KENDRA

Kenley & District Residents' Association

Has the recently implemented 20mph zone for Kenley significantly reduced traffic speeds?

Provided by the

Kenley and District Residents' Association

Author

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Executive Summary

Croydon Council carried out traffic surveys locally in 2017 and 2018 and have provided the raw data to Kendra which allowed us to prepare this Report.

Traffic speeds and numbers were measured in both directions at 198 locations within the Southern part of the Borough. The sites are all residential roads and exclude roads managed by Transport for London (TfL).

35 of these locations were in, or very near to the ward of Kenley. The data from 22 sites has been used to provide this analysis.

Detailed traffic speeds before and after the implementation of the 20mph zone have been prepared and are presented for 7 Kenley through-routes. Each location provides 2 data sets (44 in total) as the traffic speeds are available for both directions. There is much variation, but some tentative conclusions can be drawn:-

(1) Speeds have reduced at 54% of the locations analysed, have remained broadly unchanged at 33%, and have increased at 13%.

(2) The 85% percentile (described later) speeds have generally reduced across Kenley.

(3) The speed reductions are not commensurate with the 33% reduction in speed limit (from 30mph to 20mph). However, any reduction in speeding enhances the road safety for pedestrians and other vulnerable road users.

(4) There are 3 Kenley Junior schools close to speed measurement sites:

a) 1 School has a 20mph “school zone” and this site shows an increase in traffic speeds: this would seem to indicate that drivers have become desensitized to the school zone, and thus local pedestrian danger has been increased due to the new 20mph zone.

b) Of the remaining 2 schools (without 20mph school zones) 1 has increased traffic speeds and the other has traffic speeds that remain unchanged.

The 20mph zone is a success because the numbers of vehicles speeding above 30mph have generally been reduced. The Kenley roads are now safer for pedestrians and cyclists but there is more work to do.

Introduction

Croydon Council implemented the 20mph zone for the southern half of the borough during spring 2018. As part of the 20mph project the council collected traffic speed and count data before and after the 20mph zones were implemented.

The Council funded the wide installation of traffic counting equipment in November 2017 to capture the 'PRE' intervention data, and then again in November 2018 to capture the 'POST' intervention data.

Croydon Council identified about 30 traffic survey sites around Kenley. Traffic speed and counting equipment was installed at each site for 1 week. Traffic speed data was collected for every vehicle passing through the site, together with the time and type of vehicle. The data is deemed to be point-in-time as the data would be different if measured the week before or the week after.

Kendra has been able to obtain the data for both the Pre- and Post- traffic surveys from the council, and the collected data has been analysed to provide this report.

This report is focused on the sites that form part of "through routes" as it is these roads that receive complaints regarding the excessive levels of traffic speeding. Each through-route will be shown on a single chart to aid comparison of the sites on the through-route (broadly, it is the same drivers that are being assessed as they drive each route).

Measuring traffic speed

We talk about "speeding traffic" and comment on cars travelling too fast. However, for quantitative analysis, we need to be very clear on how "traffic speed" is being measured.

The speed measures and why they were selected

The traffic speed data for each site is very extensive. Traffic speeds could be analysed in numerous ways. To maintain consistency, and to keep this report of manageable length, the level of traffic speeds will be indicated using 3 separate general speed indicators.

These indicators are explained below:

1) **Percentage of traffic exceeding 30mph**

   Prior to the implementation of the 20mph zone the prevailing speed limit within Kenley was 30mph. Any driver exceeding 30mph is therefore defined in law to be driving too fast and is therefore "speeding". The measure provided here will be averaged across a 7-day week. It therefore includes both work days and weekends and also quiet and busy periods.

2) **Percentage of traffic exceeding 35mph**

   Any drivers caught exceeding 35mph in a 30mph zone are at risk of being charged for a "speeding offence". This may result in penalty points on their licence and a fine. Hence exceeding 35mph is an important threshold as it represents those drivers who are susceptible to legal prosecution. Again this is the value calculated over a whole week.

3) **The 85th percentile speed (called "Vpp85")**

Vpp85 (also called the 85th percentile speed) is a statistical measure used by the Police and TfL to decide if a road should be subject to sustained police speed checks.

Vpp85 discounts the 15% fastest speed measurements taken over the whole week and provides the top speed of the remaining group. For a 30mph zone when Vpp85 is greater than 35mph the authorities will consider targeting the road for police speed checks.

A reduction of just 1mph in Vpp85 is a benefit for road safety – particularly the safety of vulnerable road users such as pedestrians and cyclists. (See REF 6, Pg 5)

An explanation of Vpp85 and how it can be used to establish road speed is explained at www.mikeontraffic.com/85th-percentile-speed-explained.

Other details

- **Percentages** – The results are presented as the "% of traffic" so that the effects of any traffic volume changes are minimised. Some care is required when assessing small changes to the percentage values. Small changes (say +/- 3% points) could be the result of the normal variations in the data and should not be interpreted as significant.
- **Two-way traffic** - As data is available for each direction at each site the analysis shows travel direction. This is particularly useful where the site is on a hill, located on a sweeping bend or road side parking tends to be limited to one side only.
- **Existing 20mph roads** – Some of the speed measurement sites are for roads that were already 20mph in Nov 2017. This analysis will continue to assess speeds above 30mph and 35mph for these sites so that comparisons across Kenley are viable.
- **A focus on through roads** – The council has surveyed many sites within Kenley. Several of the sites will only capture traffic that is directly related to the residential properties served by that road (ie, a residential-only back-road).
- **Point-in-time data is indicative -** Some care is needed when comparing data between different sites as the traffic data may be collected through different weeks. The prevailing weather, nearby road or building works, strike action by train drivers, etc, is also likely to affect vehicle movement data from site-to-site and week-to-week.

Reasons for not using other specific analysis options

1) People also think in terms of "average speed" of vehicles on a road. However, an average speed measure would assign an equal weighting to a vehicle that is travelling 10mph below the average and one that is 10mph above the average. Clearly the vehicle travelling faster is of greater concern. So, a simple average has not been adopted.
2) It is possible to slice the data to separate out peak time traffic, weekend traffic and vehicle size. Whilst we have the data, analysing any of these would require a great deal more work to produce the report. This first stage report will focus on gaining an overall understanding of the level of traffic speeding.
3) Residential only roads – we have data for a few sites that would only capture residents and delivery drivers due to there being no through route. Kendra tends not to receive complaints of speeding traffic in closes and residential crescents. It might be useful to analyse this data at a later time.

4) Traffic volumes (as in numbers of vehicles) are provided in this report as a guide. A follow-up separate report will look in more detail at the numbers of speeding vehicles. This report focuses on determining the "proportion of speeding drivers" in Kenley.

Weekend vs workday traffic in Kenley

As a general observation it is noted that the volume of traffic in Kenley reduces by around 20% to 25% at the weekend - but the traffic speeds (measured as the percentage exceeding 30mph and 35mph) are marginally greater at the weekends.

The evidence base for slowing traffic and the benefits

Numerous reports from all over the world show the benefits of reduced traffic speeds. A few links are provided below to provide background reading and justify some of this report's conclusions.

The benefits go beyond simply reducing deaths and the level of serious injury. Slower traffic enhances the quality of life and enables people to walk and cycle more. It also raises property values and can save significant healthcare costs.

Minimising the perception of road danger

Studies are emerging concerning the impact of the "perception of road danger" and how this affects life style and quality of life for residents. These concerns are sufficient to bring "perception of road danger" into new road policies. Eg the London Vision Zero policy (REF 2 below) makes specific reference to:

> *making our streets safer and feel safer, ... [so] people want to walk, cycle and use public transport.*

It is clear that speed of traffic is a significant factor in the perception of whether a road is safe.

Further reading

REF 1 - **https://www.wri.org/blog/2017/05/need-safe-speed-4-surprising-ways-slower-driving-creates-better-cities**

REF 2 - TfL Vision Zero action plan - *content.tfl.gov.uk/vision-zero-action-plan.pdf*

https://www.brake.org.uk/involved/13-organisations/1619-five-reasons-to-drive-more-slowly

REF 3 - This article provides a counter view and provides the case to explain why lowering speeds will have little benefit to road safety.

https://www.regtransfers.co.uk/content/common-causes-for-road-accidents-in-britain/

Whilst the above is a view – it should be recognised that car crashes and injuries to pedestrians tend to be the result of multiple factors. Hence:

- Any process that assigns a single crash cause is by definition suspect and likely to lead to simplistic conclusions.
- For every cause listed in the article , a reduction in speed would allow more time for those involved to assess the hazard, react and take appropriate action that would very likely negate the crash/injury or at the very least enable more "braking time" so that the speed-of-impact is greatly reduced and therefore far less likely to cause death or serious injury.

REF 4 - The general issues of traffic speed analysis and assessing if the 20mph speed limits work

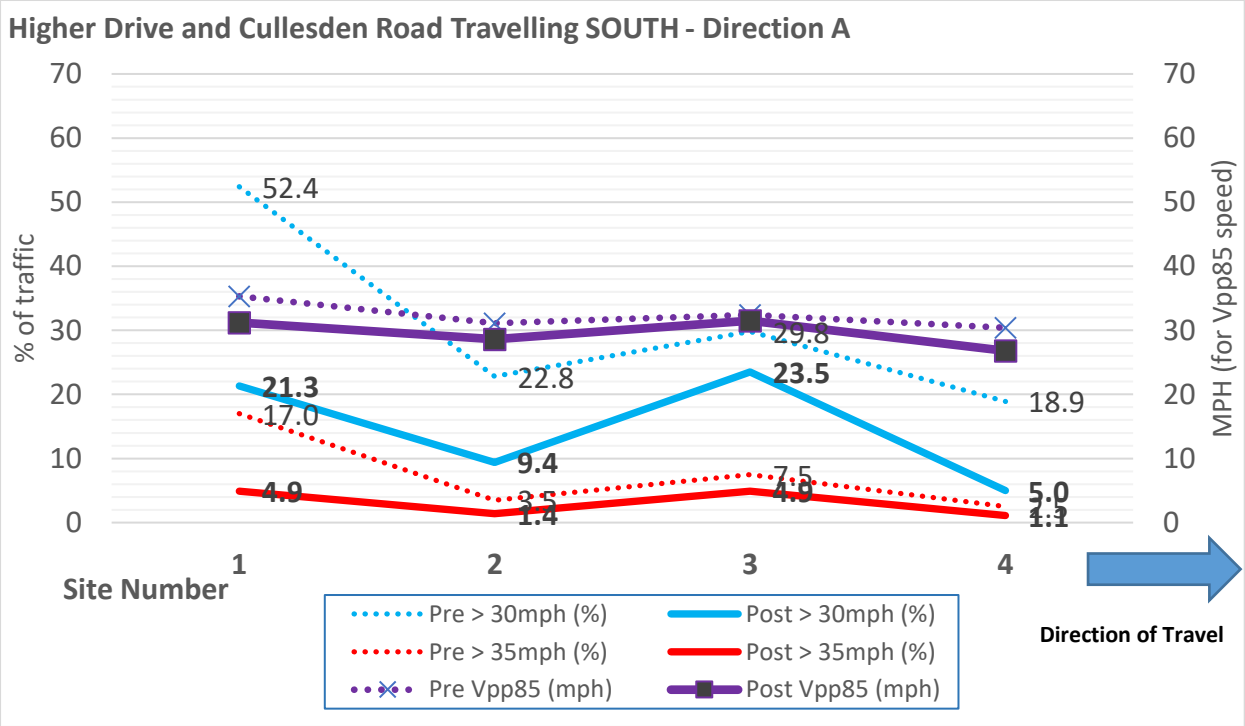
https://www.theguardian.com/cities/2015/may/29/do-20mph-speed-limits-actually-work-london-brighton

REF 5 - This article argues for any reduction in speed – even 1 mph has significant benefits. It also discusses the wider benefits that accrue from reduced speed

https://www.wri.org/blog/2017/05/need-safe-speed-4-surprising-ways-slower-driving-creates-better-cities

Example Route Analysis

An example analysis chart is provided below with some explanation to aid the reader.



Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	Higher Drive - Midway between Foxley Hall and Woodland Way	2244	1900
2	Higher Drive - Midway between Bencombe Road and Callow Field	3528	3011
3	Higher Drive - Near junction with Highland Road	3617	3095
4	Cullesden Road - Midway between Hadley Wood Rise and Beckett Avenue (Speed cushions in this area)	2202	1492

The explanation of the above chart is:-

- The chart is mostly for Higher Drive. The data for the site on Cullesden Road has been added to the Higher Drive chart as this association forms a logical through-route.
- The points on the chart are measures for a whole week.

- There are 4 data collection sites on this route, numbered 1 to 4 that are spread along the route as described in the "Key to Sites".
- This chart shows the direction of travel as SOUTH (toward Kenley) and the sites will be encountered in the order 1, through 2, 3 and then 4. (Note: A second Higher Drive chart is provided below that shows the opposite direction of travel).
- The Direction "southwards" is also referred to as "Direction A" for this route.
- The typical daily traffic volumes as recorded in Nov 2018 are also provided in the "Key to Sites". The volumes are shown for both directions. The volumes are similar for 2017.
- Site traffic counts that show more vehicles in one direction than another may be a result of:
    - Commuters having different preferred routes to/from work.
    - Delivery drivers doing rounds.
- Site traffic counts that vary on a route for the same direction may be a result of:
    - Local residents that only drive a partial route.
    - Intermediate Junctions where drivers can join/leave the route.
- The dotted lines present data that is pre-20mph zone (Nov 2017), and the solid lines represent data that is post-20mph zone (Nov 2018).
- The lines are shown as colour-coded pairs. The pair of blue lines show the percentage of vehicles that are exceeding 30mph at each site pre- and post-20mph. Similarly, the red pair of lines show the percentage exceeding 35mph. The purple lines show the Vpp85 speeds.
- The chart shows the solid lines are all below their related dotted lines – some sites show a very significant reduction in the percentage of traffic exceeding 30mph. Therefore, this chart clearly shows that speeding has reduced between Nov 2017 and Nov 2018. This speed reduction is likely to be attributable to the implementation of the 20mph zone.
- Whilst there is a reduction in the percentage of speeding vehicles, it is clear that speeding is still occurring on a excessive scale:-
    - In Nov 2018 over 20% of vehicles were travelling faster than 30mph on Higher Drive - on what is now a 20mph route.
    - Similarly, in a 20mph zone, approx. 5% of vehicles are exceeding 35mph, and thus these drivers risk prosecution for reckless driving.
    - Reviewing Vpp85 provides a similar conclusion. In Nov 2017 the average Vpp85 is calculated to be around 33mph. In Nov 2018 Vpp85 has reduced to is 30.4mph. This reduction in Vpp85 of 2.5mph indicates that the 20mph limit has reduced traffic speeds.
    - Vpp85 is now much higher than the TfL intervention speed of 24mph for a 20mph zone. So a great many drivers are exposed to the risk of prosecution.

Examination of the chart allows the effectiveness of the speed-cushions on Cullesden Road (Site 4) to be assessed. The chart indicates that the level of speeding on Cullesden Road is roughly aligned to that at Site 2 that has no speed cushions. However, care is required as we do not know if the traffic speeds on Cullesden Road would be much higher if the speed-cushions were removed?

Analysis of the Kenley through routes

Traffic speeds and numbers were measured in both directions at sites around Kenley and the results from 24 of these have been analysed for this Report. Detailed charts have been prepared, and are provided in the Appendix for 7 local through-routes examining the 48 Situations arising from two directions at 24 Sites in the Appendix

Summary table

The following table provides a summary of the through-routes that have been analysed, along with the significant observations for each route.

Coloured indicators are also provided as a visual aid to help understand if the traffic speeds on a single route, or across Kenley, have increased (RED) or reduced (GREEN) between Nov 2017 and Nov 2018.

The charts from which this summary has been derived are presented in the Appendix.

	Direction	
	A	B
1) Abbots Lane Significant reduction in speeds since 20mph – but a great deal of speeding remains.	✓✓	✓✓
	✓✓	✓✓
2) Hayes Lane Drivers are now passing through the school zone faster and driving the Golf Road section faster.	✗	✗
	✓✓	✓✓
	✗✗	-
3) Higher Drive and Cullesden Road Significant reduction in speeds since 20mph zones were implemented. But many vehicles continue to speed.	✓✓	✓✓
	✓✓	✓✓
	✓	✓✓
	✓✓	✓✓
4) Northwood Avenue and Oaks Road Traffic towards Purley has slowed down.	✓	-
	✓	✓
5) Old Lodge Lane Vehicles are significantly speeding more since the 20mph zones were implemented.	✗✗	✗
	✗	-
	-	-
	-	-
6) Valley Road and Beverley Road Parts of the road have significantly reduced speed. Other parts of the road appear to have made no changes.	-	-
	✓✓	-
	-	-
	-	-
7) Welcomes Road Welcomes Road was already 20mph and further speed reductions are noted.	✓	✓
	✓✓	✓✓
	✓✓	✓✓

Key to table

The ticks and crosses on the right summarise the results for the various sites on the route.

✓	Site data indicates a reduction in the level of speeding pre- and post- the 20mph zone.
✗	Site data indicates an increase in the level of traffic speeding pre- and post- the 20mph zone.
-	No significant change between pre- and post- 20mph zone implementation.

Two ticks or crosses indicate a more pronounced reduction/increase in the level of speeding.

Conclusions and follow-on actions

There is much variation in the data at the different sites, but some tentative conclusions can be drawn:-

(1) Speeds have reduced at 54% of the Situations analysed, have remained broadly unchanged at 32%, and have increased at 14%.
(2) The 85th percentile speeds (Vpp85) have generally reduced across Kenley.

This analysis reveals that several of the routes through Kenley have a reduced level of speeding traffic. This is a benefit for pedestrian and cyclist safety, and a reduction in the perceived road dangers on the local roads.

Some sites show an increased level of speeding traffic and this is a concern.

The increase level of traffic speeding though the 20mph zone near The Hayes School is a great concern. Whilst the speeds are below 30mph, the analysis suggests that the drivers slow down less for the 20mph "school" zone now that the whole area is blanketed with 20mph speed signs. This may indicate that many drivers have become desensitised to the school zone and this is likely to represent increased risks to pedestrians (particularly children) in a school zone.

Another concern is that the traffic speeds at two other local schools adjacent to the measurement sites have not been reduced.

Any official activity to reduce vehicle speeds should be focused on those routes with the highest traffic volumes. These are as follows:-

- Hayes Lane
- Higher Drive

When assessing the overall success of the 20mph zone it is believed that the following are reasonable conclusions:-

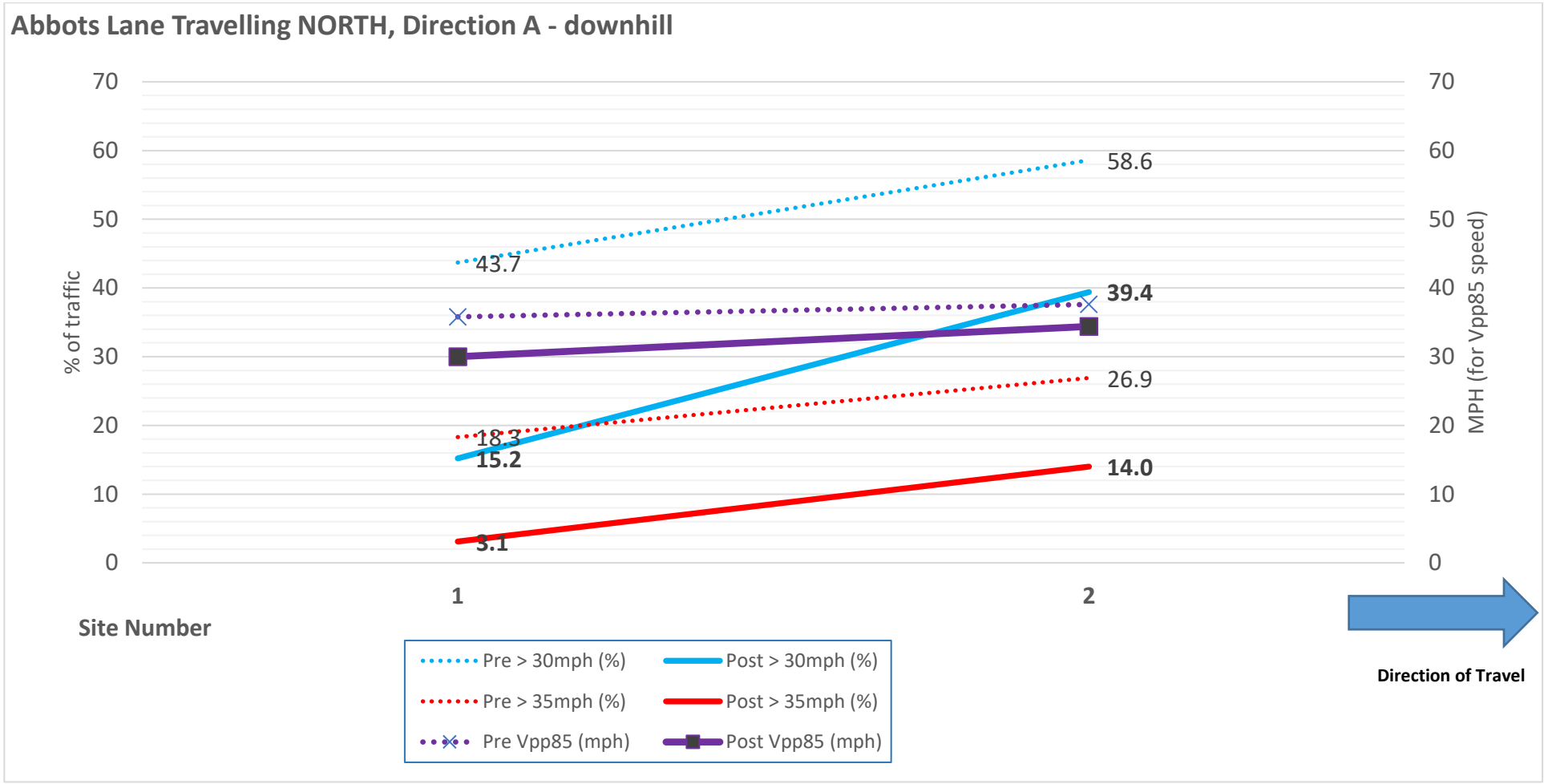
a. The 20mph zone is a success, road safety has been improved but there is more work to do to encourage drivers to reduce their speeds further.
b. The proportion of vehicles speeding above 30mph (and 35mph) has reduced – in many instances the reduction is very significant.
c. Vpp85 has been lowered for a large majority of sites. A reduction of just 1mph in Vpp85 is a significant road safety improvement, but Vpp85 has been reduced by much more than 1mph in many of the locations.
d. The Kenley roads are now safer for pedestrians and cyclists.
e. The reduction in overall traffic speeds also reduces the perceived threat of danger and this will encourage more people to walk and cycle.
f. The increases in traffic speed at the Hayes School suggest that this area should become a candidate for further Police attention, and the excess speed at this location can be so addressed.

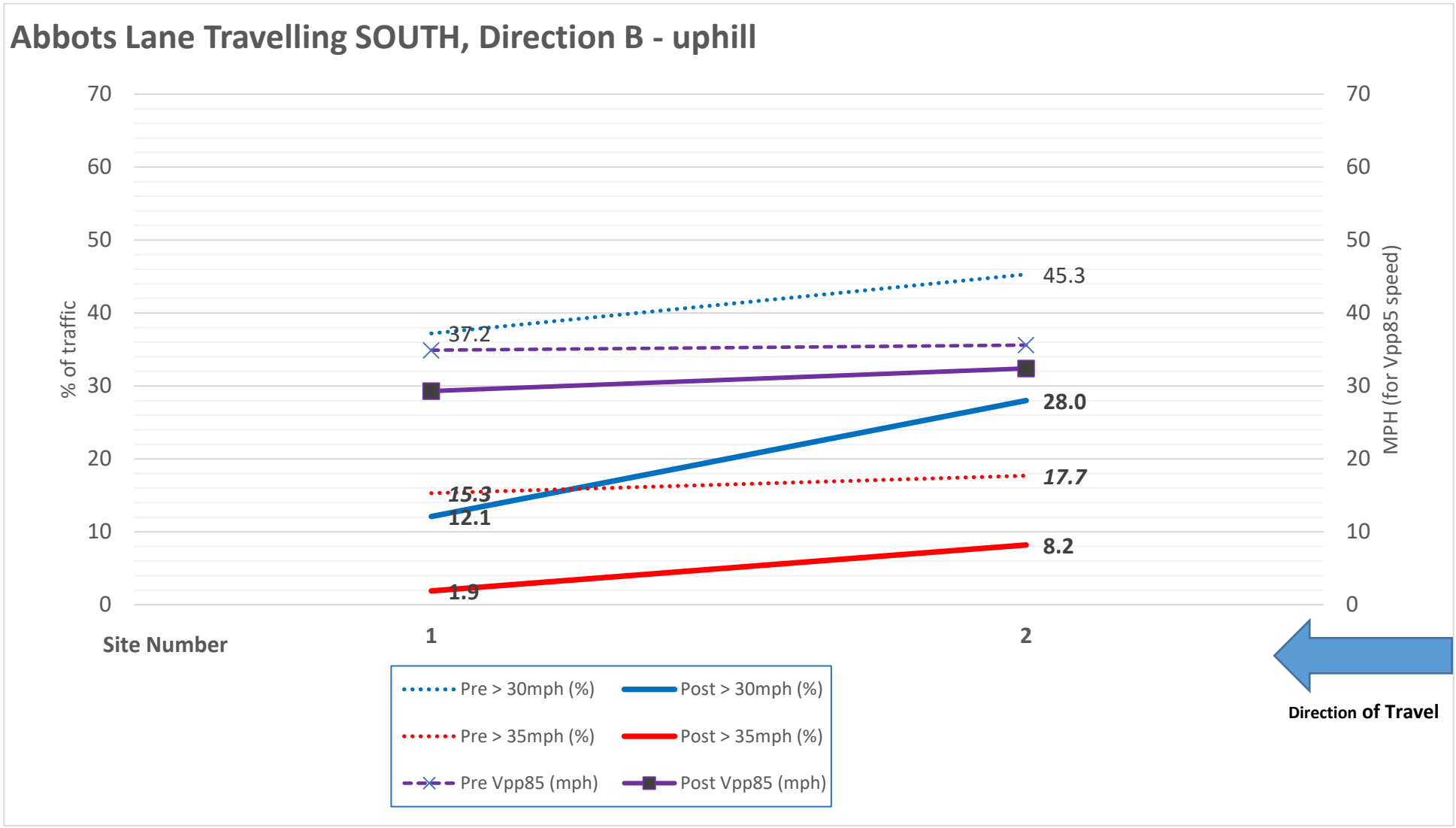
Follow-on actions

1) Share the report for comment and feedback as follows:
    a. **Kendra members and interested groups within Kenley** – Do they tend to agree with the analysis that relates to the roads around them? Do they request any specific actions?
    b. **The local Council** – Do they have views on the key conclusions.
    c. **The Kenley Community Plan group** – Can anything be addressed within the Kenley Community Plan that is being developed.
    d. **The Croydon Roadwatch team** – This analysis suggests that there are several sites that should become more of a focus for Roadwatch.
    e. **The Hayes School PTA** – They may wish to review the results for their "school zone" and then approach the Police and local Council directly to request that measures be taken to reduce vehicle speeds near the school.
2) Use the traffic speed analysis to inform any objection letters for development proposals near to one of the monitoring sites. Particularly if the proposal is for an overly large block of flats that incorporates a driveway entrance with poor sight-lines.
3) Assess current speeding within Kenley:
    a. A further report should look specifically at the Nov 2018 data and from this identify which roads warrant further intervention.
    b. This later report will also assess the impact on the roads that were already 20mph before the wider 20mph zone was implemented.

Appendix - Charts for Through-Routes

Through route (1) Abbots Lane




Abbots Lane Travelling SOUTH, Direction B - uphill
70
60
50
40
30
20
10
0
% of traffic
MPH (for Vpp85 speed)
45.3
37.2
28.0
17.7
15.3
12.1
8.2
1.9
Site Number
1
2
Pre > 30mph (%)
Post > 30mph (%)
Pre > 35mph (%)
Post > 35mph (%)
Pre Vpp85 (mph)
Post Vpp85 (mph)
Direction of Travel

Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	100m north (downhill) from Junction with Zig-Zag Road	514	871
2	80m south (uphill) from junction with Highclere Close	536	890

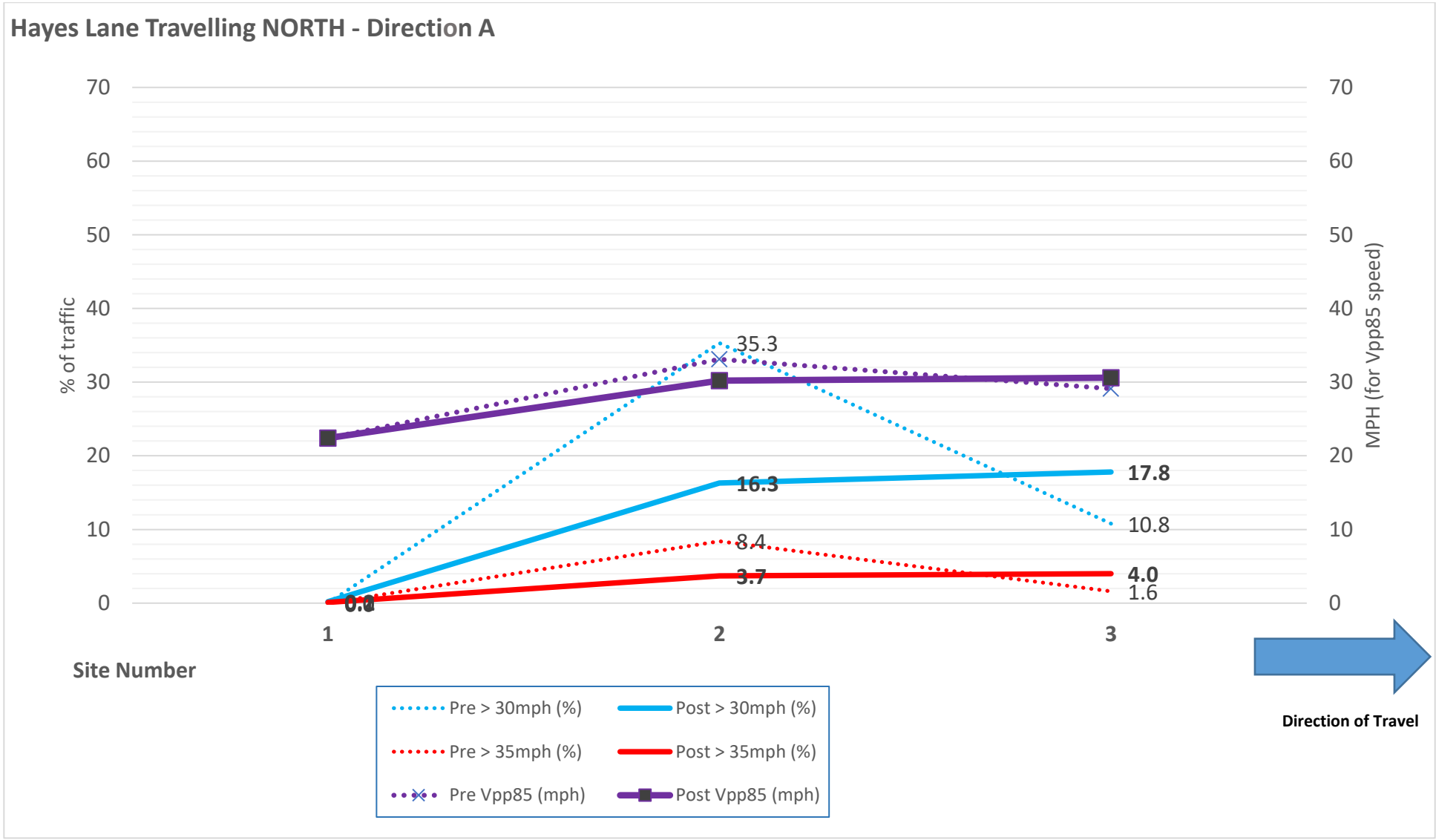
Analysis

The chart indicates that the 20mph zone has very likely resulted in a significant reduction in traffic speeds within Abbots Lane as measured by percentages exceeding 30 and 35 mph, and Vpp85 speeds, at both sites.

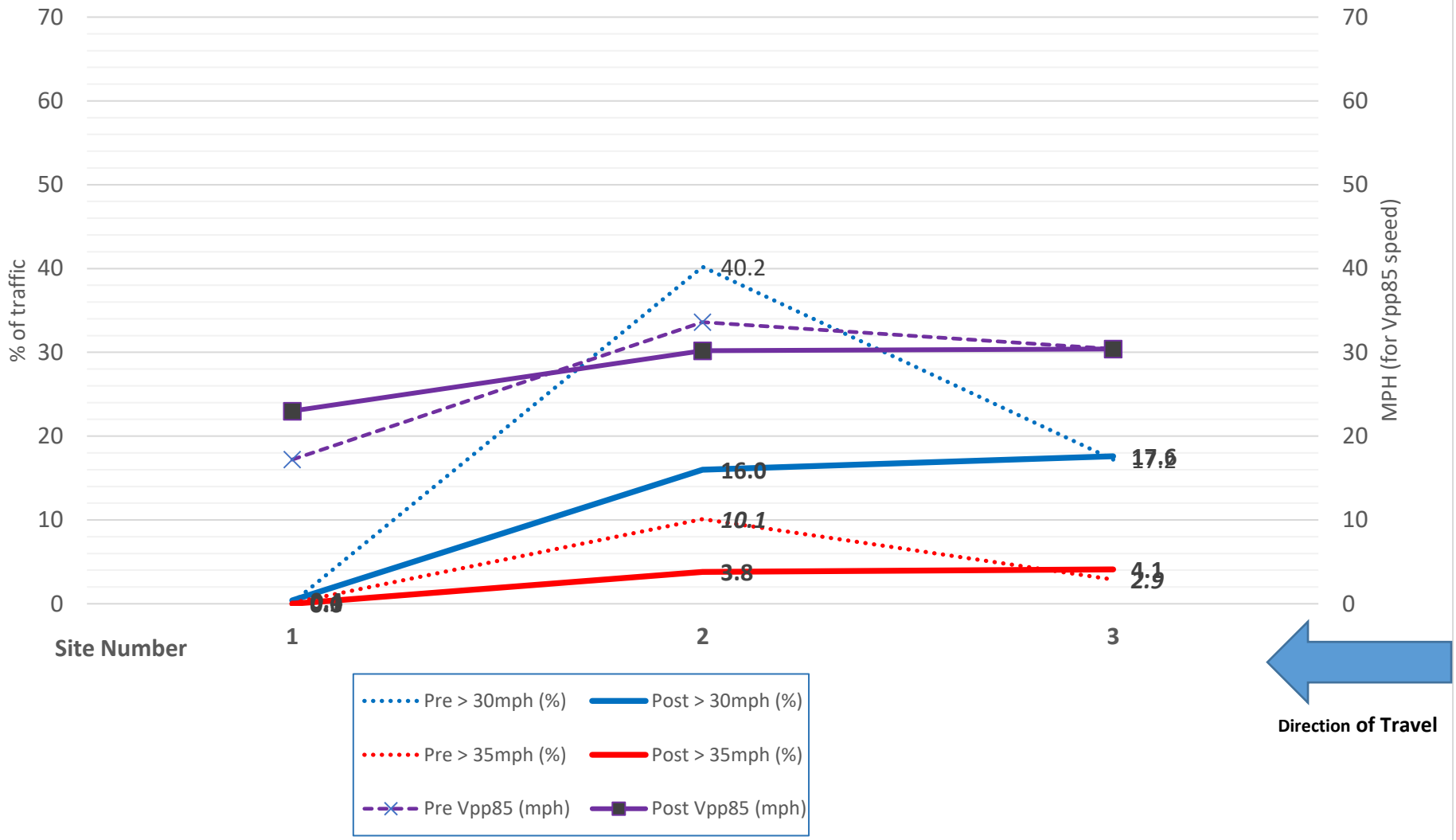
However, significant levels of speeding still persist. More than 1 in 4 vehicles continue to exceed 30mph, and 1 in 12 exceed 35mph (on a 20mph road).

Vpp85 flor Site 2 is greater than 34mph and therefore this is a site where the Police should carry out formal speed checks.

Through route (2) Hayes Lane



Hayes Lane Travelling SOUTH - Direction B



Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	Near to junction with Steyning Close (school zone - 20mph in 2017)	2128	2087
2	Midway between junctions with Highwood Close and with Lovelock Close	2068	2189
3	Section between junctions with Welcomes Road and with Golf Road	2191	2286

Note: The speed limit at Site 1 was already 20mph in 2017. This analysis assesses the level of "speeding" at all sites by recognising speeds above 30mph and 35mph. This is to enable easier comparisons across all the Kenley charts.

Analysis

The charts indicate that since the implementation of the 20mph zone some traffic speeds on Hayes Lane at sites 1 and 3 have increased. To understand Hayes Lane it is necessary to assess each site in turn.

Site 1 is within the school zone

- Drivers in Nov 2017 and Nov 2018 do slow to below 30mph at the school. This could be due to the speed bumps and the level of road side parking.
- Generally, the drivers now pass through the school zone at a higher speed (but still below 30mph). It is possible that the drivers have become desensitized to the school zone and pedestrian danger has been increased due to the wider 20mph zone.
- In Nov 2017 the level of speeding (as measured by Vpp85) was insufficient to attract additional attention from police officers. However, Vpp85 now indicates that the Police should be requested to carry out speed checks that result in formal speeding charges.

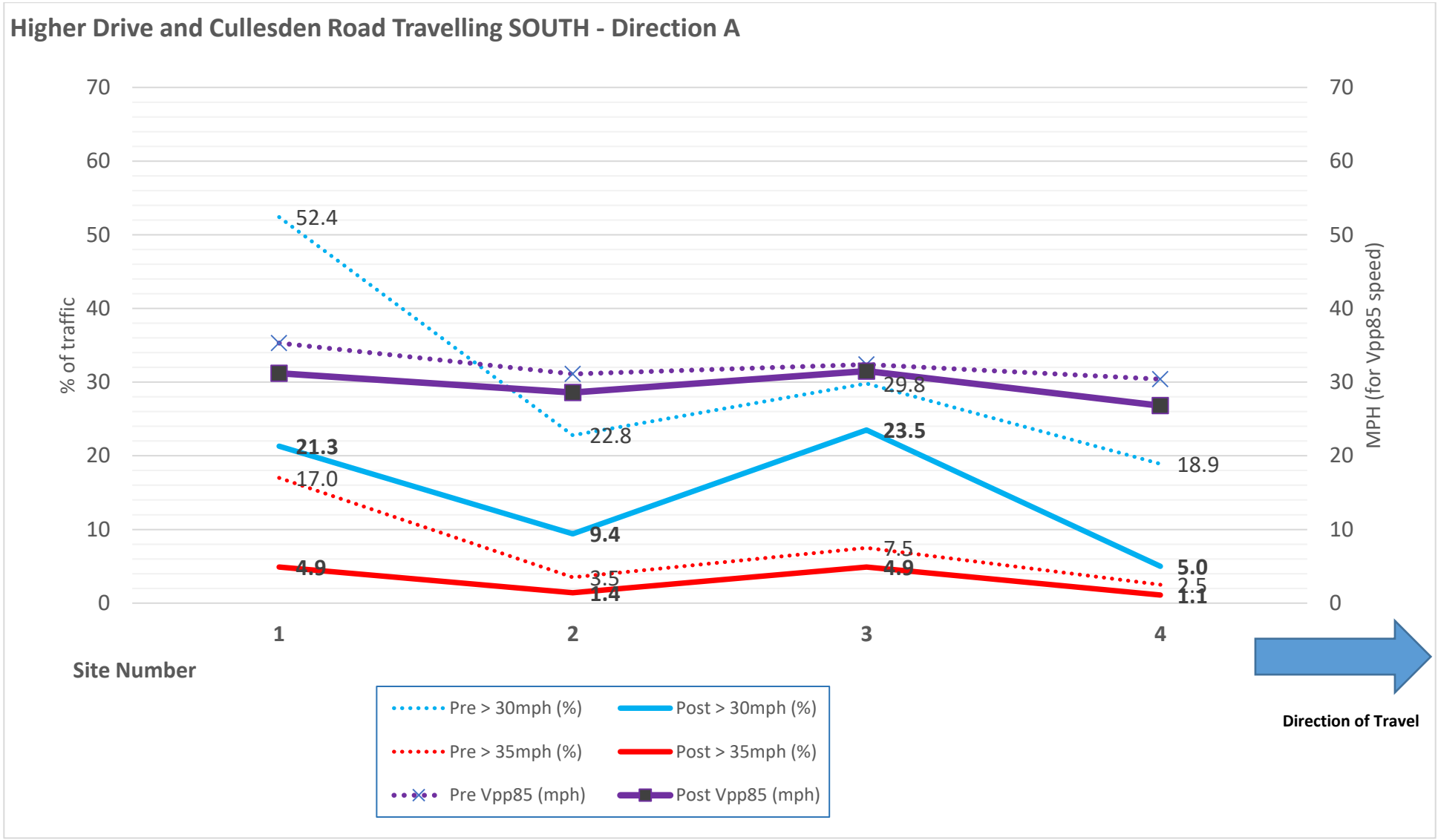
Site 2 is the straight part of Hayes Lane

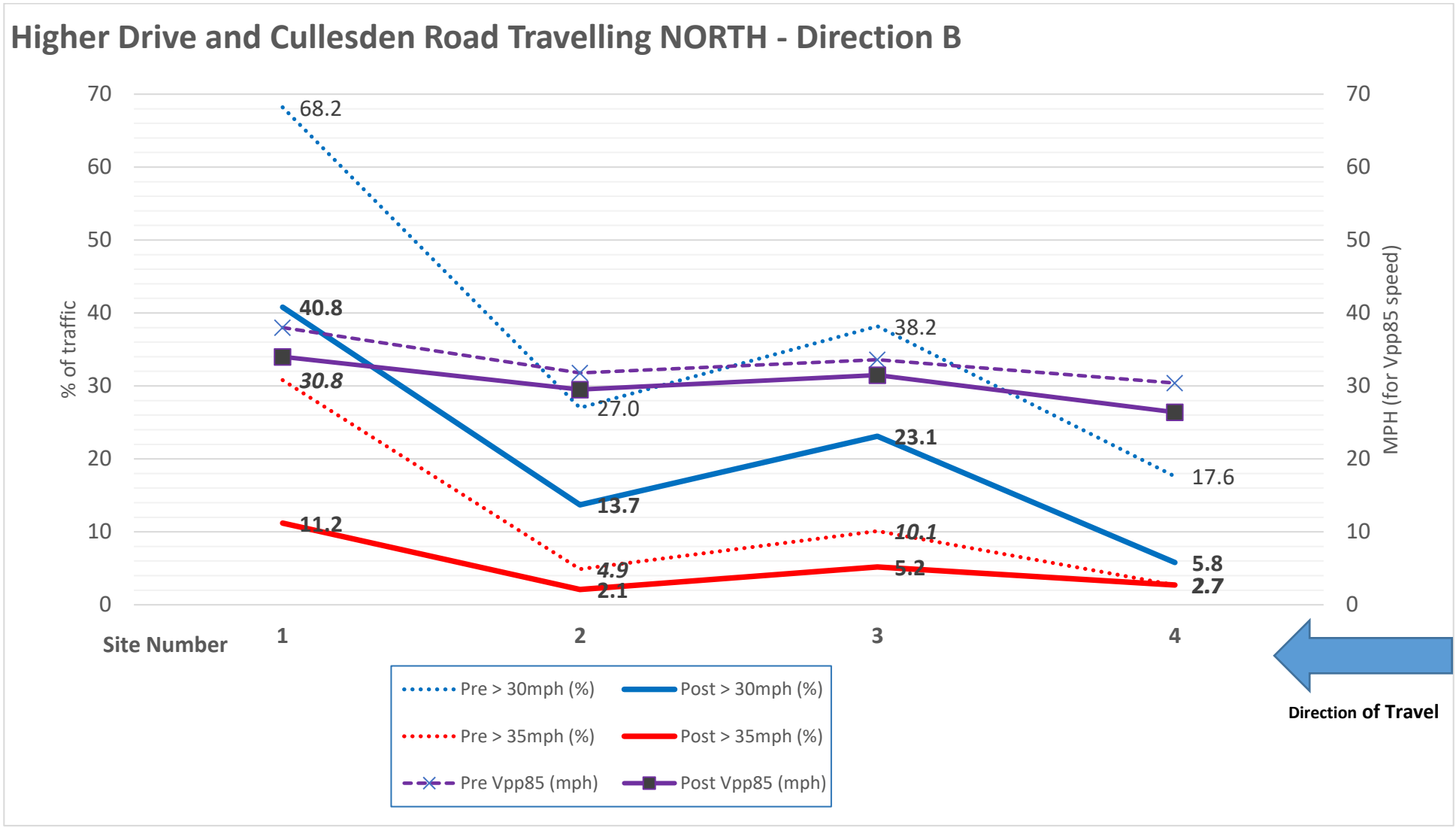
- This site indicates a very significant reduction in the higher traffic speeds, but there are still many vehicles (1 in 7) exceeding 30mph.

Site 3 is on the Golf Road stretch

- This site indicates a marginal increase to northbound traffic speed between Nov 2017 and Nov 2018. No significant change to southbound traffic speeds.

Through route (3) Higher Drive and Cullesden Road




Higher Drive and Cullesden Road Travelling NORTH - Direction B
% of traffic
MPH (for Vpp85 speed)
70
60
50
40
30
20
10
0
68.2
27.0
38.2
17.6
40.8
30.8
13.7
23.1
5.8
11.2
4.9
2.1
10.1
5.2
2.7
Site Number
1
2
3
4
Pre > 30mph (%)
Post > 30mph (%)
Pre > 35mph (%)
Post > 35mph (%)
Pre Vpp85 (mph)
Post Vpp85 (mph)
Direction of Travel

Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	Higher Drive - Midway between Foxley Hall and Woodland Way	2244	1900
2	Higher Drive - Midway between Bencombe Road and Callow Field	3528	3011
3	Higher Drive - Near junction with Highland Road	3617	3095
4	Cullesden Road - Midway between Hadley Wood Rise and Beckett Avenue (Speed cushions in this area)	2202	1492

Analysis

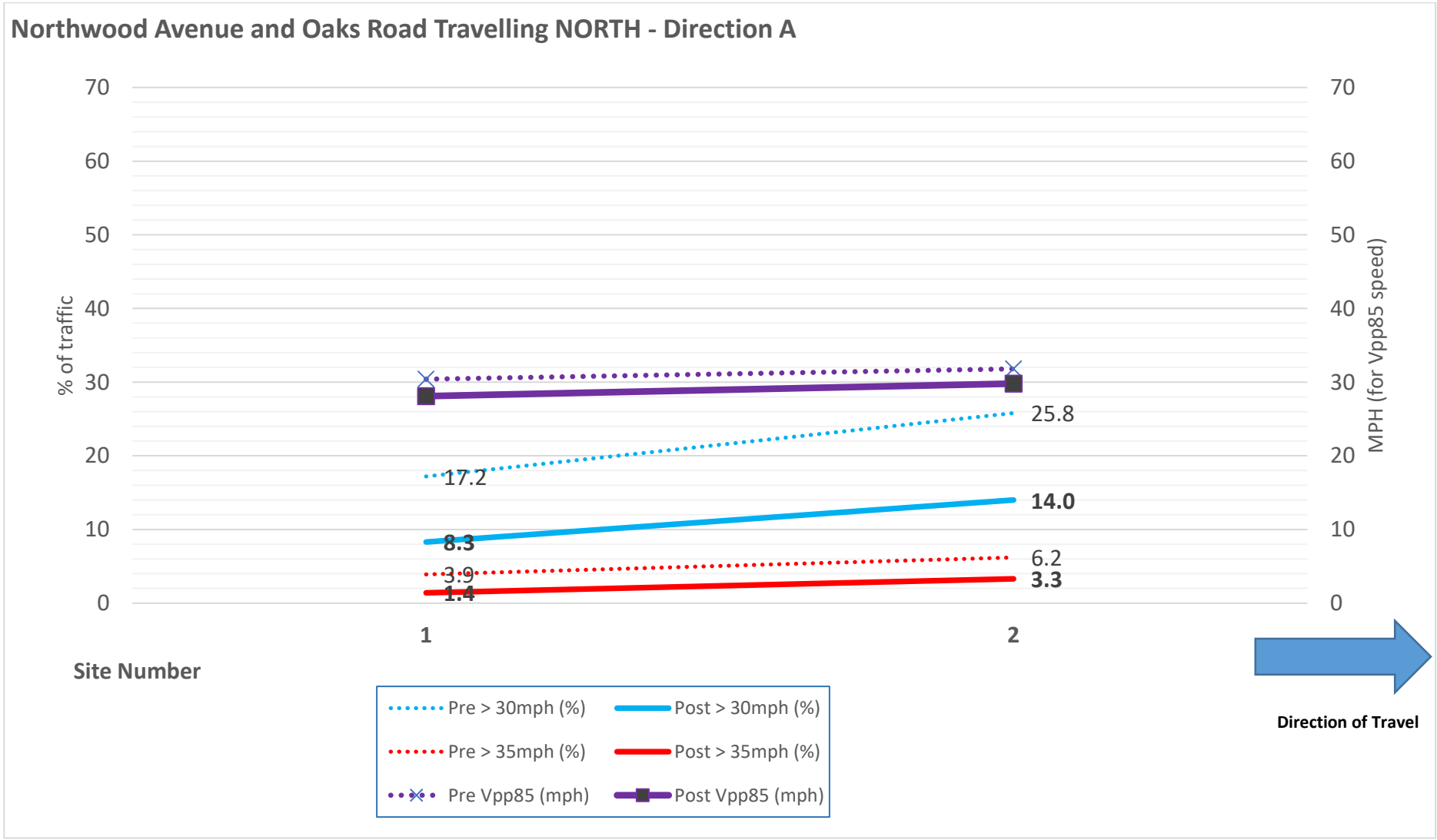
The route runs generally uphill from sites 1 to 4, though only Site 1 is actually on a gradient. The chart indicates very significant reductions in the level of speeding traffic across all sites. However, the speeding on this route remains excessive.

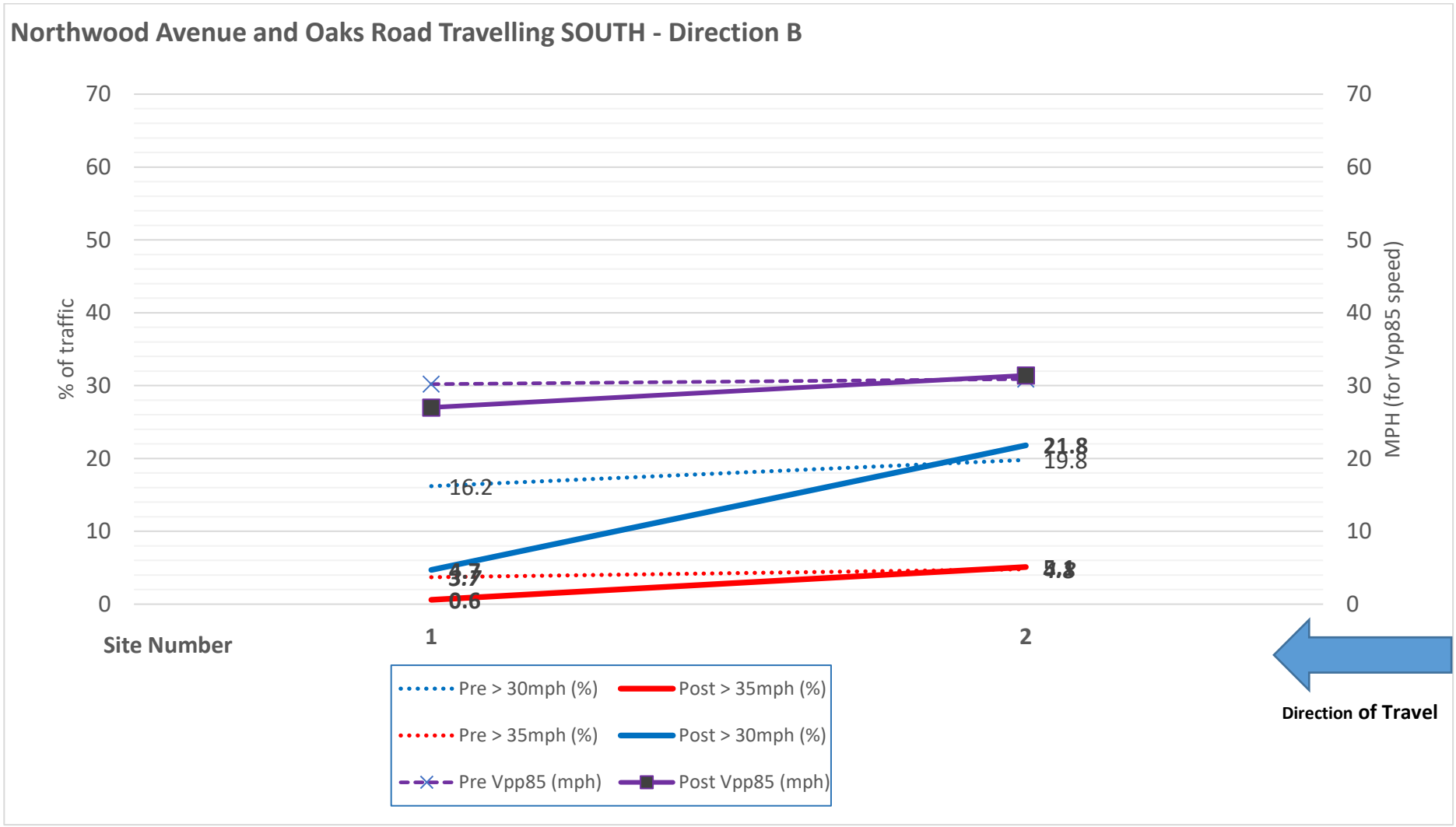
Whilst the 20mph zone indicates a significant reduction in speed, the level of speeding on Higher Drive remains a great concern. At the bottom of Higher Drive (Foxley Hall and Woodland Way) we have the site that indicates the highest level of speeding traffic:

- 20% of the uphill traffic exceeds 30mph.
- 40% of the downhill traffic is exceeding 30mph.

There appears to be some inconsistency in the traffic volume data for this route. Further in-depth analysis of the source data would be required to better understand why this has occurred.

Through route (4) Northwood Avenue and Oaks Road




Northwood Avenue and Oaks Road Travelling SOUTH - Direction B
70
60
50
40
30
20
10
0
% of traffic
MPH (for Vpp85 speed)
16.2
19.8
21.8
3.7
0.6
Site Number
1
2
Pre > 30mph (%)
Post > 35mph (%)
Pre > 35mph (%)
Post > 30mph (%)
Pre Vpp85 (mph)
Post Vpp85 (mph)
Direction of Travel

Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	Oaks Road - 130m northwest (toward Purley) of junction with Burwood Avenue	496	918
2	Northwood Avenue - 335m southeast (away from Purley) of junction with Higher Drive	601	1019

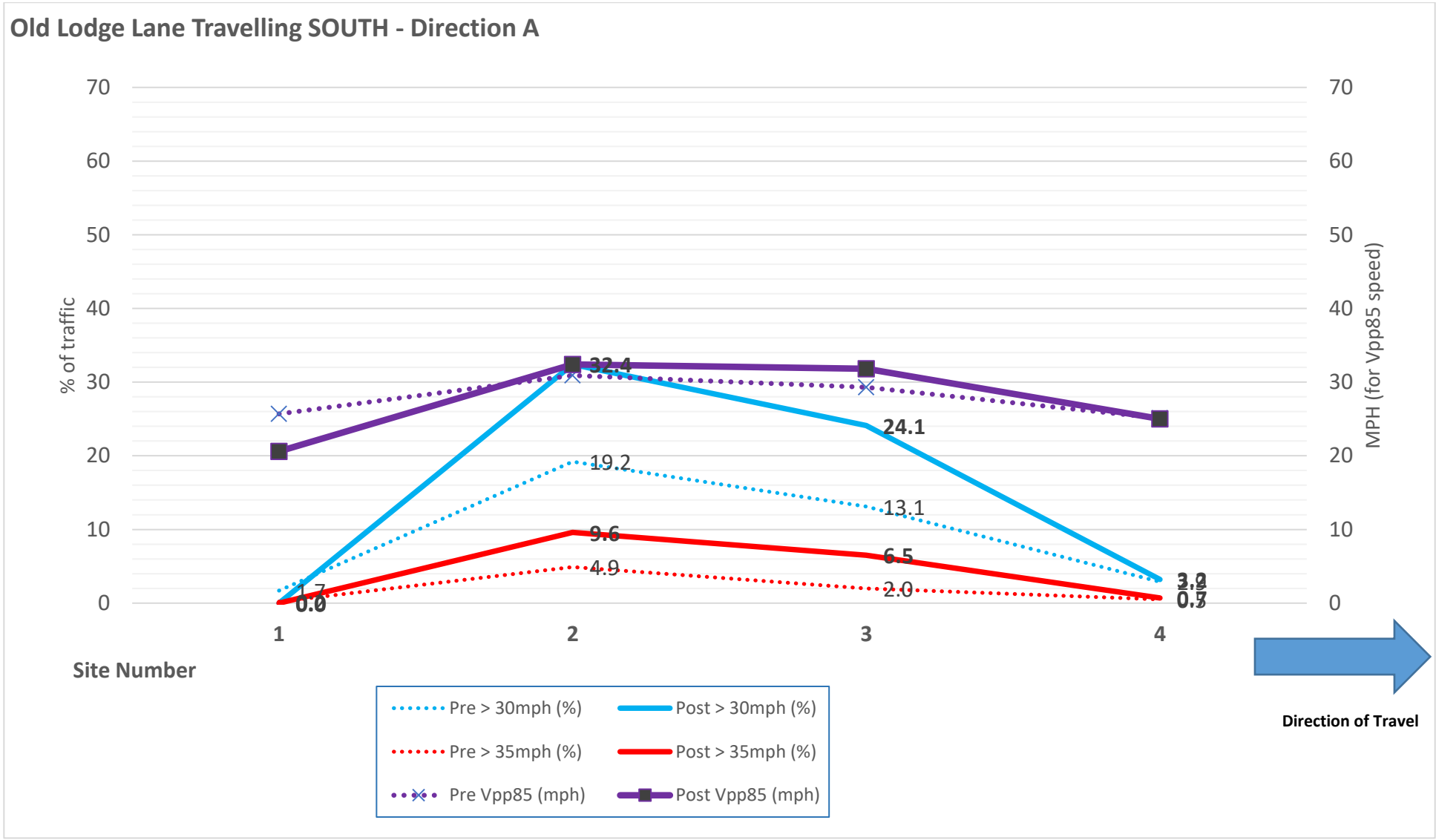
Analysis

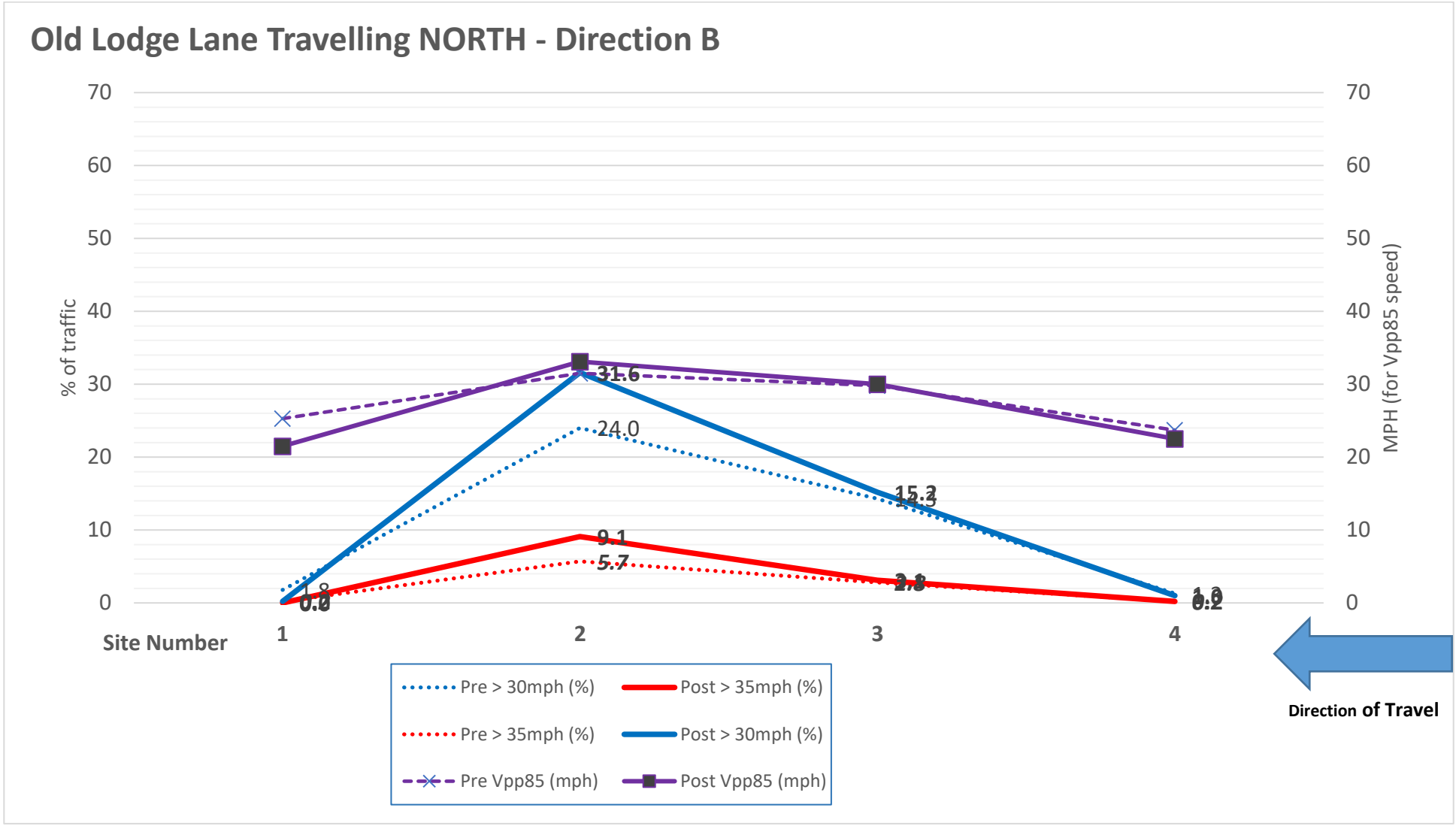
This is also a bus route, with limited passing spaces, which frequently means traffic blockages even at quiet times of day: this situation applied during both measuring periods.

The charts indicate that northbound traffic (towards Purley) has reduced in speed.

The situation for southbound traffic is more complicated - at the Purley end the southbound traffic indicates no reduction in traffic speeds. The Kenley end does show a reduction in speeds between Nov 2017 and Nov 2018.

Through-Route (5) Old Lodge Lane




Old Lodge Lane Travelling NORTH - Direction B
70
60
50
40
30
20
10
0
% of traffic
MPH (for Vpp85 speed)
31.6
24.0
15.3
9.1
5.7
1.8
0.0
Site Number
1
2
3
4
Pre > 30mph (%)
Post > 35mph (%)
Pre > 35mph (%)
Post > 30mph (%)
Pre Vpp85 (mph)
Post Vpp85 (mph)
Direction of Travel

Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	270m west (downhill) from the Wattenden Arms pub	429	446
2	160m southeast (uphill) from the bus turning space (Adjacent to the school playing field)	404	443
3	Middle of section between junctions with Colescroft Hill and with Lodge Hill	1015	1052
4	30m north of junction with Bencombe Road (Speed bumps in this area)	1901	2171

Analysis

The chart indicates a complex situation and the speeding needs to be assessed for each site:

Site 1 - ¼ km down from the Wattenden Arms

- The large majority of vehicles are below 30mph. With the advent of 20mph zones the vehicles have slowed a little.

Site 2 - Just up from the bus turning point

- The charts indicate that speeds have increased at this point for both directions since the 20mph zone was implemented.
- This site is adjacent to a school (without a school 20mph zone). Any traffic speed increases adjacent to a school are a concern.

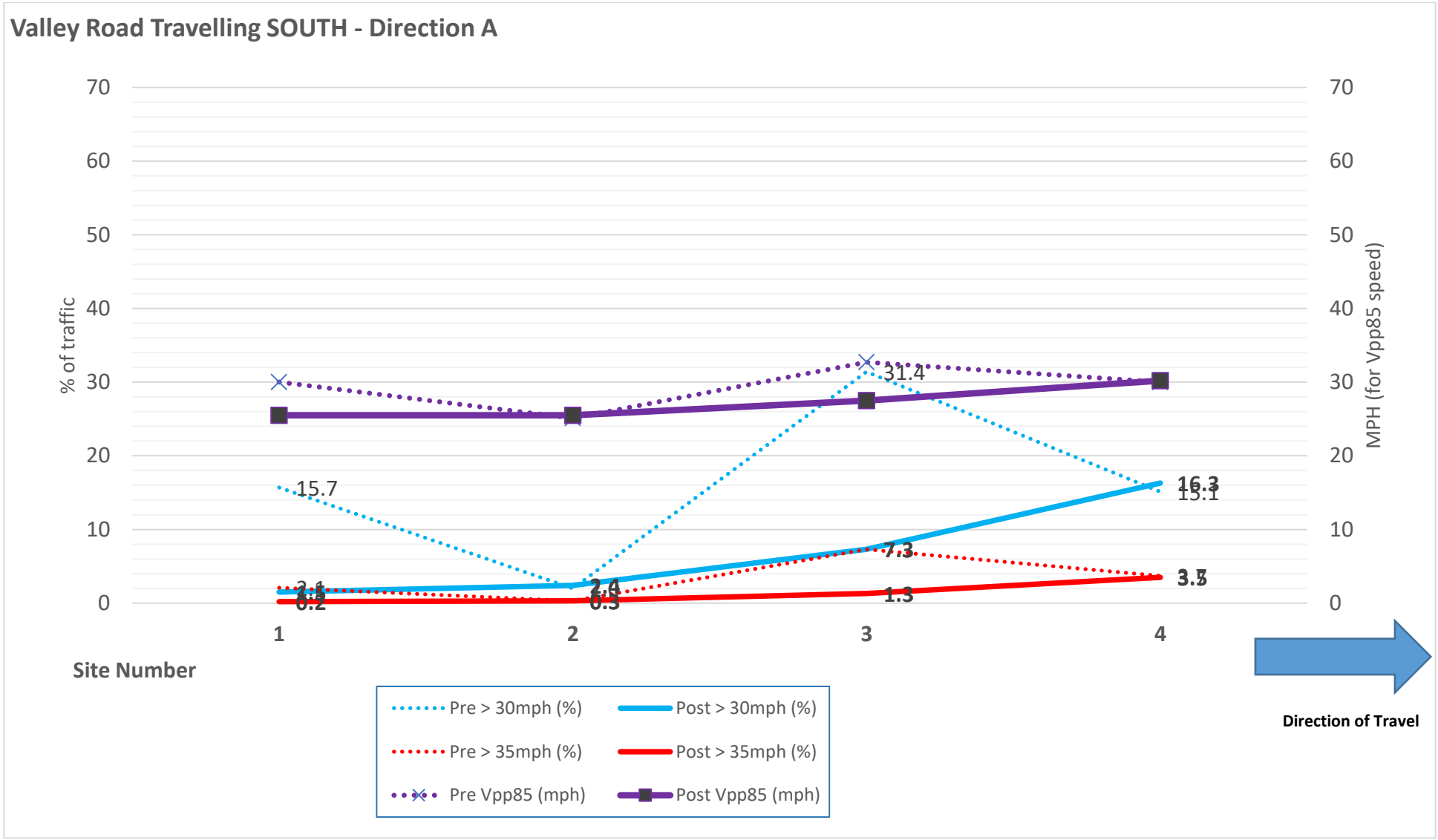
Site 3 - Section near Lodge Hill

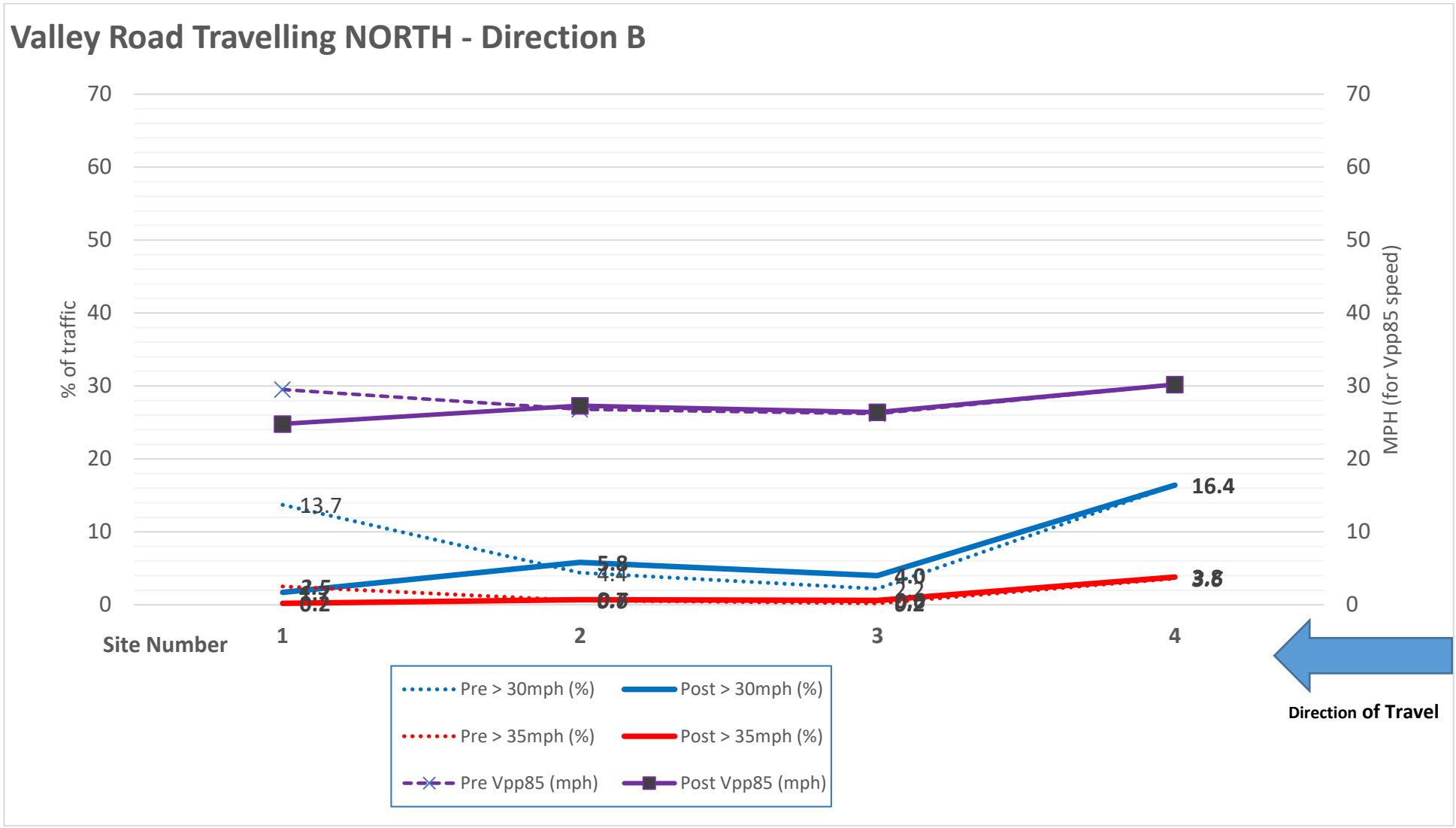
- The charts indicate that the uphill traffic is slightly slower, and there is no change to the downhill traffic.

Site 4 - Near Bencombe Road and has Speed bumps

- The charts indicate that traffic was and continues to be below 30mph. Vpp85 indicates that there is no material change in traffic speeds between Nov 2017 and Nov 2018.

Through-Route (6) Valley Road and Beverley Road




Valley Road Travelling NORTH - Direction B
70
60
50
40
30
20
10
0
% of traffic
MPH (for Vpp85 speed)
13.7
16.4
5.8
4.4
4.0
3.8
2.5
0.2
0.7
0.2
Site Number
1
2
3
4
Pre > 30mph (%)
Post > 30mph (%)
Pre > 35mph (%)
Post > 35mph (%)
Pre Vpp85 (mph)
Post Vpp85 (mph)
Direction of Travel

Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	Valley Road - Between junctions with Wordsworth Avenue and with Denefield Drive	1061	1050
2	Valley Road - 45m southeast (away from Kenley) from junction with Hawkhirst Road (just outside of the speed bump area)	889	810
3	Valley Road - 140m northwest (downhill towards Kenley) from junction with New Barn Lane. Adjacent to school	844	767
4	Beverley Road - Near to junction with Hillcrest Road	682	635

Analysis

The chart indicates a complex situation and each site needs to be assessed. This is also a bus route, with limited passing spaces, which frequently means traffic blockages even at quiet times of day: this situation applied during both measuring periods.

Site 1 – near Denefield Drive

- This indicates vehicle speed were quite low before the 20mph zone and are now even lower.

Site 2 – near Hawkhirst Road

- This indicates no material change to traffic speeds.

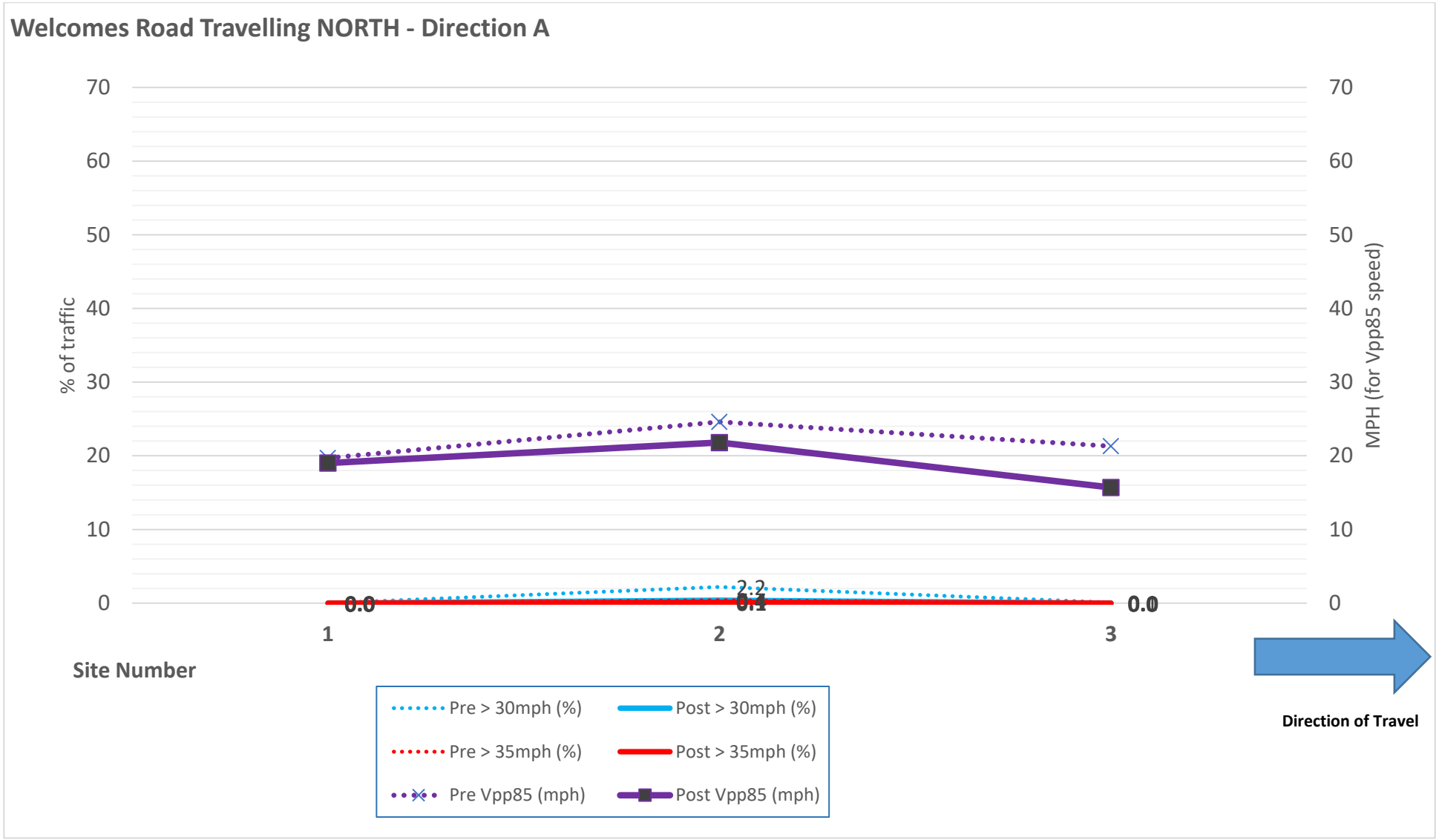
Site 3 – near New Barn Lane

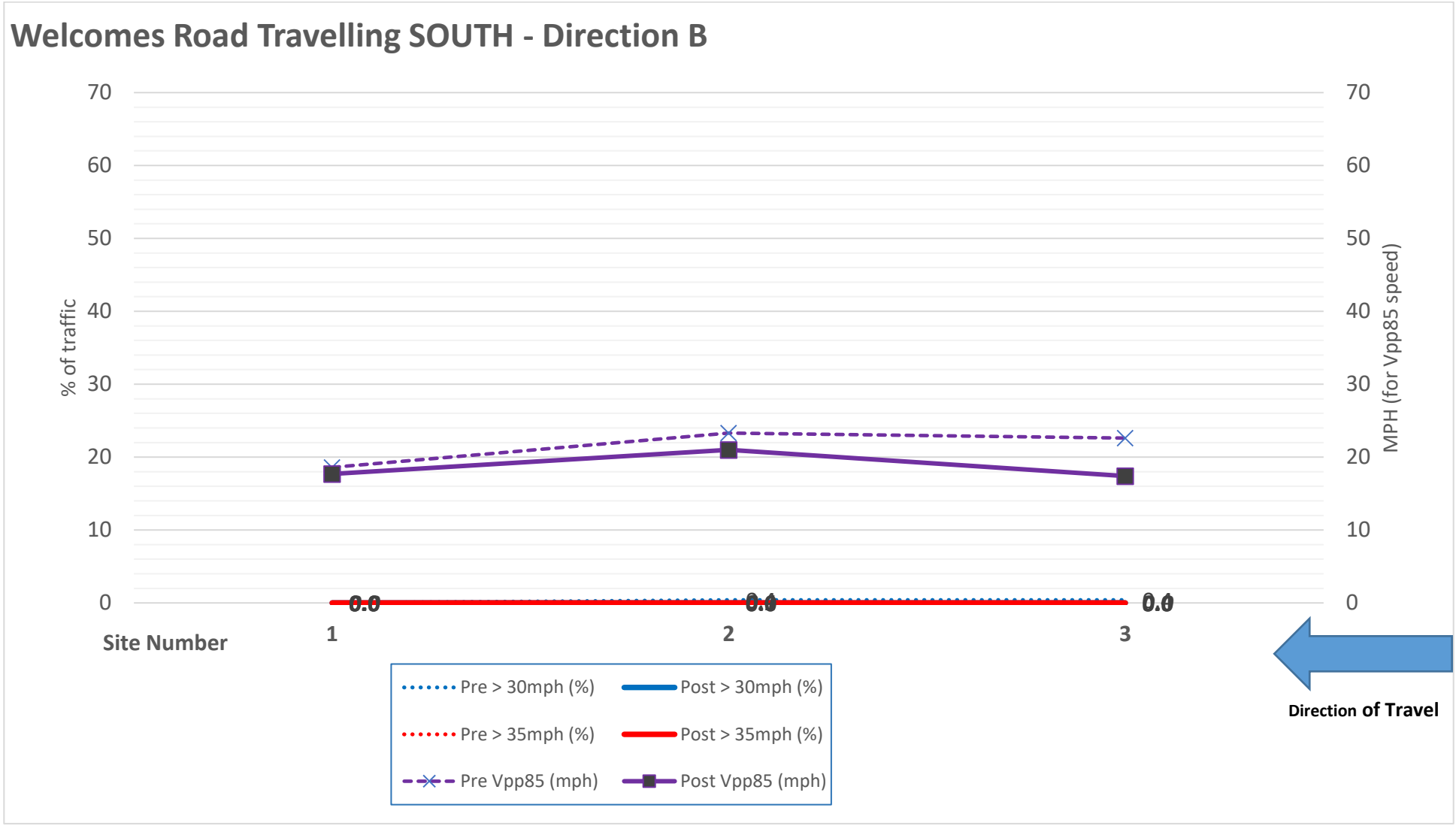
- This indicates that there is no significant change to traffic speeds.
- This site is adjacent to a school (without a 20mph school zone).

Site 4 – Beverley Road

- There are no changes to traffic speeds.

Through-Route (7) Welcomes Road




Welcomes Road Travelling SOUTH - Direction B
70
60
50
40
30
20
10
0
% of traffic
MPH (for Vpp85 speed)
0.0
0.0
0.0
Site Number
1
2
3
Pre > 30mph (%)
Post > 30mph (%)
Pre > 35mph (%)
Post > 35mph (%)
Pre Vpp85 (mph)
Post Vpp85 (mph)
Direction of Travel

Key to Sites		Typical daily traffic volume - Direction A	Typical daily traffic volume - Direction B
1	233m northeast (downhill) from junction with Hayes Lane (20mph in both 2017 and 2108 – Speed bumps)	256	259
2	Near to junction with Zig-Zag Road (20mph in both 2017 and 2108 – Speed bumps)	225	238
3	170m south (uphill) from junction with Kenley Lane (20mph in both 2017 and 2108 – Speed bumps)	298	305

Note

Welcomes Road was already a 20mph road in Nov 2017 and so the implementation of the wider 20mph zone in Kenley would be expected to have minimal impact on this road. This analysis applies the measure of speeding above 30mph so that charts are comparable across Kenley.

Given that Welcomes Road was already a 20mph road "no change" would be deemed an expected result of this analysis.

Analysis

The charts indicate that very little Welcomes Road traffic exceeds 30mph in Nov 2017 or Nov 2018.

Vpp85 indicates that traffic has slowed at sites 2 and 3 between Nov 2017 and Nov 2018. (This may be the result of increased parking creating obstacles or the numbers of "slower" construction vehicles on the road.) Further analysis of the available data might help to understand this change better.