Sam Schwartz One North Broadway – Suite 403 White Plains, NY 10601 (201) 805-8819 samschwartz.com

Sam Schwartz

July 17, 2019

Georgia Lindahl Lopez and Morgen Fleisig Village of Hastings Board of Trustees 7 Maple Avenue Hastings-on-Hudson, NY 10706 <u>trusteelopez@hastingsgov.org</u>

RE: Additional Traffic Engineering Services (Phase 2) DRAFT Hastings-on-Hudson, NY SSC Project No. 17-01-2680

Dear Georgia and Morgen,

It has been a pleasure working with the Village of Hastings-on-Hudson to complete services for the "On-Call Traffic Engineering Services TOC #1" scope dated October 25, 2017, the "Request for Additional Work Completed" scope dated February 7, 2019, and the "Origin and Destination Study" scope dated May 16, 2019. It is understood that the Village wishes to explore additional traffic calming, and traffic reduction measures to improve safety and attempt to reduce the number of drivers who pass through Hastings-on-Hudson to and from Yonkers via Tompkins Avenue, James Street, Farragut Parkway, and other local roads. At your request, Sam Schwartz Engineering, DPC (*Sam Schwartz*) has prepared the following scope of work to implement the plan, provide data support, coordinate with Waze and Google Maps to update their maps, perform Google Maps API Travel Time statistics, develop traffic calming measures to supplement the recommendations on Ravensdale Road from the October 2017 scope, develop conceptual plan for speed humps on High Street, and present findings at meetings. Additional funds in the amount of \$105,000 are requested for the work to be completed. Details of each task are explained below.

Task 1: Long Term Implementation of Turning Movement Restriction Plan (\$65,000)

Sam Schwartz will work with the Village to implement the morning turning movement restriction study for four months (one month of baseline – no restrictions and three months of restrictions). This includes implementing the following restrictions from 7 AM to 9 AM:

- 1. No left turns from High Street to:
 - a. James Street
 - b. Warren Street
 - c. Hudson Street
- 2. No U-turns (except emergency vehicles) on Broadway between Windsor Road and Devon Way (Subject to NYSDOT approval)

Our team of planners and engineers will also develop a U-turn restriction plan consisting of flexible bollards. This is intended to dissuade non-emergency vehicles from using the U-Turn, but still allows emergency vehicle access. We will coordinate the procurement of signs and bollards for the U-Turn restriction, however these expenses will be billed separately and are not included in this scope. Up to

Sam Schwartz

Re: Additional Traffic Engineering Services Proposal

four field visits over four months is assumed to perform field observations, verify signage placements, and verify ATR/traffic recorder placements.

Sam Schwartz will also implement a data collection program to monitor volumes at selected Village intersections during implementation of the plan. As shown in **Figure 1** and below, the following locations are anticipated:

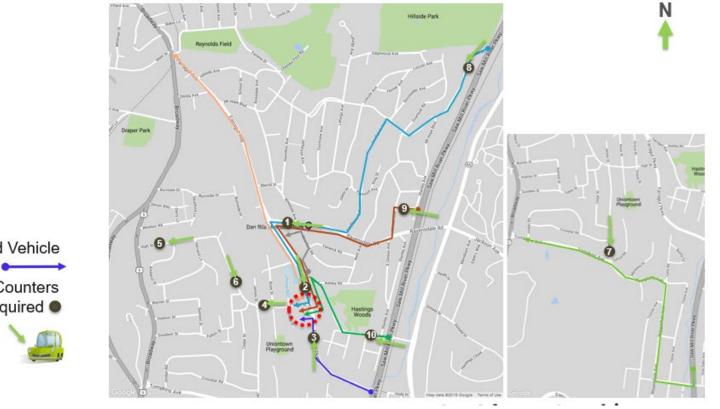
Required turning movements:

- 1. Ravensdale Road westbound between Rosedale Avenue and Farragut Avenue
- 2. Farragut Parkway southbound between Farragut Avenue and High Street
- 3. Farragut Parkway northbound located south of High Street
- 4. High Street westbound between Rose Street and James Street
- 5. High Street westbound just east of Broadway
- 6. High Street eastbound just west of Warren Street (Brandt Street)
- 7. James Street southbound just north of Tompkins Avenue
- 8. Cliff Street southbound downstream of Saw Mill River Parkway Exit
- 9. Clarence Avenue westbound just west of Stanley Avenue
- 10. Farragut Avenue westbound just west of Stanley Avenue

Page 3 of 5 July 17, 2019 Hastings-on-Hudson, NY

Re: Additional Traffic Engineering Services Proposal





Key:

- Inbound Vehicle Routes
- Traffic Counters Required ●

Figure 1: Traffic Volume Count Locations

Sam Schwartz

Re: Additional Traffic Engineering Services Proposal

The increase or decrease in traffic volumes at these locations may indicate changes to travel patterns through the Village. The data will be summarized into tables on a weekly basis and a final memo/presentation detailing the results will be completed at the end of the plan. Our team will utilize the Village's traffic counters to collect traffic volumes. The additional ATRs which are required are included (assume 6 at about \$4.8k per ATR for 16 weeks) in this fee estimate.

Task 2: Google Maps and Waze Coordination for Trial Run (\$2,000)

Sam Schwartz will work with Waze to implement the turning movement restrictions during the trial run. Our team will also work with Google Maps to implement the restrictions; however, based on our experience, it is unlikely that the temporary restriction will be implemented. The coordination of permanent restrictions is not included as part of this scope.

Task 3: Google Maps Travel Time Comparisons (\$13,000)

Sam Schwartz will use Google Maps API traffic data to track travel times and patterns along the passthrough Village segments, and the segments along the Saw Mill River Parkway. Using this dynamic software, Sam Schwartz will track up to 12 routes at thirty-minute intervals for 14 hours per day. Other route/interval combinations will be explored as well. Our team of planners and engineers have experience performing this type of work for the NJ Route 495 Viaduct Rehabilitation project. Sam Schwartz developed Python scripts to "scrape" travel time data every 30 minutes along 17 routes to/from the Lincoln Tunnel. The raw data was summarized and reduced in Excel to prepare graphics which compared pre-construction travel times to construction travel times. Similar deliverables will be provided for this project to compare pre and post-trial run travel times.

Task 4: Traffic Calming Alternatives on Ravensdale Road (\$10,000)

Sam Schwartz will continue the traffic calming study completed on Ravensdale Road from the scope dated October 25, 2017. In this study, *Sam Schwartz* recommended improvements such as revised striping, sidewalk bulb-outs, and proposed crosswalks at Ravensdale Road and Farragut Avenue, Ravensdale Road and Branford Road, and Ravensdale Road and Kent Avenue. *Sam Schwartz* will develop traffic calming measures on Ravensdale Road between these intersections – spanning from Farragut Avenue to the bridge, and at the intersection of Clinton Avenue and Ravensdale Road. Recommendations may consist of speed humps, speed tables, bike lanes, raised crosswalks, lane width reductions, and improved sidewalks. Up to six figures will be developed in CAD or Adobe Illustrator to illustrate the improvements. One (1) round of reviews are assumed for each figure.

Task 5 – Speed Humps on High Street (\$5,000)

Sam Schwartz would develop one conceptual location plan for placement of speed humps on High Street. Up to one (1) round of reviews is assumed. The plan would be completed in AutoCAD or Adobe Illustrator. The cost of this task is not included as part of the total budget of this scope. Page 5 of 5 July 17, 2019 Hastings-on-Hudson, NY

Re: Additional Traffic Engineering Services Proposal

Task 6: Team Meetings and Public Meetings (\$10,000)

Sam Schwartz has budgeted for two public meetings, and four call-in meetings with the Village. Our team of engineers and planners will develop two PowerPoint presentations for the public meetings to summarize and illustrate the results of Tasks 1 to 5.

Sam

Schwartz

Fee Estimate

Sam Schwartz is requesting a not to exceed \$105,000 for completion of the tasks detailed above. We will bill for the actual work performed with a detailed invoice showing hourly billing and direct expenses. If you approve this fee for additional work completed, please return a signed copy of this agreement. If you have any questions, please do not hesitate to email or call. We look forward to continuing working with you on this exciting project.

Sincerely,

DRAFT

Lou Luglio, P.E. Vice President (201) 805-8819 Ilugio@samschwartz.com

Enclosure: 2019-2020 Standard Billing Rates Standard Terms and Conditions