From: Sweazy, Colleen
To: Hummel, Lindsey
Subject: FW: RWS Type I Gibson South Landfill FP 26-06 Insignificant Permit Modification
Date: Monday, June 24, 2024 11:13:37 AM
Attachments: image001.png

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Hi Lindsey,

Looks like this email exceeded file size limits for IDEM, therefore I just uploaded to the IDEM Sharepoint site. Can you confirm receipt?

Thanks,
Colleen

From: Sweazy, Colleen
Sent: Monday, June 24, 2024 10:05 AM
To: Hummel, Lindsey <LHummel@idem.IN.gov>
Cc: Schwartz, Owen R <Owen.Schwartz@duke-energy.com>; Luke, William C <William.Luke@duke-energy.com>; Flanigan, Daniel W <Daniel.Flanigan@duke-energy.com>
Subject: RWS Type I Gibson South Landfill FP 26-06 Insignificant Permit Modification

Good morning Lindsey,

Please see the attached permit modification for Gibson South Landfill (FP 26-06).

Thanks,

Colleen Sweazy
Senior Environmental Specialist
Waste and Groundwater Programs
(O) 812-386-4805 (M) 812-457-6282
800 Old Wheatland Road
Vincennes, IN 47591
Colleen.sweazy@duke-energy.com

Duke Energy
WP994 / 1000 East Main Street
Plainfield, IN 46168

Sent via email

June 24, 2024

Ms. Lindsey Hummel
Permit Manager
Solid Waste Permits Section
Office of Land Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251

Re: **Insignificant Permit Modification**
Gibson Station RWS I Landfill, FP 26-06
Gibson Generating Station
Owensville, Indiana

Dear Ms. Hummel:

Duke Energy Indiana, LLC (DEI) respectfully submits to the Indiana Department of Environmental Management the attached Insignificant Permit Modification for the Gibson South Landfill RWS Type I FP #26-06.

On May 8, 2024, representatives from DEI and IDEM met in person to discuss proposed design changes for the landfill. Specifically, this permit modification addresses some of the proposed design changes, including:

- Elimination of Cells 5 and 6 construction at this time.
- Inclusion of a new perimeter berm around Cell 4.
- Revisions to leachate collection piping.
- Improvements to perimeter access road.

As noted in the May 8, 2024 meeting, another minor permit modification will be forthcoming to address the remaining proposed design changes.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that I am authorized to submit this information. If you have any questions or require additional information regarding this submittal, please contact me at colleen.sweazy@duke-energy.com.

Sincerely,
Duke Energy Indiana, LLC

Colleen Sweazy

Colleen Sweazy
EHS CCP Waste & Groundwater Programs

Attachment:
Drawing – Insignificant Permit Modification Application for SW Program ID 26-06

June 21, 2024

Indiana Department of Environmental Management
Ms. Lindsey Hummel
Office of Land Quality, Solid Waste Permits
100 North Senate Avenue
Indianapolis, IN 46204-2251

Re: Insignificant Permit Modification Request
Modification to Approved Landfill West Expansion Limits
Gibson Station South RWS I Landfill (RWS I Landfill)
SW Program ID 26-06
Gibson County, Owensville, Indiana 47665
Atlas Project No. 170DUK0034

Dear Ms. Hummel,

On behalf of Duke Energy Indiana, LLC (Duke Energy), please find enclosed a checklist, figures illustrating the proposed modifications, and a detailed description below for an Insignificant Permit Modification request for the Gibson Station South RWS I Landfill.

The RWS I Landfill received its operating permit on November 29, 2005. Currently, Cells 1, 2, and 3 have been constructed and are operational. In 2020, Duke Energy engaged Atlas Technical Consultants (Atlas) to evaluate the projected coal combustion residuals (CCR) waste to be generated from the Gibson Station based on station retirement in 2038 and the required airspace in the RWS I Landfill for the disposal of the projected CCR waste. Based on that evaluation, it was determined that a horizontal expansion of approximately 80 acres was needed. A minor modification request was subsequently submitted to IDEM in 2021 for a horizontal expansion of the landfill to construct three additional cells (4, 5, and 6), each roughly 27 acres, on the west side of existing Cells 1, 2, and 3. Following discussions and revisions, the minor modification request (VFC #83263150) was approved by IDEM on May 11, 2022. Figure 1, attached, shows the approved west expansion limits for Cells 4, 5, and 6.

After receiving minor modification approval from IDEM, Duke Energy began planning for the construction of Cells 4 and 5 with a partial perimeter berm, as shown in Figure 2, with plans to construct Cell 6 at a future date. However, in the fall of 2023, Duke Energy updated the decommissioning plan for the Gibson Plant, resulting in a significant reduction in the projected CCR waste generation. At Duke Energy's request, Atlas reviewed the available airspace in Cells 1, 2, and 3 and re-evaluated the additional airspace required. Based on this evaluation, Atlas determined that constructing only Cell 4 will sufficiently accommodate the projected CCR waste from the Gibson Plant, making Cells 5 and 6 unnecessary in the near future. Figures 3, 4, 5, and 6, attached, depict the proposed modifications to the landfill expansion limits.

Summary of Proposed Modifications:

- Cells 5 and 6 will not be constructed at this time.
- A perimeter berm will be constructed around Cell 4.
- The leachate collection piping has been updated and is shown on Sheet 5.
- The width of the perimeter access road around Cell 4 has been modified from 12 feet to approximately 50 feet.

- There will be no changes to the exterior or interior slopes of the perimeter berm.
- There will be no changes to the Cell 4 baseliner grades and sump elevations.

The proposed design changes are based on currently available projections for plant operations and air space needs at the landfill. To our knowledge, the currently proposed modifications comply with state regulations and do not significantly alter the approved solid waste land disposal limit.

Atlas will prepare a separate application to present to IDEM the surface water management plan and the geotechnical stability analysis for this revised limit of landfill expansion.

We appreciate your review of this information. If you have any questions regarding this submittal, please contact me at (317) 579-4010.

Sincerely,
Atlas Technical Consultants LLC

Sendhil S. Kumar, P.E.
Principal Engineer

Juan D. Carrizo, P.E.
Senior Engineer

Attachments: IDEM Insignificant Permit Modification Checklist
Figure 1: Approved RWS I Landfill Expansion (Cells 4, 5 & 6)
Figure 2: Planned Construction of Landfill Expansion (Cells 4 & 5)
Figure 3: Proposed Modification – Top of Subgrade
Figure 4: Proposed Modification – Top of Baseliner Grades
Figure 5: Proposed Modification – Top of Leachate Drainage Layer
Figure 6: Proposed Modification – Engineering Cross-Sections

CC: Jerud Earnest, Duke Energy
Colleen Sweazy, Duke Energy
Daniel Flanigan, Duke Energy
David Holstein, Duke Energy

INSIGNIFICANT PERMIT MODIFICATION CHECKLIST
SOLID WASTE LAND DISPOSAL FACILITIES

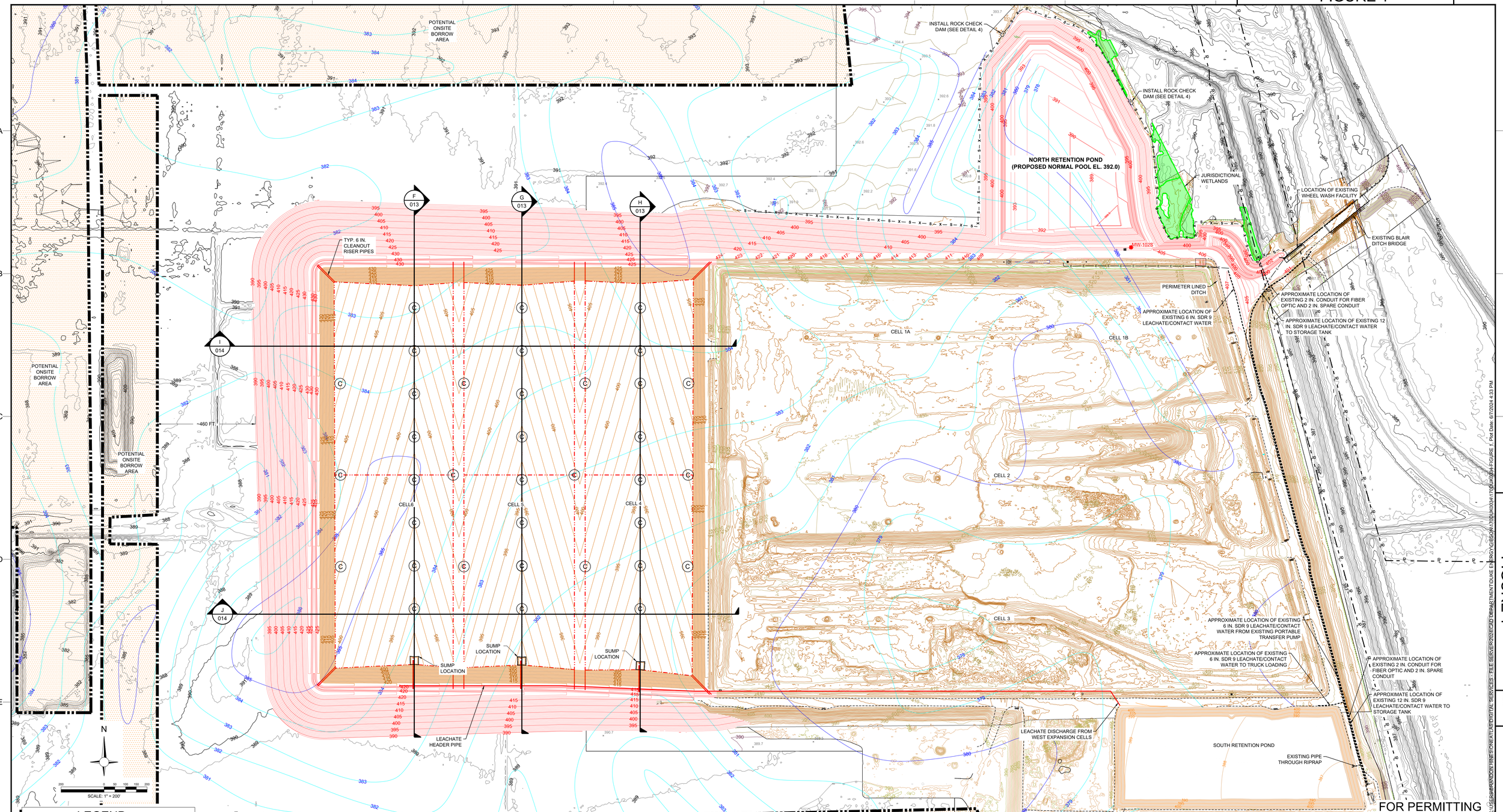
State Form 53317 (6-07)
Indiana Department of Environmental Management

*INSTRUCTIONS: The following checklist is provided to help you in determining whether or not your proposed modification qualifies as an insignificant facility modification under 329 IAC 10-2-97.1 and 329 IAC 10-3-3. Check **all** boxes that apply to your proposed modification.*

Required Information	Y	N	Apply Using Instructions In:
Please check as applicable:			
Relocation of a solid waste land disposal facility hauling road.	☐	☒	**Part A**
Relocation of office buildings.	☐	☒	**Part A**
Changes in sequences of filling in permitted areas.			
Installation of temporary sediment control measures.	☐	☒	**Part A**
Installation of leachate control systems to prevent leachate migration off-site.	☐	☒	**Part A**
Installation of additional methane venting wells to an approved system.	☐	☒	**Part A**
Installation of weighing scales.	☐	☒	**Part A**
Replacement of a ground water monitoring well or piezometer no more than fifteen (15) feet horizontally from the original location and at an equal depth.	☐	☒	**Part A**
Use of an alternative daily cover (ADC) under 329 IAC 10-20-14.1(c).	☐	☒	**Part A**
Approvals granted under 329 IAC 10-21 unless the commissioner determines the approval to be a minor modification.	☐	☒	**Part A**
Alternative storage methods for salvaged or recycled materials under 329 IAC 10-20-6(b).	☐	☒	**Part A**
Changes in the frequency that collection containers regulated under 329 IAC 10-20-4(g)(1) and 329 IAC 10-20-4(g)(2) must be emptied.	☐	☒	**Part A**
Improvements to a drainage system around the facility.	☐	☒	**Part B**
Use of an ADC under 329 IAC 10-20-14.1(d).	☐	☒	**Part B**
For any other proposed insignificant modification, answer:	☒	☐	**Part B**
a. does it improve the operation of the facility (if yes, show in documentation).	☒	☐	**Part B**
b. does it significantly alter the approved solid waste land disposal facility permit (if no, show in documentation).	☐	☒	**Part B**
			Part B
Have you included a detailed written description of your modification project?	☒	☐	**Part B**
Have you included maps and plot plans showing changes to be made by the modification project?	☒	☐	**Part B**

FIGURE 1

REV.



LEGEND:

430	TOP OF AQUIFER CONTOURS
430	PROPOSED FINAL GRADES
430	PROPOSED TOP OF BASE LINER
430	1-13-21 SURVEY CONTOURS
430	10-14-20 SURVEY CONTOURS
430	7-24-19 SURVEY CONTOURS
430	2013 LIDAR CONTOURS
430	PERMITTED DESIGN GRADES (NOT PART OF THIS WORK)
	PERFORATED LEACHATE COLLECTION PIPE
	NON-PERFORATED LEACHATE COLLECTION PIPE
C	CHIMNEY DRAIN

REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD	DESCRIPTION
1	09/17/2021	170LF00776	LANDFILL	SK	BH	BP	BP	BP	SOLID WASTE BOUNDARY
2	01/03/2022	170LF00776	LANDFILL	SK	BH	BP	BP	BP	CELL SIDE SLOPE GRADES

ATC

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7988 CENTERPOINT DR.
SUITE 100
INDIANAPOLIS, IN 46256
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FAX: +1 317 849 4278
WWW.ATCGROUPSERVICES.COM

WILLIAM G. PARASKEVAS REGISTERED No. 60020880 STATE OF INDIANA PROFESSIONAL ENGINEER

William Paraskevas
January 4, 2022

TITLE

PROPOSED WEST EXPANSION
TOP OF BASE LINER
NORTH RETENTION POND
AND SALF MODIFICATIONS
SOUTH AGGREGATE LANDFILL

FOR

GIBSON GENERATING STATION

DUKE ENERGY®

SCALE: AS SHOWN	DES: JC
DWG TYPE: DWG	DFTR: CL
JOB NO: 170LF00776	CHKD: JC
DATE: 06/07/2024	ENGR: BP
FILENAME: 170DUK0034-FIGURE 1	APPD: BP

DWG SIZE	DRAWING NO.	REVISION
ARCH D 24.0"x35.5"	FIGURE 1	

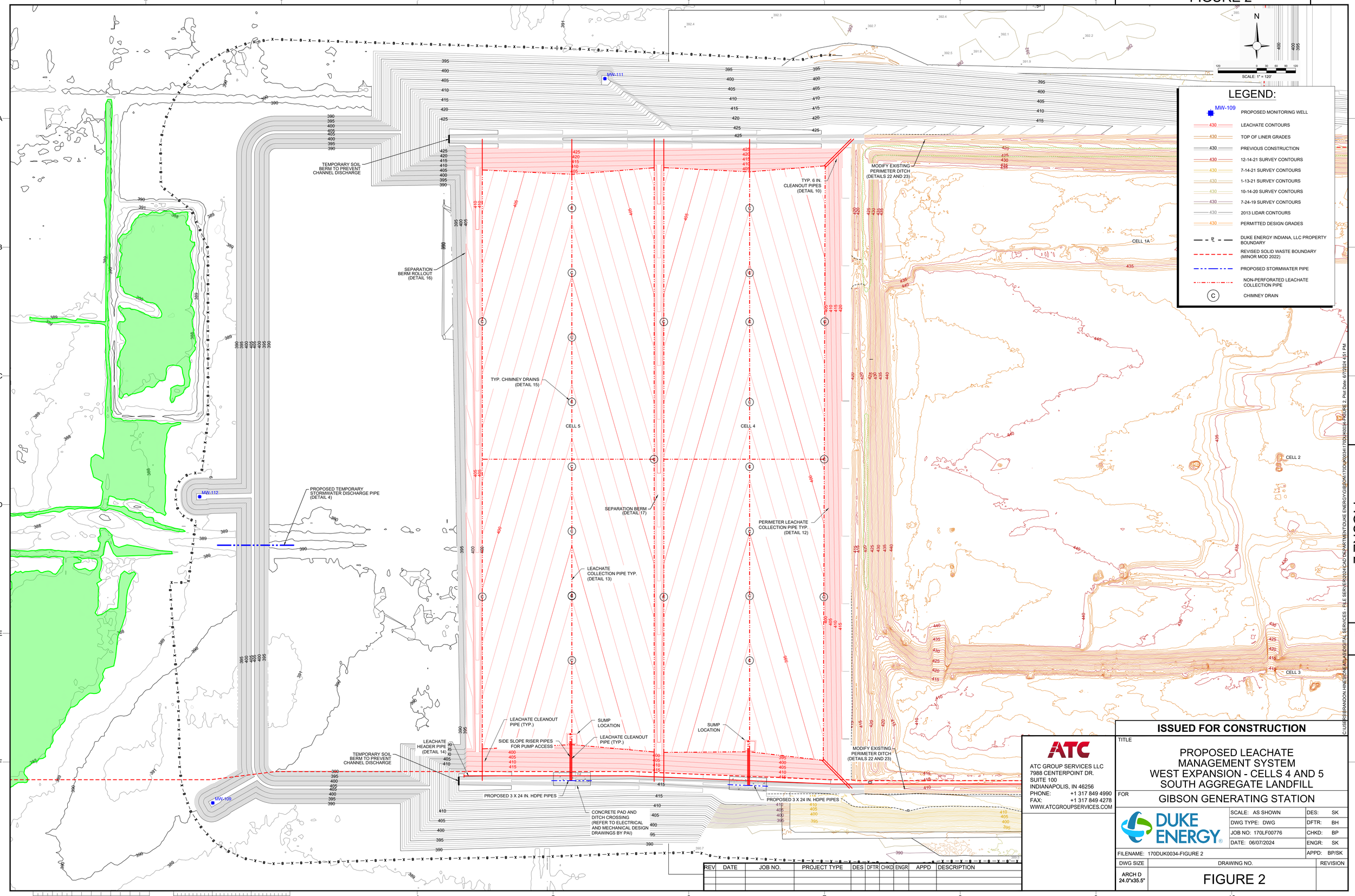
FIGURE 1

REV.

G:\USERS\BRANDON.TINES\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2022\CAD DEPARTMENT\DUKE ENERGY\GIBSON\170DUK0034\170DUK0034-FIGURE 1 Plot Date: 6/7/2024 4:33 PM

FIGURE 2

REV.



REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD	DESCRIPTION

ATC

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ISSUED FOR CONSTRUCTION

TITLE

PROPOSED LEACHATE MANAGEMENT SYSTEM
WEST EXPANSION - CELLS 4 AND 5
SOUTH AGGREGATE LANDFILL

FOR

GIBSON GENERATING STATION

DUKE ENERGY®

SCALE: AS SHOWN	DES: SK
DWG TYPE: DWG	DFTR: BH
JOB NO: 170LF00776	CHKD: BP
DATE: 06/07/2024	ENGR: SK
FILENAME: 170DUK0034-FIGURE 2	APPD: BP/SK

DWG SIZE	DRAWING NO.	REVISION
ARCH D 24.0"x35.5"	FIGURE 2	

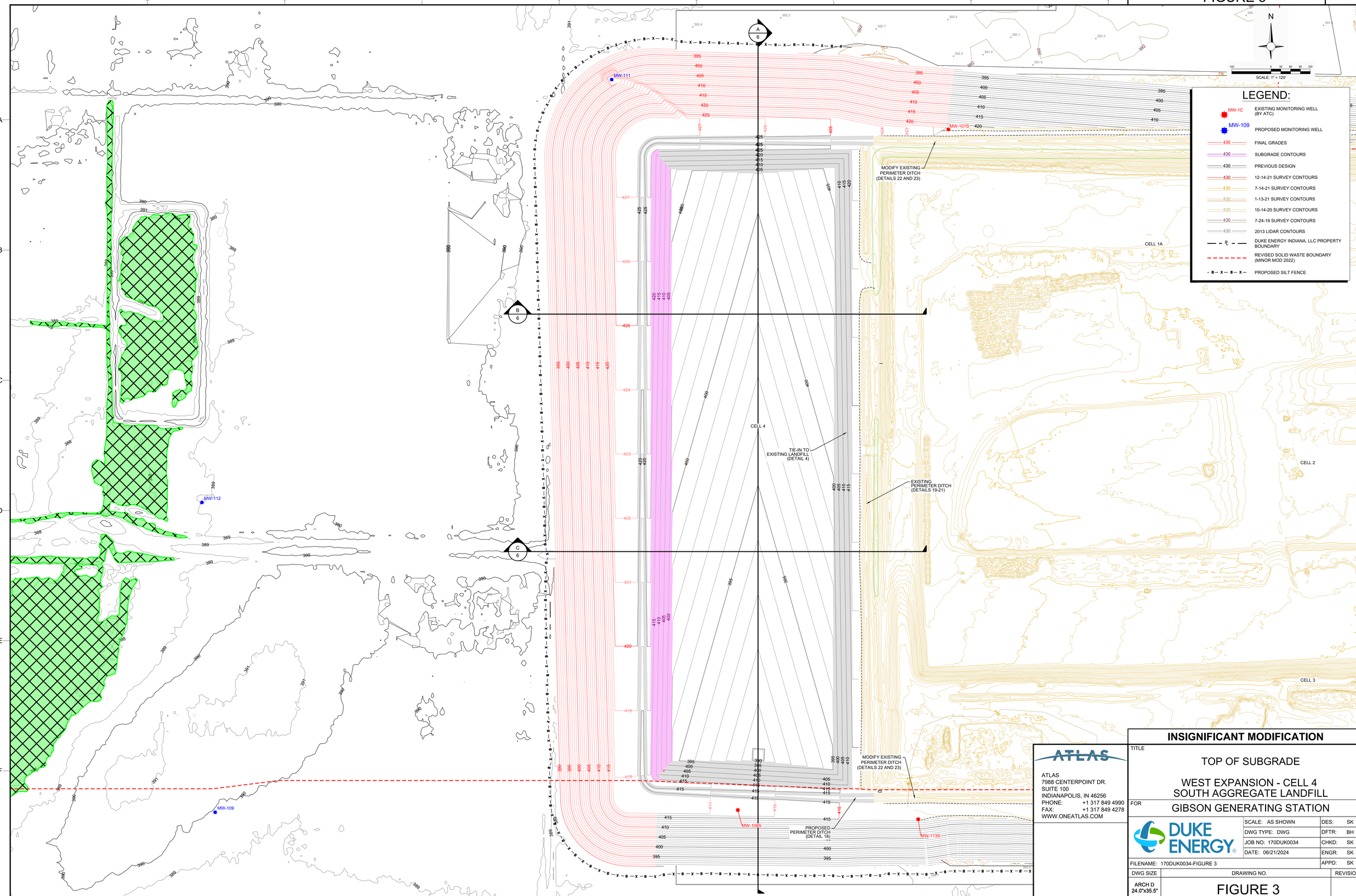
C:\USERS\BRANDON.HINESON\ATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\DUKE ENERGY\GIBSON\170DUK0034\170DUK0034-FIGURE 2, Plot Date: 6/7/2024 4:51 PM

FIGURE 2

REV.

FIGURE 3

REV.



INSIGNIFICANT MODIFICATION

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TITLE

TOP OF SUBGRADE

WEST EXPANSION - CELL 4
SOUTH AGGREGATE LANDFILL

FOR

GIBSON GENERATING STATION

DUKE ENERGY®

	SCALE: AS SHOWN	DES:	SK
	DWG TYPE: DWG	DFTR:	BH
	JOB NO: 170DUK0034	CHKD:	SK
	DATE: 06/21/2024	ENGR:	SK
FILENAME: 170DUK0034-FIGURE 3		APPD:	SK

DWG SIZE	DRAWING NO.	REVISION
ARCH D 24.0"x35.5"	FIGURE 3	

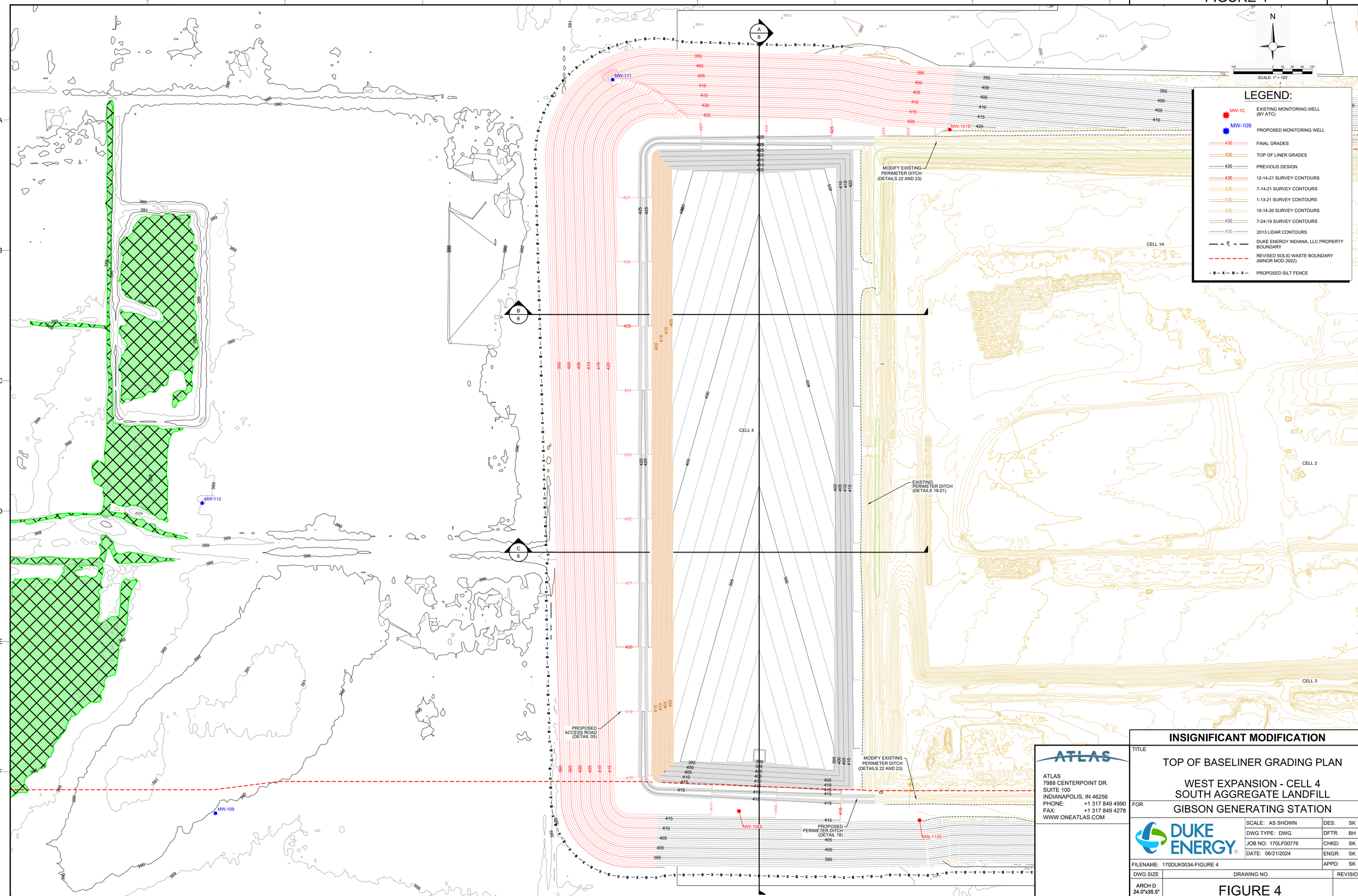
C:\USERS\BRANDON.HINES\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\DUKE ENERGY\GIBSON\170DUK0034\170DUK0034-FIGURE 3. Plot Date: 6/21/2024 12:55 PM.

FIGURE 3

REV.

FIGURE 4

REV.



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TITLE

TOP OF BASELINER GRADING PLAN

WEST EXPANSION - CELL 4
SOUTH AGGREGATE LANDFILL

FOR

GIBSON GENERATING STATION

DUKE ENERGY®

	SCALE: AS SHOWN	DES:	SK
	DWG TYPE: DWG	DFTR:	BH
	JOB NO: 170LF00776	CHKD:	SK
	DATE: 06/21/2024	ENGR:	SK
FILENAME: 170DUK0034-FIGURE 4		APPD:	SK

DWG SIZE	DRAWING NO.	REVISION
ARCH D 24.0"x35.5"	FIGURE 4	

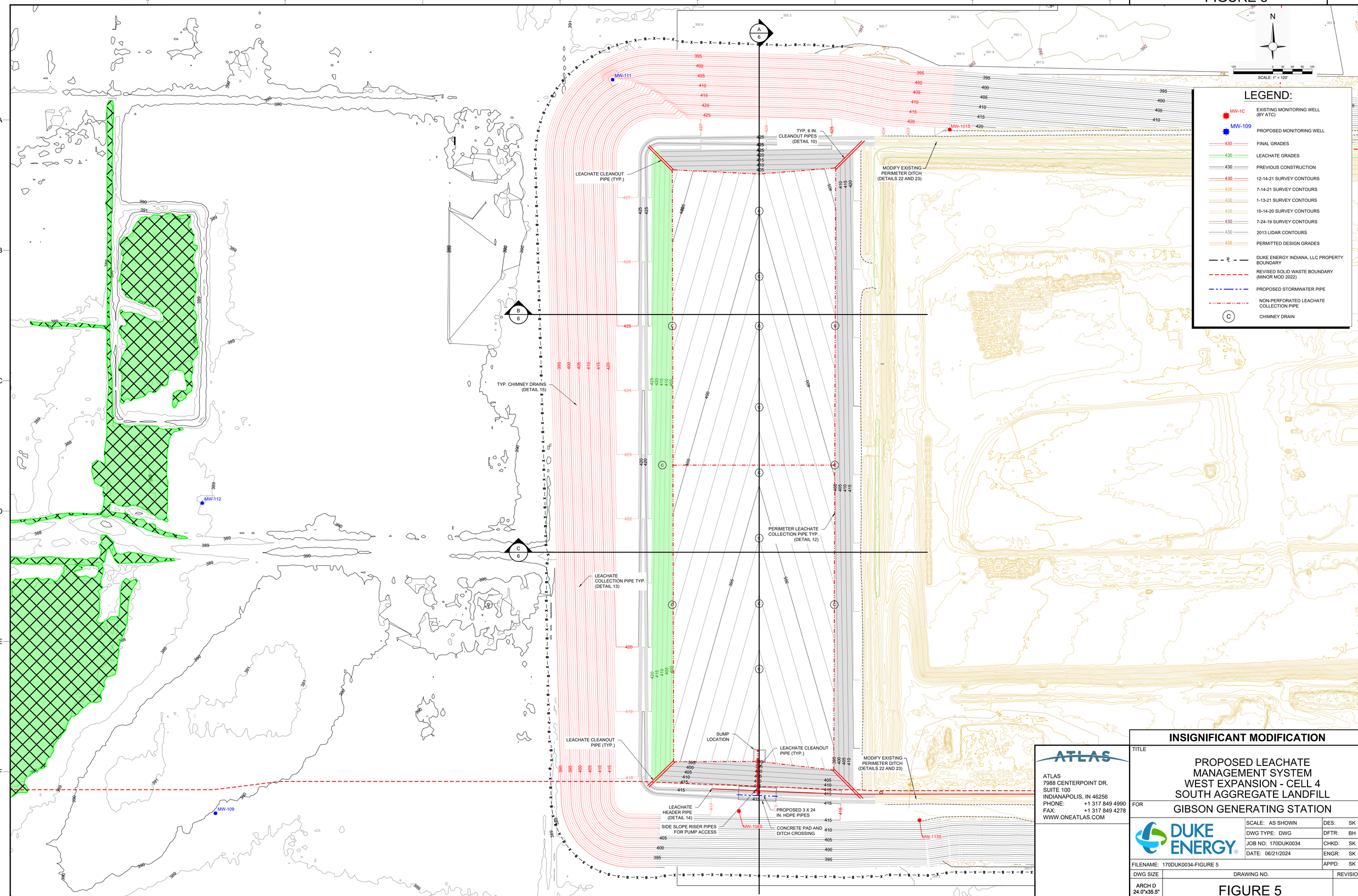
FIGURE 4

REV.

RS\BRANDON.HINES\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\DUKE ENERGY\GIBSON\170DUK0034\170DUK0034-FIGURE 4, Plot Date: 8/21/2024 12:53 PM,

FIGURE 5

REV.



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INSIGNIFICANT MODIFICATION

TITLE

PROPOSED LEACHATE MANAGEMENT SYSTEM
WEST EXPANSION - CELL 4
SOUTH AGGREGATE LANDFILL

FOR

GIBSON GENERATING STATION

DUKE ENERGY®

	SCALE: AS SHOWN	DES:	SK
	DWG TYPE: DWG	DFTR:	BH
	JOB NO: 170DUK0034	CHKD:	SK
	DATE: 06/21/2024	ENGR:	SK
FILENAME: 170DUK0034-FIGURE 5		APPD:	SK

DWG SIZE	DRAWING NO.	REVISION
ARCH D 24.0"x35.5"	FIGURE 5	

FIGURE 5

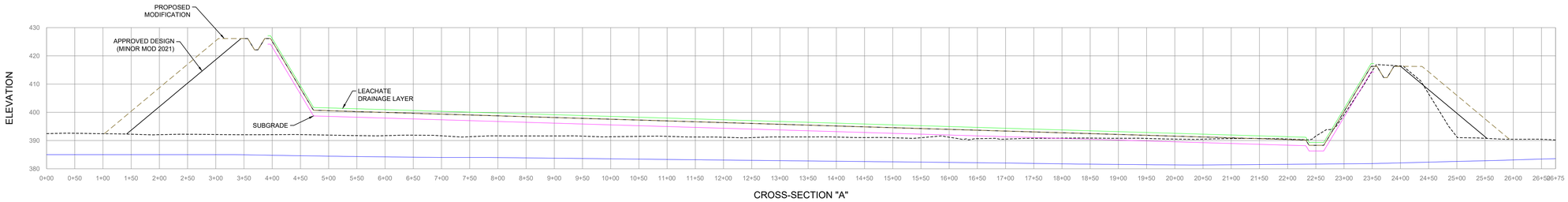
REV.

RS\BRANDON.HINES\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\DUKE ENERGY\GIBSON\170DUK0034\170DUK0034-FIGURE 5.DWG, Plot Date: 8/21/2024 12:52 PM,

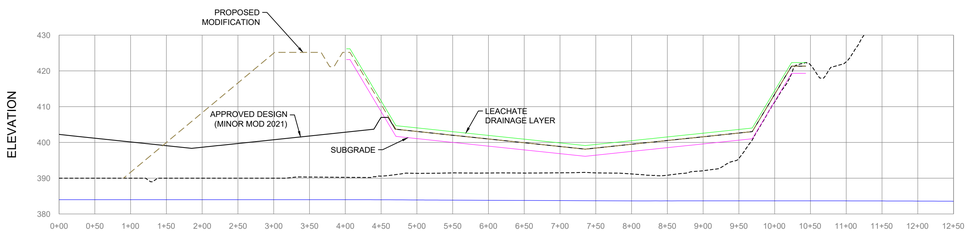
INCHES 1 2 3 TENTHS 10 20 30

FIGURE 6

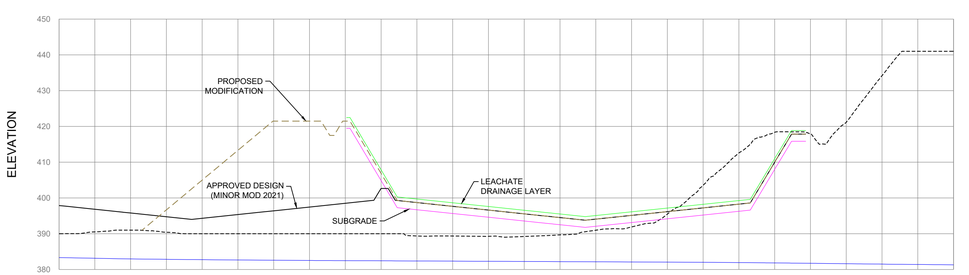
REV.



CROSS-SECTION "A"



CROSS-SECTION "B"



CROSS-SECTION "C"

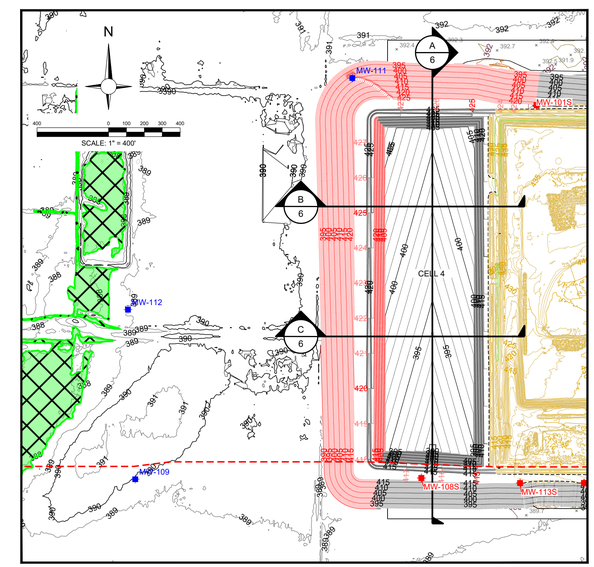


FIGURE 6

REV.

K:\SBRANDON.HINES\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\DUKE ENERGY\GIBSON\170DUK0034\170DUK0034-FIGURE 6, Plot Date: 6/21/2024 12:57 PM

20'
0
0 100'
SCALE

HORIZONTAL SCALE 1"= 100'
VERTICAL SCALE 1"= 20'

INSIGNIFICANT MODIFICATION

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TITLE

ENGINEERING CROSS SECTIONS A, B, AND C

WEST EXPANSION - CELL 4
SOUTH AGGREGATE LANDFILL

FOR

GIBSON GENERATING STATION

DUKE ENERGY®

SCALE: AS SHOWN		DES:	SK
DWG TYPE: DWG		DFTR:	BH
JOB NO: 170DUK0034		CHKD:	SK
DATE: 06/21/2024		ENGR:	SK
FILENAME: 170DUK0034-FIGURE 6		APPD:	SK
DWG SIZE	DRAWING NO.		REVISION
ARCH D 24.0"x35.5"	FIGURE 6		