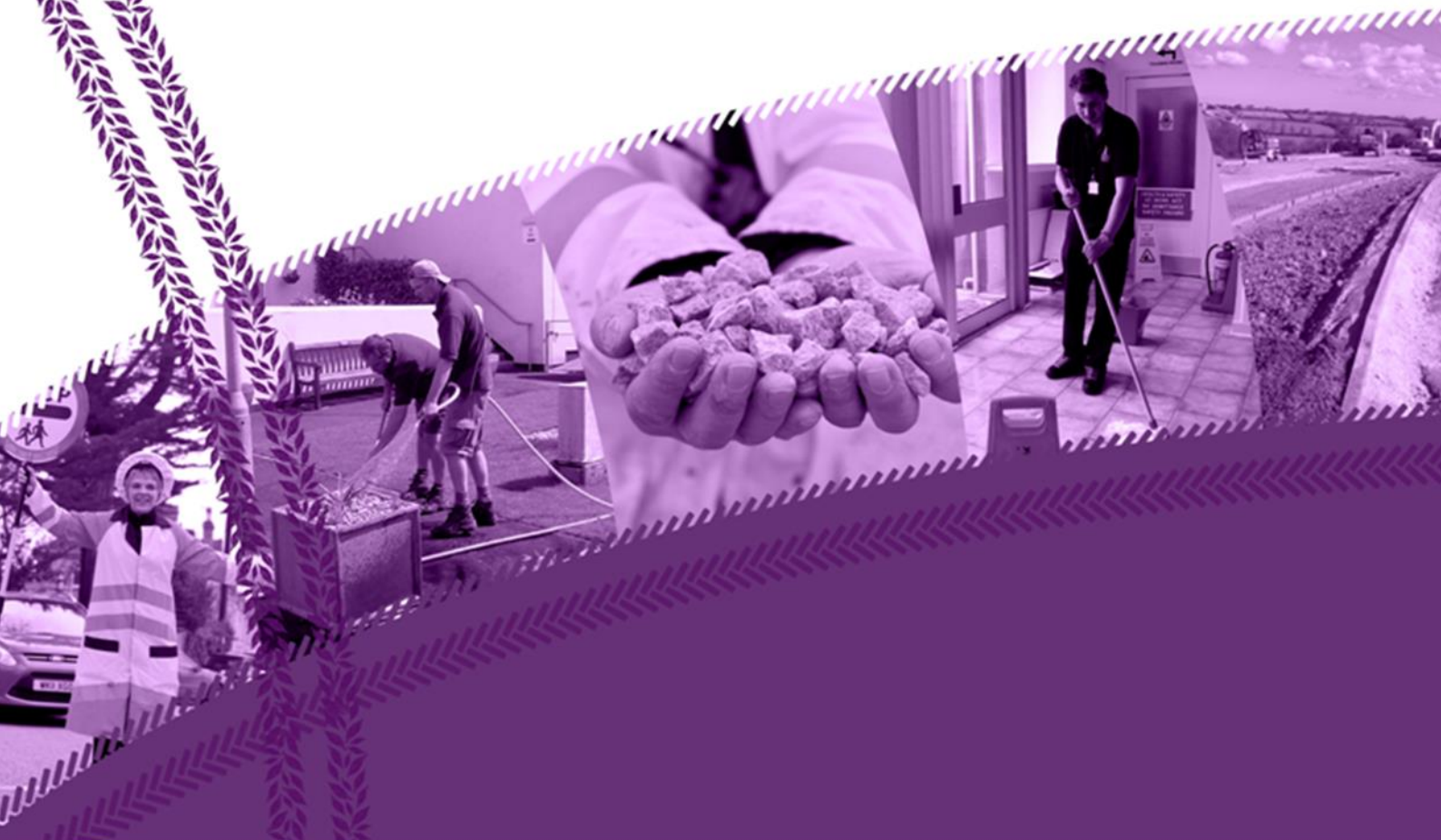


# RadarClass

A390 Fore Street, Grampound Site 1  
January 2016  
Report  
09/02/2016

## **CORMAC Consultancy** **Engineering Design Group**

CORMAC Western Region,  
Radnor Road, Scorrier, Redruth, Cornwall, TR16 5EH.



# RadarClass



**A390 Fore Street, Grampound Site 1  
January 2016**

**South-eastbound / North-westbound**

Route N <sup>o</sup>	Column N <sup>o</sup>	Neighbourhood Service Area	RadarClass Unit ID	Ordnance Survey Grid Reference
A390	A026	West	Unit 4	193225 / 048467

Date of Deployment	End of Operation	Total Period of Operation
27/01/2016	03/02/2016	8 days

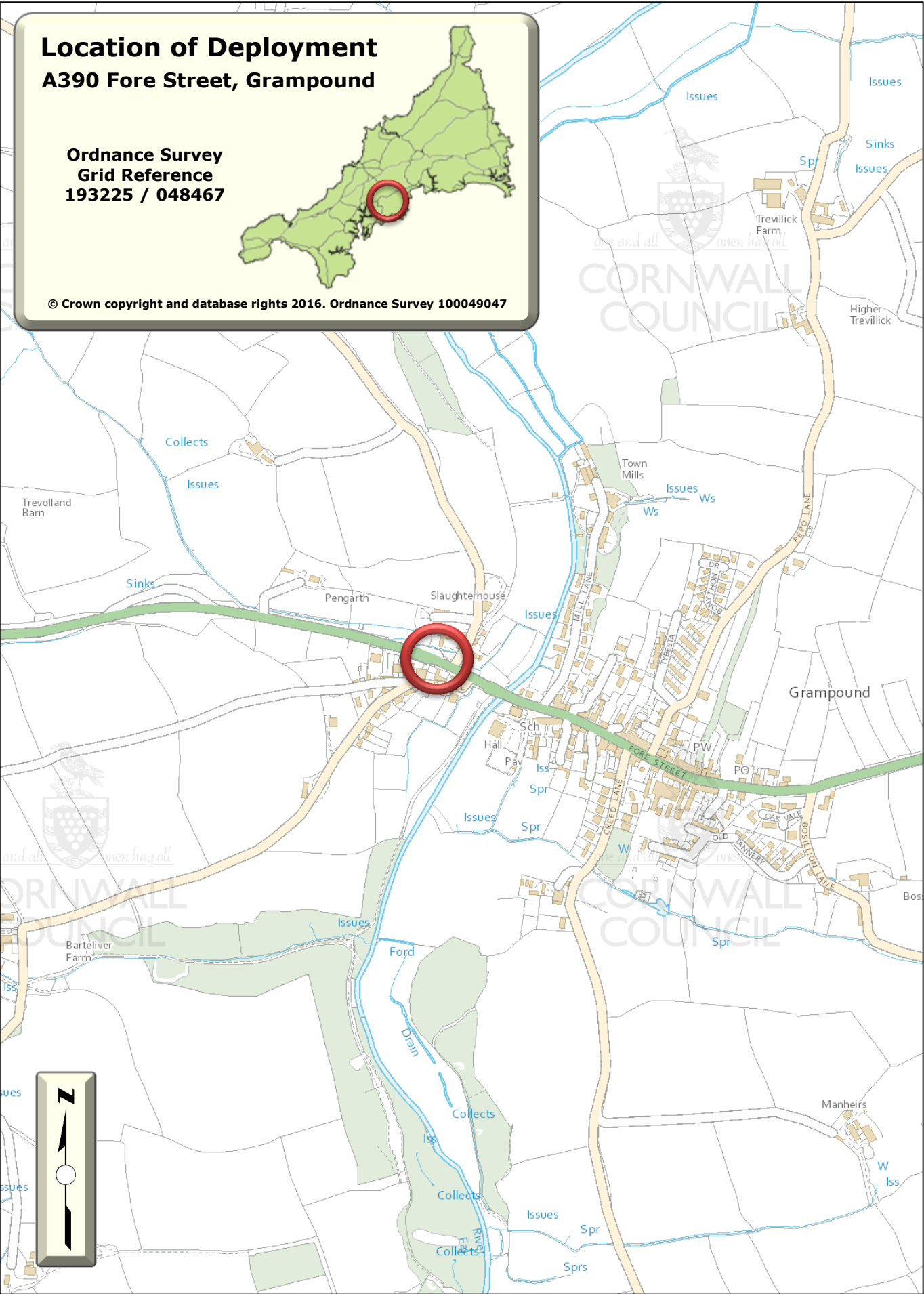
## Summary Table

 Speed Limit	All Observations		Weekdays		Weekends	
	South-eastbound	North-westbound	South-eastbound	North-westbound	South-eastbound	North-westbound
Number of Observations:	36,862	37,573	28,703	29,287	8,159	8,286
Mean Speed (mph):	31.9	39.8	31.7	39.7	32.8	40.3
85 <sup>th</sup> ile Speed (mph):	37	46	37	46	38	47
Standard Deviation:	5.5	7.0	5.4	6.9	5.7	7.2
% ≤  :	44.1%	7.4%	45.7%	7.7%	38.5%	6.6%
% 31 mph to 40 mph:	49.1%	47.4%	48.2%	48.0%	52.3%	45.5%
% >40 mph:	6.8%	45.1%	6.2%	44.4%	9.2%	47.9%

Comments:	
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Data Submitted by:	Paul Taylor	Data Processed by:	Paul Taylor
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# 1. Location Map.




## 2. Glossary of Terms & Abbreviations.

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.


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.



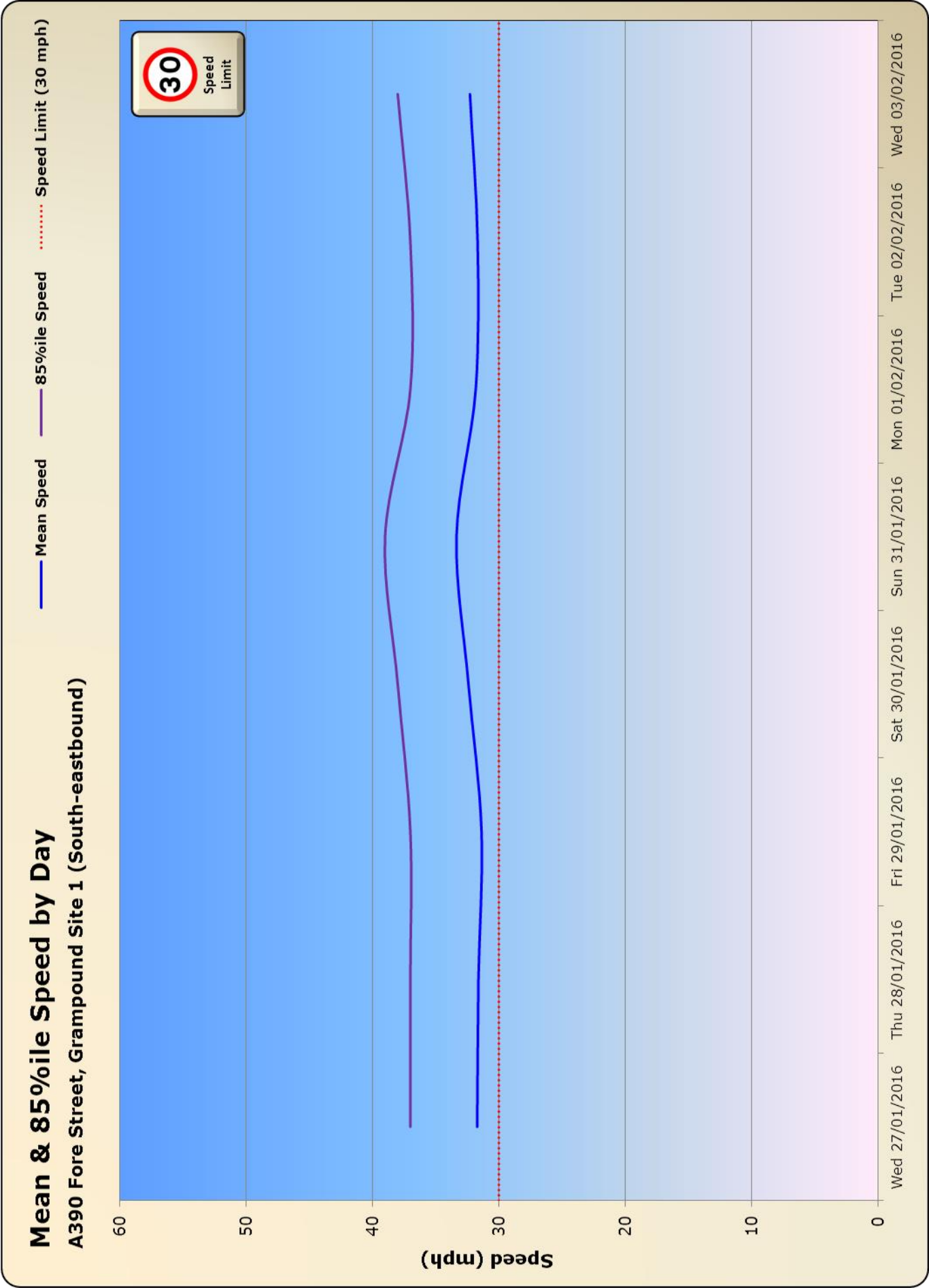
<b>Nº of Observations:</b>	The number of readings recorded by the radar. This does not correspond to an exact count of vehicles passing the sign, since vehicles may pass the sign in a tightly packed group (or 'platoon'); the radar will only record data for the 'lead vehicle' that is determining the speed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

#### 3.1.1. South-eastbound Daily Summary Table.

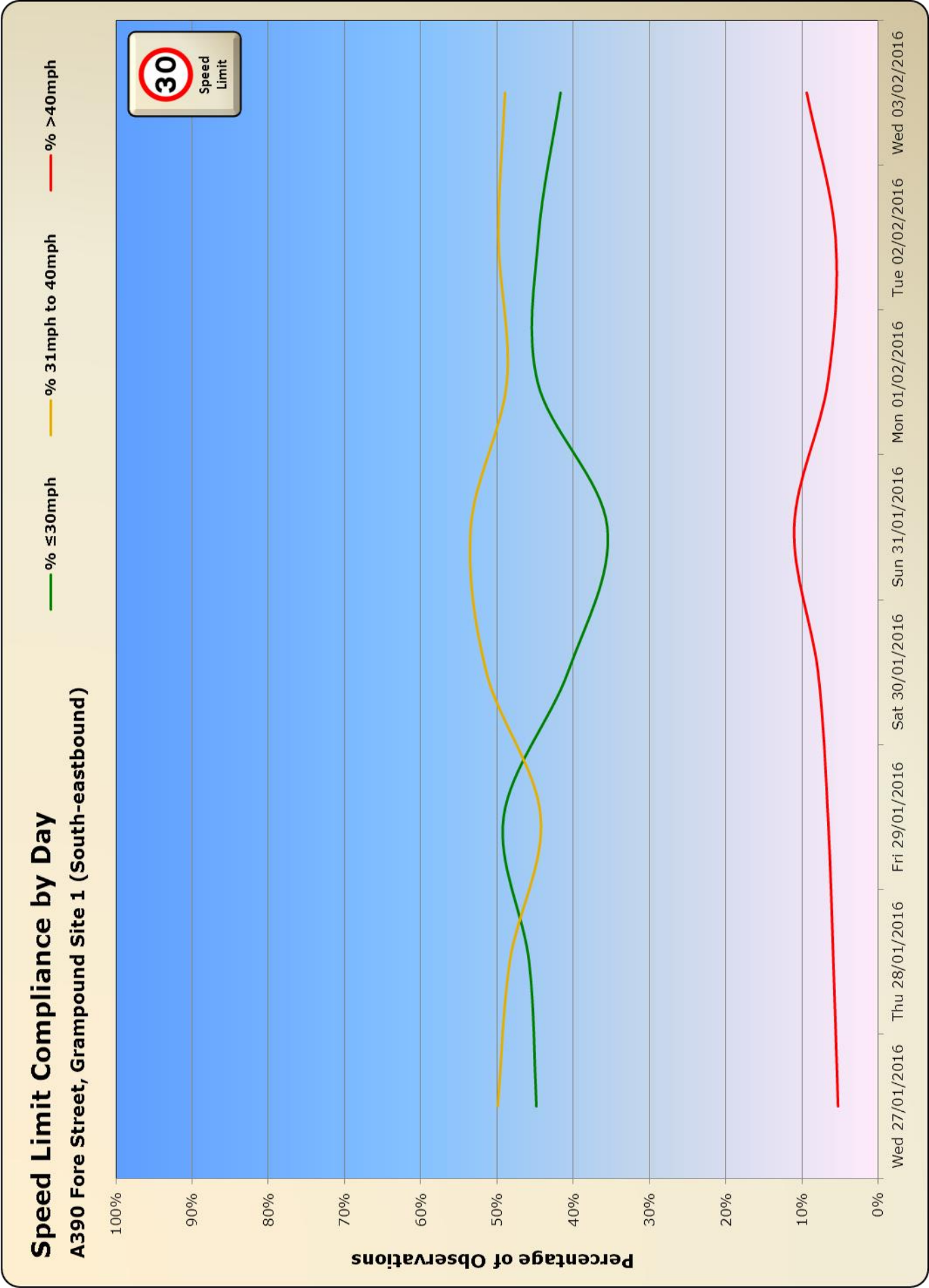
Date	Mean Speed	85%ile Speed	Standard Deviation	% ≤ 	% 31 mph to 40 mph	% >40 mph
Wed 27/01/2016	31.7	37	5.0	44.8%	49.9%	5.3%
Thu 28/01/2016	31.6	37	5.1	45.8%	48.3%	5.9%
Fri 29/01/2016	31.4	37	5.7	49.1%	44.3%	6.6%
Sat 30/01/2016	32.4	38	5.5	40.7%	51.4%	7.9%
Sun 31/01/2016	33.3	39	5.8	35.5%	53.4%	11.0%
Mon 01/02/2016	31.8	37	5.5	44.7%	48.7%	6.6%
Tue 02/02/2016	31.7	37	5.2	44.6%	49.8%	5.6%
Wed 03/02/2016	32.3	38	6.1	41.7%	49.0%	9.4%

3.1.2. South-eastbound Mean Speed & 85%ile Speeds by Day Chart.





3.1.3. South-eastbound Speed Limit Compliance by Day Chart.

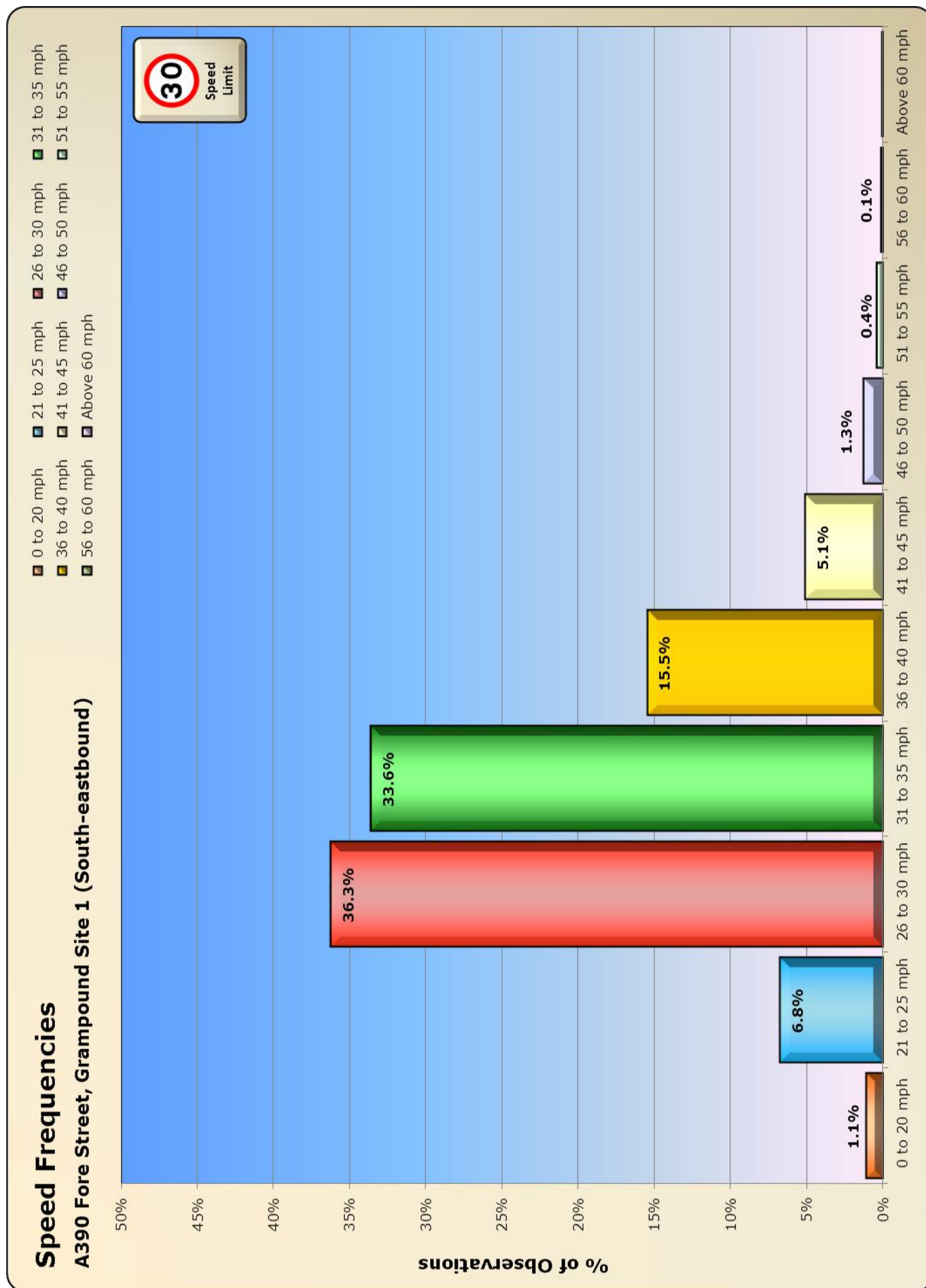


### 3.2.1. South-eastbound Speed Frequencies by Day Table.


Date	No ≤ <b>30</b>			No > <b>30</b>							Total
	0 to 20 mph	21 to 25 mph	26 to 30 mph	31 to 35 mph	36 to 40 mph	41 to 45 mph	46 to 50 mph	51 to 55 mph	56 to 60 mph	Above 60 mph	
Wed 27/01/2016	19	279	1,604	1,488	629	174	35	13	1	0	4,242
Thu 28/01/2016	45	426	2,281	2,068	836	287	51	12	3	0	6,009
Fri 29/01/2016	96	533	2,200	1,749	800	277	71	26	4	1	5,757
Sat 30/01/2016	56	229	1,654	1,618	832	285	64	21	4	2	4,765
Sun 31/01/2016	11	121	1,074	1,168	646	249	79	34	12	0	3,394
Mon 01/02/2016	76	375	1,991	1,796	867	262	79	12	7	1	5,466
Tue 02/02/2016	72	415	2,094	2,026	858	243	66	11	3	1	5,789
Wed 03/02/2016	18	114	468	473	232	94	22	17	2	0	1,440
Total % of Total	393	2,492	13,366	12,386	5,700	1,871	467	146	36	5	36,862
	1.1%	6.8%	36.3%	33.6%	15.5%	5.1%	1.3%	0.4%	0.1%	0.0%	100.0%



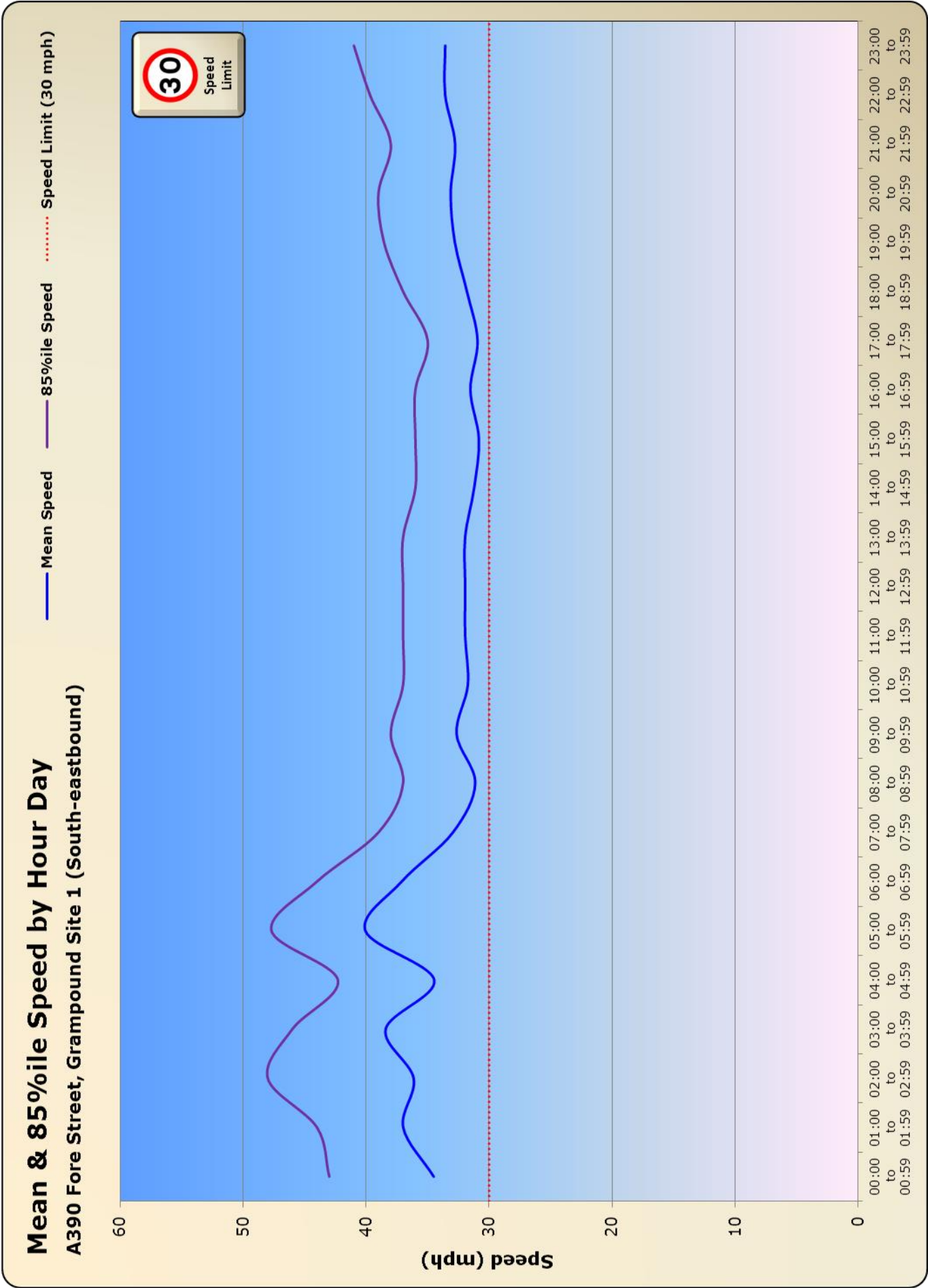
### 3.2.2. South-eastbound Speed Frequencies Chart.



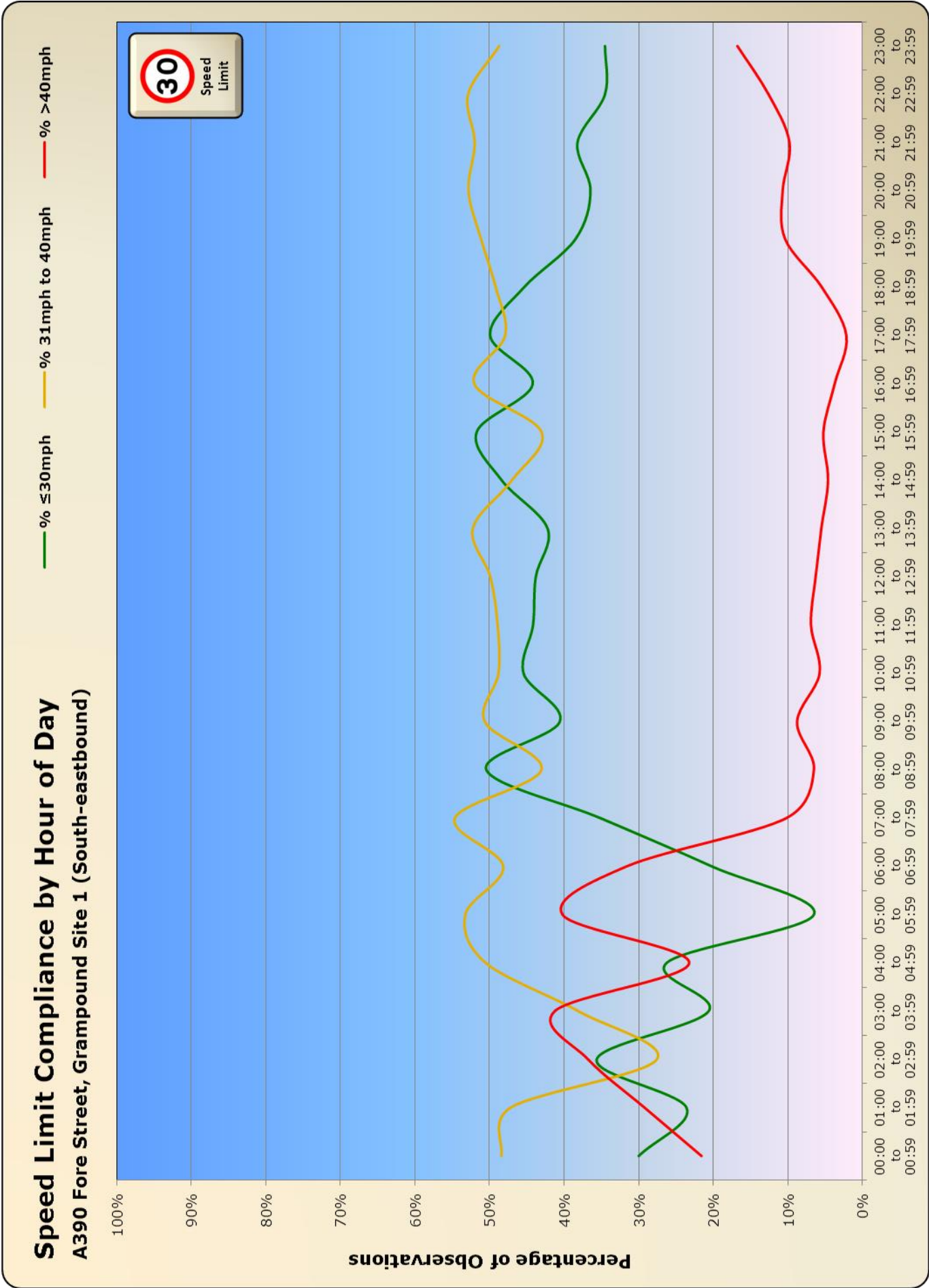
### 3.3.1. South-eastbound Hour of Day Summary Table.

Hour of Day	Mean Speed	85%ile Speed	Standard Deviation	% ≤ 	% 31 mph to 40 mph	% >40 mph
00:00 to 00:59	34.5	43	8.8	30.0%	48.4%	21.6%
01:00 to 01:59	37.0	44	7.0	23.6%	47.2%	29.2%
02:00 to 02:59	36.1	48	11.0	35.6%	27.6%	36.8%
03:00 to 03:59	38.4	46	7.9	20.6%	38.1%	41.3%
04:00 to 04:59	34.5	42	10.2	26.3%	50.5%	23.2%
05:00 to 05:59	40.1	48	7.8	6.5%	53.3%	40.2%
06:00 to 06:59	37.1	44	7.1	20.2%	48.2%	31.7%
07:00 to 07:59	32.9	39	5.9	35.1%	54.7%	10.2%
08:00 to 08:59	31.1	37	5.7	50.4%	43.0%	6.5%
09:00 to 09:59	32.6	38	5.7	40.6%	50.6%	8.8%
10:00 to 10:59	31.7	37	5.1	45.4%	48.8%	5.8%
11:00 to 11:59	32.0	37	5.2	44.2%	48.9%	6.9%
12:00 to 12:59	32.0	37	5.3	43.8%	49.9%	6.3%
13:00 to 13:59	32.0	37	5.0	42.2%	52.3%	5.5%
14:00 to 14:59	31.2	36	5.0	48.4%	47.0%	4.6%
15:00 to 15:59	30.8	36	5.4	51.7%	43.0%	5.2%
16:00 to 16:59	31.5	36	4.7	44.2%	52.1%	3.7%
17:00 to 17:59	30.9	35	4.4	49.9%	47.9%	2.2%
18:00 to 18:59	31.8	37	4.9	45.4%	49.2%	5.4%
19:00 to 19:59	32.8	39	5.7	38.5%	51.1%	10.4%
20:00 to 20:59	33.1	39	5.8	36.5%	52.8%	10.7%
21:00 to 21:59	32.8	38	5.7	38.2%	52.0%	9.8%
22:00 to 22:59	33.6	40	6.3	34.5%	52.9%	12.6%
23:00 to 23:59	33.6	41	7.2	34.5%	48.7%	16.8%

3.3.2. South-eastbound Mean Speed & 85%ile Speed by Hour of Day Chart.




3.3.3. South-eastbound Speed Limit Compliance by Hour of Day Chart.

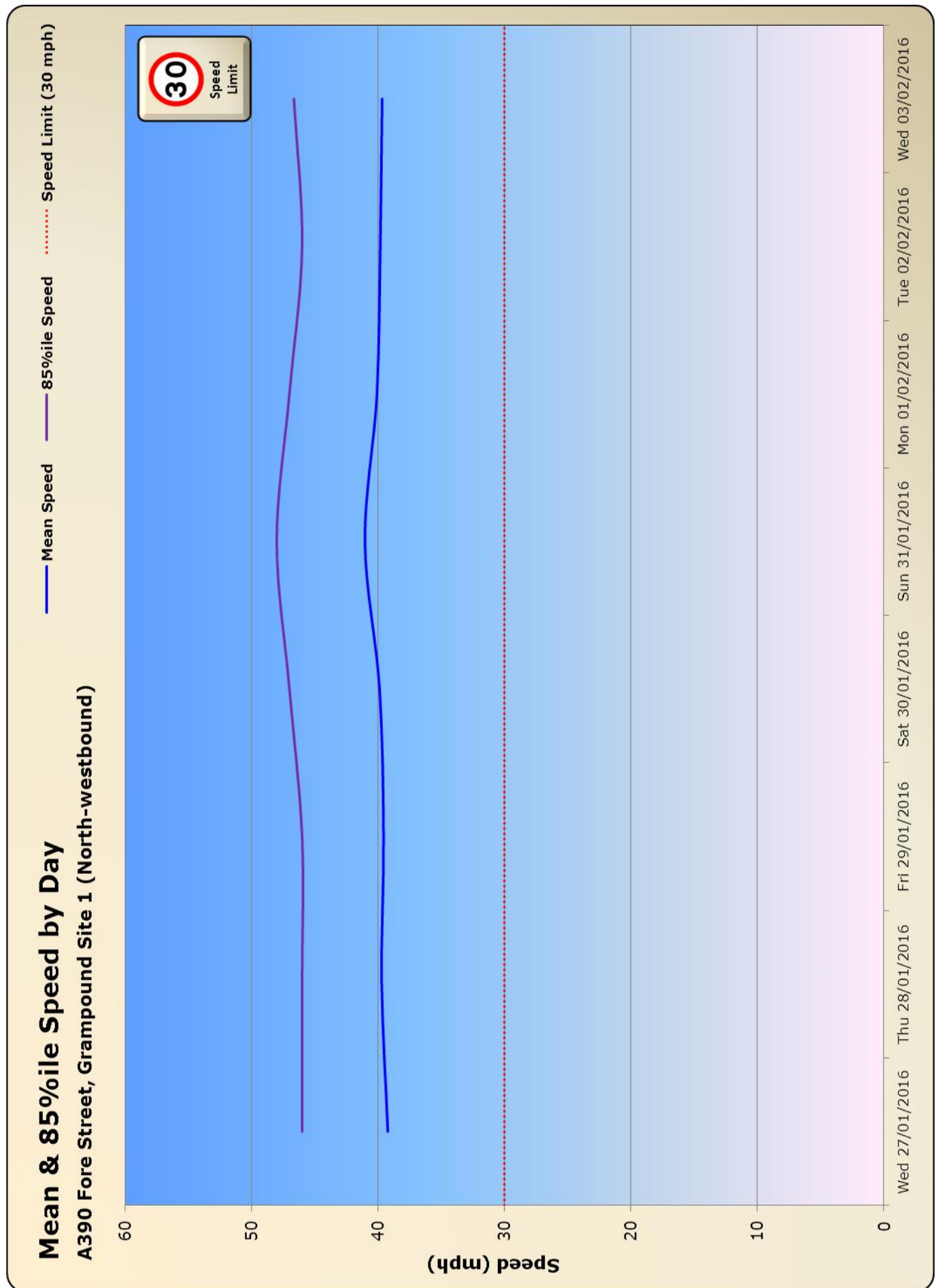


## 4. North-westbound Detailed Statistics.

### 4.1.1. North-westbound Daily Summary Table.

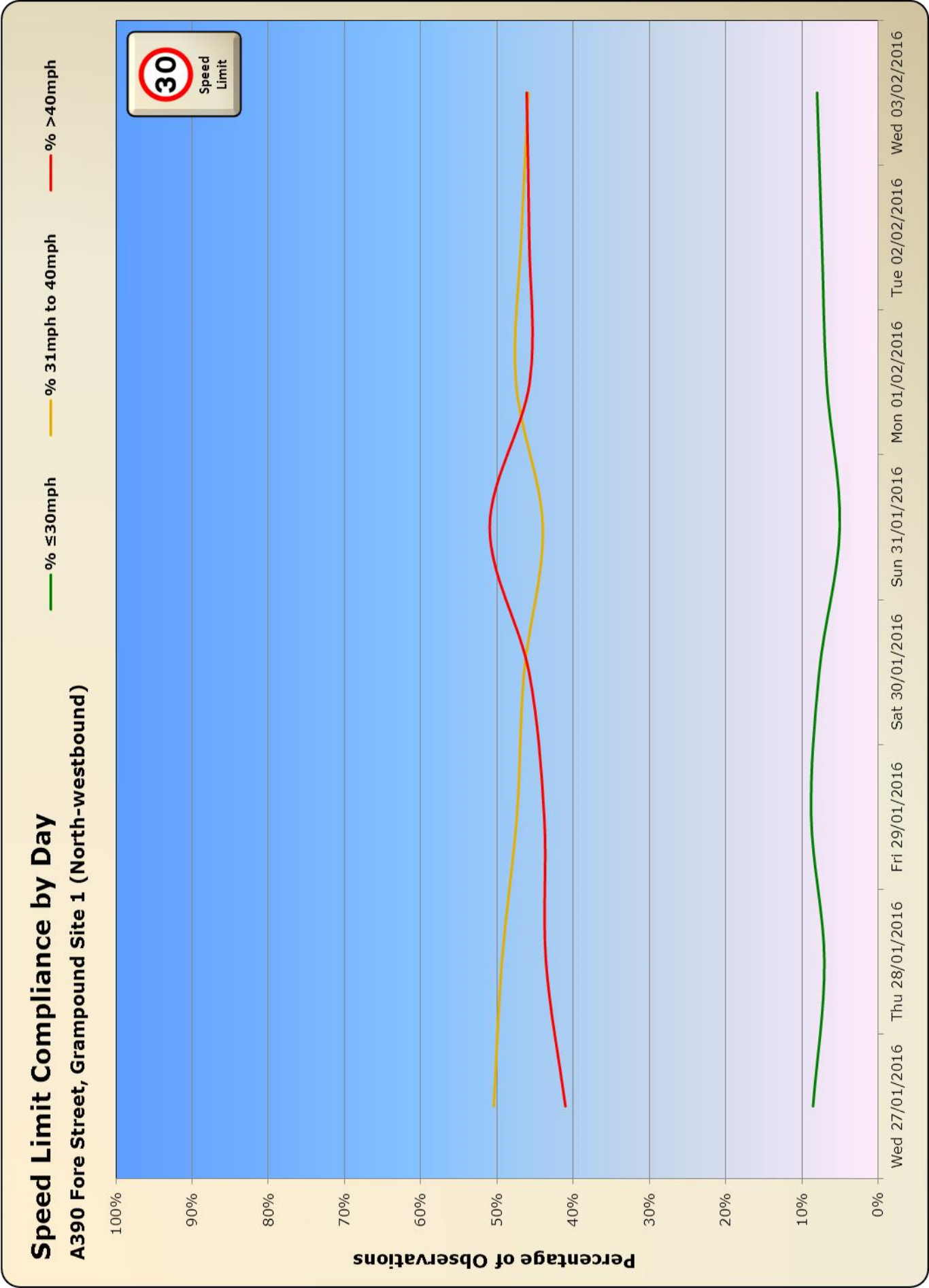
Date	Mean Speed	85%ile Speed	Standard Deviation	% ≤ 	% 31 mph to 40 mph	% >40 mph
Wed 27/01/2016	39.2	46	7.0	8.5%	50.4%	41.0%
Thu 28/01/2016	39.7	46	6.6	7.1%	49.4%	43.6%
Fri 29/01/2016	39.6	46	6.9	8.8%	47.4%	43.8%
Sat 30/01/2016	39.9	47	7.4	7.7%	46.4%	45.8%
Sun 31/01/2016	41.0	48	6.9	5.0%	44.0%	51.0%
Mon 01/02/2016	40.1	47	6.8	6.8%	47.5%	45.7%
Tue 02/02/2016	39.8	46	7.0	7.4%	46.8%	45.8%
Wed 03/02/2016	39.7	47	7.8	8.0%	45.9%	46.1%

#### 4.1.2. North-westbound Mean Speed & 85%ile Speed by Day Chart.





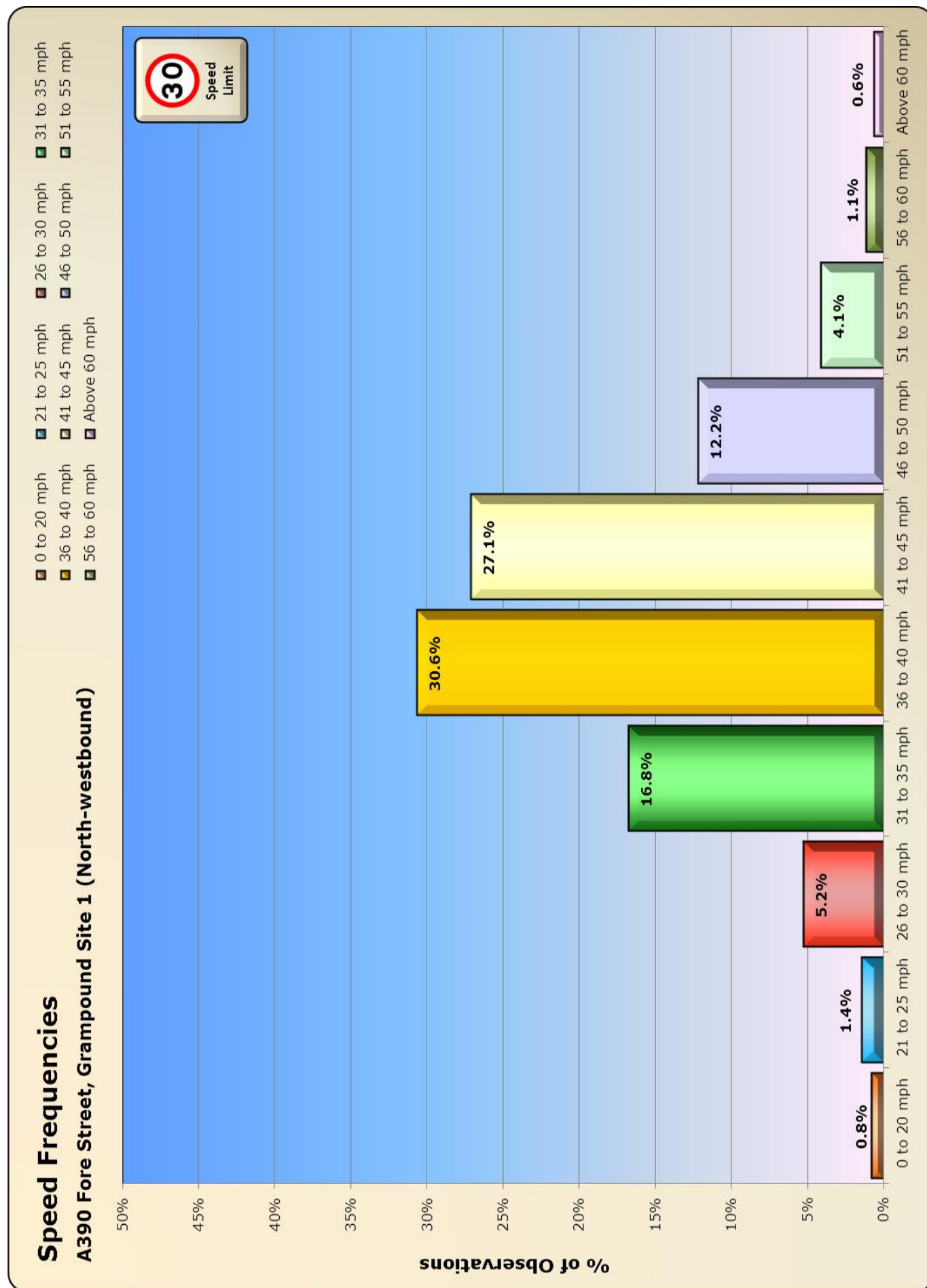
4.1.3. North-westbound Speed Limit Compliance by Day Chart.




#### 4.2.1. North-westbound Speed Frequencies by Day Table.

Date	№ ≤ 30			№ > 30							Total
	0 to 20 mph	21 to 25 mph	26 to 30 mph	31 to 35 mph	36 to 40 mph	41 to 45 mph	46 to 50 mph	51 to 55 mph	56 to 60 mph	Above 60 mph	
Wed 27/01/2016	30	61	210	648	1,128	895	377	118	37	18	3,522
Thu 28/01/2016	19	91	323	1,070	1,960	1,636	730	222	59	28	6,138
Fri 29/01/2016	26	98	392	1,009	1,777	1,555	708	224	59	29	5,877
Sat 30/01/2016	68	60	252	835	1,447	1,311	606	230	71	33	4,913
Sun 31/01/2016	6	27	137	504	980	939	505	185	56	34	3,373
Mon 01/02/2016	19	85	267	899	1,709	1,522	638	245	64	40	5,488
Tue 02/02/2016	62	91	287	950	1,837	1,679	723	236	50	37	5,952
Wed 03/02/2016	63	20	102	383	677	632	292	90	33	18	2,310
Total % of Total	293	533	1,970	6,298	11,515	10,169	4,579	1,550	429	237	37,573
	0.8%	1.4%	5.2%	16.8%	30.6%	27.1%	12.2%	4.1%	1.1%	0.6%	100.0%

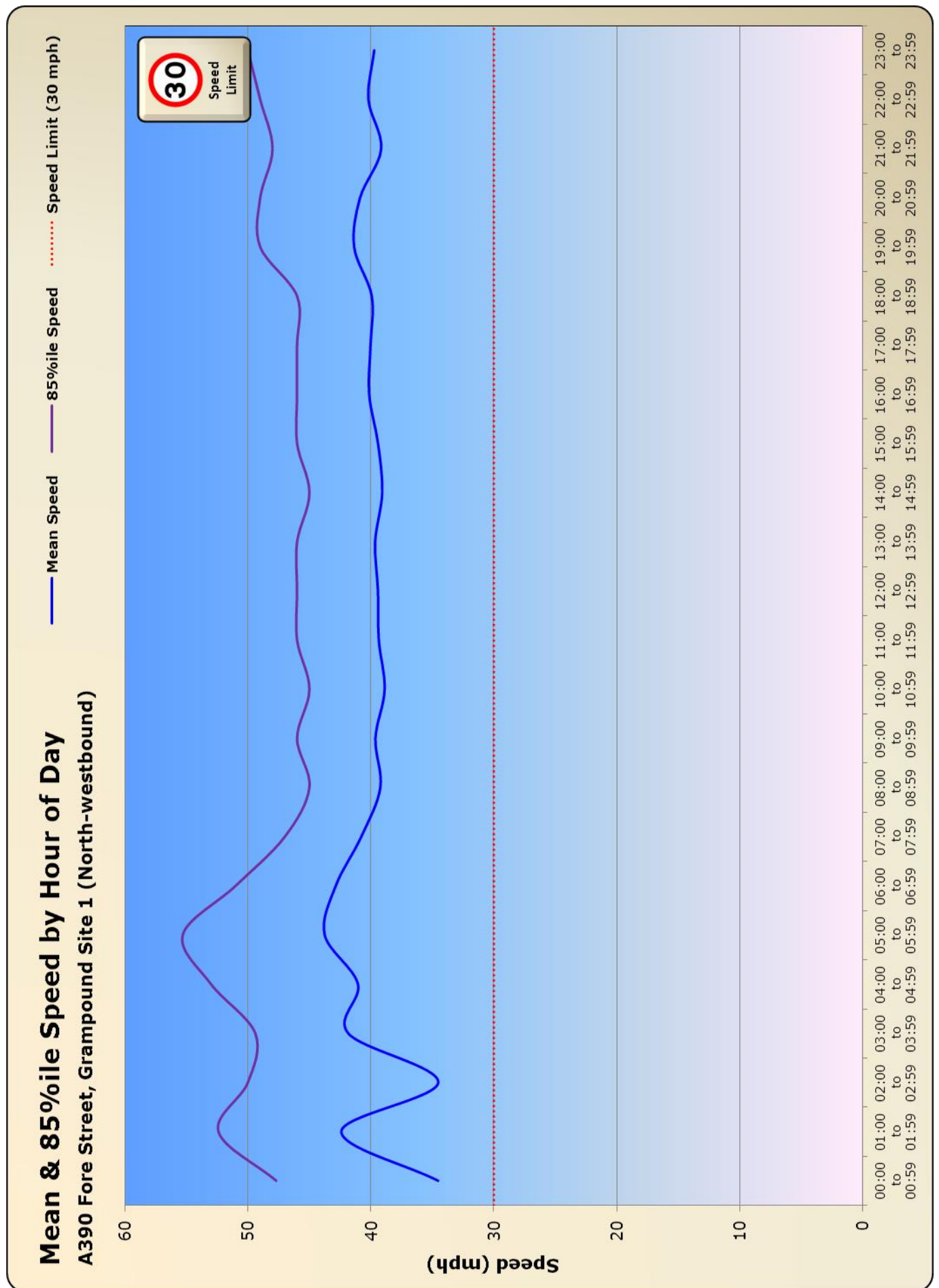
#### 4.2.2. North-westbound Speed Frequencies Chart.



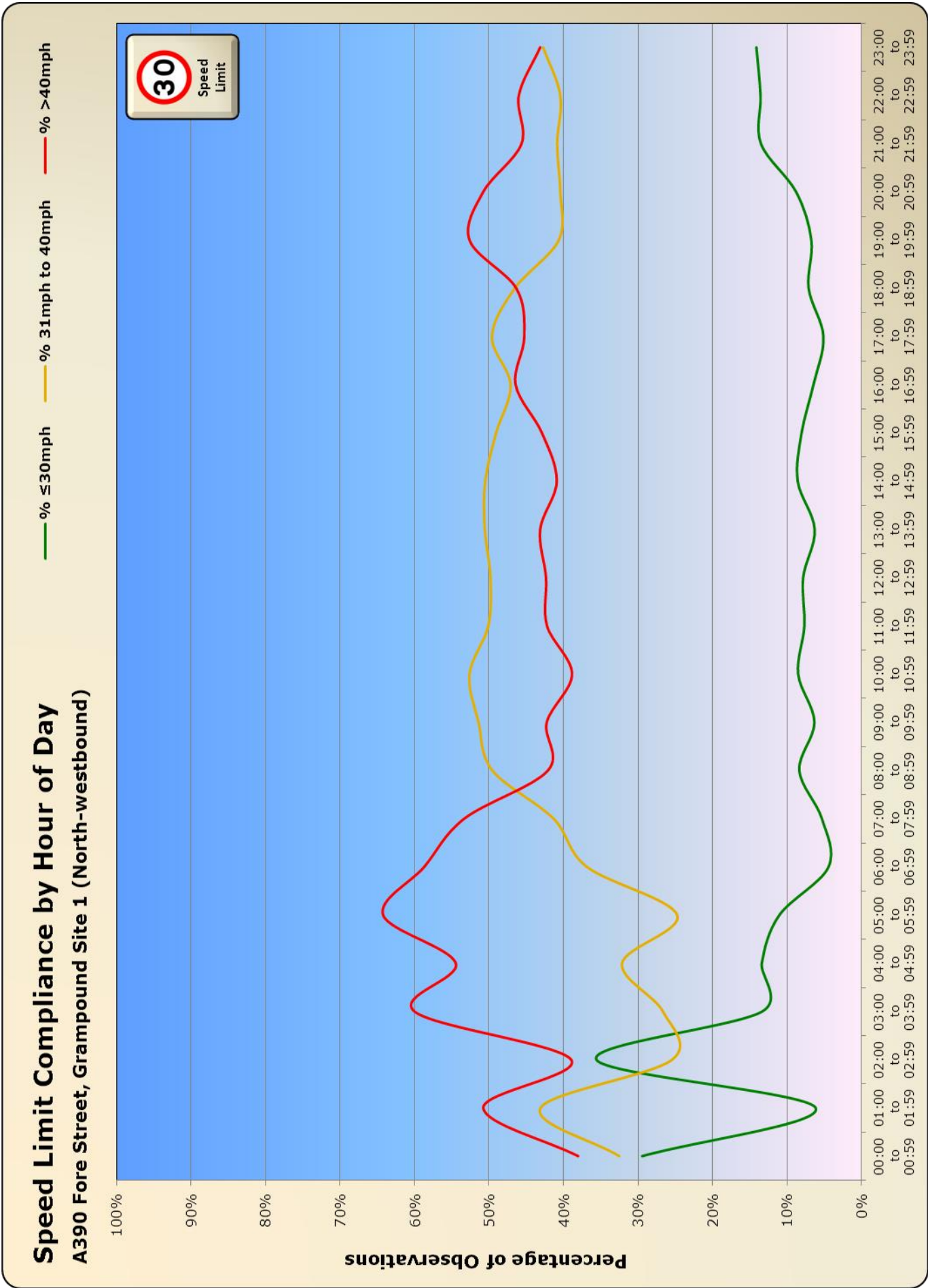
#### 4.3.1. North-westbound Hour of Day Summary Table.

Hour of Day	Mean Speed	85%ile Speed	Standard Deviation	% ≤ 	% 31 mph to 40 mph	% >40 mph
00:00 to 00:59	34.5	48	14.1	29.4%	32.5%	38.0%
01:00 to 01:59	42.4	52	9.3	6.2%	43.1%	50.8%
02:00 to 02:59	34.5	50	14.8	35.6%	25.4%	39.0%
03:00 to 03:59	41.8	49	9.9	13.3%	26.7%	60.0%
04:00 to 04:59	41.1	53	11.5	13.4%	32.1%	54.5%
05:00 to 05:59	43.8	55	11.7	11.0%	24.7%	64.2%
06:00 to 06:59	42.9	51	8.0	4.4%	36.9%	58.7%
07:00 to 07:59	40.8	47	6.6	5.3%	41.3%	53.3%
08:00 to 08:59	39.2	45	6.6	8.4%	49.6%	42.1%
09:00 to 09:59	39.6	46	6.3	6.3%	51.4%	42.2%
10:00 to 10:59	38.9	45	6.4	8.5%	52.6%	38.9%
11:00 to 11:59	39.4	46	6.6	7.7%	50.1%	42.2%
12:00 to 12:59	39.4	46	6.4	7.8%	49.8%	42.4%
13:00 to 13:59	39.7	46	6.2	6.3%	50.6%	43.1%
14:00 to 14:59	39.1	45	6.5	8.6%	50.5%	40.9%
15:00 to 15:59	39.4	46	6.5	8.1%	49.1%	42.9%
16:00 to 16:59	40.1	46	6.6	6.5%	47.1%	46.4%
17:00 to 17:59	40.0	46	6.2	5.1%	49.6%	45.3%
18:00 to 18:59	39.9	46	7.0	7.1%	46.6%	46.3%
19:00 to 19:59	41.4	49	8.0	6.7%	40.6%	52.6%
20:00 to 20:59	40.9	49	8.2	8.8%	40.4%	50.8%
21:00 to 21:59	39.2	48	10.3	13.5%	40.9%	45.6%
22:00 to 22:59	40.2	49	9.2	13.6%	40.4%	46.0%
23:00 to 23:59	39.7	50	10.7	14.1%	42.7%	43.1%

#### 4.3.2. North-westbound Mean Speed & 85%ile Speed by Hour of Day Chart.



4.3.3. North-westbound Speed Limit Compliance by Hour of Day Chart.







Produced by  
**Engineering Design Group**  
**Cormac Solutions Ltd**



## Speed Analysis

RadarClass is part of the  
Engineering Design Group  
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 with an option to view and download speed analysis statistics reports.

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

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**Mike Cartwright**  
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