



REPORT

Annual Inspection

Stanton Station - Bottom Ash CCR Landfill

Submitted to:

Great River Energy

2875 Third Street SW
Underwood, North Dakota 58576

Submitted by:

Golder Associates Inc.

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1894194

January 2019



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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 southeast 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 did not receive CCR materials in 2018. Plant decommissioning took place in 2017 with demolition occurring throughout 2018 and planned into 2019. 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 18, 2018.

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 Impoundment were active cells used for dewatering bottom ash and the center cell functioned as a retention cell. Bottom ash was placed into one of the active cells until the cell reached capacity. Once capacity was reached in one of the active cells, bottom ash in the dewatered active cell was 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. The Bottom Ash Landfill is planned to be closed with CCR in place and covered in 2019 or 2020. Final closure of the facility is expected to include consolidation of the landfill into a smaller footprint and grading of CCR to establish a crown on the facility of between 3% and 5% 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 2018 Weekly Inspections

GRE performed weekly inspections of the Bottom Ash Landfill throughout 2018. 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 September of 2017 (Golder 2018) 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.
- Minor erosion within CCR placement areas.
- Isolated and minor woody vegetation was growing on berm downstream slopes and near the toe of slopes.

3.0 2018 ANNUAL INSPECTION

On September 18, 2018, Todd Stong, Craig Schuettpeiz, and Paul Schlicht 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 2018 annual inspection.

3.1 Perimeter Berm

3.1.1 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 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.

3.1.2 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 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.

3.1.3 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.

3.1.4 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.

3.2 CCR Placement

The Bottom Ash Landfill is planned to be closed with CCR in place and covered in 2019 or 2020. Final closure of the facility is expected to include consolidation of the landfill into a smaller footprint and grading of CCR to

establish a crown on the facility of between 3% and 5% grades. Until closure is complete, 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 was not well-defined during the inspection; however, this area is expected to be re-graded in 2019 or 2020 as part of the facility closure and is not anticipated to require re-grading prior to that time. 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.

3.3 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 2018.

4.0 SUMMARY AND CONCLUSIONS

An annual inspection was performed for the Bottom Ash Landfill at Stanton Station on September 18, 2018. 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.

The Bottom Ash Landfill is planned to be closed with CCR in place and covered in 2019 or 2020. Final closure of the facility is expected to include consolidation of the landfill into a smaller footprint and grading of CCR to establish a crown on the facility of between 3% and 5% grades.

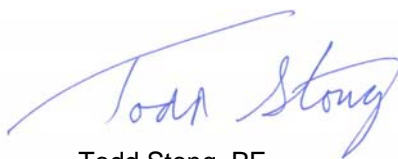
In addition to annual inspections of applicable portions of the facility by the Professional Engineer, trained and qualified site personnel are performing the required weekly facility inspections to look for signs of potential structural weaknesses.

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.



Craig Schuettpelez, PE
Senior Project Engineer



Todd Stong, PE
Associate and Senior Consultant

KAC/CCS/ds

5.0 REFERENCES

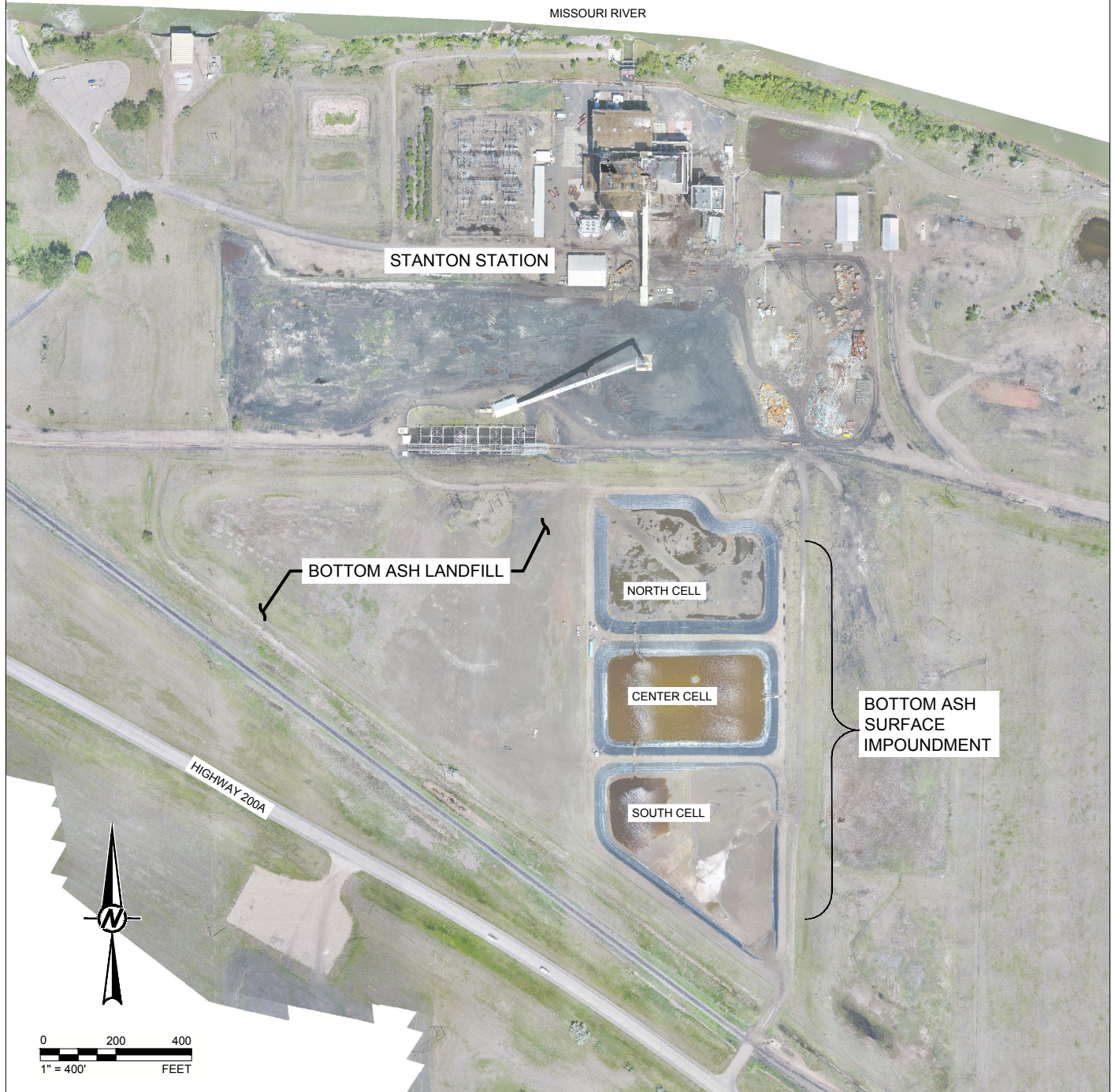
- Barr, 2010. 2010 Annual Groundwater Monitoring Report, Stanton Station Ash Disposal Facility, NDDH Solid Waste Permit # SP043. Prepared for Great River Energy, February 2011.
- Golder Associates Inc. Golder 2018. Annual Inspection Report – Great River Energy – Stanton Station – Bottom Ash CCR Landfill. January 2018.
- 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.

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https://golderassociates.sharepoint.com/sites/23291g/deliverables/reports/ss_bal_annualinspection_fnl_11jan19/1894194_bal_anninspec_fnl_11jan19.docx

FIGURES

Last Edited By: kcamik Date: 2018-12-20 Time: 12:35:35 PM | Printed By: CSchuettpelz Date: 2018-12-21 Time: 1:43:26 PM
Path: \\Denverhead\GREAT RIVER ENERGY\STANTON\99_PROJECTS\1894194\Annual Inspections | File Name: 2018 Annual Insp_FIG1.dwg



REFERENCE(S)

1. AERIAL IMAGE FROM GREAT RIVER ENERGY PHOTOGRAPH JUNE 2018.

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT



YYYY-MM-DD 2018-12-19

DESIGNED KAC

PREPARED KAC

REVIEWED CCS

APPROVED CCS

PROJECT
2018 ANNUAL CCR FACILITY INSPECTION REPORT

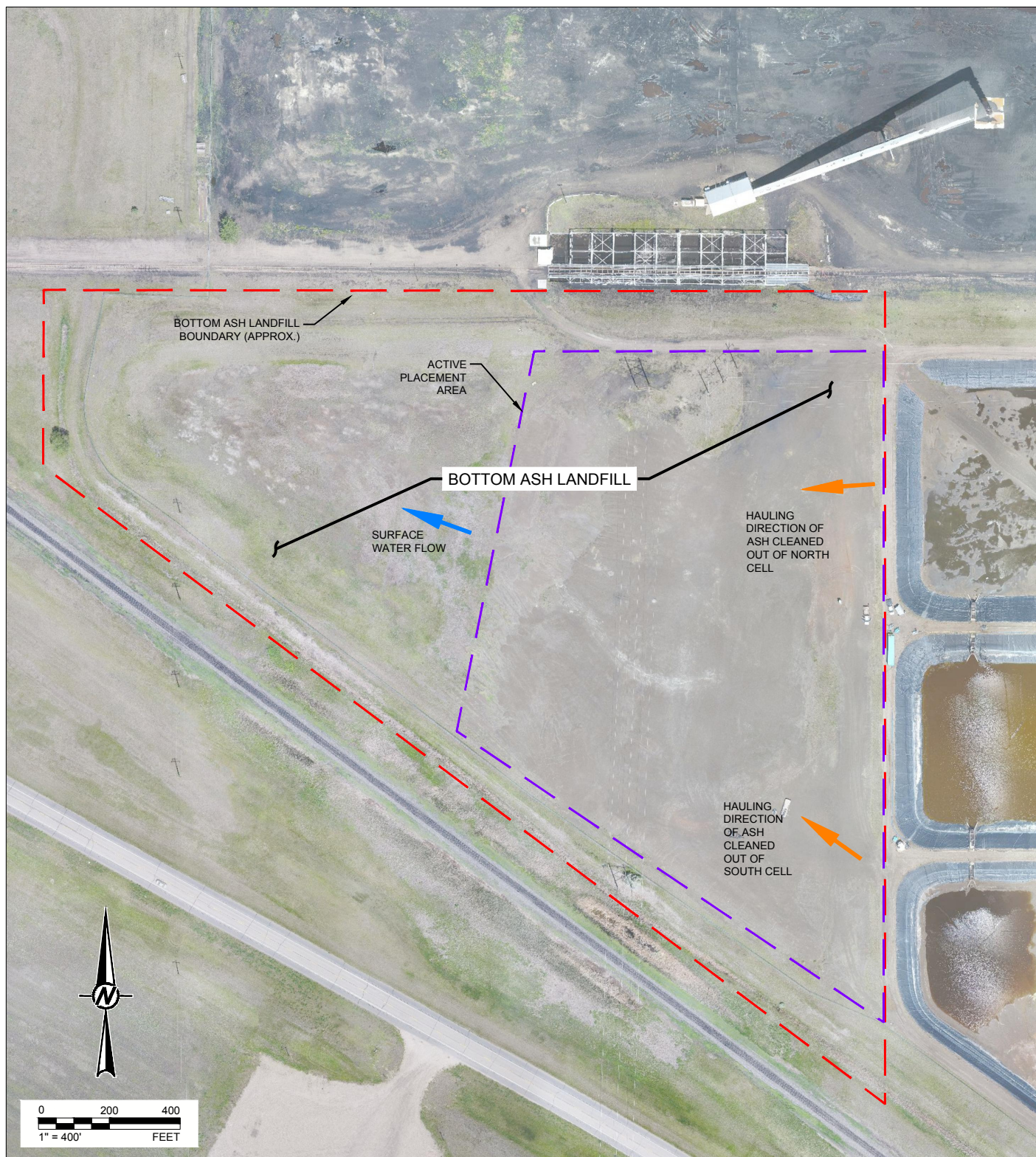
TITLE
STANTON STATION SITE OVERVIEW

PROJECT NO.
1894194

REV.
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FIGURE
1

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



REFERENCE(S)

1. AERIAL IMAGE FROM GREAT RIVER ENERGY PHOTOGRAPH JUNE 2018.

CLIENT
**GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA**

CONSULTANT



YYYY-MM-DD 2018-12-19

DESIGNED KAC

PREPARED KAC

REVIEWED CCS

APPROVED CCS

PROJECT
2018 ANNUAL CCR FACILITY INSPECTION REPORT

TITLE
BOTTOM ASH LANDFILL SITE OVERVIEW

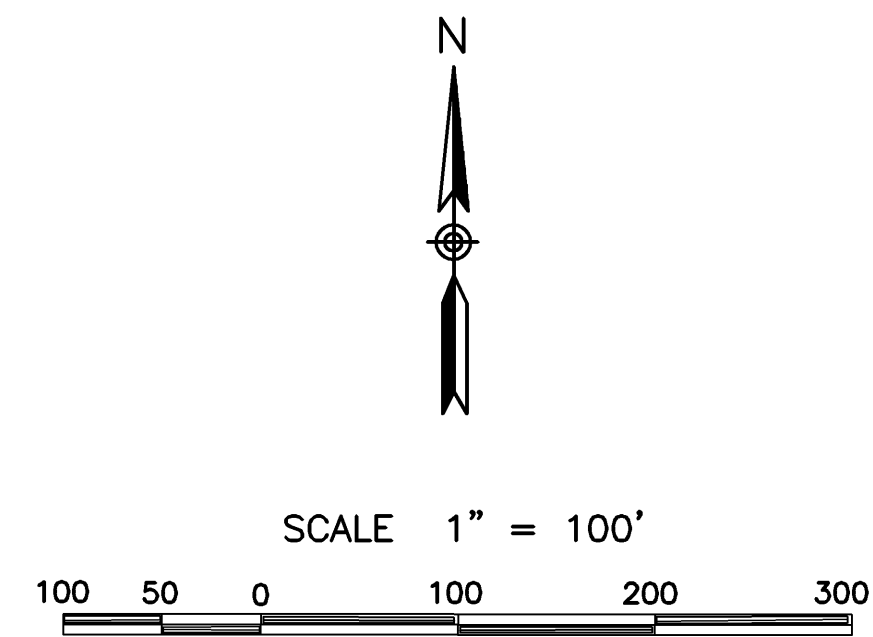
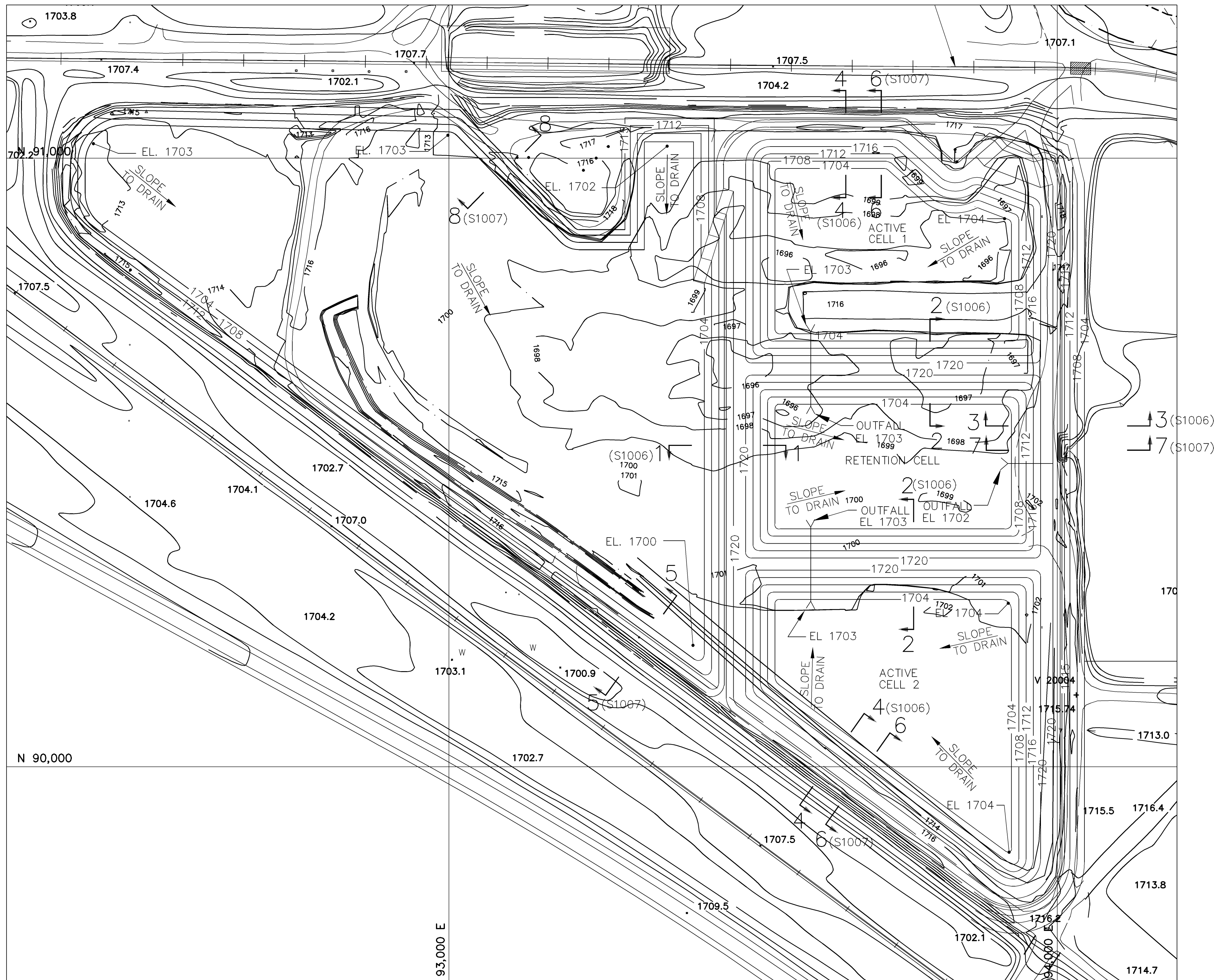
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1894194

REV.
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FIGURE
2

APPENDIX A

Selected Construction Drawings and Permit Drawings



LEGEND:

- EXISTING GROUND ELEVATION CONTOUR
- NEW GROUND ELEVATION CONTOUR


NOTES:

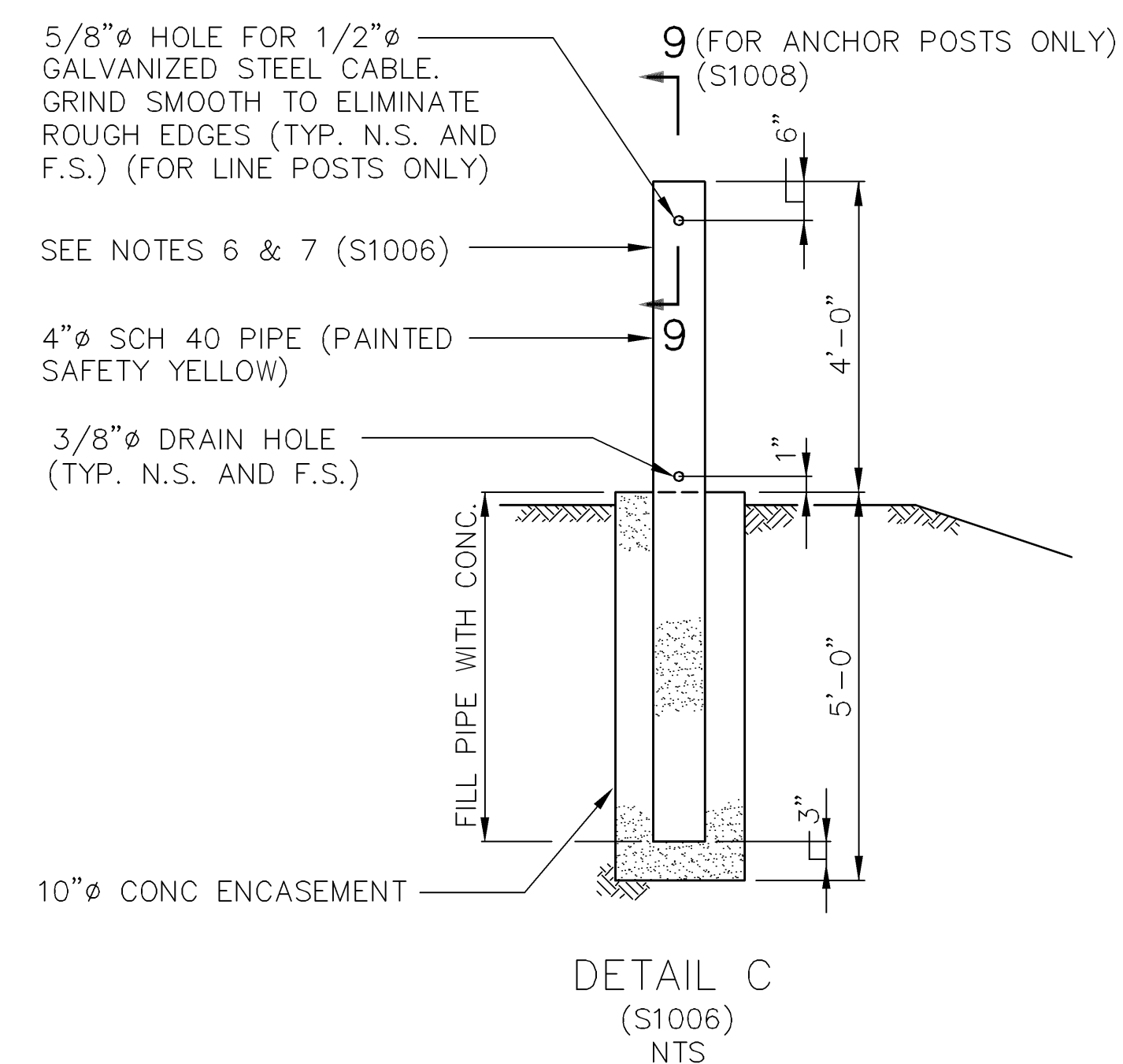
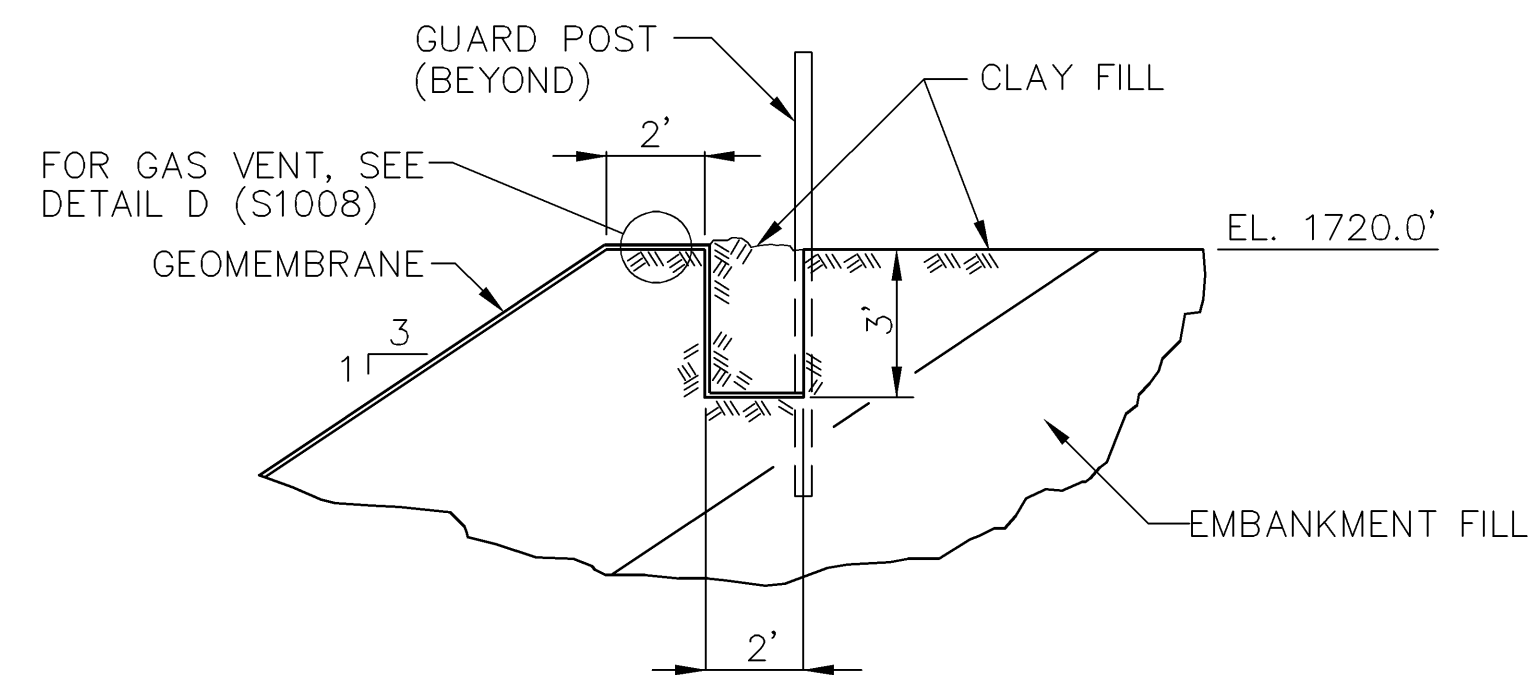
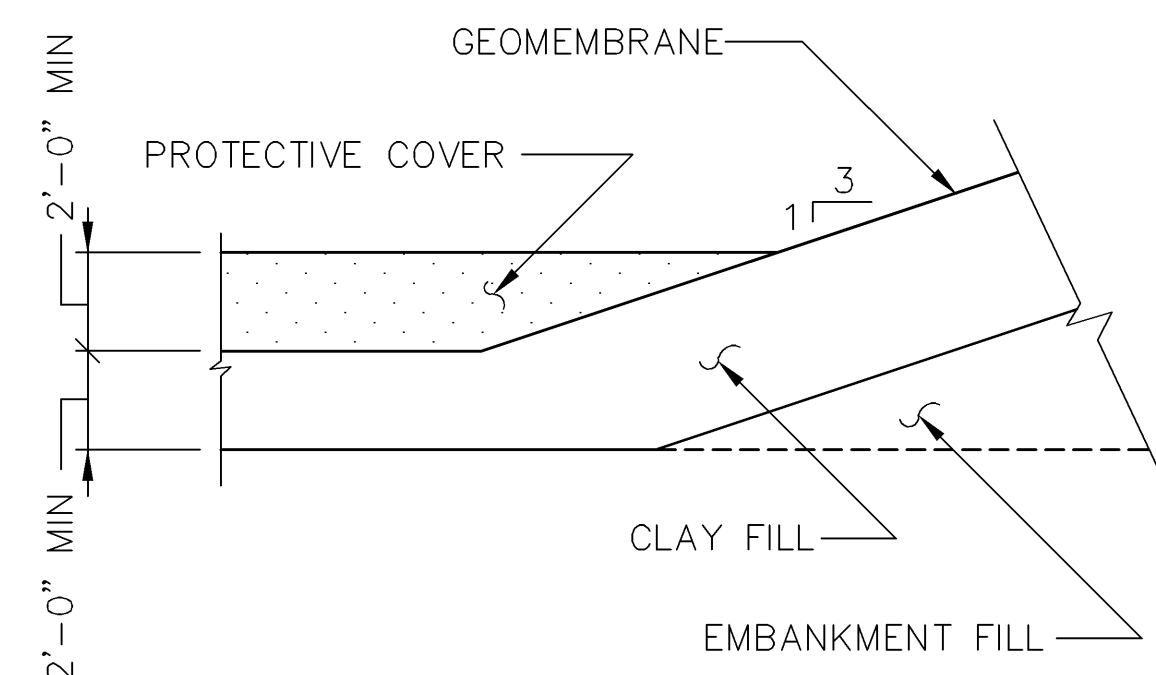
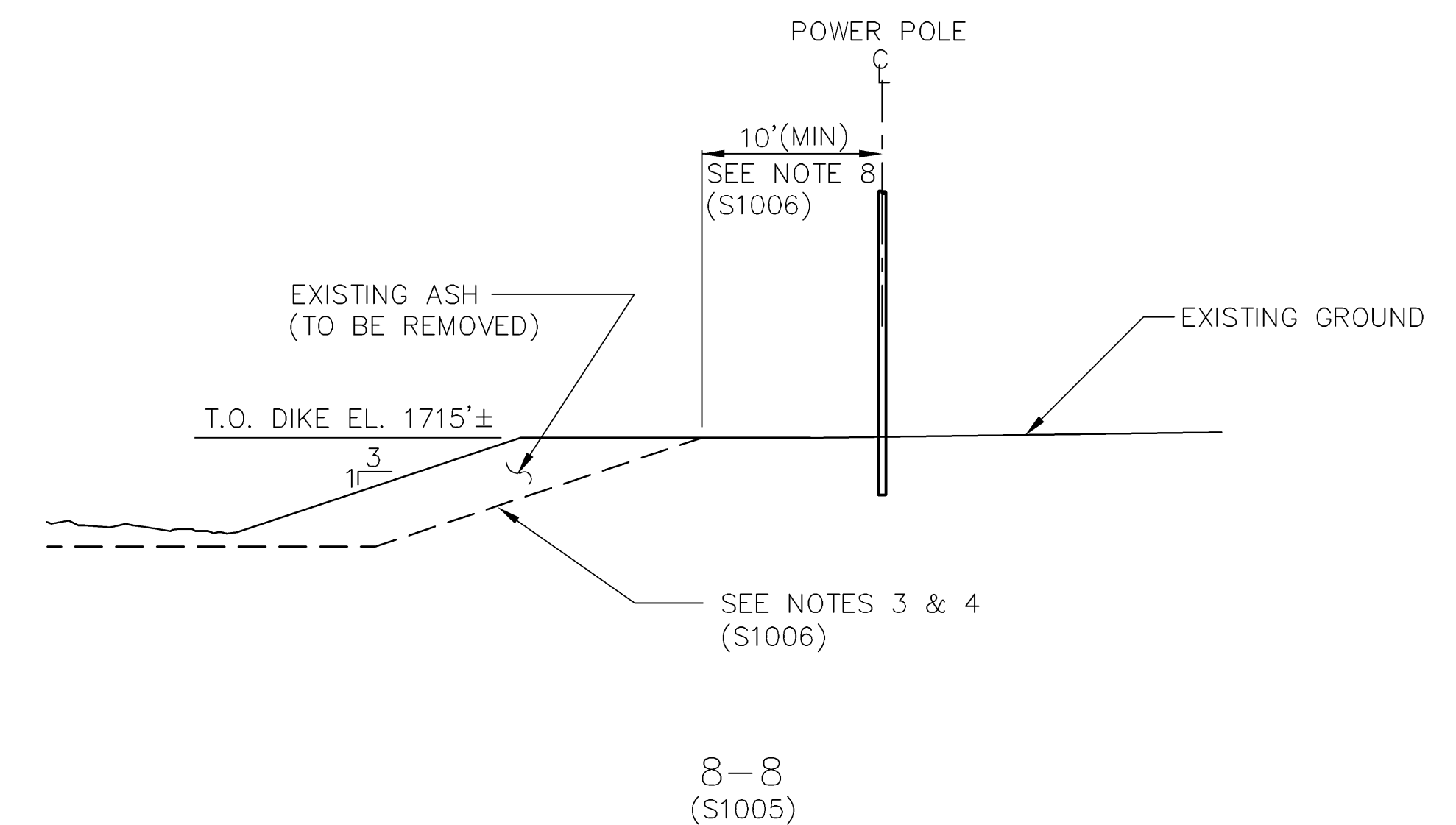
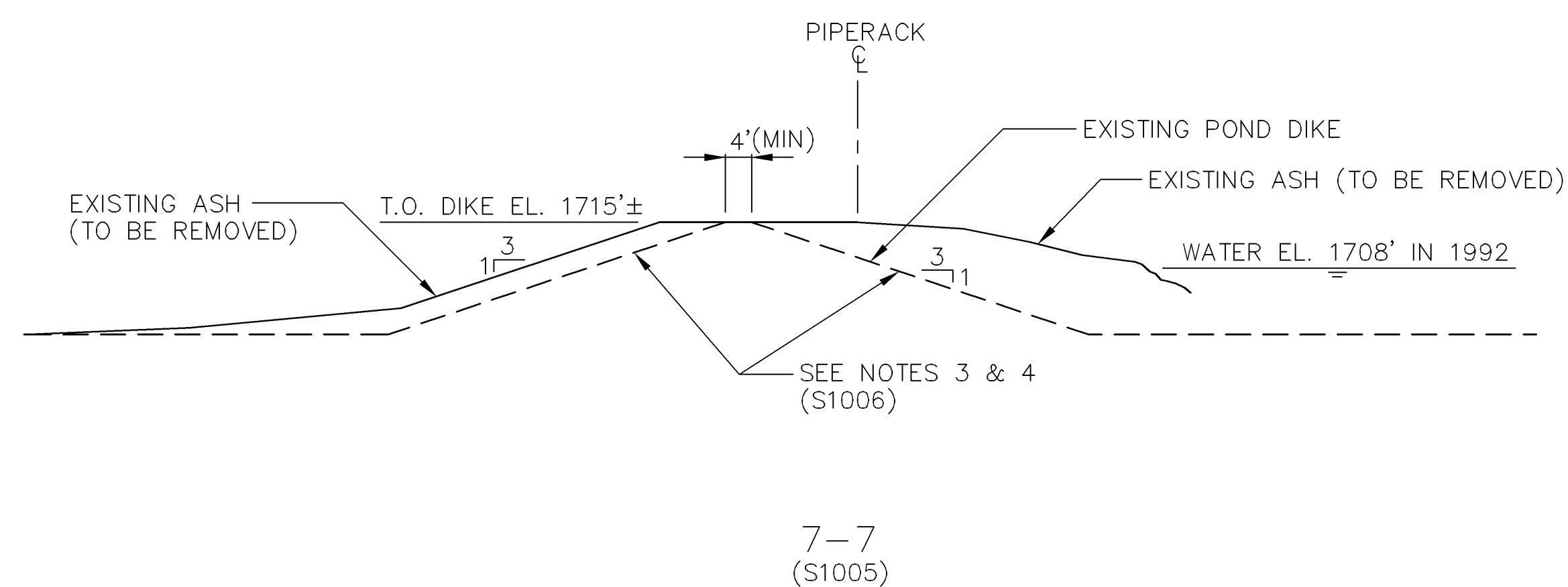
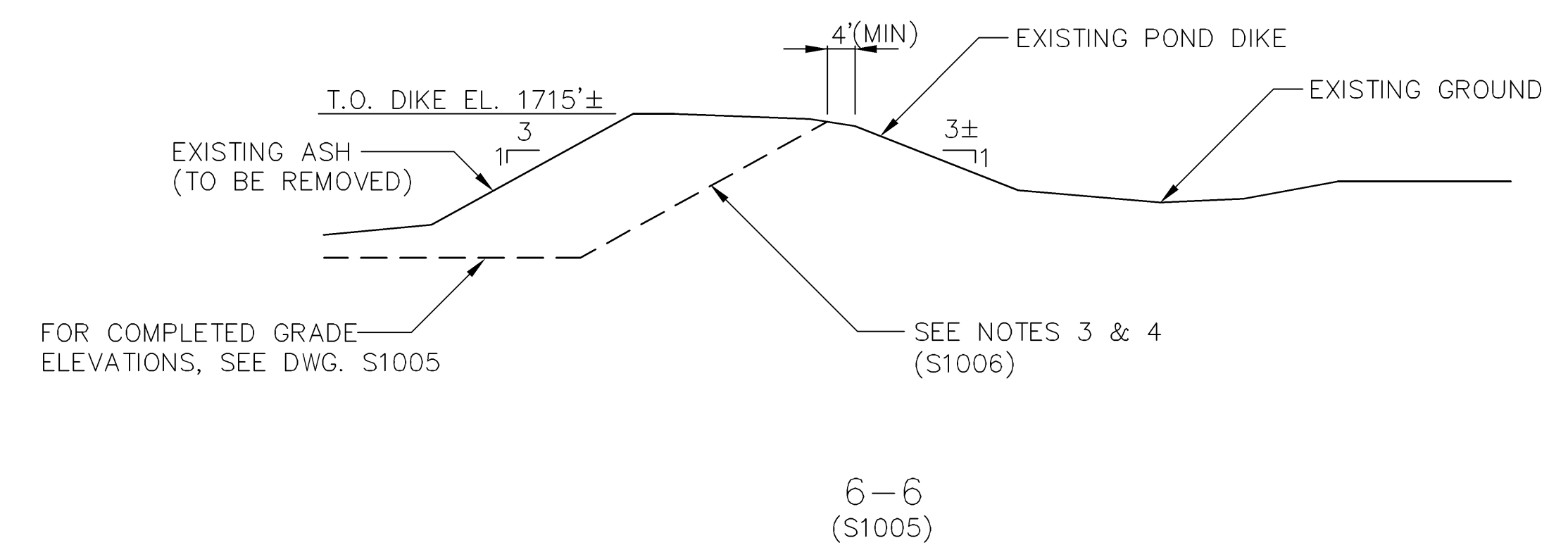
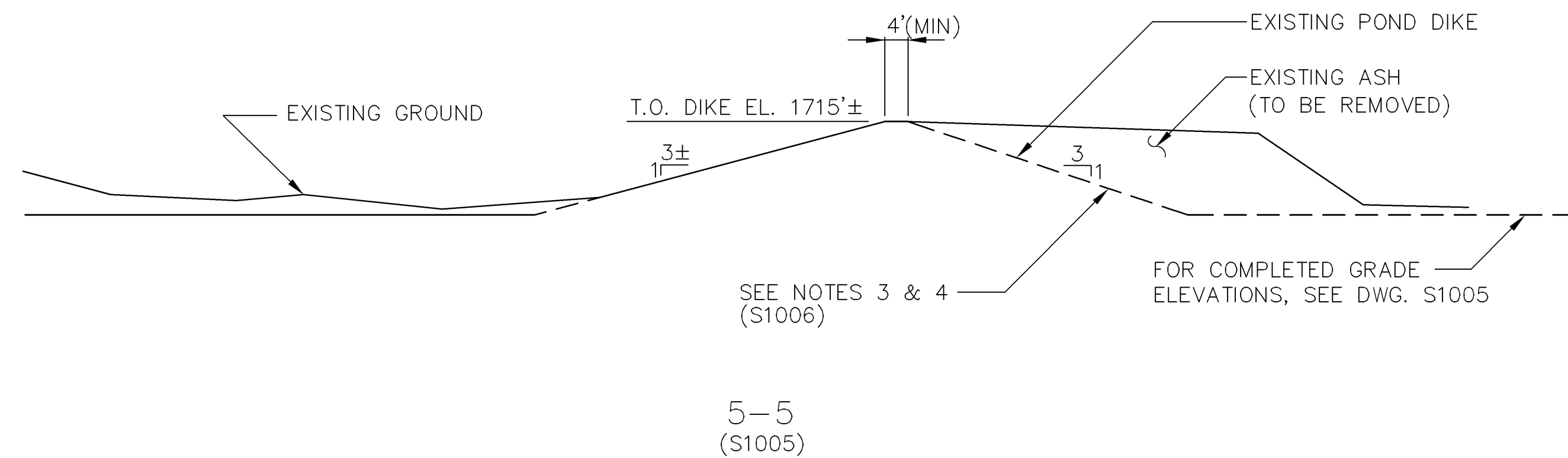
- SEE GENERAL NOTES, DRAWING S1002.
- ELEVATIONS SHOWN AT THE BOTTOM OF IMPOUNDMENT CELLS ARE OF THE TOP OF THE CLAY FILL.

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 |

3										2										1										0									
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FAC										FAC										FAC										FAC									
ELEC										ELEC										ELEC										ELEC									
LTO										LTO										LTO										LTO									
MATL										MATL										MATL										MATL									

UPA PROJECT	UNITED POWER ASSOCIATION STANTON STATION ASH POND MODIFICATIONS		DRAWING NO. S1005	REV 1
	4177	POND A CONVERSION PLAN		
<div>STONE & WEBSTER ENGINEERING CORPORATION DENVER, CO.</div>				



NOTES:

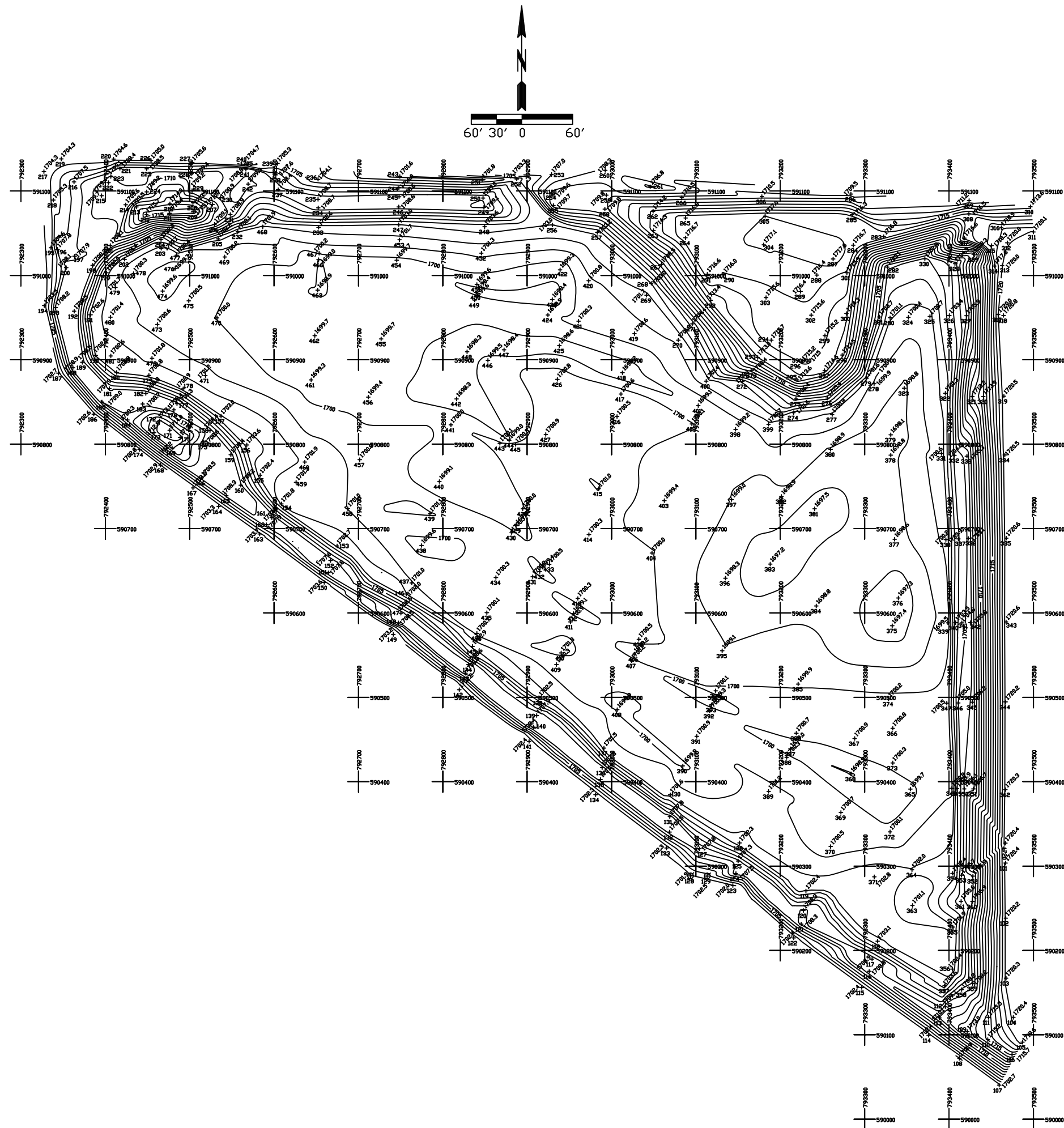
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2. SEE GENERAL NOTES, DRAWING S1002.
3. FOR ADDITIONAL NOTES, SEE DRAWING S1006.

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 |


3																					2																					1	FOR CONSTRUCTION																				0	ORIGINAL ISSUE FOR UPDA REVIEW																W/LZ				SGG				KWC 4-13-9			
	ISSUE DESCRIPTION																CHKD		CORRECT			APPR DATE	ISSUE DESCRIPTION																CHKD		CORRECT		APPR DATE	ISSUE DESCRIPTION																CHKD		CORRECT		APPR DATE	ISSUE DESCRIPTION																CHKD		CORRECT		APPR DATE						
PC	ARCH	CIVIL	CONC	STL	L&P	INST	MD	P.S.	S.A.	FAC	ELEC	LTG	MATL	PC	ARCH	CIVIL	CONC	STL	L&P	INST	MD	P.S.	S.A.	FAC	ELEC	LTG	MATL	PC	ARCH	CIVIL	CONC	STL	L&P	INST	MD	P.S.	S.A.	FAC	ELEC	LTG	MATL	PC	ARCH	CIVIL	CONC	STL	L&P	INST	MD	P.S.	S.A.	FAC	ELEC	LTG	MATL	PC	ARCH	CIVIL	CONC	STL	L&P	INST	MD	P.S.	S.A.	FAC	ELEC	LTG	MATL																						

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



AS CONSTRUCTED POND A

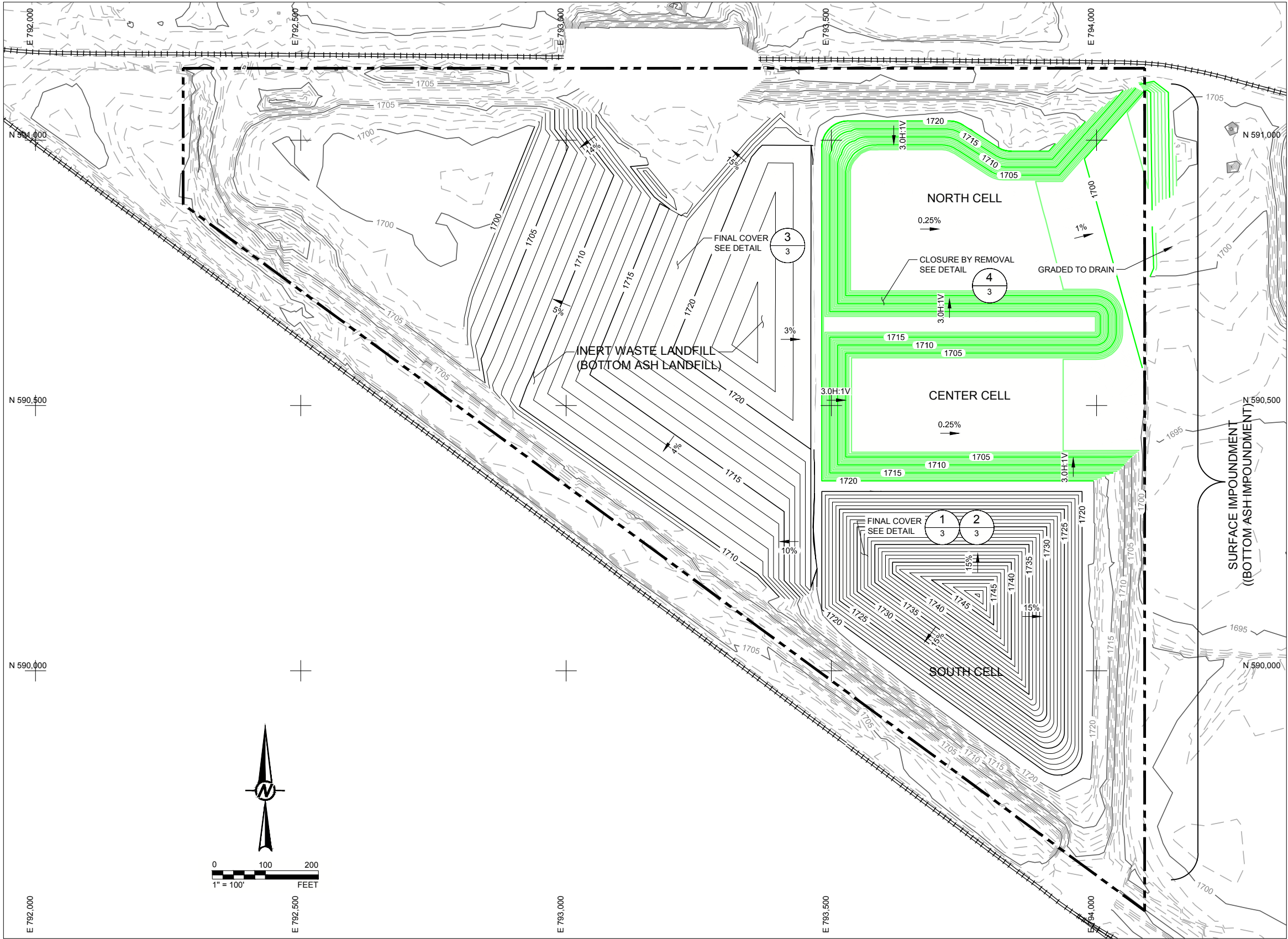
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PROJECT: UPA ASH POND MODIFICATIONS			
LOCATION: STANTON, NORTH DAKOTA			
SHEET: 1 OF 1			
DRAWN BY: A.W.E.			
CHECKED BY:			
APPROVED BY:			
DATE: 13 NOV. 1997			
PROJECT NO. 97866			
SHEET 1 OF 1			



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

FIELD SURVEYED 27 OCT. 1997

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- LEGEND**
- EXISTING GROUND TOPOGRAPHY (REFERENCE 2)
 - PROPOSED FINAL CLOSED BY REMOVAL GRADES
 - PROPOSED FINAL COVER GRADES (NOTE 2)
 - EXISTING FACILITY BOUNDARY (NOTE 1)
 - RAIL LINES

- NOTES**
- THE FACILITY BOUNDARY IS APPROXIMATE.
 - FINAL TOP OF COVER GRADES WILL NOT EXCEED 15 PERCENT OR BE LESS THAN 3 PERCENT PER NDAC RULES.

- REFERENCES**
- SITE LOCATION: SECTIONS 16 AND 21, T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
 - EXISTING GROUND TOPOGRAPHY WAS ACQUIRED BY INTERSTATE ENGINEERING IN 2014, 2017, AND 2018.
 - COORDINATES ARE BASED ON THE PLANT GRID SYSTEM.
 - THE CONTOUR INTERVAL IS ONE FOOT.
 - THE INERT WASTE LANDFILL AND SURFACE IMPOUNDMENT FACILITIES ARE CONTAINED WITHIN PROPERTY OWNED BY GREAT RIVER ENERGY.

C	2018-12-20	REVISED ISSUED FOR CLOSURE PLAN	CCS	CCS	TJS	TJS
B	2018-11-20	ISSUED FOR CLOSURE PLAN	CCS	CCS	TJS	TJS
A	2018-09-12	ISSUED FOR CLIENT REVIEW	CCS	CCS	TJS	TJS
REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT



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

PROJECT
SP-043 CLOSURE PLAN

TITLE
TOP OF FINAL COVER AND CLOSURE PLANS
BOTTOM ASH LANDFILL AND BOTTOM ASH IMPOUNDMENT

PROJECT NO. 1775717 REV. C 1 of 3 DRAWING 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI D 11 in

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, Craig Schuettpelez, Paul Schlicht

Inspection Date: September 18, 2018

Weather: Sunny/Fog, 40°F - 60°F, Low wind, No Precipitation

ITEM	Y	N	N/A	REMARKS
1. Contact Water Controls				
a. Water level in contact water control area			X	No water noted
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	
2. CCR Placement				
a. Significant Erosion		X		Minor erosion of bottom ash on east side of facility
b. Cracks/settlement		X		
c. Seepage		X		
3. Upstream slope				
a. Erosion – liner exposed		X		
b. Rodent burrows		X		
c. Vegetation	X			Grass vegetation on western slopes and marshy vegetation in low areas on west side
d. Cracks/settlement		X		
4. 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			Animal burrow on south crest
e. Exposed to heavy traffic		X		Not currently active
f. Damage from vehicles/machinery		X		
5. Downstream slope				
a. Erosion		X		
b. Vegetation	X			Grass – well vegetated
c. Rodent burrows	X			Animal burrows on northwest and south slopes
d. Cracks/settlement/scarps		X		
e. Seepage		X		
6. Toe				
a. Vegetation	X			Grass – small tree on south side
b. Rodent burrows	X			Animal burrows on 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, woody vegetation removed, and contact water controls maintained.

Name of Engineer: Craig Schuettpelez

Date: 9/18/2018

Engineering Firm: Golder Associates Inc.

Signature:



PROFESSIONAL ENGINEER SEAL

APPENDIX C

Photographs

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LEGEND

PHOTOGRAPH NUMBER AND DIRECTION

- REFERENCES**
1. AERIAL IMAGE FROM GREAT RIVER ENERGY PHOTOGRAPH JUNE 2018.

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT



YYYY-MM-DD	2018-12-19
DESIGNED	KAC
PREPARED	KAC
REVIEWED	CCS
APPROVED	TJS

PROJECT
2018 ANNUAL CCR FACILITY INSPECTION REPORT

TITLE
BOTTOM ASH LANDFILL
PHOTOGRAPH LOCATIONS

PROJECT NO.
1894194

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

Bottom Ash Landfill



Photograph 1 (NE corner)
Bottom Ash Landfill panoramic from northeast corner (1 or 3) (IMG6257.JPG)



Photograph 2 (NE corner)
Bottom Ash Landfill panoramic from northeast corner (2 or 3) (IMG6258.JPG)

Bottom Ash Landfill



Photograph 3 (NE corner)
Bottom Ash Landfill panoramic from northeast corner (3 or 3) (IMGP6259.JPG)



Photograph 4 (North downstream slope)
Woody vegetation on downstream slope (IMGP6260.JPG)

Bottom Ash Landfill



Photograph 5 (North downstream slope)
Grass vegetation on downstream slope (IMG6262.JPG)



Photograph 6 (North crest)
North berm crest with road surface gravel (IMG6261.JPG)

Bottom Ash Landfill



Photograph 7 (North downstream slope)
Monitoring well on north side of Bottom Ash Landfill (IMGP6267.JPG)



Photograph 8 (NW corner)
North berm crest and power pole (IMGP6269.JPG)

Bottom Ash Landfill



Photograph 9 (West side)
West side of landfill interior (IMGP6272.JPG)



Photograph 10 (West end of placed bottom ash)
West extent of CCR material placement (IMGP6275.JPG)

Bottom Ash Landfill



Photograph 11 (East edge)
East side of landfill interior, looking north (IMGP6256.JPG)



Photograph 12 (South berm)
Low spot in contact water channel, south perimeter berm crest with lack of well-defined contact water channel/berm (SS PDS (1).JPG)

Bottom Ash Landfill



Photograph 13 (South berm)
Tree along south downstream berm slope toe (34ccs.JPG)



Photograph 14 (South berm)
Grass vegetation on south downstream slope (35ccs.JPG)

Bottom Ash Landfill



Photograph 15 (South berm)
Reed vegetation at the bottom of the south downstream slope (36ccs.JPG)



Photograph 16 (South berm)
Animal burrows on south downstream slope (37ccs.JPG)

Bottom Ash Landfill



Photograph 17 (Northwest corner)
Grass vegetation on north downstream slope (40ccs.JPG)



Photograph 18 (Northwest corner)
Grass vegetation on west downstream slope (41ccs.JPG)

Bottom Ash Landfill



Photograph 19 (South berm)
Animal burrows on south berm crest (SS PDS (2).JPG)



Photograph 20 (South berm)
Erosion of placed CCR material on the south side (SS PDS (37).JPG)



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