



Department of Transportation & Traffic Safety



TRAFFIC CALMING STUDY

Woodbury Road

From Main Street/State Route 25A to
West Pulaski Road/County Route 11

Town of Huntington

May 2015

Prepared By:



GIBBONS, ESPOSITO & BOYCE ENGINEERS, P.C.
PLANNING - DESIGN - CONSTRUCTION MANAGEMENT

Purpose of Study

- Public Concerns Regarding Excessive Speed
- Public Concerns Regarding Crashes

Objectives of Study

- Establish Existing Conditions through Engineering Surveys
- Develop Recommendations to Alleviate Conditions

Study Methodology

- Determine Existing Traffic Volumes
 - Manual Turning Movement Counts
 - Automatic Traffic Recorders
- Determine Existing Vehicular Speeds
 - Automatic Traffic Recorders
- Accident History
 - Suffolk County PD Accident Records – 3 Years

Study Methodology

- Determine Roadway Geometry
 - Horizontal Curvature
 - Vertical Curvature
 - Pavement and Lane Widths
 - Sidewalks and Pedestrian Facilities
 - Curbs and Drainage
 - Pavement Conditions and Markings
- Survey Existing Traffic Controls
 - Intersection Controls, STOP signs or Traffic Signals
 - Traffic Signal Operations and Timing
 - Horizontal Alignment Warning Signs
 - Speed Advisory Signs
 - Posted Parking Regulations

Study Area Description

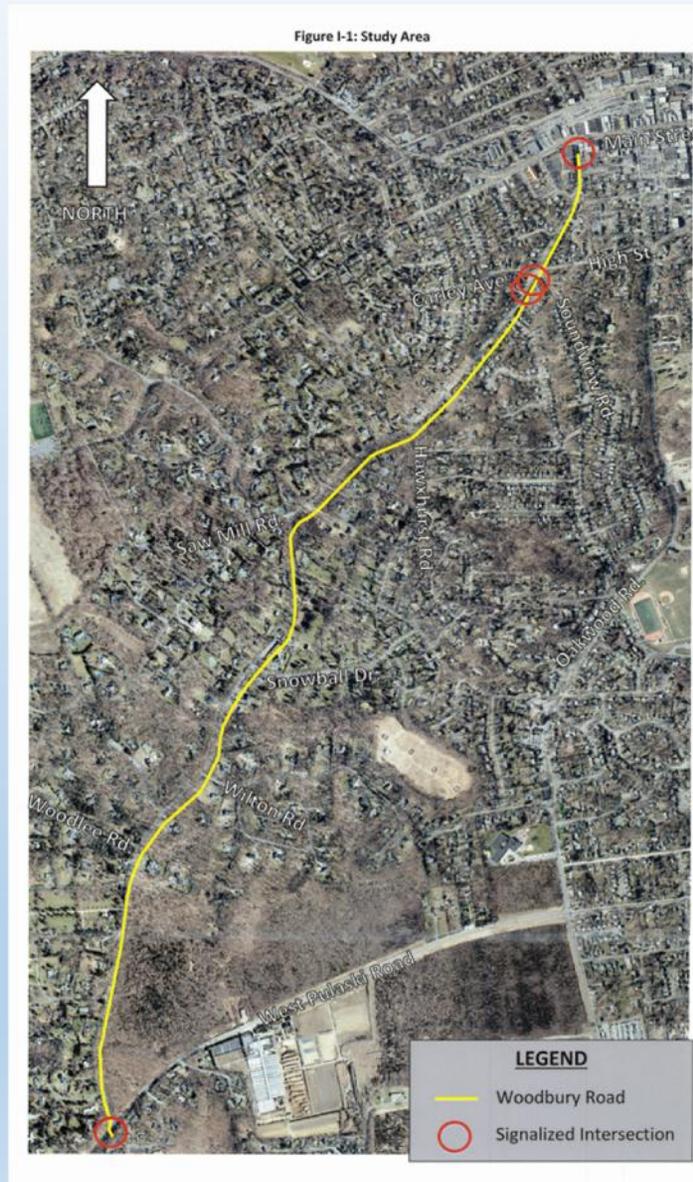
- Woodbury Road Description
 - North-South Collector
 - Posted Speed Limit is 30 MPH (20 MPH at St. Patrick's School)
 - Approximately 2.5 miles in length
 - Roadway width varies from 22' to 40' – lane widths are 10'-12'
 - Generally one lane in each direction
 - Sidewalks exist only at the north end of the study area
- Woodbury Road Intersection Traffic Controls
 - Traffic signals exist at Main Street, High Street/Soundview Rd/
Carley Avenue and at West Pulaski Road
 - Other intersecting side streets are controlled by STOP signs

Study Area Description

- Woodbury Road Traffic Controls - Warning
 - Horizontal Alignment signs (**Curve Warning**) exist
 - **Chevron** signs exist at most curves
 - **Hidden Driveway** signs exist at appropriate locations

- Woodbury Road Traffic Controls - Intersection
 - Traffic signals exist at Main Street, High Street/Soundview Rd/Carley Avenue and at West Pulaski Road
 - Other intersecting side streets are controlled by STOP signs

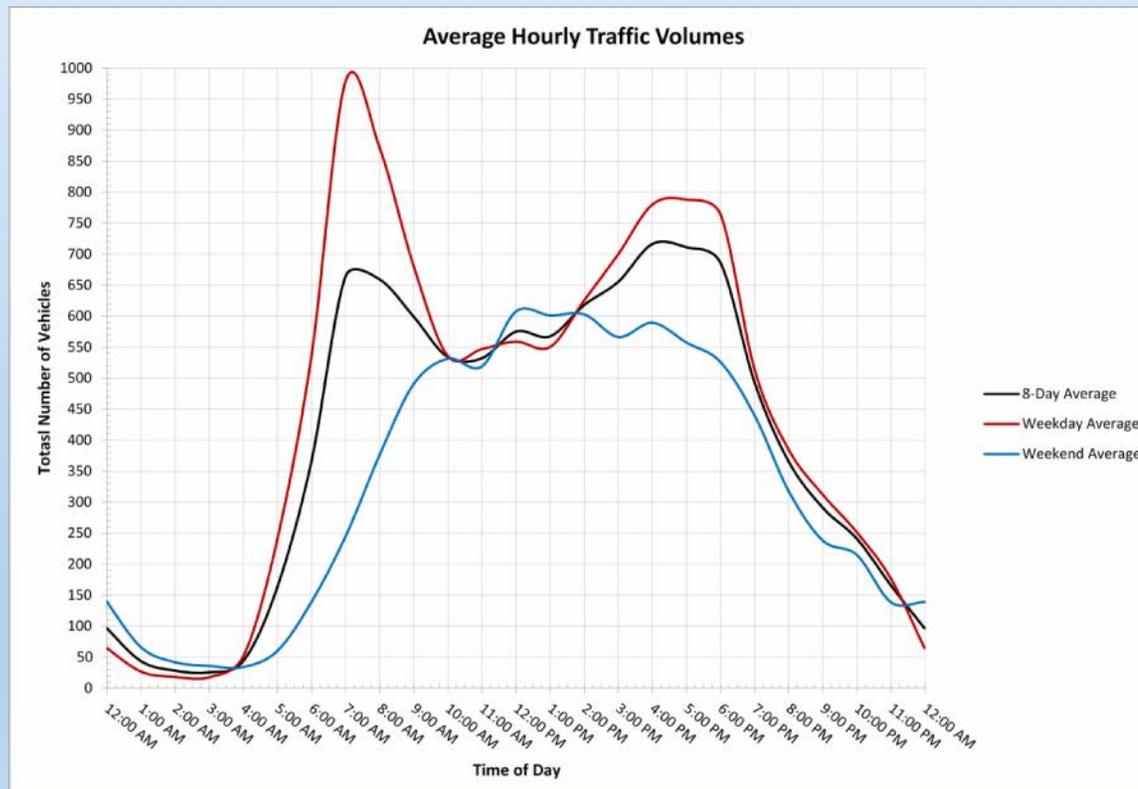
Woodbury Road Study Area



WOODBURY ROAD TRAFFIC CALMING STUDY

Study Results

- Vehicular Traffic Volumes
 - Southbound peak 7AM – 8 AM, between 500 and 625 VPH
 - Northbound peak 6 PM – 7 PM, between 400 and 475 VPH
 - Midday directional flow is even at 250 VPH in each direction



Study Results

- Vehicular Speeds
 - 85th percentile speed is 44.3 MPH
 - Speeds varied by section as well as by time of day
 - Highest speeds observed between Saw Mill Road and Snowball Drive
 - Northbound – 85th percentile speed was observed at 45 MPH.
 - Southbound – 85th percentile speed was observed at 49 MPH

Study Results

Location	Max Speed [MPH]		85 th Percentile [MPH]	
	NB	SB	NB	SB
South of Briarwood Dr.	76	76	41	46
Between Hawxhurst Rd. & Tall Tree Ct.	76	76	40	41
Between Tall Tree Ct. & Saw Mill Rd.	55	60	39	41
Between Saw Mill Rd. & Snowball Dr.	76	76	45	49
South of Woodlee Rd.	60	75	46	47
Total	76		44.3	

Observed Operating Travel Speeds
5 Day Average
By Section

Study Results



85th Percentile Speeds By Section

Study Results

- Crash Analysis
 - During the three-year study period (March '11-Feb '14), a total of 64 crashes were reported, 21 of which involved injuries. 111 vehicles were involved.
 - 68.8% of crashes occurred during daylight,
 - 26.6% occurred at night; 4.7% at dawn or dusk.
 - Wet or icy roads were factors in 53.1% of the crashes.

Study Results

- High Frequency Crash Locations

- By Intersection:

- Woodbury Rd at Ackerman Place/W Carver Street- 4 crashes
 - Woodbury Rd at High Street/Soundview Rd - 4 crashes
 - Woodbury Rd at Carley Avenue - 3 crashes
 - Woodbury Rd at Briarwood Drive - 4 crashes
 - Woodbury Rd at Saw Mill Road - 5 crashes
 - Woodbury Rd at Snowball Drive - 3 crashes

- By Roadway Section

- Main Street to Briarwood Drive (0.41 mile) 9 crashes
 - Briarwood Drive to Hawxhurst Road (0.32 mile) 3 crashes
 - Hawxhurst Road to Saw Mill Road (0.33 mile) 13 crashes
 - Snowball Drive to Woodlee Road (0.47 mile) 7 crashes

Study Results

Crash Frequency by Intersection

Intersection	Control	Reportable Accidents			Non-Reportable	Total Accidents	Percent of All Accidents
		Fatal	Injury	Property			
Ackerman Pl/W. Carver St	Unsignalized		2	2		4	6.3%
Hillside Ave	Unsignalized					0	0.0%
High St/Soundview Rd	Signalized			3		4	6.3%
Carley Ave	Signalized		1	2		3	4.7%
Insbrook Dr	Unsignalized			1		1	1.6%
Briarwood Dr	Unsignalized		1	3		4	6.3%
Sundown Ct	Unsignalized						0.0%
Hawxhurst Rd	Unsignalized			2		2	3.1%
Tall Tree Ct	Unsignalized					0	0.0%
Donovan Dr	Unsignalized		1			1	1.6%
Saw Mill Rd	Unsignalized	1	1	3		5	7.8%
Snowball Dr	Unsignalized		2	1		3	4.7%
Wilton Rd	Unsignalized					0	0.0%
The Commons	Unsignalized					0	0.0%
Woodlee Rd	Unsignalized		1			1	1.6%
E. Woods Dr (North)	Unsignalized			1		1	1.6%
E. Woods Dr (South)	Unsignalized					0	0.0%
Total		1	10	18	0	29	
Percent of All Accidents		1.6%	15.6%	28.1%	0.0%	45.3%	

Study Results

Crash Frequency by Roadway Section

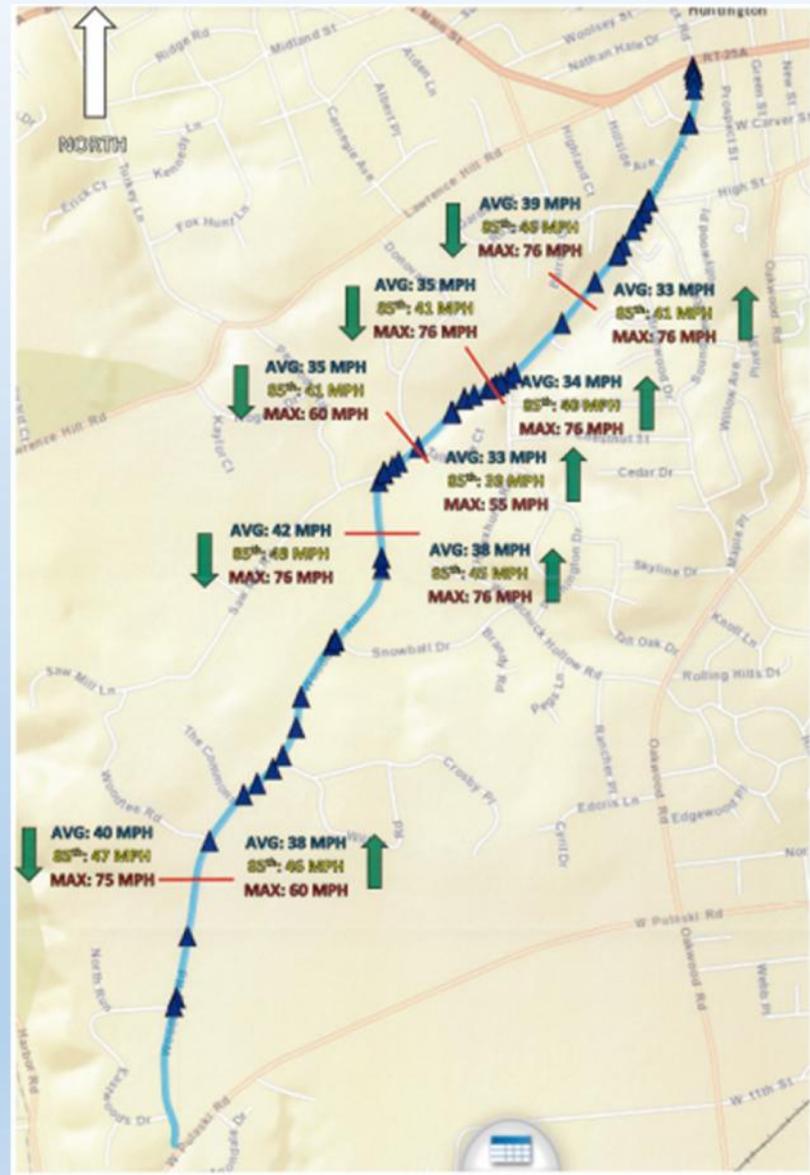
Section	Length	Reportable Accidents			Non-Reportable	Total Accidents	Percent of All Accidents
		Fatal	Injury	Property			
Main St-Briarwood Dr	0.41 miles		2	7		9	14.1%
Briarwood Dr-Hawxhurst Rd	0.32 miles		1	2		3	4.7%
Hawxhurst Rd-Saw Mill Rd	0.33 miles		6	7		13	20.3%
Saw Mill Rd-Snowball Dr	0.36 miles		1	1		2	3.1%
Snowball Dr-Woodlee Rd	0.47 miles		2	5		7	10.9%
Woodlee Rd-Pulaski Rd	0.61 miles			1		1	1.6%
Total	2.5 miles	0	12	23	0	35	
Percent of All Accidents		0.0%	18.8%	35.9%	0.0%	54.7%	

Study Results

- Crash Analysis
 - Roadway Factors
 - 7 crashes (11%) occurred at signalized intersections;
 - 3 of these were rear-end crashes
 - 22 crashes occurred at non-signalized intersections;
 - 7 of these were rear-end crashes, 3 were right-angle.
 - 35 crashes (54.7%) took place on curved sections of road.
 - 13 involved fixed objects; 10 during inclement weather.
 - 5 crashes were of the rear-end type, 2 in inclement weather.
 - 3 crashes involved overtaking, 1 in inclement weather

Study Results

Graphic Correlating Vehicular Speed with Crash Frequency



WOODBURY ROAD TRAFFIC CALMING STUDY

Study Results

Traffic Signal and All-Way STOP Controls

- Warrant Analysis Study Performed at:
Woodbury Road and Saw Mill Road

STOP signs and Traffic Signals are Extremely Useful
Traffic Control Devices when Properly Used

Study Results

- Determining Factors in a Signal or AWS Study:
Traffic Volumes, Crash History, Sight Distance, Pedestrian Activity, Vehicle Speeds
 - Advantages:
 - Reduction of Certain Types of Accidents
 - Less side street delay during peak periods
 - Disadvantages:
 - Increase in Rear-end accidents
 - Increased delay for the vast majority of drivers
 - No improvement for side street motorists during off-peak

Recommended Improvements

Primary Crash Causative Factor:

Excessive Speeds for the Existing Condition

Dual Approach to Reducing Crashes:

- Advise Drivers of the Existing Conditions
- Reduce Speeds

Recommended Improvements

- Upgrade Existing System of Warning Signs



- Based on the MUTCD – Curve Warning Signs to be Upgraded to Turn Signs
- Increase the Turn Warning Sign Size from 30" to 36"
- Increase the Chevron Sign Size from 24"x 30" to 30" x 36"
- Increase the Speed Advisory Plaque Size from 24" to 30"
- Install Additional Warning Signs Where Warranted
- Upgrade the reflective material to Diamond Grade
- Install Diamond Grade Reflective Inserts onto the Channel Posts



Recommended Improvements



Upgrade Existing Yellow Centerlines and White Edgelines

Recommended Improvements

- Speed Reduction Strategies
 - Upgrade the Existing 30 MPH Speed Limit signs utilizing Diamond Grade Reflective Sheeting



Recommended Improvements



Reduce Lane Width to a Uniform 10' Wherever Practical

Install Centerline Rumble Strips in Areas Away from Residences

Recommended Improvements

- Install Speed Awareness Monitoring Devices

Northbound

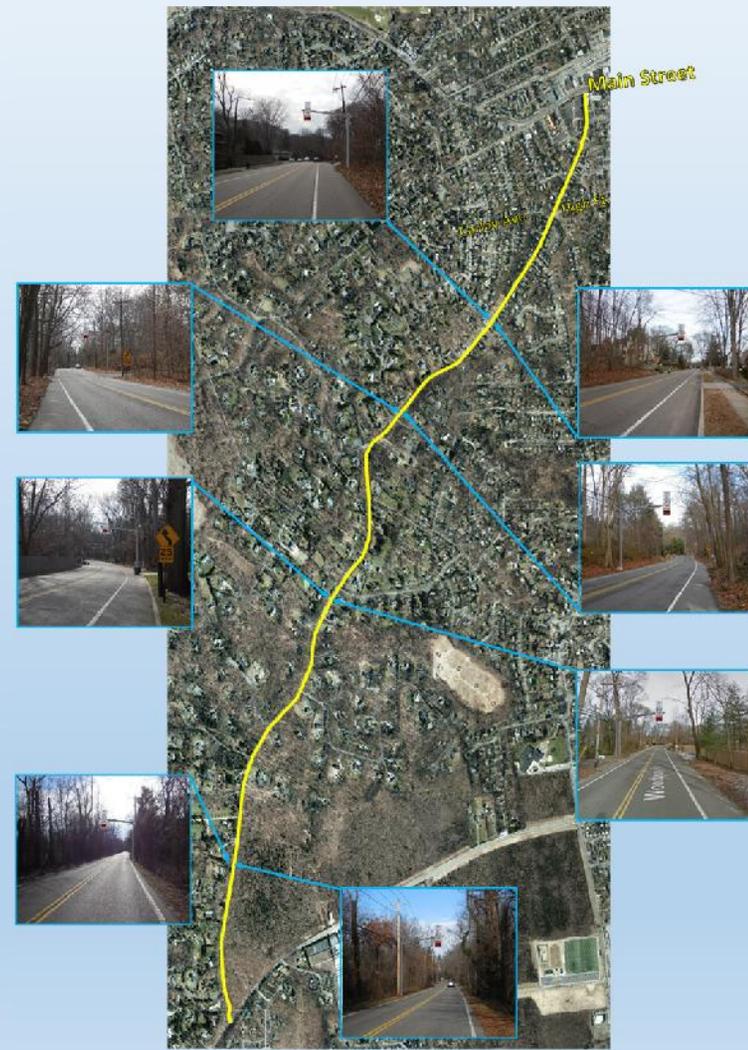
- Between Woodley Road and East Woods Drive
- South of Snowball Drive
- North of Tall Tree Court
- South of Carley Avenue

Southbound

- South of Carley Avenue
- North of Tall Tree Court
- South of Snowball Drive
- Between Woodley Road and East Woods Drive

Recommended Improvements

Proposed Speed Awareness Device Locations



Recommended Improvements

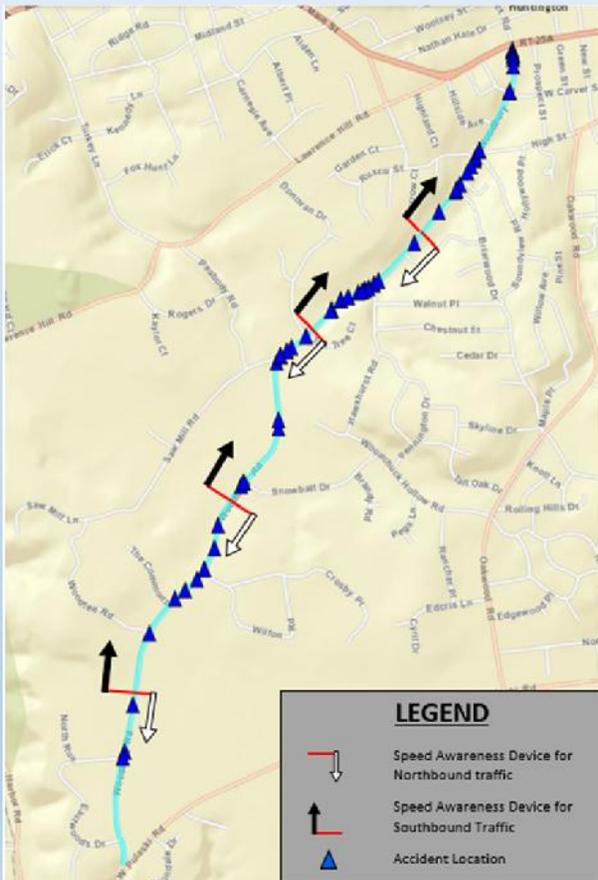


Figure III-3: Proposed Speed Awareness Device & Accident Locations

Proposed Speed Awareness Device Installations
with Crash Locations

Recommended Improvements



Proposed Speed Awareness Device - Typical

Recommended Improvements

Woodbury Rd at Soundview Road, High Street and Carley Avenue

- Install painted center medians on the approaches to the intersection to properly align the through lanes.
- Widen the west sidewalk in order to reduce the travelled way and prevent overtaking.
- Re-evaluate the traffic signal timing to improve efficiency and safety.



Comments or Questions ?