

# CORMAC

## RadarClass

### A3078 Windmill Hill, St Just in Roseland Site 2 October 2023

26/10/2023

Cormac Solutions Ltd | Infrastructure Design



PART OF THE  
CORSERV GROUP  
A CORNWALL  
COUNCIL COMPANY



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Cormac's Framework 2023 - 2032 supported by

**M**

MOTT  
MACDONALD

**M**

&

**wsp**

<b>Issue &amp; Revision Record</b>						
<b>Revision</b>	<b>Date</b>	<b>Originator</b>	<b>Checked</b>	<b>Authorised</b>	<b>Purpose of Issue</b>	<b>Nature of Change</b>
1.0	26/10/2023	DIA	HE	MC	First Issue	

# CORMAC

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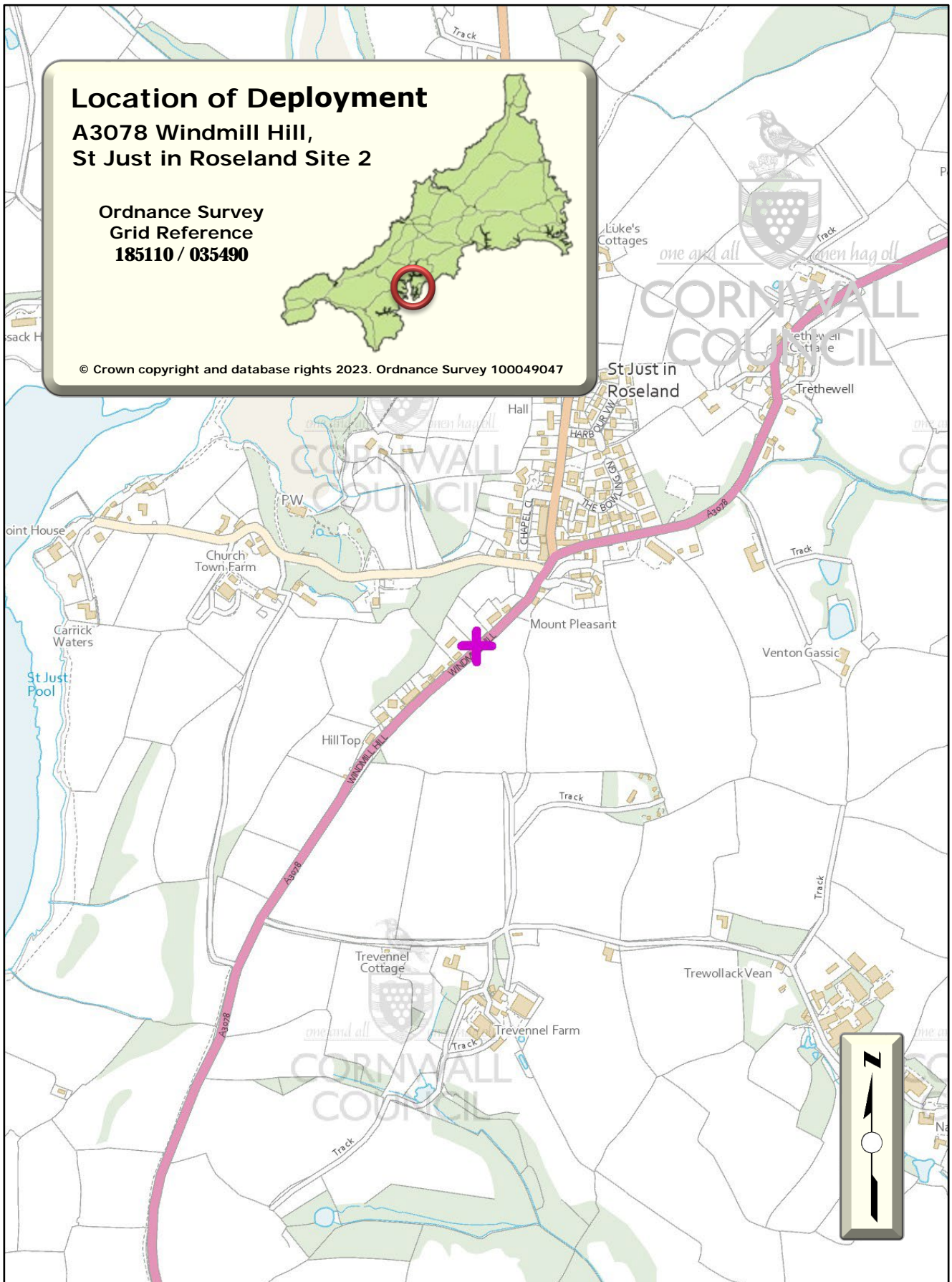
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<b>CORMAC</b>		<b>RadarClass</b>				
		<b>A3078 Windmill Hill, St Just in Roseland Site 2 October 2023 North-eastbound / South-westbound</b>				
Route No	Column No	Neighbourhood Service Area	RadarClass Unit ID	Ordnance Survey Grid Reference		
A3078	Post	West	Unit 7	185110 / 035490		
Date of Deployment		End of Operation		Total Period of Operation		
18/10/2023		25/10/2023		8 days		
<b>Summary Table</b>						
 speed limit	All Observations		Weekdays		Weekends	
	North-eastbound	South-westbound	North-eastbound	South-westbound	North-eastbound	South-westbound
<b>Number of Observations:</b>	7,239	7,656	5,449	5,749	1,790	1,907
<b>Mean Speed (mph):</b>	30.8	30.5	30.7	30.5	30.8	30.8
<b>85%ile Speed (mph):</b>	36	36	36	36	36	36
<b>Standard Deviation:</b>	5.3	5.7	5.3	5.6	5.3	5.8
<b>% ≤  :</b>	50.0%	50.3%	49.1%	51.1%	52.9%	47.8%
<b>% 31 mph to 40 mph:</b>	46.1%	45.8%	47.4%	45.1%	42.2%	47.7%
<b>% &gt;40 mph:</b>	3.9%	4.0%	3.6%	3.8%	4.9%	4.5%
<b>Comments:</b>						
<b>Data Submitted by:</b>			Ken Dunn	<b>Data Processed by:</b>		David Alway

# 1 Location Map



## 2 Glossary of Terms & Abbreviations


- 2.1.1 RadarClass is a portable radar device that detects and records the speed of passing vehicles. The unit is housed in an unobtrusive rugged black anti-vandal housing which can be mounted on any item of roadside furniture without looking conspicuous.
- 2.1.2 The principal role of the unit is to detect, and count passing vehicles and log the date, time and speed at which they passed. Data collected can be used to determine the volume of traffic flow on the road on which the unit has been deployed.



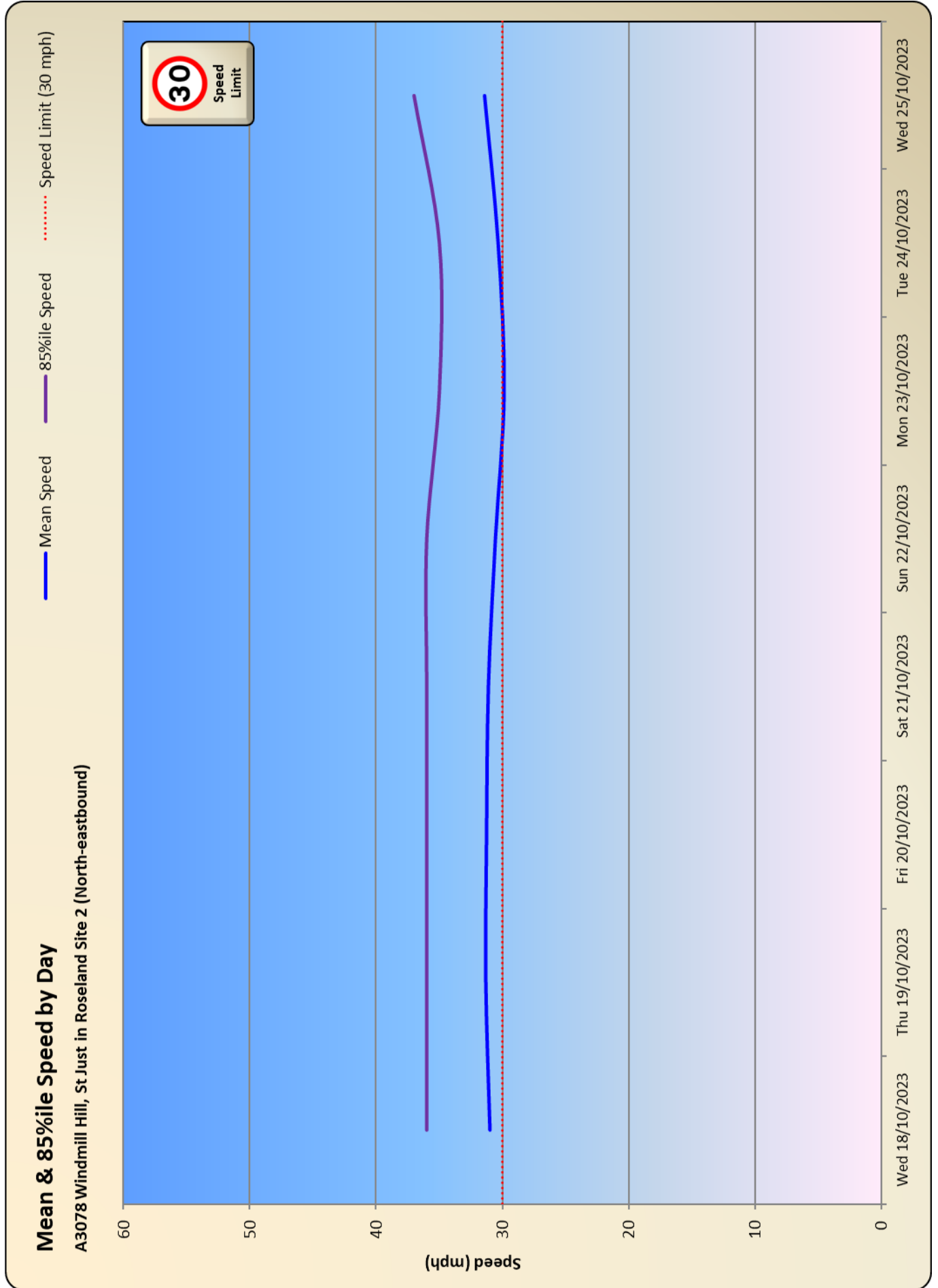
- No of Observations:** The number of readings recorded by the radar. This does not correspond to an exact count of vehicles passing the sign, since vehicles may pass the sign in a tightly packed group (or 'platoon'); the radar will only record data for the 'lead vehicle' that is determining the speed for the remainder of the platoon.
- Mean Speed:** The arithmetic average of all the speed values recorded.
- 85%ile Speed:** The speed at or below which 85% of the vehicles recorded were travelling.
- Standard Deviation:** A measure of how widely speeds are dispersed from the Mean Speed.
- % ≤ 30 :** The percentage of vehicles travelling at speeds of 30 mph or below (i.e. the percentage of vehicles travelling at or within the 30 mph speed limit).
- % 31 mph to 40 mph:** The percentage of vehicles travelling at speeds of between 31 mph and 40mph.
- % >40 mph:** The percentage of vehicles travelling at speeds greater than 40 mph (i.e. the percentage of vehicles travelling at speeds in excess of 10mph above the 30 mph speed limit).

# 3 North-eastbound Detailed Statistics

## 3.1 North-eastbound Daily Summary Table

Date	Mean Speed	85%ile Speed	Standard Deviation	$N_e \leq$ 	% 31 mph to 40 mph	% >40 mph
<b>Wed 18/10/2023</b>	31.0	36	6.2	43.6%	52.3%	4.0%
<b>Thu 19/10/2023</b>	31.3	36	5.0	45.0%	50.5%	4.5%
<b>Fri 20/10/2023</b>	31.3	36	5.1	45.0%	50.8%	4.2%
<b>Sat 21/10/2023</b>	31.1	36	5.1	50.4%	44.6%	5.0%
<b>Sun 22/10/2023</b>	30.5	36	5.4	55.4%	39.8%	4.8%
<b>Mon 23/10/2023</b>	29.8	35	5.4	55.5%	42.1%	2.4%
<b>Tue 24/10/2023</b>	30.3	35	4.8	53.3%	44.2%	2.5%
<b>Wed 25/10/2023</b>	31.4	37	5.5	47.7%	45.9%	6.4%

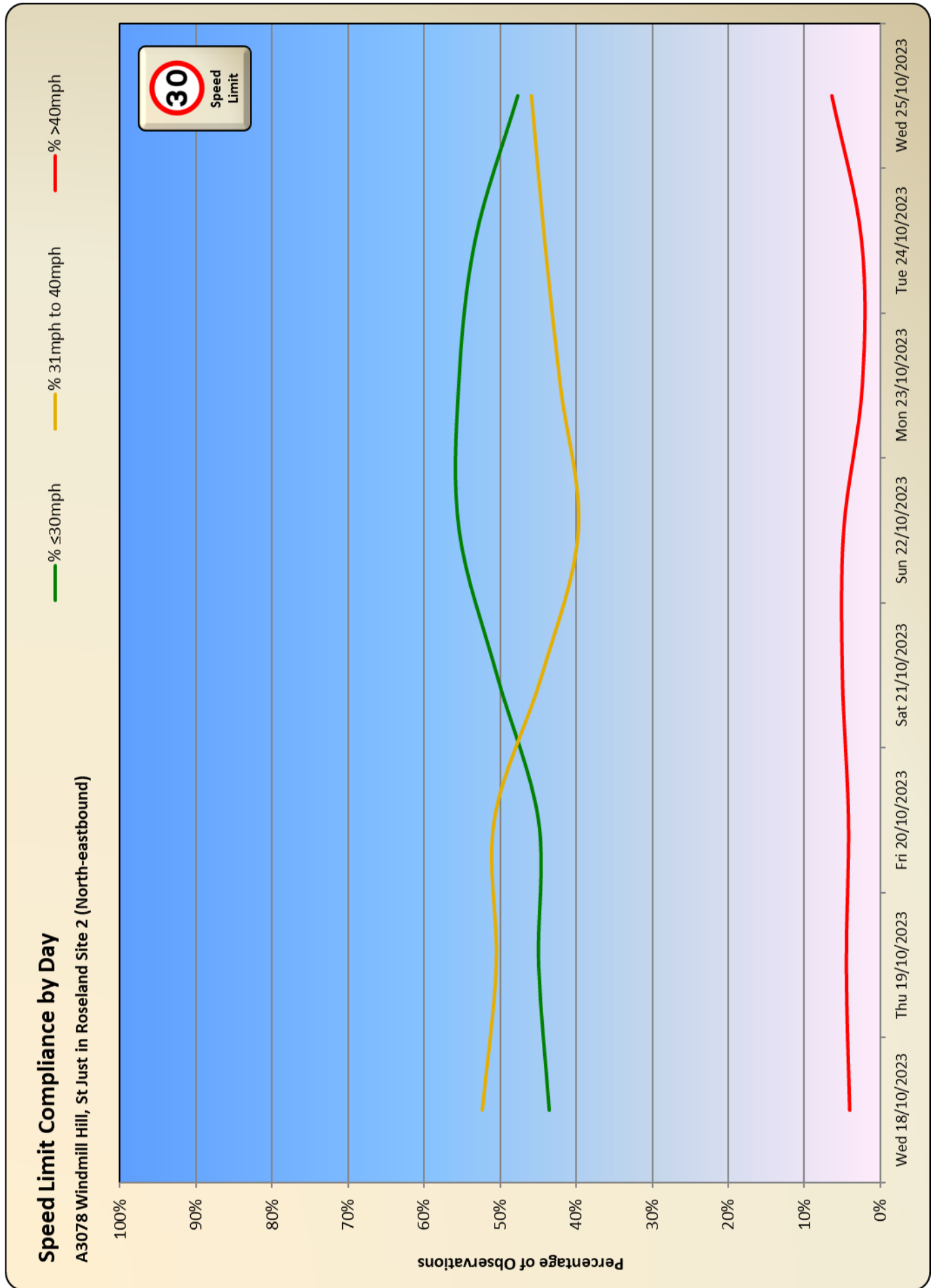
### 3.2 North-eastbound Mean Speed & 85%ile Speeds by Day Chart





3.3

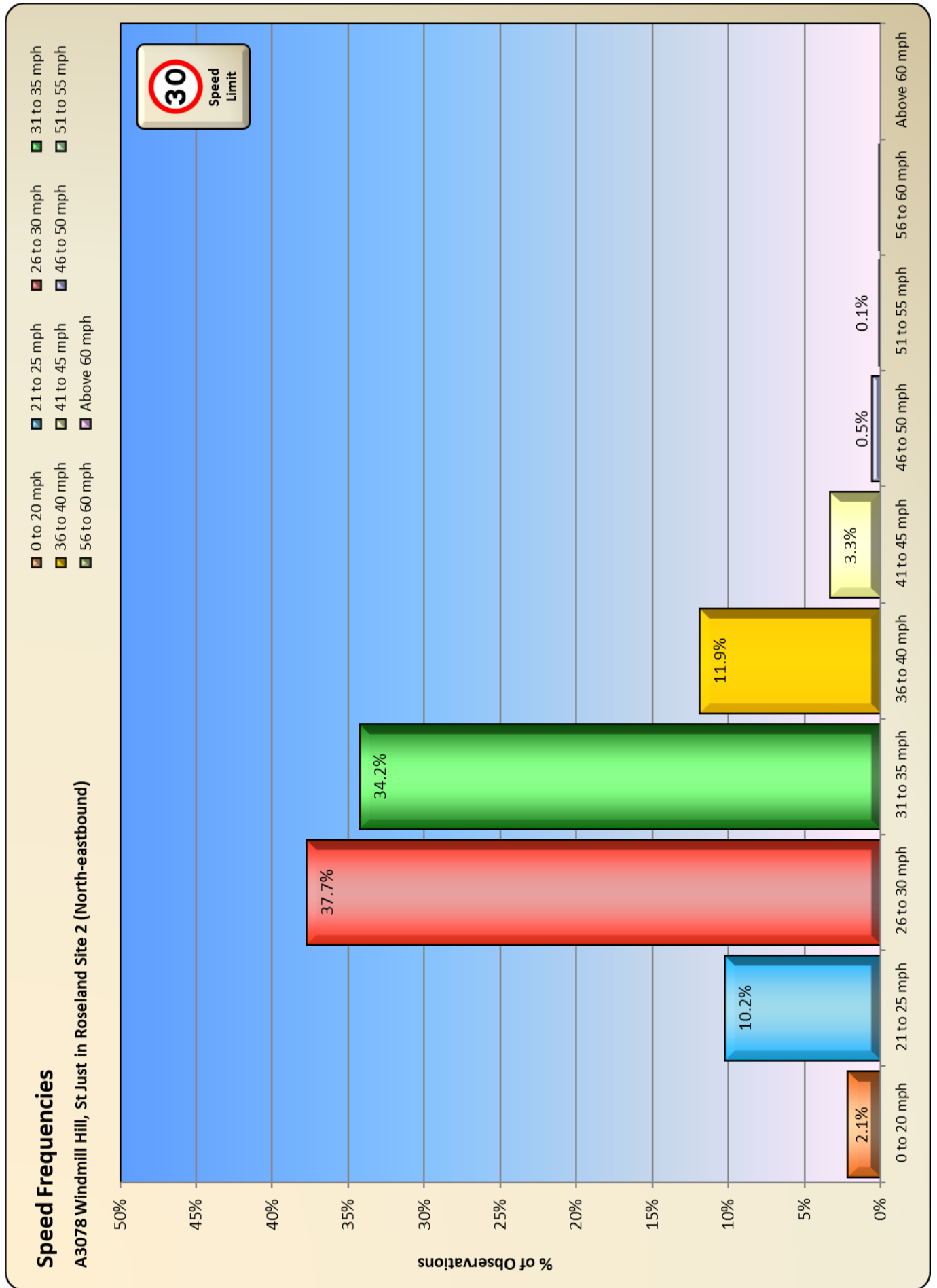
North-eastbound Speed Limit Compliance by Day Chart




### 3.4 North-eastbound Speed Frequencies by Day Table

Date	No ≤ 30			No > 30							Total
	0 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	Above 60	
Wed 18/10/2023	19	61	200	244	92	22	3	1	0	0	642
Thu 19/10/2023	14	105	372	402	149	40	8	1	0	0	1,091
Fri 20/10/2023	26	92	375	393	163	41	4	0	1	0	1,095
Sat 21/10/2023	10	79	365	289	112	37	7	1	0	0	900
Sun 22/10/2023	20	97	376	261	93	35	6	2	0	0	890
Mon 23/10/2023	41	153	451	386	104	24	4	0	0	0	1,163
Tue 24/10/2023	18	134	508	434	113	26	4	0	1	0	1,238
Wed 25/10/2023	5	19	81	67	34	12	2	0	0	0	220
<b>Total</b>	<b>153</b>	<b>740</b>	<b>2,728</b>	<b>2,476</b>	<b>860</b>	<b>237</b>	<b>38</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>7,239</b>
<b>% of Total</b>	<b>2.1%</b>	<b>10.2%</b>	<b>37.7%</b>	<b>34.2%</b>	<b>11.9%</b>	<b>3.3%</b>	<b>0.5%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>

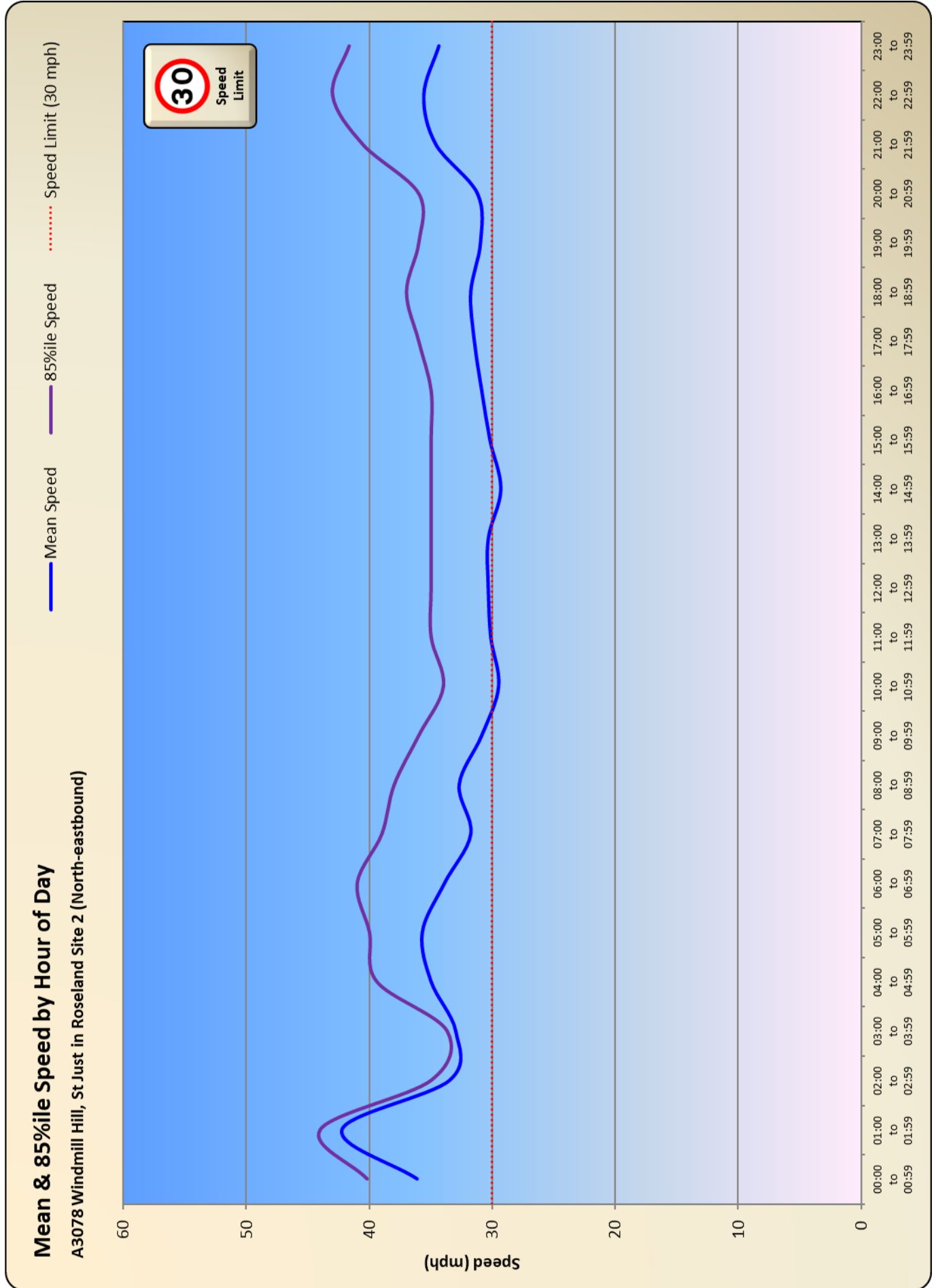
### 3.5 North-eastbound Speed Frequencies Chart



### 3.6 North-eastbound Hour of Day Summary Table

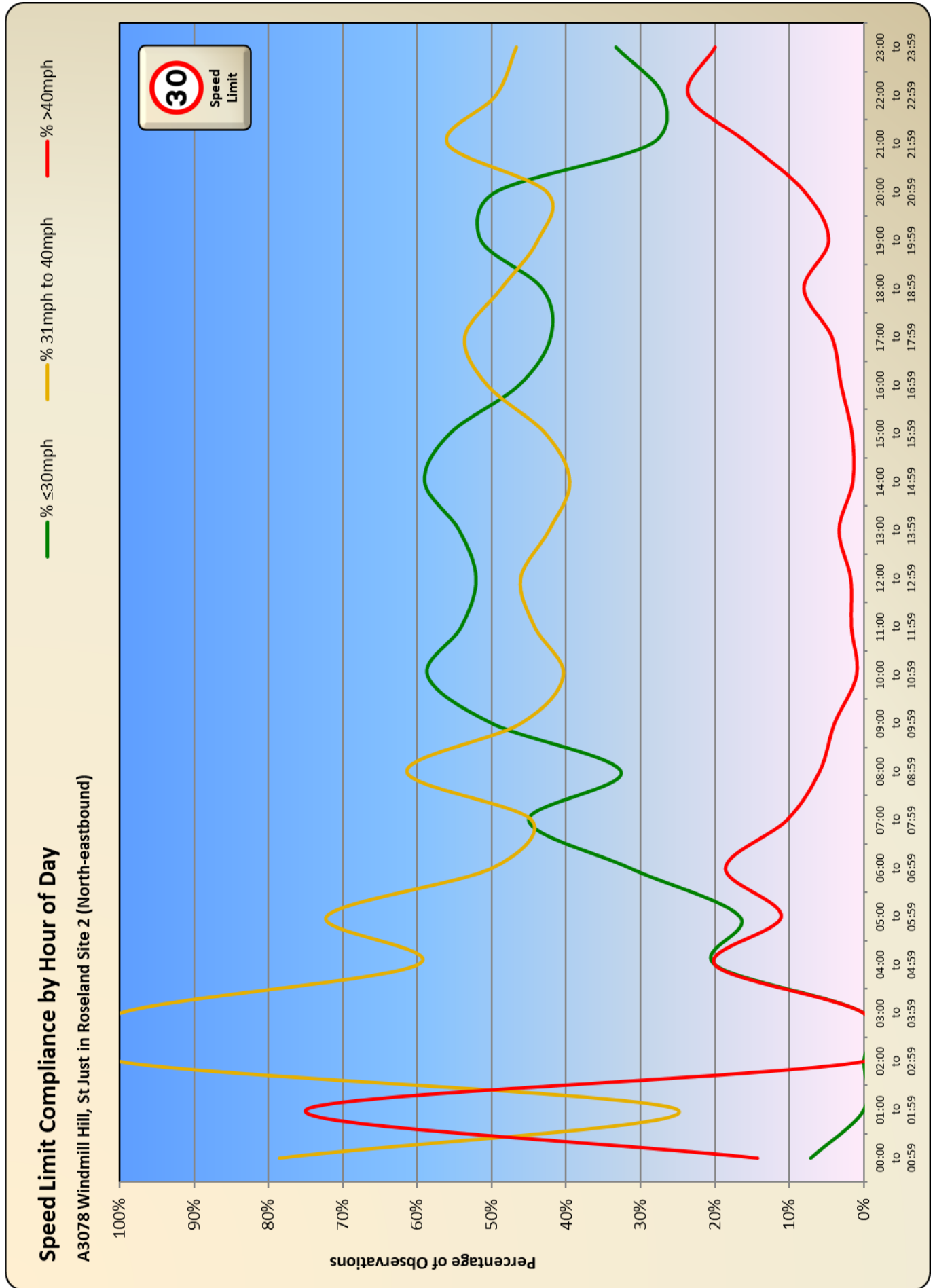
Hour of Day	Mean Speed	85%ile Speed	Standard Deviation	No $\leq$ 	% 31 mph to 40 mph	% >40 mph
00:00 to 00:59	36.1	40	5.0	7.1%	78.6%	14.3%
01:00 to 01:59	42.3	44	2.9	0.0%	25.0%	75.0%
02:00 to 02:59	33.5	35	1.9	0.0%	100.0%	0.0%
03:00 to 03:59	33.0	34	1.4	0.0%	100.0%	0.0%
04:00 to 04:59	35.0	39	6.0	20.0%	60.0%	20.0%
05:00 to 05:59	35.7	40	5.8	16.7%	72.2%	11.1%
06:00 to 06:59	33.9	41	6.6	31.4%	50.0%	18.6%
07:00 to 07:59	31.8	39	7.0	45.0%	44.6%	10.3%
08:00 to 08:59	32.7	38	4.9	32.6%	61.4%	6.0%
09:00 to 09:59	30.9	36	4.8	50.0%	46.1%	3.9%
10:00 to 10:59	29.5	34	5.3	58.7%	40.4%	1.0%
11:00 to 11:59	30.2	35	4.5	54.1%	44.2%	1.7%
12:00 to 12:59	30.4	35	4.8	52.1%	46.1%	1.8%
13:00 to 13:59	30.4	35	5.0	54.4%	42.3%	3.3%
14:00 to 14:59	29.3	35	5.7	59.0%	39.5%	1.5%
15:00 to 15:59	30.2	35	4.3	55.7%	42.8%	1.6%
16:00 to 16:59	30.9	35	4.7	46.4%	50.6%	3.1%
17:00 to 17:59	31.5	36	5.1	42.1%	53.6%	4.3%
18:00 to 18:59	31.8	37	6.0	43.2%	48.7%	8.1%
19:00 to 19:59	31.0	36	5.7	51.5%	43.8%	4.7%
20:00 to 20:59	31.2	36	5.5	49.5%	42.6%	7.9%
21:00 to 21:59	34.6	41	5.8	28.6%	56.0%	15.5%
22:00 to 22:59	35.6	43	6.4	27.0%	49.4%	23.6%
23:00 to 23:59	34.4	42	5.8	33.3%	46.7%	20.0%

### 3.7 North-eastbound Mean Speed & 85%ile Speed by Hour of Day Chart




3.8

North-eastbound Speed Limit Compliance by Hour of Day Chart



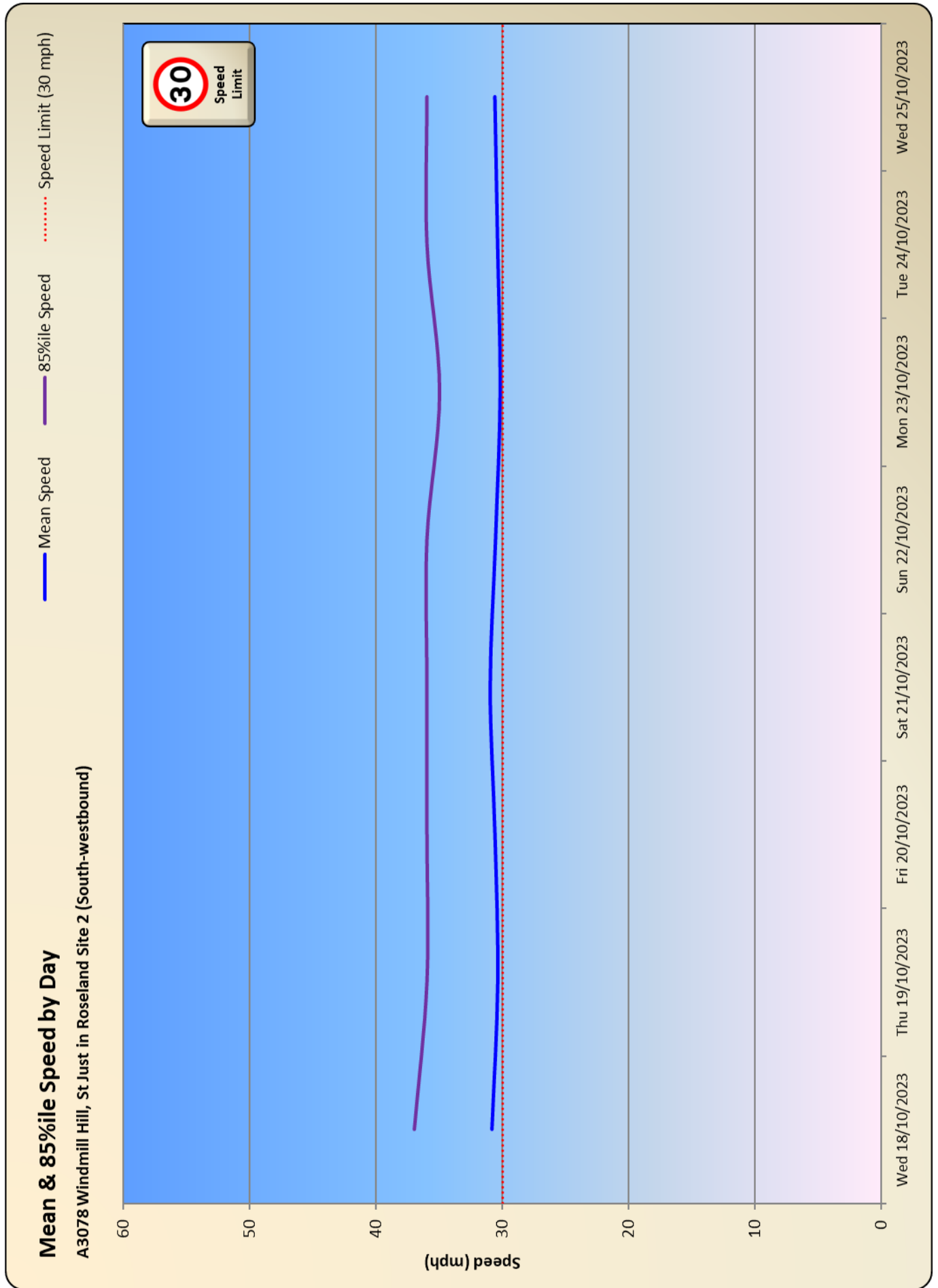
# 4 South-westbound Detailed Statistics

## 4.1 South-westbound Daily Summary Table

Date	Mean Speed	85%ile Speed	Standard Deviation	$N_e \leq$ 	% 31 mph to 40 mph	% >40 mph
<b>Wed 18/10/2023</b>	30.8	37	5.5	50.7%	45.4%	3.9%
<b>Thu 19/10/2023</b>	30.4	36	5.9	52.5%	42.8%	4.7%
<b>Fri 20/10/2023</b>	30.6	36	5.6	47.9%	49.0%	3.1%
<b>Sat 21/10/2023</b>	31.0	36	5.7	45.9%	49.5%	4.6%
<b>Sun 22/10/2023</b>	30.6	36	5.9	49.8%	45.7%	4.5%
<b>Mon 23/10/2023</b>	30.2	35	5.9	50.7%	45.2%	4.1%
<b>Tue 24/10/2023</b>	30.4	36	5.2	53.6%	42.9%	3.4%

4.2

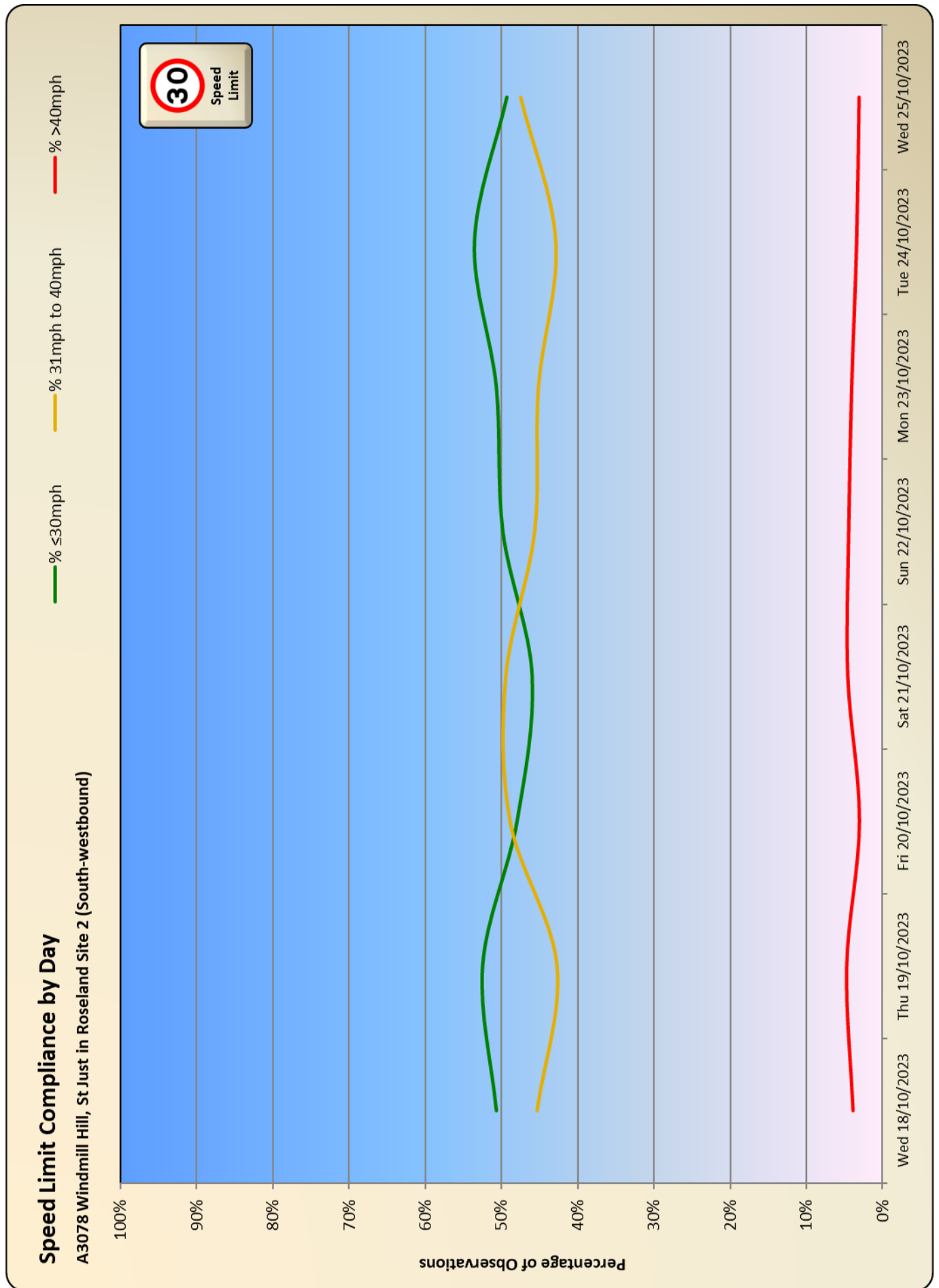
South-westbound Mean Speed & 85%ile Speed by Day Chart





4.3

South-westbound Speed Limit Compliance by Day Chart

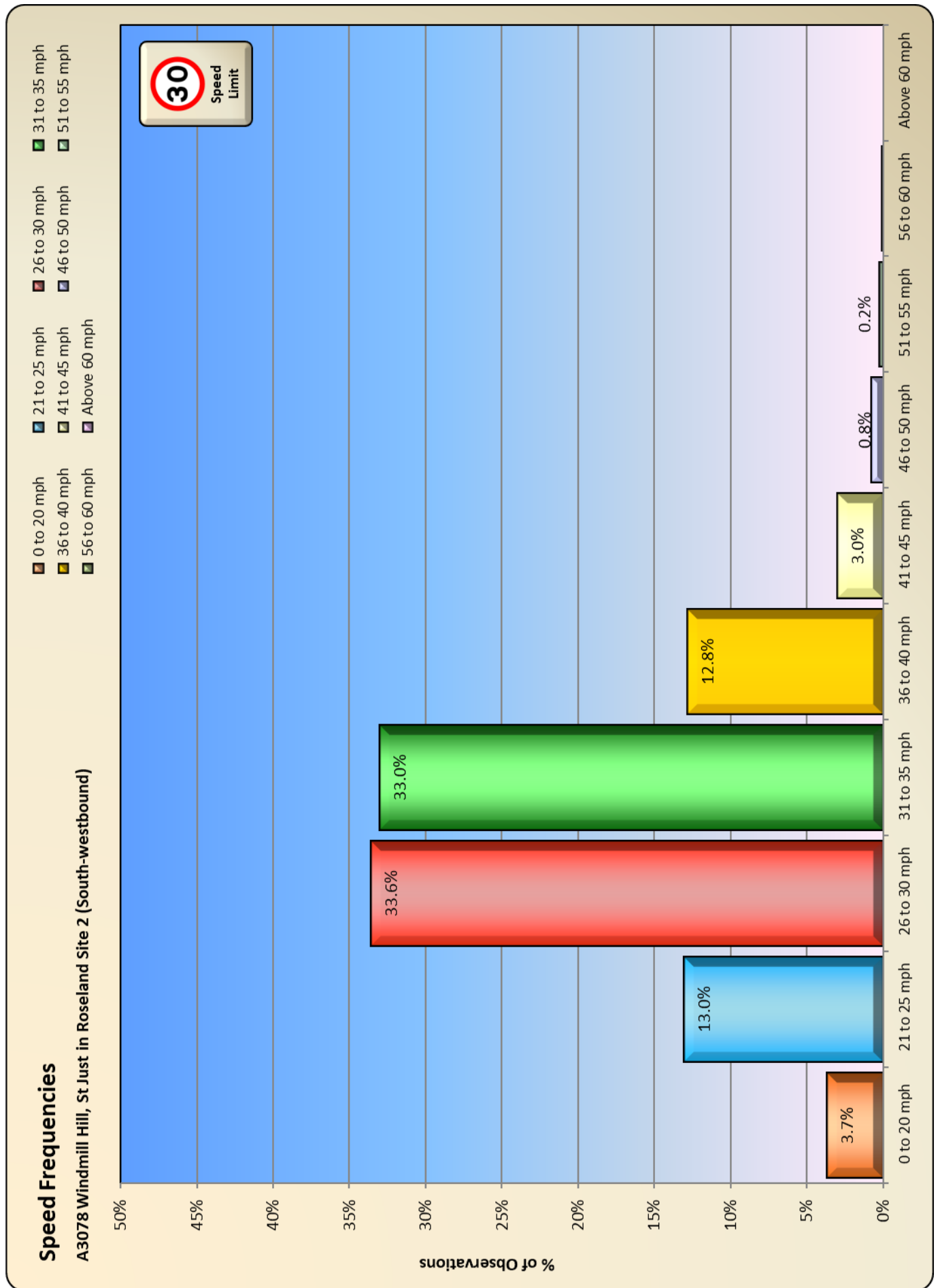


#### 4.4 South-westbound Speed Frequencies by Day Table


Date	No ≤ 30			No > 30							Total
	0 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	Above 60	
Wed 18/10/2023	20	70	235	197	94	18	6	1	0	0	641
Thu 19/10/2023	55	150	399	360	132	40	12	2	0	0	1,150
Fri 20/10/2023	44	175	353	404	180	32	5	0	0	0	1,193
Sat 21/10/2023	21	144	288	341	147	29	11	4	1	0	986
Sun 22/10/2023	35	95	329	311	110	32	6	3	0	0	921
Mon 23/10/2023	58	175	377	415	129	38	8	3	0	0	1,203
Tue 24/10/2023	36	154	494	399	149	31	9	3	1	0	1,276
Wed 25/10/2023	11	34	96	98	38	6	2	0	1	0	286
<b>Total</b>	<b>280</b>	<b>997</b>	<b>2,571</b>	<b>2,525</b>	<b>979</b>	<b>226</b>	<b>59</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>7,656</b>
<b>% of Total</b>	<b>3.7%</b>	<b>13.0%</b>	<b>33.6%</b>	<b>33.0%</b>	<b>12.8%</b>	<b>3.0%</b>	<b>0.8%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>

4.5

South-westbound Speed Frequencies Chart

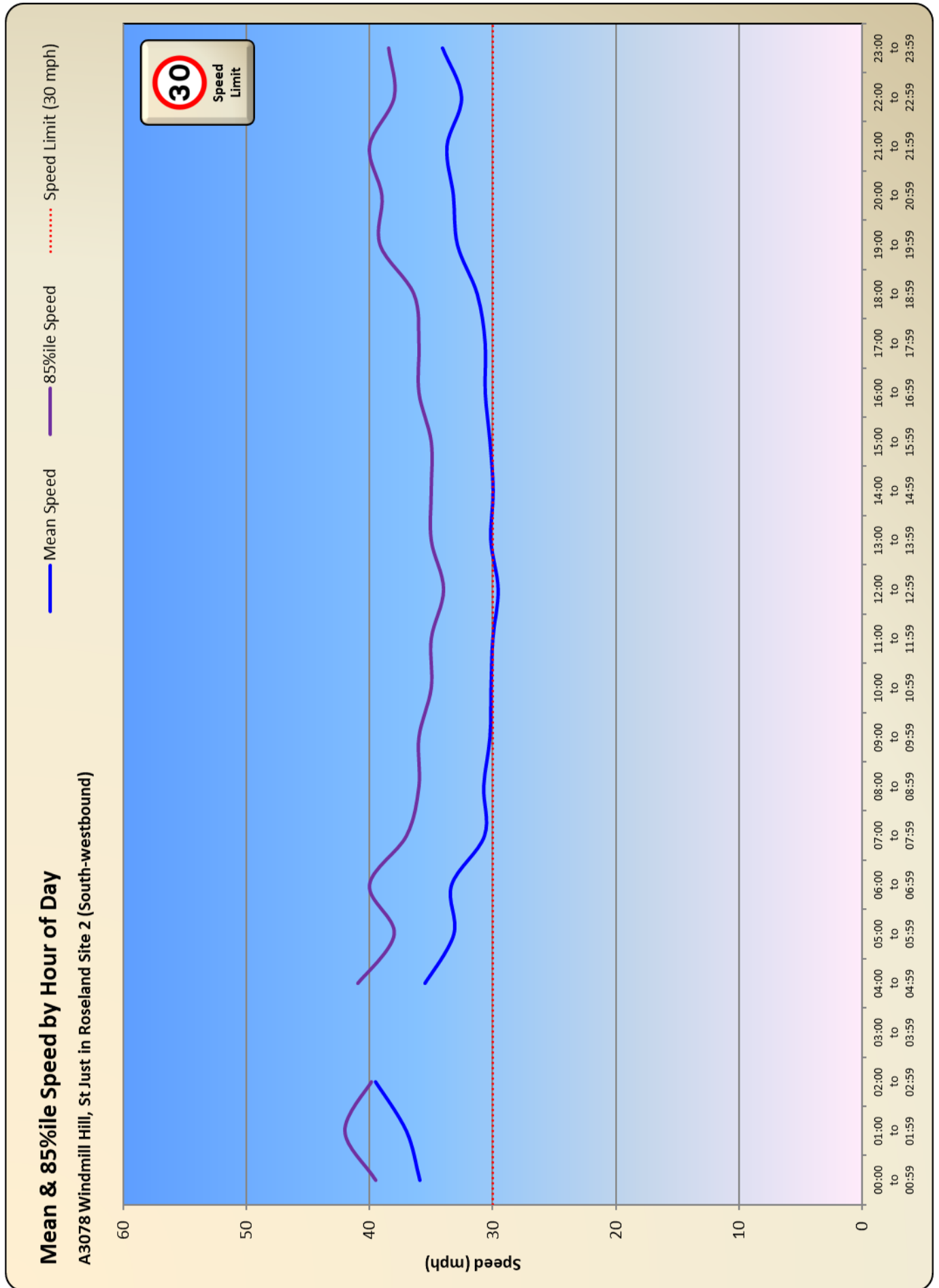


#### 4.6 South-westbound Hour of Day Summary Table

Hour of Day	Mean Speed	85%ile Speed	Standard Deviation	No ≤ 	% 31 mph to 40 mph	% >40 mph
00:00 to 00:59	35.9	40	4.0	0.0%	90.9%	9.1%
01:00 to 01:59	37.0	42	6.3	25.0%	25.0%	50.0%
02:00 to 02:59	39.5	40	0.7	0.0%	100.0%	0.0%
03:00 to 03:59	-	-	-	-	-	-
04:00 to 04:59	35.5	41	7.8	25.0%	50.0%	25.0%
05:00 to 05:59	33.2	38	4.6	32.0%	64.0%	4.0%
06:00 to 06:59	33.3	40	7.3	31.6%	54.4%	13.9%
07:00 to 07:59	30.7	37	6.9	46.7%	46.9%	6.3%
08:00 to 08:59	30.7	36	5.8	51.4%	43.8%	4.9%
09:00 to 09:59	30.2	36	5.6	51.6%	45.2%	3.2%
10:00 to 10:59	30.1	35	5.5	50.5%	47.6%	2.0%
11:00 to 11:59	30.0	35	5.3	52.3%	45.6%	2.1%
12:00 to 12:59	29.6	34	5.0	58.8%	39.7%	1.5%
13:00 to 13:59	30.2	35	4.9	54.1%	43.4%	2.6%
14:00 to 14:59	30.0	35	5.7	54.1%	42.9%	2.9%
15:00 to 15:59	30.2	35	5.0	51.2%	47.0%	1.8%
16:00 to 16:59	30.6	36	5.6	51.2%	45.2%	3.6%
17:00 to 17:59	30.6	36	5.9	50.7%	43.2%	6.1%
18:00 to 18:59	31.3	36	6.3	45.2%	47.5%	7.2%
19:00 to 19:59	32.9	39	6.4	33.0%	55.5%	11.5%
20:00 to 20:59	33.2	39	6.1	28.4%	61.2%	10.3%
21:00 to 21:59	33.7	40	6.7	29.0%	57.0%	14.0%
22:00 to 22:59	32.5	38	5.2	39.2%	56.8%	4.1%
23:00 to 23:59	34.1	38	5.7	23.7%	63.2%	13.2%

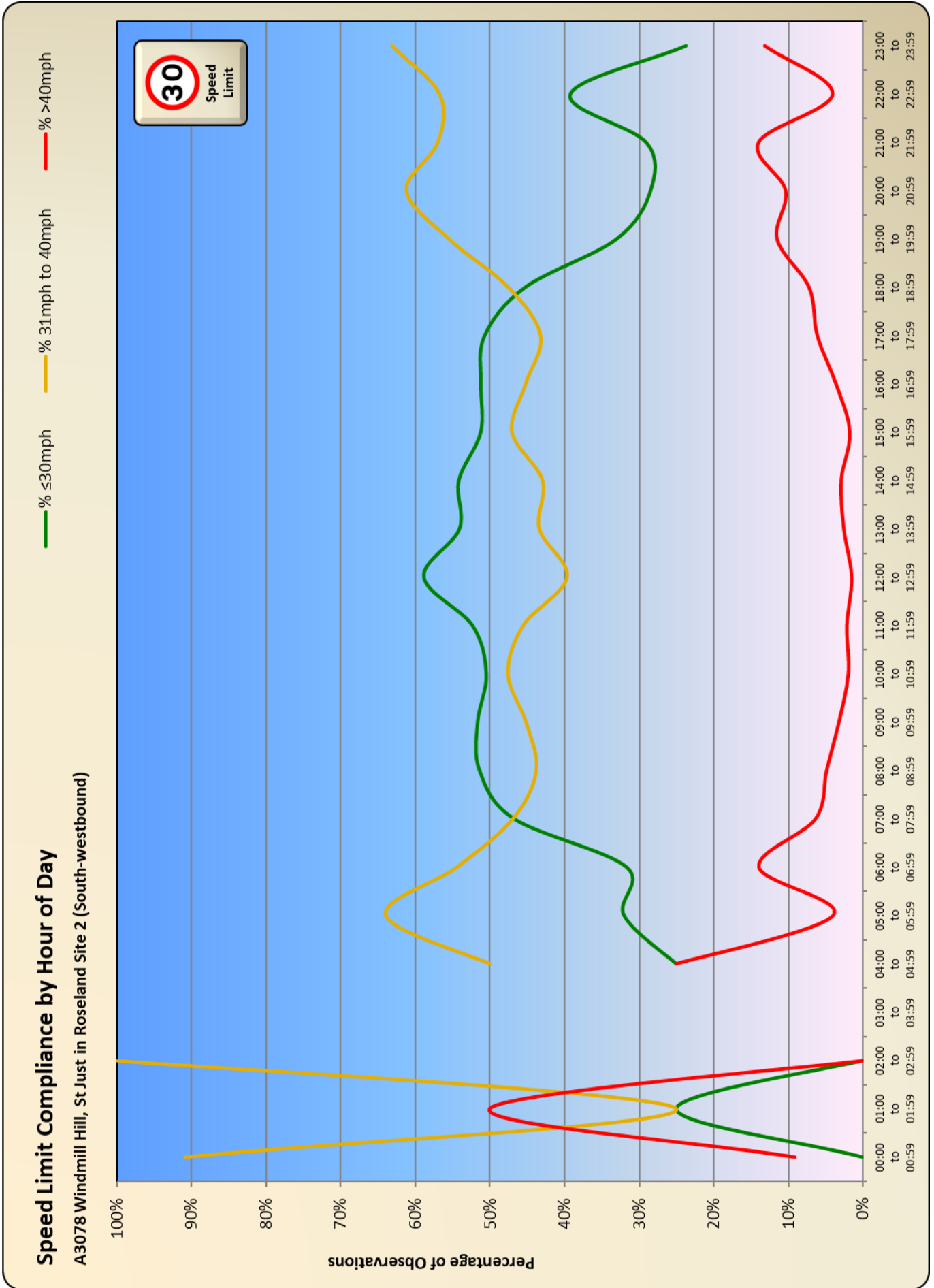
4.7

South-westbound Mean Speed & 85%ile Speed by Hour of Day Chart



4.8

South-westbound Speed Limit Compliance by Hour of Day Chart

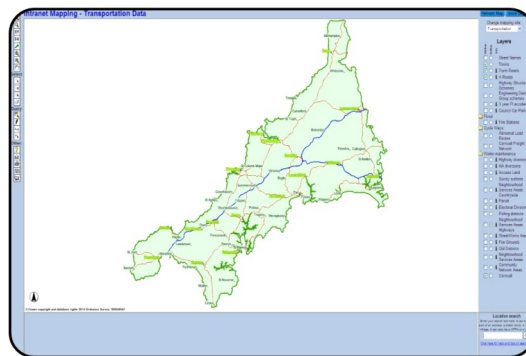


# CORMAC

Produced by  
**Cormac Solutions Ltd**  
**Infrastructure Design**



**Speed Analysis**  
RadarClass is part of the  
**Infrastructure Design**  
Speed Analysis Programme



View the SpeedVISOR & RadarClass layer on Intranet mapping at

<http://cornwallcouncilintranet.cc.cornwallonline.net/default.aspx?page=1480>

(Cormac and Cornwall Council employees only)

View the locations of all SpeedVISOR and RadarClass deployments since 2002 on an interactive map of Cornwall

To request a deployment and/or obtain a quote for  
SpeedVISOR, RadarClass or Hand-held Radar deployment  
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