

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-3230-00(750) Henry County
P.I. No.: 323075
SR 138 @ SR 155
Safety/Intersection Improvements

OFFICE: Traffic Safety and Design
Atlanta, Georgia
DATE: February 5, 2002

FROM: *KMS* Phillip M. Allen, State Traffic Safety and Design Engineer

TO: Glenn Durrence, District Engineer, Thomaston
Attn: David Millen

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 widening SR 138 12 ft. on the eastbound approach to provide for a left turn lane, with a 12 ft. auxiliary right turn lane on the westbound approach. SR 155 will be widened 24 ft. on the north and southbound approach to provide for a left and right turn lanes. 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.
Keith Rohling, w/attach.
General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

HENRY COUNTY

STP-3230-00(750)

FEDERAL ROUTE NO:
STATE ROUTE NO: 138, 155
GADOT P.I. NO: 323075

SEE ATTACHED
LOCATION SKETCH

Date of Report: October 31, 2001

RECOMMENDED:	<u>11/19/01</u>	<u>Phillip M. Allen</u>
	DATE	STATE TRAFFIC SAFETY AND DESIGN ENGINEER
RECOMMENDED:	<u>12-10-01</u>	<u>John W. Duran</u>
	DATE	DISTRICT ENGINEER
RECOMMENDED:	<u>12-27-01</u>	<u>Tom Ladd</u>
	DATE	CHIEF ENGINEER
APPROVED:	_____	<u>Tom Coleman</u>
	DATE	COMMISSIONER

PROJECT CONCEPT REPORT

P.I. No.: 323075

Project No.: STP-3230-00(750) Henry County

Route No.: SR 138 @ SR 155

Location: The intersection of SR 138 @ SR 155 is located approximately .21 miles west of Rockdale County line and 9.14 miles north of McDonough County line.

Description: SR 138: Installation of a stop and go traffic signal in conjunction with widening 24 ft. on the eastbound approach to provide for a left and right turn lane. Widening 24 ft. on the westbound approach to provide for a left and right turn lane.

SR 155: Widening 24 ft. on the northbound approach to provide for a right and left turn lane. Widening 24 ft. on the southbound approach to provide for a left and right turn lane.

<u>Traffic – Current ADT:</u>	SR 138	7,098 (1999 ADT)
	SR 155	5,018 (1999 ADT)

Existing Typical: SR 138: 2 – 12 ft. travel lanes, one in each direction, with a 2 ft. paved / 3 ft. grass shoulder.
SR 155: 2 – 10 ft. travel lanes, one in each direction, with a 2 ft. paved / 3 ft. grass shoulder.

<u>Existing Right of Way:</u>	SR 138 -----	80' (Estimated)
	SR 155 -----	100' (Estimated)

Existing Traffic Control: Both state routes are required to stop with double indicated stop and stop ahead signs exit on each approach, with a double indicated overhead flashing beacon.

Existing Major Structures: A 9 ft. x 9 ft. wing wall box culvert.

Statement of Need & Purpose: The purpose for this project is to improve the safety and operation of the intersection of SR 138 with SR 155 in Henry County. SR 138 is a major west/east route that runs from the city of Stockbridge east to the city of Conyers in Rockdale County. SR 155 is a major north/south route that runs from the city of McDonough north to the city of Decatur in Dekalb County. Both SR 138 and SR 155 are two lane roadways at their intersection with no turn lanes. Accident history for this intersection showed a total of three accidents at this location for the year 1999, where two of the three accidents were right angle type accidents with one side swipe. All three accidents were of the type susceptible to correction by a stop and go traffic signal. Due to the high traffic volumes, the intersection currently has a LOS "E" during AM peak hour and a LOS of "F" during the PM hour. It is therefore recommended installing right and left turn lanes on all four approaches to the intersection in conjunction with the installation of a stop and go traffic signal. The addition of turning lanes and stop and go traffic signal will improve the operational efficiency of the intersection, thereby improving the overall operation of traffic flow.

Bicycle & Pedestrian Considerations: None.

Length: .66 miles

Termini:	- SR 138 -	- SR 155 -
<u>From M.P.:</u>	10.33	18.72
<u>To M.P.:</u>	10.66	19.05

PDP Class: Minor Existing

Functional Class:	SR 138 -----	Urban Principal Arterial
	SR 155 -----	Rural Minor Arterial

Max Degree of Curve: +/- 3 Degrees

Max Grades: +/- 7 Degrees

Design Speed:	SR 138:	55 MPH
	SR 155:	55 MPH

Proposed Typical Section: SR 138: Adding 1- 12 ft. left and right turn lane in conjunction with a stop and go traffic signal. Guardrail is required only on the north side of the westbound approach.

SR 155: Adding 1- 12 ft. left and right turn lane for both approaches. Guardrail is required on both sides of the southern approach.

Proposed major structures: Retain existing. Remove wing wall and parapit, extend 20 ft. upstream and 5 ft. down stream replace wing wall and parapit.

Type Access: By Permit.

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

Right-of-Way Requirement: Henry County will be responsible in purchasing any right of way.

Utilities: None anticipated.

Estimated Cost:

<u>Item</u>	<u>Total Amount</u>	
	<u>FEDERAL/STATE</u>	<u>LOCAL</u>
R/W -----	\$ 387,000	
Utilities -----	\$ 80,000	
Estimated Total -----	\$ 467,000	
Construction -----	\$ 616,092.04	
Traffic Signal -----	\$ 75,000	
Railroad Equipment -----	\$ 0	
E & C 10% -----	\$ 69,109.20	
Total Construction -----	\$ 760,201.24	

Permits Required: Traffic Signal.

Level of Environmental Analysis: Categorical Exclusion.

Level of Public Involvement: None.

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

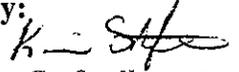
Design Variances Required: None.

October 31, 2001

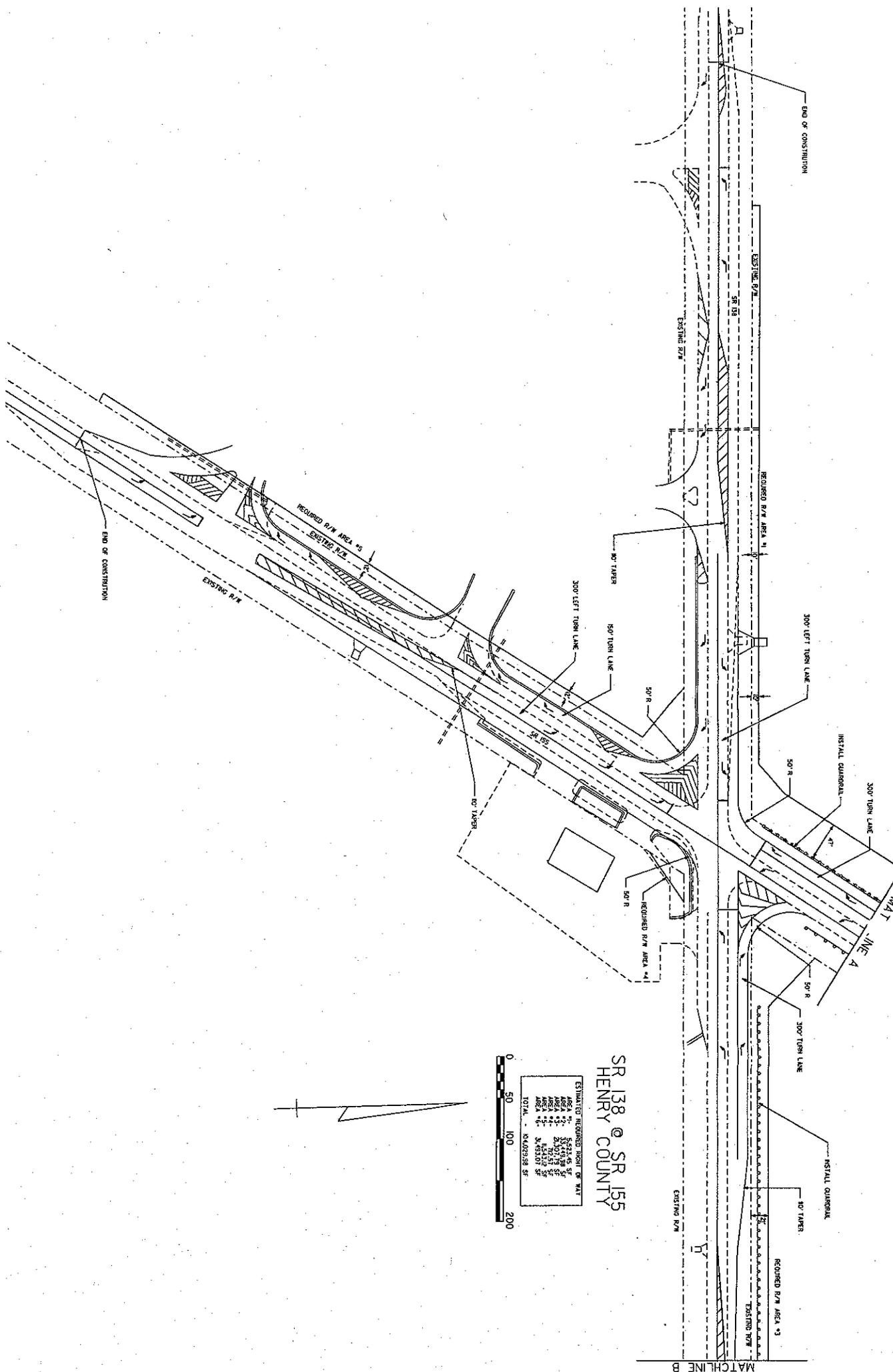
Alternates Considered: None.

Comments:

Prepared By:

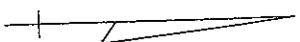


Kevin Stefanik



SR 138 @ SR 155
 HENRY COUNTY

ESTIMATED REQUIRED RIGHT OF WAY	
AREA #1	3,374,139 SF
AREA #2	3,374,139 SF
AREA #3	2,307,179 SF
AREA #4	3,374,139 SF
AREA #5	3,374,139 SF
TOTAL	16,428,735 SF

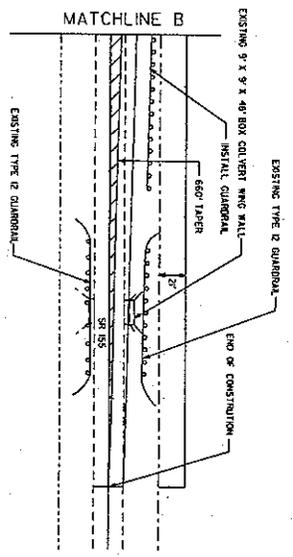
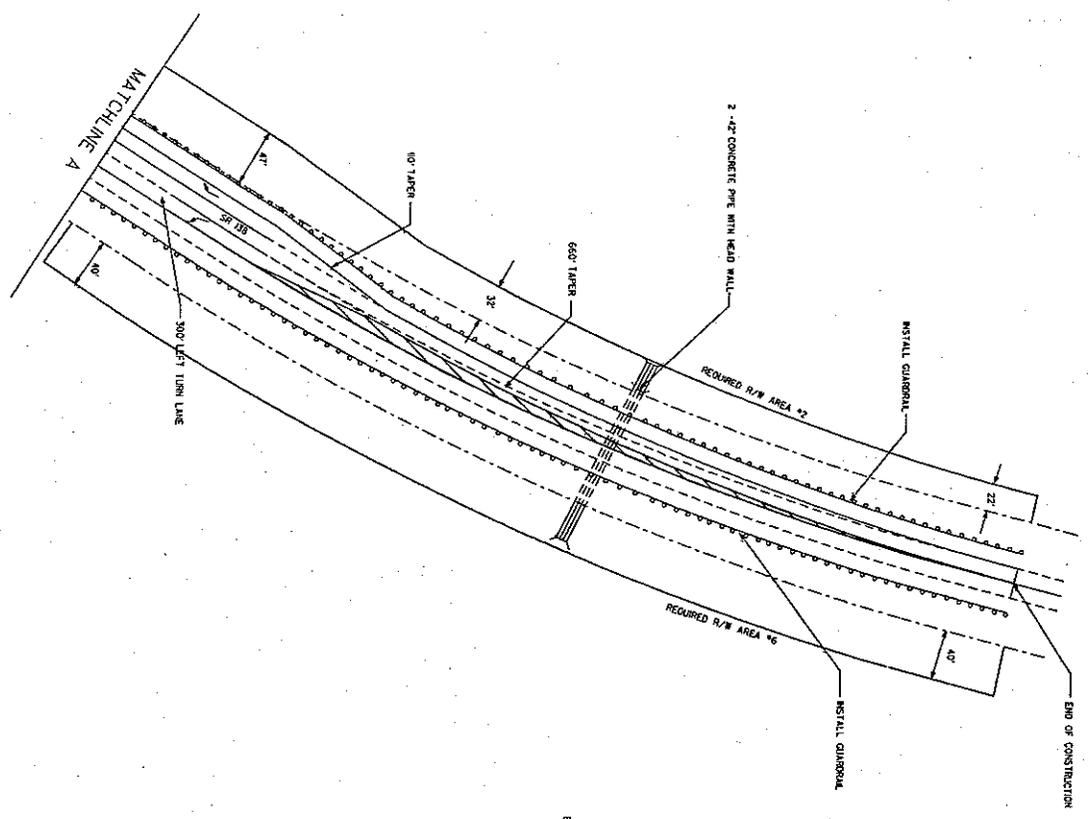
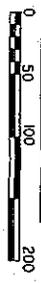


MATCHLINE B

SR 138 @ SR 155
HENRY COUNTY

ESTIMATED REQUIRED POINT OF VIEW

AREA # 1	150' x 100'
AREA # 2	200' x 100'
AREA # 3	100' x 100'
AREA # 4	100' x 100'
AREA # 5	100' x 100'
TOTAL	600,000 SQ FT



Ken Werho

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: State Route 138 & State Route 155
Henry County

OFFICE: Thomaston
District Three

DATE: 7-Jun-00

GWO

FROM: Glenn Durrence, P. E., District Engineer

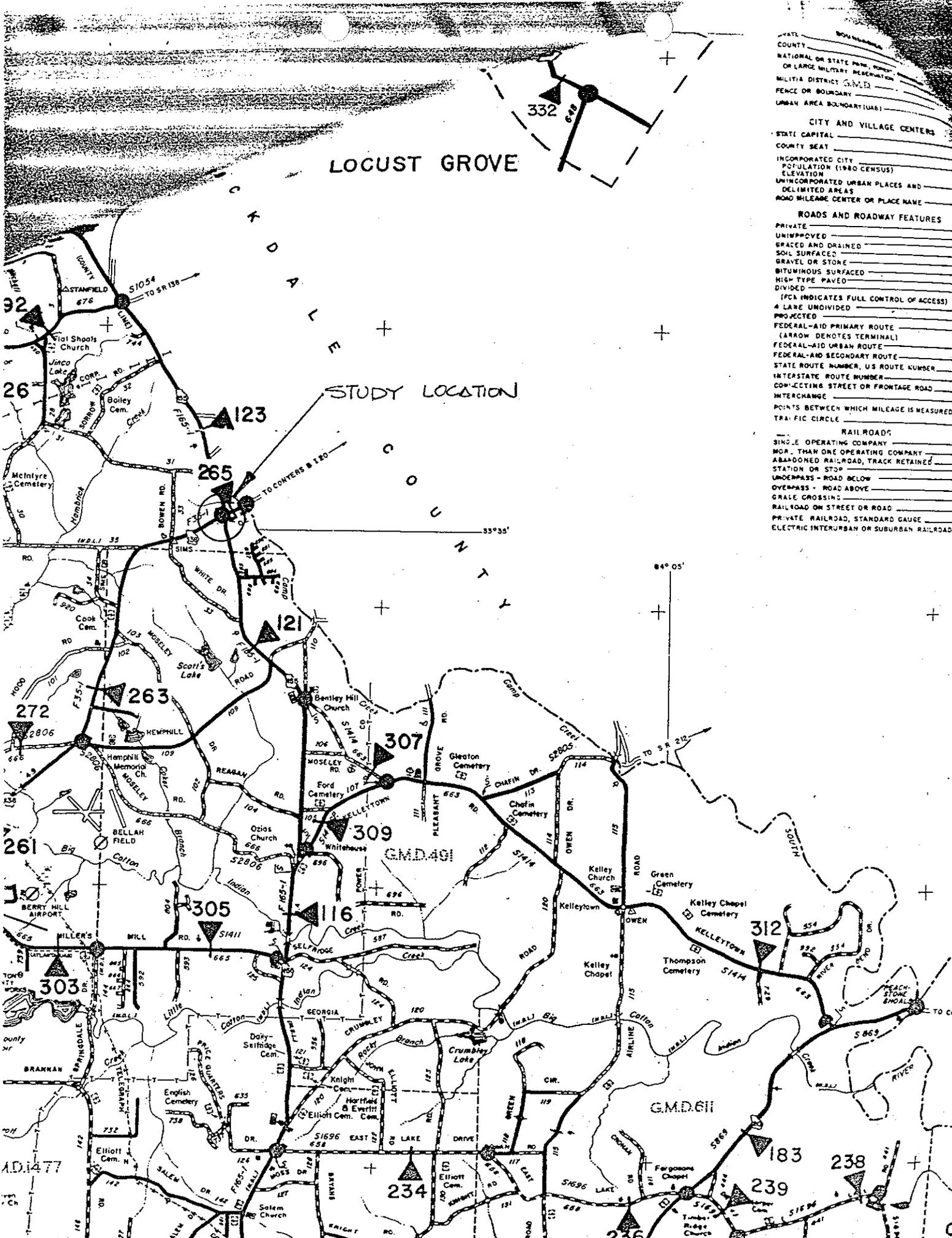
TO: Marion Waters, P. E., State Traffic Operations Engineer
Attn: Melinda Boothe

SUBJECT: **Traffic Engineering Study**

Attached is a traffic engineering study for the above file location. Signalization is recommended in conjunction with a project to construct turn lanes on each approach to the intersection.

If you have questions concerning this matter, please contact Jeff Legg at 706-646-6560.

KBR:JL
Attachment
Cc: Ken Werho



LOCUST GROVE

STUDY LOCATION

- STATE
- COUNTY
- NATIONAL OR STATE PARK, MONUMENT OR LARGE MILITARY RESERVATION
- MILITIA DISTRICT GRADED
- FENCE OR BOUNDARY
- URBAN AREA BOUNDARY (UAB)
- CITY AND VILLAGE CENTERS
- STATE CAPITAL
- COUNTY SEAT
- INCORPORATED CITY
- POPULATION (1980 CENSUS)
- ELEVATION
- UNINCORPORATED URBAN PLACES AND DELIMITED AREAS
- ROAD MILEAGE CENTER OR PLACE NAME
- ROADS AND ROADWAY FEATURES
- PRIVATE
- UNIMPROVED
- GRADED AND DRAINED
- SOIL SURFACED
- GRAVEL OR STONE
- BITUMINOUS SURFACED
- HIGH TYPE PAVED
- DIVIDED
- (PCA INDICATES FULL CONTROL OF ACCESS)
- 4 LANE UNDIVIDED
- PROJECTED
- FEDERAL-AID PRIMARY ROUTE (ARROW DENOTES TERMINAL)
- FEDERAL-AID URBAN ROUTE
- FEDERAL-AID SECONDARY ROUTE
- STATE ROUTE NUMBER, US ROUTE NUMBER
- INTERSTATE ROUTE NUMBER
- CONNECTING STREET OR FRONTAGE ROAD
- INTERCHANGE
- POINTS BETWEEN WHICH MILEAGE IS MEASURED
- TRAFFIC CIRCLE
- RAILROADS
- SINGLE OPERATING COMPANY
- MORE THAN ONE OPERATING COMPANY
- ABANDONED RAILROAD, TRACK RETAINED
- STATION OR STOP
- UNDERPASS - ROAD BELOW
- OVERPASS - ROAD ABOVE
- GRADE CROSSING
- RAILROAD ON STREET OR ROAD
- PRIVATE RAILROAD, STANDARD GAUGE
- ELECTRIC INTERURBAN OR SUBURBAN RAILROAD

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA TRAFFIC SIGNAL AUTHORIZATION

The State Department of Transportation of Georgia hereby approves, subject to the conditions set forth herein, the use of a Traffic Signal device as described below and as shown on the attached drawing.

LOCATION OF SIGNAL

County: Henry City: N/A Mile Post: 10.50 Local Highway or Street Name _____ State Route and -U.S.

Route Number State Route 138 at State Route 155 DOT Intersection Number: 0003843

TYPE SIGNAL

- | | | | |
|---|---|--|---|
| <input checked="" type="checkbox"/> Stop and Go | <input type="checkbox"/> Flashing Beacon | <input type="checkbox"/> School Beacon | <input type="checkbox"/> Other |
| <input type="checkbox"/> Pretimed | <input checked="" type="checkbox"/> Full Actuated | <input type="checkbox"/> Pedestrian Push Buttons | <input type="checkbox"/> Pedestrian Heads |
| <input type="checkbox"/> RR Pre-emption | <input type="checkbox"/> Other Pre-emption | <input type="checkbox"/> Interconnected - N/A | <input type="checkbox"/> Closed Loop/TBC |

Controller shall meet Georgia D.O.T. Specifications. Controller phasing and signal heads shall conform to the details on the attached drawing.

The Signal device as described in this document is to be maintained and operated by:

- The Georgia Department of Transportation
-

Special Requirements: None

Signal shall flash during all times when it is not in Stop and Go operation and during emergency repairs. Signal heads are to be hooded or taken down when for any reason the signal is not operating as Stop and Go or Flasher during a period of more than six consecutive days or when requested by D.O.T. Traffic Engineer. The traffic control signal equipment, its installation, operation and timing covered by this authorization shall not be materially altered without the written approval of the Georgia Department of Transportation.

Note: This authorization is valid only so long as equipment used is standard equipment as specified and is maintained and operated in accordance with the terms of this authorization and the requirements of the current Georgia Manual on Uniform Traffic Control Devices.

Recommended: _____
State Traffic & Safety Engineer

Approved: _____
Division Director of Operations

Approved _____
State Highway Engineer

Date Issued: _____

GEORGIA DEPARTMENT OF TRANSPORTATION
Traffic Operations Division
Thomaston



TRAFFIC ENGINEERING STUDY
June 7, 2000

LOCATION: *State Route 138 & State Route 155*

M. P. 10.50

COUNTY: *Henry*

REQUESTED BY: *Henry County Board of Commissioners*

REASON FOR STUDY: *To determine the need for a stop and go traffic signal*

FINDINGS

TOPOGRAPHY: *State Route 138 is a two lane, asphaltic concrete roadway that enters the intersection from the East and the West on a flat grade. No turn lanes exist. State Route 155 is a two lane, asphaltic concrete roadway that enters the intersection from the North and the South on a flat grade. No turn lanes exist. The only development in the vicinity of the intersection is a BP Station located in the southeast quadrant.*

EXISTING TRAFFIC CONTROL: *Both State Route 138 and State Route 155 are required to stop. Double indicated stop and stop ahead signs exist on each approach. A double indicated, overhead flashing beacon is in operation as well.*

VEHICLE VOLUMES: *State Route 138 ADT - 7,098*
State Route 155 ADT - 5,018

State Route 138 & State Route 155, Henry County:

PEDESTRIAN MOVEMENTS: *No evidence of pedestrian activity was observed.*

PARKING: *On-street parking is prohibited.*

ACCIDENT HISTORY: *Please see the attached accident summary.*

WARRANT ANALYSIS: *The following is a summary of the Warrant Analysis: Warrant one was met for 8 hours, warrant two for 4 hours. Warrant 9, warrant 10 (parts 2 & 3), and warrant 11 were also satisfied.*

OTHER INFORMATION:

State Route 155 begins in the City of Griffin, Spalding County and runs North to I-285 in Dekalb County. Along this route, it passes through the City of McDonough. State Route 138 begins in Union City, Fulton County and runs eastward through Henry County and eventually out of the District. Interchanges exist at I-85 in Fulton County and I-75/I-675 in Henry County.

The intersection delay was measured to be 2.19 hours during the A. M. peak hour and 6.56 hours during the P. M. peak hour.

The County has contracted with Tribble & Richardson/DS-Atlantic to survey the intersection and to design any necessary/recommended improvements.

CONCLUSION:

Based on the information presented above, it can be concluded that a stop and go traffic signal would be beneficial to the overall safety and efficiency of the intersection. The delay warrant is met during the P. M. peak hour.

RECOMMENDATIONS:

It is recommended that a permit be issued to Henry County to install a stop and go traffic signal. The signal should be installed in conjunction with a project to construct turn lanes on each approach to the intersection.



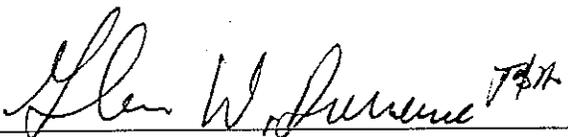
Jeff Legg, District Signal Engineer

JUNE 6, 2000
Date



District Operations Engineer

6-7-00
Date



District Engineer

6-8-00
Date

State Traffic Operations Engineer

Date

Division Director

Date

SR-155

SR-138

TRAFFIC SIGNAL WARRANT EVALUATION

INTRODUCTION

This review is based on the methodology presented in the Manual on Uniform Traffic Control Devices (MUTCD), 1978, as amended by the Federal Highway Administration. Please refer to part 4C of that manual.

The intersection under study has the following characteristics:

The 85th percentile speed on the main street is [55] MPH.

Existing traffic control is . . . MULTI-WAY STOP.

Daily traffic volume of [14,867] was counted on

WEDNESDAY, OCTOBER 27, 1999.

Estimated annual traffic volume is [5,426,455] vehicles.

1. INTERSECTING TRAFFIC VOLUMES

The installation of a traffic signal may be necessary to control an intersection with large volumes of conflicting traffic. The required traffic volumes must be present for at least 8 hours of an average weekday. The minimum volumes vary according to the number of lanes on the intersecting streets, the speed of traffic on the main street, and the community size.

Number of hours required traffic present = 8

Warrant 1 is SATISFIED.

2. INTERRUPTION OF CONTINUOUS TRAFFIC

On major streets with high traffic volume, it may be necessary to use traffic signal control to provide an adequate number of gaps in traffic to allow vehicles to enter from a side street. The application of this warrant is identical to that of warrant 1, above.

Number of hours required traffic present = 4

Warrant 2 is NOT SATISFIED.

3. CROSSING PEDESTRIAN TRAFFIC

This warrant is similar to warrant 2, but is intended to identify locations where additional gaps are needed to provide safe pedestrian crossing of a major street. A signal installed solely for pedestrians should use a fully actuated controller and, if in a signal system, be coordinated with that system. A signal installed only under this warrant shall include pedestrian signals. When installed at a midblock location, additional restrictions may apply (See section 4C-5).

Number of hours required traffic present = 0

Warrant 3 is NOT APPLICABLE.

4. SCHOOL CROSSING

An established school crossing may require signal protection if an engineering study reveals that there is less than one gap per minute during the period of crossing usage. The restrictions on signals installed under this warrant are similar to those of warrant 3.

WARRANT 4 IS NOT APPLICABLE.

5. SIGNAL PROGRESSION

A traffic signal may occasionally be used to maintain vehicle grouping in a coordinated system. Such a signal should not be within 1,000 FT of adjacent signalized intersections in the system.

Warrant 5 is NOT APPLICABLE.

6. ACCIDENT PREVENTION

Many traffic signals are installed on the premise of reducing accidents; however, it must be recognized that signals may actually increase some types of accidents. The result is often contrary to the intended goal. Four conditions must be met before a signal is installed solely to reduce accidents:

- (1) There has been five or more accidents of types preventable by traffic signals in the last 12 months;
- (2) at least one volume requirement of warrant 8 must be satisfied;
- (3) traffic progression would not be seriously disrupted, and
- (4) less restrictive solutions have been tried and enforced with unsatisfactory results.

A signal installed solely under this warrant should be traffic actuated.

Total number of accidents = 4

Number of preventable accidents = 0

Accident rate is .73 per million vehicles

Number of warrant 8 volume requirements met = 1

Parts 1 and 2 are NOT SATISFIED.

7. TRAFFIC SYSTEM OPERATION

Traffic signal control may be used to encourage concentration and organization of vehicles on the major street network. Such a signal may be installed at the intersection of two major routes as defined by section 4C-9 of the MUTCD, with a total volume of 800 vehicles during the typical peak weekday hour, or for five (5) weekend hours.

Warrant 7 is NOT APPLICABLE.

8. COMBINATION OF WARRANTS

In exceptional cases, signal control may be justified where no single warrant is satisfied, but where at least two of warrants 1, 2, or 3 are met when the required volumes are reduced to 80% of normal. Adequate trial of other measures which cause less delay and inconvenience must be tried and enforced first.

Number of warrants satisfied at the 80% level = 1
Volume requirements for warrant 8 are NOT SATISFIED.

9. FOUR HOUR VOLUME WARRANT

This warrant was approved as an amendment to the MUTCD on December 31, 1984. This warrant is similar to warrant 1, except that the required traffic volumes must be present for at least four hours of an average weekday. The traffic volumes required are based on curves (Figures 4-3 & 4-4) shown in the MUTCD.

Warrant 9 is SATISFIED.

10. PEAK HOUR DELAY

This warrant was approved as an amendment to the MUTCD on December 31, 1984. This warrant is intended for application where traffic conditions will cause undue delay to traffic entering or crossing the main street. The peak hour delay warrant is satisfied when the following conditions exist for one hour (any four consecutive 15-minute periods) of an average day:

- (1) The total delay by the traffic on a side street controlled by a stop sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach;
- (2) the volume on the side street equals or exceeds 100 VPH for one moving lane of traffic and 150 VPH for two moving lanes;
- (3) the total traffic volume serviced during 1 hour equals or exceeds 800 VPH for an intersection with four (or more) approaches or 650 VPH for three approaches.

Warrant - 10

Part 1 - Delay to be determined by traffic engineer.

Part 2 - SATISFIED
Part 3 - SATISFIED

11. PEAK HOUR VOLUME

This warrant was approved as an amendment to the MUTCD on December 31, 1984. This warrant applies to traffic entering from the minor street which encounters undue delay crossing the main street. This warrant is satisfied when the main street and side street traffic volumes satisfy the curves (Figures 4-5 and 4-6) shown in the MUTCD.

Warrant 11 IS SATISFIED.

TABLE 1
 TWENTY-FOUR HOUR VEHICULAR TRAFFIC EVALUATION
 WARRANTS 1, 2 AND 8

HOUR OF DAY	MAIN ST. VOLUME	SIDE ST. VOLUME	WARRANT 1	WARRANT 2	WARRANT 8 PART 1	WARRANT 8 PART 2
12 AM	20	23				
1 AM	10	10				
2 AM	10	11				
3 AM	14	21				
4 AM	39	17				
5 AM	163	82		SIDE		SIDE
6 AM	387	231	BOTH	SIDE	BOTH	SIDE
7 AM	588	342	BOTH	BOTH	BOTH	BOTH
8 AM	498	318	BOTH	SIDE	BOTH	BOTH
9 AM	298	207	SIDE	SIDE	BOTH	SIDE
10 AM	274	199	SIDE	SIDE	SIDE	SIDE
11 AM	260	181	SIDE	SIDE	SIDE	SIDE
12 PM	237	191	SIDE	SIDE	SIDE	SIDE
1 PM	283	202	SIDE	SIDE	BOTH	SIDE
2 PM	348	253	SIDE	SIDE	BOTH	SIDE
3 PM	422	312	BOTH	SIDE	BOTH	BOTH
4 PM	537	366	BOTH	BOTH	BOTH	BOTH
5 PM	595	374	BOTH	BOTH	BOTH	BOTH
6 PM	568	368	BOTH	BOTH	BOTH	BOTH
7 PM	365	248	BOTH	SIDE	BOTH	SIDE
8 PM	276	181	SIDE	SIDE	SIDE	SIDE
9 PM	202	144	SIDE	SIDE	SIDE	SIDE
10 PM	110	81		SIDE		SIDE
11 PM	68	59		SIDE		SIDE
REQUIRED VOLUMES: MAIN STREET			350	525	280	420
SIDE STREET			105	53	84	42

NOTE: SIDE STREET VOLUMES SHOWN ARE FOR EACH HOUR'S PEAK APPROACH.

155-138 AM delay

Intersection Delay Study

Henry County

Intersection:

Approach: Westbound

Date:

Interval: 15sec

Observer:

Lanes: 1

Day of Week:

Begin Time: 7:30 AM

End Time: 8:00 AM

2	0	0	1	2	0	1	3	5	3
2	0	2	1	0	2	2	4	3	1
2	4	3	1	2	0	1	0	1	3
1	2	3	2	2	4	4	5	5	3
3	1	4	2	1	4	2	1	1	3
1	4	6	5	4	1	0	0	4	3
3	1	1	0	1	0	0	2	3	4
3	2	1	0	3	2	5	3	8	9
9	9	5	4	4	9	6	11	11	11
9	7	10	14	16	15	17	21	20	16
17	15	14	12	10	7	6	4	2	2
0	2	5	7	5	3	3	2	3	3

Total Elapsed Time: 30.00 minutes
Sum of Point values 529.00
Interval between samples 15.00 seconds
Total stopped delay 7935.00
Volume 143.00
Stopped Delay per vehicle 55.49 seconds ←
Average vehicle delay 0.92 minutes

2.17 HRS OF DELAY

155-138 PM delay

Intersection Delay Study

Henry County

Intersection:

Approach: Westbound

Lanes:1

Date:

Day of Week:

Begin Time:5:30 PM

Interval:15sec

End Time:6:00 PM

Observer: TM / KM

4	8	8	7	7	7	6	6	4	2
1	0	1	0	0	1	6	5	7	7
9	10	14	19	20	15	14	14	15	17
15	12	11	13	13	14	15	14	14	14
16	15	14	15	18	20	19	18	15	13
16	17	22	22	22	21	18	17	15	13
13	18	19	20	21	20	23	19	18	21
21	19	19	15	13	13	16	17	17	15
18	17	16	15	15	15	13	12	13	12
12	12	12	12	12	14	15	14	14	10
8	9	13	13	12	10	10	13	14	15
14	12	11	11	12	10	9	9	11	10

Total Elapsed Time:

30 minutes

Sum of Point values

1571

Interval between samples

15 seconds

Total stopped delay

23565

Volume

205

Stopped Delay per vehicle

114.95 seconds ←

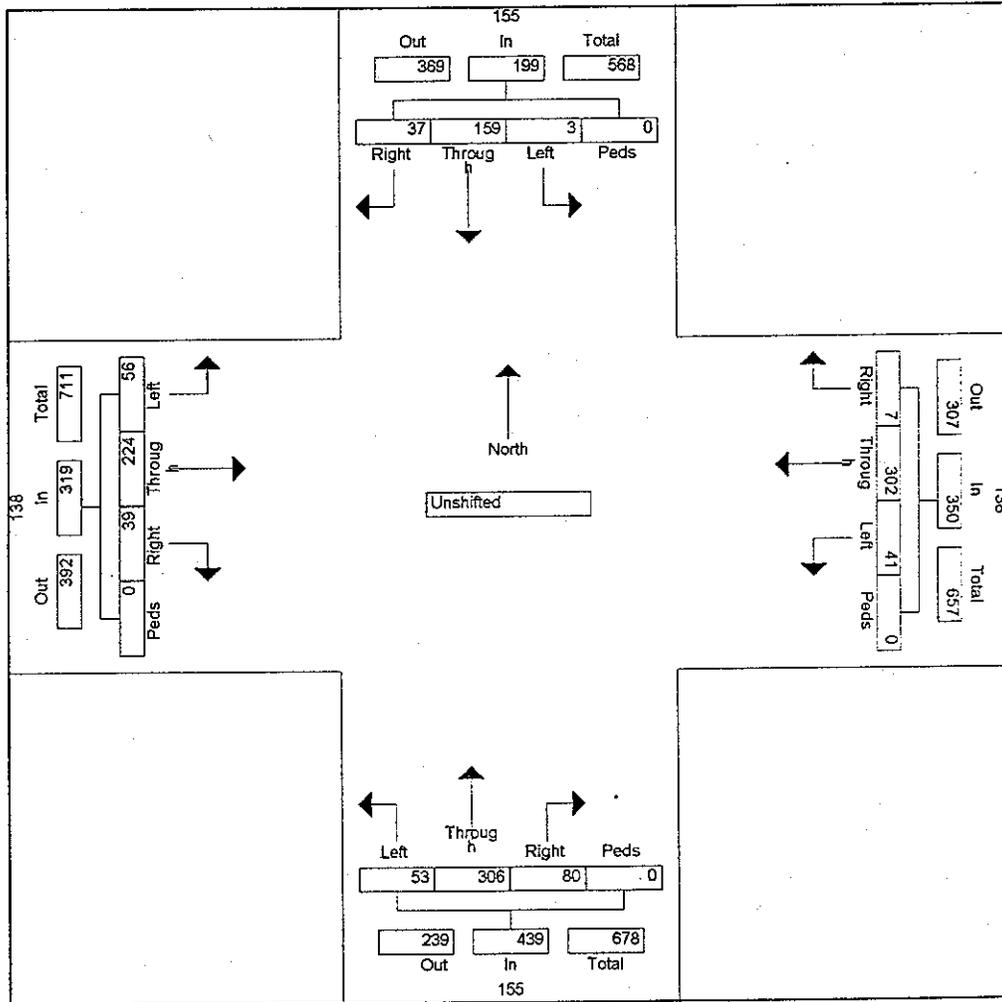
Average vehicle delay

1.92 minutes

6.56 HRS OF DELAY

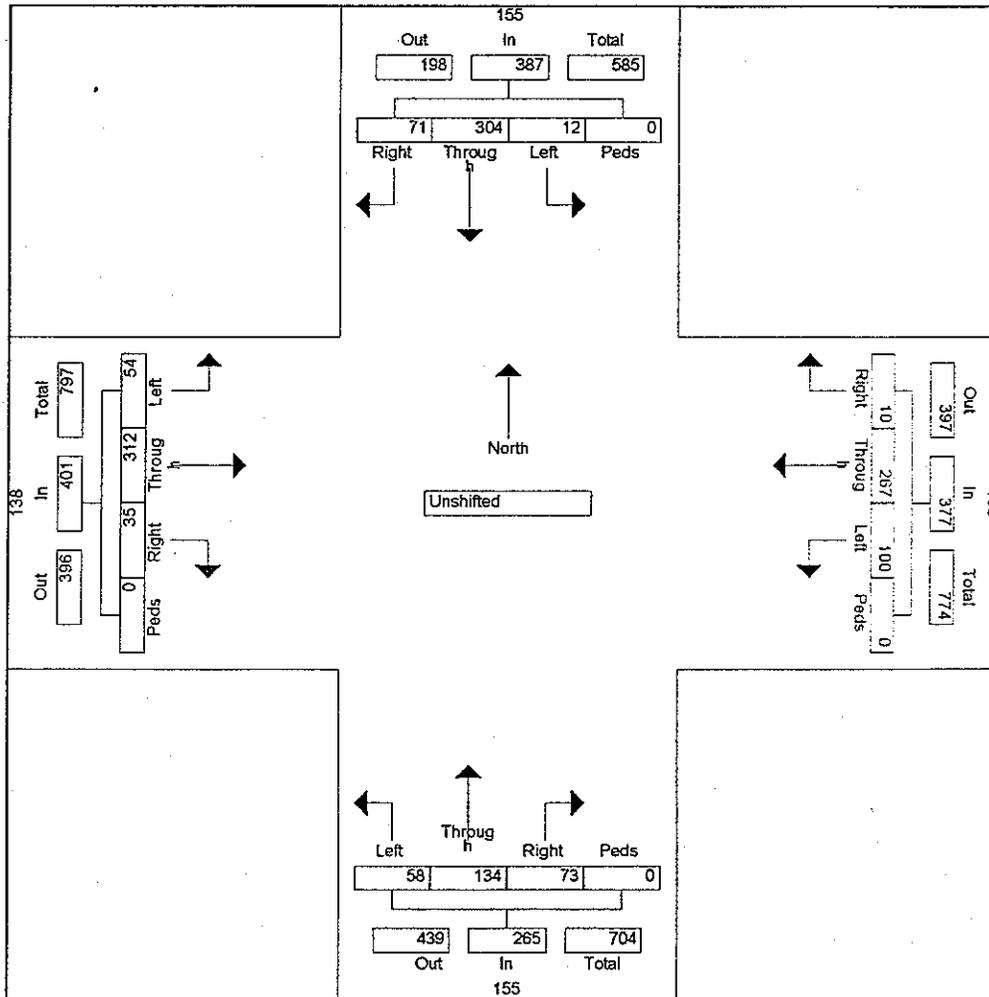
Groups Printed: Unshifted

Start Time	155 Southbound					138 Westbound					155 Northbound					138 Eastbound					Int. Total
	Left	Thro u g h	Righ t	Ped s	App. Total	Left	Thro u g h	Righ t	Ped s	App. Total	Left	Thro u g h	Righ t	Ped s	App. Total	Left	Thro u g h	Righ t	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	1	44	10	0	55	17	74	2	0	93	13	54	24	0	91	17	45	7	0	69	308
07:15 AM	1	36	6	0	43	9	74	1	0	84	11	77	17	0	105	17	74	13	0	104	336
07:30 AM	0	42	10	0	52	10	70	4	0	84	15	89	19	0	123	19	54	11	0	84	343
07:45 AM	1	37	11	0	49	5	84	0	0	89	14	86	20	0	120	3	51	8	0	62	320
Total	3	159	37	0	199	41	302	7	0	350	53	306	80	0	439	56	224	39	0	319	1307
Grand Total	3	159	37	0	199	41	302	7	0	350	53	306	80	0	439	56	224	39	0	319	1307
Apprch %	1.5	79.9	18.6	0.0		11.7	86.3	2.0	0.0		12.1	69.7	18.2	0.0		17.6	70.2	12.2	0.0		
Total %	0.2	12.2	2.8	0.0	15.2	3.1	23.1	0.5	0.0	26.8	4.1	23.4	6.1	0.0	33.6	4.3	17.1	3.0	0.0	24.4	



Groups Printed: Unshifted

Start Time	155 Southbound					138 Westbound					155 Northbound					138 Eastbound					Int. Total
	Left	Thro u g h	Righ t	Ped s	App. Total	Left	Thro u g h	Righ t	Ped s	App. Total	Left	Thro u g h	Righ t	Ped s	App. Total	Left	Thro u g h	Righ t	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:15 PM	6	74	17	0	97	26	67	2	0	95	17	29	18	0	64	17	78	9	0	104	360
06:30 PM	0	91	18	0	109	30	68	1	0	99	16	28	18	0	62	12	82	7	0	101	371
06:45 PM	2	89	16	0	107	23	66	4	0	93	11	37	20	0	68	16	79	8	0	103	371
Total	8	254	51	0	313	79	201	7	0	287	44	94	56	0	194	45	239	24	0	308	1102
07:00 PM	4	50	20	0	74	21	66	3	0	90	14	40	17	0	71	9	73	11	0	93	328
Grand Total	12	304	71	0	387	100	267	10	0	377	58	134	73	0	265	54	312	35	0	401	1430
Approch %	3.1	78.6	18.3	0.0		26.5	70.8	2.7	0.0		21.9	50.6	27.5	0.0		13.5	77.8	8.7	0.0		
Total %	0.8	21.3	5.0	0.0	27.1	7.0	18.7	0.7	0.0	26.4	4.1	9.4	5.1	0.0	18.5	3.8	21.8	2.4	0.0	28.0	





SK 155

SK 138

STOP

12-9-98

STOP

STOP

4-16-99

4-5-99

9-9-99

STOP

SK 155

SK 138 @ SK 155
HENRY COUNTY

ACCIDENT SUMMARY
1998 - 1 RIGHT ANGLE
1999 - 2 RIGHT ANGLES
1 SIDE SWIPE

SK 138

INTERSECTION DIAGRAM
SR 138 & SR 155
HENRY COUNTY

