

M. 89216



MAJOR MODIFICATION FORM
FOR LARGE CONSTRUCTION GENERAL PERMIT
Coverage No. MSR10 9 6 0 0 County RANKIN

RECEIVED
MAR 30 2026
Dept. of Environmental Quality

INSTRUCTIONS

Coverage recipients shall notify the Mississippi Department of Environmental Quality (MDEQ) at least 30 days in advance of the following activities (check all that apply). This form should be submitted with a modified Storm Water Pollution Prevention Plan (SWPPP), updated USGS topographic map, Corps of Engineers Section 404 documentation and wastewater collection and treatment information, as appropriate.

- [X] SWPPP details have been developed and are being submitted for MDEQ review for subsequent phases of an existing project.
[] "Footprint" identified in the original LCNOI is proposed to be changed.

This form must be signed by the current coverage recipient under Mississippi's Large Construction General Permit. A different developer of new phases of existing subdivisions must apply for separate permit coverage through the submittal of a new complete LCNOI package. Coverage recipients are authorized to discharge storm water associated with proposed expansions of existing subdivisions or subsequent phases, under the conditions of the General Permit, only upon receipt of written notification of approval by MDEQ. All other modifications, such as changes of erosion and sediment controls used, must be in accordance with ACT6, S-1 (6) and S-2 (7) of the General Permit.

ALL INFORMATION MUST BE COMPLETED (indicate "N/A" where not applicable)

CURRENT COVERAGE RECIPIENT INFORMATION

COVERAGE RECIPIENT CONTACT NAME: Keith Hicks PHONE # (601) 825-9224
COMPANY NAME: Rankin County Board of Supervisors
STREET OR P.O. BOX: 211 E. Government St. Suite A
CITY: Brandon STATE: MS ZIP: 39042 E-MAIL: khicks@rankincounty.org
IS THE APPLICANT DIFFERENT FROM THE CURRENT COVERAGE HOLDER? [] YES [X] NO

PREPARER/CONSULTANT INFORMATION
(Complete if prepared by someone other than applicant.)

PREPARER/CONSULTANT CONTACT NAME: Inga Lehman, P.E. PHONE # (601) 627-7780
COMPANY NAME: Benchmark Engineering & Surveying, LLC
STREET OR P.O. BOX: 660 Katherine Drive
CITY: Brandon STATE: MS ZIP: 39232 E-MAIL: ilehman@benchmarkms.net
MAY MDEQ CORRESPOND DIRECTLY WITH THE PREPARER / CONSULTANT REGARDING THE PROPOSED PROJECT / MODIFICATION? [X] YES [] NO

SITE INFORMATION

PROJECT NAME: Florence - Byram Clearing and Grubbing
CITY: Florence TRIBAL LAND ID (N/A If not applicable):
Latitude / Longitude Collected at Project Entrance or Construction Start Point:
LATITUDE: 32 degrees 10 minutes 22 seconds LONGITUDE: -90 degrees 1 minutes 19 seconds
LAT & LONG COLLECTION METHOD (e.g., GPS, Map Interpolation): google map
REDUCTION IN ACREAGE: ADDITIONAL ACREAGE TO BE DISTURBED: 22
TOTAL PROJECT ACREAGE: 26 ESTIMATED CONSTRUCTION END DATE:

IS THE PROJECT REROUTING, FILLING OR CROSSING A WATER CONVEYANCE OF ANY KIND? (If yes, contact the U.S. Army Corps of Engineers' Regulatory Branch for permitting requirements.) YES NO

IF THE PROJECT IS A SUBDIVISION OR A COMMERCIAL DEVELOPMENT, HOW WILL SANITARY SEWAGE BE DISPOSED? Check one of the following and attach the pertinent documents.

- Existing Municipal or Commercial System. Please attach plans and specifications for the collection system and the associated "Information Regarding Proposed Wastewater Projects" form or approval from County Utility Authority in Hancock, Harrison, Jackson, Pearl River and Stone Counties. If the plans and specifications cannot be provided at the time of LCNOI submittal, MDEQ will accept written acknowledgement from official(s) responsible for wastewater collection and treatment that the flows generated from the proposed project can and will be transported and treated properly. The letter must include the estimated flow.
- Collection and Treatment System will be Constructed. Please attach a copy of the cover of the NPDES discharge permit from MDEQ or indicate the date the application was submitted to MDEQ (Date: _____.)
- Individual Onsite Wastewater Disposal Systems for Subdivisions Less than 35 Lots. Please attach a copy of the Letter of General Acceptance from the Mississippi State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.
- Individual Onsite Wastewater Disposal Systems for Subdivisions Greater than 35 Lots. A determination of the feasibility of installing a central sewage collection and treatment system must be made by MDEQ. A copy of the response from MDEQ concerning the feasibility study must be attached. If a central collection and wastewater system is not feasible, then please attach a copy of the Letter of General Acceptance from the State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.

INDICATE ANY LOCAL STORM WATER ORDINANCE WITH WHICH THE PROJECT MUST COMPLY:

NEAREST NAMED RECEIVING STREAM: Unnamed tributary to Indian Creek

IS RECEIVING STREAM ON MISSISSIPPI'S 303(d) LIST OF IMPAIRED WATER BODIES? (The 303(d) list of impaired waters and TMDL stream segments may be found on MDEQ's web site: <https://www.mdeq.ms.gov/water/surface-water/tmdl/>) YES NO

HAS A TMDL BEEN ESTABLISHED FOR THE RECEIVING STREAM SEGMENT? YES NO

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Signature (must be signed by coverage recipient)

3/23/2026

Date

Keith Hicks

Printed Name

County Administrator

Title

Please submit this form to: Chief, Environmental Permits Division
Office of Pollution Control
MS Department of Environmental Quality
P.O. Box 2261
Jackson, Mississippi 39225

Electronically: <https://www.mdeq.ms.gov/construction-stormwater/>

STORM WATER POLLUTION PREVENTION PLAN
FOR:

FLORENCE-BYRAM PKWY (GUNTER RD. EXT.)
STP-7074-00(001)LPA
FMS: 108292/701000

Located In:
Rankin County, Mississippi
From Florence-Byram Rd. to US-49

PREPARED BY:
BENCHMARK ENGINEERING & SURVEYING, LLC

MARCH 2026



CIVIL ♦ STRUCTURAL ♦ PLANNING ♦ SURVEYING ♦ UAV MAPPING
www.benchmarkms.net

Site Information

Florence-Byram Parkway Project is a 3.76 mile long project connecting Florence-Byram Rd. to US 49 at the intersection of Gunter Rd. As previously submitted, the proposed scope of this project includes constructing a new mainline alignment 3.06 miles in length; however this submittal is to include the remaining 0.70 mile segment. According to the Soil Survey of Rankin County, Mississippi, the soils on the site are of type 3 – Oaklimeter silt loam, 0 to 2 percent slopes; 35B2 – Tippah silt loam, 2 to 5 percent slopes; 35C2 – Tippah silt loam, 5 to 8 percent slopes; 35D2 – Tippah silt loam, 8 to 12 percent slopes; 41C2 – Providence silt loam, 5 to 8 percent slopes; 42B Providence-Urban land complex, 2 to 8 percent; 49C2 – Savannah loam, 5 to 8 percent slopes; 65D – Smithdale-Providence complex, 8 to 17 percent slopes. The 0.70 segment contains 41C2 – Providence silt loam, 5 to 8 percent slopes; as well as 42B and 65D as previously mentioned. Soil type 35B2 are deep, moderately well drained, gently sloping soils which are a moderate erosion hazard.

Vegetative Controls

Any trees within the shown clearing limits will be removed prior to construction. Topsoil will be stockpiled on site for future use in slopes and landscaping. All cut slopes will be a minimum of a 3:1 slope and will be disked prior to seeding. Any disturbed areas that will be left undisturbed for fourteen or more days will be seeded with temporary seeding immediately. After final grading, all disturbed areas that are thought to remain undisturbed for fourteen or more days will be seeded with permanent seeding immediately. The temporary seeding species will be determined by the time of year it is to be installed. Disturbed areas that are to be re-vegetated shall avoid soil compaction.

Structural Controls

Where sediment has been tracked-out from the site onto paved roads, sidewalks, or other paved areas outside the site, remove deposited sediment “immediately” by the end of the next workday. Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by similarly effective means of sediment removal. Hosing or sweeping track-out sediment into any stormwater conveyance, storm drain inlet, or waters of the State is prohibited. Upslope waters will be diverted around disturbed areas if possible. Silt fence will be installed along the toe of all slopes where work will disturb upstream areas. Additional fencing and/or other controls will be placed as necessary to prevent sediment from reaching the existing stream and/or leaving the site. Wattles or other approved inlet protection devices will be installed at all storm drain structures and upstream ends of pipes. Wattles will be installed in the centerline of graded ditches until such time as they can be removed.

Housekeeping Practices

An equipment/materials staging area will be constructed at a location determined by the contractor but only if the contractor has a need for a staging area. Contractor must provide a suitable container for trash. Portable sanitary facilities will be provided by the contractor for the construction workers. All major equipment maintenance and repair will be done offsite. If minor equipment maintenance and repair is required onsite, it will be performed in the equipment/ materials staging area. Refueling of equipment will take place in the equipment/ materials staging area. Portable sanitary facilities will be inspected weekly and emptied or replaced as needed. The equipment/materials staging area will be inspected weekly and after storm events; perimeter controls, containment structures and covers will be repaired or replaced as needed. A sweeper will be used to keep streets clean of sediment as much as reasonably possible.

Post Construction/Storm Water Management Measures

Straw bales, wattles or rip-rap/sediment stone ditch checks will be placed at concentrated storm water discharge points to prevent erosion from high velocities until permanent ground cover is established. Silt fence will be placed as shown on the plans as a minimum and additionally as necessary to impede silt laden runoff from leaving the site.

Implementation Sequence

1. Install construction access road to project site.
2. Install sanitary facilities and trash containers.
3. Set up equipment and materials staging area if needed by the contractor for project.
4. Install silt fencing along the downstream boundary of any areas that are to be cleared and grubbed or stripped.
5. Begin clearing/grubbing and stripping operations for the remainder of the site.
6. Once site is cleared, begin grading operations to get the project site to rough grade.
7. Remove all temporary erosion control measures once required improvements per the plans have been completed and areas disturbed during installation of such have been stabilized with 90% vegetative cover. This includes but is not limited to perimeter silt fencing, brush barriers, etc.

Maintenance Plan

Check all disturbed areas, erosion and sediment controls after each rainfall that produces a discharge, but not less than once per week. Make needed repairs within 24 hours or as soon as conditions allow. Remove sediment from the silt fences when accumulated sediment has reached ½ the height of the silt fence. Maintain all vegetated areas to provide proper ground

cover – reseed, fertilize and mulch. Replace all non-functional silt fence. Remove all temporary erosion control measures once improvements required in the construction plans have been completed and areas disturbed during installation of such has been stabilized with 90% vegetative cover.

Staff Training Requirements

The contractor shall assemble a “stormwater team” to carry out compliance activities associated with the requirements of the Large Construction General Permit. All members of the stormwater team must be trained to understand the following if related to the scope of their job duties:

- The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization; The location of all stormwater controls on the site required by this permit and how they are to be maintained;
- The proper procedures to follow with respect to the permit’s pollution prevention requirements; and
- When and how to conduct inspections, record applicable findings, and take corrective actions.

Staff training conducted to meet the requirements of this permit shall be documented.

Retention of Records

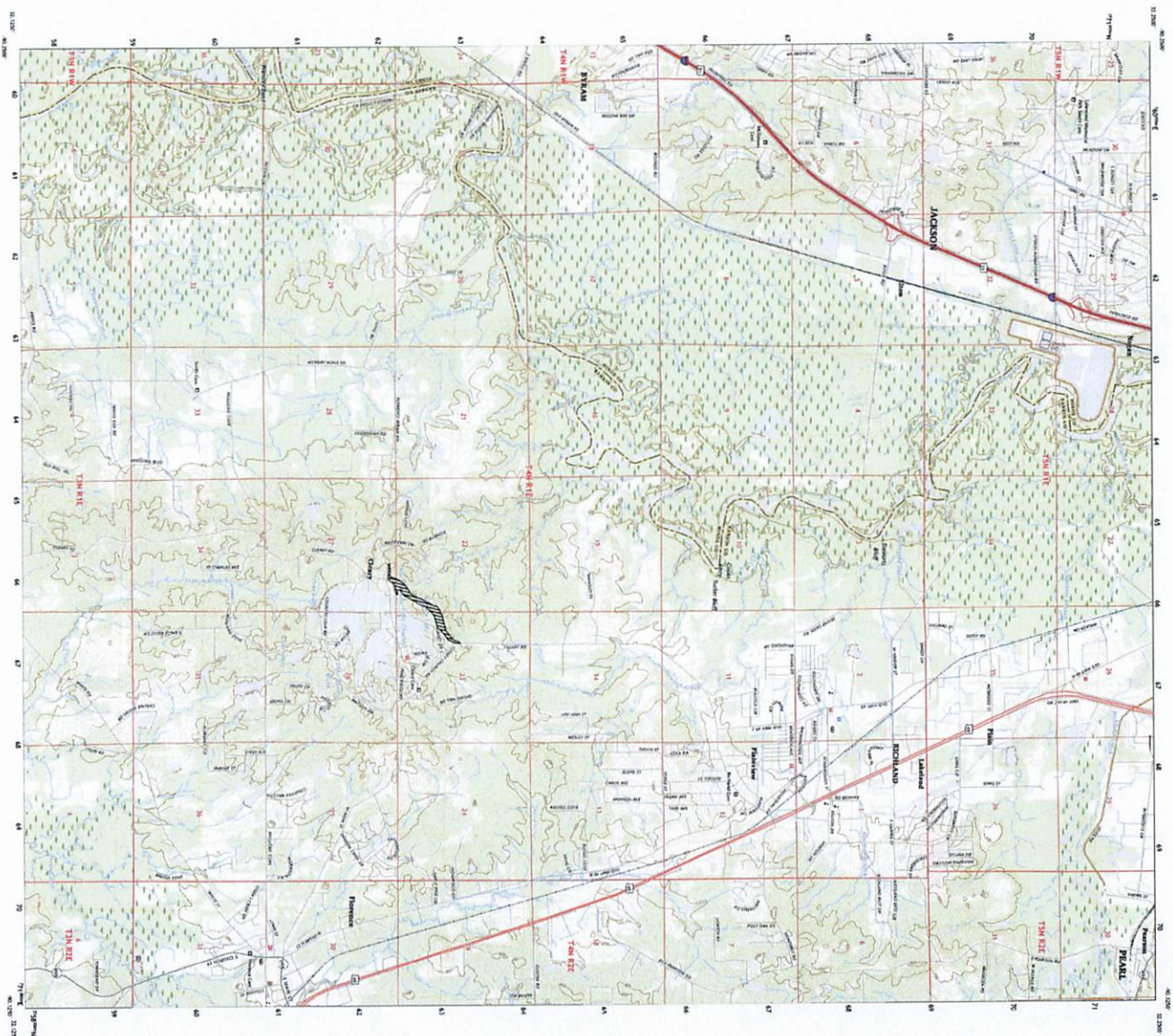
All records, reports, forms, and information resulting from activities required by this permit shall be retained for a period of at least 3 years from the date that the documents were generated.



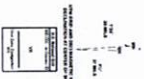
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



TOPOGRAPHIC QUADRANGLE
MISSISSIPPI
7.5-MINUTE SERIES



Produced by the United States Geological Survey
 This map is a derivative product of the National Topographic Data Base (NTDB) and is based on the original topographic map of the area. The map is a reproduction of the original map and is not a new map. The map is a reproduction of the original map and is not a new map. The map is a reproduction of the original map and is not a new map.



SCALE 1:24,000
 NATIONAL TOPOGRAPHIC DATA CENTER
 WASHINGTON, D.C. 20506
 DATE: 1988

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

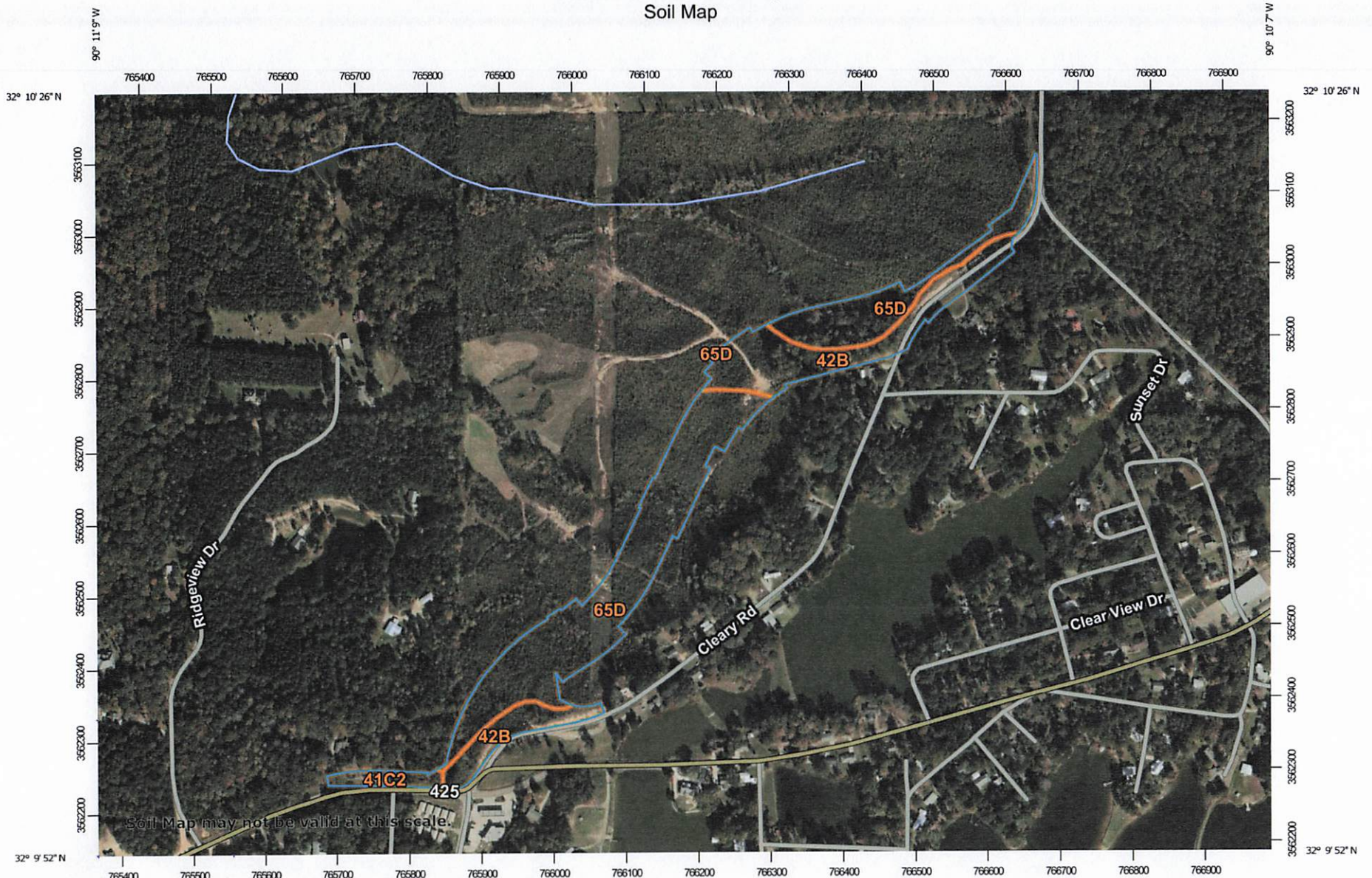
ROAD CLASSIFICATION

- Interstate
- State
- County
- Local
- Unimproved
- Trail
- Other

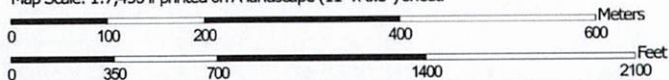


FLORENCE, MS
3034

Custom Soil Resource Report Soil Map







































Map Scale: 1:7,430 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

- Area of Interest (AOI)**
-  Area of Interest (AOI)
- Soils**
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rankin County, Mississippi
 Survey Area Data: Version 21, Sep 8, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 16, 2021—Dec 23, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
41C2	Providence silt loam, 5 to 8 percent slopes, moderately eroded	0.8	3.6%
42B	Providence-Urban land complex, 2 to 8 percent slopes	7.0	31.8%
65D	Smithdale-Providence complex, 8 to 17 percent slopes	14.2	64.6%
Totals for Area of Interest		22.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

Custom Soil Resource Report

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rankin County, Mississippi

41C2—Providence silt loam, 5 to 8 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 2sht1
Landscape: Coastal plains
Elevation: 260 to 570 feet
Mean annual precipitation: 54 to 58 inches
Mean annual air temperature: 52 to 75 degrees F
Frost-free period: 270 to 335 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Providence and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Providence

Setting

Landscape: Coastal plains
Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine-silty marine deposits over loamy marine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 5 inches: silt loam
Bt - 5 to 18 inches: silty clay loam
Btx - 18 to 28 inches: silt loam
2Btx - 28 to 60 inches: loam
2Bt - 60 to 80 inches: loam

Properties and qualities

Slope: 5 to 8 percent
Depth to restrictive feature: 15 to 22 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D

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Ecological site: F134XY012AL - Northern Loess Fragipan Upland -
PROVISIONAL

Hydric soil rating: No

Minor Components

Ora

Percent of map unit: 6 percent
Landscape: Coastal plains
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Smithdale

Percent of map unit: 4 percent
Landscape: Coastal plains
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

42B—Providence-Urban land complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: c6dn
Landscape: Uplands
Elevation: 280 to 520 feet
Mean annual precipitation: 53 to 62 inches
Mean annual air temperature: 61 to 66 degrees F
Frost-free period: 250 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Providence and similar soils: 40 percent
Urban land: 35 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Providence

Setting

Landscape: Uplands
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear

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Across-slope shape: Linear
Parent material: Silty loess over sandy marine deposits

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 26 inches: silt loam
H3 - 26 to 36 inches: silt loam
H4 - 36 to 63 inches: loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 18 to 38 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F134XY012AL - Northern Loess Fragipan Upland - PROVISIONAL
Hydric soil rating: No

Description of Urban Land

Setting

Landscape: Uplands
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty loess over sandy marine deposits

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Unnamed hydric soils (134dr)

Percent of map unit: 2 percent
Landform: Drainageways
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

65D—Smithdale-Providence complex, 8 to 17 percent slopes

Map Unit Setting

National map unit symbol: c6f5
Elevation: 250 to 540 feet
Mean annual precipitation: 53 to 62 inches
Mean annual air temperature: 61 to 66 degrees F
Frost-free period: 250 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Smithdale and similar soils: 45 percent
Providence and similar soils: 35 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Smithdale

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy fluviomarine deposits

Typical profile

H1 - 0 to 19 inches: fine sandy loam
H2 - 19 to 43 inches: loam
H3 - 43 to 80 inches: loam

Properties and qualities

Slope: 8 to 17 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

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Description of Providence

Setting

Landscape: Uplands
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty loess over sandy marine deposits

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 26 inches: silt loam
H3 - 26 to 36 inches: silt loam
H4 - 36 to 63 inches: loam

Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: 18 to 38 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F134XY012AL - Northern Loess Fragipan Upland -
PROVISIONAL
Hydric soil rating: No

Minor Components

Unnamed hydric soils (133dr)

Percent of map unit: 2 percent
Landform: Drainageways
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes