

990455

To:

Stan Rickard, Public Works Director

From:

John Johnson, Technical Services Supervisor

Date:

August 25, 1999

Subject:

Request for a Multiway Stop at Elizabeth and Greenfield

Attached for your review are traffic counts, speed reports and a November 13, 1986, traffic study for Elizabeth and Greenfield intersection. The intersection is currently controlled with stop signs on Elizabeth. Any of the following conditions may warrant a multiway stop sign installation:

- 1. Where traffic signals are warranted and urgently needed, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.
- 2. An accident problem, as indicated by five or more reported accidents of a type susceptible of correction by a multiway stop installation in a 12-month period. Such accidents include right- and left-turn collisions as well as right-angle collisions.
- 3. Minimum traffic volumes:
- (a) The total vehicular volume entering the intersection from all approaches must average at least 500 vehicles per hour for any 8 hours of an average day, and
- (b) The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same 8 hours, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour, but
- (c) When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum vehicular volume warrant is 70 percent of the above requirements.

Traffic counts were conducted for 48 hours and showed 596 vehicles traveled north and southbound over a 24 hour period. There were 1714 vehicles traveling east and westbound over a 24 hour period. These volumes do not meet the minimum traffic volume for a multiway stop sign.

The approach speeds east and westbound Greenfield at Elizabeth shows an average speed of 27 mph and the majority of the vehicles were traveling at 28 mph or less.

The Police Department reported that this intersection has had very few minor accidents over the years. The lack of accidents does not support the installation of a multiway stop.

On the basis of the above information, I would not recommend converting Elizabeth and Greenfield to a multiway stop.

cc: Richard Tross, Trustee - District 2
Ralph Borgatell, Trustee - District 1
Transportation and Safety Committee

NU-METRICS Traffic Analyzer Study Computer Generated Summary Report Route: E.B.GREENFIELD Location: E.B.GREENFIELD

A study of vehicle traffic was conducted with HI-STAR unit number 426. The study was done in the lane on E.B.GREENFIELD in Lombard, IL in DuPage county. The study began on 07/20/1999 at 10:00 AM and concluded on 07/22/1999 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 1,423 vehicles passed through the location with a peak volume of 70 on 07/21/1999 at 07:00 AM and a minimum volume of 0 on 07/21/1999 at 02:00 AM.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

| | Chart 1 | | | | | | | | | | | | | | |
|---|---------|----|-----|-----|-----|-----|----|----|----|----|----|----|-----|----|------|
| | < 23 | 23 | 25 | 28 | 30 | 33 | 35 | 38 | 40 | 43 | 45 | 48 | 50 | 53 | > 53 |
| į | | | | | | | | | | | | | | | |
| | 352 | 50 | 199 | 366 | 168 | 159 | 44 | 30 | 11 | 15 | 4 | 2 | . 0 | 2 | 1 |

Half of the vehicles were traveling at 28 Mph or a lower speed. The average speed for all classified vehicles was 28 Mph with 19.1 percent exceeding the posted speed of 30 Mph. The HI-STAR found 0.0 percent of the total vehicles were traveling in excess of 55 Mph. The mode speed for this traffic study was 28 Mph and the 85th percentile was 33.

CLASSIFICATION

Chart 2 lists the values of the eight Classification bins and the total traffic volume accumulated for each bin.

| Chart 2 | | | | | | | | | |
|---------|----|----|----|----|---|-----|------|--|--|
| < 20 | 20 | 30 | 40 | 50 | 6 | 70 | > 70 | | |
| | | | | | | | | | |
| 1319 | 22 | 49 | 8 | 5 | | 0 0 | 0 | | |

Most of the vehicles were Passenger Cars with a total count of 1,341. This represents 95.6 percent of the classified vehicles. The number of trucks in the study was 0 which represents 0.0 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 07/21/1999 at 07:00 AM the average headway between the vehicles was 50.7 seconds. The slowest traffic period was on 07/21/1999 at 02:00 AM. During this slowest period, the average headway was 3600.0 seconds.

n de la participa de la participa de la compania del la compania de la compania del la compania de la compania de la compania del la compania de la compania del la compani

a salah garat and a

্রে পির ন্যাধির ১৮৮ প্রিক্রেকেশ স্কুরির জিল ১৮৮ স্ট্রিক্রিকের রূপী ক্রমে জ

ales en en la latina. En la latina de la

er erendur e dure m Le Palme III kromer Le Pale III

Dett. Jehr - Hitte 1

WEATHER

The roadway surface temperature over the period of the study varied between 80 and 125 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 41.67 percent of the time.

NU-METRICS Traffic Analyzer Study Computer Generated Summary Report Route: W.B.GREENFIELD Location: W.B.GREENFIELD

Tandr Stall

ាស៊ីមិននៃនិង ១០ ស៊ីម៉ូមិន ន (១៩១ ១០ ១៤ ៤) (១១១ ១០ ១៤ ១៩)

A study of vehicle traffic was conducted with HI-STAR unit number 427. The study was done in the lane on W.B.GREENFIELD in Lombard, IL in DuPage county. The study began on 07/20/1999 at 10:00 AM and concluded on 07/22/1999 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 2,006 vehicles passed through the location with a peak volume of 143 on 07/20/1999 at 05:00 PM and a minimum volume of 0 on 07/22/1999 at 02:00 AM.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

| Chart 1 | | | | | | | | | | | | | | | |
|---------|------|----|-----|-----|-----|-----|----|----|----|----|----|----|-----|----|------|
| | < 23 | 23 | 25 | 28 | 30 | 33 | 35 | 38 | 40 | 43 | 45 | 48 | 50 | 53 | > 53 |
| | | İ | | | | | | | | | | | | | |
| | 894 | 77 | 184 | 333 | 186 | 183 | 61 | 44 | 12 | 8 | 5 | 2 | . 0 | 2 | 3 |

Half of the vehicles were traveling at 25 Mph or a lower speed. The average speed for all classified vehicles was 26 Mph with 16.0 percent exceeding the posted speed of 30 Mph. The HI-STAR found 0.0 percent of the total vehicles were traveling in excess of 55 Mph. The mode speed for this traffic study was 22 Mph and the 85th percentile was 33.

CLASSIFICATION

Chart 2 lists the values of the eight Classification bins and the total traffic volume accumulated for each bin.

The Section

TOWN SERVICE STREET

The second of th

Control of the second

The state of the s

Carrier in anyly re

ond a language e englis. Ta Respon

| | | | | | Chart 2 | 1.50 | | | |
|-----|------|----|----|----|---------|------|----------|----|------|
| | < 20 | 20 | 30 | 40 | 50 | 4. | <u> </u> | 70 | > 70 |
| | | | | | | | , - | | |
| - [| 1930 | 16 | 37 | 4 | . 3 | | 2 | 2 | 0 |

Most of the vehicles were Passenger Cars with a total count of 1,946. This represents 97.6 percent of the classified vehicles. The number of trucks in the study was 0 which represents 0.0 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 07/20/1999 at 05:00 PM the average headway between the vehicles was 25.0 seconds. The slowest traffic period was on 07/22/1999 at 02:00 AM. During this slowest period, the average headway was 3600.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 76 and 103 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 91.67 percent of the time.

NU-METRICS Traffic Analyzer Study Computer Generated Summary Report Route: N.B. ELIZABETH Location: N.B. ELIZABETH

n de la companya de la co

The first of the f

gradia miganto

Same affect a AND WEST

. also 'r and

A study of vehicle traffic was conducted with HI-STAR unit number 9246. The study was done in the lane on N.B. ELIZABETH in Lombard, IL in DuPage county. The study began on 07/20/1999 at 10:00 AM and concluded on 07/22/1999 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 115 vehicles passed through the location with a peak volume of 10 on 07/21/1999 at 06:00 PM and a minimum volume of 0 on 07/20/1999 at 02:00 PM.

<u>SPEED</u>
Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

| | Chart 1 | | | | | | | | | | | | | | |
|---|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|------|
| | < 23 | 23 | 25 | 28 | 30 | 33 | 35 | 38 | 40 | 43 | 45 | 48 | 50 | 53 | > 53 |
| | | | | | | | | | | | | | | | |
| [| 103 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Half of the vehicles were traveling at 22 Mph or a lower speed. The average speed for all classified vehicles was 22 Mph with 0.0 percent exceeding the posted speed of 30 Mph. The HI-STAR found 0.0 percent of the total vehicles were traveling in excess of 55 Mph. The mode speed for this traffic study was 22 Mph and the 85th percentile was 22.

CLASSIFICATION

Chart 2 lists the values of the eight Classification bins and the total traffic volume accumulated for each bin.

| | | | | Chart 2 | the thinking of | • | |
|------|-----|----|----|---------|-----------------|----|------|
| < 20 | 20 | 30 | 40 | 50 | 60 | 70 | > 70 |
| | | | | | | | |
| 90 | . 1 | 9 | 2 | 1 | | 0 | (0 |

Most of the vehicles were Passenger Cars with a total count of 91. This represents 88.3 percent of the classified vehicles. The number of trucks in the study was 0 which represents 0.0 percent of the total classifed vehicles.

HEADWAY

During the peak time period, on 07/21/1999 at 06:00 PM the average headway between the vehicles was 327.27 seconds. The slowest traffic period was on 07/20/1999 at 02:00 PM. During this slowest period, A COLUMN TO THE the average headway was 3600.0 seconds.

The roadway surface temperature over the period of the study varied between 78 and 121 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.0 percent of the time.

NU-METRICS Traffic Analyzer Study Computer Generated Summary Report Route: S.B. ELIZABETH Location: S.B. ELIZABETH

A study of vehicle traffic was conducted with HI-STAR unit number 429. The study was done in the lane on S.B. ELIZABETH in Lombard, IL in DuPage county. The study began on 07/20/1999 at 10:00 AM and concluded on 07/22/1999 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 1,078 vehicles passed through the location with a peak volume of 82 on 07/20/1999 at 06:00 PM and a minimum volume of 0 on 07/21/1999 at 04:00 AM.

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

| | Chart 1 | | | | | | | | | | | | | | |
|---|---------|----|------|----|----|----|-----|----|-----|----|----|----|-----|-----|------|
| [| < 23 | 23 | 3 25 | 28 | 30 | 33 | | 38 | 40 | 43 | 45 | 48 | 50 | 53 | > 53 |
| [| | | | | | | | | | | | | | | |
| [| 893 | 2 | 3 8 | 4 | 4 | 1 |) 0 | | 1 0 | 0 | 0 | 0 |) (|) 0 | 0 |

Half of the vehicles were traveling at 22 Mph or a lower speed. The average speed for all classified vehicles was 22 Mph with 0.11 percent exceeding the posted speed of 30 Mph. The HI-STAR found 0.0 percent of the total vehicles were traveling in excess of 55 Mph. The mode speed for this traffic study was 22 Mph and the 85th percentile was 22.

CLASSIFICATION

Chart 2 lists the values of the eight Classification bins and the total traffic volume accumulated for each bin.

in the state of th

e a delication

A Commence of the Commence of

on the state of th 18-3 m. L. J. W. 18-3 44-4 42 - 174 - 2 - 1 - 1 - 1

こう・シールの変換。 Shirt of Balling

and the second of

The first of the first of the Low William . Add in

| | | Chart 2 to the Assetting | | | | | | | | | |
|------|----|--------------------------|----|----|-----|---------|------|--|--|--|--|
| < 20 | 20 | 30 | 40 | 50 | 60 | 70 | > 70 | | | | |
| | | | | | | 100 100 | | | | | |
| 866 | 14 | 47 | 6 | 1 | [. | 0 | 1 | | | | |

Most of the vehicles were Passenger Cars with a total count of 880.4 This represents 94.1 percent of the classified vehicles. The number of trucks in the study was 0 which represents 0.0 percent of the total classifed vehicles. to care or traffic and other states and or traffication

HEADWAY

During the peak time period, on 07/20/1999 at 06:00 PM the average headway between the vehicles was 43.37 seconds. The slowest traffic period was on 07/21/1999 at 04:00 AM. During this slowest period. the average headway was 3600.0 seconds.

The roadway surface temperature over the period of the study varied between 78 and 117 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 97.92 percent of the time.

| HI-Star ID: 426 Street: E.B.GREENFIELD State: IL City: Lombard | | Lane Oper Poste | : : EP :d: 30 | | 9 10: | :00 AM | | Hou Per Rav | i: 07/2: urs: 48 iod: 60 v Cour | nt: 142 | 23 | MA 00 |
|--|---|---|--|--|---|---------------------------------------|---|---|--|---|---|---|
| County: DuPage | | AAD | ΓFacto | r: 1 | | | 11 #40 | AAI | OT Co | int: 7 | 12 | |
| Date & Time Range 07/20/1999 [10:00 AM-11:00 AM] 07/20/1999 [11:00 AM-12:00 PM] 07/20/1999 [01:00 PM-01:00 PM] 07/20/1999 [01:00 PM-02:00 PM] 07/20/1999 [02:00 PM-03:00 PM] 07/20/1999 [03:00 PM-04:00 PM] 07/20/1999 [05:00 PM-05:00 PM] 07/20/1999 [05:00 PM-06:00 PM] 07/20/1999 [06:00 PM-07:00 PM] 07/20/1999 [07:00 PM-08:00 PM] 07/20/1999 [07:00 PM-08:00 PM] 07/20/1999 [07:00 PM-08:00 PM] 07/20/1999 [07:00 PM-10:00 PM] 07/20/1999 [10:00 PM-10:00 PM] 07/20/1999 [10:00 PM-10:00 AM] 07/21/1999 [10:00 AM-01:00 AM] 07/21/1999 [01:00 AM-02:00 AM] 07/21/1999 [03:00 AM-05:00 AM] 07/21/1999 [05:00 AM-05:00 AM] 07/21/1999 [05:00 AM-06:00 AM] 07/21/1999 [06:00 AM-07:00 AM] 07/21/1999 [10:00 AM-10:00 AM] 07/21/1999 [10:00 PM-05:00 PM] 07/21/1999 [05:00 PM-06:00 PM] 07/21/1999 [05:00 PM-06:00 PM] 07/21/1999 [05:00 PM-06:00 PM] 07/21/1999 [05:00 AM-09:00 AM] 07/22/1999 [05:00 AM-09:00 AM] 07/22/1999 [05:00 AM-00:00 AM] 07/22/1999 [00:00 AM-00:00 AM] | 17 18 4 93 97 86 14 10 00 10 00 98 33 97 17 53 04 61 12 12 12 12 12 12 13 14 14 16 17 17 17 17 17 17 17 17 17 17 17 17 17 | 22000112330100000002023220000111261100100001143 | <u>8</u> 439807637531610100006263367562884545501201323413 00000000000000000000000000000000000 | 1 3 0 0 0 0 0 3 2 15 11 2 | 3 44404467532113300101796372066170444000000037983 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 521010100000000000011000000000000000000 | 000000000000000000000000000001100000000 | <u>8</u> 0010000000001000000000000000000000000 | 000100000000000000000000000000000000000 | 501000000000000000000000000000000000000 | Total 33 462 347 537 8 3221 9 4 4 0 2 3 0 7 0 4 2 3 3 3 3 2 3 5 6 5 7 4 7 6 6 5 3 4 3 2 2 9 4 4 0 2 3 0 7 5 3 2 3 3 3 2 3 5 6 5 7 4 7 6 6 5 3 4 6 5 3 4 6 5 3 4 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 |
| Grand Totals: | 352 | 50 50 | 99 366 | 168 | 159 | 44 · 11 30 | 15 | 4 | 2 | 2 | 1 | 1403 |
| Total Percentages: | 25.09% 3 | | 18% 1 26.09 | | | 3.14% 0.78° % 2.14% | % 0. 1.07% | | 0.00 14% |)% 0.14' | 0.079 % | % |

Time/Speed Report



TO:

William T. Lichter, Village Manager

FROM:

Joseph Breinig, Public Works Administrator

DATE:

November 13, 1986

SUBJECT: Service Request 30356

Please be advised that on October 31, 1986 traffic counts were conducted, as requested, at the intersection of Greenfield and Elizabeth. Results of the traffic count are attached. Also attached is a copy of a memorandum from the Police Department outlining accident history for this intersection.

The warrants, as set forth in the Manual on Uniform Traffic Control Devices, are not met for a multi-way stop. The Public Works Department would therefore recommend against the installation of a multi-way stop at the intersection of Greenfield and Elizabeth.

Should you have any questions, please contact me.

JB:ga

Attach

cc: Richard V. Doherty, Director of Public Works
Donald L. Luebke, Superintendent of Operations
Gerald Reese, Assistant Operations Superintendent
John Johnson, Senior Supervisor - Traffic Control

William D. Hogan, Chief of Police Ronald J. Rusnak, Deputy Police Chief



TO:

Donald L. Luebke, Superintendent of Operations

FROM:

John Johnson, Senior Supervisor - Traffic Control

DATE:

November 10, 1986

SUBJECT: Greenfield & Elizabeth - 4 Way Stop

Attached is a traffic count at Greenfield and Elizabeth also included is the traffic accident data.

Warrants for a multi-way stop under section2B-3 and 2B-4 of the Illinois Manual on Uniform Traffic Control Devices have not been met.

AT this time I would not recommend a multi-way stop at this intersection.

JJ:qa

Attach

cc: Joseph Breinig, Public Works Administrator Richard Doherty, Director of Public Works
Ron Rusnak, Patrol Division Commander
Gerald Reese, Assistant Superintendent of Operations

VILLAGE OF LOMBARD TRAFFIC CONTROL DIVISION - TRAFFIC COUNT RECORD

| Location / | PENFIEW AA | | Date: /0 - | 21-26 | Compiled b | v. d. 0 1./ | 2 |
|------------|------------|------------|------------|-----------|------------|---------------|----------------|
| Hours | | Southbound | | Eastbound | Westbound | Total | Grand Total |
| 12am- 1am | 1 | // | /2 | 8 | 16 | 24 | 36 |
| 1am- 2am | 5 | 2 | 8 | 0 | 10 | 10 | 18. |
| 2am- 3am | 2 | 3 | 5 | 3. | 4 | 7 | 12 |
| 3am- 4am | 0 | 0 | 0 | | | 2 | 2 |
| 4am- 5am | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 5am- 6am | 0 | 0 | 0 | 1 | 0 | 1 | |
| 6am- 7am | 5 | 10 | 15 | 17 | 10 | 27 | 42 |
| 7am- 8am | 3 | 26 | 29 | 76 | 22 | 98 | 127 |
| 8am- 9am | 10 | 69 | 79 | 151 | 48 | 199 | 278 |
| 9am-10am | 4 | 19 | 23 | 28 | 21 | 49 | 72 |
| 10am-11am | 0 | 45 | 45 | 41 | 40 | 81 | 126 |
| 11am-12pm | 12 | 40 | 52 | 30 | 44 | 74 | 126 |
| 12pm- 1pm | 7 | 34 | 41 | 45 | 34 | 79 | 120 |
| 1pm- 2pm | 3 | 53 | 56 | 42 | 50 | 92 | 148 |
| 2pm- 3pm | 9 | 34 | 43 | 46 | 48 | 94 | /37 |
| 3pm- 4pm | 5 | 55 | 60 | 48 | 66 | 114 | 174 |
| 4pm- 5pm | 4 | 76 | 80 | 45 | 73 | 118 | 198 |
| 5pm- 6pm | /3 | 78 | 91 | 118 | 110 | 228 | 3/9 |
| 6pm- 7pm | 12 | 72 | 84 | 135 | 136 | 274 | 355 |
| 7pm- 8pm | 5 | 68 | 7.3 | 123 | 95 | 218 | 291 |
| 8pm- 9pm | 11 | <i>5</i> 3 | 64 | 92 | 64 | 156 | 220 |
| 9pm-10pm | 6 | 28 | 34 | 57 | 45 | 102 | /36 |
| 10pm-11pm | 3 | 38 | 41 | 7/ | 52 | ∥ <i>/</i> 23 | 164 |
| 11pm-12am | 7 | 16 | 23 | 30 | 34 | 64 | 87 |
| TOTAL | /37 | 831 | 958 | 1,209 | 1,023 | 2232 | 3/90 |

COMMENTS:

LOMBARD POLICE DEPARTMENT



TO

: John Johnson

Senior Supervisor - Traffic Control

FROM

: Deputy Chief Ronald J. Rusnak

Patrol Division Commander

DATE

: October 29, 1986

SUBJECT: Service Request #30356

Regarding Service Request #30356 the accident count for the intersection of Greenfield Avenue and Elizabeth Street is as follows.

From 1982 to 1986 (to date) there were no accidents at this location.

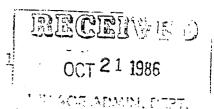
Therefore, I do not believe that four-way stop signs are required.

Patrol Division Commander

RJR/ct

cc: Joseph Breinig, Public Works Administrator





TO:

John Johnson, Senior Supervisor - Traffic Control

FROM:

Joseph Breinig, Public Works Administrator

DATE:

October 21, 1986

SUBJECT: Service Request 30356

Please perform traffic counts as requested and provide a recommendation regarding the installation of stop signs on Greenfield Avenue at Elizabeth Street. Also, contact the Police Department for information regarding accident data.

Should you have any questions, please see me.

JB:ga

Attach

cc:

William T. Lichter, Village Manager Richard V. Doherty, Director of Public Works William D. Hogan, Chief of Police Donald L. Luebke, Superintendent of Operations Gerald Reese, Assistant Operations Superintendent

Scotch® 7664 "Post-it" Routing-Request Pad

ROUTING - REQUEST

| Please READ | To Jue | Bremi | |
|---|-----------|------------|------|
| HANDLE | | | |
| APPROVE | What is | 1 to two ? | (16. |
| FORWARD RETURN KEEP OR DISCARD REVIEW WITH ME | activise. | | |
| Date | From | | |