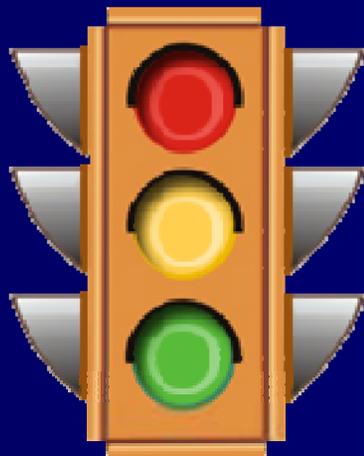


MD 355 at North Wood Rd



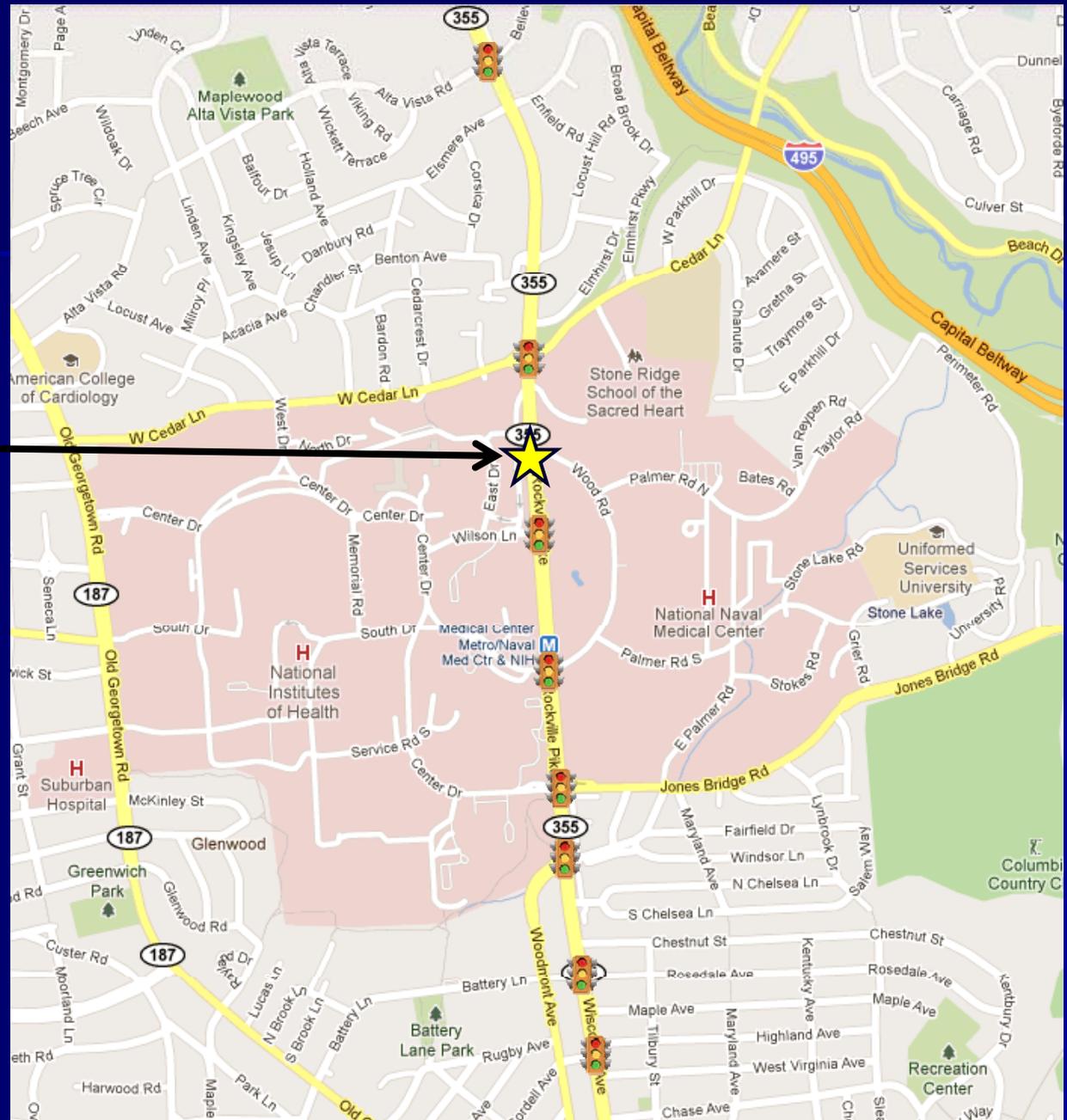
Signal Monitoring Program Update

Montgomery County
BRAC Implementation Committee
November 15, 2011



Study Area

New Traffic Signal

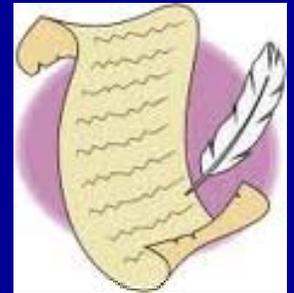


Project History

- **NNMC Proposes Traffic Signal at MD 355 / N. Wood Rd**
- **Signal Benefits**
 - Improved ingress / egress from NNMC
 - Improved operations along MD 355 corridor during AM peak
- **Signal Concerns**
 - Increased delays along MD 355 NB during PM peak
 - Increased delays exiting NIH at Wilson Drive during PM peak
- **SHA Commits to Formal Signal Monitoring Program**
- **Signal Installed on July 28, 2011**

Easement Language

- *“SHA will evaluate and monitor the North Wood Road signal’s impact on the network ... and facilitate the Transportation Workgroup’s ongoing evaluation and collaboration concerning the signal’s operation.”*



Roles and Responsibilities

- **SHA Travel Forecasting and Analysis Division**

- Collect Data
- Summarize Results
- Present Information



- **SHA Office of Traffic and Safety**

- Field Observations
- Recommend Signal Timing Changes

- **Montgomery County Department of Transportation**

- Implement Signal Timing Changes

Data Collection Elements

■ MD 355 Travel Time Runs

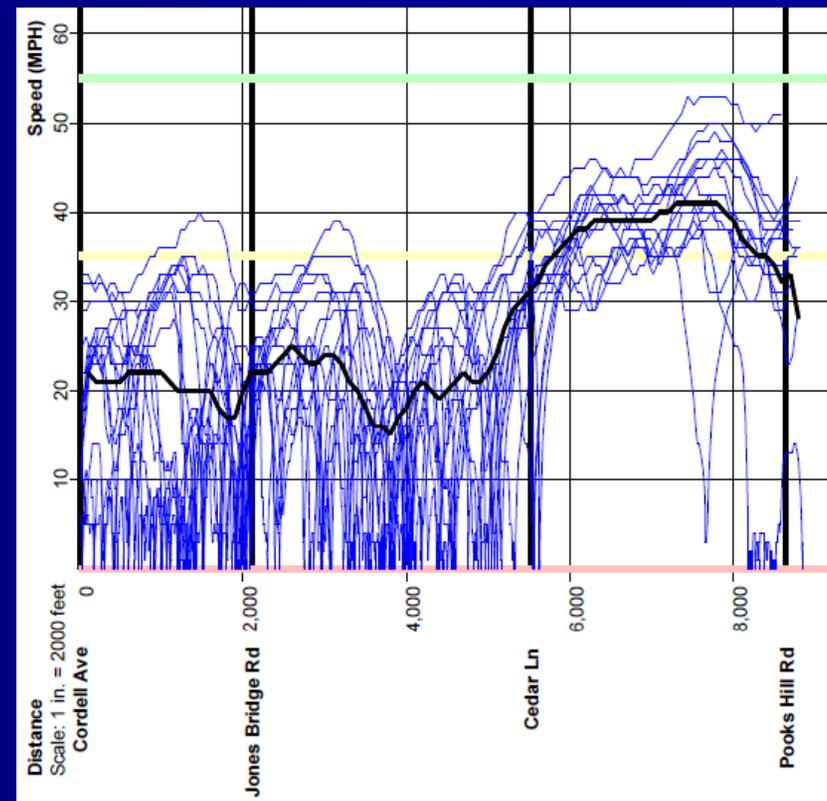
- Cordell Avenue to Pooks Hill Road (1.5 mile)
- Test Vehicle with GPS

■ Delay Studies

- Wilson Drive
- North Wood Road

■ Comparison of Operations

- Before & After Signal
- PM Peak Period



Results Summary

■ North Wood Road (NNMC)

- Signal significantly reduces delay (75% reduction)
- North Wood Road gate serves more exiting vehicles

■ Wilson Drive (NIH)

- Travel time to Cedar Lane has increased by 60%
- Timing changes proposed to improve operations

■ MD 355 Northbound

- Slight increase in travel times between Jones Bridge Road and Cedar Lane (approx 45 sec/veh)
- No apparent residual effects south of Jones Bridge Road

Results Table

Average Travel Time (min) to Cedar Lane			
Starting Point	April 2011 "Before"	Oct. 2011 "After"	Change
North Wood Rd	9.6	2.4	- 7.2
Wilson Dr	3.9	6.2	+ 2.3
MD 355 (from Jones Bridge Rd)	6.2	7.0	+ 0.8
MD 355 (from Cordell Ave)	11.3	10.4	- 0.9

Signal Timing Changes

■ System Changes

- Fixed AM peak issue at North Wood Road
- Moved start of PM timing plan from 3pm to 2:30pm

■ Increased Green Time for MD 355

- Reduced vehicle extension for Cedar Lane
- Reduced vehicle extension for North Wood Road
- Reduced pedestrian walk phase for WB Cedar Lane
 - ✓ Pedestrian clearance unchanged -> Meets requirements
- Reduced max green for EB Cedar Lane

■ Try to Improve Wilson Drive Operations

- Set Wilson Drive to "max recall"

Next Steps

- **Test Additional Timing Changes in Field**
 - Minimize impacts to NIH and MD 355, while maintaining benefits for NNMC
 - Potentially modify operating hours of signal
 - ✓ Extend AM operations from 7:30am to 8:30am?
 - ✓ Extend PM operations beyond 6:00pm?

- **Continued Coordination**
 - E-mail alerts to NNMC, NIH, and Montgomery County

- **Quarterly Meetings with Transportation Workgroup**
 - Special sessions, if necessary

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