**Free Flow Study**

**Tax Map , Parcel**

for

Scott Harbinson

9055 Meadowvale Court

Ellicott City MD, 21042

410-530-6925

Prepared by:

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I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland.

License no. , Expiration date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

, P.E. Date: 2023-01-09

**85th Percentile Operating Speed Study**

Mildenberg, Boender & Associates Inc. performed an 85th percentile operating speed determination at the access point to the above referenced parcel.

The proposed access point is located at . The survey was conducted between the hours of and on . The weather was and ºF. vehicles were observed. The posted speed limit is mph on .

***Raw Car Speeds (mph)***

|  |  |
| --- | --- |
|  |  |
| 13 | 25 |
| 28 | 28 |
| 32 | 31 |
| 24 | 31 |
| 41 | 26 |
| 27 | 25 |
| 27 | 36 |
| 26 | 27 |
| 25 | 24 |
| 28 | 23 |
| 25 | 26 |
| 24 | 24 |
| 25 | 27 |
| 24 | 28 |
| 21 | 25 |
| 29 | 29 |
| 19 | 32 |
| 21 | 42 |
| 18 | 36 |
| 15 | 31 |
| 28 | 27 |
| 14 | 28 |
| 25 | 30 |
| 26 | 23 |
| 26 | 29 |
| 26 | 32 |
| 27 | 23 |
| 32 | 24 |
| 23 | 31 |
| 25 | 29 |
| 23 | 21 |
| 21 | 29 |
| 14 | 38 |
| 15 | 30 |
| 25 |  |
| 30 |  |

***Data***

|  |  |  |  |
| --- | --- | --- | --- |
| **Speed (mph)** | **Number of Cars Observed** | **Percentage of Cars Observed (%)** | **Cumulative Percentage of Cars Observed (%)** |
| 13 | 1 | 2.8% | 2.8% |
| 14 | 2 | 5.6% | 8.3% |
| 15 | 2 | 5.6% | 13.9% |
| 18 | 1 | 2.8% | 16.7% |
| 19 | 1 | 2.8% | 19.4% |
| 21 | 3 | 8.3% | 27.8% |
| 23 | 2 | 5.6% | 33.3% |
| 24 | 3 | 8.3% | 41.7% |
| 25 | 6 | 16.7% | 58.3% |
| 26 | 4 | 11.1% | 69.4% |
| 27 | 3 | 8.3% | 77.8% |
| 28 | 3 | 8.3% | 86.1% |
| 29 | 1 | 2.8% | 88.9% |
| 30 | 1 | 2.8% | 91.7% |
| 32 | 2 | 5.6% | 97.2% |
| 41 | 1 | 2.8% | 100.0% |

***Data***

|  |  |  |  |
| --- | --- | --- | --- |
| **Speed (mph)** | **Number of Cars Observed** | **Percentage of Cars Observed (%)** | **Cumulative Percentage of Cars Observed (%)** |
| 23 | 3 | 10.0% | 10.0% |
| 25 | 3 | 10.0% | 20.0% |
| 26 | 2 | 6.7% | 26.7% |
| 27 | 3 | 10.0% | 36.7% |
| 28 | 3 | 10.0% | 46.7% |
| 29 | 4 | 13.3% | 60.0% |
| 30 | 2 | 6.7% | 66.7% |
| 31 | 4 | 13.3% | 80.0% |
| 32 | 2 | 6.7% | 86.7% |
| 36 | 2 | 6.7% | 93.3% |
| 38 | 1 | 3.3% | 96.7% |
| 42 | 1 | 3.3% | 100.0% |

**SUMMARY:**

An off-peak spot speed study utilizing a radar was collected within the vicinity of the access point at the proposed easement.

The maximum speed observed was mph and the minimum speed was mph.

The maximum speed observed was mph and the minimum speed was mph.

The following are the operating speeds calculated at the access point to the project.

***85th Percentile Speed***

|  |  |  |
| --- | --- | --- |
| **road\_name** | **Number of Vehicles Observed** | **85th Percentile Speed (mph)** |
| **direction1** | **no\_vehs\_dir1** | **speed\_85\_dir1** |
| **direction2** | **no\_vehs\_dir2** | **Speed\_85\_dir2** |

***Photos:***

A road with trees on the side

Description automatically generated with low confidenceA road with trees on the side

Description automatically generated with low confidence