

Gahanna Division of Police

Jeffrey B. Spence, Chief of Police



Field Services Subdivision

Traffic Survey

Challis Springs Dr. 04-16-21 to 04-19-21

460 Rocky Fork Blvd.

Gahanna, Ohio 43230

614-342-4240

WWW.GAHANNA.GOV

Survey Device: Speed Monitoring and Notification Device (SMND) # 1009

Survey Operator: Lt. Ethan Moffitt # L-58

Device Location: Challis Springs Drive, just south NW of Gwyndale Drive

Device Direction: Facing northbound traffic (coming from Clark State Road)

Speed Limit: 25 MPH

Survey Dates: 04-16-21 to 04-19-21

Survey Reason: Self-initiated deployment and equipment test

Summary –

On 04-16-21, SMND # 1009 was deployed on Challis Springs Drive, a location associated with previous community reports of excessive speed. The device was deployed in order to provide a continuous speed mitigation presence and test the SMND's survey equipment.

The SMND successfully recorded the speed of 4,406 vehicles (combined northbound and southbound traffic). Of those, 1,419, or 32%, were traveling in excessive of the posted speed limit and 2,987, or 67.8%, were traveling below the speed limit. The average speed was 23 MPH. The 85th percentile speed was 28 MPH, meaning that 85% of the vehicles were traveling at a speed of 28 MPH or less.

Ninety-four vehicles were traveling in excess of 35 MPH, accounting for only 2% of the total count (4,406) and just under 7% of the over-limit count (1,419). Conversely, 98% of vehicles traveling above the speed limit were going between 26 and 35 MPH.

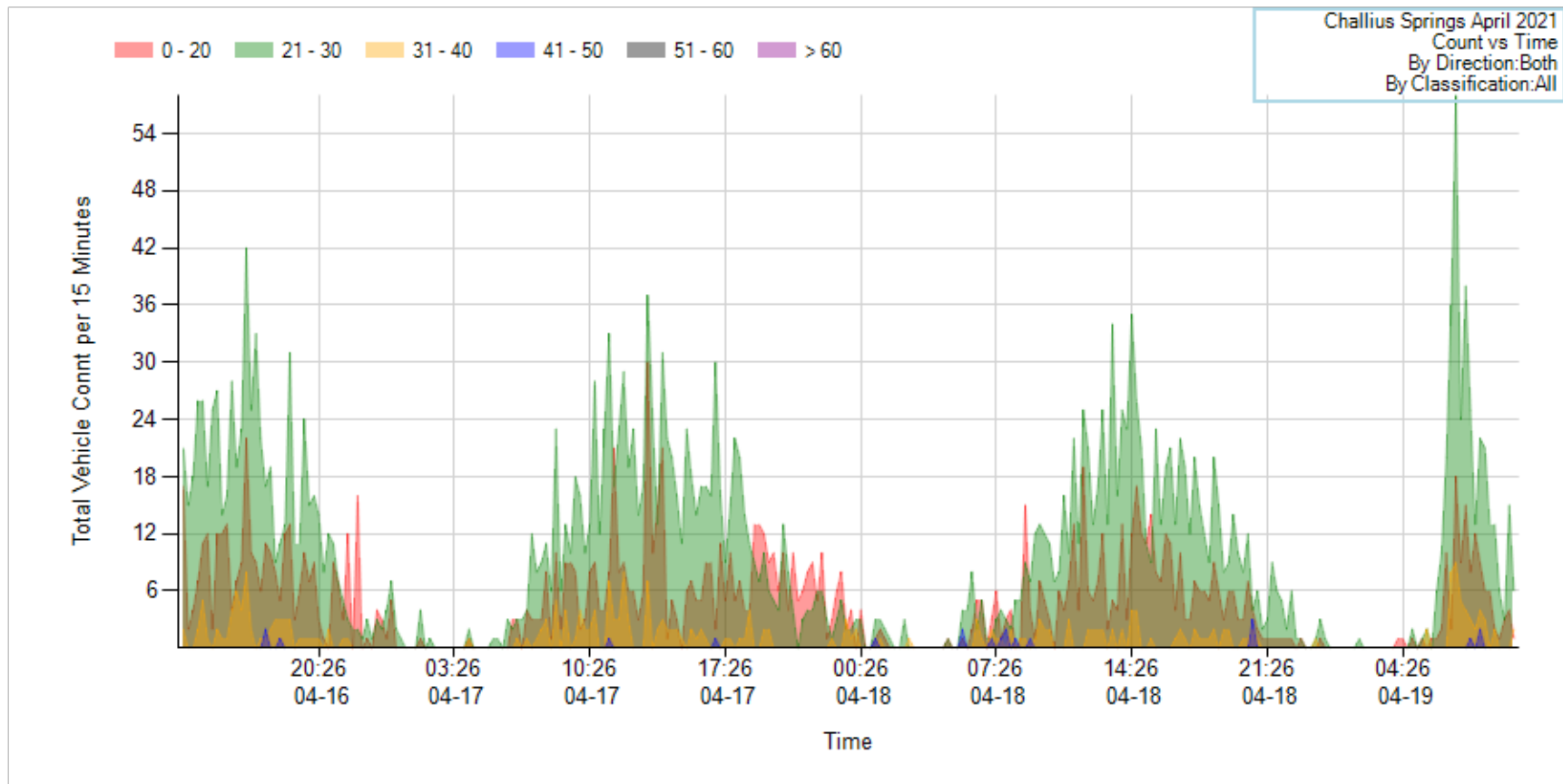
The survey results demonstrate that the presence of the SMND was an effective mitigation measure. There was substantial compliance with the posted speed limit during the deployment period and few excessive speed violations.



Gahanna Division of Police Challis Springs April 2021 Speed Survey # 1



Count vs. Time by Speed



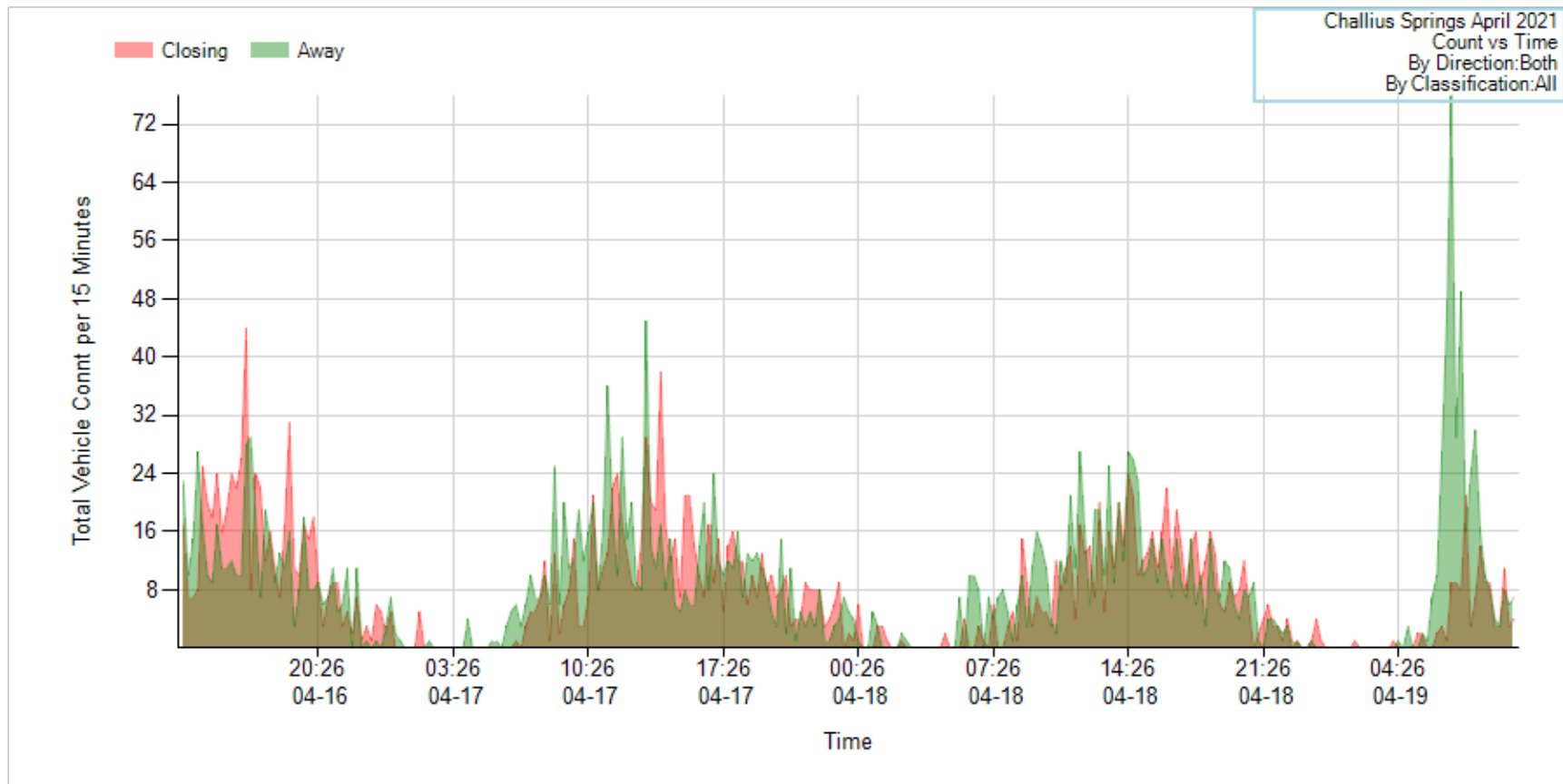
Survey Name	Challius Springs April 2021	Speed Unit	Miles/Hour	Average Speed	23.0	MPH	Total Volume	4406	100%
Start Date	2021-04-16	Speed Limit	25	Max Speed	50	MPH	Over Limit Count	1419	32.2%
Stop Date	2021-04-19			Min Speed	10	MPH	Under Limit Count	2987	67.8%
				85th Percentile	28	MPH	Over Threshold Count	94	2%
				10 MPH Pace	19 - 28	MPH	In Pace Count	2803	63.6%



Gahanna Division of Police Challis Springs April 2021 Speed Survey # 1



Counts vs. Time by Direction



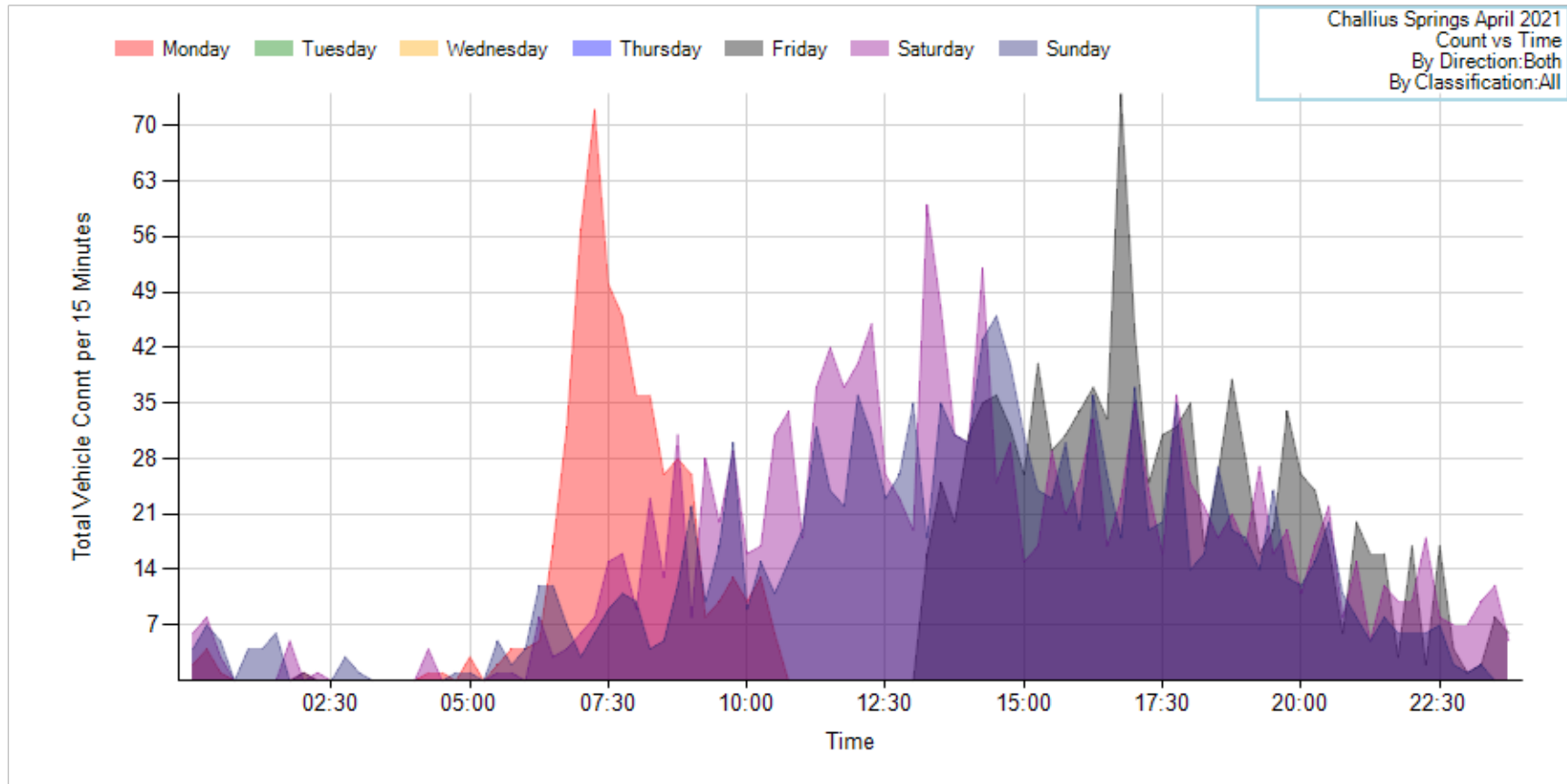
Survey Name	Challius Springs April 2021	Speed Unit	Miles/Hour	Average Speed	23.0	MPH	Total Volume	4417	100%
Start Date	2021-04-16	Speed Limit	25	Max Speed	50	MPH	Over Limit Count	1424	32.2%
Stop Date	2021-04-19			Min Speed	10	MPH	Under Limit Count	2993	67.8%
				85th Percentile	28	MPH	Over Threshold Count	94	2%
				10 MPH Pace	19 - 28	MPH	In Pace Count	2810	63.6%



Gahanna Division of Police Challis Springs April 2021 Speed Survey # 1



Weekly Count vs. Time by Speed



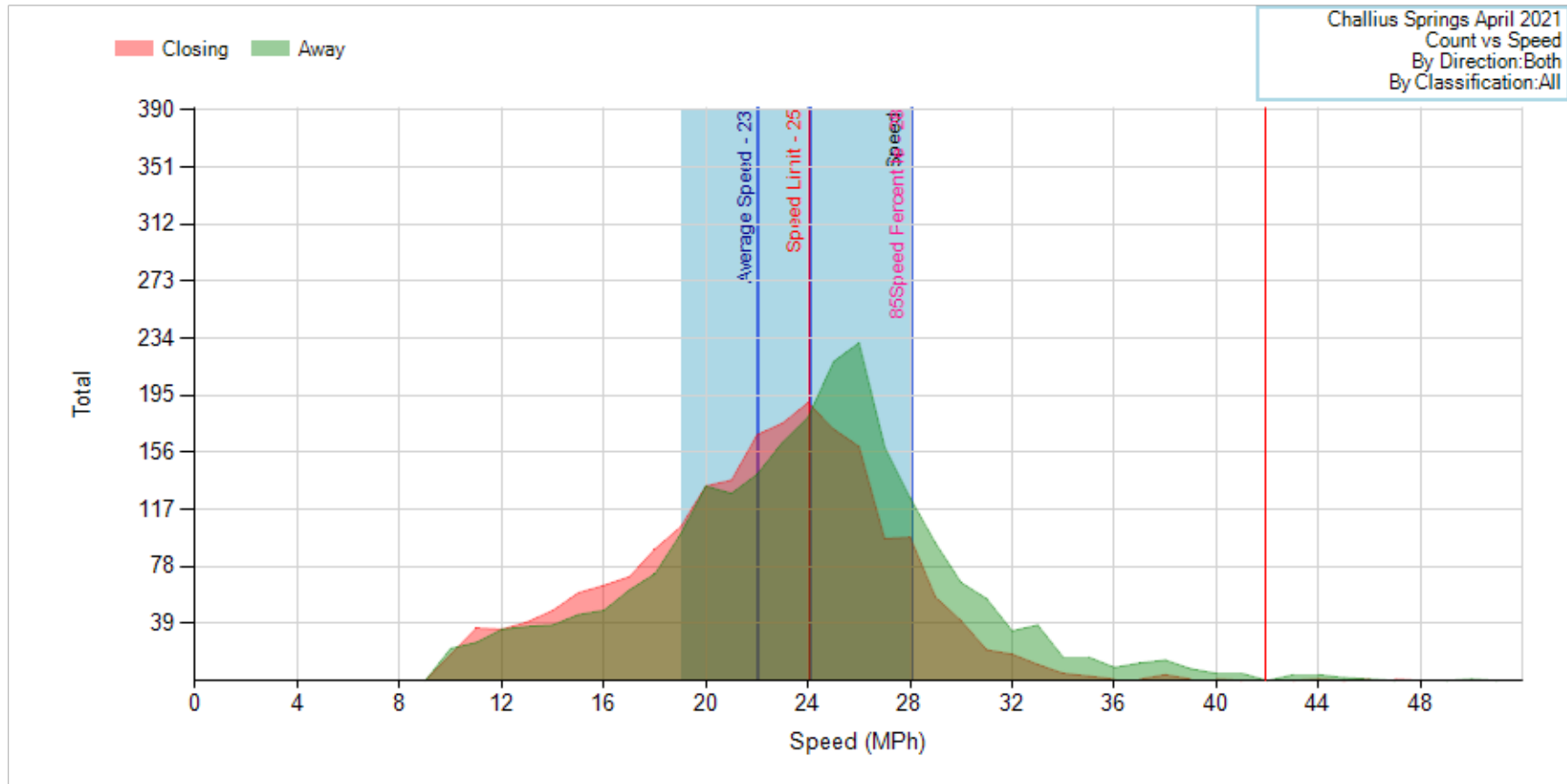
Survey Name	Challius Springs April 2021	Speed Unit	Miles/Hour	Average Speed	23.0	MPH	Total Volume	4417	100%
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Gahanna Division of Police Challis Springs April 2021 Speed Survey # 1



Count vs. Speed by Direction



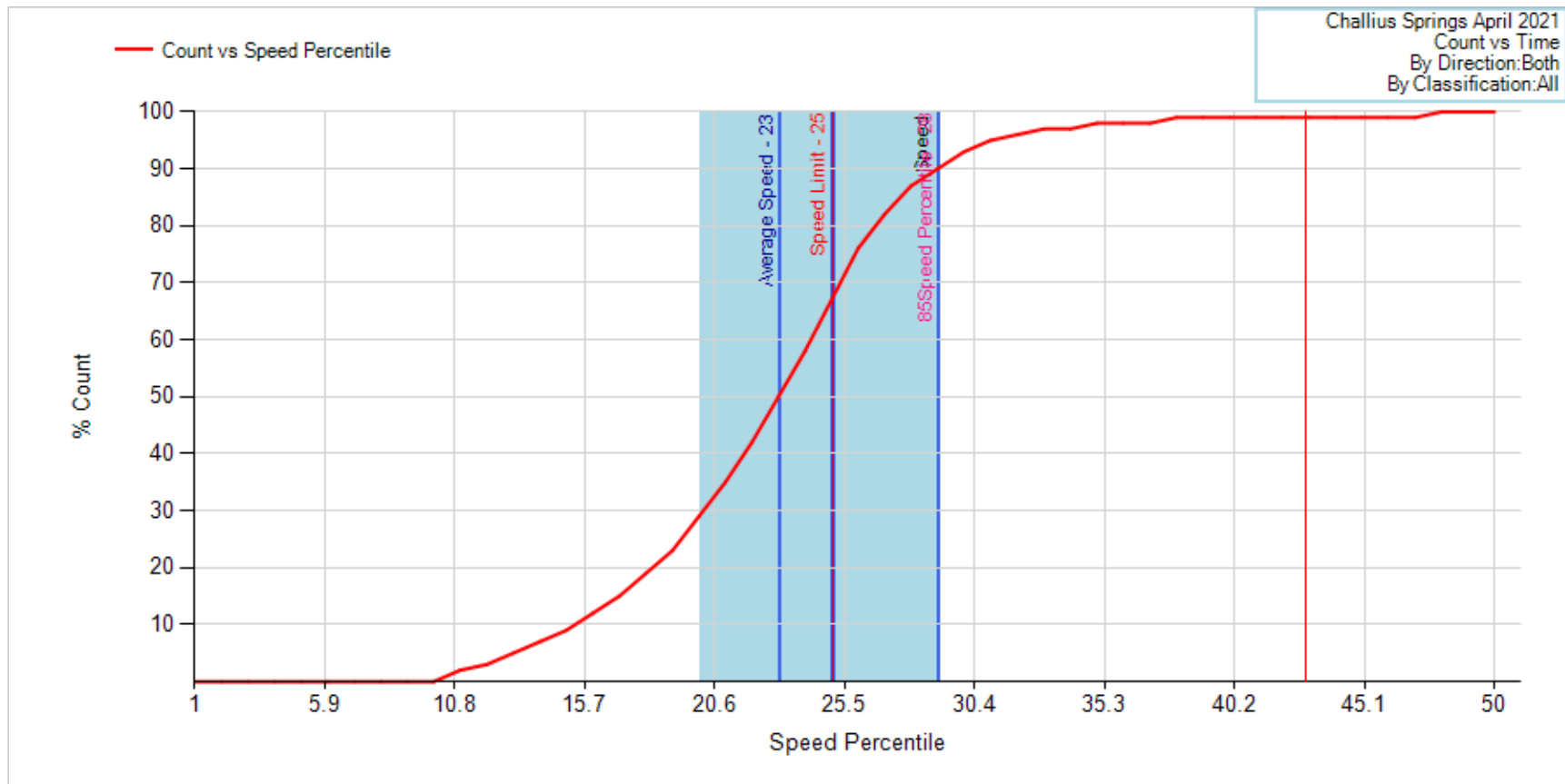
Survey Name	Challius Springs April 2021	Speed Unit	Miles/Hour	Average Speed	23.0	MPH	Total Volume	4417	100%
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Gahanna Division of Police Challiss Springs April 2021 Speed Survey # 1



Speed Percentile



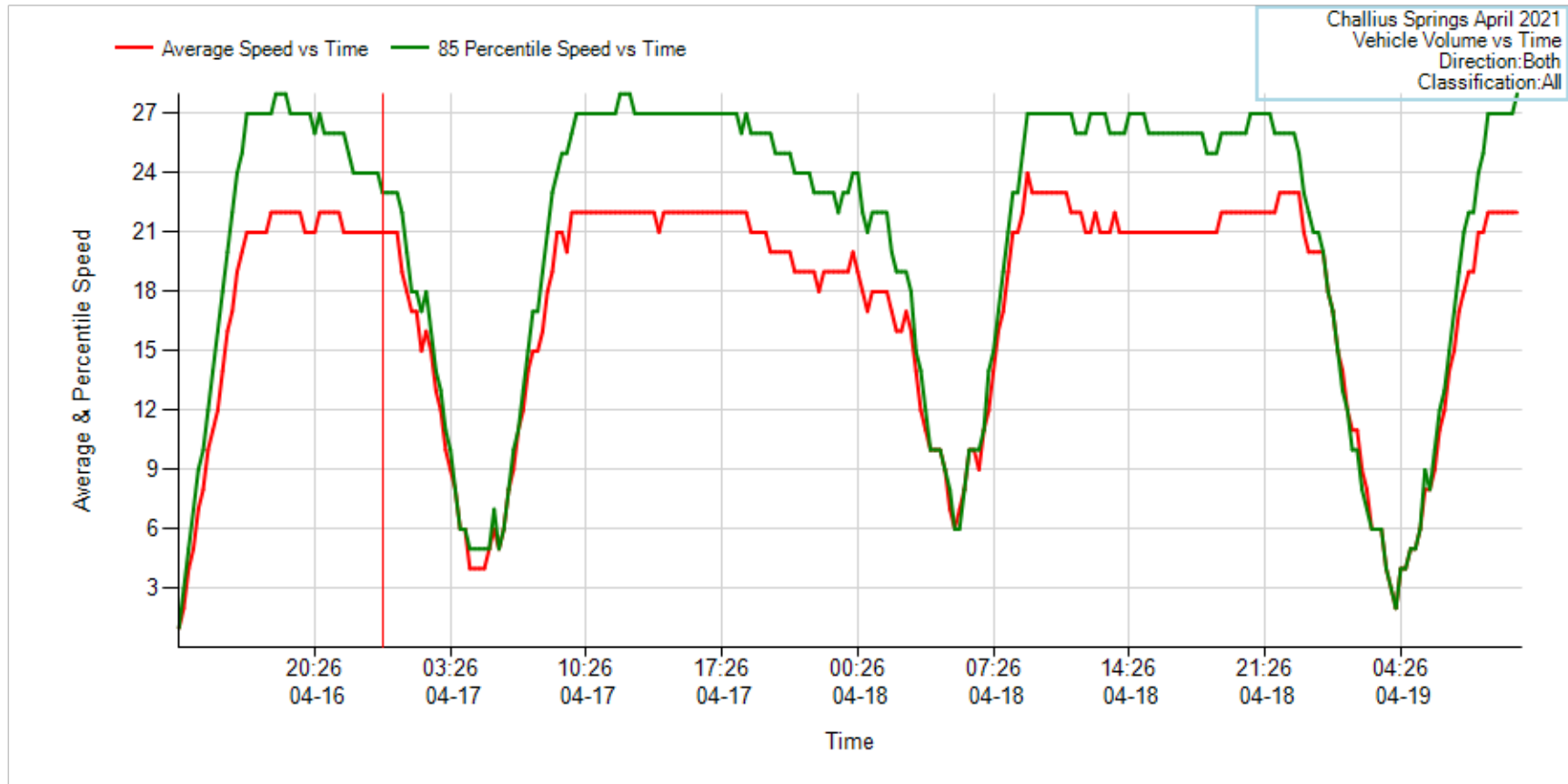
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Gahanna Division of Police Challis Springs April 2021 Speed Survey # 1



Average Speed vs. Time



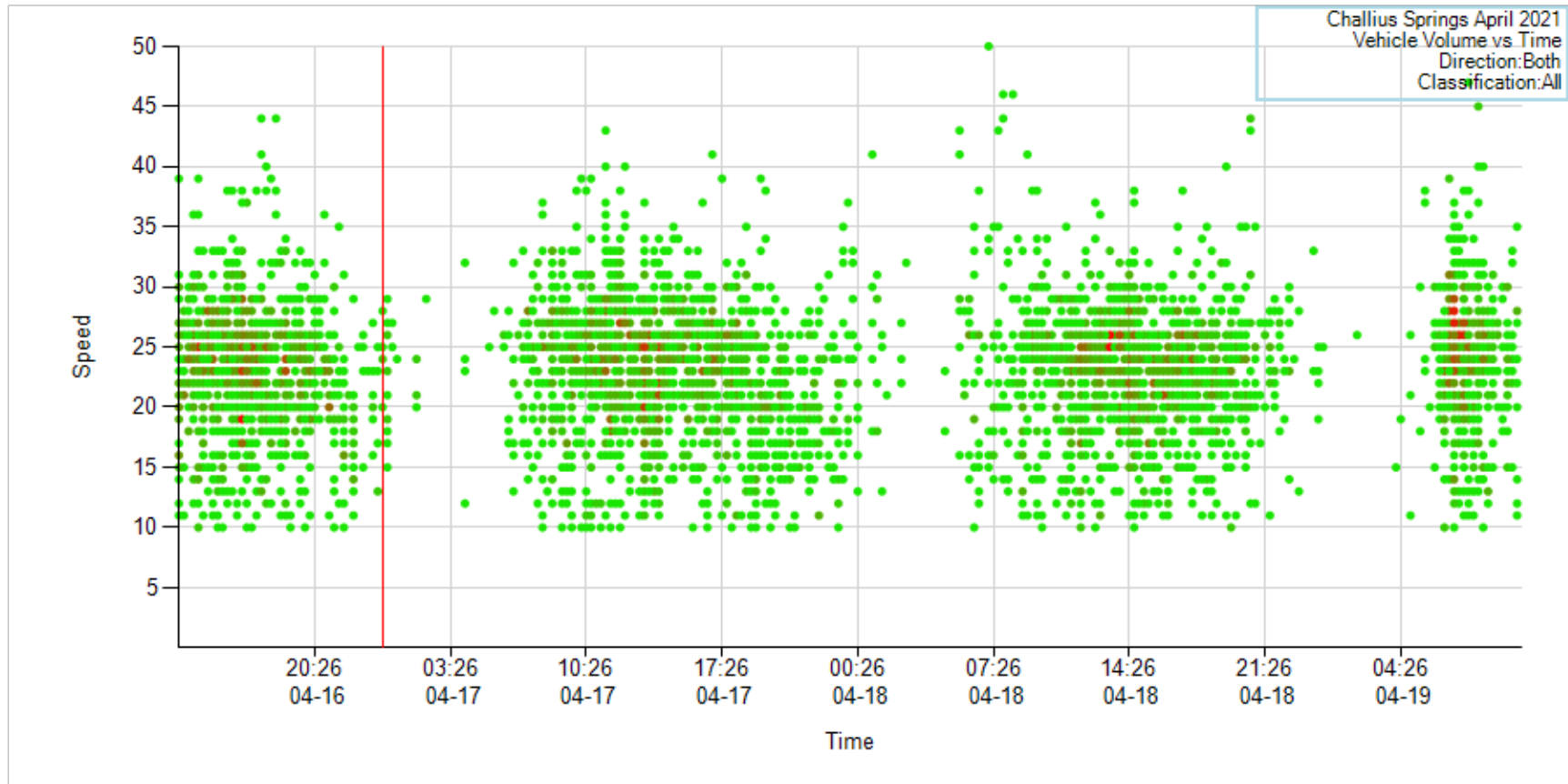
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Speed vs. Time Bubble Chart



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Survey Name	Challius Springs April 2021	Location	1121 Challis Springs,Gahanna...	Speed Unit	Miles/Hour
Start	2021-04-16 13:26	Traffic Direction	Undefined	Speed Limit	25
Stop	2021-04-19 10:35	Zone	Normal	Min Speed Threshold	10
Operator	000	Min Following Time	0.0	Max Speed Threshold	120
Survey Direction	Both	Time Resolution	1	Speed Resolution	1

Total Vehicle Connt	4417	100%	Average Speed	23	MPH	In Pace Count	2810	63%
Under Limit Count	2993	67%	Minimum Speed	10	MPH	10 mph Pace	19 - 28	MPH
Over Limit Count	1424	33%	Maximum Speed	50	MPH	Standard Deviation	5	MPH
10 Over Limit Count	95	2%	85Speed Percentile	28	MPH	Average Speed Over Limit	28.8	MPH



Survey Report Quick Guide/Reference

Over Threshold Count

The default threshold (amount over the posted speed limit) is 10 MPH. The **Over Threshold Count** is the number of vehicles traveling in excess of the selected threshold. For example, if the threshold is set at the 10 MPH default, this would indicate the number of vehicles (within the Total Volume) that were traveling at 10 MPH over the posted limited.

Count vs. Time

The **Count vs Time Chart** shows the number of vehicles per unit of time traveling on the monitored roadway.

Weekly Count vs. Time Chart

The **Weekly Count vs. Time Chart** mode shows the vehicle count per day over a 7-day period. If the survey period extends beyond one 7- day week, the values of each overlapped week day will be the average values for those overlapped week days.

Count vs. Speed Chart

The **Count vs. Speed Chart** selection shows the total vehicle count for each speed group. The size of the speed group can be set by the operator (**Speed Resolution** selection in the **Analysis Control**).

Percentile Chart

The **Percentile Chart** shows the cumulative percentage of vehicles that are at or below a given speed

Average Speed vs. Time Chart

The **Average Speed vs. Time Chart** shows the average and the 85th Percentile Speeds of the vehicles over time.

Speed vs. Time Bubble Chart

The **Speed vs. Time Bubble Chart** plots both vehicle speed and volume against time. The size of the bubble represents the number of cars at a particular speed group at a particular time. This chart is useful in showing traffic bunching.

Average Speed

The average speed of all vehicles

85Speed Percentile

The speed at which 85% of the traffic was traveling **at or less than**. The 85th percentile is considered to be a key metric because it is generally considered to be representative of prevailing traffic conditions (the speed vehicles on the roadway are going most of the time).