

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

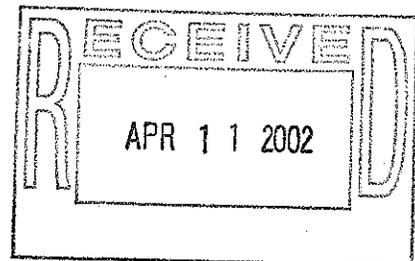
FILE: STP-0003-00(948) Catossa County
P.I. No.: 0003948
SR 3/US 41 @ CR 381/Graysville Road
Safety/Intersection Improvements

OFFICE: Traffic Operations
Atlanta, Georgia
DATE: April 10, 2002

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

TO: Kent Sager, District Engineer, Cartersville
Attn: DeWayne Comer

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 realigning SR 3 north of the intersection and widening 6 ft. symmetrically to provide left turn lanes at Judith Road, CR 381, and Indian Springs Road in the southbound direction and an additional 12 ft. to provide auxiliary right turn lanes at Indian Springs Road and CR 381 in the northbound direction. CR 381 will be widened 6 ft. symmetrically to provide a left turn lane. 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:kms

Attachments

cc: Frank Danchetz
Tom Turner, w/attach.
David Mulling, w/attach.
Wayne Hutto, w/attach.
Herman Griffin, w/attach.
Harvey Keeper, w/attach.
Harry Maddox, w/attach.
General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

CATOOSA COUNTY

STP-0003-00(948)

FEDERAL ROUTE NO: 41

STATE ROUTE NO: 3

GADOT P.I. NO: 0003948

SEE ATTACHED
LOCATION SKETCH

Date of Report: Sept. 12, 2001

RECOMMENDED:	<u>10/4/01</u>	DATE	<u>Phillip M. Allen</u>	STATE TRAFFIC SAFETY AND DESIGN ENGINEER
RECOMMENDED:	<u>10/11/01</u>	DATE	<u>Mark J. Sog</u>	DISTRICT ENGINEER
RECOMMENDED:	<u>10/22/01</u>	DATE	<u>John D. Donahy</u>	CHIEF ENGINEER
APPROVED:		DATE	<u>Tom Calvert</u>	COMMISSIONER

September 17, 2001

PROJECT CONCEPT REPORT

P.I. No.: 0003948

Project No.: STP-0003-00(948) Catoosa County

Route No.: S.R. 3/U.S. 41
C.R. 381/Graysville Road

Location: The intersection of S.R. 3 at C.R. 381 is approximately 4 miles northwest of the City of Ringold and 6 miles southeast of the Tennessee State Line in Catoosa County.

Description: S.R. 3 will be realigned north of the intersection to meet design speed. S.R. 3 will be widened 6 ft. symmetrically to provide left-turn lanes at Judith Road, C.R. 381, and Indian Springs Road in the southbound direction and an additional 12 ft. to provide right-turn lanes at Indian Springs Road and C.R. 381 in the northbound direction. C.R. 381 will be widened 6 ft. symmetrically to provide a left-turn lane. A stop and go traffic signal will be installed.

Traffic – Current ADT:

S.R. 3	-----	8,100 (1999 ADT)
C.R. 381	-----	3,500 (1999 ADT)

Existing Typical: S.R. 3: 2 – 12 ft. travel lanes, one in each direction, with 3 to 10 ft. paved shoulders.

C.R. 381: 2 – 12 ft. travel lanes, one in each direction, with 2 ft. paved shoulders.

Existing Right of Way:

S.R. 3	-----	80' (Estimated)
C.R. 381	-----	50' (Estimated)

Existing Traffic Control: S.R. 3 is a continuous through movement. C.R. 381 is controlled by a stop bar and a stop sign.

Existing Major Structures: None.

Statement of Need & Purpose: Accident history for this intersection shows three accidents in both 1995 and 1996. The addition of turn lanes and a traffic signal will reduce the number of accidents that occur at this intersection. To improve the safety and orderly progression of traffic through the intersection, these improvements are recommended.

Bicycle & Pedestrian Considerations: Due to the mobile home community located on the west side of the intersection and the convenience store located in the southeast quadrant, crosswalks and pedestrian signals are proposed at the intersection.

Length: 0.41 mile

Termini:	S.R. 3	C.R. 381
From M.P.	10.72	0.00
To M.P.:	11.03	0.10

PDP Class: Minor Existing

Functional Class: S.R. 3 ----- Rural Minor Arterial Street
C.R. 381 ----- Rural Minor Arterial Street

Max Degree of Curve: +/-2.0 Degrees **Max Grades:** +/-2.0%

Design Speed: S.R. 3 ----- 45 mph
C.R. 381 ----- 35 mph

Proposed Typical Section: S.R. 3: 3 – 12 ft. travel lanes, one in each direction with a 12 ft. left-turn lane southbound and a 12 ft. right-turn lane northbound. Shoulders will be 10.5 ft; 6.5 ft. paved and 4 ft. grassed.

C.R. 381: 3 – 12 ft. travel lanes, one in each direction with a 12 ft. left turn lane. Shoulders will be 10 ft., 4 ft. paved and 6 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: Catoosa County shall be responsible for the acquisition of all required Right of Way for this project.

Utilities: Catoosa County shall be responsible for all Utility adjustments.

Estimated Cost:

<u>Item</u>	<u>Total Amount</u>	
Right-of-way	\$ 15,300	(By County)
Utilities	\$ 300,672.80	(By County)
Estimated LGPA Total	\$315,972.80	
Construction	\$ 240,686	
Traffic Signal	\$ 75,000	
Railroad Equipment	\$ 0	
E & C 10 %	<u>\$31,569</u>	
Total Construction	\$ 347,255	

Permits Required: None.

Level of Environmental Analysis: Categorical Exclusion.

Level of Public Involvement: None.

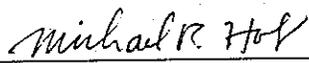
Time Saving Procedures Appropriate: Yes (X) No ()

Design Variances Required: None.

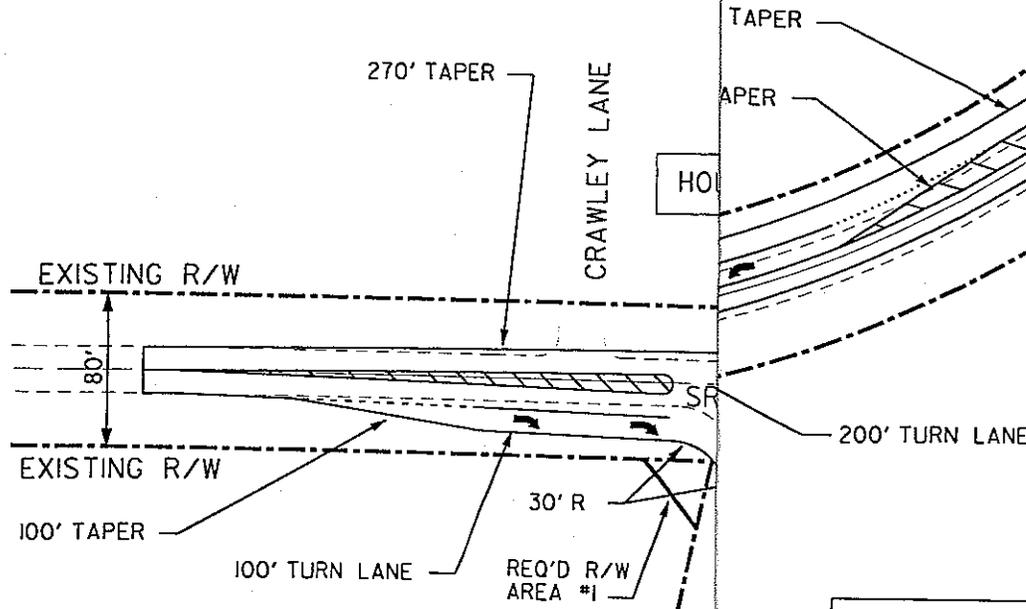
Alternates Considered: None.

Comments : None.

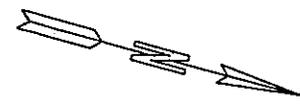
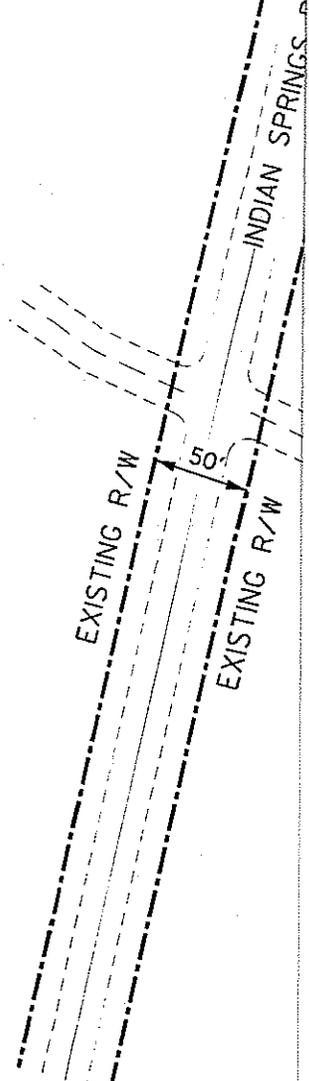
Prepared by Gresham, Smith and Partners on behalf of the Office of Traffic Operations of the Georgia Department of Transportation.



Michael R. Holt, P.E.



ESTIMATED REQ'D RIGHT OF WAY	
AREA #1 -	460 SQ FT
AREA #2 -	460 SQ FT
AREA #3 -	450 SQ FT.
AREA #4 -	450 SQ FT
TOTAL AREA - 1820 SQ FT.	



SR 3/US 41
 @ GRAYSVILLE ROAD
 CATOOSA COUNTY



DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE SR 3 (US 41) @ Graysville Road
MP 10.83, Catoosa County**

**OFFICE Traffic Operations
Cartersville, Georgia**

DATE September 22, 2000

FROM: *HAM* Harry A. Maddox, District Traffic Engineer

**TO: Marion G. Waters III, P.E., State Traffic Engineer
Atten: Melinda Booth**

SUBJECT: T.E. Study

Please find attached information as per your e-mail request on 9-17-00.

If this office may be of further assistance, please advise.

HAM/WSB/sb

Attachments

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

TRAFFIC ENGINEERING INVESTIGATION

CARTERSVILLE, GEORGIA

DISTRICT SIX

COUNTY	Catoosa
PRIMARY ROUTE	State Route 3
SECONDARY ROUTE	Graysville Road
MILE POST	10.83

REQUESTED BY: Jim Calloway, Catoosa County Manager

REASON FOR INVESTIGATION: To determine if a signal and/or left turn lane is warranted.

TOPOGRAPHY: The area surrounding the intersection is generally flat. The area around the intersection is primarily residential with some commercial development dispersed along SR 3. A trailer park is located on the westside of the intersection and a C-Store is located in the southeast quadrant. A single family residence is located in the northeast quadrant.

GEOMETRICS: This is a T intersection. SR 3 is 24 feet wide with 2-3 feet wide shoulders. Graysville Road is 21 feet wide with 1-2 feet wide shoulders. The grade on SR 3 is approximately 1%-2% thru the intersection, with a -1%-2% grade on Graysville Road approaching SR 3. Sight distance from Graysville Road is 350 feet to the north restricted by a horizontal curve and is 600 feet to the south restricted by a horizontal curve.

ADJACENT SIGNALIZED INTERSECTIONS: Adjacent signals are located on SR 3, 3.6 miles north of the intersection at the I-75 Northbound Ramps in East Ridge, Tennessee and 4.3 miles south of the intersection at SR 151 in Ringgold.

EXISTING TRAFFIC CONTROL: Graysville Road is controlled by a "Stop" sign. SR 3 is marked for 1 lane in each direction with an additional right turn lane for the northbound direction. Graysville Road is also marked for 1 lane in each direction.

VEHICULAR VOLUMES: See attached counts

SPOT SPEED STUDY: The posted speed limit on SR 3 is 45 mph. The 85th percentile speed as measured on February 9, 1998 was 52 mph. Graysville Road is posted at 35 mph. Speeds are low due to the stop condition at SR 3.

DELAY STUDY: During the afternoon peak hour, queues of 12 vehicles and delays of up to 60 seconds were observed.

ACCIDENT HISTORY: Based on accident data obtained for the vax file a total of three accidents occurred in both 1995 and 1996. No injuries or fatalities occurred in any of these accidents. Four of the accidents were angle intersecting and two were struck object. In 1997

SR 3 at Graysville Rd.
Catoosa County

there were six accidents that occurred at the intersection. Of these six accidents 2 were turning movements, two rear end, 1 angle intersecting, and 1 off road-fixed object.

INTERSECTION HISTORY: No previous studies have been conducted at this intersection.

OTHER INFORMATION: SR 3 connects Ringgold with East Ridge Tennessee. It also connects the eastern termini of Battlefield Parkway (SR 2) with the eastern termini of Cloud Springs Road (SR 146). Graysville Road connects SR 3 with the small historic town of Graysville. It also is used as the primary route for this area to a large mall, located 15 miles from the intersection in Chattanooga, Tennessee.

CONCLUSIONS: Signalization is warranted because warrants 9 and 11 are met. Warrants 1 and 8 met for 6 hours. Warrant 2 met for 4 hours. A southbound left turn lane on SR 3 will be required before a signal is put into operation.

RECOMMENDATIONS

It is recommended that a safety project be approved to install a stop and go signal and construct a left turn lane.

RECOMMENDED BY: William S. Brock DATE _____
William S. Brock
District Traffic Operations Engineer

RECOMMENDED BY: Harry A. Maddox DATE _____
Harry A. Maddox
District Traffic Engineer

RECOMMENDED BY: _____ DATE _____
Marion G. Waters III, P.E.
State Traffic Engineer

APPROVED BY: _____ DATE _____
David Studstill
Director of Operations

Major Street Approaches:

Northbound:

SR 3 @ Graysville Road

Data File: No Count Defined

Count Type: None. Channel: 0. Count Date: 12/ 7/98

Number of Lanes: 1

Approach Speed: 45

Total Approach Traffic: 6213

Minor Street Approaches:

Southbound:

Data File: No Count Defined

Count Type: None. Channel: 0. Count Date: 0/ 0/ 0

Number of Lanes: 1

Approach Speed: 0

Total Approach Traffic: 0

Eastbound:

Data File: No Count Defined

Count Type: None. Channel: 0. Count Date: 0/ 0/ 0

Number of Lanes: 1

Approach Speed: 0

Total Approach Traffic: 0

Westbound:

SR 3 @ Graysville Road

Data File: No Count Defined

Count Type: None. Channel: 0. Count Date: 12/ 7/98

Number of Lanes: 1

Approach Speed: 45

Total Approach Traffic: 2003

Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main (Total)	Side			Warrant 1		Warrant 2		Warrant 8	
		Vol.	Dir.	Rank	Meets?	Criteria	Meets?	Criteria	Meets?	Criteria
0	0	0	W	11		105		52		84
1	0	0	W	12		105		52		84
2	0	0	W	13		105		52		84
3	0	0	W	14		105		52		84
4	0	0	W	15		105		52		84
5	0	0	W	16		105		52		84
6	0	0	W	17		105		52		84
7	0	0	W	18		105		52		84
8	999	528	W	1	--BOTH--	105	--BOTH--	52	--BOTH--	84
9	999	195	W	4	--BOTH--	105	--BOTH--	52	--BOTH--	84
10	312	114	W	6	SIDE	105	SIDE	52	SIDE	84
11	360	30	W	10	MAIN	105		52		84
12	450	108	W	7	--BOTH--	105	SIDE	52	--BOTH--	84
13	318	77	W	9		105	SIDE	52		84
14	0	0	W	19		105		52		84
15	450	183	W	5	--BOTH--	105	SIDE	52	--BOTH--	84
16	354	96	W	8	MAIN	105	SIDE	52	SIDE	84
17	972	333	W	3	--BOTH--	105	--BOTH--	52	--BOTH--	84
18	999	339	W	2	--BOTH--	105	--BOTH--	52	--BOTH--	84
19	0	0	W	20		105		52		84
20	0	0	W	21		105		52		84
21	0	0	W	22		105		52		84
22	0	0	W	23		105		52		84
23	0	0	W	24		105		52		84

Warrant Summary:
Required values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 6 hours. Criteria--Main St.: 350; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 4 hours. Criteria--Main St.: 525; Side St.: See Volume Summary.

Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. Ped volumes too low. Criteria--190 Peds in peak hour, 100 peds in 4th high hour.

Warrant 4 - School Crossing

NOT APPLICABLE. Gap data has not been defined.

Warrant 5 - Progressive Movement

NOT SATISFIED. Adjacent signals closer than 1000 feet and/or not part of coordinated system.

Warrant 6 - Accident Experience

NOT SATISFIED. 0 correctable accidents is fewer than required 5.

Correctable Accidents: 0; Right Angle Accidents: 0; Left Turn Accidents: 0; Other Accidents: 0.

Warrant 7 - Systems Warrant

NOT SATISFIED. At least one street has no major approaches.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which appear as a major route in an official transportation plan.

Warrant 8 - Combination of Warrants

SATISFIED. Required values reached for 6 hours. Criteria--Main: 420; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

SATISFIED for 5 hours.

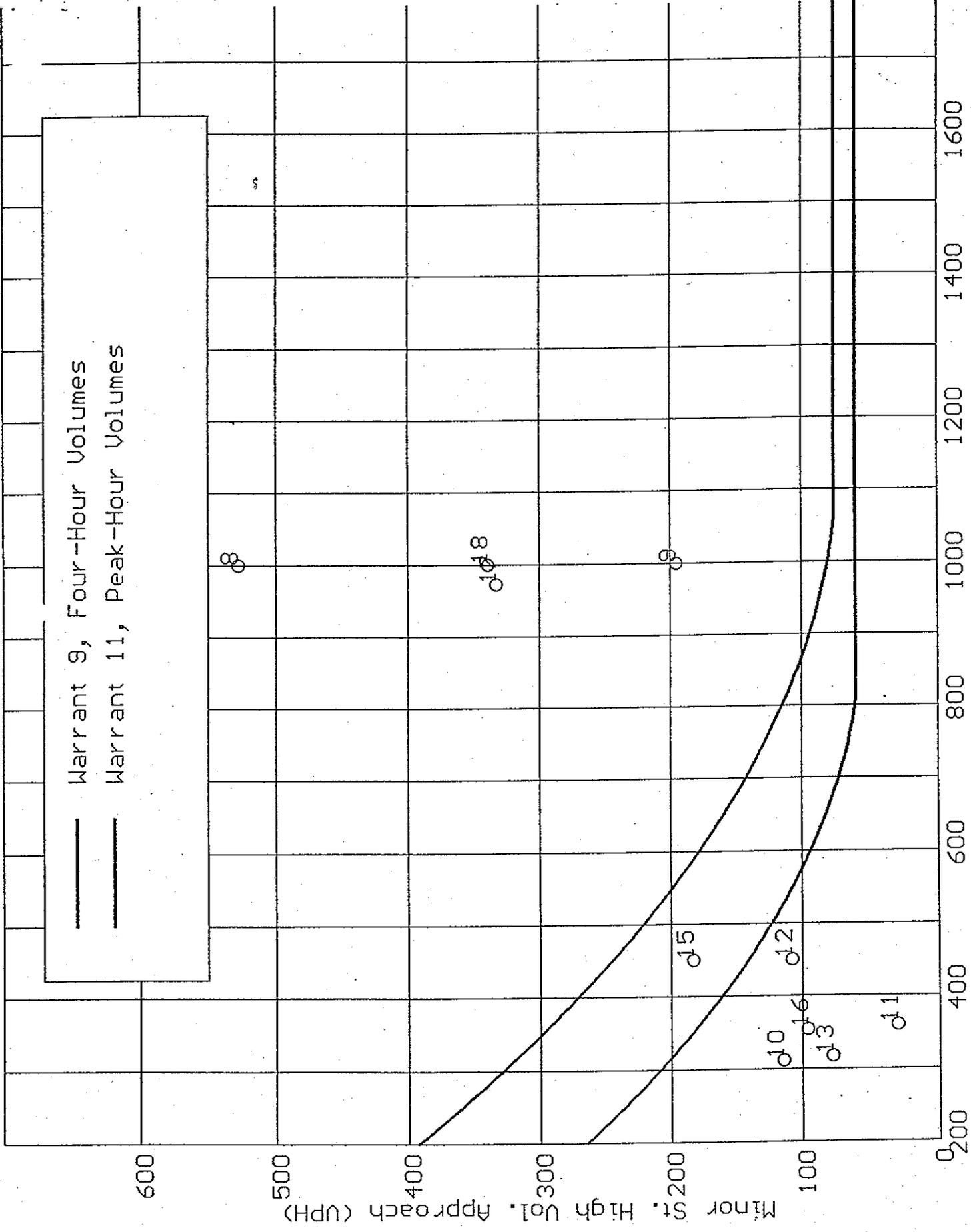
Warrant 10 - Peak Hour Delay

NOT APPLICABLE. Volume requirements satisfied, but side street peak hour delay not defined.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

Warrant 11 - Peak Hour Volume

SATISFIED for 4 hours.



Major St. Total of Both Approaches (UPH)

TRAFFIC ENGINEERING STUDY
TRAFFIC SIGNAL WARRANTS

TIME	VOLUMES		WARRANTS		
	MAJOR STREET	MINOR STREET*	1	2	8
0500					
0600					
0700				1	
0800	1377	528	X(X)	X(X)	
0900	1041	195	X(X)	X(X)	
1000	312	114			
1100	360	30			
1200	450	108	(X)		
1300	318	77			
1400					
1500	450	183	(X)		
1600	354	96	(X)		
1700	972	333	X(X)	X(X)	
1800	1089	339	X(X)	X(X)	
1900					
2000					
2100					
2200					
2300					
2400					

HOURS WARRANTS ARE MET

NONREDUCED

4

4

REDUCED

7

4

*VOLUMES FOR SINGLE HIGH VOLUME APPROACH ONLY

DEPARTMENT OF TRANSPORTATION

SPEED DATA

DATE: 9-Feb-98

LOCATION: S.R. 3 @ GRAYSVILLE Rd M.P.: 10.83 SPEED LIMIT: 45

COUNTY: CATOOSA TIME: 10:20 WEATHER: Cloudy

MPH	N	B	E	W
70				
69				
68				
67				
66				
65				
64				
63				
62				
61				
60				
59				
58				
57				
56	//			2
55	///			3
54				1
53	///			6
52	/// ///			9
51	//			2
50	///			5
49	///			3
48				1
47	///			6
46	///			3
45				0
44	///			5
43	/// ///			11
42	///			7
41	///			6
40	/// ///			11
39	/// /// /// /// ///			27
38	///			3
37	//			2
36				
35				
34				
33				
32				
31				
30				
29				
28				
27				
26				
25				

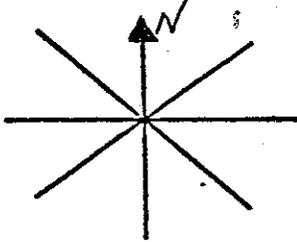
MPH	N	B	E	W
70				
69				
68				
67				
66				
65				
64				
63				
62				
61				
60				
59				
58	///			3
57				0
56	//			2
55				0
54	/// ///			12
53	///			3
52	///			6
51	/// ///			15
50	//			2
49	/// ///			17
48	///			3
47	///			3
46	///			3
45	///			4
44	//			2
43	///			3
42	///			6
41	/// ///			5
40	///			4
39	/// /// ///			22
38	///			3
37	//			2
36				
35				
34				
33				
32				
31				
30				
29				
28				
27				
26				
25				

DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

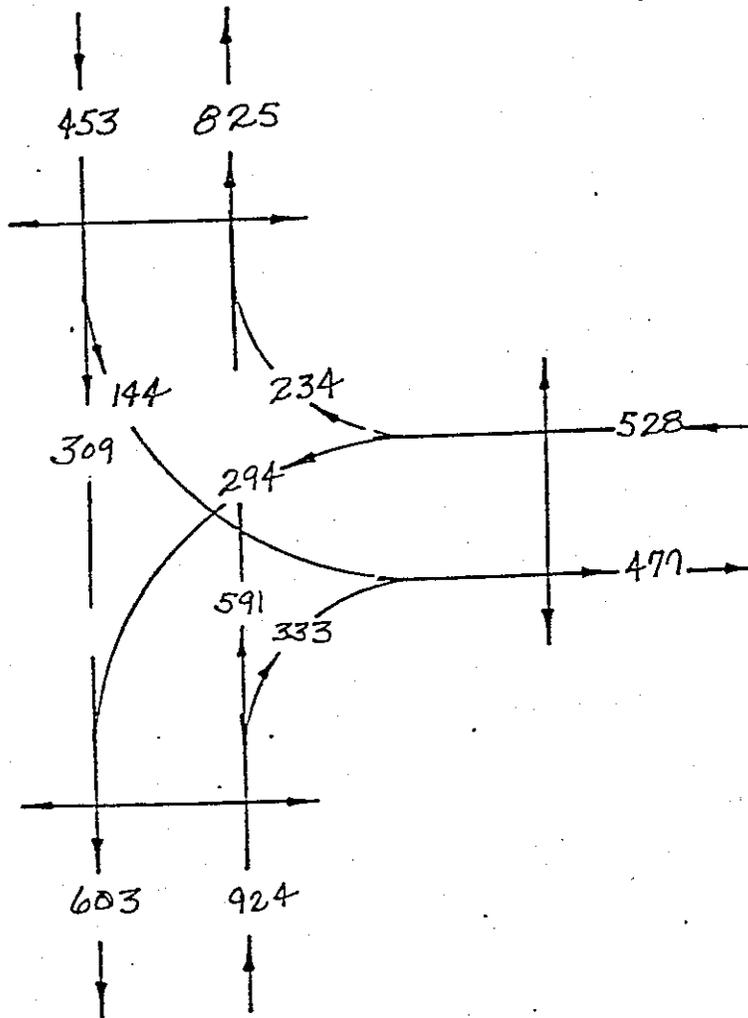
COUNTY CATOOSA CITY _____

LOCATION S.R. 3 @ Grayville Rd



INDICATE NORTH

DATE 3 Feb 98
 DAY OF WEEK TUES
 TIME 0700
 WEATHER RAINNING
 COUNTED BY JM



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)	VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)
--	--

70% V1 V2 _____
 ACTUAL 1377

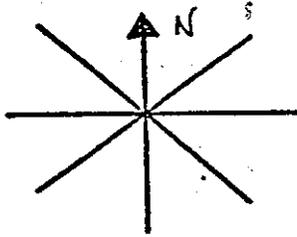
_____ 528

DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

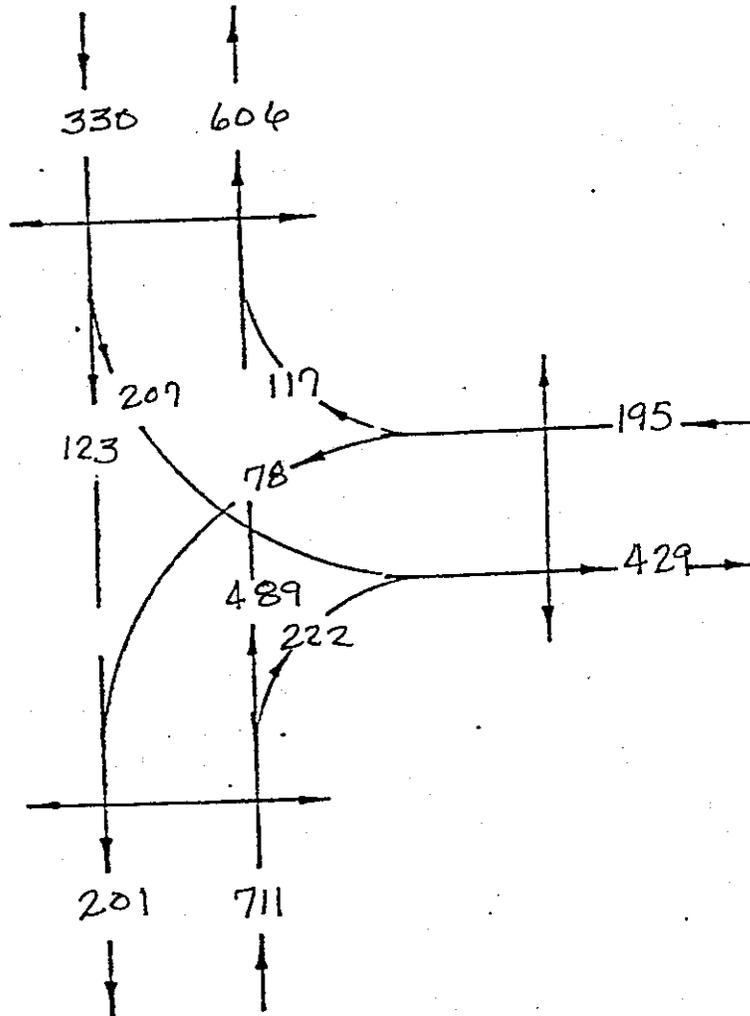
COUNTY CATOOSA CITY _____

LOCATION S.R. 3 @ GRAYSVILLE Rd



INDICATE NORTH

DATE 3 Feb 98
 DAY OF WEEK TUES
 TIME 0800
 WEATHER RAINING
 COUNTED BY OMA



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)	VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)
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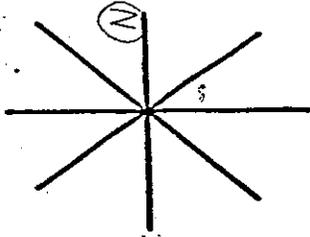
70% W1 W2 _____
 ACTUAL 1041 195

TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

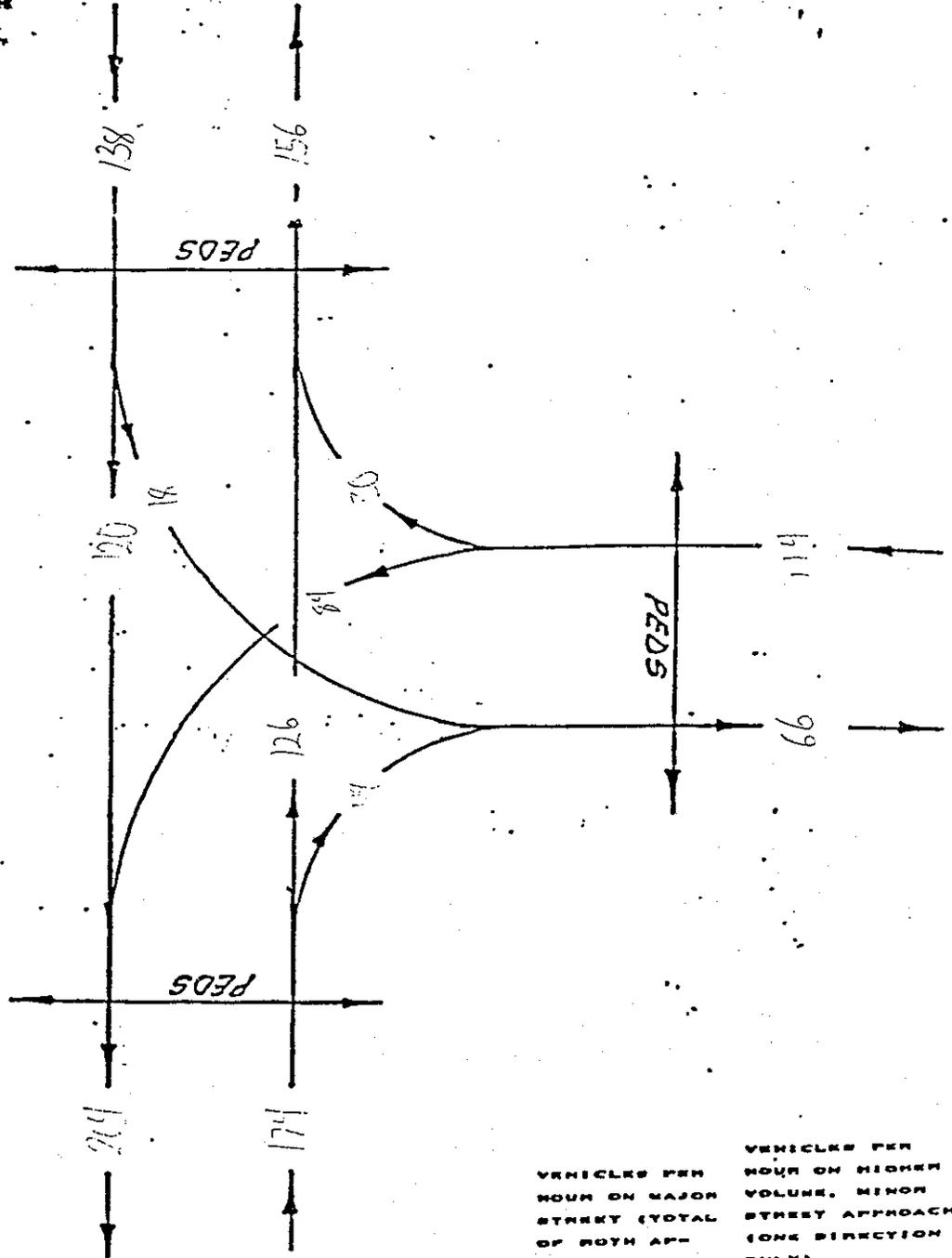
COUNTY Catoosa CITY Indian Springs

LOCATION SR 3 @ Graysville Rd.



INDICATE NORTH

DATE 8-6-98
 DAY OF WEEK Th
 TIME 0900-1000
 WEATHER Clear
 COUNTED BY JB



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)

VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)

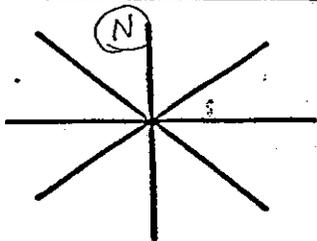
70% V1 V2 _____
 ACTUAL _____

TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

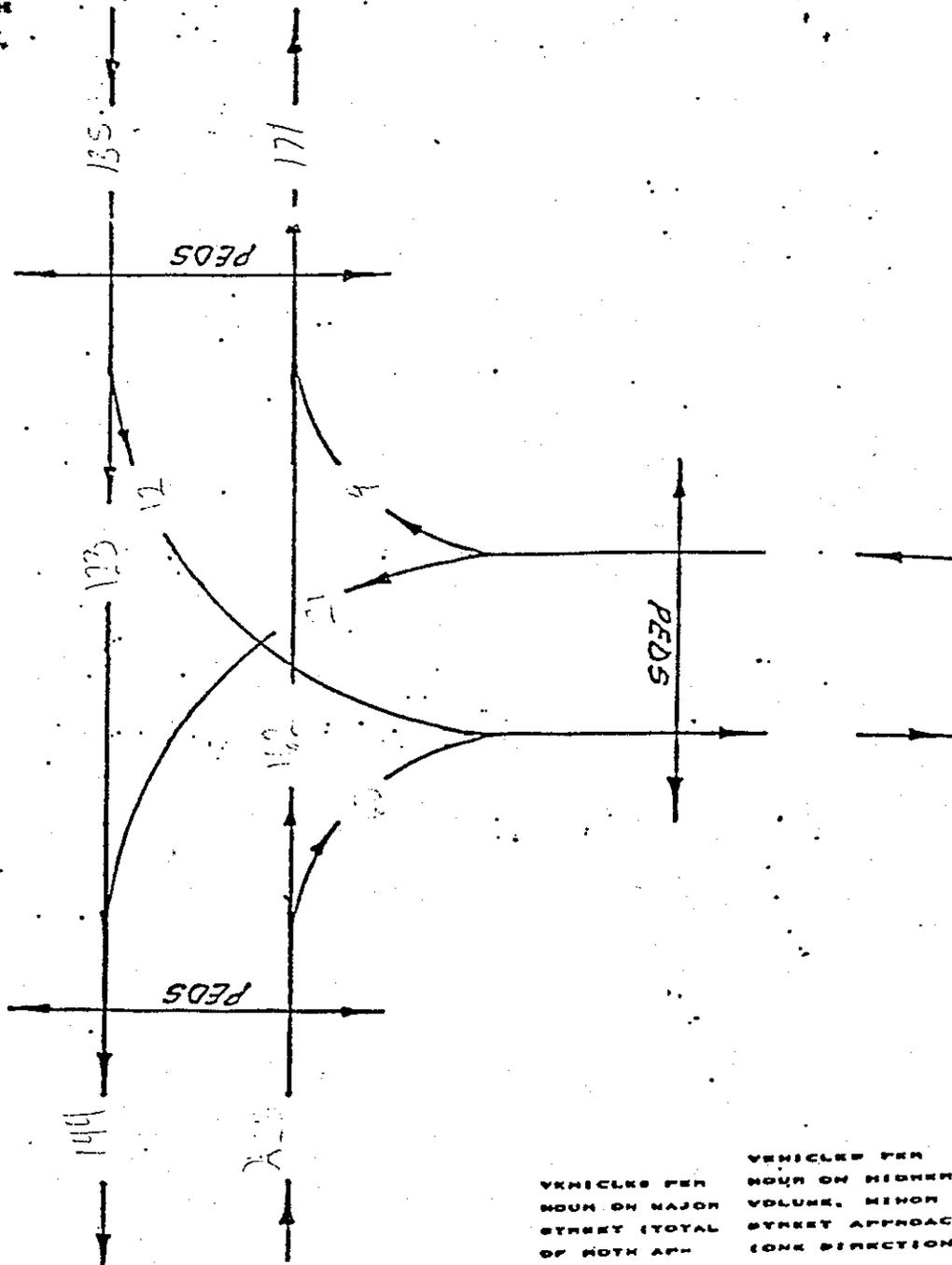
COUNTY Coloosa CITY Indian Springs

LOCATION SR3 @ Grayville Rd



INDICATE NORTH

DATE 8-6-98
 DAY OF WEEK Th
 TIME 1600-1800
 WEATHER clear
 COUNTED BY TR



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)

VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)

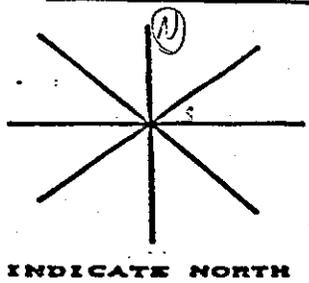
70% V1 V2 _____
 ACTUAL _____

TRAFFIC ENGINEERING AND SAFETY

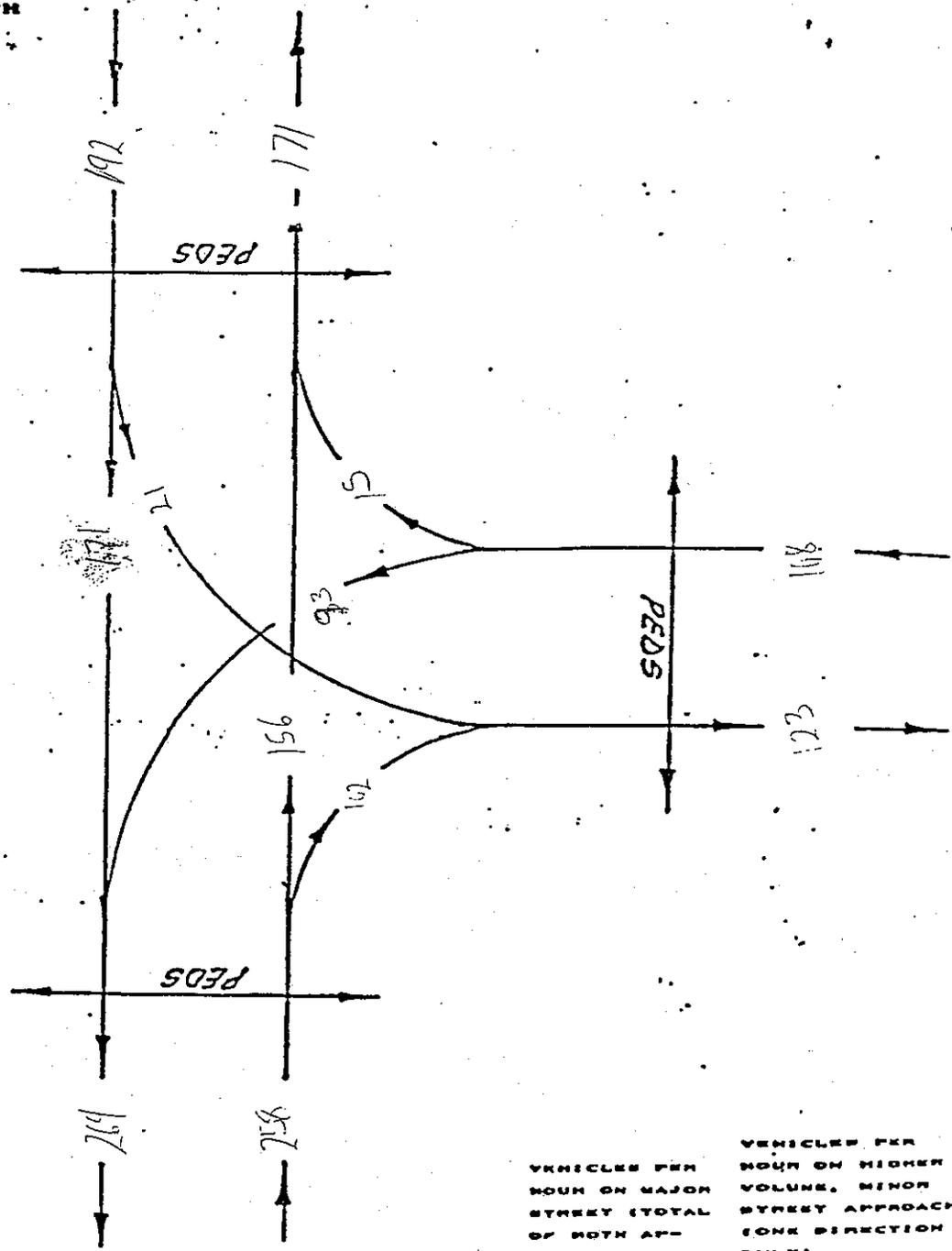
MANUAL TRAFFIC COUNT

COUNTY Laurens CITY Indian Springs

LOCATION SR3 @ Grayville



DATE 8-6-98
 DAY OF WEEK Th
 TIME 1100-1200
 WEATHER Clear
 COUNTED BY LB



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)

VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)

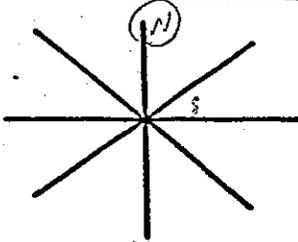
70% V1 W2 _____
 ACTUAL _____

TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

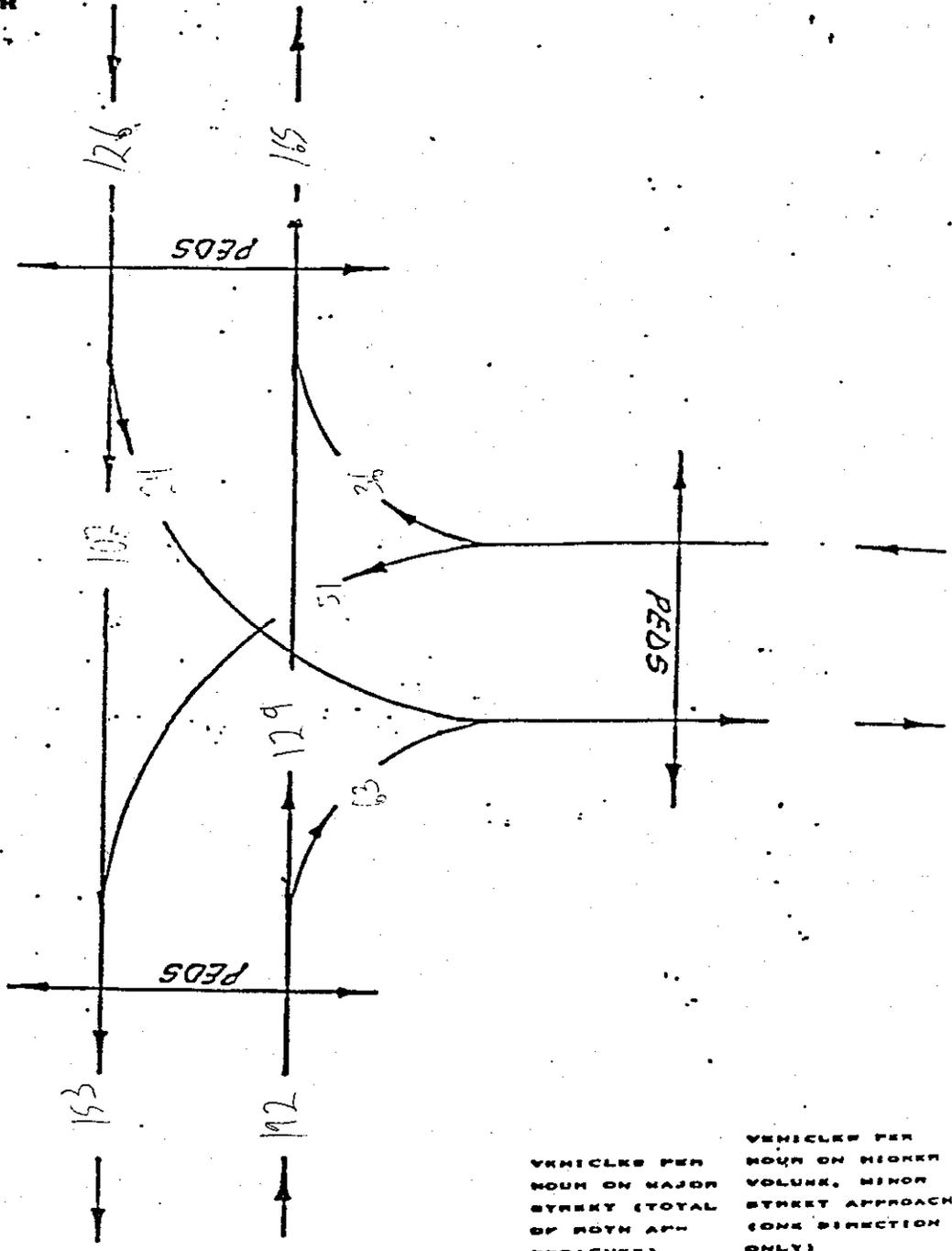
COUNTY Cataosa CITY Indian Springs

LOCATION SR3 @ Granville



INDICATE NORTH

DATE 8-6-78
 DAY OF WEEK Th
 TIME 12:00-13:00
 WEATHER Clear
 COUNTED BY RB



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)

VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)

70% W1 W2 _____

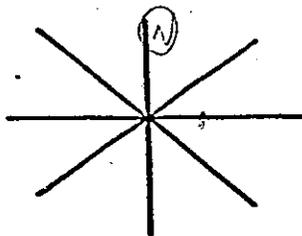
ACTUAL _____

TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

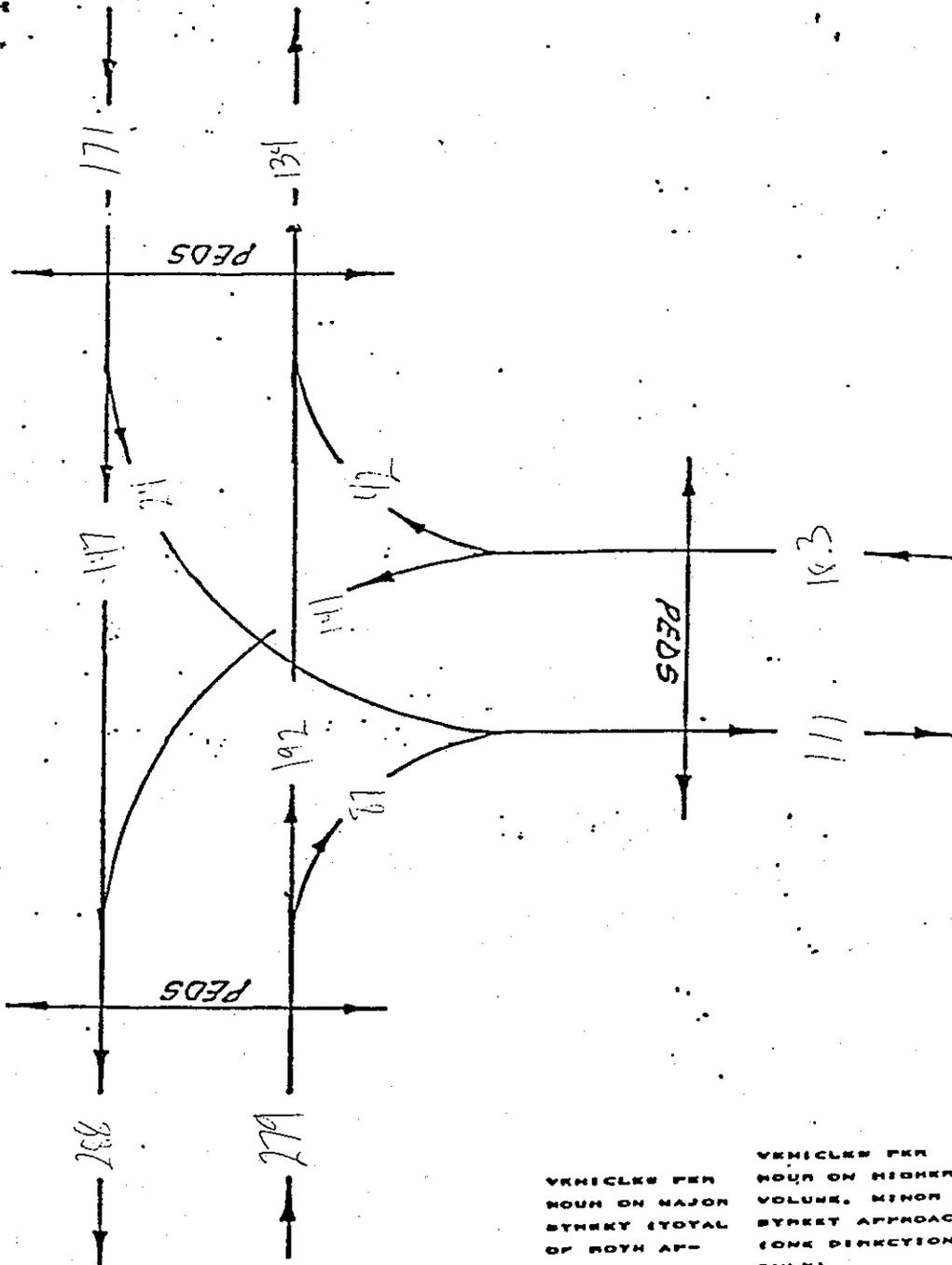
COUNTY Coosa CITY Indian Springs

LOCATION SR3 @ Grayville



INDICATE NORTH

DATE 8-6-98
 DAY OF WEEK TH
 TIME 11:00-12:30
 WEATHER Clear
 COUNTED BY Jb



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)

VEHICLES PER HOUR ON MINOR STREET APPROACH (ONE DIRECTION ONLY)

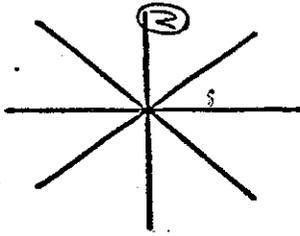
70% W1 W2 _____
 ACTUAL _____

TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

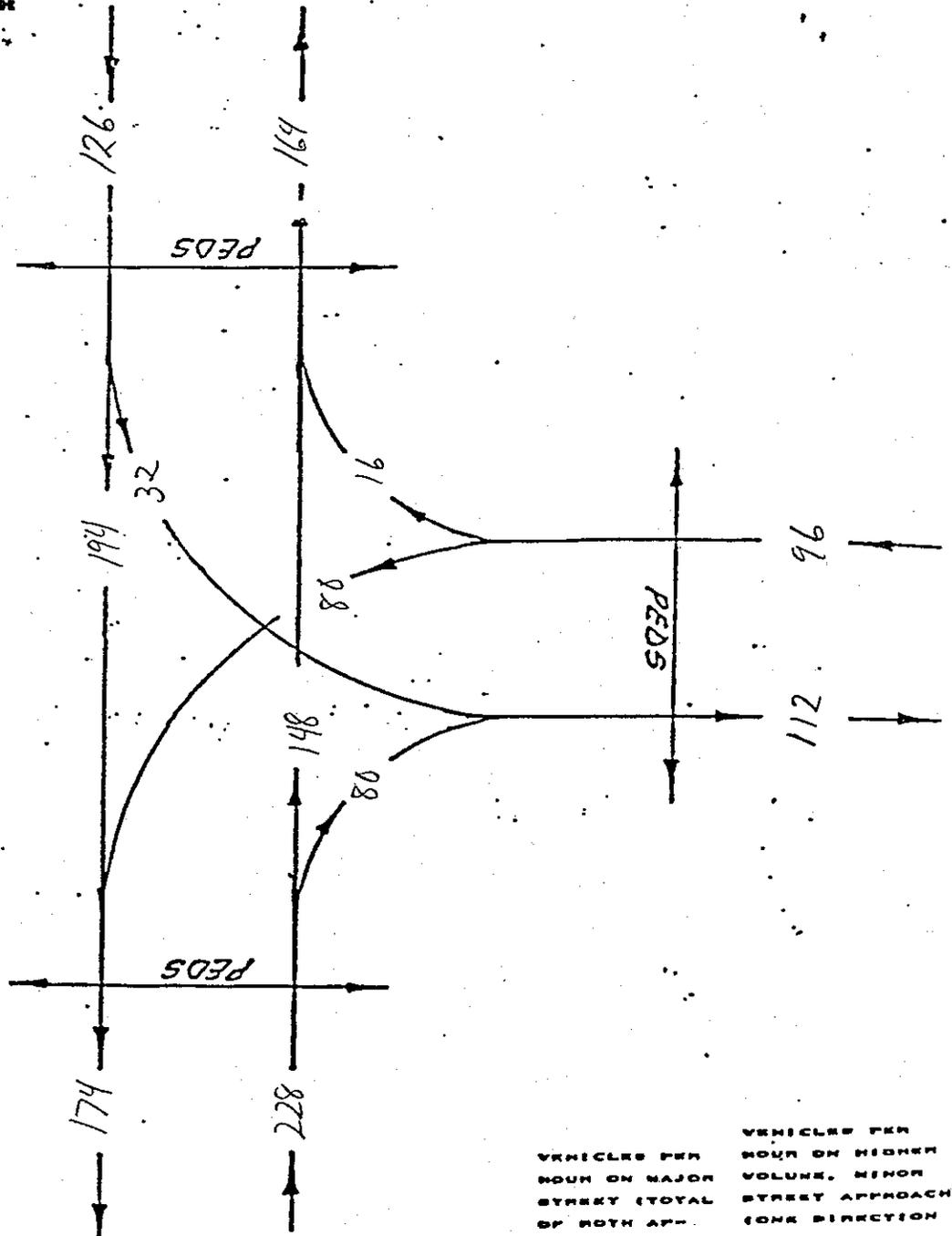
COUNTY Catoosa CITY Indian Springs

LOCATION SR 3 @ Graysville Rd.



INDICATE NORTH

DATE 8-6-98
 DAY OF WEEK TH
 TIME 1500-1600
 WEATHER Clr
 COUNTED BY AB



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES) _____

VEHICLES PER HOUR ON HIGHER VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY) _____

70% W1 W2 _____

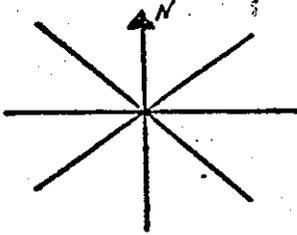
ACTUAL _____

DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

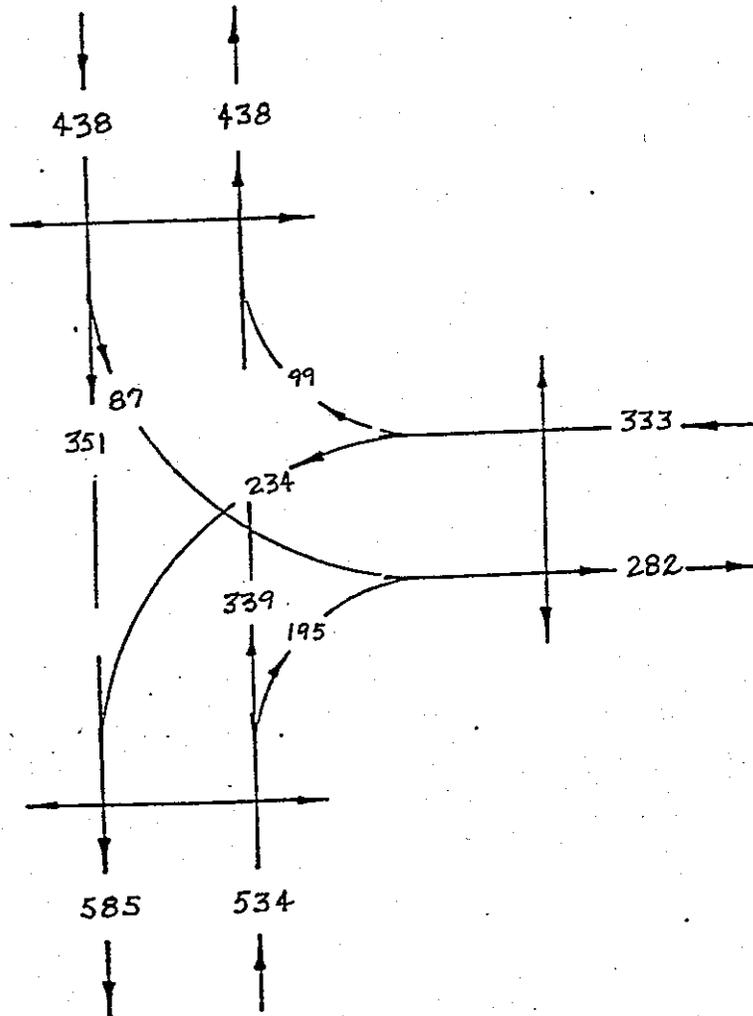
COUNTY CATAHOOSA CITY _____

LOCATION S.R. 3 @ GRANVILLE Rd.



INDICATE NORTH

DATE 17 Feb 98
 DAY OF WEEK THUR
 TIME 1600
 WEATHER _____
 COUNTED BY DMB



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)	VEHICLES PER HOUR ON MINOR STREET APPROACH (ONE DIRECTION ONLY)
--	---

70% W1 W2 _____

ACTUAL 973

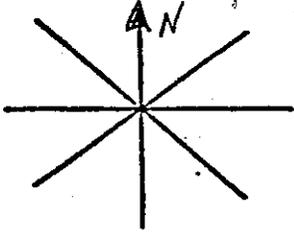
333

DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

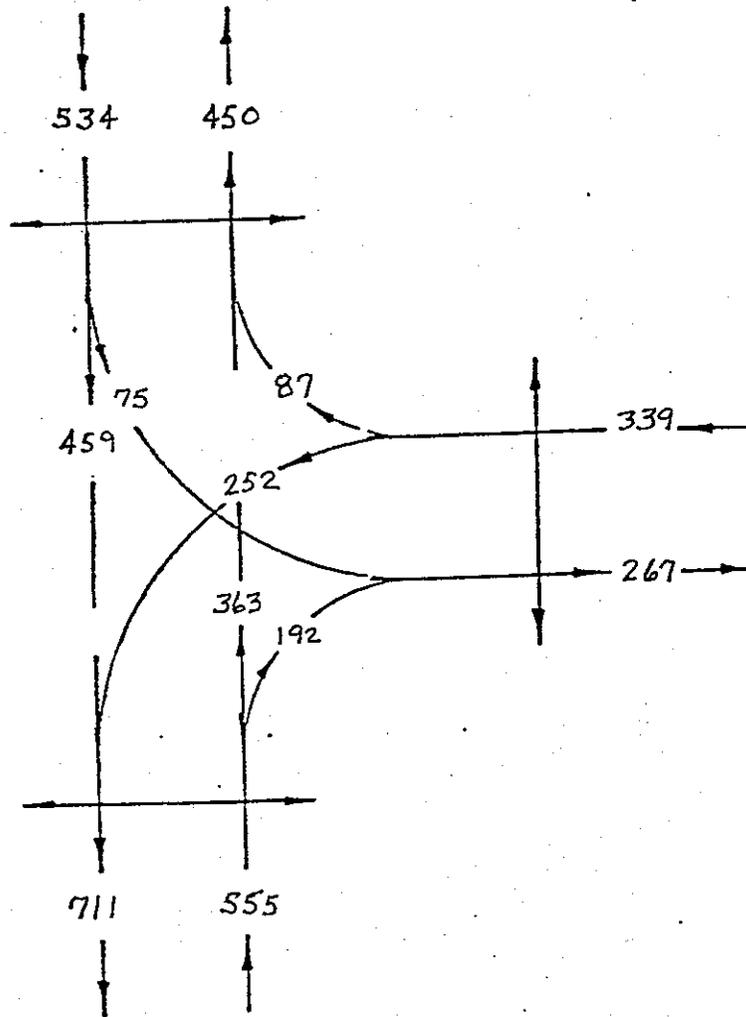
COUNTY CATOOSA CITY _____

LOCATION S. R. 3 @ GRAYSVILLE RD.



INDICATE NORTH

DATE 17 Feb 98
 DAY OF WEEK TUES
 TIME 1700
 WEATHER _____
 COUNTED BY DMH



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES) _____
 VEHICLES PER HOUR ON MINOR STREET APPROACH (ONE DIRECTION ONLY) _____

TOTAL V1 V2 _____
 ACTUAL 1089 339