

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-0003-00(904) Bleckley County  
P.I. No.: 0003904  
SR 87/US 23 @ SR 26  
Safety/Intersection Improvements

OFFICE: Traffic Operations  
Atlanta, Georgia  
DATE: December 19, 2001

FROM: Phillip M. Allen, State Traffic Safety & Design Engineer

TO: Mike Thomas, District Engineer, Tennille  
Attn: David Griffith

SUBJECT: APPROVED CONCEPT REPORT

Attached is a copy of the approved concept report on the above listed project for your use and further handling.

This project consists of 6 ft. symmetrical widening of SR 26 to provide for left turn lanes in each direction. SR 87 will be widened 6 ft. symmetrically to provide left turn lanes in each direction. A stop and go traffic signal is warranted.

By copy of this letter, this office is requesting for this project be assigned to Chuck Hasty as Project Manager. The design of this project will be handled under our Consultant Design Contract, STP-0001-00(853).

Should you have any questions, please contact Ken Werho of this office at 404-635-8144.

PMA:KPW:KMS

Attachments

cc: Frank Danchetz  
Tom Turner, w/attach.  
David Mulling, w/attach.  
Wayne Hutto, w/attach.  
Herman Griffin, w/attach.  
Harvey Keepler, w/attach.  
Roger Price, w/attach.  
General Files

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

PROJECT CONCEPT REPORT

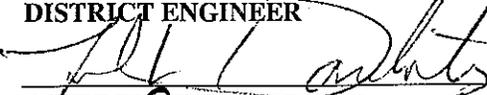
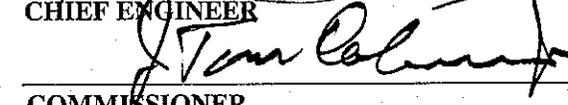
BLECKLEY COUNTY

STP-0003-00(904)

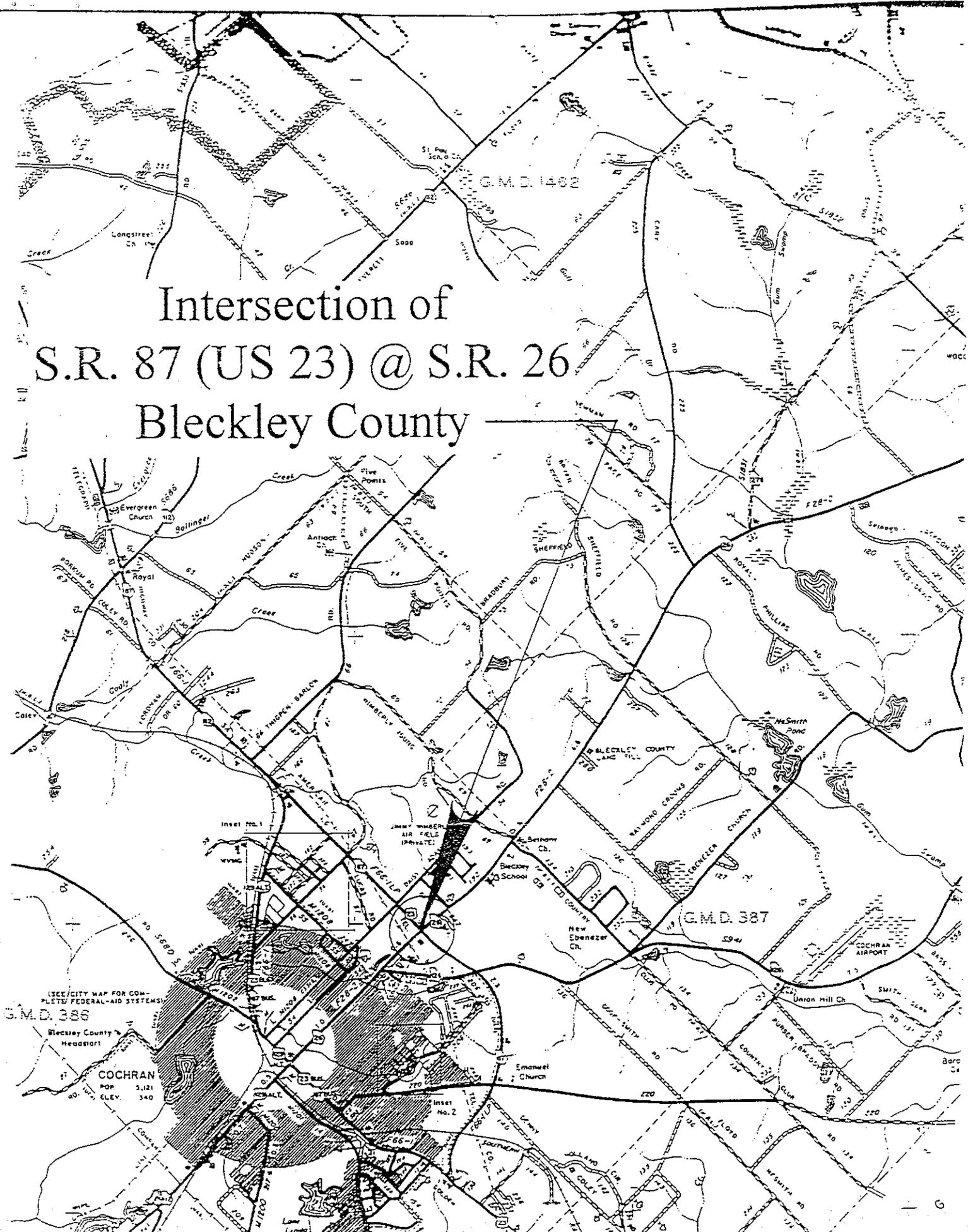
FEDERAL ROUTE NO: 23  
STATE ROUTE NO: 26 & 87  
GADOT P.I. NO: 0003904

SEE ATTACHED  
LOCATION SKETCH

Date of Report: August 29, 2001

RECOMMENDED:	<u>08/31/01</u>	DATE		STATE TRAFFIC OPERATIONS ENGINEER
RECOMMENDED:	<u>9-17-01</u>	DATE		DISTRICT ENGINEER
RECOMMENDED:	<u>9/28/01</u>	DATE		CHIEF ENGINEER
APPROVED:		DATE		COMMISSIONER

Intersection of  
S.R. 87 (US 23) @ S.R. 26  
Bleckley County



(SEE CITY MAP FOR COMPLETE FEDERAL-AID SYSTEMS)  
G.M.D. 386

Bleckley County  
Headstart

**COCHRAN**  
POP. 5,121  
ELEV. 340

Inset No. 2

G.M.D. 387

**PROJECT CONCEPT REPORT**

**P.I. No.:** 0003904

**Project No.:** STP-0003-00(904)      Bleckley County

**Route No.:** SR 26  
SR 87/US 23 – Cochran Bypass

**Location:** The intersection of SR 26 @ SR 87 is located approximately 0.54 miles north of the City Limits of Cochran and 11.82 miles south of the Laurens County Line in Bleckley County.

**Description:** SR 26 will be widened 6 feet symmetrically to provide a left turn lane in both directions with additional 12 foot right turn lanes. SR 87 will be widened 6 feet symmetrically in both directions to provide left turn lanes with additional 12 foot right turn lanes.

**Traffic -- Current ADT:** SR 26 ----- 4,600 (1998 ADT)  
SR 87 ----- 5,700 (1998 ADT)

**Existing Typical:** SR 26: 2 – 11.5 ft travel lanes, one in each direction, with 2 ft paved, 6 ft grassed shoulders.

SR 87: 2 –12 ft. travel lanes, one in each direction, with 8 ft grassed shoulders.

**Existing Right of Way:** SR 26 ----- 80 ft (Estimated)  
SR 87 ----- 130 ft (Estimated)

**Existing Traffic Control:** This intersection is a four way stop with double indicated red flashing beacon. Each approach is controlled by double indicated stop ahead and stop signs with 4-way stop plates.

**Existing Major Structures:** None.

**Statement of Need & Purpose:** Accident history for this intersection shows only five accidents over a three year period. All of the accidents were angle intersecting. There were no accidents recorded for 1998. This project qualifies for Safety Funds per the Benefit Cost Analysis. With the increase of traffic volumes on the Bypass and the close proximity of three Bleckley County Schools to the intersection these improvements are warranted. To improve the safety and orderly progression of traffic through the intersection, these improvements are recommended.

**Length:** 0.49 miles

<b><u>Termini:</u></b>	<b>- SR 26 -</b>	<b>- SR 87 -</b>
<b><u>From M.P.:</u></b>	6.81	6.52
<b><u>To M.P. :</u></b>	7.05	6.76

**PDP Class:** Minor Existing

**Functional Class:** SR 26 ----- Rural Minor Arterial  
SR 87 ----- Rural Minor Arterial

**Max Degree of Curve:** +/- 0.0 Degrees      **Max Grades:** +/- 1.0 %

**Design Speed:** 55 mph

**Proposed Typical Section:** SR 26: 2 – 12 ft travel lanes, one in each direction, with a 12 ft left turn lane in both directions with 12 ft right turn lanes. Shoulders will be 10 ft, 2 ft paved & 8 ft grassed.

SR 87: 2 – 12 ft travel lanes, one in each direction, with a 12 ft left turn lane in both directions with 12 ft right turn lanes. Shoulders will be 10 ft, 2 ft paved & 8 ft grassed.

**Proposed major structures:** None.

**Type Access:** By Permit.

**Traffic Control During Construction:** Existing operation shall be maintained during construction.

**Right-of-Way Requirement:** Georgia Department of Transportation shall be responsible for the acquisition of all Required Right-of-Way for this project.

**Utilities:** Georgia Department of Transportation shall be responsible for all Utility adjustments.

**Estimated Cost:**

<b><u>Item</u></b>	<b><u>Total Amount</u></b>
R/W -----	\$ 139,000 (By GDOT)
Utilities -----	\$ 0 (By GDOT)
Estimated LGPA Total -----	\$ 139,000
Construction -----	\$ 223,212
Traffic Signal -----	\$ 50,000
Railroad Equipment -----	\$ 0
E & C 10% -----	\$ 27,321
Total Construction -----	\$ 300,533

**Permits Required:** Traffic Signal.

**Level of Environmental Analysis:** Categorical Exclusion.

**Level of Public Involvement:** None.

**Time Saving Procedures Appropriate:** Yes (X) No ( )

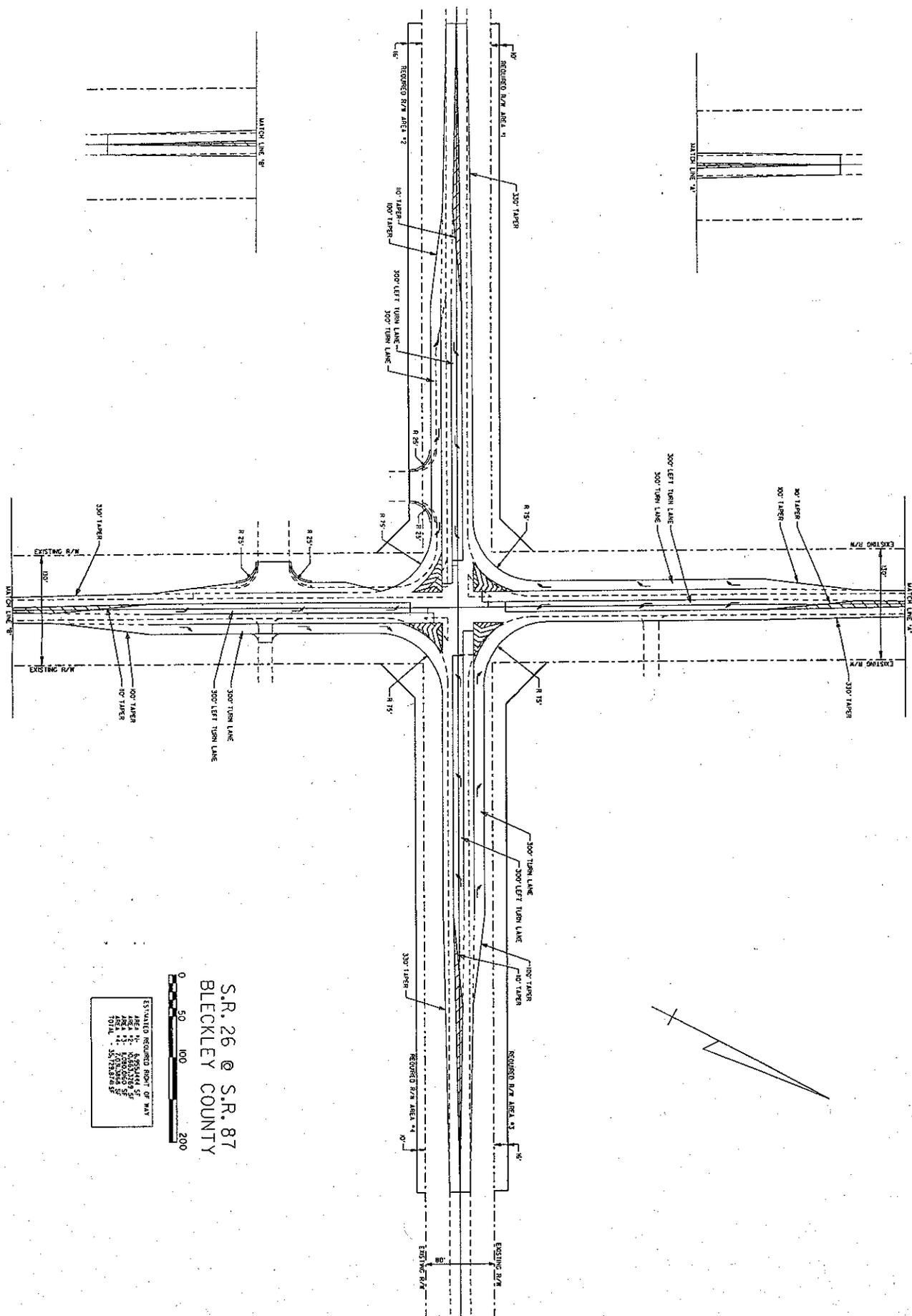
**Design Variances Required:** None.

**Alternatives Considered:** None.

**Comments:**

**Prepared By:**

**Ken Werho**



S.R. 26 @ S.R. 87  
BLECKLEY COUNTY

ESTABLISHED REQUIRED RIGHT OF WAY  
AREA #1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100



# Georgia Department of Transportation

## TRAFFIC ENGINEERING REPORT

May 5, 2000

**LOCATION:** State Route 26 at State Route 87

**COUNTY:** Bleckley

**CITY:** N/A

**REQUESTED BY:** Bayne Smith, Assistant State Traffic Operations Engineer

**REASON FOR INVESTIGATION:** To determine if a stop and go traffic signal is warranted and if improvements in lane geometry are needed

**MILEPOST** 6.93 (State Route 26)

### FINDINGS

#### TOPOGRAPHY

The intersection of State Route 26 and State Route 87 is a typical cross type intersection that is located near the city of Cochran in Bleckley County. The northeast quadrant contains a residency and used cars posted for sale and the southwest quadrant contains a convenience store. The northwest and southeast quadrants are vacant. Bleckley County Elementary school is located approximately 1800 feet east of the intersection. Bleckley County Middle School is approximately 5000 feet east of the intersection. Bleckley County High School is approximately 4000 feet west of the intersection.

State Route 26 is an east/west route, designated as a rural minor arterial, that runs from Cochran to I-16 and the city of Dudley in Laurens County. State Route 26 is a two-lane section of roadway with 11.5-foot travel lanes. The route has 6-foot grass shoulders and 2-foot paved shoulders and is designated as a STAA truck route with a truck percentage of 15.1% as provided in road inventory. The west approach of State Route 26 has an 11-foot right turn lane. State Route 87 is a north/south route, designated as a rural minor arterial, that runs from the city of Eastman in Dodge County to the city of Tannersville in Twiggs County. State Route 87 is the Cochran Bypass. State Route 87 at this location is a two-lane section of roadway with 12-foot travel lanes. The route has 8-foot grass shoulders and is

designated as a STAA truck route with a truck percentage of 15.1% as provided in road inventory. The receiving lane of the south approach (SR 87 southbound) has a right turn/merge lane for access into/out of the Chevron station. Each approach at the intersection is relatively flat.

Sight distances are as follows:

- North approach – 1000 feet +
- South approach – 1000 feet +
- East approach – 1000 feet +
- West approach – approximately 800 feet

A location map and a concept plan for this intersection are enclosed.

**EXISTING TRAFFIC CONTROL**

This intersection is a four-way stop with a double indicated red flashing beacon (Permit Number F-14-385/Signal Inventory Number 0001082). Each approach is controlled by double indicated stop ahead and stop signs with 4-way stop plates. The north, south and west approaches have right turn channeling islands with yield signs. The north and west approach islands have Type 10 RPMs. The west approach island has a “Do not Enter” sign for opposing traffic from the south approach.

“No Parking” signs are present on each approach. The north and west approaches have double yellow centerline markings. Delineator posts are placed on both sides of the south approach near the intersection. Signage and centerline marking are shown in the enclosed diagram.

**VEHICULAR VOLUME**

<i>APPROACH</i>	<i>PEAK HOUR (4:30 – 5:30 P.M.)</i>	<i>ONE HOUR (7:15 – 8:15 A.M.)</i>	<i>24-Hour</i>
<i>NORTHBOUND</i>	143	197	2,394
<i>SOUTHBOUND</i>	309	169	3,438
<i>EASTBOUND</i>	263	149	2,864
<i>WESTBOUND</i>	194	171	2,614
<i>TOTAL</i>	909	686	11,310

**VEHICULAR SPEED**

The speed limit is 55 mph on both approaches of SR 87. The speed limit for SR 26 eastbound is 45 mph increasing to 55 mph upon leaving the intersection. A 45-mph school zone begins approximately 950 feet east of the intersection. School zone speeds are effective 7:30 – 8:30 A.M. and 3:00 – 3:45 P.M.

### PEDESTRIAN MOVEMENTS

No pedestrians were observed during on-site investigation and traffic counting, even during school dismissal. Given the intersection's location and development around it, pedestrian movement is not normally expected.

### DELAY

A delay study has not been conducted at this time. However, field observations during peak times indicate that the average delay per vehicle is greater than would be experienced if a stop and go signal were controlling the intersection.

### PARKING

"No Parking" signs exist at each approach. Given the intersection's location and surrounding development, on-street parking is not normally expected.

### ACCIDENT HISTORY

No accidents are reported during the period June 8, 1998 through June 9, 1999. According to the Traffic Operations database, five accidents occurred during the three-year period from 1995 to 1998. Each of these accidents were angle intersecting and of the type susceptible to correction by traffic signal control. A copy of the accident records is enclosed.

### ADJACENT SIGNALIZED INTERSECTION

There are no signalized intersections within one-half mile of this intersection. The intersection of SR 87 and SR 126 is located 0.54 miles south of this intersection and has a flashing beacon.

### INTERSECTION HISTORY

On March 6, 1985 a flashing beacon with dimmer switch was installed at the intersection. The southern leg of the intersection was opened on April 23, 1985, forming the Cochran Bypass. On May 13, 1986 four-way stop control was established at the intersection.

### OTHER INFORMATION

Both SR 26 and SR 87 are designated STAA highways and truck volume percentages are quite high for each approach of their intersection. Since SR 26 and SR 87 have comparable volumes, the turning movement volumes at each approach are considerable.

SR 87 is planned for widening to four lanes south and north of the SR 87 Bypass. The new alignment will tie into the Bypass at the existing locations. Twenty-four hour counts for SR 87 as shown above are 2,394 and 3,438 for the northbound and southbound approaches, respectively. According to AADT estimates provided for the SR 87 widening project MLP-87(44), traffic volumes on SR 87 are expected to increase 56% by 2017.

WARRANT ANALYSIS

For warrant analysis, State Route 87 is designated as the main street and State Route 26 as the side street. Two of the traffic signal warrants are met:

- Warrant 9 – Four Hour Volume Warrant
- Warrant 11 – Peak Hour Volume

Warrant 1 (minimum vehicular volume) and warrant 10 (peak hour delay) are currently not met, but are expected to be satisfied as traffic volumes increase to the estimated 2017 levels.

Traffic counts are evaluated for left turn signal warrants. Left turn and opposing volumes are below those for which left turn signals are warranted.

A copy of the signal warrant analysis is attached.

CONCLUSION

A stop and go signal is warranted based on traffic volumes. Because of the high percentage of turning movements, improvements in lane geometry would improve the operational efficiency of the intersection.

RECOMMENDATIONS

1. A stop and go traffic signal should be installed at this intersection.
2. In addition to the existing right turn lane in the west approach, left turn and right turn lanes should be installed at each approach as shown in the enclosed drawing.
3. Right turn channelization should be installed at each approach. The channel islands should be marked with thermoplastic traffic striping. Yield signs should be installed for each right turn lane.

SIGNATURES

PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
*BRET GILLIS*

RECOMMENDED: \_\_\_\_\_ DATE: \_\_\_\_\_  
*DISTRICT TRAFFIC ENGINEER*

RECOMMENDED: \_\_\_\_\_ DATE: \_\_\_\_\_  
*STATE TRAFFIC ENGINEER*

RECOMMENDED: \_\_\_\_\_ DATE: \_\_\_\_\_  
*DIRECTOR OF OPERATIONS*