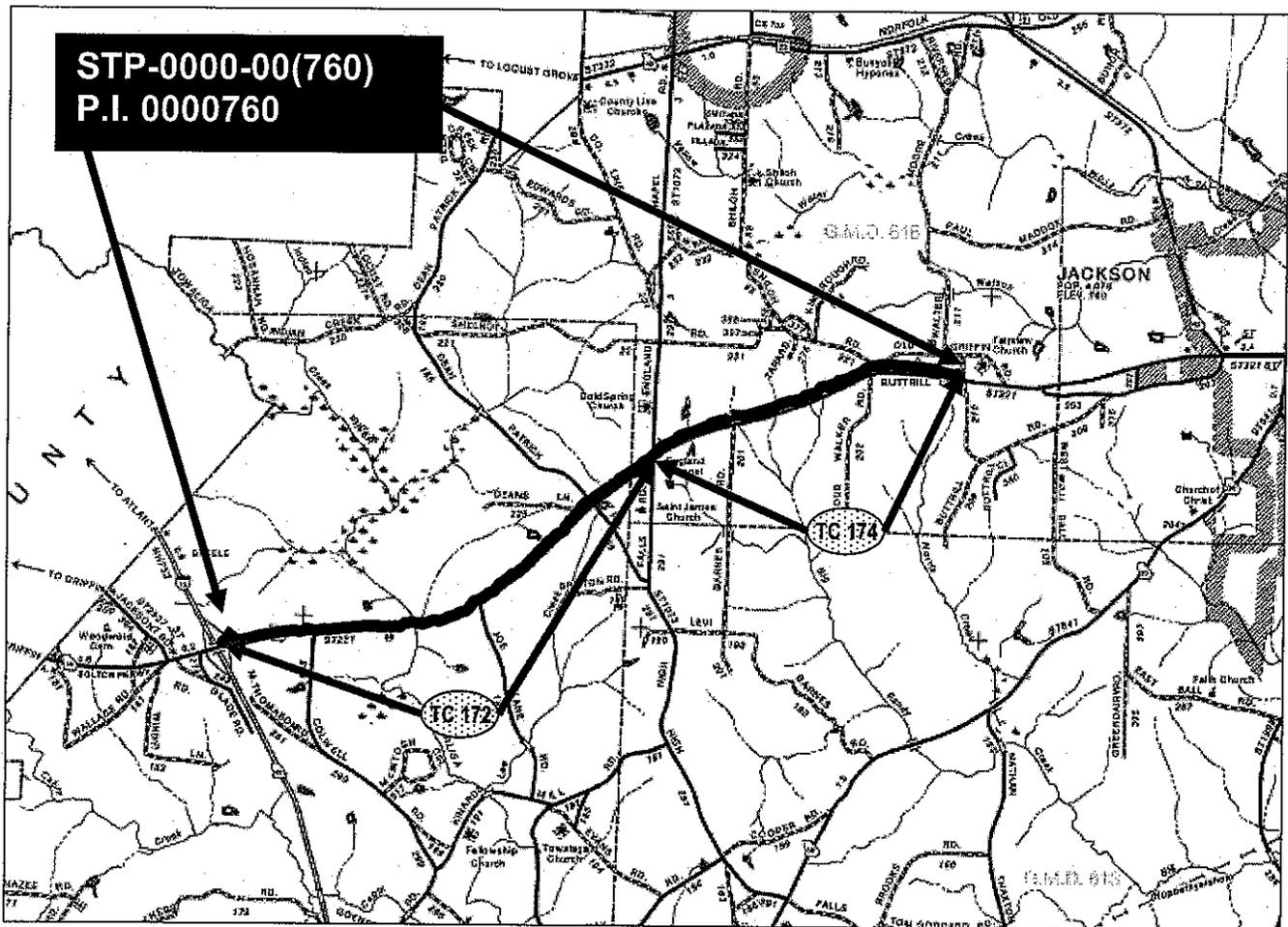


Need and Purpose

STP-0000-00(760), Butts County
P.I. 0000760

State Route 16 Widening From I-75 to Bert Road



Project Background

At the request of Butts County Officials, a study was undertaken in 1999 to determine the feasibility of widening SR 16 from 2 to 4 lanes from the interchange at I-75 to the intersecting point with the Jackson South Bypass (identified also as Bert Road). As a result of the study, Project STP-0000-00(760), Butts County, P.I. 0000760, was identified as necessary and programmed to address regional east-west connectivity to I-75. This project connects the City of Jackson in Butts County to I-75. The length of the project is approximately 5.75 miles.

Proposed Improvements

The project scope consists of widening the facility to four lanes.. The lanes are proposed to be 12', with 10' outside shoulders, 6' of which will be paved, and 6' inside shoulders, 2' of which will be

paved. Median openings will be provided at various intersecting roads. A traffic signal is proposed for High Falls Road.

Facility Overview

Roughly paralleling I-20, SR 16 traverses the state west to east through nine counties beginning at Interstate 20 in Haralson County extending through Butts County and ending in the City of Warrenton in Warren County. The segment proposed for construction in Butts County is classified as a Rural Minor Arterial. It is a two lane facility consisting of 12’ wide lanes with 6’ grass shoulders on rolling, predominately straight, terrain with approximately 30% no passing zones. It is not listed on the National Highway System (NHS) list of major corridors, nor is it assigned as an approved bicycle route for the county. It is a designated school bus route with an estimated 15% truck traffic on the facility.

Project Termini

The project starts at a point immediately east of the interchange at I-75 where project IM-0000-00(523) ends. IM-0000-00(523) addresses the interchange improvements and the commercial area immediately adjacent to the interchange. The SR 16 widening project’s eastern terminus is approximately 5.75 miles to the east, connecting SR 16 to the Jackson South Bypass at Bert Road, and also addresses intersection improvements at that location.

Operational Analysis Data

Traffic Count and Projections

TC Station 172 (Mile log 1.42 to 4.75)	2001 AADT	2010 AADT	2025 AADT
	6950	8890	12860

TC Station 174 (Mile log 4.75 to 7.16)	2001 AADT	2010 AADT	2025 AADT
	6470	8280	11970

Level-of-Service

Level-of-Service is defined as a qualitative measure describing operational conditions within a traffic stream. There are six identified Levels of Service under which a roadway can operate. A designated letter, A through F, identifies each of the six. Level of Service “A” represents the best operating conditions and Level of Service “F” the worst. For example, Level of Service “A” represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. The general level of comfort and convenience provided to the motorist is excellent. Level of Service “C” marks the beginning of a range of flow in which the operation of the individual users becomes significantly affected by interactions with others in the traffic stream. The general level of comfort declines noticeably at this level. Level of Service “E” represents operating conditions at or near capacity. All speeds are reduced to a low, but relatively uniform value. Comfort and convenience levels are extremely poor. Level of Service “F” represents heavily congested flow with traffic demands exceeding capacity. Volumes are lower than capacity and speeds are below capacity speed.

For the 3.33 mile segment calculated in TC Station #172, year 2001 LOS was shown to be level “D.” By year 2010 the projected LOS is expected to be “E.” For the 2.41 segment calculated in TC Station

#174 year 2001 LOS was shown to be "C." By year 2010 the projected LOS is expected to be "D." Widening the facility would provide a LOS of "B" for both segments to year 2025.

Accident Data

1998, 2000, & 2001 Accident Data

(1998 only 62% complete; Accident data not available for 1999 or 2002)

Beginning at MP 1.42 to MP 7.16

TYPE	Angle/ Intersect	Rear End	Side Swipe	Head on	Collisions not with a Vehicle	Total
1998	0	0	0	0	2	2
2000	4	6	0	0	7	17
2001	2	7	1	0	10	20
TOTAL	6	13	1	0	19	39

Number of Injuries: 27	Number of Fatalities: 0
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The latest statewide averages are for year 1995-1998, and year 2001; years 1999, 2000 are not available. Because the 1998 accident data is only 62% complete, for the purpose of this study we have made comparisons only for the complete and available year - 2001. The 2001 statewide average for a Rural Minor Arterial of this type is 186 for 100 MVMT. With 20 accidents recorded in 2001 for this facility the average is 137 for 100 MVMT which is 26.4% below the statewide average of 186.

The growing number of locations having accidents along the 5.75 mile length of roadway, together with the increase in number of rear end accidents and accidents that do not involve another vehicle is indication the facility is undergoing changes affecting the safety of drivers and serviceability to the community. The 1998 through 2001 data reflects an increasing number of accidents throughout the corridor and not just at intersecting roads. The improvements are proposed to bring this facility up to current AASHTO design standards and will provide for an enhanced level of comfort on a corridor where visibility is limited, traffic is increasing, and safety is decreasing.

Programmed Projects in the Area

Project	Description	Comments
0000523	Interchange Reconstruction/Rehabilitation I-75 at SR 16/ARTHUR BOLTON PKWY	Scheduled Let Date June/2005
332520	Widening SR 16/ARTHUR BOLTON PKWY FM REHOBOTH RD/SPALDING TOI-75/BUTT	Scheduled Let Date December/2004
343440	JACKSON SOUTH BYPASS FM SR 16 @ BERT RD TO SR 16 @ BIBB STA	Scheduled Let Date February/2008

Community Characteristics

The census demographic characteristics gathered from 7 census tracts along the project corridor in Butts County indicate a population of 6253 people of which 4660 are white, 1145 African American,

62 American Indian, 16 Asian, 13 of some other race alone, 238 of two races or more, and 119 of Hispanic or Latino origin. Income by race is shown in the following table:

Project Area Economic Indicators	White	African American	American Indian	Asian	Some other race alone	Two or More Races	Hispanic or Latino	TOTALS
Less than \$10,000	245	103	31	8	9	119	62	577
\$10,000 to \$24,999	632	207	4	0	4	15	6	868
\$25,000 to \$44,999	1540	465	18	8	0	46	15	2092
\$45,000 to \$74,999	1330	217	5	0	0	45	20	1617
\$75,000 to \$124,999	738	97	0	0	0	0	5	840
\$125,000 to \$199,999	146	45	0	0	0	0	0	191
\$200,000 or more	29	11	4	0	0	13	11	68
Totals	4660	1145	62	16	13	238	119	6253

This statistical information indicates these factors would not influence the proposed project.

Statement of Need and Purpose

The number of accidents occurring on this facility in Butts County is increasing along with the increasing traffic volumes, particularly rear-end type accidents. Additionally, year 2000 Census data indicates a significant number of Butts County residents travel to neighboring counties to work. It is shown that of the 4362 residents that work outside the county, 1423 travel to Henry County, 728 to Fulton, 605 to Clayton, 443 to Spalding, 284 to DeKalb, with the balance of the 879 workers traveling to various other North Georgia and Metro Atlanta counties. SR 16 provides the most direct connection to access Interstate 75 for area residents to reach these counties where they are employed. The data shows a need to construct a facility which provides for a greater level of comfort and greater safety. Constructing a new facility at a time when problems are beginning to appear on the existing facility is prudent in accident prevention and cost management. Providing additional lanes and median openings for vehicles to make left turns should prevent accidents caused by traffic being stopped in the thru lanes. Creating a parkway type facility with wide paved shoulders and dedicated right hand turn lanes should prevent abrupt stops at busy cross roads and drives. Upgrading and making intersection improvements should improve the safety and flow of traffic. The above defined improvements are necessary and recommended on SR16 to prevent accidents, improve safety, serve the travel demands of the area, and enhance serviceability and mobility for local and thru traffic.