ANNUAL REPORT

ANNUAL INSPECTION REPORT

GREAT RIVER ENERGY – STANTON STATION

Bottom Ash CCR Landfill

Submitted to: Great River Energy
Stanton Station
4001 Highway 200A
Stanton, North Dakota 58571

Submitted by: Golder Associates Inc.
44 Union Blvd.
Suite 300
Lakewood, Colorado 80228

January 2018 **1772461**

Golder Associates

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1.0 INTRODUCTION

As part of 40 CFR Part 257 of the Subtitle D solid waste provisions under the Resource Conservation and Recovery Act (RCRA), utilities are required to complete annual inspections for surface impoundments and landfills containing Coal Combustion Residuals (CCR). This report has been prepared by Golder Associates Inc. (Golder) for Great River Energy (GRE) to satisfy the annual inspection requirements for CCR landfills under 40 CFR Part 257.84.

Stanton Station is located in Mercer County, approximately three miles south of Stanton, North Dakota. There are two facilities located at Stanton Station that fall under the CCR rule requirements (Figure 1). These facilities include the Bottom Ash CCR Landfill (Bottom Ash Landfill) and the Bottom Ash CCR Surface Impoundment (Bottom Ash Impoundment). Stanton Station ceased operation in February 2017 and these two facilities have not received significant CCR materials since that time. Plant decommissioning took place in 2017 with demolition scheduled to begin in 2018. The two facilities will remain open for disposal of any residual CCR in the plant and construction and demolition debris associated with the plant deconstruction. This report presents a review of available facility information and findings of the inspection of the Bottom Ash Landfill performed on September 13, 2017.

2.0 REVIEW OF EXISTING INFORMATION

2.1 Geological Conditions

Stanton Station is located in the Missouri Slope district of the glaciated Missouri Plateau of the Great Plains physiographic province (NDDH 2005). The Bottom Ash Landfill is constructed in Missouri River alluvial deposits. The alluvial deposits have two distinct subunits: upper and lower. The upper subunit consists of a silty sand and clay and the lower subunit is an outwash sand and gravel (Barr 2010).

2.2 Site History and Subgrade

Stanton Station is located in Sections 16 and 21, Township 144N and Range 84W of Mercer County, three miles southeast of Stanton, North Dakota. The Bottom Ash Landfill (see Figure 1 and Figure 2) is located adjacent to the Bottom Ash Impoundment south of the plant. The north and south cells of the Bottom Ash Surface Impoundment are active cells used for dewatering bottom ash and the center cell functions as a retention cell. Bottom ash is placed into one of the active cells until the cell reaches capacity. Once capacity is reached in one of the active cells, bottom ash in the dewatered active cell is excavated and hauled to the Bottom Ash Landfill for disposal. Bottom ash has historically been placed in the eastern half of the Bottom Ash Landfill (see Figure 2).

Stanton Station originally burned North Dakota lignite before being converted in November 2004 to use fuel from the Powder River Basin in Wyoming. All ash was originally wet sluiced into a series of ash ponds (Ponds A, B, and C) (Stone & Webster 1994b). In the mid-1990s, Stanton Station converted to a dry fly ash handling system, and the historic CCR management units were reconfigured.

CCRs from the 1970s ash disposal area and Pond A were excavated and hauled to Ponds B and C for disposal. Ponds B and C were further consolidated and closed. Pond A was reconfigured to include a composite-lined surface impoundment with three cells on the east side and the Bottom Ash Landfill on the west side. Prior to the placement of bottom ash, the Bottom Ash Landfill was re-graded to promote drainage of contact water to the east side, and soil and/or ash fill was placed over the active placement area to bring the floor above groundwater. The historic Pond A perimeter soil berms were used as the perimeter berms for the Bottom Ash Landfill. Additional information regarding the design of the Bottom Ash Impoundment and Bottom Ash Landfill is included in the original design report (Stone & Webster 1994a). Selected construction and permit drawings are included in Appendix A.

2.3 Site Geometry

The perimeter berms surrounding the Bottom Ash Landfill on the north, west, and south sides consist of the historic Pond A soil embankments and have top elevations of approximately 1708 feet above mean sea level (amsl). The east berm is a shared berm with the Bottom Ash Impoundment and was constructed out of embankment fill in 1994 and 1995 to a top elevation of approximately 1720 feet amsl. The crest of the east berm is a gravel surfaced roadway that supports both light passenger vehicles and some heavy

construction equipment. The original bottom elevation of the Bottom Ash Landfill varies between approximately 1698 feet amsl and 1701 feet amsl based on as-built survey (see Appendix A). The berm upstream and berm downstream slopes are 3:1. Current top of waste elevations range between approximately 1700 feet amsl and 1715 feet amsl based on survey performed in 2014. Contact water generally flows west to a low area on the west side of the Bottom Ash Landfill.

2.4 Changes in Geometry

No significant recent changes to geometry were noted other than the periodic placement of bottom ash to the design grades.

2.5 Existing CCR Volume

Up until February 2017, Stanton Station produced approximately 10,600 cubic yards (CY) of bottom ash and economizer ash (herein referred to as bottom ash) per year that was sluiced to the Bottom Ash Impoundment. This bottom ash was periodically excavated and hauled to the Bottom Ash Landfill. Bottom ash was last placed in the Bottom Ash Landfill in 2014 prior to a survey. Using the 2014 survey information and the original design grades (Stone & Webster 1994b), the current volume of bottom ash contained in the Bottom Ash Landfill at the time of the inspection was approximately 150,000 CY.

2.6 Permits

The Bottom Ash Landfill is currently permitted with the North Dakota Department of Health (NDDH) under Permit Number 0043.

2.7 Summary of 2017 Weekly Inspections

GRE performed weekly inspections of the Bottom Ash Landfill throughout 2017. Based on a review of the available inspection forms, the following items were noted:

- Generally good site maintenance.
- No signs of significant seepage, settlement, or cracking of the berm downstream slopes.

2.8 Summary of Previous Inspections

The most recent annual professional engineer inspection of the Bottom Ash Landfill was performed by Golder in October of 2016 (Golder 2017) and a summary of the observations of that inspection are as follows:

- Generally good vegetation and site maintenance.
- Animal burrows were noted on berm downstream slopes.
- Stormwater and/or contact water control features to control run-on and runoff were not well-established.
- Isolated and minor woody vegetation was growing on berm downstream slopes and near the toe of slopes.

3.0 2017 ANNUAL INSPECTION

On September 13, 2017, Todd Stong and Kevin Cernik of Golder performed an inspection of the Bottom Ash Landfill per United States Environmental Protection Agency (USEPA) Regulation 40 CFR Part 257.84(b) requirements. The inspection consisted of visual observations while walking around the facility traversing up and down the perimeter berm and CCR placement areas. An annual inspection checklist used during the inspection is presented in Appendix B. Photographs were taken and are presented in Appendix C. The following presents a summary of the observations made during the 2017 annual inspection.

3.1 Perimeter Berm

3.2 Berm Upstream Slope

The berm upstream slopes appeared to match the design slopes of 3:1 with no observed section of significant slope movement. The west berm upstream slope of the facility is vegetated with grass where bottom ash has not recently been placed. Contact water is directed toward the west side of the facility. The berm upstream slopes of the landfill appear to be in good condition.

3.3 Berm Crest

The east berm crest and part of the north berm crest of the Bottom Ash Landfill are surfaced with gravel at elevations between approximately 1715 feet amsl and 1720 feet amsl. These roads are primarily used for light vehicle traffic. The east berm crest can be exposed to heavy construction equipment when the Bottom Ash Impoundment is cleaned out. The west and south perimeter berm crests are vegetated with grass and are not surfaced for vehicle travel. Bottom Ash Landfill berm crests appeared to be in good condition.

3.4 Berm Downstream Slope

The berm downstream slopes on the north, west, and south sides are between approximately 5 feet and 10 feet high and have slopes of approximately 3:1. Slopes are well vegetated with grass, but do contain numerous, but mostly small, animal burrows. A small tree was also observed on the berm downstream slope on the south side of the facility. This small tree along with any other woody vegetation should be removed from the landfill. The berm downstream slopes of the Bottom Ash Landfill appear to be in fair condition.

3.5 Toe

The toe of the west and south perimeter berms is in a surface water drainage ditch that has some marshy vegetation and standing water. Some small animal burrows were noted near the toe of the slope, but there were no observed indications of seepage, settlement, or excessive vegetation at the toe of these slopes.

3.6 CCR Placement

The Operations Plan and design documentation call for bottom ash to be placed at 15% final slopes directing contact water to the edge of active placement. Collected contact water is to be evaporated, used for dust suppression, or pumped to the Bottom Ash Impoundment as required. The observed CCR

placement slopes appeared to be within the design CCR grades, and contact water was generally directed to the low area on the west end of the landfill. The contact water control berm/channel along the south side of the facility where recent placement has occurred was not well-defined during the inspection. A perimeter berm/channel should be built to direct contact water to the west side of the facility and clean stormwater off of the facility footprint and into perimeter stormwater drainage ditches. The majority of in-place CCRs within the landfill appear to be in fair condition except near the southeast corner of the facility where there are several erosion rills. No cracks, settlement, or seepage was observed on the CCR slopes.

3.7 Signs of Structural Weakness or Other Observations that Could Affect Stability

No signs of structural weakness or other observations that could affect the stability of the Bottom Ash Landfill were observed during the site inspection in September, 2017.

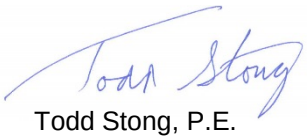
4.0 SUMMARY AND CONCLUSIONS

An annual inspection was performed for the Bottom Ash Landfill at Stanton Station on September 13, 2017. The inspection met the requirements for CCR landfills under 40 CFR Part 257.84. Golder observed good vegetation and site maintenance and did not identify significant deficiencies such as seepage, excessive erosion or settlement, or cracking during visual observations.

In addition to annual inspections by the Professional Engineer, trained and qualified site personnel are performing the required weekly facility inspections to look for signs of potential structural weaknesses.

Minor maintenance items that may need to be continually addressed include repairing larger animal burrows as they appear, repairing stormwater and/or contact water control features to control run-on and runoff, monitoring vegetative success of berm downstream slopes, and removal of any woody vegetation growing on the berm downstream slopes.

GOLDER ASSOCIATES INC.



Todd Stong, P.E.
Associate/Senior Consultant

Craig Schuettpelz, P.E.
Senior Project Engineer

Kevin Cernik
Engineer

5.0 REFERENCES

Barr, 2010. 2010 Annual Groundwater Monitoring Report, Stanton Station Ash Disposal Facility, NDDH Solid Waste Permit # SP043. Prepared for Great River Energy, February 2011.

Golder Associates Inc. Golder 2017. Annual Inspection Report – Great River Energy – Stanton Station – Bottom Ash Landfill. January 2017.

Great River Energy – Coal Creek Station. GRE 2015. Permit Renewal Document, Permit No. SP-043. Original Permit Renewal dated February 2, 2015.

North Dakota Department of Health, 2017. Permit for a Solid Waste Management Facility, North Dakota Department of Health – Division of Waste Management Permit No. 0043. November 29, 2017.

Stone & Webster, 1994a. *Design Report Stanton Station Ash Pond Modifications.* Prepared for United Power Association, Project No. 4177. April 25, 1994.

Stone & Webster, 1994b. *Stanton Station Ash Pond Modifications, Project No. 4177 Design Drawings Rev. 2.* Prepared for United Power Association, June 1994.

FIGURES

REFERENCES

1. AERIAL IMAGE FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AERIAL IMAGERY PROGRAM, PUBLISHED 2017.

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-12-21
DESIGNED	KAC
PREPARED	RFS
REVIEWED	CCS
APPROVED	TJS

PROJECT
2017 ANNUAL INSPECTION REPORT

TITLE
STANTON STATION SITE OVERVIEW

PROJECT NO.	REV.	FIGURE
1772461	A	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

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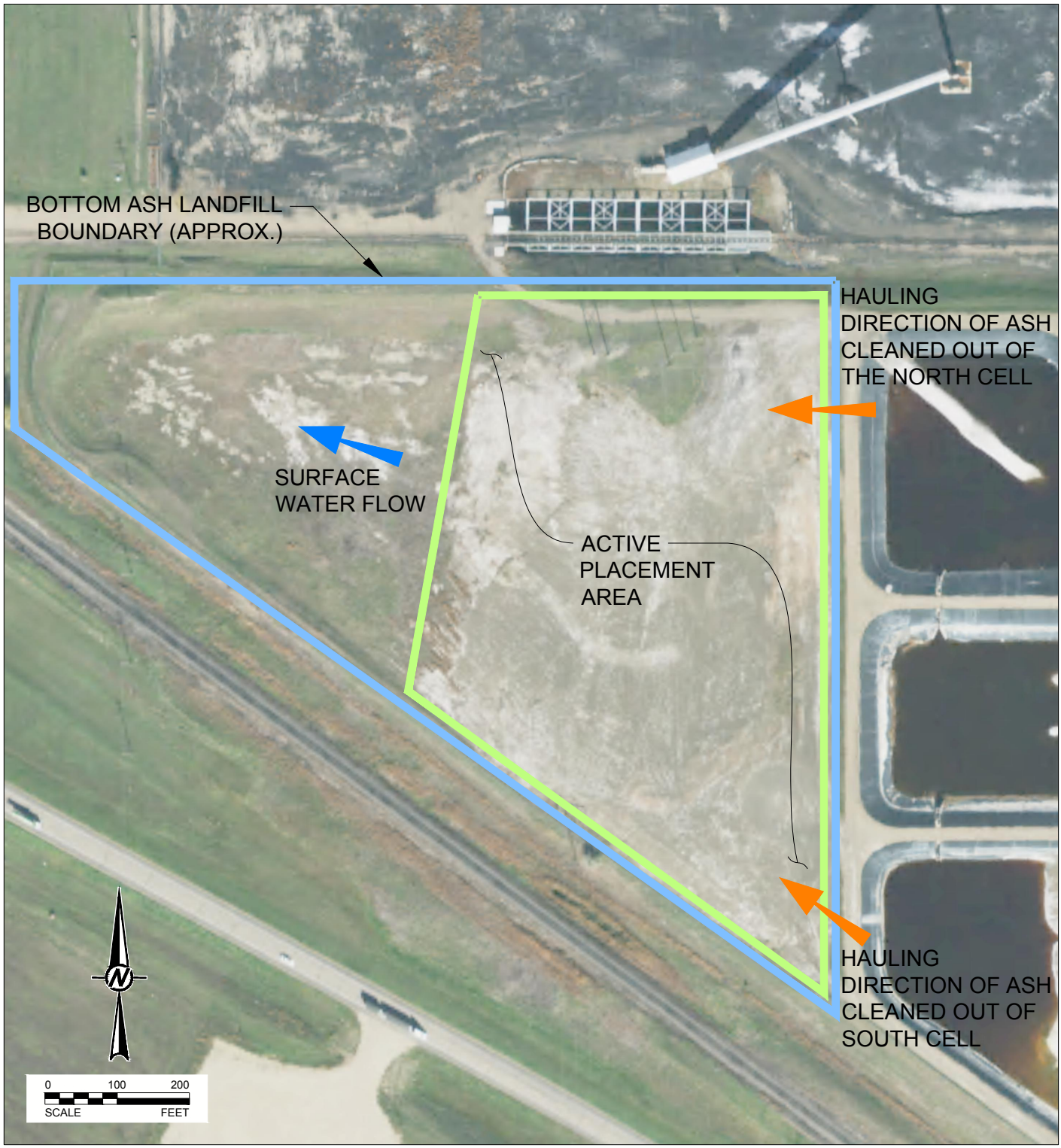

REFERENCES

1. AERIAL IMAGE FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AERIAL IMAGERY PROGRAM, PUBLISHED 2017.

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-12-21
DESIGNED	KAC
PREPARED	RFS
REVIEWED	CCS
APPROVED	TJS

PROJECT
2017 ANNUAL INSPECTION REPORT

TITLE
BOTTOM ASH CCR LANDFILL SITE OVERVIEW

PROJECT NO. 1772461 | REV. A | FIGURE 2

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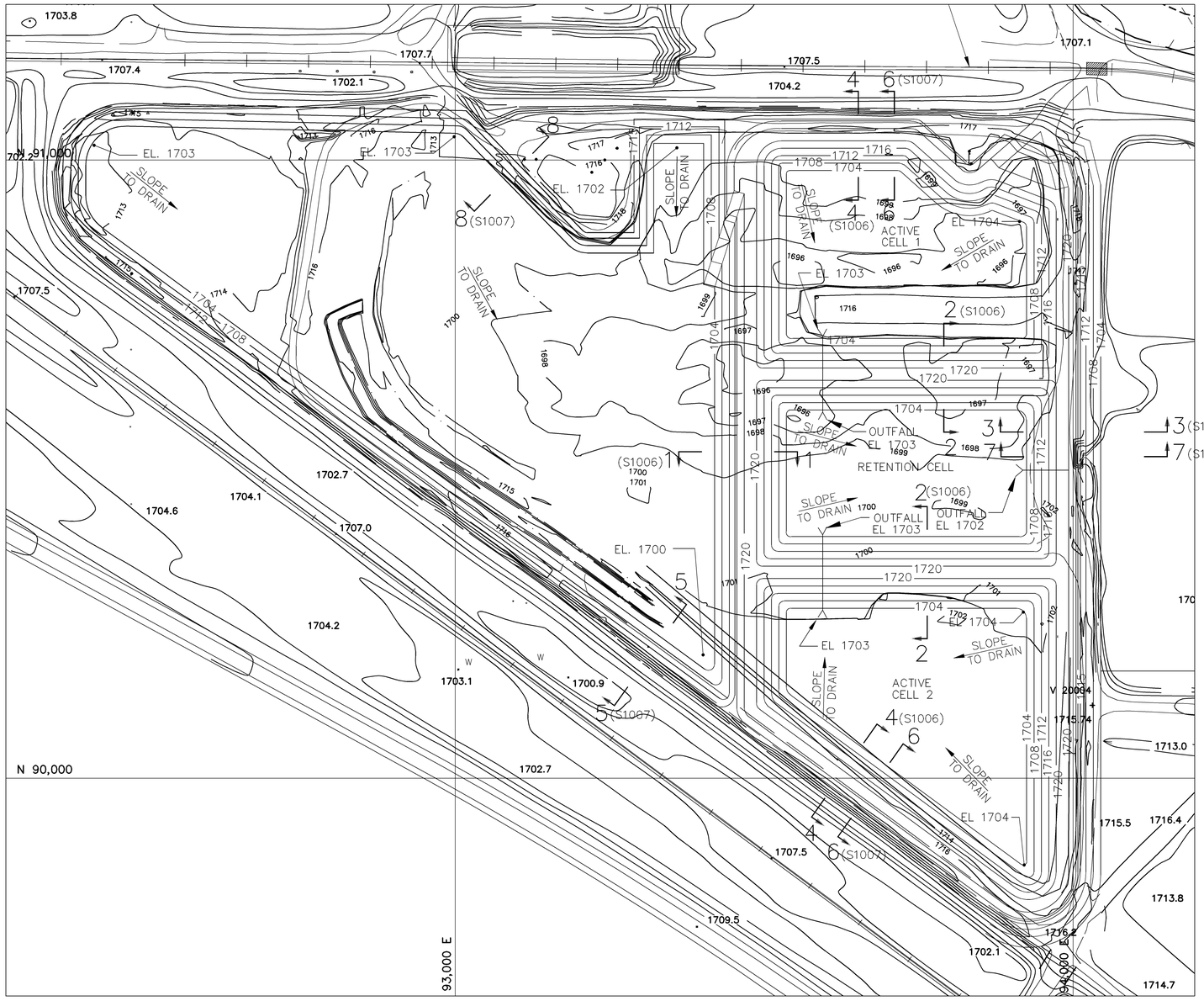
APPENDIX A

SELECTED CONSTRUCTION DRAWINGS AND PERMIT DRAWINGS



N

SCALE 1" = 100'

100 50 0 100 200 300

LEGEND:

EXISTING GROUND ELEVATION CONTOUR

NEW GROUND ELEVATION CONTOUR

NOTES:

1. SEE GENERAL NOTES, DRAWING S1002.
2. ELEVATIONS SHOWN AT THE BOTTOM OF IMPOUNDMENT CELLS ARE OF THE TOP OF THE CLAY FILL.

REFERENCE DRAWINGS:

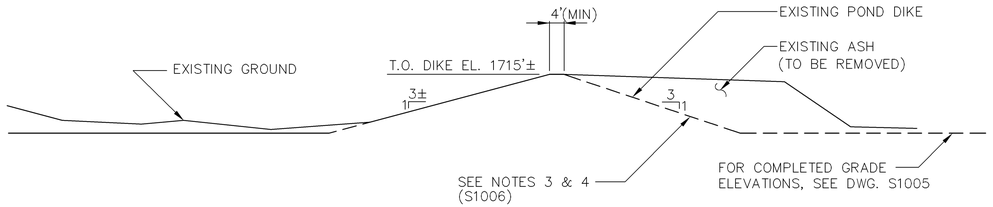
S1002	FACILITIES SITE PLAN
S1006	POND A SECTIONS & DETAILS – SH. 1
S1007	POND A SECTIONS & DETAILS – SH. 2
S1008	POND A SECTIONS & DETAILS – SH. 3
S1009	OUTFALL STRUCTURES OUTLINE – PLAN & SECTIONS
S1010	OUTFALL STRUCTURES – REINFORCEMENT SH. 1
S1011	OUTFALL STRUCTURES – REINFORCEMENT SH. 2

ISSUE	DESCRIPTION	CHKD	CORRECT	APPR. DATE
3				
2				
1	FOR CONSTRUCTION			
0	ORIGINAL ISSUE FOR UPA REVIEW	WLZ	SGG KWC 4-13-94	

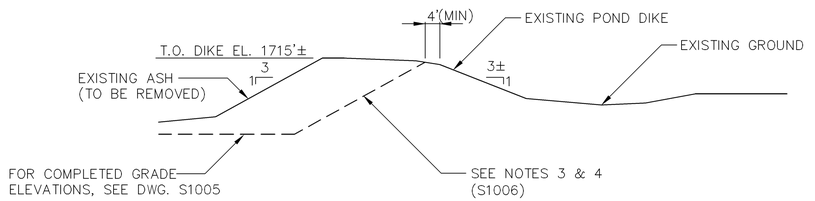
UPA PROJECT 4177	UNITED POWER ASSOCIATION STANTON STATION ASH POND MODIFICATIONS POND A CONVERSION PLAN	DRAWING NO. S1005	REV 1

STONE & WEBSTER ENGINEERING CORPORATION
DENVER, CO.

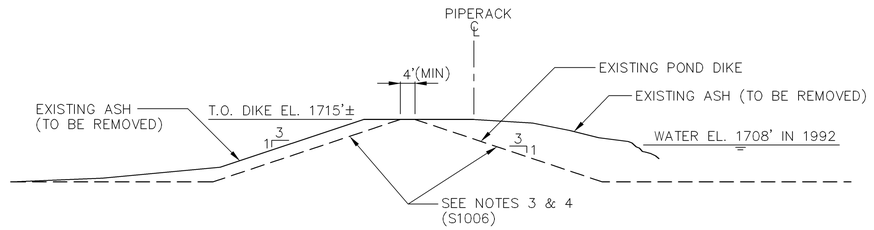
ISSUE | HALF-SIZE | APP. CARD | CAD FILE UPAS1005.DWG



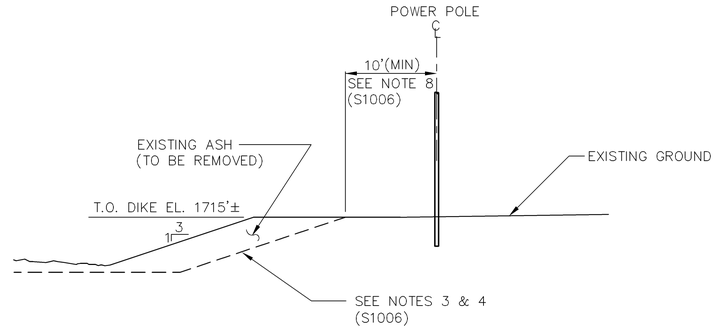
5–5
(S1005)



6–6
(S1005)



7–7
(S1005)



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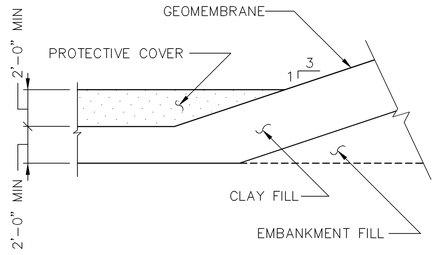

DETAIL A
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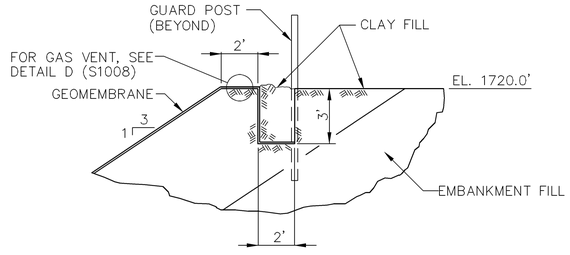

DETAIL B
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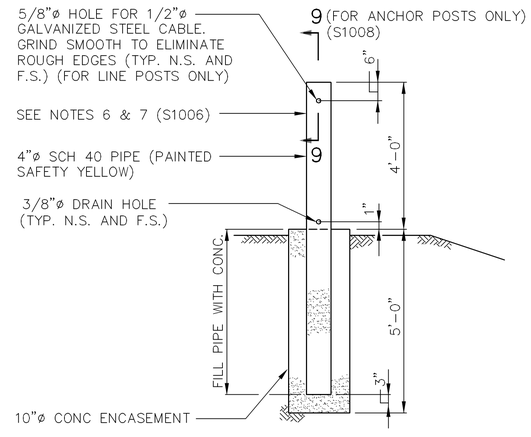

DETAIL C
(S1006)
NTS

NOTES:

1. SCALE: 1" = 20' UNLESS NOTED.
2. SEE GENERAL NOTES, DRAWING S1002.
3. FOR ADDITIONAL NOTES, SEE DRAWING S1006.

REFERENCE DRAWINGS:

S1002	FACILITIES SITE PLAN
S1005	POND A CONVERSION PLAN
S1006	POND A SECTIONS & DETAILS – SH. 1
S1008	POND A SECTIONS & DETAILS – SH. 3

ISSUE	DESCRIPTION	CHKD	CORRECT	APPR. DATE
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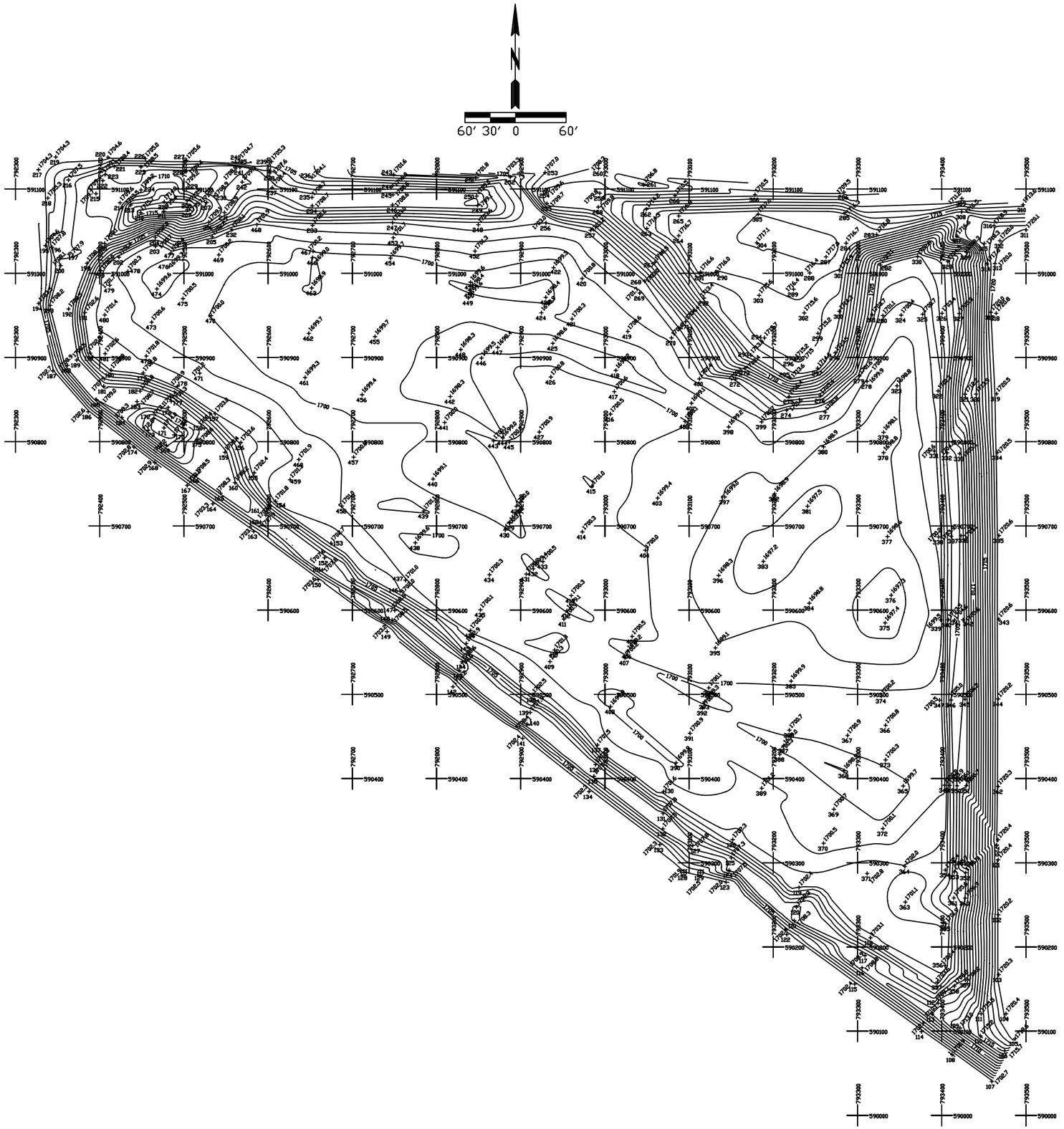
2				
1	FOR CONSTRUCTION			
0	ORIGINAL ISSUE FOR UPA REVIEW	WLZ	SGG KWC 4-13-94	

UPA PROJECT 4177	UNITED POWER ASSOCIATION STANTON STATION ASH POND MODIFICATIONS	DRAWING NO. S1007	REV 1
	POND A SECTIONS & DETAILS – SH. 2		
	STONE & WEBSTER ENGINEERING CORPORATION DENVER, CO.		

ISSUE
HALF-SIZE
APP. CARD
CAD FILE
UPAS1007.DWG



AS CONSTRUCTED POND A

FIELD SURVEYED 27 OCT. 1997

D:\SURVEY\1997\97866\97866-BASE

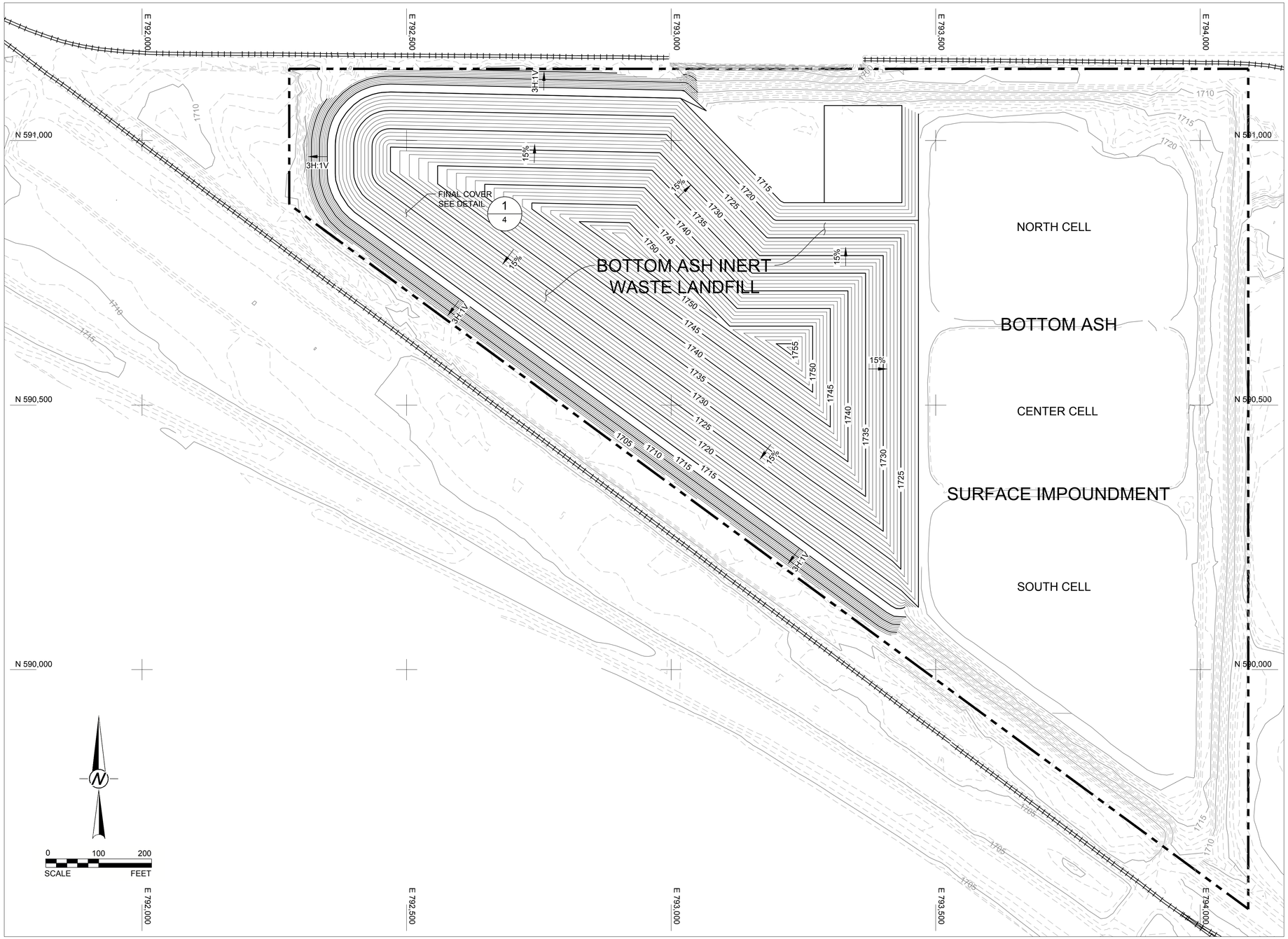
REV.	DATE	DESCRIPTION	BY

UPA ASH POND MODIFICATIONS
STANTON, NORTH DAKOTA

AS BUILT TOPO OF POND A

ULTEIG ENGINEERS, INC. CONSULTING ENGINEERS FARGO • BISMARCK • MINNEAPOLIS

DRAWN BY: A.W.E.	SCALE: AS SHOWN	PROJECT NO. 97866
CHECKED BY:	DATE: 13 NOV. 1997	SHEET 1 of 1
APPROVED BY:		



LEGEND

- EXISTING GROUND TOPOGRAPHY (SEE REFERENCE 2)
- DESIGN TOP OF FINAL COVER GRADES
- EXISTING FACILITY BOUNDARY (SEE NOTE 1)
- RAIL LINES

NOTES

1. THE PROPOSED FACILITY BOUNDARY IS APPROXIMATE.
2. FINAL TOP OF COVER GRADES WILL NOT EXCEED 15 PERCENT PER NDAC RULES.

REFERENCES

1. SITE LOCATION: SECTIONS 16 AND 21, T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. EXISTING GROUND TOPOGRAPHY IS A COMBINATION OF AN AERIAL SURVEY AND A GROUND SURVEY. THE GROUND SURVEY WAS PERFORMED BY INTERSTATE ENGINEERING ON OCTOBER 24 AND 27, 2014 BETWEEN THE RAIL LINES AND THE TOE OF THE EAST BERM OF THE BOTTOM ASH IMPOUNDMENTS. THE AERIAL SURVEY WAS FLOWN BY KBM, INC. ON APRIL 27, 2001 AND INCLUDES THE AREA OUTSIDE OF THE BOUNDARIES OF THE GROUND SURVEY.
3. COORDINATES ARE BASED ON THE PLANT GRID SYSTEM.
4. THE CONTOUR INTERVAL IS ONE FOOT.
5. THE BOTTOM ASH LANDFILL AND BOTTOM ASH SURFACE IMPOUNDMENT FACILITIES ARE CONTAINED WITHIN PROPERTY OWNED BY GREAT RIVER ENERGY.

DRAFT

Rev.	YYYY-MM-DD	DESCRIPTION	PREPARED	DESIGN	REVIEW	APPROVED
B	2015-02-02	ISSUED FOR PERMIT RENEWAL	CCS	CCS	JAR	TJS
A	2014-10-31	ISSUED FOR CLIENT REVIEW	CCS	CCS	JAR	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-6144
DATE 2/2/2015
NORTH DAKOTA

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT
Golder Associates

GOLDER ASSOCIATES INC.
44 UNION BLVD, SUITE 300
LAKEWOOD, COLORADO
USA
[+1] (303) 980-0540
www.golder.com

PROJECT
BOTTOM ASH FACILITIES
SP-043 PERMIT RENEWAL

TITLE
TOP OF COVER - BOTTOM ASH INERT WASTE LANDFILL

PROJECT No. 140-8252 | Rev. B | 3 of 4 | DRAWING 3

APPENDIX B
VISUAL OBSERVATIONS CHECKLIST

LANDFILL INSPECTION CHECKLIST

Facility Name: **Bottom Ash Landfill**

Owner and Address: Great River Energy – Stanton Station

Purpose of Facility: CCR Storage and Disposal

Legal: Section: 21 ***Township:*** 144N ***Range:*** 84W

County: Mercer

Inspected By: Todd Stong ***Inspection Date:*** September 13, 2017

Weather: Overcast, 60°F, Low wind, No Precipitation

ITEM	Y	N	N/A	REMARKS
1. General Conditions				
a. Alterations		X		
b. Grass cover	X			Exterior berms have grass cover
c. Settlement/misalignment/cracks		X		
2. Contact Water Controls				
a. Water level in contact water control area	X			Depth: <1 foot
b. Sump & pump in good condition			X	
c. Containment controls working		X		Repair contact water control berm along south side to control potential contact water runoff
d. Ponding water outside of contact water control area		X		
e. Erosion protection in contact water control area			X	
3. CCR slopes				
a. Significant Erosion		X		
b. Cracks/settlement		X		
c. Seepage		X		
4. Upstream slope				
a. Erosion – liner exposed		X		
b. Rodent burrows		X		
c. Vegetation	X			Grassy vegetation on western slopes and marshy vegetation in low areas on west side
d. Cracks/settlement		X		
5. Crest				
a. Soil condition	X			Gravel on east and eastern half of north crest, grass on south and west crest
b. Comparable to design width	X			
c. Vegetation	X			Grass on south and west crest
d. Rodent burrows		X		
e. Exposed to heavy traffic		X		Not currently active
f. Damage from vehicles/machinery		X		
6. Downstream slope				
a. Erosion	X			erosion rills on north slope to coal pit unloading sump area
b. Vegetation	X			Grass – well vegetated
c. Rodent burrows	X			animal burrows on NW and S slopes
d. Cracks/settlement/scarps		X		
e. Seepage		X		
7. Toe				
a. Vegetation	X			Grass – small tree on south side
b. Rodent burrows	X			South side
c. Settlement		X		
d. Drainage conditions	X			Drainage ditches on west and south sides – good condition
e. Seepage		X		

General Remarks: Landfill is in good condition with no signs of significant issues. Larger animal burrows should be repaired, remove woody vegetation, and maintain contact water controls as required.

Name of Engineer: Todd Stong

Date: 9/13/2017

Engineering Firm: Golder Associates Inc.

Signature: Todd Stong

PROFESSIONAL ENGINEER SEAL

APPENDIX C
PHOTOGRAPHS

LEGEND

1 PHOTOGRAPH LOCATION

REFERENCES

1. AERIAL IMAGE FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AERIAL IMAGERY PROGRAM, PUBLISHED 2017.

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-12-21
DESIGNED	KAC
PREPARED	RFS
REVIEWED	CCS
APPROVED	TJS

PROJECT
2017 ANNUAL INSPECTION REPORT

TITLE
BOTTOM ASH CCR LANDFILL
PHOTOGRAPH LOCATIONS

PROJECT NO.	REV.	FIGURE
1772461	A	1

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
0 1 in

Bottom Ash Landfill

Photograph 1 (North berm upstream slope)
Panoramic of landfill interior from NE corner (1 of 3) (DSCN1573.JPG)

Photograph 2 (North berm upstream slope)
Panoramic of landfill interior from NE corner (2 of 3) (DSCN1574.JPG)

Bottom Ash Landfill

Photograph 3 (North berm upstream slope)
Panoramic of landfill interior from NE corner (3 of 3) (DSCN1575.JPG)

Photograph 4 (North berm downstream slope)
Rutting along the north berm downstream slope (IMGP5404.JPG)

Bottom Ash Landfill

Photograph 5 (North berm downstream slope)
Woody vegetation along the north berm downstream slope to be removed (IMGP5407.JPG)

Photograph 6 (North berm downstream slope)
Drainage ditch on the north side of the landfill (IMGP5412.JPG)

Bottom Ash Landfill

Photograph 7 (North berm crest)
North perimeter berm crest (DSCN1580.JPG)

Photograph 8 (North berm downstream slope)
Monitoring well 101 (IMGP5414.JPG)

Bottom Ash Landfill

Photograph 9 (North berm upstream slope)
Steep slope/erosion on south side of power pole (DSCN1586.JPG)

Photograph 10 (West berm upstream slope)
Panoramic of landfill interior from northwest berm crest corner (1 of 3) (DSCN1583.JPG)

Bottom Ash Landfill

Photograph 11 (West berm upstream slope)
Panoramic of landfill interior from northwest berm crest corner (2 of 3) (DSCN1584.JPG)

Photograph 12 (West berm upstream slope)
Panoramic of landfill interior from northwest berm crest corner (3 of 3) (DSCN1585.JPG)

Bottom Ash Landfill

Photograph 13 (West berm downstream slope)
Monitoring well 3B (IMGP5416.JPG)

Photograph 14 (West berm downstream slope)
Grass vegetation on west berm downstream slope (DSCN1598.JPG)

Bottom Ash Landfill

Photograph 15 (South berm downstream slope)
Reedy vegetation on south berm downstream slope (DSCN1597.JPG)

Photograph 16 (South berm downstream slope)
Grass vegetation on south berm downstream slope of the landfill (DSCN1596.JPG)

Bottom Ash Landfill

Photograph 17 (South toe)
Tree along south downstream berm slope toe (DSCN1594.JPG)

Photograph 18 (South berm crest)
South perimeter berm crest with lack of well-defined contact water channel/berm (looking east) (DSCN1588.JPG)

Bottom Ash Landfill

Photograph 19 (South berm crest)
South side of landfill from the southeast berm crest corner looking west (DSCN1559.JPG)

Photograph 20 (CCR Placement)
Southeast landfill corner looking north, erosion of CCR material (IMGP5418.JPG)