Construction Best Management Practices Plan

For:

Greeno Road Sidewalk Improvements
Greeno Road (US 98)
Fairhope, Alabama 36533

Operator:

City of Fairhope, AL
PO Box 429
Fairhope, Alabama 36533

August 2011

THOMPSON ENGINEERING
PROJECT NO.: 09-4020-0005

thompson
ENGINEERING

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For:

Greeno Road Sidewalk Improvements
Greeno Road (US 98)
Fairhope, Alabama 36533
251-367-4504

Operator:

City of Fairhope
Timothy M. Kant, Mayor
P.O. Box 429
Fairhope, Alabama 36533
251-928-2136
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CBMPP Preparation Date: July 21, 2011
(Revised August 8, 2011)

Project Start Date: 10/01/2011
Project Completion Date: 10/01/2012

TABLE OF CONTENTS

Appendices

1.0 SITE EVALUATION, ASSESSMENT, AND PLANNING

As authorized by the Registrant, The City of Fairhope, Thompson Engineering has prepared a Construction Best Management Practices Plan (CBMPP) and Registrant documentation for the Greeno Road Sidewalk Improvement Project.

The purpose of this CBMPP is to provide additional guidance to the project Best Management Practices (BMP) design drawings. It is also to provide recommendations related to BMP planning to assure compliance with applicable state regulations concerning construction activities. The implementation of comprehensive BMP's, as required by the Alabama Department of Environmental Management (ADEM) for compliance with applicable National Pollutant Discharge Elimination System (NPDES) regulations, may require measures beyond those shown in the project plans. As required by ADEM's NPDES rules, project site BMP implementation should meet or exceed the Alabama Soil and Water Conservation Committee, 2009, "Alabama Handbook for Erosion, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas," Montgomery, Alabama, described practices. Prior to initiation of construction activities, it is not possible or practical to fully document the type and location of all possible BMPs to be used by the Contractor during construction. This is primarily because construction schedules, means and methods are determined by the specific Contractor after he has proposed on the project. The purpose of this CBMPP is to allow for the use of the BMPs as required for control of potential stormwater pollutants associated with construction and to assure compliance with ADEM NPDES requirements. It should be noted that this CBMPP is a living document and must be updated if conditions change on the job site. Any amendments to the CBMPP must be documented and retained in the copy of the report kept on the site. It should be noted also that a copy of the CBMPP must be maintained on the site during normal operating hours whenever land disturbing activities are being conducted. A copy of the NPDES General Permit (ALR100000) is included in Appendix L.

As site development activities evolve, so must the BMPs that control potential pollutants in stormwater discharges. Although it is not practicable to present in project design documents all possible BMPs that can be used at a construction project, this CBMPP provides guidance to help the contractor comply with applicable NPDES Rules. The CBMPP should be considered to be a "Tool Box" of practices that can be implemented to achieve compliance with NPDES Regulations. Effective implementation of BMPs for compliance with NPDES regulations is considered part of the Registrant responsibilities.

1.1 Project/Site Information

Project/Site Name: Greeno Road Sidewalk Improvements
Project Street/Location: Greeno Road (US 98)
City: Fairhope State: Alabama Zip Code: 36533

County or Similar Subdivision: Baldwin County

Latitude/Longitude of Facility

Latitude:	Longitude
30° 30' 50" N (degrees, minutes, seconds)	87° 53' 10" W (degrees, minutes, seconds)

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale): ☐ EPA Web Site ☐ GPS
☒ Other (please specify): Microstation and Corpscon

1.2 Contact Information/Responsible Parties

Operator:
City of Fairhope
Timothy M. Kant, Mayor
P.O. Box 429
Fairhope, AL 36533
Telephone Number: 251-928-2136
Email: Tim.Kant@cofairhope.com
(It should be noted that the Operator will change once a Contractor is selected. The CMBPP will also have to be updated as required to reflect changes the Contractor desires to make.)

Project Manager(s) or Site Supervisor(s):
City of Fairhope
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P.O. Box 429
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Ken Eslava
Telephone Number: 251-990-2887

1.3 Nature and Sequence of Construction Activity

Describe the general scope of the work for the project, major phases of construction, etc:

Construction activities will include: mobilization to the site, clearing and grading, site stabilization (erosion / sediment control) work, and the installation of a sidewalk, cleanup and establishment of permanent vegetation.

Proposed Activity (ies) to be Conducted:

☐ Residential ☐ Commercial ☐ Industrial ☐ Road Construction ☐ Linear Utility
☒ Other (please specify): Construction of a Sidewalk on ALDOT ROW.

If Non-Coal, Non-Metallic Mining, Recovery, or Construction Material Management Site:

☐ Dirt-Chert ☐ Sand-Gravel ☐ Shale-Clay ☐ Crushed-Dimension Stone
☐ Other (please specify):
☐ Other (please specify):
☐ Other (please specify):

Primary SIC Code: 1611
Primary NAICS Code: 237310

Brief Description of Construction, Non-coal Mining, or Materials Management Activity:

Construction activities will include: mobilization to the site, clearing and grading, site stabilization (erosion / sediment control) work, and the installation of a sidewalk, cleanup and establishment of permanent vegetation.

Estimated Project Start Date: October 1, 2011
Estimated Project Completion Date: October 1, 2012

1.4 Soils, Slope, Vegetation, and Current Drainage Patterns

The soil properties for Greeno Road Sidewalk Improvements were obtained using the United States Department of Agriculture (USDA) Web Soil Survey. There are several different soil classifications located on or near the project. The soils will be listed in order from the most present to the least present. The largest soil group on the project is Marlboro very fine sandy loam with 0 to 2 percent slopes. The landform is ridges with clayey marine deposits derived from sedimentary rock. The general area is moderately well drained. The second most prominant soil group is Tifton very fine sandy loam. The landform is hillslopes with loamy marine deposits derived from sedimentary rock with 2 to 5 percent slopes. The area is moderately well drained. The next soil group on the project is Faceville fine sandy loam, 2 to 5 percent slopes. The landform is hillslopes with red clayey marine deposits derived from sedimentary rock. The area is well drained. The next soil group is Bibb and Mantachie soils, local alluvium. The landform is flood plains with stratified sandy and silty alluvial deposits derived from sedimentary rock. This soil is common in areas that are poorly drained.

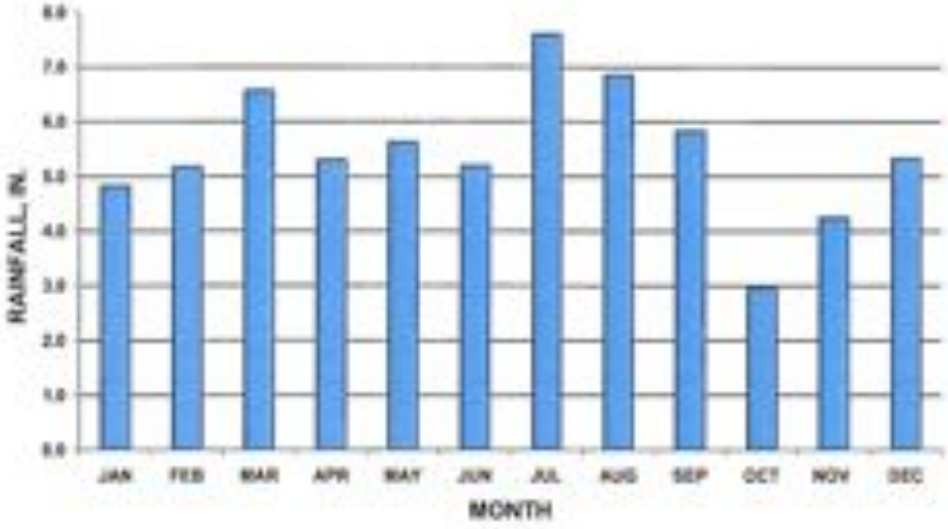
Slopes along the project are relatively flat. It should be noted that a retaining wall is to be installed along the sidewalk from approximately station 70+50 to 70+90. This retaining wall varies in height from three to six feet in height and allows the sidewalk to remain at a more constant grade (fill is under the sidewalk) where the sidewalk crosses an existing culvert. Because the slope of the land is relatively flat, flow velocities across the project site are expected to be relatively low.

Storm water will continue flow as it does now in the current ditches.

Predevelopment vegetation is typical grassed vegetation with a few trees.

Soil erosion by water at a construction site is a function of topography, soil type, and control practices along with precipitation factors. Average annual precipitation data obtained at National Weather Service offices for Mobile, Alabama averages approximately 65 to 70 inches per year. This precipitation is generally well distributed throughout the year with nine months averaging over five inches per month. Typically March, July, and August are the wettest months with the driest months being October and November. The figure below provides a graph of average monthly rainfall and was prepared from climate records for Mobile, Alabama.

AVERAGE MONTHLY RAINFALL
MOBILE, ALABAMA



The erosive potential of rainfall is a measure of the amount of kinetic energy available for detaching and displacing soil particles upon raindrop impact. Raindrop geometry (size) and, rainfall intensity as well as total rainfall control the erosive force of rainfall that is typically termed the rainfall erosion index. Baldwin County has a very high rainfall erosion index or Universal Soil Equation, R-Factor. The Universal Soil Loss Equation, R-Factor (isoerodent value) in Alabama ranges from 250 along the Tennessee State Line in the northeastern part of the State to 650 on the Gulf Coast. The Universal Soil Equation, R-Factor for the project site is around 600 to 650.

The Registrant should remember that even if practices are implemented in apparent accordance with the plan, the site is only in compliance with NPDES Rules and Regulations when erosion and sedimentation are effectively controlled. The primary purpose of this CBMPP is to provide adequate controls to retain sediments associated with land disturbance activities on the Registrant's site, and prevent these sediments from reaching waters of the State. Effective erosion and sediment control requires contentious and expeditious implementation of BMPs throughout the period of registration (until terminated in accordance with the Rules and Regulations).

Areas near estuarine environments be can be adversely impacted by environmental changes due to sediment loads and turbidity. Sediment loads and turbidity can alter the waters that surround the project site. Biological and ecological concerns associated with sediment loads transported to streams include:

- High concentrations of suspended solids in the water column have a mechanical abrasive action that can irritate damage or cause clogging of gill and feeding structures of many species. When clogging occurs, the feeding is reduced resulting in nutritional stress,

reduced respiratory efficiency, and disruption of metabolic processes, reduced growth rates, and possible mortality.

- Habitat alteration caused by burying of native bottom substrates and aquatic species under sediment loads.
- Increased turbidity that interferes with both feeding and reproduction activities of many aquatic species that depend on visual responses.
- Increased turbidity decreases sunlight penetration into the water column resulting in reduced photosynthesis and dissolved oxygen concentrations.

1.5 Pre- and Post- Construction Site Estimates

The following are estimates of the construction site:

Total project area:	15.5 acres
Construction site area to be disturbed:	1.9 acres
Percentage impervious area before construction:	5.5 %
Percentage impervious area after construction:	12.5 %

Worksheets and associated hydrographs are provided in Appendix E.

1.6 Receiving Waters

Description of receiving waters:

Cowpen Creek and Point Clear Creek are the receiving waters.

Description of storm sewer systems:

Existing ditches comprise the storm water system.

Description of impaired waters or waters subject to TMDLs:

There are no impaired waters for construction stormwater in the construction area. It should be noted that Cowpen Creek is 303d listed as impaired for mercury.

1.7 Site Features and Sensitive Areas to be Protected

The construction area is located in a developed area. A slope near the front of Fairhope High School will be protected by a new retaining wall. The retaining wall was necessary to allow the sidewalk to stay on grade within a narrow right-of-way on the east side of the road.

1.8 Potential Sources of Pollution

To control potential soil erosion and subsequent sediment in stormwater runoff, disturbed areas shall be surrounded by silt fence. All exposed areas shall be fertilized, seeded and mulched in accordance with Alabama Handbook guidance as soon as construction is completed. Where required, rip-rap, gravel or erosion control blankets will be used to protect slopes.

Potential pollutants and sources, other than sediment, to stormwater runoff:

Trade Name Material	Storm Water Pollutants	Location
Gasoline	Hydrocarbons	Stored in small containers or in fuel tanks for use in on-site equipment. It is not expected to be stored overnight on-site. Off-site storage is to be provided.
Diesel Fuel	Hydrocarbons	Stored in small containers or in fuel tanks for use in on-site equipment. It is not expected to be stored overnight on-site. Off-site storage is to be provided.
Motor Oil	Hydrocarbons	Stored in small containers for use in on-site equipment. It is not expected to be stored overnight on-site. Off-site storage is to be provided.
Hydraulic Fluids	Hydrocarbons	Stored in small containers for use in on-site equipment. It is not expected to be stored overnight on-site. Off-site storage is to be provided.
Lubricating Oils and Greases	Hydrocarbons	Stored in small containers for use in on-site equipment. It is not expected to be stored overnight on-site. Off-site storage is to be provided.
Paint and Solvents	Hydrocarbons	Stored in small containers off-site except when in use.
Construction Materials	Nutrients, metals, pH (acids & bases), hydrocarbons, trash and debris	These items are not expected to be on the site except as required during the construction. Trash and debris is to be collected daily and removed from the site.
Concrete Truck Washout	Calcium Carbonate, elevated pH's	Concrete truck washout will not be conducted on the site. Washout will occur in designated areas off-site.

1.9 Endangered Species

Are endangered or threatened species and critical habitats on or near the project area?

☐Yes ☒No

If yes, ADEM strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife www.fws.gov/southeast/es [Montgomery, AL (334) 285-9600; and Daphne, AL (251) 441-5181] and the Alabama Department of Conservation and Natural Resources Wildlife & Fisheries [(334)242-3465].

Documentation concerning wetlands and endangered species from the U.S. Army Corps of Engineers and the US Fish and Wildlife Service is included in Appendix K. No federally listed species/critical habitats are known to occur in the project area.

1.10 Historic Preservation

Are there any historic sites on or near the construction site?

☐Yes ☒No

If yes, ADEM strongly recommends that the site operator work closely with the Alabama Historical Commission's Historic Preservation office [(334)230-2667].

Documentation concerning historical preservation from the Alabama Historical Commission is included in Appendix K. The project activities will have no effect on any cultural resources listed on or eligible for the National Register of Historic Places.

1.11 Applicable Federal, State or Local Programs

In accordance with the Alabama Department of Environmental Management (ADEM) *National Pollutant Discharge Elimination System (NPDES) General Permit (ALR 100000) for Discharges from Construction Activities that Result in a Total Land Disturbance of One Acre or Greater and Sites Less than One Acre but are part of a Common Plan of Development or Sale* , the Registrant is required to properly install, operate, and maintain systems of pollution control and treatment as necessary to assure that pollutants do not enter stormwater in unacceptable amounts.

The proper operation and maintenance of applicable site pollution prevention measures includes the following Registrant responsibilities:

- Adequate funding for installation and maintenance of pollution control measures,
- Adequate staffing to assure pollution control measures and corrective actions are implemented in an effective and timely manner,

- Adequate training of personnel responsible for the site work activities which involve both installation and required maintenance of pollution control measures, and

- Implementation of a comprehensive Construction Best Management Practices Plan (CBMPP) for stormwater pollution control prepared and certified by a Qualified Credentialed Professional (as defined by the rules).

This document has been prepared to fulfill the requirements for a comprehensive CBMPP Plan. In summary and in accordance with the NPDES Rules and Regulations and ADEM General Permit ALR100000, the CBMPP contains the following as a minimum:

1) A general description of the construction site activity that includes gathering and analysis of information (including climatic factors, soil types, vegetation, site hydrology, conditions on adjoining areas, etc.) to plan and conduct the construction activity in a manner to prevent or avoid potential pollution problems. This also includes a description of the function of the construction site activity and identification of the known operators of the site and the areas under their control.

2) A description of the intended sequence of construction that disturbs soils and estimates of the total area expected to be disturbed.

3) A detailed description of the erosion, sediment controls and management practices to be implemented during each sequence of activity.

4) A detailed description of controls needed to meet water quality standards, waste load allocations that are consistent with applicable TMDL's finalized or approved by EPA.

5) A description of both temporary and permanent stabilization practices with schedules/sequences for implementation.

6) Descriptions of energy or flow velocity dissipation devices located at discharge locations or along the length of channels.

7) Identification of allowable sources of non-stormwater discharges that may be combined with stormwater from construction activities and descriptions of pollution prevention measures to manage non-stormwater discharges.

8) A description of the BMPs to be installed as part of construction then operated and maintained after final stabilization where the volumes or velocities of stormwater runoff are significantly different than the original pre-construction conditions.

9) A topographic map meeting the conditions of the General Permit.

10) Removal of sediment, nutrients, and other pollutants from stormwater before it leaves the site, and proper cleanup of sediments deposited off-site and responsible remediation of in-stream impacts to the maximum extent possible.

11) A description of procedures for handling and disposing of wastes generated on-site that includes clearing and demolition wastes, sediment removed from the site, construction and domestic wastes, hazardous or toxic waste and sanitary wastes.

The permit includes monitoring, inspection, reporting, and other requirements, in addition to implementation and maintenance of effective BMPs. These requirements are enumerated within the NPDES General Permit. The NPDES Registrant is responsible for performance of daily rainfall monitoring, inspections, and preparation of inspection reports as required.. These inspections are to be performed by or overseen by an ADEM Qualified Credentialed Professional (QCP) or a Qualified Credentialed Inspector (QCI) working with a QCP.

ADEM General Permit ALR100000 requires that the operator post and maintain sign(s) at or near the entrance of the project site and/or at other easily accessible locations to adequately identify the site prior to commencement of and during NPDES construction until Registration is properly terminated.

1.12 Maps

Site maps are included in Appendix A and B.

2.0 EROSION AND SEDIMENT CONTROL BMPS

Effective erosion and sediment control BMPs are necessary to minimize the entry of soil particles into stormwater. Implementation of effective measures requires both erosion control and sediment control. Erosion control provides for the control of sediments by reducing the potential quantity of sediments generated. Erosion control is peovided through measures that include:

- Stabilizing soil surfaces, thereby preventing the detachment of soil particles from denuded soil surfaces, and
- Reducing soil particle transport by slowing stormwater runoff velocities.

Sediment control is the capture of soil particles on-site, such that sedimentation of soil particles eroded from the site are not transported off-site and do not impact the quality of receiving waters. Reducing the velocity of stormwater runoff, and thus allowing for settling time sufficient for suspended solids to be deposited, is typically provided by sediment controls.

Erosion and sediment control planning typically includes the following baseline BMPs:

- Disturb the smallest area possible.
- Preserve existing trees and other vegetation where possible.
- Avoid or limit as much as feasible, the disturbance of areas such as:
  - Steep and unstable slopes
  - Soils which are up-slope of surface waters
  - Areas with soils susceptible to erosion
- Divert up-slope water around disturbed areas.
- Limit exposure of disturbed areas to the shortest possible time.
- Re-vegetate disturbed areas as soon as possible.
- Slow rainfall runoff velocities to prevent erosive flows.
- Stabilize denuded soils surfaces as soon as feasible using mulching, temporary or permanent vegetation, erosion control blankets, chemical stabilization, etc.
- Remove sediment from stormwater before it leaves the site by conveying stormwater flow through sediment trapping BMPs such as:
  - Allowing runoff to pond in controlled areas where sediment can drop out of suspension (sediment traps, detention ponds, behind interceptor dikes and at check dams).
  - Filtering stormwater through temporary structural BMPs such as silt fencing, gravel filter dams, etc.
  - Filter sediment-laden runoff by conveying stormwater as "sheet flow" through vegetative areas.
- Convey or transport runoff down steep slopes through lined channels or tubing.

2.1 Minimize Disturbed Area

One of the ways to minimize the entry of soil particles into stormwater is to limit the amount of soil that is disturbed and exposed to rainwater. By planning the work so as to minimize the work area (project phasing) by covering the area that is exposed to rain (by mulching, filter fabric, etc.), the minimum amount of soil is exposed. These BMP's are further discussed in subsequent sections.

2.2 Phase Construction Activity

Similar to the stages of construction there are three basic phases of BMP implementation. These three Phases of BMPs include perimeter control BMPs, build out phase BMPs and final stabilization BMPs.

Phase I Perimeter Controls
The first phase BMPs will include the installation of perimeter controls prior to site clearing, grubbing and site grading. Perimeter controls are to include but are not limited to sediment barriers (such silt fencing) and temporary sediment traps near the perimeter of the project to prevent offsite tracking.. Although perimeter control BMPs will be initiated during Phase I, it may be necessary to maintain some of these measures throughout construction activities.

Phase II Intermediate Controls (Build Out Phase BMPs)
BMPs implemented at the project site for Phase II include continued use of perimeter sediment barriers BMPs such as silt fencing. The contactor will implement good housekeeping BMPs at all times during project construction. Since this project is a small linear type project, construction at the site is to be limited to a length of less than 1,000 linear feet at any one time by a width of approximately 10 feet for the six foot wide sidewalk. This will minimize the amount of soil exposed to rainwater and thereby limit the amount of erosion that occurs. The site will be stabilized using mulch and vegetation (either temporary or permanent depending on the stage of construction) to prevent raindrop splash erosion and/or stormwater runoff erosion. Site stabilization should be performed as soon as possible. The ADEM 13-day stabilization rule requires any area not undergoing active construction for 13 or more days to be immediately stabilized. The contractor is also responsible for implementation of all necessary BMPs to assure that sediment is not transported through the stormwater management system and that turbid waters are not discharged to Cowpen Creek and Point Clear Creek.

Phase III Final Stabilization
The last phase will involve final site stabilization measures along with completion of the permanent stormwater management system. Topsoiling and the establishment of permanent vegetation and or landscaping are completed in this phase. However, any area that can be stabilized with permanent vegetation or landscape mulch should be completed as site conditions allow during earlier stages of site development. The site plans require the contractor to seed and mulch all disturbed areas on the project unless otherwise specified. "Final stabilization" typically means that all soil disturbing activities at the site have been completed, and that a

perennial vegetative cover and/or landscaping mulch sufficient to prevent erosion has been well established on all unpaved areas and areas not covered by permanent structures. All temporary BMPs are removed and disposed of off-site appropriate. With final stabilization the permanent stormwater management system is in place and it functions as designed discharging clear water free of sediment.

2.3 Control Stormwater Flowing onto and through the Project

The site is basically a linear project that follows an existing highway. It is anticipated that the contractor will only expose as much area as is required. Access to the site is limited and room to install BMP's is also limited; therefore, it is necessary to expose a little area as possible to storm water to limit the amount of runoff from the site.

BMP Description: Silt Fencing installed in accordance with ALDOT Type "A" Standard Drawings	
Installation Schedule:	Prior to beginning any clearing or grading activities.
Maintenance and Inspection:	Silt Fencing should be installed in accordance with Type "A" Silt Fence Detail and as shown on the Project Drawings. Inspect weekly, before anticipated storm events, and after storm events. Upon discovery immediately repair all areas of concern. Sediments should be removed when it reaches 1/3 the height of the silt fence. Any section of silt fencing with under piping concerns shall be reinstalled and properly entrenched in accordance with Type "A" Silt Fence Detail. Tears in silt fencing fabric should be repaired immediately upon discovery.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc. Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Excelsior Wattles and Gravel Bags installed at inlets to ditches and culverts as an energy flow dissipater as required.	
Installation Schedule:	Prior to beginning any clearing activities. Other wattle installations used as gates for perimeter sediment barriers (silt fencing) should be installed prior to soil denuding activities.
Maintenance and Inspection:	Excelsior wattles should be installed in accordance with manufactures' directions and are to be used to filter sediment from storm water runoff. Wattles will be used in the system inlet protection structures, as gates in the perimeter silt fencing, and as check structures should concentrated flow paths develop. Inspect weekly, prior to anticipated storm events and after storm events. Wattles should remain installed in accordance with manufacturer's directions. Deteriorated wattles and sediment laden wattles should be replaced and disposed of appropriately.

Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.4 Stabilize Soils

Initiate soil stabilization procedures as soon as practicable on portions of the site where construction activities temporarily or permanently cease. In accordance with ADEM General Permit AL100000, all areas not undergoing active construction or progressive construction for longer than thirteen days (13) are to be immediately stabilized. Establishing vegetative cover stabilizes soils.

BMP Description: Establishment of permanent vegetation as soon as feasible.	
☒ Permanent	☐ Temporary
Installation Schedule:	Establish permanent vegetation as soon as feasible. Reference project plans and specifications documents for establishing a permanent stand of grass. Sodding with grass will typically be utilized to establish permanent vegetation. Sodding should be performed in accordance with the Alabama Handbook. In areas that can be stabilized with permanent sod vegetation should be performed as soon as practicable. It is noted the last stages of construction of the project involve landscape and final stabilization. Nevertheless to remain in compliance with the ADEM 13-day rule for site stabilization and stabilizing any area without active construction permanent vegetation should be immediately planted. Any areas seeded should be mulched in accordance with the Alabama Handbook.
Maintenance and Inspection:	Vegetated areas should be inspected for adequate growth weekly. Areas with poor stands of vegetation shall be replanted and re-mulched.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Cover up or mulch and temporarily seed topsoil stockpiles within 13 days of creation.	
☐ Permanent	☒ Temporary
Installation Schedule:	Temporary seeding / Mulching in denuded areas as practicable where seasonal conditions or future construction activities do not allow for final stabilization. Apply lime, fertilizer, temporary seed and mulch in accordance to denuded areas as soon as practicable and always within 13 days of ceasing active construction. Warm and summer seasons use a seeding rate of 40 pounds per acre Browntop Millett and during cool winter seasons use a seeding rate of 30 pounds per acre Ryegrass. Mulch temporary seeded areas with 1.5 to 2-tons per acre straw mulch (70 to 90 pounds per 1000 square feet)
Maintenance and Inspection:	Weekly and after storm events check site for denuded and potential erosion concerns areas and stabilize as soon as practicable. Mulch following temporary seeding.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Mulching and temporary seeding of denuded soils as practicable where seasonal conditions or future construction activities do not allow for final stabilization.	
☐ Permanent	☒ Temporary
Installation Schedule:	Temporary seeding / Mulching in denuded areas as practicable where seasonal conditions or future construction activities do not allow for final stabilization. Apply lime, fertilizer, temporary seed and mulch in accordance to denuded areas as soon as practicable and always within 13 days of ceasing active construction. Warm and summer seasons use a seeding rate of 40 pounds per acre Browntop Millett and during cool winter seasons use a seeding rate of 30 pounds per acre Ryegrass. Mulch temporary seeded areas with 1.5 to 2-tons per acre straw mulch (70 to 90 pounds per 1000 square feet)
Maintenance and Inspection:	Weekly and after storm events check site for denuded and potential erosion concerns areas and stabilize as soon as practicable. Mulch following temporary seeding.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Provide bottom and bank protection to all drainage courses as soon as feasible using riprap, erosion control blankets, sodding, piping, etc.	
☒ Permanent	☐ Temporary
Installation Schedule:	As soon as construction is completed in applicable areas.
Maintenance and Inspection:	Weekly and after storm events check site for denuded and potential erosion concerns areas and stabilize as soon as practicable.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.5 Protect Slopes

BMP Description: Reducing the slope length of stormwater runoff by measures which include installation of structures that "break the slope," such as wattles, silt dikes, silt fences, interceptor dikes and swales, check dams, wind rows, vegetative strips, etc.	
Installation Schedule:	Install silt fences, etc. prior to denuding the slopes. Install other items as soon as practical after construction has begun.
Maintenance and Inspection:	Silt Fencing should be installed in accordance with Type "A" Silt Fence Detail. Inspect all items weekly, before anticipated storm events, and after storm events. Upon discovery immediately repair all areas of concern. Sediments should be removed when it reaches 1/3 the height of the silt fence. Any section of silt fencing with under piping concerns shall be reinstalled and properly entrenched in accordance with Type "A" Silt Fence Detail. Tears in silt fencing fabric and other BMP's should be repaired immediately upon discovery.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Installation of Retaining Wall to Protect Slopes	
Installation Schedule:	Install retaining wall to protect slope near drainage swale and to maintain grade of sidewalk.
Maintenance and Inspection:	Retaining Wall to be installed in accordance with Drawings to reduce slope leading to drainage path. Inspect weekly, before anticipated storm events, and after storm events. Upon discovery of an issue, immediately repair all areas of concern.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected

	QCI: Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.6 Protect Storm Drains

BMP Description: Storm Drain Protection	
Installation Schedule:	Existing entrances to storm drains will be provided with gravel bags and/or excelsior wattles (installed in accordance with manufactures' directions). No new entrances to storm drains are scheduled for construction.
Maintenance and Inspection:	As needed for protection of existing storm drains. Inspect weekly, prior to anticipated storm events and after storm events. Clean sediment when it reaches ½ its capacity and never let sediment exceed ½ the height or capacity of the sump. Gravel bags should be checked for filling with sediment or sediments bypassing gravel bags. Deteriorated wattles and/or sediment-logged wattles should be removed and disposed of appropriately. Wattles will also be inspected for sediment leakage.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.7 Establish Perimeter Controls and Sediment Barriers

BMP Description: To prevent possible off-site sediment transport perimeter sediment barriers shall be installed. Perimeter silt fences typically include silt fencing, wattles and straw bales, etc. However, because of their ineffectiveness the use straw bales are currently being discouraged by the USEPA and the International Erosion Control Association.	
Installation Schedule:	Install prior to any soil denuding activities and in all other areas of concern prior to soil denuding and or grading.
Maintenance and Inspection:	Silt fencing should be inspected daily for daily for tears, gaps and improper entrenching. Thoroughly inspect silt fencing weekly and after rainfall events. Repair areas with damage immediately.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.8 Retain Sediment On-Site

BMP Description: Where feasible vegetative filter strips should be left in place. Just in "Time Clearing" and "Stabilize As You Go" are procedures that maintain Vegetative Filter Strips that trap potential off-site transport of sediment. Vegetative Filter Strips are important in compliance with the "ADEM 13 day stabilization rule."	
Installation Schedule:	Prior to beginning construction.
Maintenance and Inspection:	Weekly. Repairs must be made immediately upon discovery to allow vegetation to recover before the next rain event.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Permanent Retaining Wall	
Installation Schedule:	As per the construction schedule before sidewalk construction.
Maintenance and Inspection:	Weekly. Repairs must be made immediately upon discovery before the next rain event.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.9 Establish Stabilized Construction Exits

BMP Description: To prevent off-site tracking of sediment a temporary construction exit pad should be constructed at any point of egress onto paved road surfaces. In addition, paved roadways in the immediate vicinity of the project site should be monitored for off-site tracking concerns and any sediment tracked off-site or spilled off-site by vehicles associated with the subject construction site immediately cleaned up and disposed of properly.	
Installation Schedule:	Prior to beginning of construction in a particular area until the construction is completed in the area. It should be noted that most access will be from Greeno Road (Highway 98) and will require lane closures.
Maintenance and Inspection:	The paved surfaces should be inspected daily for potential off-site transport of sediments on to paved road surfaces. Any material tracked onto the paved surface should be removed from the roadway immediately and disposed of properly. If the Stabilized Construction Road becomes ineffective in preventing off-site tracking, additional gravel shall be added to the CEP or gravel of the CEP shall be replaced
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

2.10 Additional BMPs

BMP Description: Measures must be taken to prevent airborne pollutants such as paint spray, excessive construction site dust, etc. from leaving the project site.	
Installation Schedule:	As needed to prevent airborne air pollutants
Maintenance and Inspection:	Daily and several times daily during dry periods when excessive dust can be generated from construction traffic areas a water truck will be used by the contractor for dust control as needed.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

3.0 GOOD HOUSEKEEPING BMPS

3.1 Material Handling and Waste Management

BMP Description: Manufacturers' recommendations for proper use and disposal of all construction materials and products should be followed.	
Installation Schedule:	Dispose of trash and construction as soon as possible off-site using an appropriate waste disposal contractor or at a permitted landfill site that can accept construction debris or the types of waste being generated
Maintenance and Inspection:	Inspect the site daily and place all materials that can result in storm water pollution in closed containers.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Excess paint and/or paint residuals in wash waters, or spent solvents generated from brush and painting equipment cleaning should not be discarded in storm drains or in areas in contact with precipitation.	
Installation Schedule:	Dispose of trash and construction debris as soon as possible off-site using an appropriate waste disposal contractor or at a permitted landfill that can accept construction debris or the types of waste being generated.
Maintenance and Inspection:	Daily inspect the site and place all materials that can result in storm water pollution within covered areas protected from precipitation and storm water runoff.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Waste paint residuals and solvents (unused products, waste from equipment cleaning, etc.) should be properly disposed of in accordance with manufacturers' directions and applicable environmental regulations.	
Installation Schedule:	Dispose of trash and construction off-site as soon as possible using an appropriate waste disposal contractor or at a permitted landfill that can accept construction debris or the types of waste being generated.
Maintenance and Inspection:	Inspect the site daily and place all materials that can result in storm water pollution within covered areas protected from precipitation and storm water runoff.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Remove and properly dispose of all construction debris (e.g. brick, plastic, wood waste, shingles, etc.) and worker debris (e.g. trash and garbage) in accordance with State and local solid waste regulations.	
Installation Schedule:	Dispose of trash and construction debris as soon as possible off-site using an appropriate waste disposal contractor or at a permitted landfill site that can accept construction debris or the types of waste being generated.
Maintenance and Inspection:	Inspect the site daily and place all materials that can result in storm water pollution within covered areas protected from precipitation and storm water runoff.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Any materials used as fill for construction purposes must be free of solid waste or debris. Do not bury trash or debris on-site.	
Installation Schedule:	N/A
Maintenance and Inspection:	Anytime site filling operations are ongoing.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Regularly cleanup and properly dispose of floatable or submerged trash. Check for and remove all trash from on-site and off-site watercourses that have been impacted by runoff from the site after each storm event. Rubbish and/or garbage must not be discarded in waters of the State or allowed to be transported to waters of the State in stormwater runoff.	
Installation Schedule:	Cleanup the site daily, as a minimum, prior to anticipated storm events and at the end of each week day's activities.
Maintenance and Inspection:	Inspection on a daily basis and as often as necessary to assure that trash does not enter the on-site storm drains.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: All sewage and other putrescible waste to be collected, stored, treated, and disposed of in accordance with applicable health and environmental regulations. Portable toilets are not to be placed within the floodplain of streams.	
Installation Schedule:	Always implement proper pot-o-let maintenance activities at the project site.
Maintenance and Inspection:	Inspect after windy storm events, construction activities that potentially overturn portable toilets, and tidal surge conditions.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Petroleum products, chemicals, paints, etc. should be stored in clearly labeled and tightly sealed containers.	
Installation Schedule:	Proper storage areas should be established prior to bring the products on-site
Maintenance and Inspection:	At least daily. Repair any concerns immediately.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

3.2 Establish Proper Building Material Staging Areas

BMP Description: On-site storage of materials used in construction should be in a neat and orderly manner that is protected from exposure to precipitation. Store construction materials in their appropriate containers and, if possible, under a roof or within an enclosure that prevents contact with precipitation.	
Installation Schedule:	As needed.
Maintenance and Inspection:	Inspect daily.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Prior to storage of construction materials, stabilize soils within the storage area.	
Installation Schedule:	As needed.
Maintenance and Inspection:	The storage area should be inspected daily.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

3.3 Designate Washout Areas

BMP Description: Concrete trucks should not discard surplus concrete or wash out the mixing drum in the immediate vicinity of streams.	
Installation Schedule:	Concrete washout will be off-site at a designated area.
Maintenance and Inspection:	Inspect daily and remove hardened concrete as needed. Dispose of hardened concrete at a landfill permitted to receiving construction debris.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

BMP Description: The Registrant shall maintain on-site or have readily available sufficient absorbing material and/or flotation booms to contain and clean-up fuel or chemical spills and leaks.	
Installation Schedule:	Inspect at least daily and as often as necessary to assure leaks, spills etc. do not go undetected and uncorrected.
Maintenance and Inspection:	Cleanup spilled material and dispose of at a landfill permitted to receive petroleum contaminated materials. If an on-site spill gets into a storm drain and/or results in an observed sheen on the waters of the state, the National Center shall be notified at 800. 424.8802 or http://www.nrc.uscg.mil/nrchp The National Response Center (NRC) is the sole federal point of contact for reporting oil and chemical spills. If you have a spill to report, contact NRC via r toll-free number or the NRC Web Site for additional information on reporting requirements and procedures. For those without 800 access, contact the NRC at 202.267.2675. The NRC operates 24 hours a day, 7 days a week, 365 days a year. It is recommended that ADEM also be notified at 334.271.7700.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: All on-site vehicles and equipment should be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage.	
Installation Schedule:	Inspect at least daily and as often as necessary to assure leaks do not go undetected and uncorrected.
Maintenance and Inspection:	Inspections are to be performed daily and preventative maintenance is to be performed as applicable to prevent leakage of hydraulic fluids, fuels oils, etc.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

BMP Description: Care should be taken to prevent overfilling and spillage during on-site fueling activities.	
Installation Schedule:	During each filling operation and at the end of the work day.
Maintenance and Inspection:	Cleanup spilled material and dispose of at a landfill permitted to receive petroleum contaminated materials.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

3.5 Control Equipment/Vehicle Washing

The following equipment/vehicle washing measures will help prevent storm water pollution:

- Washing will be performed only in areas designated by the Project Superintendent where runoff will not flow directly to the river or nearby water bodies.
- Educate employees and subcontractors on proper washing procedures.
- Clearly mark the washing areas and inform workers that all washing must occur in this area.
- Contain wash water and treat and filter as required.
- Use high-pressure water spray at vehicle washing facilities without using any detergents as water can adequately remove most dirt.
- Do not conduct any other activities, such as vehicle repairs, in the wash area.

BMP Description: Vehicle and equipment washing is to be performed to control potential off-site transport of sediments in combination with the construction exit pad. Washing at the washing station associated with the CEP is to be performed with high pressure washers without the use of detergents. Any other equipment washing performed on site shall be performed without the use of detergents and water shall percolate into the ground.	
Installation Schedule:	Prior to construction traffic leaving the project site the wash station will be established.
Maintenance and Inspection:	Any time vehicle washing is performed.
Responsible Staff:	**Registrant:** City of Fairhope, Mayor Timothy Kant **Contractor:** Not yet selected **QCI:** Thompson Engineering, Inc.; Priscilla Thomas (QCI#0007) (Contractor QCI may change once Contractor is selected)

3.6 Spill Prevention, Control and Countermeasure Plan

The Registrant shall prepare, implement, and maintain a Spill Prevention, Control, and Countermeasure (SPCC) Plan if the cumulative storage capacity of fuel or other oils at the facility is greater than 1,320 gallons. A Professional Engineer must certify the SPCC Plan and the plan must be consistent with the requirements of 40 CFR 112.

In most situations, structural spill prevention controls will require the construction or use of a secondary containment system. Any containment system used to implement this requirement shall be:

1) Constructed of material compatible with the substance(s) contained,

2) Shall prevent the contamination of groundwater, and

3) The containment system shall be capable of retaining a volume equal to the largest tank plus an allowance for rainwater (often estimated at 110 percent of the capacity of the largest tank for which containment is provided).

In addition Part III., E. of ADEM General Permit ALR100000 requires the Permittee implement appropriate structural and/or nonstructural spill prevention control, and/or management sufficient to prevent spills of pollutants from entering a water of the state or a publically or privately owned treatment works. The Permittee shall maintain on site or have readily available sufficient oil and grease absorbing material and floatable booms to contain and clean-up fuel or chemical spills and leaks. Soil contaminated by fuel, paint, chemical spills, oil spills, etc. must be immediately cleaned up, remediated, or be removed and disposed of in accordance with applicable environmental regulations.

4.0 MONITORING AND REPORTING OF OFF-SITE TURBIDITY AND SEDIMENTATION

4.1 General Erosion and Sediment Control Measures

Effective erosion and sediment control BMPs are necessary to minimize the entry of soil particles into stormwater. Implementation of effective measures requires both erosion control and sediment control. These are discussed below.

Erosion control provides for the control of sediments by reducing the potential quantity of sediments generated. Erosion control is provided through measures that include:

- Stabilizing soil surfaces, thereby preventing the detachment of soil particles from denuded soil surfaces, and
- Reducing soil particle transport by slowing stormwater runoff velocities.

Sediment control is the capture of soil particles on-site, such that sedimentation of soil particles eroded from the site are not transported off-site and do not impact the quality of receiving waters. Reducing the velocity of stormwater runoff, and thus allowing for settling time sufficient for suspended solids to be deposited, is typically provided by sediment controls.

Erosion and sediment control planning typically includes the following baseline BMPs:

- Disturb the smallest area possible.
- Preserve existing trees and other vegetation where possible.
- Avoid or limit as much as feasible, the disturbance of areas such as:
  - Steep and unstable slopes
  - Soils which are up-slope of surface waters
  - Areas with soils susceptible to erosion
- Divert up-slope water around disturbed areas.
- Limit exposure of disturbed areas to the shortest possible time.
- Re-vegetate disturbed areas as soon as possible.
- Slow rainfall runoff velocities to prevent erosive flows.
- Stabilize denuded soils surfaces as soon as feasible using mulching, temporary or permanent vegetation, erosion control blankets, chemical stabilization, etc.
- Remove sediment from stormwater before it leaves the site by conveying stormwater flow through sediment trapping BMPs such as:
  - Allowing runoff to pond in controlled areas where sediment can drop out of suspension (sediment traps, detention ponds, behind interceptor dikes and at check dams).
  - Filtering stormwater through temporary structural BMPs such as silt fencing, gravel filter dams, etc.
  - Filter sediment-laden runoff by conveying stormwater as "sheet flow" through vegetative areas.

- Convey or transport runoff down steep slopes through lined channels or tubing.

Good erosion control is typically effective for the control of sediment concerns, but sediment control BMPs do not prevent erosion. The most effective erosion and sediment control procedures reduce the erosion of soil and thus minimize the need for sediment control. However, it is impossible to eliminate all erosion and therefore eliminate sediment concerns at a construction site. Thus, an effective BMP Plan must consider the installation of sediment control measures in addition to controlling erosion. Sediment controls are typically structural devices implemented to prevent off-site transport of sediment.

Erosion controls can be largely procedural and often involve minimal structural BMPs. Some baseline erosion control measures that will be considered at the construction site include:

1) Preserve existing or native vegetation as long as feasible at the site by:

   - "Fingerprint" land-clearing activities (clearing precisely only the areas needing for current construction activities).
   - Incorporation of "just-in-time" clearing procedures into construction and site plans.
   - Denude as little soil within the construction area as practicable.
   - Conserve native vegetation that will serve as buffer zones and filter strips (where feasible).

2) Temporarily denuded soil surfaces should be "roughened" to reduce erosion potential. "Roughing" of denuded soils by creation of horizontal grooves, depressions, or steps situated or placed parallel to the contour of the land can be an effective temporary erosion control BMP. Equipment operators should not leave equipment track marks which run "up and down slopes" exposed to precipitation. Equipment track prints should be situated perpendicular to the slope or parallel to contours.

3) Initiate soil stabilization procedures as soon as practicable on portions of the site where construction activities temporarily or permanently cease. In accordance with Part III., B of the ADEM NPDES General Permit for Construction, all areas not undergoing active construction or progressive construction for longer than thirteen days (13) are to be stabilized. Final Stabilization of disturbed areas at a minimum shall be initiated where any clearing, grading, excavating or any other earth disturbance activities have permanently ceased on any portion of the site. Establishing vegetative cover stabilizes soils. Suggested soil stabilization procedures typically include:

   - Establishment of permanent vegetation as soon as feasible.
   - Cover up or mulch and temporarily seed topsoil stockpiles within 13 days of creation.
   - Mulching and temporary seeding of denuded soils as practicable where seasonal conditions or future construction activities do not allow for final stabilization.
   - Installation of erosion control blankets on steep slopes and in areas susceptible to erosion from fast flowing stormwater runoff.
   - Provide bottom and bank protection to all drainage courses as soon as feasible using riprap, erosion control blankets, sodding, piping, etc.

4) Those responsible for site work should be aware of the susceptibility of sandy soils and fill material soils to gully erosion and subsequent sediment control problems. Minimal controls for gully erosion typically include:

   - Grading and filling of gullies as soon after formation as feasible.
   - Reducing the velocity and volume of stormwater flowing through an area susceptible to erosion by structures that intercept runoff or divert runoff to areas less susceptible to erosion.
   - Reducing the slope length of stormwater runoff by measures which include installation of structures that "break the slope," such as straw (hay) bail barriers, wattles, silt dikes, silt fences, interceptor dikes and swales, check dams, wind rows, vegetative strips, etc.
   - Plugging gullies with riprap, logs, sandbags, or some other suitable material.
   - Install and maintain excelsior wattles, silt fencing and/or straw bale barriers around the base of soil stockpiles. Stabilize topsoil, piles with mulching and/or temporary vegetation.

5) As soon as the on-site storm sewer drains are constructed, install inlet protection (silt trapping structural BMPs such as straw bale barriers, geotextile filter fabric, etc.) at the mouth of the inlets.

6) Outlet protection measures at drainage culverts and storm sewers to reduce the velocity of concentrated stormwater may need consideration, especially in the later stages of site development. Riprap energy dissipaters may also be required at the outlets. Channel stabilization methods using concrete paving and/or riprap may also be required in drainage ways downstream of storm sewer pipe discharges.

7) Soil surface and/or water treatment may be required for turbidity reduction using treatments with flocculants such as polyacrylamides. Flocculent cannot be used by the contactor for turbidity controls treatments are used unless the following conditions are met.

   - Only anionic polyacrylamide shall be utilized. Cationic forms are toxic and shall not be used.
   - Soils must be tested by the supplier of polyacrylamides (PAMs) to assure that correct formulation of PAM is used for the soil types present and potentially producing the turbid waters.
   - Soil test results of PAM suppliers must be maintained on-site showing the correct formulation of PAM is being used for the soil types present.
   - Toxicity test data for the PAM formulation must be maintained on site.
   - Material Safety Data Sheets (MSDS) for the PAM formulation must be maintained on site.
   - PAM must be used in accordance with manufactures directions.
   - ADEM Coastal Section will be notified of the use of polyacrylamides for turbidity control.

- To assure control potential off-site discharges of PAM residuals, settling, filtration and/or screening of the flocculated PAM-soil mixtures shall be used to capture on site flocculated PAM and soil residuals.
- If PAM treatment systems are used procedures and diagrams must be added to Appendix F (Corrective Action Log) detailing the PAM use and water clarification treatment system.
- The PAM treatment system must be reviewed by the Project QCP and discussed with ADEM Mobile Field Office prior to utilization.

It is noted that ADEM General Permit indicates that it is possible and allowable to achieve and maintain compliance without conducting any discharge sampling provided the qualified person certifies on each inspection report that BMPs are performing in compliance with applicable NPDES rules. However, lack of knowledge regarding stormwater discharge quality or receiving water quality will not constitute a valid defense concerning deficiency in BMP implementation and maintenance

4.2 Off-site Deposition of Sediments and Non-Compliance Notifications

Site conditions and evidence of off-site impacts must be closely monitored at each required inspection for evidence of potential off-site transport and deposition of sediments. Should the potential for stormwater pollution become evident, additional erosion and sediment control BMPs must be immediately implemented, as required by the NPDES General Permit. Any non-compliant discharges must be reported immediately to the Responsible Official and to ADEM. ADEM must be notified within 24 hours of the event. Furthermore, the Registrant is to coordinate cleanup and removal of off-site sedimentation with the permission of impacted property owners (related to control of potential sediment transport) during the construction practices until final stabilization is achieved. If sedimentation impacts Waters-of-the-State, the Registrant is required to notify ADEM within 24 hours and prepare a written notice of noncompliance report on a form acceptable to ADEM within 5 days of the event (form included in Appendix D).

Copies of maps with the appropriate phone numbers and ADEM personnel assignments are included in Appendix D.

4.3 In-stream Turbidity and Water Quality

The NPDES Construction rules and regulations require that the Registrant monitor all affected watercourses for turbidity impacts. In general terms, turbidity is a measure of the "muddiness" of water. Turbidity of water is caused by matter suspended in the water column, such as clay, silt, finely divided organic matter, etc. which can be eroded from construction sites. In addition, naturally occurring biological components such as plankton and microscopic organisms may cause water turbidity. ADEM typically measures turbidity impacts to Waters-of-the-State by "in stream turbidity methods" which compare background turbidity of a stream with the turbidity of the stream after the convergence of a stormwater discharge.

It is noted that ADEM General Permit indicates that it is possible and allowable to achieve and maintain compliance with ADEM rules without conducting any discharge sampling provided the qualified person certify on each inspection report that BMPs are performing in compliance with applicable NPDES rules. However, lack of knowledge regarding stormwater discharge quality or receiving water quality will not constitute a valid defense concerning deficiency in BMP implementation and maintenance

4.4 Non-Stormwater Discharge Management

Only allowable non-storm water discharges will occur at the project site. In accordance with EPA guidance allowable non-storm water discharges include: discharges from fire-fighting activities, fire hydrant flashings, and waters used to wash vehicles, buildings, and pavements where detergents are not used, water used to control dust, potable water (including uncontaminated water line flashings), uncontaminated air conditioning condensate, uncontaminated ground water or spring water, among others. The NPDES Regulations goes on to say that non-storm water discharges should be eliminated or reduced to the extent feasible and that the Registrant and Contractors implementing the CBMPP should identify and ensure the implementation of appropriate pollution prevention measures for these discharges.

Portable toilets should be serviced by off-site sewage disposal services. Portable toilets should be serviced weekly as a minimum or as needed.

The ADEM General Permit ALR100000, Part I, C. provides a list of prohibited discharges. The Permittee should always be knowledgeable of these prohibited discharges.

5.0 SELECTING POST-CONSTRUCTION BMPs

The site is located in a well-developed area of the City of Fairhope and is located within the rights-of-way of US Highway 98. For the most part, the site is relatively flat and it is anticipated that the existing storm drainage ditches will be used for storm water conveyance. For the disturbed areas that will not be paved as a part of the sidewalk, it is anticipated that sod or seed will be used to establish vegetative cover. Near the area of Fairhope High School, approximately 40 feet of retaining wall will be constructed.

6.0 INSPECTIONS

6.1 Inspections

BMP Maintenance

The NPDES General Permit requires that all facilities and systems of treatment and control be properly operated and maintained to achieve compliance with the rules. Proper operation and maintenance includes effective performance, adequate funding, and adequate staffing / training. In order for BMPs to be fully effective, their continued maintenance in accordance with the Alabama Handbook is imperative.

Inspection and Monitoring

The ADEM NPDES General Permit, Part III, G sets out specific monitoring and inspection requirements. Inspection and monitoring must be performed by a Qualified Credentialed Professional (QCP), a Qualified Credentialed Inspector (QCI) or by a person under the direct supervision of a QCP. Comprehensive inspections and monitoring shall be performed as often as necessary to determine if, and ensure that, effective BMPs have been fully implemented and maintained, pollutant discharges have been prevented / minimized, and that water quality standards of receiving streams are not violated.

At the project site the inspection schedule shall include monthly inspections and after any precipitation event of 0.75 inches or greater in any 24-hour period. The precipitation measurement records shall be maintained in an office area and are available for review by ADEM.

In addition, daily visual inspections should be made by on-site personnel. These observations should be noted in the normal daily log and kept on-site. The daily inspection shall include any rainfall measurements occurring since the last inspection and apparent BMP deficiencies. A daily rainfall log is appended to the CBMPP.

Recordkeeping and Reporting

The NPDES Construction and rules and regulations provide specific requirements for recordkeeping and reports. These are summarized below:

1) Rainfall: A rain gauge shall be established at the project site with daily readings recorded by the Registrant, in accordance with ADEM NPDES General Permit, Part III, J. Appendix N contains suggested Daily Rainfall Log forms.

2) BMP Inspections: Monthly BMP inspection reports and reports of BMP inspections performed following a 0.75-inch (or greater) rainfall event shall be recorded on standard forms (as used by the Registrant). All reports shall be signed by the QCP or QCI and the "duly authorized representative" of the Registrant. The BMP inspection reports shall be

readily available for ADEM review by the Registrant. These records must be available for review by ADEM no later than 15 days following the inspection. A copy of the ADEM CSW Inspection Report Form 41111 (Construction Stormwater Inspection Report and BMP Certification) is provided in Appendix D.

3) Non-compliance Reports: If non-compliance occurs (as defined by the General Permit, a Non-compliance notification form is required. This report form is to be completed by the Registrant. A verbal notification to ADEM is required within 24 hours of becoming aware of the Non-compliant condition. The written report is completed using the ADEM Non-compliant notification form and must be submitted to ADEM within five days of the Non-compliant condition.

6.2 Delegation of Authority

It should be noted that the Responsible Official will be subject to change once the project is awarded. At the time of writing the following applies.

Duly Authorized Representative(s) or Position(s):

Responsible Owner/Operator or Official
Timothy M. Kant, Mayor
City of Fairhope
555 S. Section Street
Fairhope, Alabama 36533
(251) 928-2136 Phone
Email: Tim.Kant@cofairhope.com

Facility Contact
Ken Eslava, Asst. Planning Director
City of Fairhope
555 S. Section Street
Fairhope, Alabama 36533
(251) 367-4504 Phone
Email: Ken.Eslava@cofairhope.com

Qualified Credentialed Professional(s)
Krista Landenwich, P.E. (AL 30410)
2970 Cottage Hill Road Ste. 190
Mobile, Alabama 36606
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(251) 665-6509 Fax
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Carl Pinyerd, CPSSc, CHMM, CPESC (CPSSc# 03111 and CPESC #1722) (QCI # T0001)
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spinyerd@thompsonengineering.com

Qualified Credentialed Inspector(s)
Thompson Engineering, Inc.
Priscilla, Thomas (QCI # T0007)
2970 Cottage Hill Road Ste. 190
Mobile, Alabama 36606
(251) 665-5455 Phone
(251) 665-6505 Fax
(251) 455-4418 Cell
Email: pthomas@thompsonengineering.com

A copy of the "Delegation of Authority" is provided in Appendix J. Once a Contractor is selected though the bid process, an executed "Delegation of Authority" will be submitted to ADEM and incorporated into this document.

6.3 Corrective Action Log

The "Corrective Action Log" is provided in Appendix F. As per the General Permit Part III, H, Corrective Action, corrective actions shall occur as soon as possible but not to exceed five (5) days after the inspection unless delayed by unsafe weather conditions. In the event a sediment basin/pond is breached, temporary containment measures must be taken within 24 hours and permanent corrective measures shall be taken within five (5) days. If permanent measures cannot be taken within five (5) days, the Permittee shall notify ADEM. The operator is also obliged to promptly take all reasonable steps to remove pollutants deposited offsite or in any water body or stormwater conveyance structure to the maximum extent possible.

6.4 Termination Requirements

Provisions and requirements of the Permit will remain in effect until the Permittee submits a Notice of Termination, and such request is approved by ADEM. The Notice of Termination (NOT) form is provided in Appendix D.

6.5 Project Signage Requirements

According to the NPDES Construction General Permit, Part IV, S., the Permittee is required to post and maintain signage identifying the project. An example sign is provided in Appendix M.

7.0 RECORDKEEPING AND TRAINING

7.1 Recordkeeping

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

The "Grading and Stabilization Activities Log" is provided in Appendix H.

7.2 Log of Changes to the CBMPP

Log of changes and updates to the CBMPP is provided in Appendix G.

7.3 Training (Optional)

A "Training Log" is provided in Appendix I.

8.0 FINAL STABILATION

As stated earlier, the project consists of the construction of a sidewalk on the west side of Greeno Road (US Highway 98) in Fairhope, Alabama. Most of the construction area will be covered by concrete pavement when completed. The other portions of the project site will be final stabilized by the use of permanent vegetation and/or mulch with sufficient density to prevent erosion and sediment transport in storm water runoff and discharges. Final Stabilization will be achieved once all stormwater discharges allowed under the ADEM Registration have been mitigated, temporary BMPs have been removed, the permanent stormwater management system (ditches) have been restored and function as designed and stormwater discharges are free of sediment and turbidity.

9.0 CERTIFICATION AND NOTIFICATION

I certify under penalty of law that the Design Component of this CBMPP and all attachments were compiled under my direction or supervision and are consistent with applicable ADEM Administrative Code and the National Pollutant Discharge Elimination System (NPDES) General Permit. I further certify that all known environmental concerns and commitments, as noted in Section II., were considered and addressed during the creation of the design component of this CBMPP and the design reflected in the project plans. This CBMPP and any BMPs meets or exceeds the technical standards and guidelines of The Alabama Handbook and current industry standards. The design component of this CBMPP as 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.

Name: Krista Landenwich, P.E. Title: Project Engineer

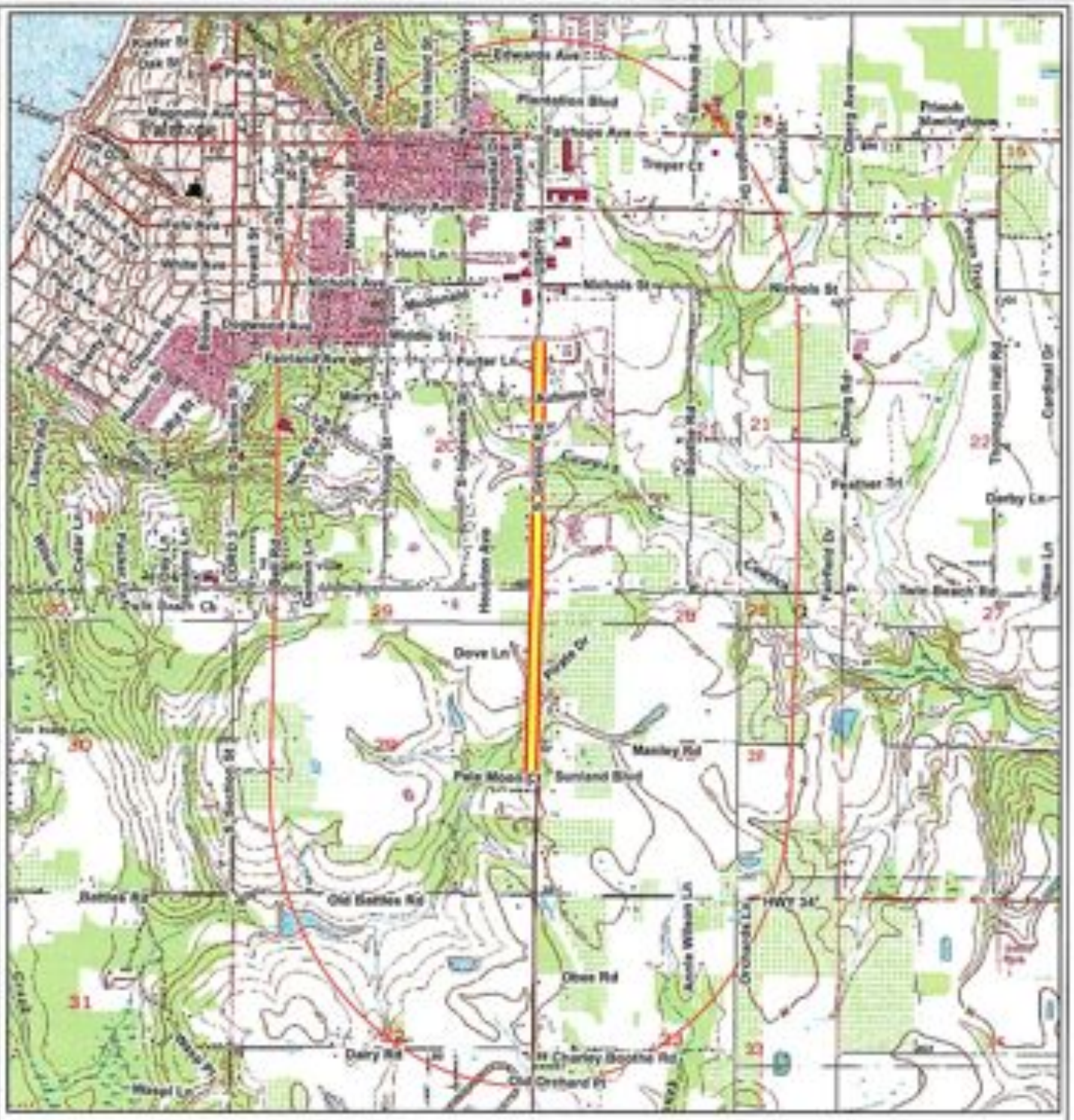
QCP Designation/Description: Prof. Engineer Registration/Certification: AL 30410

Address: 2970 Cottage Hill Road, Mobile, AL 36606 Phone: (251) 665-5493

Signature: Krista Landenwich Date: 8-30-11

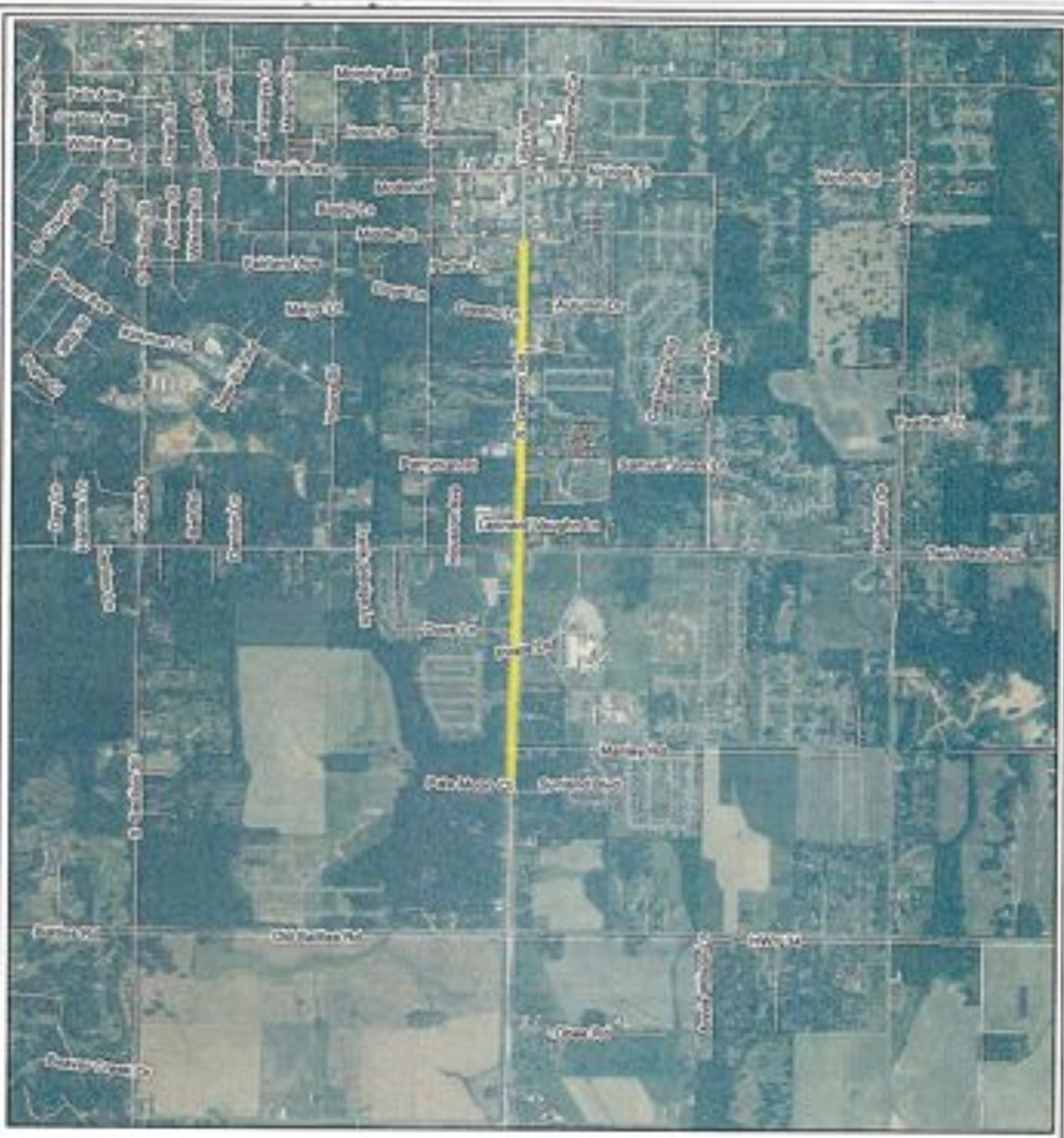
APPENDIX A

GENERAL LOCATION MAPS



USGS 7.5 Minute Quad Maps - Photorevised 1982 - Contour Interval 10 Feet

GREENO ROAD SIDEWALK IMPROVEMENTS CITY OF FAIRHOPE BALDWIN COUNTY, AL	thompson	FIGURE 1 SITE VICINITY MAP	
		PROJECT NO.: 09-4020-0005	DATE: AUGUST 2011



1:24,000

2,000 0 2,000 4,000 Feet

0 0.25 0.5 0.75 1 Miles

N

2009 USDA NAIP Imagery - 1 Meter Resolution

GREENO ROAD SIDEWALK IMPROVEMENTS CITY OF FAIRHOPE BALDWIN COUNTY, AL	thompson	FIGURE 2 AERIAL PHOTOGRAPHY	
		PROJECT NO.: 09-4020-0005	DATE: AUGUST 2011

APPENDIX B

SITE MAPS

APPENDIX C

NOI AND ACKNOWLEDGEMENT LETTER FROM ADEM

APPENDIX D

ADEM FORMS, REPORTS AND MAPS

ADEM FIELD OFFICES

Revised: June 1, 2009

Construction Stormwater Inspections and Enforcement

AREA ASSIGNMENTS
CONSTRUCTION PERMITS SECTION
STORMWATER MANAGEMENT BRANCH

Effective July 2011

APPENDIX E

WORKSHEET AND ASSOCIATED HYDROGRAPHS

(See Part 1.5, Calculations Pre- and Post- Construction Runoff Volumes)

Hydraulics/Hydrology

Pre/Post Development Flow Statement (select all applicable statements)

- ☒ There will be no significant difference in pre- and post- development peak flows.
- ☒ There will be no significant difference in pre- and post- development hydraulic velocities.
- ☒ There will be no significant difference in pre- and post- development runoff volume.

- ☒ A hydraulic analysis was conducted for this project using Modified Rational Method. Calculations are available upon request.
- ☐ Hydraulic calculations were not performed due to <reason>.

Anticipated Rainfall Conditions

The following information was obtained from (select all that apply)

- ☒ NOAA's National Weather Service Hydrometeorological Design Studies Center Precipitation Frequency Data Server (TM Hydro-35, TP 40, TP 49)
- ☐ USDA's National Resources Conservation Service eFOTG Alabama Supplements to the National Engineering Field Handbook – Chapter 2
- ☐ Other <specify>

Minimum Design Storm for Temporary BMPs = 2-year frequency, 24-hour duration = 6.00 inches

Other 2-year Average Recurrence Interval Events (inches)											
	30 min	1 hr	2 hr	3 hr	6 hr	12 hr	3 day	4 day	7 day	10 day	
	1.05	2.35	3.1	3.4	4.3	5.1	6.9	8.0	9.0	10.0	

Average Monthly Precipitation (inches)											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5.00	5.64	6.00	4.17	4.83	5.53	7.02	7.14	5.70	3.82	4.28	5.03

Other Hydraulics/Hydrology Notes

<narrative>

SCS METHOD

Project #: STPTE-TE09(978)

By: kl 7/20/11

Project Title: Greeno Rd Sidewalk

Ch:

County: Baldwin County

Discharge Point 1 pre

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
				0
B	res, 1/4 ac	75	174.45	13083.75
B	paved	98	3.55	347.9
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			178	13431.65

$CN_{weighted}$	75.5
A_w ($mile^2$)	0.28
tc (hr)	1.30

SCS METHOD

Project #: STPTE-TE09(978)

Project Title: Greeno Rd Sidewalk

County: Baldwin County

Discharge Point 1

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	3.3
I_a = .2S	0.66
$Q = (P-.2S)^2/(P+.8S)$	8.36
I_a/P	0.06
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	260
q_p (cfs) = $q_u A_m Q F_p$	663.62

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	3.3
I_a = .2S	0.66
$Q = (P-.2S)^2/(P+.8S)$	10.25
I_a/P	0.05
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	265
q_p (cfs) = $q_u A_m Q F_p$	755.76

SCS METHOD

Project #: STPTE-TE06(978) By: kll 7/26/11

Project Title: Greene Rd Sidewalk Ch:
County: Baldwin County
Discharge Point 2 pre

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	65	127.49	8286.85
B	res, 1/4 ac	75	75.48	5661
B	paved	98	3.03	296.94
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			208	14244.79

$CN_{weighted}$	69.1
A_m ($mile^2$)	0.32
tc (hr)	0.80

SCS METHOD
Project #: STPTE-TE00(978)

Project Title: Greene Rd Sidewalk
County: Baldwin County
Discharge Point 2

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	4.5
I_a = .2S	0.89
Q = $(P-.2S)^2/(P+.8S)$	7.47
I_a/P	0.08
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	340
q_p (cfs) = $q_u A_m Q F_p$	817.19

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	4.5
I_a = .2S	0.89
Q = $(P-.2S)^2/(P+.8S)$	9.31
I_a/P	0.07
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	345
q_p (cfs) = $q_u A_m Q F_p$	1934.11

SCS METHOD

Project #: STIPTE-TE00(978) By: kl 7/28/11

Project Title: Greene Rd Sidewalk Ch:
County: Baldwin County
Discharge Point 3 pre

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	65	138.2	8983
B	res, 1/4 ac.	75	15.4	1155
B	paved	98	1.5	147
B	open, good	61	17.9	1091.9
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			173.	11378.9

$CN_{weighted}$	65.8
A_m (mile^2)	0.27
tc (hr)	0.50

SCS METHOD
Project #: STPTE-TE09(978)

Project Title: Greene Rd Sidewalk
County: Baldwin County
Discharge Point 3

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	5.2
I_a = .2S	1.04
Q = (P-.2S)^2/(P+.8S)	6.96
I_a/P	0.09
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	410
q_p (cfs) = $q_u A_m Q F_p$	773.89

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	5.2
I_a = .2S	1.04
Q = (P-.2S)^2/(P+.8S)	8.79
I_a/P	0.08
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	415
q_p (cfs) = $q_u A_m Q F_p$	985.71

SCS METHOD

Project #: STPTE-TE09(978) By: kl 7/28/11

Project Title: Greeno Rd Sidewalk Ch:
County: Baldwin County
Discharge Point 4 pre

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	65	15.5	1007.5
				0
B	paved	98	18.9	1852.2
B	open, good	61	107.6	6563.6
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			142	9422.3

$CN_{weighted}$	66.4
A_m ($mile^2$)	0.22
tc (hr)	1.20

SCS METHOD
Project #: STPTE-TR00(979)

Project Title: Gregerio Rd Sidewalk
County: Baldwin County
Discharge Point 4

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	5.1
I_a = .2S	1.01
Q = $(P-.2S)^2/(P+.8S)$	7.07
I_a/P	0.09
SCS Rainfall Type	II
TR55 Exhibit 4	
q_u (csm/in)	265
q_p (cfs) = $q_u A_m Q F_p$	415.64

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	5.1
I_a = .2S	1.01
Q = $(P-.2S)^2/(P+.8S)$	8.88
I_a/P	0.08
SCS Rainfall Type	II
TR55 Exhibit 4	
q_u (csm/in)	270
q_p (cfs) = $q_u A_m Q F_p$	532.82

SCS METHOD

Project #: STPTE-TE09(978) By: kll 7/26/11

Project Title: Greeno Rd Sidewalk Ch:
County: Baldwin County
Discharge Point 5 pre

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	65	0.1	6.5
B	res, 1/4 ac	75	22.7	1702.5
B	paved	98	7.9	774.2
B	open, good	61	10.3	628.3
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			43	3111.5

$CN_{weighted}$	75.9
A_m ($mile^2$)	0.06
tc (hr)	0.40

SCS METHOD
Project #: STPTE-TE09(978)

Project Title: Greene Rd Sidewalk
County: Baldwin County
Discharge Point 5

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	3.2
I_a = .2S	0.64
$Q = (P-.2S)^2/(P+.8S)$	8.41
I_a/P	0.06
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	450
q_p (cfs) = $q_u A_m Q F_p$	242.34

100 year storm	
P_{100} (TR55 Figure B-8)	13.6
S = 1000/CN-10	3.2
I_a = .2S	0.64
$Q = (P-.2S)^2/(P+.8S)$	10.32
I_a/P	0.06
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	455
q_p (cfs) = $q_u A_m Q F_p$	390.72

SCS METHOD

Project #: STPTE-TE00(978) By: kll 7/28/2011

Project Title: Greeno Rd Sidewalk Ch:
County: Baldwin County
Discharge Point 1 post

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
				0
B	res, 1/4 ac	75	174.37	13077.75
B	paved	98	3.63	355.74
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			178	13433.49

$CN_{weighted}$	75.5
A_m (mile^2)	0.28
tc (hr)	1.30

SCS METHOD

Project #: STPTE-TE09(978)

Project Title: Greene Rd Sidewalk

County: Baldwin County

Discharge Point 1

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	3.3
I_a = .2S	0.65
Q = $(P-.2S)^2/(P+.8S)$	8.35
I_a/P	0.06
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	260
q_p (cfs) = $q_u A_m Q F_p$	603.72

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	3.3
I_a = .2S	0.65
Q = $(P-.2S)^2/(P+.8S)$	10.26
I_a/P	0.05
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	265
q_p (cfs) = $q_u A_m Q F_p$	756.87

SCS METHOD

Project #: STPTE-TE09(978) By: sd 7/20/2011

Project Title: Greene Rd Sidewalk
County: Baldwin County
Ch:
Discharge Point 2 post

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	60	127.49	7649.40
B	res, 1/4 ac	75	79	5925
B	paved	98	3.51	343.98
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			208	13918.38

$CN_{weighted}$	66.9
A_m ($mile^2$)	0.32
tc (hr)	0.85

SCS METHOD

Project #: STPTE-TR09(978)

Project Title: Greene Rd Sidewalk

County: Baldwin County

Discharge Point 2

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	4.5
I_a = .2S	0.89
Q = $(P-.2S)^2/(P+.8S)$	7.47
I_a/P	0.08
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	340
q_p (cfs) = $q_u A_m Q F_p$	818.02

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	4.5
I_a = .2S	0.89
Q = $(P-.2S)^2/(P+.8S)$	9.32
I_a/P	0.07
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	345
q_p (cfs) = $q_u A_m Q F_p$	1035.02

SCS METHOD

Project #: STPTE-TE09(978) By: kll 7/28/2011

Project Title: Greene Rd Sidewalk
County: Baldwin County
Discharge Point: 3 post

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	65	138.2	8983
B	res, 1/4 ac	75	15.4	1155
B	paved	98	1.71	167.58
B	open, good	61	17.69	1079.09
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			173	11384.87

$CN_{weighted}$	65.8
A_m (mile^2)	0.27
tc (hr)	0.50

SCS METHOD

Project #: STPTE-TE09(978)

Project Title: Greene Rd Sidewalk

County: Baldwin County

Discharge Point 3

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	5.2
I_a = .2S	1.04
Q = (P-.2S)²/(P+.8S)	6.99
I_a/P	0.09
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	410
q_p (cfs) = $q_u A_m Q F_p$	774.61

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	5.2
I_a = .2S	1.04
Q = (P-.2S)²/(P+.8S)	8.70
I_a/P	0.08
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	415
q_p (cfs) = $q_u A_m Q F_p$	986.60

SCS METHOD

Project #: STPTE-TE09(978) By: kl 7/28/2011

Project Title: Greeno Rd Sidewalk Ch:
County: Baldwin County
Discharge Point: 4 post

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	55	15.5	7997.5
				0
B	paved	98	19.19	1853.62
B	open, good	61	107.31	6545.91
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			142	9454.08

$CN_{weighted}$	66.4
A_m (mile^2)	0.22
tc (hr)	1.20

SCS METHOD
Project #: STPTE-TE09(978)

Project Title: Greene Rd Sidewalk
County: Baldwin County
Discharge Point 4

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	5.1
I_a = .2S	1.01
$Q = (P-.2S)^2/(P+.8S)$	7.06
I_a/P	0.09
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	265
q_p (cfs) = $q_u A_m Q F_p$	416.28

100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	5.1
I_a = .2S	1.01
$Q = (P-.2S)^2/(P+.8S)$	8.89
I_a/P	0.07
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	270
q_p (cfs) = $q_u A_m Q F_p$	532.73

SCS METHOD

Project #: STPTE-TE09(978) By: sil 7/20/2011

Project Title: Greene Rd Sidewalk Ch:

County: Baldwin County

Discharge Point A

Soil Group	Description	CN	AREA (acre)	Product
http://websoilsurvey.nrcs.usda.gov/app/		TR55 Table 2-2a		
B	wood, fair	65	0.1	6.5
B	res, 1/4 ac	75	22.6	1695
B	paved	98	8	784
B	open, good	61	10.3	628.3
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
			41	3113.8

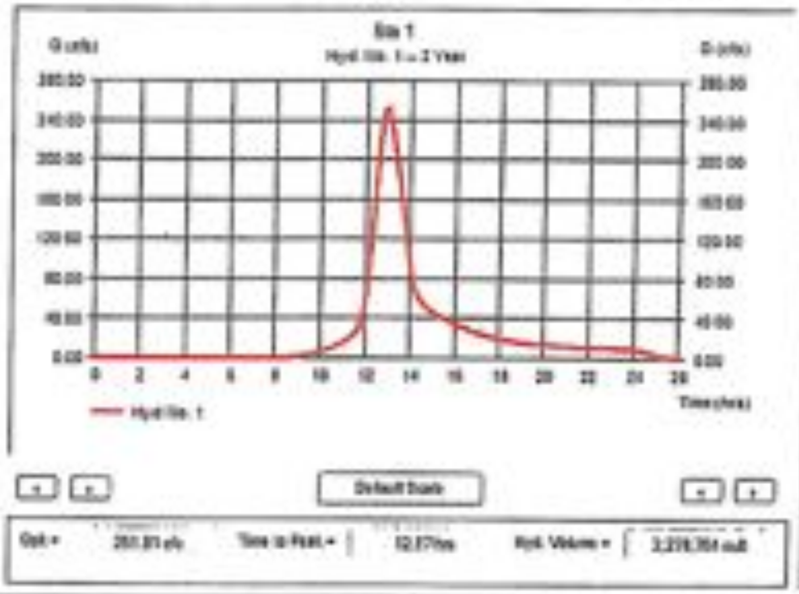
$CN_{weighted}$	75.9
A_m (mile^2)	0.06
tc (hr)	0.40

SCS METHOD
Project #: STPTE-TE09(978)

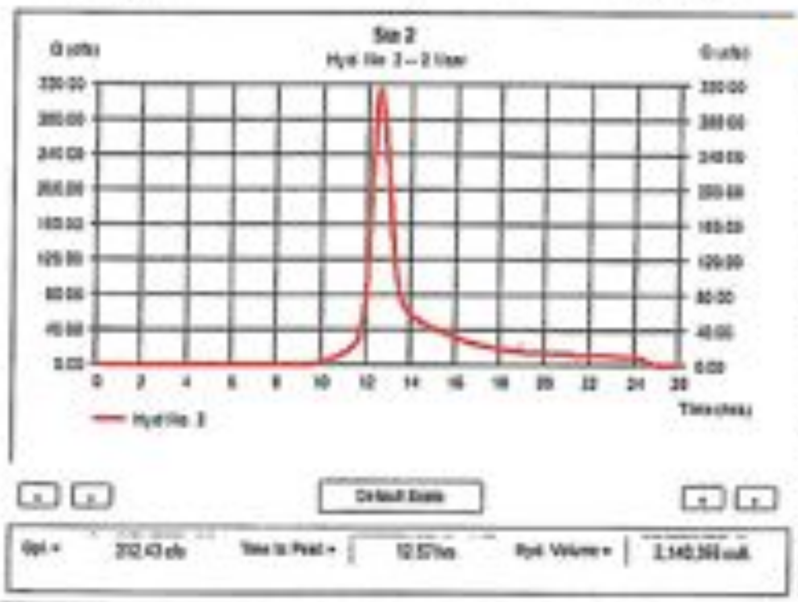
Project Title: Greene Rd Sidewalk
County: Baldwin County
Discharge Point 5

50 year storm	
P_{50} (TR55 Figure B-7)	11.5
S = 1000/CN-10	3.2
I_a = .2S	0.63
$Q = (P-.2S)^2/(P+.8S)$	8.41
I_a/P	0.06
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	450
q_p (cfs) = $q_u A_m Q F_p$	242.56

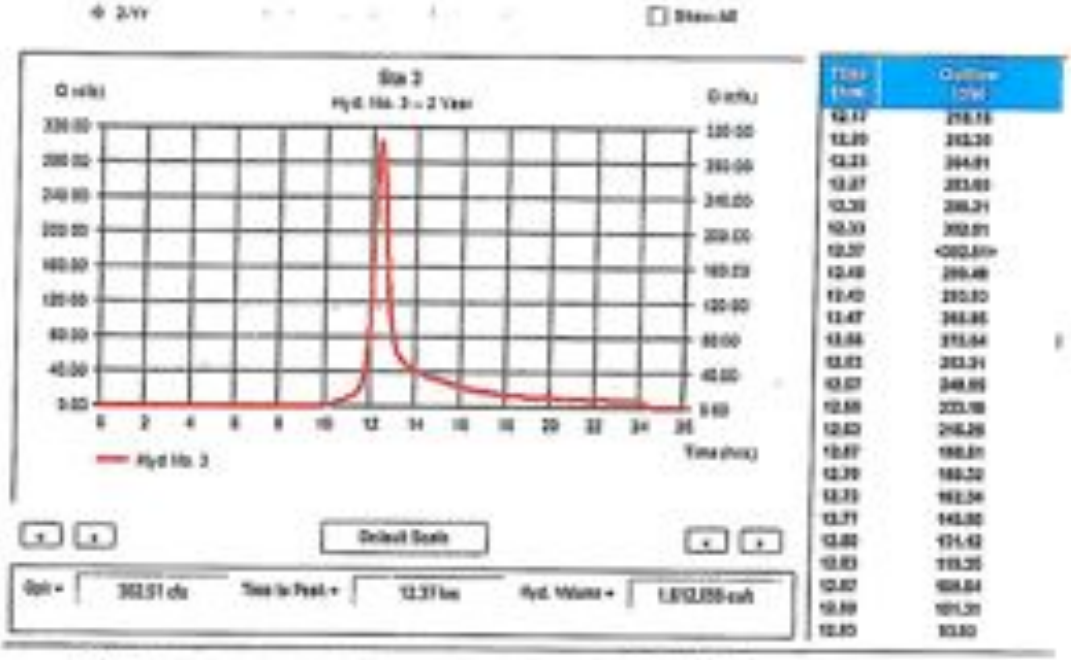
100 year storm	
P_{100} (TR55 Figure B-8)	13.5
S = 1000/CN-10	3.2
I_a = .2S	0.63
$Q = (P-.2S)^2/(P+.8S)$	10.32
I_a/P	0.05
SCS Rainfall Type	III
TR55 Exhibit 4	
q_u (csm/in)	455
q_p (cfs) = $q_u A_m Q F_p$	300.96

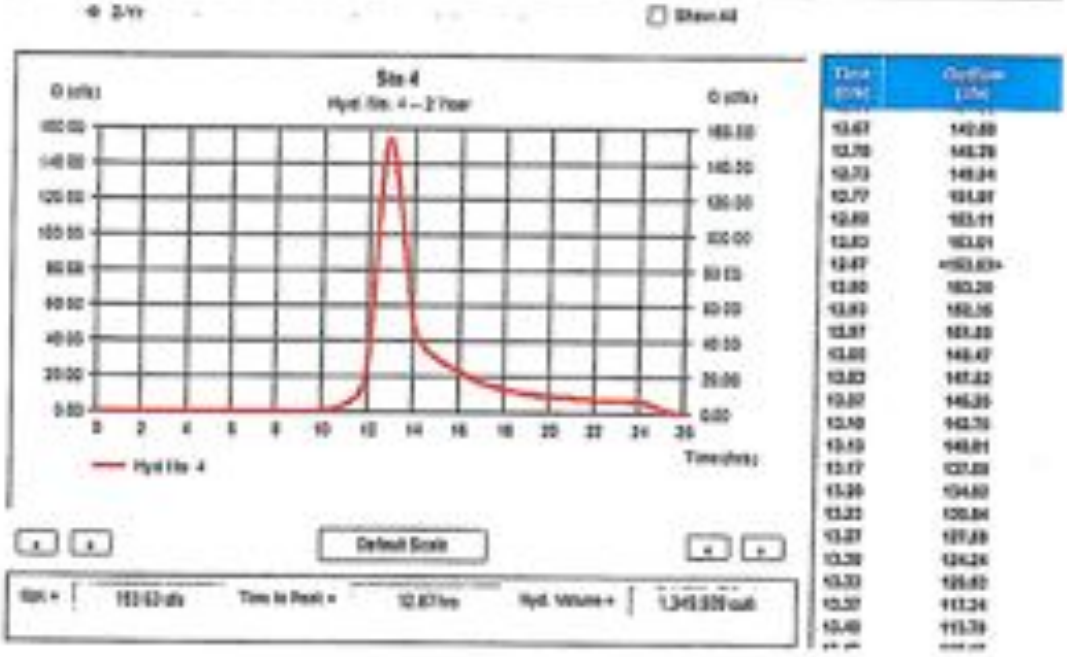


Time (hrs)	Outflow (cfs)
[illegible]	[illegible]
12.40	155.11
12.43	160.87
12.47	176.54
12.50	184.43
12.53	193.60
12.57	202.20
12.60	210.72
12.63	218.70
12.67	226.20
12.70	233.00
12.73	238.80
12.77	245.58
12.80	248.87
12.83	250.97
12.87	<251.81>
12.90	250.76
12.93	251.84
12.97	248.76
13.00	247.77
13.03	245.21
13.07	240.36
13.10	236.81
13.13	230.96



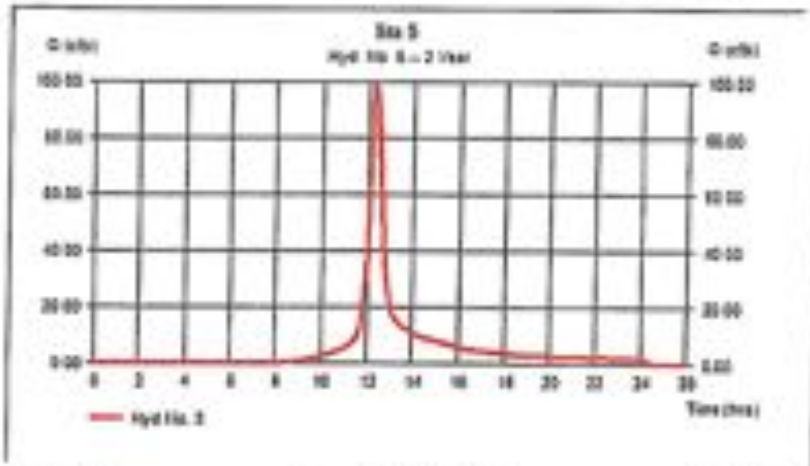
Time (hrs)	Outflow (cfs)
12.17	163.85
12.20	173.76
12.23	188.12
12.27	205.82
12.30	223.79
12.33	239.72
12.37	256.11
12.40	271.74
12.43	285.01
12.47	297.01
12.50	305.26
12.53	310.84
12.57	<312.43>
12.60	311.24
12.63	308.89
12.67	305.44
12.70	301.82
12.73	295.60
12.77	288.36
12.80	280.13
12.83	271.00
12.87	261.00
12.90	250.56
12.93	239.85


2-Yr
Show All
Sta 3
Hyd. No. 3 -- 2 Year
Q (cfs)
Time (hrs)
Hyd No. 3
Default Scale
Qpk =
Time to Peak =
Hyd. Volume =


2-Yr
Show All
Sta 4
Hyd. No. 4 -- 2 Year
Q (cfs)
Time (hrs)
Hyd No. 4
Default Scale
Qpk =
Time to Peak =
Hyd. Volume =

2-Yr

Show All



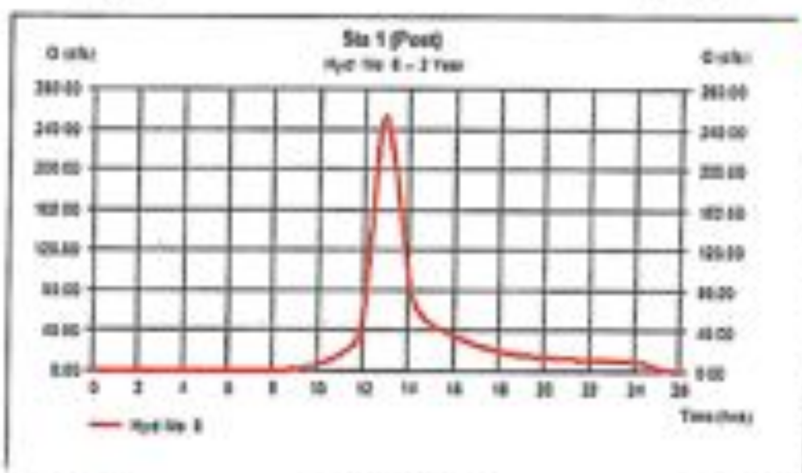
Default Scale

Qp = 98.77 cfs   Time to Peak = 12.30 hrs   Hyd. Volume = 486,104 cuft

Time (hrs)	Outflow (cfs)
11.83	24.48
11.87	24.29
11.90	27.44
11.93	31.43
11.97	35.72
12.00	41.70
12.03	49.02
12.07	57.46
12.10	65.07
12.13	73.86
12.17	81.88
12.20	88.14
12.23	94.08
12.27	98.41
12.30	<98.77>
12.33	97.52
12.37	95.06
12.40	91.82
12.43	87.84
12.47	83.48
12.50	77.01
12.53	72.42
12.57	65.85
[illegible]	[illegible]

2-Yr

Show All

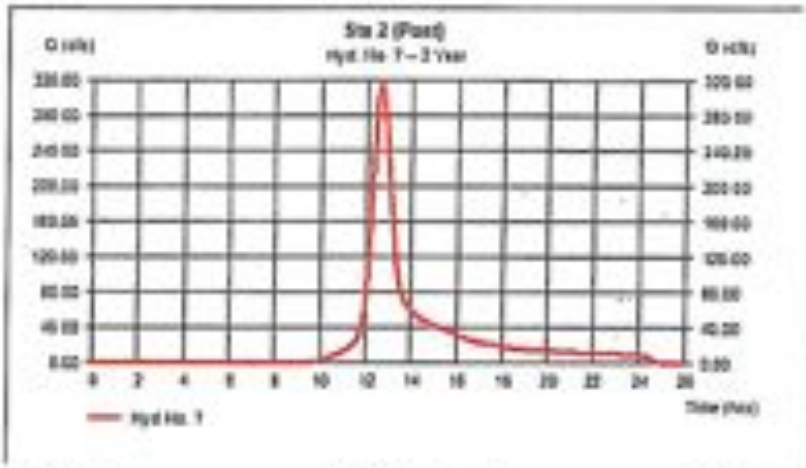


Default Scale

Qp = 251.81 cfs   Time to Peak = 12.87 hrs   Hyd. Volume = 1,219,764 cuft

Time (hrs)	Outflow (cfs)
[illegible]	[illegible]
12.47	175.14
12.50	184.43
12.53	193.08
12.57	202.28
12.60	210.72
12.63	218.78
12.67	225.30
12.70	233.89
12.73	238.89
12.77	245.18
12.80	249.67
12.83	250.87
12.87	<251.81>
12.90	251.75
12.93	251.04
12.97	249.78
13.00	247.27
13.03	245.31
13.07	242.26
13.10	238.85
13.13	235.16
13.17	231.42
13.20	225.88

+ 2-Yr ☐ Show All

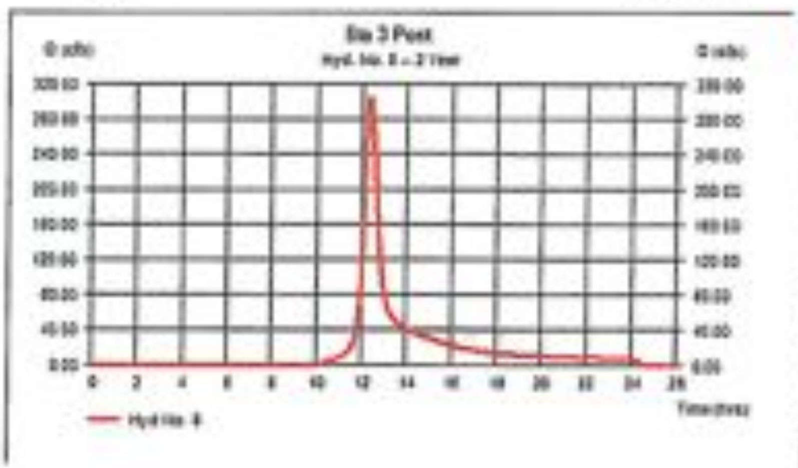


Default Scale

Qp = 313.50 cfs Time to Peak = 12.57 hrs Hyd. Volume = 2,147,416 cuft

Time (hrs)	Outflow (cfs)
12.30	223.71
12.33	240.73
12.37	257.18
12.40	272.83
12.43	287.12
12.47	298.84
12.50	307.40
12.53	311.87
12.57	<313.50>
12.60	313.01
12.63	310.80
12.67	307.40
12.70	302.84
12.73	296.34
12.77	289.39
12.80	281.03
12.83	271.96
12.87	261.81
12.90	251.33
12.93	240.27
12.97	229.86
13.00	217.26
13.03	205.76
13.07	194.13

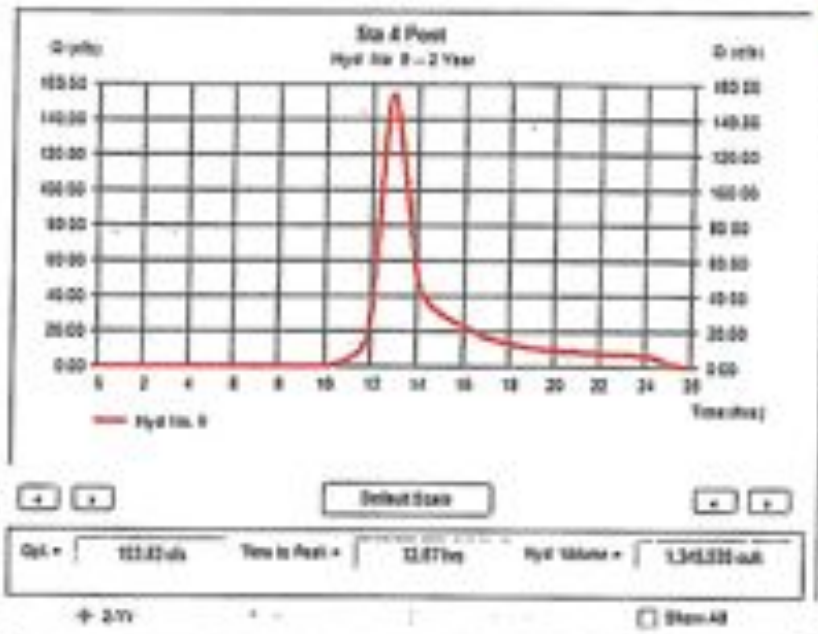
+ 2-Yr ☐ Show All



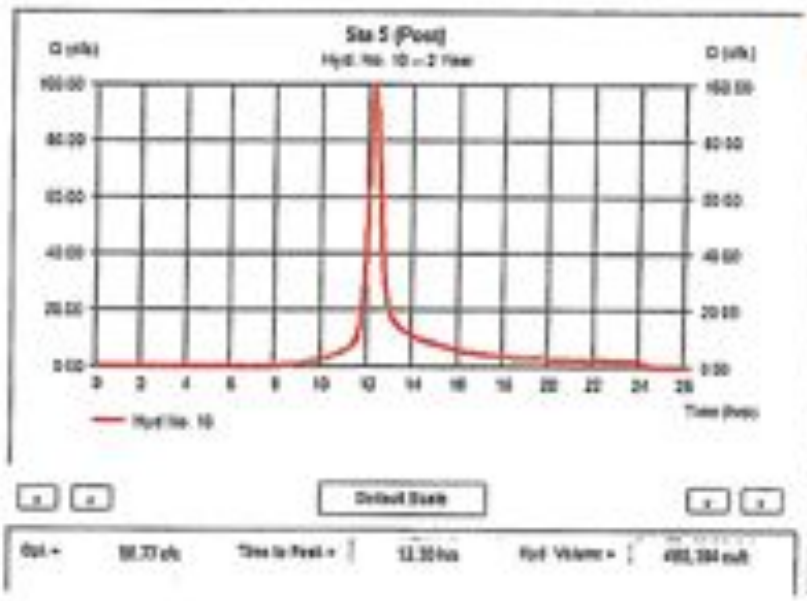
Default Scale

Qp = 302.51 cfs Time to Peak = 12.37 hrs Hyd. Volume = 1,612,020 cuft

Time (hrs)	Outflow (cfs)
11.90	63.42
11.93	73.19
11.97	85.43
12.00	104.01
12.03	121.77
12.07	144.08
12.10	168.84
12.13	193.68
12.17	218.16
12.20	243.20
12.23	264.81
12.27	283.88
12.30	295.21
12.33	300.31
12.37	<302.51>
12.40	298.49
12.43	293.83
12.47	285.96
12.50	275.84
12.53	263.21
12.57	248.93
12.60	233.18
12.63	218.20
12.67	198.01



Time (hr)	Outflow (cfs)
12.87	142.65
12.78	146.79
12.73	149.84
12.70	151.87
12.80	153.01
12.83	153.91
12.87	153.83
12.88	153.09
12.83	152.35
12.87	151.59
12.85	149.87
12.83	147.83
12.87	146.30
12.90	143.78
12.92	140.81
12.97	137.89
13.09	134.92
13.23	130.84
13.27	127.58
13.39	124.24
13.33	120.83
13.37	117.34
13.48	113.79

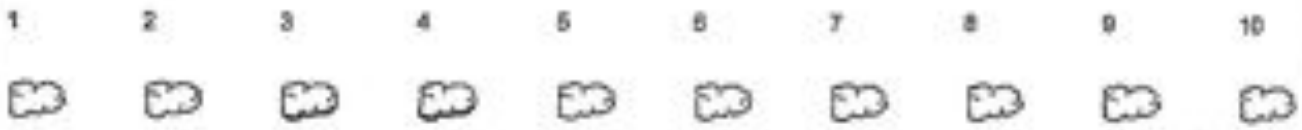


Time (hr)	Outflow (cfs)
12.83	45.82
12.87	57.43
12.98	66.87
12.93	73.88
12.97	81.88
12.20	85.14
12.20	84.85
12.27	85.71
12.30	88.77
12.33	87.32
12.37	86.26
12.48	81.82
12.43	87.84
12.47	85.18
12.50	77.81
12.53	73.13
12.57	68.91
12.59	65.53
12.63	63.08
12.67	47.84
12.70	45.83
12.73	37.56
12.77	33.89

2-Yr

Hyd. No.	Hydrograph type	Peak flow	Time interval	Time of conc. Tc	Time to peak	Volume
	(origin)	(cfs)	(min)	(min)	(min)	(cuft)
1	SCS Runoff	281.81	2	78.00	772.00	2,278,784
2	SCS Runoff	312.43	2	48.00	764.00	2,140,388
3	SCS Runoff	302.51	2	30.00	742.00	1,812,899
4	SCS Runoff	163.63	2	72.00	772.00	1,348,899
5	SCS Runoff	98.77	2	24.00	738.00	485,184
6	SCS Runoff	281.81	2	78.00	772.00	2,278,784
7	SCS Runoff	313.55	2	48.00	764.00	2,147,416
8	SCS Runoff	302.51	2	30.00	742.00	1,812,899
9	SCS Runoff	163.63	2	72.00	772.00	1,348,899
10	SCS Runoff	98.77	2	24.00	738.00	485,184

Watershed Model Schematic



Legend

Hyd.	Origin	Description
1	SCS Runoff	Sta 1
2	SCS Runoff	Sta 2
3	SCS Runoff	Sta 3
4	SCS Runoff	Sta 4
5	SCS Runoff	Sta 5
6	SCS Runoff	Sta 1 (Post)
7	SCS Runoff	Sta 2 (Post)
8	SCS Runoff	Sta 3 Post
9	SCS Runoff	Sta 4 Post
10	SCS Runoff	Sta 5 (Post)

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	----	----	251.81	----	----	----	----	----	----	Sta 1
2	SCS Runoff	----	----	312.43	----	----	----	----	----	----	Sta 2
3	SCS Runoff	----	----	302.51	----	----	----	----	----	----	Sta 3
4	SCS Runoff	----	----	153.63	----	----	----	----	----	----	Sta 4
5	SCS Runoff	----	----	88.77	----	----	----	----	----	----	Sta 5
6	SCS Runoff	----	----	251.81	----	----	----	----	----	----	Sta 1 (Post)
7	SCS Runoff	----	----	313.55	----	----	----	----	----	----	Sta 2 (Post)
8	SCS Runoff	----	----	302.51	----	----	----	----	----	----	Sta 3 Post
9	SCS Runoff	----	----	153.63	----	----	----	----	----	----	Sta 4 Post
10	SCS Runoff	----	----	88.77	----	----	----	----	----	----	Sta 5 (Post)

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2011 by Autodesk, Inc. v8

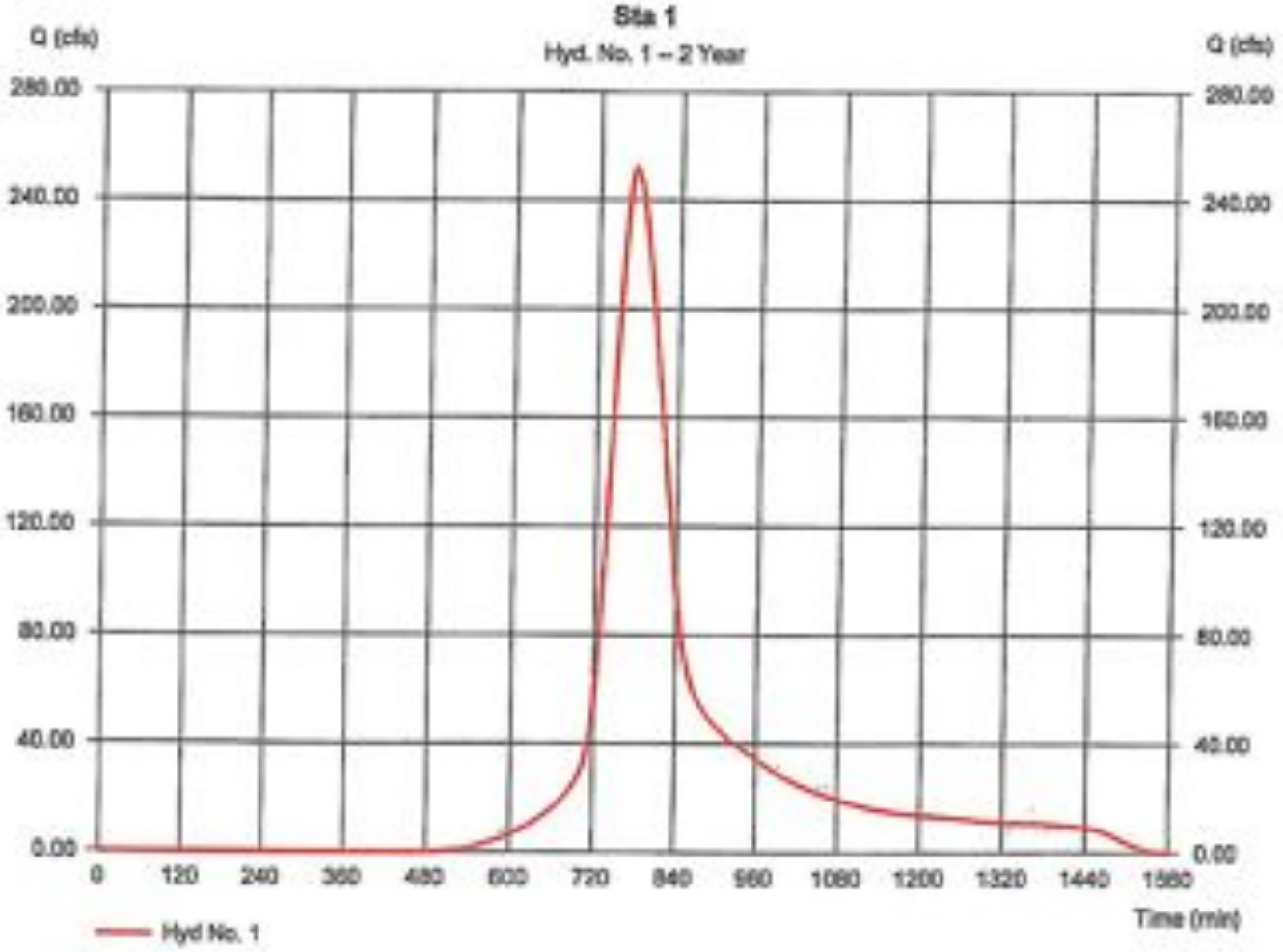
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total storage used (cuft)	Hydrograph Description
1	SCS Runoff	351.81	2	772	2,278,704	----	----	----	Sta 1
2	SCS Runoff	312.43	2	764	2,140,366	----	----	----	Sta 2
3	SCS Runoff	302.81	2	742	1,812,669	----	----	----	Sta 3
4	SCS Runoff	163.63	2	772	1,349,039	----	----	----	Sta 4
5	SCS Runoff	88.77	2	738	486,184	----	----	----	Sta 5
6	SCS Runoff	351.81	2	772	2,278,704	----	----	----	Sta 1 (Post)
7	SCS Runoff	313.55	2	764	2,147,416	----	----	----	Sta 2 (Post)
8	SCS Runoff	302.81	2	742	1,812,669	----	----	----	Sta 3 Post
9	SCS Runoff	153.53	2	772	1,349,039	----	----	----	Sta 4 Post
10	SCS Runoff	88.77	2	738	486,184	----	----	----	Sta 5 (Post)

Hydrograph Report

Hyd. No. 1

Sta 1

Hydrograph type	= SCS Runoff	Peak discharge	= 251.81 cfs
Storm frequency	= 2 yrs	Time to peak	= 772 min
Time interval	= 2 min	Hyd. volume	= 2,278,764 cuft
Drainage area	= 179.200 ac	Curve number	= 75.5
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 78.00 min
Total precip.	= 6.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	----
2	60.8703	13.1000	0.8658	----
3	0.0000	0.0000	0.0000	----
5	78.2697	14.6000	0.8368	----
10	88.2351	15.5000	0.8279	----
25	102.6072	16.5000	0.8217	----
50	114.8163	17.2000	0.8199	----
100	127.1595	17.8000	0.8186	----

File name: MobileAlabamaIDFCurve.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.89	4.61	3.89	3.38	2.99	2.68	2.44	2.24	2.07	1.93	1.81	1.70
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.87	5.43	4.55	4.08	3.65	3.30	3.02	2.79	2.59	2.42	2.27	2.15
10	7.24	6.04	5.21	4.59	4.12	3.74	3.43	3.17	2.95	2.77	2.60	2.46
25	8.25	6.95	6.03	5.34	4.80	4.38	4.02	3.73	3.48	3.26	3.07	2.91
50	8.84	7.55	6.68	5.92	5.34	4.87	4.49	4.16	3.88	3.65	3.44	3.26
100	9.83	8.36	7.30	6.50	5.87	5.36	4.94	4.59	4.29	4.03	3.80	3.60

Tc = time in minutes. Values may exceed 60.

ame: P:\2009\211109.2111-0021 Birmingham Nat'l Guard Bldg\Documents\Civil\Drainage\Hydraflow\Jefferson County.prp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	1.00	5.20	0.00	5.25	9.50	7.00	12.20	14.00
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hydraflow Table of Contents

APPENDIX F

CORRECTIVE ACTION LOG

Corrective Action Log

Project Name: Greeno Road Sidewalk Improvements
CBMPP Contact:

Inspection Date	Inspector Name(s)	Description of BMP Deficiency	Corrective Action Needed (including planned date/responsible person)	Date Action Taken/Responsible person

APPENDIX G

CBMPP AMENDMENT LOG

CBMPP Amendment Log

Project Name: Greeno Road Sidewalk Improvements
CBMPP Contact:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

APPENDIX H

GRADING AND STABILIZATIONACTIVITES LOG

Grading and Stabilization Activities Log

Project Name: Greeno Road Sidewalk Improvements
CBMPP Contact:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased(Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

APPENDIX I

TRAINING LOG
(OPTIONAL)

Stormwater Pollution Prevention Training Log

Project Name: **Greeno Road Sidewalk Improvements**

Project Location: Fairhope, AL

Instructor's Name(s):

Instructor's Title(s):
Course Location: Date:

Course Length (hours):

Stormwater Training Topic: *(check as appropriate)*

- ☐ **Erosion Control BMPs**
- ☐ **Sediment Control BMPs**
- ☐ **Non-Stormwater BMPs**
- ☐ **Emergency Procedures**
- ☐ **Good Housekeeping BMPs**

Specific Training Objective:

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

APPENDIX J

DELEGATION OF AUTHORITY

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including ADEM Admin. Code chap. 335-6-12, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in ADEM Admin. Code r. 335-6-6-.09.

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.

Name:

Company:

Title:

Signature:

Date:

APPENDIX K

ADDITIONAL INFORMATION

(i.e., ENDANGERED SPECIES, HISTORIC PRESERVATION AND U.S. CORPS OF ENGINEERS DOCUMENTATION)

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

June 11, 2009

Coastal Branch
Regulatory Division

SUBJECT: No Permit Required for the Installation of Sidewalks - Jurisdictional Number SAM-2009-0805-JBE, City of Fairhope

City of Fairhope
Attention: Mr. Tim Kant, Mayor
Post Office Drawer 429
Fairhope, Alabama 36533

Dear Mayor Kant:

Reference is made to a request received from Thompson Engineering requesting a jurisdictional determination for 7,600 linear feet of sidewalk improvements. Specifically, the project is located along the east side of Greeno Road between Spring Run Road and Southland Boulevard, Fairhope, Baldwin County (Latitude 30.504906 North and Longitude -87.886106 West), Alabama.

Based on our review of the information furnished by your consultant, it appears that the project site is within a well-developed, existing right-of-way and that Federally-regulated wetlands or other "waters of the United States" do not occur on the property. Therefore, no permit, pursuant to our regulations, is required for your project. You should note that this determination is primarily based on upon the information submitted by your consultant, and that you are ultimately responsible for its accuracy.

The statements contained herein do not convey any property rights or any exclusive privileges, and do not authorize any injury to property or obviate the requirements to obtain other local, State, or Federal assent required by law for the activities discussed above.

If the scope of work or project location changes, you are urged to contact this office for a verification of this determination. Thank you for your cooperation with our permit program. If you have any questions concerning this matter, please contact me at 251-694-4611.

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg. We would appreciate you taking a moment to complete

the enclosed customer satisfaction survey. Your responses are appreciated and will allow us to improve our services.

Sincerely,

//s//

Jay B. Earp
Team Leader, Coastal Alabama
Regulatory Division

Enclosure
1. Vicinity Maps (2)
2. Plan View Drawings (4)

Copy Furnished:

Thompson Engineering
Attention: Mr. Stephen M. O'Hearn, P.G.
2970 Cottage Hill Road, Suite 190
Mobile, Alabama 36606

ADEM - Coastal / Facility Section
Attention: J. Scott Brown, Chief
4171 Commanders Drive
Mobile, Alabama 36615-1421

2009-TA-0569

RECEIVED JUL 29 2009 DAPHNE FIELD OFFICE

thompson
ENGINEERING

May 28, 2009

Mr. William J. Pearson
U.S. Fish and Wildlife Service
1208-B Main Street
Daphne, AL 36526

Post-it® Fax Note 7671	Date 6/4/09 # of pages 1
To S. M. O'Hearn	FROM: Sandy M
Co./Dept. Thompson Eng.	Co.: USFWS
Phone #	Phone #: 251-441-5184
Fax # 666-6422	Fax #: 251-441-6222

Subject: **ARRA - Stimulus Funding**
Sidewalk Improvements – Greeno Road
City of Fairhope and Alabama Department of Transportation
Fairhope, Baldwin County, Alabama
Thompson Engineering Project No.: 09-4020-0005

Dear Mr. Pearson:

Thompson Engineering is assisting the City of Fairhope with engineering design for sidewalk improvements at the above referenced location (Figure 1). The project is being funded under the American Recovery and Reinvestment Act (ARRA) through the Alabama Department of Transportation (Project No.: STMTE-TE09 (ID#903)). The City is required to obtain concurrence by June 30, 2009 from the U.S. Fish and Wildlife Service.

The objectives of the project are to design and construct a sidewalk along the east side of Greeno Road. The sidewalk will be approximately 7,900 ft. in length and approximately 6 ft. wide. Attached are design drawings depicting the location and dimensions of the proposed sidewalk. The project is located in a well developed area in the City of Fairhope, no additional right-of-way will be required for construction of the sidewalk, and no bridges or culverts will be required. Located near Station 75+00 is a side drain pipe to be installed in the ditch at existing grade. The pipe will be approximately 24 ft. in length with a 22 in. span and 14 in. rise. The contractor will be required to maintain Best Management Practices and a NPDES Construction Notice of Registration (NOR) will be submitted to the Alabama Department of Environmental Management (ADEM). Along each side of the sidewalk, 16 inches of sod will be placed and the slopes will be dressed with topsoil, then seeded and mulched.

If you need further information or have any questions, please advise.

Sincerely,
THOMPSON ENGINEERING, INC.

Stephen M. O'Hearn, P.G.
Supervisor Environmental Services

Attachments: as stated

U.S. Fish and Wildlife Service
1208-B Main Street – Daphne, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

No federally listed species/critical habitat are known to occur in the project area. As described, the project will have no significant impact on fish and wildlife resources. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW. We recommend use of best management practices specific to your project (See http://www.fws.gov/daphne/...html).

William J. Pearson, Field Supervisor — Date 6/3/09

Suite 180
Mobile, AL 36695
251.666.2443 ph. / 251.666.6422 fax
www.thompsonengineering.com

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE
EXECUTIVE DIRECTOR

TEL: 3342423184
FAX: 3342403477

May 15, 2009

Dwight Williams
Thompson Engineering
2970 Cottage Hill Road, Suite 190
Mobile, AL 36606

Re: Project No. STMTE-T009( ) I.D. #TE 903
Greeno Road Sidewalks
Fairhope, Baldwin County

Dear Mr. Williams:

Upon review of the above referenced project, we have determined that project activities will have no effect on any cultural resources listed on or eligible for the National Register of Historic Places. Therefore, we concur with the proposed project activities. There is no need to send us further plans and specifications for this project.

However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

We appreciate your commitment to helping us preserve Alabama's non-renewable resources. Should you have any questions, the point of contact for this matter is Joseph Glazar at 334-230-2653. Please have the STPE-TE tracking number referenced above available and include it with any correspondence.

Sincerely,

Elizabeth A. Brown
Deputy State Historic Preservation Officer

EAB/RUG/rjg

Cc: Bob Kratzer, ALDOT Model Programs

DeWayne Hood, ALDOT 9th Division

APPENDIX L

NPDES GENERAL PERMIT
(ALR100000)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT GENERAL PERMIT

DISCHARGE AUTHORIZED:	DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT RESULT IN A TOTAL LAND DISTURBANCE OF ONE ACRE OR GREATER AND SITES LESS THAN ONE ACRE BUT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE
AREA OF COVERAGE:	THE STATE OF ALABAMA
PERMIT NUMBER:	ALR100000
RECEIVING WATERS:	ALL WATERS OF THE STATE OF ALABAMA

*In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1378 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, **Code of Alabama 1975**, §§ 22-22-1 to 22-22-14 (the "AWPCA"), 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 terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE:	April 1, 2011
EFFECTIVE DATE:	April 1, 2011
EXPIRATION DATE:	March 31, 2016

Glenda L. Dean

Alabama Department of Environmental Management

Table of Contents

PART I Coverage Under This General Permit

A. Permit Coverage

This permit authorizes, subject to the conditions of this permit, discharges associated with construction activity that will result in land disturbance equal to or greater than one (1) acre or from construction activities involving less than one (1) acre and which are part of a common plan of development or sale equal to or greater than one (1) acre occurring on or before, and continuing after the effective date of this permit, except for discharges identified under Part I.C. of the permit. Coverage under this permit is not required for discharges associated with minor land disturbing activities (such as home gardens or individual home landscaping, repairs, maintenance work, fences and other related activities which result in minor soil erosion), animal feeding operation (AFO) or concentrated animal feeding operation (CAFO) construction activity that has been granted NPDES registration coverage pursuant to Chapter 335-6-7, normal agricultural practices and silvicultural operations.

B. Eligibility

1. Allowable Stormwater Discharges

This permit authorizes the following stormwater discharges:

(a) Stormwater associated with construction activities defined in Part I.A. of this permit;
(b) Stormwater discharges determined by the Director to require coverage under this permit;
(c) Discharges from support activities (e.g., equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:
  (i) The support activity is directly related to the construction site covered under this permit;
  (ii) The support activity is not a commercial operation serving multiple unrelated construction projects by different operators, and does not operate beyond the completion of the construction activity at the last construction project it supports; and
  (iii) Pollutant discharges from support activity areas are minimized to the maximum extent practicable and do not pose a reasonable potential to exceed applicable water quality standards.

2. Allowable Non-Stormwater Discharges

This permit authorizes the following non- stormwater discharges provided the non-stormwater component of the discharge is in compliance with Part III.C.:

(a) Discharges from fire-fighting activities;
(b) Fire hydrant flushings;
(c) Waters used to wash vehicles where detergents are not used;
(d) Water used to control dust;
(e) Potable water including uncontaminated water line flushings not associated with hydrostatic testing;
(f) Routine external building wash down associated with construction that does not use detergents;
(g) Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
(h) Uncontaminated air conditioning or compressor condensate associated with temporary office trailers and other similar buildings;
(i) Uncontaminated ground water or spring water;
(j) Foundation or footing drains where flows are not contaminated with process materials such as solvents;
(k) Landscape irrigation.

C. Prohibited Discharges

The following discharges associated with construction are not authorized by this permit:

1. Stormwater discharges that are mixed with sources of non-stormwater unless such stormwater discharges are:
   (a) In compliance with a separate NPDES permit, or
   (b) Determined by the Department not to be a contributor of pollutants to waters of the State.
2. Stormwater discharges currently covered under another NPDES permit;
3. Wastewater from washout of concrete, unless managed by an appropriate control;
4. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
6. Soaps or solvents used in vehicle and equipment washing;
7. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by appropriate controls;
8. Discharges to surface waters from sediment basins or impoundments, unless an outlet structure that withdraws water from the surface, unless infeasible, is utilized;
9. Discharges where the turbidity of such discharge will cause or contribute to a substantial visible contrast with the natural appearance of the receiving water;
10. Discharges where the turbidity of such discharge will cause or contribute an increase in the turbidity of the receiving water by more than 50 NTUs above background. For the purposes of determining compliance with this limitation, background will be interpreted as the natural condition of the receiving water without the influence of man-made or man-induced causes. Turbidity levels caused by natural runoff will be included in establishing background levels.
11. Discharges of any pollutant into any water for which a total maximum daily load (TMDL) has been finalized or approved by EPA unless the discharge is consistent with the TMDL; and
12. Discharges to waters listed on the most recently approved 303(d) list of impaired streams unless the discharge will not cause or contribute to the listed impairment.

PART II Notice of Intent (NOI) Requirements

A. Deadlines for Notices of Intent

Any person wishing to obtain coverage under this general permit shall submit an NOI in accordance with the following schedule:

1. Owners or operators of new construction sites or sites for which a complete and correct NOR has not been submitted to the Department in accordance with ADEM Admin Code r. 335-6-12-.10 prior to the effective date of this general permit must submit a NOI prior to the initiation of construction activity.
2. Owners or operators of construction sites that have an expired registration for which a complete and correct NOR has not been submitted to the Department in accordance with ADEM Admin Code r. 335-6-12-.10 prior to the effective date of this general permit must submit a NOI prior to the continuation of construction.
3. Owners or operators of construction sites that have submitted a complete and correct NOR to the Department in accordance with ADEM Admin Code r. 335-6-12-.10 prior to the effective date of this general permit must submit a NOI at least thirty (30) days prior to the expiration of the NOR.

B. Continuation of the Expired General Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the ADEM Administrative Code Chapter 335-6-6 and remain in force and effect if the Permittee submits an updated NOI meeting the requirements of Part II.C. before the expiration of this permit. Any Permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

1. Reissuance or replacement of this permit, at which time the Permittee must comply with the Notice of Intent conditions of the new permit to maintain authorization to discharge; or
2. Issuance of an individual permit; or
3. A formal permit decision by the Department not to reissue this general permit, at which time the Permittee must seek coverage under an alternative general permit or an individual permit.

C. Contents of the Notice of Intent (NOI)

1. The NOI shall include:
   (a) A general description of the construction activity for which coverage is desired, which shall be in sufficient detail to allow the Department to determine that the stormwater and non-stormwater discharges are included in the category of this general permit.
   (b) The latitude and longitude to the nearest second of the entrance to the construction site and each point of discharge for which coverage under this general permit is desired. For the purposes of this requirement the entrance to the construction site will be identified as the primary point of access by normal vehicle traffic.
   (c) Identification of the waterbodies receiving discharges for which coverage under this general permit is desired.
   (d) The correct fee pursuant to ADEM Admin. Code R. 335-1.
   (e) A portion or copy of a U.S. Geological Survey map showing the site location.
   (f) A contact person, address and phone number for the site to be covered under the general permit.
   (g) For priority construction sites, the NOI must be accompanied by a copy of the CESMPP prepared and certified as required by Part III.D.

2. The NOI shall be signed by a person meeting the requirements for signatories under ADEM Admin. Code r. 335-6-6-.09 and the person signing the NOI shall make the certification required for submission of documents under ADEM Admin Code r. 335-6-6-.09.
3. The NOI shall be signed by a QCP and shall have the following certification statement: *"I certify under penalty of law that a comprehensive Construction Best Management Practices Plan (CBMPP) for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this site/activity, and associated regulated areas/activities. The CBMPP meets the requirements of this permit and if properly implemented and maintained by the operator, discharges of pollutants in stormwater runoff can reasonably be expected to be effectively minimized to the maximum extent practicable according to the requirements of ADEM Administrative Code Chapter 335-6-6-.23 and this Permit. The CBMPP describes the erosion and sediment control measures that must be fully implemented and regularly maintained as needed at the permitted site in accordance with sound sediment and erosion control practices to ensure the protection of water quality."*

D. Submittal of Documents

The NOI and all other documents required to be submitted to the Department by this general permit shall be delivered to the following address:

Alabama Department of Environmental Management
Water Division
Post Office Box 301463 (Zip Code: 36130-1463)
1400 Coliseum Boulevard (Zip Code: 36110-2059)
Montgomery, Alabama

E. Additional Permittees Under a Single NOI

Multiple operators conducting regulated land disturbances in a common plan of development may jointly submit an NOI. An NOI covering multiple operators must include a site plan clearly describing each operator's areas of operational control.

F. Authorization to Discharge

1. Except as otherwise limited by Part II.F.2 or II.F.3., the operator is authorized to discharge in accordance with the requirements of this permit upon the Department's receipt of a complete and timely NOI which meets the requirements of this permit and ADEM Admin. Code r. 335-6-6-.23.
2. Coverage under this permit is conditionally granted, and the requirement to submit an NOI is suspended for governmental agencies and utilities for construction activity associated with immediate and effective emergency repairs and response to natural disasters, human health or environmental emergencies, or to avert/avoid imminent, probable, or irreparable harm to the environment or severe property damage. The operator or controlling/participating federal, State, or local government agencies/entities conducting emergency construction activity shall document the emergency condition, ensure compliance with the requirements of this permit to the extent possible, and shall notify the Department as promptly as possible regarding the occurrence of the emergency construction disturbance and measures that have been implemented and are being implemented to protect water quality. Unless the requirement to obtain a permit pursuant to the requirements of this permit are suspended or voided by the Director on a categorical or individual emergency basis, the operator shall submit the appropriate project information, NOI, and the required application fee for construction or

reconstruction activity after emergency repairs have been accomplished, according to a schedule acceptable to the Department.

3. For priority construction sites, the operator is authorized to discharge thirty (30) days from the Department's receipt of a complete and technically adequate NOI and CBMPP meeting the requirements of Parts II.C. and III.D, unless, within thirty (30) days from the Department's receipt of the NOI, the Department notifies the operator that additional time is needed to review the NOI and CBMPP. Where the operator receives such notification from the Department, that operator may not discharge until the Department formally acknowledges receipt of a complete and technically adequate NOI and CBMPP.

PART III Stormwater Pollution Prevention Requirements

The stormwater control requirements in this Part are the technology-based, non-numeric effluent limitations and conditions that apply to all discharges from construction projects eligible for coverage under this permit. These requirements apply the national effluent limitations guidelines and new source performance standards found at 40 CFR Part 450.

Where the requirements in this Part are stricter than any corresponding Federal, State, or local requirements, the requirements in this permit take precedence.

A. Erosion Controls and Sediment Controls

The Permittee shall design, install, and maintain effective erosion controls and sediment controls, appropriate for site conditions to, at a minimum:

1. Control stormwater volume and velocity within the site to minimize soil erosion;
2. Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
3. Minimize the amount of soil exposed during construction activity through the use of project phasing or other appropriate techniques;
4. Minimize the disturbance of steep slopes, unless infeasible;
5. Minimize sediment discharges from the site;
6. Minimize the generation of dust;
7. Minimize all stream crossings;
8. Stabilize all construction entrances and exits; and minimize off-site tracking of sediment from vehicles;
9. Where applicable, install storm drain inlet protection measures to further prevent sediment discharges;
10. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible;
11. Minimize soil compaction and, unless infeasible, preserve topsoil; and
12. Implement measures or requirements to achieve the pollutant reductions consistent with a TMDL finalized or approved by EPA. Applicable TMDLs are located and/or can be accessed at http://adem.alabama.gov/programs/water/approvedTMDLs.htm
13. Additional Design Requirements
    (a) Sediment control measures, erosion control measures, and other site management practices must be properly selected based on site-specific conditions, must meet or exceed the technical standards outlined in the Alabama Handbook and the site-specific CBMPP prepared in accordance with Part III.D.
    (b) Unless specified otherwise by the Alabama Handbook, sediment control measures, erosion control measures, and other site management practices shall be designed and maintained to minimize erosion and maximize sediment removal resulting from a 2-year, 24-hour storm event.
    (c) The Permittee is encouraged to design the site, the erosion prevention measures, sediment controls measures, and other site management practices with consideration of minimizing stormwater runoff, both during and following construction, including facilitating the use of low-impact development (LID) and green technologies.

B. Soil Stabilization

Final stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site. Temporary stabilization of disturbed areas must be initiated immediately whenever work toward project completion and final stabilization of any portion of the site has temporarily ceased on any portion of the site and will not resume for a period exceeding thirteen (13) calendar days.

C. Pollution Prevention Measures

The Permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

1. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, concrete washout, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
2. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
3. Minimize the discharge of pollutants from any spills and leaks from, including but not limited to vehicles; mechanical equipment; chemical storage; and refueling activities.

D. Construction Best Management Practices Plan (CBMPP)

1. Except as provided by Part II.F.2, construction activity may not commence until a CBMPP has been prepared in a format acceptable to the Department and certified by a QCP as adequate to meet the requirements of this permit.
2. The Permittee shall properly implement and regularly maintain the controls, practices, devices, and measures specified in the CBMPP.
3. The CBMPP shall include:
   (a) A general description of the construction site activity, including:
      (i) The function of the construction site activity (e.g. residential subdivision, shopping mall, highway, etc.); and
      (ii) Identification of all known operators of the construction site, and the areas of the site over which each operator has control;
   (b) A description of the intended sequence of major activities which disturb soils, including but not limited to, grubbing, excavation, and/or grading;
   (c) Estimates of the total area expected to be disturbed by grubbing, excavation, and/or grading, including offsite borrow and fill areas;
   (d) A detailed description of the erosion controls, sediment controls, and management practices to be implemented at the site during each sequence of activity in accordance with Part III.A;
   (e) A detailed description of controls needed to meet State water quality standards, waste load allocations or other measures necessary for consistency with applicable TMDLs finalized or approved by EPA;

(f) A detailed description of enhanced or special controls needed to prevent or eliminate discharges of sediment and other pollutants of concern from priority construction sites, to the maximum extent practicable;

(g) A description of temporary and permanent stabilization practices, including a schedule and/or sequence for implementation;

(h) A description of energy or flow velocity dissipation devices at discharge locations and along the length of any outfall channel;

(i) Identification of all allowable sources of non-stormwater discharges listed in Part I.B.2, except for flows from fire fighting activities that are or may be combined with stormwater discharges associated with construction activity at the site;

(j) A description of the pollution prevention measures used to manage non-stormwater discharges;

(k) A description of the best management practices to be installed during site construction and operated and maintained following final stabilization at sites where the post-construction volumes or velocities of stormwater runoff are significantly different from conditions existing prior to the construction activity;

(l) A site topographic map (e.g.USGS quadrangle map), clearly showing:

(i) Sufficient detail to identify the location of the construction site;

(ii) For non-linear projects, pre-construction contours at a sufficient interval to adequately determine pre-construction stormwater runoff patterns throughout the site. These pre-construction contours must be certified by a professional engineer or land surveyor presently licensed by the Board of Registration for Professional Engineers and Land Surveyors;

(iii) The external and internal (if subdivided) property boundaries of the project;

(iv) Areas to be disturbed by excavation, grading, or other activities;

(v) Identification of sediment control measures, erosion control measures, planned stabilization measures,"and other site management practices;

(vi) Locations of all waters of the state within a 1 mile radius of the site

(vii)Locations of wetlands and riparian zones;

(viii) Locations of all points of discharge to waters of the State; and

(ix) Locations of all points of discharge to waters of the State; and

(x) Locations of all stormwater monitoring points.

(m) A description of procedures for:

(i) Sweeping or removal of sediment and other debris that has been tracked from the site or deposited from the site onto streets and other paved surfaces;

(ii) Removal of sediment or other pollutants that have accumulated in or near any sediment control measures, stormwater conveyance channels, storm drain inlets, or water course conveyance within or immediately outside of the construction site; and

(iii) Removal of accumulated sediment that has been trapped by sediment control measures at the site, in accordance with applicable maintenance requirements covered under this permit.

(n) A description of the procedures for handling and disposing of wastes generated at the site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

4. Maintain an Updated CBMPP

   (a) The CBMPP shall be updated as necessary to address changes in the construction activity, site weather patterns, new TMDLs finalized or approved by EPA, new 303(d) listings approved by EPA, or manufacturer specifications for specific control technologies.

   (b) The CBMPP shall be amended if inspections or investigations by site staff or by local, state, or federal officials determine that the existing sediment control measures, erosion control measures, or other site management practices are ineffective or do not meet the requirements of this permit. All necessary modifications to the CBMPP shall be made within seven (7) calendar days following notification of the inspection unless granted an extension of time by the Department.

   (c) If existing sediment control measures, erosion control measures, or other site management practices prove ineffective in protecting water quality or need to be modified; or if additional sediment control measures, erosion control measures, or other site management practices are necessary to meet the requirements of Part III.A. B. C. and E., implementation shall be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, then new land disturbance activities must cease until the modified or additional controls can be implemented.

   (d) A copy of the CBMPP shall be maintained at the site during normal operating hours as defined by Part IV. T. of this permit when regulated land disturbing activities are occurring.

E. Spill Prevention, Control, and Management

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112 and ADEM Admin Code r.335-6-6-.12(r) for all applicable onsite petroleum storage tanks. The Permittee shall also prepare, implement, and maintain a SPCC Plan in accordance with ADEM Admin Code r.335-6-6-.12(r) for any stored pollutant(s) that may, if spilled, be reasonably expected to enter a water of the state or the collection system for a publicly or privately owned treatment works. The SPCC Plan(s) shall be maintained as a separate document or as part of the CBMPP Plan required in Part III.D. above. The Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. The plan(s) must be consistent with the requirements of 40 CFR Part 112 and/or ADEM Admin Code r.335-6-6-.12(r). Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and of materials which shall prevent the contamination of groundwater and shall be capable of retaining 110 percent of the volume of the largest container of pollutants for which the containment system is provided. The Permittee shall maintain onsite or have readily available sufficient oil & grease absorbing material and aflotation booms to contain and clean-up fuel or chemical spills and leaks. Soil contaminated by paint or chemical spills, oil spills, etc. must be immediately cleaned up, remediated, or be removed and disposed of in a Department approved manner.

F. Training

Unless the Permittee has employed or contracted with a QCP that performs duties as required by this permit, and the QCP is readily available and able to be present onsite as often as is necessary to ensure full compliance with the requirements of this permit, the Permittee shall ensure that:

1. At least one onsite employee shall be certified as a Qualified Credentialed Inspector (QCI) by completing an initial training and annual refreshers through an ADEM-approved Qualified Credentialed Inspector Program (QCIP) conducted by a cooperating training entity.

2. The QCIP must be approved by the Department prior to use and provide training in the following areas:

   (a) The applicable requirements of the Alabama NPDES rules;

   (b) The requirements of this permit;

   (c) The evaluation of construction sites to ensure that QCP designed and certified erosion controls and sediment controls detailed in a CBMPP are effectively implemented and maintained;

   (d) The evaluation of conveyance structures, receiving waters and adjacent impacted offsite areas to ensure the protection of water quality and compliance with the requirements of this permit; and

   (e) The general operation of a turbidity meter or similar device intended for the measurement of turbidity.

3. Each individual holding a QCI Certification need not be on-site continuously and they may conduct site inspections at multiple sites permitted by them or their employer.

4. Each individual holding QCI certification shall obtain annual certification of satisfactory completion of formal refresher education or training regarding general erosion controls and sediment controls, the requirements of this permit, and the general operation of a turbidity meter or similar device intended for the measurement of turbidity. The refresher training requirements, including but not limited to, appropriate curricula, course content, course length, and any participant testing, shall be subject to acceptance by the Director prior to use.

G. Inspection Requirements

1. Daily Observations

   (a) Each day there is activity at the site, the Permittee shall visually observe that portion of the construction project where active disturbance, work, or construction occurred to note any rainfall measurements occurring since the previous observation, and any apparent BMP deficiencies in the area of active disturbance.

   (b) Such daily observations may be performed by appropriate site personnel.

   (c) The Permittee shall maintain a log of all daily observations and record in such log any rainfall measurements and BMP deficiencies observed.

2. Site Inspections

   (a) A site inspection shall consist of a complete and comprehensive observation of the entire construction site including all areas of land disturbance, areas used for storage of materials that are exposed to precipitation, affected ditches and other stormwater conveyances, as well as all outfalls, receiving waters and stream banks to determine if, and ensure that:

      (i) Effective erosion controls and sediment controls have been fully implemented and maintained in accordance with this permit, the site CBMPP, and the Alabama Handbook;

      (ii) Pollutant discharges have been prevented/minimized to the maximum extent practicable, and

(iii) Discharges do not result in a contravention of applicable State water quality standards for the receiving stream(s) or other waters impacted or affected by the Permittee.

(b) Site inspections shall be performed by a QCI, QCP, a qualified person under the direct supervision of a QCP.

(c) For non-linear projects, a site inspection shall be performed once each month and after any qualifying precipitation event, commencing as promptly as possible, but no later than 24-hours after resuming or continuing active construction or disturbance, and completed no later than 72-hours following the qualifying precipitation event;

(d) For linear projects where active construction or areas where perennial vegetation has not been fully established, meeting the definition of final stabilization, a site inspection shall be performed after any qualifying precipitation event since the last inspection, beginning as promptly as possible, but no later than 24-hours after resuming or continuing active construction or disturbance and completed no later than five (5) days after the qualifying precipitation event;

(e) A site inspection shall also be performed as often as is necessary until any poorly functioning erosion controls or sediment controls, non-compliant discharges, or any other deficiencies observed during a prior inspection are corrected and documented as being in compliance with the requirements of this permit.

(f) On all active disturbance, dredging, excavation, or construction undertaken or located within the banks of a waterbody, including but not limited to, equipment/vehicle crossings, pipelines, or other transmission line installation, conveyor structure installation, and waterbody relocation, streambank stabilization, or other alterations, a site inspection shall be performed at least once a week and as often as is necessary until the disturbance/activity impacting the waterbody is complete and reclamation or effective stormwater quality remediation is achieved.

(g) The inspection shall be recorded in a written format acceptable to the Department. The inspection record shall include:

(i) The site name and location, discharge point number, date, time and exact place of any sampling performed;

(ii) The name(s) of person(s) who performed the inspection and/or obtained any samples or measurements taken;

(iii) The dates and times of the inspection and any samples or measurements taken;

(iv) A description of any sampling and analytical techniques or methods used, including source of method and method number;

(v) The results of any analyses performed;

(vi) Weather conditions at the time of the inspection;

(vii) Description of any discharges of sediment or other pollutants from the site;

(viii) Locations of discharges of sediment or other pollutants from the site;

(ix) Locations of BMPs that need to be maintained;

(x) Locations of BMPs that failed to operate as designed;

(xi) Locations where BMPs required by the CBMPP are not installed or installed in a manner inconsistent with the CBMPP; and

(xii) Locations where additional BMPs are needed that did not exist at the time of the inspection. This requirement is applicable only to site inspections performed by a QCP or qualified persons under the direct supervision of a QCP.

3. CBMPP Evaluations

   (a) The QCP shall perform an onsite evaluation of all erosion and sediment controls being implemented for adequacy and consistency with site conditions.

   (b) The CBMPP evaluation shall be performed as often as necessary until poorly functioning or damaged erosion controls or sediment controls are corrected, and, at a minimum, once every six months.

   (c) If, based on the CBMPP evaluation, the QCP identifies any needed modifications or additions to erosion and sediment controls, the CBMPP shall be updated in accordance with Part III.D.4.

   (d) The Permittee shall maintain appropriate documentation of the CBMPP evaluation.

H. Corrective Action

1. Any poorly functioning erosion controls or sediment controls, non-compliant discharges, or any other deficiencies observed during the inspections required under Part III.G.2 shall be corrected as soon as possible, but not to exceed five (5) days of the inspection unless prevented by unsafe weather conditions.
2. In the event of a breach of a sediment basin/pond temporary containment measures shall be taken within 24 hours after the inspection. Permanent corrective measures shall be implemented within five (5) days of the inspection; however, if permanent corrective measures cannot be implemented within the timeframes provided herein the Permittee shall contact the Department; and
3. The operator shall promptly take all reasonable steps to remove, to the maximum extent practical, pollutants deposited offsite or in any waterbody or stormwater conveyance structure.

I. Suspension of Monitoring

Suspension of applicable monitoring and inspection requirements for phased projects or developments may be granted provided:

1. The Department is notified in writing at least thirty days prior to the requested suspension;
2. The Permittee and the QCP certify in the request that all disturbance has been graded, stabilized, and/or fully vegetated or otherwise permanently covered, and that appropriate, effective steps have been and will be taken by the Permittee to ensure compliance with the requirements of this permit and commit that these measures will remain continually effective until the permit is properly terminated.
3. The Permittee notifies the Department prior to resumption of disturbance or commencement of the next phase of development and the Permittee complies with the requirements of this Permit prior to commencement of additional disturbance.

J. Precipitation Measurement

The Permittee shall measure and record all precipitation occurring at the construction site. Precipitation measurements shall be taken using continuous recorders or daily readings of an onsite rain gauge or other measurement device acceptable to the Department. Precipitation measurements must be representative of the Permittee's site.

PART IV Standard and General Permit Conditions

A. Duty to Comply

1. The Permittee must comply with all conditions of the permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, or for termination or denial of coverage under this permit.

2. Any person who violates a permit condition is subject to a civil penalty as authorized by Code of Alabama (1975) §22-22A-5(18) (1987 Cum. Supp.) and/or a criminal penalty as authorized by the AWPCA.

B. 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 construction activities in order to maintain compliance with the conditions of the permit.

C. Duty to Mitigate

The Permittee shall take all reasonable steps to mitigate or prevent any violation of the permit or to minimize or prevent any adverse impact of any permit violation.

D. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. Operation of backup or auxiliary facilities is required only when necessary to achieve compliance with the conditions of this permit.

E. Permit Actions

This permit may be modified, revoked and reissued, suspended, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

F. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

G. Duty to Provide Information

1. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be kept by this Permit.

2. The Permittee shall inform the Director in writing of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer

having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's rules and the terms and conditions of this permit no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish an update of any information provided in the NOI.

3. If the Permittee becomes aware that it failed to submit any relevant facts in the NOI; or submitted incorrect information in the NOI; or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

H. Inspection and Entry

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

1. Enter upon the Permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this Permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any activities, substances or parameters at any location.

I. Noncompliance Notification

1. If for any reason, the Permittee's discharge does not comply with any limitation or condition of this permit, the Permittee shall verbally notify the Director within 24 hours of the noncompliant eventfollowed by a written report within five (5) days of the non-compliant event.
2. A written noncompliance notification shall be in a format acceptable to the Department and shall include:
   (a) A description of the noncompliant event, its cause, if known, and location;
   (b) The expected period of noncompliance, including dates and times.
   (c) A description of any corrective measures taken or to be taken to correct the noncompliance and mitigate any associated effects to the environment.

J. Retention of Records

1. The Permittee shall retain records of all inspection records, monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete such reports, for a period of at least three (3) years from the date of the inspection, sample measurement, or report. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of these records, the records shall be kept until the litigation is resolved.
2. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location identified to the Department in writing and shall be available for inspection.

K. Signatory Requirements

The NOI and all reports or information submitted to the Director shall be signed and certified according to the requirement of ADEM Admin Code r. 335-6-6-.09. Where required by this Permit, documents will also be signed by a QCP or QCI.

L. Transfers

This permit is not transferable to any person except after written notice to the Department. The Department may require the submittal of an updated NOI to change the name of the Permittee and any other information affected by the proposed transfer.

M. Bypass

Any bypass of erosion controls, sediment controls, or any other stormwater management/treatment controls specified in the CBMPP is prohibited except as provided by ADEM Admin Code r. 335-6-6-.12(m).

N. Upset

Any upset claimed by the Permittee is subject to the requirements of ADEM Admin Code r. 335-6-6-.12(n).

O. 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.

P. Modification, Revocation and Reissuance, and Termination

The Director may modify, revoke and reissue, or terminate this permit in accordance with ADEM Admin. Code r. 335-6-6-.23(7).

Q. Issuance of an Individual Permit

The Director may require the Permittee to obtain an individual permit for discharges covered by this permit in accordance with ADEM Admin. Code r. 335-6-6-.23(9).

R. Termination of Coverage

1. The Director may suspend or terminate coverage under this permit for cause without the consent of the Permittee. Cause shall include, but not be limited to noncompliance with this permit or the applicable requirements of Department rules, or a finding that this permit does not control the stormwater discharge sufficiently to protect water quality.

2. Notice of Termination

   The Permittee must submit a Notice of Termination (NOT) in a format acceptable to the Department within thirty (30) days of one of the following conditions:

   (a) Final stabilization has been achieved on all portions of the site;

   (b) Another operator has assumed control over all areas of the site that have not achieved final stabilization and the new operator has submitted an NOI for coverage under this permit; or

(c) Coverage under an individual permit or alternative general permit has been obtained.

3. Content of the Notice of Termination

The NOT shall include:

(a) The Permittee name, permit number, and location of the site; and

(b) Certification by the Permittee and the QCP that all construction activity covered by this permit has been completed and final stabilization has been achieved; or

(c) Identification, including complete contact information, of the person that has assumed legal or operational control over the construction site.

S. Facility Identification

The Permittee shall post and maintain sign(s) at the front gate/entrance, and if utility installation, where project crosses paved county, State, or federal highways/roads, and/or at other easily accessible location(s) to adequately identify the site prior to commencement of and during NPDES construction until permit coverage is properly terminated. Such sign shall display the name of the Permittee, "ADEM NPDES ALR10" followed by the five digit NPDES permit number, facility or project name, and other descriptive information deemed appropriate by the Permittee.

T. Definitions

1. *2-year, 24-hour storm event* means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed there from.
2. *Alabama Handbook* means the March, 2009 edition of Alabama Handbook For Erosion Control, Sediment Control, And Stormwater Management On Constructions Sites And Urban Areas, Alabama Soil and Water Conservation Committee (ASWCC).
3. *ADEM* means the Alabama Department of Environmental Management.
4. *AWPCA* means the Alabama Water Pollution Control Act.
5. *Best Management Practices or BMPs* mean implementation and continued maintenance of appropriate structural and non-structural practices and management strategies to prevent and minimize the introduction of pollutants to stormwater and to treat stormwater to remove pollutants prior to discharge.
6. *Common Plan of Development or Sale* means any announcement or piece of documentation (e.g., sign, public notice, or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (e.g., boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.
7. *Construction* means any land disturbance or discharges of pollutants associated with, or the result of building, excavation, land clearing, grubbing, placement of fill, grading, blasting, reclamation, areas in which construction materials are stored in association with a land disturbance or handled above ground, and other associated areas including, but not limited to, construction site vehicle parking, equipment or supply storage areas, material stockpiles, temporary office areas, and access roads. Construction also means significant pre-construction land disturbance activities performed in support or in advance of construction activity including, but not limited to, land clearing, dewatering and geological testing.
8. *Construction Activity* means the disturbance of soils associated with clearing, grading, excavating, filling of land, or other similar activities which may result in soil erosion. Construction activity does not include agricultural and silvicultural practices, but does include agricultural buildings.
9. *Construction Site* means any site regardless of size where construction or construction associated activity has commenced, or is continuing, and associated areas, including sites

where active work is suspended or has ceased, until the activity is completed and effective reclamation and/or stormwater quality remediation has been achieved.

10. *Construction Waste* means construction and land disturbance generated materials, including but not limited to, waste chemicals, sediment, trash, debris, litter, garbage, construction demolition debris, land clearing and logging slash or other materials or pollutants located or buried at the site prior to disturbance activity or that is generated at a construction site.
11. *Control Measure* refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the State.
12. *CWA or The Act* means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
13. *Department* means the Alabama Department of Environmental Management or an authorized representative.
14. *Director* means the Director of the Department or his designee.
15. *Discharge*, when used without a qualifier, refers to "discharge of a pollutant" as defined in ADEM Administrative Code r. 335-6-6-.02(m).
16. *EPA* refers to the U.S. Environmental Protection Agency.
17. *Final Stabilization* means the application and establishment of the permanent ground cover (vegetative, pavements of erosion resistant hard or soft material or impervious structures) planned for the site to permanently eliminate soil erosion to the maximum extent practicable. Established vegetation will be considered final if 100% of the soil surface is uniformly covered in permanent vegetation with a density of 85% or greater. Permanent vegetation shall consist of; planted trees, shrubs, perennial vines; an agricultural or a perennial crop of vegetation appropriate for the region. Final stabilization applies to each phase of construction.
18. *FWPCA* means the Federal Water Pollution Control Act
19. *Green Infrastructure* refers to systems and practices that use or mimic natural processes to infiltrate, evapotranspirate (the return of water to the atmosphere either through evaporation or by plants), or reuse storm water or runoff on the site where it is generated.
20. *Linear Project* means land disturbing activities conducted by an underground /overhead utility or highway department, including, but not limited to any cable line or wire for the transmission of electrical energy; any conveyance pipeline for transportation of gaseous or liquid substance; any cable line or wire for utility communications; or any other energy resource transmission ROW or utility infrastructure, e.g., roads and highways. Activities include the construction and installation of these utilities within a corridor. Linear project activities also include the construction of access roads, staging areas, and borrow/spoil sites associated with the linear project.
21. *Low Impact Development or LID* is an approach to the maintenance of predevelopment hydrology in land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product.
22. *Maximum extent practicable (MEP)* means full implementation and regular maintenance of available industry standard technology and effective management practices, such as those contained in the Alabama Handbook and site-specific CBMPP, designed to prevent and/or minimize discharges of pollutants and ensure protection of groundwater and surface water quality.
23. *Minor Land Disturbing Activities* means activities which will result in minor soil erosion such as home gardens or individual home landscaping, repairs, maintenance work, fences, routine maintenance and other related activities.

24. *Mixing Zones* means that portion of the receiving waters where mixture of effluents and natural waters take place. Mixing zones in streams shall not preclude passage of aquatic life up or down stream, shall not exceed a width of 50 percent of the stream width, shall not exceed a length of 5 times the width of the mixing zone, and shall not exceed an area of 25 percent of the stream cross-sectional area, and a mixing zone shall not encompass drinking water intakes. The total area of all mixing zones in a lake shall not encompass more than ten percent of the surface area of the lake, the radius of any one zone shall not encompass water intakes.

25. *Nephelometric Turbidity Unit or NTU* means a numerical unit of measure based upon photometric analytical techniques for measuring the light scattered by fine particles of a substance in suspension.

26. *Normal Operating Hours* means from 6:00 a.m. to 6:00 p.m, Monday through Friday, excluding federal holidays established pursuant to 5 U.S.C. § 6103. Normal operating hours also include any time when workers are present or when construction activity is occurring, regardless of the particular day or time of day.

27. *Operator* means any person or other entity, that owns, operates, directs, conducts, controls, authorizes, approves, determines, or otherwise has responsibility for, or exerts financial control over the commencement, continuation, or daily operation of activity regulated by this permit. An operator includes any person who treats and discharges stormwater or in the absence of treatment, the person who generates and/or discharges stormwater, or pollutants. An operator may include but may not be limited to, property owners, agents, general partners, LLP partners, LLC members, leaseholders, developers, builders, contractors, or other responsible or controlling entities.

28. *Plan or Sale* as included in the phrase "larger common plan of development or sale" is broadly defined to mean any announcement or documentation, sales program, permit application, presentation, zoning request, physical demarcation, surveying marks, etc., associated with or indicating construction activities may occur in an area.

29. *Pollutant of concern* refers to sediment, turbidity, and any other pollutant known or reasonably expected to be found in untreated discharges associated with the construction site.

30. *Post-construction* refers to any phase of construction where final stabilization has been achieved, and all but minor construction activities have been completed. The term post-construction is not affected by the final operational status of the site or whether the site has been placed into operation according to its final intended use.

31. *Priority construction site* means any site that discharges to a waterbody which is listed on the most recently EPA approved 303(d) list of impaired waters for turbidity, siltation, or sedimentation, any waterbody for which a TMDL has been finalized or approved by EPA for turbidity, siltation, or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin. Code r. 335-6-10-.09, and any waterbody assigned a special designation in accordance with ADEM Admin. Code r. 335-6-10-.10.

32. *Qualified Credentialed Professional or QCP* means a professional engineer (PE), or a Certified Professional in Erosion and Sediment Control (CPESC) as determined by CPESC, Inc. Other registered or certified professionals such as a registered landscape architect, registered land surveyor, registered geologist, registered forester, Registered Environmental Manager as determined by the National Registry of Environmental Professionals (NREP), or Certified Professional and Soil Scientist (CPSS) as determined by ARCPACS, and other Department accepted professional designations, certifications, and/or accredited university programs that can document requirements regarding proven training, relevant experience, and continuing education, that enable recognized individuals to prepare CBMPPs, to make sound professional judgments regarding Alabama NPDES rules, the requirements of this chapter, planning, design, implementation, maintenance, and inspection of construction sites, receiving waters, BMPs, remediation/cleanup of accumulated offsite pollutants from the regulated site, and reclamation or effective stormwater quality remediation of construction associated land disturbances, that meet or exceed recognized technical standards and guidelines, effective

industry standard practices, and the requirements of this chapter. The QCP shall be in good standing with the authority granting the registration or designation. The design and implementation of certain structural BMPs may involve the practice of engineering and require the certification of a professional engineer pursuant to Alabama law.

33. A *qualified person under the direct supervision of a QCP* refers to an individual who is an employee of the QCP or the QCP's firm, and is familiar with current industry standards for erosion and sediment controls and able to inspect and assure that BMPs or other pollution control devices (silt fences, erosion control fabric, rock check devices, etc.) and erosion control efforts (grading, mulching, seeding, growth management, etc.) or management strategies have been properly implemented and regularly maintained. Such individual may not certify the CBMPP or modifications to the CBMPP.

34. *Qualifying precipitation event* refers to any precipitation of 0.75 inches or greater in any 24-hour period.

35. *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

36. *Site* means the land or water area where any facility or activity for which coverage under this permit is required is physically located or conducted, including adjacent land use in connection with the facility or activity.

37. *State water quality standards* refer to numeric and narrative standards set forth at ADEM Admin Code chaps. 335-6-10 and 335-6-11.

38. *Stormwater* means runoff, accumulated precipitation, process water, and other wastewater generated directly or indirectly as a result of construction activity, the operation of a construction material management site, including but not limited to, precipitation, upgradient or offsite water that cannot be diverted away from the site, and wash down water associated with normal construction activities. Stormwater does not mean discharges authorized by the Department via other permits or regulations.

39. *Steep Slope* means a slope of 15% or greater.

40. *Temporary Stabilization* means the application and establishment of temporary ground cover (vegetative, pavements of erosion resistant hard or soft materials or impervious structures) for the purpose of temporarily reducing raindrop impact and sheet erosion in areas where Final Stabilization cannot be established due to project phasing, seasonal limitations or other project related restrictions.

41. *Total Maximum Daily Load or TMDL* means the calculated maximum permissible pollutant loading to a waterbody at which water quality standards can be maintained; The sum of wasteload allocations (WLAs) and load allocations (LAs) for any given pollutant.

PART V Turbidity Monitoring

A. Applicability

Beginning six months after the effective date of this permit, the Permittee of a priority construction site disturbing ten (10) acres or more at one time shall conduct turbidity monitoring in accordance with Part V .

B. Sampling and Monitoring Requirements

1. Required samples shall be collected:
   (a) At the nearest accessible location just prior to discharge and after final treatment, or at the point(s) where stormwater runoff leaves the property boundary;
   (b) In the receiving stream at the nearest accessible location upstream of the point of discharge; and
   (c) In the receiving stream at the nearest accessible location immediately downstream of the mixing zone.
2. Samples shall be obtained and analyzed by a Qualified Credentialed Inspector (QCI); a Qualified Credentialed Professional (QCP); or a qualified person under the direct supervision of a QCP.
3. All turbidity measurements shall be recorded in a format acceptable to the Department.
4. Discharge turbidity monitoring shall be performed:
   (a) In conjunction with any comprehensive inspection when discharges are occurring; or
   (b) Following a qualifying precipitation event if discharges occur as a result of the event.
5. Samples and turbidity measurements are not required outside of normal operating hours or during unsafe weather conditions.

C. Representative Monitoring Points

For the purposes of conducting turbidity monitoring required by this permit, the Permittee may designate one or more stormwater monitoring points as representative of all stormwater runoff from the construction site. This designation may only occur after the submittal of a certification by the QCP that the selected discharge point(s) adequately represent the flow and pollutant characteristics of the construction site. The certification must be submitted in writing and approved by the Department prior to the regulated land disturbance exceeding ten (10) acres. Any modifications to stormwater monitoring points that occur as a result of changing site conditions must also be certified by the QCP, submitted in writing and approved by the Department.

D. Test Procedures

Sample collection and preservation shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). Samples collected for turbidity may be analyzed using a turbidimeter that is properly calibrated according to the manufacturer's instructions. The Permittee must maintain a calibration log which shall be made available to the Department for review upon inspection or request. In the event that the sample exceeds the upper range of the turbidimeter, the sample must be analyzed in accordance with the requirements of 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h).

E. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. If used, flow measurement devices shall be calibrated at least once every twelve (12) months.

F. Reports of Turbidity Monitoring

All monitoring data should be recorded and retained with the inspection reports and be made available to the Department during inspections or submitted to the Department upon request.

APPENDIX M

PROJECT SIGNAGE

Pursuant to Part IV.S. [Facility Identification] of the GP, the permittee is required to post and maintain facility identification. The permittee is required to post a sign at the front gate/entrance to identify the site. The permittee may use this example sign or create and use a sign meeting the requirements of Part IV.S. of the permit. If this sign is used, please make copies to post, and keep this original in your files. PLEASE PRINT CLEARLY USING BLUE OR BLACK INK. Areas that contain * are not required to be completed.

ADEM NPDES General Permit #:

ALR100000

ADEM Authorization #:

ALR10_____

Facility Name:

Greeno Road Sidewalk Improvements

PERMITTEE: City of Fairhope, Alabama	***CONTACT:** Ken Eslava, P.E.	***PHONE #** 251-367-4504
***ADDRESS:** PO Box 429		
***City** Fairhope	***State:** AL	***Zip:** 36533

Rev 4/01/2011

APPENDIX N

DAILY RAINFALL LOG

DAILY RAINFALL LOG
City of Fairhope
Greeno Road Sidewalk Improvements
2011

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DAILY RAINFALL LOG
City of Fairhope
Greeno Road Sidewalk Improvements
2012

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DAILY RAINFALL LOG
City of Fairhope
Greeno Road Sidewalk Improvements
2012

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