ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0010211
Forsyth County
GDOT District 1 - Gainesville
SR 369 @ Six Mile Creek

OFFICE Design Policy & Support

DATE June 19, 2103

FROM for Keith Story Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Bayne Smith, District Engineer
Brent Cook, District Preconstruction Engineer
Neil Kanter, District Utilities Engineer
Steve Adewale, Project Manager
BOARD MEMBER - 9th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

Project Type: Bridge Replacement
GDOT District: One
Federal Route Number: N/A

P.I. Number: 0010211
County: Forsyth
State Route Number: 369

S.R. 369 over Six Mile Creek Bridge Replacement

Submitted for approval:

Tyler McIntosh, P.E., Michael Baker Jr., Inc. — DATE 4/5/2013

N/A — DATE

Local Government *(if applicable)* — DATE

Office Head *(GDOT Project Manager's Office)* — DATE 4/15/2013

GDOT Project Manager — DATE 4/12/2013

Recommendation for approval:

Program Control Administrator — DATE

GLENN BOWMAN * T.J. — DATE 4/19/2013

State Environmental Administrator *(recommendation required)*

N/A KATHY ZAHUL * T.J. — DATE 4/19/2013

State Traffic Engineer *(recommendation required for roundabout projects)*

LISA MYERS * T.J. — DATE 4/23/2013

Project Review Engineer

PATRICK ALLEN * T.J. — DATE 4/30/2013

State Utilities Engineer — DATE

District Engineer *(projects not originating in District Office)* — DATE

BEN RABUN * T.J. — DATE 5/23/2013

State Bridge Design Engineer *(if applicable)*

State Transportation Financial Management Administrator — DATE

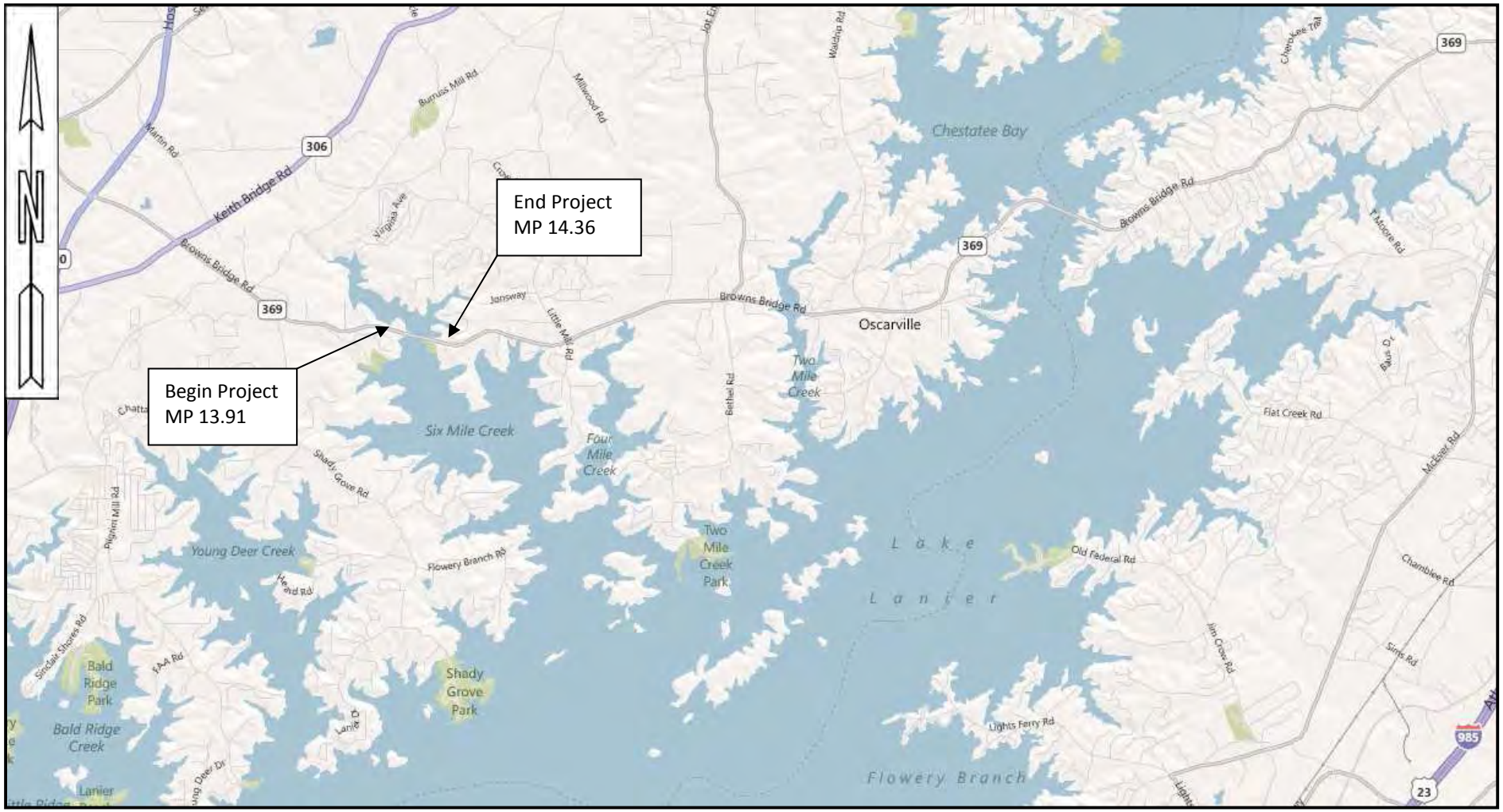
The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

Cynthia L Vanover — DATE 42313

State Transportation Planning Administrator *(recommendation required)*

* RECOMMENDATIONS ON FILE

PROJECT LOCATION



P.I. No. 0010211 – SR 369 over Six Mile Creek, Forsyth County

PLANNING & BACKGROUND DATA

Project Justification Statement:

This bridge (Structure ID 117-0019-0; SR 369 over Six Mile Creek (Lake Lanier)) was built in 1955. The bridge consists of six spans of steel girders on concrete caps with steel piles and concrete columns. This bridge was designed using a truck configuration that weighs less than the current state legal truck weights. This bridge is currently posted due to the substructure. No rehabilitation work performed on the substructure components would improve this bridge in so far as the posting of the structure is concerned. The overall condition of this bridge is fair to satisfactory. The deck is in fair condition due to minor concrete cracking. The superstructure is in fair condition due to minor steel deterioration. The substructure is in satisfactory condition due to minor concrete deterioration. Due to the structural integrity, based on the design and that the bridge is currently posted, replacement of this bridge is recommended.

Description of the proposed project:

Project with P.I. No.0010211 in Forsyth County represents the construction of a new two lane bridge over Six Mile Creek (Lake Lanier) approximately 6.2 miles northeast of the City of Cumming. The project will replace the existing bridge that currently exists at this location, which has a sufficiency rating of 45.10. The project will begin at a point approximately 0.3 miles west of Six Mile Creek and extend to a point approximately 0.2 miles east of Six Mile Creek. The project length is approximately 0.5 miles. The proposed bridge will consist of two 12-foot lanes with 8-foot shoulders. The roadway approaches will be reconstructed to provide two 12-foot lanes and 10-foot shoulders. The shoulder will include a 4-foot paved shoulder. 6.5 ft

Federal Oversight: ☐ Full Oversight ☒ Exempt ☐ State Funded ☐ Other

MPO: ☐ N/A ☒ MPO - Atlanta Regional Commission (ARC)
MPO Project TIP # FT-012

Regional Commission: ☐ N/A ☒ RC – Georgia Mountains RC
RC Project ID #

Congressional District(s): 9

Projected Traffic AADT:
Current Year (2010): 15,800 Open Year (2019): 18,400 Design Year (2039): 30,100
Traffic Projections Performed by: GDOT

Functional Classification (Mainline): Rural Minor Arterial

Is this project on a designated bike route? ☐ No ☒ YES
This route is identified as a proposed multi-use path in the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan.

Is this project located on a pedestrian plan? ☐ No ☒ YES

This route is identified as a proposed multi-use path in the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan.

Is this project located on or part of a transit network? ☒ No ☐ YES

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None

Context Sensitive Solutions: N/A

DESIGN AND STRUCTURAL DATA

Mainline Design Features:
Roadway Name/Identification: SR 369/Browns Bridge Rd.

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**2**	**2**	**2**
- **Lane Width(s)**	**12-ft**	**12-ft**	**12-ft**
- **Median Width & Type**	**None**	**None**	**None**
- **Outside Shoulder Width & Type**	**6-ft total 2-ft paved**	**10-ft total 6.5-ft paved**	**10-ft total 6.5-ft paved**
- **Outside Shoulder Slope**	**6.00%**	**6.00%**	**6.00%**
- **Inside Shoulder Width & Type**	**None**	**None**	**None**
- **Sidewalks**	**None**	**None**	**None**
- **Auxiliary Lanes**	**None**	**None**	**None**
- **Bike Lanes**	**None**	**None**	**None**
Posted Speed	**55 MPH**		**55 MPH**
Design Speed	**55 MPH**	**55 MPH**	**55 MPH**
Min Horizontal Curve Radius	**N/A**	**1060-ft**	**1750-ft**
Superelevation Rate	**2.00%**	**6.00%**	**5.20%**
Grade	**7.3%**	**5.0%**	**5.5%**
Access Control	**Permit**	**Permit**	**Permit**
Right-of-Way Width	**100-ft**	**N/A**	**125-220-ft**
Maximum Grade – Crossroad	**N/A**	**14.0%**	**N/A**
Design Vehicle	**SU**	**SU**	**SU**
Additional Items as needed			

*According to current GDOT design policy if applicable

Major Structures:

Structure	Existing	Proposed
Six Mile Creek Bridge ID# 117-0019-0	426-ft long, 30-ft wide consisting of two 12-ft lanes with brush curb, 6 span steel girder Sufficiency Rating: 45.10	600-ft long, 43.25-ft wide consisting of two 12-ft lanes with 8-ft shoulders, 4 span concrete girder

Retaining walls	N/A	Wall #1 consists of a 570-ft MSE wall according to GDOT Spec. Sect. 627 Wall #2 consists of 1170-ft MSE wall according to GDOT Spec. Sect. 627
Other	N/A	N/A

Major Interchanges/Intersections: N/A

Utility Involvements:
Telecom – AT&T
Water & Sewer – Forsyth County Water and Sewer
Overhead Electric – Sawnee EMC

Public Interest Determination Policy and Procedure recommended (Utilities)? ☐ YES ☒ NO
Per the District 1 Utilities Office, Public Interest Determination Policy and Procedures are not required for this project as discussed in the concept team meeting.

SUE Required: ☐ Yes ☒ No

Railroad Involvement: N/A

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: ☐ None ☒ Bicycle ☒ Pedestrian ☐ Transit

According to the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan updated in 2008, there is a proposed 8'-10' multi-use path from Keith Bridge Road to Waldrip Circle. The proposed multi-use path meets the Pedestrian and Bicycle Standard Warrant in the GDOT Design Policy Manual which states a warrant is met where a need is identified by a local government, MPO or regional commission through an adopted planning study. This project is also located approximately two miles away from Little Mill Middle School, therefore, meets a Bicycle Guideline Warrant which states a bicycle warrant is met if the project is within close proximity (i.e., 3 miles) of a school, college, university, or major public institution.

Right-of-Way:
Required Right-of-Way anticipated: ☒ YES ☐ NO ☐ Undetermined
Easements anticipated: ☒ Temporary ☐ Permanent ☐ Utility ☐ Other

Anticipated number of impacted parcels: 1
Anticipated number of displacements (Total): 0
Businesses: 0
Residences: 0
Other: 0

Location and Design approval: ☐ Not Required ☒ Required

Off-site Detours Anticipated: ☒ No ☐ Yes ☐ Undetermined

Transportation Management Plan Anticipated: ☒ YES ☐ NO
This federal-aid project requires a TMP as part of the federal Work Zone Safety and Mobility Rule. This projects falls under the 'non-significant' category per Appendix C of GDOT Policy 5240-1 and only a Temporary Traffic Control plan will be required.

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	YES	Appvl Date (if applicable)	NO	Undetermined
1. Design Speed	☐		☒	☐
2. Lane Width	☐		☒	☐
3. Shoulder Width	☐		☒	☐
4. Bridge Width	☐		☒	☐
5. Horizontal Alignment	☐		☒	☐
6. Superelevation	☐		☒	☐
7. Vertical Alignment	☐		☒	☐
8. Grade	☒		☐	☐
9. Stopping Sight Distance	☐		☒	☐
10. Cross Slope	☐		☒	☐
11. Vertical Clearance	☐		☒	☐
12. Lateral Offset to Obstruction	☐		☒	☐
13. Bridge Structural Capacity	☐		☒	☐

Note: *The existing sub-standard tangent grade of 5.5% at the west tie-in of the project is higher than what is allowed by AASHTO*

Design Variances to GDOT standard criteria anticipated:

GDOT Standard Criteria	Reviewing Office	YES	Appvl Date (if applicable)	NO	Undetermined
1. Access Control - Median Opening Spacing	DP&S	☐		☒	☐
2. Median Usage & Width	DP&S	☐		☒	☐
3. Intersection Skew Angle	DP&S	☐		☒	☐
4. Lateral Offset to Obstruction	DP&S	☐		☒	☐
5. Intersection Sight Distance	DP&S	☐		☒	☐
6. Bike & Pedestrian Accommodations	DP&S	☒		☐	☐
7. GDOT Drainage Manual	DP&S	☐		☒	☐
8. Georgia Standard Drawings	DP&S	☐		☒	☐
9. GDOT Bridge & Structural Manual	Bridge Design	☐		☒	☐
10. Roundabout Illumination	DP&S	☐		☒	☐
11. Rumble Strips	DP&S	☐		☒	☐
12. Safety Edge	DP&S	☐		☒	☐

Design Variance is anticipated since the local governments adopted planning study includes a multi-use trail along S.R. 369. Because of the short project length and rural nature of the bridge

replacement project, a multi-use trail is not being proposed as part of this project. This project will not preclude the addition of a multi-use trail at a later date.

VE Study anticipated: ☒ No ☐ Yes ☐ Completed – Date:

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: ☐ **NEPA:** ☒ Categorical Exclusion ☐ EA/FONSI ☐ EIS

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? ☐ No ☒ Yes
Is the project located in an Ozone Non-attainment area? ☐ No ☒ Yes

This project is exempt from CO modeling and PM 2.5 hotspot requirements since it is a bridge replacement project and no modifications to existing lane capacity will be made.

MS4 Compliance – Is the project located in an MS4 area? ☐ No ☒ Yes

Environmental Permits/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	☐	☒	
2. Forest Service/Corps Land	☒	☐	USACE Land
3. CWA Section 404 Permit	☒	☐	Regional Permit 96
4. Tennessee Valley Authority Permit	☐	☒	
5. Buffer Variance	☒	☐	
6. Coastal Zone Management Coordination	☐	☒	
7. NPDES	☒	☐	
8. FEMA	☐	☒	
9. Cemetery Permit	☐	☒	
10. Other Permits	☐	☒	
11. Other Commitments	☒	☐	Flood storage capacity needs to be net zero; environmental stewardship program; special projects
12. Other Coordination	☒	☐	Forsyth County – Boat Ramp

Is a PAR required? ☒ No ☐ Yes ☐ Completed – Date:

NEPA/GEPA: A Categorical Exclusion will be prepared. Two 4(f) resource have been identified within the project corridor, the public park/boat ramp facility located on the southwest side of the existing bridge over Six Mile Creek and the existing SR 369 bridge over Six Mile Creek.

Ecology: The ecology resource survey has been approved by GDOT. Special Provisions will be required for the protection of migratory birds, the Indiana bat, and the bald eagle. Lake Lanier is a

water of the U.S., therefore impacts will require a section 404 permit; Lake Lanier is a buffered state water, non-exempt impacts would require a Stream Buffer Variance (SBV) from GDNR-EPD.

History: The 2012 update of the Georgia Historic Bridge Survey identified the SR 369 bridge over Six Mile Creek as eligible for listing in the National Register. No other potential resources were identified in the most recent historic resource survey; SHPO concurred with these findings on October 2, 2012. The existing bridge will be removed; thus an adverse effect is assumed.

Archeology: The field survey for potential archeology resources and a GDOT Archaeological Short Form for Negative Findings have been completed.

Air & Noise: A Type III noise assessment with no modeling has been approved. The project would be exempt from PM2.5 hotspot requirements and the draft air quality assessment does not require any carbon monoxide modeling.

Public Involvement: A Public Information Open House (PIOH) was held on May 22, 2012. Up to three stakeholder meetings are anticipated for the project. The replacement of the bridge was also discussed at a PIOH in March 2007 when the bridge was to be replaced concurrent with the SR 369 widening project.

Major stakeholders: In addition to the traveling public, the major stakeholders for this project include the US Army Corps of Engineers and Forsyth County.

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: None

Early Completion Incentives recommended for consideration: ☒ No ☐ Yes

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Michael Baker Jr., Inc.
Design	Michael Baker Jr., Inc.
Right-of-Way Acquisition	GDOT
Utility Relocation	Utility Owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	GDOT
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Michael Baker Jr., Inc.
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Lighting required: ☒ No ☐ Yes

Initial Concept Meeting: N/A

Concept Meeting: March 7, 2013

Other projects in the area:

PI No. 122012 – S.R. 369 at Chattahoochee River "Lake Lanier" Bridge Replacement
PI No. 122017 – S.R. 369 at Two Mile Creek Bridge Replacement
PI No. 0001037 – S.R. 369 from S.R. 9 to S.R. 306 with New Interchange at S.R. 400
PI No. 0000811 – S.R. 369 at Six Intersections between Waldrip Rd. and Doc Bramblett Rd.

Other coordination to date: N/A

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	GDOT	
$ Amount	$921,388.93	$1,622,000.00	$0.00	$5,682,355.06	$217,740.00	$8,446,483.99
Date of Estimate		8/16/2012	6/18/2012	12/3/2012	5/7/2012	

*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: SR 369 Bridge Replacement to the North of the Existing Bridge			
Estimated Property Impacts:	**1 Parcel**	**Estimated Total Cost:**	**$8,446,483.99**
Estimated ROW Cost:	**$1,622,000.00**	**Estimated CST Time:**	**36 Months**
Rationale: This alternative consists of building the replacement bridge to the north side of the existing bridge. This alternative was selected because it did not impact the boat ramp on the south side of the existing roadway, the boat ramp is considered a 4f resource. This alternate avoids the overhead utility facilities located on the south side of the existing roadway.			

No-Build Alternative: SR 369 Existing Bridge			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**0**
Estimated ROW Cost:	**0**	**Estimated CST Time:**	**0**
Rationale: This alternative was not selected because it did not satisfy the requirements of the need and purpose statement. The bridge is structurally deficient with a rating of 45.10.			

Alternative 1: SR 369 Bridge Replacement to the South of the Existing Bridge			
Estimated Property Impacts:	**6 Parcels**	**Estimated Total Cost:**	**$8,446,483.99**
Estimated ROW Cost:	**$1,622,000.00**	**Estimated CST Time:**	**36 Months**
Rationale: This alternative consists of building the replacement bridge to the south side of the existing bridge. This alternative was not selected because of the impacts to the existing boat ramp, the boat ramp is a 4(f) resource. Additionally, all of the existing overhead utilities are on the south side of existing SR 369			

and would require relocation under this alternate.

Alternative 2: SR 369 Bridge Replacement on existing alignment			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$6,824,623.89**
Estimated ROW Cost:	**0**	**Estimated CST Time:**	**27 Months**
Rationale: This alternative was not selected because there were no suitable detour routes during construction of this alternate.			

Comments: None

Attachments:

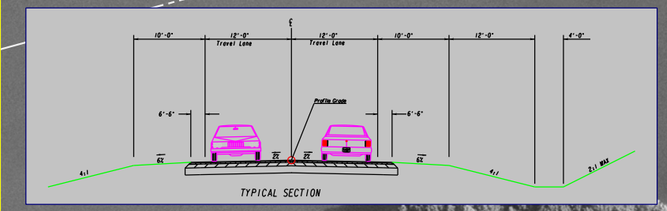
1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
    a. Construction including Engineering and Inspection
    b. Completed Fuel & Asphalt Price Adjustment forms
    c. Right-of-Way
    d. Utilities
    e. Environmental Mitigation (EPD, etc)
4. Traffic diagrams
5. MS4 Concept-Level Hydrology Study
6. Bridge inventory
7. Minutes of Concept meetings
8. Minutes of any meetings that shows support or objection to the concept *(e.g. PIOH, PHOH, Detour Meeting, Town Hall Meeting, etc.)*

APPROVALS

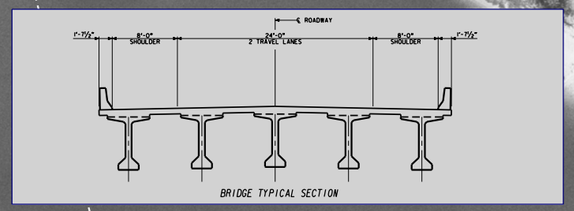
Concur: K Joel Carpenter 6-7-13
Director of Engineering

Approve: [signature]
Chief Engineer

6-14-13
Date



TYPICAL SECTION



BRIDGE TYPICAL SECTION

S.R. 369 OVER SIX MILE CREEK
BRIDGE REPLACEMENT
FORSYTH COUNTY
BHF00-0012-01(082)
PI NO. 0010211
CONCEPT LAYOUT

Baker

3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-98

SCALE IN FEET
0 50 100 200

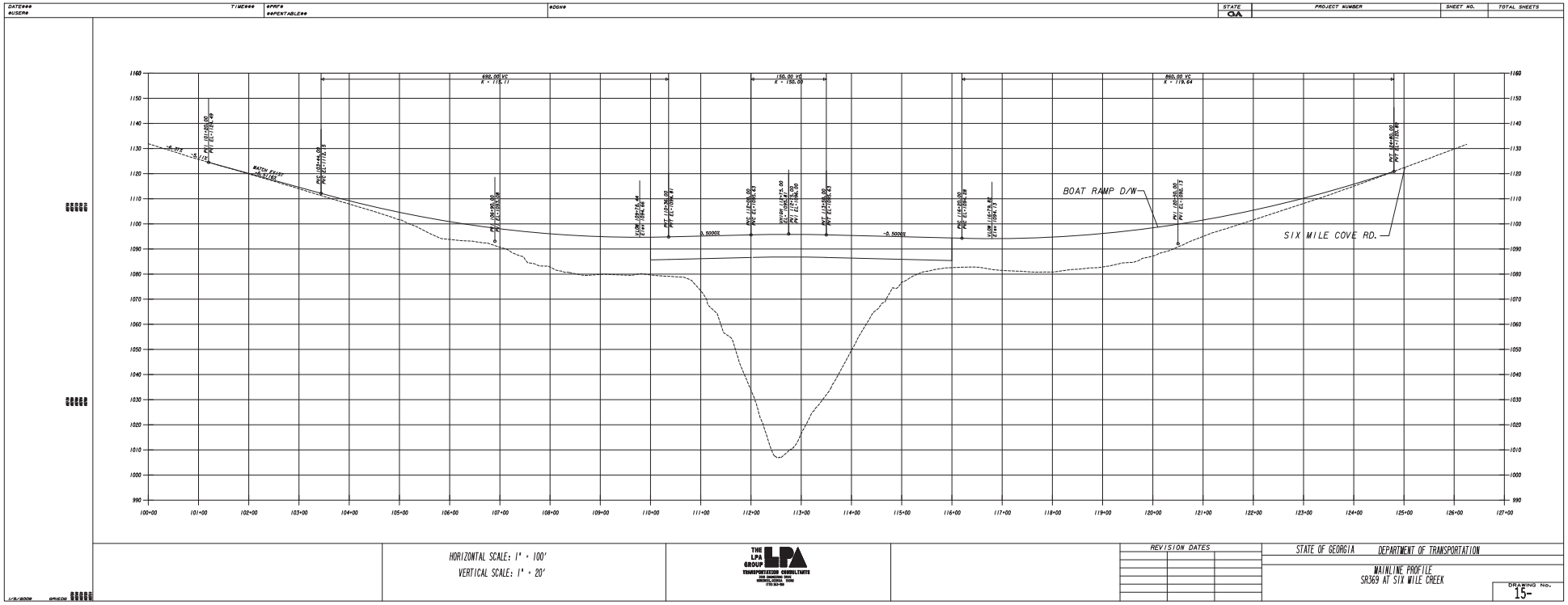
LEGEND

PROPOSED PAVEMENT
PROPOSED PAVED SHOULDER
PROPOSED BRIDGE
CONSTRUCTION LIMITS
PROPERTY LINE/EXIST R/W
PROPOSED REQ'D R/W
PROPOSED DRIVEWAY ESMT
PROPOSED WALL/BARRIER
PROPOSED APPROACH SLAB
EXISTING CONTOURS

FILL CUT
1071 1085

SIX MILE CREEK
BEGIN PROJECT STA. 101+20.00
END PROJECT 124+80.00
U.S. ARMY CORPS OF ENGINEERS LAKE SIDNEY LANIER
RICKY BRYAN
EXIST. R/W
REQ'D R/W
RETAINING WALL
BARRIER
100+00
105+00
110+00
115+00
120+00
125+00
S.R. 369
REIVES ROAD
CAROLINE R. GRANT LADY
RAYMOND D. HELFERICH
TIMOTHY C. HANLINE & DEBORAH C. HANLINE
JAMES W. HALL & CAPRICIA L. HALL
MATTHEW LORTON & CHRISTIE LORTON
RODNEY K. RAY & CYATHIS D. RAY
RICHARD E. TROYER & GAYLE C. TROYER
WILLIAM R. JACOBS, JR. & LOUISE B. JACOBS
CHARLESTON BAY DRIVE
CHARLESTON LANE
JAMES A. BROWN & SHANNON T. BROWN
WILLIAM R. COLLEY
THE HOY JUNE & JAY WILLIAMS FAMILY LTD LIABILITY LTD PARTNERSHIP
PETER J. MONTI, JAMES Z. BOWCOCK, WILLIAM MCGANNON, & FRES K.S. McGONNELL
SIX MILE COVE ROAD

CONCEPT LAYOUT - P.I. NO. 0010211



HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 20'

THE LPA GROUP
TRANSPORTATION CONSULTANTS

REVISION DATES

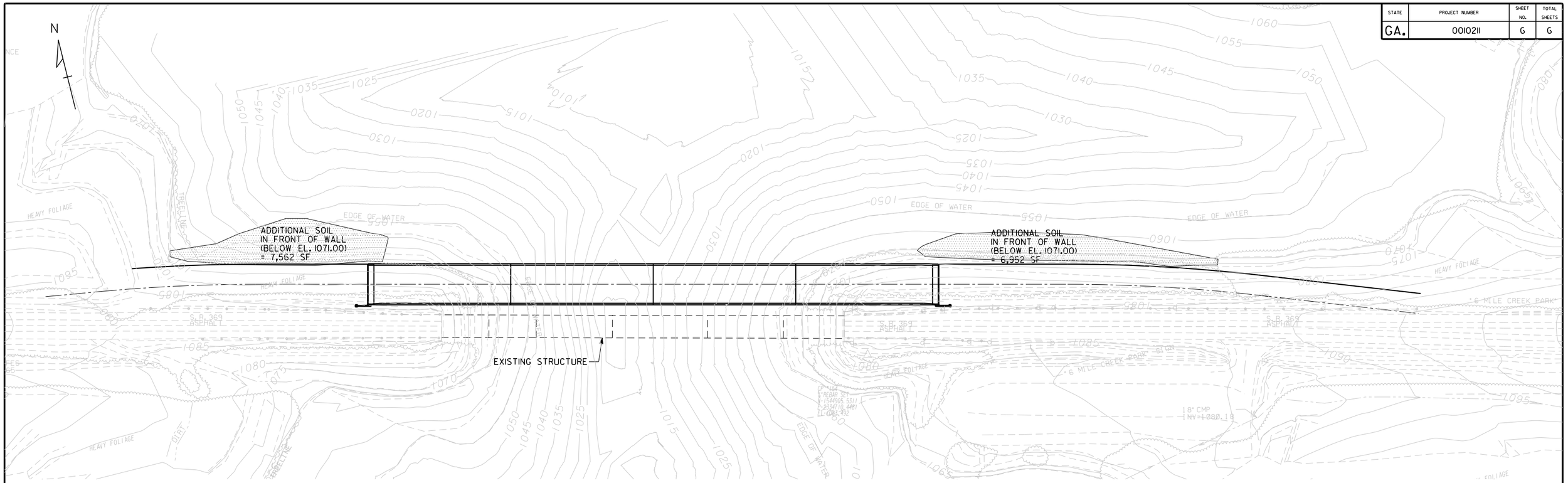
STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION

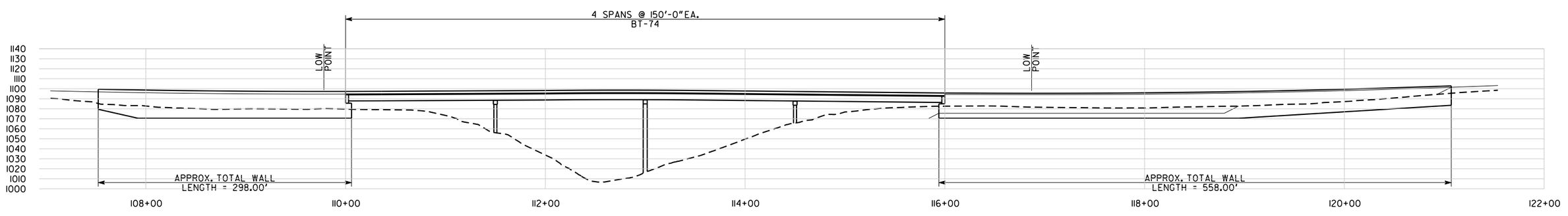
MAINLINE PROFILE
SR369 AT SIX MILE CREEK

DRAWING No. 15-

CONCEPT PROFILE - P.I. No. 0010211

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	0010211	G	G





ELEVATION

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

OPTION 1

SR 369 OVER SIX MILE CREEK

FORSYTH COUNTY 0010211

DRAWING NO. 35-XX

BRIDGE SHEET

SCALE: 1" = 50'-0" FEBRUARY 2012

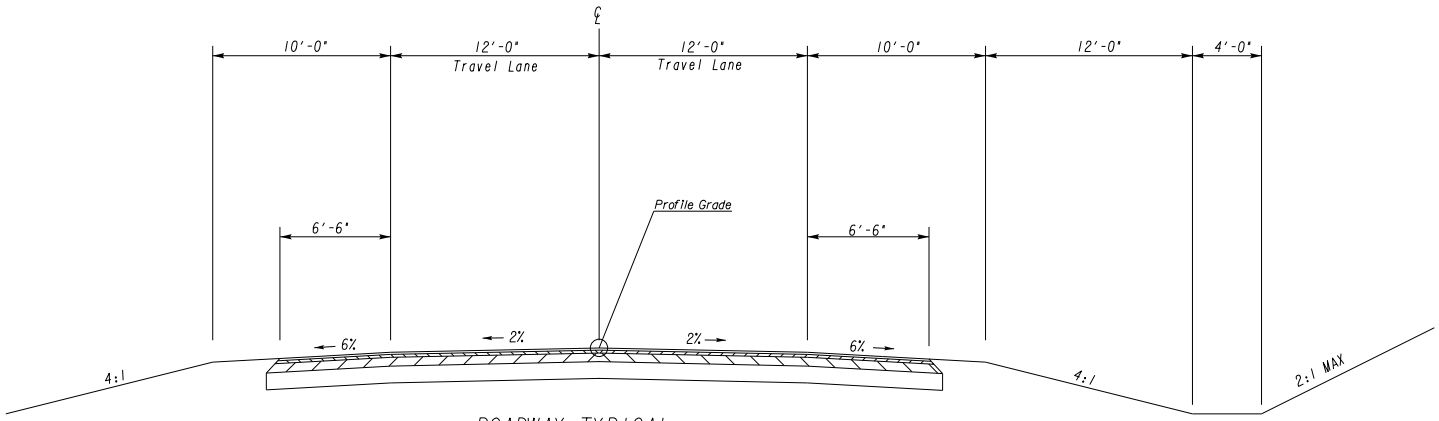
DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WEI
DRAWN	BSB	DESIGN GROUP	AWB	APPROVED	BFR

BY	REVISIONS	DATE

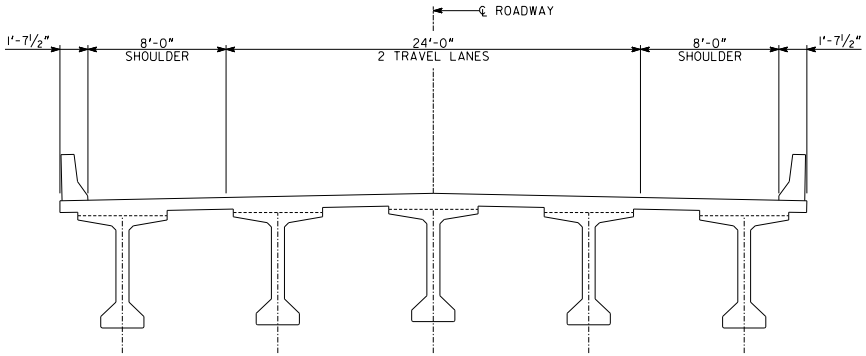
3/23/2012 8:47:32 AM R:\126293\Bridge\bsb\option 1.dgn

1 INCH WHEN PRINTED FULL SIZE

5/30/2013 9:56:23 AM USER:DTMcIntosh	Jversion gplotborder-v81-PO.tbl	R:\126293\001021\Concept\Typical Concept.dgn	STATE GA	PROJECT NUMBER BHFOO-0012-01(082)	SHEET NO.	TOTAL SHEETS



ROADWAY TYPICAL



BRIDGE TYPICAL

NOT TO SCALE

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY

TYPICAL SECTIONS
SR369 AT SIX MILE CREEK

DRAWING No. 5-01

1/5/2009 GPLN

Print Form

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. BHF00-0012-01(082) , Forsyth **OFFICE** OPD

S.R. 369 AT SIX MILE CREEK BRIDGE REPLACEMENT **DATE** 3/31/2013

P.I. No. 0010211

FROM Genetha Rice-Singleton, State Program Delivery Engineer

TO Lisa L. Myers, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

MNGT LET DATE 2015FY

PROJECT MANAGER Steve Adewale, CPEng, P.E.

MNGT R/W DATE 2014FY

PROGRAMMED COST (TPro W/OUT INFLATION)		**LAST ESTIMATE UPDATE**	
CONSTRUCTION	$ 5,120,000.00	DATE	7/19/2010
RIGHT OF WAY	$ 1,000,000.00	DATE	7/19/2010
UTILITIES	$ 100,000.00	DATE	7/19/2010

REVISED COST ESTIMATES

CONSTRUCTION*	$ 5,682,355.06	
RIGHT OF WAY	$ 1,622,000.00	
UTILITIES	$ ~~231,900.00~~	$0 Reimburseable dtp

* Costs contain 5 % Engineering and Inspection

REASON FOR COST INCREASE

Updated for refined concept and Asphalt and Fuel Index

Revised: March 14, 2012

CONTINGENCY SUMMARY

Construction Cost Estimate:	$ 5,336,220.86	(Base Estimate)
Engineering and Inspection:	$ 266,811.04	(Base Estimate x 5 %)
Total Liquid AC Adjustment	$ 79,323.16	(From attached worksheet)
Construction Total:	**$** 5,682,355.06	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Cost
AT&T	0.00
Forsyth County Water & Sewer	0.00
Sawnee EMC	0.00

Attachments

JOB ESTIMATE REPORT

JOB NUMBER : 0010211 SPEC YEAR: 01
DESCRIPTION: BRIDGE REPLACEMENT ON SR 369 @ SIX MILE CREEK

COST GROUPS FOR JOB 0010211

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
STRO	BRIDGE	25950.000	95.00000	2465250.00	Y
ACTIVE COST GROUP TOTAL				2465250.00	
INFLATED COST GROUP TOTAL				2465250.00	

ITEMS FOR JOB 0010211

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0004	540-1101		LS	REM OF EX BR, STA NO - 0010211	1.000	100000.00	100000.00
0005	150-1000		LS	TRAFFIC CONTROL - 0010211	1.000	75000.00	75000.00
0010	153-1100		EA	FIELD ENGINEERS OFFICE TP 1	1.000	56886.21	56886.21
0015	208-0200		CY	ROCK EMBANKMENT	2300.000	34.86	80198.03
0020	210-0100		LS	GRADING COMPLETE - 0010211	1.000	426400.00	426400.00
0025	310-1101		TN	GR AGGR BASE CRS, INCL MATL	4720.000	20.81	98252.04
0030	402-1812		TN	RECYL AC LEVELING,INC BM&HL	400.000	77.53	31012.97
0035	402-3113		TN	RECYL AC 12.5MM SP,GP1/2,BM&HL	920.000	65.61	60361.20
0040	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	2210.000	65.00	143667.39
0045	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	1050.000	71.49	75065.11
0050	413-1000		GL	BITUM TACK COAT	970.000	2.90	2817.70
0055	433-1000		SY	REINF CONC APPROACH SLAB	100.000	153.42	15342.81
0060	456-2012		GLM	INTENT. RUMB. STRIPS - GRND-IN-PL (CONT)	1.000	1260.21	1260.21
0065	522-1000		LS	SHORING	1.000	60000.00	60000.00
0070	620-0100		LF	TEMP BARRIER, METHOD NO. 1	2000.000	26.56	53121.84
0080	634-1200		EA	RIGHT OF WAY MARKERS	15.000	114.61	1719.19
0085	641-1100		LF	GUARDRAIL, TP T	110.000	61.59	6775.66
0090	641-1200		LF	GUARDRAIL, TP W	1000.000	17.75	17750.62
0095	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	4.000	611.05	2444.21
0100	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	4.000	1797.75	7191.03
0104	999-3155		LF	DRY SWALE EDGE DRAIN	650.000	88.15	57297.50
0105	441-0301		EA	CONC SPILLWAY, TP 1	2.000	1488.92	2977.84
0110	500-3101		CY	CLASS A CONCRETE	1.000	580.69	580.69
0115	550-1180		LF	STM DR PIPE 18",H 1-10	1350.000	36.06	48685.44
0135	550-4218		EA	FLARED END SECT 18 IN, ST DR	4.000	511.94	2047.77
0140	576-1010		LF	SLOPE DRAIN PIPE, 10 IN	100.000	39.00	3900.75
0145	603-2018		SY	STN DUMPED RIP RAP, TP 1, 18"	100.000	50.99	5099.05
0149	603-7000		SY	PLASTIC FILTER FABRIC	100.000	3.67	367.58
0150	668-2100		EA	DROP INLET, GP 1	10.000	1335.91	13359.17
0155	668-2110		LF	DROP INLET, GP 1, ADDL DEPTH	10.000	170.25	1702.59
0160	163-0232		AC	TEMPORARY GRASSING	2.000	392.00	784.00
0165	163-0240		TN	MULCH	100.000	271.46	27146.90
0170	163-0300		EA	CONSTRUCTION EXIT	4.000	1163.81	4655.24

0175	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 3	8.000	386.49	3091.98
0180	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	650.000	12.41	8070.50
0185	163-0528	LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	1100.000	3.06	3372.84
0190	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	4.000	337.28	1349.16
0195	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	2.000	134.55	269.10
0200	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	1800.000	0.84	1512.40
0205	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	2500.000	0.80	2002.43
0210	165-0041	LF	MAINT OF CHECK DAMS - ALL TYPES	1100.000	1.33	1468.39
0215	165-0087	EA	MAINT OF SILT CONTROL GATE, TP 3	8.000	94.45	755.64
0220	165-0101	EA	MAINT OF CONST EXIT	4.000	572.96	2291.88
0225	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	2.000	59.05	118.11
0230	165-0110	EA	MAINT OF ROCK FILTER DAM	4.000	97.14	388.60
0235	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2.000	295.10	590.20
0240	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	403.37	9681.11
0245	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	1800.000	1.42	2560.75
0250	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	2500.000	2.70	6759.95
0255	700-6910	AC	PERMANENT GRASSING	4.000	1192.25	4769.01
0260	700-7000	TN	AGRICULTURAL LIME	15.000	83.81	1257.25
0265	700-8000	TN	FERTILIZER MIXED GRADE	5.000	455.63	2278.19
0270	700-8100	LB	FERTILIZER NITROGEN CONTENT	200.000	1.96	392.17
0275	716-2000	SY	EROSION CONTROL MATS, SLOPES	8000.000	0.87	7015.04
0280	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	50.000	15.19	759.54
0285	636-2070	LF	GALV STEEL POSTS, TP 7	100.000	8.73	873.85
0290	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	3550.000	0.62	2223.05
0295	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	2700.000	0.62	1687.15
0300	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	150.000	0.49	74.23
0305	653-6006	SY	THERM TRAF STRIPING, YELLOW	325.000	3.63	1182.00
0310	654-1001	EA	RAISED PVMT MARKERS TP 1	70.000	5.04	352.80
0315	657-1054	LF	PRF PL SD PVMT MKG,5",WH,TP PB	1200.000	3.97	4774.16
0320	657-6054	LF	PRF PL SD PVMT MKG,5",YW,TP PB	1200.000	4.43	5323.57
0324	621-4021	LF	CONCRETE SIDE BARRIER, TY 2A	510.000	324.16	165324.52
0325	627-1000	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 1 & 2	195.000	64.73	12624.27
0330	627-1010	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1 & 2	4550.000	57.31	260804.04
0335	627-1020	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 1 & 2	13880.000	49.29	684266.51
0340	627-1100	LF	COPING A, WALL NO - 1 & 2	180.000	85.03	15305.84
0345	627-1120	LF	COPING B, WALL NO - 1 & 2	820.000	209.18	171529.89

ITEM TOTAL	2870970.87
INFLATED ITEM TOTAL	2870970.87

TOTALS FOR JOB 0010211

ESTIMATED COST:	5336220.86
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	5336220.86

PROJ. NO.	BHF00-0012-01(082)
P.I. NO.	0010211
DATE	12/3/2012

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Dec-12	$ 3.683
DIESEL		$ 4.092
LIQUID AC		$ 567.00

Link to Fuel and AC Index:
http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**77905.8**	**$ 77,905.80**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	907.20	
Monthly Asphalt Cement Price month project let (APL)			$	567.00	
Total Monthly Tonnage of asphalt cement (TMT)				229	

ASPHALT	Tons	%AC	AC ton
Leveling	400	5.0%	20
12.5 OGFC		5.0%	0
12.5 mm	920	5.0%	46
9.5 mm SP		5.0%	0
25 mm SP	2210	5.0%	110.5
19 mm SP	1050	5.0%	52.5
	4580		**229**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$**	**1,417.36**	**$ 1,417.36**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	907.20	
Monthly Asphalt Cement Price month project let (APL)			$	567.00	
Total Monthly Tonnage of asphalt cement (TMT)				4.166247894	

Bitum Tack Gals	gals/ton	tons
970	232.8234	4.16624789

PROJ. NO.	BHF00-0012-01(082)		CALL NO.
P.I. NO.	0010211		
DATE	12/3/2012		

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	907.20	
Monthly Asphalt Cement Price month project let (APL)			$	567.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT	**$**	**79,323.16**

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 8/16/2012
Revised:

Project: BHF00-0012-01(082)
County: Forsyth
PI: 0010211

Description: SR 369 Over Six Mile Creek
Project Termini: SR 369 Over Six Mile Creek

Existing ROW: Varies
Parcels: 1
Required ROW: Varies

Land and Improvements		$1,557,000.00
Proximity Damage	*$0.00*	
Consequential Damage	*$0.00*	
Cost to Cures	*$0.00*	
Trade Fixtures	*$0.00*	
Improvements	*$25,000.00*	
Valuation Services		$2,000.00
Legal Services		$38,175.00
Relocation		$2,000.00
Demolition		$0.00
Administrative		$22,000.00
TOTAL ESTIMATED COSTS		$1,621,175.00
TOTAL ESTIMATED COSTS (ROUNDED)		***$1,622,000.00***

Preparation Credits	Hours	Signature

Prepared By: Joshua Alexander CG#: 286999 8/16/2012
Approved By: Joshua Alexander CG#: 286999 8/16/2012

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BHF00-0012-01(082) Forsyth Co.
P.I. No. 122017
SR 369 @ Two Mile Creek

OFFICE Gainesville

DATE June 20, 2012

FROM Allen Ferguson
District Utilities Engineer

TO Steve Adewale, Project Manager

SUBJECT PRELIMINARY UTILITY COST (ESTIMATE)

As requested by your office, we are furnishing you with a Preliminary Utility Cost estimate for the subject project.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
AT&T	$ 93,000.00	$0.00
Comcast CATV	$ 62,000.00	$0.00
Forsyth County Water/Sewer	$303,500.00	$0.00
Sawnee EMC	$298,000.00	$0.00
TOTAL	**$756,500.00**	**$0.00**

If you have any questions, please contact Allen Ferguson at 770-532-5510.

RAF

C: Jeff Baker, P.E., State Utilities Engineer (email only)
Angie Robinson, Office of Financial Management (email only)
Matt Needham, Area Engineer (email only)
File

SR 369 Environmental Mitigation Cost Estimate						
P.I. Number	**Project Name**	**Section 404 Credits Needed**	**Section 404 Cost Estimate***	**Environmental Stewardship Program (ESP) Credits Needed**	**ESP Cost Estimate****	**Total Estimated Mitigation Cost**
0010211	Six-Mile Creek	12.6	$151,200	33.27	$66,540	$217,740

*Note: Wetland/Open Water credits in the Upper Chattahoochee Watershed were estimated at approximately $12,000 per credit. Due to the variability of the number of wetland mitigation credits available and of the cost per credit associated with commercial mitigation banks, the Section 404 mitigation costs could be lower or higher depending upon the market.

**Note: Credits in the ESP model equal approximately $2,000 each. The cash buyout option is no longer an available option; therefore, mitigation must be provided in the form of special projects that equal the dollar value calculated in the model.

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Forsyth County
P.I. # 0010211

OFFICE Planning

DATE August 2, 2012

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Genetha Rice-Singleton, State Program Delivery Engineer
Attention: Steve Adewale

SUBJECT **Estimated** Traffic Assignments for SR 369 @ SIX MILE CREEK.

We are furnishing estimated traffic assignments for the above project as follows:

	NO BUILD	**BUILD**
	BRIDGE ID 117-0019-0	BRIDGE ID 117-0019-0
2010 ADT	15800	15800
2019 ADT	18400	18400
2039 ADT	27400	30100
2010 DHV	1500	1500
2019 DHV	1750	1750
2039 DHV	2605	2860
D	55%	55%
K	9.5%	9.5%
T	9.00%	9.00%
S.U.	5.25%	5.25%
COMB.	3.75%	3.75%
24 HR. T.	10.00%	10.00%
S.U.	6.00%	6.00%
COMB.	4.00%	4.00%

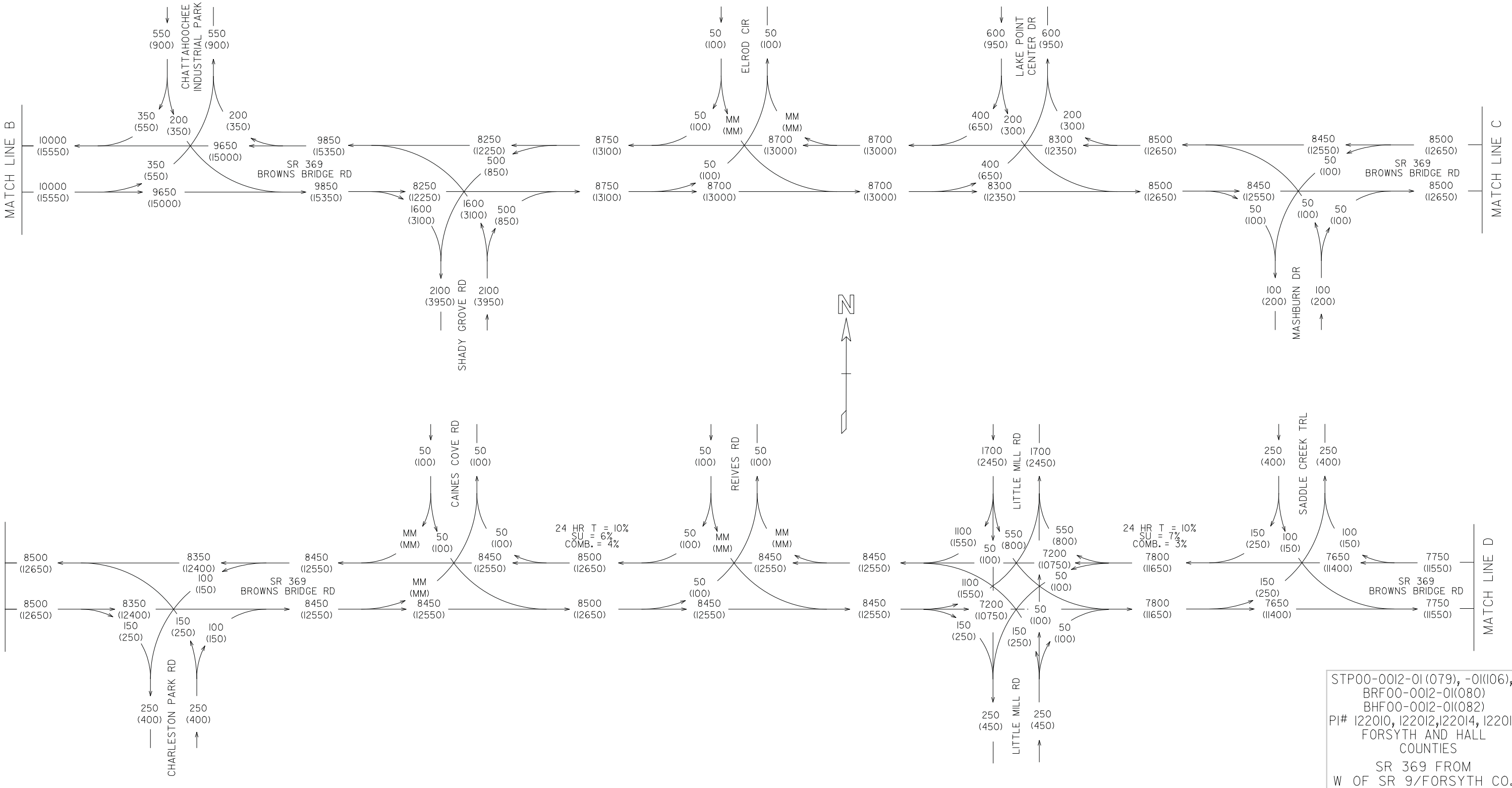
If you have any questions concerning this information please contact Andre Washington at (404) 631-1925.

CLV/AMW

SHEET 2 OF 8

2015/2035 ADT NO-BUILD

HNTB
3715 NORTHSIDE PARKWAY, NW
400 NORTHCREEK, SUITE 600
ATLANTA, GEORGIA 30327

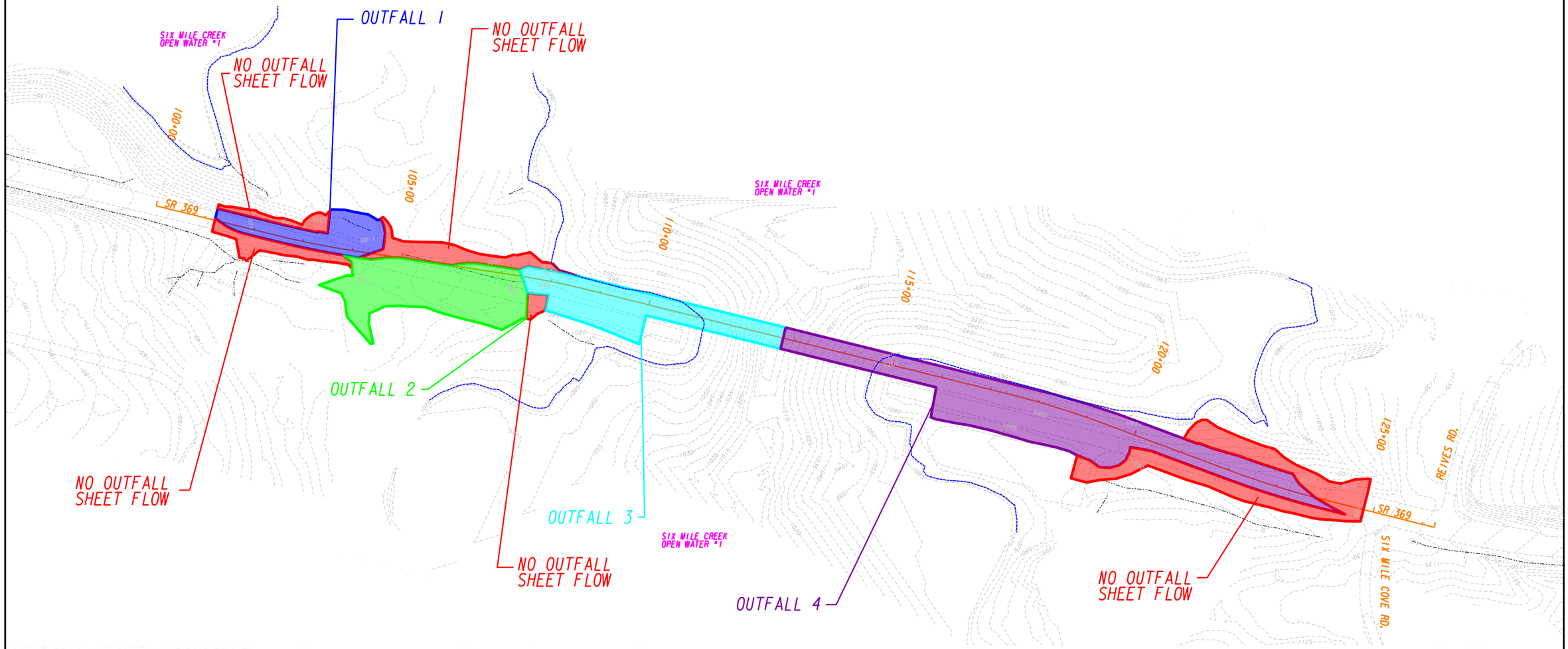


STP00-0012-01(079), -01(106),
BRF00-0012-01(080)
BHF00-0012-01(082)
PI# 122010, 122012, 122014, 122017
FORSYTH AND HALL
COUNTIES

SR 369 FROM
W OF SR 9/FORSYTH CO.
TO E OF
SR 53/HALL COUNTY

2015 ADT = XXXX
2035 ADT = (XXXX)

11/30/2012 9:08:07 AM USER:chad.havens	Jversion gplotborder-V81-PO-color.tbl	R:\126293\0010211\Concept\MS4 Hydrology Plan.dgn	STATE GA	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS



MS4 CONCEPT-LEVEL HYDROLOGY STUDY

OUTFALL #	LOCATION	DRAINAGE AREA (AC)	PRE C	POST C	MS4 COMPLIANCE	OUTFALL TYPE	POST BMPs	SIZE	R/W COST	BMP INSTALLATION COST	BMP ANNUAL MAINTENANCE COST	LOCATION TO IMPAIRED STREAM	WQv REQUIRED	WQv PROVIDED	CP
1	Sta. 103+80 LT	0.39	0.64	0.78	Feasible	Ditch	Enhanced Swale	80' x 7'	$0	$6,362	$106	225'	1183 CF	1200 CF	N/A
2	Sta. 107+65 RT	0.92	0.49	0.45	Feasible	Ditch	Enhanced Swale	70' x 4'	$0	$3,181	$123	155'	788 CF	893 CF	N/A
3	Sta. 110+00 RT	0.75	0.45	0.81	Feasible	Live Stream	Enhanced Swale	200' x 6'	$0	$13,632	$228	0'	2398 CF	2700 CF	N/A
4	Sta. 116+00 RT	1.69	0.52	0.80	Feasible	Live Stream	Enhanced Swale	300' x 10'	$0	$34,080 $97,500*	$570	0'	5386 CF	5850 CF	N/A

*Additional Roadway Cost to make BMP feasible

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

SCALE IN FEET
0 100 200 400

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

CONCEPT-LEVEL HYDROLOGY STUDY

SR 369 OVER SIX MILE CREEK

DRAWING No.

3/1/2007 GPLN

Processed Date:12/16/2011

Parameters: Bridge Serial Num

Bridge Inventory Data Listing

Structure ID:117-0019-0 **Forsyth** **SUFF. RATING:** 45.10

Location & Geography

Structure ID:	117-0019-0
200 Brdge Information:	06
*6A Feature Int:	SIX MI CRK (LAKE LANIER)
*6B Critical Bridge:	0
*7A Route No Carried:	SR00369
*7B Facility Carried:	BROWNS BRIDGE RD
9 Location:	6.2 MI NE OF CUMMING
2 Dot District:	1
207 Year Photo:	2011
*91 Inspection Frequency:	24 Date: 08/18/2011
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	2 Date: 08/21/2007
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5 Inventory Route(O/U):	1
Type:	3
Designation:	1
Number:	00369
Direction:	0
*16 Latitude:	34 14.8282 HMMS Prefix:SR
*17 Longtitude:	84 -02.4730 HMMS Suffix:00 MP:13.65
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	1171036900
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	014.04
*208 Inspection Area:	1 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	117-00369D-013.65E

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 00121
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	0
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	07
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	2
37 Historical Significance:	5
205 Congressional District:	09
27 Year Constructed:	1955
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	00
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Steel Design:	0
267 Type of Paint:	5
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	O
259 Pile Encasement	2
*43 Structure Type Main:	4 02
45 No.Spans Main:	006
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	0 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	1
108 Wearing Structure Type:	1
Membrane Type:	0
Deck Protection:	8

Signs & Attachments

225 Expansion Joint Type:	02
242 Deck Drains:	1
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	1
Curb Material:	1
239 Handrail	1 1
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	3
Fwrd:	3
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	0
224 Retaining Wall:	0
233Posted Speed Limit:	55
236 Warning Sign:	1.00
234 Delineator:	1.00
235 Hazzard Boards:	1
237 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	32
Sewer:	32
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Processed Date:12/16/2011

Parameters: Bridge Serial Num

Bridge Inventory Data Listing

Structure ID:117-0019-0

Programming Data

201 Project No:	S-0862 (2)
202 Plans Available:	4
249 Prop Proj No:	0010211
250 Approval Status:	0000
251 PI Number:	0010211
252 Contract Date:	02/01/2011
260 Seismic No:	00000
75 Type Work:	34 1
94 Bridge Imp: Cost:	$1,119
95 Roadway Imp. Cost:	81
96 Total Imp Cost:	1461
76 Imp Length:	000636
97 Imp Year:	1990
114Furure ADT:	019650 Year:2030

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:00
Avg Streambed Elev:	0000.0
Drainage Area:	00006
Area of Opening:	000000
113 Scour Critical	U
216Water Depth:	58.2 Br.Height:80.4
222Slope Protection:	1
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	000
Type:	0
No. Barrels:	0
* Width:	0.00 Height:0.00
* Length:	0 Apron:0
265 U/W Insp. Area	1 Diver:WSR
Location ID No:	117-00369D-013.65E

Measurements:

*29ADT	013100 Year:2010
109%Trucks:	0
* 28 Lanes On:	02 Under:00
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0100
* 49 Structure Length:	425
51 Br. Rwdy. Width	23.80
52 Deck Width:	29.90
* 47 Tot. Horiz. Cl:	24
50 Curb / Sidewalk Width	2.10 / 2.10
32 Approach Rdwy. Width	040
*229 Shoulder Width:	
Rear Lt:	2.20 Type:2 Rt:2.20
Fwd. Lt:	4.00 Type:2 Rt:1.60
Permanent Width:	
Rear:	35.60 Type:2
	35.10 Type:2
Intersaction Rear:	0 Fwd: 1
36Safety Features Br. Rail:	2
Transition:	2
App. G. Rail:	2
App. Rail End:	2
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	N 0 0
56 Lateral Undercl. Lt:	0.00
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	6.50
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:1998Sub:1998

65 Inventory Rating Mathod:	1
63 Operating Rating Method:	1
66 Inventory Type:	2 Rating: 19
64 Operating Type:	2 Rating: 19
231Calculated Loads:	
H-Modified:	21 1
HS-Modified:	19 0
Type 3:	30 1
Type 3s2:	40 1
Timber:	36 1
Piggyback:	40 0
261 H Inventory Rating:	17
262 H Operating Rating	28
67 Structural Evaluation:	4
58 Deck Condition:	5
59 Superstructure Condition:	6
* 227 Collision Damage:	0
60A Substructure Condition:	6
60B Scour Condition:	8
60C Underwater Condition	6
71 Waterway Adequacy:	9
61 Channel Protection Cond.:	8
68 Deck Geometry:	2
69 UnderClr. Horz/Vert:	N
72 Appr. Alignment:	7
62 Culvert:	N

Posting Data

70 Bridge Posting Required	4
41 Struct Open, Posted, CL:	P
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	21
HS-Modified:	00
Type 3:	30
Type 3s2:	40
Timber:	36
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM

Concept Team Meeting Minutes
GDOT Project BRF00-0012-01(080), BHF00-0012-01(082)
P.I. Number 122012, 122017, 0010211, Forsyth/Hall County
SR 369 Bridge Replacement over Chattahoochee River (Lake Lanier), Two Mile Creek, and Six Mile Creek
GDOT District 1 Office – Gainesville, GA
March 7, 2013

Attendees:

Steve Adewale – GDOT (Office of Program Delivery)
Justin Lott – GDOT (Traffic Operations)
Jason Dykes – GDOT (Area 1 Construction)
Bobby Dollar – GDOT (OES)
Kim Coley – GDOT (District 1 Planning)
Andy Casey – GDOT (Roadway)
Brent Cook – GDOT (Preconstruction)
Cory Payne – GDOT (Right of Way)
Neil Kantner – GDOT (Utilities)
Tim Allen – Forsyth County
Al Bowman – Baker (Structures)
Tyler McIntosh – Baker (Project Manager)
Chad Havens – Baker (Project Engineer)
Christine Quinn – KEA Group (Environmental)
Lenor Bromberg – KEA Group (Environmental)
Karl Ledford – Georgia Transmission
Mike Souther – Windstream
Lorie Short – AT&T
Chris Bates – Comcast
Johnny Millwood – Forsyth County Water and Sewer
Greg Farr – Sawnee EMC
Matt Henderson – GPUD
Tommy Evans – Jackson EMC

Attendees via teleconference:

Lynn Clements – GDOT (Bridge Office)
Ben Rabun – GDOT (Bridge Office)
Bill Duvall – GDOT (Bridge Office)

Introduction

The meeting began with introductions. Steve Adewale, the GDOT project manager, gave a brief overview of the project along with going over the meeting agenda and then Tyler McIntosh, the Baker project manager, was introduced.

Draft Concept Report

Mr. McIntosh introduced himself as the consultant project manager and then began to review the draft concept report of the bridge replacement of SR 369 over Six Mile Creek and Two Mile Creek because they are similar in nature. The project's need and purpose was provided along with a few points justifying the need to replace the old bridge. The justification points for both Six Mile and Two Mile included: the existing bridges were designed using a truck configuration less than the current state legal

truck weight, no rehabilitation would meet current design load standards, and both projects have low sufficiency ratings.

After reviewing the Complete Streets section, the question was asked if the bridge replacements provide for bicycle lanes. Since the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan updated in 2008 proposes an 8'-10' multi-use path, there was worry that the bridges would have to be widened 5-15 years from now to accommodate the multi-use path. The proposed bridges have 8' shoulders on both sides and therefore meet the requirement for bicycle lanes.

Mr. McIntosh then moved on to the concept layout for the bridge replacements over Six Mile Creek and Two Mile Creek which continues in the Concept Layout section below.

After reviewing the concept layout of the SR 369 bridge replacements over Six Mile Creek and Two Mile Creek, Mr. McIntosh reviewed the draft concept report of SR 369 bridge replacement over the Chattahoochee River (Lake Lanier). The need and purpose of this bridge replacement was the same as the previous bridge replacements over Six Mile Creek and Two Mile Creek. Mr. McIntosh pointed out that a Transportation Management Plan is anticipated on all three projects, therefore would need to be checked "YES." There were no other comments on the draft concept report. Mr. McIntosh then went on to review the concept layout.

Concept Layout

Mr. McIntosh first presented the concept layouts of SR 369 bridge replacements over Six Mile Creek and Two Mile Creek prepared by Michael Baker. There are no GDOT-acceptable detours available at these crossings of Lake Lanier. The existing bridges would need to remain in place during construction, therefore, the conceptual plan is to maintain traffic on the existing bridge and build the new bridge on parallel alignment 44 feet to the north (centerline to centerline) for both projects. This allows the bridge to be constructed in a single stage reducing construction time for bridge and the impacts to users of Lake Lanier. Construction on the north side of Six Mile Creek was chosen to avoid the boat ramp which is considered a 4(f) resource. Going to the north also avoids the overhead utility facilities located on the south side of the existing roadway. Construction on the north side of Two Mile Creek was chosen due to the lesser environmental, utility and right of way impacts along the existing roadway. Going to the north of the existing bridge also reduces the impacts to Lake Lanier.

Mr. McIntosh was asked about existing utilities attached to the bridges and was determined that water lines and telecoms are attached to these two bridges and that they would have to be reattached to the proposed bridges. Tim Allen of Forsyth County asked that right turn lanes be provided at any county roads including Floyd Lane, Bennett Lane and Six Mile Cove Road within the project limits. It was determined that these improvements will be investigated and provided if possible without extending limits of construction significantly or requiring additional right-of-way along the side streets due to steep existing grades.

Mr. Bowman then presented the bridge plans for Six Mile Creek and Two Mile Creek. At Six Mile, the proposed bridge was sized to clear the emergency full pool elevation of 1085, while maintaining the flood storage capacity in the lake. Therefore, the existing 425 ft long steel beam bridge would be replaced with a higher and longer concrete beam bridge. The additional length is justified by the long term savings realized in not having to paint a steel structure. The proposed bridge length is 600 ft and is achieved with 4 spans of 150 ft long Bulb-T girders. The proposed bridge would have 3 piers in the lake, one of them in deep water (approximately 65 ft deep) near the center of the channel. This pier could be built with either drilled caissons or a traditional cofferdam/seal footing. The exact substructure type would be determined in conjunction with a Bridge Foundation Investigation during final design. The proposed bridge would utilize an MSE abutment that wraps around the north side of the approaches as a measure towards

preserving the flood storage capacity of the lake mentioned earlier. The top of the leveling pad for this wall would be set at elevation 1073, two feet above the normal pool elevation of the lake (1071).

At Two Mile, the proposed bridge was sized to clear the emergency full pool elevation of 1085, while maintaining the flood storage capacity in the lake. Therefore, the existing 306 ft long steel beam bridge would be replaced with a higher and longer concrete beam bridge. The additional length is justified by the long term savings realized in not having to paint a steel structure. The proposed bridge length is 560 ft and is achieved with 4 spans of 140 ft long Bulb-T girders. The proposed bridge would have 3 piers in the lake, one of them in deep water (approximately 45 ft deep) near the center of the channel. This pier could be built with either drilled caissons or a traditional cofferdam/seal footing. The exact substructure type would be determined in conjunction with a Bridge Foundation Investigation during final design. The proposed bridge would utilize an MSE abutment that wraps around the north side of the approaches as a measure towards preserving the flood storage capacity of the lake mentioned earlier. The top of the leveling pad for this wall would be set at elevation 1073, two feet above the normal pool elevation of the lake (1071).

After reviewing the draft concept report of SR 369 bridge replacement over the Chattahoochee River, Mr. McIntosh reviewed the concept layout of this project. There are no GDOT-acceptable detours available at this crossing of Lake Lanier. The existing bridge would need to remain in place during construction, therefore, the conceptual plan is to maintain traffic on the existing bridge and build the new bridge on parallel alignment 44 feet to the south (centerline to centerline). Construction on the south side of the existing bridge was chosen to avoid right of way impacts along Peninsula Drive. If the bridge was constructed to the north, this would result in having to build an overpass to connect Browns Bridge Drive and Peninsula Drive as Peninsula Drive cannot remain open to traffic with an option that is constructed to the north. There is additional existing right of way available for use on the south side of the existing roadway as well. Constructing the proposed bridge to the south shortens the project length and simplifies the roadway geometry. There were no comments or questions during the review of the concept layout.

Mr. Bowman then gave an overview of the bridge concepts for the main lake crossing at the Chattahoochee River. Due to the long length of the structure (1400 ft) and the very deep water (110 ft) in this section of the lake, LPA/Baker prepared a structure type study in which the pros and cons of six superstructure alternates, and three substructure alternates were studied in terms of maintenance, constructability, and overall cost to arrive at the most appropriate alternate for the crossing. Mr. Bowman mentioned that only beam type bridges were considered viable alternates because structures such as cable stays, suspension, and arches were not warranted in a crossing of this type and would require specialized construction methods not practiced by most local contractors and would limit bid competition.

During early coordination meetings with the United State Army Corps of Engineers (USACOE), it was determined that the replacement bridge at this location shall provide at least the same vertical clearance and approximately the same main channel horizontal clearance as the existing bridge. The existing through truss bridge has very little structure depth below the deck and provides approximately 17 feet of minimum vertical clearance above normal pool elevation of 1071. In order to accommodate this minimum vertical clearance with a beam type bridge, the profile of the roadway needed to be raised approximately 12 feet. This raise of grade causes the proposed bridge to touch down slightly further up the bluffs on either side of the lake, resulting in a proposed bridge length of 1430 feet, just slightly longer than existing.

Mr. Bowman commented that due to the deep water in the lake, the construction of the substructure represented a substantial proportion of the total cost of the bridge, therefore the strategy used in determining alternates was to use the least costly substructure type and also minimize the number of substructure units required.

Therefore, three substructure types were considered. Option A consisted of traditional spread footings on rock. This type of foundation would require cofferdams, and would cost nearly $1,000,000 each. Option

B would use two large diameter drilled caissons tied together with a waterline footing, and the cost would be approximately $900,000 for each unit. Option C would use 4 smaller diameter caissons with steel braces added at various locations along each shaft for additional support at a slightly lower cost of $800,000 for each unit. It was noted that the structure type study recommended using the braced caisson due to the lowest cost.

Derek Wade with GDOT Construction asked how well each of these proposed substructure pier options would hold up structurally if subjected to a collision with a large vessel such as an 80-foot party barge. Mr. Bowman responded that the proposed piers for each of the build options (varying from 5 to 8 feet in diameter depending on the build option) would easily handle an impact from a vessel that size. Ben Rabun with the GDOT bridge office asked about the horizontal clearance of the proposed substructure, and if the USACE was accepting of the proposed substructure during the pre-concept meeting. Mr. Bowman explained that the existing bridge is a 3-span continuous structure with 2 piers within the lake and approximately 280 feet of horizontal clearance. He added that the USACE would like to see something close to the existing 280 feet of horizontal clearance provided by the new bridge.

Mr. Bowman then presented the superstructure options considered in the structure type study.

Option A proposes a simple-span beam structure with six 150-foot spans plus four spans at 133 feet with 9 piers for support. This alternative would be constructed using conventional prestressed concrete (PSC) beams and would require one pier to be located within the main channel. This alternative would cost approximately $152 per square foot, or $9.4 million for construction. This alternative was rejected due to not being lowest cost or meeting channel clearance requirements specified by USACOE.

(Mr. Bowman deferred discussing Option B to the end)

Option C proposes a segmented concrete box girder. The continuous box girder only requires four spans and minimizes the number substructure units. The 295’-420’-420’-295’ span arrangement would satisfy the main channel clearance requirements, but at great cost due to the specialized construction methods required. The cost of this alternative would be approximately $192 per square foot or $12.2 million dollars for construction. This alternative was rejected due to the high cost.

Option D proposes a steel plate girder with two sub options. Option D1 features a four span continuous plate girder main unit (200’-260’-260’-200’) flanked by prestressed concrete approach spans at 128 feet each. Option D2 features longer spans in the continuous main unit (235’-330’-330’-235’) flanked by prestressed concrete approach spans at 150ft each. Both alternatives would satisfy the main channel clearance requirements. The idea behind using the longer spans in D2 is that it required two less substructure units than D1 and may reduce cost. However, the larger steel beams needed for D2 actually increased the costs of D2 over D1. The cost of D1 would be approximately $176 per square foot or $10.8 million for construction. And the cost of D2 would be approximately $202 per square foot and $12.4 million for construction. Both of these alternatives were rejected due to high cost.

Option B proposes a post-tensioned concrete spliced girder. The idea behind this alternative is that by using post-tensioning to make a concrete beam continuous, longer spans can be achieved while keeping cost low. The main span of this alternative would feature a four span continuous unit (185’-240’240’-185’) flanked by simple span prestressed concrete spans of 145 feet each. The 240’ span across the main channel is less than the 327’ existing, but was deemed acceptable by the USACOE in early coordination. This alternative costs approximately $138 per square foot or $8.5 million for construction. This alternative was selected due to lowest cost while meeting USACOE requirements. Since this was the preferred alternative, Mr. Bowman gave an overview of the construction sequence for those in the meeting not familiar with Spliced Girders. Ben Rabun said his office would like to further discuss the design of the substructure and spliced girders at a later meeting. There were no other comments.

Other Discussion

Ms. Bromberg from KEA Group discussed the environmental concerns on all three bridge replacements. She mentioned how all three existing bridges are now considered historical resources. Since the existing bridges will be removed during construction, the projects would require a programmatic 4(f) and coordination with SHPO is required to determine mitigation requirements. GDOT is currently preparing bridge management plans for all three projects which will be included as part of the HABS/HAER documentation. All three projects could potentially have impacts to the Indiana Bat. Baker is in the process of coordinating requirements for field observations, including mist netting and echo soundings, to be completed this summer. It was determined that the design team will set up the environmental survey to conclude its environmental impacts.

Mr. Adewale then asked the representatives of the GDOT offices to comment on the three projects. The Office of Utilities requested a PDF of the concept layouts. Representatives from Forsyth Water and Sewer and District 1 Utilities discussed the addition of a water line on Brown's Bridge to connect Forsyth and Hall County. It was determined that this would be decided during the utility coordination process for these projects. Georgia Transmission mentioned that they have proposed transmission lines along SR 369 over Six Mile and Two Mile Creek.

The Office of Traffic Operations requested to see if the design team can post and stripe all three bridges for passing. The design team will investigate further.

As part of an email comment on the concept report, the Office of Policy and Support doesn't think these projects should be classified as 'minor' projects. Mr. McIntosh re-iterated that while the bridge projects appear larger in nature, there is relatively minor environmental, right-of-way, and utility impacts.

Neil Kantner from District Utility Office said Public Interest Determination would not be required for these projects.

Forsyth County re-iterated their previous comment requesting right turn lanes on all county roads within each project and that they are looking forward to completing the projects.

Mr. Adewale stated that there were no other items to be covered on the agenda and then adjourned the meeting.

Action Items

1. Meeting between Baker and the GDOT Bridge Office to discuss the design of the bridge substructure.
2. Investigate right turn lanes at side streets
3. Investigate passing sight distance across bridges

Prepared by: Chad Havens
Michael Baker Jr., Inc.
March 21, 2013

KENNEDY ENGINEERING & ASSOCIATES GROUP LLC

6300 Powers Ferry Road
Building 600 Suite 341
Atlanta, GA 30339
(678) 904-8591

MEETING MINUTES

Date/Time: March 7, 2012; 10:00 am

Location: **US Army Corps of Engineers, Lanier Project Management Office**

Subject: PI # 122012, 122017, and 0020211
Forsyth and Hall Counties

SR 369 Bridge Replacement Projects at Chattahoochee River/Lake Lanier, Two Mile Creek and Six Mile Creek

Attendees:

Mary Dills, USACE, Savannah	678-422-2727	mary.e.dills@usace.army.mil
Jeff Emmert, USACE	770-945-9531	jeffrey.g.emmert@usace.army.mil
Myles Barton, USACE	770-945-9531	myles.a.barton@usace.army.mil
Bobby Dollar, GDOT	404-631-1920	rdollar@dot.ga.gov
Al Bowman, LPA Group	770-263-9118	abowman@lpagroup.com
Paul F. Condit, LPA Group	770-263-9118	pfcondit@mbakercorp.com
Mary Best, LPA Group	770-263-9118	mdbest@mbakercorp.com
Chad Havens, LPA Group	770-263-9118	chad.havens@lpagroup.com
Lenor Bromberg, KEA Group	678-904-8591 x27	lbromberg@keagroup.com
Christine Quinn, KEA Group	678-904-8591 x29	cvquinn@keagroup.com
Claire Ike, KEA Group	678-904-8591 x 28	jcike@keagroup.com

Topics of Discussion:

1) Introductions/ Point of Contact
   a) Al Bowman started off introductions and noted that Tyler McIntosh, LPA Group, is serving as the Project Manager, but was unable to attend the meeting today. Mr. Bowman then gave a brief summary of how the previous project, the widening of SR 369 from SR 306 to SR 53 was stopped and the three bridges at Six Mile Creek, Two Mile Creek, and the Chattahoochee River were

pulled out as three separate bridge replacement projects. The purpose of this meeting is to present concept layouts for the three projects.

2) Project Layouts/ Bridge Information/Impacts

a) Six Mile Creek

- Chad Havens described the existing bridge typical section with two 12-foot travel lanes
- Proposed typical section includes two 12-foot lanes with 8-foot shoulders on the bridge and 10-foot shoulders (with 4 foot paved) on the roadway; the design speed is 55 mph
- There are no side road intersections for this concept layout
- The proposed profile has been set by tying back in to the existing profile as quickly as possible based on stopping sight distance design criteria
- The bridge is 600 feet long and includes four 150-foot spans
- The proposed bridge alignment is 44 feet north of the existing bridge; this offset allows for the possible four-lane widening of SR 369 in the future. This alignment would avoid impacts to the existing boat ramp south of SR 369 and would avoid utilities that parallel the south side of the existing roadway.
- The bridge is designed to be above the 1085-foot elevation for all spans
- MSE walls are being used to reduce impacts to the flood storage capacity; currently there is net zero impact to the flood storage volume below 1071-foot elevation and between the 1071-foot and 1085-foot elevation
- The proposed right-of-way was noted on the layouts
- Lenor Bromberg asked if the new MS4 permitting requirements could affect the right-of-way needs.
- Al Bowman noted that the bridge was designed so that all stormwater would run along the bridge profile and off the bridge to land before flowing back towards the creek; i.e. there are no drains on the bridge.
- Al continued on to show more details of the bridge plan and profile view. The bridge is a 4 span Bulb T standard concrete bridge. The existing bridge provides a 10-foot clearance above the 1071-foot elevation; the proposed bridge provides a 17-foot clearance above the 1071-foot elevation.
- MSE walls would be utilized to minimize fills in the lake. These would be constructed with the wall bottoms at 1073-foot elevation to keep them out of the normal pool. Fill slopes would be graded at the bottom of the walls to match existing ground. The balance of fill would be removed from the south side of the existing road alignment to result in net zero impact to the flood storage capacity.

- Jeff Emmert noted that the USACE would require net zero impact to the flood storage capacity, but would also be concerned about other environmental impacts, such as impacts to the existing vegetation.
- It was noted that the existing boat ramp is associated with park property that has recently been leased to Forsyth County Parks and Recreation Department through a 5-year permit. At the end of the five years, the County will have the option to negotiate a new lease. In the meantime the County will be preparing a master plan. Any change to the existing access to the boat ramp parking should be coordinated with the County. Myles Barton and Jeff Emmert need to confirm the area of the lease. The park will be listed in the NEPA document as a 4(f) resource, however no effect is anticipated.
- Mary Dills asked if traffic will be maintained on the existing bridge until after completion of the new bridge. This is correct, and the existing bridge will be removed after traffic is moved on to the new bridge. Existing fill south of the existing bridge would also be removed to provide the net zero impact to the flood storage capacity.
- Ms. Dills recommended that a side sonar scan be completed prior to the start of construction through a special provision so that the items to be removed that are the contractor's responsibility will be clearly documented. She also noted that blasting is discouraged and requires a public notification period.
- Environmental Special Studies:
  Archaeology – ARPA permit has been requested, but not yet received. Myles Barton suggested that the archaeologist forward the request to him and he would look into it. Archeology field surveys will be completed upon receipt of the permit.
  History – there were no eligible resources from the approved 2008 Historic Resource Survey Report (HRSR) in the Six Mile Creek project area of potential effect (APE). No new resources were found during the field survey. The new HRSR will be submitted this week.
  Ecology – field work has been completed; report being drafted

b) Two Mile Creek

- There are three intersections within the project concept limits: Pleasant Grove Circle, Bennett Lane, and Floyd Lane.
- The existing and proposed typical sections are the same as those presented for Six Mile Creek.
- The proposed bridge alignment is 44-feet north of the existing alignment.
- The current concept will remove fill from the existing roadway south of the proposed alignment and west of the creek. It is currently proposed to grade this area flat at an elevation of 1068-feet. A discussion about the USACE's preferences concluded that a contoured slope

at 4 to 1 or 6 to 1 would be preferred over the flat slope due to concerns about boat and swimmers/waders in the water.

- The proposed right-of-way was described. The amount of required right-of-way will most likely be reduced as the design progresses. LPA Group will coordinate this with the USACE.
- Myles Barton noted that the plans should show the staging areas; the USACE would issue construction licenses for these areas for use during construction.
- There was a discussion about the concepts fill slopes appearing to impact a dock north of the proposed bridge on the east bank of the creek. Although there is some information in the dock permit application, there is most likely not enough to assist in the design. It is recommended that the dock be observed in the field to determine if an impact is possible. Each dock has a USACE permit/tag posted near the approved dock location. A review of the pathway to the dock will assist in determining the normal dock location. There are dock spacing and offset requirements of 50-feet. The dock owner will be concerned about the water depth under and around the dock.
- Al Bowman reviewed the bridge plan and profile details. This is a 4-span bridge with 150-foot spans and is proposed to be a Bulb T standard concrete bridge. The profile has been set to keep all spans above the 1071-foot elevation. There would be some walls.
- Environmental Special Studies:
  Archaeology – ARPA permit has been requested, but not yet received.
  History – there were two eligible resources from the approved 2008 Historic Resource Survey Report (HRSR) in the Six Mile Creek project area, but they are outside the APE. Six new resources were found during the field survey; but none are determined to be eligible for the National Register of Historic Places. The new HRSR will be submitted this week.
  Ecology – field work has been completed; report being drafted
- An existing ditch located along the north side of the alignment and east of the bridge was discussed and the impact to right-of-way noted.

c) Chattahoochee River/Lake Lanier

- The existing and proposed typical sections are the same as those presented for Six Mile Creek.
- The proposed bridge alignment is 44-feet south of the existing alignment. This was based on avoiding impacts to Peninsula Road, a side road that runs parallel and very close to the north side of the existing road alignment. It is believed that access and traffic flow would be difficult to maintain.
- A tie-back wall would be utilized on the south side of the proposed road and west of the river. Fill slopes would be used on the Hall County (east) side of the river.

- The limits of construction along the side roads is based on the profile grade tie-ins and stopping sight distance. The alignment and length of construction in the area of the Browns Bridge Trucking Company was discussed.
- If the alignment were shifted north of the existing bridge, there would be impacts to the lake in an area west of the river crossing where the lake edge comes close to the north side of the existing roadway.
- It was noted that the USACE land use designation for the shores along the Chattahoochee River crossing are recreation. It is believed that the land use at Six Mile Creek and Two Mile Creek is protected zoning, but this needs to be confirmed. The recreational land use would result in a 4(f) use, but should continue to fall under the Programmatic 4(f).
- The proposed profile grade for the Chattahoochee River crossing is 12 feet above the existing profile. The existing structure type results in a shallow deck depth. Replacing the existing bridge with concrete beams will result in a deeper depth that will require raising the profile grade in order to maintain the clearance above the 1085-foot elevation.
- There are no impacts to the flood storage capacity (1071-foot elevation) or the 1071 to 1085 elevation area on the east side of the river. There are minor impacts to the area on the west side of the river.
- Bridge details were presented: the proposed bridge is approximately 1400 feet long with a four span main unit consisting of two 240-foot spans with 185-foot side spans. The pier locations match the existing piers as much as possible. The main channel of the river is nearly clear-spanned, but is short by approximately 50 feet. The changes in pier location between the existing bridge and proposed bridge may result in some issues during construction, but these are not anticipated to be a major problem.
- Construction is anticipated to last 18 months.
- There is high boat traffic in the area that results in bottle necks at the current bridge. Need to make sure that there is plenty of clearance, but Jeffery Emmert thinks it will be ultimately be okay.
- Jeff Emmert asked if CAD files or PDFs could be provided of the three proposed bridge layouts. LPA Group will provide these files.

3) <u>Permitting</u>
    - Al Bowman asked if there were any special permit requirements.
    - There was discussion about the NW 25, RP 96 and RP 1 and which one(s) would be most applicable for the bridge replacement projects.

This is our understanding of the items discussed. Please contact us if there are any changes or additions.

Submitted by: Lenor Bromberg, KEA Group

Project	PI 122012, 122017, 0010211, Forsyth/Hall County
Meeting Description	SR 369 Bridge Replacements at Chattahoochee River, Two Mile Creek and Six Mile Creek
Location	USACE Coorindation Meeting
Date	USACE Lanier Project Management Office
	March 07, 2012 10:00 AM

KEA KENNEDY ENGINEERING & ASSOCIATES GROUP LLC

SIGN IN SHEET

Please Print

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Keith Golden, P.E., Commissioner

GEORGIA DEPARTMENT OF TRANSPORTATION

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December 6, 2012

Mr. James McCabe
9195 Ponderosa Trail
Gainesville, GA 30506

Re: PI No. 0010211, Forsyth County, SR 369/Browns Bridge Road at Six Mile Creek Bridge Replacement – Responses to Open House Comments

Dear Mr. McCabe:

Thank you for your comments concerning the proposed project referenced above. We appreciate your participation and all of the input that was received as a result of the May 22, 2012 Public Information Open House (PIOH). Every written comment received and verbal comment given to the court reporter at the PIOH has been made part of the official record of the project. On the behalf of the Georgia Department of Transportation, please accept our sincere apologies for the extreme delay in sending this response.

A total of 100 people attended the PIOH. For the three bridge replacement projects that were shown at the meeting, 27 comments were received. This letter responds only to comments received for the above referenced project. Separate response letters are being mailed for the other two projects. Of the eight respondents who formally commented on this project, three were in support of the project, one was opposed, and four expressed conditional support.

The attendees of the PIOH and those persons sending in comments afterwards raised the following questions and concerns. The Georgia Department of Transportation (GDOT) has prepared this one response letter that addresses all comments received so that everyone can be aware of the concerns raised and the responses given. Please find the comments summarized below (*in italics*) followed by our response.

- *Why is a new bridge required, as the existing bridge seems to handle current loads?*

The Six Mile Creek bridge warrants replacement based on its low sufficiency rating. GDOT uses sufficiency rating as a measure of a bridge's structural integrity. On a scale of 1 to 100, a sufficiency rating of 1 denotes a bridge in serious need of replacement, while a rating of 100 indicates a bridge without any deficiencies. A rating of 50 points or less signifies the bridge is a candidate for replacement. The existing bridge on SR 369 at Six Mile Creek has a sufficiency rating of 45.10, making it a candidate for replacement.

- *The new bridge should have an additional 2 feet of boat clearance to ensure that clearance will be the same when the lake level reaches 1073 feet.*
- *The new bridge should have an additional 6 feet of boat clearance.*

The proposed new structure would have a vertical clearance of 16.5 feet above the currently approved full pool elevation (1071 feet), which is 6.5 feet more clearance than the existing bridge. Any additional height over the lake surface would require re-engineering of the roadway approaches and increase the project length, which

would require using more land on the sides of the lake and increased construction cost of the project. The U.S. Army Corps of Engineers has jurisdiction over the bridge clearance and has approved the proposed height.

- *The new bridge should have shoulders on both sides.*

The proposed bridge would have 8-foot shoulders on both sides.

- *A left-turn lane from westbound SR 369 into the park at the east side of Six Mile Creek would improve traffic flow and safety.*

A westbound left-turn lane from SR 369 will be provided at the boat ramp access driveway.

- *The speed limit on SR 369 should be lowered to 45 mph in order to reduce the number of accidents on the corridor.*

Attempting to address the posted speed limits along the SR 369 corridor would be beyond the scope of this bridge replacement project over Six Mile Creek. A speed study of the corridor would also be required to determine an alternate posted speed limit. Speed studies are completed by GDOT on state routes on a three year rotating cycle; Forsyth County is scheduled to be assessed in 2015.

- *Start the project sooner.*

GDOT would certainly like to begin this project as soon as possible; however, the project is not programmed for construction until Fiscal Year 2017 in Metro Atlanta's Transportation Improvement Plan (TIP). The TIP, which is compiled by the Atlanta Regional Commission (ARC), allocates funds and establishes project schedules based on the priorities of metro-Atlanta governments. Since the need for transportation improvements always exceeds the availability of transportation dollars, the TIP serves as a necessary guide to project scheduling.

- *SR 369 should have been four lanes from Gainesville to Cartersville 20 years ago.*
- *Replacing the existing two-lane bridge with another two-lane bridge does not make economic sense, as a four-lane bridge will probably be required in the future. I would like to see the cost benefit ratios to do it all at one time.*

The need for widening the SR 369 roadway is recognized; however funding for these improvements has been programmed as a long range (2018 – 2030) priority. Due to the poor structural integrity of the existing bridge, the bridge replacement project needs to move forward rather than wait on the future roadway widening project. The future SR 369 roadway widening project proposes to construct a four-lane roadway with a 44-foot wide grassed median; this typical section would require two parallel bridges, rather than one single bridge. For this reason, it is proposed to construct one new bridge parallel to the existing bridge and retain the existing right-of-way so that a second new bridge could easily be constructed in the future when SR 369 is widened to four lanes. There would be no cost savings if both bridges were built now; rather the second new bridge would sit un-used for 6 to 12 years until the SR 369 roadway widening would be completed.

- *Traffic control is a concern; it would be best if pavement is done last.*

GDOT requires the design engineers and contractors to develop traffic control plans. For this project access along SR 369 and to side roads and driveways within the construction limits will be maintained for the duration of construction. The final pavement surface is one of the last steps in the construction sequence.

Again, thank you for your comments concerning this project. Should you have any further questions, comments, or concerns, please call the project manager, Steve Adewale, at (404) 631-1578 or the environmental analyst, Bobby Dollar, at (404) 631-1920.

Sincerely,

Glenn Bowman /mm

Glenn Bowman, P.E.
State Environmental Administrator

GB/bd

cc: Steve Adewale, GDOT Project Manager
Bobby Dollar, GDOT NEPA Specialist

Title	First Name	Last Name	Company Name	Address Line 1
Mr.	James	McCabe		9195 Ponderosa Trail
Mr.	Chris	Lombardo		7605 Timberline Overlook
Mr.	Aron	Hendrix		5200 Shady Cove Road
Mr.	David	True		9075 Four Mile Creek Road
Ms.	Susie	McGannon		3204 Browns Bridge Road
Ms.	Suzanne	Farinas		7265 Jonsway
Mr.	Marvin	Fisher		9790 Kings Road
Mr.	George	Snyder		9335 Ann Harbor Drive

Address Line 2	City	State	ZIP Code	Country or Region	Home Phone
	Gainesville	GA	30506		
	Cumming	GA	30041		
	Cumming	GA	30041		
	Gainesville	GA	30506		
	Cumming	GA	30041-4760		
	Cumming	GA	30041		
	Gainesville	GA	30506		
	Gainesville	GA	30506		

Georgia Department of Transportation

Public Information Open House Comment Card

P.I. No. 0010211, Forsyth County

SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name JAMES McCABE

Mailing Address: Street or P.O. Box 9195 PONDEROSA TRAIL

City, State, ZIP Code GAINESVILLE, GA 30506

Do you support the project? ☒ *For* ☐ *Against* ☐ *Conditional* ☐ *Uncommitted*

Comments START THE PROJECT SOONER

How did you hear about this meeting? ☐ *Radio* ☒ *Newspaper* ☒ *Signs* ☐ *Word of Mouth* ☐ *Other* _____

Was the location of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☒ Yes ☐ No

Do you understand the project after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

Mail To:

Mr. Glenn Bowman, P.E., State Environmental Administrator
Georgia Department of Transportation
600 West Peachtree Street, NW – 16th Floor
Atlanta, Georgia 30308

2)

Georgia Department of Transportation

Public Information Open House Comment Card

P.I. No. 0010211, Forsyth County

SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name Chris Lombardo

Mailing Address: Street or P.O. Box 7605 Timberline Overlook

City, State, ZIP Code Cumming GA 30041

Do you support the project? ☐ *For* ☐ *Against* ☒ *Conditional* ☐ *Uncommitted*

Comments I would suggest a turn lane be added going East and West on Hwy 369 to the entrance of Six Mile Creek Park. This park is active year around ~~the~~ with recreational boaters and fisherman. This addition would help improve the flow of traffic as well as the Safety of drivers.

How did you hear about this meeting? ☐ *Radio* ☐ *Newspaper* ☒ *Signs* ☐ *Word of Mouth*
☐ *Other* _____

Was the location of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☒ Yes ☐ No

Do you understand the project after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

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Georgia Department of Transportation

Public Information Open House Comment Card

P.I. No. 0010211, Forsyth County
SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name Aron Hendrix

Mailing Address: Street or P.O. Box 5200 Shady Grove Rd

City, State, ZIP Code Cumming Ga. 30041

Do you support the project? ☐ *For* ☐ *Against* ☑ *Conditional* ☐ *Uncommitted*

Comments 369 should have been 4 lanes from Gainesville to Cartersville 20 years ago !!!!!

How did you hear about this meeting? ☐ *Radio* ☑ *Newspaper* ☐ *Signs* ☐ *Word of Mouth* ☐ *Other* _____

Was the location of the meeting convenient for you to attend? ☑ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? ☑ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☑ Yes ☐ No

Do you understand the project after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

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SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name DAVID W. TRUE

Mailing Address: Street or P.O. Box 9075 Four Mile Creek

City, State, ZIP Code Gainesville GA 30506-3

Do you support the project? ☒ *For* ☐ *Against* ☐ *Conditional* ☐ *Uncommitted*

Comments Evidently the present bridge needs replacement. The new bridge should have a clearance of an additional two feet to allow boat clearance to stay the same when the lake is raised to 1073 ft. A second bridge should eventually put in to make 369 four lanes.

How did you hear about this meeting? ☐ *Radio* ☐ *Newspaper* ☐ *Signs* ☐ *Word of Mouth*
☒ *Other* internet

Was the location of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? ☐ Yes ☐ No

If no, please suggest a time frame that is more convenient for you.

Were your questions answered by GDOT personnel? ☒ Yes ☐ No

Do you understand the project after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

Explain future needs for SR 369 to 4 lanes

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Georgia Department of Transportation

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P.I. No. 0010211, Forsyth County

SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name SUSIE MC GANNON

Mailing Address: Street or P.O. Box 6204 BROWNS BRIDGE RD

City, State, ZIP Code CUMMING, GA ~~30041~~ 30041-4760

Do you support the project? ☐ *For* ☒ *Against* ☐ *Conditional* ☐ *Uncommitted*

Comments IN PAST 1 year WE HAVE HAD 4 ACCIDENTS AT OUR DRIVEWAY ALONE. I KNOW OF 2 OTHERS WITHIN .2 MI IN EITHER DIRECTION. ONE PERSON HAS HAD 2 OPERATIONS FROM HIS ACCIDENT. SHERIFF TELLS US NOTHING CAN BE DONE ABOUT SPEED LIMIT (55) BECAUSE STATE HIGHWAY, BUT I CAN NAME 2 HWYS (53 & 120) THAT ARE 45 MPH. PEOPLE USED TO GO LESS THAN LIMIT, BUT NOW THINK THEY ARE ON FREEWAYS PLEASE LOWER SPEED LIMIT NOW!

How did you hear about this meeting? ☐ *Radio* ☒ *Newspaper* ☐ *Signs* ☐ *Word of Mouth*
☐ *Other* _____

Was the location of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

_____

Was the time of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☒ Yes ☐ No

Do you understand the project after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

_____

_____

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Georgia Department of Transportation

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SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name Suzanne Farinas

Mailing Address: Street or P.O. Box 7265 Jonsway

City, State, ZIP Code Cumming, GA 30041

Do you support the project? ☐ *For* ☐ *Against* ☒ *Conditional* ☐ *Uncommitted*

Comments I support this project provided the following conditions are met: ① a shoulder is on each side of road over bridge; ② the bridge is higher over Six Mile Creek (at least 6 feet taller) so there is clearance for larger boats under the bridge.

How did you hear about this meeting? ☐ *Radio* ☐ *Newspaper* ☑ *Signs* ☐ *Word of Mouth*
☐ *Other* _____

Was the location of the meeting convenient for you to attend? Excellent location! ☑ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? ☑ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☑ Yes ☐ No

Do you understand the project after attending this meeting? ☑ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

Note: Mr. Robt Mahoney was extremely helpful in answering my questions. Also, I liked the detailed maps + contact information provided. Great job!

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Georgia Department of Transportation
600 West Peachtree Street, NW – 16th Floor
Atlanta, Georgia 30308

Georgia Department of Transportation

Public Information Open House Comment Card

P.I. No. 0010211, Forsyth County

SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name MARVIN L FISHER

Mailing Address: Street or P.O. Box 9790 KINGS ROAD

City, State, ZIP Code GAINESVILLE GA 30506

Do you support the project? ☒ *For* ☐ *Against* ☐ *Conditional* ☐ *Uncommitted*

Comments I am skeptical that this work is necessary, but it will be beneficial when 306 is eventually 4 laned.

Every project on 306 in Forsyth County in the last 3-4 years took 3-4 times longer than should have based on my experience with a road contractor

I am concerned about traffic control. I think it would be more efficient if pavement was done last.

How did you hear about this meeting? ☐ *Radio* ☐ *Newspaper* ☒ *Signs* ☐ *Word of Mouth* ☐ *Other* _____

Was the location of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

_____

Was the time of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☒ Yes ☐ No

Do you understand the project after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

Well done.

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Georgia Department of Transportation

Public Information Open House Comment Card

P.I. No. 0010211, Forsyth County

SIX MILE CREEK

May 22, 2012

*Please **print** responses.*

Name George Snyder

Mailing Address: Street or P.O. Box 9335 Ann Harbor Dr

City, State, ZIP Code Gainesville, GA

Do you support the project? ☐ *For* ☐ *Against* ☒ *Conditional* ☐ *Uncommitted*

Comments Why Replace Browns bridge? What new hazds would requre This Replacement? It seems a wast of $ to Replace Two lane with Two lanes. Two mile & Six mile bridge - why not make These four Lane's now - Cost would be min., construction & Disruption would be min At This time. All of these Cost etc. will have to be done At A Later Date I would like To Know Cost benefit Ratio's To Do it All @ one time.

How did you hear about this meeting? ☐ *Radio* ☒ *Newspaper* ☐ *Signs* ☐ *Word of Mouth*
☒ *Other* L.L.A.

Was the location of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

_____

Was the time of the meeting convenient for you to attend? ☒ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by GDOT personnel? ☒ Yes ☐ No

Do you understand the project after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way GDOT conducts public meetings.

_____

_____

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