COACH PARKING, B2066 ROEDEAN ROAD, BRIGHTON

HIGHWAY APPRAISAL

JULY 2016



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HIGHWAY APPRAISAL

ROEDEAN RESIDENTS ASSOCIATION

Project no: 70022532 Date: July 2016

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QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks	1 st Issue			
Date	July 2016			
Prepared by	M.Brown			
Signature				
Checked by	I.Dimbylow			
Signature				
Authorised by	I.Dimbylow			
Signature				
Project number	70022532			
Report number				
File reference	70022532			

TABLE OF CONTENTS

1	INTRODUCTION	1
2	EXISTING HIGHWAY SITUATION	2
3	RECOMMENDATIONS	9
4	SUMMARY AND CONCLUSION	11

APPENDICES

APPENDIX A EXISTING LAYOUT OF ROEDEAN ROAD

APPENDIX B COACH PARKING PHOTO

APPENDIX C CARRIAGEWAY DIMENSION PLANS

APPENDIX D SWEPT PATH ANALYSIS ROEDEAN WAY

1 INTRODUCTION

1.1 REPORT BRIEF

1.1.1 WSP | Parsons Brinckerhoff has been commissioned by Roedean Residents Association (RRA) to provide highway advice in connection with road safety concerns associated with existing coach parking on the southern section of the B2066 Roedean Way, Brighton. This report reviews the existing road safety concerns with coach parking and provides recommendations to improve the operation of the B2066 Roedean Road.

1.2 REPORT FORMAT

- 1.2.1 Section 2 of the report details of the existing highway layout and coach parking that currently occurs on the southern side of the B2066 Roedean Road. It then considers the suitability of the coach parking and identifies highway safety issues.
- 1.2.2 Section 3 of the report identifies options to address the existing problems.
- 1.2.3 Section 4 provides a summary of the report and conclusions.

2 EXISTING HIGHWAY SITUATION

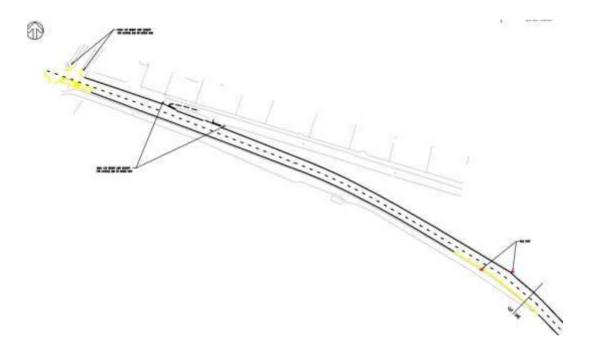
2.1 INTRODUCTION

2.1.1 This chapter of the report provides details of the highway under consideration and the existing coach parking. It then provides details of the existing highway safety concerns associated with the coach parking.

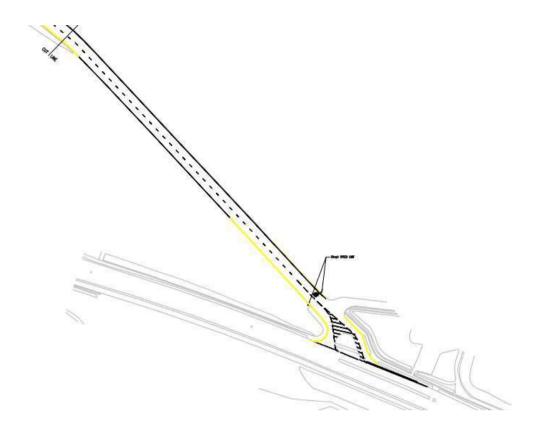
2.2 EXISTING HIGHWAY LAYOUT

2.2.1 The B2066 Roedean Road runs from Brighton city centre at the junction with the B2137 to the junction with the A259 Marine Drive to the south east. The section of the B2066 Roedean Road under consideration is detailed on the plans below and runs between the priority junction with Roedean Way to the west and the priority junction with the A259 Marine Drive to the east.

ROEDEAN ROAD - STUDY AREA - WESTERN SECTION



ROEDEAN ROAD - STUDY AREA - EASTERN SECTION



2.2.2 The B2066 Roedean Road study area is described below running west to east:

- → A bus stop is located opposite the junction with Roedean Crescent on the southern side of Roedean Road. The junction of Roedean Crescent is subject to 'No Waiting at any time' double yellow lines to protect the junction;
- The north western side of Roedean Road is fronted by large detached properties that continue to the north east and are served by Roedean Way. Roedean Way forms two priority junctions with Roedean Road at its western end. The two priority junctions are located within close proximity of each other and the near parallel alignment of Roedean Road and Roedean Way results in a very tight left turn exit from Roedean Way.
- → Roedean Way has recently been subject to a 7.5 tonnes weight limit (except for access) and a no bus order. This order has been made to prevent heavy vehicles and coaches accessing Roedean Way to park.
- → Roedean Road to the east of the junctions with Roedean Way runs through open grass land to the north and a golf course to the south.
- → The middle section of Roedean Road accommodates bus stops on the northern and southern side of the carriageway. The southern bus stop is protected by approximately 50m of 'No Waiting at Any Time' (Double yellow lines) parking restrictions. In addition an informal pedestrian desire line exists between the two bus stops that link to Roedean Way to the north.
- → The south eastern section of Roedean Road forms a priority junction with the A259 Marine Drive. The approach to the junction with the A259 is protected by approximately 100m of 'No Waiting at Any Time' parking restrictions.

- 2.2.3 The B2066 Roedean Road is subject to a 30mph speed limit and benefits from a system of street lighting. The speeds limit changes from 30mph to 50mph at the junction with the A259 Marine Parade. The extent of Roedean Road under consideration does not benefit from footway provision and is bound by open grass land to the north and a golf course to the south. Roedean Road is also provided with edge of carriageway road markings on the sections that are not covered by parking restrictions. The northern edge of carriageway road marking is offset approximately 0.75m from the verge / open grass. It is understood that the large offset is to provide a degree of shelter for pedestrians who may walk on the northern carriageway. The southern edge of carriageway marking runs approximately 0.25m from the golf course.
- 2.2.4 The carriageway width of the western section of the Roedean Road study area ranges between approximately 9.8m to 7.9m. The eastern section of Roedean Road study area ranges between 8.9 to 8.4m.
- 2.2.5 The existing layout of Roedean Road is detailed on plans provided at **Appendix A** of this report.

2.3 COACH PARKING ALONG ROEDEAN ROAD

- 2.3.1 Roedean Road is located to the east of Brighton city centre and the majority is not subject to parking restrictions. The close proximity to the city centre and lack of parking restrictions has results in Roedean Road being utilised for parking by coaches, especially during the summer tourist season. On-site observations indicate that coach parking forms a continuous line on the southern side of Roedean Road from the junction with Roedean Crescent to the junction with the A259 Marine Parade. This parking is with the exception of the middle and south eastern sections of Roedean Road not subject to parking restrictions. A major reason for Roedean Road being used by coaches is because it is free, whereas there are charges on Marine Drive with limited parking areas. The continuous line of coach parking is highlighted in a photo provided at **Appendix B** of this report.
- 2.3.2 The original function of the B2099 Roedean Road was clearly not to provide coach parking facilities, but to facilitate the movement of vehicles east and west to and from Brighton city centre. The coach parking is a result of a lack of formal coach parking facilities in Brighton, which is significant problem. It is understood that the Local Transport Plan 4 includes a commitment to: "Develop a Strategy for managing and improving coach movements in the city, including coach parking and the use and quality of Pool Valley coach station." The Local Transport Plan identifies that the coach parking strategy will be completed between 2015/16 and 2018/19. However, the Local Transport Plan does not provide details regarding the delivery of appropriate coach parking facilities to serve the city. The Local Transport Plan runs until 2030 and the provision of coach parking facilities is therefore unlikely to occur in the short to medium term.
- 2.3.3 It is likely that coach parking in Brighton will be addressed in the long term that will ease coach parking pressures on Roedean Road. However, in the short to medium term coaches will continue to utilise Roedean Road for parking.
- 2.3.4 RRA has advised that the coach parking is considered detrimental to amenity of the local area in terms of visual impact, noise and antisocial behaviour of drivers. These issues are important, but best addressed outside the scope of this report. The most pressing concern of the RRA is that the continuous line of coach parking raises a number of road safety problems. The road safety issues associated with the coach parking are detailed in the next section of this report.

2.4 COACH PARKING – ROAD SAFETY ISSUES

2.4.1 As detailed above, coach parking in the summer months often forms a continuous line on the southern side of Roedean Road. The coach parking results the following road safety issues that will be explored below:

- > Coach parking reduces the available carriageway width;
- → Restricts pedestrian inter-visibility;
- Increases likelihood of vehicles straying into pedestrian area; and
- → Obstructs the priority junction with Roedean Way.

2.5 CARRIAGEWAY WIDTH

- 2.5.1 To provide an assessment of the effect of coach parking on carriageway width OS Mapping has been obtained for Roedean Road. To provide a representation of coaches parked on the southern side of Roedean Road the 'Auto Track' design vehicle library has been utilised for a standard coach. The dimensions of the coach selected are as follows:
 - → Length = 13m
 - → Width = 2.550m with 0.25m for wing mirrors, overall width 3.05m
- 2.5.2 The above coach has been parked continuously on the southern side of Roedean Road in areas without restrictions to replicate the observed conditions. A series of dimension plans have been produced and are provided at **Appendix C** of this report. The dimension plans indicate the full carriageway width and the reduced carriageway width, as a result of coach parking for the extent of the study area.
- 2.5.3 The acceptability of the carriageway width with coaches parked to accommodate the following vehicular scenarios is considered:
 - → Cars passing and re-passing;
 - Car and HGV passing and re-passing;
 - → HGV and HGV passing and re-passing.
- 2.5.4 To provide an indication of the width of vehicles detailed in the above scenarios the 'Auto Track' design vehicle library has been utilised and provides the following widths:
 - → HGV = 2.550 wide with 0.25m either side for wing mirrors, overall width = 3.05m
 - → Family Saloon 1.87m with 0.1 either side for wing mirrors, overall width = 2.07m

CARS

- 2.5.5 The above evidence indicates that for cars passing and re-passing an absolute minimum combined width of 4.14m will be necessary. However, this width does not allow for any separation width to allow vehicles to pass comfortably. A minimum carriageway width of 4.64m is considered suitable to provide adequate width for cars to pass and re-pass. This is also demonstrated in Table 7.1 in the 'Department for Transports' Manual for Streets (MfS) which shows an increased width of 4.8m allowing sufficient rooms for cars to pass and re-pass.
- 2.5.6 The review of carriageway width with coaches parked indicates that the western section of Roedean Way ranges between 7m to 5.2m. The eastern section of Roedean Way varies between 6.2 to 5.7m. It is clear that there is sufficient width for cars to pass and re-pass.

CARS AND HGVS

- 2.5.7 The evidence indicates that for a HGV and car to pass and re-pass an absolute minimum combined width of 5.12m will be necessary, but does not allow for any separation. A minimum carriageway width of 5.62m will be suitable to provide adequate width for a car and HGV to pass and re-pass. It is considered that any sections of carriageway width between 5.62m to 5.12m will require the HGV and car to virtually stop to edge past one another. A carriageway width below 5.12m will not be sufficient to allow an HGV and car to pass and re-pass.
- 2.5.8 The review of carriageway width with coaches parked indicates a large proportion of the western section of Roedean Road is 5.62m or below with a minimum width of 5.2m. The eastern section of Roedean Way exceeds 5.62m. It is clear that cars and HGVs will need to pass with caution on the western section of Roedean Road.
- 2.5.9 It should be noted that the carriageway width does not allow for any clearance from the edge of the parked coaches for westbound vehicles. In reality westbound vehicles would leave a cushion between their nearside and the offside of the parked coaches. The assessment also assumes that the coaches park regimentally and adjacent to the nearside kerb. This may not always be the case and coaches may take up more road space than this assessment indicates. This is likely to be case as there is a high demand for coach parking and space is tight between the coaches. On this basis the actual width of carriageway is likely to feel tighter for drivers of cars and HGVs passing.

HGVS

- A minimum road width of 6.1m will be required to allow two HGVs to edge pass each other and 6.6m to allow two large vehicles room to comfortably pass and re-pass.
- 2.5.11 The review of carriageway widths with coaches parked indicates that there are significant sections of the Roedean Road carriageway that are significantly below 6.6m to 6.1m and passing would be difficult. In addition, sections of carriageway are also below 6.1m and it is not possible for two HGVs to pass and re-pass without encroaching onto the northern verge. The northern verge is banked at certain sections and it may not be possible for HGV's to utilise. Notwithstanding the fact that it is obviously not desirable for vehicles to encroach onto verges from a maintenance and aesthetic point of view. Passing HGVs would also fully encroach over the edge of carriageway marking, which is utilised by pedestrians.
- 2.5.12 The continuous nature of the coach parking does not allow the opportunity for two large vehicles to pass each other, with the exception of the middle section of Roedean Road that is covered by parking restrictions. The coach parking does not make it possible for opposing HGVs to see each other and wait in the middle section to pass. Therefore HGVs would need to progress in the hope that they do not encounter another large vehicle. Roedean Road is a bus route with 2 buses each way per hour during the daytime. This highlights the need for sufficient carriageway width to allow two large vehicles to pass and re-pass.
- 2.5.13 The meeting of opposing HGV movements has the potential to result in conflict and congestion and vehicles may be required to reverse some distance to pass. This is far from ideal in terms of traffic congestion and also reversing large vehicles is a known safety risk.

ENCROACHMENT INTO PEDESTRIAN AREA

2.5.14 The northern Roedean Road edge of carriageway marking is offset approximately 0.75m form the verge / open grass. The large offset is to provide a degree of shelter for pedestrian movements. Footways would normally be provided with a kerb to physically separate pedestrians and vehicle movements, this is not the case on the northern side of Roedean Road. The continuous line of coach parking significantly reduces the available carriageway width for vehicles to pass and repass. It is considered that at the narrower sections vehicles will use the northern pedestrian route to pass and re-pass. The encroachment into the northern pedestrian area by vehicles will increase the potential for conflict.

SUMMARY

- 2.5.15 The principle function of the B2066 Roedean Road should be the movement of vehicles between the city centre and the A259 Marine Drive and in addition the increased traffic volume coming from the A27 to the A259 Marine Drive, avoiding bottlenecks in Rottingdean village High Street. The continuous coach parking significantly restricts the available carriageway width to an extent that the function of the carriageway is comprised. The assessment of carriageway widths indicates that cars are able to pass and re-pass, cars and HGV's will need to pass with caution at the western section of Roedean Road and for significant sections it will very difficult / not possible for HGVs to pass and re-pass.
- 2.5.16 The reduced width of the Roedean Road carriageway has the potential to result in conflict and congestion. This is particularly apparent at the western section of Roedean Road.

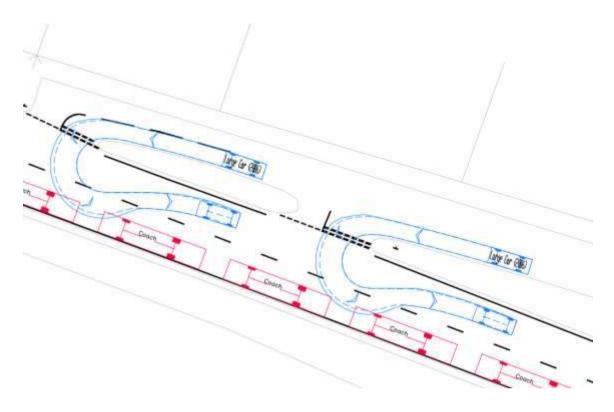
2.6 PEDESTRIAN INTERVISIBILITY

- 2.6.1 The middle section of Roedean Road is subject to 'No Waiting at Any Time' parking restrictions that protect the bus stops. In addition, an informal pedestrian desire line exists between the two bus stops that links and connects to Roedean Way to the north. RRA has advised that pedestrians also cross north to south and vice versa at the eastern and western sections of Roedean Road.
- 2.6.2 The continuous line of coach parking on the eastern and western sections of Roedean Road result in pedestrians crossing between the small gaps in the coaches. The size of the coaches completely shield pedestrians crossing north bound from the drivers of vehicles travelling westbound on Roedean Road. There is no intervisibility between pedestrians and drivers and pedestrians emerge from gaps between coaches unsighted and this increases the potential for conflict.

2.7 ROEDEAN WAY / ROEDEAN ROAD – PRIORITY JUNCTION

- 2.7.1 Roedean Way forms two priority junctions with Roedean Road at its western end. The two junctions are located within close proximity of each other. The near parallel alignment of Roedean Road and Roedean Way results in a very tight left turn exit from Roedean Way.
- 2.7.2 The junctions are currently not protected by any parking restrictions and as a result coaches park on the southern side of Roedean Road across the two junctions. The coach parking obstructs the left turn from Roedean Way to Roedean Road. This is clearly demonstrated on a plan provided at **Appendix D** of this report with an extract detailed below.





2.7.3 The coach parking exacerbates the operation of the junctions which is already tight for left turning vehicles. The operation of the junctions would benefit from the removal of coach parking.

2.8 SUMMARY

- 2.8.1 The continuous line of coach parking on the southern side of Roedean Road significantly restricts the available carriageway width to an extent that the function of the carriageway is compromised. The assessment of carriageway widths indicates that cars are able to pass and re-pass; cars and HGVs will need to pass with caution at the western section of Roedean Road and for significant sections it will be very difficult / not possible for HGVs to pass and re-pass.
- 2.8.2 The continuous line of coach parking on the eastern and western sections of Roedean Road compromises pedestrian safety. The coaches shield pedestrians crossing north bound from vehicles travelling westbound on Roedean Road. There is no intervisibility between pedestrians and drivers and pedestrians emerge from gaps between the coaches unsighted, increasing the potential for conflict with passing vehicles.
- 2.8.3 The coach parking at the western section of Roedean Road obstructs the operation of the two priority junctions with Roedean Way. In particular the left turn manoeuvre from Roedean Way to Roedean Road is a significant problem.

3 RECOMMENDATIONS

3.1 INTRODUCTION

3.1.1 This section of the report provides options to address the road safety issues identified in chapter

3.2 PARKING RESTRICTIONS

- 3.2.1 The assessment of carriageway widths detailed in chapter 2 identifies that the continuous coach parking compromises the operation of the carriageway. In particular the narrower western section of Roedean Road has the potential to result in conflict and congestion. In addition, the coach parking obstructs the operation of the priority junctions with Roedean Way and compromises the safety of pedestrians.
- 3.2.2 The road safety issues associated with coach parking at the western section of Roedean Road justify the introduction of the following parking restriction options:

NO WAITING AT ANY TIME (DOUBLE YELLOW LINES) - OPTION 1

- 3.2.3 The introduction of 'No Waiting at Any Time' double yellow lines on both sides of the Roedean Road carriageway between the junction with Roedean Crescent and the existing double yellow lines at the middle section would preclude all parking. The restrictions would be required on both sides of the carriageway to prevent the problem being shifted from the southern to the northern side of Roedean Road.
- 3.2.4 The provision of the double yellow lines would also be consistent with the restrictions provided on the section of Roedean Road to the west of the junction with Roedean Crescent. The section of Roedean Road between Roedean Crescent and the junction with Wilson Avenue is provided with 'No Waiting at Any Time double yellow lines on both sides of the carriageway.
- 3.2.5 The double yellow lines could also be applied for a period of less than 12 months of the year. This may be appropriate due to the seasonal nature of coaches and parking could be prevented from the 1st April to the 30th September. Outside of the summer months there would be no parking restrictions.
- 3.2.6 The double yellow lines would also protect the two priority junctions with Roedean Way.

LIMITED WAITING PARKING BAY - OPTION 2

- 3.2.7 Option 1 would remove all parking at the western section of Roedean Road. This approach may be considered draconian as the road safety problems are associated with large coaches, but not necessarily cars parking.
- 3.2.8 On this basis it may be appropriate to consider the introduction of a parking bay on the southern side of the western section of Roedean Road. The parking bay could be subject to limited waiting period for example 1 hour parking and no return within 4 hours. The provision of limited waiting would effectively prevent long stay coach parking.

3.2.9 It would be necessary to provide double yellow lines on the northern side of the western section of Roedean Road. This will prevent the coach parking being shifted from the southern to the northern side of Roedean Road. In addition the priority junctions with Roedean Way should also be subject to 'No Waiting at Any Time' parking restrictions to keep the junction free from obstructions.

3.3 SUMMARY

- 3.3.1 Option 1 would remove all parking on the narrower western section of Roedean Road and provide the full carriageway width for the safe movement of vehicles.
- 3.3.2 Option 2 would provide limited waiting on Roedean Road and opportunities for some short stay parking. The provision of a limited waiting parking bay is likely to significantly reduce the long stay coach parking that currently occurs.

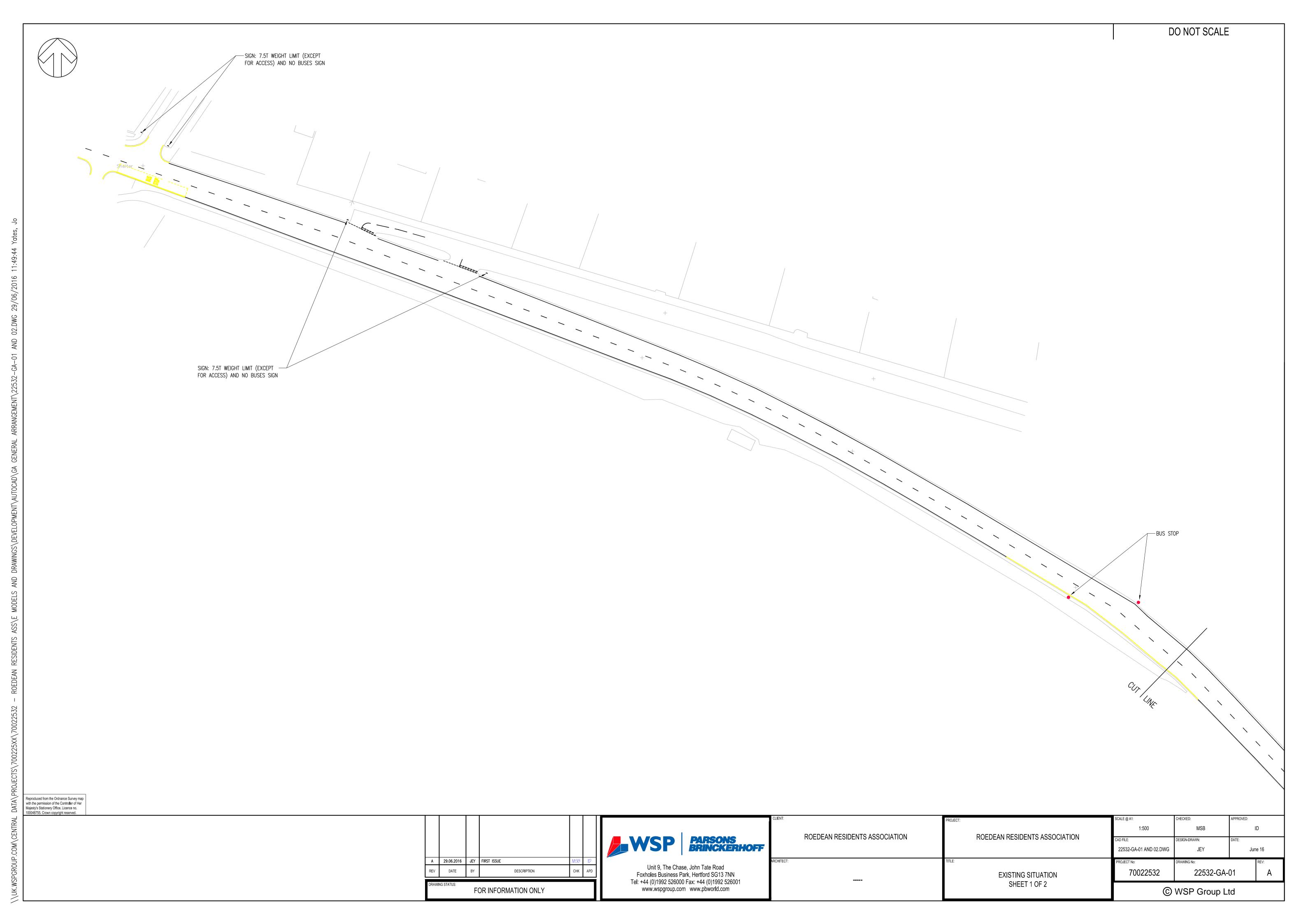
4 SUMMARY AND CONCLUSION

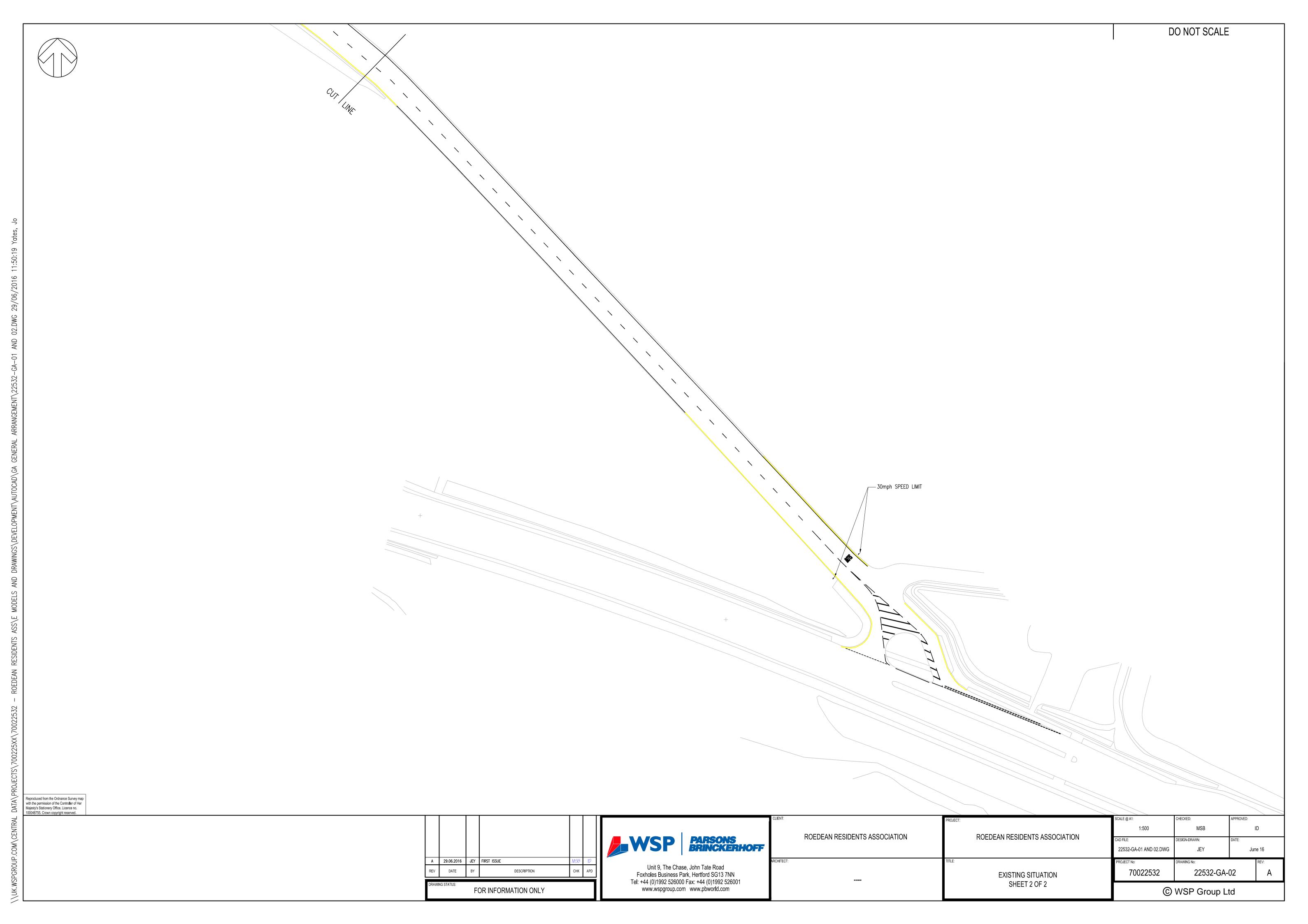
- 4.1.1 This report has been prepared on behalf of Roedean Residents Association to provide highway advice in connection with existing road safety problems associated with existing coach parking on the southern section of the B2066 Roedean Road, Brighton. This report reviews the existing road safety problems with coach parking and provides recommendations to improve the operation and safety of the B2066 Roedean Road.
- 4.1.2 Roedean Road is located to the east of Brighton city centre and the majority is not subject to parking restrictions. The close proximity to the city centre and lack of parking restrictions, results in Roedean Road being utilised for parking by coaches, especially during the summer tourist season.
- 4.1.3 On-site observations indicate that coach parking forms a continuous line on the southern side of Roedean Road from the junction with Roedean Crescent to the junction with the A259 Marine Parade.
- 4.1.4 The coach parking demand is a result of a lack of formal coach parking facilities in Brighton, which is a significant problem. A major reason for Roedean Road being used by coaches is because it is free, whereas there are charges on Marine Drive and limited parking provision. The Local Transport Plan includes a long term commitment to manage coach movements including parking strategy. However, in the short to medium term coaches will continue to park on Roedean Road.
- 4.1.5 The continuous line of coach parking on the southern side of Roedean Road results in the following road safety issues:
 - → Coach parking reduces the available carriageway width;
 - Restricts pedestrian intervisibility
 - Ped encroachment; and
 - Obstructs the priority with Roedean Way.
- 4.1.6 The continuous line of coach parking on the southern side of Roedean Road significantly restricts the available carriageway width to an extent that the function of the carriageway is compromised. The assessment of carriageway widths indicates that cars are able to pass and re-pass; cars and HGVs will need to pass with caution at the western section of Roedean Road and for significant sections it will be very difficult / not possible for HGVs to pass and re-pass. It should be noted that Roedean Road is a bus route with 2 buses each way per hour during the daytime. This highlights the need for sufficient carriageway width to allow two large vehicles to pass and re-pass.
- 4.1.7 The continuous line of coach parking on the eastern and western sections of Roedean Road compromises pedestrian safety. The coaches shield pedestrians crossing north bound from vehicles travelling westbound on Roedean Road. There is no inter visibility between pedestrians and drivers and pedestrians emerge from gaps between the coaches unsighted, increasing the potential for conflict with passing vehicles.
- 4.1.8 The coach parking at the western section of Roedean Road obstructs the operation of the two priority junctions with Roedean Way. In particular the left turn manoeuvre from Roedean Way to Roedean Road is a significant problem.
- 4.1.9 The road safety issues associated with coach parking at the western section of Roedean Road justify the introduction of parking restrictions.

- 4.1.10 The provision of 'No Waiting at Any Time' parking restrictions would remove all parking on the narrower western section of Roedean Road and provide the full carriageway width for the safe movement of vehicles. Alternatively a limited waiting parking bay on Roedean Road would provide opportunities for some short stay parking, but is likely to significantly reduce the long stay coach parking that currently occurs.
- 4.1.11 It would be necessary to provide double yellow lines on the northern side of the western section of Roedean Road. This will prevent the coach parking being shifted from the southern to the northern side of Roedean Road. In addition the priority junctions with Roedean Way should also be subject to double yellow line parking restrictions to keep the junction free from obstruction.

Appendix A

EXISTING LAYOUT OF ROEDEAN ROAD





Appendix B

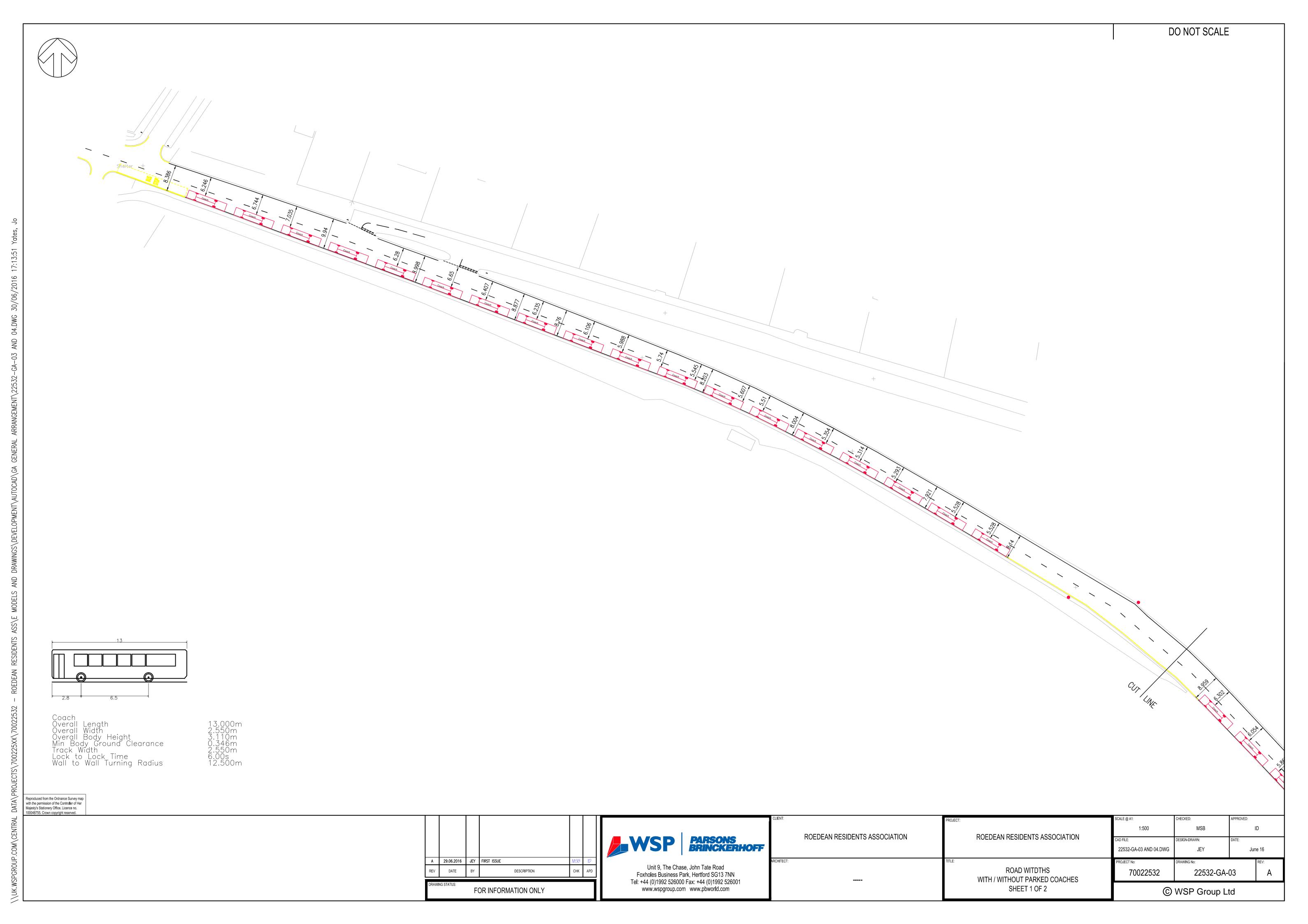
COACH PARKING PHOTO

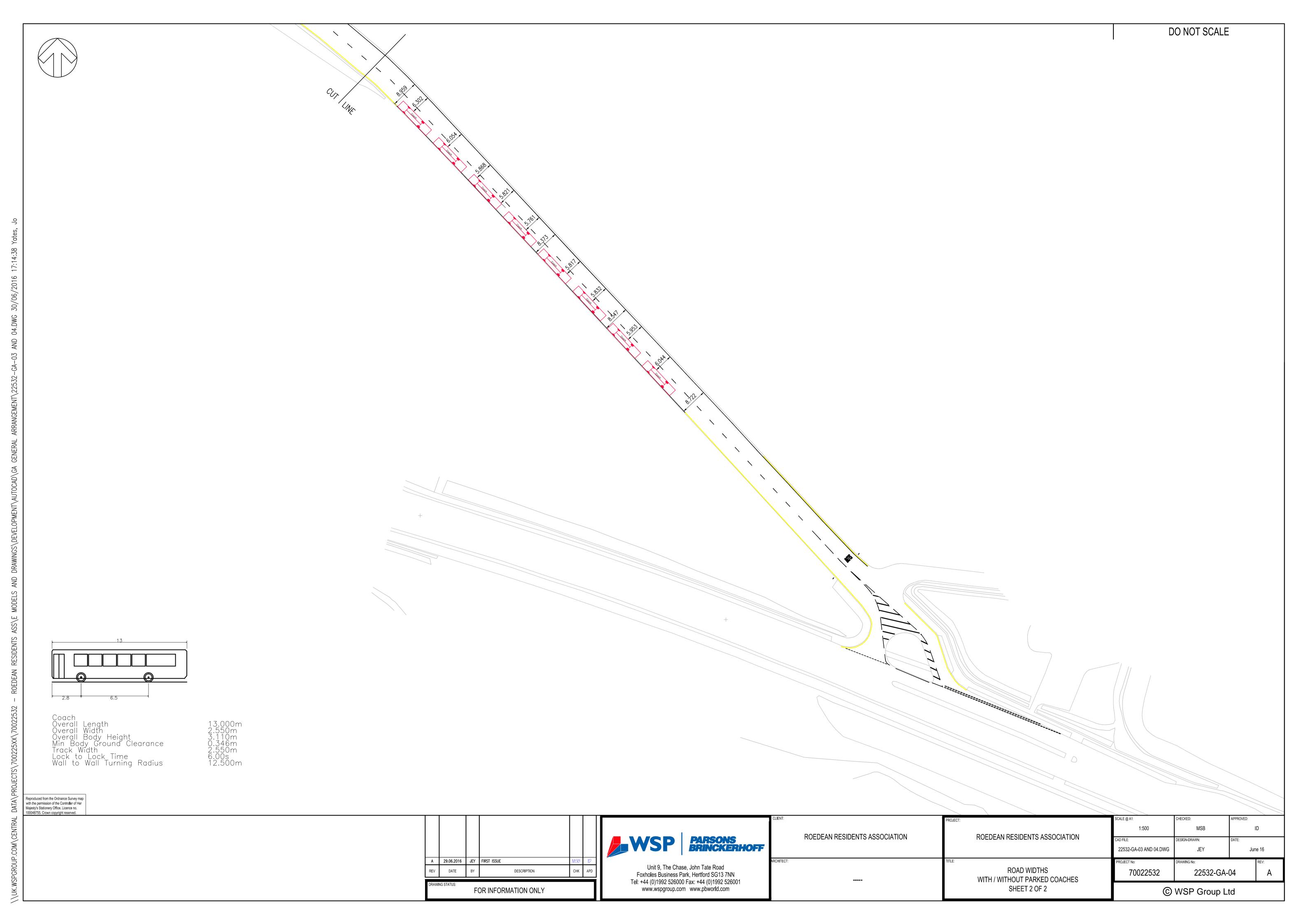




Appendix C

CARRIAGEWAY DIMENSION PLANS





Appendix D

SWEPT PATH ANALYSIS ROEDEAN WAY

