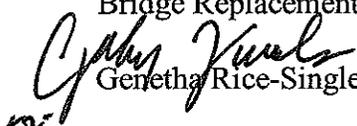


**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0000304, Towns County **OFFICE** Preconstruction
BR-0000-00(304)
SR 66 over Brasstown Creek- **DATE** August 17, 2007
Bridge Replacement
FROM  Genetha Rice-Singleton, Assistant Director of Preconstruction
TO  SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Brian Summers
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Russell McMurry
Angela Alexander
Paul Liles
Babs Abubakari
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE BR-0000-00(304) Towns County OFFICE Consultant Design
S.R. 66 @ Brasstown Creek
0.5 miles northwest of Young Harris
P.I. 0000304



DATE July 17, 2007

FROM: Mohammed (Babs) Abubakari, P.E.
State Consultant Design & Program Delivery Engineer

TO: Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT: Revised Project Concept Report

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

In order to meet the required 50 ft. trout stream buffer, it was necessary to shift the mainline alignment of S.R. 66 50 ft. from the existing horizontal alignment.

The revised 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 Improvement Program (STIP).

DATE 8/9/07


State Transportation Planning Administrator

Distribution:

Brian Summers, State Project Review Engineer
Glenn Bowman, State Environmental/Location Engineer
Keith Golden, State Traffic Safety and Design Engineer
Angela T. Alexander, State Transportation Planning Administrator
Jamie Simpson, Office of Financial Management Administrator
Russell McMurry, District 1 Engineer
Paul Liles, State Bridge Design Engineer

REVISED PROJECT CONCEPT REPORT

Need and Purpose:

S. R. 66 is a major connector route from the western area of Towns County to the City of Young Harris which are heavy recreation and work destinations. S.R. 66 is the only connector route between Towns County and Warne, North Carolina.

The existing bridge crossing over Brasstown Creek in Towns County has a sufficiency rating of 67.1, as classified by the Bridge Inventory Data Listing. This bridge is listed in the Highway Bridge Replacement and Rehabilitation Program (HBRRP) and has been recommended for replacement in accordance with the criteria set forth in Policy 2405-1, which states that an existing bridge on the state route system which has a current Load Rating of less than HS-20 shall be replaced. The S.R. 66 Bridge over Hightower Creek has a load rating of H-15.

The Structure ID is 281-0015-0 and the Location ID is 281-00066D-000.51N.

Project location: Project BR-0000-00(304) is located in Towns County on S.R. 66 crossing over Brasstown Creek and is located 0.5 miles north of Young Harris. The project length is 0.76 miles. The project begins at milepost 0.17 and ends at milepost 0.93.

Description of the approved concept: The approved concept proposes a new 120' x 44' concrete bridge crossing over Brasstown Creek at its existing bridge site. The roadway approaches will consist of two 12-ft lanes with 10' rural shoulders (2-ft paved). The construction will be staged with one lane maintained (with temporary signal) on the existing bridge while a part of the bridge is built. Traffic will be redirected onto part of the new bridge while the old bridge is removed and the remaining new bridge is constructed.

PDP Classification: Minor

Federal Oversight: Full Oversight (), Exempt (X), State Funded (), or Other ()

Functional Classification: Major Collector

U. S. Route Number(s): N/A

State Route Number(s): 66

Traffic (AADT) as shown in the approved concept:

Current Year: 3,100 (2007) Design Year: 4,600 (2027)

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BR-0000-00(304)

P.I. # 0000304

July 17, 2007

Proposed features to be revised:

Due to the 50-ft. cold water stream buffer impact, the approved concept has been amended as follows:

1. Brasstown Creek is designated as a coldwater trout stream, and therefore its tributary running parallel to SR66 on the West side, Byers Creek automatically becomes a trout stream. A 50 ft. buffer must be maintained from both streams to avoid obtaining a stream buffer variance. The proposed horizontal alignment will be shifted approximately 50 ft. to the East side of the existing alignment to maintain the required 50 ft. stream buffer.
2. The proposed bridge will need to be at least 300 ft long and 5 ft higher than the existing bridge to provide "no impact" to FEMA base flood elevations. A 3-span bridge is proposed with intermediate bents to be constructed with a minimum of 10 ft. clearance of the top of creek banks.
3. Access to a DNR owned public fishing access and nature trail parking area on the North East side of SR 66 will be maintained throughout construction with an allowable temporary closure limited to a maximum of 60 days.
4. Provisions will be made for a natural vegetative buffer between the Brasstown Valley Golf course to the East of the proposed Roadway to preserve the visual appeal of the nearby putting green.
5. The right of way width will be increased from 100 ft. with temporary easements to 180 ft. due to the shift in horizontal alignment.
6. The project length has been increased from approximately 0.22 miles to approximately 0.76 miles because of the requirement of longer roadway tie-ins to the existing roadway due to the alignment shift.
7. The bridge length has been increased from 110 ft. to 300 ft. in recognition of the FEMA flood boundaries.
8. Traffic will be maintained on SR 66 using the existing bridge while the new bridge is being constructed.

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BR-0000-00(304)
P.I. # 0000304
July 17, 2007

Describe the revised feature(s) to be approved:

1. The horizontal alignment will be shifted.
2. The right of way width will be increased.
3. The project length will be increased.
4. The bridge length will be increased.

Updated traffic data (AADT):

Current Year: 3600 (2010) Design Year: 5400 (2030)

Programmed/Schedule:

P.E.: 2001 R/W: 2008 Construction: ^{LR} 2012
VE Study Required Yes () No (X) ₁₀₀₀

Revised cost estimates:

Construction (Infl., E & C)	\$ 3,387,000	
Right-of-Way	\$ 63,000	Acquired by LGPA and GDOT
Utilities	\$ N/A	Adjusted LPGPA and GDOT

Is the project located in a Non-attainment area? _____ Yes ___X___ No.

Recommendation:

It is recommended that the proposed revisions to the concept be approved for implementation in order to meet environmental requirements and the project estimate be adjusted to reflect these changes.

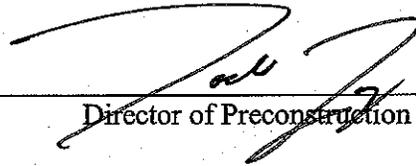
Attachments:

1. Revised Cost Estimate:
2. Location Map
3. Typical Sections

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BR-0000-00(304)
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July 17, 2007

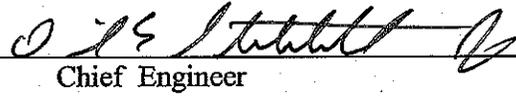
- Exempt projects

Concur: _____



Director of Preconstruction

Approve: _____



Chief Engineer

CONCEPT COST ESTIMATE

Office of Road Design - District 1

July 20, 2007 11:07 AM

County(s)

PI Number Project Number

Project Name Project Length Miles

Project Description

Project BR-0000-00(304), Towns County proposes to replace the existing bridge on SR 66 over Brasstown Creek located 0.5 miles Northwest of Young Harris.

Existing Roadway

Two lane roadway with rural shoulders

Comments

Also included in the project will be relocation and reconstruction of a DNR public parking area.

TRAFFIC:

Current Design Year Daily Volume (AADT)

Future Design Year Daily Volume (AADT)

Concept Estimate

Feasibility Estimate

Typical Section(s) Used in Estimate

Typical Section Length

Rural New Location: 2-Lanes with 24 ft Pavement	<input type="text" value="0.80"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles

Prepared By

MAJOR STRUCTURES

Note! All distances are in feet

Bridges: Stream Crossings & Grade Separations

NO	LOCATION	QTY	CROSSING TYPE	WIDTH	LENGTH	UNIT COST	TOTAL
1	SR 66 over Brasstown Creek	1	Stream-New	47.30	300.0	80.00	1,135,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

Bridge Culverts

NO	LOCATION	TYPE / W x H / FILL	LENGTH	UNIT COST	TOTAL
1					
2					
3					
4					
5					
6					
7					
8					

Walls

NO	LOCATION	TYPE	HEIGHT	LENGTH	UNIT COST	TOTAL
1	SR 66 Mainline	MSE	15.0	500.0	65.00	488,000
2						
3						
4						
5						
6						

MAJOR STRUCTURES SUBTOTAL \$ 1,623,000

Typical Section

Rural New Location: 2-Lanes with 24 ft Pavement

Typical Section Length MilesRight-of-Way Width Feet**GRADING AND DRAINAGE****1. EARTHWORK**

- a. Unclassified Excavation Soil
- b. Unclassified Excavation Rock
- c. Borrow Excavation

2. MINOR DRAINAGE

QUANTITY	UNIT COST	TOTAL
20,000 CY	6.67	133,000
2,000 CY	15.00	30,000
10,000 CY	4.25	43,000
0.80 MI	37,709	30,000

GRADING AND DRAINAGE SUBTOTAL \$236,000**BASE AND PAVING****1. GRADED AGGREGATE BASE****2. ASPHALT PAVING**

- a. Asph Conc 9.5 mm Superpave
- b. Asph Conc 19 mm Superpave
- c. Asph Conc 25 mm Superpave
- d. Bituminous Tack Coat

3. CONCRETE PAVING

- a. Curb and Gutter
- b. Miscellaneous

4. OTHER PAVING

THICKNESS and SPREAD RATE	QUANTITY	UNIT COST	TOTAL
10"	7,517 TN	28.38	213,000
1 1/4" (135 LB/SY)	887 TN	74.59	66,000
3" (330 LB/SY)	2,191 TN	71.41	156,000
4" (440 LB/SY)	2,549 TN	77.22	197,000
	1,497 GL	2.39	4,000
	0.80 MI	18,776	15,000
			65,000

BASE AND PAVING SUBTOTAL \$716,000**LUMP ITEMS**

- 1. TRAFFIC CONTROL
- 2. CLEARING AND GRUBBING
- 3. EROSION CONTROL
- 4. SIGNING & MARKING
- 5. MISCELLANEOUS

QUANTITY	UNIT COST	TOTAL
0.80 MI	10,696	9,000
9.70 AC	6,000	58,000
0.80 MI	174,425	140,000
0.80 MI	6,603	5,000
0.80 MI	22,514	18,000

LUMP ITEM SUBTOTAL \$230,000**MISCELLANEOUS PROJECT ITEMS**

- 1. GUARDRAIL
- 2. GUARDRAIL ANCHORS
- 3. DETOURS
- 4. SPECIAL FEATURES

Parking Area

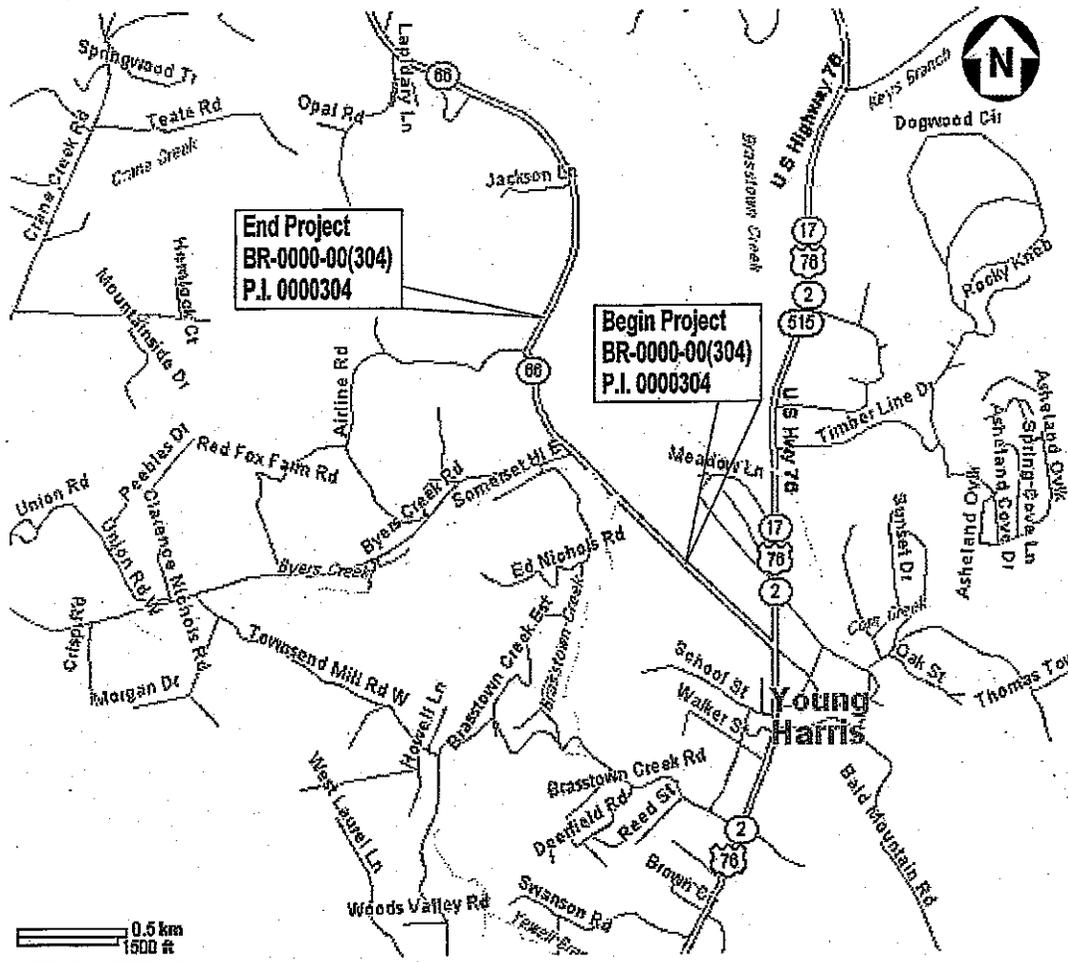
QUANTITY	UNIT COST	TOTAL
500 LF	19.53	10,000
4 EA	528.26	2,000
	MI	327,097
		100,000

MISCELLANEOUS SUBTOTAL \$112,000

ESTIMATE SUMMARY

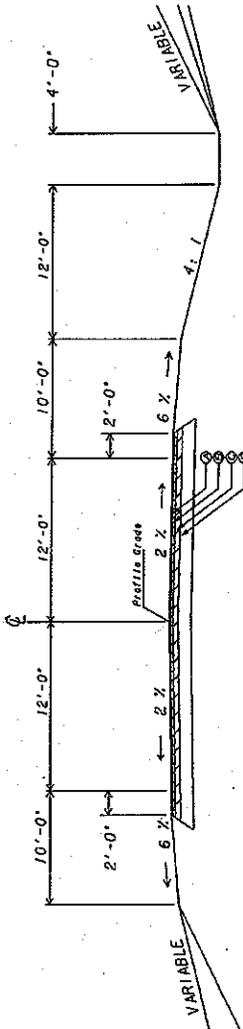
TYPICAL SECTION	COST (per mile)
1. Rural New Location: 2-Lanes with 24 ft Pavement	\$ 1,478,000
PROJECT COST	
A. MAJOR STRUCTURES	\$ 1,623,000
B. GRADING AND DRAINAGE	\$ 236,000
C. BASE AND PAVING	\$ 716,000
D. LUMP ITEMS	\$ 230,000
E. MISCELLANEOUS	\$ 112,000
SUBTOTAL CONSTRUCTION COST	\$ 2,917,000
ENGINEERING & CONTINGENCIES (10%)	\$ 292,000
INFLATION ____ yr(s) @ ____ % per yr	
GRAND TOTAL CONSTRUCTION COST	\$ 3,209,000

PROJECT LOCATION MAP

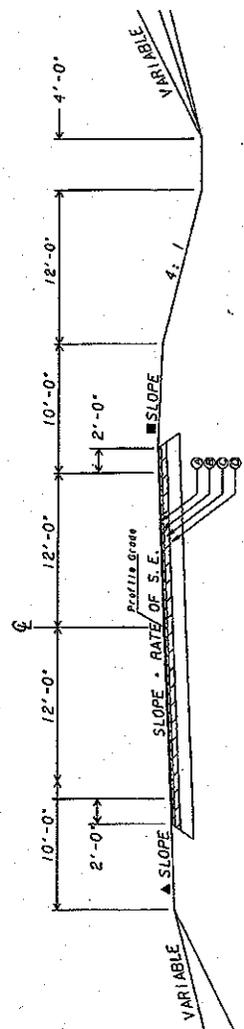


BR-0000-00(304); P.I. 0000304
S.R. 66 over Brasstown Creek

STATE	COUNTY	PROJECT NUMBER	SHEET TOTAL
G.A.	TOWNS	BR-0000-00(304)	NO. SHEETS

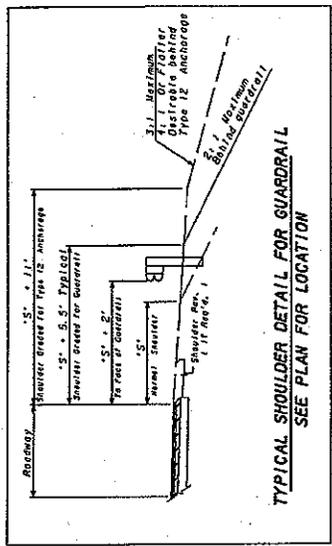


TANGENT SECTION



SUPERELEVATED SECTION

SLOPE SELECTION	
SLOPE CUT	4:1
SLOPE FILL	2:1



TYPICAL SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION

- REQUIRED PAVEMENT
- ① ASPHALTIC CONCRETE 9.5 MM SUPERPAVE, 165 LBS./S.Y.
 - ② ASPHALTIC CONCRETE 19 MM SUPERPAVE, 220 LBS./S.Y.
 - ③ ASPHALTIC CONCRETE 25 MM SUPERPAVE, 660 LBS./S.Y.
 - ④ GRADED AGGREGATE BASE, 10"
- SUPERPAVE MIX DESIGN LEVEL B

- ▲ SEE GEORGIA STANDARD 9028C - NOTE (d)
 - SEE GEORGIA STANDARD 9028C - NOTE (e)
 - ▲ SLOPE 3/4" / 1'-0" OR RATE OF S.E. WHICHEVER IS GREATER
 - SLOPE AS FOLLOWS:
 - S.E. RATE OF 0.03'/FT OR LESS USE 3/4" IN 1'-0"
 - S.E. RATE OF 0.04'/FT, USE 3/4" IN 1'-0"
 - S.E. RATE OF 0.05'/FT, USE 3/4" IN 1'-0"
 - S.E. RATE OF 0.06'/FT, USE 3/4" IN 1'-0"
 - S.E. RATE OF 0.07'/FT, USE 10.01'/FT
- ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 0.01'/FT

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3598 ENGINEERING DRIVE
MORGES, GEORGIA 30092
(770) 263-9118

ROADWAY TYPICAL SECTION
S.R. 66 OVER BRASSTOWN CREEK
TOWNS CO.
BR-0000-00(304)

THE LPA GROUP

