

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

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INTERDEPARTMENT CORRESPONDENCE

FILE BRS-0854(10) Fannin County **OFFICE** Preconstruction
P. I. No. 642165
SR 60 at Chapel Branch and Skeenah Creek **DATE** March 9, 2005
FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction
TO SEE DISTRIBUTION

SUBJECT REVISED PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

Attachment

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- Jamie Simpson
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- Joe Palladi (file copy)
- Babs Abubakari
- Kent Sager
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David Mulling	<input type="checkbox"/>
Harvey Keeper	<input type="checkbox"/>
Ken Thompson	<input type="checkbox"/>
Jamie Simpson	<input type="checkbox"/>
Michael Henry	<input type="checkbox"/>
Keith Golden	<input type="checkbox"/>
Joe Palladi	<input type="checkbox"/>
Babs Abubakari	<input type="checkbox"/>
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Distribution:

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- Michael Henry
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- Kent Sager

REVISED PROJECT CONCEPT REPORT

BRS-0854(10), Fannin County
PI No. 642165

Need and Purpose: The existing double line of 48" pipe over Chapel Branch is structurally deficient and requires replacement. The existing bridge over Skeenah Creek is narrow, 36'x 22', and has a sufficiency rating of 39.45 (Title 23 CFR Section 650 and the current Federal Aid Policy Guide allows bridge replacement if the sufficiency rating is below 50). In addition, the design live load for the bridge is H-15, which does not meet GDOT's standard of H-20. The structure is not a designed bridge and was constructed in 1965 by DOT maintenance forces using various sized beams.

Traffic projections along SR 60 indicate that traffic volumes will increase by approximately 100% over the next 18 years. The Average Annual Daily Traffic (AADT) for 2004 was 800 vehicles per day (VPD) and is expected to increase to 1,500 VPD by 2027. Even though the traffic count is low, there is a large number of campers (travel trailers) using this road. The bridge's narrow roadway width of 22' does not meet GDOT and AASHTO design standards and does not safely accommodate the large volume of campers and trailers regularly traveling on the road. In addition, the bridge over Skeenah Creek is on a school bus route. Replacing the bridge would increase its safety and operational efficiency and satisfy GDOT and AASHTO design standards.

Project location: This project is located in Fannin County on SR 60 at Chapel Branch and Skeenah Creek. The project begins at Station 19+50 and continues south to Station 119+50.56. There is one exception within the project limits extending for 6.420 miles from Station 27+00 to Station 107+50. The total project length, including exceptions, is 6.789 miles. The project is south of the city limits of Morganton, GA.

Description of the approved concept: The project proposes to replace the deficient drainage structure over Chapel Branch with a double 8'x 5' concrete culvert and the existing bridge over Skeenah Creek with a new 120'x 38' bridge. Within the project limits, the proposed approaches would consist of two 12' lanes with 5' rural shoulders, replacing the two 10' lanes and 3' rural shoulders on 100' of existing right-of-way. Traffic would be maintained during construction utilizing on-site detours. An additional 1.3 acres of right-of-way would be required, along with construction easements for the construction and removal of detours at both sites. Design exceptions would be required for the existing substandard horizontal curves and design speed.

PDP Classification: Major _____ Minor X

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

Functional Classification: Major Collector

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

State Route Number(s): 60

Traffic (AADT) as shown in the approved concept: Current Year (2003): 600
Design Year (2023): 1200

Proposed features to be revised: The approved project concept (dated October 9, 2003) proposed two 12' lanes with 5' rural shoulders within the project limits. The revised concept proposes two 12' lanes with 10' rural shoulders, including 6.5' paved bike lanes. The addition of bike lanes to the project is due to the implementation of the Georgia Bicycle and Pedestrian Program (GABPP).

The approved concept also proposed replacing the deficient drainage structure over Chapel Branch with a double 8'x 5' concrete culvert, while maintaining traffic with an on-site detour. The revised concept proposes to close SR 60 at Chapel Branch (Station 19+50 to 27+00), while replacing the existing drainage structure with a precast, double 8'x 5' concrete culvert. As per the District Construction Office, the roadway would be closed approximately 22 days, in lieu of detouring traffic for a year or more. In addition, elaborate construction easements would no longer be necessary, reducing right-of-way cost by approximately \$20,000 and total project cost by almost \$200,000 (please refer to the attached cost estimate).

Describe the revised feature(s) to be approved: Within the project limits, the proposed roadway would consist of two 12' lanes with 10' rural shoulders, including 6.5' paved bike lanes. The addition of bike lanes would adhere to the current statewide bicycle and pedestrian plan.

In addition, SR 60 at Chapel Branch (Station 19+50 to 27+00) would be closed to traffic while replacing the deficient drainage structure with a precast, double 8'x 5' concrete culvert. As per the District Construction Office, the roadway would be closed approximately 22 days. However, there are numerous alternate routes available to local traffic, and trucks would be detoured via SR 2/Hwy 515, SR 11 and SR 180 (please refer to the attached detour map). Eliminating the on-site detour would save approximately \$20,000 in right-of-way cost, since elaborate construction easements would no longer be necessary, and would reduce the total project cost by almost \$200,000 (please refer to the attached cost estimate).

Updated traffic data (AADT): Current Year (2004): 800
Design Year (2027): 1500

Programmed/Schedule: P.E.: 12/1995 R/W: 03/2003 Construction: 04/2006

Revised cost estimates:

1. Construction cost including inflation and E&C: \$1,248,901.20
2. Right-of-way: \$65,000
3. Utilities: N/A

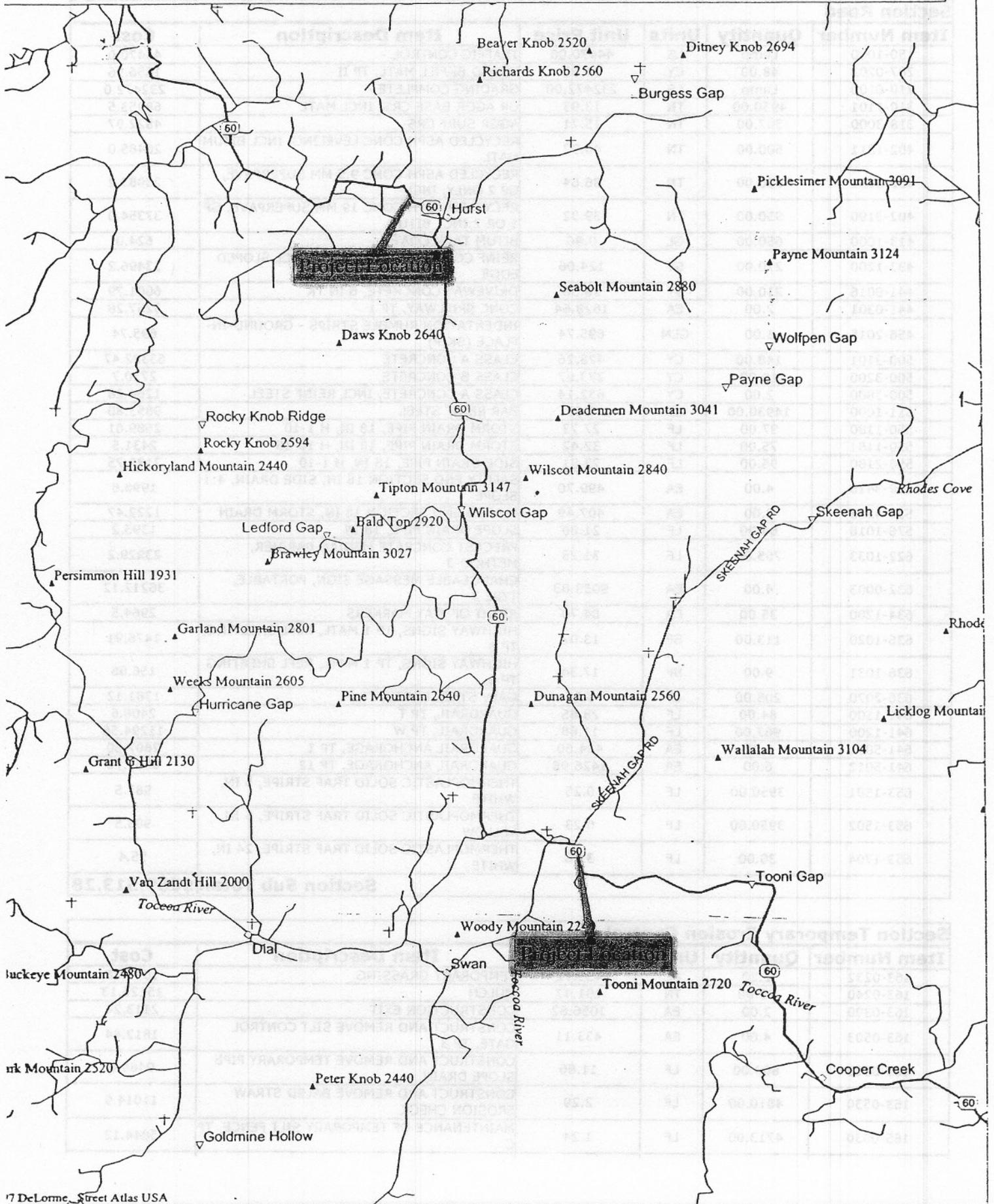
Is the project located in a non-attainment area? Yes No

Recommendation: It is recommended that the proposed revision to the concept be approved for implementation.

SCORING RESULTS AS PER TOPPS 2440-2

Project Number:		County:		PI No.:	
Report Date:		Concept By:			
<input type="checkbox"/> CONCEPT		DOT Office:			
		Consultant:			
Project Type: Choose One From Each Column		<input type="checkbox"/> Major <input type="checkbox"/> Minor	<input type="checkbox"/> Urban <input type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge <input type="checkbox"/> Building <input type="checkbox"/> Interchange <input type="checkbox"/> Intersection <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation					
Judgement					
Environmental					
Right of Way					
Utility					
Constructability					
Schedule					

BRS-085 (10) FANNIN



Estimate Report for file "BRS-0854(10) Fannin Co "

Section Road					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	Lump	LS	44470.00	TRAFFIC CONTROL -	44470.0
207-0203	48.00	CY	34.52	FOUND BK FILL MATL, TP II	1656.96
210-0100	Lump	LS	232472.00	GRADING COMPLETE -	232472.0
310-1101	4950.00	TN	13.93	GR AGGR BASE CRS, INCL MATL	68953.5
318-3000	307.00	TN	15.71	AGGR SURF CRS	4822.97
402-1811	500.00	TN	40.97	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL	20485.0
402-3131	630.00	TN	36.64	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2 ONLY, INCL	23083.2
402-3190	950.00	TN	39.32	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	37354.0
413-1000	650.00	GL	0.96	BITUM TACK COAT	624.0
433-1200	270.00	SY	124.06	REINF CONC APPROACH SLAB, INCL SLOPED EDGE	33496.2
441-0016	210.00	SY	28.58	DRIVEWAY CONCRETE, 6 IN TK	6001.79
441-0301	2.00	EA	1628.64	CONC SPILLWAY, TP 1	3257.28
456-2015	1.00	GLM	695.74	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)	695.74
500-3101	148.00	CY	428.26	CLASS A CONCRETE	63382.47
500-3200	10.00	CY	273.07	CLASS B CONCRETE	2730.7
500-3800	2.00	CY	632.14	CLASS A CONCRETE, INCL REINF STEEL	1264.28
511-1000	14930.00	LB	0.66	BAR REINF STEEL	9853.80
550-1180	97.00	LF	27.73	STORM DRAIN PIPE, 18 IN, H 1-10	2689.81
550-1181	75.00	LF	32.42	STORM DRAIN PIPE, 18 IN, H 10-15	2431.5
550-2180	96.00	LF	22.81	SIDE DRAIN PIPE, 18 IN, H 1-10	2189.75
550-3418	4.00	EA	499.70	SAFETY END SECTION 18 IN, SIDE DRAIN, 4:1 SLOPE	1998.8
550-4218	3.00	EA	407.49	FLARED END SECTION 18 IN, STORM DRAIN	1222.47
576-1018	64.00	LF	21.80	SLOPE DRAIN PIPE, 18 IN	1395.2
622-1033	765.00	LF	31.28	PRECAST CONCRETE MEDIAN BARRIER, METHOD 3	23929.2
632-0003	4.00	EA	9053.03	CHANGEABLE MESSAGE SIGN, PORTABLE, TYPE 3	36212.12
634-1200	35.00	EA	84.70	RIGHT OF WAY MARKERS	2964.5
636-1020	113.00	SF	13.07	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	1476.91
636-1031	9.00	SF	17.34	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	156.06
636-2070	208.00	LF	6.64	GALV STEEL POSTS, TP 7	1381.12
641-1100	84.00	LF	28.65	GUARDRAIL, TP T	2406.6
641-1200	967.00	LF	11.68	GUARDRAIL, TP W	11294.56
641-5001	6.00	EA	434.60	GUARDRAIL ANCHORAGE, TP 1	2607.60
641-5012	6.00	EA	1426.96	GUARDRAIL ANCHORAGE, TP 12	8561.76
653-1501	3950.00	LF	0.25	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	987.5
653-1502	3950.00	LF	0.23	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	908.5
653-1704	30.00	LF	3.18	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	95.4
Section Sub Total:					\$659,513.28

Section Temporary Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	2.20	AC	459.72	TEMPORARY GRASSING	1011.38
163-0240	79.00	TN	191.47	MULCH	15126.13
163-0300	2.00	EA	1056.62	CONSTRUCTION EXIT	2113.24
163-0503	4.00	EA	453.11	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	1812.44
163-0520	800.00	LF	11.86	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	9488.0
163-0530	4810.00	LF	2.29	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	11014.9
165-0030	4713.00	LF	1.24	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	5844.12

165-0070	2405.00	LF	1.25	MAINTENANCE OF BALED STRAW EROSION CHECK	3006.25
165-0087	4.00	EA	163.23	MAINTENANCE OF SILT CONTROL GATE, TP 3	652.92
165-0101	2.00	EA	353.89	MAINTENANCE OF CONSTRUCTION EXIT	707.78
167-1000	4.00	EA	2285.21	WATER QUALITY MONITORING AND SAMPLING	9140.84
167-1500	12.00	MO	831.22	WATER QUALITY INSPECTIONS	9974.64
171-0030	9425.00	LF	3.09	TEMPORARY SILT FENCE, TYPE C	29123.25
719-1000	2.00	EA	925.67	SILT FILTER BAG	1851.34
Section Sub Total:					\$100,867.23

Section Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
603-2181	1000.00	SY	36.16	STN DUMPED RIP RAP, TP 3, 18 IN	36160.0
603-7000	1000.00	SY	3.62	PLASTIC FILTER FABRIC	3620.0
700-6910	4.40	AC	754.98	PERMANENT GRASSING	3321.91
700-7000	4.40	TN	57.66	AGRICULTURAL LIME	253.70
700-7010	11.00	GL	20.05	LIQUID LIME	220.55
700-8000	1.00	TN	237.26	FERTILIZER MIXED GRADE	237.26
700-8100	220.00	LB	1.44	FERTILIZER NITROGEN CONTENT	316.8
716-2000	21300.00	SY	1.13	EROSION CONTROL MATS, SLOPES	24068.99
Section Sub Total:					\$68,199.23

Section Bridge					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
000-0001	4560.00	SF	47.00	BRIDGE	214320.0
000-0002	1920.00	SF	20.00	DETOUR BRIDGE	38400.0
Section Sub Total:					\$252,720.00

Total Estimated Cost: \$1,081,299.74

Subtotal Construction Cost	\$1,081,299.74
E&C Rate 10.0 %	\$108,129.97
Inflation Rate 5.0 % @ 1.0 Years	\$59,471.49
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Total Construction Cost	\$1,248,901.20
Right Of Way	\$65,000.00
ReImb. Utilities	\$0.00
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Grand Total Project Cost	\$1,313,901.20