

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

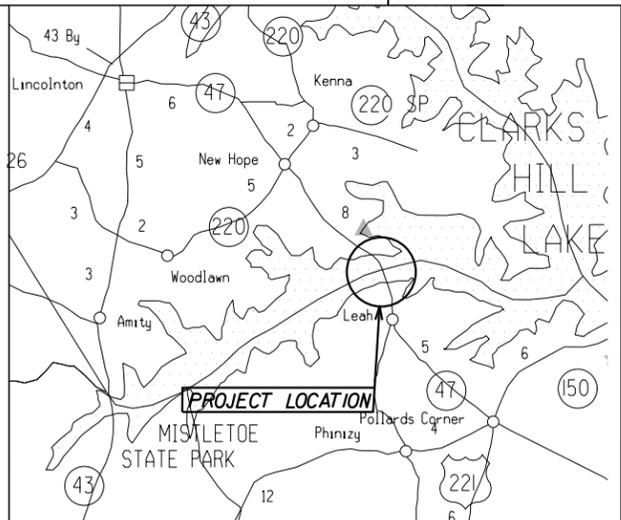
## EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN STATE ROUTE 47 BRIDGE REPLACEMENT OVER LITTLE RIVER

FEDERAL AID PROJECT  
BRSTO-0076-01(036)  
LINCOLN/COLUMBIA COUNTIES

FEDERAL ROUTE \* N/A

STATE ROUTE \* 47

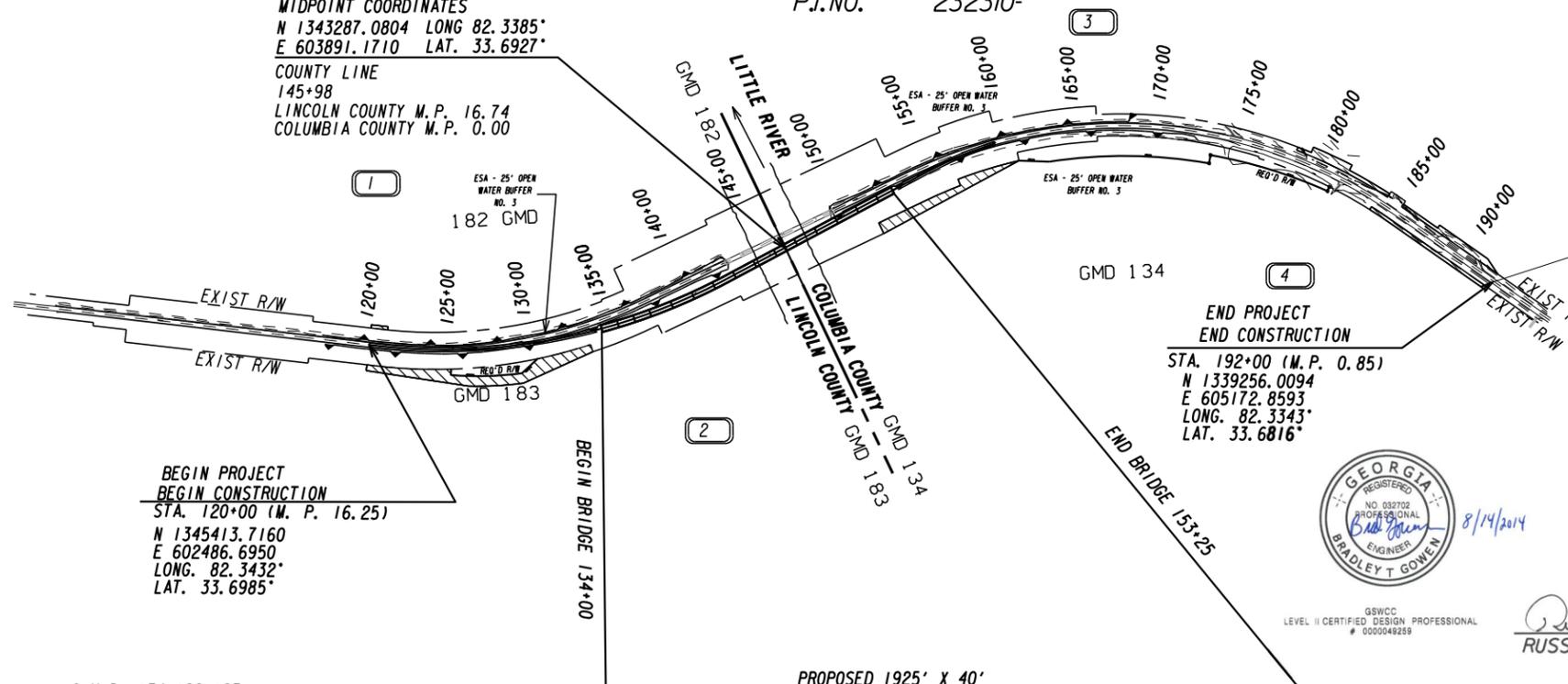
P.J.NO. 232310-



LOCATION SKETCH

PRIMARY PERMITTEE:  
GEORGIA DEPARTMENT OF TRANSPORTATION  
ONE GA CENTER  
600 W PEACHTREE ST. NW  
ATLANTA, GA 30308  
PHONE NUMBER 404-631-1990

MIDPOINT COORDINATES  
N 1343287.0804 LONG 82.3385°  
E 603891.1710 LAT. 33.6927°  
COUNTY LINE  
145+98  
LINCOLN COUNTY M.P. 16.74  
COLUMBIA COUNTY M.P. 0.00



BEGIN PROJECT  
BEGIN CONSTRUCTION  
STA. 120+00 (M.P. 16.25)  
N 1345413.7160  
E 602486.6950  
LONG. 82.3432°  
LAT. 33.6985°

END PROJECT  
END CONSTRUCTION  
STA. 192+00 (M.P. 0.85)  
N 1339256.0094  
E 605172.8593  
LONG. 82.3343°  
LAT. 33.6816°

G. M. D. 134, 182, 183

PROPOSED 1925' X 40'

"I certify that this Erosion, Sedimentation and Pollution Control Plan has been prepared in accordance with part IV. of the General NPDES Permit No. GA.R 100002."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document 'Manual for Erosion and Sediment Control in Georgia' (Manual) published by the State Soil and Water Conservation Commission as of January 1 of the year in which the land disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GA.R 100002."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for the monitoring of: (a) all perennial and intermittent streams and other water bodies shown on the USGS topographic map and all other field verified perennial and intermittent streams and other water bodies, or (b) where any such specific identified perennial or intermittent stream and other water body is not proposed to be sampled, I have determined in my professional judgment, utilizing the factors required in the General NPDES Permit No. GA.R 100002, that the increase in the turbidity of each specific identified sampled receiving water will be representative of the increase in the turbidity of a specific identified un-sampled receiving water."

"I certify under penalty of law that this plan was prepared after a site visit to the location described herein by myself or my authorized agent, under my supervision."



**Baker**  
3595 ENGINEERING DRIVE  
NORCROSS, GEORGIA 30092  
(770) 263-9118



Russell McMurry  
RUSSELL McMURRY, GSWCC LEVEL II Certification \* 0000012103

NOTE: ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS.

24 Hour Contact  
NAME: Ben Miller  
NUMBER: 478-299-1750



LENGTH OF PROJECT	COUNTY Nos. 181/073
	Project No. BRSTO-0076-01(036)
	MILES
NET LENGTH OF ROADWAY	0.999
NET LENGTH OF BRIDGES	0.365
NET LENGTH OF PROJECT	1.364
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	1.364

PLANS COMPLETED 8/14/2014

REVISIONS

DATE	REQUESTED BY	PAGE NUMBER	SIGNATURE	GSWCC LEVEL II *
2-23-15	EPD	227-229,238-260,267A	<i>Carl Brown</i>	0000049259

UPDATED 1/16/14

**ESPCP GENERAL NOTES**

The escape of sediment from the site shall be prevented by the installation of erosion and sedimentation control measures and practices prior to land-disturbing activities.

Erosion and sedimentation control measures will be maintained at all times during this project. If full implementation of this approved plan does not provide effective erosion and sedimentation control, additional erosion and sedimentation control measures shall be implemented to control or treat the sediment source.

**PLAN ALTERATIONS**

The Erosion, Sedimentation, Pollution Control Plan (ESPCP) is provided by the Designer. It addresses the staged construction of the project on the basis of common construction methods and techniques. If the Contractor elects to alter the staged construction from that shown in the plans or utilize construction techniques that render this plan ineffective, the Contractor shall revise the plans in accordance with Special Provision 161 of the contract.

The Contractor, the Certified Design Professional, and the WECS shall carefully evaluate this plan prior to commencing land-disturbing activities. A major modification or deletion of structural BMP's with a hydraulic component requires a formal revision of the ESPCP and the signature of a GSWCC level-II-certified design professional. Additional BMP's may be added per Special Provision 161 - Control of Soil Erosion and Sedimentation.

**TEMPORARY MULCHING**

EPD General Permit GARI00002 states that any disturbed area where construction activities have temporarily or permanently ceased shall be stabilized within 14 days of such cessation as soon as practicable with a suitable material listed in Standard Specification (or Special Provision) Sections 163, 700, or 711. However in special cases, the Project Engineer may require the contractor to perform stabilization more often than 14 days.

**VEGETATION AND PLANTING SCHEDULE**

All temporary and permanent vegetative practices including plant species, planting dates, seeding, fertilizing, liming and mulching for this project can be found in section 700 of the current edition of the Department's Standard Specifications (or Special Provisions) and other applicable contract documents, or landscaping plans.

**SEQUENCE OF MAJOR ACTIVITIES**

The Contractor is responsible for developing the construction schedule for the project. The construction schedule for the project shall be submitted after the project is awarded with the NOI. A copy of the construction schedule shall be maintained at the project site.

The project budget includes sufficient funds for the payment of construction exits. The Contractor is responsible for establishing at least one (1) construction exit per the specifications of the construction exit detail included in this ESPCP. To facilitate project logistics, the Contractor is also responsible for selecting the location(s) of the construction exit(s).

The initial BMP installation is shown in the Initial Phase and this includes all perimeter silt fence controls. This silt fence shall be installed prior to clearing and grubbing operations. Intermediate and Final BMP's are shown throughout all phases of Stage 1 and 2. The BMP's to be installed during these stages are additional silt fence due to sediment inlet traps, ditch checks, slope mats, rip rap, construction exits, temporary grassing, mulching, permanent grassing and temporary pipe slope drains. These BMP's shall be installed concurrently with mass grading operations with the exception of ditch checks, inlet traps and filter rings which should be installed prior to mass grading operations. During mass grading operations, runoff from disturbed area must be directed to sediment control BMP's. Final BMP's included in this project are rip rap, grassing, slope mats and enhanced swales. These items are installed during mass grading operations, but are noted on the plans as permanent BMP's for final stabilization of that stage.

During construction of the bridge foundations, in areas where water is encountered, floating silt retention barrier shall be used to supplement adequately placed BMP's.

**PETROLEUM STORAGE, SPILLS AND LEAKS**

These plans expressly delegate the responsibility of on-site hazardous material management to the Contractor. The Contractor shall at a minimum provide an action plan and keep the necessary materials on site for the capture, clean up and disposal of any petroleum product, or other hazardous materials leak or spills associated with the servicing, refueling or operation of any equipment utilized at the site. A copy of the action plan shall be submitted to the Project Engineer and maintained on the project site. All personnel operating or servicing equipment shall be familiar with the action plan. The Contractor shall not park, refuel or maintain equipment within stream buffers.

If the Contractor elects to store petroleum products on site the Contractor shall prepare an ESPCP addendum that addresses the additional BMPs needed for on-site storage and spill prevention for petroleum products. This plan shall be prepared by a Certified Design Professional as required by GARI00002 for inclusion with these plans. The Contractor's attention is specifically directed to Standard Specification 107-Legal Regulations and Responsibility to the public for additional requirements.

**SOIL SERIES INFORMATION**

A project-specific soil survey and geotechnical investigation was performed for this project and can be made available upon request.

**POST-CONSTRUCTION BMP'S FOR STORMWATER MANAGEMENT**

All permanent, post-construction BMPs are shown in the construction plans and in the ESPCP plan. The post-construction BMPs for this project consist of vegetation, permanent slope drains, rip rap at pipe outlets for dissipation and outlet stabilization, vegetated swales/ditches where practical, and ditch stabilization with turf-reinforcing mats, rip rap, and concrete lining where necessary. The post-construction BMPs will provide permanent stabilization of the site and prevent accelerated transportation of sediment and pollutants into receiving waters.

**SILT FENCE INSTALLATION WITH J HOOKS AND SPURS**

Silt fence should never be run continuously. The silt fence should turn back into the fill or slope to create small pockets that trap silt and force stormwater to flow through the silt fence. This technique is called using J hooks (or spurs). The J hooks shall be utilized on all silt fences that are located around the perimeter of the project and along the toe of embankments or slopes. The J hooks shall be placed in accordance with GDOT Construction Detail D-24C. The maximum J hook spacing is reached when the top of the J hook is at the same elevation as the bottom of the J hook immediately upgradient. J hooks shall be paid for as silt fence items per linear foot. All cost and other incidental items are included in the cost of installing and maintaining the silt fence.

**SITE STABILIZATION AND BMP MAINTENANCE MEASURES**

See the Department's Standard Specifications (or Special Provisions) 161, 163, 165, 700, 710 and other contract documents for stabilization and maintenance measures.

**WASTE DISPOSAL**

Where attainable, locate waste collection areas, dumpsters, trash cans and portable toilets at least 50 feet away from streets, gutters, watercourses and storm drains. Secondary containment shall be provided around liquid waste collection areas to minimize the likelihood of contaminated discharges. The Contractor shall comply with all applicable state and local waste storage and disposal regulations and obtain all necessary permits. Solid materials, including building materials, shall not be deposited into waters of the State, unless authorized by a Section 404 Permit.

**INSPECTIONS**

The primary permittee (GDOT) must retain the design professional who prepared the ESPCP, or an alternative design professional approved by EPD in writing, to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within seven (7) days of installation over the entire infrastructure project. Alternatively, for linear infrastructure projects, the permittee must retain either of these personnel to inspect the initial sediment storage requirements and perimeter control BMPs for the initial segment, as defined by Part IV.A.5 of the current GARI00002 Permit, within seven (7) days of installation and all sediment basins within the entire linear infrastructure project seven (7) days of installation. The inspecting design professional shall report the results to the primary permittee within seven (7) days, and the permittee must correct all deficiencies within two (2) business days of receipt of the inspection report, unless on-site weather conditions are such that more time is required. Additionally, the Department's Construction Project Engineer will be responsible for all subsequent seven-day inspections for all new BMP installations.

All other inspections shall be documented on the appropriate Department inspection forms. See Standard Specifications (or Special Provision) 167 and other contract documents for inspection requirements. These inspections shall continue until the Notice of Termination (NOT) is submitted.

Failure to perform inspections as required by the contract documents and the NPDES permit shall result in the cessation of all construction activities with the exception of traffic control and erosion control. Continued failure to perform inspections shall result in non-refundable deductions as specified in the contract documents.

**NON STORM WATER DISCHARGES**

Non storm water discharges defined in Part III.A.2 of the NPDES Permit will be identified after construction has commenced. These discharges shall be subject to the same requirements as storm water discharges required by the Georgia Erosion and Sedimentation Control Act, the NPDES Permit, the Clean Water Act, the Manual for Erosion and Sediment Control in Georgia, Department Standards, and other contract documents. The NPDES does not authorize the discharge of soaps or solvents used in vehicle and equipment washing or the discharge of wastewater from washout and cleanout of containers for stucco, paint, concrete-form release oils, curing compounds and other construction materials.

**DE-WATERING AND PUMPING ACTIVITIES**

Any pumped discharge from an excavation or disturbed area shall be routed through an appropriately sized sediment basin, silt filter bag or shall be treated equivalently with suitable BMP's. The contractor shall ensure the post BMP treated discharge is sheet flowing. Failure to create sheet flow will obligate the contractor to perform water quality sampling of pumped discharges. The contractor shall prepare sampling plans in accordance with the current GARI00002 NPDES permit by utilizing by a Certified Design Professional. No separate payment will be made for water quality sampling of pump discharges.

**OTHER CONTROLS**

The Contractor shall follow this ESPCP and ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer and septic systems, and petroleum storage.

The Contractor shall control dust from the site in accordance with Section 161 of the current edition of the Department's Standard Specifications.

**RETENTION OF RECORDS**

The Department will retain all records related to the implementation of this ESPCP in accordance with Part IV.F of the General Permit GARI00002.

**SEDIMENT STORAGE**

The site has a total disturbed area of 7.33 acres. The following table summarizes the required and available sediment storage for every outfall on this project. The Contractor shall provide and maintain the storage volumes for the BMP's specified in this table.

Location	Total Drainage Area (acres)	Disturbed Area (acres)	Required Sediment Storage Volume (yd <sup>3</sup> )	Total Storage Volume Provided (yd <sup>3</sup> )	Rock Filter Dam/ Filter Ring (17yd <sup>3</sup> )		Check Dam (S-17 yd <sup>3</sup> /each)		Inlet sediment (10 yd <sup>3</sup> /each)		Silt Fence (0.3 yd <sup>3</sup> /ft)	
					# of Devices	Total Volume (yd <sup>3</sup> )	# of Devices	Total Volume (yd <sup>3</sup> )	# of Devices	Total Volume (yd <sup>3</sup> )	Length of Fence (ft)	Total Volume (yd <sup>3</sup> )
Outfall 1 (Stage 1)	1.00	0.05	67	20					2	20	0	0
Outfall 1 (Stage 2)	1.15	0.20	77	20					2	20	0	0
Outfall 2 (Stage 1)	0.77	0.04	52	20					2	20	0	0
Outfall 2 (Stage 2)	0.91	0.18	61	20					2	20	0	0
Outfall 3 (Stage 1)	2.81	0.62	188	163	1	9	16	154			0	0
Outfall 3 (Stage 2)	2.81	0.62	188	163	1	9	16	154			0	0
Outfall 4 (Stage 1)	0.74	0.00	0	141							470	141
Outfall 4 (Stage 2)	0.74	0.36	80	175	1	17	1	17			470	141
Outfall 5 (Stage 1)	0.97	0.00	0	165							550	165
Outfall 5 (Stage 2)	0.97	0.41	65	263			6	98			550	165
Total Sheet Flow (Stage 1)	6.42	5.56	430	1320							4400	1320
Total Sheet Flow (Stage 2)	6.42	5.56	430	1320							4400	1320

\*\* Required storage not met for Outfalls 1,2 & 3. The areas will be stabilized with mats, silt fence, temporary and permanent grassing to minimize erosion. The installed BMPs should be sufficient to control erosion and prevent sediment from leaving the site.

In order to prevent runoff from bypassing inlet sediment traps, a temporary sump shall be installed around all inlet sediment traps that are not located in a low point or an excavated sump. Construct temporary sumps in accordance with Construction Detail D-24C Temporary sumps shall be installed in a manner that ensures stormwater does not bypass the inlet. The Contractor may submit alternate temporary containment berm designs to the Project Engineer for approval.

Sediment basins are not utilized due to adverse impacts of constructing and removing the basin.

UPDATED 1/16/14

**USE OF ALTERNATIVE AND/OR ADDITIONAL BMPs:**

Alternative BMPs are not used on this project. Silt Gates are not used on this project. Temporary check dams are used in ditches to provide interim stabilization and flow velocity reduction. The stability of the site is maintained with other conventional BMPs as shown on the plans.

**DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT**

All outfalls are either located further than 1 linear mile upstream or outside of the watershed of an impaired stream segment that has been listed for criteria violated, "Bio F" (impaired fish community) and/or "Bio M" (impaired macro invertebrate community), within Category 4a, 4b or 5, and the potential cause is either "NP" (non point source) or "UR" (urban runoff).

**STREAM BUFFER ENCROACHMENT**

Stream Buffers are impacted by this project.

The Contractor is not authorized to enter into stream buffers, except as described in the table below:

Stream Alignment	Location of Buffered Streams and State Waters**		Stream Type (Warm/Cold Water)*	Buffer Impacted? (Yes/No)	Buffer Variance Required? (Yes/No)
	Begin Station and Offset	End Station and Offset			
Open Water #3	SR 47	Sta. 120+00 17.1' LT	Sta. 133+00 69.8' LT	Warm	Yes
<i>Impacts to buffer include road realignment, and slopes</i>					
Open Water #3	SR 47	Sta. 133+00 69.8' LT	Sta. 154+25 0' LT	Warm	No
<i>Impacts to buffer include new bridge construction.</i>					
Open Water #3	SR 47	Sta. 154+25 0' LT	Sta. 166+00 20.1' RT & LT	Warm	Yes
<i>Impacts to buffer include road realignment, and slopes</i>					

Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the Department's stream buffer variance, this shall be noted in the buffer-variance-required column.

- \* Warm water streams have a 25-foot minimum buffer as measured from the wrested vegetation. Cold water streams have a 50-foot buffer as measured from the wrested vegetation.
- \*\* Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the individual BMP sheets

**READY MIX CHUTE WASH DOWN**

The washing of ready-mix concrete drums and dump truck bodies used in the delivery of Portland cement concrete is prohibited on this site.

In accordance with Standard Specification 107: Legal Regulations and Responsibility to the Public, only the discharge chute utilized in the delivery of Portland cement concrete may be rinsed free of fresh concrete remains. The Contractor shall excavate a pit outside of State water buffers, at least 25 feet from any storm drain and outside of the travelled way, including shoulders, for a wash-down pit. The pit shall be large enough to store all wash-down water without overlapping. Immediately after the wash-down operations are completed and after the wash-down water has soaked into the ground, the pit shall be filled in, and the ground above it shall be graded to match the elevation of the surrounding areas. Alternate wash-down plans must be approved by the Project Engineer.

Wash-down plans describe procedures that prevent wash-down water from entering streams and rivers. Never dispose of wash-down water down a storm drain. Establish a wash-down pit that includes the following: (1) a location away from any storm drain, stream, or river, (2) access to the vehicle being used for wash down, (3) sufficient volume for wash-down water, and (4) permission to use the area for wash down.

On sites where permission or access to excavate a wash-down pit is unavailable, the Contractor may have to wash-down into a sealable 55-gallon drum or other suitable container and then transport the container to a proper disposal site. For additional information, refer to the Georgia Small Business Environmental Assistance Program's "A Guide for Ready Mix Chute/Hopper Wash-down".

**SAMPLING GENERAL NOTES:**

The total site size is 52.2 acres. Representative sampling may be utilized on this project. The individual outfall drainage basins along the project corridor have been carefully evaluated and compared on the basis of four characteristics: the type of construction activity, the disturbed acreage, the average slope about the outfall, and the soil erosion Index 0-10, 10 being the most erodible soil. The construction activity types are new road on fill, new road in cut, road widening, and maintenance/safety. The disturbed area are less than or equal to 1 acre, greater than 1 acre to less than 2 acres, and equal to or greater than 2 acres. The average outfall slope is mild if it is equal if it is less than or equal to 0.03 and steep if it is greater than 0.03. The soil erosion Index is low if it is less than or equal to 5 and high if it is greater than 5. After evaluation of these characteristics as presented in the project's drainage area map, hydrology and hydraulic studies, construction plans, geotechnical soil survey, and ESPCP, the Department has determined that representative sampling is valid for the duration of the project. The table below shows the groups of similar outfall drainage basins. The increase in turbidity at the specified locations will be representative of the alternate outfall drainage basins when similar outfall drainage basins exist. Approved primary and alternate representative monitored feature are identified in the table below.

SAMPLING INFORMATION										OUTFALL CHARACTERISTICS						
Primary Monitored Feature	Location (Station and Offset)	Name of Receiving Water	Applicable Construction Stage for Monitoring	Sampling Type (Outfall or Receiving water)	Total Project Area (acres)	Drainage Area for receiving water (mi <sup>2</sup> )	Upstream Disturbed Area (acres)	Warm or Cold Water Stream	Appendix B NTU Value (Outfall monitoring only)	Allowable NTU Increase (Receiving water monitoring only)	Location Description	Construction Activity	Disturbed Area (acres)	Average Outfall Slope (Rise/Run)	Soil Erosion Index	Alternate Outfall Drainage Basins
1	Sta. 138+31, 23.9' LT	Little River	Stage 2	Outfall	52.2	712.5	N/A	Warm	600	N/A	FES	New Road on Fill	0.20	0.016	Moderate	2
3	Sta. 174+29, 77' RT	Little River	Stage 1	Outfall	52.2	712.5	N/A	Warm	600	N/A	Ditch	New Road on Fill	0.62	0.038	Moderate	4,5

The primary sampled features specified should be used as the initial sampling locations. An alternate sampled feature may be used if additional sampling is required or to replace a primary sampled feature that is no longer located within an active phase of construction.

**INSPECTING AND SAMPLING PROCEDURES**

See Special Provision 167 and other contract documents for Inspecting and Sampling Procedures.

**MANUAL SAMPLING:**

Samples will be taken at the appropriate time as stated in the Part IV.D.5.D. of the permit. Sampling will occur at the designated representative outfall, the sample will be taken in the center of the outfall channel, a large mouth, clean, glass or plastic jar/bottle, labeled with the project number and location will be used to collect sample. The sample container will be held such that the opening faces upstream. Once the sample jar/bottle is full and capped, it will be transported to the location where the turbidity testing will be conducted. Samples may be analyzed at the site with properly calibrated portable turbidimeters. All turbidity tests will be conducted immediately but in no case, later than 48 hours after the time the sample was obtained.

**AUTOMATIC SAMPLING:**

Samples will be taken at the appropriate times as specified in Part IV.D.5.D. of the permit. Automatic sampling can be accomplished by using a sampling device similar to the ISCO Model 3700 or 6700. These devices can be triggered by flow meters or rain gauges to collect the required samples. This determination will be made on a project by project basis. The probe for the automatic sampler will be placed in the center of the outfall channel. Samples will remain in the automatic sampler until the next business day, when they will be collected and tested.

**TESTING:**

All turbidity tests shall be done in accordance with 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD. Turbidity results will be recorded and reported to EPD in accordance with Part IV.E. of the permit.

**VEGETATION AND PLANTING SCHEDULE**

ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES INCLUDING PLANT SPECIES, PLANTING DATES, SEEDING FERTILIZER, LIME AND MULCHING RATES FOR THIS PROJECT CAN BE FOUND IN SECTION 700 OF THE CURRENT EDITION OF THE DEPARTMENT'S SPECIFICATIONS AND OTHER APPLICABLE CONTRACT DOCUMENTS, SPECIAL PROVISIONS, OR LANDSCAPING PLANS.

THE SEEDING TABLE BELOW SHOULD BE USED IN DETERMINING GRASS SPECIES DEPENDENT ON PLANTING DATES. COLUMBIA/LINCOLN COUNTIES IS IN PLANTING ZONE 2.

**APPLY FERTILIZER AS FOLLOWS:**

AGRICULTURAL LIME-UNIFORMLY SPREAD AGRICULTURAL LIME ON THE GROUND AT APPROXIMATE RATE DETERMINED BY THE LABORATORY SOIL TEST.

FERTILIZER MIXED GRADE-UNIFORMLY SPREAD THE FERTILIZER SELECTED OVER THE GROUND AT APPROXIMATELY 1,200 LBS/ACRE. IF USING HIGHER ANALYSIS FERTILIZER WITH HYDROSEEDING, APPLY IT AT THE SAME RATE PER ACRE AS THE STANDARD FERTILIZER.

SELECT FERTILIZER MIXED GRADE SUCH AS 10-10-10, 6-12-12, 5-10-15, OR OTHER ANALYSIS WITHIN THE FOLLOWING LIMITS:

- NITROGEN 5 TO 10 PERCENT
- PHOSPHORUS 10 TO 15 PERCENT
- POTASSIUM 10 TO 15 PERCENT
- IF USING MIXED GRADE FERTILIZER FOR HYDROSEEDING, ENSURE IT HAS THE FOLLOWING ANALYSIS:
- NITROGEN 5 TO 19 PERCENT
- PHOSPHORUS 10 TO 19 PERCENT
- POTASSIUM 10 TO 19 PERCENT

**MULCHING SCHEDULE**

MULCHING MATERIAL	RATE/ACRE
DRY STRAW OR HAY	2.5 TONS
WOOD WASTE, CHIPS	6 TO 9 TONS
SANDUST, OR BARK	(2 TO 3" DEEP)

**SEEDING TABLE**

PLANTING ZONES	PLANTING DATES	POUNDS (KG) OF SEED PER ACRE (HECTARE)										REQUIRED PERMANENT PLANTING			
		RYE GRASS WILLET CENTRAL GRASS (GRS1)	COMMON BERMUDA GRASS (HILLED)	COMMON BERMUDA GRASS (UNHILLED)	FALL FESCUE	WEeping LOVE GRASS	WHITE OR CRIMSON CLOVER	COMMON VETCH	SCARIFIED INTERSTATE LESPEDEZA	UNSCARIFIED INTERSTATE LESPEDEZA	REQUIRED PERMANENT PLANTING				
1	MARCH 1 - MAY 15	10 (11)	10 (11)	50 (56)											
1	MAY 1 - JULY 31	10 (11)	10 (11)												COMMON BERMUDA GRASS
1	AUGUST 1 - FEBRUARY 28	15 (17)								6 (7)					
1	NOVEMBER 15 - JANUARY 31														
2,3,4	FEBRUARY 25 - AUGUST 31	10 (11)	10 (11)												COMMON BERMUDA GRASS
2,3,4	SEPTEMBER 1 - FEBRUARY 14	15 (17)								6 (7)					
2,3,4	NOVEMBER 15 - JANUARY 31														

PLANT THESE COMBINATIONS ON BACK SLOPES. FILL SLOPES AND AREAS WHICH WILL NOT BE SUBJECT TO FREQUENT MOWING

1,2	MARCH 1 - JULY 31					4 (5)			50 (56)						INTERSTATE LESPEDEZA OF CROWN VETCH
1,2	AUGUST 1 - FEBRUARY 28					30 (34)			15 (17)						
3,4	FEBRUARY 15 - AUGUST 31					4 (5)			50 (56)						INTERSTATE LESPEDEZA
3,4	SEPTEMBER 1 - FEBRUARY 14														

**EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE**

	CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE												
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
INSTALLATION OF CONSTRUCTION EXIT, PERIMETER SILT FENCE & TREE PROTECTION FENCE													
BRIDGE SUBSTRUCTURE													
CLEARING & GRUBBING													
ROUGH GRADING & DRAINAGE													
INSTALLATION OF STORM DRAIN													
INSTALL INTERMEDIATE EROSION MEASURES													
BASE AND PAVEMENT													
FINAL GRADING													
FINAL GRADE & GRASSING													
REMOVE TEMPORARY EROSION MEASURES AND ORANGE BARRIER FENCE													



**REVISION DATES**

2-23-15		

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY  
**ESPSP GENERAL NOTES**

SR 47 OVER LITTLE RIVER

DRAWING No. 51-002

**UPDATED 1/16/14**

**Inspections.**

**A. Permittee requirements.**

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

(2). Measure rainfall once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect the following at least once every fourteen (14) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any nonworking Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is submitted to EPD) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5) of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

**B. Sampling Frequency**

(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a monitored receiving water and/or from a monitored outfall location within forty-five (45) minutes or as soon as possible.

(2). However, where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the storm water discharge.

(3). Sampling by the permittee shall occur for the following qualifying events:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the representative sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the representative sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours\* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

\*Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week.

**C. Reporting**

1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any storm water discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

**2. All sampling reports shall include the following information:**

- a. The rainfall amount, date, exact place and time of sampling or measurements;
- b. The name(s) of the certified personnel who performed the sampling and measurements;
- c. The date(s) analyses were performed;
- d. The time(s) analyses were initiated;
- e. The name(s) of the certified personnel who performed the analyses;
- f. References and written procedures, when available, for the analytical techniques or methods used;
- g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results;
- h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU;" and
- i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI. If an electronic submittal is provided by EPD then the written correspondence may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

**D. Retention of Records**

1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:

- a. A copy of all Notices of Intent submitted to EPD;
- b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
- c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.S. of this permit;
- d. A copy of all sampling information, results, and reports required by this permit;
- e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
- f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
- g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2) of this permit.

2. Copies of all Notices of Intent, Notices of Termination, inspection reports, sampling reports (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted.

 <p><b>Baker</b> 3595 ENGINEERING DRIVE NORCROSS, GEORGIA 30092 (770) 263-9118</p>	REVISION DATES			STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
				OFFICE: INNOVATIVE PROGRAM DELIVERY	
				<b>ESPCP GENERAL NOTES</b>	
				SR 47 OVER LITTLE RIVER	
					DRAWING No. <b>51-003</b>



**EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST**  
**INFRASTRUCTURE CONSTRUCTION PROJECTS**

Project Name: SR 47 OVER LITTLE RIVER Address: \_\_\_\_\_  
City/County: COLUMBIA/LINCOLN Date on Plans: 8/14/2014

**INFRASTRUCTURE CONSTRUCTION PROJECTS**  
**SWCD: REGION II CONSERVATION DISTRICT**

Project Name: SR 47 OVER LITTLE RIVER Address: \_\_\_\_\_  
City/County: COLUMBIA/LINCOLN Date on Plans: 8/14/2014

Plan Page #

Included Y/N

**TO BE SHOWN ON ES&PC PLAN**

- |                          |        |     |  |
|--------------------------|--------|-----|--|
| <input type="checkbox"/> | 51-004 | Y   | 1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.<br><i>(The completed Checklist must be submitted with the ES&amp;PC Plan or the Plan will not be reviewed)</i>   |
| <input type="checkbox"/> | 50-001 | Y   | 2 Level II certification number issued by the Commission, signature and seal of the certified design professional.<br><i>(Signature, seal and Level II number must be on each sheet pertaining to ES&amp;PC plan or the Plan will not be reviewed)</i>   |
| <input type="checkbox"/> | 50-001 | Y   | 3 The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.  |
| <input type="checkbox"/> | 50-001 | Y   | 4 Provide the name, address and phone number of primary permittee.   |
| <input type="checkbox"/> | 53-001 | Y   | 5 Note total and disturbed acreage of the project or phase under construction.   |
| <input type="checkbox"/> | 50-001 | Y   | 6 Provide the GPS locations of the Beginning and End of the Infrastructure project. Give the Latitude and Longitude in decimal degrees.  |
| <input type="checkbox"/> | 50-001 | Y   | 7 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.   |
| <input type="checkbox"/> | 53-001 | Y   | 8 Description of the nature of construction activity.  |
| <input type="checkbox"/> | 50-001 | Y   | 9 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.  |
| <input type="checkbox"/> | 55-001 | Y   | 10 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, etc. which may be affected.  |
| <input type="checkbox"/> | 50-001 | Y   | 11 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on page 15 of the permit.  |
| <input type="checkbox"/> | 50-001 | Y   | 12 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on page 15 of the permit.*  |
| <input type="checkbox"/> | 50-001 | Y   | 13 Design professional certification statement and signature that the permittee's ES&PC plan provides for representative sampling as stated on page 26 of permit as applicable.  |
| <input type="checkbox"/> | 51-001 | Y   | 14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements, perimeter control BMPs and sediment basins in accordance with part IV.A.5. within 7 days after installation."   |
| <input type="checkbox"/> | 51-002 | Y   | 15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits."  |
| <input type="checkbox"/> | 51-001 | Y   | 16 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional."   |
| <input type="checkbox"/> | 51-001 | Y   | 17 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."   |
| <input type="checkbox"/> | 51-001 | Y   | 18 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."   |
| <input type="checkbox"/> | 51-001 | Y   | 19 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."  |
| <input type="checkbox"/> | 51-001 | Y   | 20 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."   |
| <input type="checkbox"/> | 51-002 | Y   | 21 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biola Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.* |
| <input type="checkbox"/> | N/A    | N/A | 22 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 21 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.*  |
| <input type="checkbox"/> | 51-002 | Y   | 23 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*  |

- 51-001
- 51-001
- 51-001
- 51-002

- 24 Provide BMPs for the remediation of all petroleum spills and leaks.
- 25 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.\*
- 26 Description of the practices that will be used to reduce the pollutants in storm water discharges.\*
- 27 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).

- 51-003
- 51-003
- 51-003
- 51-002
- 51-002
- 51-002 & 55-001
- 51-001

- 28 Provide complete requirements of inspections and record keeping by the primary permittee.\*
- 29 Provide complete requirements of sampling frequency and reporting of sampling results.\*
- 30 Provide complete details for retention of records as per Part IV.F. of the permit.\*
- 31 Description of analytical methods to be used to collect and analyze the samples from each location.\*
- 32 Appendix B rationale for NTU values at all outfall sampling points where applicable.\*
- 33 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable.\*
- 34 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the brmps into a single phase.\*

- ALL
- 53-001

- 35 Graphic scale and north arrow.
- 36 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Existing Contours	USGS 1": 2000' Topographical Sheets
Proposed Contours	1": 400' Centerline Profile

- 51-002

- 37 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.

- 53-001

- 38 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.

- 53-001

- 39 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.

- 53-001

- 40 Delineation and acreage of contributing drainage basins on the project site.

- 55-001

- 41 Delineate on-site drainage and off-site watersheds using USGS 1": 2000' topographical sheets.

- 53-001

- 42 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.

- 53-001

- 43 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.

- 51-001

- 43 Soil series for the project site and their delineation.

- ALL

- 45 The limits of disturbance for each phase of construction.

- 51-001

- 46 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan.

- 54 SERIES

- 47 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.

- 52 SERIES

- 48 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.

- 51-001 & 51-002

- 49 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

\*If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the \* checklist items would be N/A. **Effective January 1, 2014**



REVISION DATES

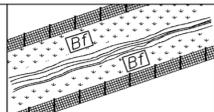
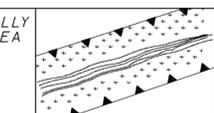
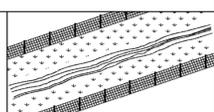
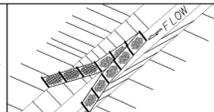
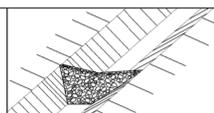

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY  
**ESPCP GENERAL NOTES**

SR 47 OVER LITTLE RIVER

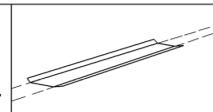
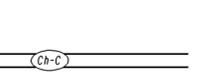
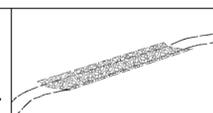
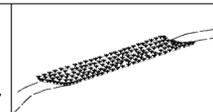
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**51-004**

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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	BRSTO-0076-0110361	232	267

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
Bf		 <p>SYMBOL</p> 	A STRIP OF UNDISTURBED ORIGINAL VEGETATION, ENHANCED OR RESTORED EXISTING VEGETATION, OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS, PONDS, WETLANDS, LAKES, AND COASTAL WATERS. THE BOUNDARIES OF THESE AREAS ARE BE DELINEATED BY ORANGE BARRIER FENCE.
ESA		 <p>LINE CODE</p>  <p>ESA-25' (OR 50') STREAM BUFFER, ETC.</p>	ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY, CULTURALLY, OR HISTORICALLY SENSITIVE. ESA AREAS INCLUDE, BUT ARE NOT LIMITED TO: STATE WATER BUFFERS, ARCHAEOLOGICAL SITES, HISTORIC SITES, AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA, THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.
		 <p>LINE CODE</p>  <p>ORANGE BARRIER FENCE</p>	ORANGE BARRIER FENCE DELINEATES ESA AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR, GRUB, PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.
Cd-F		 <p>CONSTRUCTION DETAIL SECTION 171</p> <p>LINE CODE</p> 	A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC, WIRE REINFORCED, POST, AND BRACING PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24b FOR SPACING REQUIREMENT.  THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS.  IF THIS ITEM IS USED IN AN AREA WITHOUT A SEDIMENT BASIN CONSIDERATION SHOULD BE GIVEN TO USING TWO OR MORE ROCK FILTER DAMS NEAR THE DISCHARGE POINT.
Cd-S		 <p>SECTION 163, 603</p> <p>LINE CODE</p> 	STONE CHECK DAMS ARE USED IN ROADWAY DITCHES. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING STONE CHECK DAMS. CONTRACTOR MAY USE SANDBAG CHECK DAMS IN LIEU OF STONE CHECK DAMS.  SANDBAG CHECK DAMS MUST BE USED IN CONCRETE LINED CHANNELS.

**NOTE:**  
 1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.  
 2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
Ch-C		 <p>SECTION 161, 441</p> <p>LINE CODE</p> 	THIS ITEM CONSISTS OF CONSTRUCTING A 4" THICK CONCRETE CHANNEL. THE CONCRETE SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM  "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS
Ch-Rp1		 <p>SECTION 161, 603</p> <p>LINE CODE</p> 	THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 1 RIP RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP RAP SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED ALONG THIS CHANNEL SUCH AS Sd1-C, Rdc OR Sg.  "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS
Ch-Rp3		 <p>SECTION 161, 603</p> <p>LINE CODE</p> 	THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP RAP SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED ALONG THIS CHANNEL SUCH AS Sd1-C, Rdc OR Sg.  "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS
Ch-V		 <p>SECTION 161, 700</p> <p>LINE CODE</p> 	USED TO IMPROVE OR STABILIZE A NEW OR EXISTING CHANNEL. IT IS CONSTRUCTED IN STORMWATER DRAINAGE DITCHES. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT DITCH PROTECTION PROGRAM ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. TYPICALLY NOT SHOWN IN PLANS.

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 1 OF 6	
NO SCALE	JANUARY 2007
NUMBER EC-LI	DRAWING No. 52-001

DATE	REVISION

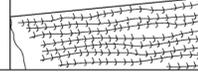
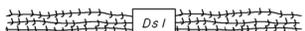
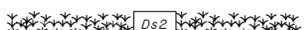
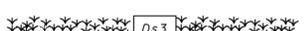
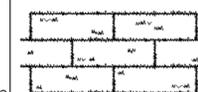
STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY  
**EROSION CONTROL LEGEND**  
 SR 47 OVER LITTLE RIVER

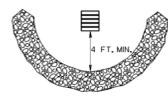
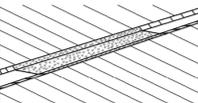
DRAWING No.  
**52-001**



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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
Dn2-2	PERMANENT DOWN DRAIN STRUCTURE GA. STD. 9017J TP2, D-26 TP2 SECTION 576, 577.		CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB, IN A SAG, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
		LINE CODE 	
Ds1	MULCH SECTION 163		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
		LINE CODE 	
Ds2	TEMPORARY GRASSING SECTION 163		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
		LINE CODE 	
Ds3	PERMANENT GRASSING SECTION 700		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.  PERMANENT VEGETATIVE REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS; HOWEVER, THEY MAY BE SHOWN ON THE PLANS FOR HIGHLY SENSITIVE AREAS WHERE THESE VEGETATIVE PRACTICES ARE CRITICAL.
		LINE CODE 	
Ds4	SODDING SECTION 700		THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION.  SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS.
		PATTERN 	

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
Fr	FILTER RING CONSTRUCTION DETAIL		A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS. THIS REDUCES THE VELOCITY OF THE RUNOFF AND FILTERS SEDIMENT FROM THE RUNOFF. SEE CHAPTER 6 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR DESIGN CRITERIA AND DETAILS.
		LINE CODE 	
Mb	EROSION CONTROL MATS CONSTRUCTION DETAIL SECTION 716		ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50' OF ALL CROSS DRAINS AND CULVERTS.
		PATTERN 	
Ps	PERMANENT SOIL REINFORCING MAT CONSTRUCTION DETAIL SECTION 710		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
		LINE CODE 	
Rd	ROCK FILTER DAM CONSTRUCTION DETAIL SECTION 163, 603.		ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP RAP AND ARE USED TO PROTECT SMALL STREAMS OR DRAINAGEWAYS. TO BE USED IN SMALL DRAINAGE CHANNELS OF 50 ACRES OR LESS. THE RIP RAP SHOULD BE PLACED ON A GEOTEXTILE UNDERLINER.
		LINE CODE 	

NOTE:  
 1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.  
 2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

TC	UPDATED DRAWING NO. ADDED 1-2-13	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
	Ds3 & Ds4 CODES RELOC.	EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 3 OF 6
	RD & RT-P CODES TO DRAWING NO. 52-004.	NO SCALE
	RELOCATED RD, RD, & RT-B CODES FROM ECL52-003 SHEET 4 OF 6.	JANUARY 2007
	GLO DELETED F.6. REVISED ORDER 1-13-07	NUMBER
	GLO REVISED TITLE BLOCK 1-19-07	BY
	BY	EC-L3
		DRAWING No. 52-003

REVISION DATES	

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY  
**EROSION CONTROL LEGEND**  
 SR 47 OVER LITTLE RIVER  
 DRAWING No. 52-003

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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
Rp	RIPRAP SECTION 603		RIP RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND END ROLLS. RIP RAP, TYPE 1 SHOULD BE PLACED ON TOP OF A GEOTEXTILE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS.
		PATTERN 	
Rt-P	RETROFITTING CONSTRUCTION DETAIL SECTION 163		A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER.  SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA.  SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA.  THIS ITEM SHOULD BE DESIGNED ACCORDING TO CHAPTER 6 IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA"
		LINE CODE 	
Rt-B	RETROFITTING CONSTRUCTION DETAIL SECTION 163		A SLOTTED BOARD DAM WITH STONE PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER.  SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 100 ACRES TOTAL DRAINAGE AREA.  SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA.  THIS ITEM SHOULD BE DESIGNED ACCORDING TO CHAPTER 6 IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA"
		LINE CODE 	
R1-BSg1 R1-BSg2 R1-BSg3	SILT CONTROL GATES CONSTRUCTION DETAIL D-20 SECTION 163		A SILT CONTROL GATE IS A STRUCTURE PLACED ON A PIPE, SMALL BOX CULVERT, OR DROP INLET TO FORM A BASIN TO CATCH SILT AND PREVENT IT FROM LEAVING THE CONSTRUCTION SITE. IT IS EFFECTIVE ON SMALL DRAINAGE AREAS ONLY. DO NOT USE IN STATE WATERS.  R1-BSg1-TYPE 1: USED ON BOX CULVERTS R1-BSg2-TYPE 2: USED ON STRAIGHT HEADWALLS R1-BSg3-TYPE 3: USED ON FLARED END SECTIONS AND TAPERED HEADWALLS
		LINE CODE	
Sb-F	SILT RETENTION BARRIER FLOATING SECTION 170		A FLOATING BARRIER IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY FORCING IT TO DROP OUT OF SUSPENSION BEFORE IT MOVES OUT OF THE CONSTRUCTION AREA. IT IS USUALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER.  THIS ITEM IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED BMP'S.
		LINE CODE 	

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
Sb-S	SILT RETENTION BARRIER STAKED SECTION 170		A STAKED BARRIER IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY FORCING IT TO DROP OUT OF SUSPENSION BEFORE IT MOVES OUT OF THE CONSTRUCTION AREA. IT IS USUALLY USED WHERE CONSTRUCTION IS REQUIRED IN SHALLOW INUNDATED AREAS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. A STAKED BARRIER MAY BE USED TO PROTECT A SMALL STREAM WHILE IT IS BEING REALIGNED OR WIDENED IN "CH". IN THIS CASE THE BARRIER SHOULD EXTEND TO THE BOTTOM OF THE STREAM. IT SHOULD BE LIMITED TO 5' IN HEIGHT UNLESS OTHERWISE DIRECTED. STAKED BARRIERS IN SMALL STREAMS SHOULD EXTEND 1' ABOVE NORMAL WATER. THIS ITEM IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED BMP'S.
		LINE CODE 	
Sdl-A	SILT FENCE TYPE A CONSTRUCTION DETAIL SECTION 171		USED ALONG THE TOE OF FILLS LESS THAN 10' HIGH, ALONG THE RIGHT OF WAY LINE OR PARALLEL TO STREAMS. THE FENCE SHOULD NEVER RUN CONTINUOUS. IT SHOULD TURN BACK INTO THE FILL TO CREATE SMALL POCKETS TO TRAP SILT.
		LINE CODE 	
Sdl-B	SILT FENCE TYPE B CONSTRUCTION DETAIL SECTION 171		TYPE B MAY BE USED IN LIEU OF BALED STRAW AND AT THE TOE OF FILLS LESS THAN 10 FEET HIGH.
		LINE CODE 	
Sdl-C	SILT FENCE TYPE C CONSTRUCTION DETAIL SECTION 171		A WOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE FILL, ALONG THE RIGHT OF WAY LINE OR PARALLEL TO STREAMS. IT IS USED TO CAPTURE SEDIMENT FROM FILLS OVER 10 FEET HIGH AND UNDER ALL BRIDGES.
		LINE CODE 	

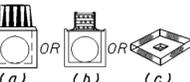
NOTE:  
 1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.  
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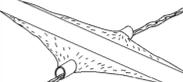
DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 4 OF 6	
NO SCALE	JANUARY 2007
NUMBER EC-L4	DRAWING No. 52-004

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: INNOVATIVE PROGRAM DELIVERY <b>EROSION CONTROL LEGEND</b>	
SR 47 OVER LITTLE RIVER	DRAWING No. <b>52-004</b>

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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
(Sd1-Bb)	BRUSH BARRIER CONSTRUCTION DETAIL		THIS ITEM CONSISTS OF INTERMINGLED BRUSH, LOGS, ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT OF WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPERATE PAYMENT SHALL BE MADE.
		LINE CODE * * * (Sd1-Bb) * * *	
(Sd1-Hb)	SEDIMENT BARRIER CONSTRUCTION DETAIL SECTION 163		A BARRIER OF BALED STRAW IS USED TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT IS USED IN DITCHES AS DITCH CHECKS OR ALONG THE TOE OF SLOPE OR RIGHT OF WAY IN FILLS LESS THAN 10 FEET HIGH. THE BALES SHOULD RUN PARALLEL TO THE SILT YIELDING AREA UNTIL THE TOP OF THE BALE IS 6 INCHES LOWER THAN THE GROUND ELEVATION OF THE BEGINNING BALE. THEY SHOULD THEN TURN INTO THE FILL WITH A LOW POINT FOR THE WATER TO DRAIN OVER THE BALE. IN DITCHES, BALED STRAW SHOULD BE PERPENDICULAR TO THE FLOW. USED FOR SLOPES LESS THAN 1%. USE 100' SPACING. BALED STRAW SHALL BE STAKED SECURELY TO THE GROUND.
		LINE CODE -s-s-s (Sd1-Hb) s-s-s-	
(Sd2-B)	BAFFLE BOX INLET SEDIMENT TRAP CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163		USED FOR INLETS RECEIVING RUNOFF WITH A HIGHER VOLUME OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=7 cfs.
		LINE CODE (Sd2-B)	
(Sd2-Bg)	BLOCK & GRAVEL DROP INLET PROTECTION CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163		USED FOR INLET PROTECTION WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=5-7 cfs.
		LINE CODE (Sd2-Bg)	
(Sd2-F)	INLET SEDIMENT TRAP CONSTRUCTION DETAILS SECTION 163		(a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5%  THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECIEVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOWS THAT RANGE FROM Q=0-4 cfs.
		LINE CODE (Sd2-F)	

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
(Sd2-G)	GRAVEL DROP INLET PROTECTION CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163		USED FOR INLET PROTECTION WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=3-5 cfs.
		LINE CODE (Sd2-G)	
(Sd3)	SEDIMENT BASIN CONSTRUCTION DETAIL SECTION 163		A BASIN EXCAVATED OR AN AREA THAT IS DAMMED. THE BASIN IS DESIGNED TO HOLD A SEDIMENT LOAD OF 67 CUBIC YARDS OF VOLUME PER ACRE OF DRAINAGE AREA. IT IS USED FOR DRAINAGE AREAS OF 3 TO 5 ACRES OR WHERE A ROADWAY CUTS OR FILLS EXCEEDS 1,000 FEET IN LENGTH. IF A SEDIMENT BASIN IS USED ON AN AREA LARGER THAN 5 ACRES SPECIAL CONSIDERATION FOR CLEAN OUT IS REQUIRED. SUFFICIENT RIGHT OF WAY OR PERMANENT EASEMENT NEEDED FOR THE BASIN AND ACCESS FOR CLEAN OUT VIA A ROUTE WITH 3:1 SLOPES OR LESS. SEDIMENT BASINS SHOULD ALSO BE CONSIDERED WHERE HIGH FILLS OVER 30 FEET DRAIN TO ONE LOCATION.
		LINE CODE (Sd3)	
(Sr)	STREAM CROSSING SECTION 161		A TEMPORARY BRIDGE OR PIPE STRUCTURE PROTECTING A STREAM OR WATER COURSE FROM DAMAGE BY CONSTRUCTION EQUIPMENT. THIS AREA MUST BE COMPLETELY STABILIZED. THIS ITEM MUST BE DESIGNED ACCORDING TO CHAPTER 6 OF THE MANUAL FOR EROSION CONTROL IN GEORGIA
		LINE CODE (Sr)	FOR CONTRACTOR'S USE ONLY

NOTE:  
 1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.  
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TC	UPDATED DRAWING NO. & RELOCATED ST. & ST-ROD CODES TO DRAWING NO.	12-13	
TC	DEL. 5g-1, 5g-2, 5g-3 CODES. 10-2-12 RELOCATED ST. & ST-ROD. CODES FROM ECL & UC SHT. 6 OF 6.		
GLO	REV. 5g-1, 5g-2 AND 5g-3	11-13-07	
GLO	REVISED TITLE BLOCK	11-9-07	
BY			

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 5 OF 6	
NO SCALE	JANUARY 2007
NUMBER EC-L5	DRAWING No. 52-005

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REVISION DATES

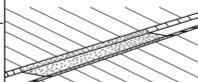

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY  
**EROSION CONTROL LEGEND**

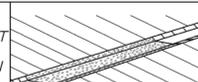
SR 47 OVER LITTLE RIVER

DRAWING No.  
52-005

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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA			

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
(St)	STORM DRAIN OUTLET PROTECTION GA. STD. 1125 & 2332		A PIPE OR BOX CULVERT OUTLET HEADWALL WITH AN APRON AND DISSIPATOR BLOCKS IS USED TO PREVENT EROSION AND TO SLOW WATER. IT IS USED ON THE OUTLET OF ALL BOX CULVERTS AND ON 48" AND LARGER PIPES. MAY BE USED ON INLET FOR FLOWING STREAMS. USE ON SMALL PIPES WHEN OUTLET VELOCITY IS 12 fps AND GREATER.
	LINE CODE	(St)	
(St-Rp)	STORM DRAIN OUTLET PROTECTION SECTION 603		THIS ITEM IS ADDED TO "St" WHEN ADDITIONAL PROTECTION IS NEEDED. TYPE 1 RIP RAP PLACED ON FILTER FABRIC SHOULD BE USED AT A 24" THICKNESS. MAY BE USED ON INLETS FOR FLOWING STREAMS. REFER TO CHARTS IN "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR QUANTITY DETERMINATION.
	PATTERN		
(Su)	SURFACE ROUGHENING SERRATED SLOPES CONSTRUCTION DETAIL SECTION 205		PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS, BY OPERATING A CLEATED DOZER ON THE SLOPE IN A VERTICAL DIRECTION. CREATING SERRATED SLOPES IN THE GRADING PROCESS TO CONSTRUCT BENCHES WILL REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION OF WATER.  IN MOST CASES THIS ITEM IS NOT REQUIRED TO BE SHOWN ON THE PLANS, BUT REQUIRED TO BE COMPLETED BY THE CONTRACTOR UNDER ALL PROJECTS. IF SERRATED SLOPES ARE USED ON THE PROJECT, THEN THIS ITEM SHALL BE SHOWN WHERE SERRATED SLOPES ARE TO BE USED.
	LINE CODE	(Su)	
	(LINE CODE Su IS SHOWN ON THE PLANS FOR SERRATED SLOPES WHERE SPECIFIED IN THE SOIL SURVEY.)		
(Trm-1)	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-2 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	LINE CODE	(Trm-1)	
(Trm-2)	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-4 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	LINE CODE	(Trm-2)	

CODE	PRACTICE STD : SPC'S : SECTION	DETAIL	DESCRIPTION
(Trm-3)	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG TERM PROTECTION FOR SHEAR STRESSES 0-6 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	LINE CODE	(Trm-3)	
(Trm-4)	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-8 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	LINE CODE	(Trm-4)	
(Trm-5)	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-10 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	LINE CODE	(Trm-5)	
(Trm-6)	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-12 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	LINE CODE	(Trm-6)	

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DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 6 OF 6	
NO SCALE	NOV., 2007
NUMBER EC-L6	DRAWING No. 52-006

REVISION DATES

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY  
**EROSION CONTROL LEGEND**

SR 47 OVER LITTLE RIVER

DRAWING No.  
52-006

1/30/2013 1:53:33 PM \\GDDT-DSN\GDDPLOT\QC\F06C.qcf 1.cox.M:\TPEC\Erosion\_control\_legend\_and\_uniform\_codes\_sheets\revision\_to\_ecl\_and\_code\_sheet\ECL52-006.prf

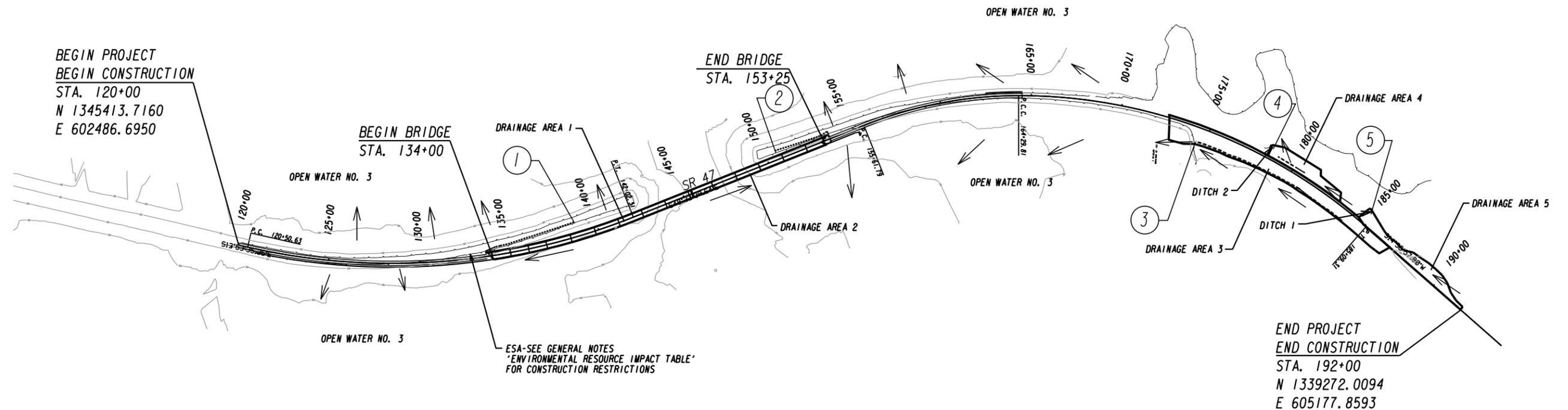
USE ON CONSTRUCTION 2-23-15

RIP RAP DATA

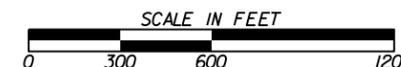
STRUCTURE NO.	STATION	Do (IN)	Q (CFS)	THICKNESS (IN)	Tw	La (FT)	3Do (FT)	d50 (FT)	AREA (SY)	W2 (FT)
A-1	134+23	18	8.96	24	<0.5Do	9	4.50	0.30	8	10.50
B-1	153+63	18	6.21	24	<0.5Do	9	4.50	0.30	8	10.50
Outfall 3	174+50	60	12.44	24	<0.5Do	9	13.00	0.64	13	14.00
Outfall 4	178+65	24	3.46	24	<0.5Do	9	8.00	0.64	8	11.00
Outfall 5	184+54	48	3.97	24	<0.5Do	9	10.00	0.64	10	13.00

NOTE:

1. THE TOTAL PROJECT AREA IS 52.2 ACRES
2. THE EXPECTED PROJECT DISTURBED AREA IS 7.33 ACRES
3. CONSTRUCTION ACTIVITIES CONSIST OF RECONSTRUCTING THE SR 47 BRIDGE OVER THE LITTLE RIVER TO THE WEST OF THE EXISTING BRIDGE. THE ROADWAY WILL BE REALIGNED TO THE WEST REMAINING AS A TWO LANE RURAL ROAD.



OUTFALL NO.	STATION	POST DRAIN AREA (AC)	DISTURB AREA (AC)	RECEIVING WATER	Tc	PRE C	POST C	INTENSITY 50 YEAR	PRE Q50 (cfs)	POST Q50 (cfs)	INTENSITY 100 YEAR	PRE Q100 (cfs)	POST Q100 (cfs)	CD PIPE SIZE (in)	SKEW ANGLE	PRE HW50	PRE HW100	POST HW50	POST HW100	PRE VEL50 (ft/s)	PRE VEL100 (ft/s)	POST VEL50 (ft/s)	POST VEL100 (ft/s)	RIP RAP (sy)	POST Q25 (cfs)
1	138+81	1.15	0.20	Little River	10	N/A	0.95	7.69	N/A	8.24	8.35	N/A	8.96	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.61	7.76	8	7.51
2	150+53	0.91	0.18	Little River	10	N/A	0.95	7.69	N/A	5.72	8.35	N/A	6.21	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.86	9.01	8	5.22
3	174+50	2.81	0.62	Little River	10	0.53	0.53	7.69	11.4	11.4	8.35	12.44	12.44	N/A	N/A	N/A	N/A	N/A	N/A	2.15	5.04	2.15	5.04	13	10.45
4	178+65	0.74	0.36	Little River	10	0.35	0.56	7.69	2.0	3.2	8.35	2.16	3.46	N/A	N/A	N/A	N/A	N/A	N/A	3.96	4.09	4.81	4.96	8	2.91
5	184+54	0.97	0.41	Little River	10	0.57	0.49	7.69	4.2	3.7	8.35	4.62	3.97	N/A	N/A	N/A	N/A	N/A	N/A	5.43	5.67	5.11	5.28	10	3.33



REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**EROSION CONTROL  
DRAINAGE AREA MAP**

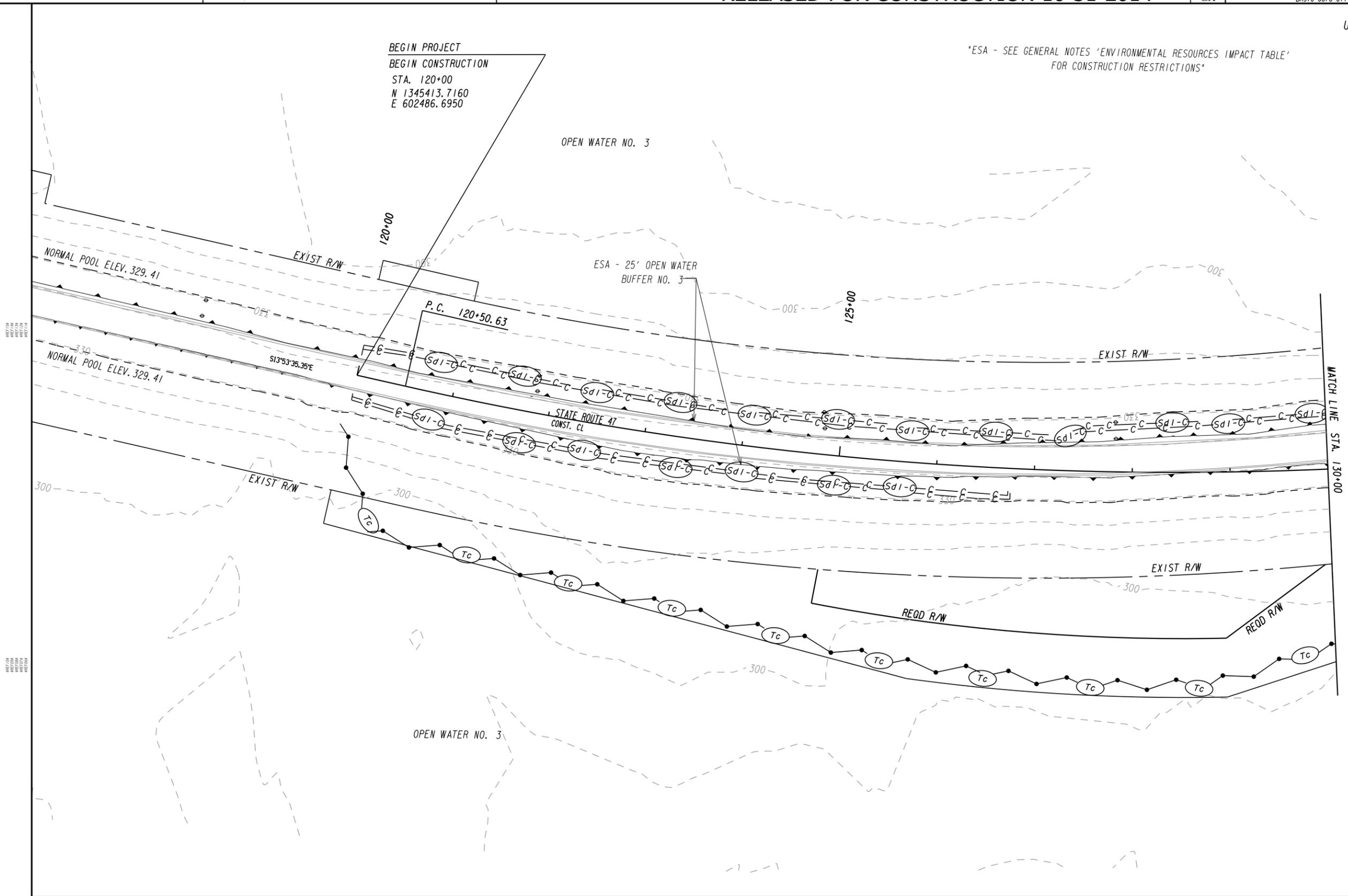
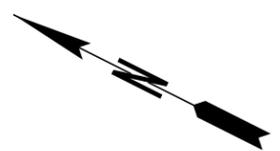
STATE ROUTE 47

DRAWING No. 53-001

USE ON CONSTRUCTION 2-23-15

BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 STA. 120+00  
 N 1345413.7160  
 E 602486.6950

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
 FOR CONSTRUCTION RESTRICTIONS\*



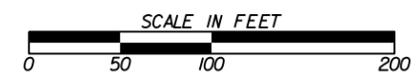
LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

INITIAL STAGE

**Baker**

3595 ENGINEERING DRIVE  
 NORCROSS, GEORGIA 30092  
 (770) 263-9118



REVISION DATES

2-23-15		

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

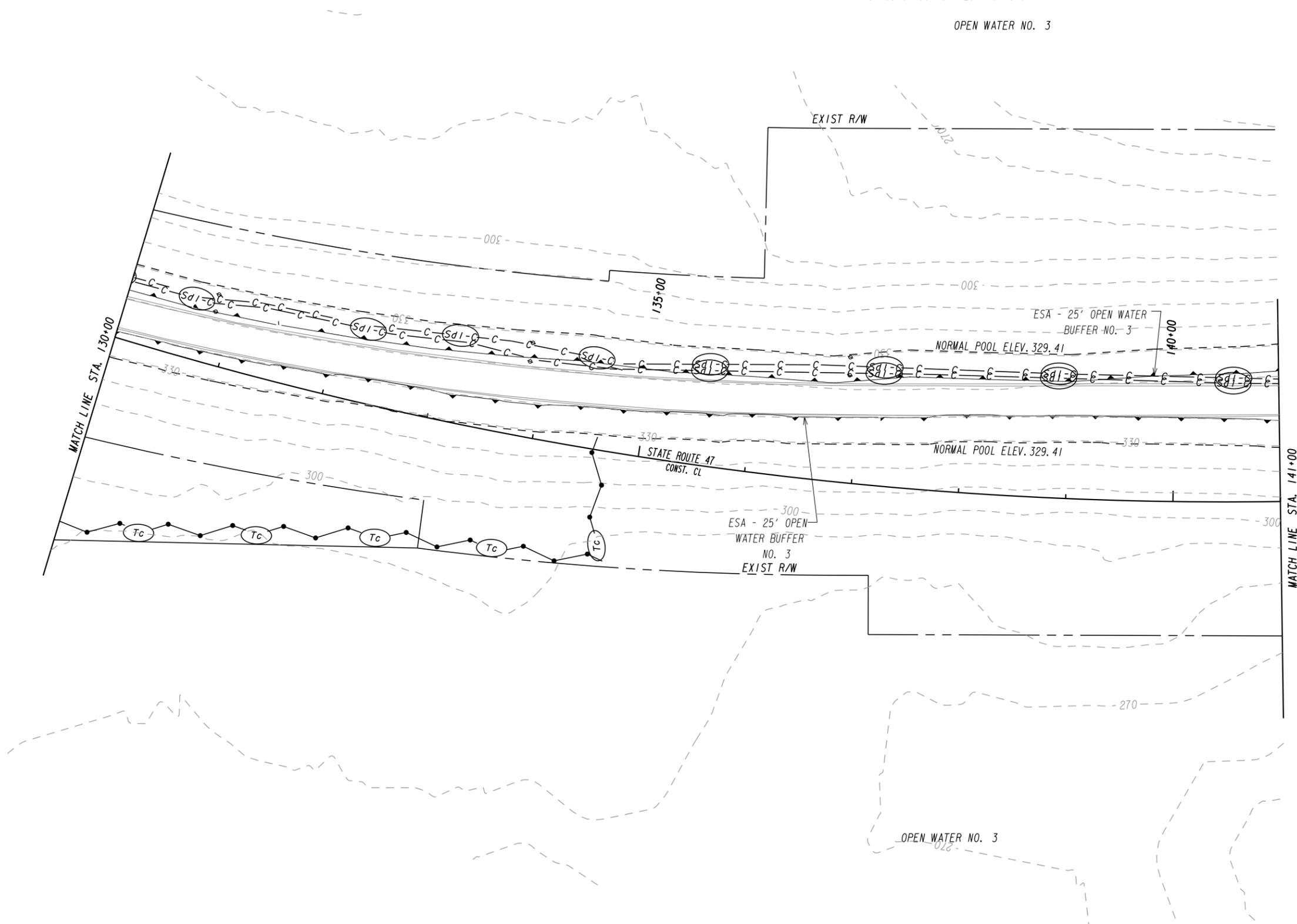
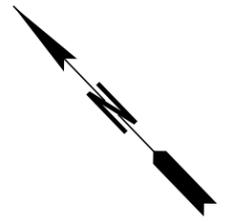
LINCOLN/COLUMBIA COUNTY  
 STA. 120+00 TO STA. 130+00

DRAWING No. 54-001

USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

OPEN WATER NO. 3



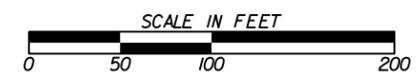
LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

INITIAL STAGE

**Baker**

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REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

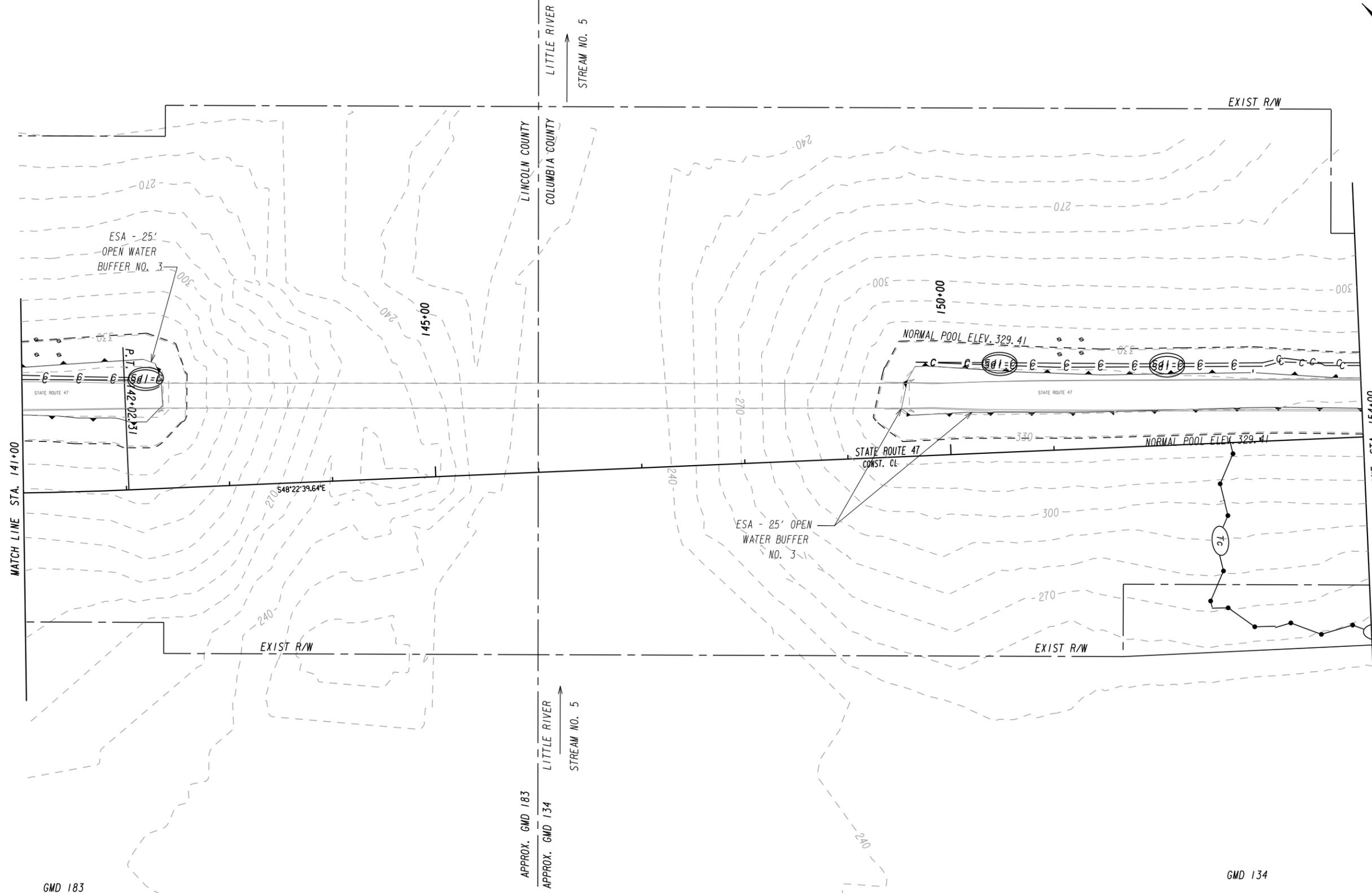
LINCOLN/COLUMBIA COUNTY  
STA. 130+00 TO STA. 141+00

DRAWING No. **54-002**

USE ON CONSTRUCTION 2-23-15

GMD 182

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



MATCH LINE STA. 141+00

MATCH LINE STA. 154+00

GMD 183

GMD 134

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

INITIAL STAGE

**Baker**

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REVISION DATES

2-23-15		

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

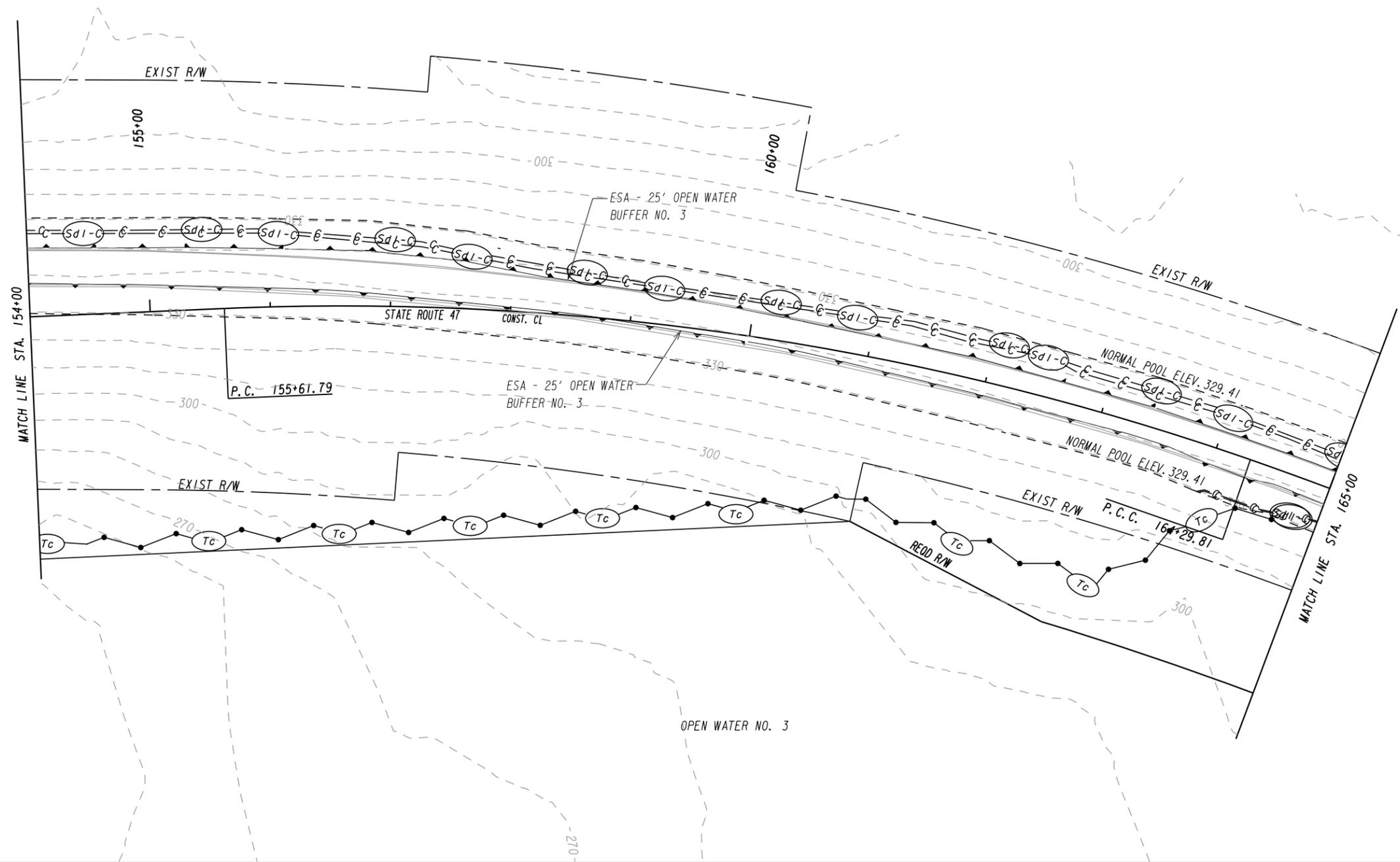
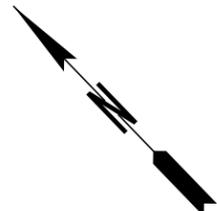
LINCOLN/COLUMBIA COUNTY  
STA. 141+00 TO STA. 154+00

DRAWING No.  
**54-003**

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

USE ON CONSTRUCTION 2-23-15

OPEN WATER NO. 3



MATCH LINE STA. 154+00

MATCH LINE STA. 165+00

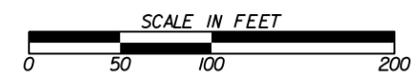
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

INITIAL STAGE

**Baker**

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(770) 263-9118



REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

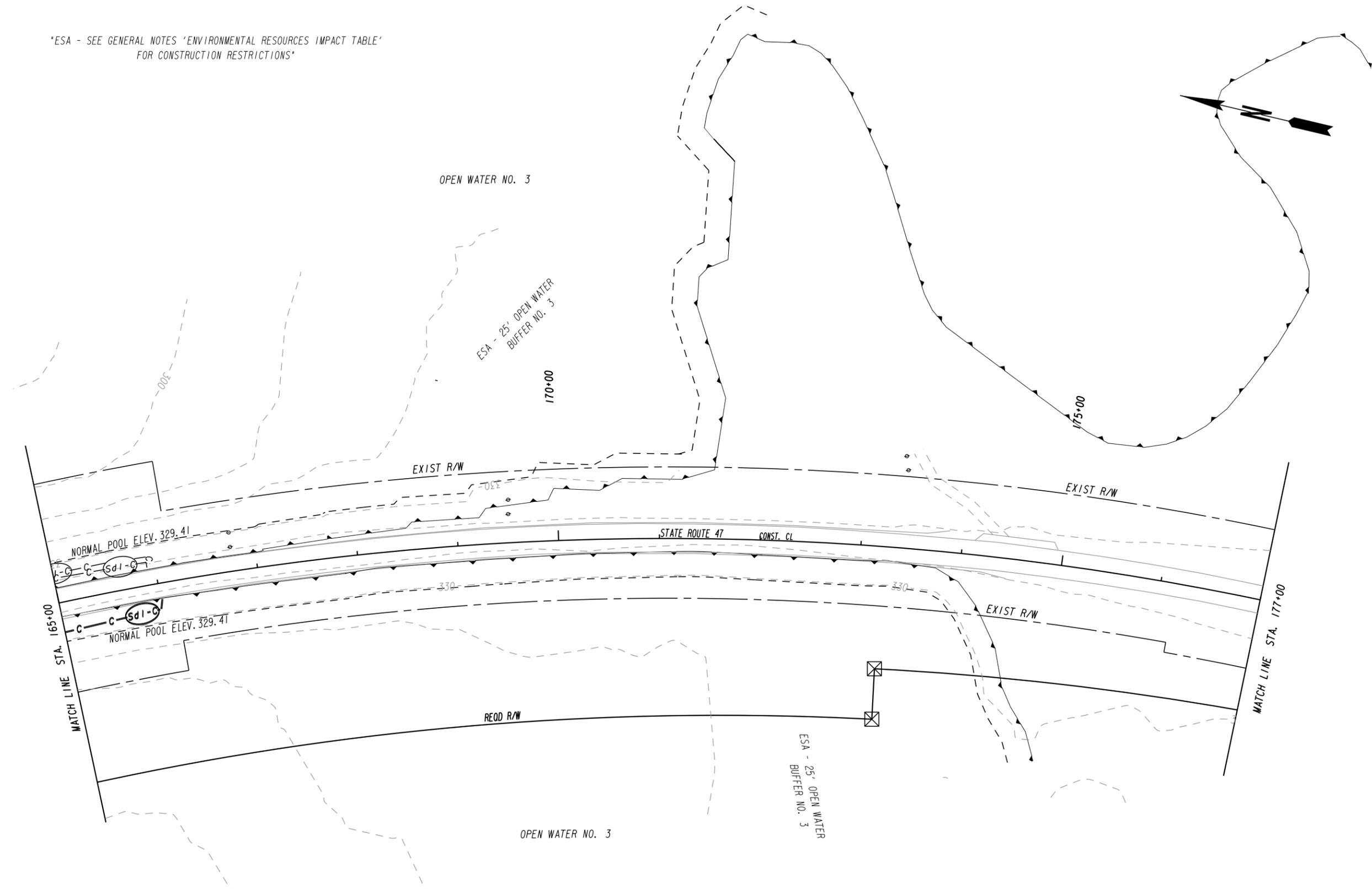
**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 154+00 TO STA. 165+00

DRAWING No.  
**54-004**

USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

INITIAL STAGE

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**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 165+00 TO STA. 177+00

DRAWING NO. 54-005

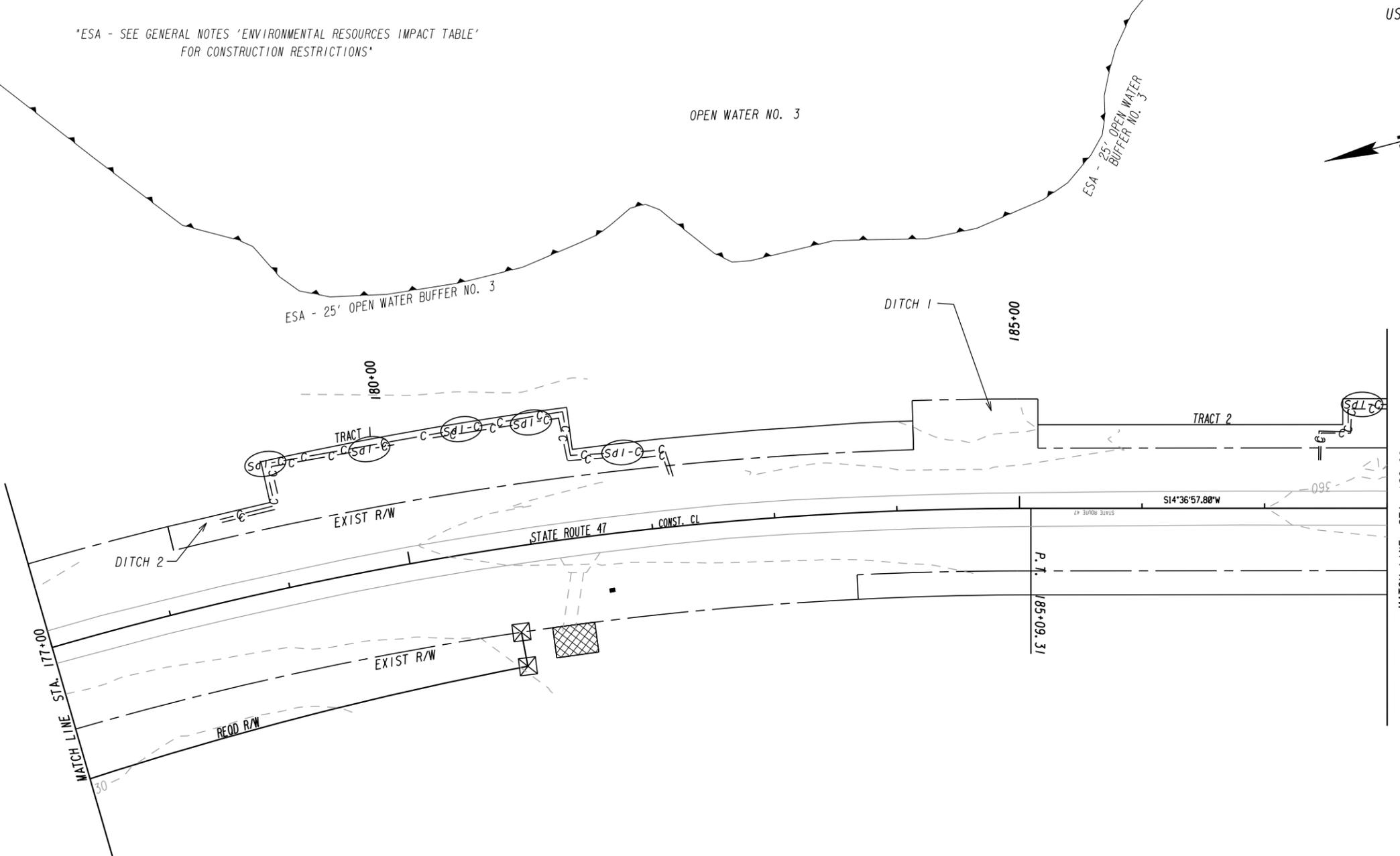
USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

OPEN WATER NO. 3

ESA - 25' OPEN WATER BUFFER NO. 3

ESA - 25' OPEN WATER  
BUFFER NO. 3



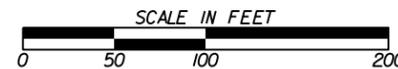
LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

INITIAL STAGE

**Baker**

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(770) 263-9118



REVISION DATES

2-23-15		

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY  
**BMP LOCATION DETAILS**  
LINCOLN/COLUMBIA COUNTY  
STA. 177+00 TO STA. 188+00

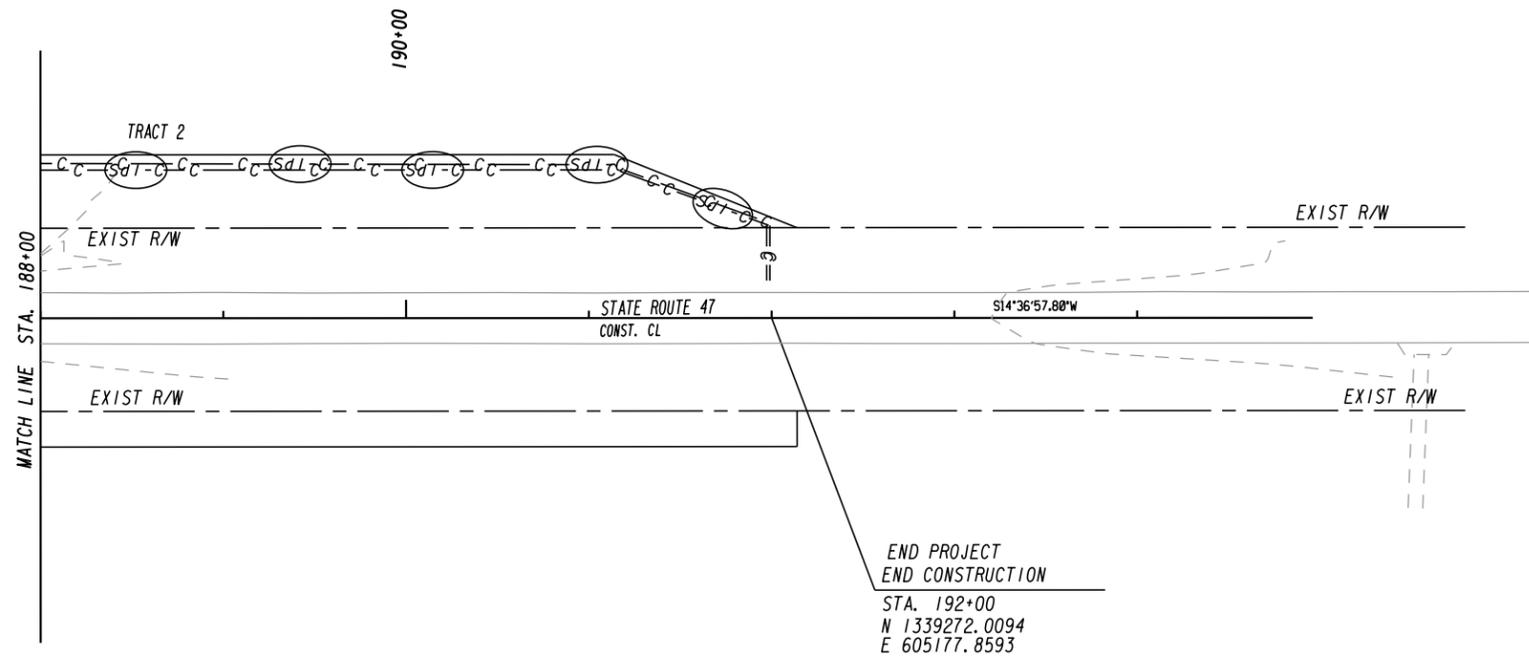
DRAWING No.  
**54-006**

PROF/DR  
PROF/DR  
PROF/DR  
PROF/DR

PROF/DR  
PROF/DR  
PROF/DR  
PROF/DR

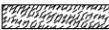
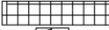
USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



END PROJECT  
END CONSTRUCTION  
STA. 192+00  
N 1339272.0094  
E 605177.8593

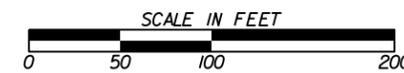
LEGEND

- PAVEMENT REMOVAL 
- TEMPORARY CONSTRUCTION PAVEMENT 
- PERMANENT CONSTRUCTION 
- CONCRETE MEDIAN CONSTRUCTION 
- MILL & OVERLAY CONSTRUCTION 
- OPEN LANES OF TRAFFIC 

INITIAL STAGE

## Baker

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NORCROSS, GEORGIA 30092  
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REVISION DATES

2-23-15		

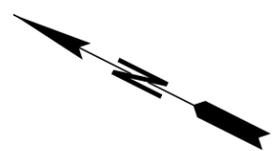
STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

### BMP LOCATION DETAILS

LINCOLN/COLUMBIA COUNTY  
STA. 188+00 TO STA. 192+00

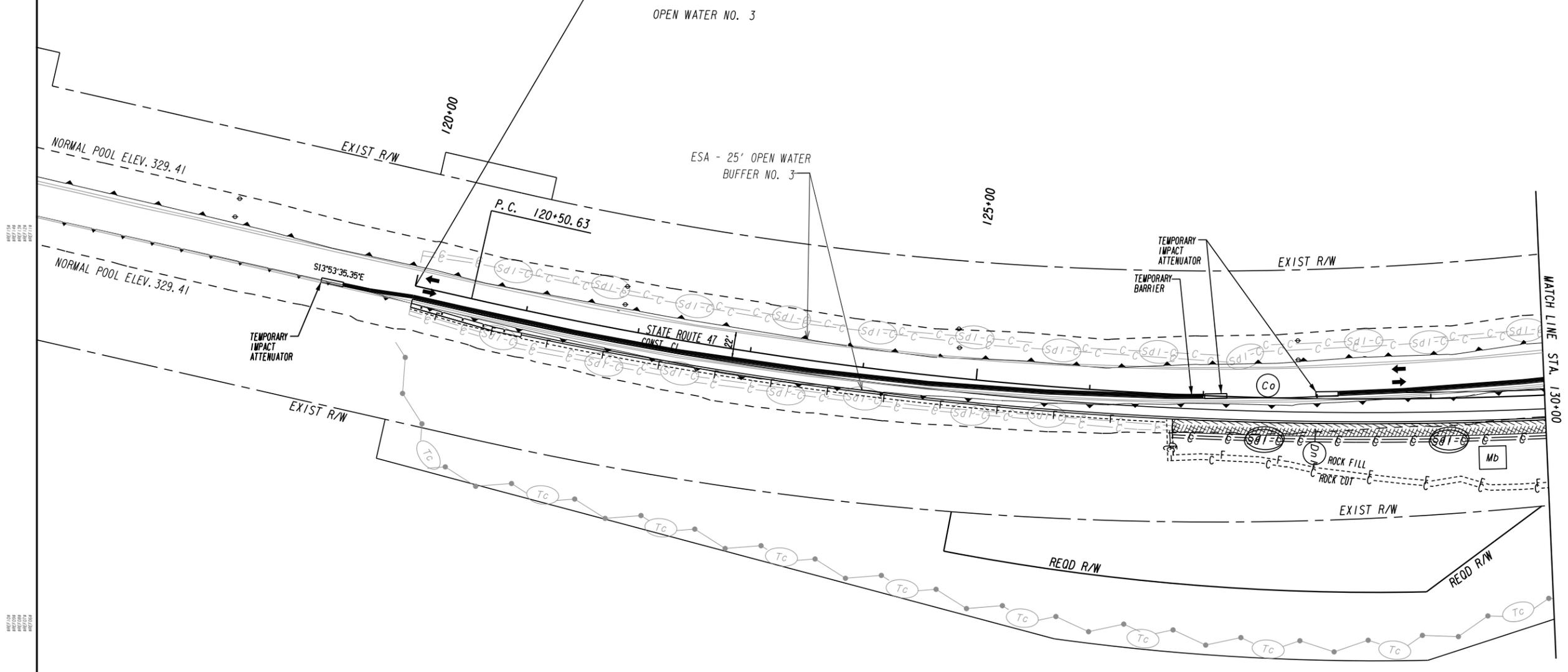
DRAWING NO.  
**54-007**

USE ON CONSTRUCTION 2-23-15



BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 STA. 120+00  
 N 1345413.7160  
 E 602486.6950

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
 FOR CONSTRUCTION RESTRICTIONS\*



OPEN WATER NO. 3

ESA - 25' OPEN WATER  
BUFFER NO. 3

OPEN WATER NO. 3

- STAGE I
1. INSTALL ADVANCE WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
  2. REDUCE SPEED LIMIT TO 45 MPH FOR DURATION OF CONSTRUCTION PERIOD.
  3. STRIPE TEMPORARY TRAFFIC LANES, INSTALL TEMPORARY BARRIER ON SR 47 AND SHIFT TRAFFIC TO ACCOMMODATE STAGE I CONSTRUCTION AS SHOWN IN THE PLANS.
  4. CONSTRUCT BRIDGE WEST OF EXISTING SR 47.
  5. CONSTRUCT PROPOSED PAVEMENT UP TO BINDER COURSE ON THE WEST SIDE OF EXISTING SR 47 AS SHOWN IN THE PLANS.

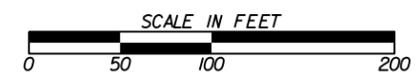
LEGEND

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE I

**Baker**

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 NORCROSS, GEORGIA 30092  
 (770) 263-9118



REVISION DATES	
2-23-15	

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

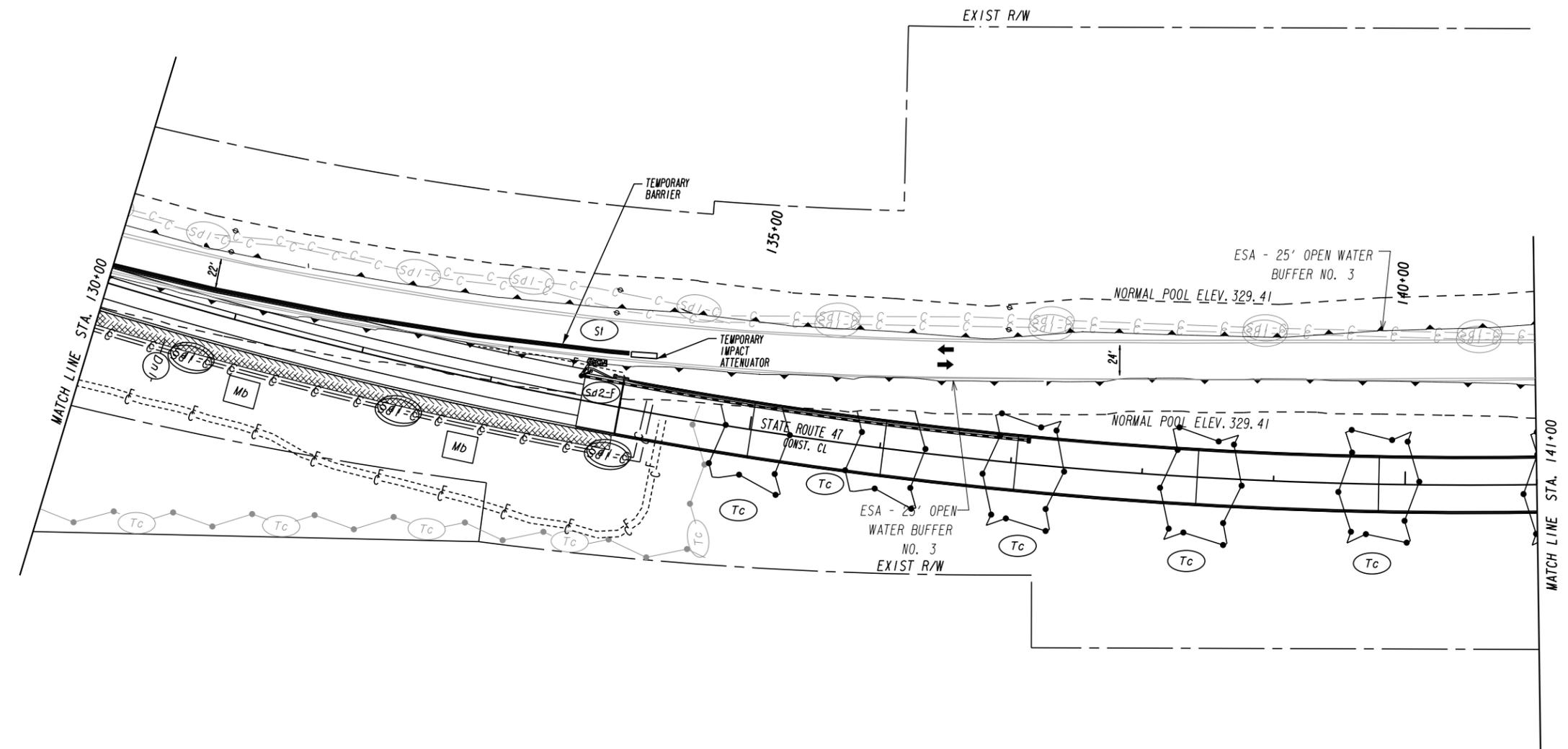
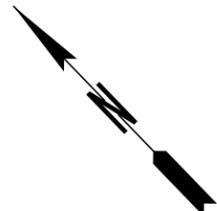
LINCOLN/COLUMBIA COUNTY  
 STA. 120+00 TO STA. 130+00

DRAWING No. **54-008**

USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

OPEN WATER NO. 3



OPEN WATER NO. 3

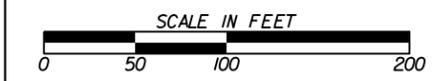
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE I

**Baker**

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REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 130+00 TO STA. 141+00

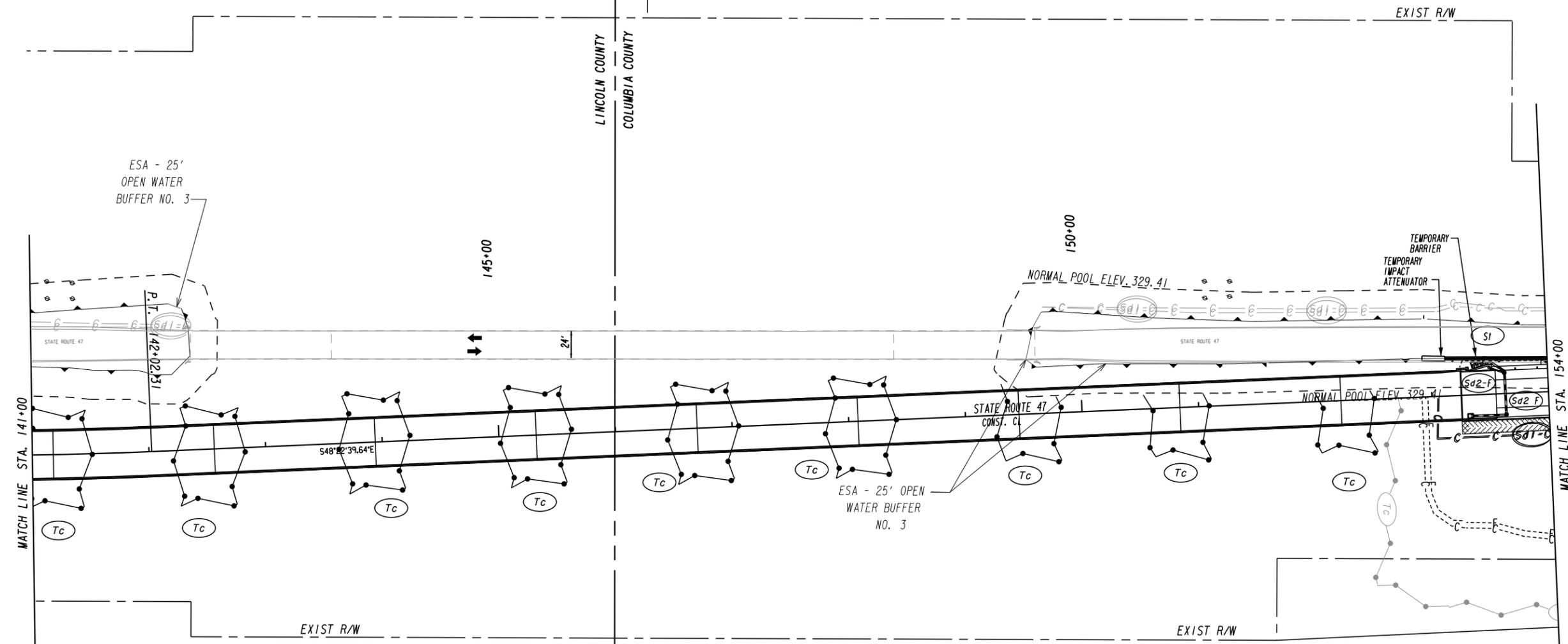
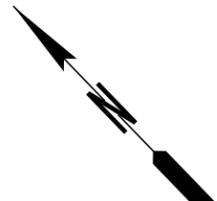
DRAWING No. **54-009**

USE ON CONSTRUCTION 2-23-15

GMD 182

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

LITTLE RIVER  
STREAM NO. 5  
LINCOLN COUNTY  
COLUMBIA COUNTY



MATCH LINE STA. 141+00

MATCH LINE STA. 154+00

GMD 183

GMD 134

LITTLE RIVER  
STREAM NO. 5  
APPROX. GMD 183  
APPROX. GMD 134

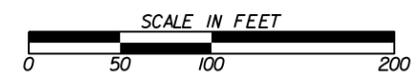
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE I

**Baker**

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(770) 263-9118



REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

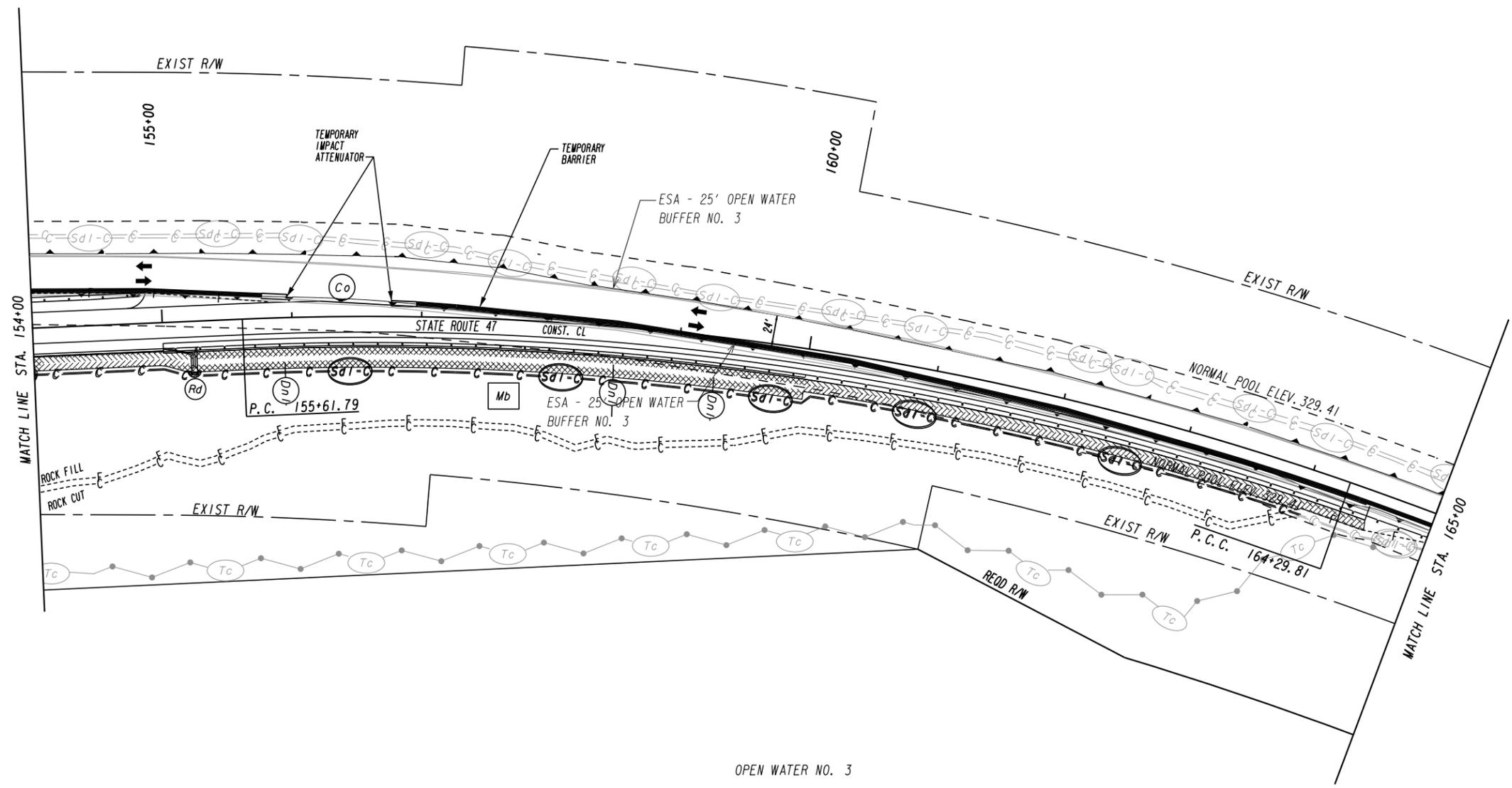
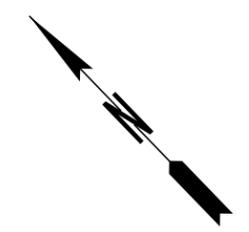
LINCOLN/COLUMBIA COUNTY  
STA. 141+00 TO STA. 154+00

DRAWING No. 54-010

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

USE ON CONSTRUCTION 2-23-15

OPEN WATER NO. 3



OPEN WATER NO. 3

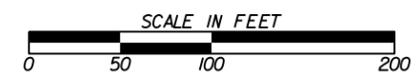
LEGEND

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE 1

**Baker**

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REVISION DATES

2-23-15		

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

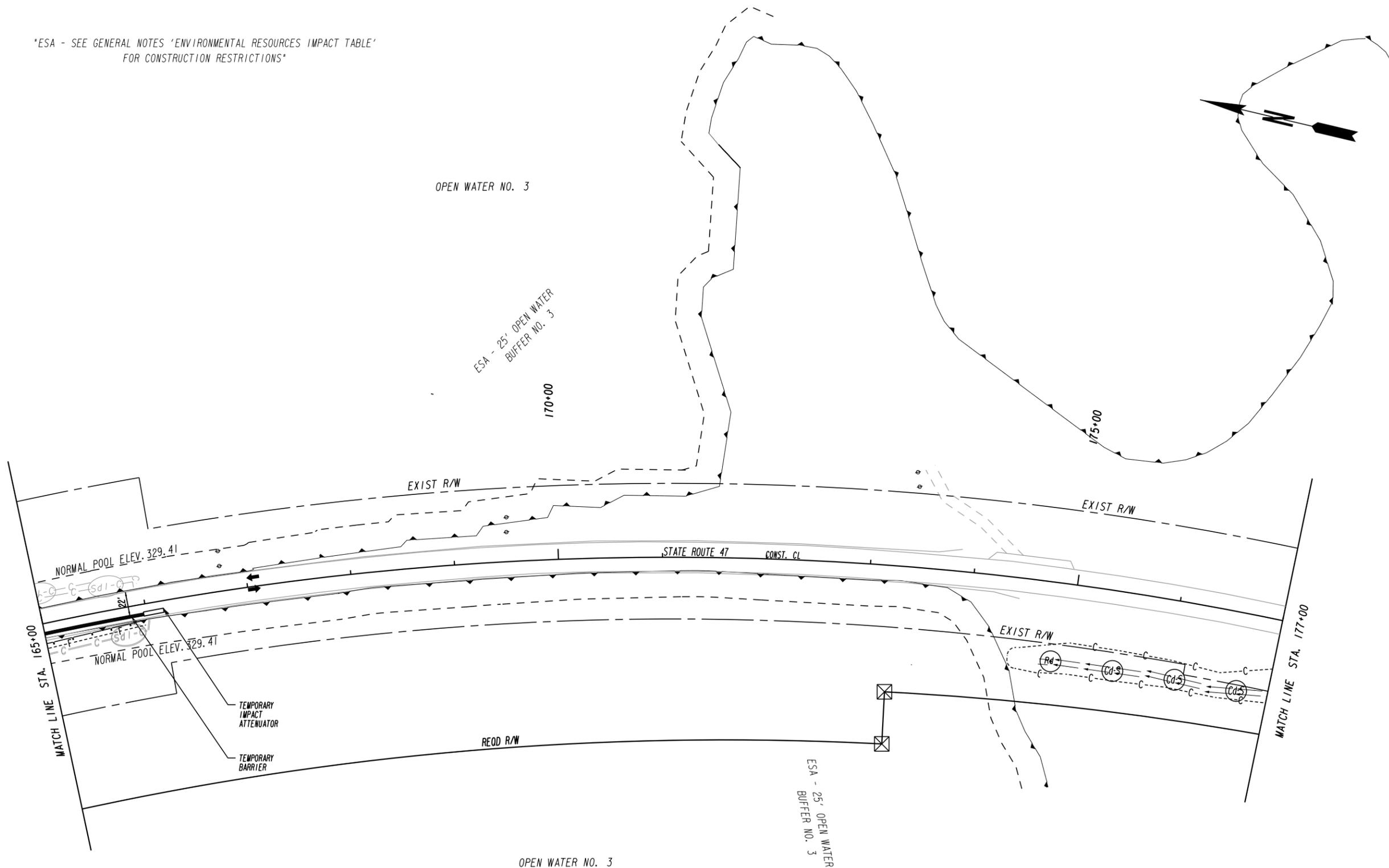
**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 154+00 TO STA. 165+00

DRAWING No. **54-011**

USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



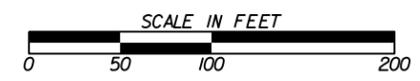
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE I

**Baker**

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NORCROSS, GEORGIA 30092  
(770) 263-9118



REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

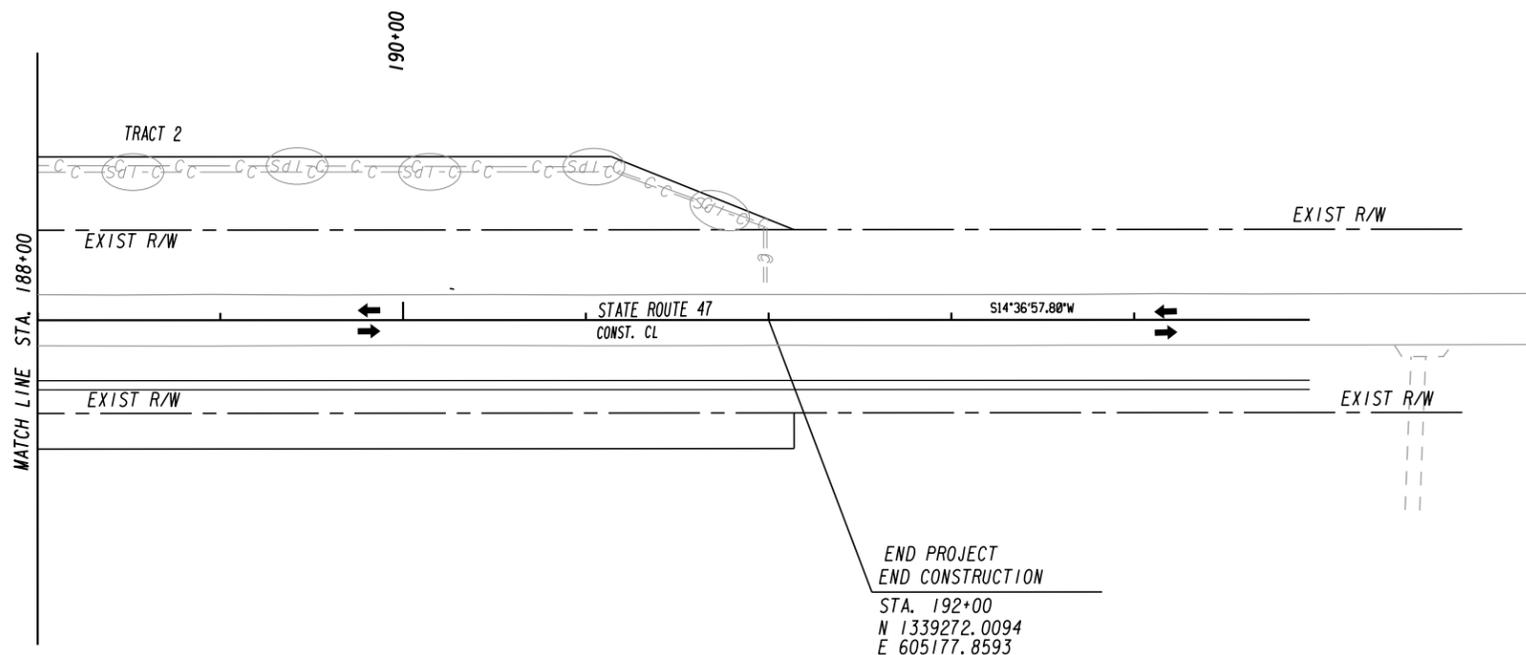
LINCOLN/COLUMBIA COUNTY  
STA. 165+00 TO STA. 177+00

DRAWING No. **54-012**



USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



END PROJECT  
END CONSTRUCTION  
STA. 192+00  
N 1339272.0094  
E 605177.8593

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE I

**Baker**

3595 ENGINEERING DRIVE  
NORCROSS, GEORGIA 30092  
(770) 263-9118



REVISION DATES

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STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 188+00 TO STA. 192+00

DRAWING No.  
**54-014**

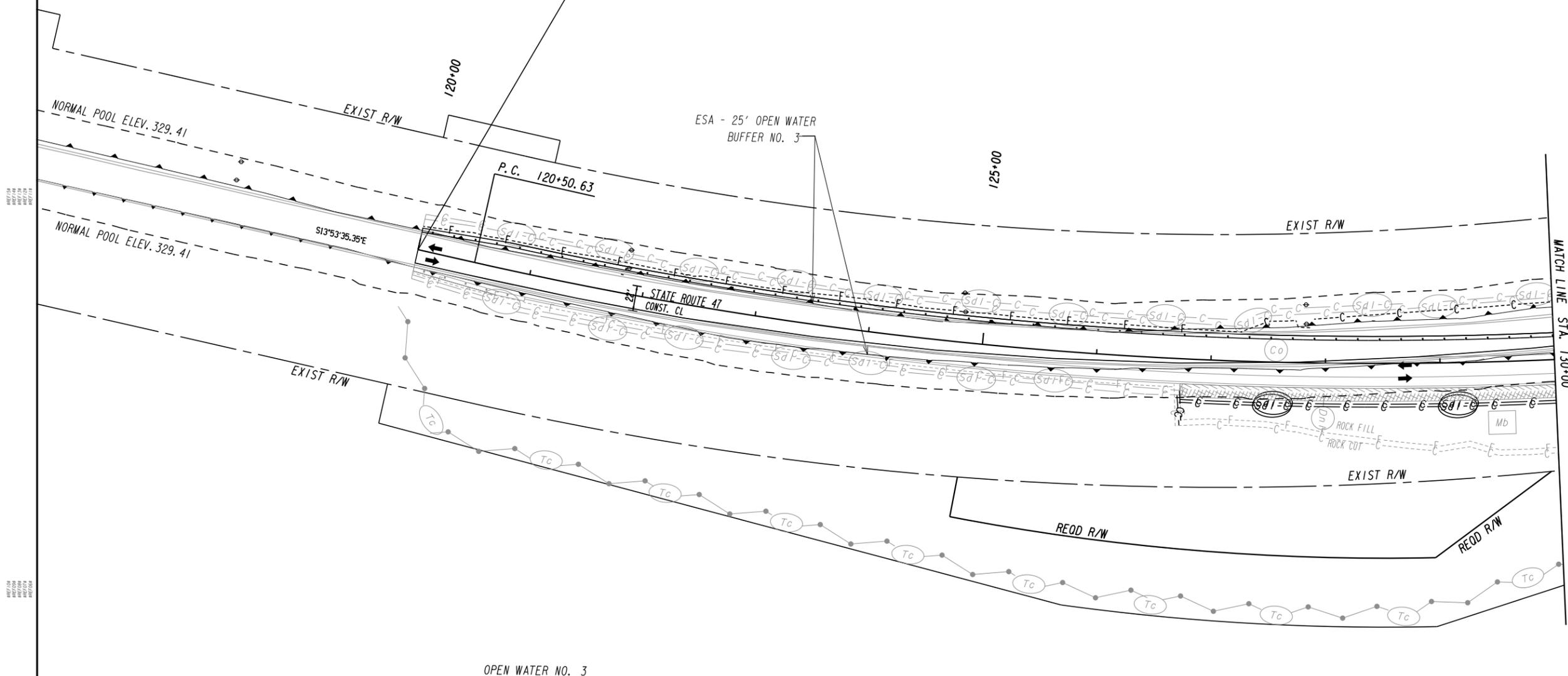
USE ON CONSTRUCTION 2-23-15

BEGIN PROJECT  
BEGIN CONSTRUCTION  
STA. 120+00  
N 1345413.7160  
E 602486.6950

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



OPEN WATER NO. 3



- STAGE 2
1. SHIFT TRAFFIC TO THE WEST SIDE OF NEWLY CONSTRUCTED PORTION OF S.R. 47.
  2. CONSTRUCT EAST SIDE OF PROPOSED TIE IN LOCATIONS THROUGH LEVELING COURSE ON S.R. 47 AS SHOWN ON THE PLANS.
  3. CONSTRUCT PARK AREA AT APPROXIMATE STA. 180+40 LT.
  4. REMOVE EXISTING BRIDGE.
  5. REMOVE EXISTING ROADBED.

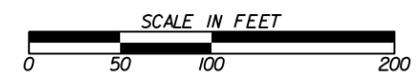
LEGEND

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE 2

**Baker**

3595 ENGINEERING DRIVE  
NORCROSS, GEORGIA 30092  
(770) 263-9118



REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

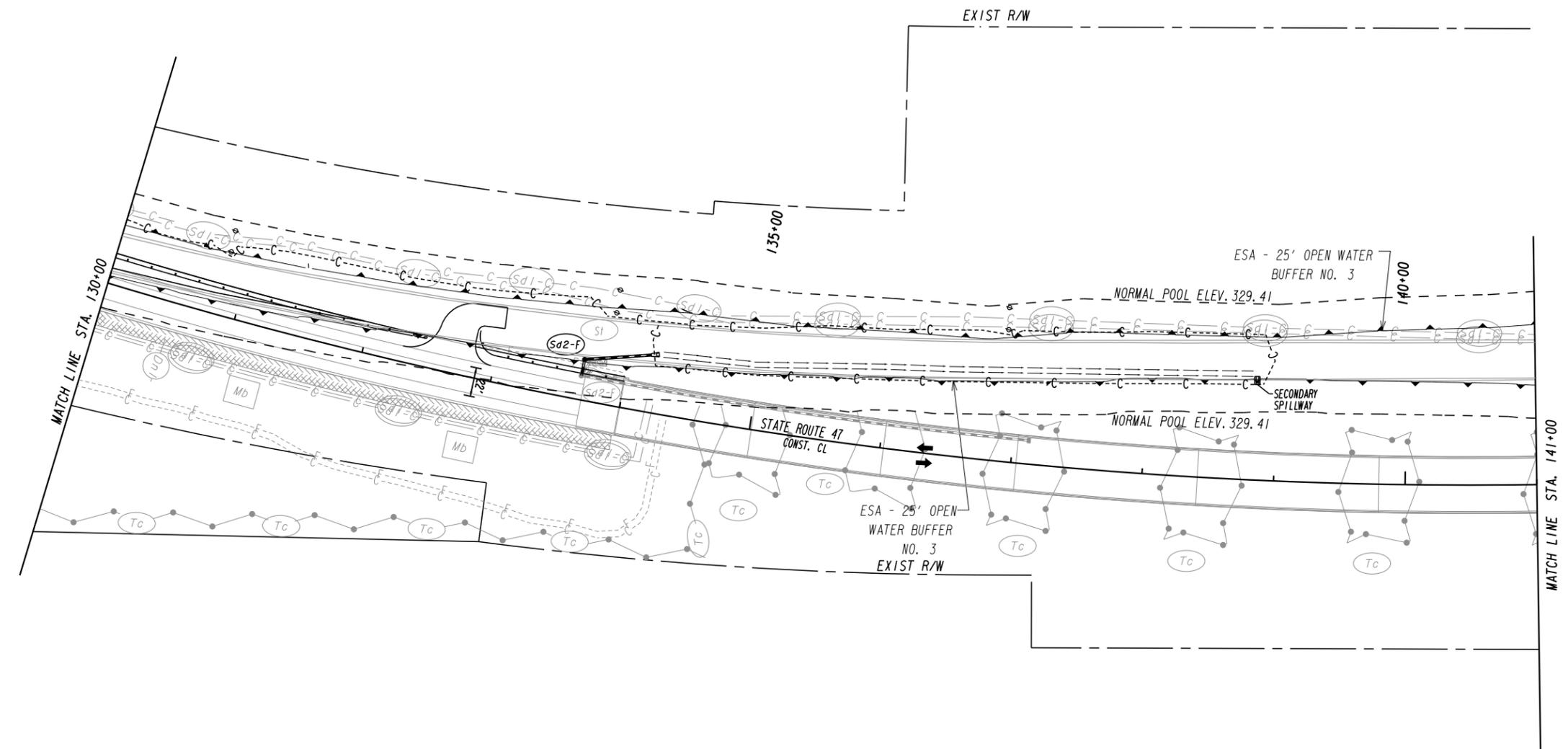
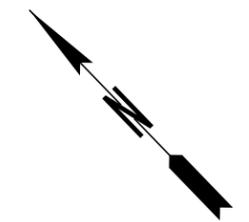
LINCOLN/COLUMBIA COUNTY  
STA. 120+00 TO STA. 130+00

DRAWING NO. 54-015

USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

OPEN WATER NO. 3



OPEN WATER NO. 3

PROJECT NO. 0232310\_54-016  
 SHEET NO. 254  
 DATE 2-23-15  
 DRAWN BY bgowen  
 CHECKED BY [blank]  
 IN CHARGE BY [blank]

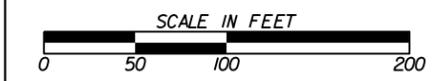
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE 2

**Baker**

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REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

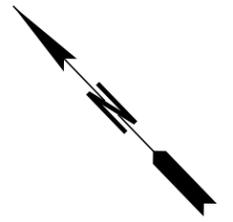
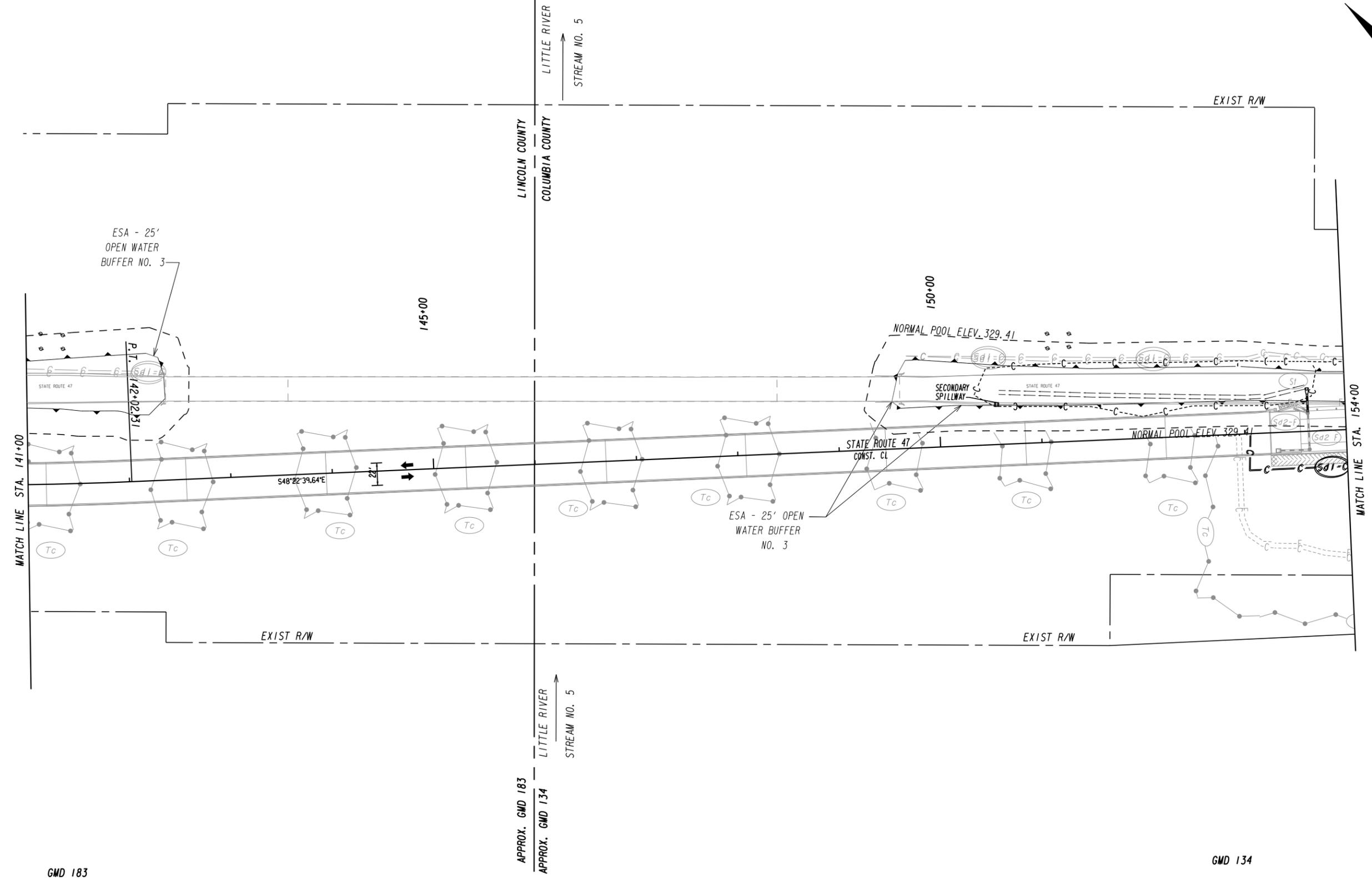
LINCOLN/COLUMBIA COUNTY  
STA. 130+00 TO STA. 141+00

DRAWING No. **54-016**

USE ON CONSTRUCTION 2-23-15

GMD 182

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE' FOR CONSTRUCTION RESTRICTIONS\*



PROJECT MANAGER  
PROJECT ENGINEER  
PROJECT SURVEYOR  
PROJECT DESIGNER

GMD 183

GMD 134

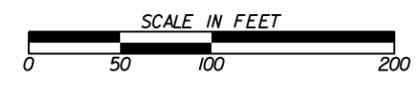
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE 2

**Baker**

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**REVISION DATES**

2-23-15		

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

**BMP LOCATION DETAILS**

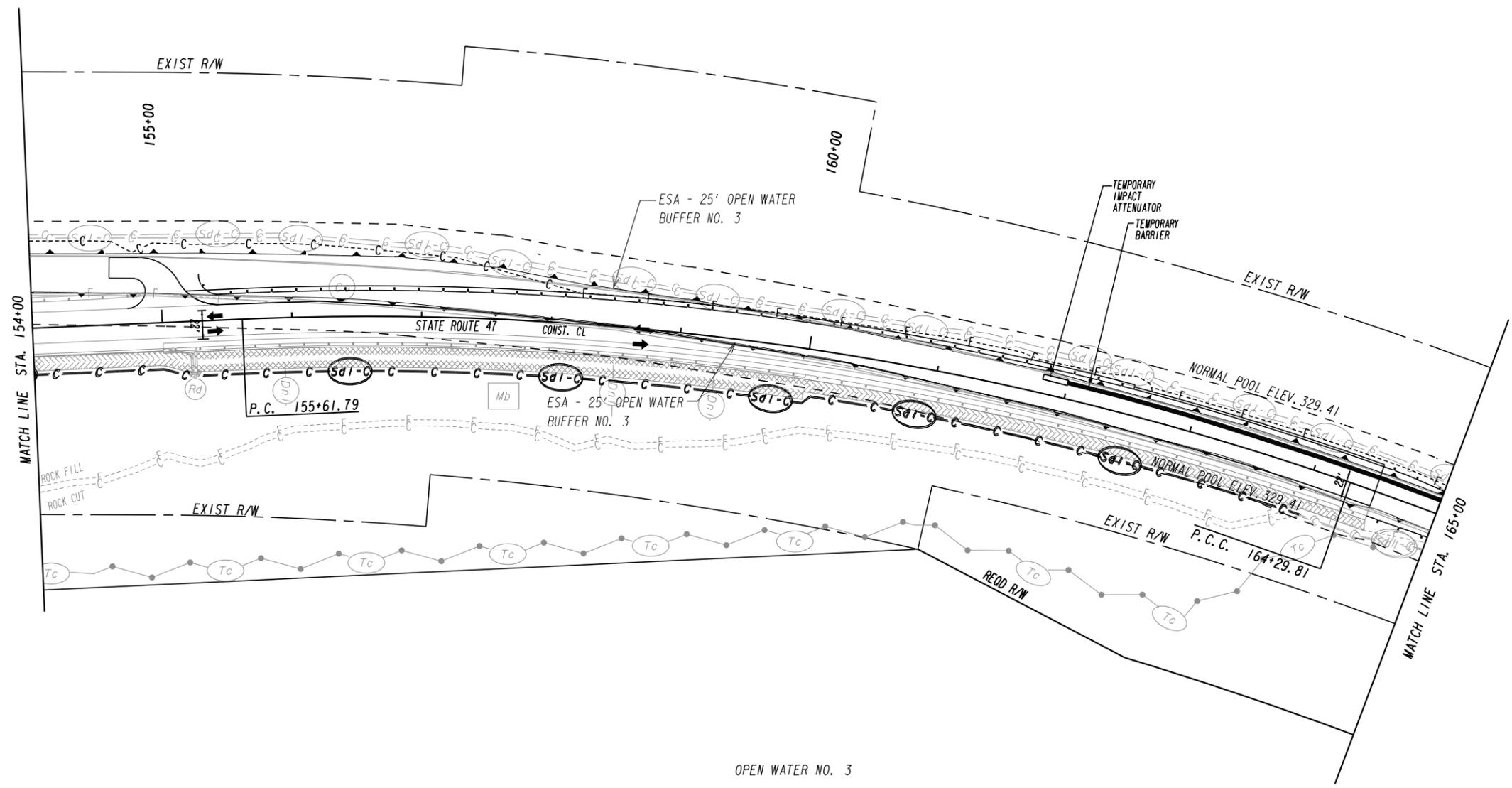
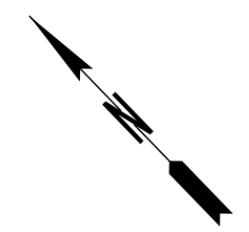
LINCOLN/COLUMBIA COUNTY  
STA. 141+00 TO STA. 154+00

DRAWING No. 54-017

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*

USE ON CONSTRUCTION 2-23-15

OPEN WATER NO. 3



OPEN WATER NO. 3

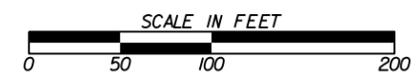
LEGEND

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE 2

**Baker**

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REVISION DATES

2-23-15		

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

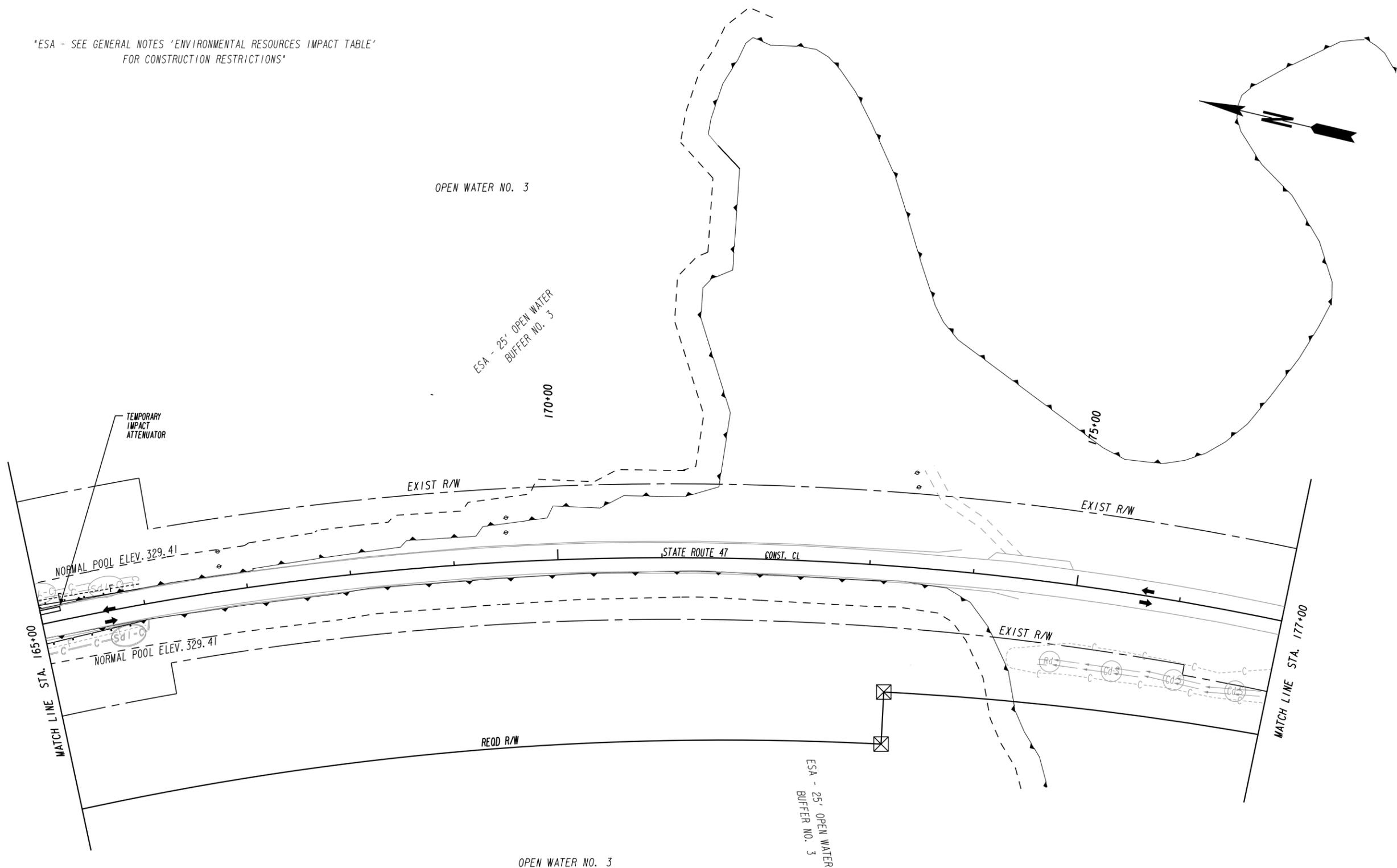
**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 154+00 TO STA. 165+00

DRAWING No. **54-018**

USE ON CONSTRUCTION 2-23-15

\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



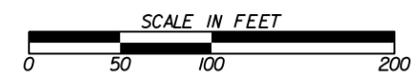
**LEGEND**

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	

STAGE 2

**Baker**

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REVISION DATES	
2-23-15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

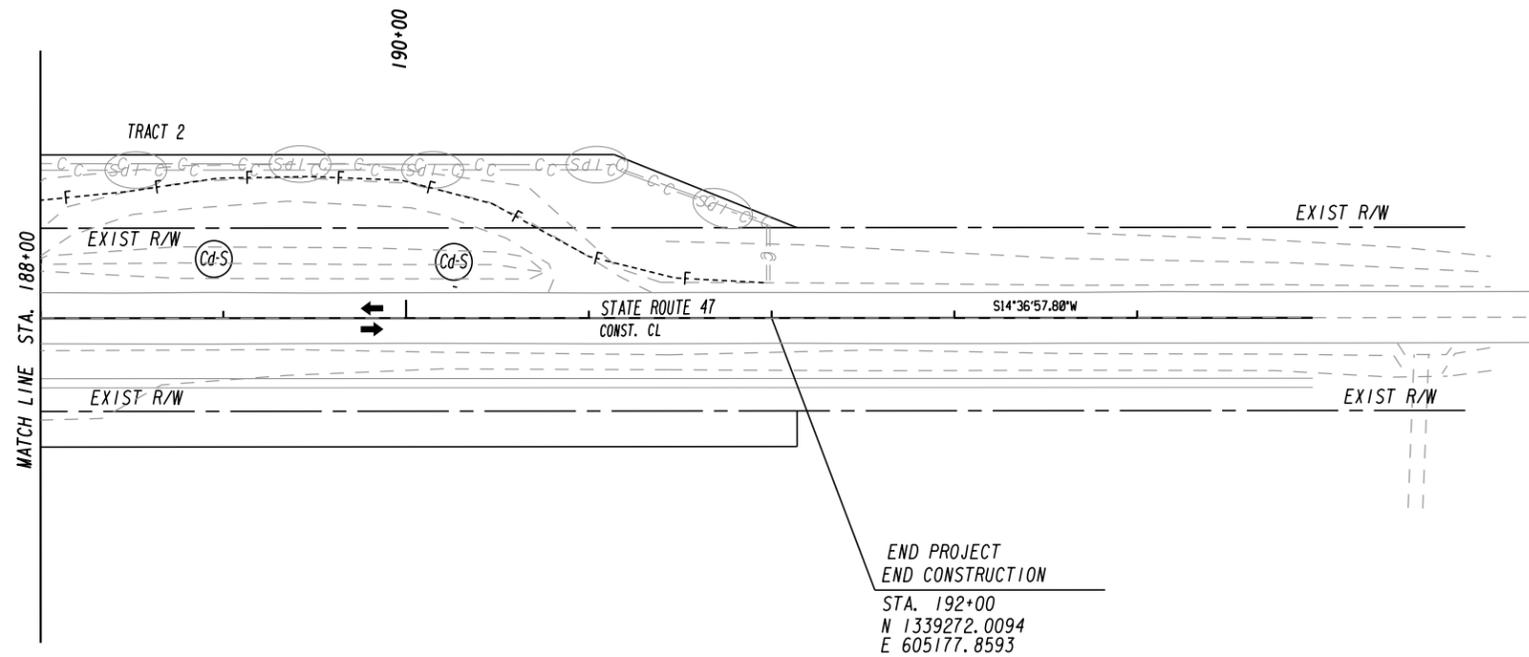
**BMP LOCATION DETAILS**

LINCOLN/COLUMBIA COUNTY  
STA. 165+00 TO STA. 177+00

DRAWING No. 54-019

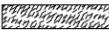
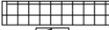


\*ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES IMPACT TABLE'  
FOR CONSTRUCTION RESTRICTIONS\*



END PROJECT  
END CONSTRUCTION  
STA. 192+00  
N 1339272.0094  
E 605177.8593

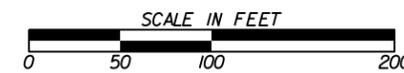
LEGEND

- PAVEMENT REMOVAL 
- TEMPORARY CONSTRUCTION PAVEMENT 
- PERMANENT CONSTRUCTION 
- CONCRETE MEDIAN CONSTRUCTION 
- MILL & OVERLAY CONSTRUCTION 
- OPEN LANES OF TRAFFIC 

STAGE 2

## Baker

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NORCROSS, GEORGIA 30092  
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REVISION DATES

2-23-15		

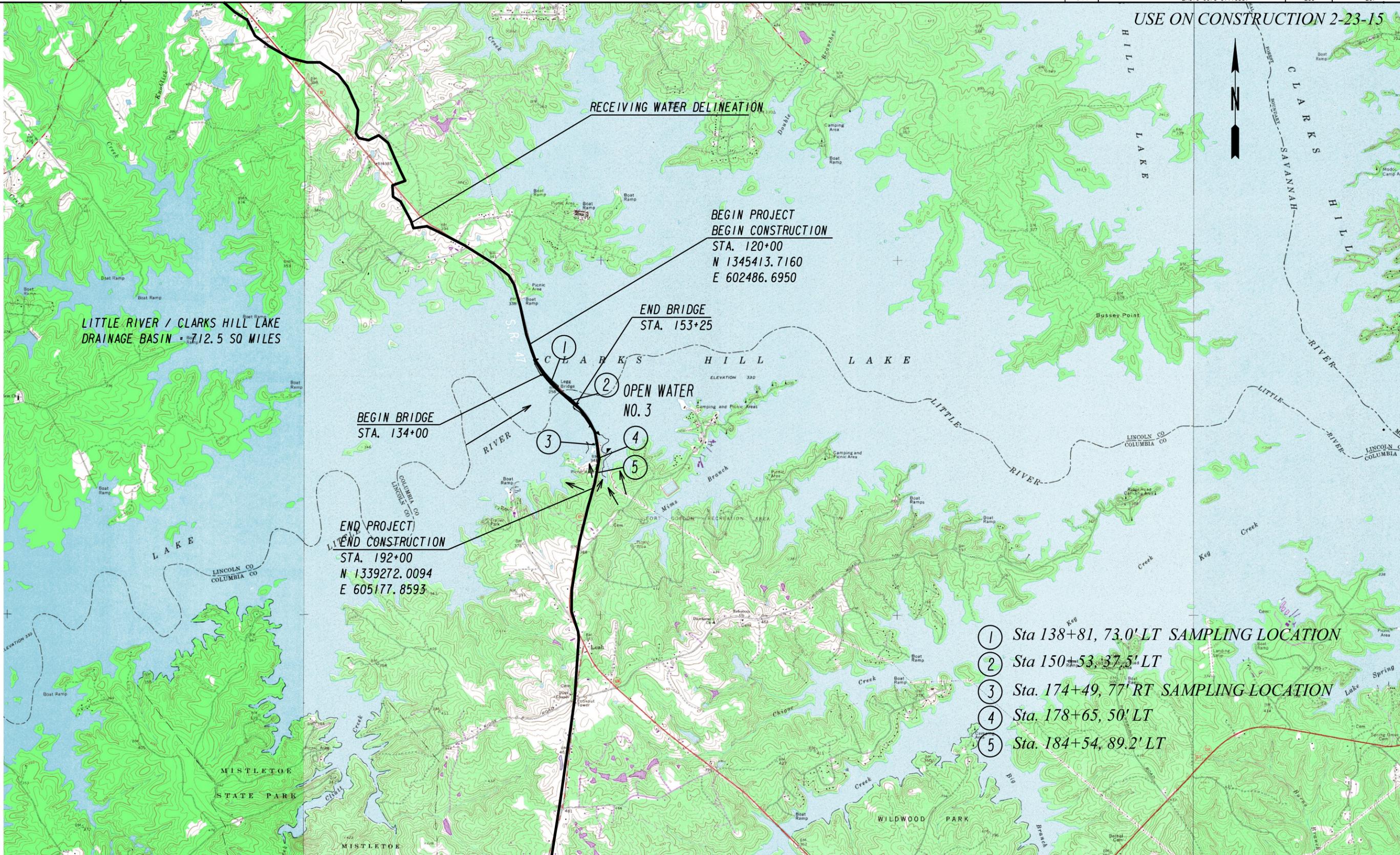
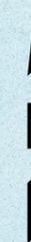
STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE PROGRAM DELIVERY

### BMP LOCATION DETAILS

LINCOLN/COLUMBIA COUNTY  
STA. 188+00 TO STA. 192+00

DRAWING No.  
**54-021**

USE ON CONSTRUCTION 2-23-15



LITTLE RIVER / CLARKS HILL LAKE  
DRAINAGE BASIN - 712.5 SQ MILES

END PROJECT  
END CONSTRUCTION  
STA. 192+00  
N 1339272.0094  
E 605177.8593

BEGIN PROJECT  
BEGIN CONSTRUCTION  
STA. 120+00  
N 1345413.7160  
E 602486.6950

END BRIDGE  
STA. 153+25

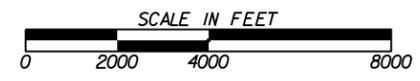
BEGIN BRIDGE  
STA. 134+00

- ①
- ② OPEN WATER NO. 3
- ③
- ④
- ⑤

- ① Sta 138+81, 73.0' LT SAMPLING LOCATION
- ② Sta 150+53, 37.5' LT
- ③ Sta. 174+49, 77' RT SAMPLING LOCATION
- ④ Sta. 178+65, 50' LT
- ⑤ Sta. 184+54, 89.2' LT

# Baker

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STATE OF GEORGIA  
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**WATERSHED MAP**  
**SITE MONITORING PLAN**  
STATE ROUTE 47

DRAWING No.  
**55-001**