Construction Completion and Construction Quality Assurance Report

Gibbons Creek Environmental Redevelopment Group

Gibbons Creek Steam Electric Station

Site F Landfill Closure Cap

12824 FM 244, Anderson, TX 77830

June 6, 2025

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APPENDICES

1.0 INTRODUCTION

1.1 GENERAL

On behalf of the Gibbons Creek Environmental Redevelopment Group (GCERG), HDR Engineering, Inc. (HDR) has prepared this report detailing the construction and quality (CQA) assurance activities associated with the construction of the Site F Landfill's (SFL) composite landfill cap at the Gibbons Creek Steam Electric Station (GCSES) in Grimes County, Texas. The landfill cap was constructed in accordance with 40 CFR §257.102(d) and 30 TAC §352.1221 for managing coal combustion residual (CCR) waste.

The SFL was originally designed and operated to manage waste which consisted primarily of fly ash, bottom ash, and stabilized FGD sludge. The waste deposited at the Landfill was considered as a Class II and Class III Industrial Non-Hazardous Waste (waste) by the Texas Water Commission (TWC)[1] in 1990.

The landfill was constructed by the Texas Municipal Power Agency (TMPA) in 1990 and expanded in 1995 to increase the onsite disposal capacity for the wastes generated by the GCSES. Since the SFL was constructed and received wastes meeting the criteria as coal combustion residuals (CCRs) as defined by 40 CFR §257.53, the landfill is considered an existing CCR landfill. In addition, the SFL is listed as a solid waste management unit, SWMU 001, on the notice of registration (NOR) for SWR 32271 issued to TMPA by the TCEQ. The NOR currently states that the SFL is an active SWMU.

No records of the actual SFL liner construction were available for review for inclusion in this report. However, according to TMPA's 1988 request for proposal to engineer and design the Landfill, this Landfill was to have a base liner system constructed with clay-rich soil placed and compacted in lifts with a total thickness of 3-feet. The liner was to be constructed using soils with the following characteristics:

- A unified soil classification of SC, CL, CH, or MH
- A percent passing No. 200 sieve greater than 30
- A liquid limit greater than 30
- A plastic index greater than 15
- A hydraulic conductivity no greater than 1 x 10^{-7} cm/sec.

A clay barrier was installed on the uppermost tier and portions of the first and second tier representing approximately 40-acres of intermediate cover for the SFL in approximately 1995. This clay barrier was comprised of soils meeting the same characteristics and thickness as the

[1] The Texas Water Commission (TWC) was combined with the Texas Air Control Board to become the Texas Natural Resource Conservation Commission (TNRCC) in 1993. In 2002, the TNRCC became the Texas Commission of Environmental Quality (TCEQ).

landfill's compacted clay bottom liner system. The barrier was covered in approximately 2-feet of topsoil and general fill designed to limit erosion and promote vegetative growth.

The purpose of this project was to permanently close the SFL by installing a final landfill cap meeting the requirements of 40 CFR §257.102(d)(3) and 30 TAC §352.1221 for managing coal combustion residual (CCR) waste. The area of the SFL final cover is approximately 95-acres and, according to GCERG personnel, the volume of CCR disposed on-site is estimated to be 8,224,601 cubic yards.

This report is accompanied by as-built drawings, daily field observation reports, and test results which document the construction oversight and construction quality assurance (CQA) work performed on the SFL's final landfill cap construction. HDR was retained to complete the SFL cap construction design, perform the CQA oversight during construction activities, and prepare this comprehensive report at the conclusion of the project.

The landfill cap construction work at the SFL liner is in accordance with the design and requirements contained in the following documents (see Appendix D):

- Gibbons Creek Electric Station Site F Landfill Closure construction drawings issued on August 2, 2021.
- Gibbons Creek Environmental Redevelopment Group, LLC Site A and Site F Landfill Closure Construction Documents Project Manual issued on August 2, 2021, which contained the project's technical specifications.
- Gibbons Creek Steam Electric Station Site A and Site F Landfill Closure Final Cover Quality Control Plan issued on August 2, 2021, which contained the project's quality assurance requirements.

As evidenced by the project documentation and testing program results, the landfill cap construction activities performed on the SFL were performed in accordance with the construction drawings, technical specifications, and CQA program.

1.2 PROJECT SUMMARY

The GCSES is owned by GCERG and is located near Anderson, Texas. The Site F Landfill (SFL) is approximately 95-acres in size and was designed and operated to manage Class II and Class III industrial non-hazardous waste which consisted primarily of CCR material such as fly ash, bottom ash, and stabilized FGD sludge. This material was generated through the combustion of local lignite to produce power at the GCSES. The SFL is located approximately 1.5-mile northeast of the administration buildings at the GCSES as shown in Figure 1 below.

Figure 1: Site F Landfill Location

Figure 2: Site F Landfill circa 2019

HDR served as the design and CQA engineer for the project. HDR's CQA Team was comprised of HDR and JBS staff which provided construction oversight and CQA services during construction. Construction progress was documented and photographed in daily field reports (DFRs) based on daily observations. The DFRs can be found in Appendix C: Landfill Cap Construction Quality Assurance Documents.

At the portions of the landfill with an existing clay barrier and topsoil installed, this project generally consisted of removing the existing vegetation and topsoil over the existing compacted clay barrier. The uppermost 12-inches of the existing clay barrier was reprocessed, rehydrated, recompacted, and smooth rolled to establish a stable subgrade for the placement of the geomembrane.

At uncovered portions of the landfill, the waste material was compacted, graded, and smooth rolled. A 12-inch layer of general fill material was placed on top of the waste material to establish a stable subgrade for the landfill cap. A 12-inch layer of compacted clay meeting the characteristics of the landfill's liner system was installed over the stable subgrade.

On both portions of the landfill, after the compacted clay portion of the cap was completed, a new 40-mil linear low-density polyethylene (LLDPE) liner was placed over the surface of the smooth clay subgrade. The geomembrane was topped with a geocomposite geotextile. An 18-inch-thick layer of soil fill material and 6-inch-thick layer of topsoil were then installed over the geosynthetics. Stormwater controls were then constructed on the SFL and vegetative cover was re-established.

The landfill cap construction consisted of the list of activities presented below:

- Vegetation and topsoil were stripped and removed from the SFL and stockpiled.
- The upper 12-inch-thick layer of the existing compacted clay barrier was ripped, reprocessed, rehydrated, disced, recompacted, and regraded.
- Waste material at uncovered portions of the landfill were graded, compacted, and smooth rolled.
- A 12-inch-thick layer of soil was placed on top of the exposed waste material.
- A 12-inch-thick layer of compacted clay soil was placed on top of the subgrade.
- The compacted clay was rolled to establish a smooth stable base for the geosynthetics.
- A new 40-mil linear low-density polyethylene (LLDPE) liner was placed over the compacted clay layer.
- A geocomposite was placed over the geomembrane to promote drainage and stability for the landfill cap.
- An 18-inch-thick layer of soil was placed over the geosynthetics.
- A 6-inch-thick layer of topsoil was placed on top of the protective soil layer.
- The landfill was graded to promote stormwater drainage which included a series of ditches, swales, and berms installed to contain and direct stormwater.
- Concrete structures were installed to convey stormwater from the upper levels of the landfill to perimeter discharge culverts.
- Vegetation was established over the landfill.

1.3 Key Personnel

A list of the key organizations that participated in relining the SFL, along with their respective roles and key personnel, is presented below:

OWNER
Gibbons Creek Environmental Redevelopment Group, LLC

DESIGN AND CQA ENGINEER
HDR Engineering, Inc.; Dallas, TX
Design Engineer and CQA Officer – David Vogt, P.E. (Texas 93905)
CQA Monitor – Montreal Bailey
JBS Engineering and Environmental, Inc.; Bryan, TX
CQA Monitor – Phil Cadarette

RECORD SURVEYOR
Lacy Surveying, Inc.; Arp, TX
Daniel Cooper, R.P.L.S.

SITE GENERAL CONTRACTORS
Mine Services, Inc. (MSI); Rockdale, TX
Project Principal – Eddie Noak
Project Director – Vernon Lang
Site Superintendent – Manny Lopez

B&C Services, Inc.; Caldwell, TX
Project Principal – Chris McDaniel
Site Superintendent – Luis Godinez

Burnside Infrastructure, LLC; Hearne, TX
Project Principal – Jake Burnside
Project Director – Alfred Acuna
Site Superintendent – Micheal Ambriz

SPJD Ranch, LLC; Iola, TX
Project Principal – James Dixon
Site Superintendent – Joe Bill Derden

GEOSYNTHETICS INSTALLER
EnviroCon Systems, Inc. (ECSI); Cedar Hill, TX
Project Manager – Larry Munger
Site Superintendent – Montana
Site Superintendent – May

GEOSYNTHETICS MATERIALS TESTING LABORATORY
TRI Environmental; Austin, TX
Laboratory Manager – Mansukh Patel

GEOMEMBRANE, GEOCOMPOSITE, AND GEOSYNTHETIC CLAY LINER MANUFACTURER
Solmax Geosynthetics, LLC.; Houston, TX

2.0 LANDFILL CAP CONSTRUCTION PREPARATION

2.1 Vegetation and Topsoil Removal

The contractor cleared and grubbed existing vegetation on top of the SFL. A dozer was used to strip the vegetation and top layer of soil off the landfill. This stripped material was removed using a front-end loader and placed in haul trucks. The stripped material was temporarily stockpiled at various locations around the SFL until it could be used as topsoil for the modified landfill cap.

2.2 Demolition of Existing Structures

The contractor used a track excavator and haul trucks to excavate and demolish the existing culverts, pipes, and concrete structures used to convey stormwater at the SFL. The excavator broke these items into smaller manageable pieces and loaded them onto a haul truck. The demolished material was hauled to the active area of the SFL where it was permanently disposed.

2.3 Placement of Waste Material and Fine Grading

The contractor used a dozer to place waste material at its final location in the active area of the SFL. The dozer was also used to fine grade the material to its final elevations. A smooth drum roller was used to compact the material, and a water truck was used for dust control.

3.0 COMPACTED CLAY CONSTRUCTION

3.1 Existing Clay Layer

The contractor used a Caterpillar D6 dozer to remove the top 6-inch layer from the existing clay barrier. This material was stockpiled adjacent to the working area using an excavator and haul truck. A ripper attachment was used by the dozer to break up and scarify the top 6-inches of the remaining existing clay barrier at the landfill. A water truck was used to hydrate the clay, and a disc attachment was used by the dozer to help process the existing clay barrier soils. A sheep's foot compactor was used to compact the clay to the proper density.

An excavator was used to load the stockpiled clay material on to a haul truck. The haul truck carried the clay material and placed it at the working area. A dozer spread the clay material to a loose thickness of approximately 8-inches over the processed clay layer. A water truck was used to hydrate the loosely placed clay material, and a disc was used to blend it in with the underlying processed clay layer. A sheep's foot compactor was used to compact the 8-inch loose clay material its design 6-inch lift thickness and density.

3.2 Active Area

An excavator was used to excavate clay soil material from preapproved borrow areas and load it on to a haul truck. The haul truck carried the clay soil material and placed it on top of the graded and compacted waste material in the working area. A dozer spread the clay material to a loose thickness of approximately 8-inches over the waste material. A water truck was used to

hydrate the loosely placed clay material and sheep's foot compactor was used to compact the 8-inch loose clay material a 6-inch lift thickness. Additional clay soil material was placed on the first layer in 8-inch thick loose lifts compacted to 6-inch thick lifts until the total clay barrier thickness was 18-inch thick. A disc was used to blend the clay material between the first and second lift and the second and third lift to create a monolithic clay barrier. The surface was then smooth rolled and compacted using a CAT CS54B smooth drum roller.

Density tests were performed on the compacted clay barrier in the field and barrier samples were collected and tested to determine its hydraulic conductivity in the lab in accordance with the project construction documents and CQA plan. Areas that did not achieve passing density or hydraulic conductivity results were reworked (ripped and disced), rehydrated, regraded, and recompacted until passing results were achieved.

4.0 GEOSYNTHTEIC INSTALLATION PREPARATION

4.1 Subgrade

Prior to the placement of geosynthetic material, the surface of the exposed clay barrier was smooth rolled and compacted using a CAT CS54B smooth drum roller. A water truck was used to moisture condition the subgrade and for dust control.

ECSI's construction quality control (CQC) personnel and HDR's CQA Team inspected the subgrade each day prior to deployment of the geomembrane liner panels to verify that the surface was firm, unyielding, free of excessive moisture, as well as free of cracking, unevenness from rutting, voids, and rocks that could damage the liner.

5.0 GEOSYNTHETIC INSTALLATION

5.1 Geomembrane Characteristics

The 40-mil LLDPE Textured Geomembrane manufactured by Solmax, LLC (Solmax) was used to line the surface of the SFL. This liner is a co-extruded textured linear low-density polyethylene (LLDPE) geomembrane.

Solmax provided manufacturer quality control (MQC) tests for the geomembrane to verify conformance with the technical specifications. The MQC test reports for the LLDPE geomembrane are included in Appendix B: Manufacturer Quality Control Certificates and summarized in Table 1: Geomembrane Manufacturer's Quality Control Test Summary. The test results indicated the LLDPE geomembrane rolls were manufactured in conformance with the project specifications.

The following tests are based on 3,813,887 ft^2 of 40-mil textured LLDPE geomembrane installed on the surface of the SFL. HDR reviewed the Manufacturer's Quality Control Test results and determined and confirmed the geomembrane was in conformance with project specifications.

Test	Type of Test	Frequency of Testing	Minimum Required	Actual Quantity	Passing Quantity
Manufacturer's Quality Control	Thickness	Per Roll	267	267	267
	Density	Per 10 Rolls	27	27	27
	Carbon Black Content	Per 2 Rolls	134	134	134
	Carbon Black Dispersion	Per 10 Rolls	27	27	27
	Tensile Properties	Per 2 Rolls	134	134	134
	Tear	Per 5 Rolls	54	54	54
	Puncture	Per 5 Rolls	54	54	54
	Asperity Height	Per Roll	267	267	267

Table 1: Geomembrane Manufacturer's Quality Control Test Summary

The geomembrane rolls were manufactured from March 11 through March 30, 2022. Delivery of these rolls began on April 12, 2022, and continued through April 20, 2022. Each roll was assigned a unique number identifier by the manufacturer. Upon arrival at the site, HDR's CQA Team inspected the rolls for damage and verified the roll identifications met the shipping manifest. A Sky Trak forklift with a spreader bar attachment was used to offload the LLDPE geomembrane rolls from the delivery trucks. The Sky Trak then stockpiled the rolls on top of or adjacent to the SFL in areas designated by GCERG. The record of geomembrane received onsite is summarized on Appendix B: Landfill Cap Manufacturer Quality Control Certificates.

5.2 Geocomposite Characteristics

Solmax FabriNet Series 200 mil nonwoven calendared geocomposite was placed on top of the geomembrane to provide drainage and stability to the landfill cap. It has a 200-mil thick geonet core, and two 8 oz/yd^2 geotextiles.

5.3 Construction Quality Control and Construction Quality Assurance

Construction Quality Control (CQC) was provided by ECSI personnel on a full-time basis during the liner installation.

Construction Quality Assurance (CQA) monitoring of the installation and construction of the clay and geomembrane liner systems was performed on a full-time basis by one or more qualified engineering technicians under the direct supervision of the CQA Officer. CQA personnel observed and documented construction of the clay liner, proper soil material, proper thickness, and proper density as well as deployment of the geomembrane, proper overlap configuration, proper orientation of panels, all seaming operations and non-destructive testing of the geomembrane liner, measured seam lengths, recorded panel dimensions, located all patches and repairs, and monitored ambient temperature readings. Inspection reports and test results from the CQA effort are located in Appendix C: Landfill Cap Construction Quality Assurance Documents.

5.4 Geomembrane and Geocomposite Installation

Geomembrane liner panel deployment began along the uppermost tier of the landfill at the northeast corner. The panels were installed along the northern side of the uppermost tier of the landfill. In general, the panels were then installed southerly until the uppermost tier was complete. The panels were then installed on the interior slopes transitioning from the uppermost

tier to the lowest tier. Panels were then installed over approximately 11 acres of the landfill its southern corner. Starting on March 30, 2023, panel installation at the SFL was paused while the site's remaining CCR material was transferred and placed at the SFL landfill. Geomembrane panel resumed on November 28, 2023, after the final waste material grading and compacted clay liner was installed, until the entire landfill was covered.

The Sky Trak with the spreader bar attachment was used to deploy each LLDPE geomembrane roll. A utility terrain vehicle (UTV) would use clamps to secure the geomembrane and then drive forward to deploy it across the surface of the landfill. Once the LLDPE geomembrane was deployed, ECSI personnel would manually adjust it to achieve a minimum overlap of 4-inches with an adjacent geomembrane panel. Loose panel ends were anchored by sandbags or unused rolls of geocomposite and all wrinkles and fish mouths were worked out or reduced. Each panel was assigned a unique number. The seam area was cleaned using rags and brushes to remove grease, moisture, dirt, and debris prior to seaming.

The Sky Trak with the spreader bar attachment was also used to deploy the geocomposite. A utility terrain vehicle (UTV) would use clamps to secure the geocomposite and then drive forward to deploy it across the geomembrane. Once the geocomposite was deployed, ECSI personnel would manually adjust it to achieve an approximate 2-inch overlap with an adjacent geocomposite panel. The adjacent geocomposite panels were then attached using zip ties and heat guns to fuse them together. Loose panel ends were anchored by sandbags or rolls of geocomposite.

No equipment was allowed on the geocomposite or geomembrane during deployment and seaming operations that could damage the liner system.

5.5 Geomembrane Seaming

Before the start of the day's seaming operations, each operator performed trial seams on their seaming equipment. These tests were also performed after the noon break and at other times deemed necessary by the CQA monitor. Each operator welded a minimum of 3-feet of geomembrane together for their trial seams and cut 6 sample coupons from this section for testing. Three of the coupons were tested in peel mode and three were tested in shear mode using a field tensiometer provided by ECSI. The minimum passing criteria is shown in Table 2: Minimum Required Seam Strength.

FAILURE MODE	TEST METHOD	VALUE(PPI)
Shear	ASTM D6392	60
Peel (fusion)	ASTM D6392	50
Peel (extrusion)	ASTM D6392	44

Table 2: Minimum Required Seam Strength

Only equipment that passed the trial seam test was permitted to be used to seam the geomembrane. Adjustments or repairs had to be made to equipment which failed the tests, until

it successfully passed the trial seam test. CQA test results documenting the trial seam, the welder, the welding apparatus number, time, date, ambient temperature, welding machine temperature, and speed are in Appendix C: Landfill Cap Construction Quality Assurance Documents.

The geomembrane seaming process occurred concurrently with the panel deployment. ECSI primarily used hot wedge double track fusion welders to seam the overlap where two sections of liner met. Extrusion welders were primarily used to seam patches at panel intersections (tees and cross joints) and HDPE pipe penetrations (pipe cleanout, piezometers, etc.). The patches were installed using the same material as the geomembrane. The seaming operations were observed and documented by HDR's CQA Team personnel and are summarized in Appendix C: Landfill Cap Construction Quality Assurance Documents.

5.6 Batten Strips

Batten strips were used to attach the geomembrane liner to the concrete stormwater down chutes. The batten strips were attached using stainless steel epoxied anchors installed into drilled holes spaced 6-inches apart along the concrete structures. A closed cell neoprene gasket was then affixed to the concrete using an adhesive. The edge of the geomembrane was placed on top of the neoprene gasket and a ¼-inch by 2-inch stainless steel flat bar was placed on top of the geomembrane. Stainless steel washers and nuts were then installed and tightened to form a waterproof seal for the geomembrane liner.

5.7 Geomembrane Repair

A repair patch was installed at each tee joint, cross joint, and defect observed during the geomembrane installation. A unique repair identification number was assigned to each of these repairs in accordance with the project specifications by HDR's CQA Team.

Small creases and holes smaller than ¼-inch in size were repaired by applying a bead of extrudate over the defect. Defects larger than ¼-inch in size were patched. The patches were oval in shape and extended a minimum of 6-inches beyond the intersection or defect. Defective seams, or seams that could not be nondestructively tested, were capped with a patch. Surfaces of the geomembrane receiving repair work were abraded and cleaned prior to the installation of the repair.

5.8 Non-Destructive Seam Continuity Testing

All double track fusion welded seams received an air pressure test. For this test, the air channel between the tracks of the two fusion welds were sealed off and an inflation needle and pressure gauge were inserted into the air channel. An air compressor then pressurized the channel to a minimum air pressure of 30 psi for a minimum of 5 minutes. A passing test was achieved if the seam held the pressure or lost no more than 3 psi during the time period. Following a passed pressure test, the seal on the opposite end of the seam was removed to allow release of the air. The pressure gauge had to return to zero to verify that there was no blockage(s) within the seam.

All patches, repairs or extrusion welds were vacuum tested utilizing a vacuum box. For this test, a soapy water solution was applied to the seam. A clear rigid wall box with a plastic plexiglass top

and neoprene gasket around the bottom was placed over the seam and a vacuum of at least 3 psi was applied to the box creating a seal between the box and the geomembrane. A passing test occurred if no soap bubbles were observed during a ten second interval. A failing test occurred with the appearance of soap bubbles which were indicative of pinholes, porosity, or non-bonded areas in the repair.

If a seam failed non-destructive testing, then retesting would be performed to isolate the leak. The seam would then be repaired a minimum of 6-inches on either side of the leak and retested until all of the seam length passed. If the CQA monitor felt the seam was questionable during any phase of the geomembrane installation, then the seam would be destructively tested (refer to the Destructive Sample Test Results for details). The results of non-destructive tests performed indicated the seams were in conformance with the project specifications. Geomembrane Seaming Logs are located in Appendix C: Landfill Cap Construction Quality Assurance Documents.

5.9 Destructive Testing

The CQA personnel selected destructive test locations based on observations made during seaming or selected at random. There were 360 destructive tests performed on the geomembrane with 345 passing tests. For the non-passing destructive tests, two new destructive test samples were taken on the seam on opposite sides and 50 feet from the failed test location. These samples were tested and passed. A cap was then extrusion welded to the seam spanning the 100-feet distance between the two passing tests. All seams ultimately passed.

Each destructive sample measured 48 inches in length and 6 inches in width. This sample was divided into three sections approximately 16 inches in length. One section was tested in the field. The second was sent to TRI Environmental, Inc. for independent laboratory testing. The third section was kept for archival records.

Ten coupons were taken from each section for testing. Five coupons were tested for sheer strength and five coupons were tested for peel strength according to project specifications (see Table 2: Minimum Required Seam Strength). Each destructive test sample was considered to have passed when 4 out of 5 coupons met both the strength requirements and exhibited film tear bond (FTB). HDR confirmed that the results of all 766 passing destructive tests performed indicated the seams were in conformance with the project specifications. A summary of destructive sample results can be found in Appendix C: Landfill Cap Construction Quality Assurance Documents.

6.0 SOIL COVER

The geosynthetic components were covered with soil layers consisting of a 6-inch-thick layer of topsoil over an 18-inch-thick layer of soil fill material. A track excavator, articulated dump haulers, a dozer, smooth drum roller, and water truck were used to construct the soil layers on top of the geosynthetics. In general, the track excavator would excavate soil from the designated soil borrow area and place it in an articulated dump hauler. The articulated dump hauler would transfer the soil from the soil borrow area to the landfill. At the landfill the hauler would dump the soil into stockpiles adjacent to the exposed geosynthetics. The dozer was used to push and spread the soil piles onto the geosynthetics. After the

desired soil layer thicknesses were achieved, the smooth drum roller would smooth out the surface of the soil and nominally compact it. Water trucks were used during the installation of the soil components to increase the soil moisture content and dust control.

The soils used for the landfill cap were generally classified as sandy or sandy clay free of rocks or other debris greater than 2-inch diameter. Ditches, swales, and berms were constructed as needed to convey stormwater off the landfill.

7.0 AS-BUILT SURVEY

Lacy Surveying, LLC (Lacy) was the record surveyor for this project. They performed survey operations throughout the project and their time on site is documented in the DFRs. Lacy provided as-built survey drawings of the Site F Landfill. Lacy completed the onsite surveying for the SFL reline project on December 11, 2024.

8.0 SUMMARY OF CONSTRUCTION MODIFICATIONS

The installation of the geosynthetics occurred in two phases. Phase 1 started on July 11, 2022, and ended on March 29, 2023. The work stoppage occurred because the Owner closed their Site A Landfill's (SAL) Perimeter Collection Ponds 2 and 3 and installed a new composite liner system in Ponds 1 and 4. All waste material and impacted soils from these ponds were excavated and hauled to the active area at the SFL for disposal by B&C Services. After the final waste material from the SAL was placed in the remaining open active area of the SFL, a topographical survey was performed, and the grading of the remaining open area was redesigned for final closure. Phase 2 of the geosynthetic liner installation started on November 28, 2023, and ended on February 15, 2024.

During Phase 1 of the geosynthetic installation at the SFL, MSI was the general contractor for the project and ECSI's liner installation team was managed by Montana. During Phase 2 of the geosynthetic installation, Burnside was the general contractor and ECSI used a new installation team managed by May.

As evidenced by the project documentation and testing program results, the SFL closure cap was constructed in accordance with 40 CFR 257.102, 30 TAC §352.1221, CCR Closure Plan, and the August 2, 2021, project drawings, technical specifications, and QA/QC program.

HDR appreciates the opportunity to serve as your consultant on this Project and to submit this completion and CQA report for capping the SFL. If you have any questions concerning this report, please contact the undersigned.

June 5, 2025

David C. Vogt, PE

P.E. License #93905
Project Manager
HDR Engineering, Inc.
17111 Preston Road, Suite 300
Dallas, TX 75248
Texas Engineering Firm No. 754

APPENDIX A

LANDFILL CAP AS-BUILT DRAWINGS

TOPOGRAPHIC SURVEY OF SITE F LANDFILL SURVEYED DECEMBER, 2024 AERIAL IMAGERY COLLECTED DECEMBER 11, 2024 SCALE: 1" = 200.00'

Texas 811 Know what's below. Call before you dig.

NOTE: Coordinates and elevations shown hereon refer to the TMPA plant control network. Original control monument (5/8" iron rod inside 6" pipe) located at:

N: 10215668.789'
E: 3632329.002'
Z: 277.72'

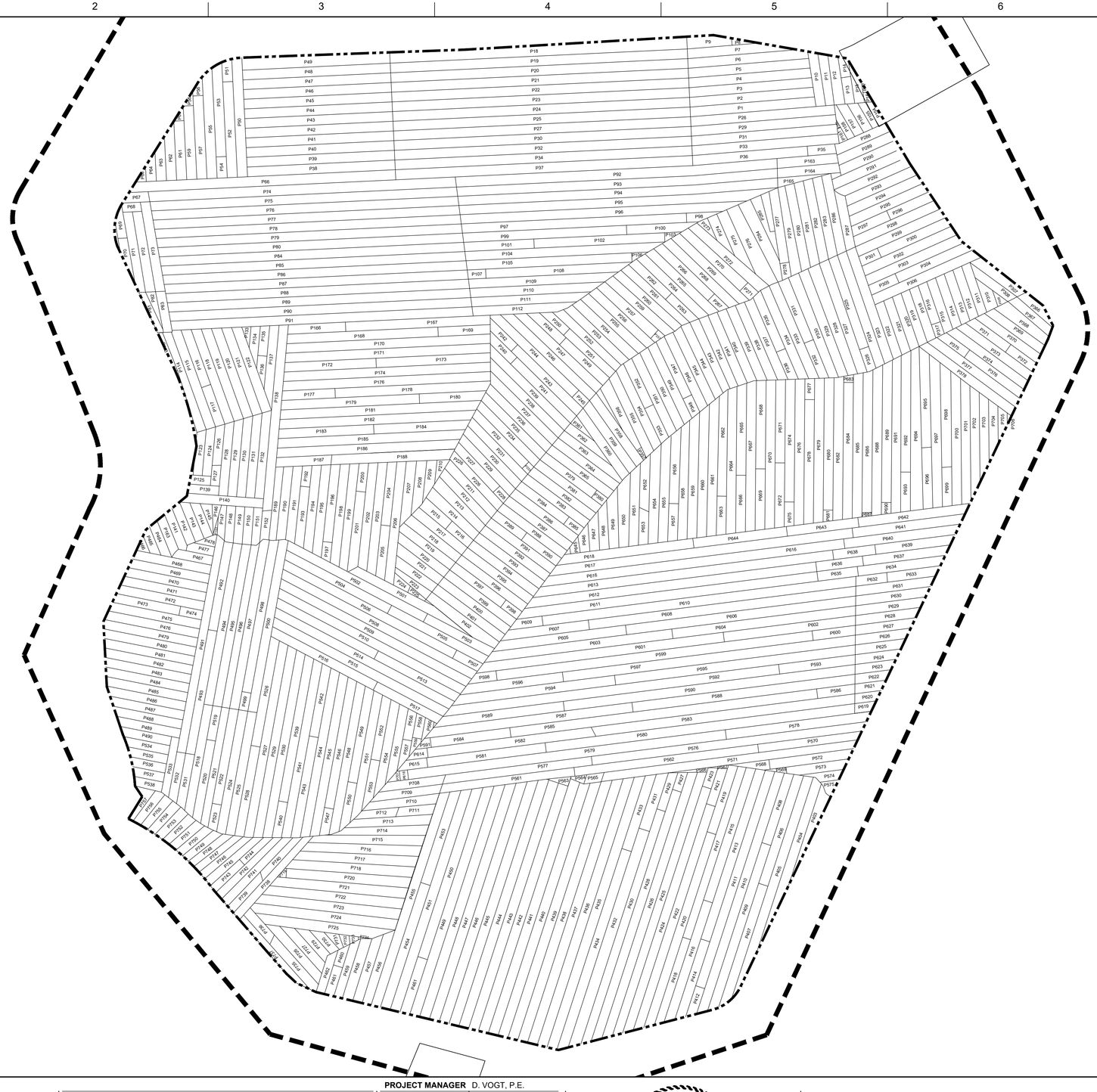
Onsite control monument (1/2" Ir. Rod) located at:

N:10,221,619.86
E:3,639,078.94
Elev: 328.50'

Some features shown hereon are based on planimetric data.

JOB # : 2020138 SFL Asbuilt
CLIENT : GCERG
SCALE: 1" = 200.00'

LACY SURVEYING
P.O. BOX 1001
CHANDLER, TEXAS 75758
PHONE (903) 859 - 9942
LacySurveying.com
Texas Board of Professional Engineers and Land Surveyors
Firm #10194876



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HDR
Firm Registration No. F-754

17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400

ISSUE	DATE	DESCRIPTION
A	01/31/2025	AS-CONSTRUCTED DRAWINGS

PROJECT MANAGER D. VOGT, P.E.

PROJECT NUMBER 10290148

STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
June 5, 2025

Gibbons Creek Environmental Redevelopment Group, LLC

SITE F LANDFILL CLOSURE
Anderson, Texas

GEOMEMBRANE PANEL LAYOUT AS-BUILT

0 1" 2"

FILENAME SITE LAYOUT AS-BUILT.dwg
SCALE 1"=130'
SHEET GEOMEMBRANE PANEL AS-BUILT

Gibbons Creek Environmental
Redevelopment Group, LLC

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400

Construction Drawings For

Gibbons Creek Electric Station

Site F Landfill Closure

VICINITY MAP
NOT TO SCALE

Project No.
10290148

Anderson, Texas
June 2025

THIS RECORD DRAWING IS A COMPILATION OF THE SEALED ENGINEERING DRAWINGS FOR THIS PROJECT, MODIFIED BY ADDENDA AND CHANGE ORDERS, INFORMATION BY THE CONTRACTOR OR OTHER, NOT ASSOCIATED WITH THE DESIGN ENGINEER, CANNOT BE VERIFIED FOR ACCURACY OR COMPLETENESS. THE ORIGINAL SEALED DRAWINGS ARE ON FILE AT THE OFFICES OF LUMINANT.

INDEX OF DRAWINGS

STANDARD ABBREVIATIONS

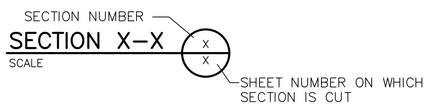
&	AND
APPROX	APPROXIMATELY
@	AT
AVG	AVERAGE
APS	ASH PONDS
BOE	BOTTOM OF EXCAVATION
BOL	BOTTOM OF LINER
X	BY
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CY	CUBIC YARD
DIA	DIAMETER
DET	DETAIL
DWG	DRAWING
E	EAST
ELEV	ELEVATION
EW	EACH WAY
EXIST	EXISTING
EXC	EXCAVATION
FGD	FLUE GAS DESULFICATION
FML	FLEXIBLE MEMBRANE LINER
FT	FEET
GAL	GALLON
GCSES	GIBBONS CREEK STEAM ELECTRIC STATION
GCERG	GIBBONS CREEK ENVIRONMENTAL REDEVELOPMENT GROUP
GND	GROUND
GDL	GRAVEL DRAINAGE LAYER
GNDL	GEONET DRAINAGE LAYER
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
IN	INCHES
IE	INVERT ELEVATION
LCRS	LEACHATE COLLECTION AND REMOVAL SYSTEM
LCS	LEACHATE COLLECTION SYSTEM
LCP	LEACHATE COLLECTION PIPE
LCPR	LEACHATE COLLECTION PIPE RISER
LF	LINEAR FEET
LB	POUND
MH	MANHOLE
MAX	MAXIMUM
MIL	.001 INCHES
MIN	MINIMUM
MW	MONITOR WELL
MSL	MEAN SEA LEVEL
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NOI	NOTICE OF INTENT
NTS	NOT TO SCALE
OC	ON CENTER
OZ	OUNCE
%	PERCENT
PLCP	PERFORATED LEACHATE COLLECTION PIPE
PERF	PERFORATED
PGL	PROFILE GRADE LINE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
PT	POINT OF TANGENT
PZ	PIEZOMETER
Q	FLOW
QTY	QUANTITY
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
REQ	REQUIRED
RD	ROAD
SAL	SITE A LANDFILL
SCH	SCHEDULE
SDL	SAND DRAINAGE LAYER
SEC	SECTION
SFL	SITE F LANDFILL
SHT	SHEET
S	SOUTH
SDR	STANDARD DIMENSION RATIO
SLQCP	SOIL LINER QUALITY CONTROL PLAN
SP	STEEL PIPE
SSP	SCRUBBER SLUDGE POND
SQ	SQUARE
SS	SIDE SLOPE
STA	STATION
T.A.S.	TERMINAL ANCHOR SECTION
TL	TANGENT LENGTH
TOC	TOP OF COVER
TOFC	TOP OF FINAL COVER
TOL	TOP OF LINER
TOS	TOE OF SLOPE
TS	TOP SLOPE
TEMP	TEMPORARY
TPDES	TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WEST
W/	WITH
WW	WETWELL
YD	YARD

SYMBOLS

SECTION DETAIL INDICATORS

DRAWING ON WHICH SECTION IS CUT:

DRAWING ON WHICH SECTION APPEARS:



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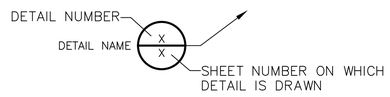

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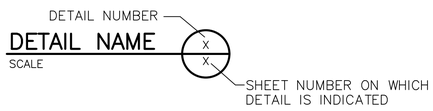
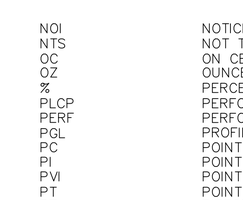
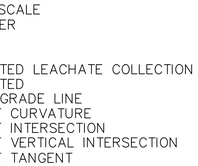
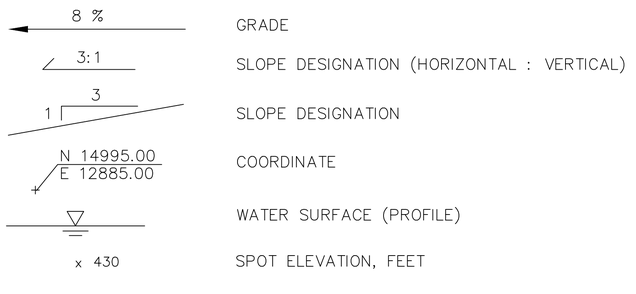






CURVE WITH HORIZONTAL CONTROL:

VERTICAL CONTROL DESIGNATION



GENERAL NOTES

1. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND PROJECT SPECIFICATIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE PROJECT SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.
2. COORDINATE SYSTEM IS BASED ON LOCAL SURVEY. THE BENCHMARKS TO BE USED FOR CONSTRUCTION ARE LOCATED AS SHOWN ON DRAWING NO. 00C–01. EXISTING CONTOURS ARE BASED ON TOPOGRAPHICAL SURVEY PERFORMED FEBRUARY 12–20, 2019 BY LACY SURVEYING. CURRENT GROUND ELEVATIONS MAY VARY FROM THOSE SHOWN DUE TO SITE WORK THAT HAS BEEN PERFORMED SINCE THE SURVEY WAS PERFORMED.
3. THE CONTRACTOR SHALL VERIFY EXISTING CONTOURS PRIOR TO THE START OF WORK.
4. THERE SHALL NOT BE ANY ADDITIONAL PAYMENT OR EXTENSION OF CONTRACT TIME FOR WORKING WITH SATURATED SOILS OR HANDLING WATER SEEPAGE DUE TO RAINFALL, RUNOFF AND INFILTRATION.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING ROADS, BENCHMARKS AND EXISTING GROUNDWATER MONITOR WELLS DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT THE GROUNDWATER MONITOR WELLS, BENCHMARKS AND EXISTING ROADS.
6. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN ESTABLISHED BY THE OWNER OR ENGINEER. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PROPER SAFE WORKING DISTANCE FROM ALL UTILITY EASEMENTS OR LINES.
7. EXCAVATION BY "BLASTING" IS NOT PERMITTED ON THIS PROJECT.
8. FINISHED GROUND ELEVATIONS SHALL MATCH EXISTING GROUND ELEVATIONS EXCEPT AS SHOWN ON THE PLANS. ALL EXCESS SOIL FROM THE EXCAVATION AND GRADING SHALL BE PLACED IN DESIGNATED STOCKPILE LOCATIONS AS APPROVED BY THE OWNER. IF WASTE IS ENCOUNTERED DURING EXCAVATION, THE OWNER SHALL BE NOTIFIED AND THE WASTE REMOVED AND PLACED IN AREAS DESIGNATED AS APPROVED BY THE OWNER. TRANSPORT OF SOIL TO FILL AREAS SHALL BE CONDUCTED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
9. THE CONTRACTOR SHALL CONSTRUCT, AND UPON COMPLETION OF THE PROJECT, REMOVE TEMPORARY CONSTRUCTION ACCESS ROADS. SUCH ROADS SHALL BE LOCATED AS APPROVED BY THE OWNER. DRAINAGE PATTERNS AT THE SITE SHALL NOT BE ALTERED BY ROAD CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF TEMPORARY DRAINAGE STRUCTURES, INCLUDING CULVERTS, AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR SHALL INSTALL, MAINTAIN, AND UPON COMPLETION OF THE PROJECT, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS AS APPROVED BY GCERG AND IN ACCORDANCE WITH THE SITE SWPPP AND PURSUANT TO TPDES REQUIREMENTS. SUCH CONTROLS SHALL BE PLACED AT THE LIMITS OF DISTURBED AREAS AND AT INTERMEDIATE LOCATIONS WHERE CONCENTRATED FLOW IS LIKELY.
11. TEMPORARY CONSTRUCTION SLOPES SHALL NOT BE GREATER THAN 2H:1V. STEEPER SLOPES WILL ONLY BE ALLOWED IF THE CONTRACTOR PROVIDES A GEOTECHNICAL ENGINEERING REPORT SPECIFYING MAXIMUM SLOPES AND THE DURATION FOR WHICH SUCH SLOPES SHALL REMAIN IN PLACE.
12. THE CONTRACTOR SHALL REMOVE ALL VEGETATION WITHIN THE CONSTRUCTION LIMITS AS REQUIRED TO CONSTRUCT THE PROJECT. ALL VEGETATION SHALL BE REMOVED BY CONTRACTOR AT NO ADDITIONAL EXPENSE TO OWNER.
13. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ERROR OR DISCREPANCY FOUND ONCE THE CONTRACT DOCUMENT IS CAREFULLY REVIEWED AND ALL ASPECTS OF FIELD WORK HAVE BEEN VERIFIED. IN THE EVENT THE CONTRACTOR CONTINUES TO WORK ON AN ITEM WHERE AN ERROR EXISTS, IT SHALL BE DEEMED THAT THE CONTRACTOR BID AND INTENDED TO EXECUTE THE MORE STRINGENT OR HIGHER QUALITY REQUIREMENT WITHOUT AN INCREASE IN CONTRACT SUM OR TIME. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO CORRECT ANY FAILURE OF COMPANY PARTS TO COORDINATE OR FIT PROPERLY INTO FINAL POSITION, AS A RESULT OF CONTRACTOR FAILURE TO RAISE OR RESOLVE A DISCREPANCY.
14. THE DRAWINGS AND SPECIFICATIONS SHOULD AGREE WITH EACH OTHER, AND WORK CALLED FOR BY DRAWINGS AND NOT MENTIONED IN SPECIFICATION, OR VICE VERSA, SHALL BE FURNISHED BY BOTH. WHEN DISCREPANCIES EXIST BETWEEN SCALE AND DIMENSIONS, THE DIMENSIONED FIGURE SHALL BE USED.
15. CONTRACTOR AND EACH SUBCONTRACTOR SHALL VERIFY ALL GRADES, LINES, LEVELS, AND DIMENSIONS AS INDICATED ON DRAWINGS, AND HE SHALL REPORT ERRORS TO THE ENGINEER BEFORE COMMENCING WORK. THE CONTRACTOR SHALL ESTABLISH BENCHMARKS IN AT LEAST TWO WIDELY SEPARATED PLACES, AND AS WORK PROGRESSES THE CONTRACTOR WILL MAINTAIN ADEQUATE HORIZONTAL AND VERTICAL CONTROL.
16. CONTRACTOR SHALL PROVIDE EROSION CONTROL BY SEEDING FOR ALL AREAS DISTURBED BY CONTRACTOR DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL NOT DISTURB ANY AREA WITHOUT THE APPROVAL OF THE ENGINEER. EROSION CONTROL BY SEEDING SHALL CONFORM TO STANDARD SPECIFICATION 329200.
17. NO CCR MATERIAL WILL BE PERMITTED TO BE SPILLED FROM THE HAUL TRUCKS. ANY CCR MATERIAL SPILLED ON THE HAUL ROUTE MUST IMMEDIATELY BE CONTAINED AND REMOVED. THE CONTRACTOR SHALL FOLLOW CHARAH'S CCR SPILL RESPONSE PLAN AND COORDINATE ANY SPILL WITH CHARAH/GCERG AS REQUIRED.
18. LEACHATE AND STORMWATER THAT HAS COME INTO CONTACT WITH CCR MATERIAL IS TO BE CONSIDERED CONTACT WATER. CONTRACTOR WILL CONTROL THE WATER ON SITE IN COMPLIANCE WITH THE TPDES PERMIT AND THE PROJECT WATER MANAGEMENT PLAN, THE LATEST EDITION.
19. DANGER –A CONCENTRATION OF H2S POISONOUS GAS MAY BE PRESENT NEAR DISCHARGE DRAINS, LEACHATE EQUIPMENT OR LOW–LYING AREAS. DETECTION EQUIPMENT IS REQUIRED WHEN WORKING IN AREAS WHERE H2S MAY BE PRESENT.
20. DANGER –SOME LEACHATE WATER MAY BE ACIDIC. CONTRACTOR TO TAKE ANY NECESSARY PRECAUTIONS WHILE WORKING WITH LEACHATE WATER.
21. CONTRACTOR TO DETERMINE, INSTALL AND MAINTAIN APPROPRIATE STORMWATER POLLUTION PREVENTION BMP'S IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND AS DIRECTED BY THE OWNER. CONTRACTOR WILL BE RESPONSIBLE FOR PERFORMING INSPECTIONS AND DOCUMENTATION REQUIRED UNDER THE SITE'S STORMWATER POLLUTION PLAN.
22. CONTRACTOR TO SECURE NOI FOR TXR150000 CONSTRUCTION TPDES PERMIT COVERAGE AND POST THE SITE NOTICE AT THE SITE ENTRANCE ALONG FM244. NOI MUST BE SUBMITTED A MINIMUM OF 7 DAYS PRIOR TO THE START OF CONSTRUCTION.
23. SEE SPECIFICATIONS 31 35 26.17 FOR MINIMUM SOIL COVER REQUIREMENTS FOR VEHICLE USE ON TOP OF GEOMEMBRANES.

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ISSUED FOR CONSTRUCTION

HDR
Firm Registration No. F-754

17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400

ISSUE	DATE	DESCRIPTION
A	06/05/2025	AS–CONSTRUCTED DRAWINGS

PROJECT MANAGER D. VOGT, P.E.
DRAWN BY R. SEELBACH
PROJECT NUMBER 10290148

STATE OF TEXAS · DAVID C. VOGT · 93905 · LICENSED PROFESSIONAL ENGINEER · 06/05/2025

18

Gibbons Creek Environmental Redevelopment Group, LLC

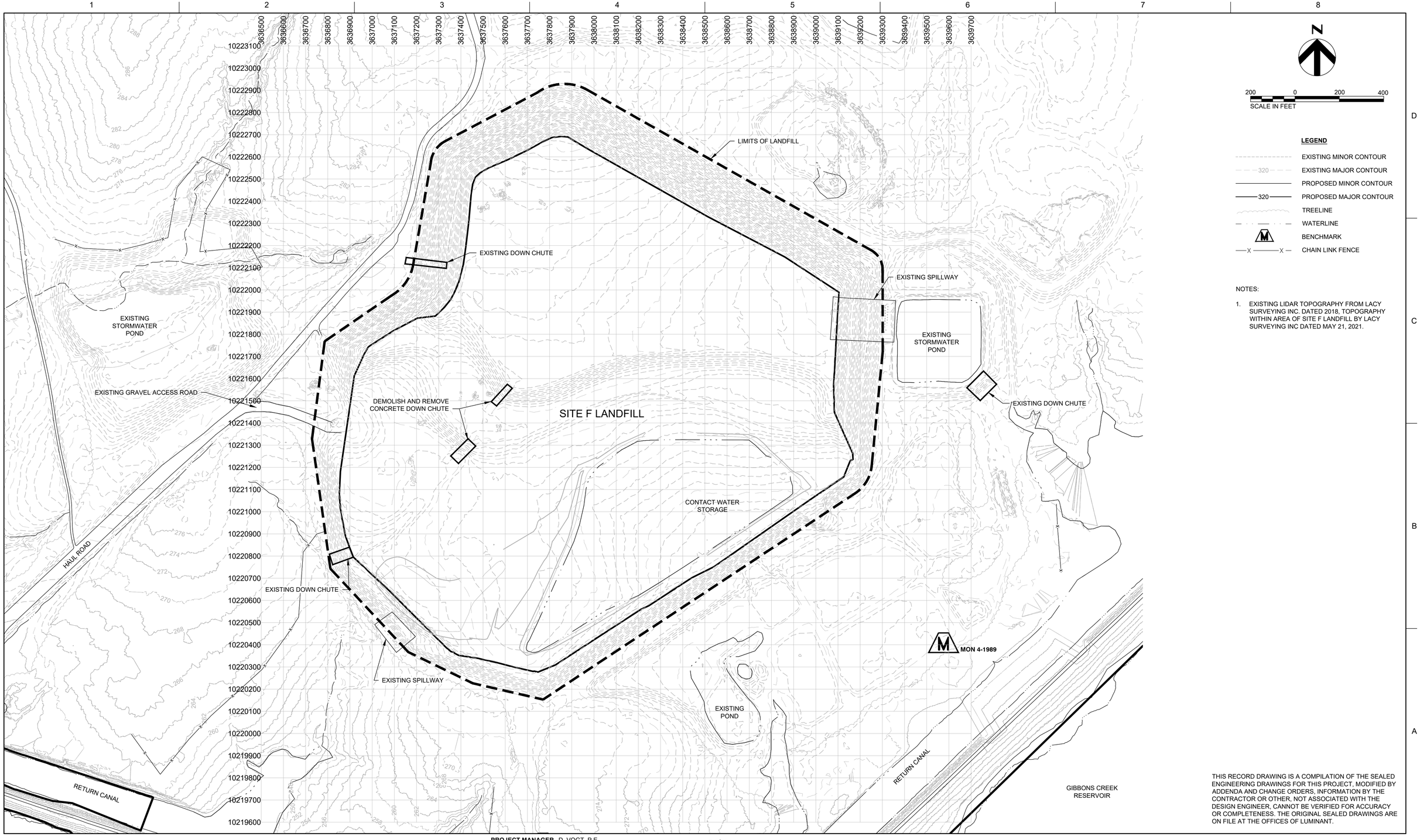
SITE "A" LANDFILL
Anderson, Texas

ABBREVIATIONS AND GENERAL NOTES

0 1" 2"

FILENAME 00G-02.dwg
SCALE

SHEET **00G-02**



NOTES:

1. EXISTING LIDAR TOPOGRAPHY FROM LACY SURVEYING INC. DATED 2018, TOPOGRAPHY WITHIN AREA OF SITE F LANDFILL BY LACY SURVEYING INC DATED MAY 21, 2021.

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PROJECT NUMBER 10290148

STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
06/05/2025

Gibbons Creek Environmental Redevelopment Group, LLC

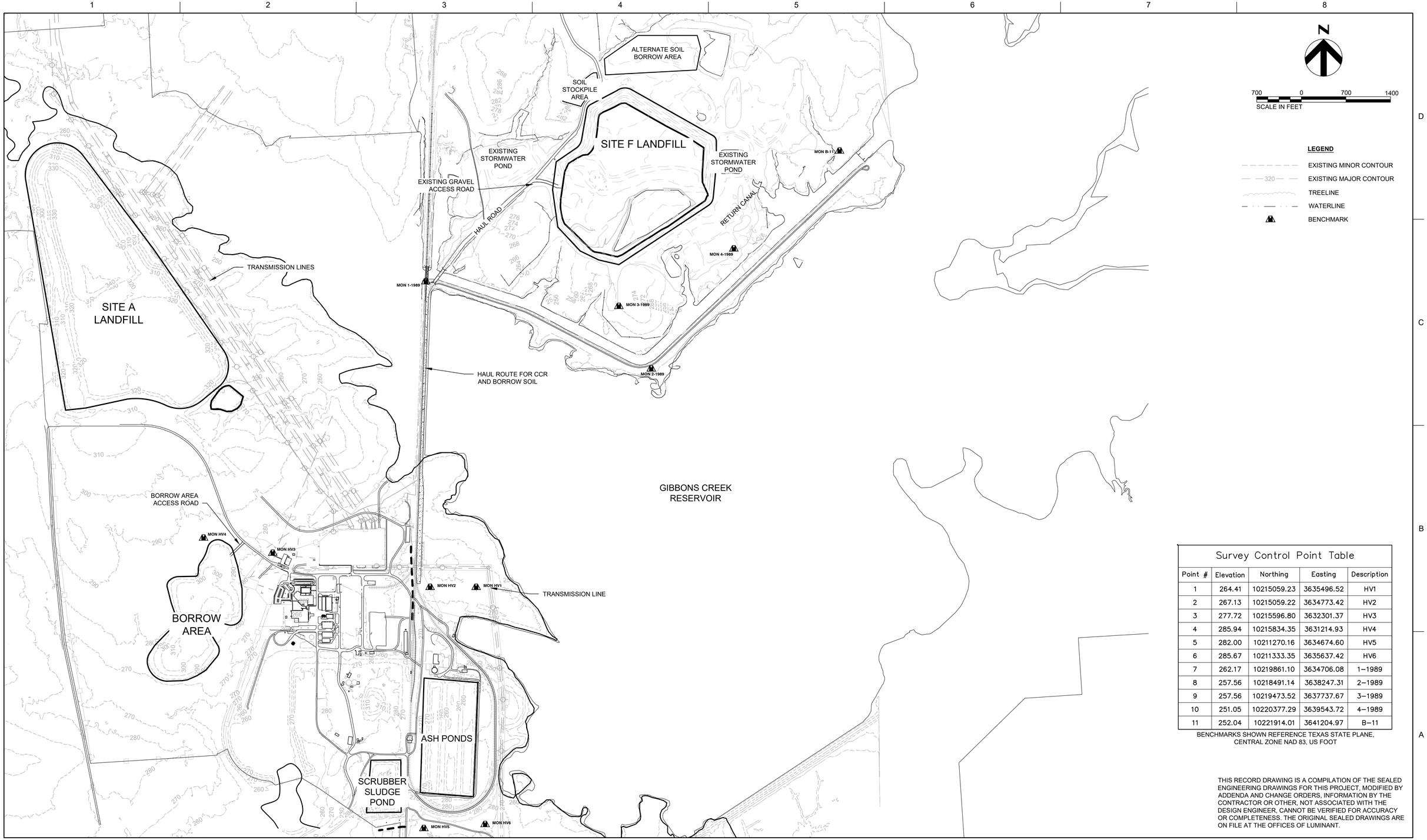
SITE F LANDFILL CLOSURE
Anderson, Texas

SURVEY GRID

0 1" 2"

FILENAME 00C-01.dwg
SCALE 1"=200'

SHEET 00C-01



Survey Control Point Table				
Point #	Elevation	Northing	Easting	Description
1	264.41	10215059.23	3635496.52	HV1
2	267.13	10215059.22	3634773.42	HV2
3	277.72	10215596.80	3632301.37	HV3
4	285.94	10215834.35	3631214.93	HV4
5	282.00	10211270.16	3634674.60	HV5
6	285.67	10211333.35	3635637.42	HV6
7	262.17	10219861.10	3634706.08	1–1989
8	257.56	10218491.14	3638247.31	2–1989
9	257.56	10219473.52	3637737.67	3–1989
10	251.05	10220377.29	3639543.72	4–1989
11	252.04	10221914.01	3641204.97	B–11

BENCHMARKS SHOWN REFERENCE TEXAS STATE PLANE, CENTRAL ZONE NAD 83, US FOOT

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PROJECT NUMBER 10290148

STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
06/05/2025

Gibbons Creek Environmental Redevelopment Group, LLC

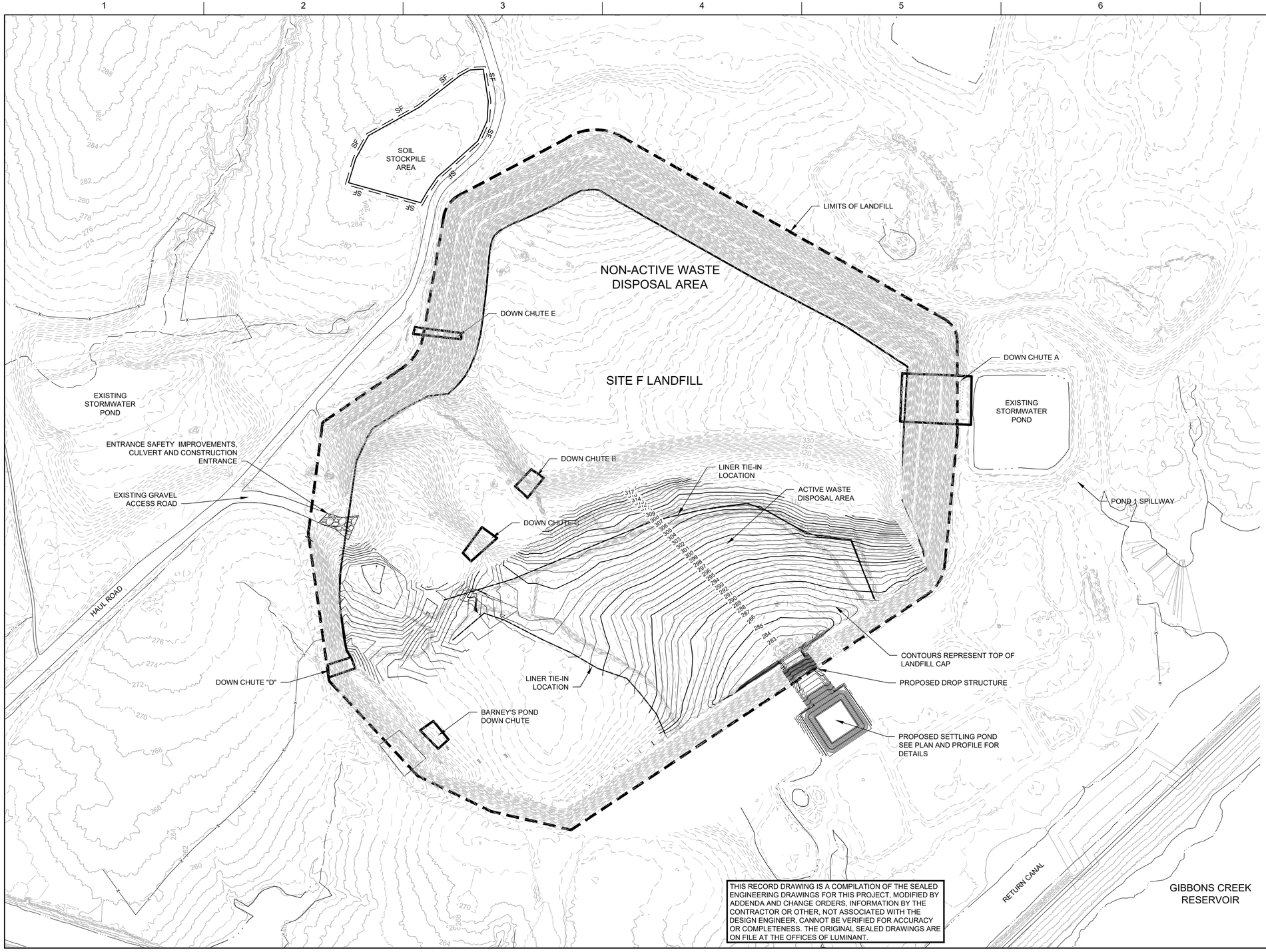
SITE F LANDFILL CLOSURE
Anderson, Texas

SITE PLAN

0 1" 2"

FILENAME 00C-02.dwg
SCALE 1"=700'

SHEET
00C-02



N

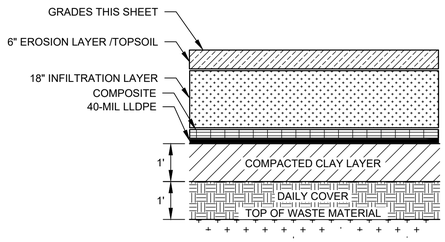
200 0 200 400
SCALE IN FEET

LEGEND

- EXISTING MINOR CONTOUR
- 320 EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 320 PROPOSED MAJOR CONTOUR

NOTES:

1. EXISTING CONDITIONS SURVEY OF ACTIVE AREA TAKEN ON SEPT 12, 2023 AND JANUARY 21, 2024 BY LACY SURVEYING, INC.



LANDFILL CAP ACTIVE WASTE DISPOSAL AREAS
NTS

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STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
06/05/2025

21

Gibbons Creek Environmental Redevelopment Group, LLC

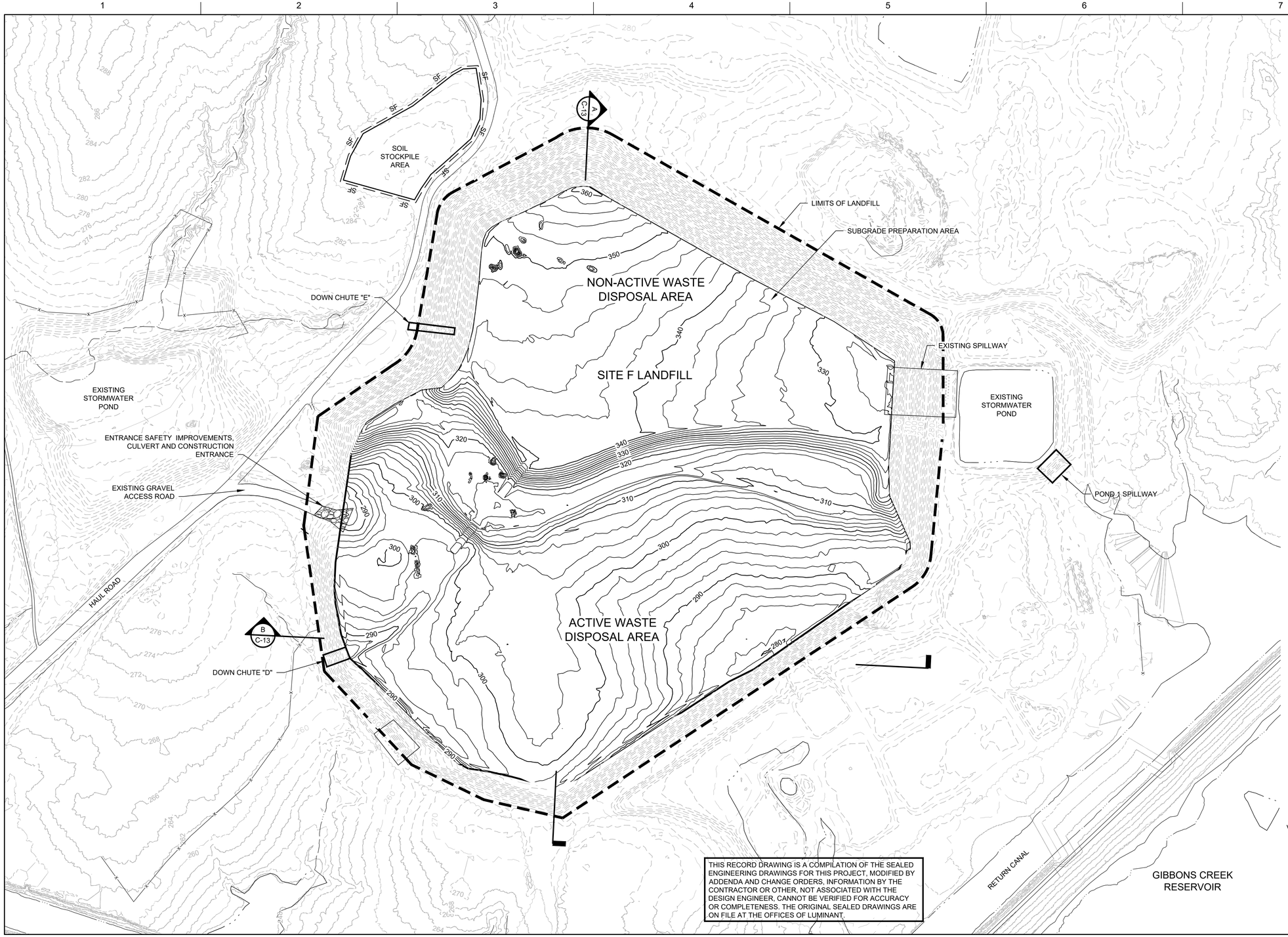
SITE F LANDFILL CLOSURE
Anderson, Texas

ACTIVE AREA CCR PLACEMENT

0 1" 2"

FILENAME 00C-03.dwg
SCALE 1"=200'

SHEET
00C-03



N

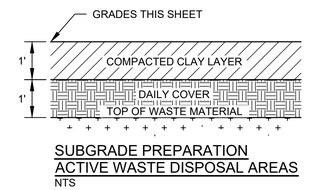
200 0 200 400
SCALE IN FEET

LEGEND

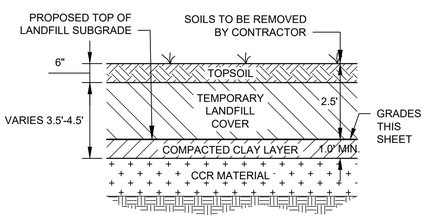
- EXISTING MINOR CONTOUR
- 320 EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 320 PROPOSED MAJOR CONTOUR

NOTES:

1. AS BUILT SURVEY BY LACY SURVEYING, INC. DECEMBER 11, 2024.



SUBGRADE PREPARATION
ACTIVE WASTE DISPOSAL AREAS
NTS



SUBGRADE PREPARATION
NON-ACTIVE WASTE DISPOSAL AREAS
NTS

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PROJECT NUMBER 10290148

STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
06/05/2025

22

Gibbons Creek Environmental Redevelopment Group, LLC

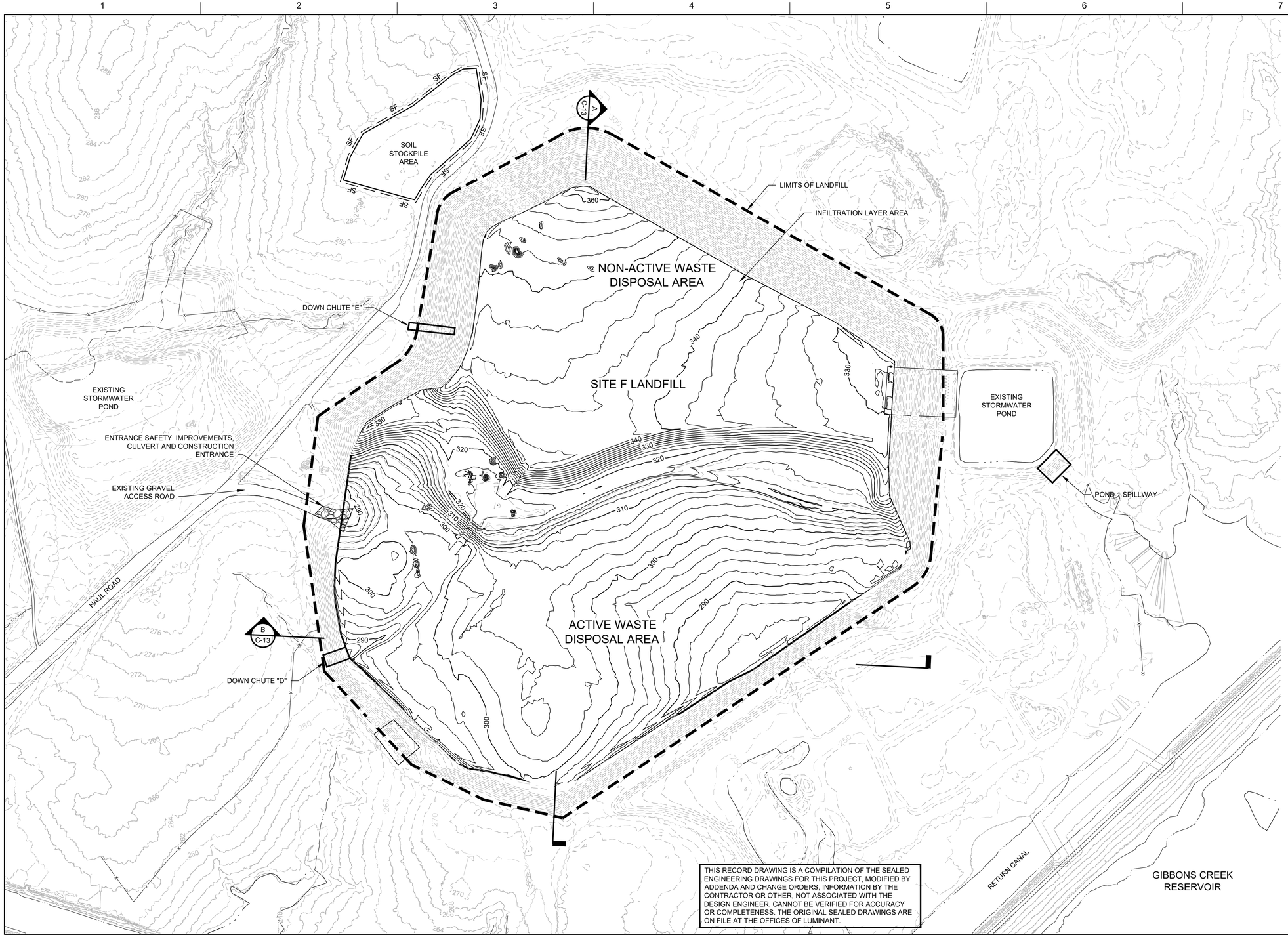
SITE F LANDFILL CLOSURE
Anderson, Texas

SUBGRADE PLAN
TOP OF COMPACTED CLAY LAYER

0 1" 2"

FILENAME 00C-04.dwg
SCALE 1"=200'

SHEET 00C-04



N

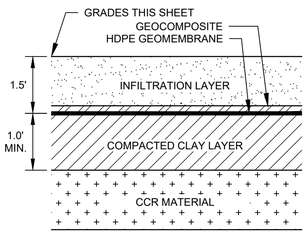
200 0 200 400
SCALE IN FEET

LEGEND

- EXISTING MINOR CONTOUR
- 320 EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 320 PROPOSED MAJOR CONTOUR

NOTES:

1. AS BUILT SURVEY BY LACY SURVEYING, INC. DECEMBER 11, 2024.



INFILTRATION LAYER OVER TOP OF LANDFILL
NTS

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PROJECT NUMBER 10290148

STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
06/05/2025

23

Gibbons Creek Environmental Redevelopment Group, LLC

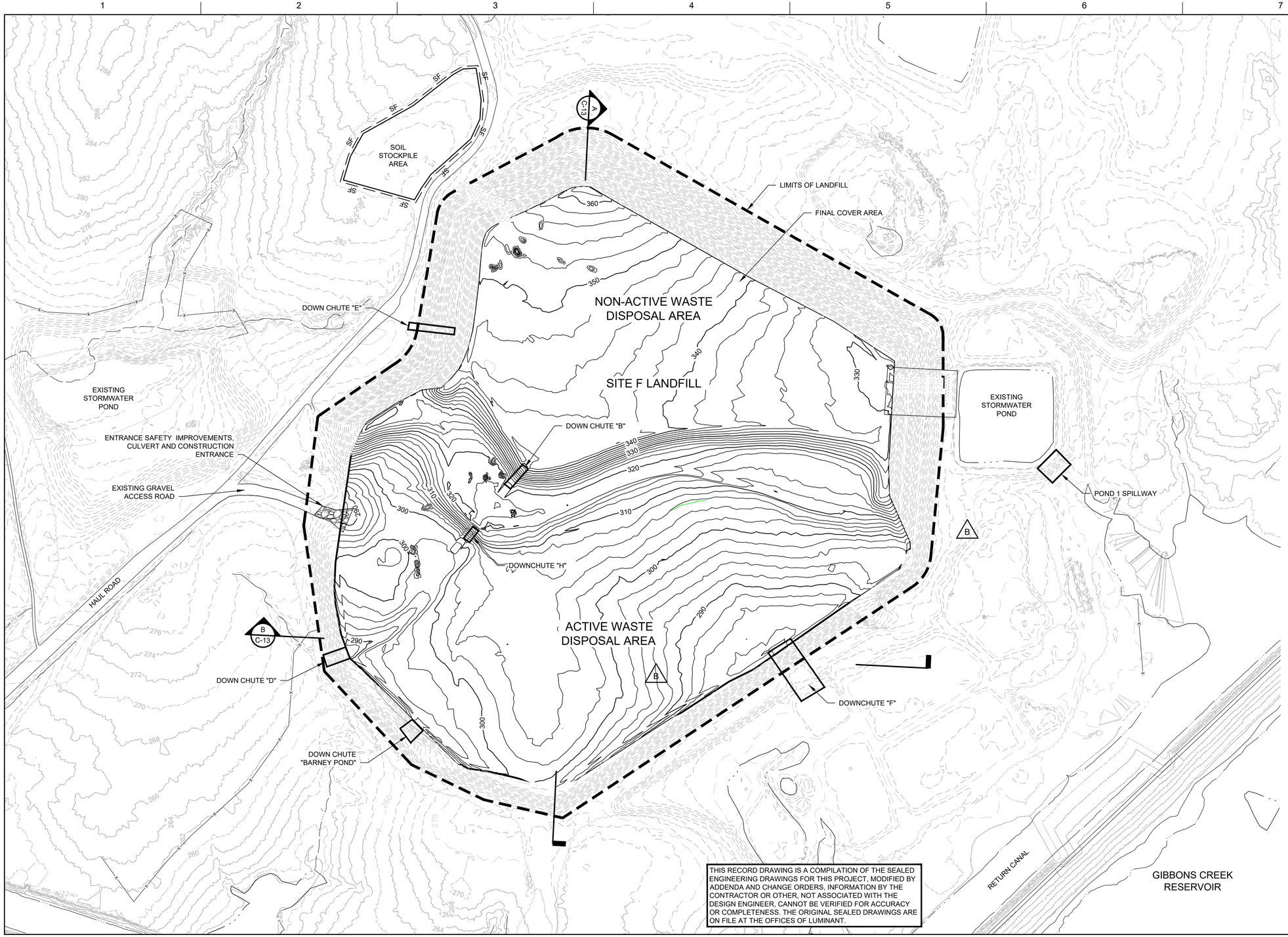
SITE F LANDFILL CLOSURE
Anderson, Texas

INFILTRATION LAYER PLAN

0 1" 2"

FILENAME 00C-05.dwg
SCALE 1"=200'

SHEET 00C-05

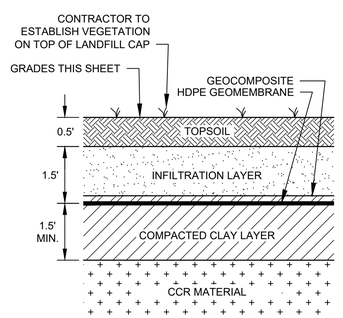


LEGEND

- EXISTING MINOR CONTOUR
- 320 EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 320 PROPOSED MAJOR CONTOUR

NOTES:

1. AS BUILT SURVEY BY LACY SURVEYING, INC. DECEMBER 11, 2024.



PROPOSED FINAL COVER OVER TOP OF LANDFILL
NTS

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Dallas, Texas 75248-1229
972.960.4400

ISSUE	DATE	DESCRIPTION
A	06/05/2025	AS-CONSTRUCTED DRAWINGS

PROJECT MANAGER D. VOGT, P.E.

PROJECT NUMBER 10290148

STATE OF TEXAS
DAVID C. VOGT
93905
LICENSED
PROFESSIONAL ENGINEER
06/05/2025

24

Gibbons Creek Environmental Redevelopment Group, LLC

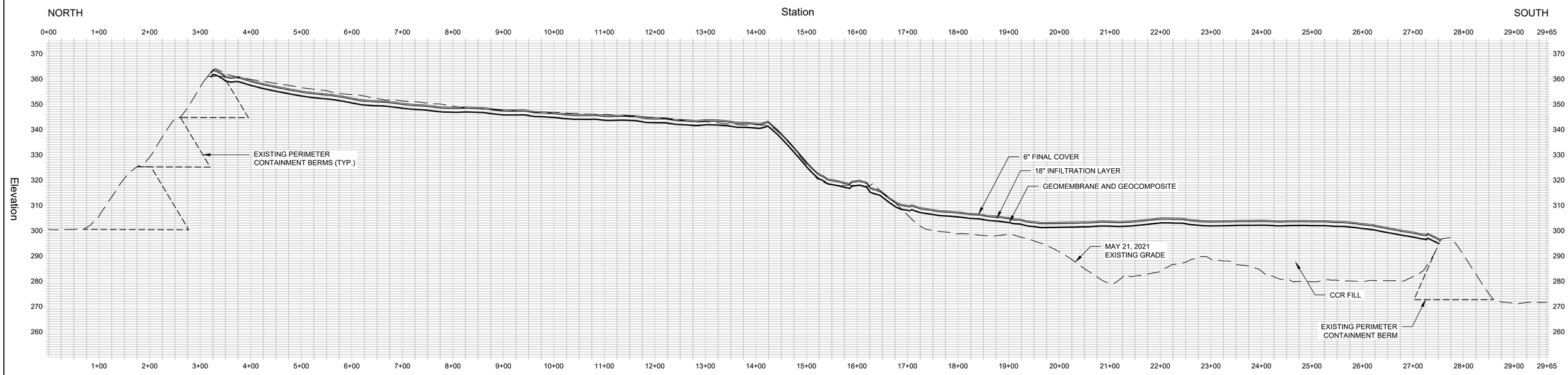
SITE F LANDFILL CLOSURE
Anderson, Texas

FINAL COVER PLAN

0 1" 2"

FILENAME 00C-06.dwg
SCALE 1"=200'

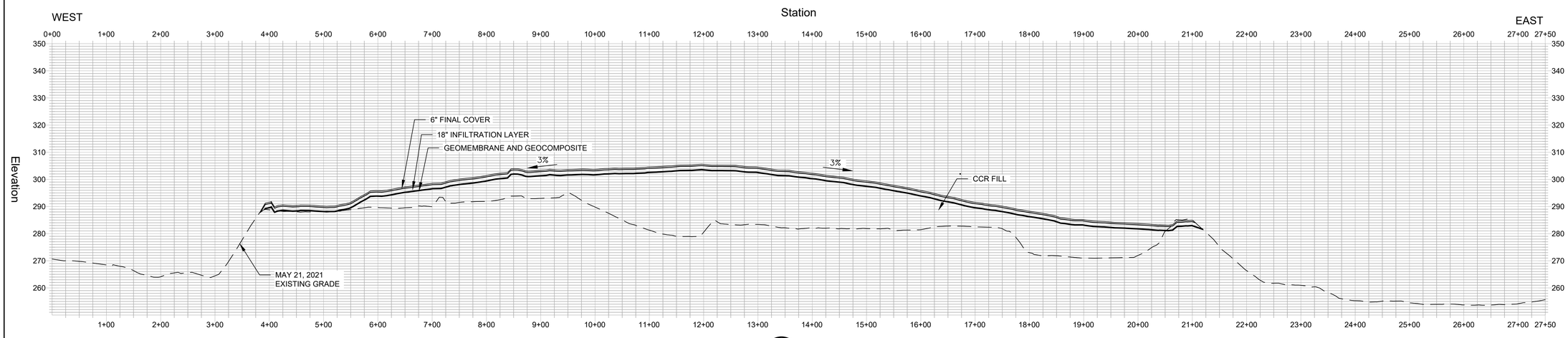
SHEET 00C-06



NORTH TO SOUTH

HORIZ. 1"=100', VERT. 1"=20'

A -



WEST TO EAST

HORIZ. 1"=100', VERT. 1"=20'

B -

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HDR
Firm Registration No. F-754

17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400

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PROJECT NUMBER 10290148

STATE OF TEXAS · DAVID C. VOGT · 93905 · LICENSED PROFESSIONAL ENGINEER · 06/05/2024

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Gibbons Creek Environmental Redevelopment Group, LLC

SITE F LANDFILL CLOSURE
Anderson, Texas

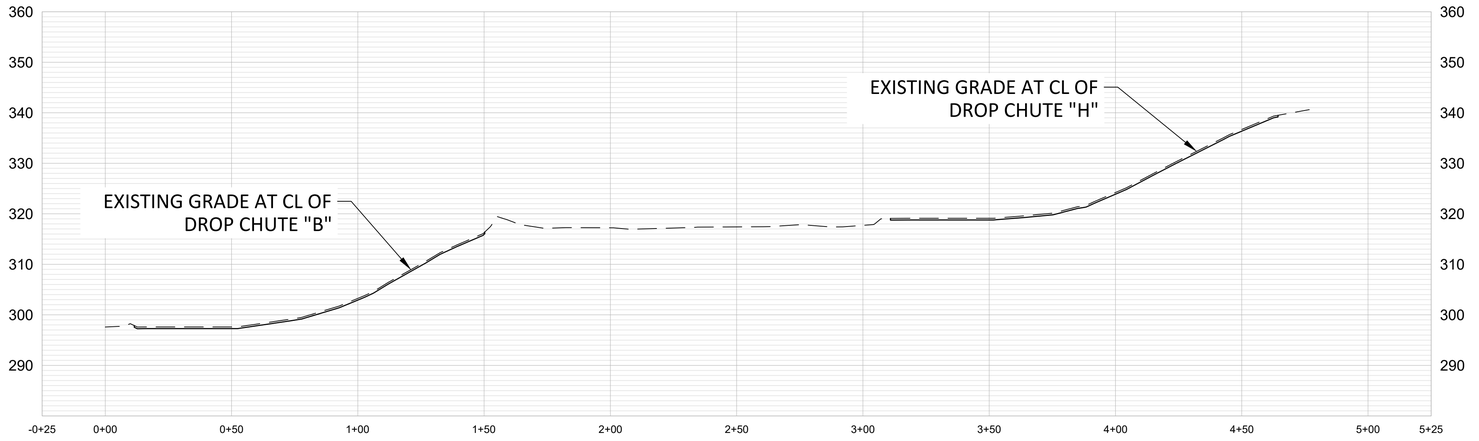
CROSS SECTIONS

0 1" 2"

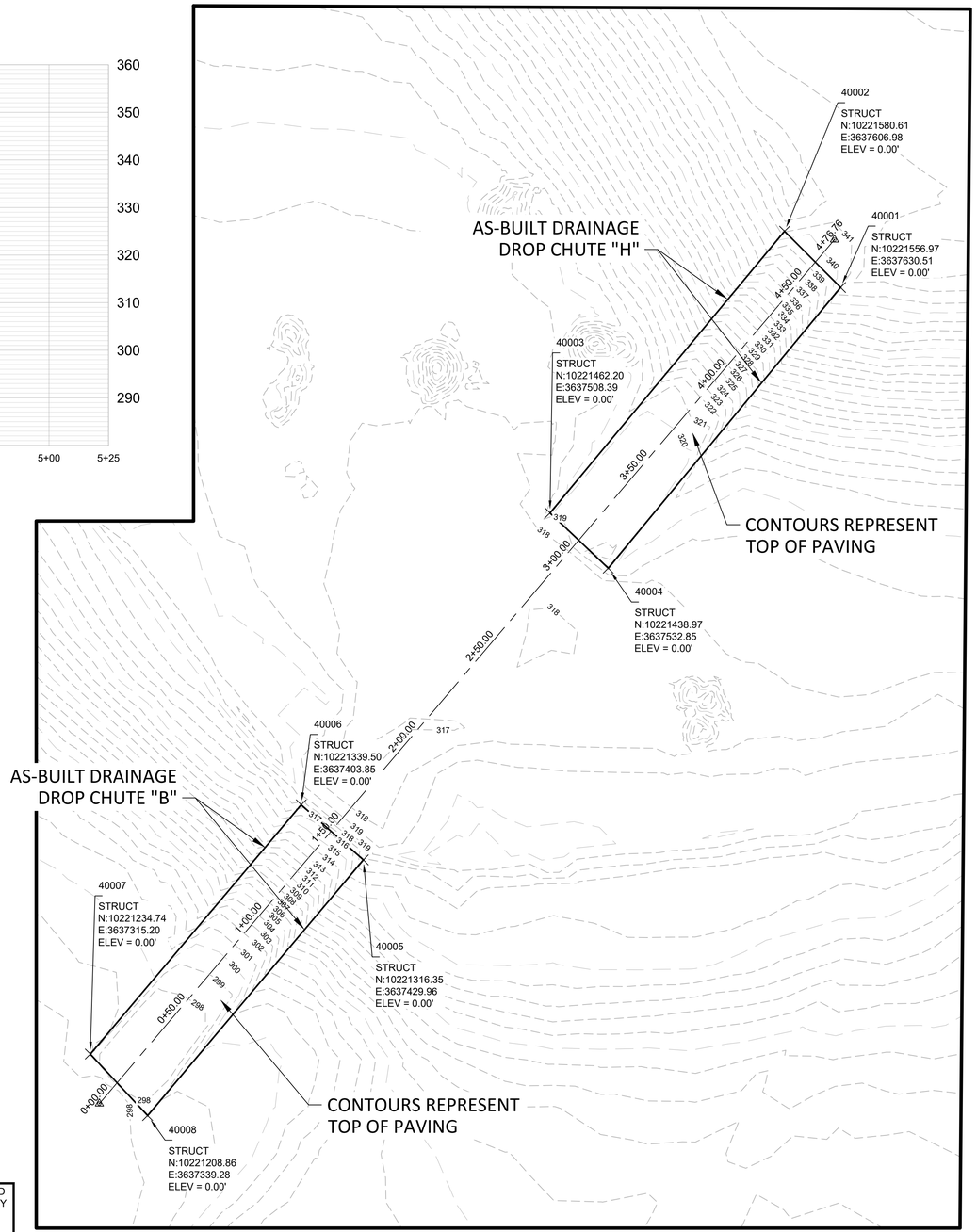
FILENAME 00C-07.dwg

SCALE AS SHOWN

SHEET 00C-07



PROFILE VIEW
1:30



PLAN VIEW
1:30

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PROFESSIONAL ENGINEER
06/05/2025

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Gibbons Creek Environmental Redevelopment Group, LLC

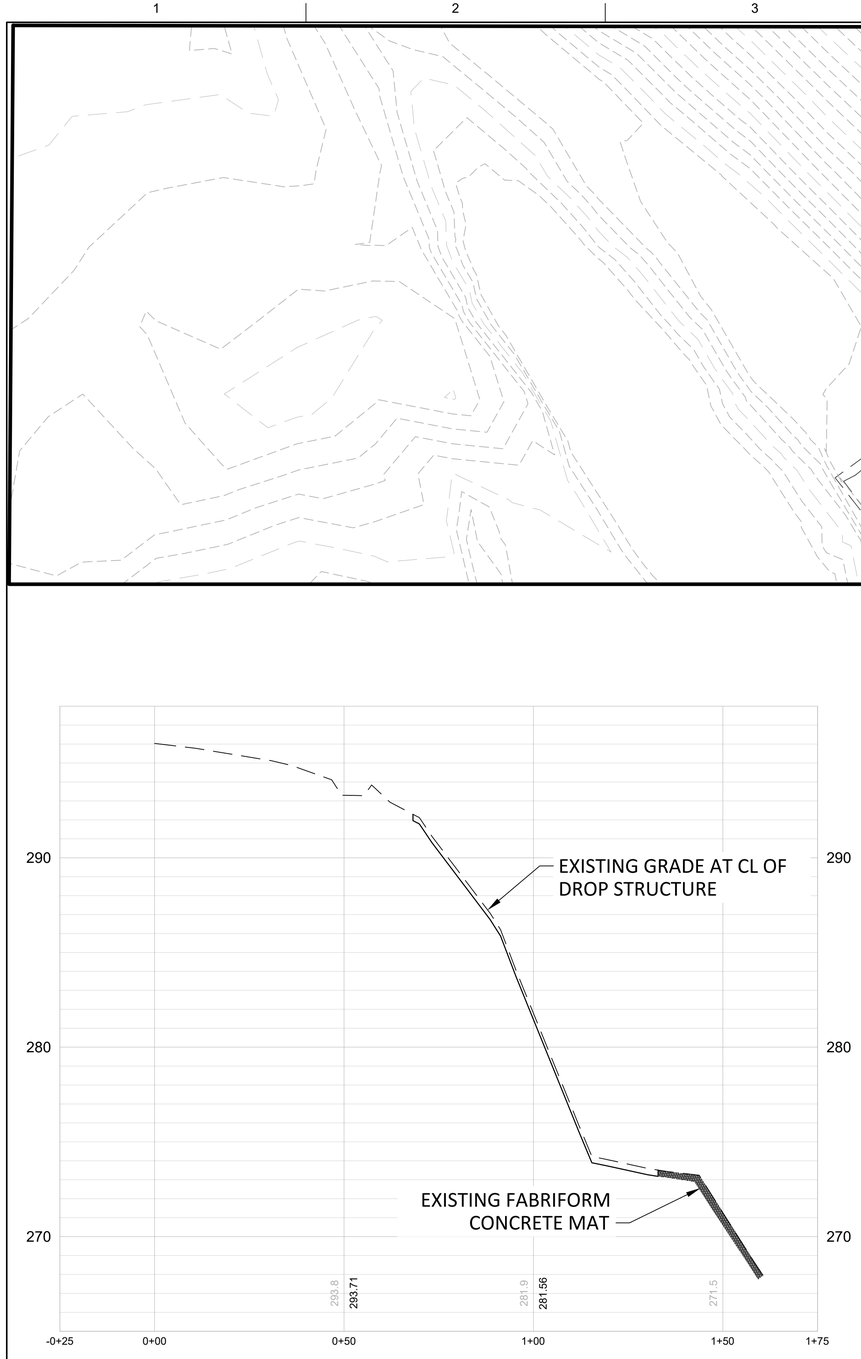
SITE F LANDFILL CLOSURE
Anderson, Texas

DOWN CHUTE B & H

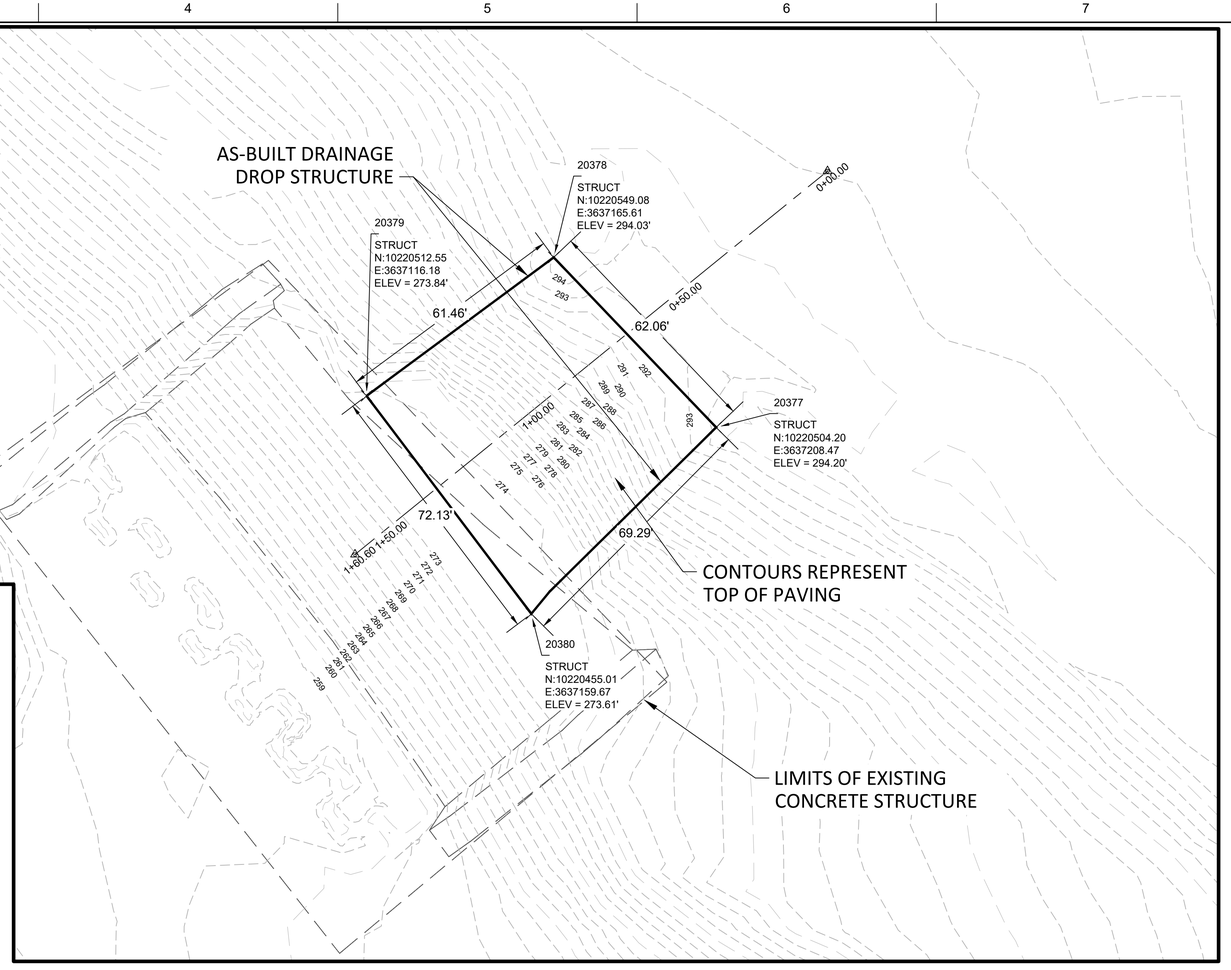
0 1" 2"

FILENAME 00C-08.dwg
SCALE 1:20

SHEET
00C-08



PROFILE VIEW
1:20



PLAN VIEW
1:20

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06/05/2025

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Gibbons Creek Environmental Redevelopment Group, LLC

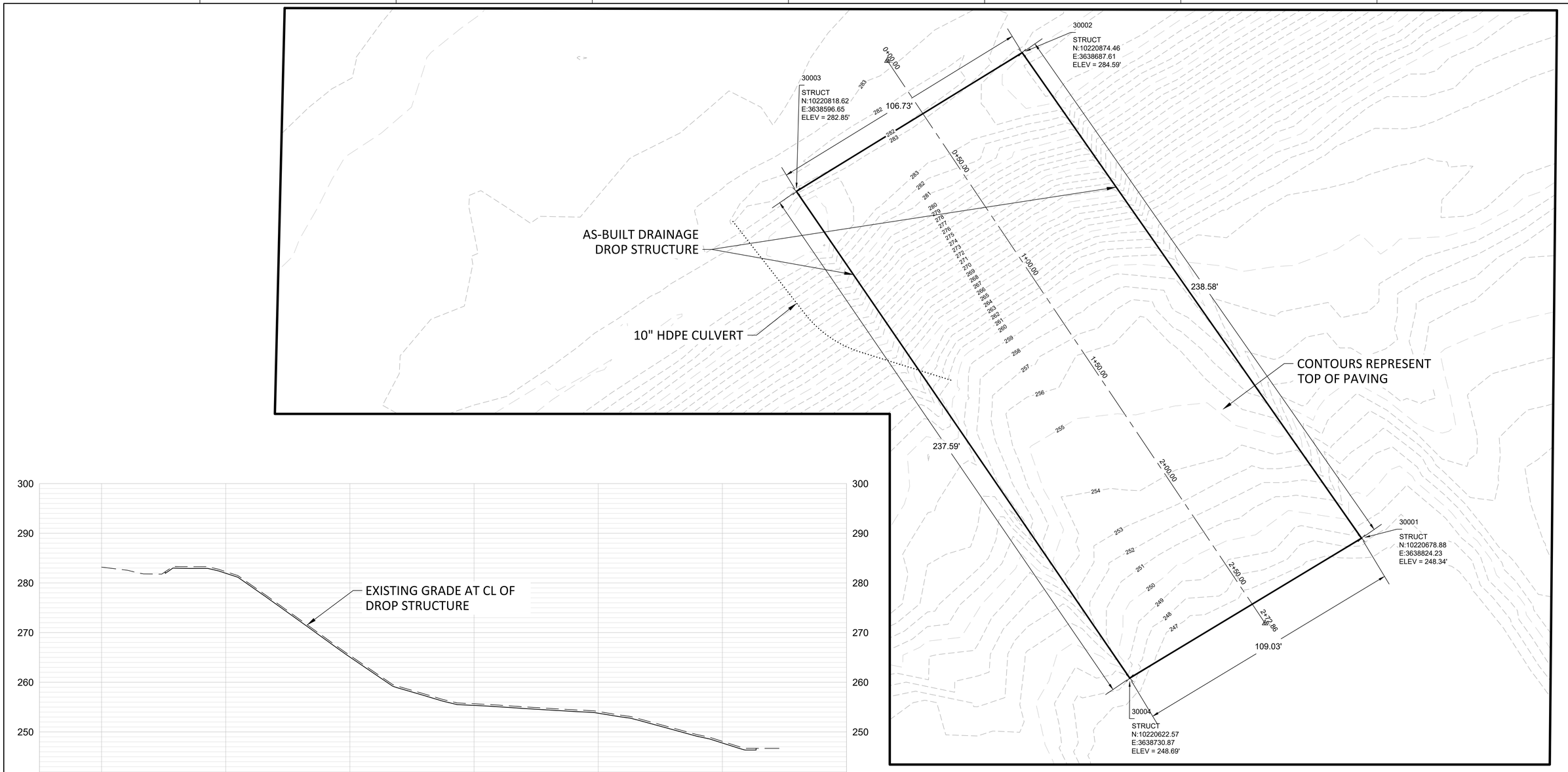
SITE F LANDFILL CLOSURE
Anderson, Texas

BARNEY POND DOWN CHUTE

0 1" 2"

FILENAME 00C-09.dwg
SCALE 1:20

SHEET 00C-09



PLAN VIEW
1:20

PROFILE VIEW
1:20

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Gibbons Creek Environmental Redevelopment Group, LLC

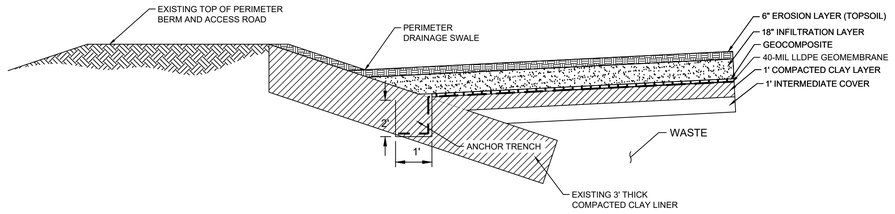
SITE F LANDFILL CLOSURE
Anderson, Texas

DOWN CHUTE F

0 1" 2"

FILENAME 00C-10.dwg
SCALE 1:20

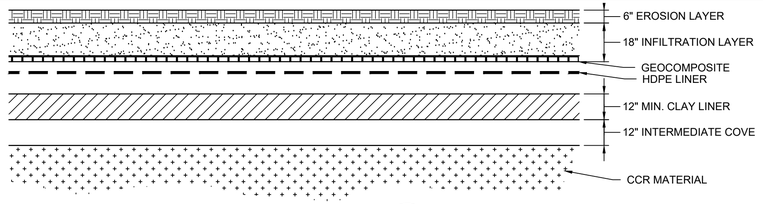
SHEET 00C-10



PERIMETER BERM CLOSURE CONSTRUCTION

NOT TO SCALE

1

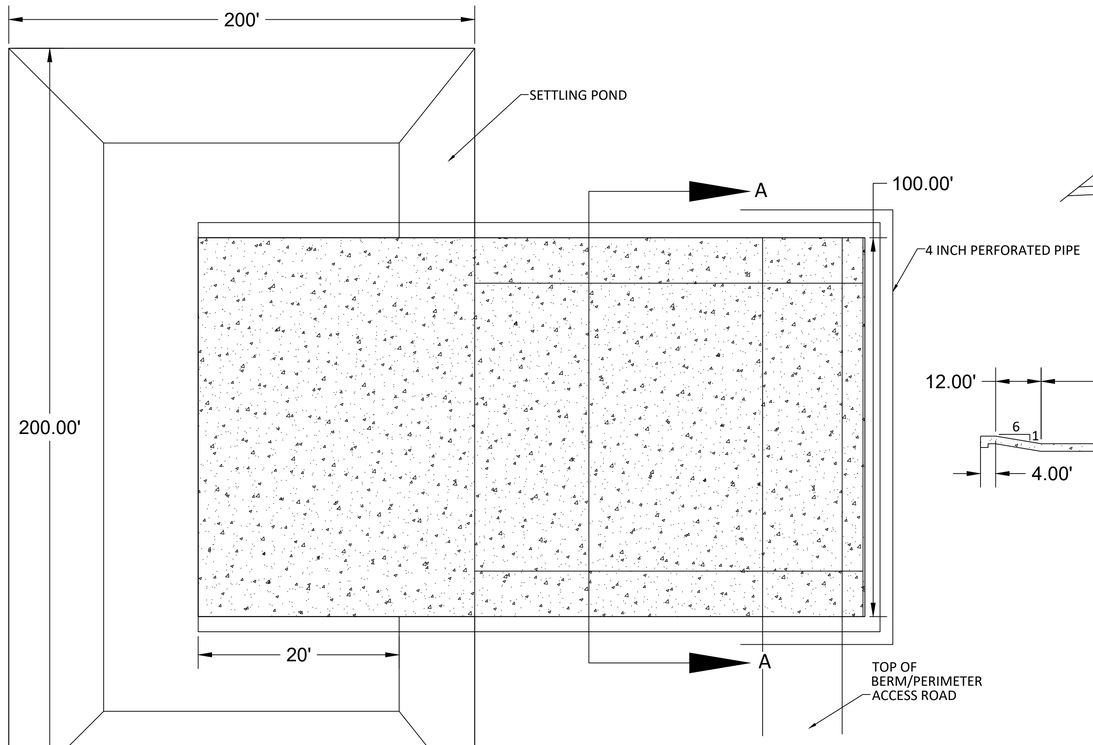


LINER DETAIL

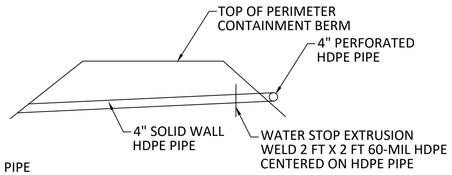
NOT TO SCALE

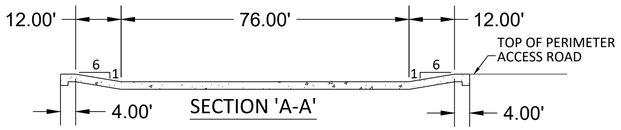
2

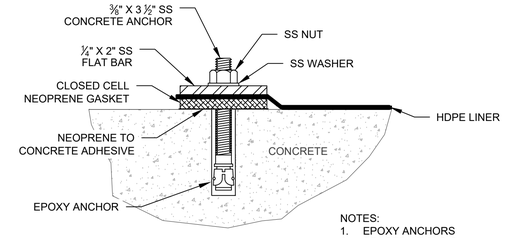
NOTES:
1. EXISTING TOPOGRAPHY FROM LACY LIDAR SURVEY DATED OCTOBER, 2023, AND DECEMBER 7, 2023.



PLAN VIEW





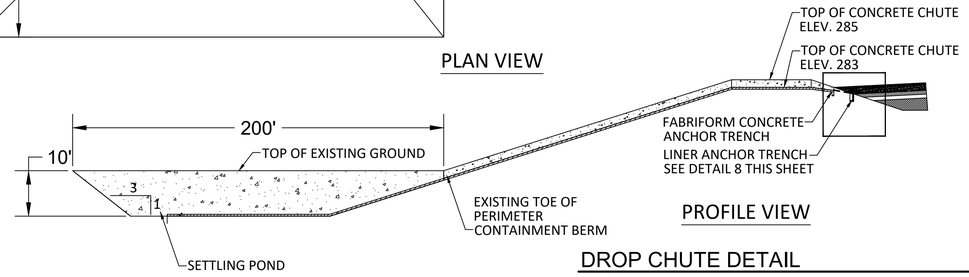


NOTES:
1. EPOXY ANCHORS
2. SPACED AT 6" O.C.

MECHANICAL ATTACHMENT TO CONCRETE

NOT TO SCALE

4



PROFILE VIEW

DROP CHUTE DETAIL

N.T.S.

3

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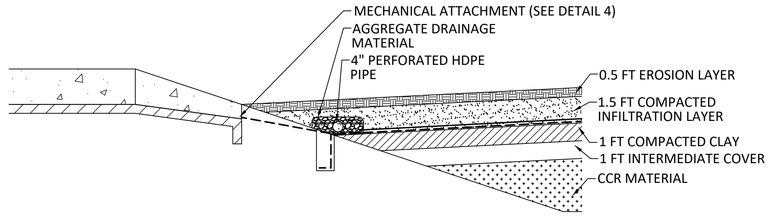

DOWN CHUTE ANCHOR TRENCH DETAIL

N.T.S.

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Gibbons Creek Environmental Redevelopment Group, LLC

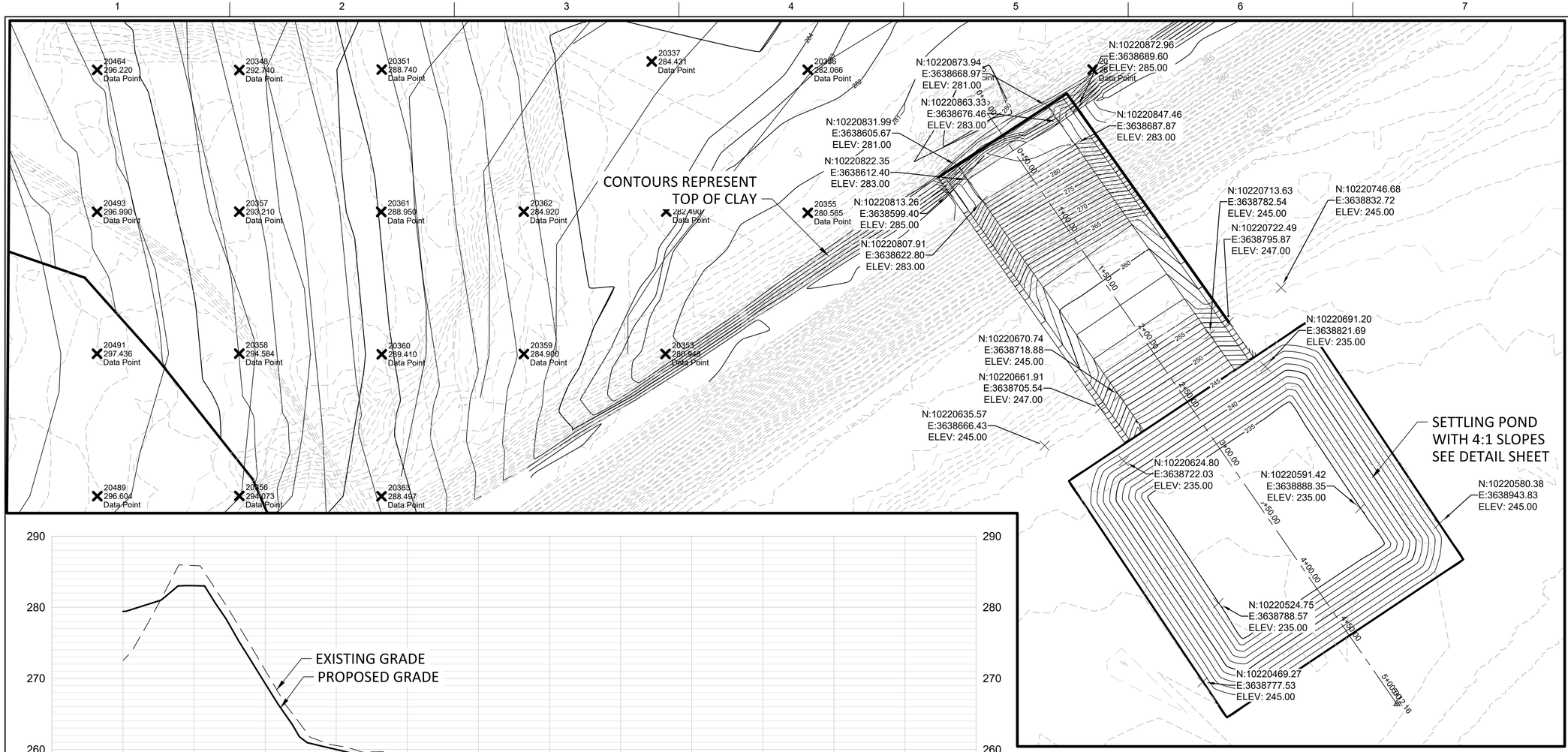
SITE F LANDFILL CLOSURE
Anderson, Texas

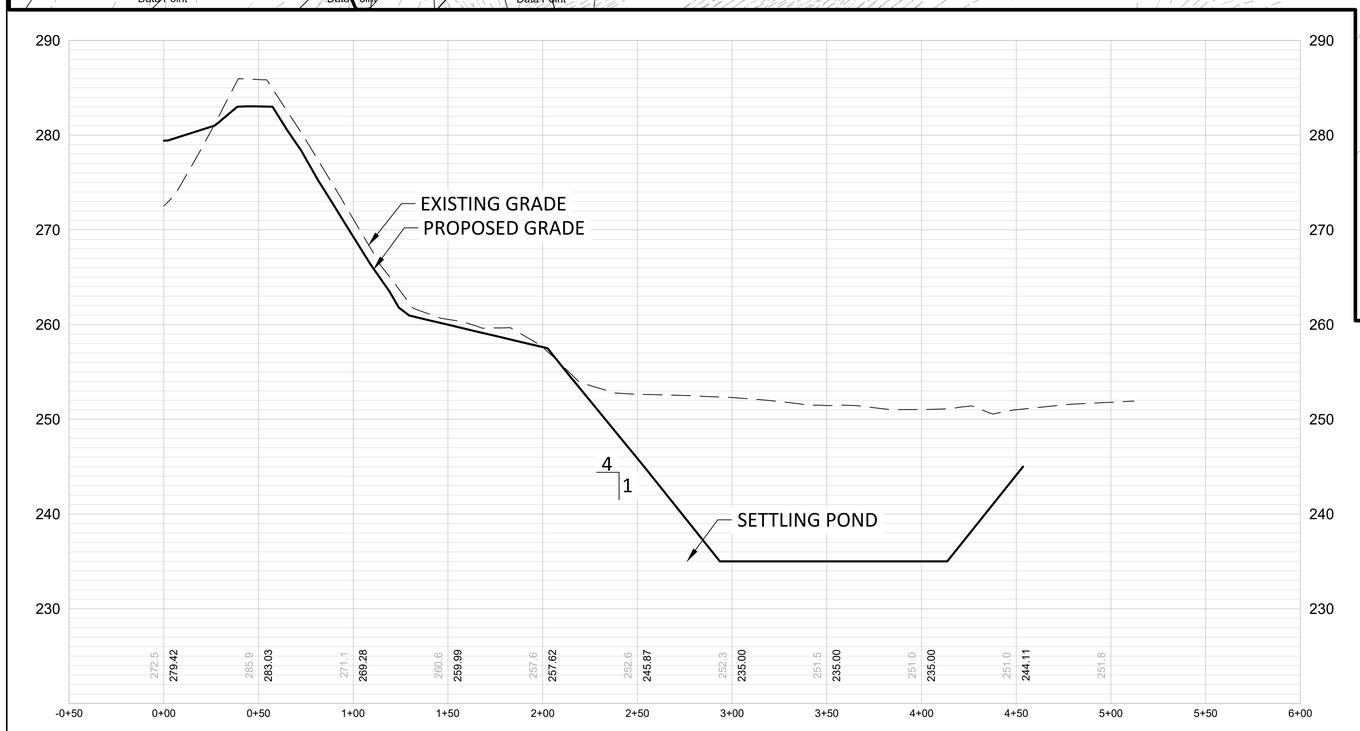
MISCELLANEOUS DETAILS SHEET 1

0 1" 2"

FILENAME 00C-11.dwg
SCALE AS SHOWN

SHEET 00C-11





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SITE F LANDFILL CLOSURE
Anderson, Texas

MISCELLANEOUS DETAILS SHEET 2

0 1" 2"

FILENAME 00C-12.dwg
SCALE AS SHOWN

SHEET
00C-12

APPENDIX B

LANDFILL CAP MANUFACTURER QUALITY CONTROL CERTIFICATES