

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE. P.I. #0007038
CSBRG-0007-00(038)
GDOT District 5 - Jesup
Liberty County
Bridge Replacement: SR 116 @ Russell Swamp

OFFICE Design Policy & Support

DATE February 22, 2012

FROM  for 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:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Lisa Myers, Acting State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Karon Ivery, District Engineer
Brad Saxon, District Preconstruction Engineer
Steven F. Thomas, District Utilities Engineer
Steve Price, District Environmentalist
David Moyer, Project Manager
BOARD MEMBER - 1st Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

Project Type: Bridge Replacement
 GDOT District: 5
 Federal Route Number: N/A

P.I. Number: 0007038
 County: LIBERTY
 State Route Number: SR 119

This project involves the replacement of
SR 119 bridge over Russell Swamp.

Submitted for approval:

Aykut Urgan, FE, Parsons

Consultant Designer & Firm

Bobby Hallford

Office Head (GDOT Office of Program Delivery)

David H. Moyer

GDOT Project Manager

Nov. 23, 2011

DATE

12/1/2011

DATE

11/30/11

DATE

Recommendation for approval:

*Genetha Rice-Singleton / MDSA
Program Control Administrator

12/2/2011

DATE

*Glenn Bowman / MDSA
State Environmental Administrator

2/3/2012

DATE

*Kathy Zahel / MDSA
State Traffic Engineer

12/20/2011

DATE

*Ron Wishon / MDSA
Project Review Engineer

12/10/2011

DATE

*Patrick Allen / MDSA
for State Utilities Engineer

12/7/2011

DATE

District Engineer

DATE

*Ben Rabun / MDSA
State Bridge Design Engineer

2/13/2012

DATE

State Transportation Financial Management Administrator

DATE

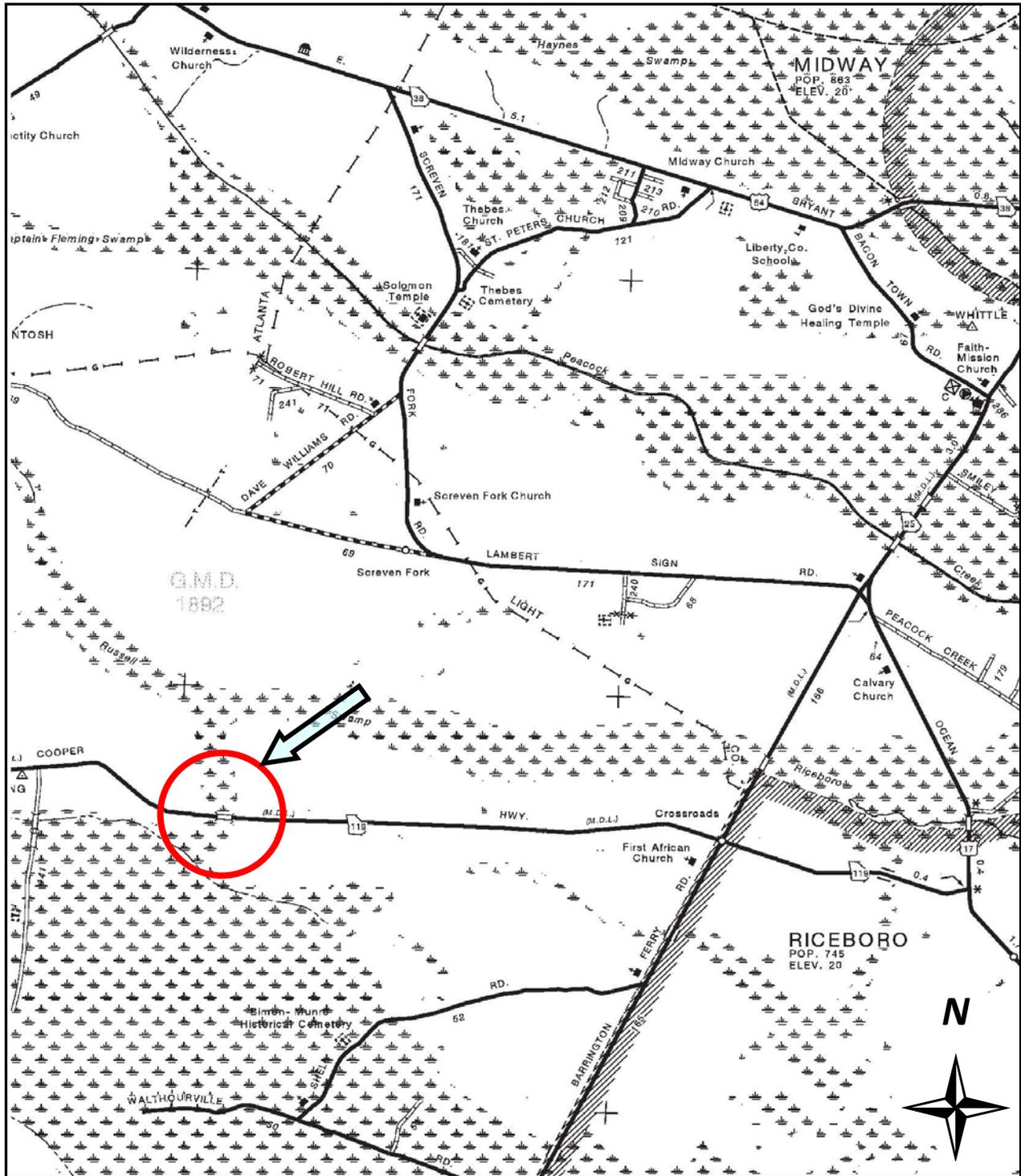
The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

*Cindy Van Dyke / MDSA
State Transportation Planning Administrator

12/7/2011

DATE

*Recommendation on file - MDSA.



Project Location Map (not to scale)
Project: CSBRG-0007-00(038), PI No.: 0007038
SR 119 @ Russell Swamp, Liberty County, Georgia

PLANNING & BACKGROUND DATA

Project Justification Statement:

SR 119 / E. B. Cooper Highway in the vicinity of Russell Swamp, is an east-west route connecting the cities of Riceboro and Walthourville in Liberty County, Georgia. The SR 119 Bridge over Russell Swamp is located approximately 3.5 miles west of the City of Riceboro. The area of the proposed project is primarily undeveloped and wooded. The western end of the project corridor contains a large utility easement that is approximately 200-feet wide and contains a power transmission line and a gas transmission corridor. The existing bridge was constructed in 1960. This project was added to the work program in 2006.

The existing bridge (Structure ID 179-0050-0) is approximately 80 feet long with a deck width of about 25.3 feet and a gutter to gutter width of about 24 feet. It is a four span bridge with concrete double tee and diaphragm superstructure that is shaped like waffle slab. Substructure consists of concrete cap and round timber piles. The bridge had a 2009 ADT of 3,300 vehicles per day with a 24-hour truck percentage of 14%.

Currently, the SR 119 Bridge over Russell Swamp is functionally classified as a rural major collector. It has a posted speed limit of 55 mph. The facility is located on a designated school bus route for Frank Long Elementary School, Midway Middle School and Liberty County High School. It is not a part of the State Bicycle and Pedestrian Plan and is not a designated truck route.

This bridge was designed using a truck configuration that weighs less than the current state legal truck weights. The bridge is currently posted and has a sufficiency rating of 26.79. The deck has minor cracking and several areas that have been patched. The substructure would be classified as in poor condition. Several piles have sections of rot. Due to the structural integrity based on design and that the bridge is currently posted, replacement of this bridge is recommended.

Description of the proposed project:

GDOT Project CSBRG-0007-00(038) involves the replacement of SR 119 bridge over Russell Swamp, located 3.5 miles west of the City of Riceboro in Liberty County, Georgia. The proposed project would be approximately 0.59 miles in length, beginning at mile point 3.51 and ending at mile point 4.10. The proposed replacement bridge will be parallel to existing structure on its south side and will be located approximately 60 feet from the existing bridge (measured centerline to centerline). The replacement bridge would be approximately 200 feet long and 40 feet wide (clear width). The project would be designed to provide two 12-foot travel lanes with rural 8-foot outside shoulders.

Federal Oversight: Full Oversight Exempt State Funded Other

MPO: N/A MPO - Hinesville Area MPO
MPO Project TIP # 2005-Z-1

Regional Commission: N/A RC – Coastal Georgia RC
RC Project ID # N/A

Congressional District(s): 1

Projected Traffic ADT:

Current Year (2009): 3300 Open Year (2016): 3950 Design Year (2036): 5650

Functional Classification (Mainline): Rural Major Collector

Is this project on a designated bike route? No YES

Is this project located on a pedestrian plan? No YES

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

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: Inconvenience to travelling public during construction.

Context Sensitive Solutions: Proposed design includes permanent realignment of SR 119 to the south, which will allow maintenance of traffic on existing roadway alignment during construction.

DESIGN AND STRUCTURAL DATA

Mainline Design Features: E.B. Cooper Highway/S.R. 119

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	2	2
- Lane Width(s)	12 ft.	12 ft.	12 ft.
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder Width & Type	7 ft.-10 ft. (3.5 ft. Paved, 3.5 ft.-6.5ft. Grassed)	8 ft. (4 ft. Paved, 4 ft. Grassed)	8 ft. (4 ft. Paved, 4 ft. Grassed)
- Outside Shoulder Slope	6.00%	6.00%	6.00%
- Inside Shoulder Width & Type	N/A	N/A	N/A
- Sidewalks	N/A	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	N/A	N/A
Posted Speed	55 mph		55 mph
Design Speed	55 mph	55 mph	55 mph
Min Horizontal Curve Radius	1,465 ft.	1,060 ft.	1,465 ft.
Superelevation Rate	7.60%	6.00%	5.80%
Grade	1.40%	6.00%	3.00%
Access Control	By Permit	By Permit	By Permit
Right-of-Way Width	80 ft.	Varies	120 ft.-175 ft.
Maximum Grade – Crossroad	N/A	N/A	N/A
Design Vehicle	WB-50	SU	WB-50
Maximum Grade – Driveway	5.00%	10.00%	10.00%

*According to current GDOT design policy if applicable

Major Structures:

Structure	Existing	Proposed
ID#179-0050-0 Bridge carrying SR 119 over Russell Swamp	Length= 80 ft. Width= 25.3 ft. 1 lane in each direction 12 ft. travel lane width No shoulder Sufficiency rating = 26.79	Length= 200 ft. (approx.) Width= 40 ft. (clear width) 1 lane in each direction 12 ft. travel lane width 8 ft. shoulder width
Retaining walls	N/A	None Anticipated
Other	N/A	N/A

Major Interchanges/Intersections: None

Utility Involvements:

Overhead power lines and buried telephone cable located on the north side of existing bridge. An underground gas line crosses SR 119 approximately 1,400 feet west of existing bridge. Other utilities to be determined.

Public Interest Determination Policy and Procedure recommended (Utilities)? YES NO

SUE Required: Yes No

Railroad Involvement: None

Right-of-Way:

Required Right-of-Way anticipated: YES NO Undetermined
 Easements anticipated: Temporary Permanent Utility Other
 Anticipated number of impacted parcels: 3
 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

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	YES	Appvl Date (if applicable)	NO	Undetermined
1. Design Speed	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Lane Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Shoulder Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Bridge Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Horizontal Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Superelevation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Vertical Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Grade	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

9. Stopping Sight Distance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Cross Slope	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Vertical Clearance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Lateral Offset to Obstruction	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Bridge Structural Capacity	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Design Variances to GDOT standard criteria anticipated:

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

VE Study anticipated: No Yes Completed

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

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Regional Permit 96 (2.45 acre of wetland impact, 20.6 credits required)
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exempt due to roadway drainage structures associated with construction of the new bridge

6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Special Provision 107.23:Protection of Species of Management Concern and Migratory Birds
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Is a PAR required? No Yes Completed

NEPA/GEPA: A NEPA Categorical Exclusion (CE) document is being prepared for this project. No significant risks are anticipated.

Ecology: Ecology field work was performed on December 8, 2010. Suitable foraging habitat for the wood stork and suitable basking habitat for spotted turtle was observed within the project corridor. An additional pedestrian survey was conducted on May 3, 2011 to observe the spotted turtle, but no turtles were observed. Special provisions during construction would be implemented to protect spotted turtles, wood storks and migratory birds.

History: State Historic Preservation Officer concurred with the Historic Resources Survey Report that there are no eligible resources within the Area of Potential Effect (APE) of this project.

Archeology: Review of Georgia Archaeological Site File showed that one site, 9LI298, is located in the APE of this project. This site consists of a Woodland artifact scatter and a late eighteenth to early twentieth century artifact scatter. Previous surveys of this site have recommended it ineligible for the National Register of Historic Properties based on heavy disturbance from silviculture and construction of a transmission line. This site was revisited as part of archeology field work in December 2010. Additional investigations are not recommended for this site

Air & Noise: This project was evaluated for its consistency with state and federal air quality goals, including CO, Ozone, PM 2.5 and MSATs. Results indicate that the project is consistent with the State Implementation Plans for the attainment of clean air quality in Georgia and is in compliance with both state and federal air quality standards. The project meets criteria for a Type III project established in 23 CFR part 772 and does not require analysis for highway traffic noise impacts.

Public Involvement: N/A

Major stakeholders: Travelling public.

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	GDOT (Parsons as Consultant)
Design	GDOT (Parsons as Consultant)
Right-of-Way Acquisition	GDOT
Utility Relocation	GDOT
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, and Permits	GDOT (Parsons as Consultant)
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Lighting required: No Yes

Initial Concept Meeting: An Initial concept team meeting was held on September 14th, 2011. Meeting minutes attached as attachment 6.

Concept Meeting: Meeting attendees at Initial Concept Team Meeting agreed that an additional Concept Team Meeting was not required.

Other projects in the area

PI No. 0004917 – SR 119 Widening from US 84 to SR 196 in Hinesville. Project proposes to widen SR 119 from existing 2-lane section to a 4-lane divided highway.

Other coordination to date: None.

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	GDOT	
\$ Amount	\$527,679	\$240,000	\$600,000	\$2,290,912	\$103,000	\$3,761,591
Date of Estimate	2008	6/21/2011	7/12/2011	11/1/2011	12/27/2011	

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

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative / Alternative 1: Build proposed bridge on new alignment South of the existing bridge, while maintaining traffic on existing road.			
Estimated Property Impacts:	3 parcels	Estimated Total Cost:	\$3,761,591
Estimated ROW Cost:	\$240,000	Estimated CST Time:	18 months
Rationale: This alternative is recommended as the preferred alternative because of low utility impacts and lowest overall cost.			

Alternative 2: Build proposed bridge on new alignment North of the existing bridge, while maintaining traffic on existing road.			
Estimated Property Impacts:	3 parcels	Estimated Total Cost:	\$4,509,042
Estimated ROW Cost:	\$288,000	Estimated CST Time:	18 months
Rationale: Reimbursable utility cost associated with this alternate is approximately \$800,000 higher than the preferred alternate. Therefore, this alternate was eliminated from further consideration.			

Alternative 3: Build proposed bridge on existing alignment while maintaining traffic on an on-site temporary detour on the south side of existing bridge.			
Estimated Property Impacts:	3 parcels	Estimated Total Cost:	\$3,979,405
Estimated ROW Cost:	\$161,129 (Approx.)	Estimated CST Time:	24 months
Rationale: This alternate was eliminated due to the additional costs associated with a temporary detour alignment and bridge. Another issue is the section loss in the roadway embankment east of existing bridge. If the bridge is replaced on current alignment, the entire road east of the bridge would have to be removed and undercut in order to repair the section loss.			

Alternative 4: Build proposed bridge on same alignment as existing bridge while maintaining traffic on an off-site detour.			
Estimated Property Impacts:	3 parcels	Estimated Total Cost:	\$3,798,947
Estimated ROW Cost:	\$139,929 (Approx.)	Estimated CST Time:	18 months
Rationale: The shortest state route detour would re-route traffic to SR 25 and SR 38 and cause 12 miles of additional travel for through traffic from Walthourville to Riceboro. The detour would pass through the City of Hinesville and include seven (7) signalized intersections and four (4) school zones. Currently SR 119 is used as a truck bypass for Hinesville and is also a designated school bus route. Therefore, off-site detour option will cause inconvenience to travelling public. Another issue is the section loss in the roadway embankment east of existing bridge. If the bridge is replaced on current alignment, the entire road east of the bridge would have to be removed and undercut in order to repair the section loss. Additionally, the proposed bridge will be higher than existing bridge by approximately 7 feet. Therefore, the need for additional ROW cannot be eliminated.			

No-Build/Alternative 5: No-Build			
Estimated Property Impacts:	None	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	N/A
Rationale: This alternate was eliminated due to long-term maintenance cost and previously listed structural issues associated with the existing bridge. This alternate would not satisfy the project need and purpose.			

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
4. Traffic Volumes
5. Bridge Inventory
6. Minutes of Initial Concept Team meeting
7. Alternatives Impact Matrix

APPROVALS

Concur: 
Director of Engineering

Approve: 
Chief Engineer

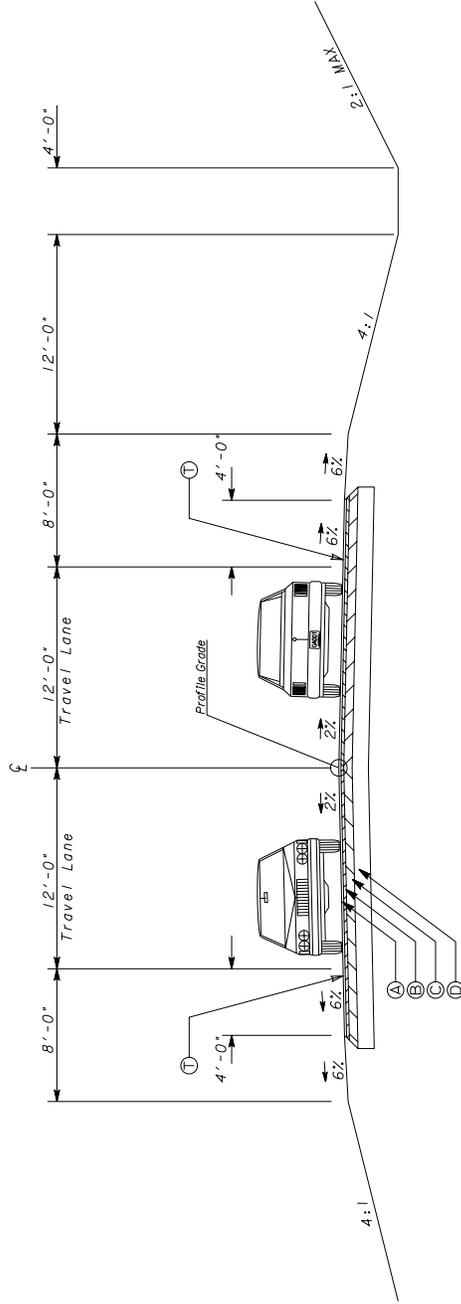
2/20/2012
Date

ATTACHMENT 1

Concept Layout

ATTACHMENT 2

Typical Sections

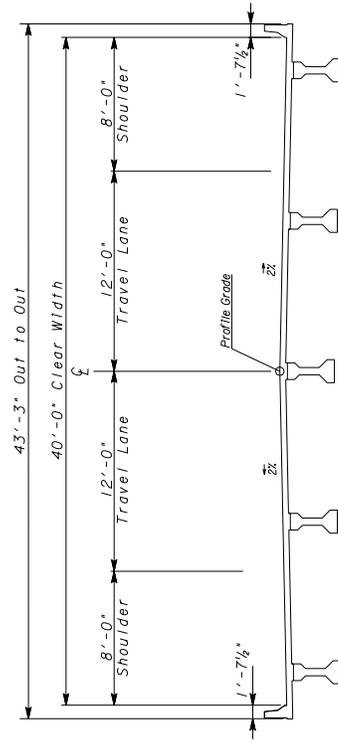


TYPICAL SECTION No. 1
 MAINLINE SR 119

REQUIRED PAVEMENT

- Ⓐ RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME (135 LBS/SY)
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220LBS/SY)
- Ⓒ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (550 LBS/SY)
- Ⓓ GR AGGR BASE CRS, 8 INCH, INCL MATL
- Ⓔ INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)

 3877 PARKWAY, LANE, BRUNSWICK, GA SUITE 100, NORCROSS, GA 30092	GEORGIA DEPARTMENT OF TRANSPORTATION	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: PROGRAM DELIVERY TYPICAL SECTIONS
		NOT TO SCALE	SR 119 AT RUSSELL SWAMP DRAWING NO. 5-01



TYPICAL SECTION No. 2
BRIDGE SECTION

REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
TYPICAL SECTIONS

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

PARSONS
3077 PARKWAY LAKE BRIDGES
SUITE 100, NORCROSS, GA 30092

NOT TO SCALE

SR 119 AT RUSSELL SWAMP
DRAWING NO.
5-02

ATTACHMENT 3

Detailed Cost Estimates

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. CSBRG-0007-(038) , Liberty County **OFFICE** Program Delivery
SR 119 at Russell Swamp **DATE** 11/1/2011

P.I. No. 0007038

FROM Bobby Hilliard, P.E., State Program Delivery Engineer

TO Ronald E. Wishon, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER David Moyer, P.E.

MNGT LET DATE TBD

MNGT R/W DATE TBD

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ -

DATE -

RIGHT OF WAY \$ -

DATE -

UTILITIES \$ -

DATE -

REVISED COST ESTIMATES

CONSTRUCTION* \$ 2,290,912.24

RIGHT OF WAY \$ 240,000.00

UTILITIES** \$ 600,000.00

* Costs contain 5 % Engineering and Inspection and 0 % Construction Contingencies.

** Costs contain 0 % contingency.

REASON FOR COST INCREASE

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ <input type="text" value="2,094,602.19"/>	(Base Estimate)
Engineering and Inspection:	\$ <input type="text" value="104,730.11"/>	(Base Estimate x <input type="text" value="5"/> %)
Construction Contingency:	\$ <input type="text" value="0.00"/>	(Base Estimate x <input type="text" value="0"/> %)
		(The Construction Contingency is based on the Project Improvement Type in TPro.)
Total Fuel Adjustment	\$ <input type="text" value="0.00"/>	(From attached worksheet)
Total Liquid AC Adjustment	\$ <input type="text" value="91,579.94"/>	(From attached worksheet)
Construction Total:	\$ <input type="text" value="2,290,912.24"/>	
Utility Cost Estimate:	\$ <input type="text" value="600,000"/>	
Utility Contingency:	\$ <input type="text" value="0.00"/>	<input type="text" value="0"/> %
Utility Total:	\$ <input type="text" value="600,000"/>	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Cost
Coastal Communications	\$0.00
Coastal EMC	\$0.00
Georgia Power Transmission	\$200,000.00
Southern Natural Gas	\$400,000.00

Attachments

c: Genetha Rice-Singleton, State Program Control Administrator

JOB ESTIMATE REPORT

JOB NUMBER : 0007038_ALT1 SPEC YEAR: 01
 DESCRIPTION: SR 119 @ RUSSELL SWAMP (ALTERNATIVE 1)
 SOUTH OF EXISTING BRIDGE

COST GROUPS FOR JOB 0007038_ALT1

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
UDEF	DRAINAGE	1.000	55255.00000	55255.00	Y
UDEF	PERMANENT EROSION CONTROL	1.000	31338.00000	31338.00	Y
UDEF	TEMPORARY EROSION CONTROL	1.000	116255.00000	116255.00	Y
UDEF	SIGNING & MARKING	1.000	19355.00000	19355.00	Y
ACTIVE COST GROUP TOTAL				222203.00	
INFLATED COST GROUP TOTAL				222203.00	

ITEMS FOR JOB 0007038_ALT1

LINE ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000	LS	TRAFFIC CONTROL - CSBRG-0007-00(308)	1.000	53000.00	53000.00
0010	153-1300	EA	FIELD ENGINEERS OFFICE TP 3	1.000	55869.29	55869.29
0020	210-0100	LS	GRADING COMPLETE - CSBRG-0007-00(308)	1.000	280873.00	280873.00
0025	310-5060	SY	GR AGGR BS CRS 6IN INCL MATL	782.000	12.48	9766.53
0030	310-5080	SY	GR AGGR BS CRS 8IN INCL MATL	8374.000	12.21	102246.54
0035	318-3000	TN	AGGR SURF CRS	210.000	29.78	6254.96
0040	402-1812	TN	RECYL AC LEVELING,INC BM&HL	1200.000	73.42	88104.00
0045	402-3103	TN	REC AC 9.5 MM SP,TP11,GP2, INCL BM & H	921.000	76.36	70327.56
0050	402-3121	TN	RECYL AC 25MM SP,GP1/2,BM&HL	2303.000	69.70	160519.10
0055	402-3190	TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	921.000	82.44	75927.24
0060	413-1000	GL	BITUM TACK COAT	898.000	2.94	2640.12
0065	432-5010	SY	MILL ASPH CONC PVMT, VARB DEPTH	3968.000	2.94	11665.92
0070	433-1000	SY	REINF CONC APPROACH SLAB	288.000	147.38	42447.63
0075	436-1000	LF	ASPH CONC CURB - CSBRG-0007-00(308)	470.000	11.13	5232.41
0080	446-1002	LF	PVMT REF FABRIC STRIPS,TP2,BIT	951.000	20.00	19020.00
0085	456-2015	GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	1.220	1765.99	2154.52
0090	634-1200	EA	RIGHT OF WAY MARKERS	20.000	98.29	1965.80
0095	641-1100	LF	GUARDRAIL, TP T	83.000	52.38	4347.55
0100	641-1200	LF	GUARDRAIL, TP W	388.000	19.17	7441.48
0105	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	2.000	636.69	1273.38
0110	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	2.000	1883.07	3766.16
0115	540-1101	LS	REM OF EX BR, STA NO -	1.000	89056.00	89056.00
0120	543-9000	LS	CSBRG-0007-00(308) CONSTR OF BRIDGE COMPLETE - CSBRG-0007-00(308)	1.000	778500.00	778500.00

ITEM TOTAL	INFLATED ITEM TOTAL
1872399.19	1872399.19

JOB ESTIMATE REPORT

TOTALS FOR JOB 0007038_ALT1	
ESTIMATED COST:	2094602.19
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	2094602.19

Department of Transportation State of Georgia

Interdepartmental Correspondence

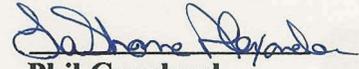
FILE R/W Cost Estimate **OFFICE** Atlanta
DATE June 21, 2011
FROM Phil Copeland, Right of Way Administrator
LaShone Alexander, Right of Way Cost Estimator
TO David Moyer, Assistant Project Manager
SUBJECT **Preliminary Right of Way Cost Estimate**
Project: CSBRG-0007-00(038) Alt 1 (Liberty County)
P.I. No.: 0007038
Description: Bridge Replacement SR 119 @ Russell Swamp

As per your request, attached is a copy of the approved Preliminary Right of Way Cost Estimates on the above referenced projects.

If you have any questions, please contact LaShone Alexander at One Georgia Center 600 West Parkway Street, NW Atlanta, GA 30308, Right of Way Office at (478) 553-1569 or (478) 232-4045.

PC:LA
Attachments
c: File

Preliminary Right of Way Cost Estimate



Phil Copeland
Right of Way Administrator
By: LaShone Alexander

Date: June 21, 2011
Project: CSBRG-0007-00(038) Alt 1 Liberty
Existing/Required R/W: Varies/Varies
Project Termini : Bridge Replacement SR 119 @ Russell Swamp
Project Description: Bridge Replacement SR 119 @ Russell Swamp

P.I. Number: 0007038
No. Parcels: 3

Land: R/W Agr/Res: 5.1 acres @ \$ 15,000/acre \$ 76,500

Improvements : residences, misc. site improvements 20,000

Relocation: Commercial ()
Residential ()

Damage: Proximity
Consequential
Cost to Cure

Net Cost \$ 96,500

Net Cost		\$	96,500
Scheduling Contingency	55 %		53,075
Adm/Court Cost	60 %		<u>89,745</u>
		\$	239,320

Total Cost \$240,000

Note: The Market Appreciation (40%) is not included in the updated Preliminary Cost Estimate.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE CSBRG-0007-00(038) Liberty County
P.I. # 0007038

OFFICE Jesup

DATE 7-12-2011

FROM Karon L. Ivery, District Utilities Engineer

TO David Moyer, Project Manager

SUBJECT PRELIMINARY UTILITY COST ESTIMATE (alternate #1- south alignment)

As requested by your office, we are furnishing you with a Preliminary Utility Cost Estimate of each utility with facilities potentially located within the above project limits.

Facility Owner	Non-Reimbursable	Reimbursable	Comments
Coastal Communications	\$ 25,000.00	\$ 0.00	
Coastal EMC	\$ 44,000.00	\$ 0.00	
Georgia Power(Transmission)	\$ 0.00	\$ 200,000.00	
Southern Natural Gas	\$ 0.00	\$ 400,000.00	
Totals	\$ 69,000.00	\$ 600,000.00	
Total Reimbursement	\$ 0.00	\$ 600,000.00	

KL: pow

CC; Angie Robinson, Office of Financial Management;
Terry Brigman, Assistant State Utilities Engineer
District Office File
Utilities Office File

Bhattacharya, Saurabh

From: Westberry, Lisa [lwestberry@dot.ga.gov]
Sent: Tuesday, December 27, 2011 12:03 PM
To: Russ Danser
Cc: Bhattacharya, Saurabh
Subject: RE: Liberty County PI No. 0007038, SR 119 over Russell Swamp

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning,

I took another look at the estimated costs for mitigation in this HUC and nothing has changed. You are correct in stating the costs of mitigation will be \$103,000. Please let me know if you need anything else.

Thank you.

Lisa Westberry
Georgia Department of Transportation
600 West Peachtree Street, NW, Atlanta, GA 30308
404-631-1772

From: Russ Danser [<mailto:rdanser@edwards-pitman.com>]
Sent: Thursday, December 22, 2011 8:47 AM
To: Westberry, Lisa
Cc: 'Bhattacharya, Saurabh'
Subject: Liberty County PI No. 0007038, SR 119 over Russell Swamp
Importance: High

Lisa,

Edwards-Pitman Environmental has been asked to provide a wetland/stream mitigation cost estimate for this above referenced project. This estimate is to be included in the project's concept report. The proposed project is located in the Ogeechee Coastal watershed (Hydrologic Unit Code 03060204). Based on conversations with you, the appropriate approximate cost for wetland and stream mitigation in this location/HUC would be \$5,000 per needed credit.

Our ecology assessment for this project (Nov 2011) states that the proposed project would impact 2.45 acres of wetland. The proposed project would bridge the intermittent stream and would not impact the non-buffered state water. The proposed project would require a Section 404 permit from the USACE and 20.6 compensatory mitigation credits. Based on the cost per credit and our anticipated wetland impacts, the total estimated cost associated with wetland/stream impacts would be \$103,000.

Could you please review this estimate and provide a response email of concurrence that can be incorporated into the project's concept report?

Thank you for giving this matter your attention.

Russ Danser, AICP
Edwards-Pitman Environmental, Inc.

www.edwards-pitman.com
rdanser@edwards-pitman.com

770-333-9484, ext. 146



ATTACHMENT 4

Traffic Volumes

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE CSBRG-0007-00(038), Liberty County **OFFICE** Planning
P.I. # 0007038
DATE November 9, 2010

FROM Angela T. Alexander, State Transportation Planning Administrator

TO Bobby K. Hilliard, P.E., State Program Delivery Engineer
Attention: David Moyer

SUBJECT Traffic Assignment for S.R. 119 @ Russell Swap.

Traffic Assignment for the above project is attached below:

TC # 179-0152
2009 ADT = 3300
2016 ADT = 3950
2036 ADT = 5650
D = 60%
K = 9%
T = 12%
24 HR. T. = 14%
S.U. = 9.5%
COMB. = 4.5%

If you have any questions concerning this information please contact Abby Ebodaghe at (404) 631-1923.

ATA/AFE

ATTACHMENT 5
Bridge Inventory



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 179-0050-0

Liberty

SUFF. RATING: 26.79

Location & Geography

Structure ID:	179-0050-0	*104 Highway System:	0	Signs & Attachments	
200 Bridge Information:	06	*26 Functional Classification:	07	225 Expansion Joint Type:	02
*6A Feature Int:	RUSSELL SWAMP	*204 Federal Route Type:	S No: 01135	242 Deck Drains:	1
*6B Critical Bridge:	0	105 Federal Lands Highway:	0	243 Parapet Location:	0
*7A Route No Carried:	SR00119	*110 Truck Route:	0	Height:	0
*7B Facility Carried:	E.B.COOPER HWY	2006 School Bus Route:	1	Width:	0
9 Location:	3.5 MI W OF RICEBORO	217 Benchmark Elevation:	0000.00	238 Curb Height:	1
2 Dot District:	5	218 Datum:	0	Curb Material:	1
207 Year Photo:	2010	*19 Bypass Length:	12	239 Handrail	2 2
*91 Inspection Frequency:	24 Date: 01/28/2010	*20 Toll:	3	*240 Medium Barrier Rail:	0
92A Fract Crit Insp Freq:	0 Date: 02/01/1901	*21 Maintenance:	01	241 Bridge Median Height:	0
92B Underwater Insp Freq:	1 Date: 01/16/2008	*22 Owner:	01	* Bridge Median Width:	0
92C Other Spc. Insp Freq:	0 Date: 02/01/1901	*31 Design Load:	2	230 Guardrail Loc. Dir. Rear:	6
* 4 Place Code:	00000	37 Historical Significance:	5	Fwrd:	6
*5 Inventory Route(O/U):	1	205 Congressional District:	01	Oppo. Dir. Rear:	0
Type:	3	27 Year Constructed:	1960	Oppo. Fwrd:	0
Designation:	1	106 Year Reconstructed:	0000	244 Approach Slab	3
Number:	00119	33 Bridge Medium:	0	224 Retaining Wall:	0
Direction:	0	34 Skew:	00	233 Posted Speed Limit:	55
*16 Latitude:	31 44.9287 HMMS Prefix:SR	35 Structure Flared:	0	236 Warning Sign:	1.00
*17 Longitude:	81 -30.5853 HMMS Suffix:00 MP.4.18	38 Navigation Control:	0	234 Delineator:	1.00
98 Border Bridge:	000%Shared:00	213 Special Steel Design:	0	235 Hazzard Boards:	1
99 ID Number:	0000000000000000	267 Type of Paint:	0	237 Utilities Gas:	00
*100 STRAHNET:	0	*42 Type of Service On:	1	Water:	00
12 Base Highway Network:	1	Type of Service Under:	5	Electric:	00
13A IRS Inventory Route:	1791011900	214 Movable Bridge:	0	Telephone:	00
13B Sub Inventory Route:	0	203 Type Bridge:	C	Sewer:	00
101 parallel Structure:	N	259 Pile Encasement	3	247 Lighting Street:	0
*102 Direction of Traffic:	2	*43 Structure Type Main:	1 01	Navigation:	0
*264 Road Inventory Mile Post:	004.18	45 No.Spans Main:	004	Aerial:	0
*208 Inspection Area:	5 Initials: EFP	44 Structure Type Appr:	0 00	*248 County Continuity No.:	00
Engineer's Initials:	sgm	46 No Spans Appr:	0000		
* Location ID No:	179-00119D-004.18N	226 Bridge Curve Horz	0 Vert: 0		
		111 pier Protection	0		
		107 Deck Structure Type:	2		
		108 Wearing Structure Type:	6		
		Membrane Type:	8		
		Deck Protection:	8		



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 179-0050-0

Programming Data

UNKNOWN
 201 Project No: 1
 202 Plans Available: BRG-0007-00(038)
 249 Prop Proj No: 7010
 250 Approval Status: 0007038
 251 PI Number: 02/01/1901
 252 Contract Date: 00000
 260 Seismic No: 31 1
 75 Type Work: \$129
 94 Bridge Imp Cost: 58
 95 Roadway Imp Cost: 221
 96 Total Imp Cost: 000292
 76 Imp Length: 1990
 97 Imp Year: 004965 Year: 2027
 114 Future ADT:

Hydraulic Data

215 Waterway Data:
 High Water Elev: 0000.0 Year: 1900
 Flood Elev: 0000.0 Freq: 00
 Avg Streambed Elev: 0000.0
 Drainage Area: 00000
 Area of Opening: 000000
 113 Scour Critical U
 216 Water Depth: 4.7 Br. Height: 3
 222 Slope Protection: 1
 221 Slope Protection 0 Fwd: 0
 219 Fender System 0
 220 Dolphin: 0
 223 Current Cover: 000

Type: 0
 No. Barrels: 0
 * Width: 0.00 Height: 0.00
 * Length: 0 Apron: 0
 265 U/W Insp Area 0 Diver: RMO
 Location ID No: 179-00119D-004-18N

Measurements:

*29 ADT 003310 Year: 2007
 109% Tracks: 0
 * 28 Lanes On: 02 Under: 00
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length 0020
 * 49 Structure Length: 80
 51 Br. Rwdy. Width 24.00
 52 Deck Width: 25.30
 * 47 Tot. Horiz. Cl: 24
 50 Curb / Sidewalk Width 0.00 / 0.00
 32 Approach Rdwy. Width 025
 * 229 Shoulder Width: 2.00 Type: 2 Rt: 2.00
 Rear Lt. 2.00 Type: 2
 Fwd. Lt. 2.00 Type: 2
 Permanent Width: 21.00 Type: 2
 Rear: 21.00 Type: 2
 Intersection Rear: 0 Fwd: 0
 36 Safety 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 99' 99"
 Act. Odm Dir.: 99' 99"
 Oppo. Dir: 00' 00"
 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 Deck Thick Approach: 4.00
 246 Overlay Thickness: 0.00
 1.50
 212 Year Last Painted: Sup: 0000 Sub: 0000

65 Inventory Rating Method: 2
 63 Operating Rating Method: 2
 66 Inventory Type: 2 Rating: 21
 64 Operating Type: 2 Rating: 21
 231 Calculated Loads:
 H-Modified: 19 0
 HS-Modified: 25 0
 Type 3: 22 0
 Type 3s2: 40 0
 Timber: 31 0
 Piggyback: 40 0
 261 H Inventory Rating: 15
 262 H Operating Rating: 22
 67 Structural Evaluation: 4
 58 Deck Condition: 7
 59 Superstructure Condition: 7
 * 227 Collision Damage: 0
 60A Substructure Condition: 4
 60B Scour Condition: 8
 60C Underwater Condition: 5
 71 Waterway Adequacy: 6
 61 Channel Protection Cond.: 7
 68 Deck Geometry: 2
 69 UnderCl. Horiz/Vert: N
 72 Appr. Alignment: 8
 62 Culvert: N
Posting Data
 70 Bridge Posting Required: 5
 41 Struct Open, Posted, CL: A
 * 103 Temporary Structure: 0
 232 Posted Loads
 H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type 3s2: 00
 Timber: 00
 Piggyback: 00
 253 Notification Date: 02/01/1901
 258 Fed Notify Date: 2/1/1901 12:00:00AM

ATTACHMENT 6

Minutes of Initial Concept Team Meeting

Meeting Summary

PURPOSE: Initial Concept Team Meeting

PROJECT: CSBRG-0007-00(038), PI 0007038, Liberty County
SR 119 at Russell Swamp

DATE: September 14, 2011

PLACE: GDOT District 5 Office
204 North Highway 301
Jesup, GA 31546

RECORD BY: Saurabh Bhattacharya, Parsons

DISCUSSIONS:

An Initial Concept Team meeting was held on September 14, 2011 at the Georgia Department of Transportation (GDOT) District 5, Jesup Office to review the need and purpose statement and draft project concept report of the subject project. A list of meeting attendees is attached to these meeting minutes.

The purpose of the meeting was to:

- Present project need and purpose, concept alternates and draft concept report
- Obtain feedback and identify any issues

GDOT Project Manager, David Moyer, conducted the meeting, and provided a brief description of the project including functional classification, traffic projections and design criteria. Saurabh Bhattacharya described the need and purpose statement and existing and proposed typical sections. Concept alternates considered for the project were presented, along with the reasons for the selection of the preferred alternate. Additionally, attendees presented their comments to David Moyer and Parsons Team.

Notes below summarize discussions and decisions from the meeting.

- 1 Saurabh Bhattacharya presented advantages and disadvantages of all five alternates considered during concept development. Alternate # 2 includes realignment of SR 119 north of its current location and would incur approx. \$800,000 more in utility relocation compared to the selected alternate. Alternate # 3 would construct proposed bridge on existing alignment, while maintaining traffic on a temporary detour bridge. Aykut Urgan mentioned that Alternate # 4 – Offsite Detour is not the best choice because it would re-route traffic approximately 33 miles and would likely face public opposition. In addition, Aykut explained that as per initial hydraulic assessment, proposed bridge has to be raised by approximately 5 feet. David added that retaining the existing bridge was out of the question because of structural concerns and sufficiency rating of 26.79.

- 2 Brad Saxon added that District office has encountered settlement of roadway embankment on the east side of existing bridge requiring periodic maintenance. Replacing bridge on existing alignment will not address this issue. Therefore Alternates 3 & 4 are not desirable. The best way to address this concern would be to realign SR 119 and use undercut and fabric to construct new roadway embankment. Furthermore, District anticipates public opposition to offsite detour.
- 3 Sonny Timmerman mentioned that truck traffic was heavy (14%), thus becoming a concern if offsite detour is proposed.
- 4 David informed meeting attendees that estimated bridge cost as per GDOT records was \$340,000. Meeting attendees agreed that this estimate is unrealistic and may have been developed several years back. Construction cost estimate for the proposed alternate is approximately \$2.5 million.
- 5 David recommended that construction tie-in must be smooth on the west end of project to avoid impacting existing underground utilities.
- 6 Heidi Schneider mentioned that wetland impact of the preferred alternative was 2.5 acres. Saurabh explained that wetland impacts are unavoidable since the bridge is being relocated from its existing alignment. The selection of preferred alternate was based on balancing environmental impact and project cost.
- 7 David went over the level of environmental analysis. Heidi confirmed that project requires a Categorical Exclusion (CE), however this could be lowered to a Programmatic CE after discussion with GDOT NEPA Planner once special studies are complete. There are two potential species of concern in the project area: birds and turtles. A turtle survey was performed but none were found. David affirmed that the project is listed as noise type 3.
- 8 David discussed the project development schedule. The let date is scheduled for October 2014. Brad asked to extend the schedule for right of way acquisition to 12 months. Heidi mentioned that Individual Permit could take between 8 and 12 months for approval. Parsons confirmed that environmental special studies would be complete by January 2012 and environmental document should be approved by June 2012.
- 9 David stated that this project does not qualify for a public hearing/public information meeting.
- 10 Sonny Timmerman and Nils Gustavson gave an overview of other projects in the area. A large number of projects are being considered under the Transportation Investment Act. If approved, they will include shoulder widening on SR 119. Nils asked if proposed typical section could include 6-foot wide paved shoulders. David mentioned that shoulder will be fully paved to the face of guardrail which will cover a large section of the project. Proposed typical section is based in GDOT standards.
- 11 Brent Moseley recommended updating the concept report per latest Asphalt Cement & Fuel Price Adjustment spreadsheet.
- 12 Brad mentioned that this project does not qualify for a Public Interest Determination Policy & Procedure.
- 13 Meeting attendees agreed that this meeting could be considered as a Concept Team Meeting and an additional meeting was not required.

Other Comments:

- Liberty County – No comments
- Federal Highway Administration – No comments
- Engineering Services – No comments
- Traffic Safety & Design – No comments
- Environment/Location – No comments
- Planning – No comments
- Right-of-Way office – increase acquisition schedule to 12 months; District to stake right-of-way.
- District Office – Brad mentioned that District Office does not like off-site detour option for on-system bridge projects and reiterated District’s concern for embankment issues on the west side of existing bridge. He asked to remove project PI M003196 from concept report because this project is complete.
- Utilities – No comments

Action Items

1. Parsons to update and submit concept report for approval.

Meeting Attendees:

Name	Organization	Email
David Moyer	GDOT	dmoyer@dot.ga.gov
John Kopotic	GDOT	jkopotic@dot.ga.gov
Steve Price	GDOT	sprice@dot.ga.gov
Brent Moseley	GDOT	bmoseley@dot.ga.gov
Brad Saxon	GDOT	bsaxon@dot.ga.gov
Sonny Timmerman	Liberty County Planning (HAMPO)	stimmerman@thelcpc.org
Nils Gustavson	Liberty County Planning (HAMPO)	ngustavson@thelcpc.org
Heidi Schneider	Edwards Pitman Environmental	hschneider@edwards-pitman.com
Aykut Urgan	Parsons	aykut.urgan@parsons.com
Saurabh Bhattacharya	Parsons	saurabh.bhattacharya@parsons.com
Levis Koloko	Parsons	levis.koloko@parsons.com

ATTACHMENT 7

Alternatives Impact Matrix

**Alternative Matrix for CSBRG-0007-00(038), PI 0007038
SR 119 Bridge at Russell Swamp, Liberty County**

CRITERIA	CONCEPT ALTERNATIVES			REMARKS/COMMENTS
	ALTERNATIVE 1 Proposed bridge on new alignment to the South	ALTERNATIVE 2 Proposed bridge on new alignment to the North	ALTERNATIVE 3 Proposed bridge on existing alignment with On-site detour to the South	
Length of Construction	3,145 ft.	3,670 ft.	Permanent - 2,540 ft. Detour - 1,900 ft.	Alt. 1 has shortest length
Anticipated Bridge Size	Approx. 200 ft. x 43.25 ft.	Approx. 150 ft. x 43.25 ft.	Perm. Bridge - 150 ft. x 43.25 ft. Detour Bridge - 140 ft. x 32 ft.	Alt. 2 has lowest bridge cost
Bridge Cost (\$90/sf)	\$778,500	\$583,875	\$807,875	
Wetland Impacts	Approx. 2.45 acres	Approx. 1.98 acres	Permanent - Approx. 1.37 acres Detour - Approx. 0.74 acres	Alt. 2 has lowest impacts
Reqd. Right-of-Way	Approx. 5.1 Acres	Approx. 6.40 Acres	Approx. 3.04 Acres ROW Approx. 1.06 Acres Esmt.	Alt 3 has lowest impacts
Displacements	NA	NA	NA	No Displacements
Utility Impacts	1. Coastal Communications 2. Coastal EMC 3. GA Power - Transmission 4. Southern Natural Gas	1. Coastal Communications 2. Coastal EMC 3. GA Power - Transmission 4. Southern Natural Gas	1. Coastal Communications 2. Coastal EMC 3. GA Power - Transmission 4. Southern Natural Gas	Alt. 2 has highest impacts to GA Power & Southern Natural Gas
Historic Properties	NA	NA	NA	No Historic Impacts
Preliminary Utility Cost	\$600,000	1,400,000	\$600,000 (Approx.)	Alt. 2 has highest cost
Preliminary R/W Cost	\$240,000	\$288,000	\$161,129 (Approx.)	Alt. 2 has highest cost
Base Construction Cost	\$2,094,602	\$2,001,055	\$2,363,777	Alt. 2 has lowest cost
5% Engineering & Inspection	\$104,730	\$100,053	\$118,189	Alt. 2 has lowest cost
Asphalt Cement Cost Adjustment	\$91,580	\$109,015	\$119,925	Alt. 3 has highest cost
TOTAL COST	\$3,130,912	\$3,898,123	\$3,363,020	Alt. 1 has lowest cost

Concept Alternative # 1 is recommended as the preferred alternative because of low utility impacts and lowest overall cost