

January 16, 2019

Francis Frobel
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**RE: Turning Movement Restriction Safety Study and Trial Runs
Technical Memorandum (DRAFT)**

Dear Richard,

Sam Schwartz Engineering, D.P.C. (*Sam Schwartz*) is pleased to provide this Technical Memorandum conveying the Turning Movement Restriction Safety Study in the Village of Hastings-on-Hudson, NY.

INITIAL CONCERNS AND CONCEPTUAL DEVELOPMENT

The Village raised concerns to *Sam Schwartz* about traffic levels and pedestrian safety on High Street, James Street, and Tompkins Avenue during the weekday morning and evening peak hours. They observed that a significant portion of this traffic was drivers who detoured through Hastings-on-Hudson to and from Yonkers. Given the congestion on James Street, limited sidewalks, narrow street width, and students walking on the street, they were especially concerned with the potential for pedestrian and vehicle conflicts.

Sam Schwartz and the Village discussed these concerns at length and *Sam Schwartz* conducted a Turning Movement Restriction Study in accordance with the MUTCD and the NYS Supplement to the MUTCD standards to determine whether certain restrictions could be implemented during the morning and evening peak hours to help decrease cut-through traffic and improve pedestrian safety along High Street, James Street, and Tompkins Avenue. The conclusion of the study was to restrict left turns from High Street to James Street/Hudson Street during the morning peak hours and from Tompkins Avenue to Jordan Road/James Street during the evening peak hours. Conceptual plans were developed to illustrate these recommendations and went through several rounds of review from the Village.

TURNING MOVEMENT TRIAL RUNS

Sam Schwartz recommended one Trial Run for the morning peak hours and another Trial Run in the evening peak hours to evaluate the Turning Movement Restriction Safety Study recommendations.

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Morning Trial Run

Temporary “No Left Turn, 7 AM to 9 AM” signs were placed on the westbound approaches of High Street at James Street/Hudson Street for three weeks (10/15 to 10/31). On the morning of Wednesday, October 11, Vehicle Messaging Signs (VMS) were placed on High Street to notify drivers of the temporary turning movement restrictions which were implemented from Monday, October 15 to Wednesday, October 31. Traffic counters were placed on High Street westbound near Amherst Drive and James Street southbound just north of Crossbar Road, so a comparison could be performed on the traffic volumes and speeds before and during the Trial Run. *Sam Schwartz* coordinated with FASTSIGNS to fabricate the temporary signs which were delivered on Friday, October 12.

Volume and speed summaries for typical weekday traffic (Tuesday, Wednesday, Thursday) are shown below during the hours of the turning movement restriction (7 AM to 9 AM).

Pre-trial Conditions and Trial Conditions Comparison Summary

- Average hourly volumes on James Street SB **decreased** by approximately **25-50%**
- Average hourly volumes on High Street WB **increased** by **30-50%**
- Average peak speeds on James Street SB and High Street WB remained about the same

| | Avg Hourly Volume Summary (7 AM to 9 AM: Tues, Wed, Thurs) | | | | | |
|---|--|-----------|------------|-------------|-------------|-------------|
| | 9/26-9/27 | 10/2-10/4 | 10/9-10/11 | 10/16-10/18 | 10/23-10/25 | 10/30-10/31 |
| James Street Southbound | 156 | 118 | 162 | 89 | 57 | 65 |
| High Street Westbound | N/A | 76 | 54 | 93 | 100 | 100 |
| | Avg Peak Speed Summary (7 AM to 9 AM: Tues, Wed, Thurs) | | | | | |
| | 9/26-9/27 | 10/2-10/4 | 10/9-10/11 | 10/16-10/18 | 10/23-10/25 | 10/30-10/31 |
| James Street Southbound | 42 | 40 | 43 | 40 | 40 | 40 |
| High Street Westbound | N/A | 35 | 36 | 38 | 38 | 43 |
| <u>Note:</u> Volumes/speeds not available on Tuesday 9/25, Thursday 11/1, and before Thursday 10/4 (High Street WB) | | | | | | |

Evening Trial Run

Sam Schwartz coordinated with FASTSIGNS to modify the signs fabricated for the morning Trial Run. Temporary “No Left Turn, 4 PM to 6 PM” signs were placed on the eastbound approaches of Tompkins Street at Jordan Road and James Street. In addition, temporary “No Right Turn, 4 PM to 6 PM” signs were placed on the eastbound approach of Warren Street at High Street and on the northbound approach of Hudson Street at High Street. These signs were in place for two weeks (12/10 to 12/19). Traffic counters were placed on James Street northbound just north of Crossbar Road, Broadway northbound just south of High Street, Tompkins Avenue eastbound just west of Jordan Road and High Street eastbound near Amherst Drive so a comparison could be performed on the traffic volumes and speeds before and during the Trial Run.

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Volume and speed summaries are shown below for typical weekday traffic (Tuesday, Wednesday, Thursday) during the hours of the turning movement restriction (4 PM to 6 PM).

Pre-trial Conditions and Trial Conditions Comparison Summary:

- Average hourly volumes on Tompkins Avenue eastbound and James Street northbound **decreased** by approximately **15-25%**
- Average hourly volumes on Broadway northbound **increased** up to **7%**
- Average hourly volumes on High Street eastbound **increased** by approximately **30%**

| | Avg Hourly Volume Summary (4 PM to 6 PM: Tues, Wed, Thurs) | | | |
|--|--|-----------|-------------|-------------|
| | 11/29 | 12/4-12/6 | 12/11-12/13 | 12/18-12/19 |
| James Street Northbound | 114 | 111 | 95 | 83 |
| Broadway Northbound | 163 | 156 | 163 | 167 |
| Tompkins Avenue Eastbound | 158 | 155 | 153 | 130 |
| High Street Eastbound | 30 | 36 | 46 | 48 |
| | Avg Peak Speed Summary (4 PM to 6 PM: Tues, Wed, Thurs) | | | |
| | 11/29 | 12/4-12/6 | 12/11-12/13 | 12/18-12/19 |
| James Street Northbound | 88 | 68 | 64 | 47 |
| Broadway Northbound | 50 | 52 | 51 | 52 |
| Tompkins Avenue Eastbound | 63 | 57 | 47 | 36 |
| High Street Eastbound | 34 | 33 | 36 | 37 |
| <u>Note:</u> Volumes/speeds not available on Tues Nov. 27, Wed. Nov. 28, and Thurs. Dec 20 | | | | |

CONCLUSION

Based on the results, both Trial Runs were effective in decreasing volumes and peak speeds on James Street during the turning movement restrictions. However, some traffic was rerouted onto High Street during these times. *Sam Schwartz* will work with the Village to develop an acceptable solution to maintain a proper balance of pedestrian safety and vehicle circulation on High Street and James Street.

If you have any questions, please do not hesitate to email or call. We look forward to continuing working with you and the Village on this exciting project.

DRAFT

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