



**VISUAL SITE INSPECTION REPORT – 2023**

SOUTHERN INDIANA GAS AND ELECTRIC  
A.B. BROWN GENERATING STATION  
TYPE III RESTRICTED WASTE LANDFILL  
WEST FRANKLIN, IN

ATLAS PROJECT NO. 170LF01572

JANUARY 3, 2024

PREPARED FOR:

SOUTHERN INDIANA GAS AND ELECTRIC COMPANY  
dba CENTERPOINT ENERGY INDIANA SOUTH  
A.B. BROWN GENERATING STATION  
8511 WELBORN ROAD  
MOUNT VERNON, IN 47620  
ATTENTION: MS. ANGIE CASBON-SHELLER



Atlas Technical Consultants L.L.C.

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January 3, 2024

Ms. Angie Casbon-Scheller  
CenterPoint Energy  
8511 Welborn Road  
Mount Vernon, IN 47620

**Re: Visual Site Inspection Report – 2023**

A.B. Brown Generating Station  
Type III Restricted Waste Landfill  
West Franklin, Indiana  
Atlas Project No. 170LF01572

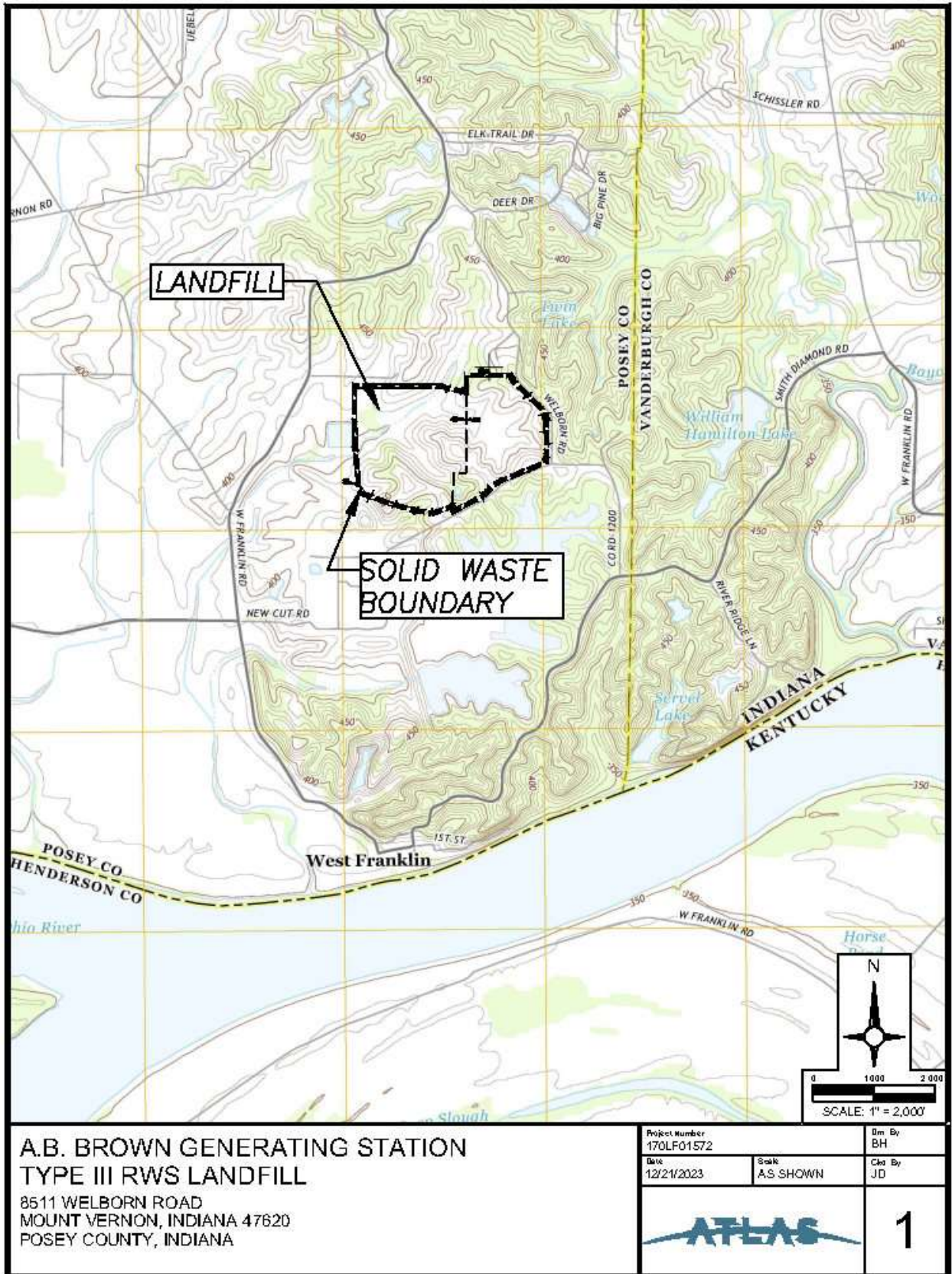
Dear Ms. Casbon-Scheller:

This report summarizes our November 29, 2023 Visual Site Inspection of the Type III Restricted Waste Landfill at the A.B. Brown Generating Station. The visual inspection and this report were completed in accordance with guidelines established by the Coal Combustion Residuals (CCR) Rule published by the Environmental Protection Agency (EPA) on April 17, 2015.

This inspection included a visual examination of readily observable surface features of the landfill and its appurtenant structures, and a review of information provided by CenterPoint Energy. Please note that the inspection did not include any drilling, testing of materials, precise physical measurements of landfill features, detailed calculations, or other engineering analyses. Although the inspection was conducted by competent personnel in accordance with generally accepted methods for inspecting landfills, it should not be considered as a warranty or guarantee of the future performance and/or safety of the landfill.

The landfill is located within the A.B. Brown Station property in Section 24, Township 7 South, and Range 12 West, about a half mile north of the Ohio River in Posey County, Indiana as highlighted on the West Franklin, IN USGS Quadrangle map, Figure 1 on the following page.

The landfill inspection was completed by Michael Thornbrue and Juan Carrizo of Atlas Technical Consultants (Atlas) with site support by Greg Dick of CenterPoint Energy. The weather during the inspection was sunny with temperatures ranging from 36°F to 53°F. Ground conditions were generally dry. The landfill system features are highlighted on the attached Site Plan in Appendix A.



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The landfill system was divided into the following areas to help organize the inspection and the reporting:

- Partial Closure Areas (east end, north slope, and south slope of the landfill).
- Active Disposal Area (west end of the landfill).
- Vertical Expansion Disposal Area (top central portion of the landfill); and
- Landfill Settling Basin.

The approximate limits of each of these areas is noted on Sheet 1 in Appendix A.

The following paragraphs include a summary of the observations made during the inspection followed by our recommendations in bold print. Approximate locations of some of the observed features are noted on Sheet 1 in Appendix A.

## **PARTIAL CLOSURE AREAS – OBSERVATIONS / RECOMMENDATIONS**

The approximate limits of the Partial Closure Area – Composite Final Cover are shown on Sheet 1 in Appendix A and cover an area of approximately 28 acres. The composite cover consists of a 40-mil LLDPE geomembrane overlain with a 16 oz/yd<sup>2</sup> nonwoven geotextile, 2.5 feet of protective soil, and 0.5 feet of topsoil. The final cover was constructed in stages from 2012 through 2014. Documentation of the completion of closure activities in this area was submitted to the Indiana Department of Environmental Management (IDEM) in three (3) separate reports in 2012, 2013, and 2014.

The approximate limits of the Partial Closure Area – Soil Final Cover are also shown on Sheet 1 in Appendix A. This section covers an area of approximately 24.5 acres and consists of a minimum of 2.0 feet of cohesive soils, covered with 0.5 feet of topsoil. Documentation of the completion of the closure activities along these slopes was submitted to IDEM in 2015.

Items noted during the visual inspection of this area are described in the following list.

- 1) In general, this area is well vegetated and well maintained.

**Recommendation: None at this time.**

- 2) Observed sparse vegetation of the Final Cover (Locations 5, 9, 13, 17, 19, 24, and 31).

**Recommendation: Areas of sparse vegetation should be reseeded with similar grasses to the ones at the site, and temporarily isolated to prevent trampling and help re-establish grass cover.**

- 3) Although most drop inlets were in good conditions, a few isolated areas near some drop inlets exhibited excess vegetation growth and erosion at the time of the inspection (Locations 1, 2, and 4).

**Recommendation: Remove excess vegetation and repair erosion by establishing a new vegetation cover.**

- 4) Tall vegetation growth was observed along the edge, on side slopes, and within some drainage channels on the north side of the landfill and near an outlet drainage pipe, on the northeast side of the landfill (Locations 8, 11, 12, 16 and 23). Site personnel clarified that the tall vegetation

prevents erosion adjacent to the riprap and that it is actively managed with regular inspection combined with scheduled growth, herbicide treatment, and cutting.

**Recommendation: Continue planned vegetation maintenance.**

- 5) A fallen solid waste boundary sign was observed on the north side of the landfill (Location 21).

**Recommendation: Replace fallen sign.**

- 6) A fallen bollard around piezometer PZ-M5 was observed on the east side of the landfill (Location 3).

**Recommendation: Replace fallen bollard.**

- 7) A recently installed roadside ditch on the north side of the landfill does not have adequate protection to erosion (Location 26).

**Recommendation: Install riprap along ditch section to prevent erosion and deterioration of access road.**

## **VERTICAL EXPANSION DISPOSAL AREA OBSERVATIONS / RECOMMENDATIONS**

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The vertical expansion disposal area noted on Sheet 1 in Appendix A generally consists of approximately 18 acres across the top of the central portion of the landfill. This area has not yet been filled to the approved final grades. Items noted during the visual inspection of this area are described in the following list.

- 1) In general, this area has temporary or final cover with established vegetation while parts are receiving temporary or final cover.

**Recommendation: None at this time.**

- 2) Erosion rills, gullies have formed on the middle north slope of the Vertical Expansion Disposal Area (Locations 6, 10, 14, 15, 18, 20, 21, 22, 25, 30, and 33).

**Recommendation: Repair rills, install erosion control blankets and/or other erosion BMPs, and reseed areas to re-establish grass cover.**

- 3) Erosion was observed at an outlet drainage pipe on the north side of the Vertical Expansion Disposal Area (Location 32).

**Recommendation: Install riprap at the outlet of the drainage pipe.**

## **ACTIVE DISPOSAL AREA OBSERVATIONS / RECOMMENDATIONS**

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The active disposal area generally consists of portions of Cells 16, 17 and 18, which occupy an area of approximately 21 acres. Items noted during the visual inspection of this area are described in the following list.

- 1) Active filling with production filter cake has ceased with the shutdown of the coal combustion generating plant. A permit modification has been approved for placement of material from the

ash pond that does not meet beneficial use specifications, pending IDEM approval of the waste characterization.

**Recommendation: None at this time.**

- 2) Surface water runoff from the northern portion of the Active Landfill Area is routed to a depression at the far north end (Locations 27) and southwest corner (Location 29).

**Recommendation: Monitor these areas during and after significant storm events to maintain adequate freeboard.**

## **LANDFILL SETTLING BASIN OBSERVATIONS / RECOMMENDATIONS**

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The existing Landfill Settling Basin was constructed in 2015 to receive water that has been in contact with waste in the landfill. The pond has a composite liner across the base and a riprap protective layer. The inlet pipe is located in the southeast corner of the pond while the drop inlet for the outlet to the Capital Pond is in the northwest corner of the pond. A stormwater detention basin is located immediately north of the Capitol Pond. Items noted during the visual inspection of this area are described in the following list.

- 1) The slopes of the Settling Basin are lined with riprap and appeared in satisfactory condition. Also, the pond is maintaining adequate freeboard (Locations 28).
- 2) During the site inspection, it was observed that the storm pipe from the landfill and discharging to the Settling Basin was experiencing a blockage (Location 34). The blockage on the storm pipe was subsequently cleared and the drainage flows discharged to the Settling Basin restored.

**Recommendation: Continue to monitor the condition of the pond and storm pipes, and to perform maintenance as necessary.**

## **COAL COMBUSTION RESIDUALS RULE LANDFILL REQUIREMENTS/OBSERVATIONS**

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In addition to the general observations and recommendations outlined above, this visual inspection was also performed to address the standards and guidelines required by the CCR Rule established by the EPA on April 17, 2015. As a result, CCR Landfills are now required to meet the requirements of 40 C.F.R. §257 to conduct annual inspections of the landfill in accordance with 40 C.F.R. §257.84(b). The requirements specified within the CCR Rule, and the observations made by Atlas during the 2023 annual inspection are listed below:

### **40 C.F.R. §257.84**

*(b) Annual inspections by a qualified professional engineer.*

*(1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:*

*(i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and*

**The annual inspection of the AB Brown Landfill was conducted by the undersigned professional engineers on November 29, 2023. Operating records along with design plans were reviewed by the undersigned.**

*(ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.*

**The inspection conducted on November 29, 2023 did not reveal any signs of imminent failure for the landfill. However, there are isolated areas of erosion that require repair and/or modification as part of the ongoing maintenance of the landfill area.**

*(2) Inspection report. The qualified professional engineer must prepare a report following each inspection that addresses the following:*

*(i) Any changes in geometry of the structure since the previous annual inspection;*

In general, the following changes in the geometry of the structure were noted during the 2023 visual inspection:

- **In the past year the site continued filling operations in Cells 16, 17 and 18.**
- **New waste was also placed on the center, western and southern portions of the Active Disposal Area.**
- **Maintenance issues noted during the 2022 visual inspection had been addressed.**

**The measures taken as outlined above have improved the overall condition of this facility.**

*(ii) The approximate volume of CCR at the time of the inspection;*

**The approximate volume of CCR within the limits of the 1988 landfill expansion is 5,510,074 cubic yards.**

*(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and*

**There were no signs of structural weakness noted within the permitted solid waste boundary at the time of this visual inspection. Additional temporary erosion and sediment controls should be deployed in the Vertical Expansion Disposal Area.**

*(iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.*

**None noted at the time of this inspection.**

We appreciate the opportunity to assist you with this project. If you have any questions concerning information contained in this report, please do not hesitate to call either of the undersigned at 317.849.4990.

Sincerely,

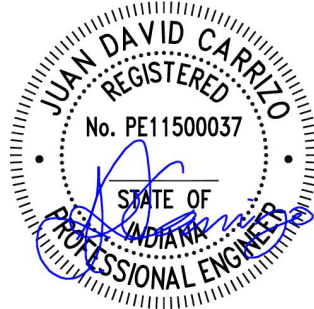
**Atlas Technical Consultants L.L.C.**



Michael D. Thornbrue, P.E.  
Senior Project Engineer



Juan D. Carrizo, P.E.  
Senior Project Engineer



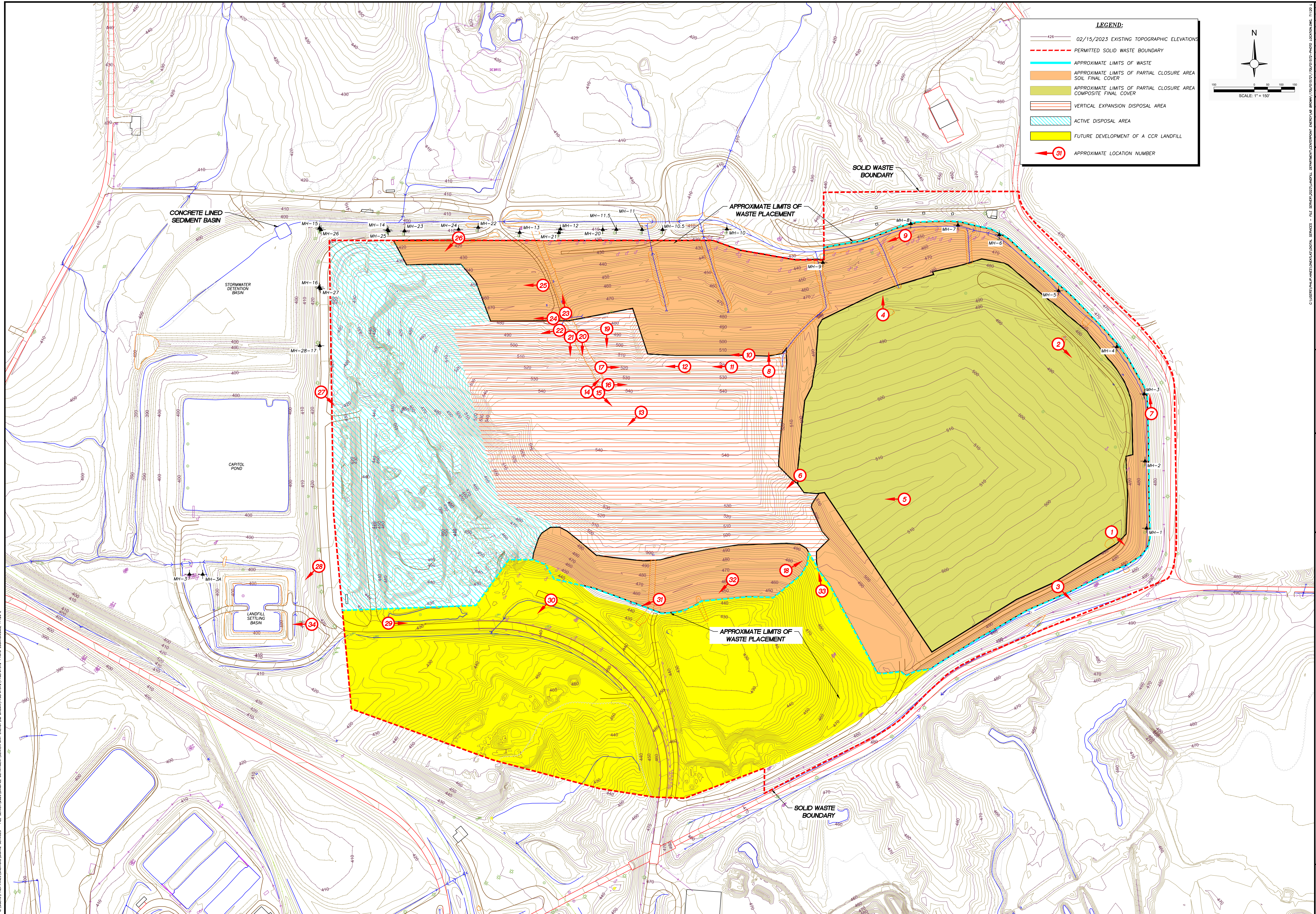
Copies: Angie Casbon-Scheller – CenterPoint Energy  
Gregory Dick – CenterPoint Energy  
Jason Copeland – CenterPoint Energy



## Appendices

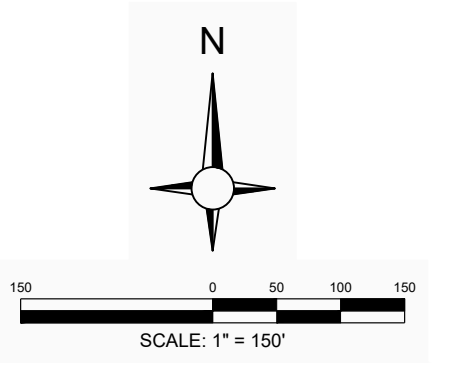
Appendix A: Site Plan

## Appendix A: Site Plan



**LEGEND:**

- 02/15/2023 EXISTING TOPOGRAPHIC ELEVATIONS
- - - PERMITTED SOLID WASTE BOUNDARY
- APPROXIMATE LIMITS OF WASTE
- APPROXIMATE LIMITS OF PARTIAL CLOSURE AREA SOIL FINAL COVER
- APPROXIMATE LIMITS OF PARTIAL CLOSURE AREA COMPOSITE FINAL COVER
- VERTICAL EXPANSION DISPOSAL AREA
- ACTIVE DISPOSAL AREA
- FUTURE DEVELOPMENT OF A CCR LANDFILL
- 31 APPROXIMATE LOCATION NUMBER



Project Number:  
170LP01572  
Drawing File:  
See File Location  
Date:  
12/2023  
Scale:  
AS SHOWN  
App'd By:  
JC  
Dn. By:  
BH

Company Name:  
ATLAS  
7988 CENTERPOINT DR.  
SUITE 100  
INDIANAPOLIS, IN 46256  
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Drawing Title:  
**SITE PLAN OF INSPECTION LOCATIONS  
TYPE III RWS LANDFILL  
8511 WELBORN ROAD  
MOUNT VERNON, INDIANA 47620**

Sheet:  
**1**  
of 1 sheets

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