

DEPARTMENT OF PUBLIC WORKS -- COUNTY OF NASSAU

DIVISION OF ENGINEERING  
Traffic Engineering Unit

TRAFFIC SIGNAL SURVEY

LOCATION: Woodfield Road @ Lindberg/Linden Street, West Hempstead, NY 11552 TSS: \_\_\_\_\_

WARRANTS:	Applicable		Satisfied	Not Satisfied
	YES	NO		
1. Eight-Hour Vehicular Volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Four Hour Vehicular Volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Peak Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Pedestrian Volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. School Crossing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Coordinated Signal System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Accident Experience	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Roadway Network	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Intersection Near Grade Crossing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPROVAL: Not Recommended  Recommended  10/21/22 G.F.  
(Date) (Initial)

COMMENTS: A traffic signal is recommended as 1 of the 5 applicable signal warrants were met for this location. Even though the crash experience warrant was not met it was a factor in the decision queue the recent pedestrian accidents that have occurred near this location. A new traffic signal would allow for a platooned flow of traffic, and would create gaps in traffic along Woodfield Road. The signal would also provide a safer location for pedestrians to cross and would reduce the likelihood of further pedestrian accidents at or near this location. The NB curve warning sign is blocked by trees. A work order has been prepared to modify it to be a W1-10A sign and relocate it so it is more visible. The new sign would reflect the offset intersection within the curved area.

APPROVAL: Not Recommended  Recommended  10/21/22 DHW  
(Date) (Initial)

COMMENTS: Conducted PM peak hour observations. Side Street volumes low. Gaps in traffic on Woodfield Rd. were sporadic. Peds were observed crossing at this general location. Sight distance exiting Linden looking South was obstructed due to hedges. Speeds on Woodfield appeared in excess of speed limit.

APPROVAL: Not Recommended  Recommended  \_\_\_\_\_  
(Date) (Initial)

COMMENTS: \_\_\_\_\_

APPROVED:  DENIED:

COMMENTS: Install signal to provide pedestrian crossing.

2/21/23

Robert J. Kelly

Date

Traffic Engineering Unit





**COUNTY OF NASSAU  
DEPARTMENT OF PUBLIC WORKS**

**TRAFFIC SIGNAL WARRANT REPORT  
FOR THE REQUEST OF A NEW  
TRAFFIC SIGNAL**

**Location: Woodfield Road @ Lindberg/Linden Street**

Town/Village: Town of Hempstead

Intersection Location: West Hempstead

Existing Flash Controlled Intersection     Existing Stop/Yield Control Intersection     Midblock     Other

**Reason For New Signal Request:**     Resident     Elected Official     DPW     Other

Nassau County Department of Public Works has been requested to investigate the possibility of installing a traffic signal at the above noted intersection. The reason for this request is there was a recent crash where a pedestrian was fatally struck by a vehicle travelling southbound.

**Traffic Signal Warrant Assessment:**

As per the guidelines set forth in the 2009 Manual on Uniform Traffic Control Devices (MUTCD), an engineering study was performed on the prevailing traffic conditions, pedestrian operations, and physical characteristics at the above noted location to determine to possibility of installing a traffic signal. This study included an analysis of the applicable traffic signal warrants, which describes the minimum traffic operating conditions under which installation of a traffic control signal might be justified. The results of the traffic signal warrant analysis is summarized below:

Warrant 1: Eight-Hour Vehicular Volume	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not Satisfied	<input checked="" type="checkbox"/> Not Applicable
Warrant 2: Four-Hour Vehicular Volume	<input type="checkbox"/> Satisfied	<input checked="" type="checkbox"/> Not Satisfied	<input type="checkbox"/> Not Applicable
Warrant 3: Peak Hour	<input type="checkbox"/> Satisfied	<input checked="" type="checkbox"/> Not Satisfied	<input type="checkbox"/> Not Applicable
Warrant 4: Pedestrian Volume	<input type="checkbox"/> Satisfied	<input checked="" type="checkbox"/> Not Satisfied	<input type="checkbox"/> Not Applicable
Warrant 5: School Crossing	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not Satisfied	<input checked="" type="checkbox"/> Not Applicable
Warrant 6: Coordinated Signal System	<input checked="" type="checkbox"/> Satisfied	<input type="checkbox"/> Not Satisfied	<input type="checkbox"/> Not Applicable
Warrant 7: Crash Experience	<input type="checkbox"/> Satisfied	<input checked="" type="checkbox"/> Not Satisfied	<input type="checkbox"/> Not Applicable
Warrant 8: Roadway Network	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not Satisfied	<input checked="" type="checkbox"/> Not Applicable
Warrant 9: Intersection Near a Grade Crossing	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not Satisfied	<input checked="" type="checkbox"/> Not Applicable

**Required Attachments:**

- Attachment A – Location Map
- Attachment B – Intersection Layout
- Attachment C – Intersection Photos
- Attachment D – Applicable Traffic Signal Warrant Analysis

- Attachment H – Crash Data Summary
- Attachment I – Speed Study
- Attachment J – Gap Study
- Attachment K – Delay Calculations
- Attachment L – Collision Diagram
- Attachment M – Engineering Assessment
- Attachment N – Others

**Other Attachments (if applicable):**

- Attachment E – 24-Hour ATR Counts for all approaches
- Attachment F – Peak Hour Manual Turning Movement Counts
- Attachment G – Peak Hour Manual Pedestrian Counts

**Recommendations:**

A traffic signal is recommended as 1 of the 5 applicable signal warrants were met for this location. Even though the crash experience warrant was not met it was a factor in the decision queue the recent pedestrian accidents that have occurred near this location. A new traffic signal would allow for a platooned flow of traffic, and would create gaps in traffic along Woodfield Road. The signal would also provide a safer location for pedestrians to cross and would reduce the likelihood of further pedestrian accidents at or near this location. The NB curve warning sign is blocked by trees. A work order has been prepared to modify it to be a W1-10A sign and relocate it so it is more visible. The new sign would reflect the offset intersection within the curved area.

<b>Analyzed by:</b>	GianFabio Fasulo	Traffic Engineer 1	10/21/22
	_____	_____	_____
		Title	Date
<b>Reviewed by:</b>			
	_____	_____	_____
		Title	Date

**ATTACHMENT D**

**APPLICABLE TRAFFIC SIGNAL  
WARRANT ANALYSIS**



# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

### Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ?  Yes  No
  2. Is the intersection in a built-up area of isolated community of <10,000 population?  Yes  No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level criteria  70%  100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Applicable:  Yes  No  
 Satisfied:  Yes  No

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.  
 Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.

#### Condition A - Minimum Vehicular Volume

100% Satisfied:  Yes  No  
 80% Satisfied:  Yes  No

Approach Lanes	Minimum Vehicular Volume (vph) (80% Shown in Brackets)						Eight Highest Hours											
	1			2 or more			-		-		-		-		-		-	
	100%	70%	56%	100%	70%	56%	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00		
Both Approaches on Major Street	500 (400)	350	280	600 (480)	420	336												
Highest Approach on Minor Street	150 (120)	105	84	200 (160)	140	112												
Hourly Volume Threshold Met?							NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

#### Condition B - Interruption of Continuous Traffic

Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.

Applicable:  Yes  No  
 Excessive Delay:  Yes  No  
 100% Satisfied:  Yes  No  
 80% Satisfied:  Yes  No

Approach Lanes	Minimum Vehicular Volume (vph) (80% Shown in Brackets)						Eight Highest Hours											
	1			2 or more			-		-		-		-		-		-	
	100%	70%	56%	100%	70%	56%	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00		
Both Approaches on Major Street	750 (600)	525	420	900 (720)	630	504	0	0	0	0	0	0	0	0	0	0		
Highest Approach on Minor Street	75 (60)	53	42	100 (80)	70	56	0	0	0	0	0	0	0	0	0	0		
Hourly Volume Threshold Met?							NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.



### TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead      Engineer: GianFablo Fasulo  
 Intersection Location: West Hempstead      Date: October 20, 2022  
 Major Street: Woodfield Road      Lanes: 1      Critical Approach Speed: 30  
 Minor Street: Lindberg/Linden Street      Lanes: 1      (Posted Speed)

#### Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ?       Yes     No  
 2. Is the intersection in a built-up area of isolated community of <10,000 population?       Yes     No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level criteria       70%     100%

#### WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

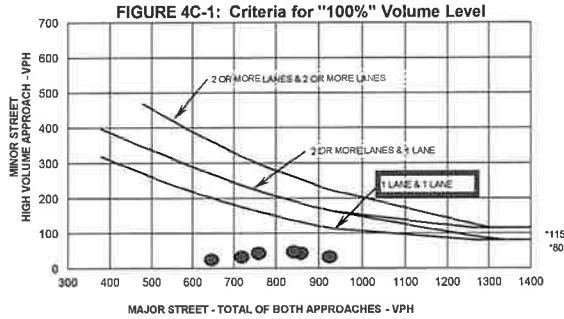
If all four points lie above the appropriate line, then the warrant is satisfied.

Applicable:     Yes     No  
 Satisfied:       Yes     No

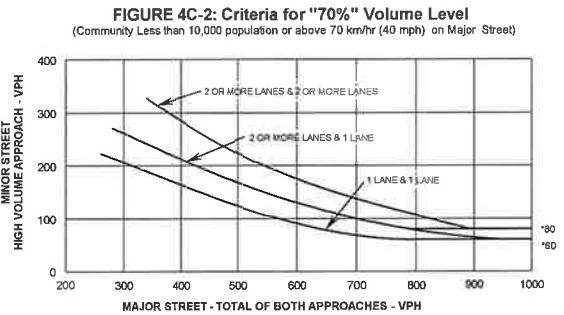
#### Right/Left Turns

Time Period	Volumes	
	Major Streets Combined	Higher Minor Street
7:00 AM - 8:00 AM	707	20
8:00 AM - 9:00 AM	878	28
2:00 PM - 3:00 PM	658	19
3:00 PM - 4:00 PM	747	32
4:00 PM - 5:00 PM	854	34
5:00 PM - 6:00 PM	913	23

Plot four volume combinations on the applicable figure below.



\* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



\* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

### Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)?  Yes  No  
 2. Is the intersection in a built-up area of isolated community of <10,000 population?  Yes  No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level criteria  70%  100%

### WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable:  Yes  No  
 Satisfied:  Yes  No

Unusual condition justifying use of warrant:

\_\_\_\_\_

\_\_\_\_\_

Peak Hour		
4:45 PM	-	5:45 PM

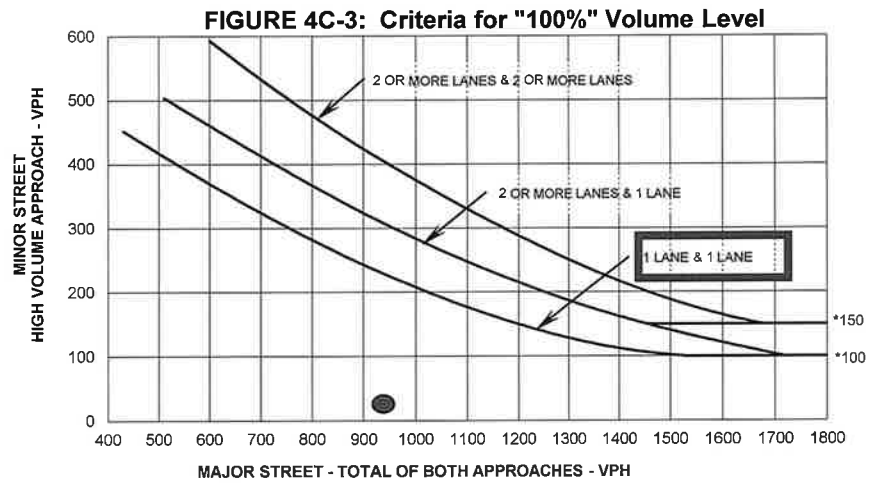
#### Criteria

1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		N/A
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

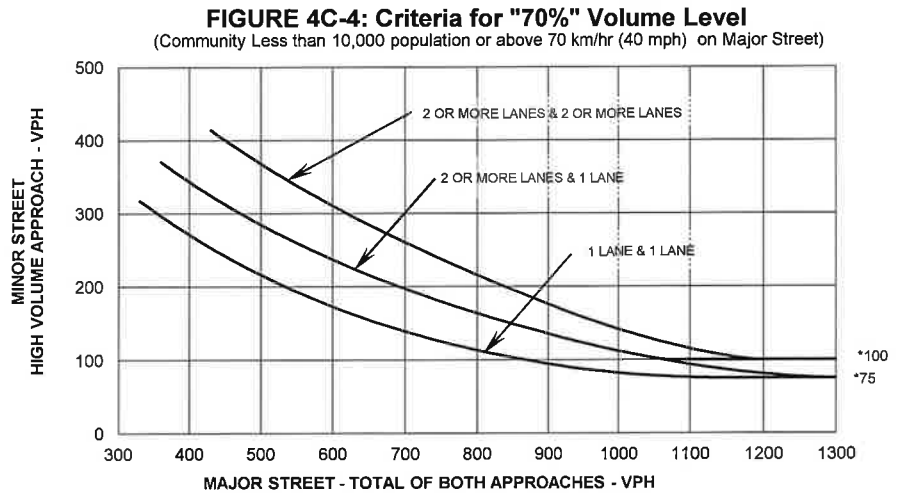
2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	19	N/A
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*	N/A	968
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.



\* Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



\* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

### Volume Level Criteria

- 1. Is the critical speed of major street traffic > 56 km/h (35 mph) ?  Yes  No
  - 2. Is the intersection in a built-up area of isolated community of <10,000 population?  Yes  No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level criteria  70%  100%

### WARRANT 4 - PEDESTRIAN VOLUME

If criteria noted below are fulfilled and the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable:  Yes  No  
 Satisfied:  Yes  No

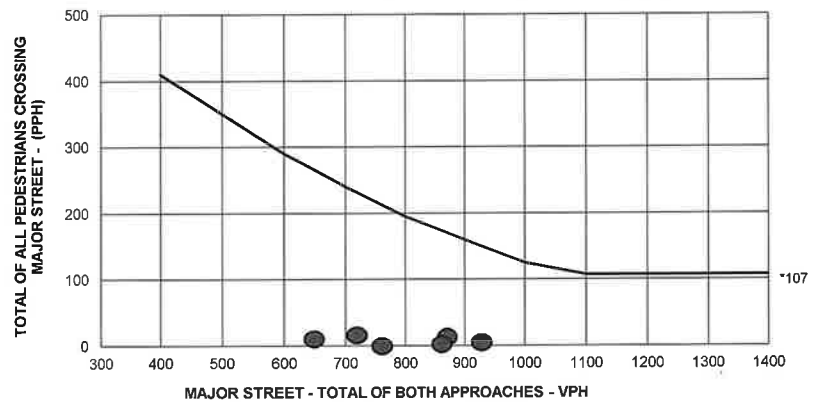
Plot volume combination on the applicable figure below.

#### Criteria

1. Distance to Nearest Traffic Control *(feet)		
Traffic Control	Signal	STOP
Criteria (feet)	300.0	300.0
Distance (feet)	950.0	N/A
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Time Period	Volumes	
	Major Street (Vehicles)	All Major St. Crossings (Peds)
7:00 AM - 8:00 AM	707	6
8:00 AM - 9:00 AM	878	6
2:00 PM - 3:00 PM	658	2
3:00 PM - 4:00 PM	747	0
4:00 PM - 5:00 PM	854	1
5:00 PM - 6:00 PM	913	1

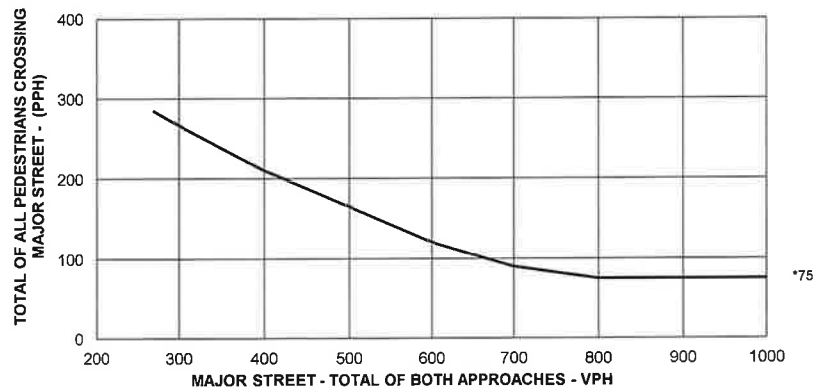
FIGURE 4C-5: Warrant 4, Pedestrian Four-Hour Volume



\* Note: 107 pph applies as the lower threshold volume.

FIGURE 4C-6: Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

(Community Less than 10,000 population or above 56 km/hr (35 mph) on Major Street)



\* Note: 75 pph applies as the lower threshold volume.



# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

### Volume Level Criteria

- 1. Is the critical speed of major street traffic > 56 km/h (35 mph) ?  Yes  No
  - 2. Is the intersection in a built-up area of isolated community of <10,000 population?  Yes  No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level criteria  70%  100%

### WARRANT 4 - PEDESTRIAN VOLUME

If criteria noted below are fulfilled and the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable:  Yes  No  
 Satisfied:  Yes  No

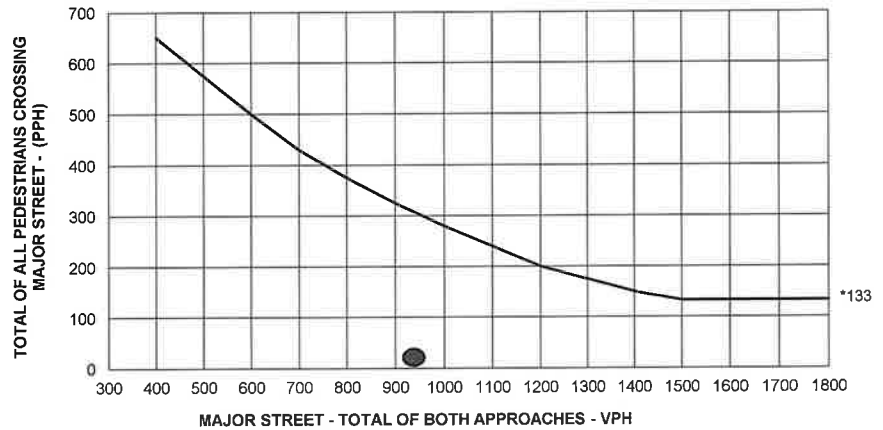
Plot volume combination on the applicable figure below.

#### Criteria

1. Distance to Nearest Traffic Control *(feet)		
Traffic Control	Signal	STOP
Criteria (feet)	300.0	300.0
Distance (feet)	950.0	N/A
Fulfilled?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

PEAK HOUR	Volumes	
	Major Street (Vehicles)	All Major St. Crossings (Peds)
4:45 PM - 5:45 PM	936	1

FIGURE 4C-7: Warrant 4, Pedestrian Peak Hour



\* Note: 133 pph applies as the lower threshold volume.

FIGURE 4C-8: Warrant 4, Pedestrian Peak Hour (70% Factor)

(Community Less than 10,000 population or above 56 km/hr (35 mph) on Major Street)



\* Note: 93 pph applies as the lower threshold volume.





# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

## WARRANT 5 - SCHOOL CROSSING

Record hours where criteria are fulfilled and the corresponding volume or gap frequency in the boxes provided. The warrant is satisfied if all three of the criteria are fulfilled.

Applicable:  Yes  No  
 Satisfied:  Yes  No

Criteria	Fulfilled?			
	Yes	No		
1. There are a minimum of 20 students crossing the major street during the highest crossing hour.	Students:	Hour:		
2. There are fewer adequate gaps in the major street traffic stream during the period when the children are using the crossing than the number of minutes in the same period.	Minutes:	Gaps:		
3. The nearest traffic signal along the major street is located more than 90 m (300 ft) away, or the nearest signal is within 90 m (300 ft) but the proposed traffic signal will not restrict the progressive movement of traffic.				

## WARRANT 6 - COORDINATED SIGNAL SYSTEM

Indicate if the criteria are fulfilled in the boxes provided. The warrant is satisfied if either criterion is fulfilled. This warrant should not be applied when the resulting signal spacing would be less than 300 m (1,000 ft).

Applicable:  Yes  No  
 Satisfied:  Yes  No

Criteria	Fulfilled?	
	Yes	No
1. On a one-way street or a street that has traffic predominately in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.		
2. On a two-way street, adjacent signals do not provide the necessary degree of platooning, and the proposed and adjacent signals will collectively provide a progressive operation.	x	

## WARRANT 7 - CRASH EXPERIENCE

Record hours where criteria are fulfilled, the corresponding volume, and other information in the boxes provided. The warrant is satisfied if all three of the criteria are fulfilled.

Applicable:  Yes  No  
 Satisfied:  Yes  No

Criteria	Hour	Volume	Met?		Fulfilled?	
			Yes	No	Yes	No
1. One of the warrants to the right is met.	Warrant 1, Condition A (80% satisfied)					
	Warrant 1, Condition B (80% satisfied)					
	Warrant 4, Pedestrian Volume at 80% of volume requirements:					
	80 ped/hr for four (4) hours or 152 ped/hr for one (1) hour					
2. Adequate trial of other remedial measure has failed to reduce crash frequency.	Measure tried:					N/A
3. Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12-mo. period.	Number of crashes per 12 months:		1			X



# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

## WARRANT 8 - ROADWAY NETWORK

Applicable:  Yes  No  
 Satisfied:  Yes  No

*Record hours where criteria are fulfilled, and the corresponding volume or other information in the boxes provided. The warrant is satisfied if at least one of the criteria is fulfilled and if all intersecting routes have one or more of the characteristics listed.*

Criteria					Met?		Fulfilled?			
					Yes	No	Yes	No		
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during a typical weekday peak hour.		Entering Volume:							
	b. Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.		Warrant:	1	2	3				
			Satisfied?:							
2. Total entering volume at least 1,000 veh/hr for each of any 5 hrs of a non-normal business day (Sat. or Sun.)							← Hour			
							← Volume			

Characteristics of Major Routes					Met?		Fulfilled?		
					Yes	No	Yes	No	
1. Part of the street or highway system that serves as the principal roadway network for through traffic flow.					Major Street:				
					Minor Street:				
2. Rural or suburban highway outside of, entering, or traversing a city.					Major Street:				
					Minor Street:				
3. Appears as a major route on an official plan.					Major Street:				
					Minor Street:				



# TRAFFIC SIGNAL WARRANT SUMMARY

Town/Village: Town of Hempstead  
 Intersection Location: West Hempstead  
 Major Street: Woodfield Road  
 Minor Street: Lindberg/Linden Street

Engineer: GianFabio Fasulo  
 Date: October 20, 2022  
 Lanes: 1 Critical Approach Speed: 30  
 Lanes: 1 (Posted Speed)

### Input Parameters

- Number of Trains per Day \_\_\_\_\_
- Number of Lanes at Track Crossing \_\_\_\_\_
- Clear Storage Distance (D) \_\_\_\_\_
- % of High Occupancy Buses on Minor Street Approach \_\_\_\_\_
- % of Tractor Trailer Trucks on Minor Approach \_\_\_\_\_

### Adjustment Factors

- Adjustment Factor for Daily Frequency of Rail Traffic \_\_\_\_\_ (From MUTCD Table 4C-2)
- Adjustment Factor for Percentage of High Occupancies buses \_\_\_\_\_ (From MUTCD Table 4C-3)
- Adjustment Factor for Percentage of Tractor-Trailer Trucks \_\_\_\_\_ (From MUTCD Table 4C-4)

## WARRANT 9 - INTERSECTION NEAR GRADE CROSSING

Applicable:  Yes  No  
 Satisfied:  Yes  No

Highest Traffic Hour During which Rail Road Traffic Use Crossing	AM	PM
Major Street Volume (Both Approaches - VPH)		
Minor Street Volume (One Approaches - Equivalent VPH **)		
Peak Hour Volume Threshold Met?	NO	NO

\* Refer to MUTCD for Figure 4C-9 or 4C-10 to determine if this warrant is satisfied

\*\* VPH after applying the adjustment factors in Table 4C-2, 4C-3 and/or 4C-4, if appropriate

**Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic**

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

**Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses**

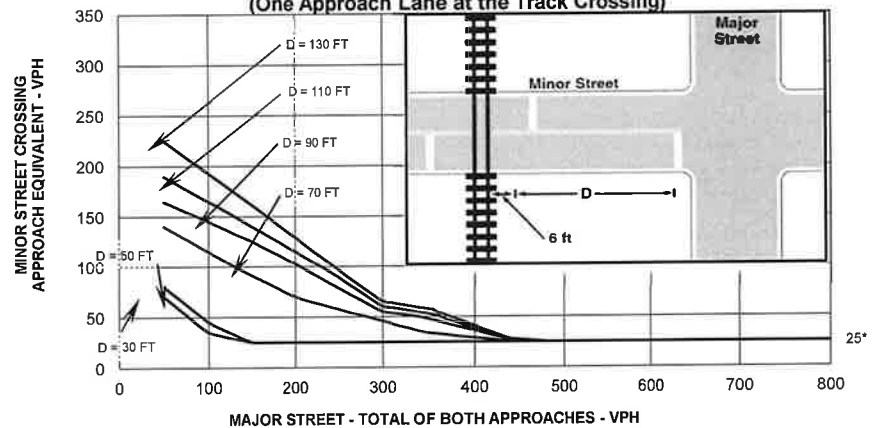
% of High-Occupancy Buses* on Minor-Street Approach	Adjustment Factor
0%	1.00
2%	1.09
4%	1.19
6% or more	1.32

\* A high-occupancy bus is defined as a bus occupied by at least 20 people.

**Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks**

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.7%	0.75	0.75
7.8% to 12.5%	1.00	1.00
12.6% to 17.7%	2.30	1.15
17.8% to 22.5%	2.70	1.35
22.6% to 27.5%	3.75	1.64
More than 27.5%	4.18	2.08

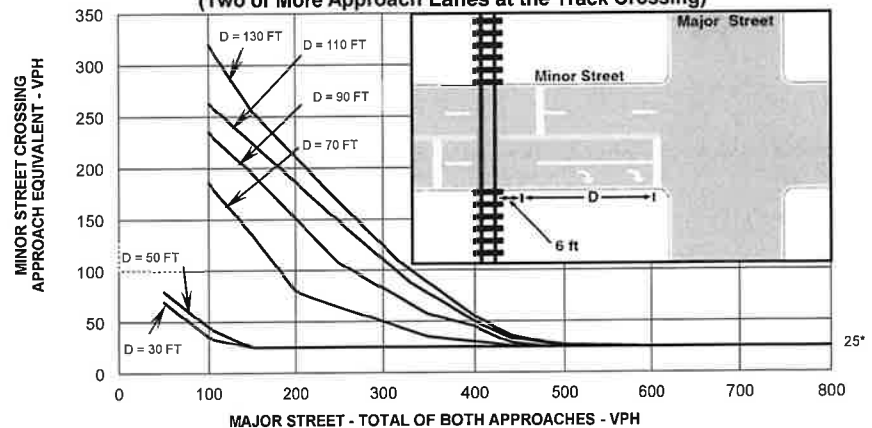
**FIGURE 4C-9: Warrant 9, Intersection near a Grade Crossing (One Approach Lane at the Track Crossing)**



\* Note: \*25 vph applies as the lower threshold volume

\*\* vph after applying the adjustment factors in Table 4C-2, 4C-3 and/or 4C-4, if appropriate

**FIGURE 4C-10: Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)**



\* Note: \*25 vph applies as the lower threshold volume

\*\* vph after applying the adjustment factors in Table 4C-2, 4C-3 and/or 4C-4, if appropriate

# Woodfield Rd @ Lindberg / Linden West Hempstead, NY NB & SB Traffic



## SPEED DATA ANALYSIS

### Location



Latitude: 38.861231  
Longitude: -95.741185

### Analysis Time Period



Start	End
10/12/2022 11:44 AM	10/17/2022 8:20 AM

### Vehicles Analyzed



49,560

### Average Speed



32

### Slowest Speed



7

### 10 MPH Pace Speed



28-37

### Speed Limit



30

### 85th Percentile Speed



38

### Fastest Speed

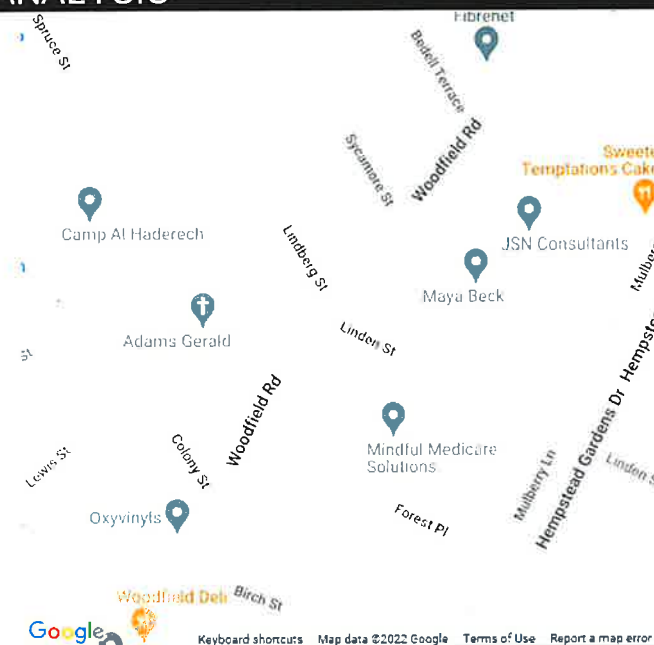


75

### % Enforceable Violations



8%



# Woodfield Rd @ Lindberg / Linden West Hempstead, NY NB & SB Traffic



Volume Sorted by Speed for 10/12/2022 to 10/17/2022

Combined

Speed (MPH)	Volume
6	0
7	864
8	128
9	202
10	90
11	107
12	115
13	41
14	94
15	52
16	138
17	144
18	102
19	267
20	157
21	424
22	534
23	343
24	955
25	1496
26	970
27	2260
28	1362
29	3284
30	4624
31	2439
32	4711
33	2207
34	4417
35	4026
36	2048
37	2948
38	1145
39	1923
40	1441
41	631
42	996
43	574
44	219
45	308
46	105
47	219
48	137
49	36
50	73
51	35
52	52
53	26
54	10
55	16
56	7

# Woodfield Rd @ Lindberg / Linden West Hempstead, NY NB & SB Traffic



Volume Sorted by Speed for 10/12/2022 to 10/17/2022

Direction X, Lane 1

Speed (MPH)	Volume
6	0
7	468
8	47
9	66
10	34
11	31
12	42
13	18
14	44
15	24
16	67
17	59
18	53
19	130
20	69
21	176
22	179
23	123
24	349
25	469
26	389
27	930
28	571
29	1365
30	1939
31	1081
32	2286
33	1146
34	2363
35	2146
36	1029
37	1614
38	695
39	1083
40	866
41	352
42	526
43	343
44	140
45	182
46	72
47	126
48	81
49	24
50	42
51	20
52	34
53	14
54	7
55	11
56	3

# Woodfield Rd @ Lindberg / Linden West Hempstead, NY NB & SB Traffic



Volume Sorted by Speed for 10/12/2022 to 10/17/2022

Direction X, Lane 2

Speed (MPH)	Volume
6	0
7	396
8	81
9	136
10	56
11	76
12	73
13	23
14	50
15	28
16	71
17	85
18	49
19	137
20	88
21	248
22	355
23	220
24	606
25	1027
26	581
27	1330
28	791
29	1919
30	2685
31	1358
32	2425
33	1061
34	2054
35	1880
36	1019
37	1334
38	450
39	840
40	575
41	279
42	470
43	231
44	79
45	126
46	33
47	93
48	56
49	12
50	31
51	15
52	18
53	12
54	3
55	5
56	4






# WORK ORDER

 COPY

SIGN  PAINT  SIGNAL

ORDER NO.: 23-423839

DATE: 4/26/2023

LOCATION: SOUTHBOUND WOODFIELD ROAD, NORTH OF BEDELL TERRACE, WEST HEMPSTEAD  
REQUESTED BY: DANIEL H. WINKELMAN AUTHORIZED BY: 

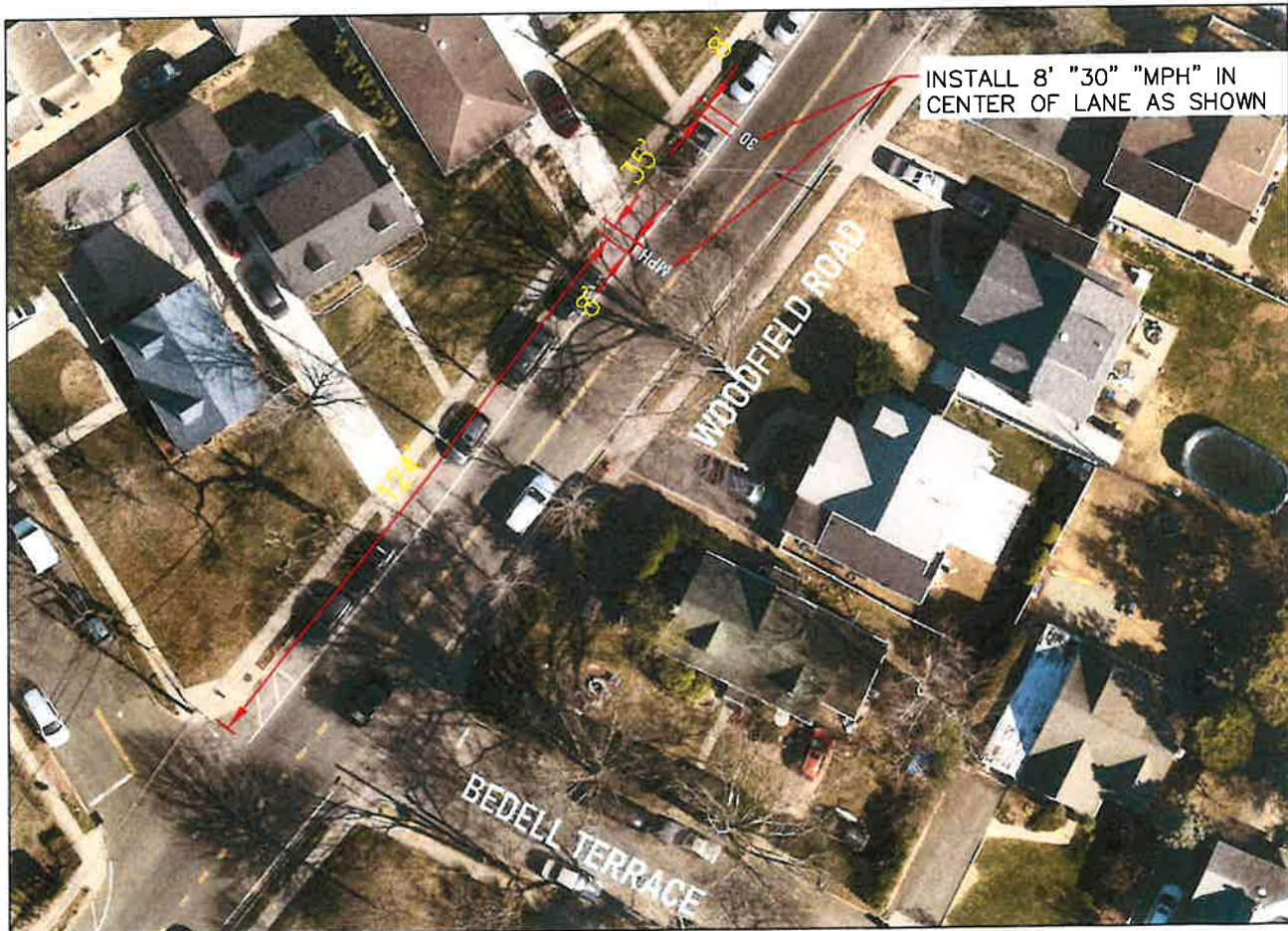
DESCRIPTION OF WORK:

SIGNS: N/A

PAVEMENT MARKINGS:

INSTALL "30" MPH 8' LONG WORD MARKING, CENTERED IN SOUTHBOUND WOODFIELD ROAD LANE, 124' NORTH OF BEDELL TERRACE, AS SHOWN.

DETAILS: SEE BELOW.



APPROVED: 

DATE: 5/5/23

INSTALLED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_






# WORK ORDER

 COPY

SIGN  PAINT  SIGNAL

ORDER NO.: 23-423838

DATE: 4/26/2023

LOCATION: NORTHBOUND WOODFIELD ROAD, SOUTH OF BIRCH STREET, WEST HEMPSTEAD  
REQUESTED BY: DANIEL H. WINKELMAN AUTHORIZED BY: 

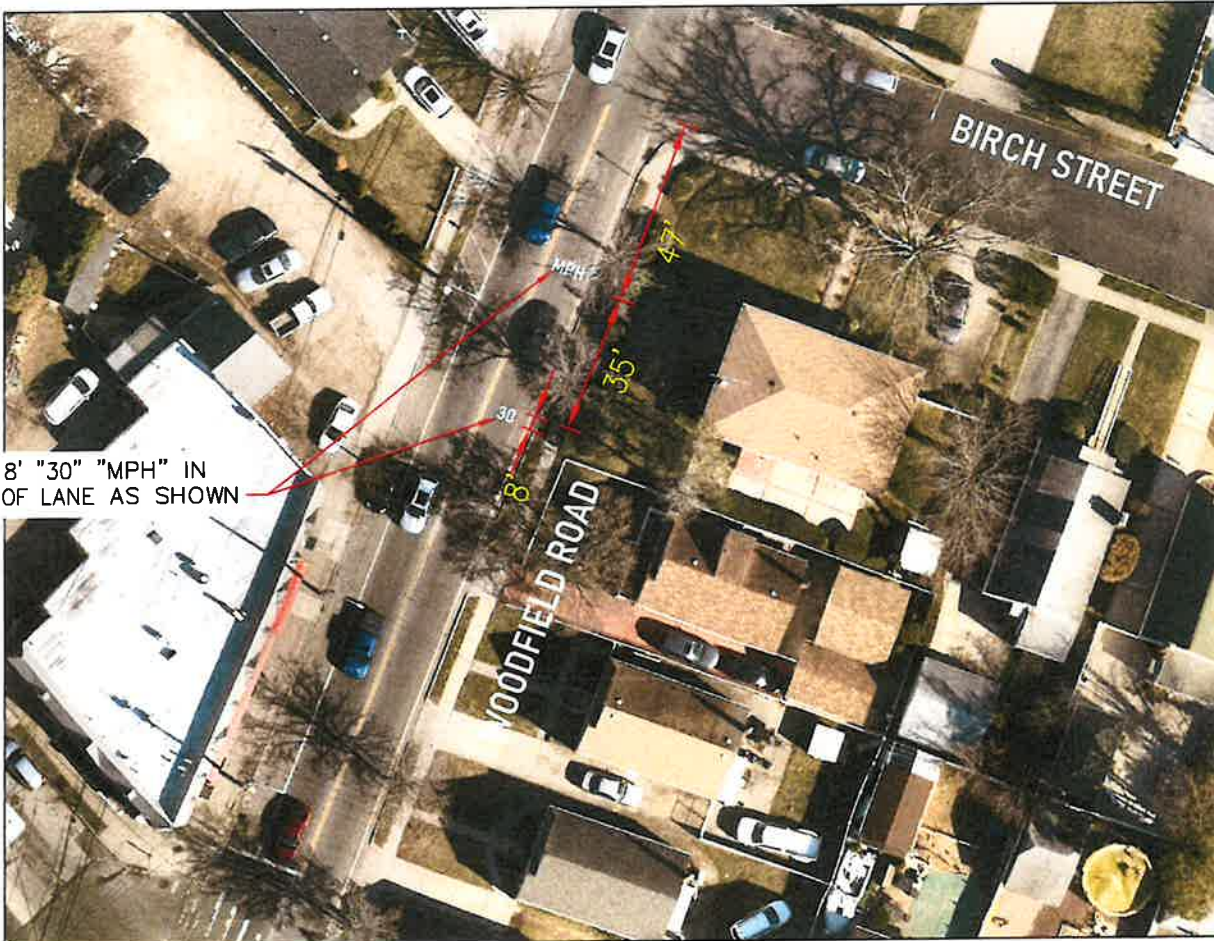
DESCRIPTION OF WORK:

SIGNS: N/A

PAVEMENT MARKINGS:

INSTALL "30" "MPH" 8' LONG WORD MARKING, CENTERED IN NORTHBOUND WOODFIELD ROAD LANE, 47' FEET SOUTH OF BIRCH STREET, AS SHOWN.

DETAILS: SEE BELOW.



INSTALL 8' "30" "MPH" IN CENTER OF LANE AS SHOWN

APPROVED: 

DATE: 5/5/23

INSTALLED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_



# WORK ORDER

SIGN  PAINT  SIGNAL

ORDER NO.: 22-409550

DATE: October 26<sup>th</sup>, 2022

LOCATION: Woodfield Road @ Colony Street, West Hempstead, NY 11552

REQUESTED BY: GianFabio Fasulo

AUTHORIZED BY: 

### DESCRIPTION OF WORK:

**Sign:** Remove existing (1) 36" x 36" "Horizontal Alignment" sign (W1-2) and sign assembly located at Woodfield Road @ Colony Street. Install a modified (1) 36" x 36" "Combination Horizontal Alignment/Intersection" sign (W1-10A) on a new sign assembly in the mow strip in front of house #333 on Woodfield Road, approximately 40 feet northeast of original sign location.



**Pavement Markings:** N/A.

**Location:** Intersection of Woodfield Road @ Colony Street, West Hempstead, NY 11552. Modified W1-10A sign facing northeast motorists on Woodfield Road.

### Details:



APPROVED:   
TRAFFIC ENGINEERING

DATE: 11/15/22

Installed By: \_\_\_\_\_ Date: \_\_\_\_\_ Reviewed By: \_\_\_\_\_