



**Ohio Department of Transportation**  
**INTER - OFFICE COMMUNICATION**  
**District 9 Traffic**

Date: April 17, 1995

To: Robert D. Yankovich, Engineer, Bureau of Traffic

From: Gregory L. Baird, D-9 Traffic Engineer

Subject: Speed Study, Adams County, S.R. 125 S.L.M. 4.75 to 5.37

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Please review the attached speed study for this section of highway. Within this section is the intersection of S.R. 125 and 136. There are businesses on all four corners of the intersection. S.R. 136 stops for S.R. 125. We are experiencing several accidents at the intersection. There is an overhead flasher at the intersection and dual stop signs. We have Junction signing and Cross Road warning signs. Recently we erected No Parking signs at the intersection to further improve safety. Also we are trying to relocate and eliminate some utility poles.

Due to a recent increase in accidents we have had a great deal of public concern and concern by the Ohio State Highway Patrol in this area.

Please process this recommendation to lower the speed limit to 45 MPH for this section of highway.

*RDC*  
GLB:RDC;jra

cc: Watkins, Armstrong, Chaffin, file, letter file

OHIO  
WARRANTS FOR SPEED ZONES

DATE: 4 / 17 / 95

COUNTY: Ada ROUTE/STREET: S.R. 125  
 BEGIN: 4.75 END: 5.37 LENGTH: .62 ADT: 2640

I HIGHWAY DEVELOPMENT

(A) BUILDING DEVELOPMENT

TYPE 1 - UNITS 17 X 1 = 17  
 TYPE 2 - UNITS 4 X 2 = 8  
 TYPE 3 - UNITS \_\_\_\_\_ X 3 = \_\_\_\_\_  
 TYPE 4 - UNITS \_\_\_\_\_ X 4 = \_\_\_\_\_

(B) INTERSECTION CLASSIFICATION

CLASS A - NO. \_\_\_\_\_ X 2 = \_\_\_\_\_  
 CLASS B - NO. 1 X 3 = 3  
 CLASS C - NO. \_\_\_\_\_ X 4 = \_\_\_\_\_

TOTAL TYPE (A) ----- = 25 TOTAL CLASS (B) ----- = 3  
 HIGHWAY DEVELOPMENT = 25 (A) + 3 (B) = 28 = 45.16  
.62 LENGTH (MILES)

II ROADWAY FEATURES

FACTORS	8	9	10	11	12	
1) LANE WIDTH, FEET	<9	9	<u>10</u>	11	>=12	
2) SHOULDER: UNIMPROVED	<2	<4	<6	>=6		<u>10</u>
IMPROVED		<2	<u>&lt;4</u>	<6	>=6	<u>10</u>
3) CHARACTERISTICS	E	D	<u>C</u>	B	A	<u>10</u>
4) VOLUME (ADT/LANE)	>3500	2501-3500	1501-2500	<u>501-1500</u>	1-500	<u>11</u>
TOTAL ROADWAY FEATURES =						<u>41</u>

V ACCIDENT CALCULATION:  $\frac{2740 \times 24}{2640 \text{ ADT.} \times 3 \text{ YR.} \times .62 \text{ MILES}} \text{ ACC.} = \frac{13.39}{\text{MIL. VEH. MILES}} \text{ ACC.}$

SPEED LIMIT FACTORS	45	55	64	73	82	91	100	
I HIGHWAY DEVELOPMENT	>100	86-100	66-85	51-65	<u>36-50</u>	21-35	<21	<u>82</u>
II ROADWAY FEATURES	32	33-34	35-36	37-38	39-40	<u>41-42</u>	>42	<u>91</u>
III 85%TILE (MPH)	23-27	28-32	33-37	38-42	43-47	48-52	<u>&gt;52</u>	<u>100</u>
IV PACE (MPH)	13-27	18-32	23-37	28-42	33-47	38-52	<u>43-57</u>	<u>100</u>
V ACCIDENTS / MVM	<u>&gt;8.5</u>	7.1-8.5	5.8-7.0	4.7-5.7	3.7-4.6	2.8-3.6	<=2.7	<u>45</u>
TOTAL FACTORS =								<u>418</u>

CALCULATED SPEED = 418 TOTAL FACTORS X  $\frac{55}{5}$  = 45.98 MPH.

VI TEST RUN, AVE. 45 MPH. WARRANTED SPEED = 45 MPH.

STUDY BY: R. Chaffin, W. Sparks

# SPEED STUDY DATA SHEET

Date 4-17-95 County Adams Highway Name \_\_\_\_\_ Route Number S.R. 125



Jurisdiction \_\_\_\_\_ Street Classification RURAL

Log Point	*	**	PHYSICAL CONDITION				*	**	TRAFFIC CONTROL DEVICES				SPEED		ACCIDENTS			
			Right of Way or Fence Line	Edge of Berm	Edge of Pavement	Center of Pavement			Edge of Pavement	Edge of Berm	Right of Way or Fence Line	TRAFFIC CONTROL DEVICES	85%	PACE				
5.40																		
5.37			End Zone															
5.30																		
5.20																		
5.10																		
5.00																		
4.90																		
4.80																		
4.75			Begin Zone															
4.70																		

\* Intersection Class  
\*\* Building Type

# SPEED ZONE STUDY INSTRUCTIONS

## PHYSICAL CONDITIONS

Use the symbols shown in Legend to describe the physical conditions along the roadway.

In addition, indicate the following:

- Width of lanes
- Width of Pavement
- Width of berm
- Setback of buildings
- Distance to any fixed objects within 10' of pavement edge.
- Type & condition of pavement surface.

Log Points: Use SLM on rural state routes. Use 1" = 0.1 mile scale along  $\phi$  of roadway. Lateral dimensions need not be scaled.

Mark beginning and end of proposed zones. Log 500' beyond each end of zone.

## TRAFFIC CONTROL

### DEVICES

Show the following:

Pavement marking or restricted sight distances less than 600'

Signals & Flashers

Warning signs

Regulatory signs

Vehicles parked on or within 6' of pavement edge.

Number of and point at which more than 5 pedestrians per hour cross or walk on the pavement.

Submit a scaled area map or sketch to identify the location of the proposed zone.

## ACCIDENTS (3 YEARS)

Record each reported accident that occurred during the past 3 years by placing a symbol at the log point. Opposite the symbol, show number of Injured (I) and Killed (K), or Property Damage.

## TEST RUNS

Test runs are to be made by driving as fast as it is comfortably safe. Test runs are to be made so that other traffic will not delay the test car. Record at each 0.1 mile or oftener the average speed of three test runs made in each direction.

## SPEED CHECK

Speed checks may be taken with any device that will indicate vehicle speed with an accuracy of + or -10%. Record speeds of 100 vehicles for each direction of travel (observation need not exceed 2 hours). Speed checks should be taken at the 1/3 points for zones 0.25-1.00 mile in length, and at 0.5-0.75 mile intervals for zones over 1 mile in length.

## LEGEND

### FEATURES

○ Residence	— Driveway	▤ Sidewalk
● Business	▢ Parked Vehicle	▦ Guard Rail
⊡ School	⋯ Painted lane & center line	⊕ Signal or Flasher
⊠ Church	▬ Railroad	— Yellow painted line
≡ Intersection	≡ Bridge-Underpass	⊖ Traffic Signs

### ACCIDENTS

X	Accident Location
I	Injured
P	Pedestrian
K	Killed
PD	Property Damage

Additional data (i.e. photographs) may be submitted in addition to the required forms

(See Other Side For Data Sheet)

# SPEED CHECK

## RADAR TYPE SPEED METER

Location S.R. 125 S.L.M. 4.82  
 Date 4-13-95 Day Thursday County Adams  
 Observer R. Chaffin, W. Sparks  
 Type Pavement Bituminous Dry  Wet  Condition Good Width 21'  
 Weather Cloudy Temperature 50°

E bound, Time <u>12:00 P</u> M to <u>2:00 P</u> M				M.P.H.	W bound, Time <u>12:00 P</u> M to <u>2:00 P</u> M			
Cum. %	Cum. Total	No.	Vehicles		No.	Cum. Total	Cum. %	
			Passenger Cars					Commercial
					Over			
					90.0			
					88.0			
					86.0			
					84.0			
					82.0			
					80.0			
					78.0			
					76.0			
					74.0			
					72.0			
					70.0			
					68.0			
					66.0			
					64.0	1	111	100
					62.0			
					60.0	2	110	99
					58.0	1	108	97
					56.0	1	107	96
					54.0	5	106	95
					52.0	10	101	91
					50.0	11	91	82
					48.0	15	80	72
					46.0	19	65	59
					44.0	10	47	42
					42.0	11	37	33
					40.0	7	26	23
					38.0	8	19	17
					36.0	4	11	10
					34.0	1	7	6
					32.0	5	6	5
					30.0	1	1	1
					28.0			
					26.0			
					24.0			
					22.0			
					20.0			
					18.0			
					16.0			
					14.0			
					Below			
					Totals			

85 Percentile - 57 mph / Pace 46 to 56

85 Percentile - 53 mph / Pace - 44 to 54

