November 10, 2026

Mr. Mike Smith, P.E.
Land Quality Bureau
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321

HLW Engineering Group
Engineering Management

RE: Post-Closure Care - Reduction Termination Plan
Proposed End to Regulation under IAC 567, Chapter 100 & 101 and Proposed End to the Closure Permit
FMC Sanitary Landfill, IDNR Permit #66-SDP-01-73P

Dear Mr. Smith:

The Floyd-Mitchell-Chickasaw Solid Waste Management Agency (FMCSWMA) is requesting the termination of the Permit for the Non-Contiguous Closed Landfill at the FMCSWMA facility (66-SDP-01-73P). The Closed Landfill initiated the closure and post closure period on December 29, 2008 and is permitted under Special Provision XI of the Permit, dated August 17, 2026 (Doc #118479). FMCSWMA seeks the end of regulation of the Closed Landfill portion of the facility under Iowa Administrative Code (IAC) 567, Chapter 113 (rule in effect at the time of closure) and/or IAC 567, Chapter 100 and 101 (rule in effect currently).

This Post-Closure Care Reduction-Termination Plan (PCC RTP) is offered to satisfy Special Provision XI.13 of the Permit (August 17, 2026 (Doc #118479)). Figure 1, Overall Site Plan; Figure 2, Landfill Site Plan; Figure 3, Groundwater Contour Plan; Figure 4, Methane Monitoring Plan; and Figure 5, Leachate Collection & Conveyance System, are attached illustrating the site features, monitoring wells, gas probes, and leachate collection components.

In lieu of regulation under IAC 567, Chapter 100 and 101, the FMCSWMA proposes that the limited on-going maintenance items warranted at the facility can be appropriately supervised and managed by the FMCSWMA. The FMCSWMA understands that certain legal instruments will be required to facilitate the end of IDNR regulation of the facility.

The basis of this proposal is rooted in the observed condition of the facility and the lack of perceived risk-based concerns associated with the facility as it exists in its current condition.

CURRENT CONDITIONS

Leachate Management

A risk assessment was completed in June, 1995 and a leachate control exemption request was filed with IDNR on June 6, 1995 (Doc # 8459). The exemption request was approved by IDNR on September 26, 1995 (Doc #8458).

A partial groundwater/leachate collection tile system was installed in the northeast portion of the closed landfill in June 1987. The 1987 groundwater/leachate system drained to a tank on the east side of the closed landfill that was periodically pumped with a septic wagon. An additional groundwater/leachate collection tile system was installed in the southeast portion of the closed landfill in October 2004 (Doc #54446) to eliminate surface leachate seeps. The 2004 system and the 1987 systems were combined and the 1987 tank was removed in 2004. A leachate loadout station was constructed in 2004 and was utilized until 2007.

The combined groundwater/leachate collection system on the east side of the closed landfill was connected to the Leachate Storage Lagoon (Doc #8781) constructed in 2007. Groundwater/leachate collected by the combined system drains by gravity to the leachate holding lagoon.

Figure 5 illustrates the existing leachate collection system in the east portion of the Closed Landfill.

Special Provision XI.10 Permit (Doc #118479), acknowledges that the Closed Landfill is conditionally exempt from providing and operating a leachate collection system, while Special Provision XI.11 Permit authorizes the operation of the east side groundwater/leachate collection system.

As reported in past semi-annual Engineer's inspection reports, persistent leachate seeps in the closed landfill have not been noted.

The FMCSWMA is both willing to and capable of effectively performing continued cap maintenance tasks related to infiltration and erosion control and thereby controlling leachate generation and potential seeps.

Gas Control

Landfill gas was historically monitored in the breathing zone at the site perimeter. Between 2009 and the present, subsurface landfill gas has been monitored in the headspace of dedicated subsurface gas probes (GP-1 through GP-5) completed in the vadose zone across the site (Figure 4).

Since subsurface monitoring began in 2009 explosive gas (as percent lower explosive limit) has not been detected to date in GP-1 through GP-5.

Gas generation curves typically illustrate gas generation peaking in the second or third decade of waste burial (e.g. EPA LMOP studies), it is anticipated that landfill gas generation will decrease with time.

Additional gas study is not warranted at the Closed Landfill as part of the PCC RTP.

Ground Water Quality

Groundwater has been monitored at perimeter monitoring wells at the site since at least the early 1990's. At the FMC Closed Sanitary Landfill, the following monitoring wells exist and are routinely monitored on a semi-annual frequency: MW-4 (background), MW-5 (background), MW-9 (background), MW-14 (background), MW-2, MW-3, MW-6, and MW-7 (Figure 2).

The 2025 Annual Water Quality Report (AWQR), which was submitted to IDNR on January 30, 2026 (Doc #115590) and the Semi-Annual Water Quality Notification submitted to IDNR on May 13, 2026 (Doc #117122) are cited in support of the interpretation of the water quality.

Water quality is summarized as documenting low-level detections of several inorganic compounds at the downgradient site monitoring wells. There are detections classified as Statistically Significant Increases (SSI) but have required no active responses other than supplemental sampling as part of the assessment monitoring system. No Statistically Significant Levels (SSL) have been detected at the site and there is no requirement for any assessment or remedial responses.

Additional water quality study is not warranted at the Closed Landfill as part of the PCC RTP.

Storm Water Quality

The site closure (completed 2008) has well established vegetation, well maintained erosion controls, and maintained diversion structures in place. No leachate seeps are documented. Stormwater impacts would be minimal.

Final Cover Condition (settlement/ponding/slope stability) and Maintenance

The landfill cap was completed, and the Construction Documentation was submitted to IDNR on December 29, 2008.

The final cover and site closure were completed in 2008 in accordance with the approved plans. Landfill Inspections have been performed semi-annually since the closure permit was issued. Settlement over the past 20 years has not resulted in undue ponding, terrace flow line failures, or diversion let-down failures.

Past record of an erosion rill through a south side terrace berm has been addressed. The erosion rill was successfully repaired. Diversion and drainage systems are in good shape with no evidence of erosion.

Vegetation

The landfill vegetation is in good condition and is mowed annually to control the growth of undesirable vegetation and saplings. Some bare spots and thin vegetation are noted in the inspections. The cause of the bare and thinly vegetated areas is anticipated to be gas related.

Four (4) passive gas vents were installed through the landfill cap to improve vegetation growth in May 2011 and August 2011.

POST-CLOSURE CARE REDUCTION-TERMINATION PLAN (PCC RTP)

Leachate Management

The entire groundwater/leachate collection tile system along the perimeter of the east side of the Closed Landfill (Figure 3) drains by gravity to the leachate holding lagoon at the site. The leachate holding lagoon stores all leachate collected from the active landfill. Treatment of all collected leachate will be on-going as a requirement of operation of the active landfill cells.

Aside from recognizing that the groundwater/leachate collection tiles in the Closed Landfill will continue to drain to the leachate storage lagoon by gravity and will be commingled with the active landfill system, no actions are required as part of the PCC RTP. Any future Environmental Covenant proposed will require the ongoing collection and conveyance of groundwater/leachate to the leachate holding lagoon.

Actions required for leachate treatment by Special Provision XI.11of the Permit (Closed Landfill) are already required for the leachate management and treatment under Special Provision X.3 (Active Landfill).

Gas Control

No actions are required as part of the PCC RTP.

Ground Water Quality

Water quality is generally free of impact. Further study or remedial actions are not recommended. No actions are required as part of the PCC RTP.

Storm Water Quality

No actions are required as part of the PCC RTP.

Final Cover Condition (settlement/ponding/slope stability) and Maintenance

No actions are required as part of the PCC RTP.

Vegetation

Landfill gas is anecdotally the suspected source of observed vegetation impacts at the site near the four (4) existing passive gas vents. Additional study in the Closed Landfill is not warranted as the areas of stressed vegetation are observed to be stable over time.

No actions are required as part of the PCC RTP.

ENVIRONMENTAL COVENANT DEVELOPMENT

Based on observations recorded during the recent inspections, the facility is in general conformance with the expectations of the Closure Permit and conditions at the site are good.

Landfill gas management is not required moving forward.

The integrity of the final cover, vegetation, and stormwater drainage systems are well maintained.

The integrity of the water quality is being maintained.

The east side groundwater/leachate collection system will continue to operate by gravity and the collected leachate will be properly managed and treated incidentally as a component of the required actions in the active cells.

FMCSWMA understands that on-going inspection and maintenance of the cap, the diversion systems, the drainage systems, and the vegetation is necessary moving forward. These tasks are merely maintenance items necessary for the perpetuation of the well-established and enduring cap/cover features. Now established, these features do not warrant on-going regulation by the State, rather warrant management by FMCSWMA. The FMCSWMA is both willing to and capable of effectively performing the required maintenance tasks moving forward.

Conclusions

The FMCSWMA seeks a pathway to end regulation of the Closed Landfill under IAC 567, Chapter 100 & 101, while providing the IDNR the appropriate assurances that the facility maintenance tasks will be on-going, as appropriate, to maintain the facility in conformance with the risk-based decision to end IDNR oversight.

FMCSWMA appreciates your consideration of the PCC RTP, and we look forward to your reply. Please consider whether you believe the proposed PCC RTP is sufficient and whether FMCSWMA is a candidate to successfully file an Environmental Covenant in coordination with IDNR's participation.

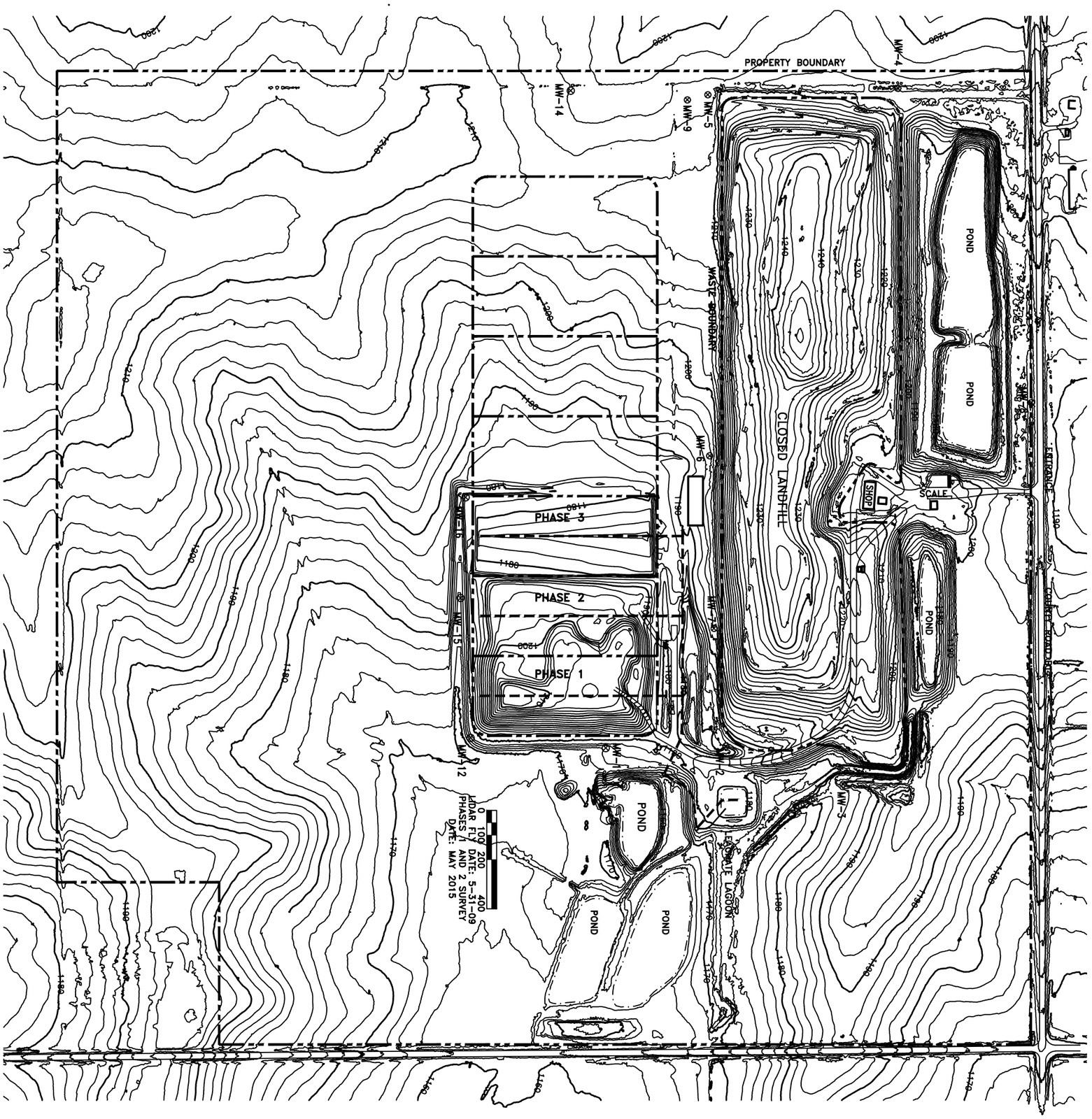
Please contact the HLW Engineering Group office at (515) 733-4144 with any questions you may have or to schedule and coordinate a site visit with FMCSWMA and HLW staff.

Sincerely,
HLW Engineering Group



Todd D. Whipple, CPG.
Project Manager

cc: Christian Fox, Landfill Manager
Scott Cerwinske, Chair, FMC Solid Waste Management Agency

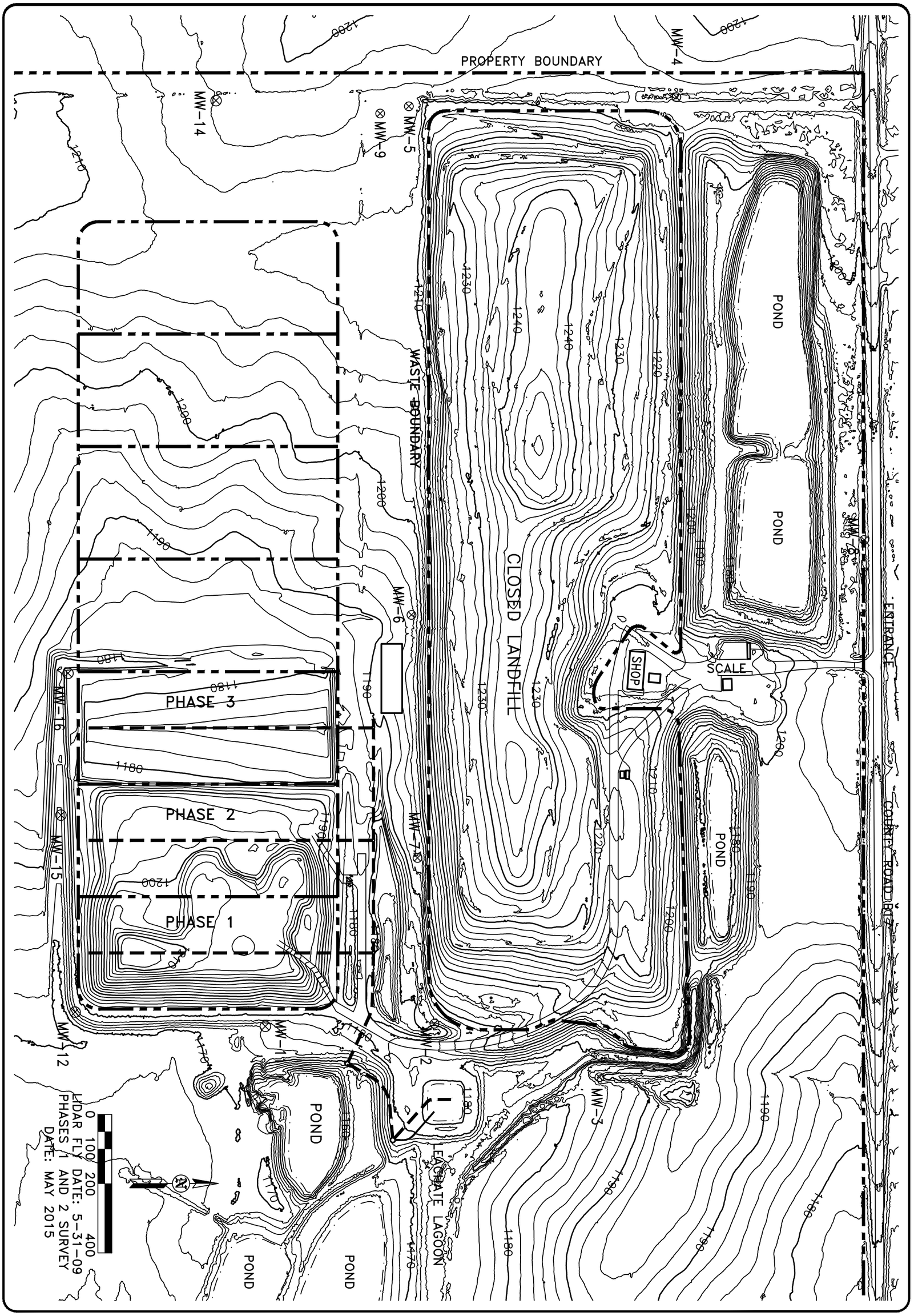


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SITE PLAN – TOTAL PROPERTY

FLOYD–MITCHELL–CHICKASAW SANITARY LANDFILL
ELMA, IOWA

FIGURE:	1	
REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6028	DATE 10–30–26



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SITE PLAN – LANDFILL AREA

FLOYD–MITCHELL–CHICKASAW SANITARY LANDFILL
ELMA, IOWA

FIGURE: 2

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6028	DATE 10–30–26

WATER ELEVATION OCTOBER 2, 2026	
WELL	ELEV.
MW-2	1178.29
MW-3	1175.34
MW-4	1203.71
MW-5	1204.17
MW-6	1194.73
MW-7	1192.62
MW-9	1201.90
MW-11	1169.31
MW-12	1168.43
MW-14	1203.62
MW-15	1174.28
MW-16	1172.74

ENTRANCE
COUNTY ROAD B17
POND
POND
POND
SCALE
SHOP
MW-4
MW-3
MW-2
MW-5
MW-9
MW-6
MW-7
MW-11
MW-14
MW-16
MW-15
MW-12
PROPERTY BOUNDARY
CLOSED LANDFILL
WASTE BOUNDARY
LEACHATE LAGOON
PHASE 3
PHASE 2
PHASE 1
1200
1190
1180
1170
1160
1210
1220
1230
1240
0 100 200 400
LIDAR FLY DATE: 5-31-09
PHASES 1 AND 2 SURVEY
DATE: MAY 2015

FIGURE: 3

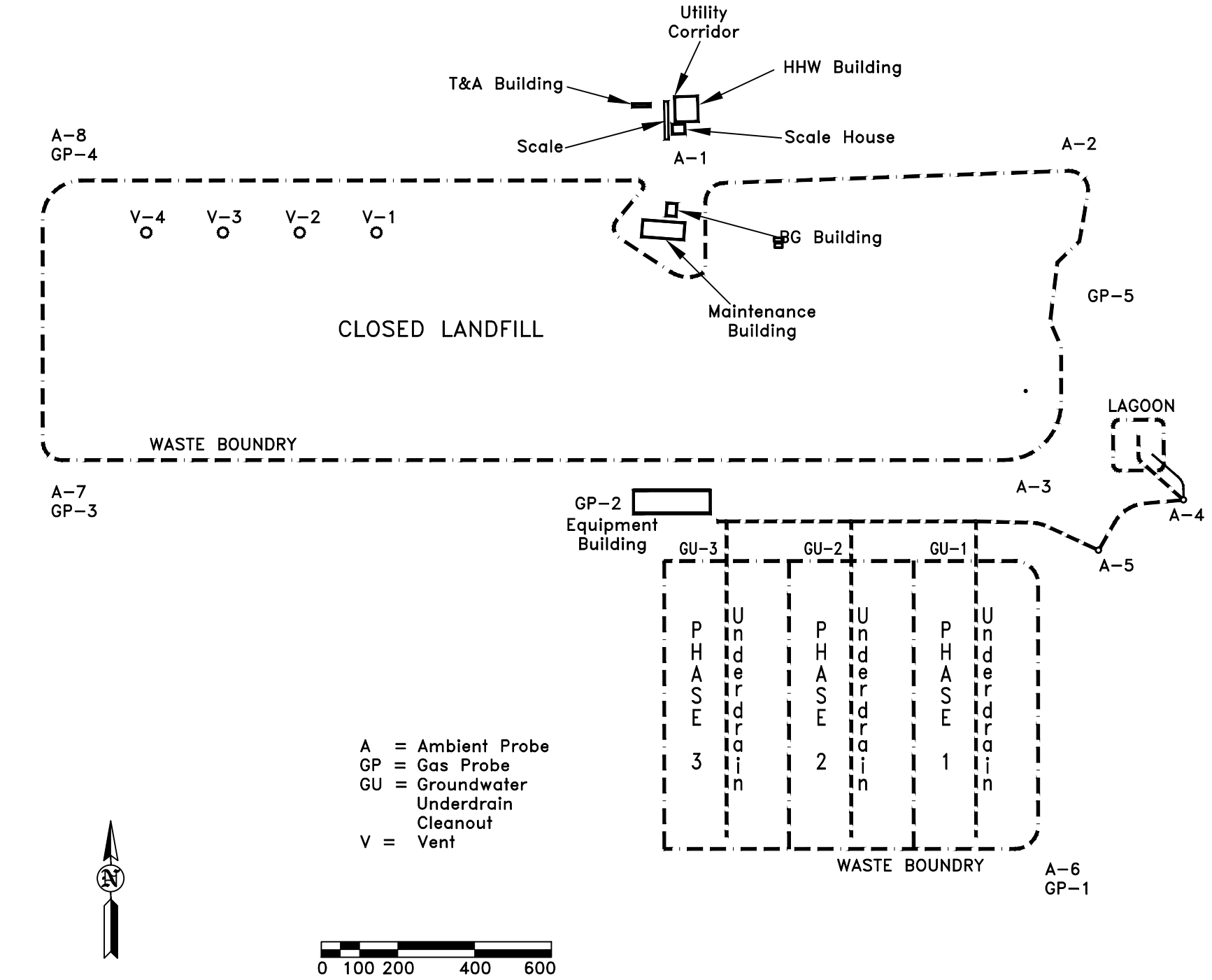
REVISION	NO.	DATE
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GROUNDWATER CONTOURS

FLOYD-MITCHELL-CHICKASAW SANITARY LANDFILL
ELMA, IOWA

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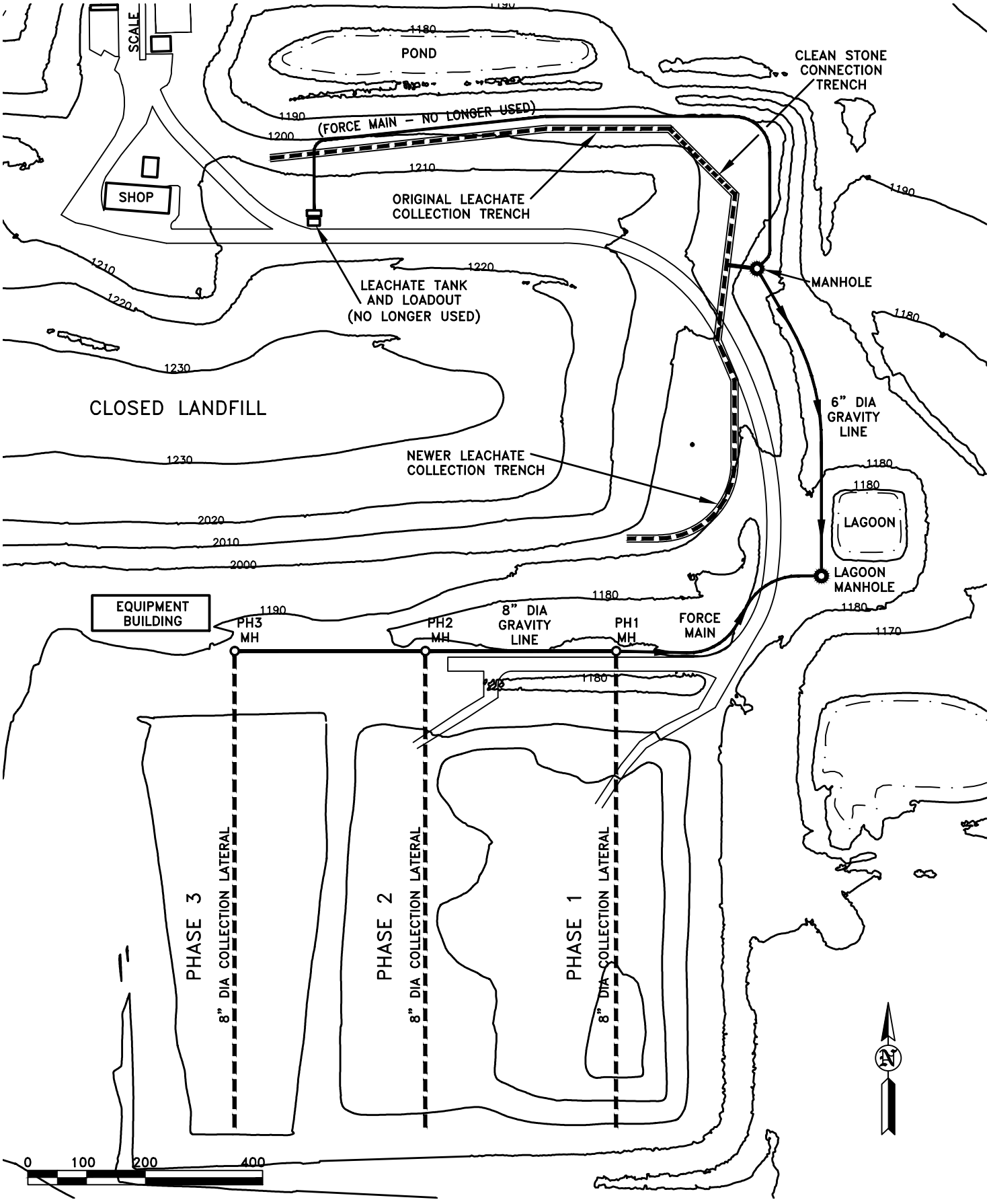
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METHANE MONITORING POINTS

FLOYD-MITCHELL-CHICKASAW SANITARY LANDFILL
ELMA, IOWA

FIGURE: 4

REVISION	NO.	DATE
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LEACHATE COLLECTION SYSTEM

FLOYD–MITCHELL–CHICKASAW SANITARY LANDFILL
ELMA, IOWA

FIGURE: 5

REVISION	NO.	DATE
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