

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0006441, Ware County **OFFICE** Preconstruction
CSBRG-0006-00(441)
Bridge Replacement CR 467 over Cane Creek **DATE** October 4, 2006
FROM *Cypher* Genetha Rice-Singleton, Assistant Director of Preconstruction
TO *102-* SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Paul Liles
Babs Abubakari
Glenn Durrence
BOARD MEMBER

David Studstill

Page 2

P. I. No. 0006441, Ware

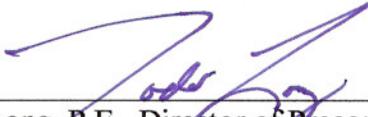
September 20, 2006

This project is in the STIP. I recommend this project concept be approved.

GRS:JDQ/cj

Attachment

CONCUR



Todd I. Long, P.E., Director of Preconstruction

APPROVE



David E. Studstill, Jr., P.E., Chief Engineer

NOTICE OF LOCATION AND DESIGN APPROVAL

Project Name	Project Number	P.I. Number	County
CR467/Bickley Highway @ Cane Creek Bridge Replacement	CSBRG-0006-00(441)	0006441	Ware

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location and design approval is OCTOBER 4, 2006

Descriptions of the Proposed Project:

This project is located in Ware County in the 1st U.S. Congressional District, in Land Lot 397 of the 5th Land District of Ware County.

Descriptions of the Proposed Construction:

This project is located on CR 467/ Bickley Highway over Cane Creek in Ware County, 16 miles Northwest of Waycross. The sufficiency rating of the existing bridge is 26.4 out of 100. The total length of the project is approximately 2300 feet (0.44 miles). The proposed alignment will be shifted approximately 10 feet to the north of the existing alignment and remain a two-lane rural section with 12-foot travel lanes. An off-site detour will be utilized to carry traffic when roadway is closed during construction.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Cory Knox, Area Engineer
cory.knox@dot.state.ga.us
104 North Nichols Street
Waycross, GA 31502
Telephone: (912) 285-6009/6104

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

Glenn Durrence, District
glenn.durrence@dot.state.ga.us
P.O. Box 610
Jesup, GA 31598
Telephone (912) 427-5711

Any written request or communication in reference to this project or notice should include the Project and P.I. Numbers as noted at the top of this notice.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Program Delivery and Consultant Design**

PROJECT CONCEPT REPORT

PROJECT NUMBER: CSBRG-0006-00(441)

County: Ware

Project P.I. Number: 0006441

Federal Route Number: N/A

State Route Number: N/A

County Route Number: 467

CR467/Bickley Highway @ Cane Creek Bridge Replacement

[see page 3 for location sketch]

Recommendation for Approval:

Date: 9/13/06

Yun Tang, PE
Project Manager

Date: 9/13/06

M. Babs Abubakari
State Consultant Design and Program Delivery Engineer

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

Date: _____

State Transportation Planning Administrator

Date: 9/19/06

James T. Simpson
State Transportation Financial Management Administrator

Date: _____

State Environmental/Location Engineer

Date: _____

State Traffic Operations Engineer

Date: _____

District Engineer

Date: _____

State Project Review Engineer

Date: _____

Bridge Design

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Program Delivery and Consultant Design**

PROJECT CONCEPT REPORT

PROJECT NUMBER: CSBRG-0006-00(441)

County: Ware

Project P.I. Number: 0006441

Federal Route Number: N/A

State Route Number: N/A

County Route Number: 467

CR467/Bickley Highway @ Cane Creek Bridge Replacement

[see page 3 for location sketch]

Recommendation for Approval:

Date: 9/13/06

Yun Tang, PE
Project Manager

Date: 9/13/06

M. Babs Abubakari
State Consultant Design and Program Delivery Engineer

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

Date: _____

State Transportation Planning Administrator

Date: _____

State Transportation Financial Management Administrator

Date: _____

State Environmental/Location Engineer

Date: _____

State Traffic Operations Engineer

Date: _____

District Engineer

Date: _____

State Project Review Engineer

Date: 11-19-06

Paul V. Giles Jr.
Bridge Design

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE **PROJECT NUMBER: CSBRG-0006-00(441) PI No. 0006441** **OFFICE**
Ware County **Consultant Design**
CR467/Bickley Highway @ Cane Creek Bridge Replacement

M. Babs Abubakari

FROM Babs Abubakari, P.E., State Consultant Design Engineer **DATE** Sep 14, 2006

TO Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT **PROJECT CONCEPT REPORT**

Attached is the original copy of the Final Concept for your further handling and approval in accordance with the Plan Development Process (PDP).

People on the distribution list below should review the Concept Report and send comments and/or signature page to the Preconstruction office within 10 days as per the PDP.

Distribution:

Brian Summers -- State Project Review Engineer
Harvey Kepler -- State Environment/ Location Engineer
Carla Holmes -- State Traffic Operations Engineer
Joseph Palladi -- State Transportation Planning Administrator
Jamie Simpson -- State Transportation Financial Management Administrator
Glenn Durrence -- District 5 Engineer
Paul Liles, Jr. -- State Bridge Design Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Program Delivery and Consultant Design**

PROJECT CONCEPT REPORT

PROJECT NUMBER: CSBRG-0006-00(441)

County: Ware

Project P.I. Number: 0006441

Federal Route Number: N/A

State Route Number: N/A

County Route Number: 467

CR467/Bickley Highway @ Cane Creek Bridge Replacement

[see page 3 for location sketch]

Recommendation for Approval:

Date: 9/13/06

Yun Tang, PE
Project Manager

Date: 9/13/06

M. Babs Abubakari
State Consultant Design and Program Delivery Engineer

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

Date: _____

State Transportation Planning Administrator

Date: _____

State Transportation Financial Management Administrator

Date: _____

State Environmental/Location Engineer

Date: _____

State Traffic Operations Engineer

Date: _____

District Engineer

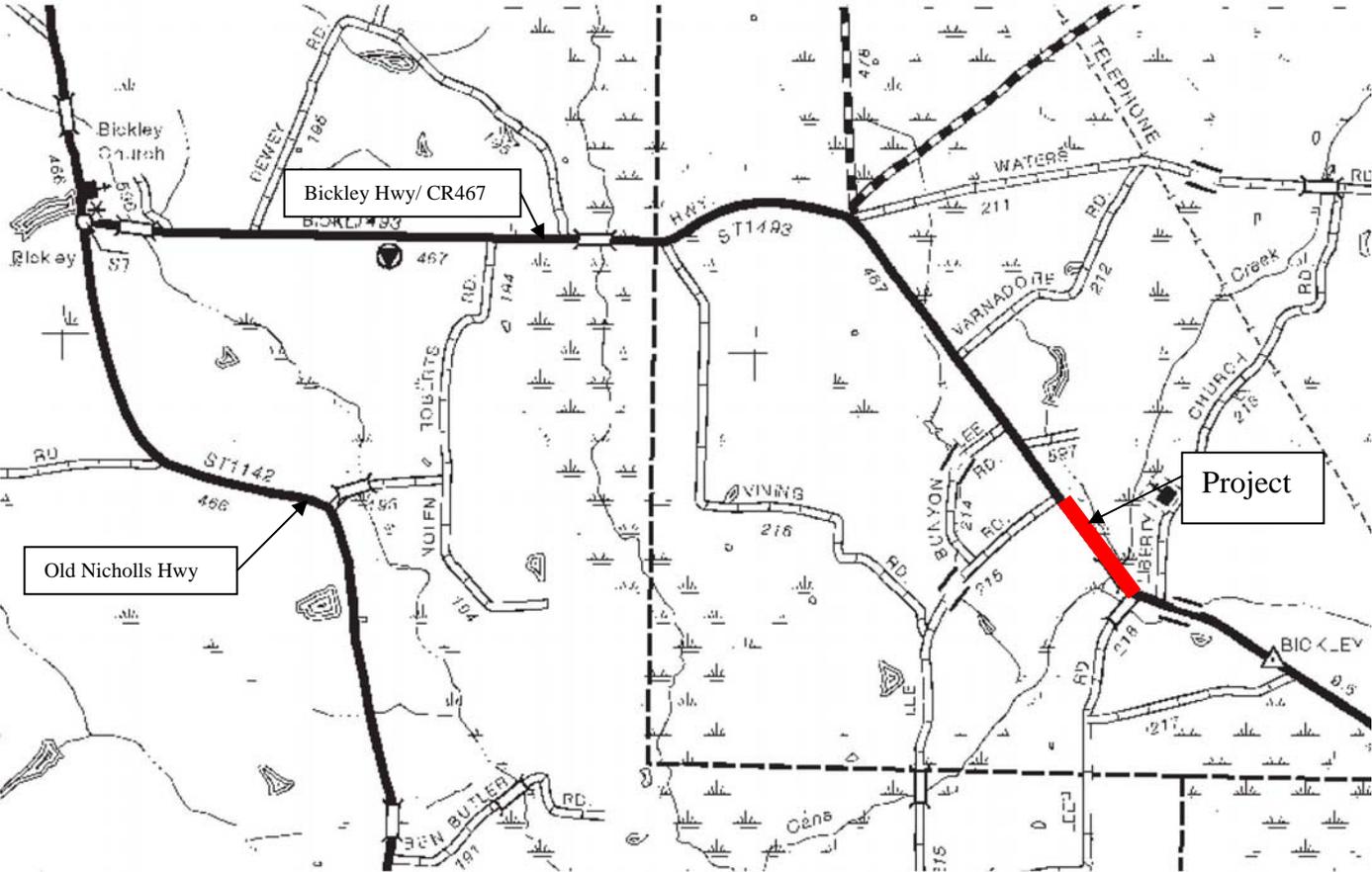
Date: _____

State Project Review Engineer

Date: _____

Bridge Design

SITE LOCATION MAP



Need and Purpose: The existing bridge on Bickley Highway/ CR467 over Cane Creek carried an average of 480 vehicles per day in the year 2004. This traffic volume represents a Level-of -Service of “A”, which is acceptable.

This two lane bridge was constructed in 1954 and is not on a state or locally designated bike route. The bridge is in poor condition. The sufficiency rating on the structure is 26.17 and the bridge is classified as Structurally Deficient and requires replacement.

For the year 2010, the traffic volume is projected to be 540 vehicles per day. By the year 2030, traffic volume is projected to grow to 805 vehicles per day. For both conditions, the Level-of-Service will be “A”, which is acceptable.

Because the bridge is considered structurally deficient, GDOT has a proposed project CSBRG-0006-00(441) to replace the bridge with a new structure. There are no other associated projects in the area and this project has independent utility.

Ware County’s population grew by less than 1% between 1990 and 2000 to a total population of 35,483. In the year 2000, Ware County had a minority population of 29.9%, compared to a statewide average of 34.9% (the U.S. Census defines a minority population as Black/African-American, Hispanic/Latino, Asian/Pacific Islander, or American Indian/Alaska Native). The U.S. Census estimated in 2003 that 18.9% of Ware County residents lived below the poverty level, compared to a statewide average of 13.3%.

This project does not disproportionately burden or benefit any particular community. The project is surrounded by mainly wooded/agricultural/residential land. The project is considered to be a benefit to all of the communities that use the bridge because of the improved bridge condition.

Description of the proposed project: The proposed bridge replacement project on Bickley Highway/ CR467 over Cane Creek in Ware County will have a total length of approximately 2300 feet with the existing bridge located near the center of the project. The existing bridge has a length of 105 feet. The replacement bridge will have an approximate length of 150 feet. The existing roadway alignment will be shifted north approximately 10’ and the bridge will be replaced in the existing location to lessen the impacts on several parcels. An offsite detour will be established for this project. The existing roadway has two 11-foot lanes with 2-foot grassed shoulders. The proposed roadway will be constructed with two 12-foot lanes, 2-foot paved shoulders and 8-foot grassed shoulders.

Is the project located in a Non-Attainment area? No.

PDP Classification: Major Project () Minor Project (X)

Project Designation: Full Oversight () Exempt (X) State Funded () Other ()

Functional Classification: Rural Major Collector

U.S. Route Number: N/A

State Route Number: N/A

Traffic (AADT – 2004 counts) – 480 v.p.d.

Traffic Projections (AADT) - Base Year 2010 – 540 v.p.d.

Traffic Projections (AADT) - Design Year 2030 – 805 v.p.d.

Existing Design Features:

- Bickley Highway is a two-lane rural roadway with a 45 mph speed limit. The adjacent land use is mainly agricultural in the form of tree farms.
- Typical Section: Two 11-foot travel lanes with 2-foot unpaved shoulders. Slopes vary from 2:1 to 4:1.
- Posted Speed: 45 mph
- Maximum Radius: 10,000 feet
- Maximum Grade (mainline): 2.5%
- Maximum Grade (driveway): 20%
- Width of Right-Of-Way: 80 feet
- Major Structures: Bridge, Structure ID 299-0037-0, 105' long, 26.30' deck width, 26.17 Suff. rating
- Major interchanges or intersections along the project: none
- Existing length of roadway segment: 0.50 miles
- Beginning logs for each county segment: 2.63

Proposed Design Features:

- Proposed Typical Sections: One 12-foot through lane in each direction with a 10-foot shoulder, 2-foot paved and 8-foot grassed. Slopes will vary from 2:1 in areas with guardrail to 4:1 in areas without guardrail.
- Proposed Design Speed: 55 mph
- Proposed Maximum Grade: 2.5%
- Maximum Grade Allowable: 9%
- Proposed Maximum Grade (Driveway): 20%
- Proposed Minimum Radius: 1,350'
- Minimum Radius Allowable: 587'
- Right of Way
 - Width: Varies 80 feet
 - Easements: Temporary () Permanent (X) Utility (X) Other ()
 - Type of access Control: Full () Partial () By Permit (X) Other ()
 - Number of Parcels: 8
 - Number of Displacements:
 - Business: 0
 - Residences: 0
 - Mobile Homes: 0
 - Other: 0
- Structures: Bridge approximately 150 feet long and 33 feet wide
- Major intersections and interchanges: N/A

- Traffic control during construction: An off-site detour will be used for this project. The existing bridge will be removed and the alignment will be shifted slightly north to avoid impacts to properties. All driveway access will be maintained during construction.
- Design Exceptions to controlling criteria anticipated:

	<u>Undetermined</u>	<u>Yes</u>	<u>No</u>
Horizontal Alignment			X
Roadway Width			X
Shoulder Width			X
Vertical Grades			X
Cross Slopes			X
Stopping Site Distance			X
Super Elevation Rates			X
Horizontal Clearance			X
Speed Design			X
Vertical Clearance			N/A
Bridge Width			N/A
Bridge Structural Capacity			N/A

- Design Variances: None
- Environmental Concerns: Stream Crossing, Wetland Area
- Level of Environmental Analysis:
 - Are Time Saving Procedures appropriate? Yes () No (X)
 - Categorical Exclusion? Yes (X) No ()
 - Environmental Assessment/Finding of No Significant Impact – N/A
 - Environmental Impact Statement – N/A
- Utility Involvements:
 - Bellsouth
 - Satilla Rural EMC

Project Responsibilities:

- Design – Office of Consultant Design and Program Delivery
- Right-of-Way Acquisition – Ware County
- Relocation of Utilities – Ware County
- Letting to Contract – GDOT
- Supervision of Construction – GDOT
- Providing Material Pits – Contractor
- Providing Detours – Ware County

Coordination

- Initial Concept Meeting Date: N/A
- Concept Team Meeting: 8/3/06
- P.A.R meetings, dates and results: N/A
- FEMA, USCG and/or TVA: TBD
- Public Involvement: Detour PIOH to be scheduled
- Local Government Comments: TBD
- Other Projects in the area: None
- Other Coordination to date: None

Scheduling – Responsible Parties Estimate

Time to complete environmental process: 6 months

Time to complete preliminary construction plans: 2 month

Time to complete right-of-way plans: 1 month

Time to complete the Section 404 permit: 2 months

Time to complete final construction plans: 1 month

Time to complete the purchase of right-of-way: 6 months

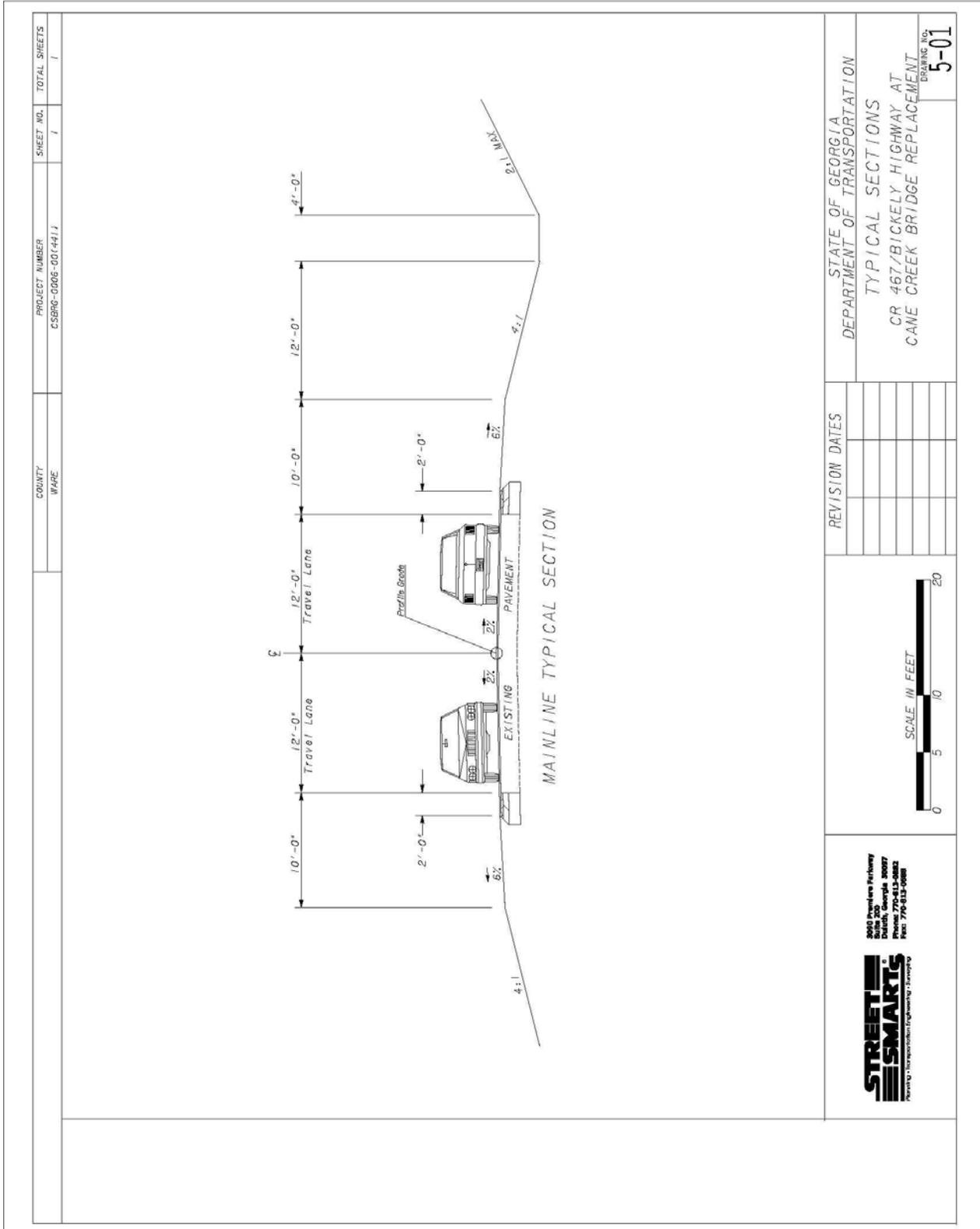
List other major items that will affect the project schedule: None

Other Alternates Considered:

1. No Build. The No Build option is not a viable one since it does not address the structural deficiencies in the bridge and therefore does not meet the need and purpose of the project
2. Build a temporary bridge, temporary bypass, and replace the existing bridge at its current location. This option is more expensive and impacts the same properties and wetlands as the proposed alignment if the temporary structure is placed upstream of the existing bridge. Placing the temporary structure downstream of the existing bridge impacts the same amount of wetlands and impacts 2 additional residential structures.
3. Shift the current roadway alignment approximately 40' north and build a new bridge structure while maintaining the exiting roadway during construction. This option is less expensive than building a temporary bridge but more expensive than replacing the bridge in its current location and providing an offsite detour. Due to the small volume of traffic on the roadway, this option was declined in favor of the offsite detour.

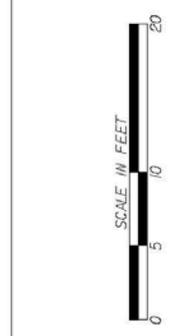
Attachments:

1. Roadway Typical Section
2. Bridge Typical Section
3. Concept Team Meeting Notes
4. Detour Route
5. Concept Plan
6. Traffic Volumes
7. Bridge Inventory Data Listing
8. Cost Estimate
9. Notice of Location and Design



STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS
 CR 467/BICKLEY HIGHWAY AT
 CANE CREEK BRIDGE REPLACEMENT
 DRAWING NO. **5-01**

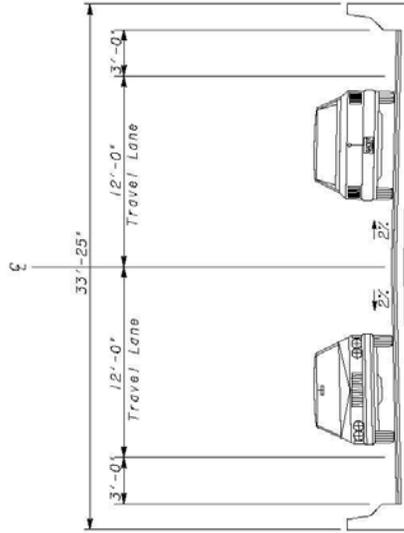
REVISION DATES	



STREET SMARTS
Professional Engineering & Surveying

2610 Piedmont Parkway
 Duluth, Georgia 30087
 Phone: 770-413-0882
 Fax: 770-813-0888

PROJECT NUMBER CSBRG-0006-00(441)	COUNTY WARE	SHEET NO. 2	TOTAL SHEETS 2
--------------------------------------	----------------	----------------	-------------------



BRIDGE SECTION

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	REVISION DATES	SCALE IN FEET 	DRAWING NO. 5-02
TYPICAL SECTIONS CR 467/BICKLEY HIGHWAY AT CANE CREEK BRIDGE REPLACEMENT			

STREET SMARTS
 Planning & Transportation Engineering & Surveying
 3605 Riverside Parkway
 Suite 200
 Duluth, Georgia 30097
 Phone: 770-613-0682
 Fax: 770-613-9688

Ware County CSBRG-0006-00(441) Concept Team Meeting Notes

1. Andy Anderson (Street Smarts) presented the project and the Concept Report
2. Project designation should be exempt
3. Project Responsibilities – Right of Way Acquisition, Relocation of Utilities, and Providing Detour – should be changed to Ware County.
4. Change CTM Meeting Date to 8/3/06
5. Change time to complete the Right of Way Acquisition to 1-year if the displacement is required.
6. Change design speed to 55 mph since part of the roadway is signed at 55 mph
7. Street Smarts should check the Bridge width to insure that it complies with current standards.
8. The state prison uses this road as a shortcut.
9. There is a fire department on this roadway. Roadway was closed before and a child died due to response time. The Fire Department chose not to utilize the assigned offsite detour. This was during the construction of a county project. The assigned detour was on dirt roads.

Comments on Current Design

1. Pipe the ditch in front of the house that is marked as being a displacement to limit the impact.
2. Reduce the radius of the curve in front of the suspect house to limit the impact.
3. Current design in draft Concept Report is not the favored one. See alternatives below.

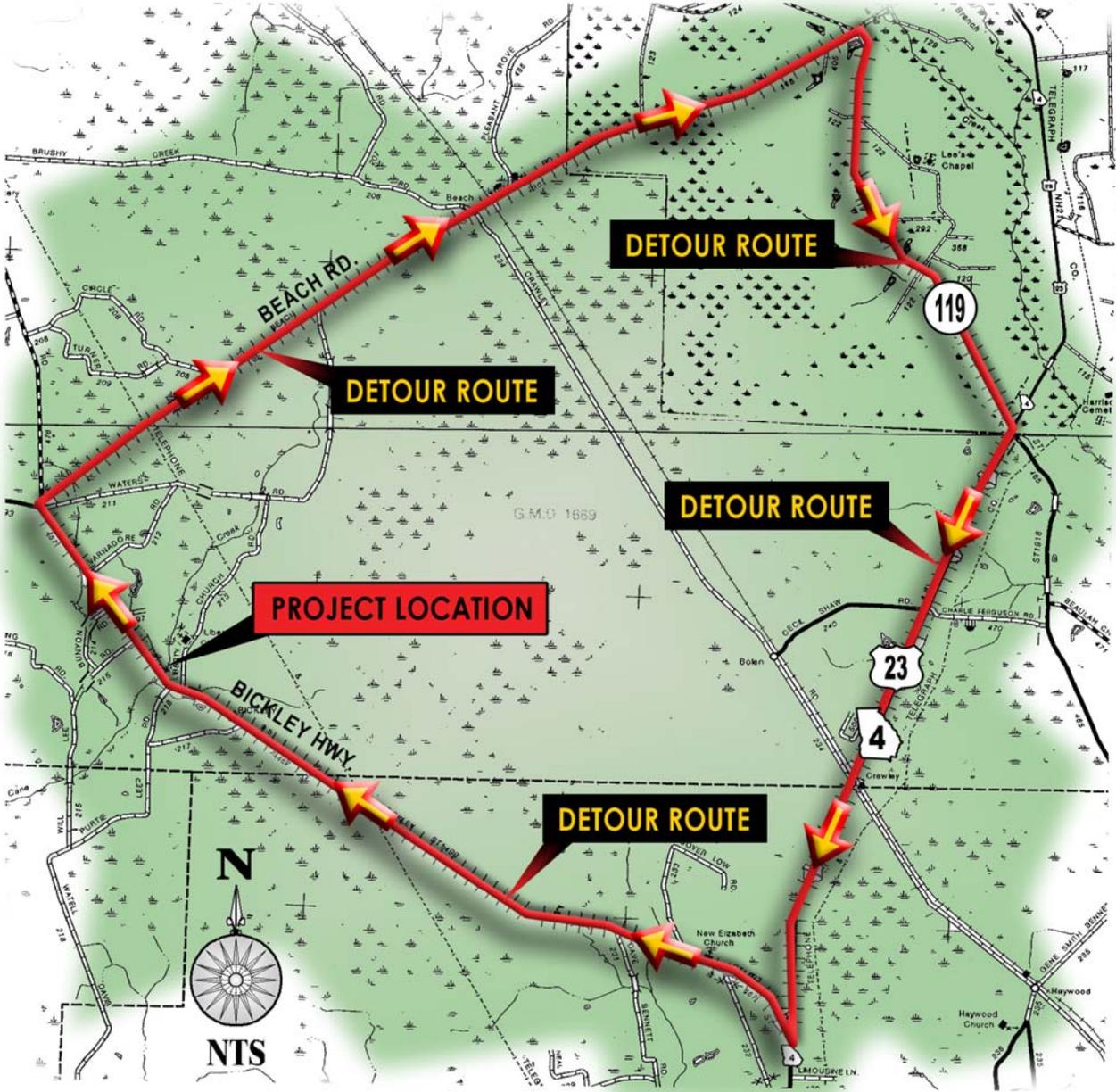
Alternatives to the Current Design

1. Use a Temporary one way signal
 - a. Build new bridge 6' into old bridge and maintain one way traffic over the bridge.
 - b. Shift alignment north to not impact the existing pond.
2. Use an offsite detour
 - a. County would be responsible for the detour.
 - b. Must use paved roads but they can be county roads.
 - c. Detour PIOH would be required.

Preferred Design alternative is the Offsite Detour

1. Shift roadway alignment north to avoid pond on the south side.
2. Show current design as an alternative.
3. Add detour map to report

Detour Route



Traffic Volumes

Bickley Highway South

TC Number:	0174
RCLink:	2992046700
Beginning Milepoint:	2.63
Ending Milepoint:	9.47
Midpoint:	6.05
2004 AADT:	477
2004 Count Type:	Actual
2004 Direction:	NonDir
2003 AADT:	536
2003 Count Type:	Actual
2003 Direction:	NonDir
2002 AADT:	748
2002 Count Type:	Actual
2002 Direction:	NonDir
2001 AADT:	620
2001 Count Type:	Actual
2001 Direction:	NonDir
2000 AADT:	640
2000 Count Type:	Estimate
2000 Direction:	NonDir
1999 AADT:	652
1999 Count Type:	Estimate
1999 Direction:	NonDir

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID:	299-0037-0	Ware	SUFF. RATING	26.17
Location & Geography				
* Structure I.D.No:	299-0037-0			
* 200 Bridge Information	05			
* 6A Feature Int:	CANE CREEK			
* 6B Critical Bridge:	0			
* 7A Route Number Carried:	CR00467			
* 7B Facility Carried:	BICKLEY HIGHWAY			
* 9 Location:	16 MI NW OF WAYCROSS			
* 2 DOT District:	5			
* 207 Year Photo:	2003			
* 91 Inspection Frequency:	24 Date: 04/14/2004			
* 92A Fract Crit Insp Freq:	00 Date: 02/01/1901			
* 92B Underwater Insp Freq:	00 Date: 02/01/1901			
* 92C Other Sp. Insp Freq:	00 Date: 02/01/1901			
* 4 Place Code:	00000			
* 5 Inventory Route (O/U):	1			
Type:	4			
Designation:	1			
Number:	01493			
Direction:	0			
* 16 Latitude:	31-23.4			
* 17 Longitude:	82-32.6			
98 Border Bridge:	000	MP:	0.00	
99 ID Number:	0000000000000000	%Shared:	00	
* 100 STRAHNET:	0			
12 Base Highway Network:	1			
13A LRS Inventory Route:	2992046700			
13B Sub Inventory Route:	0			
* 101 Parallel Structure:	N			
* 102 Direction of Traffic:	2			
* 264 Road Inventory Mile Post:	004.11			
* 208 Inspection Area:	05	Initials:	EPP	
Engineer's Initial:	res			
* Location I.D. No.:	299-01493F-004.21E			
Signs & Attachments				
* 104 Highway System:	0			
* 26 Functional Classification:	07			
* 204 Federal Route Type:	S	No.:	01493	
* 105 Federal Lands Highway:	0			
* 110 Trunk Route:	0			
* 206 School Bus Route:	1			
* 217 Benchmark Elevation:	0000.00			
* 218 Datum:	0			
* 19 Bypass Length:	08			
* 20 Toll:	3			
* 21 Maintenance:	02			
* 22 Owner:	02			
* 31 Design Load:	2			
* 37 Historical Significance:	5			
* 205 Congressional District:	01			
* 27 Year Constructed:	1954			
* 106 Year Reconstructed:	0000			
* 33 Bridge Median:	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			
* 214 Movable Bridge:	0			
* 203 Type Bridge:	C-K-A-O			
* 259 Pile Encasement:	3			
* 43 Structure Type Main:	1	01		
* 45 No. Spans Main:	007			
* 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:	2			
* 108 Wearing Surface Type:	1			
	8			
	F			
	8			
* 248 County Continuity No.:	00			
* 225 Expansion Joint Type:	02			
* 242 Deck Drains:	1			
* 243 Parapet Location:	0			
Height:	0.00			
Width:	0.00			
* 238 Curb:	0			1.20
* 239 Handrail:	0			0
* 240 Median Barrier Rail:	0			0
* 241 Bridge Median Height:	0.00			0.00
Width:	0.00			0.00
* 230 Guardrail Loc Dir:	Rear:			3
Fwrd:	3			
Oppo Dir Rear:	0			
Fwrd:	0			
* 244 Approach Slab:	3			
* 224 Retaining Wall:	0			
* 233 Posted Speed Limit:	45			
* 236 Warning Sign:	0			
* 234 Delineator:	0			
* 235 Hazard Boards:	0			
* 237 Utilities Gas:	00			
W:	00			
Ele:	00			
Telephone:	21			
Sk:	00			
* 247 Lighting Street:	0			
Navigation:	0			
Aerial:	0			

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID:	299-0037-0	Ware	SUFF. RATING	26.17
Programming Data				
201 Project No.:	S-1493 (1)	Year:	2003	1
202 Plans Available:	4	109 % Trucks:	10	1
249 Prop. Proj. No.:	000000000000000000	* 28 Lanes On:	02 Under: 00	01
250 Approval Status:	0000	210 No. Tracks On:	00 Under: 00	02
251 P.I. No.:	00000000	* 48 Max. Span Length:	0015	
252 Contract Date:	02/01/1901	* 49 Structure Length:	105	
260 Seismic No.:	00000	51 Br. Rwdy. Width:	23.70	
75 Type Work:	31 1	52 Deck Width:	26.30	
94 Bridge Imp. Cost:	\$ 114	* 47 Tot. Horz. Cl:	23.70	
95 Roadway Imp. Cost:	\$ 54	50 Curb/Sdewlk Width:	0.60/0.60	
96 Total Imp Cost:	\$ 203	32 Approach Rdwy Width:	020	
76 Imp. Length:	000316	Rear Lt:	5.00 Type: 8 Rt: 5.00	
97 Imp. Year:	1990	Fwd Lt:	5.00 Type: 8 Rt: 5.00	
114 Future ADT:	000810 Year: 2023	Measurements		
		* 29 ADT:	000540	
		Ratings		
		65 Inventory Rating Method:		1
		63 Inventory Rating Method:		1
		66 Inventory Type:	2 Rating:	01
		64 Operating Type:	2 Rating:	02
		231 Calculated Loads		
		H-Modified:	21	0
		HS-Modified:	29	0
		Type 3:	22	0
		Type 3s2:	36	0
		Timber:	28	0
		Piggyback:	00	0
		261 H Inventory Rating:	16	
		262 H Operating Rating:	25	
		67 Structural Evaluation:		2
		58 Deck Condition:		7
		* 227 Superstructure Condition:		7
		227 Collision Damage:		0
		60A Substructure Condition:		2
		60B Scour Condition:		8
		60C Underwater Condition:		N
		71 Waterway Adequacy:		8
		61 Channel Protection Cond:		8
		68 Deck Geometry:		4
		69 UnderClr. Horz/Vert:		N
		72 Appr. Alignment:		8
		62 Culvert:		N
		Posting Data		
		70 Bridge Posting Required:		5
		41 Struct Open, Posted, Cl:		D
		* 103 Temporary Structure:		T
		232 Posted Loads	H-Modified: 10	
		HS-Modified:	00	
		Type 3:	00	
		Type3s2:	00	
		Timber:	00	
		Piggyback:	00	
		253 Notification Date	02/01/1901	
		253 Fed Notify Date:	02/01/1901	0
		Hydraulic Data		
215 Waterway Data				
Highwater Elev.:	0000.0	Year:	1900	
Avg. Streambed Elev.:	0000.0	Freq.:	00	
Drainage Area:	00000			
Area Of Opening:	000000			
113 Scour Critical:	U			
216 Water Depth:	05.4	Br. Height:	07.0	
222 Slope Protection:	6			
221 Spur Dikes Rear:	0	Fwd:	0	
219 Fender System:	0			
220 Dolphin:	0			
223 Culvert Cover:	000			
Type:	0			
No. Barrels:	0			
Width:	0.00	Height:	0.00	
Length:	0	Apron:	0	
* 265 U/W Insp. Area:	0	Diver:	ZZZ	
* Location I.D. No.:	299-01493F-004.21E			

COST ESTIMATE SUMMARY

A. Right-of-Way	\$3,750.00
B. Reimbursable Utilities	\$15,000.00
C. Construction	
1. Major Structures	\$396,500.00
2. Grading and Drainage	\$76,000.00
3. Base and Paving	\$298,100.00
4. Lump Items	\$79,000.00
5. Miscellaneous	\$30,200.00
Subtotal Construction Cost	\$879,800.00
E & C (5%)	\$43,990.00
Inflation (4 year @ 5% per year)	\$189,602.40
Total Construction Cost	\$1,113,392.40
Grand Total Project Cost	\$1,132,142.40

DETAILED CONCEPT COST ESTIMATE

A. Right-of-Way	
1. Property: ROW (0 acres @ \$6,000/acre)	\$0.00
Easement (0.75 Acres @ \$5,000/acre)	\$3,750.00
2. Displacements: Res: 0, Bus: 0, M.H.: 0	\$0.00
Subtotal A	\$3,750.00
B. Reimbursable Utilities	
1. Water	\$0.00
2. Electric	\$15,000.00
Subtotal B	\$15,000.00
C. Construction	
1. Major Structures: Bridge 150' x 33' @ \$70/sq. ft.	\$346,500.00
Remove Existing Bridge	\$50,000.00
Subtotal C-1	\$396,500.00
2. Grading and Drainage	
a. Earthwork (7,000 cy @ \$8.00/cy)	\$56,000.00
b. Drainage	\$5,000.00
c. Clearing & Grubbing (1.5 acres @ \$10,000/acre)	\$15,000.00
Subtotal C-2	\$76,000.00
3. Base and Paving	
a. Aggregate Base (2300 tons @ \$25.00/ton)	\$57,500.00
b. Asphalt Paving	
1 1/4" 9.5mm Superpave (360 tons @ \$100/ton)	\$36,000.00
2" 19mm Superpave (580 tons @ \$100/ton)	\$58,000.00
5" 25 mm Superpave (1450 tons @ \$100/ton)	\$145,000.00
Milling (800 sq. yds. @ \$2.00/sq. yd.)	\$1,600.00
Subtotal C-3	\$298,100.00
4. Lump Items	
a. Grassing (4 ac @ \$1000/acre)	\$4,000.00
c. Erosion Control	\$75,000.00
Subtotal C-4	\$79,000.00
5. Miscellaneous	
a. Signing & Marking	\$11,000.00
b. Guardrail (1200 lf @ \$16/lf)	\$19,200.00
Subtotal C-5	\$30,200.00