# Appendix A

Raw Traffic Count Data

## Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 06:30 AM to 09:30 AM | Volumes Displayed as: 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | System Peak Hour (all vehicles): 07:45 AM to 08:45 AM |
| Data Source: | Gorove/Slade Associates, Inc. | | | | User-Defined Peak Hour: 07:30 AM to 08:30 AM |

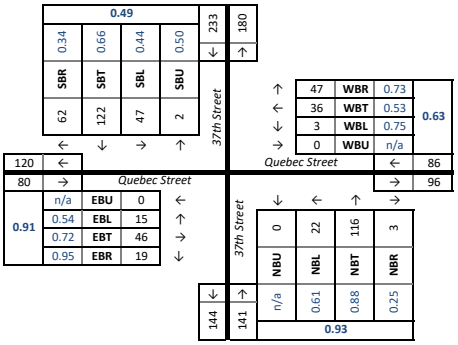
***Intersection:*** **1. 37th Street & Quebec Street**

| **ALL VEHICLES** | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Roadway:*** | **37th Street** | | | | | **Quebec Street** | | | | | **37th Street** | | | | | **Quebec Street** | | | | |
| ***Movement:*** | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 06:30 AM to 06:45 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 5 | 1 | 1 | 0 | 1 | 6 | 0 | 4 | 0 | 2 | 7 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| 07:00 AM to 07:15 AM | 0 | 1 | 6 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 2 | 5 | 0 | 0 | 0 | 2 | 3 | 2 | 1 |
| 07:15 AM to 07:30 AM | 0 | 2 | 15 | 9 | 0 | 0 | 1 | 7 | 0 | 1 | 0 | 1 | 14 | 0 | 3 | 0 | 2 | 4 | 4 | 2 |
| 07:30 AM to 07:45 AM | 0 | 4 | 32 | 29 | 2 | 0 | 0 | 5 | 3 | 1 | 0 | 2 | 20 | 0 | 0 | 0 | 2 | 5 | 2 | 3 |
| 07:45 AM to 08:00 AM | 0 | 27 | 46 | 45 | 3 | 0 | 1 | 17 | 16 | 1 | 0 | 2 | 33 | 0 | 1 | 0 | 5 | 11 | 4 | 1 |
| 08:00 AM to 08:15 AM | 1 | 7 | 24 | 5 | 3 | 0 | 0 | 4 | 10 | 2 | 0 | 7 | 31 | 0 | 0 | 0 | 1 | 16 | 5 | 4 |
| 08:15 AM to 08:30 AM | 0 | 5 | 19 | 5 | 9 | 0 | 1 | 8 | 12 | 4 | 0 | 4 | 24 | 3 | 1 | 0 | 2 | 12 | 5 | 2 |
| 08:30 AM to 08:45 AM | 1 | 8 | 33 | 7 | 6 | 0 | 1 | 7 | 9 | 12 | 0 | 9 | 28 | 0 | 0 | 0 | 7 | 7 | 5 | 2 |
| 08:45 AM to 09:00 AM | 0 | 6 | 21 | 9 | 3 | 0 | 1 | 8 | 4 | 6 | 0 | 4 | 16 | 1 | 0 | 0 | 1 | 13 | 3 | 1 |
| 09:00 AM to 09:15 AM | 1 | 1 | 16 | 3 | 0 | 0 | 0 | 13 | 1 | 1 | 0 | 4 | 21 | 0 | 0 | 0 | 3 | 5 | 3 | 1 |
| 09:15 AM to 09:30 AM | 0 | 1 | 10 | 7 | 4 | 0 | 0 | 6 | 1 | 2 | 0 | 6 | 19 | 0 | 1 | 0 | 2 | 11 | 4 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 233 | | | | 21 | 86 | | | | 19 | 141 | | | | 2 | 80 | | | | 9 |
| 07:45 AM to 08:45 AM | 2 | 47 | 122 | 62 | | 0 | 3 | 36 | 47 | | 0 | 22 | 116 | 3 | | 0 | 15 | 46 | 19 | |
| **Peak Hour** Overall | U | Left | Thru | Right | **SB** | U | Left | Thru | Right | **WB** | U | Left | Thru | Right | **NB** | U | Left | Thru | Right | **EB** |
| **Factor (PHF) 0.65** | 0.50 | 0.44 | 0.66 | 0.34 | **0.49** | n/a | 0.75 | 0.53 | 0.73 | **0.63** | n/a | 0.61 | 0.88 | 0.25 | **0.93** | n/a | 0.54 | 0.72 | 0.95 | **0.91** |

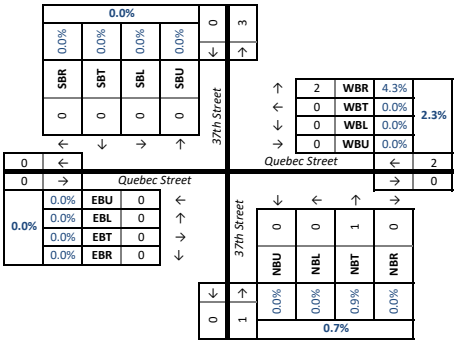
| **HEAVY VEHICLES (FHWA 4+)** | Northbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Roadway:*** | **37th Street** | | | | **Quebec Street** | | | | **37th Street** | | | | **Quebec Street** | | | |
| ***Movement:*** | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM to 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM to 09:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 09:00 AM to 09:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 0 | | | | 2 | | | | 1 | | | | 0 | | | |
| 07:45 AM to 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 4.3% | 0.0% | 0.0% | 0.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ***INT. PEAK HR (HV ONLY)*** | 2 | | | | 1 | | | | 3 | | | | 2 | | | |
| 08:30 AM to 09:30 AM | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 6.3% | 0.0% | 3.8% | 0.0% | 0.0% | 2.9% | 0.0% | 0.0% | 0.0% | 3.6% | 0.0% | 0.0% | 15.4% | 0.0% | 0.0% |

| **BICYCLES** | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Roadway:*** | **37th Street** | | | | **Quebec Street** | | | | **37th Street** | | | | **Quebec Street** | | | |
| ***Movement:*** | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 08:30 AM to 08:45 AM | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM to 09:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 12 | | | | 1 | | | | 5 | | | | 3 | | | |
| 07:45 AM to 08:45 AM | 0 | 1 | 10 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 3 | 0 |
| ***INT. PEAK HR (BIKES)*** | 12 | | | | 4 | | | | 9 | | | | 2 | | | |
| 08:30 AM to 09:30 AM | 0 | 1 | 11 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 2 | 0 |

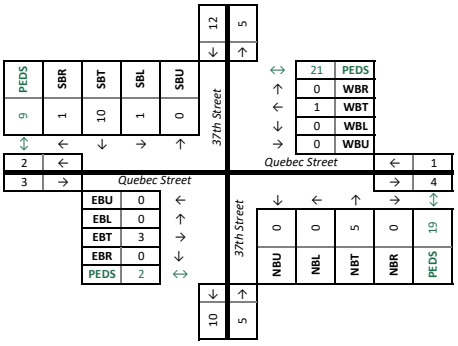
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**




**DATA COLLECTION NOTES :**

## Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 06:30 AM to 09:30 AM | Volumes Displayed as: 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | System Peak Hour (all vehicles): 07:45 AM to 08:45 AM |
| Data Source: | Gorove/Slade Associates, Inc. | | | | User-Defined Peak Hour: 07:30 AM to 08:30 AM |

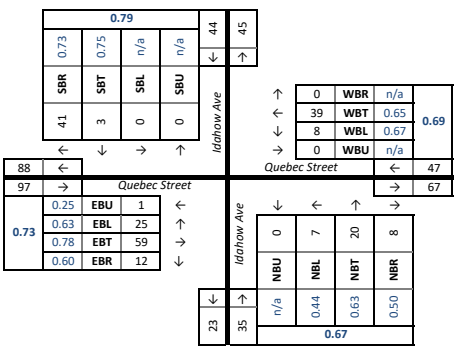
**Intersection:** 1. Idahow Ave & Quebec Street

| ALL VEHICLES | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | Idahow Ave | | | | | Quebec Street | | | | | Idahow Ave | | | | | Quebec Street | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 06:30 AM to 06:45 AM | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 3 |
| 06:45 AM to 07:00 AM | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 07:00 AM to 07:15 AM | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 0 | 5 | 4 | 0 | 1 | 4 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 8 | 1 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 14 | 3 | 0 | 2 | 15 | 0 | 4 | 0 | 4 | 2 | 1 | 0 | 1 | 10 | 19 | 3 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 1 | 8 | 2 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 4 | 3 | 1 | 0 | 3 | 18 | 2 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 1 | 11 | 0 | 0 | 3 | 10 | 0 | 1 | 0 | 3 | 6 | 4 | 1 | 0 | 6 | 12 | 5 | 1 |
| 08:30 AM to 08:45 AM | 0 | 0 | 1 | 8 | 0 | 0 | 1 | 10 | 0 | 2 | 0 | 0 | 8 | 0 | 1 | 0 | 6 | 10 | 2 | 1 |
| 08:45 AM to 09:00 AM | 0 | 0 | 1 | 6 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 13 | 5 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 5 | 6 | 0 | 0 | 3 | 6 | 0 | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 1 | 4 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 1 | 2 | 4 | 0 | 2 | 6 | 1 | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 4 | 7 | 2 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 44 | | | | 5 | 47 | | | | 7 | 35 | | | | 3 | 97 | | | | 2 |
| 07:45 AM to 08:45 AM | 0 | 0 | 3 | 41 | | 0 | 8 | 39 | 0 | | 0 | 7 | 20 | 8 | | 1 | 25 | 59 | 12 | |
| Peak Hour Factor (PHF) Overall 0.79 | U n/a | Left n/a | Thru 0.75 | Right 0.73 | **SB 0.79** | U n/a | Left 0.67 | Thru 0.65 | Right n/a | **WB 0.69** | U n/a | Left 0.44 | Thru 0.63 | Right 0.50 | **NB 0.67** | U 0.25 | Left 0.63 | Thru 0.78 | Right 0.60 | **EB 0.73** |

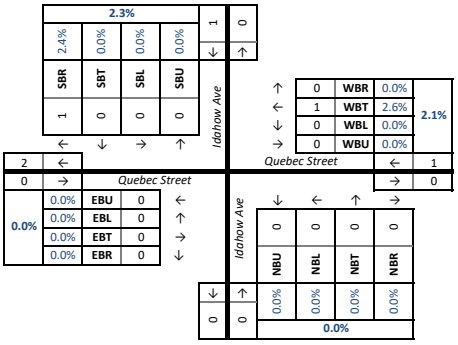
| HEAVY VEHICLES (FHWA 4+) | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | Idahow Ave | | | | Quebec Street | | | | Idahow Ave | | | | Quebec Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM to 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM to 09:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 1 | | | | 1 | | | | 0 | | | | 0 | | | |
| 07:45 AM to 08:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 2.4% | **2.3%** | 0.0% | 0.0% | 2.6% | 0.0% | **2.1%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| *INT. PEAK HR (HV ONLY)* | 1 | | | | 1 | | | | 0 | | | | 0 | | | |
| 07:30 AM to 08:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 2.6% | **2.5%** | 0.0% | 0.0% | 3.0% | 0.0% | **2.4%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |

| BICYCLES | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | Idahow Ave | | | | Quebec Street | | | | Idahow Ave | | | | Quebec Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM to 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 AM to 09:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 0 | | | | 1 | | | | 1 | | | | 2 | | | |
| 07:45 AM to 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| *INT. PEAK HR (BIKES)* | 0 | | | | 4 | | | | 1 | | | | 2 | | | |
| 08:30 AM to 09:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

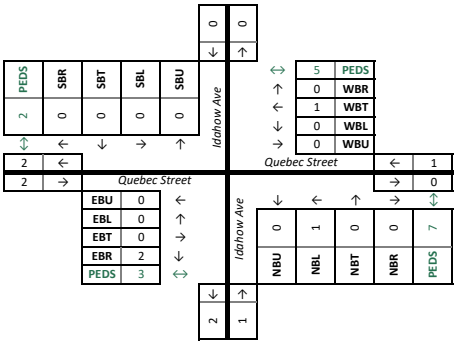
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**




**DATA COLLECTION NOTES :**

## Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 06:30 AM to 09:30 AM | Volumes Displayed as: 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | System Peak Hour (all vehicles): 07:45 AM to 08:45 AM |
| Data Source: | Gorove/Slade Associates, Inc. | | | | User-Defined Peak Hour: 07:30 AM to 08:30 AM |

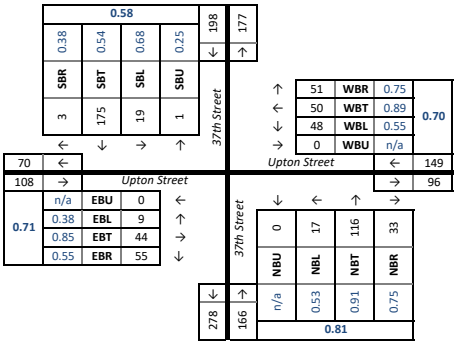
**Intersection:** 1. 37th Street & Upton Street

| ALL VEHICLES | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Upton Street | | | | | 37th Street | | | | | Upton Street | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 06:30 AM to 06:45 AM | 0 | 2 | 2 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 06:45 AM to 07:00 AM | 0 | 1 | 4 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 3 | 1 | 2 |
| 07:00 AM to 07:15 AM | 0 | 1 | 6 | 1 | 3 | 0 | 4 | 3 | 5 | 3 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 3 | 1 | 0 |
| 07:15 AM to 07:30 AM | 0 | 3 | 16 | 0 | 1 | 0 | 6 | 3 | 3 | 0 | 0 | 1 | 9 | 2 | 1 | 0 | 2 | 1 | 2 | 0 |
| 07:30 AM to 07:45 AM | 0 | 4 | 54 | 0 | 2 | 0 | 7 | 5 | 3 | 9 | 0 | 0 | 11 | 0 | 2 | 0 | 1 | 8 | 16 | 3 |
| 07:45 AM to 08:00 AM | 1 | 3 | 81 | 0 | 1 | 0 | 12 | 13 | 14 | 7 | 0 | 3 | 29 | 8 | 0 | 0 | 0 | 13 | 25 | 0 |
| 08:00 AM to 08:15 AM | 0 | 4 | 30 | 0 | 1 | 0 | 5 | 11 | 10 | 4 | 0 | 3 | 30 | 11 | 1 | 0 | 1 | 7 | 11 | 1 |
| 08:15 AM to 08:30 AM | 0 | 5 | 27 | 1 | 1 | 0 | 9 | 12 | 10 | 11 | 0 | 3 | 25 | 3 | 3 | 0 | 2 | 12 | 10 | 2 |
| 08:30 AM to 08:45 AM | 0 | 7 | 37 | 2 | 1 | 0 | 22 | 14 | 17 | 51 | 0 | 8 | 32 | 11 | 2 | 0 | 6 | 12 | 9 | 6 |
| 08:45 AM to 09:00 AM | 0 | 3 | 19 | 3 | 1 | 0 | 4 | 15 | 11 | 10 | 0 | 5 | 26 | 8 | 3 | 0 | 1 | 21 | 9 | 5 |
| 09:00 AM to 09:15 AM | 0 | 5 | 18 | 0 | 1 | 0 | 4 | 16 | 8 | 2 | 0 | 4 | 21 | 1 | 1 | 0 | 5 | 9 | 4 | 0 |
| 09:15 AM to 09:30 AM | 0 | 5 | 9 | 2 | 1 | 0 | 3 | 15 | 5 | 4 | 0 | 1 | 20 | 6 | 1 | 0 | 0 | 5 | 5 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 198 | | | | 4 | 149 | | | | 73 | 166 | | | | 6 | 108 | | | | 9 |
| 07:45 AM to 08:45 AM | 1 | 19 | 175 | 3 | | 0 | 48 | 50 | 51 | | 0 | 17 | 116 | 33 | | 0 | 9 | 44 | 55 | |
| Peak Hour Factor (PHF) Overall 0.77 | U | Left | Thru | Right | **SB** | U | Left | Thru | Right | **WB** | U | Left | Thru | Right | **NB** | U | Left | Thru | Right | **EB** |
| | 0.25 | 0.68 | 0.54 | 0.38 | **0.58** | n/a | 0.55 | 0.89 | 0.75 | **0.70** | n/a | 0.53 | 0.91 | 0.75 | **0.81** | n/a | 0.38 | 0.85 | 0.55 | **0.71** |

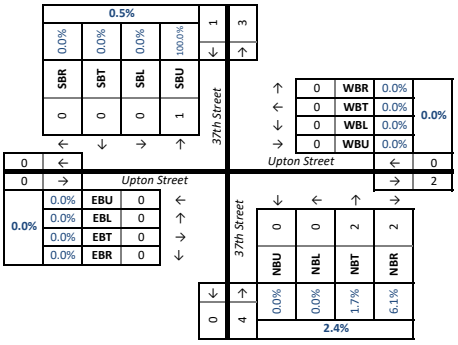
| HEAVY VEHICLES (FHWA 4+) | Northbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Upton Street | | | | 37th Street | | | | Upton Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM to 08:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM to 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 08:45 AM to 09:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 1 | | | | 0 | | | | 4 | | | | 0 | | | |
| 07:45 AM to 08:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 |
| Heavy Vehicle % (PHV): | 100.0% | 0.0% | 0.0% | 0.0% | **0.5%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 1.7% | 6.1% | **2.4%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| *INT. PEAK HR (HV ONLY)* | 1 | | | | 0 | | | | 7 | | | | 1 | | | |
| 08:30 AM to 09:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 1 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 1.2% | 0.0% | **0.9%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 3.0% | 15.4% | **4.9%** | 0.0% | 0.0% | 2.1% | 0.0% | **1.2%** |

| BICYCLES | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Upton Street | | | | 37th Street | | | | Upton Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM to 08:30 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:30 AM to 08:45 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 08:45 AM to 09:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| 09:15 AM to 09:30 AM | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 4 | | | | 1 | | | | 2 | | | | 2 | | | |
| 07:45 AM to 08:45 AM | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 |
| *INT. PEAK HR (BIKES)* | 8 | | | | 1 | | | | 8 | | | | 3 | | | |
| 08:30 AM to 09:30 AM | 0 | 2 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 6 | 1 | 0 | 0 | 2 | 1 |

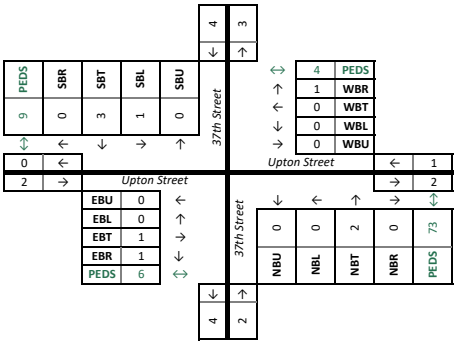
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**




**DATA COLLECTION NOTES :**

## Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 06:30 AM to 09:30 AM | |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | |
| Data Source: | Gorove/Slade Associates, Inc. | | | | |

| | | |
|---|---|---|
| Volumes Displayed as: | 2. System Peak (vehicle) | |
| Intersection Peak Hour (all vehicles): | 07:45 AM to 08:45 AM | |
| System Peak Hour (all vehicles): | 07:45 AM to 08:45 AM | |
| User-Defined Peak Hour: | 07:30 AM to 08:30 AM | |

**Intersection:** 1. 37th Street /37th Street & Tilden Street/Hospice Entrance

**ALL VEHICLES**

| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Tilden Street | | | | | 37th Street | | | | | Hospice Entrance | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 06:30 AM to 06:45 AM | 0 | 0 | 3 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:45 AM to 07:00 AM | 0 | 0 | 5 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 5 | 0 | | 0 | 0 | 0 | 0 | |
| 07:00 AM to 07:15 AM | 0 | 1 | 9 | 1 | | 0 | 1 | 0 | 0 | | 0 | 0 | 5 | 0 | | 0 | 0 | 0 | 0 | |
| 07:15 AM to 07:30 AM | 0 | 4 | 26 | 0 | | 0 | 1 | 0 | 2 | | 0 | 1 | 12 | 4 | | 0 | 0 | 0 | 0 | |
| 07:30 AM to 07:45 AM | 0 | 2 | 80 | 1 | | 0 | 3 | 0 | 1 | | 0 | 1 | 15 | 7 | | 0 | 0 | 0 | 2 | |
| 07:45 AM to 08:00 AM | 0 | 2 | 106 | 4 | | 0 | 5 | 0 | 2 | | 0 | 5 | 39 | 7 | | 0 | 1 | 0 | 8 | |
| 08:00 AM to 08:15 AM | 0 | 5 | 36 | 2 | | 0 | 1 | 0 | 4 | | 0 | 0 | 37 | 2 | | 0 | 0 | 0 | 0 | |
| 08:15 AM to 08:30 AM | 0 | 5 | 35 | 3 | | 0 | 0 | 0 | 4 | | 0 | 2 | 34 | 0 | | 0 | 0 | 0 | 2 | |
| 08:30 AM to 08:45 AM | 0 | 5 | 48 | 6 | | 0 | 2 | 0 | 3 | | 0 | 2 | 44 | 2 | | 0 | 1 | 0 | 1 | |
| 08:45 AM to 09:00 AM | 0 | 2 | 28 | 0 | | 0 | 0 | 0 | 3 | | 0 | 0 | 24 | 0 | | 0 | 2 | 0 | 4 | |
| 09:00 AM to 09:15 AM | 0 | 2 | 22 | 2 | | 0 | 0 | 0 | 1 | | 0 | 2 | 25 | 3 | | 0 | 0 | 0 | 0 | |
| 09:15 AM to 09:30 AM | 0 | 1 | 15 | 2 | | 0 | 1 | 0 | 4 | | 0 | 0 | 22 | 0 | | 0 | 0 | 0 | 0 | |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 257 | | | | 0 | 21 | | | | 0 | 174 | | | | 0 | 13 | | | | 0 |
| 07:45 AM to 08:45 AM | 0 | 17 | 225 | 15 | | 0 | 8 | 0 | 13 | | 0 | 9 | 154 | 11 | | 0 | 2 | 0 | 11 | |
| **Peak Hour** Overall | U | Left | Thru | Right | **SB** | U | Left | Thru | Right | **WB** | U | Left | Thru | Right | **NB** | U | Left | Thru | Right | **EB** |
| **Factor (PHF) 0.65** | n/a | 0.85 | 0.53 | 0.63 | **0.57** | n/a | 0.40 | n/a | 0.81 | **0.75** | n/a | 0.45 | 0.88 | 0.39 | **0.85** | n/a | 0.50 | n/a | 0.34 | **0.36** |

**HEAVY VEHICLES (FHWA 4+)**

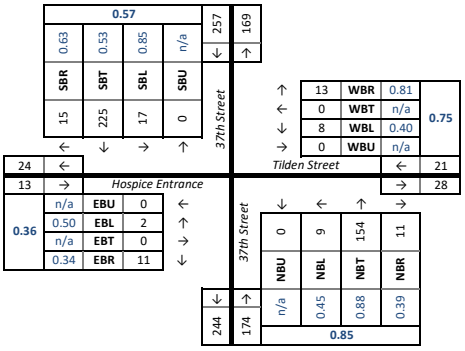
| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Tilden Street | | | | | 37th Street | | | | | Hospice Entrance | | | | |
| Movement: | U | Left | Thru | Right | | U | Left | Thru | Right | | U | Left | Thru | Right | | U | Left | Thru | Right | |
| 06:30 AM to 06:45 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:45 AM to 07:00 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 07:00 AM to 07:15 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 07:15 AM to 07:30 AM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 07:30 AM to 07:45 AM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 08:15 AM to 08:30 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 08:30 AM to 08:45 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | 0 | |
| 08:45 AM to 09:00 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 09:00 AM to 09:15 AM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 2 | | 0 | 0 | 0 | 0 | |
| 09:15 AM to 09:30 AM | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 2 | | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | 0 | |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 0 | | | | | 1 | | | | | 3 | | | | | 0 | | | | |
| 07:45 AM to 08:45 AM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 3 | 0 | | 0 | 0 | 0 | 0 | |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 7.7% | **4.8%** | 0.0% | 0.0% | 1.9% | 0.0% | **1.7%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| ***INT. PEAK HR (HV ONLY)*** | 1 | | | | | 4 | | | | | 6 | | | | | 0 | | | | |
| 08:30 AM to 09:30 AM | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | 3 | | 0 | 0 | 4 | 2 | | 0 | 0 | 0 | 0 | |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.9% | 0.0% | **0.8%** | 0.0% | 33.3% | 0.0% | 27.3% | **28.6%** | 0.0% | 0.0% | 3.5% | 40.0% | **4.8%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |

**BICYCLES**

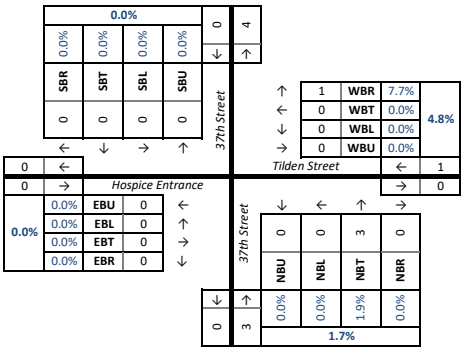
| Direction: | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Tilden Street | | | | 37th Street | | | | Hospice Entrance | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 06:30 AM to 06:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:45 AM to 07:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 AM to 07:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM to 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM to 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM to 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM to 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:15 AM to 08:30 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM to 08:45 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM to 09:00 AM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 09:00 AM to 09:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 09:15 AM to 09:30 AM | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 09:30 AM to 09:45 AM | | | | | | | | | | | | | | | | |
| 09:45 AM to 10:00 AM | | | | | | | | | | | | | | | | |
| 10:00 AM to 10:15 AM | | | | | | | | | | | | | | | | |
| 10:15 AM to 10:30 AM | | | | | | | | | | | | | | | | |
| 10:30 AM to 10:45 AM | | | | | | | | | | | | | | | | |
| 10:45 AM to 11:00 AM | | | | | | | | | | | | | | | | |
| 11:00 AM to 11:15 AM | | | | | | | | | | | | | | | | |
| 11:15 AM to 11:30 AM | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 4 | | | | 0 | | | | 2 | | | | 3 | | | |
| 07:45 AM to 08:45 AM | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| ***INT. PEAK HR (BIKES)*** | 11 | | | | 1 | | | | 6 | | | | 0 | | | |
| 08:30 AM to 09:30 AM | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |

**DATA COLLECTION NOTES :**

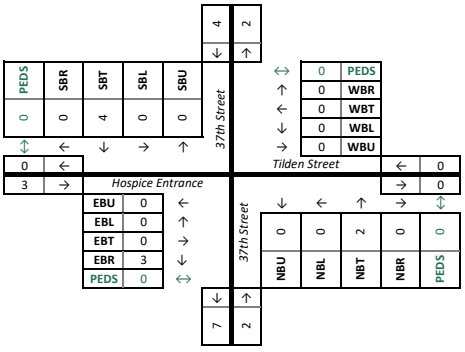
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**



# Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 02:30 PM to 07:00 PM | Volumes Displayed as: 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | System Peak Hour (all vehicles): 05:15 PM to 06:15 PM |
| Data Source: | Gorove/Slade Associates, Inc. | | | | User-Defined Peak Hour: 03:30 PM to 04:30 PM |

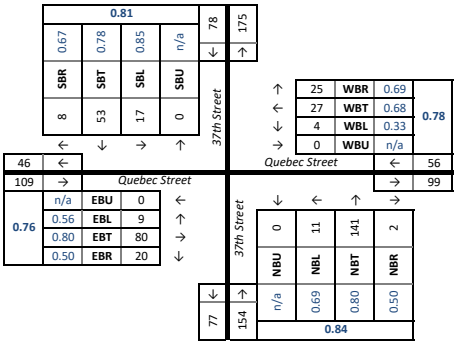
**Intersection:** 1. 37th Street & Quebec Street

| ALL VEHICLES | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Quebec Street | | | | | 37th Street | | | | | Quebec Street | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 02:30 PM to 02:45 PM | 0 | 3 | 11 | 21 | 4 | 0 | 1 | 3 | 3 | 2 | 0 | 2 | 14 | 0 | 2 | 0 | 3 | 6 | 1 | 4 |
| 02:45 PM to 03:00 PM | 0 | 2 | 10 | 6 | 0 | 0 | 0 | 7 | 3 | 0 | 0 | 3 | 18 | 0 | 0 | 0 | 3 | 4 | 1 | 1 |
| 03:00 PM to 03:15 PM | 2 | 1 | 8 | 1 | 5 | 0 | 1 | 6 | 6 | 1 | 0 | 1 | 23 | 0 | 0 | 0 | 2 | 11 | 2 | 2 |
| 03:15 PM to 03:30 PM | 0 | 3 | 19 | 1 | 0 | 0 | 1 | 3 | 9 | 2 | 0 | 1 | 25 | 0 | 0 | 0 | 3 | 7 | 1 | 2 |
| 03:30 PM to 03:45 PM | 1 | 1 | 19 | 4 | 2 | 0 | 0 | 7 | 3 | 0 | 0 | 6 | 34 | 1 | 0 | 0 | 1 | 7 | 2 | 4 |
| 03:45 PM to 04:00 PM | 0 | 4 | 7 | 4 | 2 | 0 | 0 | 11 | 4 | 3 | 0 | 6 | 28 | 0 | 2 | 0 | 3 | 11 | 0 | 4 |
| 04:00 PM to 04:15 PM | 0 | 0 | 12 | 4 | 0 | 0 | 0 | 5 | 5 | 10 | 0 | 5 | 25 | 0 | 3 | 0 | 3 | 10 | 2 | 1 |
| 04:15 PM to 04:30 PM | 0 | 3 | 5 | 3 | 1 | 0 | 0 | 3 | 4 | 1 | 0 | 1 | 16 | 0 | 0 | 0 | 5 | 11 | 6 | 2 |
| 04:30 PM to 04:45 PM | 0 | 3 | 20 | 4 | 1 | 0 | 0 | 8 | 5 | 1 | 0 | 4 | 25 | 1 | 0 | 1 | 1 | 12 | 5 | 3 |
| 04:45 PM to 05:00 PM | 0 | 4 | 16 | 6 | 2 | 0 | 1 | 10 | 4 | 0 | 0 | 2 | 24 | 0 | 2 | 0 | 4 | 11 | 3 | 2 |
| 05:00 PM to 05:15 PM | 0 | 1 | 9 | 6 | 4 | 0 | 1 | 5 | 4 | 4 | 0 | 4 | 30 | 0 | 1 | 0 | 4 | 21 | 8 | 4 |
| 05:15 PM to 05:30 PM | 0 | 4 | 11 | 3 | 1 | 0 | 1 | 8 | 9 | 2 | 0 | 4 | 36 | 0 | 1 | 0 | 0 | 20 | 4 | 0 |
| 05:30 PM to 05:45 PM | 0 | 5 | 17 | 2 | 2 | 0 | 0 | 2 | 4 | 0 | 0 | 2 | 35 | 1 | 1 | 0 | 1 | 25 | 10 | 1 |
| 05:45 PM to 06:00 PM | 0 | 3 | 13 | 1 | 0 | 0 | 3 | 10 | 5 | 2 | 0 | 2 | 44 | 0 | 0 | 0 | 4 | 17 | 2 | 0 |
| 06:00 PM to 06:15 PM | 0 | 5 | 12 | 2 | 0 | 0 | 0 | 7 | 7 | 6 | 0 | 3 | 26 | 1 | 1 | 0 | 4 | 18 | 4 | 0 |
| 06:15 PM to 06:30 PM | 1 | 5 | 9 | 3 | 0 | 0 | 0 | 4 | 3 | 2 | 0 | 2 | 26 | 2 | 1 | 0 | 2 | 11 | 4 | 2 |
| 06:30 PM to 06:45 PM | 0 | 3 | 6 | 3 | 4 | 0 | 0 | 4 | 1 | 2 | 1 | 2 | 17 | 0 | 2 | 0 | 4 | 20 | 0 | 3 |
| 06:45 PM to 07:00 PM | 0 | 0 | 8 | 2 | 3 | 0 | 1 | 3 | 2 | 7 | 0 | 1 | 13 | 0 | 1 | 0 | 2 | 8 | 7 | 2 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 78 | | | | 3 | 56 | | | | 10 | 154 | | | | 3 | 109 | | | | 1 |
| 05:15 PM to 06:15 PM | 0 | 17 | 53 | 8 | | 0 | 4 | 27 | 25 | | 0 | 11 | 141 | 2 | | 0 | 9 | 80 | 20 | |
| Peak Hour Factor (PHF) Overall 0.95 | U | Left | Thru | Right | **SB** | U | Left | Thru | Right | **WB** | U | Left | Thru | Right | **NB** | U | Left | Thru | Right | **EB** |
| | n/a | 0.85 | 0.78 | 0.67 | **0.81** | n/a | 0.33 | 0.68 | 0.69 | **0.78** | n/a | 0.69 | 0.80 | 0.50 | **0.84** | n/a | 0.56 | 0.80 | 0.50 | **0.76** |

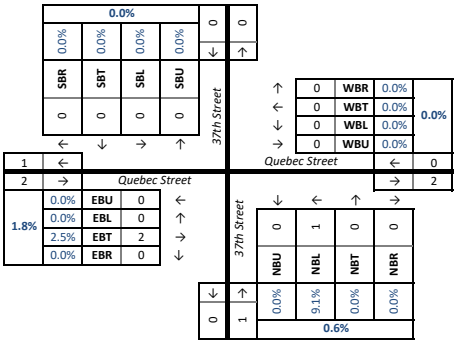
| HEAVY VEHICLES (FHWA 4+) | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Quebec Street | | | | 37th Street | | | | Quebec Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 02:30 PM to 02:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 PM to 03:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 03:15 PM to 03:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 03:30 PM to 03:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM to 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 04:45 PM to 05:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM to 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM to 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM to 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 05:45 PM to 06:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 PM to 06:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 PM to 06:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:30 PM to 06:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:45 PM to 07:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 0 | | | | 0 | | | | 1 | | | | 2 | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 9.1% | 0.0% | 0.0% | **0.6%** | 0.0% | 0.0% | 2.5% | 0.0% | **1.8%** |
| *INT. PEAK HR (HV ONLY)* | 1 | | | | 3 | | | | 2 | | | | 3 | | | |
| 04:00 PM to 05:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 1.9% | 0.0% | **1.3%** | 0.0% | 0.0% | 11.5% | 0.0% | **6.7%** | 0.0% | 0.0% | 1.1% | 100.0% | **1.9%** | 0.0% | 15.4% | 2.3% | 0.0% | **4.1%** |

| BICYCLES | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Quebec Street | | | | 37th Street | | | | Quebec Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 02:30 PM to 02:45 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 PM to 03:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:15 PM to 03:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:30 PM to 03:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 04:15 PM to 04:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM to 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM to 05:00 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM to 05:15 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 05:15 PM to 05:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| 05:30 PM to 05:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 0 |
| 05:45 PM to 06:00 PM | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:00 PM to 06:15 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| 06:15 PM to 06:30 PM | 1 | 0 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 06:30 PM to 06:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:45 PM to 07:00 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 10 | | | | 0 | | | | 14 | | | | 2 | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 2 | 0 |
| *INT. PEAK HR (BIKES)* | 10 | | | | 5 | | | | 14 | | | | 1 | | | |
| 05:30 PM to 06:30 PM | 1 | 0 | 9 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 14 | 0 | 0 | 0 | 1 | 0 |

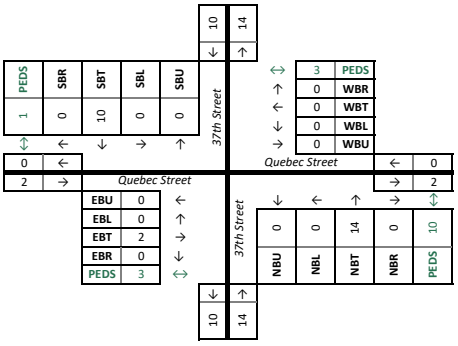
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**




**DATA COLLECTION NOTES :**

# Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 02:30 PM to 07:00 PM | Volumes Displayed as: 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | Intersection Peak Hour (all vehicles): 05:15 PM to 06:15 PM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | System Peak Hour (all vehicles): 05:15 PM to 06:15 PM |
| Data Source: | Gorove/Slade Associates, Inc. | | | | User-Defined Peak Hour: 03:30 PM to 04:30 PM |

**Intersection:** 1. Idahow Ave & Quebec Street

**ALL VEHICLES**

| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | Idahow Ave | | | | | Quebec Street | | | | | Idahow Ave | | | | | Quebec Street | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 02:30 PM to 02:45 PM | 0 | 0 | 2 | 6 | 2 | 0 | 3 | 4 | 0 | 1 | 0 | 0 | 3 | 2 | 0 | 0 | 1 | 6 | 2 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 3 | 4 | 2 | 0 | 1 | 4 | 1 | 2 | 0 | 0 | 3 | 1 | 1 | 0 | 2 | 3 | 0 | 2 |
| 03:00 PM to 03:15 PM | 0 | 0 | 2 | 7 | 2 | 0 | 0 | 5 | 0 | 1 | 0 | 1 | 5 | 1 | 2 | 0 | 2 | 8 | 2 | 1 |
| 03:15 PM to 03:30 PM | 0 | 0 | 1 | 6 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 4 | 9 | 0 | 1 | 1 | 1 | 8 | 0 | 1 |
| 03:30 PM to 03:45 PM | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 2 | 6 | 0 | 0 | 0 | 1 | 7 | 2 | 1 |
| 03:45 PM to 04:00 PM | 0 | 0 | 3 | 5 | 1 | 0 | 0 | 8 | 1 | 2 | 0 | 3 | 5 | 2 | 0 | 0 | 1 | 8 | 3 | 3 |
| 04:00 PM to 04:15 PM | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 8 | 0 | 2 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 12 | 1 | 0 |
| 04:15 PM to 04:30 PM | 0 | 0 | 1 | 2 | 2 | 0 | 1 | 6 | 1 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 10 | 3 | 2 |
| 04:30 PM to 04:45 PM | 0 | 1 | 2 | 4 | 3 | 0 | 2 | 4 | 0 | 3 | 0 | 2 | 3 | 2 | 2 | 0 | 2 | 11 | 2 | 0 |
| 04:45 PM to 05:00 PM | 0 | 0 | 5 | 5 | 0 | 0 | 2 | 11 | 0 | 1 | 0 | 2 | 5 | 0 | 0 | 0 | 3 | 10 | 2 | 0 |
| 05:00 PM to 05:15 PM | 0 | 0 | 1 | 5 | 2 | 0 | 2 | 3 | 0 | 1 | 0 | 3 | 5 | 1 | 0 | 0 | 3 | 12 | 2 | 0 |
| 05:15 PM to 05:30 PM | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 9 | 0 | 2 | 1 | 1 | 12 | 2 | 3 | 0 | 5 | 19 | 7 | 0 |
| 05:30 PM to 05:45 PM | 0 | 1 | 3 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 8 | 0 | 1 | 0 | 2 | 23 | 2 | 1 |
| 05:45 PM to 06:00 PM | 0 | 1 | 2 | 7 | 6 | 0 | 0 | 5 | 4 | 5 | 0 | 6 | 18 | 2 | 0 | 0 | 4 | 16 | 3 | 1 |
| 06:00 PM to 06:15 PM | 0 | 0 | 1 | 6 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 3 | 13 | 3 | 1 | 0 | 8 | 15 | 0 | 0 |
| 06:15 PM to 06:30 PM | 0 | 1 | 1 | 2 | 1 | 0 | 3 | 3 | 1 | 2 | 0 | 2 | 8 | 0 | 4 | 0 | 4 | 12 | 1 | 4 |
| 06:30 PM to 06:45 PM | 0 | 0 | 5 | 4 | 6 | 0 | 1 | 2 | 0 | 3 | 0 | 0 | 1 | 2 | 1 | 0 | 5 | 15 | 4 | 3 |
| 06:45 PM to 07:00 PM | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 6 | 1 | 1 | 0 | 3 | 7 | 1 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 31 | | | | 9 | 26 | | | | 7 | 70 | | | | 5 | 104 | | | | 2 |
| 05:15 PM to 06:15 PM | 0 | 2 | 6 | 23 | | 0 | 2 | 20 | 4 | | 1 | 11 | 51 | 7 | | 0 | 19 | 73 | 12 | |
| Peak Hour Factor (PHF) Overall 0.85 | U | Left | Thru | Right | SB | U | Left | Thru | Right | WB | U | Left | Thru | Right | NB | U | Left | Thru | Right | EB |
| | n/a | 0.50 | 0.50 | 0.82 | 0.78 | n/a | 0.25 | 0.56 | 0.25 | 0.72 | 0.25 | 0.46 | 0.71 | 0.58 | 0.67 | n/a | 0.59 | 0.79 | 0.43 | 0.84 |

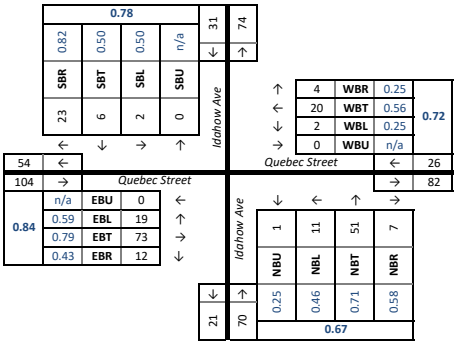
**HEAVY VEHICLES (FHWA 4+)**

| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | Idahow Ave | | | | | Quebec Street | | | | | Idahow Ave | | | | | Quebec Street | | | | |
| Movement: | U | Left | Thru | Right | | U | Left | Thru | Right | | U | Left | Thru | Right | | U | Left | Thru | Right | |
| 02:30 PM to 02:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 03:00 PM to 03:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 03:15 PM to 03:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 03:30 PM to 03:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 1 | | 0 | 0 | 1 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 04:30 PM to 04:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | |
| 04:45 PM to 05:00 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 05:00 PM to 05:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 05:15 PM to 05:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 05:30 PM to 05:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | |
| 05:45 PM to 06:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | |
| 06:00 PM to 06:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:15 PM to 06:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:30 PM to 06:45 PM | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | |
| 06:45 PM to 07:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 0 | | | | | 0 | | | | | 0 | | | | | 2 | | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 2 | |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 16.7% | **1.9%** |
| *INT. PEAK HR (HV ONLY)* | 3 | | | | | 2 | | | | | 1 | | | | | 2 | | | | |
| 03:30 PM to 04:30 PM | 0 | 0 | 0 | 3 | | 0 | 0 | 1 | 1 | | 0 | 0 | 1 | 0 | | 0 | 0 | 1 | 1 | |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 23.1% | **15.8%** | 0.0% | 0.0% | 4.0% | 33.3% | **6.9%** | 0.0% | 0.0% | 5.9% | 0.0% | **3.8%** | 0.0% | 0.0% | 2.7% | 11.1% | **4.1%** |

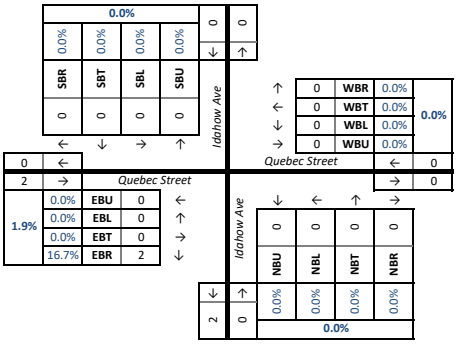
**BICYCLES**

| Direction: | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | Idahow Ave | | | | Quebec Street | | | | Idahow Ave | | | | Quebec Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 02:30 PM to 02:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 PM to 03:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:15 PM to 03:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:30 PM to 03:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM to 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:45 PM to 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM to 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM to 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM to 05:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 05:45 PM to 06:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 06:00 PM to 06:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 PM to 06:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 06:30 PM to 06:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 PM to 07:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | |
| *SYSTEM PEAK HR (VEH.)* | 0 | | | | 1 | | | | 2 | | | | 2 | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| *INT. PEAK HR (BIKES)* | 0 | | | | 0 | | | | 4 | | | | 2 | | | |
| 03:15 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 1 |

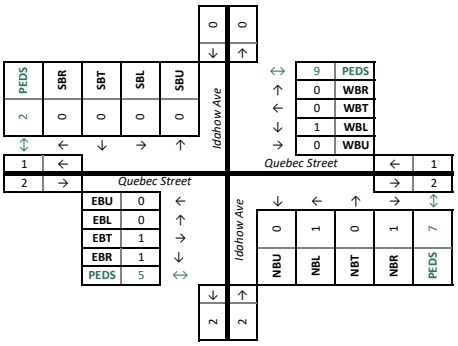
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**




**DATA COLLECTION NOTES :**

# Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD | 02:30 PM to 07:00 PM | Volumes Displayed as: 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | | Intersection Peak Hour (all vehicles): 05:15 PM to 06:15 PM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | | System Peak Hour (all vehicles): 05:15 PM to 06:15 PM |
| Data Source: | Gorove/Slade Associates, Inc. | | | | User-Defined Peak Hour: 03:30 PM to 04:30 PM |

**ALL VEHICLES** — *Intersection:* 1. 37th Street & Upton Street

| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Upton Street | | | | | 37th Street | | | | | Upton Street | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 02:30 PM to 02:45 PM | 0 | 4 | 16 | 2 | 3 | 0 | 4 | 4 | 7 | 5 | 0 | 2 | 25 | 3 | 4 | 0 | 2 | 18 | 7 | 3 |
| 02:45 PM to 03:00 PM | 0 | 7 | 8 | 1 | 1 | 0 | 4 | 5 | 9 | 6 | 0 | 1 | 16 | 5 | 1 | 0 | 4 | 12 | 7 | 2 |
| 03:00 PM to 03:15 PM | 0 | 2 | 19 | 2 | 0 | 0 | 8 | 6 | 12 | 12 | 0 | 2 | 22 | 1 | 3 | 0 | 3 | 9 | 4 | 2 |
| 03:15 PM to 03:30 PM | 0 | 4 | 9 | 1 | 0 | 0 | 10 | 1 | 5 | 42 | 0 | 3 | 35 | 12 | 1 | 0 | 2 | 9 | 6 | 2 |
| 03:30 PM to 03:45 PM | 0 | 8 | 10 | 0 | 0 | 0 | 0 | 6 | 13 | 11 | 0 | 1 | 41 | 11 | 0 | 0 | 4 | 11 | 10 | 0 |
| 03:45 PM to 04:00 PM | 0 | 5 | 5 | 1 | 0 | 0 | 6 | 2 | 5 | 7 | 0 | 3 | 31 | 4 | 0 | 0 | 3 | 19 | 6 | 2 |
| 04:00 PM to 04:15 PM | 0 | 3 | 9 | 0 | 0 | 0 | 4 | 5 | 3 | 5 | 0 | 5 | 38 | 4 | 1 | 0 | 5 | 6 | 2 | 2 |
| 04:15 PM to 04:30 PM | 0 | 3 | 6 | 0 | 10 | 0 | 0 | 2 | 2 | 10 | 0 | 2 | 21 | 1 | 1 | 0 | 0 | 8 | 2 | 2 |
| 04:30 PM to 04:45 PM | 0 | 2 | 16 | 2 | 0 | 0 | 4 | 4 | 1 | 9 | 0 | 1 | 22 | 9 | 1 | 0 | 2 | 6 | 9 | 1 |
| 04:45 PM to 05:00 PM | 0 | 3 | 14 | 3 | 3 | 0 | 2 | 0 | 5 | 1 | 0 | 2 | 31 | 7 | 0 | 0 | 1 | 8 | 12 | 3 |
| 05:00 PM to 05:15 PM | 0 | 2 | 11 | 0 | 1 | 0 | 3 | 3 | 2 | 5 | 0 | 3 | 36 | 5 | 1 | 0 | 2 | 14 | 11 | 1 |
| 05:15 PM to 05:30 PM | 0 | 5 | 9 | 2 | 3 | 0 | 4 | 3 | 5 | 4 | 0 | 2 | 35 | 5 | 1 | 0 | 3 | 6 | 10 | 1 |
| 05:30 PM to 05:45 PM | 0 | 2 | 9 | 0 | 3 | 0 | 4 | 4 | 5 | 12 | 0 | 1 | 46 | 4 | 3 | 0 | 0 | 7 | 9 | 1 |
| 05:45 PM to 06:00 PM | 0 | 5 | 17 | 1 | 2 | 0 | 4 | 4 | 2 | 10 | 0 | 1 | 40 | 10 | 1 | 0 | 2 | 4 | 12 | 1 |
| 06:00 PM to 06:15 PM | 0 | 5 | 14 | 0 | 3 | 0 | 2 | 3 | 4 | 8 | 0 | 3 | 48 | 15 | 3 | 0 | 3 | 15 | 5 | 3 |
| 06:15 PM to 06:30 PM | 0 | 4 | 12 | 0 | 0 | 0 | 3 | 3 | 5 | 1 | 0 | 5 | 37 | 2 | 1 | 0 | 2 | 6 | 5 | 1 |
| 06:30 PM to 06:45 PM | 0 | 7 | 7 | 1 | 0 | 0 | 0 | 2 | 7 | 5 | 0 | 3 | 24 | 0 | 2 | 0 | 0 | 2 | 6 | 5 |
| 06:45 PM to 07:00 PM | 0 | 2 | 7 | 0 | 2 | 0 | 1 | 6 | 5 | 9 | 0 | 1 | 19 | 0 | 2 | 0 | 2 | 6 | 2 | 6 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 69 | | | | 11 | 44 | | | | 34 | 210 | | | | 8 | 76 | | | | 6 |
| 05:15 PM to 06:15 PM | 0 | 17 | 49 | 3 | | 0 | 14 | 14 | 16 | | 0 | 7 | 169 | 34 | | 0 | 8 | 32 | 36 | |
| **Peak Hour** Overall | U | Left | Thru | Right | **SB** | U | Left | Thru | Right | **WB** | U | Left | Thru | Right | **NB** | U | Left | Thru | Right | **EB** |
| **Factor (PHF) 0.85** | n/a | 0.85 | 0.72 | 0.38 | **0.75** | n/a | 0.88 | 0.88 | 0.80 | **0.85** | n/a | 0.58 | 0.88 | 0.57 | **0.80** | n/a | 0.67 | 0.53 | 0.75 | **0.83** |

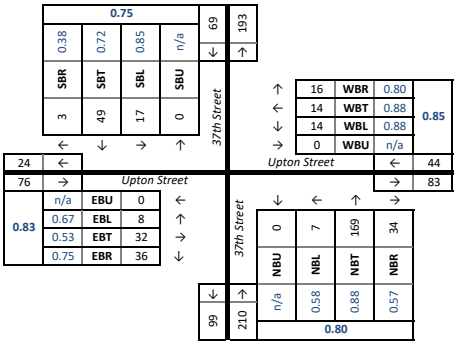
**HEAVY VEHICLES (FHWA 4+)**

| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Upton Street | | | | | 37th Street | | | | | Upton Street | | | | |
| Movement: | U | Left | Thru | Right | | U | Left | Thru | Right | | U | Left | Thru | Right | | U | Left | Thru | Right | |
| 02:30 PM to 02:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | |
| 02:45 PM to 03:00 PM | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 03:00 PM to 03:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 03:15 PM to 03:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 1 | 2 | | 0 | 0 | 0 | 0 | |
| 03:30 PM to 03:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 1 | 0 | |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | |
| 04:30 PM to 04:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | |
| 04:45 PM to 05:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 05:00 PM to 05:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 05:15 PM to 05:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 05:30 PM to 05:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 05:45 PM to 06:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:00 PM to 06:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:15 PM to 06:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 06:30 PM to 06:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | |
| 06:45 PM to 07:00 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 0 | | | | | 0 | | | | | 0 | | | | | 0 | | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| ***INT. PEAK HR (HV ONLY)*** | 1 | | | | | 0 | | | | | 5 | | | | | 1 | | | | |
| 02:45 PM to 03:45 PM | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 2 | 2 | | 0 | 0 | 1 | 0 | |
| Heavy Vehicle % (PHV): | 0.0% | 4.8% | 0.0% | 0.0% | **1.4%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 14.3% | 1.8% | 6.9% | **3.3%** | 0.0% | 0.0% | 2.4% | 0.0% | **1.2%** |

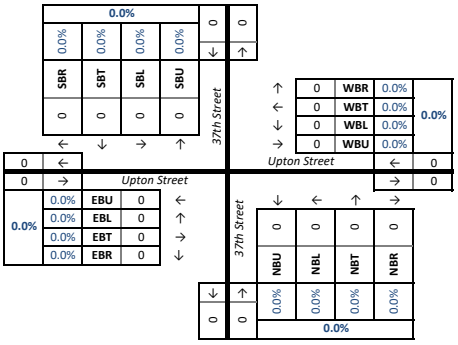
**BICYCLES**

| Direction: | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Upton Street | | | | 37th Street | | | | Upton Street | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 02:30 PM to 02:45 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 PM to 03:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:15 PM to 03:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:30 PM to 03:45 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM to 04:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM to 05:00 PM | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 |
| 05:00 PM to 05:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 |
| 05:15 PM to 05:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM to 05:45 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| 05:45 PM to 06:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:00 PM to 06:15 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 06:15 PM to 06:30 PM | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| 06:30 PM to 06:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 06:45 PM to 07:00 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 9 | | | | 1 | | | | 6 | | | | 1 | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 |
| ***INT. PEAK HR (BIKES)*** | 8 | | | | 2 | | | | 8 | | | | 3 | | | |
| 04:45 PM to 05:45 PM | 0 | 0 | 8 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 1 | 2 |

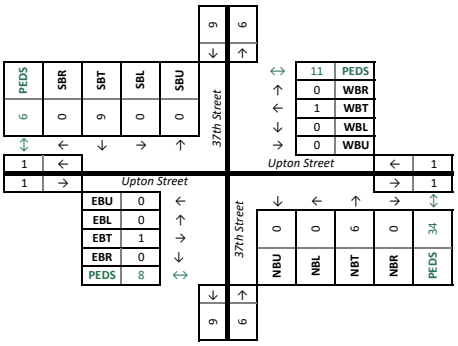
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**




**DATA COLLECTION NOTES :**

## Gorove/Slade Associates - Multimodal Turning Movement Count Report

| | | | | | |
|---|---|---|---|---|---|
| Project Name : | Hearst Elementary | **Analysis Period:** | STUDY_PERIOD 02:30 PM to 07:00 PM | Volumes Displayed as: | 2. System Peak (vehicle) |
| Project # : | 2247-003 | **Date of Counts:** | Tuesday, June 5, 2018 | Intersection Peak Hour (all vehicles): | 05:15 PM to 06:15 PM |
| Location | NW, Washington DC | **Weather:** | Partly Cloudy | System Peak Hour (all vehicles): | 05:15 PM to 06:15 PM |
| Data Source: | Gorove/Slade Associates, Inc. | | | User-Defined Peak Hour: | 03:30 PM to 04:30 PM |

**Intersection:** 1. 37th Street /37th Street & Tilden Street/Hospice Entrance

**ALL VEHICLES**

| Direction: | Southbound | | | | | Westbound | | | | | Northbound | | | | | Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | | Tilden Street | | | | | 37th Street | | | | | Hospice Entrance | | | | |
| Movement: | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds | U | Left | Thru | Right | Peds |
| 02:30 PM to 02:45 PM | 0 | 4 | 27 | 0 | 1 | 0 | 3 | 0 | 4 | 4 | 0 | 0 | 28 | 3 | 0 | 0 | 0 | 0 | 1 | 18 |
| 02:45 PM to 03:00 PM | 0 | 2 | 16 | 1 | 1 | 0 | 0 | 0 | 4 | 6 | 1 | 1 | 18 | 1 | 1 | 0 | 0 | 0 | 1 | 5 |
| 03:00 PM to 03:15 PM | 0 | 4 | 21 | 4 | 17 | 0 | 2 | 0 | 4 | 23 | 0 | 3 | 22 | 1 | 5 | 0 | 2 | 0 | 0 | 7 |
| 03:15 PM to 03:30 PM | 0 | 6 | 17 | 4 | 20 | 0 | 4 | 0 | 11 | 52 | 0 | 1 | 39 | 1 | 8 | 0 | 1 | 0 | 2 | 8 |
| 03:30 PM to 03:45 PM | 0 | 0 | 20 | 0 | 2 | 0 | 2 | 0 | 3 | 11 | 0 | 0 | 45 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 03:45 PM to 04:00 PM | 0 | 5 | 14 | 0 | 15 | 0 | 3 | 0 | 4 | 22 | 0 | 0 | 33 | 0 | 0 | 0 | 4 | 1 | 0 | 3 |
| 04:00 PM to 04:15 PM | 0 | 0 | 12 | 0 | 0 | 0 | 1 | 0 | 2 | 20 | 0 | 1 | 35 | 3 | 1 | 0 | 1 | 0 | 1 | 5 |
| 04:15 PM to 04:30 PM | 0 | 1 | 11 | 0 | 3 | 0 | 2 | 0 | 4 | 3 | 0 | 0 | 21 | 1 | 2 | 0 | 0 | 0 | 0 | 6 |
| 04:30 PM to 04:45 PM | 0 | 4 | 23 | 0 | 4 | 0 | 2 | 0 | 1 | 11 | 0 | 1 | 30 | 0 | 1 | 0 | 0 | 0 | 4 | 1 |
| 04:45 PM to 05:00 PM | 0 | 0 | 25 | 0 | 7 | 0 | 0 | 0 | 2 | 9 | 0 | 0 | 43 | 2 | 3 | 0 | 0 | 0 | 1 | 5 |
| 05:00 PM to 05:15 PM | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 2 | 12 | 0 | 1 | 39 | 0 | 1 | 0 | 0 | 0 | 3 | 5 |
| 05:15 PM to 05:30 PM | 0 | 0 | 22 | 1 | 5 | 0 | 1 | 0 | 1 | 7 | 0 | 0 | 42 | 2 | 0 | 0 | 0 | 0 | 3 | 2 |
| 05:30 PM to 05:45 PM | 0 | 0 | 30 | 0 | 1 | 0 | 0 | 0 | 1 | 18 | 0 | 0 | 50 | 0 | 2 | 0 | 1 | 0 | 0 | 1 |
| 05:45 PM to 06:00 PM | 0 | 3 | 23 | 0 | 8 | 0 | 1 | 0 | 2 | 7 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:00 PM to 06:15 PM | 0 | 0 | 21 | 0 | 15 | 0 | 1 | 0 | 0 | 15 | 0 | 0 | 67 | 0 | 3 | 0 | 1 | 0 | 0 | 2 |
| 06:15 PM to 06:30 PM | 0 | 2 | 19 | 0 | 2 | 0 | 0 | 0 | 1 | 4 | 0 | 1 | 36 | 1 | 1 | 0 | 1 | 0 | 2 | 2 |
| 06:30 PM to 06:45 PM | 0 | 1 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 28 | 0 | 1 | 0 | 0 | 0 | 0 | 7 |
| 06:45 PM to 07:00 PM | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 100 | | | | 29 | 7 | | | | 47 | 211 | | | | 5 | 5 | | | | 6 |
| 05:15 PM to 06:15 PM | 0 | 3 | 96 | 1 | | 0 | 3 | 0 | 4 | | 0 | 0 | 209 | 2 | | 0 | 2 | 0 | 3 | |
| **Peak Hour** Overall | U | Left | Thru | Right | **SB** | U | Left | Thru | Right | **WB** | U | Left | Thru | Right | **NB** | U | Left | Thru | Right | **EB** |
| **Factor (PHF)** **0.90** | n/a | 0.25 | 0.80 | 0.25 | **0.83** | n/a | 0.75 | n/a | 0.50 | **0.58** | n/a | n/a | 0.78 | 0.25 | **0.79** | n/a | 0.50 | n/a | 0.25 | **0.42** |

**HEAVY VEHICLES (FHWA 4+)**

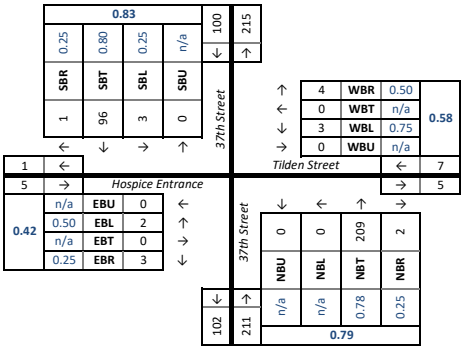
| Direction: | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Tilden Street | | | | 37th Street | | | | Hospice Entrance | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 02:30 PM to 02:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 PM to 03:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:15 PM to 03:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 03:30 PM to 03:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM to 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM to 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 05:00 PM to 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM to 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM to 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM to 06:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 PM to 06:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 PM to 06:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:30 PM to 06:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:45 PM to 07:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 0 | | | | 0 | | | | 0 | | | | 0 | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| ***INT. PEAK HR (HV ONLY)*** | 0 | | | | 2 | | | | 3 | | | | 0 | | | |
| 02:30 PM to 03:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| Heavy Vehicle % (PHV): | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 8.7% | **6.3%** | 0.0% | 0.0% | 2.8% | 0.0% | **2.5%** | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |

**BICYCLES**

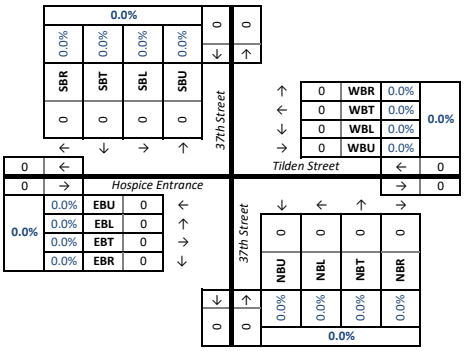
| Direction: | Southbound | | | | Westbound | | | | Northbound | | | | Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roadway: | 37th Street | | | | Tilden Street | | | | 37th Street | | | | Hospice Entrance | | | |
| Movement: | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right |
| 02:30 PM to 02:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 02:45 PM to 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 03:00 PM to 03:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:15 PM to 03:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:30 PM to 03:45 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 03:45 PM to 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 04:00 PM to 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM to 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| 04:30 PM to 04:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM to 05:00 PM | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM to 05:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM to 05:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM to 05:45 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM to 06:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 06:00 PM to 06:15 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| 06:15 PM to 06:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 06:30 PM to 06:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| 06:45 PM to 07:00 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 0 |
| 07:00 PM to 07:15 PM | | | | | | | | | | | | | | | | |
| 07:15 PM to 07:30 PM | | | | | | | | | | | | | | | | |
| ***SYSTEM PEAK HR (VEH.)*** | 9 | | | | 0 | | | | 12 | | | | 0 | | | |
| 05:15 PM to 06:15 PM | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 0 | 0 | 0 | 0 | 0 |
| ***INT. PEAK HR (BIKES)*** | 9 | | | | 0 | | | | 16 | | | | 1 | | | |
| 06:00 PM to 07:00 PM | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 0 | 0 | 0 | 0 | 1 |

**DATA COLLECTION NOTES :**

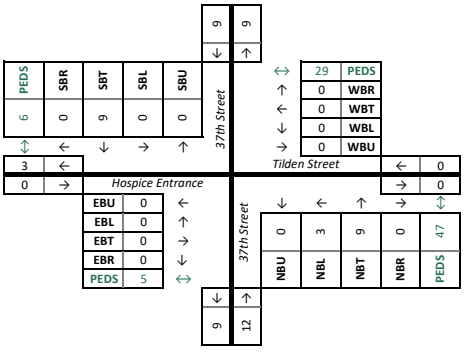
**VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)**




**HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)**




**PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)**



# Appendix B

Trip Generation

| Visitors and Staff | Peak Hour Visitors | Visitors who came in a vehicle | Vehicles |
|---|---|---|---|
| **264** | 88 veh/hr | 44 veh/hr | 22 veh/hr |

| Mode | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total |
| Auto | 15 veh/hr | 7 veh/hr | 22 veh/hr | 10 veh/hr | 12 veh/hr | 22 veh/hr |
| Other | 29 ppl/hr | 15 ppl/hr | 44 ppl/hr | 21 ppl/hr | 23 ppl/hr | 44 ppl/hr |

**In and out percentages based on ITE Land Use Code 495, Recreational Community Center*

# Appendix C

Synchro Reports

# HCM Unsignalized Intersection Capacity Analysis
## 1: 37th St & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 15 | 46 | 19 | 3 | 36 | 47 | 22 | 116 | 3 | 49 | 122 | 62 |
| Future Volume (vph) | 15 | 46 | 19 | 3 | 36 | 47 | 22 | 116 | 3 | 49 | 122 | 62 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.85 | 0.85 | 0.85 | 0.93 | 0.93 | 0.93 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 16 | 51 | 21 | 4 | 42 | 55 | 24 | 125 | 3 | 58 | 144 | 73 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 88 | 101 | 152 | 275 |
| Volume Left (vph) | 16 | 4 | 24 | 58 |
| Volume Right (vph) | 21 | 55 | 3 | 73 |
| Hadj (s) | -0.07 | -0.28 | 0.05 | -0.08 |
| Departure Headway (s) | 5.0 | 4.7 | 4.8 | 4.5 |
| Degree Utilization, x | 0.12 | 0.13 | 0.20 | 0.34 |
| Capacity (veh/h) | 653 | 684 | 715 | 764 |
| Control Delay (s) | 8.7 | 8.5 | 8.9 | 9.8 |
| Approach Delay (s) | 8.7 | 8.5 | 8.9 | 9.8 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 37.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 26 | 59 | 12 | 8 | 39 | 0 | 7 | 20 | 8 | 0 | 3 | 41 |
| Future Volume (vph) | 26 | 59 | 12 | 8 | 39 | 0 | 7 | 20 | 8 | 0 | 3 | 41 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 31 | 69 | 14 | 9 | 46 | 0 | 8 | 24 | 9 | 0 | 4 | 48 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 114 | 55 | 41 | 52 |
| Volume Left (vph) | 31 | 9 | 8 | 0 |
| Volume Right (vph) | 14 | 0 | 9 | 48 |
| Hadj (s) | 0.01 | 0.07 | -0.06 | -0.52 |
| Departure Headway (s) | 4.2 | 4.3 | 4.3 | 3.8 |
| Degree Utilization, x | 0.13 | 0.07 | 0.05 | 0.05 |
| Capacity (veh/h) | 840 | 816 | 801 | 902 |
| Control Delay (s) | 7.8 | 7.6 | 7.5 | 7.0 |
| Approach Delay (s) | 7.8 | 7.6 | 7.5 | 7.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 24.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 2 | 0 | 11 | 8 | 0 | 13 | 9 | 154 | 11 | 17 | 225 | 15 |
| Future Volume (vph) | 2 | 0 | 11 | 8 | 0 | 13 | 9 | 154 | 11 | 17 | 225 | 15 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 2 | 0 | 13 | 9 | 0 | 15 | 11 | 181 | 13 | 20 | 265 | 18 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 15 | 24 | 205 | 303 |
| Volume Left (vph) | 2 | 9 | 11 | 20 |
| Volume Right (vph) | 13 | 15 | 13 | 18 |
| Hadj (s) | -0.46 | -0.21 | 0.01 | 0.01 |
| Departure Headway (s) | 4.6 | 4.8 | 4.3 | 4.2 |
| Degree Utilization, x | 0.02 | 0.03 | 0.25 | 0.35 |
| Capacity (veh/h) | 697 | 667 | 814 | 831 |
| Control Delay (s) | 7.7 | 8.0 | 8.7 | 9.5 |
| Approach Delay (s) | 7.7 | 8.0 | 8.7 | 9.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 28.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 9 | 44 | 55 | 48 | 50 | 51 | 17 | 116 | 33 | 20 | 175 | 3 |
| Future Volume (vph) | 9 | 44 | 55 | 48 | 50 | 51 | 17 | 116 | 33 | 20 | 175 | 3 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 11 | 52 | 65 | 56 | 59 | 60 | 20 | 136 | 39 | 24 | 206 | 4 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 128 | 175 | 195 | 234 |
| Volume Left (vph) | 11 | 56 | 20 | 24 |
| Volume Right (vph) | 65 | 60 | 39 | 4 |
| Hadj (s) | -0.25 | -0.11 | -0.07 | 0.04 |
| Departure Headway (s) | 5.0 | 5.1 | 5.0 | 5.0 |
| Degree Utilization, x | 0.18 | 0.25 | 0.27 | 0.33 |
| Capacity (veh/h) | 645 | 646 | 675 | 671 |
| Control Delay (s) | 9.1 | 9.7 | 9.8 | 10.4 |
| Approach Delay (s) | 9.1 | 9.7 | 9.8 | 10.4 |
| Approach LOS | A | A | A | B |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.8 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 35.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# HCM Unsignalized Intersection Capacity Analysis
## 1: 37th St & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 9 | 80 | 20 | 4 | 27 | 25 | 11 | 141 | 2 | 17 | 53 | 8 |
| Future Volume (vph) | 9 | 80 | 20 | 4 | 27 | 25 | 11 | 141 | 2 | 17 | 53 | 8 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 11 | 94 | 24 | 5 | 32 | 29 | 13 | 166 | 2 | 20 | 62 | 9 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 129 | 66 | 181 | 91 |
| Volume Left (vph) | 11 | 5 | 13 | 20 |
| Volume Right (vph) | 24 | 29 | 2 | 9 |
| Hadj (s) | -0.06 | -0.21 | 0.04 | 0.02 |
| Departure Headway (s) | 4.6 | 4.5 | 4.5 | 4.6 |
| Degree Utilization, x | 0.16 | 0.08 | 0.23 | 0.12 |
| Capacity (veh/h) | 734 | 739 | 760 | 734 |
| Control Delay (s) | 8.5 | 7.9 | 8.8 | 8.2 |
| Approach Delay (s) | 8.5 | 7.9 | 8.8 | 8.2 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 25.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# HCM Unsignalized Intersection Capacity Analysis
## 2: Idaho Ave & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 19 | 73 | 12 | 2 | 20 | 4 | 12 | 51 | 7 | 2 | 6 | 23 |
| Future Volume (vph) | 19 | 73 | 12 | 2 | 20 | 4 | 12 | 51 | 7 | 2 | 6 | 23 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 22 | 86 | 14 | 2 | 24 | 5 | 14 | 60 | 8 | 2 | 7 | 27 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 122 | 31 | 82 | 36 |
| Volume Left (vph) | 22 | 2 | 14 | 2 |
| Volume Right (vph) | 14 | 5 | 8 | 27 |
| Hadj (s) | 0.00 | -0.05 | 0.01 | -0.40 |
| Departure Headway (s) | 4.2 | 4.2 | 4.3 | 3.9 |
| Degree Utilization, x | 0.14 | 0.04 | 0.10 | 0.04 |
| Capacity (veh/h) | 832 | 817 | 803 | 875 |
| Control Delay (s) | 7.9 | 7.4 | 7.7 | 7.1 |
| Approach Delay (s) | 7.9 | 7.4 | 7.7 | 7.1 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.7 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 25.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 209 | 2 | 3 | 96 | 1 |
| Future Volume (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 209 | 2 | 3 | 96 | 1 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 2 | 0 | 4 | 4 | 0 | 5 | 0 | 246 | 2 | 4 | 113 | 1 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 6 | 9 | 248 | 118 |
| Volume Left (vph) | 2 | 4 | 0 | 4 |
| Volume Right (vph) | 4 | 5 | 2 | 1 |
| Hadj (s) | -0.30 | -0.16 | 0.03 | 0.04 |
| Departure Headway (s) | 4.4 | 4.5 | 4.1 | 4.2 |
| Degree Utilization, x | 0.01 | 0.01 | 0.28 | 0.14 |
| Capacity (veh/h) | 744 | 723 | 867 | 842 |
| Control Delay (s) | 7.4 | 7.6 | 8.7 | 7.9 |
| Approach Delay (s) | 7.4 | 7.6 | 8.7 | 7.9 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.4 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 29.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 8 | 32 | 36 | 14 | 14 | 16 | 7 | 169 | 34 | 17 | 49 | 3 |
| Future Volume (vph) | 8 | 32 | 36 | 14 | 14 | 16 | 7 | 169 | 34 | 17 | 49 | 3 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Hourly flow rate (vph) | 9 | 38 | 42 | 16 | 16 | 19 | 8 | 199 | 40 | 20 | 58 | 4 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 89 | 51 | 247 | 82 |
| Volume Left (vph) | 9 | 16 | 8 | 20 |
| Volume Right (vph) | 42 | 19 | 40 | 4 |
| Hadj (s) | -0.23 | -0.13 | -0.06 | 0.05 |
| Departure Headway (s) | 4.5 | 4.6 | 4.3 | 4.6 |
| Degree Utilization, x | 0.11 | 0.07 | 0.29 | 0.10 |
| Capacity (veh/h) | 738 | 712 | 813 | 747 |
| Control Delay (s) | 8.0 | 8.0 | 9.0 | 8.1 |
| Approach Delay (s) | 8.0 | 8.0 | 9.0 | 8.1 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.6 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 27.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# HCM Unsignalized Intersection Capacity Analysis
## 1: 37th St & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 15 | 46 | 19 | 3 | 36 | 47 | 22 | 116 | 3 | 49 | 122 | 62 |
| Future Volume (vph) | 15 | 46 | 19 | 3 | 36 | 47 | 22 | 116 | 3 | 49 | 122 | 62 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 16 | 50 | 21 | 3 | 39 | 51 | 24 | 125 | 3 | 53 | 133 | 67 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 87 | 93 | 152 | 253 |
| Volume Left (vph) | 16 | 3 | 24 | 53 |
| Volume Right (vph) | 21 | 51 | 3 | 67 |
| Hadj (s) | -0.07 | -0.29 | 0.05 | -0.08 |
| Departure Headway (s) | 4.9 | 4.7 | 4.7 | 4.5 |
| Degree Utilization, x | 0.12 | 0.12 | 0.20 | 0.31 |
| Capacity (veh/h) | 666 | 695 | 726 | 769 |
| Control Delay (s) | 8.6 | 8.3 | 8.9 | 9.5 |
| Approach Delay (s) | 8.6 | 8.3 | 8.9 | 9.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.0 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 37.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 26 | 59 | 12 | 8 | 39 | 0 | 7 | 20 | 8 | 0 | 3 | 41 |
| Future Volume (vph) | 26 | 59 | 12 | 8 | 39 | 0 | 7 | 20 | 8 | 0 | 3 | 41 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 28 | 64 | 13 | 9 | 42 | 0 | 8 | 22 | 9 | 0 | 3 | 45 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 105 | 51 | 39 | 48 |
| Volume Left (vph) | 28 | 9 | 8 | 0 |
| Volume Right (vph) | 13 | 0 | 9 | 45 |
| Hadj (s) | 0.01 | 0.07 | -0.06 | -0.53 |
| Departure Headway (s) | 4.1 | 4.3 | 4.2 | 3.8 |
| Degree Utilization, x | 0.12 | 0.06 | 0.05 | 0.05 |
| Capacity (veh/h) | 845 | 822 | 811 | 914 |
| Control Delay (s) | 7.7 | 7.5 | 7.4 | 7.0 |
| Approach Delay (s) | 7.7 | 7.5 | 7.4 | 7.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 24.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 2 | 0 | 11 | 8 | 0 | 13 | 9 | 154 | 11 | 17 | 225 | 15 |
| Future Volume (vph) | 2 | 0 | 11 | 8 | 0 | 13 | 9 | 154 | 11 | 17 | 225 | 15 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 2 | 0 | 12 | 9 | 0 | 14 | 10 | 167 | 12 | 18 | 245 | 16 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 14 | 23 | 189 | 279 |
| Volume Left (vph) | 2 | 9 | 10 | 18 |
| Volume Right (vph) | 12 | 14 | 12 | 16 |
| Hadj (s) | -0.45 | -0.20 | 0.01 | 0.01 |
| Departure Headway (s) | 4.5 | 4.7 | 4.3 | 4.2 |
| Degree Utilization, x | 0.02 | 0.03 | 0.22 | 0.32 |
| Capacity (veh/h) | 714 | 682 | 820 | 836 |
| Control Delay (s) | 7.6 | 7.9 | 8.5 | 9.2 |
| Approach Delay (s) | 7.6 | 7.9 | 8.5 | 9.2 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.8 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 28.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 9 | 45 | 55 | 48 | 51 | 51 | 17 | 116 | 33 | 20 | 175 | 3 |
| Future Volume (vph) | 9 | 45 | 55 | 48 | 51 | 51 | 17 | 116 | 33 | 20 | 175 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 10 | 49 | 60 | 52 | 55 | 55 | 18 | 126 | 36 | 22 | 190 | 3 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 119 | 162 | 180 | 215 |
| Volume Left (vph) | 10 | 52 | 18 | 22 |
| Volume Right (vph) | 60 | 55 | 36 | 3 |
| Hadj (s) | -0.25 | -0.11 | -0.07 | 0.05 |
| Departure Headway (s) | 4.9 | 4.9 | 4.8 | 4.9 |
| Degree Utilization, x | 0.16 | 0.22 | 0.24 | 0.29 |
| Capacity (veh/h) | 666 | 664 | 693 | 687 |
| Control Delay (s) | 8.8 | 9.4 | 9.4 | 9.9 |
| Approach Delay (s) | 8.8 | 9.4 | 9.4 | 9.9 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.4 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 35.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# HCM Unsignalized Intersection Capacity Analysis
## 1: 37th St & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 9 | 80 | 20 | 4 | 27 | 25 | 11 | 141 | 2 | 17 | 53 | 8 |
| Future Volume (vph) | 9 | 80 | 20 | 4 | 27 | 25 | 11 | 141 | 2 | 17 | 53 | 8 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 10 | 87 | 22 | 4 | 29 | 27 | 12 | 153 | 2 | 18 | 58 | 9 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 119 | 60 | 167 | 85 |
| Volume Left (vph) | 10 | 4 | 12 | 18 |
| Volume Right (vph) | 22 | 27 | 2 | 9 |
| Hadj (s) | -0.06 | -0.22 | 0.04 | 0.01 |
| Departure Headway (s) | 4.5 | 4.4 | 4.5 | 4.5 |
| Degree Utilization, x | 0.15 | 0.07 | 0.21 | 0.11 |
| Capacity (veh/h) | 746 | 755 | 771 | 748 |
| Control Delay (s) | 8.3 | 7.8 | 8.6 | 8.1 |
| Approach Delay (s) | 8.3 | 7.8 | 8.6 | 8.1 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.3 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 25.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 19 | 73 | 12 | 2 | 20 | 4 | 12 | 51 | 7 | 2 | 6 | 23 |
| Future Volume (vph) | 19 | 73 | 12 | 2 | 20 | 4 | 12 | 51 | 7 | 2 | 6 | 23 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 21 | 79 | 13 | 2 | 22 | 4 | 13 | 55 | 8 | 2 | 7 | 25 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 113 | 28 | 76 | 34 |
| Volume Left (vph) | 21 | 2 | 13 | 2 |
| Volume Right (vph) | 13 | 4 | 8 | 25 |
| Hadj (s) | 0.00 | -0.04 | 0.01 | -0.40 |
| Departure Headway (s) | 4.2 | 4.2 | 4.2 | 3.9 |
| Degree Utilization, x | 0.13 | 0.03 | 0.09 | 0.04 |
| Capacity (veh/h) | 838 | 822 | 812 | 883 |
| Control Delay (s) | 7.8 | 7.4 | 7.7 | 7.0 |
| Approach Delay (s) | 7.8 | 7.4 | 7.7 | 7.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.6 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 25.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 209 | 2 | 3 | 96 | 1 |
| Future Volume (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 209 | 2 | 3 | 96 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 227 | 2 | 3 | 104 | 1 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 5 | 7 | 229 | 108 |
| Volume Left (vph) | 2 | 3 | 0 | 3 |
| Volume Right (vph) | 3 | 4 | 2 | 1 |
| Hadj (s) | -0.25 | -0.17 | 0.03 | 0.03 |
| Departure Headway (s) | 4.4 | 4.5 | 4.1 | 4.2 |
| Degree Utilization, x | 0.01 | 0.01 | 0.26 | 0.13 |
| Capacity (veh/h) | 750 | 739 | 872 | 848 |
| Control Delay (s) | 7.4 | 7.5 | 8.5 | 7.8 |
| Approach Delay (s) | 7.4 | 7.5 | 8.5 | 7.8 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 29.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 8 | 32 | 36 | 14 | 14 | 16 | 7 | 169 | 34 | 17 | 49 | 3 |
| Future Volume (vph) | 8 | 32 | 36 | 14 | 14 | 16 | 7 | 169 | 34 | 17 | 49 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 9 | 35 | 39 | 15 | 15 | 17 | 8 | 184 | 37 | 18 | 53 | 3 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 83 | 47 | 229 | 74 |
| Volume Left (vph) | 9 | 15 | 8 | 18 |
| Volume Right (vph) | 39 | 17 | 37 | 3 |
| Hadj (s) | -0.23 | -0.12 | -0.06 | 0.06 |
| Departure Headway (s) | 4.4 | 4.6 | 4.2 | 4.5 |
| Degree Utilization, x | 0.10 | 0.06 | 0.27 | 0.09 |
| Capacity (veh/h) | 752 | 725 | 821 | 756 |
| Control Delay (s) | 7.9 | 7.9 | 8.8 | 8.0 |
| Approach Delay (s) | 7.9 | 7.9 | 8.8 | 8.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.4 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 27.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# HCM Unsignalized Intersection Capacity Analysis
## 1: 37th St & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 17 | 46 | 19 | 3 | 36 | 50 | 22 | 119 | 3 | 50 | 124 | 63 |
| Future Volume (vph) | 17 | 46 | 19 | 3 | 36 | 50 | 22 | 119 | 3 | 50 | 124 | 63 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 18 | 50 | 21 | 3 | 39 | 54 | 24 | 128 | 3 | 54 | 135 | 68 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 89 | 96 | 155 | 257 |
| Volume Left (vph) | 18 | 3 | 24 | 54 |
| Volume Right (vph) | 21 | 54 | 3 | 68 |
| Hadj (s) | -0.07 | -0.30 | 0.05 | -0.08 |
| Departure Headway (s) | 4.9 | 4.7 | 4.7 | 4.5 |
| Degree Utilization, x | 0.12 | 0.13 | 0.20 | 0.32 |
| Capacity (veh/h) | 661 | 692 | 722 | 766 |
| Control Delay (s) | 8.6 | 8.4 | 8.9 | 9.6 |
| Approach Delay (s) | 8.6 | 8.4 | 8.9 | 9.6 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 38.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 26 | 60 | 12 | 8 | 41 | 0 | 7 | 20 | 8 | 0 | 3 | 42 |
| Future Volume (vph) | 26 | 60 | 12 | 8 | 41 | 0 | 7 | 20 | 8 | 0 | 3 | 42 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 28 | 65 | 13 | 9 | 45 | 0 | 8 | 22 | 9 | 0 | 3 | 46 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 106 | 54 | 39 | 49 |
| Volume Left (vph) | 28 | 9 | 8 | 0 |
| Volume Right (vph) | 13 | 0 | 9 | 46 |
| Hadj (s) | 0.01 | 0.07 | -0.06 | -0.53 |
| Departure Headway (s) | 4.2 | 4.3 | 4.2 | 3.8 |
| Degree Utilization, x | 0.12 | 0.06 | 0.05 | 0.05 |
| Capacity (veh/h) | 844 | 821 | 808 | 911 |
| Control Delay (s) | 7.7 | 7.5 | 7.4 | 7.0 |
| Approach Delay (s) | 7.7 | 7.5 | 7.4 | 7.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 24.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 2 | 0 | 11 | 8 | 0 | 13 | 9 | 157 | 11 | 17 | 232 | 15 |
| Future Volume (vph) | 2 | 0 | 11 | 8 | 0 | 13 | 9 | 157 | 11 | 17 | 232 | 15 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 2 | 0 | 12 | 9 | 0 | 14 | 10 | 171 | 12 | 18 | 252 | 16 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 14 | 23 | 193 | 286 |
| Volume Left (vph) | 2 | 9 | 10 | 18 |
| Volume Right (vph) | 12 | 14 | 12 | 16 |
| Hadj (s) | -0.45 | -0.20 | 0.01 | 0.01 |
| Departure Headway (s) | 4.5 | 4.8 | 4.3 | 4.2 |
| Degree Utilization, x | 0.02 | 0.03 | 0.23 | 0.33 |
| Capacity (veh/h) | 709 | 677 | 819 | 835 |
| Control Delay (s) | 7.6 | 7.9 | 8.6 | 9.3 |
| Approach Delay (s) | 7.6 | 7.9 | 8.6 | 9.3 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.9 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 28.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 9 | 45 | 56 | 50 | 51 | 51 | 17 | 118 | 34 | 20 | 179 | 3 |
| Future Volume (vph) | 9 | 45 | 56 | 50 | 51 | 51 | 17 | 118 | 34 | 20 | 179 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 10 | 49 | 61 | 54 | 55 | 55 | 18 | 128 | 37 | 22 | 195 | 3 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 120 | 164 | 183 | 220 |
| Volume Left (vph) | 10 | 54 | 18 | 22 |
| Volume Right (vph) | 61 | 55 | 37 | 3 |
| Hadj (s) | -0.25 | -0.10 | -0.07 | 0.05 |
| Departure Headway (s) | 4.9 | 5.0 | 4.9 | 4.9 |
| Degree Utilization, x | 0.16 | 0.23 | 0.25 | 0.30 |
| Capacity (veh/h) | 662 | 660 | 690 | 685 |
| Control Delay (s) | 8.8 | 9.4 | 9.4 | 10.0 |
| Approach Delay (s) | 8.8 | 9.4 | 9.4 | 10.0 |
| Approach LOS | A | A | A | B |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 36.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# HCM Unsignalized Intersection Capacity Analysis
## 1: 37th St & Quebec St

07/03/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 10 | 80 | 20 | 4 | 27 | 27 | 11 | 143 | 2 | 19 | 56 | 9 |
| Future Volume (vph) | 10 | 80 | 20 | 4 | 27 | 27 | 11 | 143 | 2 | 19 | 56 | 9 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 11 | 87 | 22 | 4 | 29 | 29 | 12 | 155 | 2 | 21 | 61 | 10 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 120 | 62 | 169 | 92 |
| Volume Left (vph) | 11 | 4 | 12 | 21 |
| Volume Right (vph) | 22 | 29 | 2 | 10 |
| Hadj (s) | -0.06 | -0.23 | 0.04 | 0.01 |
| Departure Headway (s) | 4.5 | 4.4 | 4.5 | 4.5 |
| Degree Utilization, x | 0.15 | 0.08 | 0.21 | 0.12 |
| Capacity (veh/h) | 741 | 751 | 767 | 745 |
| Control Delay (s) | 8.3 | 7.8 | 8.7 | 8.1 |
| Approach Delay (s) | 8.3 | 7.8 | 8.7 | 8.1 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.3 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 25.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 20 | 74 | 12 | 2 | 21 | 4 | 12 | 51 | 7 | 2 | 6 | 24 |
| Future Volume (vph) | 20 | 74 | 12 | 2 | 21 | 4 | 12 | 51 | 7 | 2 | 6 | 24 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 22 | 80 | 13 | 2 | 23 | 4 | 13 | 55 | 8 | 2 | 7 | 26 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 115 | 29 | 76 | 35 |
| Volume Left (vph) | 22 | 2 | 13 | 2 |
| Volume Right (vph) | 13 | 4 | 8 | 26 |
| Hadj (s) | 0.00 | -0.03 | 0.01 | -0.40 |
| Departure Headway (s) | 4.2 | 4.2 | 4.3 | 3.9 |
| Degree Utilization, x | 0.13 | 0.03 | 0.09 | 0.04 |
| Capacity (veh/h) | 836 | 821 | 809 | 882 |
| Control Delay (s) | 7.8 | 7.4 | 7.7 | 7.0 |
| Approach Delay (s) | 7.8 | 7.4 | 7.7 | 7.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.6 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 26.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 215 | 2 | 3 | 101 | 1 |
| Future Volume (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 215 | 2 | 3 | 101 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 2 | 0 | 3 | 3 | 0 | 4 | 0 | 234 | 2 | 3 | 110 | 1 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 5 | 7 | 236 | 114 |
| Volume Left (vph) | 2 | 3 | 0 | 3 |
| Volume Right (vph) | 3 | 4 | 2 | 1 |
| Hadj (s) | -0.25 | -0.17 | 0.03 | 0.03 |
| Departure Headway (s) | 4.4 | 4.5 | 4.1 | 4.2 |
| Degree Utilization, x | 0.01 | 0.01 | 0.27 | 0.13 |
| Capacity (veh/h) | 744 | 733 | 870 | 847 |
| Control Delay (s) | 7.4 | 7.5 | 8.5 | 7.8 |
| Approach Delay (s) | 7.4 | 7.5 | 8.5 | 7.8 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.3 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 29.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 8 | 32 | 37 | 15 | 14 | 16 | 8 | 173 | 35 | 17 | 52 | 3 |
| Future Volume (vph) | 8 | 32 | 37 | 15 | 14 | 16 | 8 | 173 | 35 | 17 | 52 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 9 | 35 | 40 | 16 | 15 | 17 | 9 | 188 | 38 | 18 | 57 | 3 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 84 | 48 | 235 | 78 |
| Volume Left (vph) | 9 | 16 | 9 | 18 |
| Volume Right (vph) | 40 | 17 | 38 | 3 |
| Hadj (s) | -0.23 | -0.11 | -0.06 | 0.06 |
| Departure Headway (s) | 4.4 | 4.6 | 4.2 | 4.5 |
| Degree Utilization, x | 0.10 | 0.06 | 0.28 | 0.10 |
| Capacity (veh/h) | 747 | 719 | 819 | 754 |
| Control Delay (s) | 7.9 | 7.9 | 8.9 | 8.0 |
| Approach Delay (s) | 7.9 | 7.9 | 8.9 | 8.0 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.4 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 28.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

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# TECHNICAL MEMORANDUM

To: Tom Wheeler — Cox Graae + Spack Architects

From: Zane Pulver
Katie Wagner, P.E. PTOE
Erwin Andres

Date: July 6, 2018

Subject: Traffic Impact Analysis for Hearst Park and Pool EISF

## INTRODUCTION

This memorandum presents the results of a traffic impact analysis prepared for the expansion of Hearst Recreation Center located at 3950 37th Street NW, Washington, DC. The scope of this effort is to determine the potential impacts of the recreation center expansion as it relates to completing the District of Columbia Environmental Impact Screening Form (EISF).

## PROJECT DESCRIPTION

Figure 1 shows the site location. The site is bounded by 37th Street NW to the west, Quebec Street NW to the south, Idaho Avenue NW to the east, and Hearst Elementary School to the north, as shown in Figure 2. This project consists of expanding the existing recreation center, which currently has three (3) tennis courts and one (1) soccer field, to contain a six (6) lane 25-meter pool, a high school regulation soccer field, and a pool house. The number of tennis courts will be reduced to two (2) tennis courts. Vehicular access to the recreation center will be limited to on-street parking on 37th Street, Quebec Street, and Idaho Avenue. Figure 3 shows the site plan for the proposed redevelopment.

## TRAFFIC IMPACT ANALYSIS

### *Scope of Analysis*

This traffic impact study was conducted in general accordance with the typical parameters set by DDOT for preparing such studies, tailored to focus on answering the questions contained in the EISF, most notably questions 14 and 15 which revolve around vehicular capacity thresholds. The following intersections (shown in Figure 1) are included in this study:

1. Upton Street and 37th Street NW
2. Tilden Street/Driveway and 37th Street NW
3. Quebec Street and 37th Street NW
4. Quebec Street and Idaho Avenue NW

The analysis contained herein compares three traffic volume scenarios: (1) existing conditions within the study area; (2) background conditions, representing future traffic levels with ambient traffic growth and other planned developments within proximity to the proposed development; and (3) total future conditions, representing background conditions with the addition of the proposed development. The following section outlines the components of each scenario.

## *Existing Conditions*

Field surveys were performed to record lane designations and traffic controls. Figure 5 shows the lane designations for both peak hours for the study intersections. The turning movement count data was collected on Tuesday, June 5, 2018 from 6:30 to 9:30 AM and from 2:30 to 7:00 PM, in accordance with DDOT and national standards. Afternoon data collection was extended an additional one (1) and a half hour before the standard collection time of 4:00 to 7:00 PM to ensure the Hearst Elementary School release time was captured. This count date represents "typical" weekdays when local public schools were in session and represents the traffic generated by the elementary school students. These "typical" weekday counts also represent time periods that include normal operations for other major traffic generators in the study area. The traffic volumes for the 2018 Existing conditions are shown in Figure 6.

## *2019 Background Conditions*

The traffic projections for the 2019 Background conditions consist of the existing volumes with two additions:

- Traffic generated by developments expected to be completed prior to the project (known as background developments); and
- Inherent growth on the roadway (representing regional traffic growth).

Following industry, national, and DDOT methodologies, a background development must meet the following criteria to be incorporated into the analysis:

- Be located in the study area, defined as having an origin or destination point within the cluster of study area intersections;
- Have entitlements; and
- Have a construction completion date prior or close to the proposed development.

Based on these criteria, no developments were included in the 2019 Background scenario.

Regional traffic growth is typically accounted for using percentage growth rates. The growth rates used in this analysis are derived using the Annual Average Daily Travel rates provided by DDOT and Version 2.3.70 of the Travel Model from MWCOG by comparing volumes at different time periods within the model. The growth rates observed in this model served as a basis for analysis assumptions, and where zero or negative growth was observed, a conservative 0.10 percent annual growth rate was applied to the roadway. The applied growth rates are shown in Table 1. The traffic volumes generated by the inherent growth along the network were added to the existing traffic volumes in order to establish the 2019 Background traffic volumes. The traffic volumes for the 2019 Background conditions are shown on Figure 7.

**Table 1: Annual Average Daily Travel (AADT) Volumes and Growth Rates**

| Road & Direction | Annual Growth Rate | | Total Growth between 2018 and 2019 | |
|---|---|---|---|---|
| | AM Peak | PM Peak | AM Peak | PM Peak |
| Upton Street NW – Eastbound | 2.00% | 1.50% | 2.00% | 1.50% |
| Upton Street NW – Westbound | 2.30% | 0.50% | 2.30% | 0.50% |
| All Other | 0.10% | 0.10% | 0.10% | 0.10% |

## *2019 Future Conditions*

The 2019 Total Future traffic volumes consist of the 2019 Background volumes with the addition of the anticipated additional traffic volumes generated by the proposed development (site-generated trips). Thus, the 2019 Total Future traffic volumes include traffic generated by: the existing volumes, the inherent growth on the study area roadways, and the proposed project. The traffic volumes for the 2019 Future conditions are shown on Figure 9.

The trip distribution for site-generated trips was assembled based on a review of existing traffic patterns leading to the recreation center. The site-generated trips were distributed through the study area intersections based on the distribution of recreation center patrons living within the recreation center's service area. The origin of outbound and destination of inbound vehicular trips was the area outside of the recreation center on 37th Street NW where the majority of patrons will likely park. A summary of trip distribution assumptions is provided on Figure 4.

### *Site-Generated Trips*

Traditionally, weekday peak hour trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. Given the unique nature of the recreation center expansion, a typical peak hour trip generation rate using ITE Trip Generation Manual was not applied. The pool occupancy assumes that one person on average occupies 15 square feet and the pool is 3,880 square feet. This equates to approximately 260 patrons with two (2) lifeguards, one (1) manager, and one (1) staff for the front desk. It was assumed that one-third of the maximum number of visitors will utilize the pool during the AM and PM peak hours. Further, it was assumed that approximately 50% of the patrons will drive with two (2) people per vehicle. This methodology was supplemented by the *Trip Generation Manual* to determine the inbound and outbound percentages. These percentages were based on Land Use 495, Recreational Community Center. A summary of the net new site-generated trips is provided on Figure 8.

A summary of the multimodal trip generation for the development is provided in Table 2 for the morning and afternoon peak hours. Detailed calculations are included in the Technical Appendix.

**Table 2: Multi-Modal Trip Generation Summary (Net New Trips)**

| Mode | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Inbound | Outbound | **Total** | Inbound | Outbound | **Total** |
| Auto | 15 veh/hr | 7 veh/hr | **22 veh/hr** | 10 veh/hr | 12 veh/hr | **22 veh/hr** |
| Non-Auto | 29 ppl/hr | 15 ppl/hr | **44 ppl/hr** | 21 ppl/hr | 23 ppl/hr | **44 ppl/hr** |

## *Analysis Results*

Intersection capacity analyses were performed for the three scenarios outlined above at the intersections contained within the study area during the morning and afternoon peak hours. *Synchro, Version 9.1* was used to analyze the study intersections based on the Highway Capacity Manual (HCM) 2000 methodology. The results of the capacity analyses are expressed in level of service (LOS) and delay (seconds per vehicle) for each approach. A LOS grade is a letter grade based on the average delay (in seconds) experienced by motorists traveling through an intersection. LOS results range from "A" being the best to "F" being the worst. LOS E is typically used as the acceptable LOS threshold in the District; although LOS F is sometimes accepted in urbanized areas.

The LOS capacity analyses were based on: (1) the peak hour traffic volumes outlined previously; (2) the lane use and traffic controls outlined previously; and (3) the Highway Capacity Manual (HCM) 2000 methodologies (using *Synchro 9.1* software). The average delay of each approach and LOS is shown for the signalized intersections in addition to the overall average delay and intersection LOS grade. Detailed LOS descriptions and the analysis worksheets are included in the attached Appendix.

Table 3 shows the results of the capacity analyses, including LOS and average delay per vehicle (in seconds) for the existing, background, and future scenarios. As shown in the capacity analysis results, all of the intersections are expected to operate at an acceptable level of service in the existing, background, and total future conditions with a LOS B or better. As a result, the expansion of Hearst Recreation Center is anticipated to have minimal impact on the overall roadway network surrounding the site.

## EISF TRANSPORTATION ITEMS

The Environmental Impact Screening Form (EISF), Part III Project Description responses can be provided based on the results of the traffic study as follows:

**EISF Form questions (Gorove/Slade Findings)**

6 Provide the modal split of residents, employees and daily customers/visitors (i.e., how many would be expected to arrive by automobile/mass transit/walking/bicycle):

**Mode split for all users of the recreation center is anticipated to be 50% driving, 3% transit, 40% walking, and 7% biking.**

7a Provide the estimated number of peak hour morning (6:30 AM – 9:30 AM) and evening (4:30 PM – 6:30 PM) vehicular trips into and out of the property:

**During the morning peak hour, the pool is expected to generate 22 net new vehicular trips (15 inbound, 7 outbound).**

**During the afternoon peak hour, the pool is expected to generate 22 net new vehicular trips (10 inbound, 12 outbound).**

7b Provide the location of parking entry; drop off areas and pedestrian entry:

**As shown in Figure 2, parking and drop-off will be accommodated on 37th Street, Quebec Street, and Idaho Avenue. The main entrance is located on the corner of 37th Street and Quebec Street NW on the west side of the proposed pool house. A secondary access is located on Idaho Avenue NW on the east side of the proposed pool house (shown in Figure 2).**

8 Cite the number of daily deliveries by truck, if any, and location of loading area, if any:

**The recreation center expansion is not expected to generate daily truck deliveries to the site.**

10 Will the proposed project provide 50 or more new parking spaces? Yes ____ No __X__

**Table 3: Intersection Delay and Levels of Service**

| Intersection | Approach | Existing (2018) | | | | Background (2025) | | | | Total Future (2025) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *AM Peak Hour* | | *PM Peak Hour* | | *AM Peak Hour* | | *PM Peak Hour* | | *AM Peak Hour* | | *PM Peak Hour* | |
| | | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| **1. 37th St & Upton St** | | 9.1 | A | 8.0 | A | 8.8 | A | 7.9 | A | 8.8 | A | 7.9 | A |
| | | 9.7 | A | 8.0 | A | 9.4 | A | 7.9 | A | 9.4 | A | 7.9 | A |
| | | 9.8 | A | 9.0 | A | 9.4 | A | 8.8 | A | 9.4 | A | 8.9 | A |
| | | 10.4 | B | 8.1 | A | 9.9 | A | 8.0 | A | 10.0 | B | 8.0 | A |
| **2. 37th St & Tilden St/Driveway** | | 7.7 | A | 7.4 | A | 7.6 | A | 7.4 | A | 7.6 | A | 7.4 | A |
| | | 8.0 | A | 7.6 | A | 7.9 | A | 7.5 | A | 7.9 | A | 7.5 | A |
| | | 8.7 | A | 8.7 | A | 8.5 | A | 8.5 | A | 8.6 | A | 8.5 | A |
| | | 9.5 | A | 7.9 | A | 9.2 | A | 7.8 | A | 9.3 | A | 7.8 | A |
| **3. 37th St & Quebec St** | | 8.7 | A | 8.5 | A | 8.6 | A | 8.3 | A | 8.6 | A | 8.3 | A |
| | | 8.5 | A | 7.9 | A | 8.3 | A | 7.8 | A | 8.4 | A | 7.8 | A |
| | | 8.9 | A | 8.8 | A | 8.9 | A | 8.6 | A | 8.9 | A | 8.7 | A |
| | | 9.8 | A | 8.2 | A | 9.5 | A | 8.1 | A | 9.6 | A | 8.1 | A |
| **4. Idaho Ave & Quebec St** | | 7.8 | A | 7.9 | A | 7.7 | A | 7.8 | A | 7.7 | A | 7.8 | A |
| | | 7.6 | A | 7.4 | A | 7.5 | A | 7.4 | A | 7.5 | A | 7.4 | A |
| | | 7.5 | A | 7.7 | A | 7.4 | A | 7.7 | A | 7.4 | A | 7.7 | A |
| | | 7.0 | A | 7.1 | A | 7.0 | A | 7.0 | A | 7.0 | A | 7.0 | A |

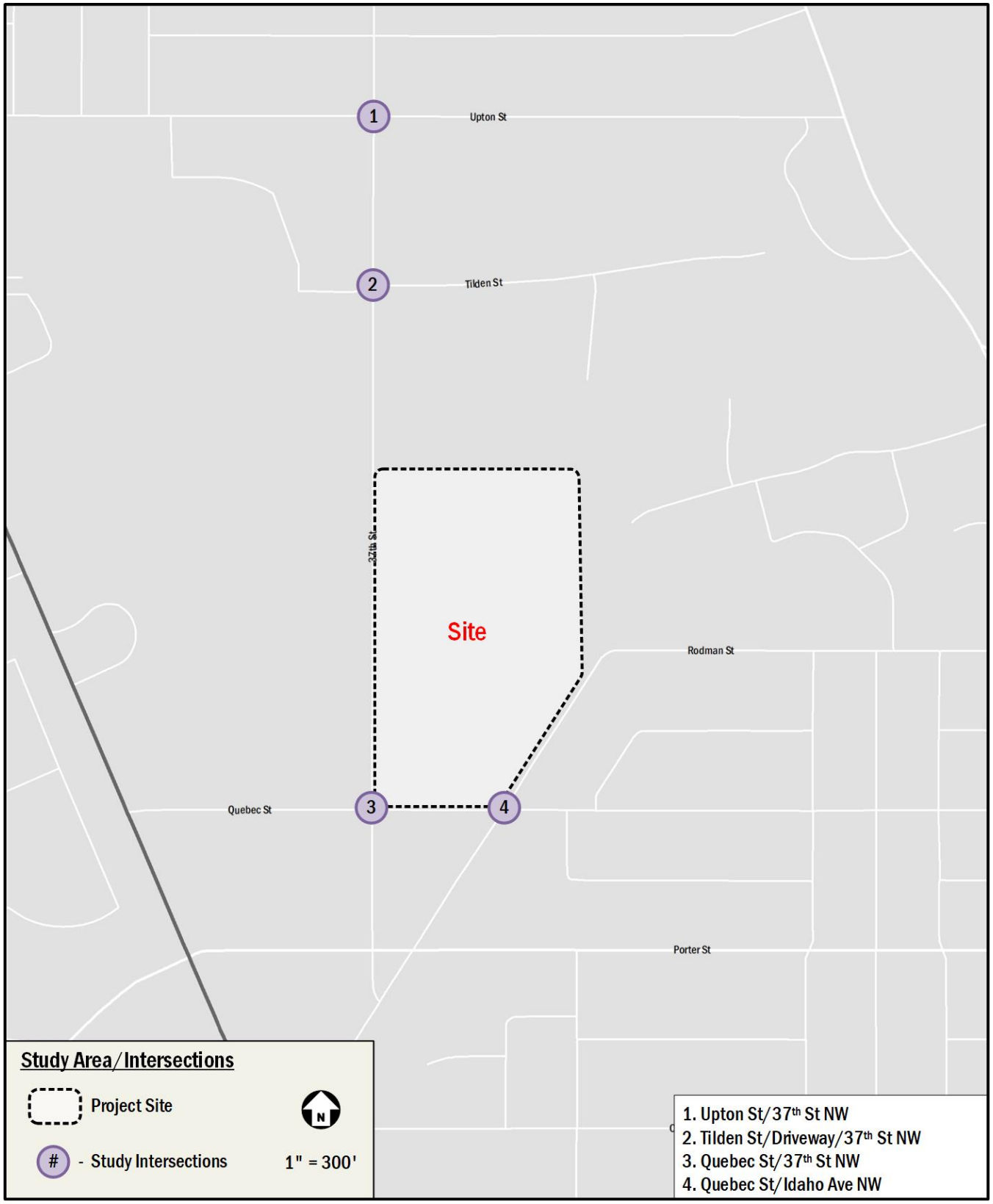


**Figure 1: Site Location and Study Intersections**

**Figure 2: Aerial View of Site**

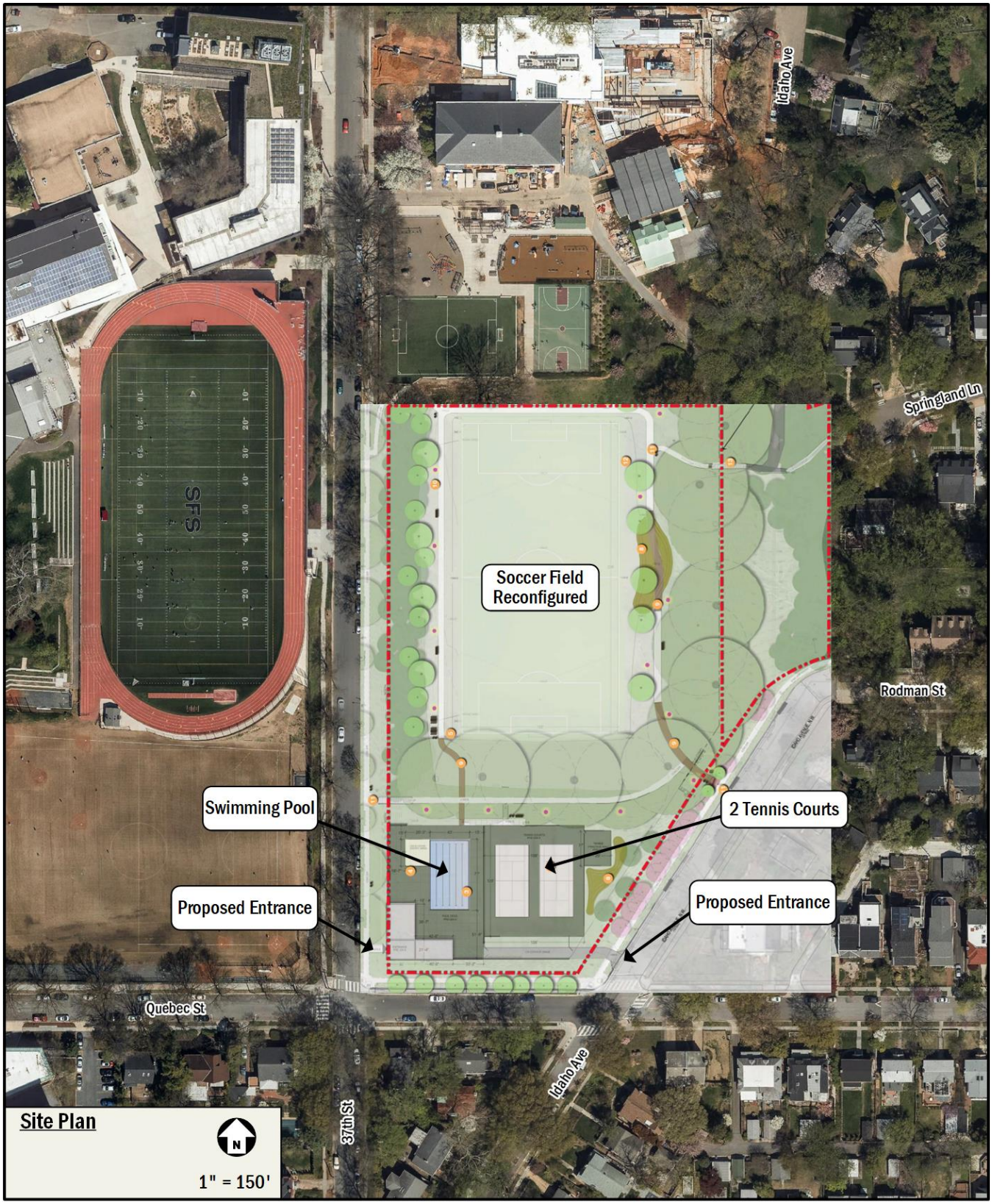


**Figure 3: Site Plan**

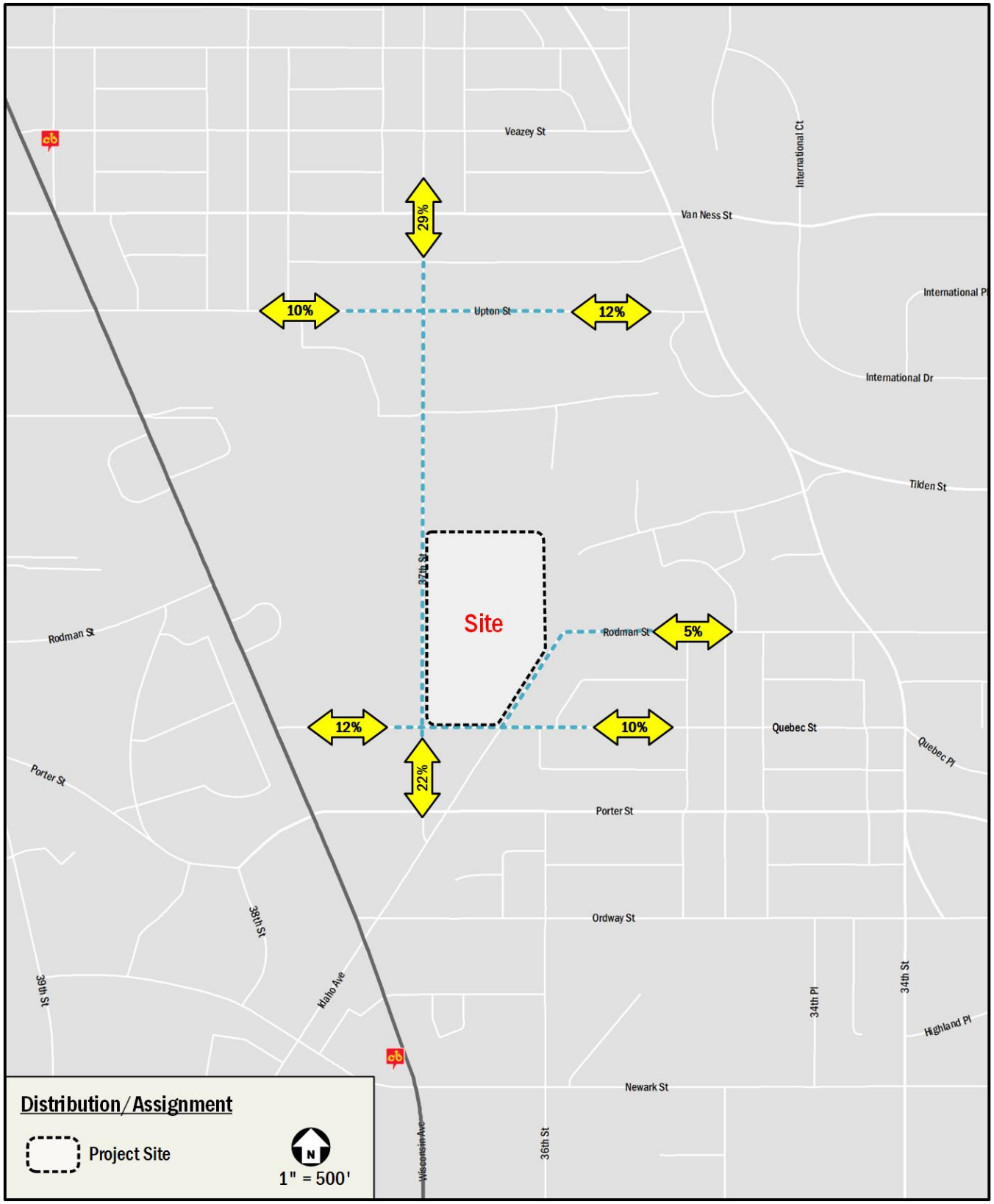


**Figure 4: Distribution and Routing**

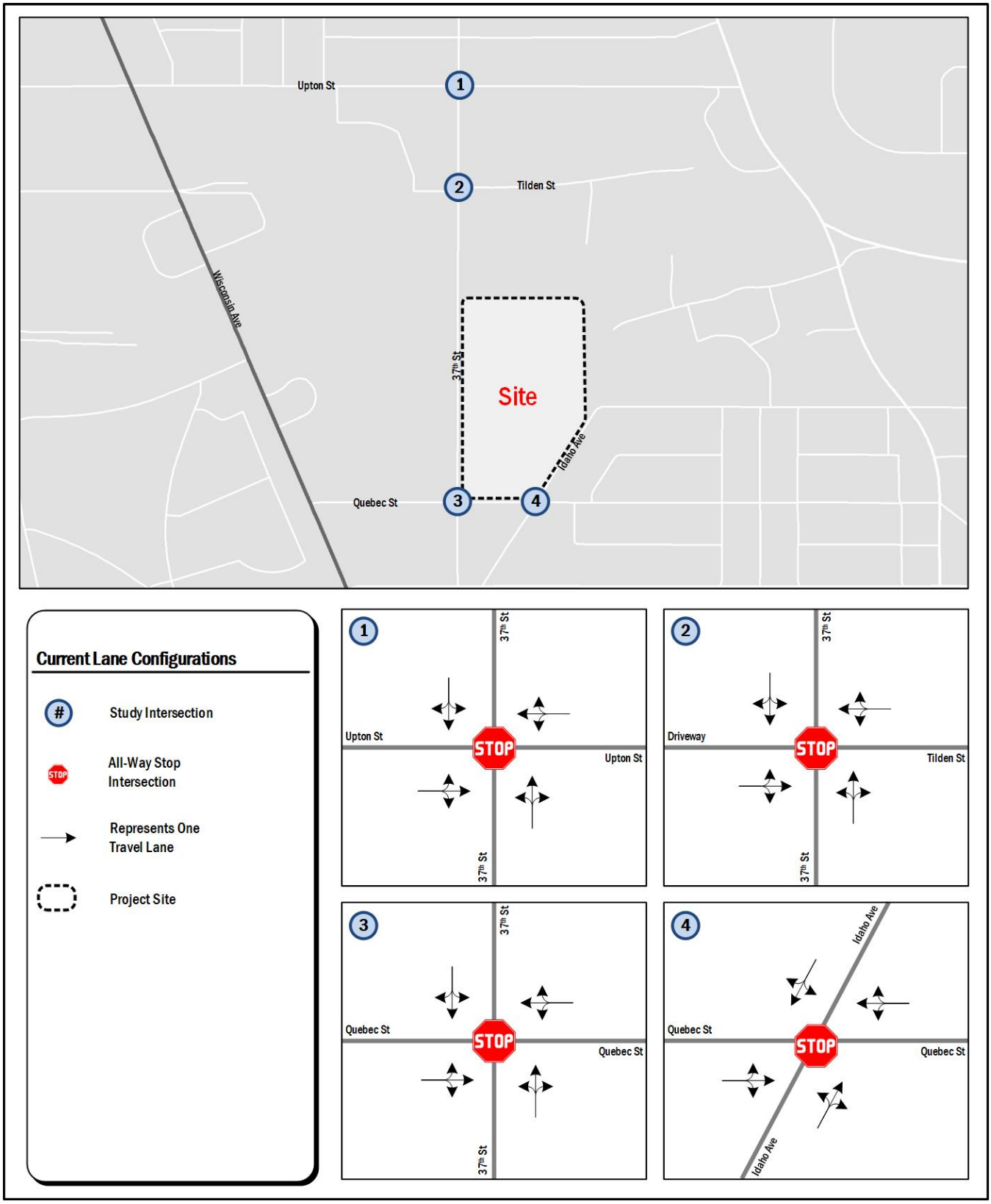


**Figure 5: Lane Configuration**

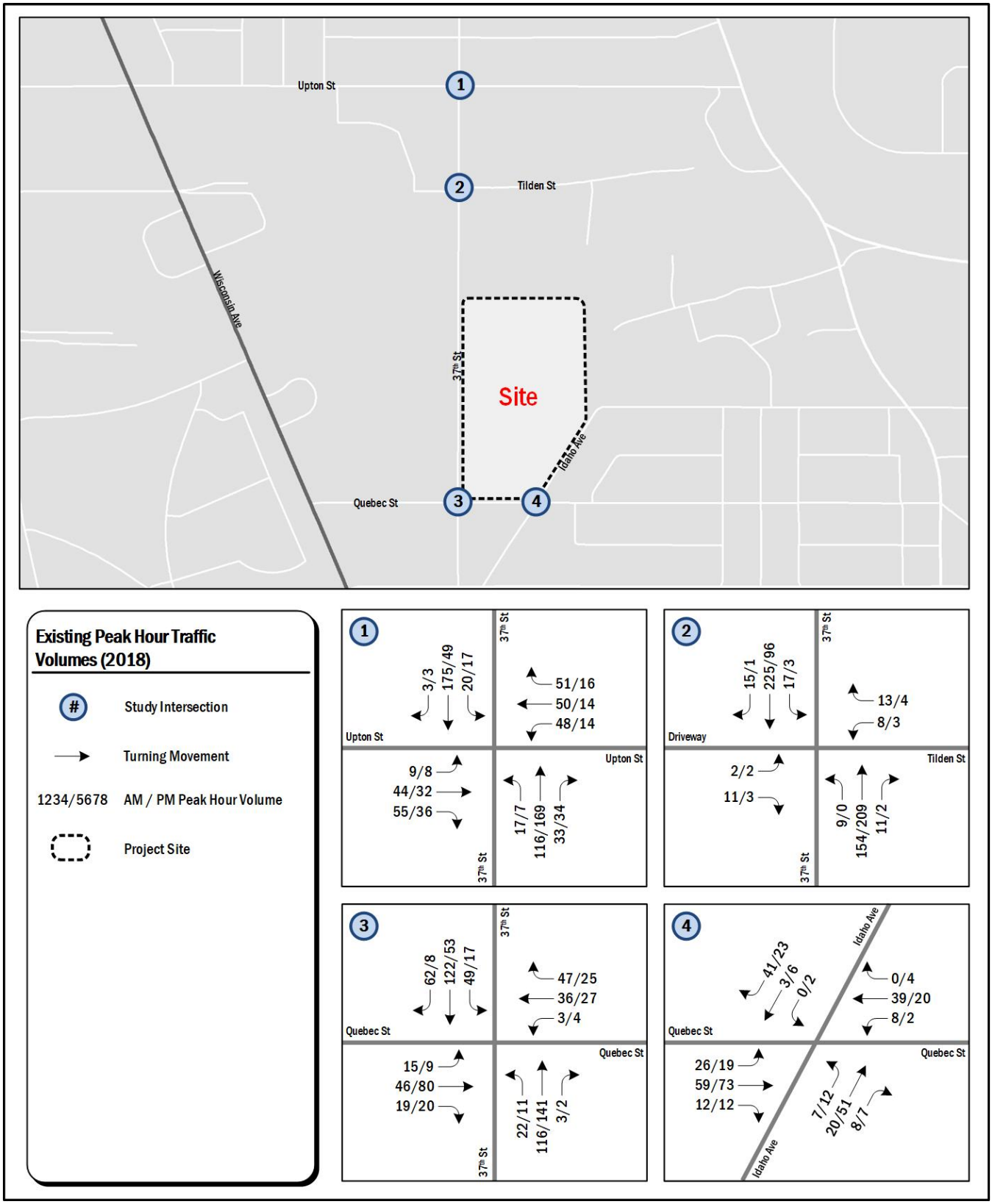


**Figure 6: Existing Traffic Volumes**

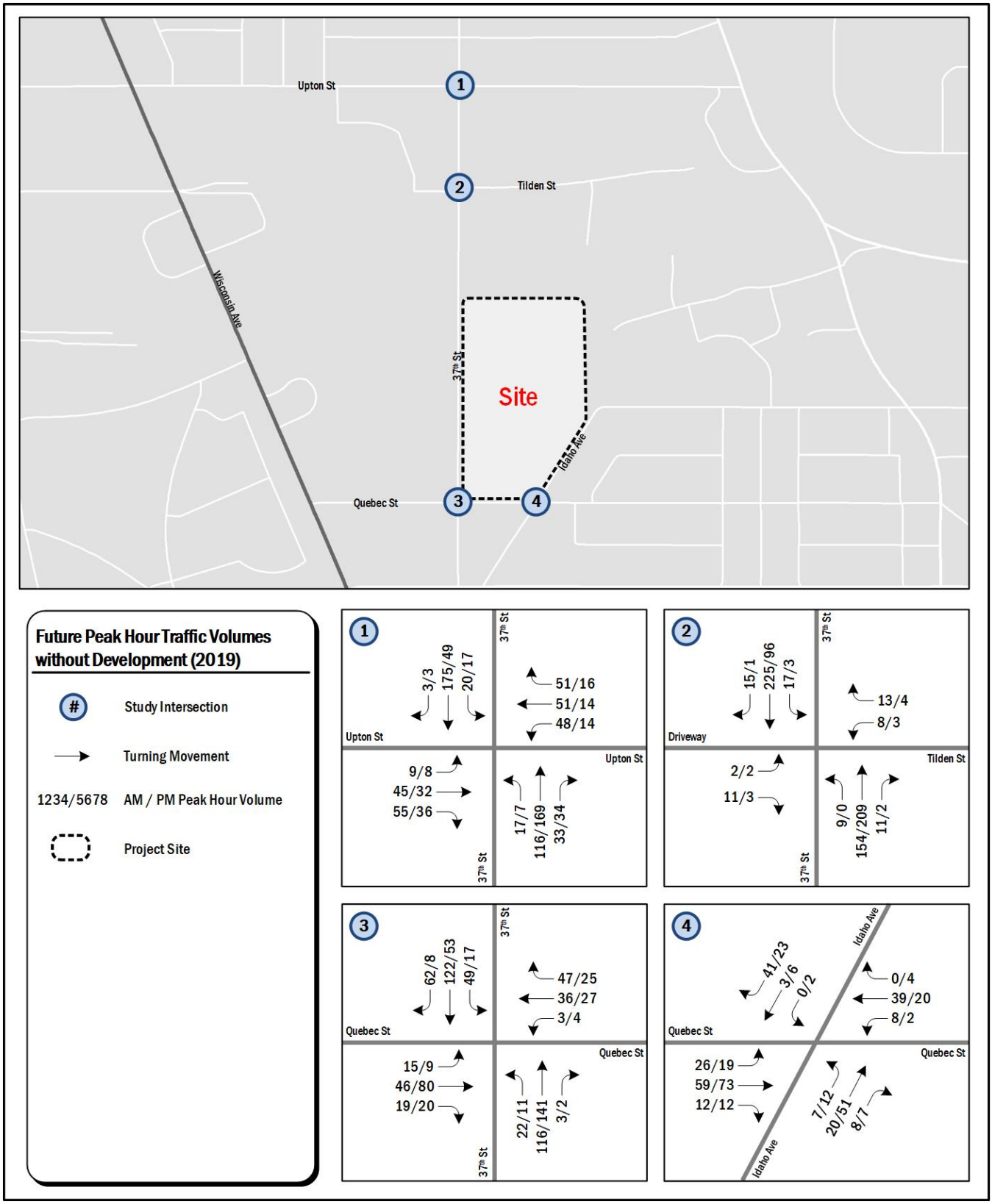


**Figure 7: Background Traffic Volumes**

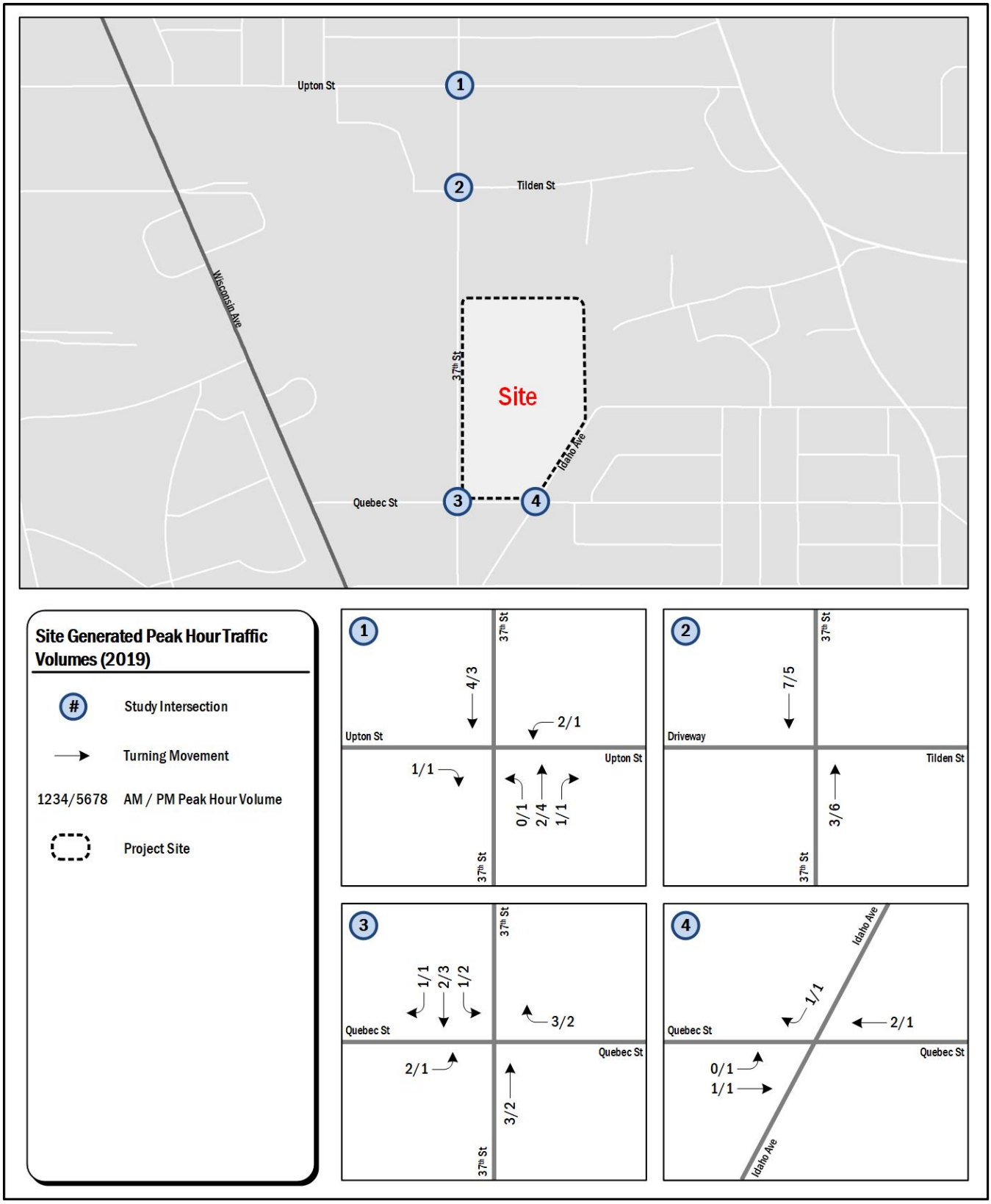


**Figure 8: Site-Generated Traffic Volumes**

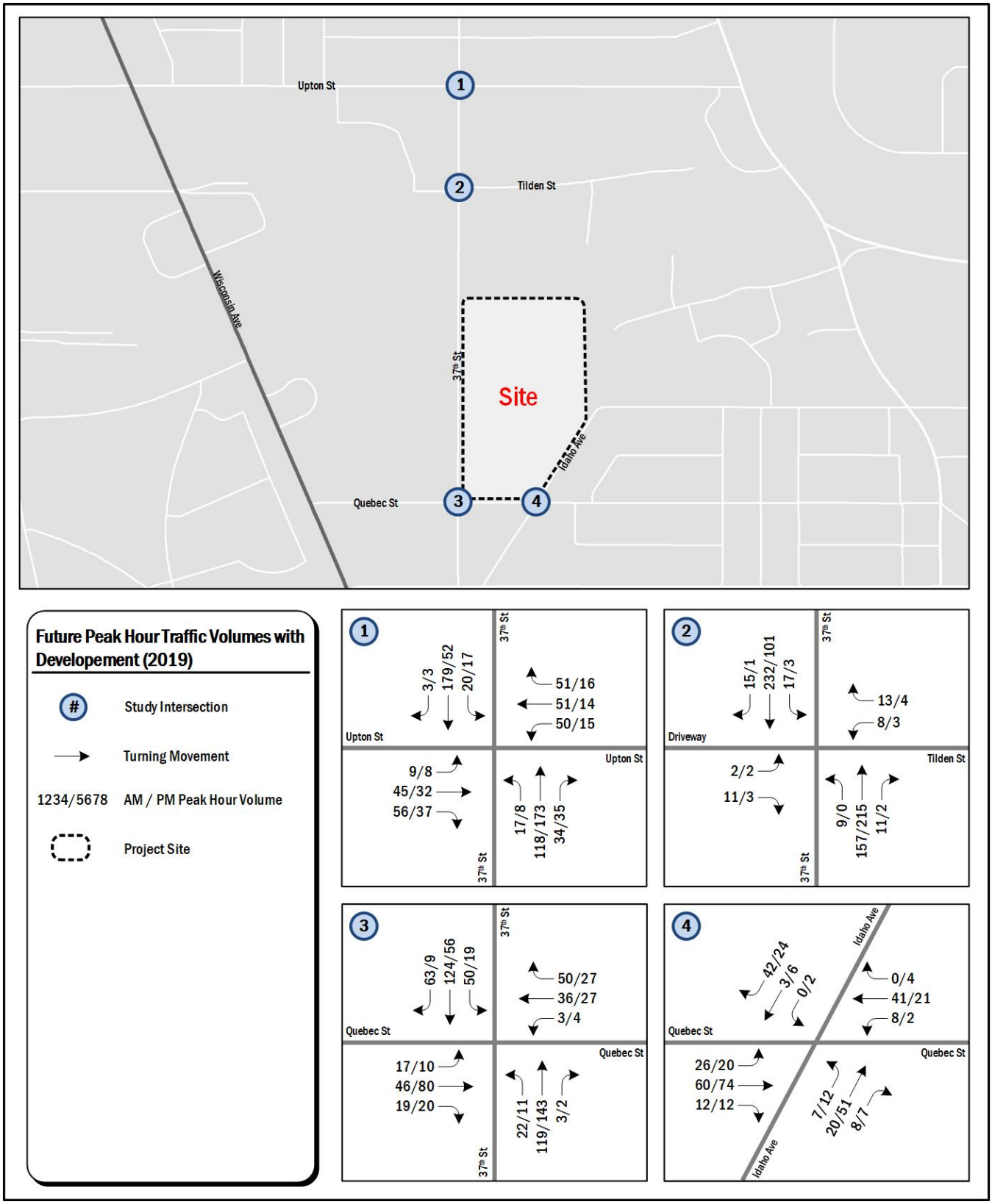


**Figure 9: Total Future Traffic Volumes**