

D.O.T. 66

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. No. 0000805, Turner-Crisp Counties **OFFICE** Preconstruction  
NHS-0000-00(805)  
I-75 from SR 259 NR Ashburn to SR 300/  
Crisp County Line, PH II (Interchanges) **DATE** June 1, 2006

**FROM**  Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

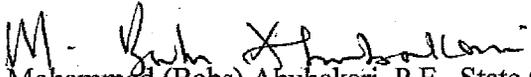
Brian Summers  
Harvey Keepler  
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Jamie Simpson  
Michael Henry  
Keith Golden  
Joe Palladi (file copy)  
Babs Abubakari  
Joe Sheffield  
BOARD MEMBER  
FHWA

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE NHS -0000-00(805), Turner/Crisp Counties OFFICE Consultant Design  
P.I. No.0000805  
I-75 from S.R. 159 NR Ashburn to S.R.300/  
Crisp County Line – Phase II (Interchanges)

DATE March 29, 2006

FROM   
Mohammed (Babs) Abubakari, P.E., State Consultant Design Engineer

TO Meg Pirkle, P.E. Assistant Director of Preconstruction

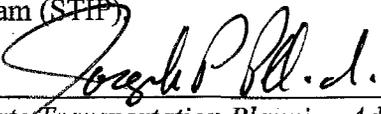
SUBJECT **Revised Project Concept Report**

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

This project consists of the reconstruction of the interchanges at CR 357-Hawpond Road with a diamond interchange and SR 33 CONN -Rockhouse Road with a diamond interchange. These interchanges will be designed to accommodate a future 8 lane typical section for I-75. In addition to the two interchanges, five overpass bridges will be replaced. They are located at Wardlow Road – CR 251, Alberson Road – CR 159, Bedgood Road-CR 116, Musselwhite Road – CR 117 and Old Hatley Road – CR 355. The right of way limits, increase limit access control and revised typical sections are found to have little to no additional impacts and therefore are preferred.

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 4/19/06

  
State Transportation Planning Administrator

MBA: SH

Attachments

Distribution: Brian Summers, Project Review Engineer  
Harvey Keepler, State Environmental/Location Engineer  
Keith Golden, Traffic Safety and Design Engineer  
Joseph Palladi, State Planning Administrator  
Jamie Simpson, Office of Financial Management Administrator  
Joe Sheffield, P.E., District 4 Engineer  
Paul Liles, State Bridge Design Engineer

# REVISED PROJECT CONCEPT REPORT

GDOT NHS-0000-00(805)

P.I. No. 0000805

Turner/Crisp Counties

## **Need and Purpose (as shown in the Approved Concept):**

Project NH-IM-75-1(157) is one of eight programmed projects to widen Interstate 75 to six lanes. The northern terminus is State Route 300, and the southern terminus is State Route 159. The project is bound by two interstate widening projects, project NH-IM-75-1(156) to the north and project NH-IM-75-1(215) to the south.

The Department's objective is to increase the number of through travel lanes on Interstate 75 from four lanes to a minimum of six lanes throughout the state. Interstate 75 from State Route 133 in Lowndes County north approximately 87 miles to the Crisp - Dooly county line is the only section of Interstate 75 in Georgia that has not been widened to six lanes or more. In the Tifton area, 17 miles of the 87 miles have already been widened to six lanes.

The 1997 AADT for this section of Interstate 75 is 18,000 vehicles (each direction) with a 24 hour truck percentage of 30%. The AADT is estimated to increase 13% by the year 2002 and another 54% by the year 2022. During 1996 there were 43.8 accidents per 100 million vehicle miles traveled along this stretch of interstate compared to 50 accidents per 100 million vehicle miles statewide.

The 1997 level of service along this section of Interstate 75 is at a level "C". With a projected 75% increase in traffic by the year 2022, the level of service will decrease to a level "D" if the additional lanes are not constructed.

For safety and construction staging purposes, crossroads and bridges over I-75 will be widened to four lanes with a median separation. The roadway and shoulder widening will improve sight distance for cars on the ramps exiting I-75, and the existing crossroad vertical curve will be reconstructed to meet design speed. The four lane widening will aid in the maintenance of traffic during construction.

Adding an additional lane in each direction of I-75 will improve the level of service to "B", but this improvement in service will decrease to "C" by 2022. The proposed widening will also allow increased vehicle spacing thus providing more time to maneuver and react to potentially dangerous situations.

## **Revised Need and Purpose:**

Phase I of this project, the widening of I-75, resulted in Design Exceptions for substandard horizontal clearance from the I-75 mainline to side barriers in front of the bridge columns at the bridges. The I-75 widening, currently underway, requires 14-foot shoulders, based on speed design and average daily traffic (ADT), which was 41,000 vehicles per day (VPD) in 2002 and is projected to be 63,000 VPD in 2022. Table 1 shows horizontal clearances between the new 6-lane I-75 mainline and the existing bridge columns. The clearances are inadequate to provide 14-foot shoulders.

Table 1. Horizontal Clearances

Bridge	Minimum Horizontal Clearance (ft)
Wardlow Road	7.1
Alberson Road	7.2
Hawpond Road	7.9
Bedgood Road	6.7
Musselwhite Road	12.2
SR 33 CONN	13.0
Old Hatley Road	12.8

The proposed project would reconstruct the seven bridges and eliminate these design exceptions by raising and lengthening the overpass bridges.

The project would also widen the bridges at the Hawpond Road and SR 33 CONN interchanges from two lanes to four 12-foot travel lanes with a 20-foot raised median. This widening will be completed for safety, construction staging purposes, and capacity, based on a case by case analysis of the interchanges. The logical termini at these interchanges extend through the ramps and surface streets adjacent to I-75. The 4-lane section will facilitate the introduction of turn lanes onto ramps and surface streets, improving safety. Hawpond Road and SR 33 CONN cannot be closed to traffic during construction, therefore the 4-lane sections are being used to allow construction staging to maintain traffic at all times during construction. The new travel lanes will be constructed while the existing lanes remain open to traffic. Once the new travel lanes are constructed, the existing bridge would be removed and reconstructed, with traffic being maintained on the newly constructed lanes.

**Project location:**

This project is located in northern Turner County and southern Crisp County, beginning just north of SR 159 in Turner County and ending just south of SR 300 in Crisp County. The project will be constructed in two phases. Project length is approximately 14.5 miles.

MILE POINT REFERENCE: BEGIN 11.3 (Turner Co.) END 9.1 (Crisp Co.)

**Description of the approved concept:**

Phase I: Consists of widening the existing four lane mainline of I-75 to six lanes.

Phase 2: Consists of the reconstruction of the interchange at CR 357-Hawpond Road, Exit 92 (formerly Exit 30), with a diamond interchange, and SR 33 CONN-Rockhouse Road, Exit 97 (formerly Exit 31), with a diamond interchange. These interchanges will be designed to accommodate a future 8 lane typical section for I-75. The cross roads will be widened to four lanes at the interchange.

**PDP Classification:** Major X (Phase 2) Minor X (Phase I)

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

**Functional Classification:** Rural Interstate – Phase I

**U. S. Route Number(s):** I-75 **State Route Number(s):** SR 401

**Traffic (AADT) as shown in the approved concept:**

TRAFFIC			
BASE		PROJECTED	
<u>YEAR</u>	<u>AADT</u>	<u>YEAR</u>	<u>AADT</u>
2002	41,000	2022	63,000

**Proposed features to be revised:**

- **Typical Sections:**

The typical section of the bridge on Hawpond Road (CR 357) will be modified from a 4' flush median to a 20' raised median.

- **Right-of-Way Limits:**

Floyd Road, Allen Road and Olivia Drive have been realigned changing the right of way limits.

- **Access Control:**

Floyd Road (CR 194) has been realigned to provide 1000' of access control and Olivia Drive has been realigned to increase the limits of access control.

- **Accident History:**

ACCIDENT HISTORY (Side Streets)			
<u>YEAR</u>	<u>Accident Rate</u>	<u>Injury Rate</u>	<u>Fatality Rate</u>
2001	61 (65)	24 (19)	1.55 (1.20)
2002	68 (73)	19 (21)	1.01 (1.02)
2003	45 (74)	12 (21)	0.89 (0.91)

**Notes:**

1. All rates are per 100 million vehicle miles of travel. Numbers in parentheses are statewide average rates for rural interstates.
2. SR 33 CONN experienced 2 collisions with 2 injuries. One collision occurred at a ramp terminal.
3. CR 357 experienced 2 collisions with zero injuries. One collision occurred at a ramp terminal.

**Revised Features to be approved:**

- **Revised Typical Sections:**

The typical section at Hawpond Road (CR 357) is proposed to be widened from four 12' lanes, a 4' flush median, and 4' paved shoulders to four 12' lanes, a 20' raised median and 4' paved shoulders. This is proposed to allow for adequate turn lane width (12' instead of 4') per AASHTO and GDOT criteria and storage length for turn lanes and tapers based on GDOT construction detail M-3.

Reconstruction at overpass bridges at CR 251 – Wardlow Road, CR 159 – Alberson Road, CR 116 – Bedgood Road, CR 117 – Musselwhite Road, CR 355 – Old Hatley Road, Olivia Drive, CR 193 - Allen Road, CR 194 – Floyd Road, CR 112- Arms Road, and CR 152 – Rock Road. These typical sections consist of two 12' lanes (one in each direction) with 2' paved shoulders.

- **Revised Right-of-Way Limits:**

Floyd Road, Allen Road and Olivia Drive have been realigned changing the right of way limits. These changes affect the analyses of natural, social, and cultural resources associated with this project. These resources include existing wetland areas, floodplains, parks and recreational facilities, known or suspected historical and archaeological sites, rights-of-way, possible UST/landfill/hazardous waste sites, areas of possible endangered species habitat, residential areas, churches, cemeteries, schools, hospitals and any other identified sensitive sites. Any unavoidable impacts to environmental resources will be subject to mitigation requirements

- **Revised due to Access Control:**

Access control was not mentioned in the original approved concept report or plans. GDOT policy requires the minimum distance for access control be 300 feet. The desirable distance preferred for access control is 1000 feet in rural areas. Access control is measured from the intersection of the ramp centerline with the crossroad centerline. Floyd Road has been shifted in attempt to meet the desirable 1000' access control criteria. This shift will cause additional right of way impacts, but no additional displacements. By shifting Floyd Road, SR 33CONN/Rockhouse Road will meet the desirable distance for Access Control on the east side of the interchange.

Olivia Drive has been shifted in attempt to maximize the amount of access control east of the Hawpond Road interchange. It will cause additional right of way impacts, but no additional displacements.

**Additional features for Phase 2 not included in the original approved concept:**

**Revised Project Description for Phase 2:**

Phase 2 Consists of the reconstruction of the interchange at CR 357-Hawpond Road (Exit 92) with a diamond interchange, and SR 33 CONN-Rockhouse Road (Exit 97) with a diamond interchange. These interchanges will be designed to accommodate a future 8 lane typical section for I-75. These cross roads will be widened to four lanes with a 20' raised median at the interchange.

In addition to the two interchanges there are five bridge overpasses which will be replaced. They are located at:

- Wardlow Road (CR251)
- Alberson Road (CR159)
- Bedgood Road (CR 116)
- Musselwhite Road (CR 117) and
- Old Hatley Road (CR 355).

These crossroads will remain one lane in each direction, but with widened shoulders and current bridge side barriers.

**Revised Project Information:**

Phase 2:  
Project Number NHS-0000-00(805)  
P.I. No. 0000805  
Turner/Crisp Counties

**Revised Functional Classification:**

<b>FUNCTIONAL CLASSIFICATION</b>	
Phase 2	
Wardlow Road (CR 251)–	Rural Local Road
Alberson Road (CR 159)–	Rural Local Road
Hawpond Road (CR 357) –	Rural Major Collector
Bedgood Road (CR 116) –	Rural Local Road
Musselwhite Road (CR 117) –	Rural Local Road
SR 33 CONN/Rockhouse Road –	Rural Major Collector
Old Hatley Road (CR 355)–	Urban Local Road

**Revised Federal Oversight (Phase 2):** Full Oversight (X), Exempt( ), State Funded( ), or Other( )

**Required Design Variance for sub standard median opening spacing:**

- The proposed median opening at Reynolds Road on Hawpond Road (CR 357) causes the median on Hawpond Road, from the ramp centerline to Reynolds Road to be 470' in length. This is less than the GDOT required minimum of 660' between median openings for urban roads and a design variance will be requested.
- On SR 33 Conn/Rockhouse Road it is being proposed to end the raised median at the existing driveway to the commercial property owned by Carroll Pitts, leave an opening and continue the median using a striped island. The median spacing along SR33 Conn/Rockhouse Road from the intersection of Allen Road west to this opening is only 400', which is less than the minimum 660' required for urban roads. A design variance will be requested.

**Required Design Variance for sub standard storage lengths/turn lanes:**

- The left turn lane from Hawpond Road to Reynolds Road is only 100' combined storage and deceleration. This short turn bay allows the proposed improvements to tie in prior to the intersection with Campsite Road, thus leaving the intersection open. The short turn lanes are adequate for projected turning traffic at peak hours. A design variance will be requested.

**Updated traffic data (AADT):**

<b>TRAFFIC</b>			
<b>BASE</b>		<b>PROJECTED</b>	
<u>YEAR</u>	<u>AADT</u>	<u>YEAR</u>	<u>AADT</u>

TRAFFIC				
I-75	2012	45,200	2032	67,200
Hawpond Road / CR 357	2012	800	2032	1,175
SR 33 CONN /Rockhouse Rd	2012	1,250	2032	1,850

**Programmed/Schedule:**

P.E.: 2005      R/W: 2006      Construction: 2008

**Revised Cost Estimate:**

ESTIMATED COST - PHASE 2			
CONSTRUCTION:	\$30,917,049	RIGHT-OF-WAY:	\$8,907,500
E & C (10%) :	\$3,579,035	ACQUIRED BY :	GDOT
INFLATION :	\$4,873,300	UTILITIES :	\$237,000
		ADJUSTED BY :	GDOT
TOTAL PROJECT COST:	\$48,513,884		

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

**Recommendation:** It is recommended that these proposed changes to the concept be approved for implementation. These proposed changes require several variances for access control, median openings and storage lengths. For detail see the Design Variance Report for this project.

**Attachments:**

1. Sketch Map
2. Need and Purpose
3. Detailed Cost Estimate
4. Capacity Analysis
5. Typical Sections

Concur:   
Director of Preconstruction

Approve:   
For: Division Administrator, FHWA

Approve:   
Chief Engineer