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D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-1418(3) Newton County **OFFICE** Preconstruction
P. I. No. 242230
CWH **DATE** September 24, 2001
FROM C. Wayne Hutto, Assistant Director of Preconstruction
TO SEE DISTRIBUTION

SUBJECT REVISED PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/cj

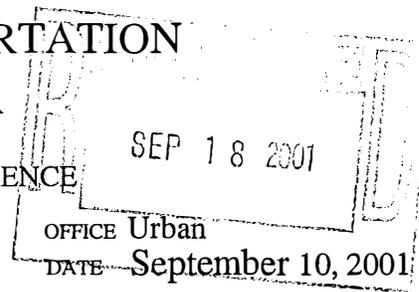
Attachment

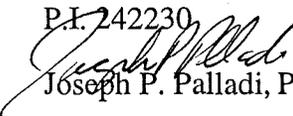
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DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



FILE STP-1418 (3) Newton County
P.I. 242230
FROM  Joseph P. Palladi, P. E., State Urban Design Engineer
TO C. Wayne Hutto, 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). The features to be revised in the approved concept are the typical section and the right of way limits.

The typical section is a rural section with two 12 foot lanes in each direction and a 20 foot raised median and turn lanes as required. The proposed shoulder width is 10 feet including 3 foot of rumble strip, 0.5 foot of buffer on both sides of the rumble strip, 4 foot bike shoulder and 2 foot unpaved. The revised typical section will be a rural section with two 12 foot lanes in each direction and a 20 foot raised median and turn lanes as required. The proposed shoulder will be 10 foot with 6.5 foot paved to match the current rumble strip guidelines with bike lanes.

The right of way required in the approved concept for Alcovy Road was for miters at the intersection with S.R. 142. No additional right of way was required along Alcovy Road. Because of an increase in the design traffic, additional lanes are required along Alcovy Road at the intersection of S.R. 142 and Alcovy Road. The additional lanes and the length needed to taper out the lanes back to match the existing Alcovy Road will extend the project 3100 feet west of S.R. 142 and 2200 feet east of S.R. 142. This will require a significant increase in the amount of right of way required along Alcovy Road and may affect the analysis of historic resources, endangered species, air quality or noise studies.

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

DATE 9-14-01


State Transportation Planning Administrator

Cc: David Mulling, P.E., Project Review Engineer
Harvey Booker, State Environment/Location Engineer
Marion Waters, P.E., State Traffic Operations Engineer
Marta Rosen, State Transportation Planning Administrator
Herman Griffin, State Transportation Programming Engineer
Mike Thomas, P.E., District 2 Engineer
Paul Liles, P.E., State Bridge Design Engineer

REVISED PROJECT CONCEPT REPORT

STP-1418(3) Newton County

P.I. 242230

S.R. 142 from I-20 to Alcovy Road in Covington

Need and Purpose: See attachment.

Project location: The project is located entirely in Newton County, Georgia. This project along S.R. 142 begins just north of Hazelbrand Road at milepoint 12.23 and ends at Stewart Street milepoint 13.87. Widening along Alcovy Road will begin at Harland Drive milepoint 5.85 and end at Avenue of Champions milepoint 4.04.

Description of the approved concept: The proposed construction will provide two 12 foot lanes in each direction divided by a 20 foot raised median for the entire project length. The proposed shoulder width is 10 feet including 3 foot rumble strip, 0.5 foot buffer on both sides of the rumble strip, 4 foot bike lane and 2 foot unpaved. The existing bridge over CSX will be widened to accommodate the new lanes. This project is in conjunction with projects IM-20-2(141) and STP-000S(14), Newton, proposes to multi-lane S.R. 142 from U.S. 278 to C.R. 74 including interchange reconstruction at I-20. Traffic will be maintained during construction.

PDP Classification:

Full Oversight (), Exempt(X), SF(), Other ()

Functional Classification: Urban Minor Arterial

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

State Route Number(s): S.R. 142

Traffic (AADT) as shown in the approved concept:

Current Year: 9,700 (2002)

Design Year: 16,850 (2022)

Proposed features to be revised:

The features to be revised in the approved concept are the typical section and the right of way limits.

The typical section is a rural section with two 12 foot lanes in each direction and a 20 foot raised median and turn lanes as required. The proposed shoulder width is 10 feet including 3 foot of rumble strip, 0.5 feet of buffer on both sides of the rumble strip, 4 foot bike shoulder and 2 feet unpaved.

The right of way required in the approved concept for Alcovy Road is for miters at the intersection with S.R. 142. No additional right of way is required along Alcovy Road.

Describe the revised feature(s) to be approved:

The revised typical section will be a rural section with two 12 foot lanes in each direction and a 20 foot raised median and turn lanes as required. The proposed shoulder will be 10 feet with 6.5 foot paved to match the current rumble strip guidelines with bike lanes.

Because of an increase in the design traffic the additional lanes are required along Alcovy Road for the intersection of S.R. 142 at Alcovy Road. The additional lanes and the length needed to taper out the lanes back to match the existing Alcovy Road will extend the project 3100 feet west of S.R. 142 and 2200 feet east of S.R. 142. This will require a significant increase in the amount of right of way required along Alcovy Road and may affect the analysis of historic resources, endangered species, air quality or noise studies.

Updated traffic data (AADT):

Current Year: 15,000 (2006) Design Year: 27,700 (2026)

<u>Estimated Costs:</u>	<u>Proposed</u>	<u>Approved</u>	<u>Program Date</u>
Constr. (Infl. & E&C)	\$9,994,000.00	\$3,797,000.00	2003
Right of way	\$2,929,000.00	\$100,000.00	2001
Utilities	LGPA		

Is the project located in a Non-attainment area? No

Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:

1. Sketch Map
2. Cost Estimate
3. Need and Purpose Statement

• **Exempt projects**

Concur: Thomas L. Turner
 Director of Preconstruction

Approve: [Signature]
 Chief Engineer

Revised July 16, 2001

**NEED AND PURPOSE
PROJECT STP-1418(3), NEWTON COUNTY
PI NO. 242230
SR 142 IMPROVEMENTS**

SR 142 is functionally classified as an urban minor arterial and bypasses the city of Covington on the east side, connecting SR 81 on the north to US 278 on the south. The proposed project involves widening SR 142 to four lanes with a median, from Interstate 20 on the south to CR 74, Alcovy Rd., on the north, a distance of 1.5 miles. The roadway is reaching capacity and improvements will be required to maintain an acceptable level-of-service. This project is one of three projects proposed to multi-lane SR 142 from US 278 to CR 74. In addition, the Office of Planning has identified a need to multi-lane SR 142 from Alcovy Rd. north to SR 81. The projected (2026) traffic volumes (27,700 AADT) and the truck percentages are expected to increase with the re-routing of SR 81, resulting in an unacceptable Level-of-Service.

The typical section will be a rural section with two 12 foot lanes in each direction and a 20 foot raised median and turn lanes as required. The proposed shoulder will be 10 foot with 6.5 foot paved to match the current rumble strip guidelines with bike lanes.

The right of way required in the approved concept for Alcovy Road is for miters at the intersection with SR 142 and no additional right of way is required along Alcovy Road. Due to an increase in the design traffic, additional lanes are required along Alcovy Road for the intersection of SR 142 at Alcovy Road. The additional lanes and the length needed to taper out the lanes back to match the existing Alcovy Road will extend 3,100 feet west of SR 142 and 2,200 feet east of SR 142.

Industrial development along SR 142 between Alcovy Rd. and I-20 has contributed to a steady increase in traffic volumes along this section of roadway. The projected Average Annual Daily Traffic (AADT) within the limits of the project for 2006 is 15,000 with a projected design year (2026) volume of 27,700. The Level of Service (LOS) for SR 142 between I-20 and CR 74 is computed to be at "F" in 2006 and 2026, which indicates congestion characterized by unstable stop-and-go movements. The widening improvement will increase the traffic carrying capacity to accommodate these higher volumes while reducing congestion due to lack of passing opportunities.

In addition, the section of SR 81, from its intersection with SR 142 north of Covington to CR 653 (Covington Bypass), is proposed to be re-routed to SR 142. This is currently being considered under Notice of Intent 3212. This re-routing will assist in directing through traffic away from downtown Oxford. The multi-laning of SR 142 will provide improved capacity for the additional through traffic and truck traffic.

In 1997, there were eight accidents along this section of SR 142, resulting in an accident rate per million vehicle miles traveled (MMVT) of 184. The 1997 statewide average accident rate per MMVT for an urban minor arterial was 552. 1997 is the latest year that statewide accident data is

available. In 1996, there were 20 accidents along this section of SR 142 and eight in 1998. Accidents for 1998 are not complete. There were no fatalities. The accident rate for 1996 was 934 per 100 MMVT. The statewide average for an urban minor arterial was 528 in 1996.

The east side of Newton County is continuing to develop both as a residential area and an industrial site. The opening of the Covington Bypass between US 278 and SR 36 has created an opportunity for people living south of Covington along the SR 36 corridor to access the interstate without going through Covington. SR 142 intersects the bypass at US 278 and continues northward.

The southern terminus for project STP-1418(3) is proposed project IM-20-2(141). Project IM-20-2(141) is an interchange reconstruction and widening project at SR 142 and I-20, scheduled for construction in 2003. Immediately south of project IM-20-2(141), the widening and reconstruction of SR 142 continues with proposed project STP-000S(14). Project STP-000S(14) is scheduled for construction in 2003.

The northern terminus of project STP-1418(3) is CR 74, Alcovy Rd., functionally classified as an urban collector street. The traffic volumes along Alcovy Rd ranged from 4,762 east of SR 142 to 9,603 just west of SR 142 for 1999. The design year (2026) projected volumes range from 23,000 AADT west of SR 142 to 15,600 AADT east of SR 142. Alcovy Rd. west of SR 142 continues on to I-20 and the city of Covington. Alcovy Rd. east of SR 142 continues on into Walton County. Residential growth along this section of Alcovy Rd. is increasing.

Land use along SR 142 north of Alcovy Road is predominantly residential in nature whereas south of Alcovy Road, the land use is predominantly commercial and industrial.

PRELIMINARY COST ESTIMATE
URBAN DESIGN OFFICE

DATE: 20-Jun-01	PREPARED BY:	Mohsen Tehrani
PROJECT NO: STP-1418-0(3)	REVISED BY:	
P.I. NO: 242230	FILE NAME:	prelcosteng.xls
	MILEAGE:	2.87 miles

PROJECT DESCRIPTION: Widening SR 142 from I-20 to just north of Alcovy Road in Covington

EXISTING ROADWAY: Two lane rural section with 12 ft lanes and 8 ft grassed shoulders.

TRAFFIC: (two way)	CURRENT ADT	PROJECTED ADT
	17200 (2006)	32700 (2026)

- () PROGRAMMING PROCESS
- (x) CONCEPT DEVELOPMENT
- () DURING PROJECT DEVELOPMENT

PROJECT COSTS

A. RIGHT OF WAY	\$ 2,928,800.00	\$2,928,800.00
	SUBTOTAL	\$2,928,800.00

B. UTILITIES		LOCAL
	SUBTOTAL	LOCAL

C. CLEARING AND GRUBBING	52.3 ac @	\$7,500.00	\$391,950.00
		SUBTOTAL	\$391,950.00

D. EARTHWORK

Embankment

In-Place Embankment	161377	CY @	\$10.00	\$1,613,770.00
Borrow Incl Haul	0	CY @	\$8.00	\$0.00
Per mile cost	0	MI @	\$103,000.00	\$0.00

Excavation

Unclassified Excavation	101226	CY @	\$3.53	\$357,327.78
Soil		CY @	\$7.00	\$0.00
Rock	0	CY @	\$13.00	\$0.00

	SUBTOTAL	\$1,971,097.78
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E. BASE AND PAVING

Aggregate Base

Graded Aggregate 12 in	78589	TN @	\$12.42	\$976,075.38
Graded Aggregate 6 in	0	TN @	\$12.42	\$0.00

Asphalt Paving

9.5 mm Superpave	9810	TN	\$39.00	\$382,590.00
19 mm Superpave	13080	TN	\$36.00	\$470,880.00
25 mm Superpave	26160	TN	\$36.00	\$941,760.00
Leveling	1000	TN	\$38.00	\$38,000.00
Tack Coat	8325	GL @	\$0.99	\$8,241.75

SUBTOTAL \$2,817,547.13

F. DRAINAGE

Drainage Lump Sum

Cost per Mile	2.87 MI @		\$250,000.00	\$717,500.00
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SUBTOTAL \$717,500.00

G. CONCRETE WORK

Approach Slabs	103 SY @		\$110.23	\$11,353.69
Median Barrier	0 LF @		\$102.00	\$0.00
Curb and Gutter (Type 2)	18600 LF @		\$19.83	\$368,838.00
Valley Gutter	0 SY @		\$39.00	\$0.00
Sidewalk	0 SY @		\$23.00	\$0.00
4 in Conc. Median	0 SY @		\$26.00	\$0.00
6 in Conc. Median	16192 SY @		\$34.82	\$563,805.44
Ditch Paving	1000 SY @		\$28.35	\$28,350.00

SUBTOTAL \$972,347.13

H. TRAFFIC CONTROL

lump sum			\$100,000.00	\$100,000.00
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SUBTOTAL \$100,000.00

I. EROSION CONTROL

lump sum			\$75,000.00	\$75,000.00
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SUBTOTAL \$75,000.00

J. GUARDRAIL

W-Beam Rail	2842 LF @		\$11.33	\$32,199.86
T-Beam Rail	60 LF @		\$49.51	\$2,970.60
Type 1 Anchors	2 EA @		\$421.00	\$842.00
Type 12 Anchors	2 EA @		\$1,455.79	\$2,911.58

SUBTOTAL \$38,924.04

K. SIGNS, STRIPING, SIGNPOSTS, LIGHTING

Signing and Marking	lump sum	\$30,000.00	\$30,000.00
Overhead Signs w/Lights	0 EA @	\$0.00	\$0.00
Traffic Signals	2 EA @	\$50,000.00	\$100,000.00
Lighting	lump sum		\$0.00

SUBTOTAL \$130,000.00

L. GRASSING/LANDSCAPING

12.63 ac @

\$1,250.00 \$15,787.50

SUBTOTAL \$15,787.50

M. MISCELLANEOUS

Field Engineer Office (Type 2)	1 EA @	\$62,000.00	\$62,000.00
Fencing	0 LF @	\$32.00	\$0.00
Right-of-Way Markers	0 EA @	\$60.00	\$0.00

SUBTOTAL \$62,000.00

N. MAJOR STRUCTURES

Bridges	9205 SF @	\$60.00	\$552,300.00
Retaining Walls	0 SY @	\$485.00	\$0.00

Box Culverts

Concrete	0 CY @	\$406.00	\$0.00
Bar Reinf. Steel	0 LB @	\$1.00	\$0.00

SUBTOTAL \$552,300.00

ESTIMATE SUMMARY

A. Right of Way	\$2,929,000.00
B. Reimbursable Utilities	LOCAL

CONSTRUCTION COST SUMMARY

C. Clearing And Grubbing	\$392,000.00
D. Earthwork	\$1,972,000.00
E. Base and Paving	\$2,818,000.00
F. Drainage	\$718,000.00
G. Concrete Work	\$973,000.00
H. Traffic Control	\$100,000.00
I. Erosion Control	\$75,000.00
J. Guardrail	\$39,000.00
K. Signs, Striping, Signals, Lighting	\$130,000.00
L. Grassing/Landscaping	\$16,000.00
M. Miscellaneous	\$62,000.00
ROADWAY SUBTOTAL	\$7,295,000.00
N. Major Structures	\$553,000.00
CONSTRUCTION TOTAL	\$7,848,000.00
3 years of inflation at 5%	\$1,237,041.00
10% E & C	\$908,504.10
CONSTRUCTION ESTIMATE SUBTOTAL	\$9,993,545.10
TOTAL CONSTRUCTION ESTIMATE	\$9,994,000.00