

Analysis of Traffic Movements Along School Lane

Background

The Parish Council purchased a Black Cat traffic monitoring device to monitor traffic flow along the A286 through Peasmarsh. This device was used to monitor the traffic over a week at each of three locations along School Lane, from the end of May to the beginning of July 2022. The three locations were: at the bottom of School Lane close to its junction with Main Street, a point just above the junction of Park View with School Lane and at the top of School Lane.

The following assumptions were made:

1. That the traffic flow along School Lane over a period of a week would be the same from one week to the next;
2. That traffic flow related to the school would enter School Lane via its junction with Main Street and exit the same way having made a U-turn in Park View;
3. That there is minimal impact on the volume of traffic flowing above the junction with Park View between school term time and holidays.

There were two monitoring sessions carried out at the bottom of School Lane, the first during half term and the second during term time. All the sessions at other locations were carried out during term time.

Traffic Volume

The total volume of traffic passing each of the monitoring points is summarised in Table 1 below.

Direction		Up	Down
Location	Time	Volume	Volume
Bottom of School Lane	Half Term	1432	1421
Bottom of School Lane	Term Time	1752	1864
Above Park View junction	Term Time	811	819
Top of School Lane	Term Time	452	441

Table 1 Total traffic volume recorded at the monitoring points

During term time there is a 22% to 28% increase in traffic volume at the bottom of School Lane.

It is not possible to determine what proportion of the traffic flowing past the monitoring point at the top of School Lane is through traffic and that which originates / terminates in School Lane.

Figures 1 and 2 show the total volume of traffic, by vehicle type, passing all the different monitoring points.

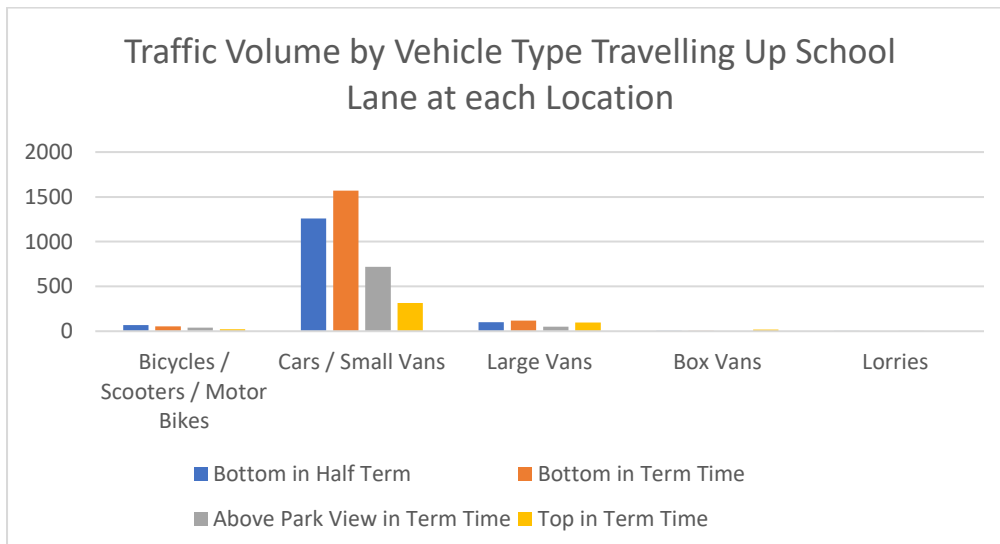


Figure 1 Traffic volume by vehicle type travelling up School Lane

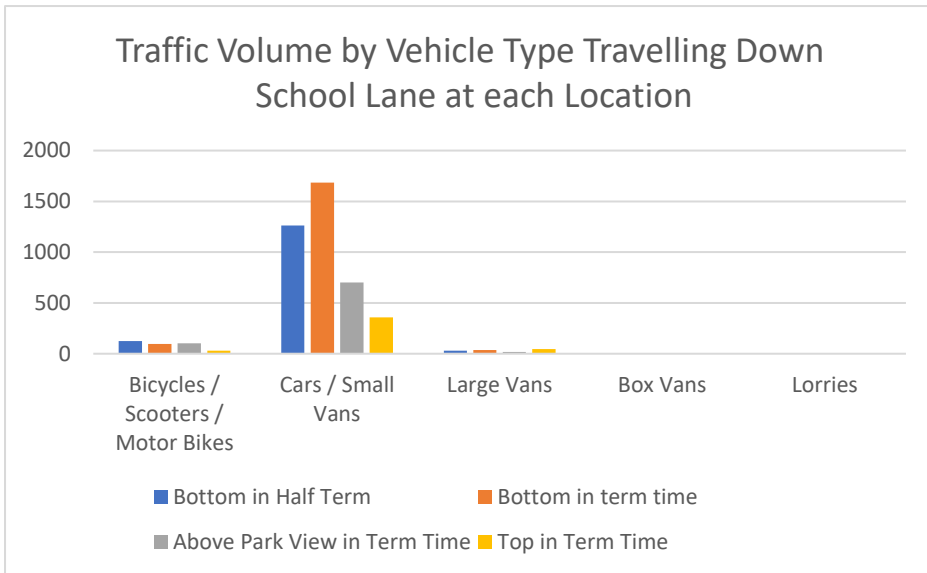


Figure 2 Traffic volume by vehicle type travelling down School Lane

Figures 3 and 4 show the distribution of the total volume of traffic flowing over the periods of the day for each monitoring point in each direction.

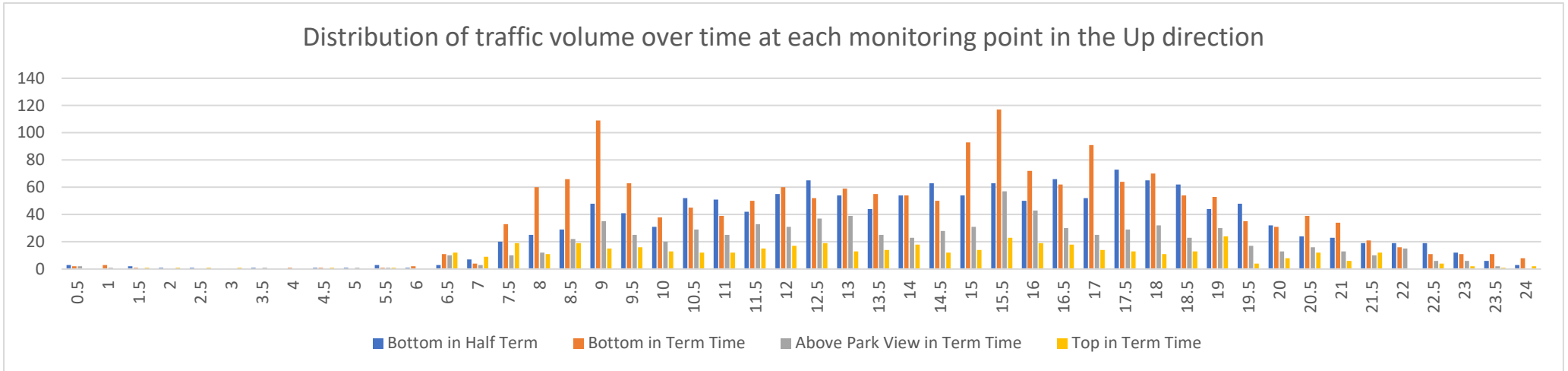


Figure 3 Distribution of total traffic volume throughout the day for each monitoring point in the up direction

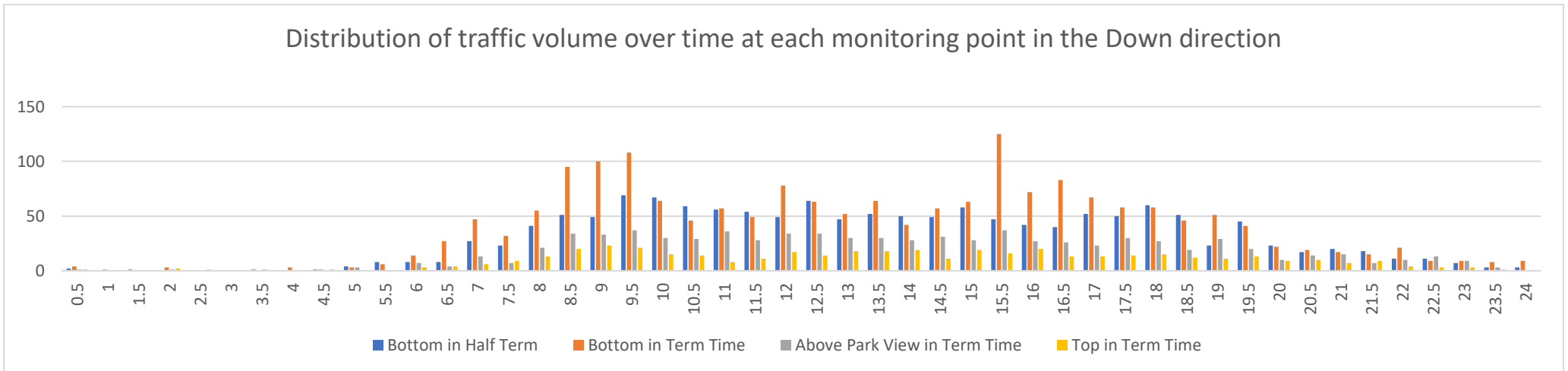


Figure 4 Distribution of total traffic volume throughout the day for each monitoring point in the down direction

The bulk of the increase in traffic flow at the bottom of School Lane during term time centres around the school drop-off and pick-up times.

Speed Profile

The speed profile is presented as a summation of the volume of traffic travelling at a specified speed and below expressed as a percentage of the total volume in both up and down directions and are shown in Figures 5 and 6.

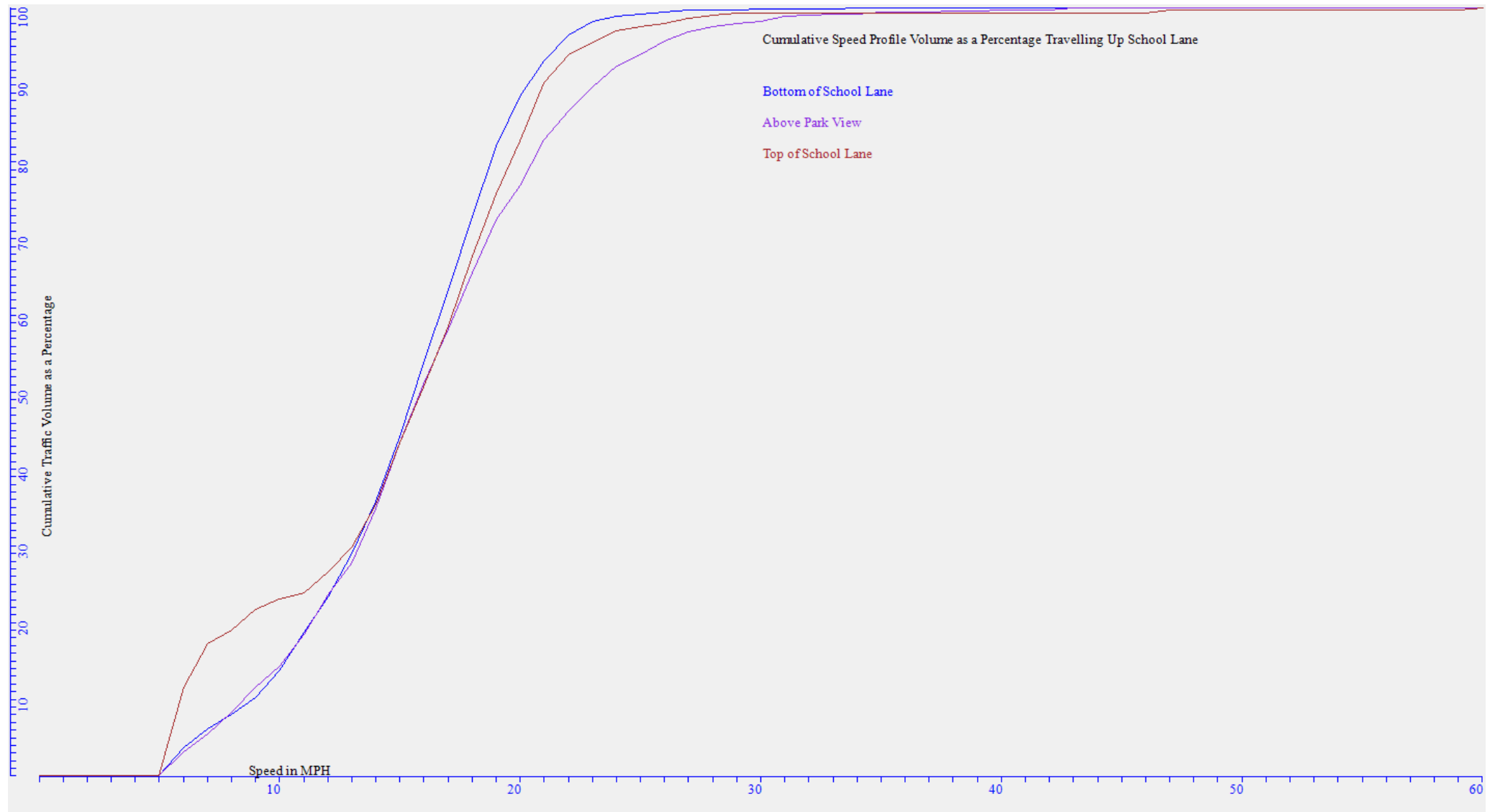


Figure 5 Cumulative volume of traffic traveling up School Lane expressed as a percentage speed profile

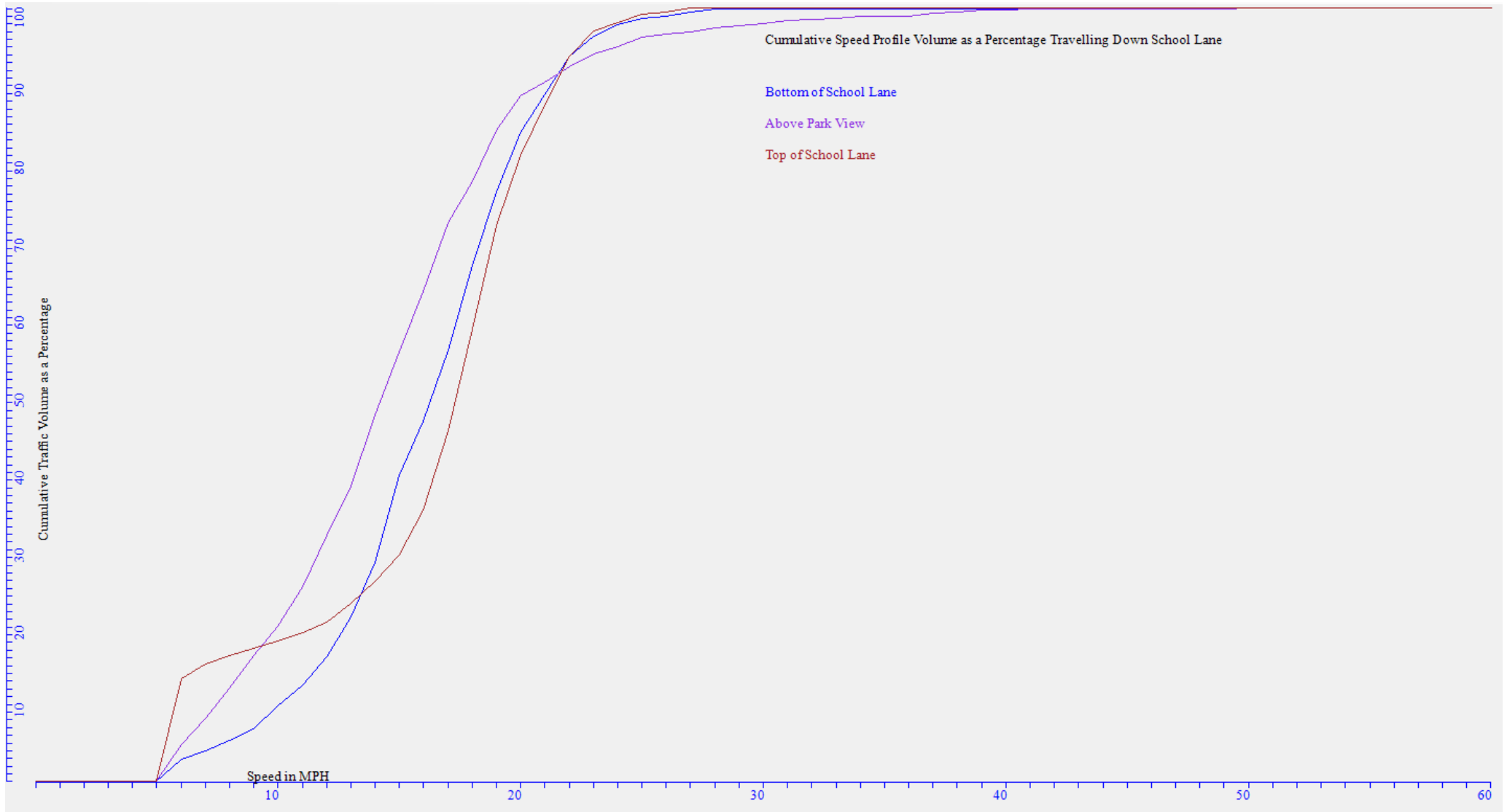


Figure 6 Cumulative volume of traffic traveling down School Lane expressed as a percentage speed profile

In Figures 5 and 6 there is a steep rise in the curves between the speeds of 5mph and 20mph, this indicates that the vast majority of the traffic passing the monitoring points are travelling within this speed range.

From the data that produced Figures 5 and 6 it is possible to determine the speed at and below which 85% of the total volume of traffic is travelling past the monitoring points and is shown in Table 2.

Direction	Up	Down
Location	Speed MPH	Speed MPH
Bottom of School Lane	19.4	20.2
Above Park View junction	21.4	19.2
Top of School Lane	20.3	20.6

Table 2 The speed at or below which 85% of traffic volume is passing the monitoring point

The speed recorded are well below the speed limit of 30mph. The percentage volume of traffic at 30mph or less can also be determined from the data that formed Figures 5 and 6 and are shown in Table 3.

Direction	Up	Down
Location	30 MPH	30 MPH
Bottom of School Lane	99.8%	99.8%
Above Park View junction	98.2%	98%
Top of School Lane	99.3%	100%

Table 3 Percentage traffic volume is passing the monitoring point at 30mph or less

Combining the data from Table 1 and Table 3 it is possible to determine the number of vehicles exceeding the speed limit as they pass the monitoring point over the period of a week and are shown in Table 4.

Location	Up	Down
Bottom of School Lane	3	3
Above Park View junction	14	16
Top of School Lane	3	0

Table 4 Number of speeding vehicles passing the monitoring point over the period of a week