

TECHNICAL NOTE

Project	27 Old Perry Street, Gravesend
Document	Highway Technical Note
Reference No	22055
Prepared By	Kamran Haider
Reviewed By	Amelia Goswell
Date	8th July 2022

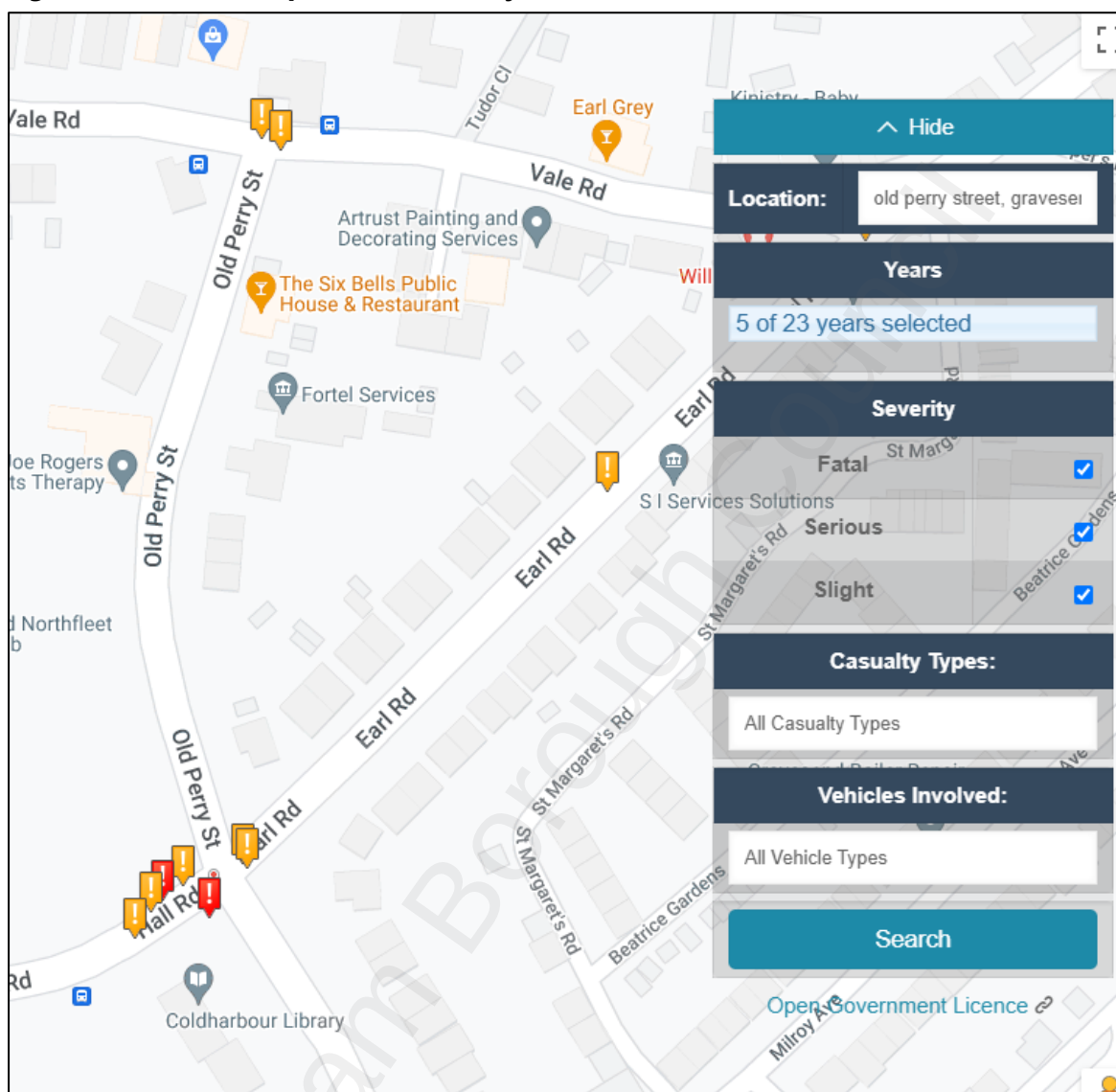
Introduction

1. Pulsar has been commissioned by Mr P Saron to provide highways advice in relation to a planning application for the replacement of a single dwelling by two separate houses, at 27 Old Perry Street, Gravesend.
2. The site currently accommodates a single bungalow dwelling with a driveway. The proposals involve demolition of the bungalow and construction of a pair of semi-detached houses with separate driveways. **Appendix A** shows the proposed site plan.
3. The planning application (planning ref. no.20220255) was submitted in March 2022 and highways comments have been received relating to the visibility splays of the proposed accesses. For a 30mph road, Manual for Streets (MfS) recommends a sightline distance of 43m.

Site Context

4. The site is located on Old Perry Street, which is a single carriageway road (with one lane in each direction) linking Coldharbour Road (to the south) with Vale Road (to the north). Coldharbour Road joins Old Perry Street at a signalised crossroads junction, which incorporates pedestrian crossings and various traffic islands. Old Perry Street gives way to Vale Road at a three-arm priority junction.
5. Old Perry Street is approximately 180 metres in length and is subject to a 30mph road limit. There are numerous accesses along the length of Perry Street serving a variety of land uses. It is noted that a number of the accesses appear to have constrained visibility.
6. A review of traffic collision data has been undertaken using the Crashmap website to understand whether there are any highway safety issues on Old Perry Street. The Crashmap collision plot is included below in **Figure 1** and shows that there have not been any personal injury collisions recorded along Old Perry Street within the last five years of full records (2017 – 2021).

Figure 1 Crashmap Plot – Old Perry Street, Gravesend (Collisions 2017 – 2021)



7. The collision data indicates that there are no highway safety issues along Old Perry Street despite the presence of numerous site accesses (some with constrained visibility splays).

Speed Survey

8. An automatic traffic counter (ATC) was installed from 11th – 17th June 2022 on Old Perry Street (approximately 40 metres south of the site) to record traffic speeds. The data is included in **Appendix B** and is summarised below in **Table 1**. As per DMRB guidance set out in CA 185 'Vehicle Speed Measurement', speed surveys should be undertaken in free flow conditions, i.e. outside of peak traffic flow periods. It is recommended that surveys are undertaken between 10am and noon, and 2pm to 4pm.
9. CA 185 states that speed measurements should not be undertaken at weekends and should be undertaken on a neutral month if possible. The surveys were undertaken in June, which



is considered to represent a neutral month, and only speeds recorded on weekdays were considered.

Table 1 85th Percentile Speeds (mph)

Direction	10am – 12pm	2pm – 4pm	Average
Northbound	28.9	29.5	29.2

10. The overall 85th percentile northbound speed at the ATC for a weekday during off peak periods was recorded as 29.2mph. This is slightly below the 30mph speed limit. The mean speed was approximately 25.0mph.
11. A review of the historical weather data in Gravesend shows that the ATC recorded information during a whole week of dry weather. CA185 states that a "wet weather speed" can be derived from a "dry weather speed" by subtracting 4kph (2.5mph) for single carriageway road dry weather speeds. Therefore, the 85th percentile northbound wet weather speed is 26.7 mph,

Manual for Streets Requirements

12. Manual for Streets (MfS) provides guidance on the design of streets including visibility splays at site accesses. The original MfS document was published in 2007, and a follow up MfS2 (which was intended to complement the original document) was published in 2010. It is understood that a new version of Manual for Streets will be published later this year.
13. It should be noted that MfS2 states that research carried out has found no evidence that a failure to provide visibility as recommended in MfS will result in an increased risk of injury collisions.
14. Notwithstanding the above, MfS provides a methodology for measuring visibility splays at priority junctions, which involves measurement of x and y distances. The x distance represents the distance back from the kerbline where a driver is assumed to be positioned. The y distance is effectively the sight stopping distance (SSD), i.e. the distance a vehicle needs to completely stop when travelling at a given initial speed. For a speed of 30mph the SSD is 43m.
15. KCC has noted that the visibility to the north is acceptable (and this is confirmed in the visibility splay plans prepared by Pulsar).
16. KCC has raised concerns regarding the visibility of drivers exiting the site and needing to look south along Old Perry Street. It is worth noting that this only affects drivers turning right out of the dwellings and also relates to vehicles in the offside lane (i.e. the lane furthest from the nearest kerbline).
17. MfS states that an x distance of 2m can be considered in some slow-speed situations when flows on the minor arm are low. It notes that some vehicles will protrude into the running carriageway, and many drivers will tend to cautiously nose out into traffic. This would this only affect vehicles in the nearside lane (to the north), and drivers exiting the site have good



visibility in this direction. Therefore, drivers exiting the site will be able to make a judgement on when to "nose out into traffic" as they will have adequate sightlines to the north. In other words, they can do this when there is a gap in southbound traffic. Given the above an x distance of 2m is considered acceptable in this situation and, as explained further below, can be considered to be a conservative assumption.

18. The y distance is calculated with reference to the 85th percentile wet weather speed, which has been measured as 26.7mph. This equates to a Sight Stopping Distance of 36.6m.
19. MfS notes that:

The Y distance represents the distance that a driver who is about to exit from the minor arm can see to the left and right along the main alignment. For simplicity it has previously been measured along the nearside kerb line of the main arm, although vehicles will normally be travelling at a distance from the kerb line. Therefore a more accurate assessment of visibility splay is made by measuring to the nearside edge of the vehicle track.

20. In line with the above, a y distance measurement has been made to an offset of 1m from the kerbline. It should be noted that this still assumes that there is a requirement for drivers exiting the site to see a vehicle in the nearside lane. In this case, this would presumably represent a vehicle overtaking the inside of a bend. In practice, this is very unlikely to happen.

Visibility Splay Measurements

21. Visibility splays for the existing and proposed accesses are shown in **Drawing No.22055/001** and are included in **Appendix C**.
22. **Table 2** below shows the achievable visibility splays in both directions for the existing access, proposed accesses and the neighbouring property.

Table 2 Y distance visibility splays (measured to 1m offset from kerbline)

Property	Access	To the north (m)	To the south (m)
27 Old Perry Street	Existing access	43m+	32.8m
	Proposed Access (northern property)	43m+	31.6m
	Proposed Access (southern property)	43m+	22.8m
White Lodge (dwelling immediately south of no.27)	Existing Access	13.1m	28m



23. **Table 2** shows that none of the properties / accesses achieve the 36.6m y distance to the south (as recommended by MfS), including the existing accesses at no.27 and White Lodge. Furthermore, the y distance for White Lodge to the north (not utilising 3rd party land) is only 13.1m - although it is noted that drivers exiting this property are currently able to see across part of no.27's land.
24. Despite the "substandard" sightlines for the existing accesses along Old Perry Street, there are no recorded personal collisions in the last 5 years. This suggests that drivers exercise caution when travelling along Old Perry Street and exiting the existing accesses along Old Perry Street.
25. In the case of the proposed accesses, the "substandard" visibility splay relates to vehicles that are assumed to be overtaking around the inside of a bend on the wrong side of the carriageway. As noted above, in practice this is very unlikely to occur.
26. For drivers travelling northbound on Old Perry Street in the correct lane, the y distance (when measured to the centreline) is 40.6m for the northern property and 31.6m for the southern property. Therefore, the northern property would (in practice) meet the MfS visibility splay requirements. Whilst this shows that the y distance for the southern property is below the 36.6m SSD calculated above, this does not reflect the practicalities of the road layout. In practice, if a driver is exiting from the site and turning right, they will wait until there is a gap in southbound traffic (and northbound traffic) and then be able to look south again when further into the carriageway. At this point, the driver would have a sightline in excess of 36.6m (or even 43m).
27. In reality, this is how numerous drivers exit properties throughout the country. It should be noted that the vast majority of movements in and out of the properties will be undertaken by regular users of the driveways.

Summary

28. Pulsar has been appointed to review the driver visibility requirements at two proposed properties. The highway authority (Kent County Council) has raised an objection stating that the proposed visibility splays do not meet standards to the south as set out in Manual for Streets (MfS).
29. It should be noted that MfS states that research does not demonstrate a correlation between reduced visibility and a higher incidence of personal injury collisions.
30. A review of collision data shows that there have been no recorded personal collision injuries along Old Perry Street in the last 5 years. This indicates that there are currently no highway safety issues along this road.
31. A traffic survey was undertaken and it was shown that the northbound 85th percentile wet weather speed (on the approach to the site from the south) was 26.7mph. This equates to a sight stopping distance of 36.6m.



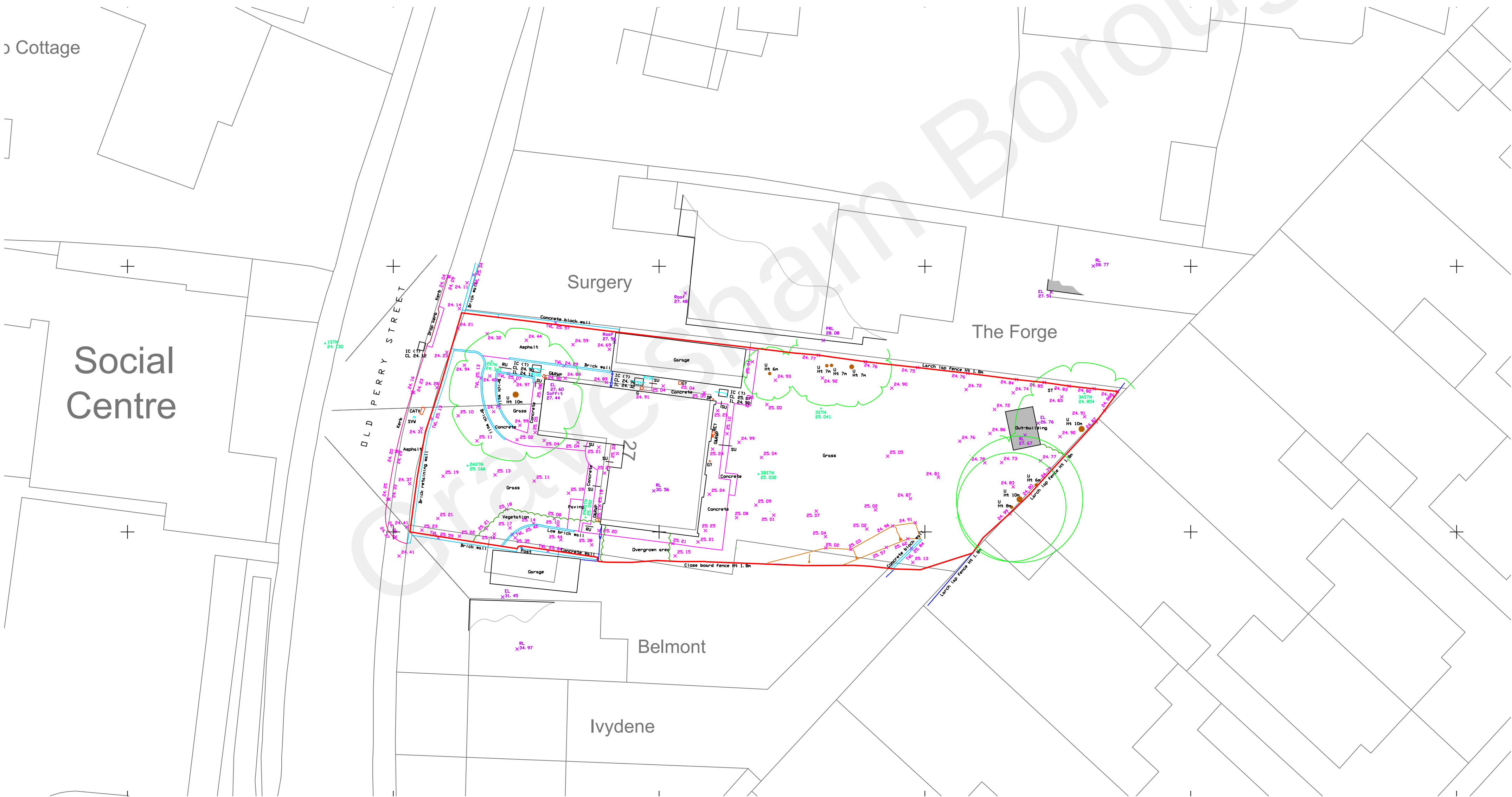
32. A review of visibility splays shows that the existing accesses at no.27 or adjoining White Lodge do not achieve this sightline. There are also other accesses along Old Perry Street that do not appear to achieve the required visibility splays. This suggests that drivers exercise due caution on Old Perry Street and reinforces the statement from MfS regarding the lack of correlation between substandard visibility and personal injury collisions.
33. It is noted that the sightline to the south relates to vehicles that should be travelling in the farside lane, whereas the normal convention is to measure vehicles in the nearside lane. The latter assumes that drivers could be overtaking. However, in this case, it would involve overtaking on the inside of a bend, which is considered extremely unlikely. The visibility splay y distance for the northern property to the centreline is c.40m (and therefore above the 36.6m suggested by MfS).
34. For the southern property the y distance is 31.6m when measured to the centreline (slightly less than the 36.6m suggested by MfS). However, this sightline is only required for drivers turning right out of the site. Drivers are able to see a significant distance to the north and would be able to move out into the nearside lane to achieve even further visibility to the south (in excess of 43m). In practice, this is how drivers are likely to exit the site when turning right and this is likely to be the method employed by existing residents.

Conclusions

35. It is acknowledged that the proposed accesses do not achieve the visibility splays as set out in MfS. However, the following factors are relevant:
 - drivers have good sightlines to the north and will be able to nose out cautiously on to Old Perry Street. This will allow them to benefit from significantly enhanced sightlines to the south (in excess of the MfS requirements);
 - there have been no recorded personal injury collisions on Old Perry Street in the last 5 years despite the presence of accesses with reduced visibility;
 - the traffic flows associated with the proposed accesses will be extremely low and therefore, the level / risk of conflict will also be very low.
36. Give the above, the proposed accesses are considered to be acceptable in highway safety terms.

APPENDIX A

Gravesham Borough Council



Notes:

Report all discrepancies, errors and omissions.

Verify all dimensions on site before commencing any work on site or preparing shop drawings.

All materials, components and workmanship are to comply with the relevant British Standards, Codes of Practice, and appropriate manufacturers recommendations that from time to time shall apply.

For all specialist work, see relevant drawings.

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SITE PLAN 1-100

0 1 2 3 4 5 6 7 8 9 10

Scale Bar at 1:100

Revision	Date	Description

Status
PLANNING

Mark | Carter
ASSOCIATES

Architectural
Design

design studio
priestfield stadium gillingham kent ME7 4DD
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Client
MR SARON

Drawing Title
**EXISTING SITE PLAN AND
ELEVATIONS**

Project Title
**OLD PERRY STREET
NEW DWELLINGS**

Scale
1:100

Date
MARCH 22

Drawn
MC

Drawing No
3405 - 004

Rev
A

SCALE

0 10 20

Scale Bar at 1:200

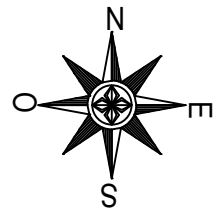


Notes:

- Do Not Scale.
- Report all discrepancies, errors and omissions.
- Verify all dimensions on site before commencing any work on site or preparing shop drawings.
- All materials, components and workmanship are to comply with the relevant British Standards, Codes of Practice, and appropriate manufacturers recommendations that from time to time shall apply.
- For all specialist work, see relevant drawings.
- This drawing and design are copyright of the mark carter design.



LOCATION PLAN 1-1250
Scale Bar at 1:1250



Revision	Date	Description

Status PLANNING		
Mark Carter ASSOCIATES		Architectural Design
design studio priestfield stadium gillingham kent ME7 4DD tel 01634 304700 fax 01634 850986 e mail: markcarter.design@virgin.net		
Client MR SARON		
Drawing Title SITE PLAN		
Project Title OLD PERRY STREET NEW DWELLINGS		
Scale 1:200	Date MAY 22	Drawn MC
Drawing No 3405 - 005	Rev A	

SITE PLAN 1-200
Scale Bar at 1:200

APPENDIX B

Gravesham Borough Council

Gravesend ATC, Old Perry Street

Direction: Northbound

Hour	Sat	Sun	Mon	Tue	Wed	Thu	Fri	S Day	7 Day
Beginning	11/06/2022	12/06/2022	13/06/2022	14/06/2022	15/06/2022	16/06/2022	17/06/2022	Ave.	Ave.
00:00	19	27	7	10	8	11	10	9	13
01:00	9	7	1	4	2	10	8	5	6
02:00	9	5	5	8	4	7	9	7	7
03:00	9	10	8	7	6	12	9	8	9
04:00	17	10	22	20	21	26	20	22	19
05:00	18	10	52	52	47	52	75	51	40
06:00	18	7	50	139	147	144	150	116	118
07:00	75	26	333	334	339	351	227	317	241
08:00	105	29	209	255	310	295	260	244	222
09:00	169	97	173	138	132	196	209	230	188
10:00	194	188	102	93	164	166	181	141	155
11:00	221	198	110	73	169	177	182	142	161
12:00	194	194	89	56	167	176	166	131	149
13:00	193	160	407	65	171	172	188	141	151
14:00	174	135	123	70	162	162	203	144	147
15:00	164	112	146	177	219	216	218	195	182
16:00	159	94	166	174	197	206	194	187	170
17:00	144	112	172	203	197	195	201	194	175
18:00	127	99	154	169	172	180	182	151	155
19:00	107	54	126	113	132	128	193	130	109
20:00	84	56	89	79	100	107	112	87	90
21:00	71	55	53	66	63	77	61	68	67
22:00	45	36	30	51	45	43	54	45	43
23:00	37	11	18	14	38	20	34	33	23
Total	1247	1418	1919	1444	1974	1807	2599	2492	2411
1247-1418	2219	1616	2381	2232	3038	2954	2803	2682	2463
1247-1418	2301	1663	2429	2297	3111	3017	2891	2768	2520
1247-1418	2382	1732	2525	2396	3204	3130	2999	2851	2624
AM Peak	11:00	11:00	07:00	07:00	07:00	07:00	08:00	07:00	07:00
PM Peak	12:00	12:00	17:00	17:00	15:00	15:00	15:00	15:00	15:00
24Hr Tot L14	194	194	172	303	219	216	210	130	182

Direction: Southbound

Hour	Sat	Sun	Mon	Tue	Wed	Thu	Fri	S Day	7 Day
Beginning	11/06/2022	12/06/2022	13/06/2022	14/06/2022	15/06/2022	16/06/2022	17/06/2022	Ave.	Ave.
00:00	12	18	3	8	10	15	13	10	11
01:00	11	5	3	3	4	6	7	5	6
02:00	5	3	3	6	5	6	8	6	5
03:00	2	7	5	5	3	4	6	5	5
04:00	8	4	11	12	11	9	11	11	9
05:00	11	5	23	29	29	28	26	27	21
06:00	21	16	64	55	64	64	57	61	49
07:00	44	31	121	124	125	122	103	119	96
08:00	96	35	232	216	229	244	247	234	188
09:00	151	79	99	83	151	159	186	136	130
10:00	231	189	49	55	182	174	228	134	151
11:00	238	190	85	68	176	196	181	145	162
12:00	270	220	61	68	176	208	216	146	174
13:00	193	189	54	54	174	165	188	127	145
14:00	181	175	87	96	248	251	261	189	186
15:00	182	145	147	201	236	299	241	224	207
16:00	183	154	274	302	260	310	315	250	210
17:00	177	91	349	300	285	309	267	282	240
18:00	125	72	171	179	189	196	185	183	139
19:00	107	74	146	132	142	160	151	142	127
20:00	63	46	96	78	85	74	88	84	76
21:00	65	44	50	63	55	71	62	60	59
22:00	52	33	44	50	67	78	70	62	56
23:00	26	18	20	29	27	22	42	38	26
Total	1247	1418	2071	1470	1629	1746	2424	2629	2619
1247-1418	2071	1470	1629	1746	2424	2629	2619	2209	2084
1247-1418	2327	1650	1985	2074	2770	2998	2957	2597	2394
1247-1418	2405	1761	2049	2153	2864	3098	3069	2601	2477
1247-1418	2454	1743	2097	2216	2926	3164	3140	2700	2514
AM Peak	11:00	11:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00
PM Peak	12:00	12:00	17:00	17:00	16:00	16:00	16:00	16:00	16:00
24Hr Tot L14	279	220	274	302	236	310	316	251	210

Direction: Total Flow

Hour	Sat	Sun	Mon	Tue	Wed	Thu	Fri	S Day	7 Day
Beginning	11/06/2022	12/06/2022	13/06/2022	14/06/2022	15/06/2022	16/06/2022	17/06/2022	Ave.	Ave.
00:00	31	45	10	18	18	26	23	19	24
01:00	20	12	4	7	8	16	15	10	11
02:00	14	8	8	14	9	13	17	12	12
03:00	11	17	13	12	9	16	15	13	13
04:00	25	14	33	32	32	35	31	33	29
05:00	29	15	76	79	81	73	76	77	62
06:00	19	73	203	202	208	214	173	200	155
07:00	119	57	454	458	464	473	330	436	336
08:00	201	64	531	471	539	539	507	517	407
09:00	320	176	272	221	483	355	395	345	317
10:00	425	387	155	146	346	340	409	279	304
11:00	459	388	195	141	345	373	363	283	323
12:00	464	414	150	124	343	384	382	277	323
13:00	386	349	161	119	345	337	376	268	296
14:00	355	310	210	166	410	413	464	333	333
15:00	346	277	290	378	404	511	459	419	388
16:00	342	198	440	476	457	516	510	480	420
17:00	321	203	421	503	482	504	468	476	415
18:00	252	171	325	348	355	376	367	354	313
19:00	214	128	272	245	274	288	234	263	236
20:00	147	102	185	157	185	181	200	182	165
21:00	116	99	103	140	118	148	123	128	125
22:00	97	69	74	101	112	121	124	106	100
23:00	63	29	38	43	55	42	76	51	48
Total	1247	1418	1919	1444	1974	1807	2599	2492	2411
1247-1418	3990	2914	3603	3553	5023	5121	5030	4466	4176
1247-1418	4546	3266	4366	4306	5808	5952	5760	5238	4858
1247-1418	4706	3364	4678	4603	5975	6115	5960	5396	5007
1247-1418	4836	3475	4622	4612	6130	6294	6139	5539	5138
AM Peak	11:00	11:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00
PM Peak	12:00	12:00	17:00	17:00	16:00	16:00	16:00	16:00	16:00
24Hr Tot L14	664	614	440	503	482	516	510	480	420



Gravesend ATC, Old Perry Street

Direction: Northbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Sat 11 Jun 2022	2382	2178	199	3	2
Sun 12 Jun 2022	1732	1602	127	1	2
Mon 13 Jun 2022	2525	2236	286	1	2
Tue 14 Jun 2022	2396	2127	266	0	3
Wed 15 Jun 2022	3204	2824	369	5	6
Thu 16 Jun 2022	3130	2787	339	2	2
Fri 17 Jun 2022	2999	2661	326	4	8
5 Day Ave.	2851	2527	317	2	4
7 Day Ave.	2624	2345	273	2	4

Direction: Southbound

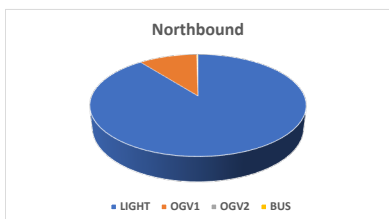
	Total Volume	LIGHT	OGV1	OGV2	BUS
Sat 11 Jun 2022	2454	2037	405	1	11
Sun 12 Jun 2022	1743	1483	253	1	6
Mon 13 Jun 2022	2097	1725	353	3	16
Tue 14 Jun 2022	2216	1846	362	0	8
Wed 15 Jun 2022	2926	2408	499	5	14
Thu 16 Jun 2022	3164	2606	537	10	11
Fri 17 Jun 2022	3140	2569	556	1	14
5 Day Ave.	2709	2231	461	4	13
7 Day Ave.	2534	2096	424	3	11

Direction: Total Flow

	Total Volume	LIGHT	OGV1	OGV2	BUS
Sat 11 Jun 2022	4836	4215	604	4	13
Sun 12 Jun 2022	3475	3085	380	2	8
Mon 13 Jun 2022	4622	3961	639	4	18
Tue 14 Jun 2022	4612	3973	628	0	11
Wed 15 Jun 2022	6130	5232	868	10	20
Thu 16 Jun 2022	6294	5393	876	12	13
Fri 17 Jun 2022	6139	5230	882	5	22
5 Day Ave.	5559	4758	779	6	17
7 Day Ave.	5158	4441	697	5	15

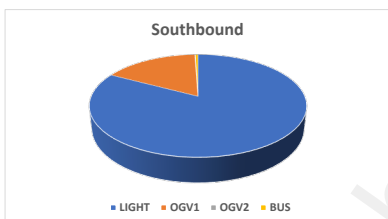
	Total Volume	LIGHT	OGV1	OGV2	BUS
Sat 11 Jun 2022	100.0%	91.4%	8.4%	0.1%	0.1%
Sun 12 Jun 2022	100.0%	92.5%	7.3%	0.1%	0.1%
Mon 13 Jun 2022	100.0%	88.6%	11.3%	0.0%	0.1%
Tue 14 Jun 2022	100.0%	88.8%	11.1%	0.0%	0.1%
Wed 15 Jun 2022	100.0%	88.1%	11.5%	0.2%	0.2%
Thu 16 Jun 2022	100.0%	89.0%	10.8%	0.1%	0.1%
Fri 17 Jun 2022	100.0%	88.7%	10.9%	0.1%	0.3%
5 Day Ave.	100.0%	88.6%	11.1%	0.1%	0.1%
7 Day Ave.	100.0%	89.4%	10.4%	0.1%	0.1%

360 TSL Ltd



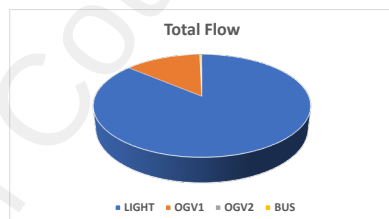
	Total Volume	LIGHT	OGV1	OGV2	BUS
Sat 11 Jun 2022	100.0%	83.0%	16.5%	0.0%	0.4%
Sun 12 Jun 2022	100.0%	85.1%	14.5%	0.1%	0.3%
Mon 13 Jun 2022	100.0%	82.3%	16.8%	0.1%	0.8%
Tue 14 Jun 2022	100.0%	83.3%	16.3%	0.0%	0.4%
Wed 15 Jun 2022	100.0%	82.3%	17.1%	0.2%	0.5%
Thu 16 Jun 2022	100.0%	82.4%	17.0%	0.3%	0.3%
Fri 17 Jun 2022	100.0%	81.8%	17.7%	0.0%	0.4%
5 Day Ave.	100.0%	82.4%	17.0%	0.1%	0.5%
7 Day Ave.	100.0%	82.7%	16.7%	0.1%	0.5%

360 TSL Ltd



	Total Volume	LIGHT	OGV1	OGV2	BUS
Sat 11 Jun 2022	100.0%	87.2%	12.5%	0.1%	0.3%
Sun 12 Jun 2022	100.0%	88.8%	10.9%	0.1%	0.2%
Mon 13 Jun 2022	100.0%	85.7%	13.8%	0.1%	0.4%
Tue 14 Jun 2022	100.0%	86.1%	13.6%	0.0%	0.2%
Wed 15 Jun 2022	100.0%	85.4%	14.2%	0.2%	0.3%
Thu 16 Jun 2022	100.0%	85.7%	13.9%	0.2%	0.2%
Fri 17 Jun 2022	100.0%	85.2%	14.4%	0.1%	0.4%
5 Day Ave.	100.0%	85.6%	14.0%	0.1%	0.3%
7 Day Ave.	100.0%	86.1%	13.5%	0.1%	0.3%

360 TSL Ltd



Gravesend ATC, Old Perry Street

Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <5mph	Bin 2 5<10	Bin 3 10<15	Bin 4 15<20	Bin 5 20<25	Bin 6 25<30	Bin 7 30<35	Bin 8 35<40	Bin 9 40<45	Bin 10 45<50	Bin 11 50<55	Bin 12 >=55
Sat 11 Jun 2022	415	29.0	25.2	3.7	0	1	2	17	183	179	33	0	0	0	0	0
Sun 12 Jun 2022	366	29.7	25.8	3.8	0	1	2	9	135	187	28	3	1	0	0	0
Mon 13 Jun 2022	212	28.4	24.0	4.2	0	2	3	22	98	77	10	0	0	0	0	0
Tue 14 Jun 2022	166	28.5	24.1	4.2	0	0	3	19	78	55	10	1	0	0	0	0
Wed 15 Jun 2022	333	28.9	25.6	3.2	0	0	0	5	136	178	12	1	0	1	0	0
Thu 16 Jun 2022	343	29.2	25.5	3.6	0	0	1	13	140	162	25	2	0	0	0	0
Fri 17 Jun 2022	363	29.4	25.4	3.9	0	0	1	26	129	176	29	2	0	0	0	0
5 Day Ave.	283	28.9	24.9	3.8	0	0	2	17	116	130	17	1	0	0	0	0
7 Day Ave.	314	29.0	25.1	3.8	0	1	2	16	128	145	21	1	0	0	0	0

360 TSL Ltd

Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <5mph	Bin 2 5<10	Bin 3 10<15	Bin 4 15<20	Bin 5 20<25	Bin 6 25<30	Bin 7 30<35	Bin 8 35<40	Bin 9 40<45	Bin 10 45<50	Bin 11 50<55	Bin 12 >=55
Sat 11 Jun 2022	469	24.5	18.8	5.5	2	17	84	193	108	55	9	1	0	0	0	0
Sun 12 Jun 2022	329	26.2	20.7	5.3	0	4	34	120	106	50	13	2	0	0	0	0
Mon 13 Jun 2022	134	26.8	21.6	5.0	0	1	9	37	60	20	6	1	0	0	0	0
Tue 14 Jun 2022	123	25.9	21.1	4.6	0	1	10	35	55	20	2	0	0	0	0	0
Wed 15 Jun 2022	358	25.2	20.3	4.8	0	4	43	120	138	48	5	0	0	0	0	0
Thu 16 Jun 2022	370	25.3	19.8	5.3	0	10	58	118	127	50	7	0	0	0	0	0
Fri 17 Jun 2022	409	24.8	19.7	5.0	2	7	53	156	136	50	5	0	0	0	0	0
5 Day Ave.	279	25.6	20.5	4.9	0	5	35	93	103	38	5	0	0	0	0	0
7 Day Ave.	313	25.5	20.3	5.0	1	6	42	111	104	42	7	1	0	0	0	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <5mph	Bin 2 5<10	Bin 3 10<15	Bin 4 15<20	Bin 5 20<25	Bin 6 25<30	Bin 7 30<35	Bin 8 35<40	Bin 9 40<45	Bin 10 45<50	Bin 11 50<55	Bin 12 >=55
Sat 11 Jun 2022	884	27.7	21.8	5.7	2	18	86	210	291	234	42	1	0	0	0	0
Sun 12 Jun 2022	695	28.8	23.4	5.2	0	5	36	129	241	237	41	5	1	0	0	0
Mon 13 Jun 2022	346	27.9	23.1	4.7	0	3	12	59	158	97	16	1	0	0	0	0
Tue 14 Jun 2022	289	27.6	22.8	4.6	0	1	13	54	133	75	12	1	0	0	0	0
Wed 15 Jun 2022	691	27.9	22.8	4.9	0	4	43	125	274	226	17	1	0	1	0	0
Thu 16 Jun 2022	713	28.1	22.5	5.3	0	10	59	131	267	212	32	2	0	0	0	0
Fri 17 Jun 2022	772	27.9	22.4	5.3	2	7	54	182	265	226	34	2	0	0	0	0
5 Day Ave.	562	27.9	22.7	5.0	0	5	36	110	219	167	22	1	0	0	0	0
7 Day Ave.	627	28.0	22.7	5.1	1	7	43	127	233	187	28	2	0	0	0	0

360 TSL Ltd

Gravesend ATC, Old Perry Street

Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <5mph	Bin 2 5<10	Bin 3 10<15	Bin 4 15<20	Bin 5 20<25	Bin 6 25<30	Bin 7 30<35	Bin 8 35<40	Bin 9 40<45	Bin 10 45<50	Bin 11 50<55	Bin 12 >=55
Sat 11 Jun 2022	338	29.4	26.1	3.2	0	0	0	1	130	174	32	1	0	0	0	0
Sun 12 Jun 2022	267	30.2	26.2	3.9	0	0	2	6	85	143	27	3	1	0	0	0
Mon 13 Jun 2022	269	29.1	24.4	4.6	0	1	9	23	112	104	18	2	0	0	0	0
Tue 14 Jun 2022	247	29.6	24.7	4.7	0	4	5	14	99	111	10	3	1	0	0	0
Wed 15 Jun 2022	381	29.8	25.7	3.9	0	0	2	9	160	170	37	2	0	0	1	0
Thu 16 Jun 2022	378	29.7	25.5	4.0	0	2	3	15	139	186	31	1	1	0	0	0
Fri 17 Jun 2022	421	29.3	25.1	4.0	0	4	2	13	181	196	22	2	0	1	0	0
5 Day Ave.	339	29.5	25.1	4.2	0	2	4	15	138	153	24	2	0	0	0	0
7 Day Ave.	329	29.6	25.4	4.0	0	2	3	12	129	155	25	2	0	0	0	0

360 TSL Ltd

Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <5mph	Bin 2 5<10	Bin 3 10<15	Bin 4 15<20	Bin 5 20<25	Bin 6 25<30	Bin 7 30<35	Bin 8 35<40	Bin 9 40<45	Bin 10 45<50	Bin 11 50<55	Bin 12 >=55
Sat 11 Jun 2022	363	26.5	20.9	5.4	0	5	39	126	110	67	14	2	0	0	0	0
Sun 12 Jun 2022	320	25.7	20.6	5.0	1	5	28	107	131	38	9	1	0	0	0	0
Mon 13 Jun 2022	234	23.7	18.3	5.2	1	7	51	99	48	26	2	0	0	0	0	0
Tue 14 Jun 2022	297	24.4	18.9	5.3	0	15	48	111	87	32	4	0	0	0	0	0
Wed 15 Jun 2022	483	23.8	18.5	5.1	0	17	97	195	126	41	7	0	0	0	0	0
Thu 16 Jun 2022	546	23.7	18.5	5.0	0	16	109	240	128	44	8	0	1	0	0	0
Fri 17 Jun 2022	502	24.2	18.8	5.2	1	19	88	205	131	51	6	1	0	0	0	0
5 Day Ave.	412	24.0	18.6	5.2	0	15	79	170	104	39	5	0	0	0	0	0
7 Day Ave.	392	24.6	19.2	5.2	0	12	66	155	109	43	7	1	0	0	0	0

360 TSL Ltd

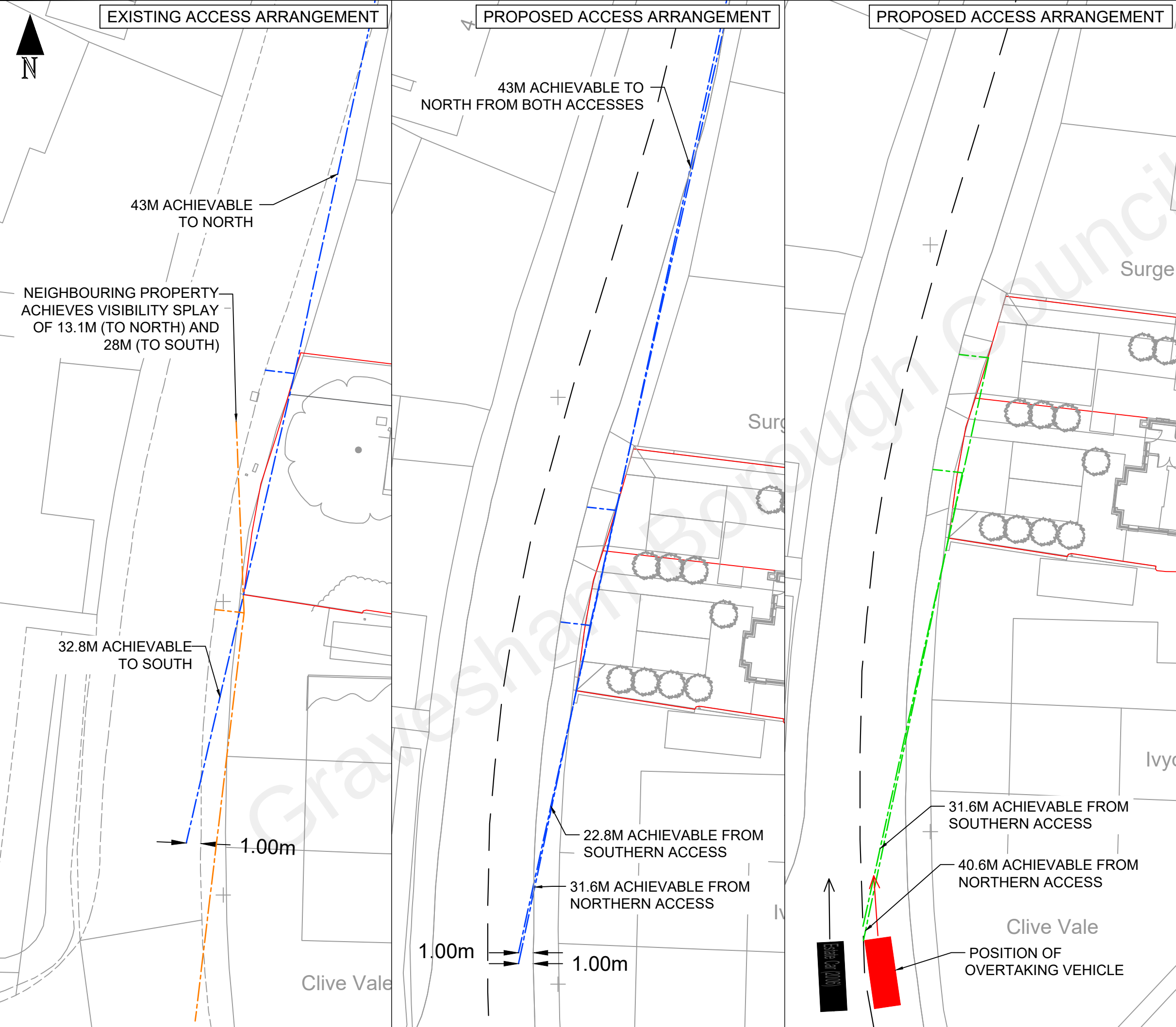
Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <5mph	Bin 2 5<10	Bin 3 10<15	Bin 4 15<20	Bin 5 20<25	Bin 6 25<30	Bin 7 30<35	Bin 8 35<40	Bin 9 40<45	Bin 10 45<50	Bin 11 50<55	Bin 12 >=55
Sat 11 Jun 2022	701	28.8	23.4	5.2	0	5	39	127	240	241	46	3	0	0	0	0
Sun 12 Jun 2022	587	28.7	23.2	5.3	1	5	30	113	216	181	36	4	1	0	0	0
Mon 13 Jun 2022	503	27.5	21.6	5.7	1	8	60	122	160	130	20	2	0	0	0	0
Tue 14 Jun 2022	544	27.6	21.5	5.8	0	19	53	125	186	143	14	3	1	0	0	0
Wed 15 Jun 2022	864	27.7	21.7	5.8	0	17	99	204	286	211	44	2	0	0	1	0
Thu 16 Jun 2022	924	27.4	21.3	5.8	0	18	112	255	267	230	39	1	2	0	0	0
Fri 17 Jun 2022	923	27.5	21.7	5.7	1	23	90	218	312	247	28	3	0	1	0	0
5 Day Ave.	752	27.5	21.6	5.8	0	17	83	185	242	192	29	2	1	0	0	0
7 Day Ave.	721	27.9	22.0	5.6	0	14	69	166	238	198	32	3	1	0	0	0

360 TSL Ltd

APPENDIX C

Gravesham Borough Council



- NOTES :**
- 1. Do not scale from this drawing.
 - 2. This drawing to be read & printed in colour.
 - 3. This drawing is for illustrative purposes only, and not for construction.

- KEY:**
- Visibility Splays to 1.0m Offset from Kerb
 - Neighbouring Visibility Splays to 1.0m Offset from Kerb
 - Visibility Splays to Carriageway Centreline

REV	DETAILS	DRAWN	CHECKED	DATE
...	...	...	...	...

CLIENT	
Mr. P. Saron	
PROJECT	
Old Perry Street, Gravesend	
DRAWING TITLE	
Site Access Visibility Splays	
SCALE	SIZE
1:500@A3	A3
DRAWN BY	CHECKED BY
AEG	KH
DATE	06.07.22
PROJECT REF	
22055	
DWG NO	REV
001	...

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Approved by London Council



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