

Pannal & Burnbridge Parish Council

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Traffic Monitoring Report

compiled October 2020



Main Street 20mph Board.

Survey Context:

The SID was operational from part way through August 20th. There was an outage in early September but otherwise, data gathering was constant and consistently robust. Repeated comparisons with vehicles and other speed tracking equipment, demonstrated that the speed detection is accurate.

At the Main St site, there are c.300+ entry/exits per day from Clark Beck Close and the Church which are abnormally slow, impacting average speeds recorded - but the data set should be statistically large enough to discount the impact of this.

Statistically Relevant Data:

Each Speed Indicator Device (SID) collects and stores data on all approaching (inbound) and all outbound passing traffic. This means joggers & cyclists are also included in the raw data. Following best practice, the records for anything moving at less than 15mph in or outbound, have therefore been excluded, rendering this report as covering vehicular traffic data only.

Dates of this 2020 Traffic Survey

Data has been downloaded for the period 20.08.20 to 23.09.20



Main St 20 mph Board. Vehicle Usage

Dates	Northbound Vehicles	Southbound Vehicles	Total Vehicles
Thu 20 th – Sun 23 rd Aug	4,446	5,234	9,680
Mon 24 th – Sun 30 th Aug	11,090	13,167	24,257
Mon 31 st Aug – Sun 6 th Sep	6,223	6,868	13,091*
Mon 7 th – Sun 13 th Sep	12,391	14,366	26,757
Mon 14 th – Sun 20 th Sep	12,716	14,625	27,341
Mon 21 st – Wed 23 rd Sep	7,229	8,508	15,737
	54,095	62,768	116,863

* There was an SID outage from the 1st-3rd September, which meant data wasn't recorded



Main St 20 mph Board. Vehicle Usage Findings

Total Vehicular Road Usage:

- During this sample period 116,863 vehicles passed through Main Street
- Calculating an average week of full survey data (no outages and no part weeks) normalised daily traffic = 3,731 vehicles
- A normalised week = 26,118 vehicles passing along Main Street



Main St 20 mph Board. Traffic Volume By Day

Days	Northbound Vehicles	Southbound Vehicles	Total Vehicles
Monday	7,990	9,745	17,735
Tuesday	7,406	8,698	16,104
Wednesday	7,714	8,981	16,695
Thursday	7,592	8,739	16,331
Friday	9,304	10,788	20,092
Saturday	7,647	8,528	16,175
Sunday	6,442	7,289	13,731
Total	54,095	62,768	116,863

Main St 20 mph Board.

Traffic Volume By Day and Time

Traffic Weight By Direction:

- Inbound (northbound from the Station end of the village towards Harrogate) = 54,095 vehicles
- Outbound (southbound travelling from Church Lane end towards the A61) = 62,768 vehicles
- Each day of the week, there is more traffic flowing southbound than northbound
- 46% of traffic flows northbound and 54% southbound

Dates	Northbound Vehicles	Southbound Vehicles	Total Vehicles
Morning 0600hrs - 1000hrs	9,852	14,217	24,069
Daytime 1000hrs – 1600hrs	25,537	29,006	54,543
Evening 1600hrs – 2359hrs	18,294	19,108	37,402
Overnight 0000hrs – 0600hrs	412	437	849



Main St 20 mph Board. Average Speeds

Speed	% of vehicles
At or below 20mph	49%
21 - 24mph	33%
25 - 29mph	10%
30 - 34mph	7%
35mph +	1%

Proportion of vehicles travelling over the speed limit: 51%

Proportion of vehicles travelling over 25mph: 18% or 21,035 vehicles



Main St 20 mph Board. Worst Offenders

Day	Date	Time	Entry Speed mph	Exit Speed mph	Reduction
Saturday	05/09/2020	13:39	53	Southbound	-
Monday	21/09/2020	03:24	48	36	-12
Sunday	20/09/2020	01:45	45	23	-22
Monday	31/08/2020	11:18	44	Southbound	-
Monday	21/09/2020	03:24	43	33	-10
Monday	24/08/2020	21:30	42	19	-23
Saturday	19/09/2020	22:54	42	Southbound	-
Sunday	23/08/2020	13:26	39	17	-22
Monday	24/08/2020	08:51	39	Southbound	-
Sunday	30/08/2020	12:04	39	Southbound	-

Main St 20 mph Board. Impact of SID board.

Impact of SID Board:

Vehicles travelling towards the SID who were facing the sign and duly saw their speed displayed, **on average reduced their speed by 4.2mph** (this termed the vRed figure).

- Ave entry speed northbound with SID visible = 20.3mph
- Ave exit speed once SID seen and speeds adjusted = 16.1mph

Whilst speeds were reduced by 4.2mph for northbound traffic (where SID was visible), for traffic heading southbound on the exact same stretch of road/conditions (but where no SID was visible) average speed was 20.7mph.

This figure of 20.7 appears low because it includes all turning and queuing traffic at busy times



Main St 20 mph Board. Educational Effect Of SID:

Looking at northbound SID exposed traffic, there has been a change in the average speed reduction.

As weeks of the survey progressed, drivers seem to have gradually acclimatised to the speed control area:

- Initial week of survey average speed reduction in reaction to SID radar was 4.3mph with an average entry speed of 20.7
- Last week of survey average speed reduction in reaction to SID radar = 3.1mph with an average entry speed of 20.2

Average exit speeds only varied by 0.4mph, so this change in reduced speed shows the educational effect of drivers.

By the fifth week they were having to shed less speed as they'd entered at a more moderate pace than when the SID was first installed.



Church Lane 30mph Board.

Survey Context:

The SID was operational from part way through August 20th. Repeated comparisons with vehicles and other equipment show that the speed detection is accurate.

Statistically Relevant Data:

Each Speed Indicator Device (SID) collects and stores data on all approaching (inbound) and all outbound passing traffic. This means joggers & cyclists are also included in the raw data. Following best practice, the records for anything moving at less than 15mph in or outbound, have therefore been excluded. However, as the Church Lane site is a flat and fairly straight area, it's likely that a higher % of cyclists will have registered above 15mph than on Main Street which is narrower.

Dates of this 2020 Traffic Survey

Data has been downloaded for the period 20.08.20 to 23.09.20



Church Lane 30 mph Board. Vehicle Usage

Dates	Northbound Vehicles	Southbound Vehicles	Total Vehicles
Thu 20 th – Sun 23 rd Aug	4,792	4,414	9,206
Mon 24 th – Sun 30 th Aug	11,548	11,990	23,538
Mon 31 st Aug – Sun 6 th Sep	12,182	12,108	24,290
Mon 7 th – Sun 13 th Sep	14,153	14,252	28,405
Mon 14 th – Sun 20 th Sep	14,806	15,102	29,908
Mon 21 st – Wed 23 rd Sep	7,843	8,242	16,085
Total	65,324	66,108	131,432



Church Lane 30 mph Board. Vehicle Usage Findings

Total Vehicular Road Usage:

- During this sample period 131,432 vehicles passed through Church Lane
- Calculating an average week of full survey data (no part weeks) normalised daily traffic = 3,790 vehicles
- A normalised week = 26,535 vehicles passing along Church Lane



Church Lane 30 mph Board. Traffic Volume By Day

Days	Northbound Vehicles	Southbound Vehicles	Total Vehicles
Monday	9,542	9,967	19,509
Tuesday	10,353	10,591	20,994
Wednesday	10,097	10,504	20,601
Thursday	9,796	9,905	19,701
Friday	10,587	10,468	21,055
Saturday	8,136	7,984	16,120
Sunday	6,813	6,689	13,502
Total	65,324	66,108	131,432

Church Lane 30 mph Board. Traffic Volume By Day and Time

Dates	Northbound Vehicles	Southbound Vehicles	Total Vehicles
Morning 0600hrs - 1000hrs	12,857	14,713	27,570
Daytime 1000hrs – 1600hrs	30,585	30,016	60,601
Evening 1600hrs – 2359hrs	21,388	20,908	42,296
Overnight 0000hrs – 0600hrs	494	471	965



Church Lane 30 mph Board. Average Speeds

Speed	% of vehicles
At or below 30mph	39%
31 - 34mph	31%
35 - 39mph	22%
40 - 44mph	6%
45mph +	2%

Proportion of vehicles travelling over the speed limit: 61%

Proportion of vehicles travelling over 35mph: 30% or 39,429 vehicles



Church Lane 30 mph Board. Worst Offenders

Day	Date	Time	Entry Speed mph	Exit Speed mph	Difference
Saturday	29/08/2020	15:16	84	Northbound	-
Monday	31/08/2020	21:40	80	54	-26
Saturday	19/09/2020	08:04	73	71	-2
Saturday	12/09/2020	16:54	72	Northbound	
Friday	21/08/2020	18:02	72	68	-4
Thursday	10/09/2020	07:23	71	68	-3
Thursday	03/09/2020	21:42	71	40	-31
Saturday	05/09/2020	20:13	70	46	-24
Tuesday	01/09/2020	07:57	70	70	0
Wednesday	09/09/2020	18:07	69	37	-32

Church Lane 30 mph Board. Impact of SID board.

Impact of SID Board:

Vehicles travelling towards the SID who were facing the sign and duly saw their speed displayed, **on average reduced their speed by 4.2mph** (this termed the vRed figure).

- Ave entry speed southbound with SID visible = 31.6mph
- Ave exit speed once SID seen and speeds adjusted = 27.4mph

Whilst speeds were reduced by 4.2mph into legal speeds for southbound traffic (where SID was visible), for traffic heading northbound on exact same stretch of road/conditions but where no SID was visible, average speed was 32.9mph



Church Lane 30 mph Board.

Educational Effect Of SID:

Looking at southbound SID exposed traffic, there has been a minor change in the average speed reduction over time. As weeks of the survey progressed, drivers gradually acclimatised to the speed control area:

- Initial week of survey average speed reduction in reaction to SID radar was 4.2mph with an average entry speed of 31.8
- Last week of survey average speed reduction in reaction to SID radar was 4.1mph with an average entry speed of 31.6

While the SID board reduces the average speed by 4.2mph, we haven't seen the same educational impact like we have on Main Street.



end

