

Cranage Parish Council

Traffic Study
March, 2018

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C O N T E N T S

- 1. Introduction**

- 2. Main Results of the Traffic Surveys**

- 3. Conclusions and Recommendation**

Locations of Traffic Surveys

1. Introduction

1.1 This report contains the results of a Traffic Study that has been carried out on behalf of Cranage Parish Council. The study has been commissioned by the Parish Council following local concern about high traffic flows, traffic speeds and HGV movements on some roads in the area and to provide a base-line of traffic flows for future monitoring to assess the impact of future development proposals in the area.

1.2 The traffic data was collected using automatic traffic speed and volume counters that were installed for a typical week commencing on Friday 16th March, 2018. The locations for the traffic surveys were selected by the Parish Council, as follows, and as shown on the survey location maps :

- Northwich Road,
- Middlewich Road,
- Goostrey Lane,
- Byley Lane,
- Twemlow Lane

1.3 The traffic survey results (traffic flows), are provided as a separate file for the sites and the main results are described in the following section.

2. Main Results of the Traffic Surveys

Northwich Road

Traffic Survey Period	Traffic Flows Northwest bound (vehicles)	Traffic Flows Southeast bound (vehicles)	Total 2-way Traffic Flow (vehicles)
Average Weekday	3772	3518	7290
Average Weekday A.M. Peak	395	326	721
Average Weekday P.M. Peak	422	324	746
Saturday	2599	2649	5248
Saturday A.M. Peak	232	222	454
Saturday P.M. Peak	255	247	502
Sunday	2462	2235	4697
Sunday A.M. Peak	389	261	650
Sunday P.M. Peak	335	240	575

Table 1 : Summary of Traffic Flow Information on Northwich Road

2.1 Table 1 shows a summary of the traffic survey results for Northwich Road. The results show that traffic flows on the road are, relatively, high for a rural road with the highest hourly traffic flow being 746 vehicles on a weekday during the afternoon peak period. The road is operating at approximately 50% of its capacity based on the daily traffic flow of 7290 vehicles. Traffic flows during the day are relatively balanced in each direction but during all of the peak hours the main direction of traffic flow is in a north west direction.

2.2 Traffic flows on Northwich Road on a Saturday are 28% lower than on an average weekday and 36% lower on a Sunday than on an average weekday.

Direction of Travel	No. of Cars / Light Goods Vehicles	No. of HGVs	Total Traffic (vehs.)	% HGVs
Northwest bound	3644	213	3857	5.5 %
Southeast bound	3435	198	3633	5.4 %

Table 2 : Summary of Vehicle Types on Northwich Road
on a Typical Weekday (Wednesday 21.3.18)

Direction of Travel	Average Traffic Speed (mph)	85 th Percentile Traffic Speed (mph)
Northwest bound	44.7 mph	50.8 mph
Southeast bound	42.6 mph	48.1 mph

Table 3 : Traffic Speeds on Trap Road on a Typical Weekday (21.3.18)

Middlewich Road

Traffic Survey Period	Traffic Flows Westbound (vehicles)	Traffic Flows Eastbound (vehicles)	Total 2-way Traffic Flow (vehicles)
Average Weekday	594	818	1412
Average Weekday A.M. Peak	52	194	246
Average Weekday P.M. Peak	69	60	129
Saturday	358	375	733
Saturday A.M. Peak	33	35	68
Saturday P.M. Peak	40	38	78
Sunday	300	287	587
Sunday A.M. Peak	43	32	75
Sunday P.M. Peak	41	40	81

Table 4 : Summary of Traffic Flow Information on Middlewich Road

- 2.3 Table 4 shows a summary of the traffic survey results for Middlewich Road. The results show that traffic flows on the road are, relatively, low with the highest hourly traffic flow being 246 vehicles on a weekday during the morning peak period. The traffic flows on the road are higher in the east bound direction during a typical weekday with 58% of traffic travelling eastbound. During the weekday morning peak period 79% of traffic is travelling eastbound indicating that the road is being used as a short cut during this period.

- 2.4 Traffic flows on Middlewich Road on a Saturday are 48% lower than on an average weekday and 58% lower on a Sunday than on an average weekday.

Direction of Travel	No. of Cars / Light Goods Vehicles	No. of HGVs	Total Traffic (vehs.)	% HGVs
West bound	563	70	633	11.0 %
East bound	693	78	771	10.1 %

Table 5 : Summary of Vehicle Types on Middlewich Road on a Typical Weekday (Wednesday 21.3.18)

- 2.5 The vehicle classifications show that there is a relatively high proportion of HGVs using Middlewich Road on a typical weekday with 10 – 11 % of the daily flow. The number of light goods vehicles using the road is also high, particularly in the eastbound direction (439 number corresponding to 57% of all vehicles).

Direction of Travel	Average Traffic Speed (mph)	85 th Percentile Traffic Speed (mph)
West bound	33.9 mph	39.1 mph
East bound	35.5 mph	42.3 mph

Table 6 : Traffic Speeds on Middlewich Road on a Typical Weekday (21.3.18)

Goostrey Lane

Traffic Survey Period	Traffic Flows East bound (vehicles)	Traffic Flows West bound (vehicles)	Total 2-way Traffic Flow (vehicles)
Average Weekday	1445	1428	2873
Average Weekday A.M. Peak	130	135	265
Average Weekday P.M. Peak	136	144	280
Saturday	1040	1070	2110
Saturday A.M. Peak	119	108	227
Saturday P.M. Peak	97	101	198
Sunday	783	776	1559
Sunday A.M. Peak	100	82	182
Sunday P.M. Peak	86	104	190

Table 7 : Summary of Traffic Flow Information on Goostrey Lane

- 2.6 Table 7 shows a summary of the traffic survey results for Goostrey Lane. The results show that traffic flows on the road are, relatively, low with the highest hourly traffic flow being 280 vehicles on a weekday during the afternoon peak period. The traffic flows on the road are balanced in an east-west direction on a typical weekday.

2.7 Traffic flows on Goostrey Lane on a Saturday are 27% lower than on an average weekday and 46% lower on a Sunday than on an average weekday.

Direction of Travel	No. of Cars / Light Goods Vehicles	No. of HGVs	Total Traffic (vehs.)	% HGVs
East bound	1439	46	1485	3.1 %
West bound	1379	53	1432	3.7 %

Table 8 : Summary of Vehicle Types on Goostrey Lane
on a Typical Weekday (21.3.18)

Direction of Travel	Average Traffic Speed (mph)	85 th Percentile Traffic Speed (mph)
East bound	34.9 mph	40.3 mph
West bound	34.8 mph	40.5 mph

Table 9 : Traffic Speeds on Goostrey Lane on a Typical Weekday
(Wednesday 21.3.18)

Byley Lane

Traffic Survey Period	Traffic Flows West bound (vehicles)	Traffic Flows East bound (vehicles)	Total 2-way Traffic Flow (vehicles)
Average Weekday	457	522	979
Average Weekday A.M. Peak	50	88	138
Average Weekday P.M. Peak	62	82	144
Saturday	261	286	547
Saturday A.M. Peak	34	38	72
Saturday P.M. Peak	29	41	70
Sunday	216	255	471
Sunday A.M. Peak	25	32	57
Sunday P.M. Peak	22	44	66

Table 10 : Summary of Traffic Flow Information on Byley Lane

2.8 Table 10 shows a summary of the traffic survey results for Byley Lane. The results show that traffic flows on the road are, relatively, low with the highest hourly traffic flow being 144 vehicles on a weekday during the afternoon peak period. The traffic flows on the road are, reasonably, balanced in an east-west direction on a typical weekday.

2.9 Traffic flows on Byley Lane on a Saturday are 44% lower than on an average weekday and 52% lower on a Sunday than on an average weekday.

Direction of Travel	No. of Cars / Light Goods Vehicles	No. of HGVs	Total Traffic (vehs.)	% HGVs
West bound	347	20	367	5.4 %
East bound	514	15	529	2.8 %

Table 11 : Summary of Vehicle Types on Byley Lane
on a Typical Weekday (Tuesday 20.3.18)

Direction of Travel	Average Traffic Speed (mph)	85 th Percentile Traffic Speed (mph)
West bound	29.9 mph	40.0 mph
East bound	29.2 mph	41.4 mph

Table 12 : Traffic Speeds on Byley Lane on a Typical Weekday (20.3.18)

Twemlow Lane

Traffic Survey Period	Traffic Flows East bound (vehicles)	Traffic Flows West bound (vehicles)	Total 2-way Traffic Flow (vehicles)
Average Weekday	790	890	1680
Average Weekday A.M. Peak	103	97	200
Average Weekday P.M. Peak	99	118	217
Saturday	462	517	979
Saturday A.M. Peak	41	49	90
Saturday P.M. Peak	56	61	117
Sunday	370	411	781
Sunday A.M. Peak	47	43	90
Sunday P.M. Peak	36	48	84

Table 13 : Summary of Traffic Flow Information on Twemlow Lane

2.10 Table 13 shows a summary of the traffic survey results for Twemlow Lane. The results show that traffic flows on the road are, relatively, low with the highest hourly traffic flow being 217 vehicles on a weekday during the afternoon peak period. The traffic flows on the road are, reasonably, balanced in an east-west direction on a typical weekday.

2.11 Traffic flows on Twemlow Lane on a Saturday are 42% lower than on an average weekday and 54 lower on a Sunday than on an average weekday.

Direction of Travel	No. of Cars / Light Goods Vehicles	No. of HGVs	Total Traffic (vehs.)	% HGVs
East bound	859	30	889	3.4 %
West bound	892	55	947	5.8 %

Table 14 : Summary of Vehicle Types on Twemlow Lane
on a Typical Weekday (20.3.18)

Direction of Travel	Average Traffic Speed (mph)	85 th Percentile Traffic Speed (mph)
East bound	34.0 mph	39.1 mph
West bound	36.3 mph	43.2 mph

Table 15 : Traffic Speeds on Twemlow Lane on a Typical Weekday (20.3.18)

3. Conclusions and Recommendation

- 3.1 This Traffic Study report contains a summary of the traffic surveys that have been carried out at 5 locations on the road network in the Cranage area of Cheshire East.
- 3.2 The data that has been collected can be used to monitor the future traffic levels on this road network following development proposals in the area and following new highway proposals. The traffic data can also be used to examine existing speed limits and the type of traffic that uses the roads.

Locations of Traffic Surveys

36201 - VTC Consultancy Ltd - Congleton ATCs - March 2018 – Location Map







