

Whippoorwill Road Drainageway Improvements
Chatham County, Georgia
January 2020

1.0 Introduction

Chatham County Department of Engineering (Applicant) is seeking CMPA authorization to improve drainage within an existing drainageway maintained by Chatham County. The subject drainage canal crosses under Whippoorwill Road between Bob White Road and Woodpecker Road in Chatham County, Georgia (32.005415°, -80.960104°). The drainage canal is county maintained and has experienced high levels of erosion from hurricane activity over the past 5 years. The purpose of the project is to stabilize an eroding bank and reduce the loss of public and private property.

The applicant is proposing to install a WaStop Inline Check Valve that will prevent tide waters from entering the canal thereby improving drainage and reducing erosion of public and private property. The applicant will also be installing 60SY of stone to prevent further erosion on the upstream side of the check valve system. Total impacts associated with the project are 1,089 ft² (0.025 acres) of temporary impact for ditch reshaping and bank armoring. Therefore, the Applicant is requesting authorization of the project as a minor alteration as defined at O.C.G.A. § 12-5-282(9) and 12-5-283(d).

2.0 Existing Conditions

The jurisdictional areas have been surveyed and verified by the USACE and a request for verification was submitted to the DNR on January 30, 2018. Three 32" RCP culverts are convey stormwater from the upstream catchment area to the marshes of Beard Creek. The existing drainage ditches downstream of the culverts is vegetated with CMPA vegetation. The drainage network contains no CMPA vegetation upstream of the culvert except for the ditch running parallel to Whippoorwill Road. Sparse *Spartina alterniflora* is present on the upstream side of the culvert crossing in the ditch running parallel to Whippoorwill Road. Outside of the parallel ditch there is no CMPA vegetation upstream of the culvert crossing.

3.0 Marshlands Component

The project area contains 0.14 acre of CMPA jurisdictional marshlands and 0.10 acre of USACE Section 404 jurisdictional wetlands. The marshland component of the project consists temporary impacts to of 1,089 ft² (0.025 acre) of tidal marsh under the CMPA jurisdiction. The impacts are required to reshape the bank and armor the adjacent road shoulder. Approximately 60 SY of rip rap will be installed as hard armoring along the bank.

4.0 Upland Component

The proposed project consists of the maintenance of existing drainage structures and minor bank stabilization. The marshland component is the retrofitting of a check valve and bank stabilization for an existing roadway, does not provide access to coastal marshlands. Therefore, there is no upland component associated with the project that would serve to augment the marshland component as defined under the rules of Georgia Department of Natural Resources, Coastal Resources Division Chapter 391-2-3.02(2)(q).

5.0 Alternative Analysis

The project purpose is to stabilize the existing drainage network prevent future erosion. Due to the location of the project, the alternatives that do not involve alteration of the existing drainage network do not exist.

1. **No Action Alternative:** This alternative was rejected because of the current erosion issues that are occurring upstream of proposed project limits. The no action alternative would allow for continued degradation of this drainage system and further erosion of private property.
2. **Applicant's Preferred Alternative:** The proposed project would include retrofitting the WaStop inline Check Valve into the existing culverts to prevent further erosion upstream while allowing for continued function of the existing drainage network during storm events. This alternative would achieve the project purpose at a minimal cost.

6.0 Commercial Bait Shrimp, Oyster, and Crabbing Areas

The proposed project is not located in a designated bait shrimp zone according to *Georgia Department of Natural Resources Commercial and Recreational Bait Shrimp Zones, Coastal Georgia* map. The project area is also not listed on the *Georgia Harvester Reported Crabbing Areas* list.

7.0 Impaired Waters

The subject waterway is not listed on the U.S. Environmental Protection Agency 303(d) list for impaired water bodies.

8.0 Supplemental Information

This additional information is provided for compliance with Coastal Marshlands Protection Act of 1970 information requirements:

OCGA 12-5-286. Permits to fill, drain, etc., marshlands.

- (b) Each application for such permit shall be, properly executed, filed with the department on forms as prescribed by the department, and shall include:

(1) The name and address of the Applicant-

Chatham County Department of Engineering
Attn: Mr. Bill Nicholson
124 Bull Street
Savannah, GA 31401

- (2) A plan or drawing showing the Applicant's proposal and the manner or method by which such proposal shall be accomplished. Such plan shall identify the coastal marshlands affected-** Please refer to attached drawings produced by Chatham County Department of Engineering titled **Whippoorwill Road Shoulder Rehabilitation**, Sheets CO through C3, dated 11/20/19. The work will be accomplished by equipment placed in upland non-jurisdictional areas. No construction equipment will be placed in vegetated marshlands and no impacts to coastal marshlands will occur beyond the limits of the existing stormwater drainage network.

- (3) A plat of the area in which the proposed work will take place-** Attachment D contains a drawing produced by Chatham County Department of Engineering titled **Whippoorwill Road Shoulder Rehabilitation**, dated 11/20/19.

- (4) A copy of the deed or other instrument under which the Applicant claims title to the property or, if the Applicant is not the owner, then a copy of the deed or other instrument under which the owner claims title together with written permission from the owner to carry out the project on his land. In lieu of a deed or other instrument referred to in this paragraph, the committee may accept some other reasonable evidence of ownership of the property in question or other lawful authority to make use of the property; The committee will not adjudicate title disputes concerning the property which is the subject of the application; provided, however, the committee may decline to process an application when submitted documents show conflicting deeds-** Deeds for subject property are included in Attachment C.

- (5) A list of all adjoining landowners together with such owners' addresses, provided that if the names or addresses of adjoining landowners cannot be determined, the Applicant shall file in lieu thereof a sworn affidavit that a diligent search, including, without limitation, a search of the records for the county tax assessor's office, has been made but that the Applicant was not able to ascertain the names or addresses, as the case may be, of adjoining landowners-** Adjacent landowner information is provided in Attachment I.

- (6) ***A letter from the local governing authority of the political subdivision in which the property is located, stating that the Applicant's proposal is not in violation of any zoning law;*** A copy of the Applicant's request for zoning concurrence that was submitted to Chatham County Planning and Zoning Commission (Attachment F).
- (7) ***A non-refundable application fee to be set by the board in an amount necessary to defray the administrative cost of issuing such permit. Renewal fees shall be equal to application fees, which shall not exceed \$1,000.00 for any one proposal and shall be paid to the department.*** An application fee in the amount of \$250.00 has been included with this request.
- (8) ***A description from the Applicant of alternative sites and why they are not feasible and a discussion of why the permit should be granted-*** The proposed project requires the maintenance of an existing drainage network by installing inline check valves and armoring the roadside shoulder. There is no alternative that would satisfy the project purpose of reducing erosion within the drainage network that would not require greater impacts to CMPA marshlands.
- (9) ***A statement from the Applicant that he has made inquiry to the appropriate authorities that the proposed project is not over a landfill or hazardous waste site and that the site is otherwise suitable for the proposed project-*** A review of the Hazardous Site Index for Chatham County, Georgia indicates that the subject property does not contain hazardous waste sites or landfills (Attachment J).
- (10) ***A copy of the water quality certification issued by the department if required for the proposed project-*** Water Quality Certification in accordance with Section 401 of the Clean Water Act will be issued in accordance with the procedures of the USACE Nationwide Permit Program.
- (11) ***Certification by the Applicant of adherence to soil and erosion control responsibilities if required for the proposed project-*** The project will conform to all required building, land disturbing, and stormwater management permits as required by Chatham County, Georgia.
- (12) ***Such additional information as is required by the committee to properly evaluate the application-*** This application has been prepared with consideration for the interests of the general public of the State of Georgia as defined in OCGA 12-5-286(g):

OCGA 12-5-286. Permits to fill, drain, etc. marshlands.

Owner Name	Parcel Number	Property Address	Owner Address	County	State	Zoning Code	Zoning Type
GREENFIELD, DAVID B & GREENFIELD, NICOLE L	1-0039-06-014	633 WHIPPOORWILL RD SAVANNAH, GA 31410	633 WHIPPOORWILL RD SAVANNAH, GA 31410-1711	Chatham	GA	R-1/EO	Residential
GREENFIELD, DAVID B & GREENFIELD, NICOLE L	1-0039-06-015	WHIPPOORWILL RD SAVANNAH SAVANNAH, GA 31410	633 WHIPPOORWILL RD SAVANNAH, GA 31410-1711	Chatham	GA	R-1/EO	Residential
HALL, WILEY E & WORKMAN, HOLLY H	1-0039-04-037	628 WHIPPOORWILL RD SAVANNAH, GA 31410	628 WHIPPOORWILL RD SAVANNAH, GA 31410-1751	Chatham	GA	R-1/EO	Residential
GOGGANS, STEVEN MARK & GOGGANS, KAREN Y	1-0039-04-016	701 WHIPPOORWILL RD SAVANNAH, GA 31410	701 WHIPPOORWILL RD SAVANNAH, GA 31410-1706	Chatham	GA	R-1/EO	Residential
SMALL, THOMAS A	1-0039-06-016	631 WHIPPOORWILL RD SAVANNAH, GA 31410	631 WHIPPOORWILL RD SAVANNAH, GA 31410-1711	Chatham	GA	R-1/EO	Residential

Coastal Marina, Community or Commercial Dock Checklist

(fill in the blanks as indicated or answer yes or no)

LOCATION:

County Chatham County
Municipality Chatham County

Landmarks Whippoorwill Road
Waterway Marshes of Beard Creek

FACILITY:

Facility Type Private Public Commercial Other
Dock Space Leased Sold Rented Other

Size of Upland Area (sq. ft.) +/- 0.25 acres Size of Submerged Area (sq. ft.) +/-0.14 acre

WATERWAY INFORMATION:

open water river creek basin

Tidal Range (ft. MLW) +/- 2 feet Water Depth (ft. MLW) 0 feet
Channel Width (ft. MLW) N/A Depth of Dredging (ft. MLW) N/A

Distance facility will extend into the waterway beyond MLW N/A

EXISTING OR PLANNED SERVICES IN JURISDICTION:

<input type="checkbox"/> boat ramp	<input type="checkbox"/> hoist	<input type="checkbox"/> mobile lift	<input type="checkbox"/> vessel TV hookup
<input type="checkbox"/> railway	<input type="checkbox"/> fuel	<input type="checkbox"/> propeller repair	<input type="checkbox"/> electrical repair
<input type="checkbox"/> pump-out vessels	<input type="checkbox"/> hull repair	<input type="checkbox"/> engine repair	<input type="checkbox"/> vessel electric hookup
<input type="checkbox"/> boat building	<input type="checkbox"/> ship's store	<input type="checkbox"/> dockmaster's office	<input type="checkbox"/> fire protection
<input type="checkbox"/> restrooms	<input type="checkbox"/> showers	<input type="checkbox"/> restaurant	<input type="checkbox"/> laundromat
<input type="checkbox"/> hotel	<input type="checkbox"/> # of vehicle (only) parking spaces	<input type="checkbox"/> # of trailer parking spaces	

DREDGING/FILLING/ShORELINE STABILIZATION:

No Will dredging be required for the access channel?
No Will dredging be required for boat basin?
Yes Is filling proposed in tidal wetlands?
No Is filling proposed in open water?
No Will dredge disposal sites be required?
NA Have future dredge disposal sites been identified?
NA Have future dredge spoil sites been set aside with deeds or easements?
No Is shoreline stabilization proposed? If so, what type?
No Is the project in or near a US Army Corps of Engineers maintained channel or basin with an authorization depth of 12 feet or greater? (if so, contact the Corps of Engineers)

HABITAT/WILDLIFE/CULTURAL RESOURCES: (contact GADNR Wildlife Resources Division, US Fish & Wildlife Service, GADNR Coastal Resources Division- Marine Fisheries, National Marine Fisheries Service OR GADNR Historic Resources)

No Is this site located near a wildlife refuge, wilderness area, special management area, or other area specifically located for the protection of fish and wildlife?
If yes, what is the distance? _____

Yes *Is this habitat identified as “essential fish habitat”?

Yes Are rare, threatened, endangered or otherwise designated unique or outstanding aquatic or terrestrial species or their habitats known to be present at or near the project site?

No Do oyster or clam beds occur in or near the project site or access channels?
If yes, what is the distance? _____ If yes, what is the acreage? _____

No *Is project site near active crabbing areas?

No *Is the project site in designated bait zones?

No Is the project site in or near an area of historic, archeological, or scenic value?
If yes, explain _____

* GA DNR Coastal Resources Division’s Marine Fisheries staff can direct the applicant to appropriate source materials.

List of Sites on HSI by County

HSI ID	Site Name	Site County
10060	Southwire - Copper Division	Carroll
10061	Southwire - Wire & Cable Division	Carroll
10360	Douglas & Lomason Company	Carroll
10413	Muse Scrap Metals	Carroll
10648	Carroll County / Carrollton SR 166 LF	Carroll
10780	Dixie/Candlewick Hurst Yarn Mill (Former)	Catoosa
10218	Union Camp Corp - DBA Thomas Treating	Charlton
10003	CSX Transportation - Savannah (Tremont Road)	Chatham
10018	Atlantic Wood Industries	Chatham
10045	Colonial Terminals, Plant #1	Chatham
10091	Travis Field/Savannah International Airport	Chatham
10095	Central of GA RR/Bernuth-Lembcke Site	Chatham
10098	Colonial Terminals, Plant #2	Chatham
10114	Union Camp Corp - Former Amoco Property	Chatham
10128	Atlanta Gas Light Company - Savannah MGP Site	Chatham
10162	Ashland Chemical Company	Chatham
10179	Deptford Tract Landfill	Chatham
10208	139 Brampton Road	Chatham
10241	Union Camp Corp - Allen Blvd Landfill	Chatham
10351	ARAMARK Uniform Services	Chatham
10371	Southern States Phosphate & Fertilizer Co.	Chatham
10372	Truman Parkway, Phase II	Chatham
10395	Hunter Army Airfield, Fire Training Area	Chatham
10406	McKenzie Tank Lines, Inc.	Chatham
10415	Savannah Electric - Plant Kraft	Chatham
10440	Blue Ribbon Dry Cleaners	Chatham
10464	Vopak Terminal Savannah	Chatham
10497	Savannah Dry Cleaners	Chatham
10521	Hunter Army Airfield - MCA Barracks	Chatham
10553	Georgia Air National Guard/Savannah/Site 8	Chatham
10579	Abercorn & Largo Development	Chatham
10590	Central of Georgia Railroad Company - Battlefield Park	Chatham
10591	Southern Motors of Savannah, Inc.	Chatham
10611	CSXT Depriest Signal Shop	Chatham
10641	Tronox/Kerr McGee Pigments, Inc. (Former)	Chatham
10649	Chatham County Landfill	Chatham
10696	Hercules, Inc.	Chatham
10698	Norfolk Southern - Natrochem, Inc., Site	Chatham
10788	Southside Cleaners	Chatham
10789	Dry Clean, USA	Chatham
10849	Toto Distribution (Former)	Chatham
10867	Coastal Concrete, Inc.	Chatham
10903	Hunter Army Airfield/TCE Plume	Chatham
10905	CSXT Property on Feeley Avenue	Chatham
10919	2217 West Bay Street	Chatham
10454	Chattooga County - Penn Bridge Rd Ph 1 (SL)	Chattooga
10650	Cherokee County - Blalock Road Landfill	Cherokee
10052	Georgia Power - Athens Foundry Street Property	Clarke
10153	Atlanta Gas Light Company - Athens MGP Site	Clarke
10269	University of Georgia - Milledge Avenue Site	Clarke



**CHATHAM COUNTY DEPARTMENT OF BUILDING
SAFETY & REGULATORY SERVICES**

1117 Eisenhower, Savannah, GA 31406
PO Box 8161, Savannah, GA 31412-8161
912-201-4300 – Fax 912-201-4301



Gregori S. Anderson, CBO
Director

Clifford Bascombe, CBO, CFM
Assistant Director

September 30, 2020

Mr. Russell Parr, Sr.
Project Manager
Resource & Land Consultants
41 Park of Commerce Way
Suite 303
Savannah, GA 31405

RE: Whippoorwill Road Drainage Project
Savannah, Chatham County, GA

Dear Mr. Parr,

The above referenced project is located within the unincorporated limits of Chatham County. The Chatham County Zoning Ordinance regulates land use activities. The proposed project activity does not represent a violation of the Zoning Ordinance.

If there are any questions, contact this office at (912) 201-4320.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gregori S. Anderson".

Gregori S. Anderson, CBO
Interim Zoning Administrator

GSA/ja



Engineering

INFORMATION, HAVING A COORDINATE SYSTEM BASED UPON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST 2500, NORTH AMERICAN DATUM OF 1983 (NAD83). ELEVATIONS SHOWN SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). ALL MEASUREMENTS AND COORDINATES SHOWN SHALL BE IN ACCORDANCE WITH THE U.S. SURVEY FOOT DEFINITION. COORDINATES SHALL BE SHOWN ON ALL DRAINAGE STRUCTURES.

(35) THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE LOCAL JURISDICTIONS PRIOR TO BEGINNING CONSTRUCTION.

(36) THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON THE PLANS OR NOT, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

(37) ALL DISTURBED AREAS AND PROPOSED EARTH GRADING NOT TO BE COVERED BY OTHER SURFACES SHALL BE GRASSED BY SEEDING, FERTILIZING, MULCHING, AND WATERING AS REQUIRED TO OBTAIN AN ACCEPTABLE GROUND COVER AN ACCEPTABLE EROSION CONTROL. MULCHING SHALL BE DONE AS HAVING GROWING GRASS ON 95% OR MORE OF THE DISTURBED AREA WITH NO BARE SPOT LARGER THAN ONE SQUARE FOOT. THE CONTRACTOR SHALL NOT RECEIVE FINAL RELEASE OF THE PROJECT UNTIL GRASS IS WELL ESTABLISHED AND VIABLE.

(38) THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE OF ANY CONFLICTS WITH EXISTING UTILITIES WHICH MAY BE SHOWN ON THESE PLANS BEFORE PROCEEDING WITH THE WORK.

(39) THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION UNTIL THE PROPER PERMITS HAVE BEEN OBTAINED.

(40) NO WORK WHICH WILL RESTRICT OR INTERFERE WITH TRAFFIC MOVEMENTS SHALL OCCUR BETWEEN THE HOURS OF 7AM-9AM AND 4PM-6PM WITHOUT THE APPROVAL OF CHATHAM COUNTY. NO WORK SHALL BE DONE ON WEEKENDS WITHOUT PRIOR APPROVAL OF CHATHAM COUNTY.

(41) ALL WORK WILL BE COMPLETED IN A MANNER TO MAINTAIN ONE LANE OF TRAFFIC MOVEMENT AT ALL TIMES UNLESS ROAD CLOSURE IS APPROVED BY CHATHAM COUNTY AND APPROVAL BY CHATHAM COUNTY SHALL BE OBTAINED PRIOR TO ANY ROAD CLOSURE. A DETOUR PLAN FOR REPAIR AND APPROVAL BY CHATHAM COUNTY SHALL BE PROVIDED TO THE OWNER PRIOR TO ANY ROAD CLOSURE. THE ROAD CAN BE CLOSED.

(42) ALL WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO PERMIT TRAFFIC TO OPERATE WITH THE LEAST AMOUNT OF INCONVENIENCE POSSIBLE. ALL TRAFFIC CONTROL DEVICES, SIGNS, STRIPING, AND FLAGGERS SHALL BE FURNISHED BY THE CONTRACTOR. ALL COSTS SHALL BE INCLUDED IN THE PRICE BID FOR TRAFFIC CONTROL.

(43) ACCESS WILL BE MAINTAINED TO ALL ADJACENT PROPERTIES AND FACILITIES AT ALL TIMES UNLESS OTHERWISE AUTHORIZED BY CHATHAM COUNTY. ANY DRIVEWAY CLOSURES WHICH CANNOT BE DONE IN A MANNER TO ALLOW ACCESS TO THE PROPERTY SHALL BE APPROVED BY CHATHAM COUNTY AND APPROVED BY CHATHAM COUNTY. SIGNAGE SHALL BE PROVIDED TO THE LEASEE. THE PRACTICAL AND SHALL BE RESTORED TO A USABLE CONDITION AS SOON AS PIPE INSTALLATION IS COMPLETED.

(44) TREE PROTECTION BARRIAGES SHALL BE INSTALLED PRIOR TO ANY CLEARING ACTIVITY AND SHALL BE MAINTAINED THROUGHOUT THE PROJECT.

(45) THE CONTRACTOR SHALL COMPLETELY CLEAR AND GRUB AS NEEDED AND SHOWN TO COMPLETE THE WORK AS REQUIRED. HOWEVER EFFORTS WILL BE MADE TO RETAIN AND PRESERVE CERTAIN TREES AS SHOWN ON THE PLANS OR DIRECTED BY CHATHAM COUNTY. THE CONTRACTOR SHALL PROVIDE MEASURES NECESSARY TO ACCOMPLISH THIS INCLUDING SELECTIVE PRUNING, HAND OR MECHANIZED EXCAVATION, AND TREE PROTECTION FENCING. THESE ADDITIONAL EFFORTS SHALL BE INCLUDED IN THE PRICE BID FOR TREE RETENTION MEASURES.

(46) ALL TREES TO BE REMOVED SHALL BE FELLED IN A MANNER WHICH DOES NOT ENDANGER ADJACENT PROPERTIES OR ROADS. TREES SHALL BE CUT AT GROUND LEVEL OR AS CLOSE AS PRACTICAL. STUMPS SHALL BE RETAINED AND GRUBBED TO SIX INCHES BELOW GROUND LEVEL UNLESS REMOVAL IS NECESSARY AND APPROVED BY CHATHAM COUNTY. DURING CLEARING OPERATIONS, ANCE AND ADJACENT PROPERTIES SHALL BE PROTECTED BY BARRIAGES AND DEPRESSIONS IMMEDIATELY UPON REMOVAL OF THE STUMP. THE CONTRACTOR SHALL BACKFILL LEVEL WITH THE ADJACENT GROUND DEPRESSIONS WHICH WILL COLLECT AND HOLD WATER.

(47) THE CONTRACTOR SHALL PROTECT ALL EXISTING CONCRETE MONUMENTS AND/OR IRON PIPES USED FOR PROPERTY LINES AND ALL MONUMENTS OR IRON PIPES DISBURSED OR REMOVED SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

(48) THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING VERTICAL AND HORIZONTAL CONTROL. ANY DISCREPANCIES IN THE VERTICAL OR HORIZONTAL CONTROL SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL UTILIZE EXISTING BENCHMARKS SHOWN ON THE PLANS TO ESTABLISH VERTICAL CONTROL. ON THE SITE THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING THESE BENCHMARKS DURING THE CONSTRUCTION PROJECT AND FOR BRACING ANY EXISTING BENCHMARKS FROM UNAUTHORIZED REMOVAL OR REPLACEMENT OF BENCHMARKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING BENCHMARKS TO PREVENT MOVEMENT PRIOR TO REMOVAL. THE CONTRACTOR SHALL BRACE BENCHMARKS TO PREVENT MOVEMENT PRIOR TO REMOVAL. THE CONTRACTOR SHALL BRACE BENCHMARKS TO PREVENT MOVEMENT PRIOR TO REMOVAL. THE CONTRACTOR SHALL BRACE BENCHMARKS TO PREVENT MOVEMENT PRIOR TO REMOVAL.

(49) ELEVATION OF ANY TEMPORARY BENCHMARKS ESTABLISHED TO THE OWNER AND ENGINEER.

(50) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WATER REQUIRED FOR CONSTRUCTION INCLUDING TEMPORARY IRRIGATION TO ESTABLISH PLANTINGS AND GRASS.

(51) IF APPLICABLE, THE ENGINEER SHALL APPROVE WELL POINT DISCHARGE METHOD BEFORE WELL POINTS ARE INSTALLED.

(52) ANY NATURAL GAS, TELEPHONE, CABLE TELEVISION, OR ELECTRIC UTILITY RELOCATIONS WHICH MAY BE NECESSARY SHALL BE DONE BY THE AFFECTED UTILITY COMPANY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE UTILITY COMPANIES TO AVOID CONFLICTS.

(53) A 2" WATER LINE IS LOCATED WITHIN THE SHOULDER OF WHIPPOORWILL ROAD WITHIN THE LIMITS OF DISTURBANCE. THE WATER LINE SHALL REMAIN. ANY ADJUSTMENTS NECESSARY SHALL BE DONE BY THE OWNER. WATER UTILITY MANAGEMENT THE CONTRACTOR SHALL COORDINATE HIS WORK WITH WATER UTILITY MANAGEMENT. THERE IS NO SEWER WITHIN THE WORK AREA.

(54) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND FINAL DISPOSAL OF ALL EXCESS SOIL MATERIALS GENERATED BY CONSTRUCTION ACTIVITIES FROM WITHIN THE PROJECT BOUNDARY. NO EXCESS SOIL MATERIALS SHALL BE DISPOSED OUTSIDE THE PROJECT BOUNDARY.

(55) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUED FUNCTIONING OF THE STORM DRAINAGE SYSTEM AT ALL TIMES DURING THE CONSTRUCTION PERIOD. ALL REQUIRED CONSTRUCTION INVOLVING THE DRAINAGE SYSTEM SHALL BE ACCOMPLISHED IN THE MINIMUM TIME NEEDED AND THE SYSTEM IMMEDIATELY RESTORED.

(56) THE WORK AREA SHALL BE RESTORED TO A CONDITION AS GOOD AS OR BETTER AT THE END OF CONSTRUCTION. PROJECT CLOSEOUT SHALL NOT OCCUR UNTIL:

- (A) AN ACCEPTABLE STAND OF PERMANENT GRASS HAS BEEN ESTABLISHED
- (B) ALL PIPES AND STRUCTURES HAVE BEEN CLEANED
- (C) ALL TEMPORARY EROSION CONTROL DEVICES HAVE BEEN REMOVED

(57) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY BORROW MATERIAL FOR THE PROJECT FROM ACCEPTABLE SOURCES AND FOR TRANSPORTING AND PLACING IT IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.

(58) A PERMIT TO WORK WITHIN THE CHATHAM COUNTY RIGHT-OF-WAY WILL BE REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO BEGINNING WORK.

(59) AFTER THE PROJECT HAS BEEN COMPLETED THE CONTRACTOR SHALL FURNISH TO THE ENGINEER AS-BUILT

GENERAL NOTES:

(1) ALL ELEVATIONS ARE BASED ON NAVD 83 HORIZONTAL DATUM IS MAD 83

(2) SIGNING CONSTRUCTION

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON THE PLANS OR NOT, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

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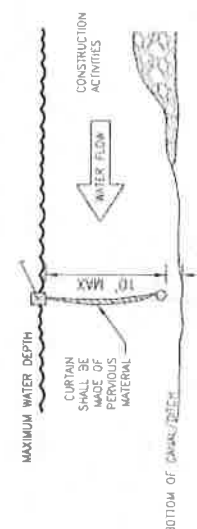
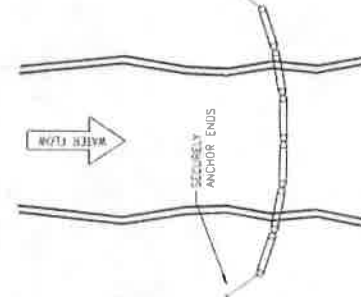
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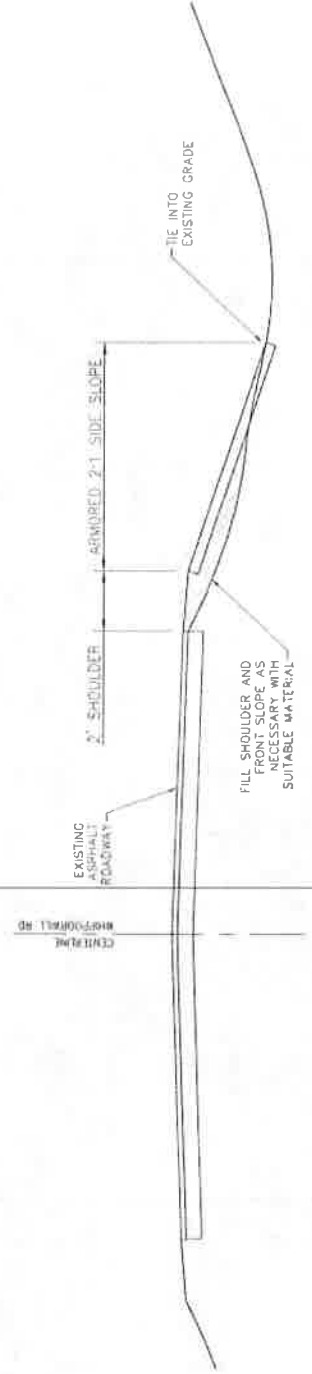


DATE	NO.

- NOTES
1. SILT CURTAINS SHOULD BE ORIENTED AS SHOWN ON THE PLAN.
 2. THE CURTAIN HEIGHT SHALL PROVIDE SUFFICIENT SLACK TO ALLOW THE TOP OF THE CURTAIN TO RISE TO THE MAXIMUM EXPECTED HIGH-WATER LEVEL WHILE THE BOTTOM MAINTAINS CONTINUOUS CONTACT WITH THE BOTTOM OF THE WATER BODY. THE CURTAIN SHALL HAVE A WEIGHT SYSTEM CAPABLE OF HOLDING THE BOTTOM OF THE CURTAIN DOWN AND CONTACTING THE BOTTOM OF THE WATER BODY, SO AS TO PROHIBIT ESCAPE OF TURBID WATER UNDER THE CURTAIN.
 3. THE SILT CURTAIN SHALL BE LOCATED BEYOND THE LATERAL LIMITS OF THE CONSTRUCTION SITE AND FIRMLY ANCHORED INTO PLACE. (THE ALIGNMENT SHOULD BE SET AS CLOSE TO THE WORK AREA AS POSSIBLE BUT NOT SO CLOSE AS TO BE DISRUPTED BY CONSTRUCTION EQUIPMENT).
 4. THE ENDS OF THE SILT CURTAIN SHALL BE SECURELY ANCHORED AND KEPT IN ORDER TO ENCLOSE AREA.
 5. CURTAIN SHALL BE MADE OF PERVIOUS MATERIAL THAT WILL ALLOW WATER TO FLOW THROUGH THE CURTAIN AND RETAIN SEDIMENT.

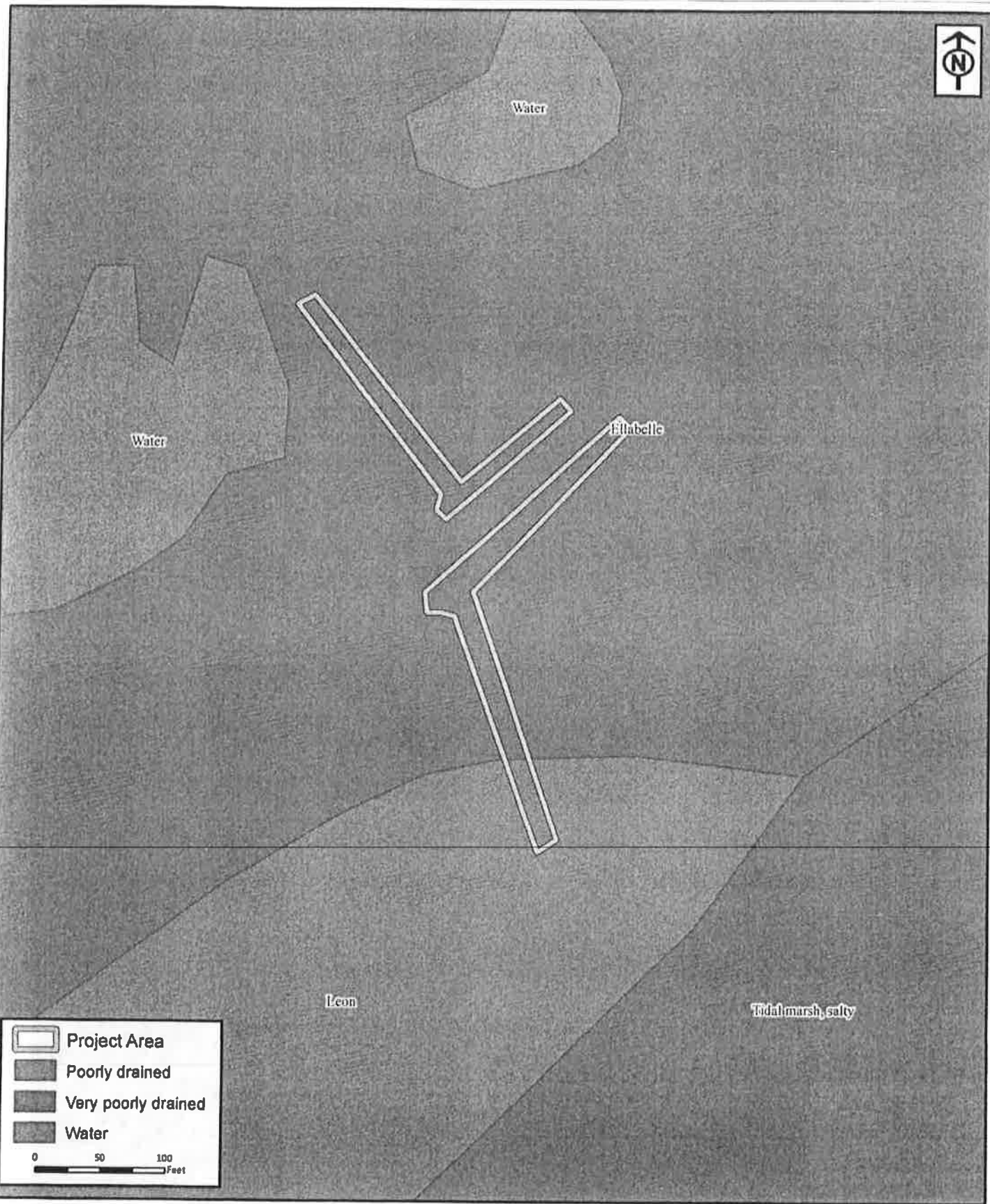


(T-F)
 TURBIDITY CURTAIN SYSTEM
 ANCHOR SYSTEM AND LAYOUT DETAILS
 4-15



SECTION A
 TYPICAL SECTION
 INTS

ZONING: GA 9130120



ZONING: CA 9/30/20

RLC Project No.:	18-196
Figure No.:	3
Prepared By:	ZM
Sketch Date:	1/29/2019
Map Scale:	1 inch = 100 feet

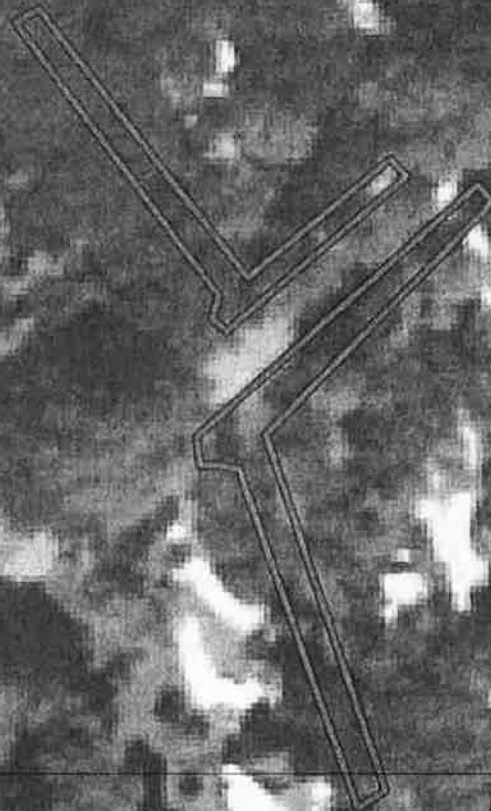
**Whipoorwill Road
Drainage Improvements**
Chatham County, Georgia

NRCS Soil Map
Prepared For: Chatham County
Engineering Department

RLC

**RESOURCE+LAND
CONSULTANTS**

41 Park Lane, Columbus, GA 31906
Savannah, Georgia, USA
912-543-6696, www.rlc.com



ZONING : GA 9/30/20

RLC Project No.:	18-196
Figure No.:	5
Prepared By:	ZM
Sketch Date:	1/29/2019
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**Whippoorwill Road
Drainage Improvements**
Chatham County, Georgia

2015 Ortho Aerial
Prepared For: Chatham County
Engineering Department

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www.rlcga.com