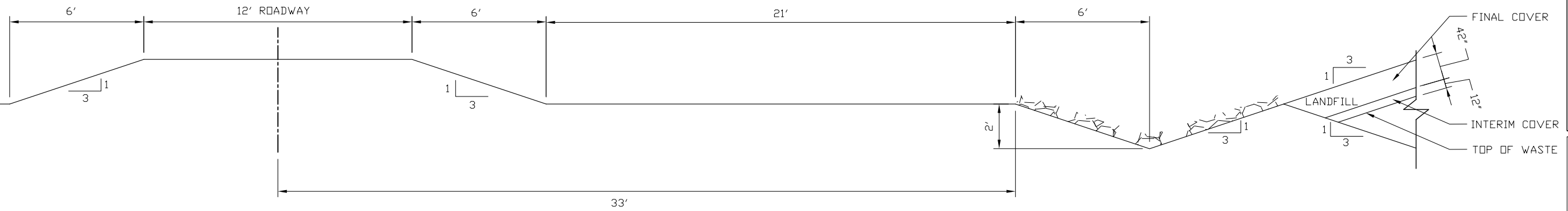
\$\$\$\$date\$\$\$\$



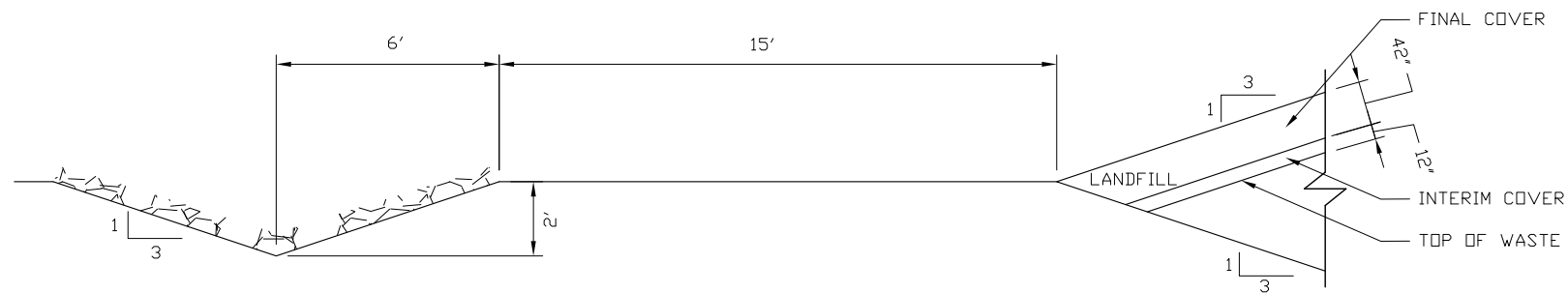
C
C.4 C.7
FINAL COVER DETAIL
SCALE: NOT TO SCALE



TYPICAL PERIMETER BARRIER BERM
SCALE: NOT TO SCALE



D
C.5 C.7
ROADWAY SECTION (NOTE 1)
SCALE: 1"=5'



E
C.5 C.7
DRAINAGE SECTION
SCALE: 1"=5'

NOTES:

1. SET BACK FROM PROPERTY LINES IS 33'
2. THIS DRAWING IS FOR LANDFILL EXPANSION PERMIT APPLICATION.
3. PERIMETER BERM DETAIL PROVIDES OPERATIONAL GUIDANCE.

REV.	DATE	DESCRIPTION	APP BY
B	05/26/10	DRAFT	
A	04/29/10	DRAFT CONCEPT DRAWINGS	

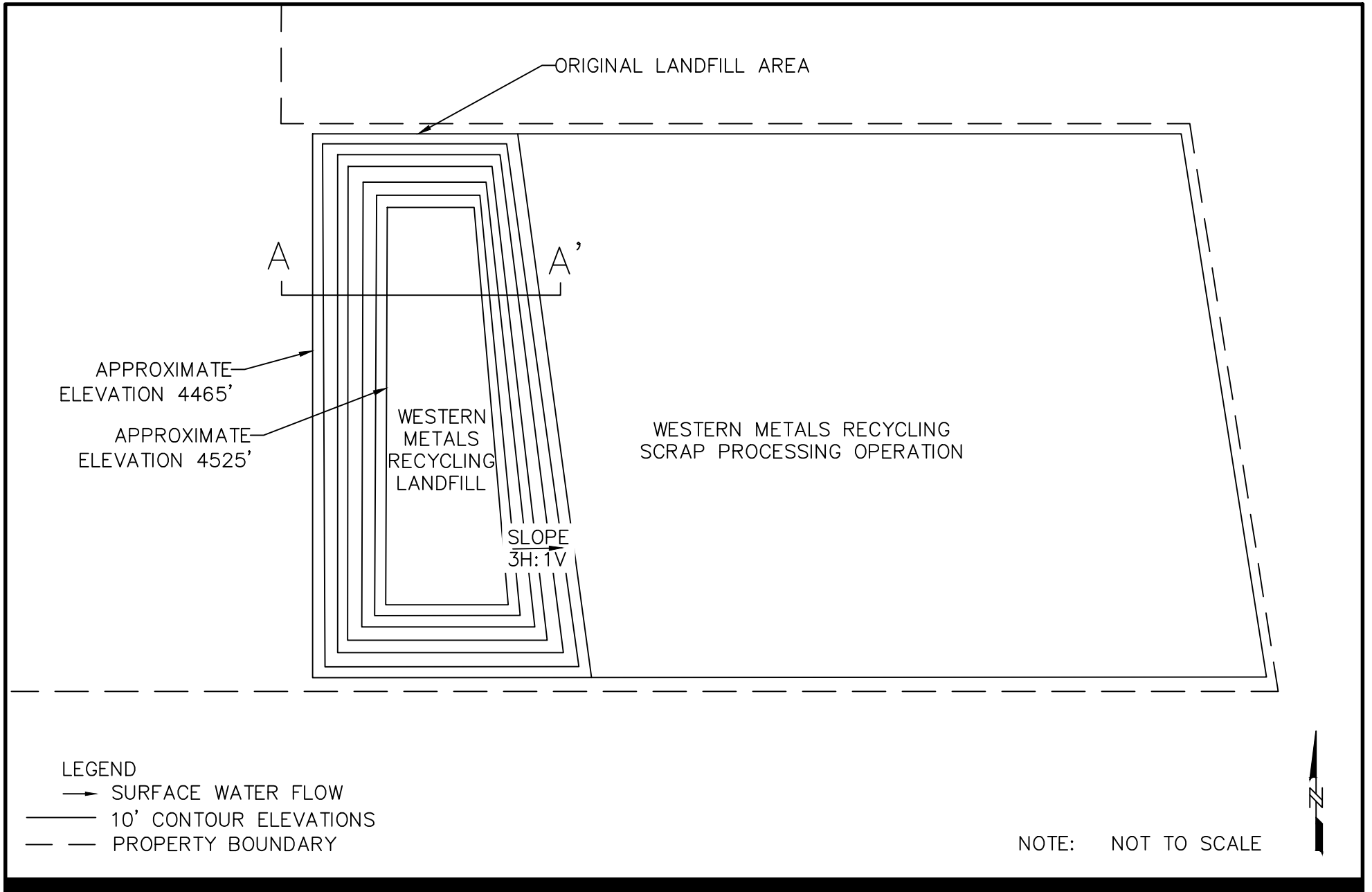
DES BY	CHK BY	APP BY	DATE	PROJECT NO.
CDJ	LMR	MSD	04/29/10	URDD.DWAURS02100918.001

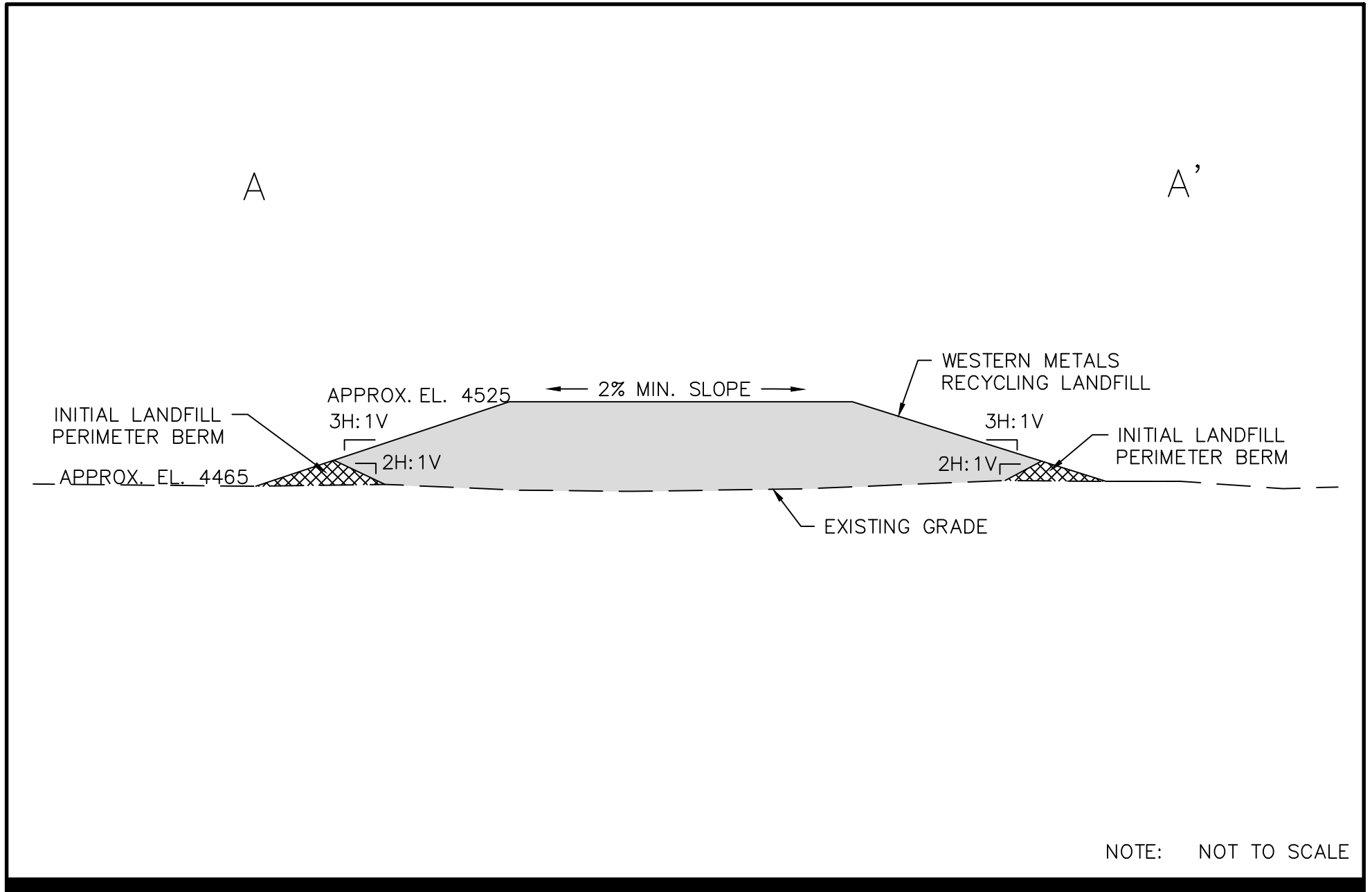
URS
756 East Winchester Street
Suite 400
Salt Lake City, Utah 84107
(801) 904-4000
(801) 904-4100

The David J. Joseph Company

PLYMOUTH LANDFILL EXPANSION
DETAILS

SHEET REFERENCE NUMBER
C.7



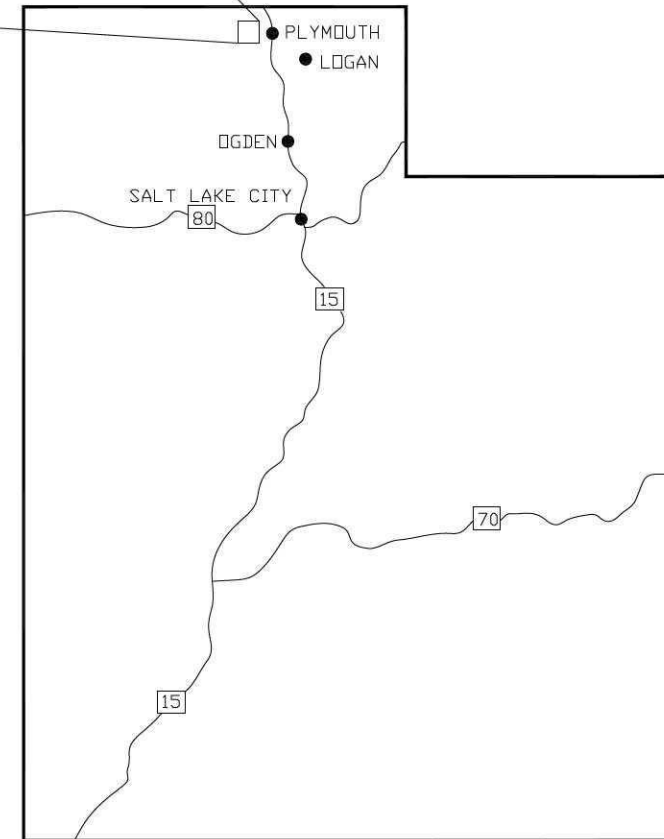




DRAWING INDEX	
G.1	VICINITY MAP AND DRAWING INDEX
G.2	U.S. GEOLOGIC SURVEY TOPOGRAPHIC MAP
G.3	EXISTING CONDITIONS ON TOPOGRAPHIC MAP - 1 OF 2
G.4	EXISTING CONDITIONS ON TOPOGRAPHIC MAP - 2 OF 2
C.1	GENERAL LAYOUT PLAN
C.2	INITIAL EXCAVATION PLAN
C.3	INITIAL PHASING PLAN
C.4	EXPANSION PHASING PLAN
C.5	FINAL COVER PLAN
C.6	FINAL COVER PLAN WITH ELEVATION CONTOURS
C.7	DETAILS

NOTE:

1. THIS DRAWING IS FOR LANDFILL EXPANSION PERMIT APPLICATION.



REV.	DATE	DESCRIPTION	APP BY
B	05/26/10	DRAFT	
A	04/29/10	DRAFT CONCEPT DRAWINGS	

DES BY	CDB	04/29/10
DR BY	LMR	04/29/10
CHK BY	BSM	04/29/10
APP BY	MSD	04/29/10

PROJECT NO.
URDD.DWAURS02100918.001

URS
756 East Winchester Street
Suite 400
Salt Lake City, Utah 84107
(801)904-4000
(801)904-4100

The David J. Joseph Company



PLYMOUTH LANDFILL
EXPANSION
VICINITY MAP AND
DRAWING INDEX

SHEET
REFERENCE
NUMBER
G.1

ATTACHMENT 2

PLAN OF OPERATION

Submitted with the Permit Application Dated
February, 2018

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	BACKGROUND.....	1
3.0	LANDFILL OPERATIONS	2
3.1	Designation of Responsible Person(s).....	3
3.2	Contingency Operations	3
3.3	Control of Waste Received	4
3.4	Waste Measurement	4
3.5	Vehicle Traffic Control and Unloading	5
3.6	Method and Sequence of Filling Waste.....	5
3.7	Waste Compaction and Application of Intermediate Cover	7
3.8	Operations of Storm Water and Gas Controls.....	7
3.9	Groundwater Monitoring	9
3.10	Surface Water Monitoring	9
3.11	Leachate Monitoring.....	9
3.12	All Weather Access Roads	9
3.13	Effective Barrier	9
3.14	Sign Indicating Name of Operating Authority.....	10
3.15	Litter Control Devices	10
3.16	Fire Protection and Fire-Fighting Facilities.....	10
3.17	Attendant.....	10
3.18	Communication Facilities	10
3.19	Adequate In-Service and Reserve Equipment.....	11
3.20	Safety Devices on Equipment to Shield and Protect Operators.....	11
3.21	Flood Zone Information	11
3.22	Wetlands Information.....	11
3.23	Inspections and Monitoring.....	11
3.24	Procedures for Controlling Disease Vectors	12
3.25	Site Safety Plan.....	12
4.0	RECORDKEEPING AND REPORTING	12

ADDENDUMS (follow text)

Addendum 1	Change in Sequencing Letter
Addendum 2	Boring Log and Test Pit Log Reports
Addendum 3	Fluff Sampling Procedure
Addendum 4	Wetland and Floodplain Map
Addendum 5	Inspection and Record Forms

1.0 INTRODUCTION

This is an updated Operations Plan for the David J. Joseph Company's Plymouth Landfill located in Plymouth, Utah. The landfill is a Class IIIb industrial landfill receiving only shredder residue ("fluff"), and minor amounts of debris and nonhazardous petroleum contaminated soils originating from David J. Joseph Company (Western Metals Recycling) facilities operations. This Operations Plan addresses requirements associated with the ongoing landfill operations and the future mining process. It includes information related to the original landfill operation and the expansion of the landfill westward onto adjacent property, west of county road 7600 west. See **Figures 1, 2 and 3**.

This Operations Plan is in accordance with the Utah Administrative Code (UAC), Title R315 regulations for solid and hazardous waste, specifically R315-302-2.

The estimated lifetime at full buildout of the original and expansion area landfill is approximately until year 2096 at the current rate of 64,000 cubic yards per year waste disposal. Procedures for closure of the facility are separately described in the facility Closure and Post-Closure Care Plan, including closure cost estimates.

2.0 BACKGROUND

The Plymouth Landfill is located at 7400 West 21200 North, West Cemetery Road, Plymouth, Utah 84330. It is situated adjacent to a metal shredding facility that generates the majority of the waste being deposited.

The total permitted landfill area includes approximately 22.5 acres at the west side of the original property, and a further 50 acres in the expansion area. Of the original 22.5 acres, approximately 7.5 acres are exposed and actively receiving waste, 7 acres have been closed with final cover, and 8 acres are covered with intermediate cover (6-inches of clean soil). Of the 50 acres in the expansion area, approximately 8 acres within Cell 1 (Phase 1) have been filled to date, 4 of which have been closed with final cover, and 4 of which have been covered with intermediate cover.

Operations are ongoing in the remaining 7.5 acres of the original landfill area and will be followed by construction and use of Cell 4 (Phase 4) of the expansion area. A minor permit modification was made in 2013 to change sequencing in the landfill expansion area and allow for waste placement in Cell 4 (rather than Cell 2) following completion of Cell 1. A copy of the June 19, 2013 letter requesting this sequencing change is provided in **Addendum 1**. Future waste placement following Cell 4 is anticipated to proceed into Cell 5, Cell 6, Cell 3, and then Cell 2, in that order.

Waste is deposited in cells that are prepared by excavating sub-grade soils, which are then deposited as intermediate cover on already filled cells in the landfill. The subgrade of the landfill consists of light brown/tan clay and silt with some gravel down to approximately 35 feet below the surface. In some areas, there are intermediate gravel layers closer to the surface. Boring log reports for the original landfill area are included in **Addendum 2** and test pit logs from the expansion area are included in Attachment F of the Class IIIb Landfill Expansion Engineering Report.

Based upon data collected from onsite groundwater wells, groundwater beneath the original landfill is approximately 90 to 100 feet below land surface traveling in a south by southeast direction.

The David J. Joseph Company is mining the landfill for extraction of non-ferrous metals from the previously deposited fluff. This will be accomplished by excavating the material from old cells, running the material through the onsite eddy current separation system, then re-depositing the material back into a new cell.

3.0 LANDFILL OPERATIONS

The landfill operations are controlled primarily by two persons employed by the David J. Joseph Company and its subsidiary Western Metals Recycling, LLC. These include:

- the Plant Manager, Mr. Jardee Steed, who has been assigned overall responsibility for operation and maintenance of Plymouth Landfill by The David J. Joseph Company and Western Metals Recycling, LLC and

- the David J. Joseph Company Corporate Environmental Manager, Eric Logsdon, who has been assigned the responsibility for periodically monitoring landfill operations and management to assess compliance with applicable laws, regulations, and conditions, and providing/coordinating technical assistance when needed.

3.1 Designation of Responsible Person(s)

The person responsible for the operation and maintenance of the Plymouth Landfill is the Plant Manager, Mr. Jardee Steed. He can be reached by the following mailing address, telephone and fax:

Mr. Jardee Steed, Plant Manager
Western Metals Recycling, LLC
7400 West 21200 North
West Cemetery Road
Plymouth, UT 84330
(435) 458-3851 (Tel)
(435) 458-3601 (Fax)

For matters involving permitting or enforcement, the person responsible for the Plymouth Landfill is the Corporate Environmental Manager, Mr. Eric Logsdon. He can be reached by the following mailing address, telephone and fax:

Mr. Eric Logsdon
The David J. Joseph Company
300 Pike Street
Cincinnati, OH 45202
(513) 419-6200 (Tel)
(513) 419-6222 (Fax)

3.2 Contingency Operations

In the event that the landfill cannot be used due to emergency or a natural disaster, the Plymouth Landfill will temporarily refuse to accept waste material. This action should not create a significant public inconvenience, since the Plymouth Landfill only accepts waste from The David. J. Joseph Company and

its subsidiaries. If the landfill experiences a disruption of operations for a significant period of time, the waste stream generated by facility operations will be rerouted and disposed of at a commercial solid waste facility.

If normal operations are interrupted due to primary and/or back-up equipment failure, the Landfill Operator must immediately notify the Plant Manager.

3.3 Control of Waste Received

Only fluff, debris and non-hazardous petroleum contaminated soils from the David J. Joseph Company's own operations are permitted to be disposed in the landfill. The majority of the material comes as process residue from the eddy current metal recycling process at the Plymouth facility. Some shredder residue ("fluff"), debris or soils may come direct from other David J. Joseph Company facilities in the Utah region. Periodic testing is performed on the fluff from the scrap metal recovery process. This testing includes analysis for Polychlorinated Biphenyls (PCB), and Toxicity Characteristic Leaching Procedure (TCLP) Resource Conservation and Recovery Act (RCRA) Metals. Samples are collected in accordance with the Fluff Sampling Procedure found in **Addendum 3**, with results retained in the David J. Joseph Company's corporate office.

The Landfill Operator shall verify that no unacceptable materials are deposited by observing each dumped load of waste material prior to spreading and compacting. If unacceptable materials are observed, they must be loaded onto a truck and transported to an appropriate permitted landfill for disposal.

During operating hours, the Landfill Operator is responsible for monitoring site activities and preventing unauthorized disposal or trespassing. When the landfill is closed, unauthorized disposal shall be inhibited by locking all access gates.

3.4 Waste Measurement

The amount of waste shipped to the landfill is estimated based on the total amount of scrap produced at the David J. Joseph Company's shredding operations. This is currently based upon a correlation between the weight of fluff

produced versus the weight of scrap processed. Since the landfilled waste is generated only by The David J. Joseph Company's operations, this provides a reasonable estimate of the quantity of incoming waste provided that accurate records of the source of fluff are maintained.

The Plant Manager maintains summaries of the estimated waste generation quantities.

3.5 Vehicle Traffic Control and Unloading

There is a single access road permitting access to the main landfill from the Plymouth scrap metal recycling yard. Since this is a private landfill accepting waste only from the David J. Joseph Company's own operations, and is located adjacent on the Western Metals property with only a private access road, no special traffic controls or signs are required.

For the expansion area, there is a gated access driveway from County Road 7600 West by which the expansion area is accessed (either from the county road, or directly east from the existing landfill). During later phases, the access may be from County Road 21200 North. Vehicle and livestock access to the expansion area will be limited by a 4-foot high barbed wire stock fence around the site.

The Landfill Operator will check incoming trucks upon arrival and will provide the drivers with instruction as to where to dump their loads. While the landfill is below grade, the Landfill Operator should exercise extreme care during unloading operations. Once the landfill reaches above the surrounding grade, the trucks will resume normal operation and drive directly onto the landfill surface to discharge their loads.

3.6 Method and Sequence of Filling Waste

The Landfill Operator shall direct placement of the waste in a manner to maintain thin waste layers, and shall sequence waste filling operations in a way that is conducive to both landfilling and the mining process. In general, the disposal cell

is excavated, prepared, and waste is placed in the cell beginning at the edge of the cell and maintaining a limited open working face. At the expansion area, once above grade, a travelling perimeter berm is placed at the outside limit of the waste disposal area to control runoff from the working area, and define the area of placement (**Figure 4**). As the waste surface is brought to planned grade, the perimeter berms are then moved up the waste surface or used for intermediate cover. Periodically, final cover materials will be placed over the intermediate cover and waste surface. This will occur a minimum of annually once the landfill is above surrounding grade. At all times, the total un-closed area of the landfill (either exposed / working face or intermediate cover) shall be limited to less than approximately 8 acres.

Protective perimeter berms have been constructed at the original landfill area and waste has been placed against the berms during the mining and re-deposition process.

The expansion area is divided into six cells each approximately 8 acres in area. Cell 1, in the southeast corner of the expansion property, has been filled and is covered with a combination of final cover and intermediate cover. Cell 4 of the expansion area will receive waste after the original landfill area is full and will include partially filling back over the northern part of Cell 1. Similarly, later phases will include fill over portions of previous phases.

The Plant Manager is responsible for assuring the control of odors and fugitive particulates arising from landfill operations. Such control shall prevent the creation of these nuisance conditions on adjoining properties. Experience indicates that this is typically not an issue with fluff landfills. When required, dust generated from general operations and covering the waste will be primarily controlled by application of water. Dust generated on roads by vehicle traffic will primarily be controlled via speed limits and the application of water on an as-needed basis.

3.7 Waste Compaction and Application of Intermediate Cover

Landfill waste will be spread utilizing a bulldozer and/or front-end loader, and be compacted utilizing various pieces of heavy mobile equipment. The fluff will be spread in approximately 1- to 2-foot-thick lifts and compacted by four to five passes of the equipment.

Quarterly, a 6-inch-thick soil cover will cover exposed waste with the exception of the working face. This soil cover will be spread using the site bulldozer and/or front-end loader. The reason for not placing intermediate cover on a monthly basis is to enhance the performance of the landfill. The nature of the waste being deposited lends itself to benefits from exposure to the atmosphere. The waste during the processing of scrap metal becomes saturated with water. At the point of disposal, the waste may have a moisture content as high as 30% by weight. By not placing the intermediate cover, the low humidity evaporates a significant amount of the water, thus reducing or eliminating the generation of leachate.

The perimeter barrier berms around the landfill are more than adequate at controlling loose or blowing material because the shape, weight and consistency of the waste does not allow it to be caught and carried by the wind. Furthermore, the mining and reprocessing operations would be greatly impeded by the use of intermediate cover during the excavation process.

3.8 Operations of Storm Water and Gas Controls

Due to the nature of the waste, a methane gas collection system is not applicable to the site. The material being landfilled consists of plastics, glass, and wood. These components do not rapidly breakdown and form methane gas.

Storm water controls are built into the design of the Plymouth Landfill. The 25-year 24-hour storm event for the Plymouth Landfill site is 2.5 inches, as reported on the from National Oceanic and Atmospheric Administration website. Currently the originally permitted landfill area (22.5 acres) has a perimeter berm established that measures approximately 20 feet above the surface elevation. Storm water controls for the original landfill area are shown on **Figure 5**, and

storm water controls for the expansion area are shown on the drawings within the Class IIIb Landfill Expansion Engineering Report. Historically, the original landfill cells were excavated below the natural grade to create cells for waste disposal. Currently, all activities in the original landfill area are above the natural grade. The use of perimeter berms in conjunction with filling activities above the natural grade prevent storm water run-on into the active area.

For the expansion area, the run-on controls consist of a perimeter ditch and berm on all four sides of the landfill area. Initially only Cell 1 and Cell 4 will be excavated and ditches and berms constructed. As these cells are filled, the later cells/phases of the landfill will be constructed.

The site's general topography has a significant (2.66%) slope from west to east. The originally permitted section of the landfill is on the west side of the Western Metals processing facility. As sections of the landfill are filled, the side walls of the landfill will be graded at a 3H:1V slope and covered with soil in accordance with the Plymouth Landfill Closure and Post-Closure Plan. This layer will be mechanically compacted in place. The top sections of the landfill will also be covered and mechanically compacted. The top will be graded at a 2% slope to the north and south from the centerline of the landfill. This design minimizes the potential for storm water to run on to the active working face. A conceptual plan and conceptual profile view drawing of the final grades for the original landfill area are supplied as **Figure 6** and **Figure 7**. Final grades for the expansion area are shown on the drawings within the Class IIIb Landfill Expansion Engineering Report.

For the expansion area, the landfill site has a north easterly slope and waste will be placed in six cells/phases. As sections of the expansion area are filled, the side walls of the landfill will be graded at a 3H:1V slope and covered with soil in accordance with the Plymouth Landfill Closure and Post-Closure Plan. The cover soil will be mechanically compacted in place. A final soil/gravel mixture layer will be used to support arid climate vegetation. The top sections of the landfill will also be covered, compacted, and followed by a soil/gravel mix layer. The top will be graded at a 2% slope to the northeast.

3.9 Groundwater Monitoring

A Class IIIb Landfill is exempt from the groundwater monitoring requirements of R315-308 in accordance with R315-304-5(4)(c). The site, however, includes some groundwater monitoring wells strategically placed around the original landfill and property. These wells are sampled periodically for internal purposes and results are retained in the David J. Joseph Company's corporate office.

3.10 Surface Water Monitoring

The site has a storm water discharge permit (permit #UTR000483) issued by the state of Utah. Due to the large surface area of the site, a discharge of storm water has yet to be recorded. Sampling equipment is retained on site in the event that a significant rain event occurs resulting in a discharge. The parameters analyzed can be found in the storm water discharge permit.

3.11 Leachate Monitoring

The generation of leachate is avoided by controlling the moisture content of the fluff through evaporation, and controlling storm water running into the open face of the landfill.

3.12 All Weather Access Roads

The Plant Manager shall be responsible for maintaining the access roads in an acceptable condition. The access roads directly from county roads to the expansion area will include a minimum width sufficient for two trucks to pass at the entry gate. Other road portions will be single lane width. The roads will consist of six inches of compacted subgrade and gravel surface where necessary to maintain a working surface.

3.13 Effective Barrier

When the landfill is not in use, the Landfill Operator will move a steel gate across the Western Metals site entrance and manually lock it to prevent unauthorized access. A separate gate will be used for the expansion area access point, and

will be similarly locked when not in use. The Landfill Operator will not permit unauthorized access or disposal during operating hours.

3.14 Sign Indicating Name of Operating Authority

The sign located near the Western Metals yard entrance, the sign located at the entrance to the expansion area, and the no trespassing signs posted around the property perimeter shall be maintained. The Landfill Operator is responsible for inspecting the signs and reporting deterioration or damage to the Plant Manager.

3.15 Litter Control Devices

Due to the nature of the fluff (consistency similar to peat moss), no special litter controls have been implemented or are deemed necessary.

3.16 Fire Protection and Fire-Fighting Facilities

On-site fire protection equipment consists of small fire extinguishers stored within site equipment. The site bulldozer, and/or front-end loader can also be used to extinguish small fires by spreading dirt over burning matter. A stockpile of at least 100 tons of dirt shall be readily available in the event of a fluff pile fire.

At the end of each operating day, the bulldozer and all other heavy mobile equipment shall not be parked on the working face of the landfill.

3.17 Attendant

The Landfill Operator is on-site during all operating hours, and is in control of daily landfill operations.

3.18 Communication Facilities

The Landfill Operator is equipped with a cellular phone and/or radio to summons assistance in the event of an emergency. All staff members working at the expansion area shall be equipped with a radio or cellular phone, able to contact the main site office.

3.19 Adequate In-Service and Reserve Equipment

In the event that the site equipment is disabled, miscellaneous heavy equipment may be brought out from the operating yard, or rented from a local equipment supplier to keep landfill operations ongoing.

3.20 Safety Devices on Equipment to Shield and Protect Operators

Each piece of equipment is equipped with a fire extinguisher to fight small fires. A first-aid kit is available in the site office building for minor personal injuries. The Landfill Operator will wear steel-toed shoes as personal protective equipment.

3.21 Flood Zone Information

The entire property that the landfill and expansion area is situated on is not within a flood zone. The figure within **Addendum 4** provides information from the most current Flood Insurance Rate Map in the area where the facility is located.

3.22 Wetlands Information

The entire property that the landfill is situated on is not within any wetlands areas based on a search of the Conus Wet Scan website of established wetland regions. The figure within **Addendum 4** shows the wetland regions in the area that the facility is located.

3.23 Inspections and Monitoring

Quarterly inspections of the landfill are conducted. The inspections address the following (but are not limited to): effectiveness of intermediate cover, storm water controls, integrity of site gates and fencing, and fugitive dust controls. Groundwater monitoring will be conducted as described in Section 3.1.9 of this plan. Copies of forms used for inspection are shown in **Addendum 5**. Inspection records will be maintained at the facility for at least three years from the date of inspection.

3.24 Procedures for Controlling Disease Vectors

Due to the composition of the fluff that is landfilled, no specific procedures for controlling disease vectors have been implemented. If it is determined that such controls are needed, they will be incorporated into this plan in the future as standard operating procedures.

3.25 Site Safety Plan

As required by OSHA, training for the standard operating procedures found in this plan is provided on an annual basis. All personnel at the landfill are responsible for knowing the proper procedures for accidents, injuries, and fires. All emergency procedures are revised as necessary to keep them up-to-date. Safety meetings are regularly scheduled. Topics of discussion are varied and can include situations that can cause accidents and ways to prevent them.

4.0 RECORDKEEPING AND REPORTING

An operating record will be kept on-site and will include the following:

- the weight or volume of waste received by the landfill each day,
- deviations from this approved plan of operation,
- training and notification procedures,
- quarterly inspection records,
- closure and post-closure care plans,
- cost estimates and financial assurance documentation,
- annual reports, and
- other information pertaining to operation, maintenance, monitoring, or inspections, as needed.

An annual report will be prepared by March 1 of each year and will include the following:

- a summary of facility activities during the previous year,
- the annual quantity, in tons, of solid waste received,
- the annual update of the required financial assurance mechanism,
- training programs or procedures completed.

**Western Metals Recycling Plymouth Landfill
Daily Operating Record**

Month and Year:		Permit #:		
	Mined/Removed from Landfill (Tons)	Disposed of in Landfill (Tons)	Comments	Signature
Day:				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
Total				

**Western Metals Recycling Plymouth Landfill
Inspection Record**

Date and Time: _____ Inspected by: _____
(Print)

Acceptable Unacceptable

WASTE PLACEMENT

- Waste placement is in accordance with Operating Plan.
- No waste is outside the landfill footprint/bermed areas.

COMPACTION

- Material is adequately compacted.
- Compactor is adequately maintained.

IMMEDIATE COVER

- Six inches (6") of soil cover is placed over the Active Waste Area at least quarterly.

LITTER/BLOWING DEBRIS

- Construction and Immediate Cover is preventing blowing debris.

ACCESS

- Berms and gates at the facility are effective at controlling unauthorized access.

BERMS

- Berms are effective at controlling and containing leachate within the footprint of the landfill.
- Berms are also adequate at preventing stormwater from running off of the landfill.
- Berms and interior slopes shall not exceed 2H:1V slope.

Observations and/or Comments (comments are required for any "unacceptable" responses above):

Repairs and/or Corrective Actions (include the date and nature of the action):

Signature: _____
(Handwritten)

ATTACHMENT 3

CLOSURE AND POST-CLOSURE PLAN

Submitted with the Permit Application Dated
February, 2018

**PLYMOUTH LANDFILL
Closure and Post-Closure Plan**



Prepared for:

**Western Metals Recycling, LLC
7400 West Cemetery Road
Plymouth, Utah 84330**

Last revised on 1/2/18

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	PARTIAL LANDFILL CLOSURE.....	1
3.0	CLOSURE	2
4.0	CLOSURE CERTIFICATION.....	3
5.0	CLOSURE PERFORMANCE STANDARDS	3
6.0	POST-CLOSURE PLAN.....	3

TABLES (follow text)

Table 1 – Closure Cost Estimate

Table 2 – Post Closure Cost Estimate

1.0 INTRODUCTION

This is an updated Closure and Post-Closure Plan for the David J. Joseph Company's Plymouth Landfill located in Plymouth, Utah. The landfill is a Class IIIb industrial landfill receiving only shredder residue ("fluff"), and minor amounts of debris and nonhazardous petroleum contaminated soils originating from David J. Joseph Company (Western Metals Recycling) facilities operations. This Closure and Post-Closure Plan includes information related to both the original landfill area and the expansion area.

This Closure and Post-Closure Plan is in accordance with the Utah Administrative Code (UAC), Title R315 regulations for solid and hazardous waste, specifically R315-302-2(6), R315-302-3.

2.0 PARTIAL LANDFILL CLOSURE

The facility will manage landfill growth within its established perimeter in a manner that minimizes the open working face of the landfill. Since the waste material qualifies as an acceptable alternate daily cover, intermediate cover of the landfilled materials is not required. However interim cover (6 inches of random fill soil) will be used on a quarterly basis. Partial landfill closure of individual cells or sections of landfill will occur as described in this section.

Each cell or section of the original landfill area will be covered with the following materials and graded with a 2% slope to convey rainfall to perimeter conveyances:

- 18 inches compacted soil (infiltration layer)
- 6 inches topsoil (erosion cover)

This cover design was approved within the last permit renewal #9616R2 issued on August 25, 2008.

Each cell or section of the expansion area will be covered with the following materials and graded to convey rainfall to perimeter conveyances (as shown on Drawing C.7 of the Class IIIb Landfill Expansion Engineering Report):

- 6 inches of sand or pit run gravel (bottom layer)
- 30 inches of silty loam or other native soil (infiltration layer)
- 6 inches of gravel/soil mix surface layer (surface layer/erosion control)

The maximum exposure condition is during the filling of Phase 1. It is assumed that maximum exposure which would require closure when Phase I is half-full and prior to the final cover being placed. This condition is further defined as the finished slope being completed half way and the working face left open. With the assumption that Phase I is half-full, approximately 285,000 square feet (6.5 acres) of surface would require final cover. This cover design was approved within the modified permit #9616R2M issued on March 3, 2011.

The quantities and closure cost estimate are presented in **Table 1**.

3.0 CLOSURE

Prior to closure, all remaining exposed fluff at the facility will be placed into the open cells of the landfill and the landfill will be leveled to the extent practicable. The final cover will be as detailed above in Section 2.0. The grade of the top surface slope shall not be less than 2% (50H to 1V) and the grade of side slopes will be 3H to 1V. The final cover will be seeded with native grass, or other shallow rooted, native vegetation. All closure fences at the entrance to the landfill, inspection roads, and ditches shall also be constructed, as needed. The site will be fenced at a minimum with a 4-foot barbed wire stock fence to minimize large animal and personnel access.

The stockpiled overburden from excavation at the site may be used in construction of the final cover. As construction of the landfill proceeds, final cover will be placed on the final back slope and the only exposed area will be the working face.

At least 180 days prior to the anticipated date of closure, the facility will submit a detailed closure plan for approval of the design for the Plymouth Landfill and a "Notice of Intent to Close" to the Director. The Notice will indicate the following:

1. That the entire Plymouth Landfill shall be closed;
2. The anticipated date of closure commencement;
3. A preliminary schedule of closure;
4. Closure drawings, including confirmation of the design of the final cover; and
5. A proposed schedule for final inspection by regulatory agencies.

4.0 CLOSURE CERTIFICATION

The facility will submit certification that the landfill was closed according to the closure plan. The certification will include (if required) as built drawings submitted to the Director within 90 days of completion of closure activities.

The facility will submit plats to the county recorder no later than 60 days after certification of closure in accordance with UAC R-315-302-2.

5.0 CLOSURE PERFORMANCE STANDARDS

Erosion control shall be provided for a minimum of 30 years after closure certification.

Based upon the contents of the landfill, no detection monitoring of air, gas, or groundwater is anticipated. If the Director determines that detection monitoring is required, a revised Post-Closure Plan will be prepared and submitted.

6.0 POST-CLOSURE PLAN

As necessary, changes to record of title, land use, and zoning restrictions will be made based on the future anticipated land use.

The following is the contact who may be contacted during the post-closure care period:

Eric Logsdon, Corporate Environmental Manager
The David J. Joseph Company
300 Pike Street
Cincinnati, OH 45202
(513) 419-6200 (Tel)

The vegetative and soil cover on the closed landfill will be maintained on a regular schedule for a minimum of 30 years. The landfill cap will be inspected for erosion on a semi-annual basis for a minimum of 30 years. The landfill will also be inspected for woody plant growth that may penetrate the compacted soil final cover. If evidence of erosion is observed over areas of more than 5,000 ft², or if there are erosion channels or gullies greater than 6 inches deep and 20 feet long, the area will be reseeded and or re-graded as needed to insure the integrity of the final cover. These criteria for repair of the

cover is sufficient due to the low rainfall in the site area, and the inert nature of the shredder residue fill materials. Fences and gates will also be periodically inspected. If damage to fences or gates is observed, repairs will be made promptly to insure the landfill area is adequately secured. **Table 2** provides the post-closure cost estimate for a duration of 30-years.

5.0 CLOSURE

The David J. Joseph Company plans to operate the landfill on an on-going basis and to mine the landfill for extraction of non-ferrous metals from the previously deposited fluff. During site operations the final cover will be placed on each section and phase of the landfill when final grade for the waste is reached. When necessary, intermediate cover (6-inches of clean soil) will be used.

The landfill (including the original and expansion areas) is expected to reach capacity in year 2096 based on current fill generation rates.

When the site is closed, the final cover will be placed over all open areas, and areas of intermediate cover in accordance with the Plymouth Landfill Closure and Post-Closure Plan. Regulatory agencies will be notified at least 180 days prior to expected closure, and a schedule for final inspection by regulatory agencies will be established.

The current financial assurance mechanism for closure is shown in **Appendix D**, and consists of a letter of credit as required for the closure cost estimate amounts shown in the Closure Plan.