

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

---

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

**FILE** P.I. #0007171 **OFFICE** Design Policy & Support  
GDOT District 4 - Tifton  
Decatur County **DATE** August 20, 2012  
SR 97 @ Big Slough 3.2 MI Northeast of  
Bainbridge  
**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:**

Bobby Hilliard, Program Control Administrator  
Genetha Rice-Singleton, 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  
Andy Casey, State Roadway Design Engineer  
Attn: David Acree, Design Group Manager  
Kathy Zahul, State Traffic Engineer  
Georgene Geary, State Materials & Research Engineer  
Lisa Myers, State Project Review Engineer  
Jeff Baker, State Utilities Engineer  
Ken Thompson, Statewide Location Bureau Chief  
Michael Henry, Systems & Classification Branch Chief  
Joe Sheffield, District Engineer  
Brent Thomas, District Preconstruction Engineer  
Timothy Warren, District Utilities Engineer  
Suzanne Dunn, Project Manager  
BOARD MEMBER - 2nd Congressional District

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

Project Type: <u>Bridge Replacement</u>	P.I. Number: <u>0007171</u>
GDOT District: <u>4</u>	County: <u>Decatur</u>
Federal Route Number: <u>N/A</u>	State Route Number: <u>97</u>

The proposed project, CSBRG-0007-00(171), would replace the existing, structurally-deficient and functionally-obsolete, five-span, reinforced-concrete bridge along SR 97 at the Big Slough channel in Decatur County, Georgia.

**Submitted for approval:**

<u>C. Andy Cury</u> State Roadway Design Engineer	6/20/12 (orig. submittal 5/24/12) DATE
<u>Bobby Hilliard</u> State Program Delivery Engineer	6-25-2012 DATE
<u>Suzanne Durr</u> GDOT Project Manager	6/21/12 DATE

**Recommendation for approval:**

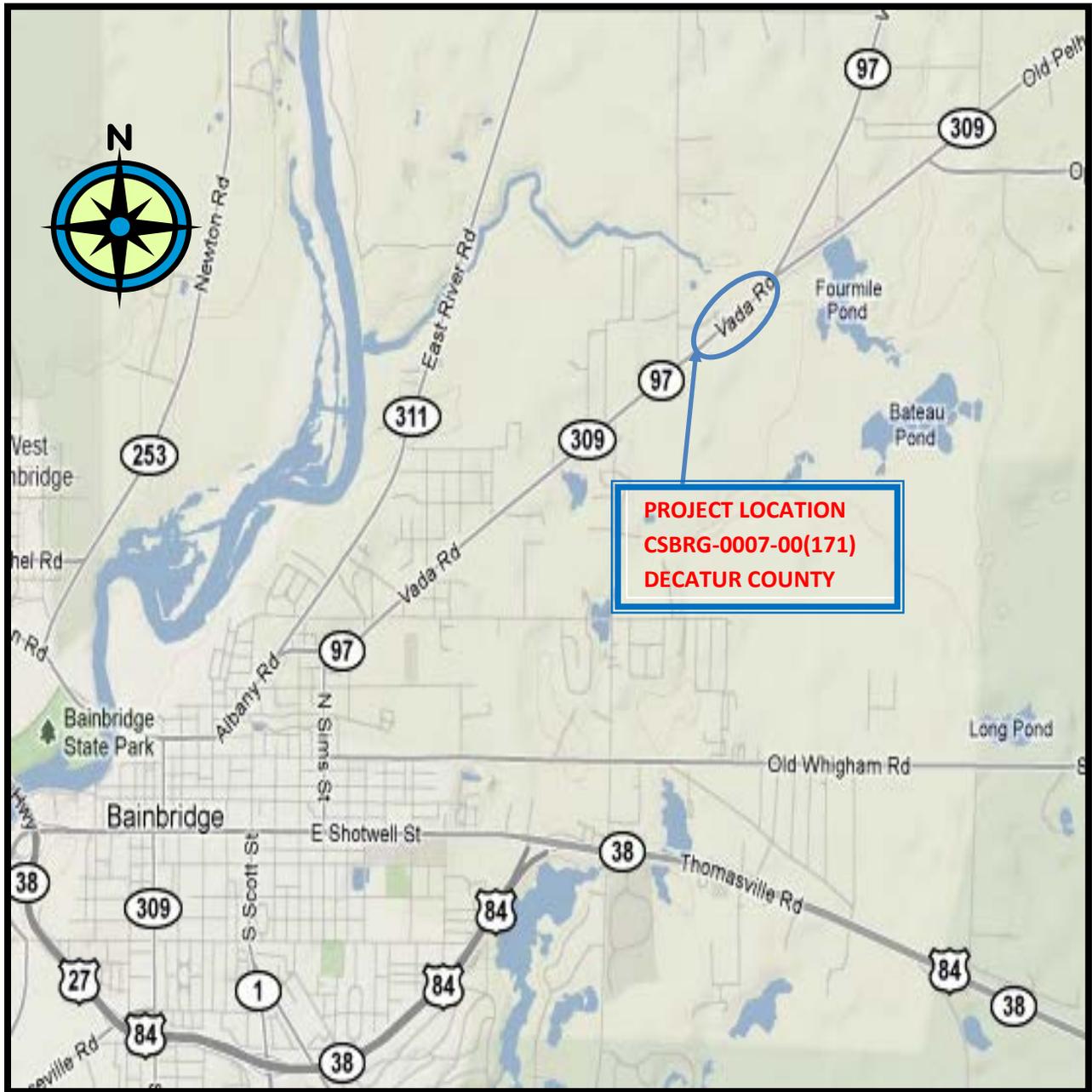
<u>GLENN BOWMAN *TJ</u> Program Control Administrator	DATE 7/12/2012
<u>KATHY ZAHUL *TJ</u> State Environmental Administrator	DATE 6/29/2012
<u>LISA MYERS *TJ</u> State Traffic Engineer	DATE 6/28/2012
<u>PATRICK ALLEN *TJ</u> Project Review Engineer	DATE 6/27/2012
<u>JOE SHEFFIELD *TJ</u> State Utilities Engineer	DATE 6/28/2012
<u>BEN RABUN *TJ</u> District Engineer	DATE 8/7/2012
_____ State Bridge Design Engineer	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

<u>Cindy Vant Dyke</u> State Transportation Planning Administrator	6/26/12 DATE
---	-----------------

*\* RECOMMENDATION ON FILE*

### PROJECT LOCATION MAP



## PLANNING & BACKGROUND DATA

### Project Justification Statement:

The bridge (Structure ID 087-0025-0) along SR 97 over Big Slough was built in 1950 and consists of five spans of Reinforced Concrete Deck Girders (RCDG) on a concrete substructure. The bridge is currently posted from 21 to 40 tons and has a Sufficiency Rating of 39.89. The deck exhibits moderate scaling with exposed aggregate. The superstructure exhibits numerous RCDG's with shear cracks and all beams exhibit deflections cracks. Replacement of this functionally obsolete bridge is recommended.

### Description of the proposed project:

The proposed project would replace the existing 170 ft. x 32 ft. (l x w), five-span bridge over Big Slough along SR 97, approximately 3.2 miles northeast of Bainbridge, in Decatur County, Georgia. The construction would begin at mile post 26.07 and end at mile post 26.52, resulting in a total project length of 0.45 miles. The typical section of the proposed bridge would consist of one, 12-foot travel lane in each direction with 8-foot shoulders. The project would provide a modern roadway bridge structure for the traveling public while at same time eliminating long-term maintenance costs.

**Federal Oversight:**  Full Oversight  Exempt  State Funded  Other

**MPO:**  N/A  MPO  
MPO Project TIP #

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

**Congressional District(s):** 2

### Projected Traffic AADT:

Current Year (2011): 3,950      Open Year (2016): 4,500      Design Year (2036): 6,000

**Functional Classification (Mainline):** Rural Minor Arterial

**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:** An off-site detour to enable the replacement bridge to be constructed on the existing SR 97 alignment would result in hardship to farmers in the area due to the length of the detour route.

**Context Sensitive Solutions:** The replacement bridge will be constructed on new alignment west of the existing structure. Realignment to the west (versus the east) of the existing structure would eliminate the need to relocate an existing Colonial Gas pipeline.

## DESIGN AND STRUCTURAL DATA

### Mainline Design Features: SR 97

Feature	Existing	Standard*	Proposed
<b>Typical Section</b>			
- Number of Lanes	2	N/A	2
- Lane Width(s)	10'	11'-12'	12'
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder Width & Type	6' Grassed	10' Graded	4'-Paved 6'-Grassed
- Outside Shoulder Slope	6%	6%	6%
- 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		55
Design Speed	55	N/A	55
Min Horizontal Curve Radius	3819.72	1060	1060
Superelevation Rate	6%	6% Max	6% Max
Grade	1.5%	2%	2%
Access Control	N/A	N/A	N/A
Right-of-Way Width	100-ft	N/A	100'
Maximum Grade – Crossroad	N/A	N/A	N/A
Design Vehicle	N/A	N/A	N/A
<i>Additional Items as needed</i>	N/A	N/A	N/A

\*According to current GDOT design policy if applicable

### Major Structures:

Structure	Existing	Proposed
ID # 087-0025-0 Decatur, Georgia	170' long, 26' wide 2-12' lane (one in each direction) 2'-11" Conc. Handrail on each side Sufficiency Rating – 39.89	170' long, 40' wide 2 – 12' lane (one in each direction) 8' – Shoulder (on each side)
Retaining walls	N/A	N/A

### Major Interchanges/Intersections: N/A

**Utility Involvements:** Georgia Power  
 Grady EMC  
 Colonial Pipeline - Gas  
 Mediacom - Communications.  
 AT&T- communications

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

**SUE Required:**  Yes  No

**Railroad Involvement:** N/A

**Right-of-Way:**

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

Anticipated number of impacted parcels: 4  
 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:**

<b>FHWA/AASHTO Controlling Criteria</b>	<b>YES</b>	<b>Appvl Date (if applicable)</b>	<b>NO</b>	<b>Undetermined</b>
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 checked="" type="checkbox"/>		<input 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:**

<b>GDOT Standard Criteria</b>	<b>Reviewing Office</b>	<b>YES</b>	<b>Appvl Date (if applicable)</b>	<b>NO</b>	<b>Undetermined</b>
1. Access Control - <i>Median Opening Spacing</i>	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 checked="" type="checkbox"/>		<input 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 - <i>(if applicable)</i>	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 – 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

**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"/>	
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

In compliance with the Clean Water Act of 1977, Section 404 Permit will be required on this project to allow construction activities in and around “Big Slough” channel which serves as one of the overflow outlets for Flint River.

**Is a PAR required?**     No             Yes             Completed – Date:

**NEPA/GEPA:** Environmental document anticipated is Categorical Exclusion (CE).

**Ecology:** Aquatic survey is complete with result of “No Impact”. The consultant is waiting on bridge plans to complete ecology assessment of effects.

**History:** History survey completed with result of “No Impact”.

**Archeology:** Archeology investigations are ongoing – Archeology sights have been located; more detailed plans are needed to determine the exact footprint of the project and resulting impacts.

**Air & Noise:** Air/Noise has not been completed - impacts are not anticipated

**Public Involvement:** N/A

**Major stakeholders:** Traveling Public, Local Farmers, Residents, Trucking Company, and Major Produce Company.

**Lighting agreement/commitment letter received:**     No             Yes

**Planning Level assessment:** N/A

**Feasibility Study:** N/A

**Peer Review required:**             No             Yes             Completed – Date:

## CONSTRUCTION

Issues potentially affecting constructability/construction schedule: N/A

Early Completion Incentives recommended for consideration:  No  Yes

## PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT – Office of Roadway Design
Design	GDOT – Office of Roadway Design
Right-of-Way Acquisition	GDOT – Office of Right of Way
Utility Relocation	GA Power, Grady EMC, Mediacom, AT&T
Letting to Contract	GDOT - Office of Construction Bidding Administration
Construction Supervision	GDOT – Office of Construction
Providing Material Pits	GDOT - Contractor
Providing Detours	N/A
Environmental Studies, Documents, and Permits	Wilbur Smith - Consultant CE, and 404 Permit
Environmental Mitigation	None
Construction Inspection & Materials Testing	GDOT – Materials and Research

Lighting required:  No  Yes

Initial Concept Meeting: N/A

Concept Meeting: Held on October 26, 2011 at District 4 Office in Tifton – See attachment.

Other projects in the area: None

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	N/A	
\$ Amount	\$596,378.84	\$181,000.00	\$49,000.00	\$1,929,509.16	N/A	\$2,755,888.00
Date of Estimate	2/28/2011	3/7/2012	3/29/2012	8/9/2012	N/A	

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

## ALTERNATIVES DISCUSSION

### Alternative selection:

<b>Preferred Alternative:</b> Construct replacement structure on new alignment, west of the existing bridge.			
<b>Estimated Property Impacts:</b>	4	<b>Estimated Total Cost:</b>	\$2,755,888.00
<b>Estimated ROW Cost:</b>	\$181,000.00	<b>Estimated CST Time:</b>	18 months
<b>Rationale:</b> This Alternative was determined to be the most prudent and feasible alternative because it has the least amount of environmental impacts, does not include costs for a temporary detour bridge, and provides the lowest traffic maintenance costs during construction.			

<b>No-Build Alternative:</b> No-Build			
<b>Estimated Property Impacts:</b>	0	<b>Estimated Total Cost:</b>	\$0.00
<b>Estimated ROW Cost:</b>	N/A	<b>Estimated CST Time:</b>	N/A
<b>Rationale:</b> This Alternative was not selected because the existing bridge structure is structurally deficient and functionally obsolete.			

<b>Alternative 1:</b> Staged construction utilizing a portion of the existing structure to maintain one-way traffic across the Big Slough while a portion of the replacement structure is constructed. Shift one-way traffic to the newly-constructed portion of the replacement structure, remove the remainder of the existing structure, and construct the remainder of the replacement structure.			
<b>Estimated Property Impacts:</b>	4	<b>Estimated Total Cost:</b>	\$3,500,000.00
<b>Estimated ROW Cost:</b>	\$170,000.00	<b>Estimated CST Time:</b>	30 months
<b>Rationale:</b> This Alternative was not selected because the existing bridge superstructure cannot be 'saw-cut'.			

<b>Alternative 2:</b> Replace the existing bridge with a bridge culvert.			
<b>Estimated Property Impacts:</b>	4	<b>Estimated Total Cost:</b>	\$4,500,000.00
<b>Estimated ROW Cost:</b>	\$181,000.00	<b>Estimated CST Time:</b>	24 months
<b>Rationale:</b> This Alternative was not selected because of the impacts to an existing Colonial Gas pipeline; and history of damage to culverts resulting from the Flood of 1994.			


**Comments:** None.



**ATTACHMENT #1**

**CONCEPT LAYOUT**

SR 97

# BRIDGE REPLACEMENT

P.I.0007171

Begin Proposed Bridge

End Proposed Bridge

Begin Construction

End Construction

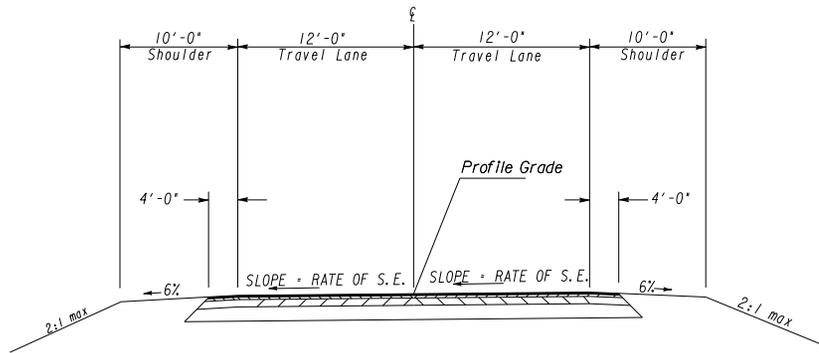
Begin Existing Bridge

End Existing Bridge

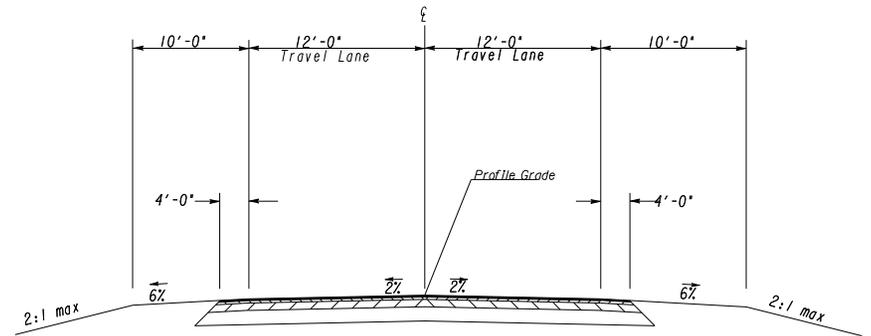


# **ATTACHMENT #2**

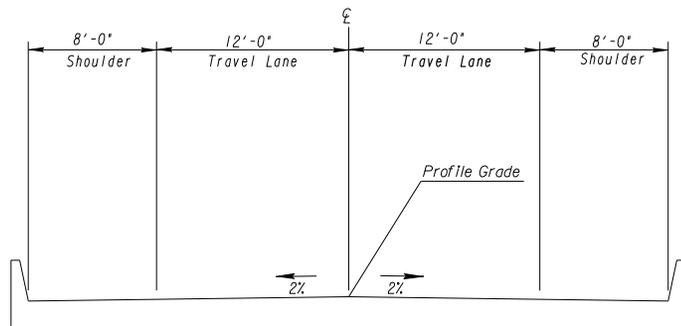
## **TYPICAL SECTIONS**



SUPERELEVATION SECTION



TANGENT SECTION



BRIDGE SECTION

**GEORGIA**  
DEPARTMENT  
OF  
TRANSPORTATION

NOT TO SCALE

REVISION DATES


STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: ROADWAY DESIGN  
TYPICAL SECTIONS

S. R. 97

DRAWING NO.  
05-001

# **ATTACHMENT #3**

## **DETAILED COST ESTIMATE**

# DETAILED COST ESTIMATE



**Job: 0007171-PRELIM**

**JOB NUMBER:** 0007171-PRELIM

**FED/STATE PROJECT NUMBER**

**SPEC YEAR:** 01

**DESCRIPTION:** SR97 @ BIG SLOUGH BRIDGE REPLACEMENT NEW ALIGNMENT  
ALTERNATE 1-BRIDGE REPLACEMENT ON NEW ALIGNMENT

**ITEMS FOR JOB 0007171-PRELIM**

**0010 - ROADWAY**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0005	150-1000	1.000	LS	\$20,000.00000	TRAFFIC CONTROL - CSBRG-0007-00(171)	\$20,000.00
0010	150-5010	1.000	EA	\$9,726.11628	TRAF CTRL,PORTABLE IMPACT ATTN	\$9,726.12
0015	210-0100	1.000	LS	\$519,871.20000	GRADING COMPLETE - CSBRG-0007-00(171)	\$519,871.20
0189	310-1101	4624.000	TN	\$20.71324	GR AGGR BASE CRS, INCL MATL	\$95,778.02
0174	402-3103	464.000	TN	\$81.34777	REC AC 9.5 MM SP,TPII,GP2, INCL BM & H L	\$37,745.37
0179	402-3121	1394.000	TN	\$82.88461	RECYL AC 25MM SP,GP1/2,BM&HL	\$115,541.15
0183	402-3190	697.000	TN	\$89.40034	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$62,312.04
0184	413-1000	620.000	GL	\$4.56979	BITUM TACK COAT	\$2,833.27
0019	433-1200	288.000	SY	\$141.89666	REF CONC APPR SL/I SLOPED EDGE	\$40,866.24
0020	446-1100	1070.000	LF	\$4.67811	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	\$5,005.58
0034	610-6515	2.000	EA	\$91.78980	REM HIGHWAY SIGN, STD	\$183.58
0035	611-5360	2.000	EA	\$123.67458	RESET HIGHWAY SIGN	\$247.35
0039	634-1200	4.000	EA	\$126.75099	RIGHT OF WAY MARKERS	\$507.00
0040	641-1100	83.000	LF	\$69.87654	GUARDRAIL, TP T	\$5,799.75
0045	641-1200	221.000	LF	\$20.12283	GUARDRAIL, TP W	\$4,447.15
0050	641-5001	2.000	EA	\$645.18000	GUARDRAIL ANCHORAGE, TP 1	\$1,290.36
0055	641-5012	2.000	EA	\$1,836.45994	GUARDRAIL ANCHORAGE, TP 12	\$3,672.92
0059	653-1501	1501.000	LF	\$0.71150	THERMO SOLID TRAF ST 5 IN, WHI	\$1,067.96
0060	653-1502	1502.000	LF	\$0.67344	THERMO SOLID TRAF ST, 5 IN YEL	\$1,011.51
0063	654-1001	59.000	EA	\$4.77415	RAISED PVMT MARKERS TP 1	\$281.67
0064	654-1003	59.000	EA	\$5.00000	RAISED PVMT MARKERS TP 3	\$295.00
0069	657-1085	540.000	LF	\$6.28677	PRF PL SD PVT MKG,8",B/W,TP PB	\$3,394.86
0074	657-6085	540.000	LF	\$8.06842	PRF PL SD PVMT MKG,8",B/Y,TPPB	\$4,356.95
<b>SUBTOTAL FOR ROADWAY:</b>						<b>\$936,235.05</b>

**0020 - BRIDGE REPLACEMENT**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0149	540-1102	1.000	LS	\$102,000.00000	REM OF EX BR, BR NO - 087-0025-0	\$102,000.00
0164	543-9000	1.000	LS	\$646,000.00000	CONSTR OF BRIDGE COMPLETE - CSBRG-0007-00(171)	\$646,000.00
<b>SUBTOTAL FOR BRIDGE REPLACEMENT:</b>						<b>\$748,000.00</b>

**0030 - EROSION CONTROL**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0114	163-0232	8.000	AC	\$488.93130	TEMPORARY GRASSING	\$3,911.45
0119	163-0240	477.000	TN	\$126.15876	MULCH	\$60,177.73
0079	163-0300	2.000	EA	\$1,322.88310	CONSTRUCTION EXIT	\$2,645.77
0124	163-0520	62.000	LF	\$16.68124	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	\$1,034.24
0144	165-0010	3936.000	LF	\$0.78769	MAINT OF TEMP SILT FENCE, TP A	\$3,100.35
0129	165-0030	741.000	LF	\$0.38529	MAINT OF TEMP SILT FENCE, TP C	\$285.50
0084	165-0101	2.000	EA	\$478.22104	MAINT OF CONST EXIT	\$956.44
0139	171-0010	7871.000	LF	\$2.30641	TEMPORARY SILT FENCE, TYPE A	\$18,153.75
0134	171-0030	1482.000	LF	\$3.60599	TEMPORARY SILT FENCE, TYPE C	\$5,344.08
0154	603-2024	200.000	SY	\$60.51007	STN DUMPED RIP RAP, TP 1, 24"	\$12,102.01
0159	603-7000	200.000	SY	\$3.98279	PLASTIC FILTER FABRIC	\$796.56
0089	700-6910	15.000	AC	\$1,032.21256	PERMANENT GRASSING	\$15,483.19
0094	700-7000	30.000	TN	\$78.81185	AGRICULTURAL LIME	\$2,364.36
0099	700-8000	3.000	TN	\$524.59390	FERTILIZER MIXED GRADE	\$1,573.78
0104	700-8100	783.000	LB	\$2.64005	FERTILIZER NITROGEN CONTENT	\$2,067.16
0109	716-2000	18446.000	SY	\$1.26837	EROSION CONTROL MATS, SLOPES	\$23,396.35
<b>SUBTOTAL FOR EROSION CONTROL:</b>						<b>\$153,392.72</b>

**TOTALS FOR JOB 0007171-PRELIM**

# DETAILED COST ESTIMATE



**Job: 0007171-PRELIM**

<b>ITEMS COST:</b>	<b>\$1,837,627.77</b>
<b>COST GROUP COST:</b>	<b>\$0.00</b>
<b>ESTIMATED COST:</b>	<b>\$1,837,627.77</b>
<b>CONTINGENCY PERCENT:</b>	<b>0.00</b>
<b>ENGINEERING AND INSPECTION:</b>	<b>0.05</b>
<b>ESTIMATED COST WITH CONTINGENCY AND E&amp;I:</b>	<b>\$1,929,509.16</b>

GRADING COMPLETE SUMMARY				
DESCRIPTION	COST	QTY	U/M	COST/U/M
Construction Layout	\$ 18,387.46	11	days	\$ 1,724.44
Clear and Grubb (light)	\$ 4,330.57	5	acre	\$ 817.09
Remove Asphalt Pavin	\$ 15,376.83	6,134.00	sy	\$ 2.51
Cut to Waste	\$ 114,415.44	15,000.00	cy	\$ 7.63
Borrow	\$ 207,605.42	26,666.67	cy	\$ 7.79
Grading-Subgrade	\$ 11,028.24	0.37	mile	\$ 4,124.56
Rem Guardrail	\$ 560.62	304	lf	\$ 1.84
Rem G/Rail Anchor	\$ 461.04	4	ea	\$ 115.26
Project Management	\$ 12,480.00	13%	time	\$ 96,000.00
Mobilization	\$ 40,000.00			
Asphalt Mobilization	\$ 5,000.00			
Total	\$ 429,645.62			
Plus O.H. & Profit	\$ 519,871.20	1.1 X 1.1		

<b>PROJ. NO.</b>	CSBRG-0007-00(171)	CALL NO.
<b>P.I. NO.</b>	0007171	
<b>DATE</b>	5/14/2012	

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Jan-12	\$ 3.668
DIESEL		\$ 4.057
LIQUID AC		\$ 626.00

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

**LIQUID AC ADJUSTMENTS**

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

<b>Asphalt</b>				
Price Adjustment (PA)			<b>47982.9</b>	<b>\$ 47,982.90</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 1,001.60	
Monthly Asphalt Cement Price month project let (APL)			\$ 626.00	
<b>Total Monthly Tonnage of asphalt cement (TMT)</b>			<b>127.75</b>	

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm		5.0%	0
9.5 mm SP	464	5.0%	23.2
25 mm SP	1394	5.0%	69.7
19 mm SP	697	5.0%	34.85
	<b>2555</b>		<b>127.75</b>

**BITUMINOUS TACK COAT**

Price Adjustment (PA)			<b>\$ 1,000.21</b>	<b>\$ 1,000.21</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 1,001.60	
Monthly Asphalt Cement Price month project let (APL)			\$ 626.00	
<b>Total Monthly Tonnage of asphalt cement (TMT)</b>			<b>2.662962572</b>	

Bitum Tack		
Gals	gals/ton	tons
620	232.8234	2.66296257

**BITUMINOUS TACK COAT (surface treatment)**

Price Adjustment (PA)			<b>0</b>	<b>\$ -</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 1,001.60	
Monthly Asphalt Cement Price month project let (APL)			\$ 626.00	
<b>Total Monthly Tonnage of asphalt cement (TMT)</b>			<b>0</b>	

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** **\$ 48,983.11**

**GEORGIA DEPARTMENT OF TRANSPORTATION  
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 2/13/2011 Project: CSBRG-0007-00(171)  
 Revised: 3/7/2012 County: Decatur County  
 PI: 0007171 Alt 2A

Description: Bridge Replacement over Big Slough on SR 97  
 Project Termini: Bridge Replacement over Big Slough on SR 97

Existing ROW: Varies  
 Required ROW: Varies  
 Parcels: 4

**Land and Improvements** \_\_\_\_\_ \$92,550.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$35,000.00

Valuation Services \_\_\_\_\_ \$4,000.00

Legal Services \_\_\_\_\_ \$40,200.00

Relocation \_\_\_\_\_ \$8,000.00

Demolition \_\_\_\_\_ \$0.00

Administrative \_\_\_\_\_ \$35,500.00

TOTAL ESTIMATED COSTS \_\_\_\_\_ \$180,250.00

**TOTAL ESTIMATED COSTS (ROUNDED) \_\_\_\_\_ \$181,000.00**

Preparation Credits	Hours	Signature

Prepared By: Hashore Alexander CG#: 286999 03/07/2012  
 Approved By: John Ayson CG#: 286999 03/07/2012

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

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

---

**INTERDEPARTMENT CORRESPONDENCE**

**FILE**

Project No: **CSBRG-0007-00(171)**  
 County **DECATUR**  
 P.I. # **0007171**

OFFICE: **Tifton**  
 DATE: **March 29, 2012**

Description: **SR 97@ BIG SLOUGH 3.2 MILES NORTHEAST OF BAINBRIDGE**

*TW*  
 FROM Tim Warren, P.E., District Utilities Engineer

TO Suzanne Dunn, Project Manager

**SUBJECT UTILITY COST ESTIMATE**

A review of utilities located on the above referenced project has been conducted based on the latest available plans.. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

**Based on the latest preliminary plan sheets there will not be any additional R/W needed on the right side so even though Colonial Pipeline is has two major lines on their own easement off of our existing R/W on the right side they are not included in this estimate.**

<u>Utility Owner</u>	<u>Reimbursable</u>	<u>Non-Reimbursable</u>	<u>Estimate Based on</u>
Bellsouth	\$0.00	\$39,278.25	Site Visit / Available Drawings
Grady EMC	\$49,000.00	\$0.00	Site Visit / Available Drawings
	\$0.00	\$0.00	
	\$0.00	\$0.00	
	\$0.00	\$0.00	
	\$0.00	\$0.00	
	\$0.00	\$0.00	
	\$0.00	\$0.00	
<b>Total</b>	<b>\$ 49,000.00</b>	<b>\$ 39,278.250</b>	

**\*\* Indicates Potential Utility Aid Request from Local Gov't**

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact me or Ken Cheek, Utilities Engineer at (229) 386-3288.

TW:K   
 c: Jeff Baker, P.E., State Utilities Engineer  
 Brent Thomas, District Preconstruction Engineer  
 Angela Robinson, State Financial Management Administrator

# **ATTACHMENT #4**

## **BRIDGE INVENTORY**

# Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:087-0025-0

Decatur

SUFF. RATING: 29.15

**Location & Geography**

**Structure ID:** 087-0025-0  
 200 Bridge Information: 06  
 \*6A Feature Int: BIG SLOUGH  
 \*6B Critical Bridge: 0  
 \*7A Route No Carried: SR00097  
 \*7B Facility Carried: SR 97  
 9 Location: 3.2 MI NE OF BAINBRIDGE  
 2 Dot District: 4  
 207 Year Photo: 2011  
 \*91 Inspection Frequency: 24 Date: 10/24/2011  
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901  
 92B Underwater Insp Freq: 0 Date: 02/01/1901  
 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: 00097  
 Direction: 0  
 \*16 Latitude: 30 56.0933 HMMS Prefix:SR  
 \*17 Longitude: 84 -31.3817 HMMS Suffix:00 MP:26.32  
 98 Border Bridge: 000%Shared:00  
 99 ID Number: 0000000000000000  
 \*100 STRAHNET: 0  
 12 Base Highway Network: 1  
 13A LRS Inventory Route: 871009700  
 13B Sub Inventory Route: 0  
 101 parallel Structure: N  
 \*102 Direction of Traffic: 2  
 \*264 Road Inventory Mile Post: 025.98  
 \*208 Inspection Area: 4 Initials: EFP  
 Engineer's Initials: eep  
 \* Location ID No: 087-00097D-026.32N

\*104 Highway System: 0  
 \*26 Functional Classification: 16  
 \*204 Federal Route Type: F No: 01291  
 105 Federal Lands Highway: 0  
 \*110 Truck Route: 0  
 2006 School Bus Route: 0  
 217 Benchmark Elevation: 0110.97  
 218 Datum: 1  
 \*19 Bypass Length: 19  
 \*20 Toll: 3  
 \*21 Maintenance: 01  
 \*22 Owner: 01  
 \*31 Design Load: 2  
 37 Historical Significance: 5  
 205 Congressional District: 02  
 27 Year Constructed: 1950  
 106 Year Reconstructed: 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: 0  
 \*42 Type of Service On: 1  
 Type of Service Under: 5  
 214 Movable Bridge: 0  
 203 Type Bridge: 1  
 259 Pile Encasement 3  
 \*43 Structure Type Main: 1 04  
 45 No.Spans Main: 005  
 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: 0

**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 11  
 \*240 Medium Barrier Rail: 0  
 241 Bridge Median Height: 0  
 \* Bridge Median Width: 0  
 230 Guardrail Loc. Dir. Rear: 6  
 Fwd: 6  
 Oppo. Dir. Rear: 0  
 Oppo. Fwd: 0  
 244 Approach 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: 00  
 Sewer: 00  
 247 Lighting Street: 0  
 Navigation: 0  
 Aerial: 0  
 \*248 County Continuity No.: 00

# Bridge Inventory Data Listing



Parameters: Bridge Serial Num

**Structure ID:087-0025-0**

Programming Data		Measurements:				
201 Project No:	ER-S-5	*29ADT	003630	Year:2010	65 Inventory Rating Method:	1
202 Plans Available:	4	109%Trucks:	16		63 Operating Rating Method:	1
249 Prop Proj No:	BRG-0007-00(171)	* 28 Lanes On:	02	Under:00	66 Inventory Type:	2 Rating: 16
250 Approval Status:	0000	210 No. Tracks On:	00	Under:00	64 Operating Type:	2 Rating: 16
251 PI Number:	0007171	* 48 Max. Span Length	0034		231Calculated Loads:	
252 Contract Date:	02/01/1901	* 49 Structure Length:	170		H-Modified:	21 1
260 Seismic No:	00000	51 Br. Rwdy. Width	26.10		HS-Modified:	30 0
75 Type Work:	34 1	52 Deck Width:	32.10		Type 3:	25 1
94 Bridge Imp. Cost:	\$164	* 47 Tot. Horiz. Cl:	26		Type 3s2:	40 1
95 Roadway Imp. Cost:	50	50 Curb / Sidewalk Width	2.20 / 2.20		Timber:	35 1
96 Total Imp Cost:	291	32 Approach Rdwy. Width	024		Piggyback:	40 0
76 Imp Length:	000381	*229 Shoulder Width:			261 H Inventory Rating:	12
97 Imp Year:	1990	Rear Lt:	7.00	Type:8 Rt:7.00	262 H Operating Rating	21
114Furure ADT:	005445	Fwd. Lt:	7.00	Type:8 Rt:7.00	67 Structural Evaluation:	4
		Permanent Width:			58 Deck Condition:	7
		Rear:	24.00	Type:8	59 Superstructure Condition:	5
			24.00	Type:2	* 227 Collision Damage:	0
		Intersaction Rear:	0	Fwd: 1	60A Substructure Condition:	7
		36Safety Features Br. Rail:	2		60B Scour Condition:	8
		Transition:	2		60C Underwater Condition	N
		App. G. Rail:	2		71 Waterway Adequacy:	6
		App. Rail End:	2		61 Channel Protection Cond.:	8
		53 Minimum Cl. Over:	99' 99 "		68 Deck Geometry:	3
		Under:			69 UnderClr. Horz/Vert:	N
		*228 Minimum Vertical Cl			72 Appr. Alignment:	8
		Act. Odm Dir.:	99' 99"		62 Culvert:	N
		Oppo. Dir:	99' 99"		<b>Posting Data</b>	
		Posted Odm. Dir:	00' 00"		70 Bridge Posting Required	2
		Oppo. Dir:	00' 00"		41 Struct Open, Posted, CL:	P
		55 Lateral Undercl. Rt:	N 0 0		* 103 Temporary Structure:	0
		56 Lateral Undercl. Lt:	0.00		232 Posted Loads	
		*10 Max Min Vert Cl:	99' 99" Dir:0		H-Modified:	21
		39 Nav Vert Cl:	000 Horiz:0000		HS-Modified:	00
		116 Nav Vert Cl Closed:	000		Type 3:	25
		245 Deck Thickness Main	6.00		Type 3s2:	40
		Deck Thick Approach:	0.00		Timber:	35
		246 Overlay Thickness:	0.00		Piggyback	00
		212 Year Last Painted:	Sup:0000Sub:0000		253 Notification Date:	02/01/1901
					258 Fed Notify Date:	2/1/1901 12:00:00AM

# **ATTACHMENT #5**

## **TRAFFIC DATA**

# NO BUILD ADT = BUILD ADT

## Department of Transportation

### State of Georgia

---

#### INTERDEPARTMENT CORRESPONDENCE

**FILE** CSBRG-0007-00(171), Decatur County      **OFFICE** Planning  
P.I. # 0007171  
**DATE** March 17, 2011

**FROM** Cindy VanDyke, State Transportation Planning Administrator

**TO** Bobby K. Hilliard, P.E., State Program Delivery Engineer  
**Attention:** Karyn Matthews, P.E.

**SUBJECT** Traffic Assignments for S.R. 97 @ BIG SLOUGH 3.2 MI NORTHEAST OF BAINBRIDGE.

We are furnishing estimated Traffic Assignments for the above project is below:

	<b>TC # 087-0207</b>
2011 AADT	3950
2016 AADT	4500
2036 AADT	6000
K	9%
D	55%
T.	12.5%
24 HOUR T.	19%
S.U.	9.5%
COMB.	9.5%

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

# **ATTACHMENT #6**

## **PRELIMINARY ASPHALT CONCRETE PAVEMENT DESIGN**

**FLEXIBLE PAVEMENT DESIGN ANALYSIS**

Project: CSBRG-0007-00(171)  
P.I. no.: 0007171  
Description: BRIDGE REPLACEMENT

County: DECATUR

**Traffic Data** (NOTE: AADTs are one-way)

24-hour Truck Percentage: 19.00%  
AADT initial year of design period: 4,500 vpd (2016)  
AADT final year of design period: 5,250 vpd (2036)  
Mean AADT (one-way): 4,875 vpd

**Design Loading**

Mean AADT	LDL	Trucks	18-K ESAL	Total Daily Loads
4,875 *	1.00 *	0.190 *	0.95	= 881

Total predicted design period loading = 881 \* 20 \* 365 = 6,431,300

**Design Data**

Terminal Serviceability Index: 2.50  
Soil Support: 4.00  
Regional Factor: 1.40

**PROPOSED FLEXIBLE PAVEMENT STRUCTURE**

Material	Thickness		Structural Coefficient	Structural Value
	Inches	(mm)		
9.5 mm Superpave	1.25	(32)	0.44	0.55
19 mm Superpave	2.00	(51)	0.44	0.88
25 mm Superpave	1.25	(32)	0.44	0.55
	2.75	(70)	0.30	0.83
Graded Aggregate Base	10.00	(254)	0.16	1.60
Required SN = 4.84			Proposed SN = 4.41	

>>> Proposed pavement is 8.9% Underdesign <<<

Remarks:

Prepared by PETER EZE May 23, 2012  
Date

Recommended State Road Design Engineer Date

Approved State Pavement Engineer Date

# **ATTACHMENT #7**

## **MINUTES OF CONCEPT MEETING**

# Meeting Minutes

**BY:** Suzanne Dunn OPD  
**DATE:** October 26, 2011 District 4 Office - Tifton  
**SUBJECT:** PI#0007171 Decatur County Bridge Replacement Concept Team Meeting

## ATTENDEES:

Suzanne Dunn	Program Delivery
Neal O'Brien	Roadway Design
Chuck Hasty	Roadway Design
Becky Mullis	ROW
Randy Rathburn	Program Delivery
Brent Thomas	District 4 Preconstruction
Shane Pridgen	District 4 Planning
Dennis Carter	District 4 Environmental
Ken Cheek	District 4 Utilities
Tim Warren	District 4 Utilities
Tony Craven	District 4 Construction
Joe W. Sheffield	District 4 Engineer
Van Mason	District 4 Traffic
Donna Garrison	District 4 Engineering Services
Jamie Salter	Grady EMC
Glenn Hester	Grady EMC

- 
- Neal O'Brien provided an overview of the project scope as it is defined so far.
  - Two alternates are currently being investigated; bridge replacement with a new bridge and bridge replacement with a new culvert.
  - A hydraulic study is required before a decision can be made to build a bridge or culvert.
  - The cost estimates are currently incomplete.
  - There is an existing gas line just east of the existing bridge.
  - EMC asked whether or not their power line would have to move, as it is 20'-30' off the right-of-way to the west. They were advised that a decision cannot be made yet. The replacement structure would not require the power to move, however depending on the installation method, access may be impaired if it is not.
  - It has been decided the detour will be on-site not off-site. Local representatives stated that the local farmers would most likely consider an off-site detour a hardship as there is no short detour route evident.
  - If an on-site temporary detour bridge was to be built, it would have the least impact if it were built to the west of the existing bridge.
  - It was discussed that there are several branches of the slough in the area and they are all used as an overflow for the Flint River.
  - Jamie Salter from EMC advised that other culverts in this vicinity were compromised in the last big flood of this area, and that Decatur County has had to replace many culverts

due to the high water levels reached during the flooding. For this reason, they recommend against using a culvert.

- Tim Warren with D4 stated that when he was on site, he only was able to identify EMC, Bell South and Colonial Gas.
- There is no need for SUE on this project.
- Joe Sheffield with D4 stated that the district prefers the use of an on-site detour bridge over an off-site detour.
- Brent Thomas stated that he felt the cost estimate for the temporary bridge was too high as the same cost per square foot was used as for the permanent bridge.
- Dennis Carter with D4 stated that the History survey was already completed and there is no impact. The aquatic survey has also been completed, with a result of no impact. The Archeological survey would be completed soon and the Air/Noise is being performed by Wilbur Smith. An Indigo snake and Tortoise survey may be required.
- Dennis Carter stated that he was informed by the environmental consultant that a Nationwide 404 permit will be needed.
- We should be able to obtain a CE for the environmental document.
- There is no need for a PIOH unless an off-site detour is used.
- Brent Thomas stated that ROW acquisition should have one year in the schedule.
- Brent Thomas stated with the on-site detour & the replacement bridge possibly extending the project limits to the north it will likely get into the existing curve then the alignment of the intersection of SR 93 will need to be addressed. The operation of SR 93 may have to be addressed during staging connection to the on-site detour.
- It was stated that a lot of trucks use this road due to the vicinity of a trucking transfer station, local cotton production and a major produce company. District 4 requested that we also improve the adjacent side street. It was stated that this is not in the scope of the bridge replacement project.