

To:

Scott Niehaus, Village Manager

From:

Sergeant Joe Grage, Police Department

Through:

Roy Newton, Chief of Police

Date:

November 9th, 2017

Subject:

Public Safety and Transportation and Safety Committee Recommendation

Request for Speed Limit Reduction: Grace Street from Madison Street to Maple Street

On September 27th, 2017 the police department received a resident request to reduce the speed limit on Grace Street near her home from 30 MPH to 25 MPH. The police department performed a traffic study pursuant to that request. The traffic study included the following factors: 85th percentile speed, average speed, 10 MPH pace speed, number of crashes, number of access conflicts (driveways and intersections), pedestrian activity, and the presence of parking adjacent to traffic lanes. The results of the traffic study supported the resident request to alter the speed limit on Grace Street from Madison Street to Maple Street to 25 miles per hour.

The matter was heard before the Public Safety and Transportation Committee at their monthly meeting on November 6th, 2017. The committee voted to recommend the alteration of the speed limit based on staff's attached recommendation.



Roy Newton Chief of Police



Deputy Chief of Administrative Services



TO:

Deputy Chief Wirsing

FROM:

Sgt. Joe Grage #754

DATE:

10/04/2017

SUBJECT:

Public Safety and Transportation Committee Agenda Item:

Speed Limit Reduction Request: Grace St

Sir.

On Wednesday, September 27th, 2017, the police department received a copy of an email from resident Susan Cromwell of 353 E. Washington Ave. via Trustee Pike. In her email, Ms. Cromwell requested extra enforcement of stop sign violations at the intersection of Grace St. and Washington Blvd. She also asked that the Village consider lowering the speed limit on Grace St. to 25 miles per hour from the current posted statutory limit of 30 miles per hour.

I would like to note that there is already a small section of Grace St. that is posted 25 miles per hour. This section is located between Maple St. and Parkside Ave./St. Charles Rd. and is directly adjacent to the Lombard Commons Park.

In her request, Ms. Cromwell stated that Grace "is a main route used by many children both walking and on bicycles to get to Pelican Bay and Lombard Commons; it is a crossing and access point for the Illinois Prairie Path and an access point for the Great Western Trail."

villageoflombard.org/lpd 630 / 873-4400 TDD: 630 / 620-5811

DEPT. FAX: 630 873.4496 INVESTIGATIONS FAX: 630 873.4444

235 E. Wilson Avenue Lombard, Illinois 60148



Roy Newton Chief of Police



Deputy Chief of Administrative Services



I conducted a traffic study pursuant to Ms. Cromwell's request. The section of roadway already posted at 25 mph was excluded from the traffic study. In the past three years, there have been two pedestrian crashes on Grace St in the corridor studied. One occurred on Ash St. and involved a vehicle turning westbound Ash St. from Grace St. The second occurred on Grace St. at Madison St. That crash involved a motorist failing to yield from a stop sign as a pedestrian crossed Grace St. eastbound. Neither crash was speed related or resulted in serious injuries.

A speed study was also conducted as part of the traffic study. This study was performed from September 28th, 2017 to October 3rd, 2017 on Grace St. at Morningside Ave (between Washington Blvd. and Madison St.). The speed study (attached) had the following findings in summary:

Total vehicles: 16,151

85th Percentile Speed: 33 MPH 10 MPH Pace Speed: 26-35 MPH

Mean (Average) Speed: 29 MPH

In order to determine whether or not the speed study warranted a speed limit reduction, I consulted the Illinois Department of Transportation's "Policy on Establishing and Posting Speed Limits on the State Highway System". In that document, IDOT asserts that the determination of the prevailing speed of free-flowing traffic is the basic step in establishing an altered (in this case reduced) speed limit. Using IDOT's method, the prevailing speed is the computed average of the 85th percentile speed, upper limit of the 10 mile per hour pace, and the average speed.

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Roy Newton
Chief of Police

Thomas Wirsing
Deputy Chief of Operations

Deputy Chief of Administrative Services



I used this method with the data provided by the speed study and calculated the prevailing speed on Grace St. to be 32.3 miles per hour. IDOT's method does allow for the consideration of supplemental crash data, access control, pedestrian activity, parking, and other miscellaneous factors. This protocol allows for the setting of an altered speed limit that can differ from the established prevailing speed by up to 9 miles per hour when certain conditions are met.

The Grace St. corridor studied does not qualify as a high-crash location.

When it comes to access control, IDOT allows for the consideration of the number of "access conflicts" in the studied area. Driveways (residential and business), minor street intersections, and major street intersections are examples of access conflicts for the purposes of this evaluation. In this case, the number of access conflicts exceeds 60. This allows for a speed limit reduction of 10%.

In the area of pedestrian activity, IDOT's policy allows for a 5% reduction in speed limit where no sidewalks are provided or are located immediately behind the curb (no parkway). That is not the case on Grace St. Pedestrian crossings without STOP signs, YIELD signs, or traffic signals on the route do provide a basis for a 5% reduction. This is the case on Grace St. at the Illinois Prairie Path crossing.

When it comes to parking, IDOT's policy allows for a 5% reduction where parking is permitted adjacent to the traffic lanes. Vehicles are allowed to park on the west side of Grace St., so the area studied does qualify for this reduction.

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Roy Newton Chief of Police

Thomas Wirsing
Deputy Chief of Operations

Deputy Chief of Administrative Services



IDOT's policy allows for the percentage corrections to the prevailing speed resulting from any or all of the above factors to be applied in order to select the altered speed limit (closest 5 mile per hour increment to be used).

When percentage corrections for access conflict, pedestrian activity, and parking (-20%) are applied to the prevailing speed calculated above, the resulting altered speed limit is 25.8 miles per hour.

Based on the results of this study, I recommend that the PSTC approve Ms. Cromwell's request to reduce the speed limit on Grace St. between Maple St. and Madison St. to 25 miles per hour.

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Grace St At Morningside Ave Date Start: 28-Sep-17 Date End: 03-Oct-17

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56	30	5	5	_	-	9	14	53	96	112	84	74	82	100	102	104	131	132	142	136	109	75	09	20	31	1705	45.7%	08:00	112	17:00	142
21	25	0	2	0	-	-	7	6	21	21	28	34	17	33	30	29	18	18	59	45	45	23	12	21	2	449	12.0%	10:00	34	18:00	45
16	20	-	0	0	0	~	0	4	8	-	-	4	80	9	4	3	2	2	∞	2	က	0	0	7	0	22	1.5%	11:00	80	17:00	80
-	15	2	-	0	0	2	_	9	2	0	τ-	9	9	9	7	0	4	က	7	7	8	0	0	7	-	46	1.2%	10:00	9	12:00	9
Start 1	Time	09/29/17	01:00	02:00	03:00	04:00	02:00	00:90	07:00	08:00	00:60	10:00	11:00	12 PM	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total	Percent	AM Peak	Vol.	PM Peak	Vol.

Grace St	8-Sep-17	3-Oct-17	95th	Percent	39	000	98	900	0 0	8 8	41	37	36	35	34	37	37	35	36	36	37	36	36	34	38	36	34	34					
At Morning	Date Start: 28-Sep-17	Date End.	85th	Percent	34		\$ 2	† c	9 C	32	36	34	3 8	33	33	34	. K	33	3 8	34.	34	34	33	32	33	33	32	33				,	
	Δ-			Total	34	7	<u> </u>	2 1	- 1	- 41	. 72	75	166	235	265	274	253	251	237	237	251	252	258	153	82	98	88	63	3369		11:00	274	18:00
			92	666	0		0 0	0 0	0 0	0 0	C	0	0	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0	%0.0			
	ř.		77	75	0		0 0	0 0	0 0	0 0	0	C	0	0	C	0	0	C	0	0	0	0	0	0	0	0	0	0	0	%0.0			
			99	70	0	c	0 0	0 0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0			
			61	65	0	c	0 0	o c	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0			
			26	09	0	c	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0			
			51	55	0	C	0		0 0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	%0.0	00:90	_	
			46	20	0	C	0	-	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	2	0.1%	03:00	-	20:00
			41	45	-	0	0	0	0	0	7	0	0	0	0	7	7	0	_	_	2	0	-	-	7	0	_	-	17	0.5%	00:90	7 20 27	12:00 2
			36	40	4	2	-	-	0	0	9	6	12	12	1	21	22	13	17	15	25	21	15	ဖ	4	7	_	0	225	%2.9	11:00	17	16:00 25
			31	35	∞	က	2	-	-	4	41	26	28	109	87	103	105	92	88	112	96	96	8 8	33	21	24	28	22	1221	36.2%	00:00	50.1	15:00
			26	30	17	9	2	7	9	80	22	29	84	100	138	132	100	117	108	84	105	112	126	68	4 6	65 ·	45	30				130	126
			21	25	က	က	2	-	0	7	4	œ	7	9	25	13	16	24	70	17	19	17	5 50	70) - 	<u>.</u>	77	∞			10:00	40.00	24
			16	20	_	0	0	0	0	0	0	က	4	4	က	-	က	0	-	2	- 1	က၊	~ c	N C	n 4	- (۰ د	- ;	43	1.3%	08:00	10.07	7
		orthbound	- !	15	0	0	0	-	0	0	7	0	-	4	-	7	S	2	. .	က	ო (n ı	ດເ	N C	0	> 4		- 4	40		00:60	15:00	
		Southbound, Northbound	Start	Ime	09/30/17	01:00	02:00	03:00	04:00	02:00	00:90	02:00	08:00	00:00	10:00	11:00	12 PM	13:00	14:00	15:00	16:00	17:00	18:00	00:00	24:00	20.00	22:00	23:00	lotal		AIN FEAK		

Grace St At Morningside Ave Date Start: 28-Sep-17 Date End: 03-Oct-17

95th	Percent	34	37	34	42	39	4	38	39	38	38	35	35	35	36	38	34	37	34	34	34	34	34	37	34						
85th	Percent	32	34	32	34	38	32	36	34	34	34	33	34	33	33	34	33	34	33	33	33	33	32	34	32						
	Total	53	32	13	6	2	15	21	23	86	82	127	135	149	110	129	136	161	199	145	130	74	26	38	4	1984		11:00	135	17:00	199
92	666	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
71	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
99	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
61	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
26	09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
51	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	0.1%			16:00	-
46	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
4	45	0	0	0	-	0	-	0	2	2	က	-	0	-	0	က	0	0	-	0	0	0	0	0	0	15	0.8%	00:60	3	14:00	က
36	40	0	4	0	0	-	0	2	4	œ	2	9	œ	œ	∞	6	2	13	9	4	2	က	7	4	0	108	5.4%	08:00	8	16:00	13
31	35	19	7	4	က	0	က	4	22	38	27	47	62	62	40	47	22	52	59	51	42	22	12	10	4	694	35.0%	11:00	62	12:00	62
56	30	26	6	9	4	0	2	7	20	37	33	49	20	09	38	25	22	89	104	73	26	33	32	18	7	848	42.7%	11:00	20	17:00	104
21	25	7	10	က	-	-	4	-	2	7	80	19	10	1	4	1	12	19	27	12	22	16	10	2	ဂ	238	12.0%	10:00	19	17:00	27
16	20	~	7	0	0	0	_	0	0	4	က	-	4	2	9	က	2	4	-	2	-	0	2	0	0	42	2.1%	08:00	4	13:00	9
- ;	15	0	0	0	0	0	-	0	0	7	က	4	-	2	4	4	က	4	-	က	4	0	-	~	0	38	1.9%	10:00	4	13:00	4
Start	Time	10/01/17	01:00	02:00	03:00	04:00	02:00	00:90	02:00	08:00	00:60	10:00	11:00	12 PM	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total	Percent	AM Peak	Vol.	PM Peak	Vol.

Grace St At Morningside Ave Date Start: 28-Sep-17 Date End: 03-Oct-17

95th	Percent	32	29	34	29	36	38	37	37	35	34	36	34	37	35	36	35	35	36	34	34	34	34	34	34						
85th	Percent	29	29	32	29	33	34	34	34	33	33	33	33	34	33	33	33	33	33	33	32	33	32	33	32						
	Total	∞	4	9	2	13	32	113	238	226	169	131	149	161	174	190	296	307	374	279	149	118	104	20	14	3310		00:20	238	17:00	374
9/	666	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
71	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
99	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
61	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
26	09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.0				
51	22	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	_	%0.0			12:00	-
46	20	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1%	05:00	-		
41	45	0	0	0	0	0	0	-	7	-	-	-	0	0	-	7	0	0	-	0	0	0	0	0	0	10	0.3%	07:00	2	14:00	2
36	40	0	0	0	0	_	2	7	15	Ξ	4	œ	2	12	œ	1	16	17	27	10	2	2	က	2	0	173	5.2%	00:20	15	17:00	27
31	35	-	0	7	0	4	12	43	103	81	61	48	47	29	58	64	130	122	140	93	37	32	23	16	4	1180	35.6%	00:20	103	17:00	140
56	30	4	က	က	4	9	10	42	91	111	71	52	74	99	78	84	111	137	179	141	81	25	23	25	6	1487	44.9%	08:00	111	17:00	179
21	25	-	-	-	-	2	2	1	18	21	31	18	22	21	27	19	32	22	24	24	25	22	22	9	0	376	11.4%	00:60	31	15:00	32
16	20	-	0	0	0	0	2	က	9	0	-	3	0	0	0	7	4	4	-	7	-	9	က	-	0	20	1.5%	00:20	9	14:00	7
- ;	15	-	0	0	0	0	0	7	2	-	0	-	Υ-	2	2	က	ဗ	2	2	4	0	-	0	0	_	31	%6.0	00:90	2	16:00	2
Start	Time	10/02/17	01:00	02:00	03:00	04:00	02:00	00:90	00:20	08:00	00:60	10:00	11:00	12 PM	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total	Percent	AM Peak	Vol.	PM Peak	Vol.

thbound	Southbound Northbound			1									i		_	At Morningside Ave Date Start: 28-Sep-17 Date End: 03-Oct-17	19side Ave 28-Sep-17 03-Oct-17
Start	<u> </u>	16	21	30	31	36	14	46	51	56	61	99	71	92	1	85th	95th
10/03/17	2	07	64	200	CO	4	0,4	00	22	09	69	0/	75	666	Total	Percent	Percent
01.00	0 0	0 0	- c	2 (1 4	- 0	o (0 (۰ د	0	0	0	0	0	16	33	35
00:00	o c	0 0	V	7 (- (Э,	0	0	-	0	0	0	0	0	9	20	53
02.00	0 0	0 0	o ,	ο,	0	-	0	0	0	0	0	0	0	0	_	39	36
03:00	0 (0	-	-	က	0	0	0	0	0	0	0	0	0	2	33	34
04:00	2	0	5	2	7	0	0	0	0	0	0	0	0	0	16	33	34
02:00	0	0	7	14	18	7	0	0	0	0	0	0	0	C	46	35	3 8
00:90	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3 *	3 *
00:20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:60	*	*	*	*	*	*	*	*	*	*	*	*	*	*	٠	*	•
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	* *	. +	
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	•	•		• •
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	* *	,	. ,	* •	*
13:00	*	*	*	*	*	*	*	*	*	*	•	*			× -	*	*
14.00	*	*	*	*	*	*	*	*	•	•	,	. +				k	*
15:00	*	*	*	*	*	*	*	*	*	*	•		k: 4	* •	*	*	*
16.00	*	*	*	*	*	*	٠	,	•	•				k	*	k	*
17.00	*	*	*	*	*	*	*	*		•				k ·	*	*	*
18:00	*	*	*	*	*	*	*	*	•	. +		* +	k i	*	*	*	*
19.00	*	*	*	*	*	*	*	٠	•			٠ ,	k -	*	*	*	*
20.00	*	*	*	*	*	*	*	*	• •	· +	•	* +	k i	k ·	*	*	*
21.00	*	*	*	*	*	*	*	•			•		k -	k	*	*	*
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23.00	*	*	*	*	*	*	•	. +	× 4	* +	*	*	*	*	*	*	*
Total	0	c	72	33	000	c			,	* (*	*	*	*	*	*
oral oral	7000	0 00	2 3	35	35 25	5	0	5		0	0	0	0	0	90		
M Pook	2.2%	0.0%	14.4%	35.6%	36.7%	10.0%	%0.0	%0.0	1.1%	%0.0	%0.0	%0.0	%0.0	%0.0			
AINI LEAK	04:00		00:00	00:50	02:00	02:00			01:00						02:00		
.00.	7		,	4	18	7			-						46		
PM Peak Vol.																	
Total	194	247	1732	7316	5742	843	69	α	4	0	-	0	c	c	10101		
Percent	1.2%	1.5%	10.7%	45.3%	35.6%	5.2%	0.4%	%00	1 %0 0	7000	- %0	0 00	0 %	0 200	16191		
			15th Percentile 50th Percentile 85th Percentile 95th Percentile		25 MPH 29 MPH 33 MPH 35 MPH	2	Š.		8	800	80.00	80.0	80.0	%0.0			
Stats	Number c Percent c	10 MPH Nurr Perc of Vehicles of Vehicles	10 MPH Pace Speed Number in Pace Percent in Pace Percent of Vehicles > 30 MPH: Percent of Vehicles > 30 MPH: Mean Speed (Average)		26-35 MPH 13058 80.8% 6662 41.2%												
)														