

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 323070-, Henry County **OFFICE** Preconstruction
STPN-164-1(49)
SR 138 at CR 665 Intersection Improvements **DATE** September 25, 2006

FROM *John Funnels*
Genetha Rice-Singleton, Assistant Director of Preconstruction

TO *GRS* SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

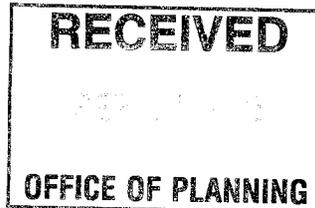
Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Babs Abubakari
Thomas Howell
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



FILE STPN-164-1(49) Henry County
P.I. No. 323070

OFFICE Thomaston

DATE **September 11, 2006**

FROM Thomas B. Howell, P.E., District Engineer

TO Genetha Rice-Singleton, Assistant Director of Preconstruction

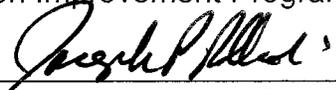
SUBJECT **Revised Project Concept Report**

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

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

9/25/06


State Transportation Planning Administrator

DBM:WJR:GMT

C: Brian Summers, Project Review Engineer
Harvey Keepler, State Environmental/Location Engineer
Keith Golden, State Traffic and Safety Design Engineer
Joe Palladi, State Transportation Planning Administrator
Jamie Simpson, State Transportation Programming Engineer
Paul Liles, State Bridge Design Engineer
Debra Fowler, District Environmentalist
Colandra Barron, Support Assistant

Recommendation: Approve the proposed revision to the concept for implementation.

Concur:



Director of Preconstruction

Approve:



Chief Engineer

Revised Project Concept Report

STPN-164-1(49)

Henry County

P.I. No. 323070

Need and Purpose: *See Attachment*

Project location: The intersection of State Route 138 at County Route 665 / Millers Mill Road is located approximately 0.39 miles east of the SR 42 split and 4.54 miles west of the Rockdale County Line in Henry County. The project is approximately 0.568 miles (3000 feet) in length and extends from milepost 6.067 to milepost 6.512 on SR138. The project spans from MP 0.0 to MP 0.123 on CR665.

Description of the approved concept: The original concept report was approved on May 18, 1999. The following is the original project description:

"S.R. 138 will be widened 1.8 m symmetrically to provide a left turn lane west bound. Millers Mill Road will be widened 3.6 m and realigned to provide improved sight distance for west bound left turns."

The original Statement of Need and Purpose is as follows:

"Accident history for this intersection shows nine of the fifteen accidents were rear end accidents, the other six were angle intersecting. The realignment of the intersection and the instillation of a traffic signal will greatly reduce the number of accidents at this location. To improve the safety and orderly progression of traffic through the intersection, these improvements are recommended."

The original proposed typical section on SR138 consists of two 3.6 m (12 ft) travel lanes, one in each direction, with a 3.6 m (12 ft) left turn lane westbound and a 3.6 m (12 ft) right turn lane eastbound. The shoulders are 0.6 m (2 ft) paved and 2.4 m (8 ft) grassed. The original proposed typical section on CR665 consists of two 3.6 m (12 ft) travel lanes, with left and right turn lanes at the intersection. The shoulders are 0.6 m (2 ft) paved and 1.8 m (6 ft) grassed.

PDP Classification: Major () Minor (X)

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

Functional Classification:

SR138 - Urban Principal Arterial

CR665 - Urban Minor Arterial

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

State Route Number(s): 138

Traffic (AADT) as shown in the approved concept:

Current Year (1997):
SR138 - 6400 vpd
CR665 - 4000 vpd
Design Year: N/A

Proposed features to be revised: This project will realign CR665 to intersect SR138 directly across from Naomi Drive, combining two stop-controlled intersections into one signalized intersection. Left and right turn lanes will be added on SR138 for both roadways to accommodate the high volume of turning movements in this area. CR665 and Naomi Drive will have channelized areas for right turns. The profile on SR138 will be flattened inside the project limits to meet current standards and to improve both stopping sight distance and intersection site distance. These improvements will reduce the number of accidents at this intersection by providing a safer intersecting angle, reducing access points, and improving site distance.

Describe the revised feature(s) to be approved: The revised features include the new vertical profile, the new typical sections and a section of V-gutter.

Updated traffic data (ADT):

	<u>Current Year: (2008)</u>	<u>Design Year: (2028)</u>
SR138	25,000 vpd	43,000 vpd
CR665	9,400 vpd	16,500 vpd

Programmed/Schedule:	<u>Approved</u>	<u>Proposed</u>
PE:	1999	1999
R/W:	Locals	Locals
Construction:	2004	2005

Revised cost estimates:

Construction cost including inflation and E&C	\$1,019,136.80
Right-of-way	\$1,973,250.00 (LGPA)
Utilities	\$60,000.00 (LGPA)

Is the project located in a Non-attainment area? Yes. This project is a lump safety project, and the non-attainment area requirements are not applicable.

Attachments:

Revised Need and Purpose
Project Location Map
Cost Estimate

NEED AND PURPOSE STATEMENT
STPN-164-1(49), P.I. #323070
Henry County
SR 138 @ CR 665/Millers Mill Road
Intersection Improvement

Background

This project was submitted for programming in June 1999 by the Office of Traffic Safety and Design as a safety improvement project. It is located at the intersection of SR 138 and CR 665/Millers Mill Road in Henry County and is part of the National Highway System (NHS). From 2001-2003, this intersection has experienced 68 accidents including 35 that have resulted in injuries and one fatality. This project is included in the ARC Transportation Improvement Program (TIP) for the Atlanta region as HE-145 as a Henry County sponsored project. Because this project is a safety project, it is exempt from the Atlanta Regional Commission's (ARC) air quality modeling process.

Existing Roadway Conditions/ Proposed Improvements

SR 138 within the project limits is a two (2) lane urban principal arterial with 12 ft. lanes in each direction without curb and gutter. The shoulders are 2 ft of pavement and 6 ft of grass. There is no median along SR 138 within the project area. The posted speed limit is 55 mph.

CR 665/Millers Mill Road within the project limits is a two (2) lane urban minor arterial street with 10.5 ft lanes in each direction without curb and gutter. The shoulders are 2 ft of pavement and 6 ft of grass. There is no median along Millers Mill Road within the project area. The posted speed limit is 45 mph.

Currently, Millers Mill Road terminates at SR 138 at a skewed 30 degree angle with a BP gas station in the vertex of the intersection and a church just to the east of the BP gas station. The proposed improvements include realigning Millers Mill Road to intersect SR 138 at a 90 degree angle across from Naomi Drive. Millers Mill Road northbound will have a right turn lane onto SR 138 eastbound and a left turn/through lane onto SR 138 westbound or strait through to Naomi Drive. SR 138 will be widened to include a right turning lane from SR 138 eastbound to Millers Mill Road southbound and a left turning lane from SR 138 westbound to Millers Mill Road southbound. This project will also include placing a signal at this intersection to replace the current stop sign on Millers Mill Road northbound at SR 138.

Projects in the Area

- PI #0000883, STP-0000-00(883), SR 138 @ CR 100/Flat Rock Road: Intersection Improvement, Project is a Lump Project.

- PI #M003117, CSSTP-M003-00(117), SR 138 from SR 42 to Rockdale County Line; Resurface and Maintenance, Project is Currently under Construction.

Existing and Project Traffic Conditions

The 2004 traffic (AADT) for SR 138 in the project area was 20,900. By 2028 traffic is anticipated to increase to 43,000 AADT using a 3% growth rate. This is an increase of 106% for this section of SR 138. This roadway is classified as an urban principal arterial and 5% of its traffic is trucks. The current level of service (LOS) is E. The LOS in 2029 is projected to be LOS F.

The 2004 AADT for Millers Mill Road in the project area was 8,210. By 2028 traffic is anticipated to increase to 16,500 AADT using a 3% growth rate. This is an increase of 101% for this section of Millers Mill road. This roadway is classified as an urban minor arterial street and 2% of its traffic is trucks. The current LOS is E. The LOS in 2028 is projected to be LOS F.

Most of the accidents that occurred at or near this intersection on SR 138 and Millers Mill Road were rear end or angle accidents. The accident rate along SR 138 within the project area is much higher than the statewide average.

SR 138 @ CR 665/Millers Mill Road, Henry County, Accident Rate

	2001	2002	2003
Total Accidents	21	21	26
Accidents Per 100 MVMT	1,708	1,632	1,986
Statewide Accidents Per 100 MVMT	547	588	613
Accident % Higher/Lower Than Statewide Average	+212%	+176%	+224%

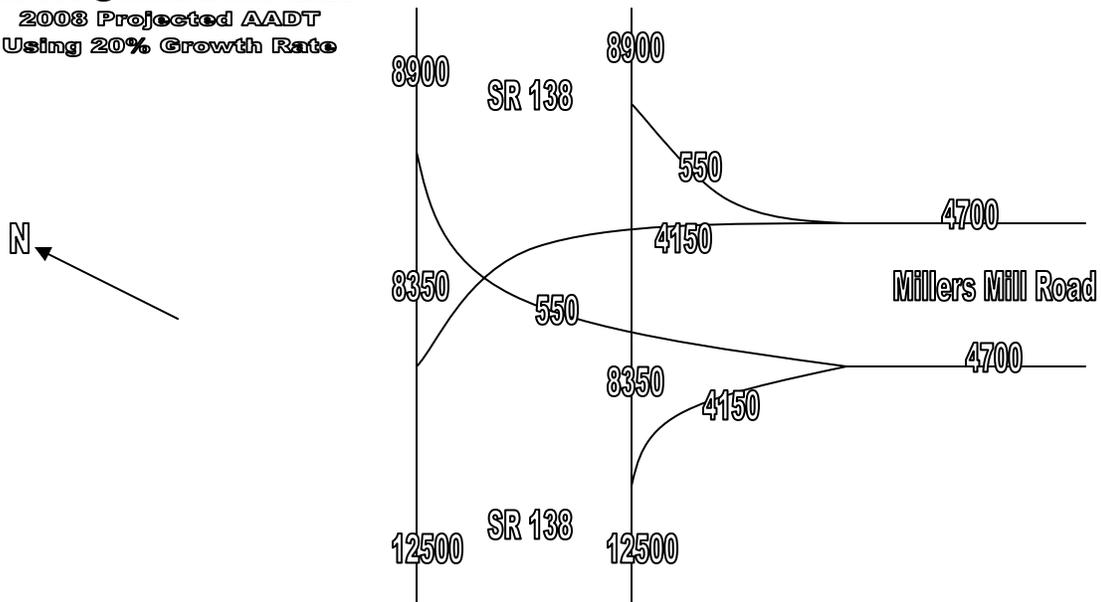
SR 138 @ CR 665/Millers Mill Road, Henry County, Injury Rate

	2001	2002	2003
Total Injuries	13	9	13
Injuries Per 100 MVMT	1,057	700	993
Statewide Injuries Per 100 MVMT	191	174	171
Accident % Higher/Lower Than Statewide Average	+453%	+302%	+481%

SR 138 @ CR 665/Millers Mill Road, Henry County, Fatality Rate

	2001	2002	2003
Total Fatalities	0	1	0
Fatalities Per 100 MVMT	0	77.72	0
Statewide Fatalities Per 100 MVMT	1.32	1.77	0.71
Accident % Higher/Lower Than Statewide Average	0%	+4,291%	0%

**SR 138 @ Millers Mill Road
2008 Projected AADT
Using 20% Growth Rate**



Turning Movement Percentages

SR 138

- 6% Turning Left
- 33% Turning Right

Millers Mill Road

- 88% Turning Left
- 12% Turning Right

Logical Termini

The termini for this project are logical because the project can stand on its own; it has no significant adverse effects on the operational conditions of the SR 138 corridor beyond the boundaries of this project. This project addresses the immediate safety needs at the intersection.

Pedestrian and Bicycle Facilities/Routes

There are no pedestrian or bicycle facilities/routes in existence or planned at or near the intersection of SR 138 and CR 665/Millers Mill Road in Henry County according to ARC, GDOT, or Henry County.

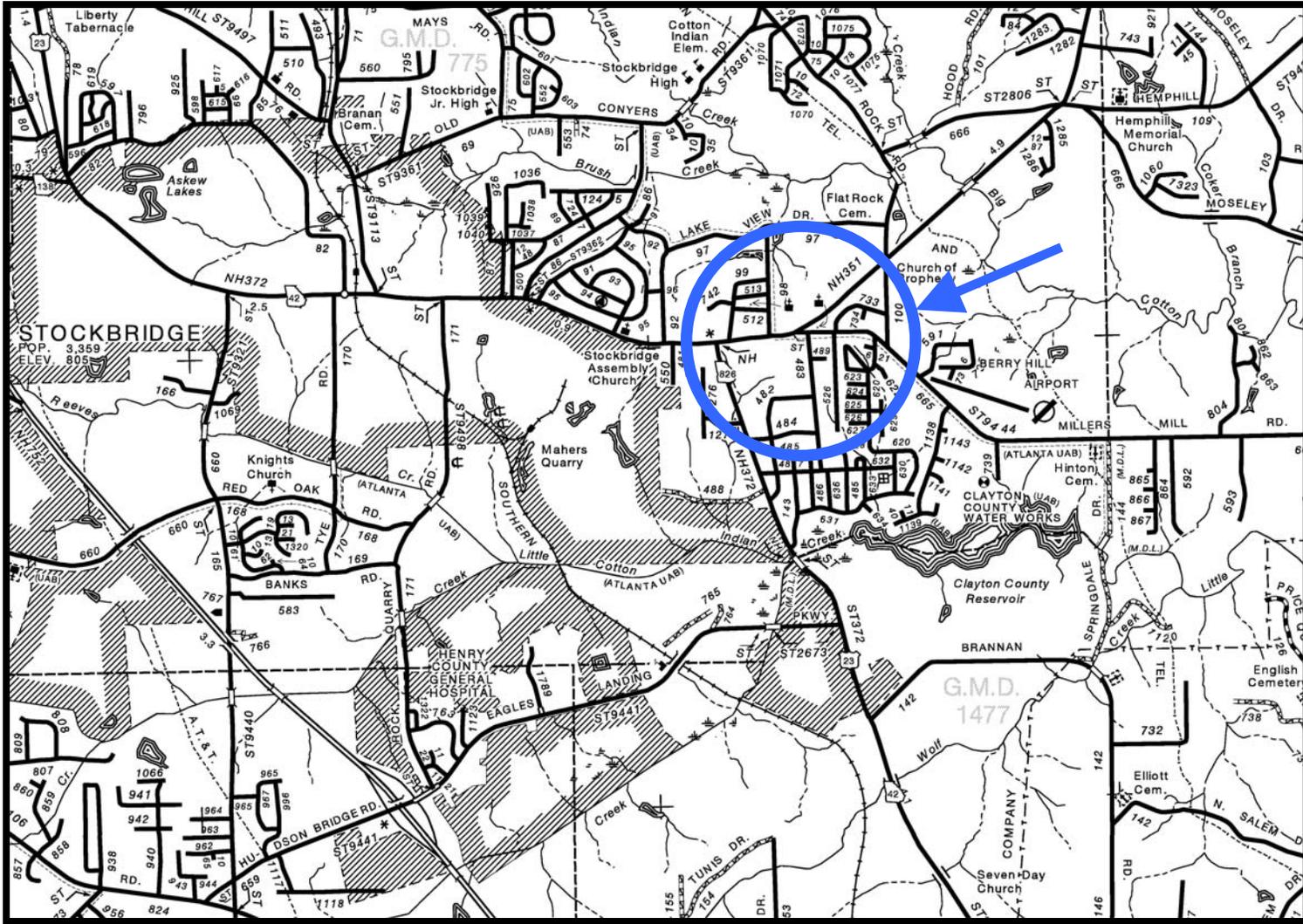
Community Issues

In 1990 Henry County had a population of 59,741 and in 2000 the total population grew to 119,341. The growth rate of Henry County between 1990 and 2000 was 100% compared to the state average of 26%. According to the 2000 Census, 81.4% of the total population was white and 18.6% were minorities. The per capita income for Henry County in 1999 was \$22,945, which is 8% higher than the state average of \$21,154. The median household income in 1999 for Henry County was \$57,309, or 35% higher than the state median income household income of \$42,433.

Need & Purpose

The accident history demonstrates a clear need to upgrade this intersection for improved safety. The accident rate at this intersection is higher than the state average for this classification of roadway. The need of this project is to reconfigure the skewed intersection as well as to accommodate the high volume of traffic making left and right turning movements on both SR 138 and Millers Mill Road. The purpose of these safety improvements is to mitigate the high accident rate and to improve the overall safety of the intersection.

Project Location Map
STPN-164-1(49) Henry County
P.I. No. 323070



2. GRADING AND DRAINAGE			
a. EARTHWORK	39,822 CY	\$9.00 PER CY	\$358,398.00
b. DRAINAGE			
1) CROSS DRAIN PIPE	5 EA	\$11,300.00 PER EA	\$56,500.00
2) SIDE DRAIN PIPE	10 EA	\$6,200.00 PER EA	\$62,000.00
3) CURB AND GUTTER, 8" X 30"	0 LF	\$15.00 PER LF	\$0.00
4) LONGITUDINAL SYSTEM	0 LF	\$79.00 PER LF	\$0.00
SUBTOTAL: C-2			\$476,898.00
3. BASE AND PAVING			
a. AGGREGATE BASE	2,751 TN	\$20.00 PER TN	\$55,020.00
b. ASPHALT PAVING			
1) SURFACE	345 TN	\$85.00 PER TN	\$29,325.00
2) BINDER	461 TN	\$85.00 PER TN	\$39,185.00
3) BASE	921 TN	\$85.00 PER TN	\$78,285.00
SUBTOTAL: C-3.b			\$146,795.00
c. BITUM TACK COAT	335 GAL	\$1.00 PER GAL	\$335.00
d. CONCRETE PAVING	0 SY	\$75.00 PER SY	\$0.00
e. CONCRETE MEDIAN, 8 IN	0 SY	\$35.00 PER SY	\$0.00
SUBTOTAL: C-3			\$202,150.00
4. LUMP ITEMS:			
a. GRASSING	7 AC	\$1,600.00 PER AC	\$11,200.00
b. CLEARING AND GRUBBING	10 AC	\$5,000.00 PER AC	\$50,000.00
c. LANDSCAPING			\$0.00
d. EROSION CONTROL			\$84,000.00
e. TRAFFIC CONTROL			\$0.00
f. SIGNAL			\$100,000.00
g. LIGHTING			\$0.00
h. ATMS			\$0.00
SUBTOTAL: C-4			\$245,200.00

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: **STPN-164-1 (49)** COUNTY: **Henry**

PI # **323070** DESCRIPTION: **S.R. 138 @ C.R. 665/ Millers Mill Road**

DATE: **7/28/2006** ESTIMATED LETTING DATE: **8-15-2007**

PREPARED BY: **Geraldine Trice** PROJECT LENGTH: **0.57** MILES

PROGRAMMING PROCES CONCEPT DEVELOPMENT DURING PROJECT DEVELOPMENT

A. RIGHT-OF-WAY:				
1. PROPERTY (LAND & EASEMENT)	3 AC	\$0.00 PER AC		\$143,331.00
2. DISPLACEMENTS	RES: 1 BUS: 2	M.H.: 0		\$425,000.00
3. OTHER COST (ADM./COST, INFLATION)				\$1,404,914.00
SUBTOTAL: A				\$1,973,245.00
B. REIMBURSABLE UTILITIES:				
1. RAILROAD				\$0.00
2. TRANSMISSION LINES				\$40,000.00
3. SERVICES				\$20,000.00
SUBTOTAL: B				\$60,000.00
C. CONSTRUCTION:				
1. MAJOR STRUCTURES				
a. BRIDGES	0 LF	\$0.00 PER LF		\$0.00
b. CONC APPROACH SLAB	0 EA	\$0.00 PER EA		\$0.00
c. CULVERTS				
1) CLASS A CONCRETE	0 CY	\$500.00 PER CY		\$0.00
2) BAR REINF STEEL	0 LB	\$0.80 PER LB		\$0.00
d. RETAINING WALLS	0 SF	\$45.00 PER SF		\$0.00
SUBTOTAL: C-1				\$0.00

5. MISCELLANEOUS:			
a. SIGNING	4 EA	\$560.00 PER EA	\$2,240.00
b. ASPH PAVEMENT MARKING	3,200 LF	\$0.00 PER LF	\$0.00
c. CONC PAVEMENT MARKING	0 LF	\$0.00 PER LF	\$0.00
d. GUARDRAIL	0 LF	\$0.00 PER LF	\$0.00
e. SIDEWALK, 6 IN	0 LF	\$175.00 PER LF	\$0.00
f. RIP RAP, TY 1	0 SY	\$28.00 PER SY	\$0.00
SUBTOTAL: C-5			\$2,240.00
6. SPECIAL FEATURES:			
a.	0 UNIT	\$0.00 COST PER UNIT	\$0.00
SUBTOTAL: C-6			\$0.00
ESTIMATE SUMMARY			
A. RIGHT-OF-WAY			\$1,973,245.00
B. REIMBURSABLE UTILITIES			\$60,000.00
C. CONSTRUCTION			
1. MAJOR STRUCTURES		\$0.00	
2. GRADING AND DRAINAGE		\$476,898.00	
3. BASE AND PAVING		\$202,150.00	
4. LUMP ITEMS		\$245,200.00	
5. MISCELLANEOUS		\$2,240.00	
6. SPECIAL FEATURES		\$0.00	
SUBTOTAL CONSTRUCTION COST			\$926,488.00
E. & C. (10%)			\$92,648.80
INFLATION (5%/YEAR)		NUMBER OF YEARS	0
TOTAL CONSTRUCTION COST			\$1,019,136.80
GRAND TOTAL PROJECT COST			\$3,052,381.80
This project is 100 % in Congressional District 3			