

PRELIMINARY DETERMINATION

PERMIT RENEWAL AND VARIANCE

American Cast Iron Pipe Company  
P.O. Box 2727  
Birmingham, Alabama 35202

ACIPCO Landfill No. 1  
Permit No. 37-39

October 14, 2025

American Cast Iron Pipe Company has submitted to the Alabama Department of Environmental Management (ADEM) an application for renewal of the Solid Waste Disposal Facility Permit for an industrial landfill known as the ACIPCO Landfill No. 1 (Permit No. 37-39). In addition, the Permittee has requested a variance from ADEM Admin. Code 335-13-4-.23(1)(a)1 requiring weekly cover. The Permittee would be required to cover waste monthly with compacted earth at the end of each month when disposal activities have occurred. The waste stream for the ACIPCO Landfill No. 1 would remain nonhazardous general foundry waste, dried industrial wastewater sludge, cupola slag, foundry sand, plastics, glass, rubber items, empty crushed metal containers, wood and scrap tires. The service area for the ACIPCO Landfill No. 1 would remain the ACIPCO Plant located in Birmingham, Alabama. The maximum average daily volume of waste disposed at the ACIPCO Landfill No. 1 would remain 29.5 tons per day. All previously approved variances were requested by the permittee and would be granted in the renewed permit.

ACIPCO Landfill No. 1 is described as being located in the Northeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of Section 9 and part of the Northwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 10, Township 17 South, Range 3 West in Jefferson County, Alabama. The ACIPCO Landfill No. 1 consists of 24.5 acres with 14.4 acres approved for disposal.

The Land Division has determined that the permit application meets the applicable requirements of ADEM's Administrative Code Division 13 regulations.

Technical Contact:

Hunter Baker  
Solid Waste Engineering Section  
Land Division



# ***SOLID WASTE DISPOSAL FACILITY PERMIT***

**PERMITTEE:** American Cast Iron Pipe Company

**FACILITY NAME:** ACIPCO Landfill No. 1

**FACILITY LOCATION:** Northeast ¼ of the Southeast ¼ of Section 9 and part of the Northwest ¼ of the Southwest ¼ of Section 10, Township 17 South, Range 3 West in Jefferson County, Alabama. The facility consists of 24.5 acres with 14.4 acres approved for disposal.

**PERMIT NUMBER:** 37-39

**PERMIT TYPE:** Industrial Landfill

**WASTE APPROVED FOR DISPOSAL:** Nonhazardous general foundry waste, dried industrial wastewater sludge, cupola slag, foundry sand, plastics, glass, rubber items, empty crushed metal containers, wood and discarded tires.

**APPROVED WASTE VOLUME:** Average Daily Volume of 29.5 tons per day

**APPROVED SERVICE AREA:** ACIPCO Plant located in Birmingham, Alabama

In accordance with and subject to the provisions of the Solid Wastes & Recyclable Materials Management Act, as amended, Code of Alabama 1975, § 22-27-1 to 22-27-27 ("SWRMMA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, § 22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to dispose of the above-described solid wastes at the above-described facility location.

**ISSUANCE DATE:** ???

**EFFECTIVE DATE:** ???

**EXPIRATION DATE:** ???

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Alabama Department of Environmental Management

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
SOLID WASTE PERMIT**

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Permittee: American Cast Iron Pipe Company  
P.O. Box 2727  
Birmingham, Alabama 35202

Landfill Name: ACIPCO Landfill No. 1

Landfill Location: Northeast ¼ of the Southeast ¼ of Section 9 and part of the Northwest ¼ of the Southwest ¼ of Section 10, Township 17 South, Range 3 West.  
Jefferson County, Alabama

Permit Number: 37-39

Landfill Type: Industrial Landfill

Pursuant to the Solid Wastes & Recyclable Materials Management Act, Code of Alabama 1975, §§22-27-1, *et seq.*, as amended, and attendant regulations promulgated thereunder by the Alabama Department of Environmental Management (ADEM or Department), this permit is issued to American Cast Iron Pipe Company (hereinafter called the Permittee), to operate a solid waste disposal facility, known as the ACIPCO Landfill No. 1.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein (including those in any attachments), and the applicable regulations contained in Chapters 335-13-1 through 335-13-16 of the ADEM Administrative Code (hereinafter referred to as the "ADEM Admin. Code"). Rules cited are set forth in this document for the purpose of Permittee reference. Any Rule that is cited incorrectly in this document does not constitute grounds for noncompliance on the part of the Permittee. Applicable ADEM Administrative Codes are those that are in effect on the date of issuance of this permit or any revisions approved after permit issuance.

This permit is based on the information submitted to the Department on September 18, 2023 for permit renewal, and as amended, and is known as the Permit Application (hereby incorporated by reference and hereinafter referred to as the Application). Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action. The Permittee must inform ADEM of any deviation from or changes in the information in the Application that would affect the Permittee's ability to comply with the applicable ADEM Admin. Code or permit conditions.

This permit is effective as of ?????, and shall remain in effect until ????? unless suspended or revoked.

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Alabama Department of Environmental Management

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Date Signed

## SECTION I. STANDARD CONDITIONS

- A. Effect of Permit. The Permittee is allowed to dispose of nonhazardous solid waste in accordance with the conditions of this permit and ADEM Admin. Code 335-13. Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local laws or regulations. Except for actions brought under Code of Alabama 1975, Section 22-27-1, *et seq.*, as amended, compliance with the conditions of this permit shall be deemed to be compliance with applicable requirements in effect as of the date of issuance of this permit and any future revisions.
- B. Permit Actions. This permit may be suspended, revoked or modified for cause. The filing of a request for a permit modification or the notification of planned changes or anticipated noncompliance on the part of the Permittee, and the suspension or revocation does not stay the applicability or enforceability of any permit condition.
- C. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- D. Definitions. For the purpose of this permit, terms used herein shall have the same meaning as those in ADEM Admin. Code 335-13, unless this permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.
1. "EPA" for purposes of this permit means the United States Environmental Protection Agency.
  2. "Permit Application" for the purposes of this permit, means all permit application forms, design plans, operational plans, closure plans, technical data, reports, specifications, plats, geological and hydrological reports, and other materials which are submitted to the Department in pursuit of a solid waste disposal permit.
- E. Duties and Requirements.
1. Duty to Comply. The Permittee must comply with all conditions of this permit except to the extent and for the duration such noncompliance is authorized by a variance granted by the Department. Any permit noncompliance constitutes a violation of Code of Alabama 1975, Section 22-27-1 *et seq.*, as amended, and is grounds for enforcement action, permit suspension, revocation, modification, and/or denial of a permit renewal application.
  2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The renewal application must be submitted to the Department at least 180 days before this permit expires.
  3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application as required by Section I.,E.,2., and, through no fault of the Permittee, the Department has not made a final decision regarding the renewal application.
  4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.
  5. Duty to Mitigate. In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.



6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit.
7. Duty to Provide Information. If requested, the Permittee shall furnish to ADEM, within a reasonable time, any information that ADEM may reasonably need to determine whether cause exists for denying, suspending, revoking, or modifying this permit, or to determine compliance with this permit. If requested, the Permittee shall also furnish the Department with copies of records kept as a requirement of this permit.
8. Inspection and Entry. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the employees of the Department or their authorized representative to:
  - a. Enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
  - d. Sample or monitor, at reasonable times, any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by Code of Alabama 1975, Section 22-27-1 *et seq.*
9. Monitoring, Corrective Actions, and Records.
  - a. Samples and measurements taken for the purpose of monitoring or corrective action shall be representative of the monitored activity. The methods used to obtain representative samples to be analyzed must be the appropriate method from ADEM Admin. Code 335-13-4 or the methods as specified in the Application attached hereto and incorporated by reference. Laboratory methods must be those specified in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), other appropriate EPA methods, or as specified in the Application. All field tests must be conducted using approved EPA test kits and procedures.
  - b. The Permittee shall retain records, at the location specified in Section I.,I., of all monitoring, or corrective action information, including all calibration and maintenance records, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report or record or for periods elsewhere specified in this permit. These periods may be extended by the request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
  - c. Records of monitoring and corrective action information shall include.
    - i. The exact place, date, and time of sampling or measurement.
    - ii. The individual(s) and company who performed the sampling or measurements.
    - iii. The date(s) analyses were performed.
    - iv. The individual(s) and company who performed the analyses.

- v. The analytical techniques or methods used.
  - vi. The results of such analyses.
- d. The Permittee shall submit all monitoring and corrective action results at the interval specified elsewhere in this permit.
- 10. Reporting Planned Changes. The Permittee shall notify the Department, in the form of a request for permit modification, at least 120 days prior to any change in the permitted service area, increase in the waste received, or change in the design or operating procedure as described in this permit, including any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- 11. Transfer of Permit. This permit may be transferred to a new owner or operator. All requests for transfer of permits shall be in writing and shall be submitted on forms provided by the Department. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of this permit.
- 12. Certification of Construction. Before the Permittee may commence disposal of waste in any new cell or phase:
  - a. The Permittee must submit a letter to the Department signed by both the Permittee and a professional engineer stating that the facility has been constructed in compliance with this permit.
  - b. The Department must inspect the new cells or phases unless the Permittee is notified that the Department will waive the inspection.
  - c. The Permittee may not commence disposal activities in any new cells or phases until approval of the new cells or phases is granted by the Department.
- 13. Noncompliance. The Permittee shall report all instances of noncompliance with the permit at the time noncompliance is discovered.
- 14. Other Information. If the Permittee becomes aware that information required by the Application was not submitted or was incorrect in the Application or in any report to the Department, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to the Department, within a reasonable time, information related to compliance with the permit.
- F. Design and Operation of Facility. The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of contaminants to air, soil, groundwater, or surface water, which could threaten human health or the environment.
- G. Inspection Requirements.
  - 1. The Permittee shall comply with all requirements of ADEM Admin. Code 335-13-4-.21(1)(b).
  - 2. The Permittee shall conduct random inspections of incoming loads.
  - 3. Records of all inspections shall be included in the operating record.
- H. Recordkeeping and Reporting.
  - 1. The Permittee shall maintain a written operating record at the location specified in Section I.,I. The operating record shall include:

- a. Documentation of inspection and maintenance activities.
  - b. Daily Volume reports.
  - c. Personnel training documents and records.
  - d. Solid/Hazardous Waste Determination Forms for Industrial Wastes, and associated ADEM disposal approval correspondence for industrial waste and special waste.
  - e. Groundwater monitoring records.
  - f. Surface water monitoring records.
  - g. Copies of this Permit and the Application.
  - h. Copies of all variances granted by the Department, including copies of all approvals of special operating conditions.
2. Quarterly Volume Report. Beginning with the effective date of this permit, the Permittee shall submit, within thirty (30) days after the end of each calendar quarter, a report summarizing the daily waste receipts for the previous (just ended) quarter. Copies of the quarterly reports shall be maintained in the operating record.
3. Monitoring and Corrective Action Reports. The Permittee shall submit reports on all monitoring and corrective activities conducted pursuant to the requirements of this permit, including, but not limited to, groundwater, surface water, explosive gas and leachate monitoring. The groundwater monitoring shall be conducted in March and September of each year and the reports shall be submitted at least semi-annually, or as directed by the Department. The reports should contain all monitoring results and conclusions from samples and measurements conducted during the sampling period. Explosive gas monitoring must be submitted on a yearly basis, or as directed by the Department, and the reports should be submitted to ADEM and placed in the operating record within 30 days of the monitoring event. Copies of the semi-annual groundwater and yearly explosive gas monitoring reports shall be maintained in the operating record. At this time, the Permittee shall not be required to conduct groundwater monitoring or explosive gas monitoring.
4. Availability, Retention, and Disposition of Records.
- a. All records, including plans, required under this permit or ADEM Admin. Code 335-13 must be furnished upon request, and made available at reasonable times for inspection by any officer, employee, or representative of the Department.
  - b. All records, including plans, required under this permit or ADEM Admin. Code 335-13 shall be retained by the Permittee for a period of at least three years. The retention period for all records is extended automatically during the course of any unresolved enforcement action regarding the facility, or as requested by the Department.
  - c. A copy of records of waste disposal locations and quantities must be submitted to the Department and local land authority upon closure of the facility.
- I. Documents to be Maintained by the Permittee. The Permittee shall maintain, at the ACIPCO Birmingham Plant office, the following documents and amendments, revisions and modifications to these documents until an engineer certifies closure of the permitted landfill.
- 1. Operating record.
  - 2. Closure Plan.

- J. Mailing Location. All reports, notifications, or other submissions which are required by this permit should be sent via signed mail (i.e. certified mail, express mail delivery service, etc.) or hand delivered to:

Mailing Address.

Chief, Solid Waste Branch, Land Division  
Alabama Department of Environmental Management  
P.O. Box 301463  
Montgomery, AL 36130-1463

Physical Address.

Chief, Solid Waste Branch, Land Division  
Alabama Department of Environmental Management  
1400 Coliseum Blvd.  
Montgomery, Alabama 36110-2400

- K. Signatory Requirement. All applications, reports or information required by this permit, or otherwise submitted to the Department, shall be signed and certified by the owner as follows:
1. If an individual, by the applicant.
  2. If a city, county, or other municipality or governmental entity, by the ranking elected official, or by a duly authorized representative of that person.
  3. If a corporation, organization, or other legal entity, by a principal executive officer, of at least the level of Vice President, or by a duly authorized representative of that person.
- L. Confidential Information. The Permittee may claim information submitted as confidential pursuant to ADEM Admin. Code 335-1-1-.06.
- M. State Laws and Regulations. Nothing in this permit shall be construed to preclude the initiation of any legal action or to relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

## SECTION II. GENERAL OPERATING CONDITIONS

- A. Operation of Facility. The Permittee shall operate and maintain the disposal facility consistent with the Application, this permit, and ADEM Admin. Code 335-13.
- B. Open Burning. The Permittee shall not allow open burning without prior written approval from the Department and other appropriate agencies. A burn request should be submitted in writing to the Department outlining why that burn request should be granted. This request should include, but not be limited to, specifically what areas will be utilized, types of waste to be burned, the projected starting and completion dates for the project, and the projected days and hours of operation. The approval, if granted, shall be included in the operating record.
- C. Prevention of Unauthorized Disposal. The Permittee shall follow the approved procedures, as provided in the Application, for detecting and preventing the disposal of free liquids, regulated hazardous waste, PCB's, regulated medical waste, and other unauthorized waste streams at the facility.
- D. Unauthorized Discharge. The Permittee shall operate the disposal facility in such a manner that there will be no water pollution or unauthorized discharge. Any discharge from the disposal facility or practice thereof may require a National Pollutant Discharge Elimination System permit under the Alabama Water Pollution Control Act.

- E. Industrial Waste Disposal. The Permittee shall dispose of industrial waste as required by ADEM Admin. Code 335-13-4-.21(1)(c), and as specified in the Application.
- F. Boundary Markers. The Permittee shall ensure that the facility is identified with a sufficient number of permanent boundary markers that are at least visible from one marker to the next.

### SECTION III. SPECIFIC REQUIREMENTS FOR INDUSTRIAL WASTE LANDFILLS

- A. Waste Identification and Management.
  - 1. Subject to the terms of this permit, the Permittee may accept for disposal the nonhazardous solid wastes listed in III.B. Disposal of any other wastes is prohibited, except waste granted a temporary or one-time waiver by the Director.
  - 2. The total permitted facility for the ACIPCO Landfill No.1 is approximately 24.5 acres with 14.4 acres approved for disposal.
  - 3. The maximum average daily volume of waste disposed at the facility shall not exceed 29.5 tons/day. Should the average daily volume exceed this value by 20% or 100 tons/day, whichever is less, for two (2) consecutive quarters the permittee shall be required to modify the permit in accordance with ADEM Admin. Code 335-13-5-.06(2)(b)2. The average daily volume shall be computed as specified by ADEM Admin. Code 335-13-4-.23(2)(f).
- B. Waste Streams. The Permittee may accept for disposal nonhazardous general foundry waste, dried industrial wastewater sludge, cupola slag, foundry sand, plastics, glass, rubber items, empty crushed metal containers, wood and scrap tires.
- C. Service Area. The Permittee is allowed to receive for disposal waste from the ACIPCO Plant located in Birmingham, Alabama.
- D. Waste Placement, Compaction, and Cover. All waste shall be confined to an area as small as possible within a single working face and placed onto an appropriate slope not to exceed 4 to 1. All waste shall be spread in layers two feet or less in thickness and thoroughly compacted with adequate landfill equipment prior to placing additional layers of waste or placing cover. A minimum of six inches of compacted earth or other alternative cover material approved by the Department and listed in Section VIII shall be added at the conclusion of each month's operation.
- E. Liner Requirements. At this time, the Permittee is not required to install a liner system. If it is determined that a liner system is necessary, the Permittee must install a liner that meets the requirements of the Department. The base of the landfill shall be a minimum of five (5) feet above the highest measured groundwater level as determined by ADEM Admin. Code 335-13-4-.11(2)(a).
- F. Security. The Permittee shall provide artificial and/or natural barriers, which prevent entry of unauthorized vehicular traffic to the facility.
- G. All Weather Access Roads. The Permittee shall provide an all-weather access road to the dumping face that is wide enough to allow passage of collection vehicles.
- H. Adverse Weather Disposal. The Permittee shall provide for disposal activities in adverse weather conditions.
- I. Personnel. The Permittee shall maintain adequate personnel to ensure continued and smooth operation of the facility.

- J. Environmental Monitoring and Treatment Structures. The Permittee shall provide protection and proper maintenance of environmental monitoring and treatment structures.
- K. Vector Control. The Permittee shall provide for vector control as required by ADEM Admin. Code 335-13.
- L. Bulk or Noncontainerized Liquid Waste. The Permittee shall not dispose of bulk or noncontainerized liquid waste, or containers capable of holding liquids, unless the conditions of ADEM Admin. Code 335-13-4-.23(1)(j) are met.
- M. Empty Containers. Empty containers larger than 10 gallons in size must be rendered unsuitable for holding liquids prior to disposal in the landfill unless otherwise approved by the Department.
- N. Other Requirements. The Department may enhance or reduce any requirements for operating and maintaining the landfill as deemed necessary by the Land Division.
- O. Other Permits. The Permittee shall operate the landfill according to this and any other applicable permits.
- P. Scavenging and Salvaging Operations. The Permittee shall prevent scavenging and salvaging operations, except as part of a controlled recycling effort. Any recycling operation must be in accordance with plans submitted and approved by the Department.
- Q. Signs. If the landfill is available to the public or commercial haulers, the Permittee shall provide a sign outlining instructions for use of the site. The sign shall be posted and have the information required by ADEM Admin. Code 335-13-4-.23(1)(f).
- R. Litter Control. The Permittee shall control litter.
- S. Fire Control. The Permittee shall provide fire control measures.

#### SECTION IV. GROUNDWATER MONITORING REQUIREMENTS

Groundwater monitoring is not being required at this landfill provided the waste stream is in accordance with Section III. B of this permit. Should any waste be disposed of other than the waste streams indicated in Section III. B of this permit, the Department may require that groundwater monitoring wells be installed.

#### SECTION V. GAS MONITORING REQUIREMENTS

At this time, gas monitoring is not being required at this landfill. If at any time the Department determines that an explosive gas monitoring system is deemed necessary for the protection of human health and the environment, the Permittee must, within 120 days, submit an application for a permit modification for the installation of an explosive gas monitoring system that meets the proper regulatory requirements of the Alabama Department of Environmental Management (See Section VIII., 1.).

#### SECTION VI. SURFACE WATER MANAGEMENT REQUIREMENTS

The permittee shall construct and maintain run-on and run-off control structures. Any discharges from drainage control structures shall be permitted through a discharge permit issued by the ADEM Water Division.

#### SECTION VII. CLOSURE AND POST-CLOSURE REQUIREMENTS

The Permittee shall close the landfill and perform post-closure care of the landfill in accordance with ADEM Admin. Code 335-13.

- A. Final Cover. The Permittee shall grade final soil cover such that surface water does not pond over the permitted area as specified in the Application. The final cover system shall comply with ADEM Admin. Code 335-13.
- B. Vegetative Cover. The Permittee shall establish a vegetative or other appropriate cover, as approved by the Department, within 90 days after completion of final grading requirements in the Application. Preparation of a vegetative cover shall include, but not be limited to, the placement of seed, fertilizer, mulch, and water.
- C. Notice of Intent. The Permittee shall place in the operating record and notify the Department of their intent to close the landfill prior to beginning closure.
- D. Completion of Closure Activities. The Permittee must complete closure activities of each landfill unit in accordance with the Closure Plan within 180 days of the last known receipt of waste.
- E. Certification of Closure. Following closure of each unit, the Permittee must submit to the Department a certification, signed by a registered professional engineer, verifying the closure has been completed according to the Closure Plan.
- F. Post-Closure Care Period. Post-closure care activities shall be conducted after closure of each unit throughout the life of this permit and continuing for a period of a minimum of thirty (30) years following closure of the facility. The Department may shorten or extend the post-closure care period applicable to the solid waste disposal facility.
- G. Post-Closure Maintenance. The Permittee shall provide post closure maintenance of the facility to include regularly scheduled inspections. This shall include maintenance of the cover, vegetation, monitoring devices and pollution control equipment and correction of other deficiencies that may be observed by ADEM. Monitoring requirements shall continue throughout the post closure period as determined by the Department unless all waste is removed and no unpermitted discharge to waters of the State have occurred.
- H. Post-Closure Use of Property. The Permittee shall ensure that post closure use of the property never be allowed to disturb the integrity of the final cover, liner, or any other component of the containment system. This shall preclude the growing of deep-rooted vegetation on the closed area.
- I. Certification of Post-Closure. Following post-closure of each unit, the Permittee must submit to the Department a certification, signed by an independent registered professional engineer, verifying the post-closure has been completed according to the Post-Closure Plan.
- J. Recording Instrument. The Permittee must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code 335-5 and shall execute the following:
1. Record a notation onto the land deed within 90 days from the certification of closure. This notation shall state that the land has been used as a solid waste disposal facility, the name of the Permittee, type of disposal activity, location of the disposal facility, and beginning and closure dates of the disposal activity.
  2. File the covenant at the courthouse where the land deed is held within thirty (30) days of receipt of the covenant signed by ADEM's Land Division Chief.
  3. The Permittee shall submit a certified copy of the recording instrument to ADEM within 120 days after permit expiration, revocation, or as directed by ADEM as described in the application.
- K. Removal of Waste. If the Permittee, or any other person(s), wishes to remove waste, waste residues, or any liner or contaminated soils, the owner must request and receive prior approval from the Department.

#### SECTION VIII. VARIANCES AND SPECIAL CONDITIONS

1. The Permittee is granted a variance from ADEM Admin. Code 335-13-4-.16 requiring explosive gas monitoring. (See Section V).
2. The Permittee is granted a variance from ADEM Admin. Code 335-13-4-.23(1)(a)1. requiring weekly cover. All exposed waste shall be covered by the conclusion of each month's activities. (See Section III. D.).

Any variance granted by the Department may be terminated by the Department whenever the Department finds, after notice and opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the variance, or that operation under the variance does not meet the minimum requirements established by state and federal laws and regulations or is unreasonably threatening the public health



## Permit Application



September 18, 2023

Solid Waste Branch  
Alabama Department of Environmental Management  
Post Office Box 301463  
Montgomery, Alabama 36130-1463

Attention: Mr. Jared D. Kelly Chief  
Solid Waste Engineering Section  
Land Division

RE: Solid Waste Disposal Permit Renewal Application  
American Cast Iron Pipe Company Landfill  
Birmingham, Jefferson County, Alabama  
Solid Waste Permit Number: 37-39  
LaBella Project No: 2233188

**Received**  
**SEP 18 2023**  
**Land Division**

Dear Mr. Kelly:

On behalf of American Cast Iron Pipe Company (ACIPCO), LaBella Associates, D.P.C (LaBella) is submitting the enclosed Solid Waste Disposal Permit Renewal Application for the above-referenced landfill under Solid Waste Permit Number 37-39 (herein referred to as the "Permit"), including a check for payment of the applicable permit renewal fees. In addition, a parcel map for the Landfill and its adjoining property owners are also included with this permit renewal package.

ACIPCO requests that the renewed permit be consistent with the facility's current Permit, including an extension of all prior and existing variances, in accordance with ADEM Administrative Code r. 335-13-8-.03. The information previously submitted by ACIPCO to the Department in support of the granting of those prior and existing variances pursuant to ADEM Administrative Code r. 335-13-8-.02 are incorporated by reference herein and are requested to be renewed. The prior and existing variances are:

- 1. The Permittee is granted a variance from ADEM Rule 335-13-4-.16 requiring explosive gas monitoring. At this time, explosive gas monitoring is not being required. If at any time the Department determines that an explosive gas monitoring system is deemed necessary for the protection of human health and the environment, the Permittee must, within 90 days, submit an application for permit modification for the installation of an explosive gas monitoring system that meets the proper regulatory requirements of the Alabama Department of Environmental Management.*
- 2. Groundwater monitoring is not being required at this landfill due to the type of materials being accepted at the present time as indicated in Section III.B of the current permit. If ACIPCO proposes to dispose of waste other than the waste streams indicated in Section III.B of the current permit, the Department may require that a groundwater monitoring plan be developed.*



In addition, ACIPCO requests that the following variance also be granted for the landfill:

1. ACIPCO requests a variance from ADEM Rule 335-13-4-.23(1)(a)1. requiring weekly cover. Due to the nature of the waste, ACIPCO requests that coverage be conducted on an end of the month basis.

Along with this permit renewal package, and in accordance with the ADEM's May 25, 2023 Permit Expiration Notice letter, LaBella/ACIPCO is also providing a list of relevant documents in support of the current permit and permit renewal.

LaBella and ACIPCO appreciate your consideration in this matter. If you have any questions concerning this submittal or require additional information, please contact our office at (205) 985-4874.

Sincerely,  
**LABELLA ASSOCIATES, D.P.C.**

Robert R. Bailey, P.G.  
Senior Project Geologist

Enclosures:    Permit Renewal Application  
                    Permit Renewal Payment Check  
                    Adjoining Property Parcel Map  
                    List of Adjoining Property Owners  
                    Permit Renewal Supporting Documentation

***ENCLOSURE***

***PERMIT  
RENEWAL  
APPLICATION***

**SOLID WASTE DISPOSAL FACILITY  
PERMIT APPLICATION PACKAGE**

January 16, 2018

**MEMORANDUM**

TO: Applicants Seeking a Permit for Solid Waste Facilities

FROM: Stephen A. Cobb, Chief  
Land Division  
Alabama Department of Environmental Management

RE: Processing Solid Waste Permits by ADEM

Any permit issued by ADEM must be in accordance with §22-27-48 and §22-27-48.1 Code of Alabama. This section indicates that ADEM may not consider an application for a new or modified permit unless such application has received approval by the affected unit of local government having an approved plan. ADEM, therefore, will require the following before it can process a new or modified permit application:

1. The local government having jurisdiction must approve the permit application in accordance with §22-27-48 and §22-27-48.1 Code of Alabama.
2. Local governments should follow the procedures outlined in §22-27-48 and §22-27-48.1 Code of Alabama and the siting standards included in the local approved plan in considering approval of a facility.

This procedure applies to applications for new or modified permits. ADEM cannot review an application unless it includes approval from the affected local government. This procedure shall not apply to exempted industrial landfills receiving waste generated on site only by the permittee.

Please contact the Solid Waste Branch of ADEM at (334) 274-4201 if there are any questions.

SAC/ssj/abj

# SOLID WASTE APPLICATION

**PERMIT APPLICATION  
SOLID WASTE DISPOSAL FACILITY  
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
(Submit in Triplicate)**

1. Facility type: ☐ Municipal Solid Waste Landfill (MSWLF)  
☒ Industrial Landfill (ILF)  
☐ Construction and Demolition Landfill (C/DLF)  
☐ CCR Landfill (CCRLF)  
☐ CCR Surface Impoundment (CCRSI)  
☐ Other (explain) \_\_\_\_\_

2. Facility Name American Cast Iron Pipe Company - Landfill

3. Applicant/Permittee:

Name: American Cast Iron Pipe Company (ACIPCO)

Address: PO Box 2727  
Birmingham, Alabama 35202

Telephone: (205) 325-7908

If applicant/permittee is a Corporation, please list officers:

\_\_\_\_\_  
\_\_\_\_\_

4. Location: (include county highway map or USGS map)

Township 17S Range 3W  
Section 9 County Jefferson

5. Land Owner:

Name: American Cast Iron Pipe Company

Address: 2200 Coalburg Road  
Birmingham, Jefferson County, Alabama

Telephone: (205) 325-7908

(Attach copy of agreement from landowner if applicable.)

**Solid Waste Permit Application**  
**Page 2**

**6. Contact Person:**

**Name** John Batchelor

**Position or** Environmental Compliance Director

**Affiliation** \_\_\_\_\_

**Address:** PO Box 2727  
Birmingham, Alabama 35202

**Telephone:** (205) 325-7908

**7. Size of Facility:**

24.5 **Acres**

**Size of Disposal Area(s):**

14.5 **Acres**

**8. Identify proposed service area or specific industry that waste will be received from:**

ACIPCO, Birmingham, Alabama facility  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

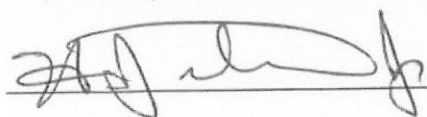
**9. Proposed maximum average daily volume to be received at landfill (choose one):**

29.5 **Tons/Day**                      **Cubic Yards/Day**

**10. List all waste streams to be accepted at the facility (i.e., household solid waste, wood boiler ash, tires, trees, limbs, stumps, etc.):**

Non-hazardous general foundry waste, dried industrial wastewater sludge,  
cupola slag, foundry sand, plastic, glass, rubber items, empty crushed metal containers,  
wood, and scrap tires

**SIGNATURE (Responsible official of permit applicant):**



**TITLE:** Sr. Vice President - Engineering

H. J. Thomas Jr  
**(please print or type name)**

**DATE:** 9-14-23



## **ADDITIONAL REQUIRED INFORMATION**

Applicants seeking to obtain a permit to construct and/or continue to operate a municipal solid waste (MSW) landfill, industrial landfill, construction and demolition (C/D) landfill, coal combustion residuals (CCR) landfill, or CCR surface impoundment are required to submit additional information as part of the Solid Waste Disposal Facility Permit Application. These additional information requirements vary depending on the facility type.

For new and existing landfill units, refer to ADEM Admin Code 335-13-5-.02 for a list of additional information to be submitted in the permit application. Some requirements apply only to MSW landfills and CCR landfills, while other requirements apply to industrial landfills and C/D landfills. You need only to address the requirements that pertain to your type landfill. For new and existing CCR surface impoundments, refer to ADEM Admin Code 335-13-15-.09 for additional information to be submitted in the permit application.

Each rule that is applicable to your type landfill or surface impoundment must be addressed in detail in the operational narrative and/or engineering drawings before the review process can be completed. All operational narratives, engineering drawings, survey maps and legal descriptions are to be prepared by licensed engineers or surveyors registered in the State of Alabama and with their stamp or seal on each drawing/map and cover of the narrative.

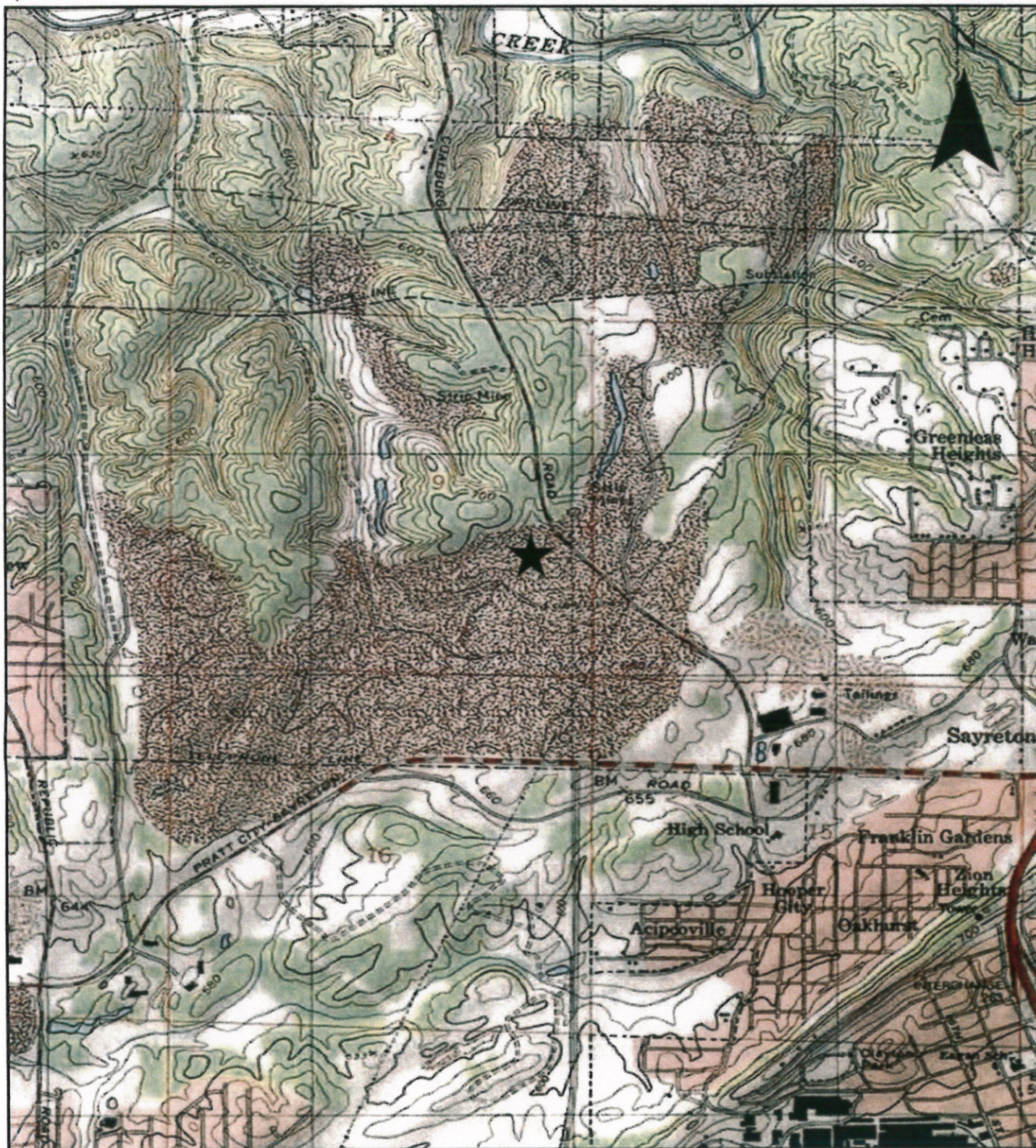
Act No. 89-824 Section 9(a) states "The department may not consider an application for a new or modified permit for a facility unless such application has received approval by the affected unit of local government having an approved plan." This document must be received by the Department prior to processing the application.

The referenced rules are covered in greater detail in ADEM's Administrative Code, Division 13. Clarification can be obtained by reviewing the regulations. Copies of the ADEM Administrative Code, Division 13 regulations, can be obtained for a fee by contacting ADEM's Permits and Services Division. If the Department can answer any questions, please contact the Solid Waste Branch at (334) 274-4201.

***ENCLOSURE***

***ADJOINING  
PROPERTY  
PARCEL  
MAP(S)***





## Legend

★ Site Location

USGS Quad ID: 33086-E7  
Birmingham North, Alabama



528 MINERAL TRACE  
HOOVER, AL 35244  
(205) 985-4874

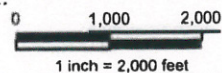
## TITLE:

Site Location Map

Solid Waste Permit Renewal  
American Cast Iron Pipe Company  
Permit # 37-39

Birmingham, Alabama

## SCALE:



## FIGURE NO.

1

## PROJECT NO.

2233188

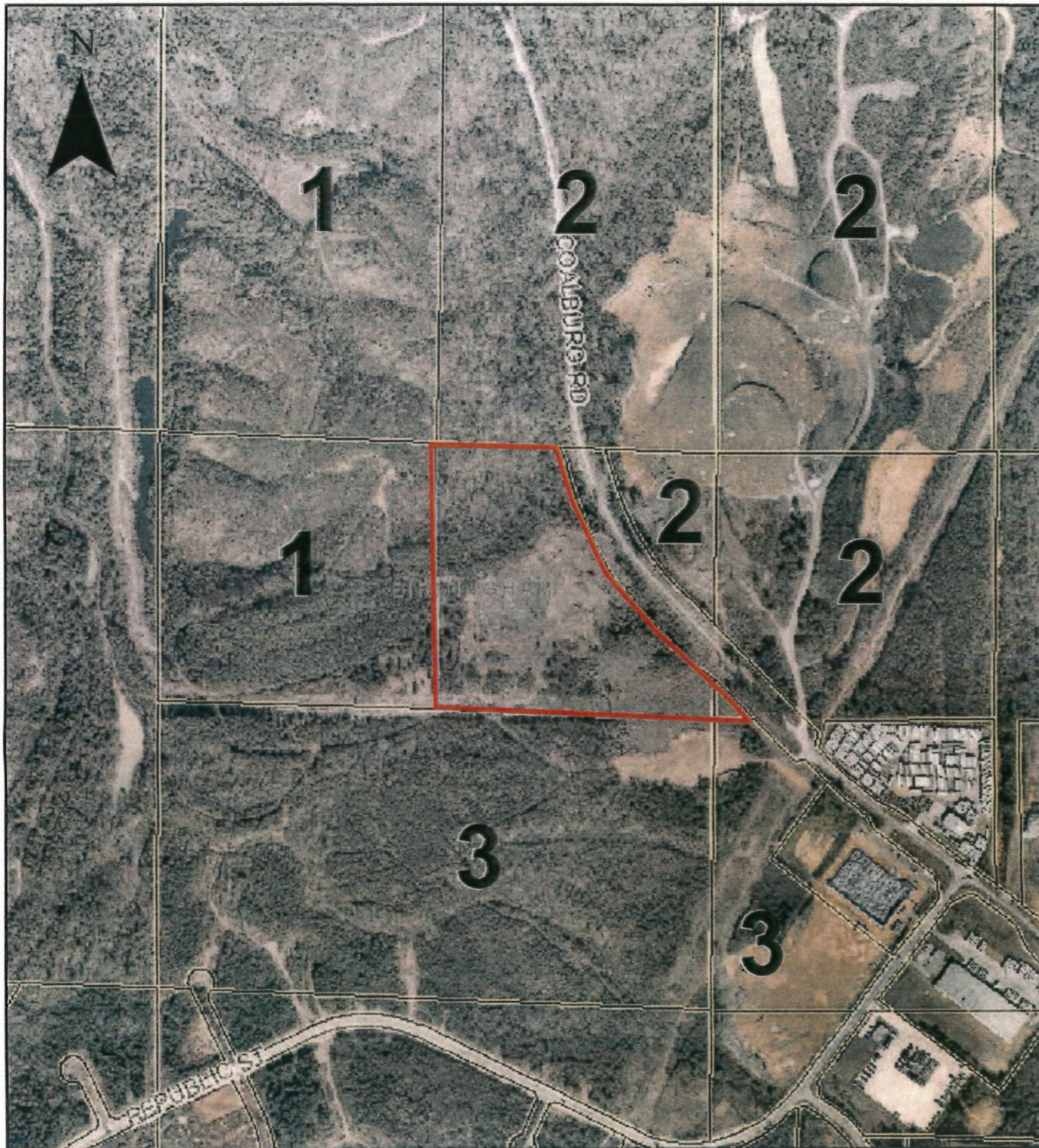
## DRAWN BY

AJH

## DATE DRAWN

08-31-2023





### Legend

- 1. United States Steel Corporation
- 2. American Cast Iron Pipe Company (ACIPCO)
- 3. City of Birmingham, Alabama

ACIPCO Landfill; Permit 37-39

Data Source:  
Jefferson County Tax Map Viewer  
<http://maps.jccal.org/>



528 MINERAL TRACE  
HOOVER, AL 35244  
(205) 985-4874

### TITLE:

Adjacent Property  
Owners Map

Solid Waste Permit Renewal  
American Cast Iron Pipe Company  
Permit # 37-39

Birmingham, Alabama

### SCALE:

Not to Scale

### FIGURE NO.

2

### PROJECT NO.

2233188

### DRAWN BY

AJH

### DATE DRAWN

08-31-2023



***ENCLOSURE***

***LIST OF  
ADJOINING  
PROPERTY  
OWNERS***

**ADJACENT LANDOWNER INFORMATION**

**ACIPCO Landfill #1**

**Permit No.: 37-39**

United States Steel Corporation  
600 Grant Street  
Pittsburgh, PA 15219

City of Birmingham  
710 20<sup>th</sup> Street, North  
Birmingham, AL 35203

***ENCLOSURE***  
***PERMIT RENEWAL***  
***SUPPORTING***  
***DOCUMENTATION***



September 18, 2023

Alabama Department of Environmental Management  
Solid Waste Branch  
PO Box 301463  
Montgomery, Alabama 36130-1463

**VIA ELECTRONIC MAIL**  
jkelly@adem.alabama.gov

Attention: Mr. Jared D. Kelly

RE: Permit Renewal Supporting Documentation  
American Cast Iron Pipe Company, Landfill No. 1  
Landfill Permit No. 37-39  
Birmingham, Jefferson County, Alabama  
LaBella Project No: 2233188

Dear Mr. Kelly:

On behalf of American Cast Iron Pipe Company (ACIPCO), LaBella Associates, D.P.C. (LaBella) is submitting the below responses to the Alabama Department of Environmental Management's (ADEM's) May 25, 2023 email requesting additional facility information related to the permit renewal for the ACIPCO's Landfill No. 1 located in Birmingham, Alabama (Permit No. 37-39; herein "Permit"). The information provided herein was obtained from various sources, including ADEM's e-File system, past email correspondence, and available documents on file at ACIPCO. Specific ADEM requests are provided in bold, italicized text. ACIPCO's responses are provided below each applicable ADEM request.

**Any current variances (both the requests for those variances and ADEM's approval response letters).**

April 17, 2018 – Current permit issuance date that includes ADEM-approved variances. The current ADEM-approved variances include the following:

1. *The Permittee has been granted a variance from ADEM Rule 335-13-4-.16 requiring explosive gas monitoring.*
2. *The Permittee has been granted a variance from ADEM Rule 335-13-4-.27(1) requiring groundwater monitoring.*

A brief history of pertinent available document dates for the ADEM-approved variances provided below in chronological order.





- May 25, 1990 - The oldest permit/permit approval/issuance that could be located for the facility. With this permit issuance, the following variances were approved:
  - Waste streams include: non-hazardous solid wastes consisting of foundry sand, dried sludge, plastics, incinerator ash, glass, discarded tires and rubber items, empty crushed metal containers, wood, general foundry waste and cupola slag generated by ACIPCO in Birmingham, Jefferson County, Alabama.
  - Variance granted from Rule 335-13-4-.20(1)(b) which requires a two-foot final cover. ACIPCO will be allowed to use a one-foot final cover.
  - Variance granted from Rule 335-13-4-.23(1)(a) which requires weekly cover of the wastes. ACIPCO is not required to cover until closure.
- August 23, 1993 – ADEM approval letter allowing the permittee to dispose of the following waste streams: shredder fluff, foundry sand, cupola slag, cupola sludge, and incinerator ash.
- September 9, 1994 – ADEM approval letter allowing the permittee to dispose of the following waste streams: cupola air emission control sludge, incinerator ash, foundry sand, cupola slag, and shredder fluff.
- September 14, 1995 – ADEM approval letter allowing the permittee to dispose of the following waste streams: shredder fluff, foundry sand, cupola slag, incinerator ash, and dried sludge.
  - ADEM approves variance from explosive gas monitoring in a letter dated July 29, 1996.
- May 1, 1997 – Permit issuance with the following variances approved:
  - Groundwater monitoring is not being required at this landfill due to the waste stream listed.
  - The permittee is not required to monitor explosive gas due to the inorganic nature of the waste streams listed in the application and in the table of this permit.
  - Department has granted a variance for one foot cover (in lieu of the 18 inches cover required) and the weekly cover requirement due to the physical characteristics of the waste streams which will be entering the landfill.

The variances listed in the May 1, 1997, Permit were approved for continuation in the following subsequent Permit renewal issuances: December 23, 2003, January 5, 2009, November 20, 2013, and March 22, 2019.

**A copy of the original local approval and any subsequent local approvals relevant to current operations.**

Per Code of Alabama 1975, § 22-27-48(h), the Landfill is statutorily exempt from local approval; however, ACIPCO is required to go on public notice for Permit renewals.

- The earliest public notice submittal that could be located was dated February 27, 1997 for the public notice period from March 7, 1997 to April 11, 1997 in regard to the permit renewal for



Landfill No. 1. No record of comments received during the notice period were available for review; however, the application was subsequently deemed complete.

- Other public notifications obtained during the records search include:
  - November 6, 2003 – Public Notice Notification by ADEM requesting newspaper to run on November 12, 2003.
  - November 12, 2008 – Public Notice Notification by ADEM requesting newspaper to run on November 19, 2008.
  - September 24, 2013 - Public Notice Notification by ADEM requesting newspaper to run on October 9, 2013.
  - January 30, 2019 – Public Notice Notification by ADEM requesting newspaper to run on February 6, 2019.

**Any siting requests and approvals relevant to current operations.**

- There are no current requests/pending approvals relevant to current operations as of the date of this response letter.

**The hydrogeological evaluation relevant to current operations.**

- No historical records for a hydrogeological evaluation for the site could be located. Relevant hydrogeological information is likely available in ADEM records relating to the original 1990 permit and cell certification.

**Stormwater runoff calculations used to size sediment ponds relevant to current operations.**

- There are no sediment ponds on the facility; therefore, there are no calculations relevant to current operations. It should be noted that the facility does utilize a vegetative buffer zone to minimize erosion and sedimentation.

**The most recent operations plan as well as any additional modifications made since the last operations plan was written.**

- The most recent operations plan was included in the July 6, 2018 Permit renewal, which was subsequently approved.

**The most recent closure plan as well as any modifications made since the last closure plan was written.**



- The most recent closure plan was provided in the July 6, 2018 Permit renewal, which was subsequently approved. The most recent closure plan has been provided as an attachment to this correspondence.

**The cell certification and subsequent approval letter from ADEM for the current cell waste is being disposed in.**

- The landfill is composed of one cell. The initial certification for the landfill and the cell is found in the first issued permit for the facility dated May 25, 1990.

**The most recent permit drawings relevant to site operations.**

- The most recent permit drawing has been provided as an attachment to this correspondence.

**Boundary plat and legal property description prepared, signed, and sealed by a land surveyor of the permitted facility boundary and permitted disposal area of the facility.**

- A copy of the boundary plat and legal property description has been provided as an attachment to this correspondence.

LaBella Associates, D.P.C. and ACIPCO appreciate your consideration in this matter. If you have any questions concerning this submittal or require any additional information, please contact our office at (205) 985-4874.

Respectfully submitted,

**LaBella Associates, D.P.C.**

Adam J. Hughes,  
Project Geologist

Enclosure(s)    Closure Plan  
                      Permit Drawing Package  
                      Boundary Plat and Legal Property Description

***ENCLOSURE  
CLOSURE PLAN***

# CLOSURE DESIGN AND CONSTRUCTION QUALITY CONTROL

FOR

## ACIPCO #1 INDUSTRIAL LANDFILL

LOCATED IN:  
JEFFERSON COUNTY, AL

PREPARED FOR OWNER:  
*American Cast Iron Pipe Company (ACIPCO)*

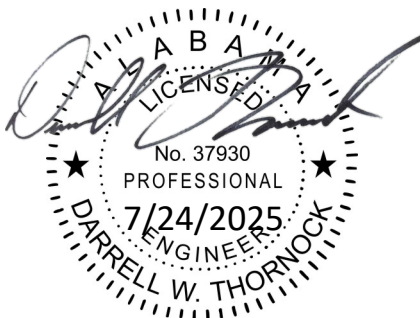
PREPARED BY:



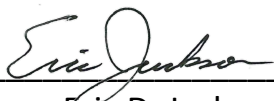
**Rowe Engineering &  
Surveying, Inc.**

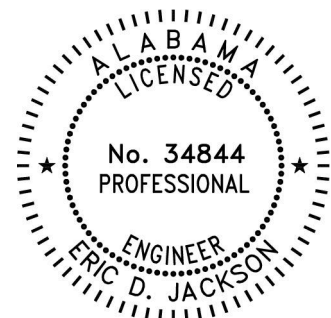
*A HIGHLAND TECHNICAL SERVICES, INC. COMPANY*

3502 Laughlin Drive, Suite B, Mobile, Alabama 36693  
Office: (251) 666-2766



Revisions to Pg. 6 and  
Sheet No C-3 by LaBella  
Associates, D.P.C.  
July 24, 2025

  
Eric D. Jackson, PE  
Alabama Registration No. 34844



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## INTRODUCTION

The ACIPCO #1 Landfill is an unlined industrial waste disposal facility owned and operated by American Cast Iron Pipe Company (ACIPCO), a ductile iron pipe manufacturing company located in Birmingham, Alabama. The landfill currently operates under the State of Alabama Solid Waste Permit Number 37-39.

The facility is a single cell landfill approximately 13.6 acres in total and operated under Alabama Department of Environmental Management (ADEM) industrial landfill regulations. The site resides on a parcel of land in part of the N.E.  $\frac{1}{4}$  of the S.E.  $\frac{1}{4}$  of Section 9, and part of the N.W.  $\frac{1}{4}$  of the S.W.  $\frac{1}{4}$  of Section 10, Township 17 South, Range 3 West. Specifically, the site is located West of Coalburg Road. The site location map is included in this document (see Figure 1 below).

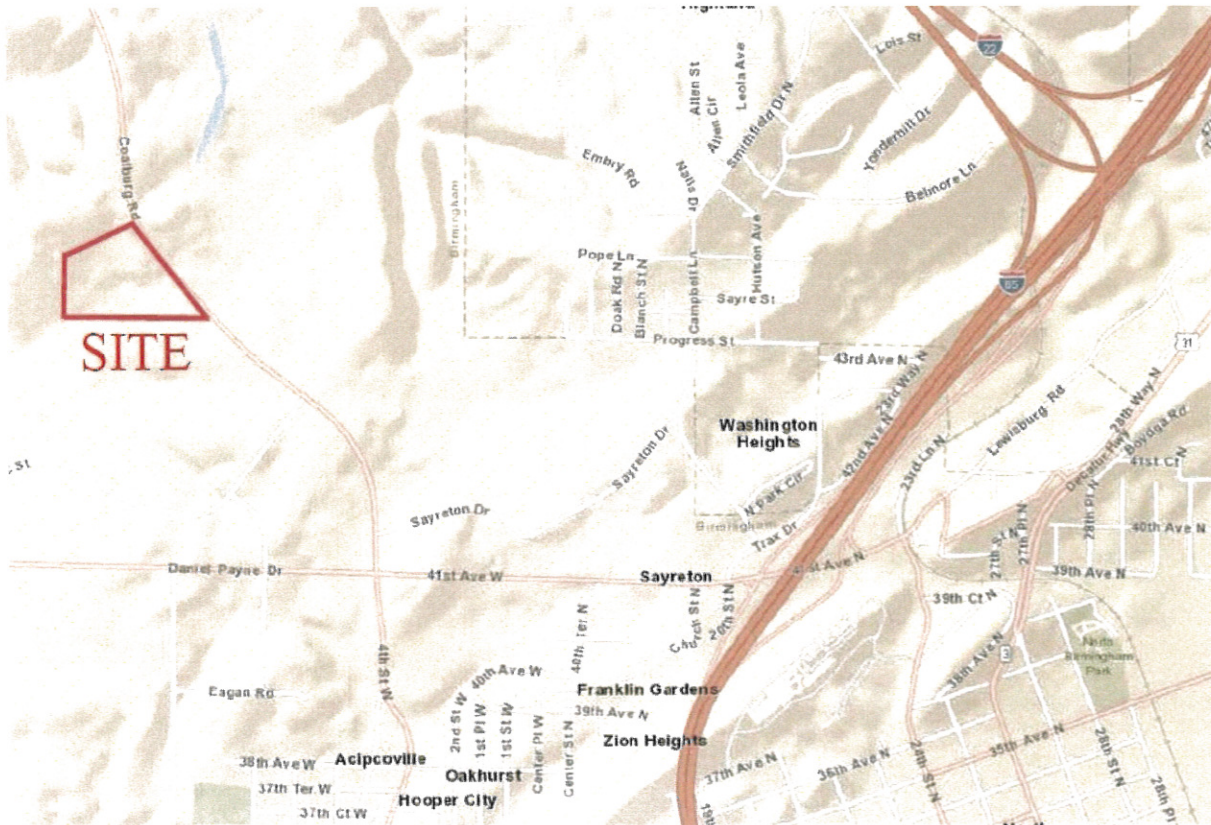


Figure 1: Site Location Map





## 1.2 Purpose

The purpose of the document is to provide a design and site layout for the stormwater conveyance structure, along with the stormwater retention system. In addition to the stormwater controls, a “Closure Design” is provided consisting of an erosion and infiltration layer. As Construction Quality Control (CQC) and Construction Quality Assurance (CQA) are integral components of the design, they are included as part of the Final Closure Design. The combination of these items represent a complete Final Closure Plan for the ACIPCO #1 Industrial Landfill.

The permittee shall meet the requirements of this document in addition to those set forth in ADEM Admin Code 335-13-X-XX, specifically section 335-13-4-.20, “Closure and Post-Closure”. Certification that the final closure requirements have been met shall be provided to ADEM by a Registered Engineer.

## 1.3 Scope

The design and closure activity will be based on analysis of the soil utilized to construct the erosion layer and underlying infiltration layer. Each layer will meet required standards while the infiltration layer will meet particular hydraulic conductivity requirements. Sufficient density and stability will also be necessary to secure final closure certification.

## 1.4 Definitions and Responsibilities

Company: The party for whom the work is performed. The permit holder, ACIPCO, is ultimately responsible.

Design Criteria: The design of the Final Closure, Stormwater Conveyance and retention, erosion and infiltration layers, are the responsibility of the registered engineer submitting such to ADEM for approval.

Construction Quality Control, (CQC): The formal procedures and test methods utilized to ensure conformance of construction, drawings, specifications or other necessary criteria established for the project.

Construction Quality Assurance, (CQA): Third party, independent engineering consulting firm, individual, or representative, who is technically accountable to the Company and responsible for monitoring landfill construction activities.



**Certifying Engineer:** An independent, registered professional engineer who is responsible for certification of the project by fulfilling the needs of the Company in term of function and requirements of the regulatory agency, ADEM.

**Project Manager:** The official representative of the Company for the project.

**Responsible Official:** An official representative of the Company will be responsible for ensuring adherence of ADEM's industrial landfill requirements.

**Contractor and Suppliers:** The individuals or firms contractually responsible to the company for the furnishing of materials and construction work. The contractor will be identified at the time the project begins.

## **CQA PROJECT ORGANIZATION**

### **2.1 Project Organization and Communications**

Lines of authority and communication for this project shall consist of the individuals directly involved in the design and construction of the Final Closure. Representatives from ACIPCO, the certifying engineering firm and the contractor shall communicate throughout the closure process.

### **2.2 Project Meetings**

Pre-construction, progress and problem/deficiency meetings shall be conducted as necessary by any of the parties previously mentioned. The purpose of the meetings is to assure and document day to day operational progress, identifying issues of concern and resolution to problems that may arise during the closure process.

#### **2.2.1 Pre-construction Meeting**

A pre-construction meeting will be held prior to commencement of construction. The meeting will be attended by the Owner Representative/Project Manager, CQC/CQA Representative, and Contractor.

Topics to be discussed in the pre-construction meeting include:



1. Project overview
2. Responsibility of each party
3. Lines of authority and communication
4. Progress meetings
5. Means of documenting, reporting and distribution of documents
6. Safety requirements
7. Progress schedule
8. On site location for material storage and stockpile of soil
9. Placement methods for structural soil
10. Procedure for control of stormwater during the term of the project
11. Dust control and general housekeeping during the term of the project
12. Sampling procedures
13. Test frequency and test procedure as may be necessary
14. Repair procedures

### **2.2.2 Problem/Deficiency Meetings**

Problem/Deficiency meetings will be conducted as needed, if issues relating to the absence of significant progress or deficient work are not resolved through periodic progress meetings.

## **DOCUMENT CONTROL**

### **3.1 Document Control**

A project filing system shall be developed to include the following information:

1. File copy of the CQA plan
2. Survey measurements
3. Field and laboratory CQC and CQA test results
4. Field progress reports
5. Field certification reports including construction as-built drawings

### **3.2 Field Observations Reporting**

Field reports will be prepared to include the following type of information:

1. Date, project name, location, and additional identification
2. Data on weather conditions





3. Reports of any meetings held and any pertinent decisions
4. Description and location of construction underway during the time frame of the daily report.
5. Equipment working on site
6. Areas of on-site testing
7. Description of off-site materials received, including any quality verification reports
8. Decisions regarding any corrective action to be taken related to substandard work
9. Signature of the CQA Consultant

### **3.3 Test Results**

Test results will be prepared on standard sheets and include the following types of information:

1. Description of test activities
2. Location of field testing, sample location
3. Type of testing procedure
4. Recorded observations, test data
5. Tests results compared to project requirements
6. Name of test performer and CQA Consultant

## **PROJECT REQUIREMENTS**

### **4.1 General Requirements and Design**

The single cell landfill at ACIPCO #1 is permitted for landfilling by the ADEM, operating Permit Number 37-39. In September, 1993, ADEM adopted the nonhazardous waste management regulations to include stringent landfill requirements such as siting, design, operation and monitoring requirements. The landfill design must include a Final Closure design. That design and closure methodology is included herein.

### **4.2 Infiltration Layer Design and Construction**

The infiltration layer will consist of onsite borrow area soil, to the maximum extent available, or from an offsite borrow source that has been accepted by the CQA Consultant. Acceptance will be based on a field testing results in order to ensure



compliance with the closure design. The project requirements for the infiltration layer permeability will be a minimum permeability of  $1.0 \times 10^{-5}$  cm per second (cm/s). Construction grade soil will be utilized to bring the subgrade (top of waste layer) of the final closure into compliance with the elevation as certified in the closure design and survey. Once the subgrade elevation is verified by way of topographic survey, construction of the infiltration layer may begin.

The infiltration layer will be placed in three 6-inch homogenous layers. Each layer will be compacted to the optimum moisture content and density, as determined by the CQA Consultant. Additionally, samples will be taken and laboratory testing performed to ensure the infiltration layer meets the design permeability standard of  $1.0 \times 10^{-5}$  cm/s. Soil use and quality determination will be addressed in Section 5.2.1: Borrow Area Soil Testing and Section 5.2.2: Borrow Area Soil Testing Results and Section 6: Construction Testing and Results.

#### **4.3 Erosion Layer Design and Construction**

Upon approval of the top of infiltration layer elevation, the erosion layer construction will begin. The erosion layer is to be constructed of onsite soils where available. The erosion layer will consist of a minimum of 6 inches of earthen material capable of supporting a native grass and other vegetative cover as approved by ADEM.

By use of mechanical means, 6 inches of on-site topsoil will be placed on top of the 18-inch infiltration layer. Care will be taken to ensure the infiltration layer is not damaged during placement of the organic erosion layer, compromising the effectiveness of the final closure design.

The erosion layer soil will be spread and compacted using a D6 Caterpillar or equivalent class dozer. The erosion layer will not be required to meet a designed compaction ratio. It will, using Best Management Practice (BMP), be placed so as to satisfy experienced field observation compaction. By use of a dozer tracking, horizontal furrows will be used to ensure minimal erosion occurs prior to vegetation being established. Fertilizer, straw and grass seed will be placed prior to the installation of the furrows.

Water will be applied as needed to promote initial growth of the grass and other approved vegetation.



#### **4.4 Stormwater Control Structure Design**

Stormwater control and retention are critical components of the ACIPCO #1 operation, on-going closure design and the final closure performance after the landfill reaches capacity. As the landfill operation fills portions of the site the elevation of the landfill/filling will increase from the existing grade, approximately 625 feet to the maximum height of 703 feet above MSL. As the landfill and elevation increase in size and height, roads will be constructed at a 3-4% grade to accommodate transportation of waste to the elevated working face. The road will be constructed as all-weather using a compacted 12-inch base, geo-textile fabric and 6 inches of 8910 stone or better (see project drawings). A ditch will be constructed on the higher elevation side of the road to convey stormwater to nearby tier/ditch structures.

ACIPCO #1 will have a total of 2 tiers/benches and a perimeter ditch to serve the purpose of arresting and de-energizing stormwater (SW) and to convey it to the retention areas. The tiers will move SW to down chutes where SW will move from higher elevations to lower elevations and eventually to the perimeter ditch. The perimeter ditch will convey SW to the 2 retention areas located on the east and west side of the site, within the 100-foot buffer zone (see project drawings).

In summary, ACIPCO #1 will utilize conventional SW management techniques to control on site rain events to meet ADEM requirements for Water Quality Standards.

### **MATERIAL EVALUATION AND TESTING**

#### **5.1 General**

Soil material evaluation and testing for the infiltration layer used for construction of the final closure of ACIPCO #1 is described in this section. Minimum physical property characteristics for borrow area soils are included here in.



## **5.2 Borrow Area Soils**

### **5.2.1 Borrow Area Soils Testing**

All fill material shall be from the designated on-site borrow source or from an offsite borrow source that has been accepted by the CQA Consultant and/or certifying Engineer, and shall be subject to review by the said parties.

All fill material shall be well drained, free of organic material, sticks, roots, trash, or other objectionable material. Excess or unsuitable material shall be removed from the job by the Contractor. No soil contaminated by solid waste or other similar material will be allowed for use as fill. Additionally, soil containing loam, or organic matter, will be unacceptable for use as fill.

Areas of the borrow site containing the soils defined as silty clayey sand (SP-SC), clayey sand (SC), well graded sand (SW) and/or poorly graded sand (SP), with a low plasticity, noted by the Unified Soil Classification System (USCS), are deemed suitable for the infiltration layer construction when compacted to the proper density and moisture content.

A consistent plasticity index for the borrow area stock pile will be determined, related to soil uniformity, appearance and texture. A standard proctor compaction test (ASTM D698) will be performed on a composite sample. The test will be used to determine the optimum moisture content and maximum dry density.

A second test will be performed to determine a baseline for the compaction of the soil used in the infiltration layer of the final closure and recorded in the project records.

## **INFILTRATION LAYER CONSTRUCTION**

### **6.1 General**

The infiltration layer profile is shown in the project drawings. The infiltration layer will be constructed using the CQC and CQA testing and installation procedures developed during the pre-construction testing. The following sections describe the specific CQC and CQA testing results of the infiltration layer installation.





## **6.2 CQC and CQA Testing**

CQC and CQA testing will include construction observations, permeability, moisture content and density tests performed during installation of each lift of the infiltration layer. Specific CQC and CQA tests will be performed on the infiltration layer in accordance with the approved CQA plan.

The CQC test: density (ASTM D2922) and moisture content (ASTM D3017) will be verified using a nuclear gauge. Hydraulic Conductivity shall be verified with lab permeability testing (ASTM D5084).

CQA testing will consist of laboratory testing and field moisture sampling of the borrow area soil to determine optimum moisture and density (ASTM D698).

Evaluation of contractor installation techniques will be observed under the CQA plan, including the following:

1. Confirm material consistence, free of foreign objects.
2. Evaluate general construction test results.
3. Evaluate infiltration layer soil test results, permeability.
4. Evaluate installation slopes and subgrade preparation. Evaluate lift thickness and infiltration layer compaction procedures.
5. Record weather conditions.
6. Inform the Certifying Engineer and Project Manager of any deficiencies.

## **6.3 Construction Testing and Results**

### **6.3.1 Construction Observations**

Construction observation will be performed during construction activity of the infiltration layer. An observation report will be included in the project records. Prior to commencing construction of the infiltration layer, the subgrade will be inspected to confirm suitability as a stable foundation. Subgrade elevations will be verified from benchmarks placed by a certified survey.

Recommendations for compaction will be provided to the contractor to insure required compaction is achieved, they are:

1. Removal of all foreign objects such a roots, vegetation and stones.





2. Identify a change in soil characteristics which may require an alternate installation procedure.
3. Performance of processing of soil.
4. Placing of soil to insure specified loose lift thickness.
5. Application of water to insure reaching optimum moisture content.
6. Compaction of the soil to the specified density.

The following procedures will be employed to determine acceptability of the construction of each lift of the final closure:

1. Relative compaction.
2. Moisture content.
3. Lift thickness.
4. Soil lift homogenization.

Compare measured results to requirements, determine variance. If dry density is too low, review the following:

1. Relative compaction density.
2. Moisture content.
3. Lift thickness.
4. Soil lift homogenization.

If dry density is too low:

1. Adjust moisture, re-compact the lift and test.
2. Evaluate the results and make necessary installation change.
3. Record the alteration and its use going forward.

If moisture content is too low:

1. Adjust moisture use in the installation upward and retest.
2. Compare results and make necessary adjustment to soil installation.

Observation of how homogeneous each lift is will be made through visual inspection. To insure continuity throughout the final closure the combined lifts must be homogeneous.



### **6.3.2 Moisture and Density Soil Testing**

Moisture content and density test will be performed on each 6-inch lift after the lift is compacted and in place.

Each lift will be constructed in accordance with the project requirements determined by the CQA Consultant during pre-construction testing. The total number of tests will be performed as determined by the Consultant, including permeability tests. This testing will determine if the in-place soil meets the moisture content and density requirements.

Each lift will be constructed using the identical criteria until the infiltration layer thickness is reached. Employing the design criteria and utilizing proper construction methods will insure the minimum design requirements are achieved.

CQC and CQA tests and results will be enclosed in the final certification report, which shall be made available for review by ADEM.

## **EROSION LAYER CONSTRUCTION**

### **7.1 General**

Six inches of soil will be placed over the infiltration layer to insure protection of the final cover system and to promote/establish vegetation and erosion control. The erosion layer soil will be placed in suitable layers using a dozer to insure evenly spread material.

### **7.2 CQC and CQA Testing**

CQC and CQA will be accomplished through visual inspection as the soil is placed, spread and compacted. No moisture content or density test are required during construction of the Erosion layer.



## **NONCONFORMING TEST RESULTS**

### **8.1 Density and Moisture Content**

Density and moisture content that initially do not meet project requirements will be compiled in a table in the final compliance report for this closure project. The location of the nonconforming test will be surveyed and submitted in a closure survey report.

### **8.2 Permeability Testing**

All permeability tests taken from the infiltration layer must meet the  $1.0 \times 10^{-5}$  cm/s requirement. If an area from which a permeability sample is taken fails, the area associated with the test will be reworked and an additional permeability sample taken, until a passing result is achieved.

### **8.3 Nonconformance Reports**

A nonconformance test report, if applicable, will be prepared and included in the ADEM certification document.

## **SURVEY CONTROL**

### **9.1 Infiltration Layer**

The completed infiltration layer surface will be surveyed for elevations to determine the design thickness is achieved before placement of the erosion control layer.

### **9.2 Erosion Layer**

The erosion layer will also be surveyed to insure the in-place thickness and grades are in accordance with design drawings.

A survey drawing will be included in the certification report for review by ADEM showing the as-built elevations of the infiltration and erosion layers.



### **CERTIFICATION STATEMENT**

The certifying engineer will state the final closure at ACIPCO #1 meets the closure requirements of the Alabama Department of Environmental Management.

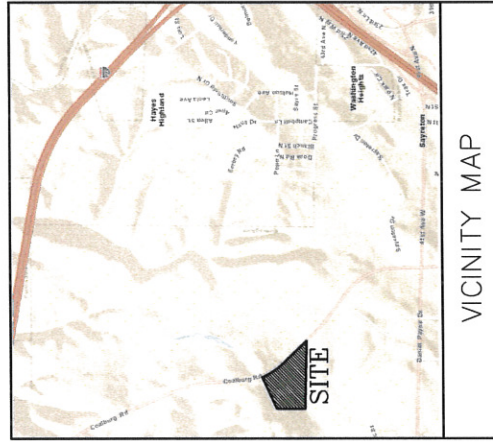


***ENCLOSURE***  
***PERMIT DRAWINGS***  
***PACKAGE***



# ACIPCO LANDFILL NO.1 CLOSURE PLAN

JEFFERSON COUNTY, ALABAMA  
JANUARY 11, 2019



## SHEET INDEX

COVER SHEET  
SHEET C-1  
SHEET C-2  
SHEET C-3

FINAL GRADING & DRAINAGE PLAN  
CROSS SECTIONS  
DETAILS

DATE: 1-11-19



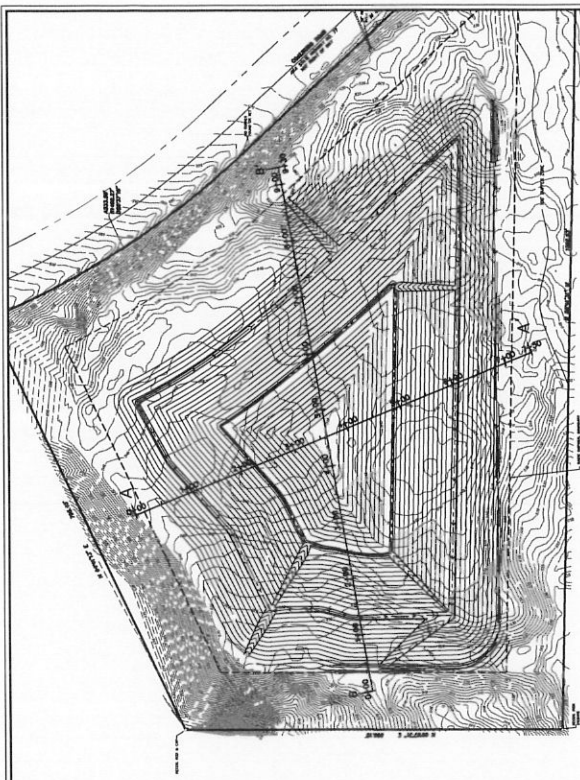
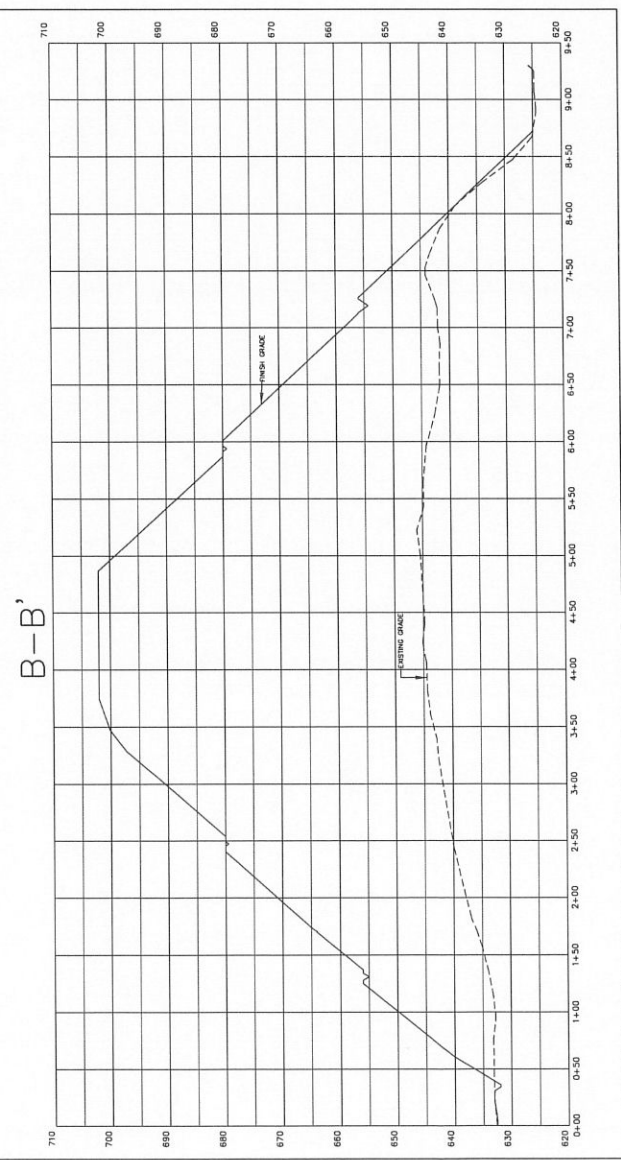
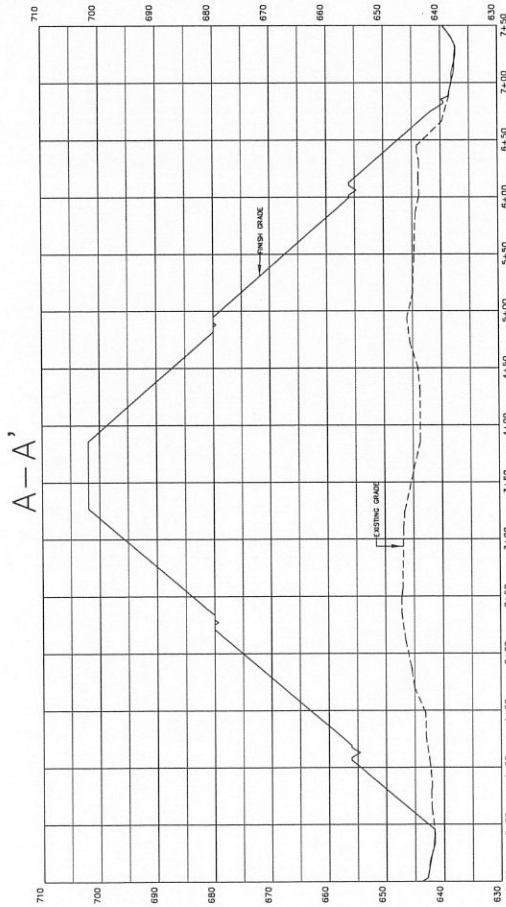
APPROVED: *Eric D. Jackson*  
ERIC D. JACKSON, P.E.  
Professional Engineer  
Registration No. 34844



ROWE ENGINEERING AND SURVEYING, INC.

A HIGHLAND TECHNICAL SERVICES COMPANY  
3502-B LAUGHLIN DRIVE MOBILE, ALABAMA  
PHONE: 251-666-2766





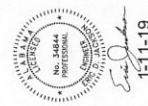
1" = 100'

1" = 10'

1" = 50'

VERTICAL SCALE

HORIZONTAL SCALE

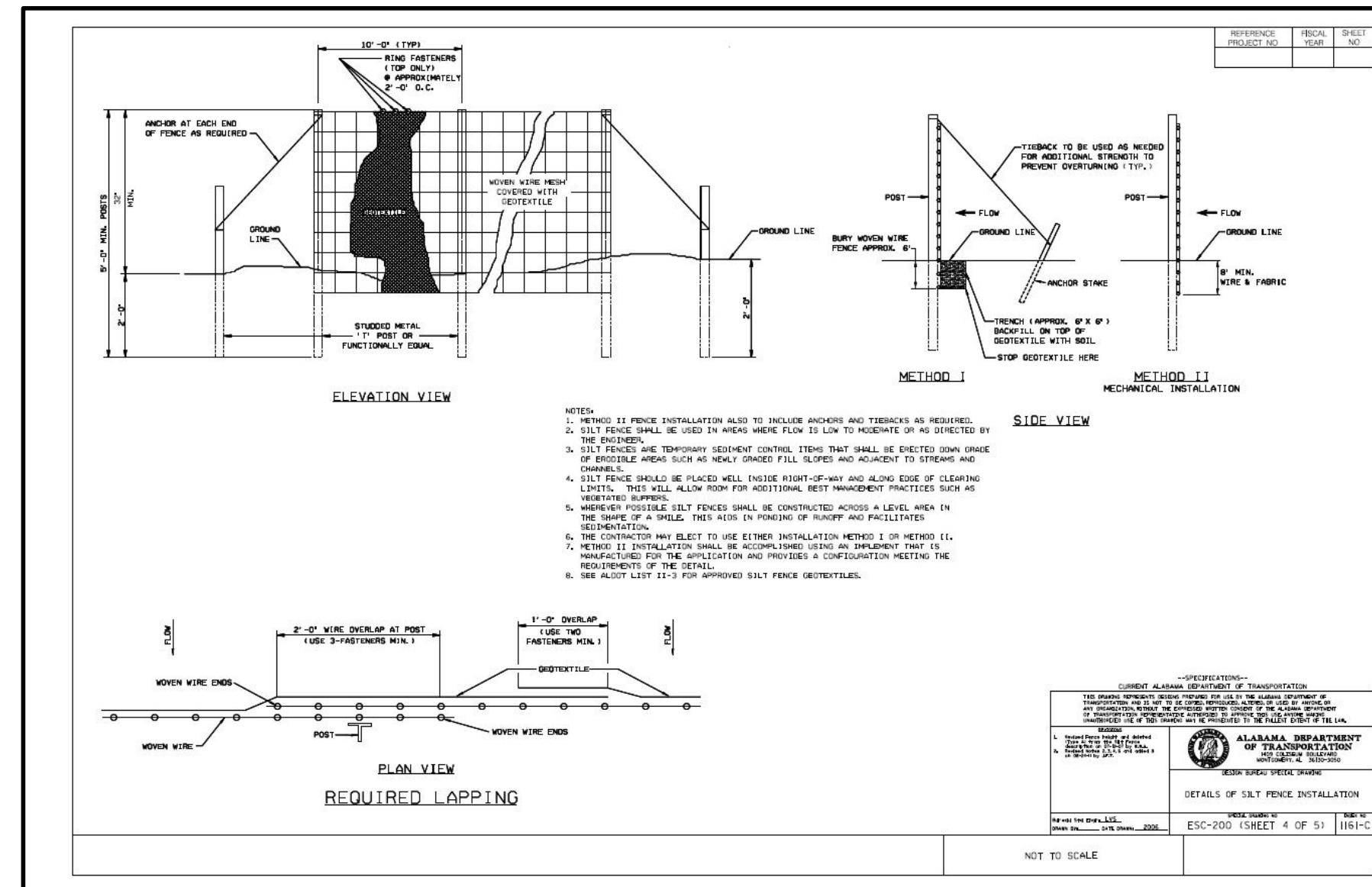
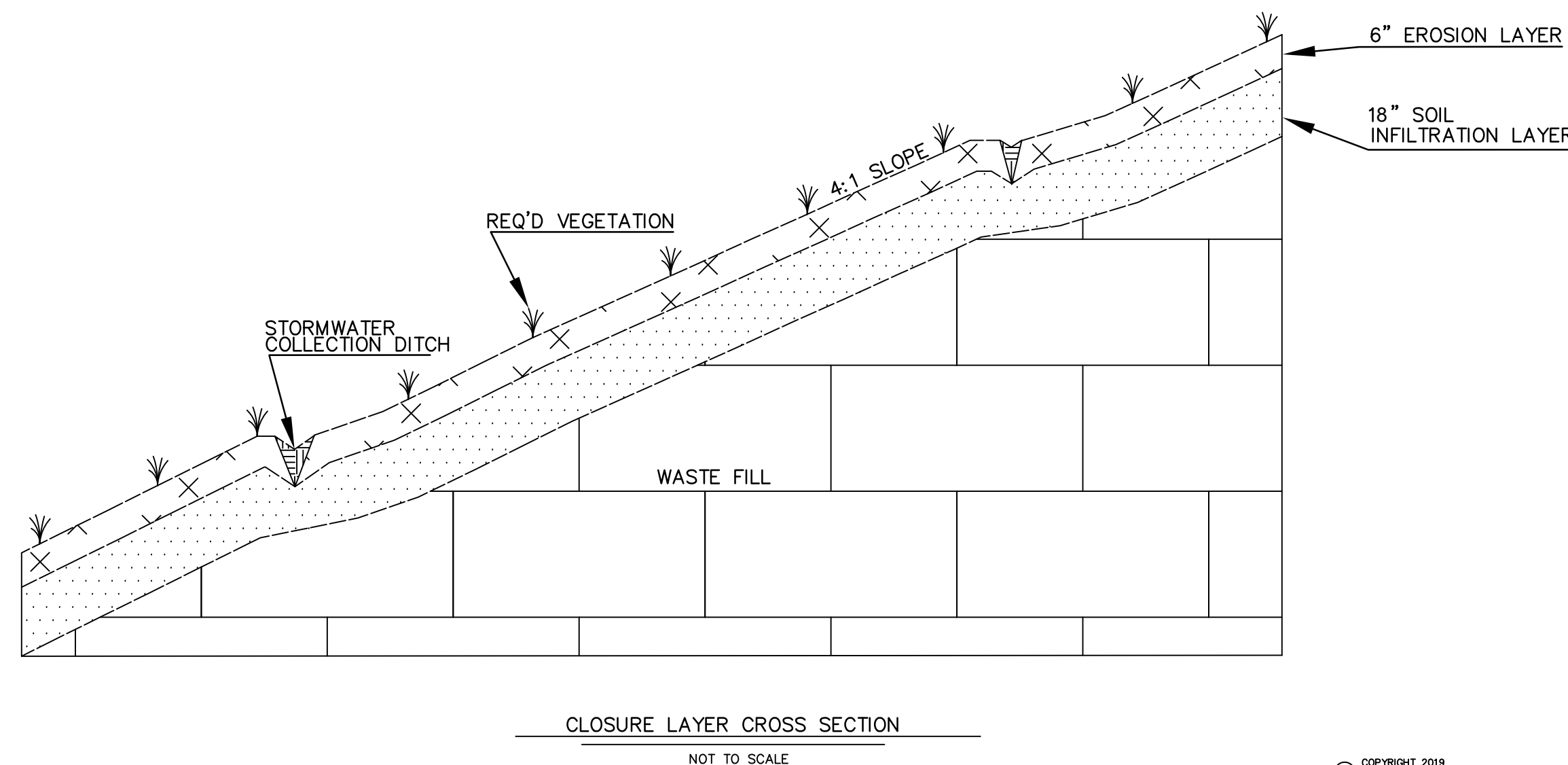
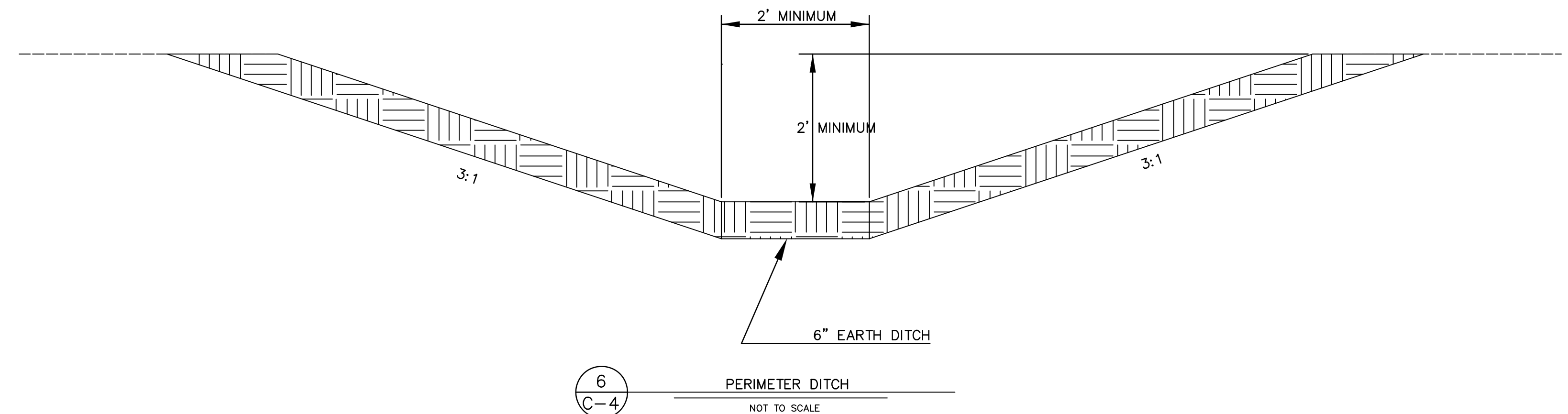
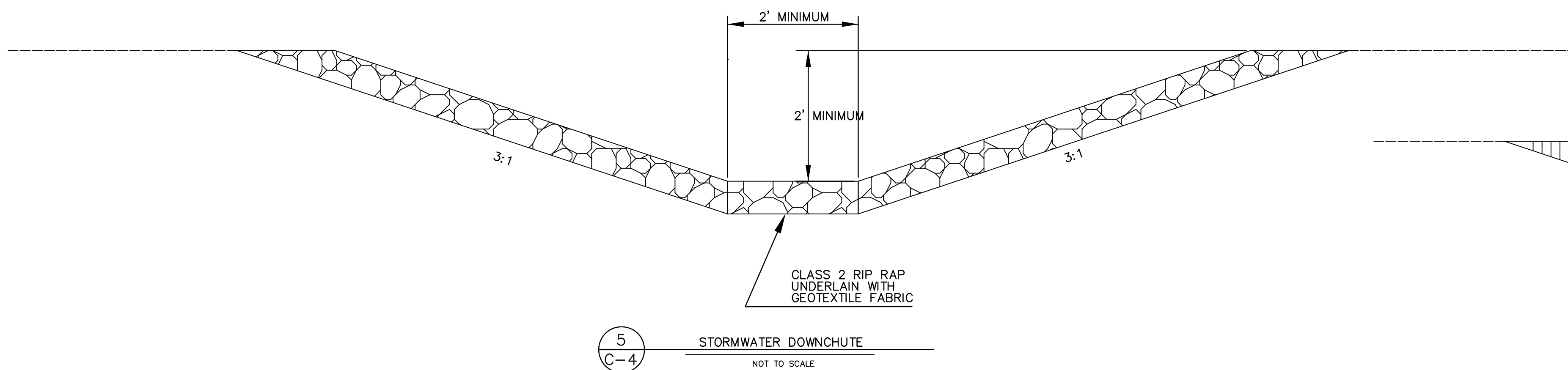
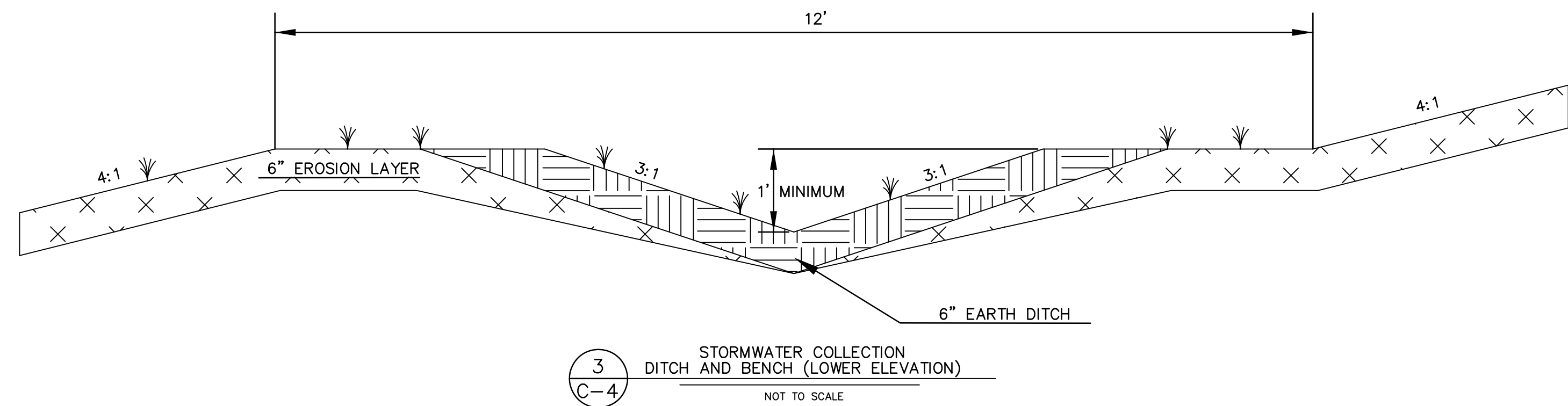
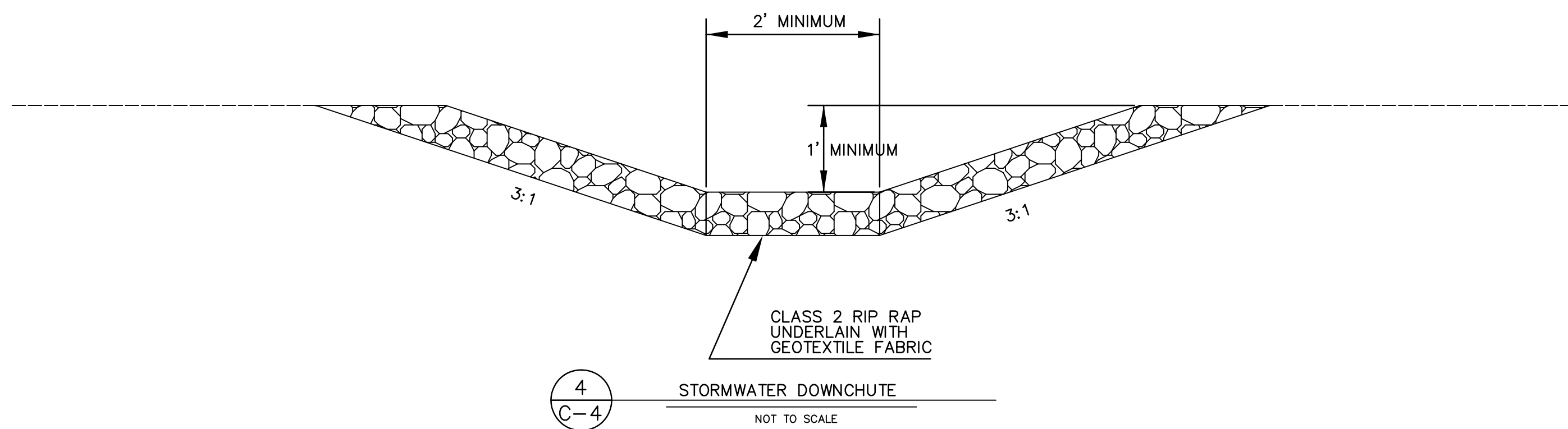
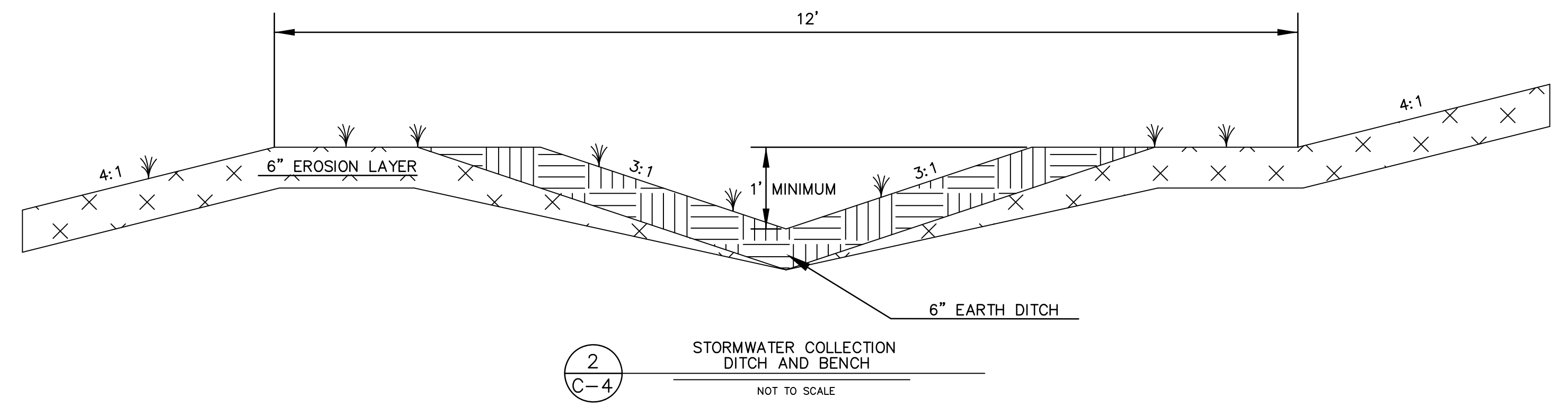
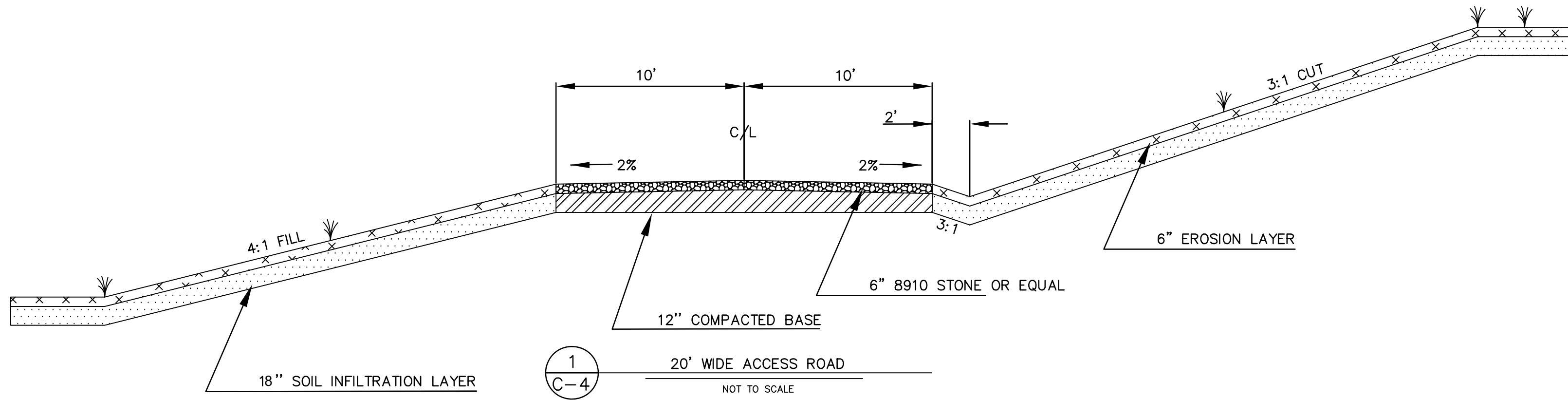


CROSS SECTIONS

|                  |              |          |           |
|------------------|--------------|----------|-----------|
| PROJECT NO.      | DATE         | SCALE    | SHEET NO. |
| 1-11-19          | JAN 11, 2018 | AS SHOWN | C - 2     |
| DESIGNED BY: JED | DATE         | SCALE    | SHEET NO. |
| CHECKED BY: JED  | DATE         | SCALE    | SHEET NO. |
| APPROVED BY: JED | DATE         | SCALE    | SHEET NO. |
| PROJECT NO.      | DATE         | SCALE    | SHEET NO. |
| 1-11-19          | JAN 11, 2018 | AS SHOWN | C - 2     |
| DESIGNED BY: JED | DATE         | SCALE    | SHEET NO. |
| CHECKED BY: JED  | DATE         | SCALE    | SHEET NO. |
| APPROVED BY: JED | DATE         | SCALE    | SHEET NO. |


**PRIME ENGINEERING & SURVEYING, INC.**  
 A HIGHLAND TECHNICAL SERVICES COMPANY  
 10000 HIGHLAND AVENUE, SUITE 100  
 ALHAMBRA, CA 91804-1515  
 TEL: (626) 444-1111 FAX: (626) 444-1112  
 www.prime-engineering.com



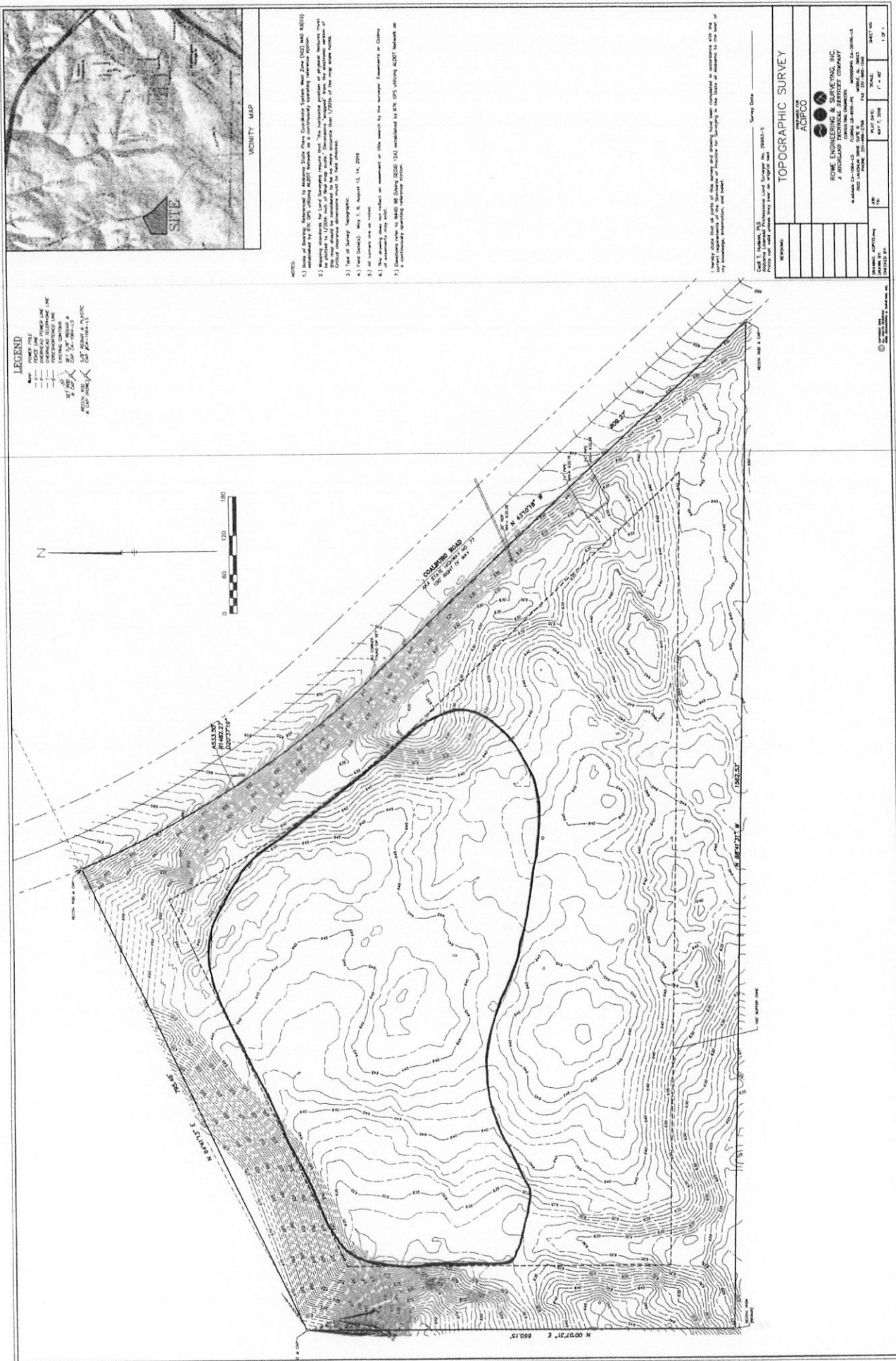


7  
C-4  
SILT FENCE INSTALLATION  
NOT TO SCALE

ALABAMA  
LICENSED  
No. 34844  
PROFESSIONAL  
ENGINEER  
ERIC D. JACKSON  
1-11-19

| REVISIONS:          |            |                    |                     |                 | DETAILS   |  |  |  |  |
|---------------------|------------|--------------------|---------------------|-----------------|---|--|--|--|--|
|                     |            |                    |                     |                 | PREPARED FOR<br>ACIPCO  |  |  |  |  |
|                     |            |                    |                     |                 | <br><b>ROWE ENGINEERING &amp; SURVEYING, INC.</b><br>A HIGHLAND TECHNICAL SERVICES COMPANY<br>CONSULTING ENGINEERS<br>ALABAMA CA-1064-LS    FLORIDA LB-8101-PS    MISSISSIPPI CA-26105-LS<br>3502 LAUGHLIN DRIVE SUITE B    MOBILE, AL 36693<br>PHONE 251-666-2766    FAX 251-660-1040 |  |  |  |  |
| DRAWING: ACIPCO.dwg | JOB: 50305 | DATE: JAN 11, 2018 | SCALE: NOT TO SCALE | SHEET NO. C - 3 |   |  |  |  |  |
| DRAWN BY: JCC       |            |                    |                     |                 |   |  |  |  |  |
| CHECKED BY: EDJ     |            |                    |                     |                 |   |  |  |  |  |

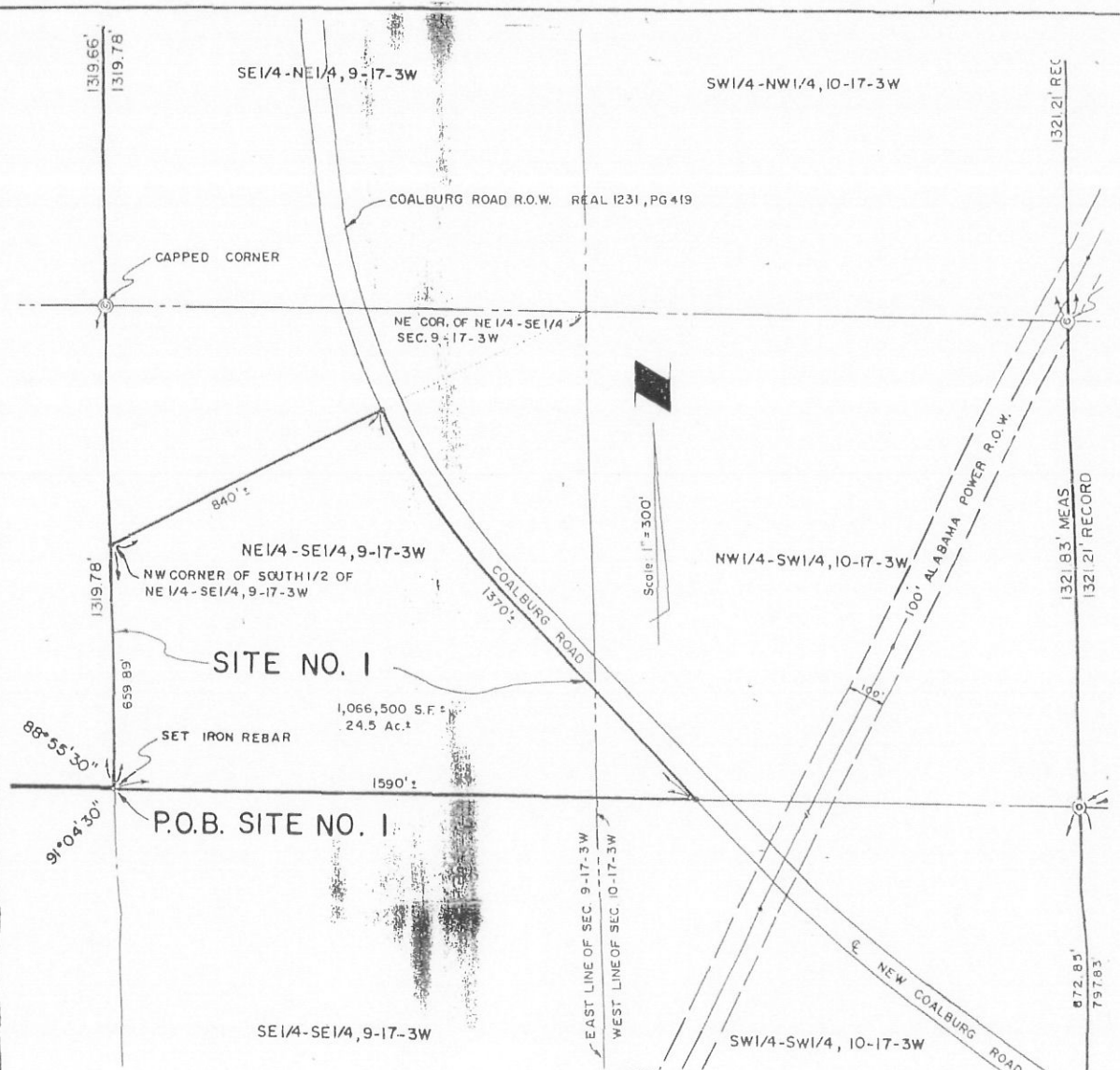
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***ENCLOSURE***  
***BOUNDARY PLAT &***  
***LEGAL PROPERTY***  
***DESCRIPTION***



JOSEPH A. MILLER JR.  
L.A.P.E. AND L.S. NO. 2875



DESCRIPTION:

SITE NUMBER 1

PART OF THE N.E. 1/4 OF THE S.E. 1/4 OF SECTION 9, AND PART OF THE N.W. 1/4 OF THE S.W. 1/4 OF SECTION 10, ALL IN TOWNSHIP 17 SOUTH RANGE 3 WEST, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SAID N.E. 1/4 OF S.E. 1/4; THENCE RUN NORTH ALONG THE WEST LINE OF; SAME FOR 659.89 FEET TO THE NORTHWEST CORNER OF THE SOUTH 1/2 OF SAID N.E. 1/4 OF S.E. 1/4; THENCE RUN NORTHEASTERLY (ALONG A LINE WHICH WILL INTERSECT THE NORTHEAST CORNER OF SAID 1/4 1/4 SECTION) FOR 840 FEET, MORE OR LESS, TO A POINT ON THE SOUTHWESTERLY RIGHT OF WAY LINE OF COALBURG ROAD; THENCE RUN SOUTHEASTERLY ALONG SAID RIGHT OF WAY LINE FOR 1,370 FEET, MORE OR LESS, TO A POINT ON THE SOUTH LINE OF SAID N.W. 1/4 OF S.W. 1/4; THENCE RUN WEST ALONG THE SOUTH LINE OF SAID N.W. 1/4 OF S.W. 1/4 AND ALONG THE SOUTH LINE OF SAID N.E. 1/4 OF S.E. 1/4 FOR 1,590 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PROPOSED DISPOSAL FACILITY - SITE NUMBER 1  
FOR  
AMERICAN CAST IRON PIPE COMPANY

PREPARED BY

MILLER, TRIPLETT AND MILLER ENGINEERS INC.  
BIRMINGHAM, ALABAMA

OCTOBER 10, 1989