
Job name: Arundel Road, Angmering

Job No: C86473

Note No: C86473-JNP-66-XX-TN-T-1006-P02

Date: 15/08/2022

Prepared by: EL

Subject: Highways Technical Note to support Reserved Matters Application

1. Introduction

- 1.1 JNP Group have been instructed by Redrow Homes Southern Counties to prepare a Technical Note in support of planning application A/48/22/RES. The application is seeking Reserved Matters (RM) approval of the construction of 160 dwellings on land west of Arundel Road, Angmering. Outline consent for the scheme was granted in March 2020 under application A/122/19/OUT and varied under application A/207/21/PL.
- 1.2 The Local Planning Authority (LPA) is Arun District Council (ADC) and the Local Highway Authority (LHA) is West Sussex County Council (WSCC).
- 1.3 Following the submission of the RM application in March 2022, a series of consultation comments have been provided in response to the plans. This includes consultation comments from WSCC. The proposed layout has since been amended and an updated package of highways drawings has been prepared to support the submission.
- 1.4 This Technical Note has been prepared to summarise the changes to the proposed layout and how previous comments raised by WSCC have been addressed.

2. Previous Consultation Comments from WSCC

- 2.1 A consultation response to application A/48/22/RES was provided to ADC by WSCC on 22nd April 2022. The responds requests that more information is provided, or modifications are made to the layout, to address comments raised by WSCC. The comments are summarised as follows:
 1. "No vehicular access is possible between the northern and southern accesses internal of the site. The scheme may benefit from an emergency access link should either become blocked;
 2. No details are shown as to how a pedestrian and cycle connection could be made to allow the residential element of the development to utilise the southern access;
 3. No crossing point to be provided to allow north/south movement close to the northern access;
 4. At the outline stage indicative plans showed a ped cycle route to the north of the POS, in the RM application the only a grass link is provided. Further information should be provided

August 22

onto any further connections into the POS or proposed future footway/cycleway provision within the POS;

5. Tracking has been provided for a fire tender and refuse vehicle and are acceptable. It is noted that in some areas the tracking would extend off the carriageway on to what maybe a residential curtilage. This boundary should be checked and ensured a suitable surfacing is provided;
6. A number of locations the forward visibility around the bend would be obstructed by the proposed tree planting. Further details on the type of trees proposed and impact on visibility should be provided.

- 2.2 The revisions to the proposed layout have sought to address comments from a range of consultees, including the six comments listed above. The remainder of this Technical Note summarises the highway related matters which have been revised since the previous iteration of the layout. Specific reference to the above six points is given where relevant.

3. Summary of Layout Amendments

- 3.1 The revised layout is provided as **Appendix A** of this Technical Note (drawing reference: 20232 P201L). The primary site access arrangement which provides access to the residential portion of the site remains unchanged, however proposals have now been developed further for the secondary access point.
- 3.2 The secondary access point will primarily serve the commercial land use but will also act as an emergency access point to the residential dwellings. Pedestrian and cyclist access will also be available via this connection point. The secondary access is discussed in further detail in Section 7 of this Technical Note.
- 3.3 It is noted from WSCC's previous comments that a crossing point was not provided near the north access to facilitate pedestrian movements. A break in the verge on the east side of the access road, near Plot 6, has been incorporated to allow pedestrians to cross informally to the footway on the west side of the access.
- 3.4 With regards to providing connections to the POS, a review of the site plan has confirmed that a 1.2m wide path with a paved surfaced will provide a north-south link along the east side of the sports pitches. The POS where the sports pitches are located will be designed and delivered by ADC and the layout facilitates connections with the POS if required in the future.
- 3.5 Paved routes will also be provided through the POS near Plot 10. The POS in this location forms a central feature and will connect to the footway provision on the four roads which surrounding it.

4. Highway Geometry and Visibility Splays

- 4.1 Drawing C86473-JNP-66-XX-DR-T-7109 P03 is provided as **Appendix B** of this Technical Note and shows the proposed geometry of the internal layout, as well as the junction visibility splays and forward visibility splays on bends.

- 4.2 The previous consultation response from WSCC noted that some forward visibility splays would be obstructed by proposed planting. Further detail on the types of trees proposed and the impact on visibility was requested.

- 4.3 A review of the revised layout has confirmed that only the forward visibility near Plot 6 interacts with the forward visibility splay on the bend. It is anticipated that the planting within the visibility splay will be semi-mature 'clear stem' trees and/or trees with a high canopy. This accords with Manual for Streets Section 7.8.6, which states the following:

"In general, occasional obstacles to visibility that are not large enough to fully obscure a whole vehicle or a pedestrian, including a child or wheelchair user, will not have a significant impact on road safety"

5. Refuse Vehicle Swept Path Analysis

- 5.1 Drawing C86473-JNP-66-XX-DR-T-7110 P03 is provided as **Appendix C** and demonstrates a refuse vehicle travelling throughout the layout and utilising turning heads where necessary. For dwellings positioned along cul-de-sacs or private drives, the dwellings are within a 25m drag distance of the vehicle, which accords with Paragraph 1.7 (Section H6) of the Building Regulations Approved Document H – Drainage and Waste Disposal (2015 edition).
- 5.2 The previous WSCC consultation response noted that the refuse vehicle reversed onto some areas which appeared to be residential curtilage. The response requested that the boundary was checked, and a suitable surfacing was provided. The turning head lengths have been extended where appropriate to ensure that the vehicle remains on the adopted extents. This is particularly notable near Plots 119 and 102.
- 5.3 Drawing C86473-JNP-66-XX-DR-T-7112 P01 is also provided within **Appendix C** and demonstrates the refuse vehicle passing an estate car on bends within the site. Suitable widening has been provided where necessary to ensure that both vehicles can pass at the same time.

6. Fire Tender Swept Path Analysis

- 6.1 Drawing C86473-JNP-66-XX-DR-T-7111 P03 is provided as **Appendix D** and demonstrates a fire tender vehicle travelling throughout the layout and utilising turning heads where necessary. For dwellings positioned along cul-de-sacs or private drives, the hose distance from the rear of the vehicle to the furthest part of each dwelling is less than 45m. Reversing distances for the turning manoeuvres do not exceed 20m, which accords with the requirements set out in Building Regulations Approved Document B (2020).

7. Secondary Access Road and Emergency Access Link

- 7.1 In accordance with the comments raised by WSCC, an emergency access link has been incorporated from the secondary access road and will connect to the residential layout near Plot 25. The access will be controlled by detachable or demountable bollards, the details for which will be agreed as part of a future Section 278 submission. The access has a width of 3.7m.

- 7.2 The use of bollards ensures that non-motorised users are able to utilise the emergency access link and access/egress the site via the footway on the north side of the secondary access. The bollards will be positioned near the bellmouth with Arundel Road and internally within the site, ensuring that unauthorised vehicles do not enter the road in error.
- 7.3 This accords with the comments raised by WSCC, whereby a connection to the secondary access onto Arundel Road for pedestrians and cyclists was requested.

8. Summary

- 8.1 This Technical Note has been in support the submission of updated plans for application A/48/22/RES. The Note summarises the relevant highway changes which have been made to the layout since the previous submission, whilst also addressing comments raised by WSCC within their previous consultation response.

Document Issue Record

Technical Note No	Rev	Date	Prepared	Reviewed	Approved
C86473-JNP-66-XX-TN-T-1006	-	01/08/2022	EL	BD	BD
C86473-JNP-66-XX-TN-T-1006	P01	03/08/2022	EL	BD	BD
C86473-JNP-66-XX-TN-T-1006	P02	15/08/2022	EL	BD	BD

List of Appendices

Appendix A	20232 P201 Rev L Site Plan
Appendix B	C86473-JNP-66-XX-DR-T-7109 P03 Highway Geometry and Visibility Splays
Appendix C	C86473-JNP-66-XX-DR-T-7110 P03 Refuse Vehicle Swept Path Analysis C86473-JNP-66-XX-DR-T-7112 P01 Refuse Vehicle and Estate Car Swept Path Analysis
Appendix D	C86473-JNP-66-XX-DR-T-7111 P03 Fire Tender Swept Path Analysis

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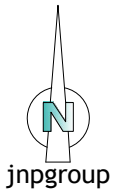
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Appendix A

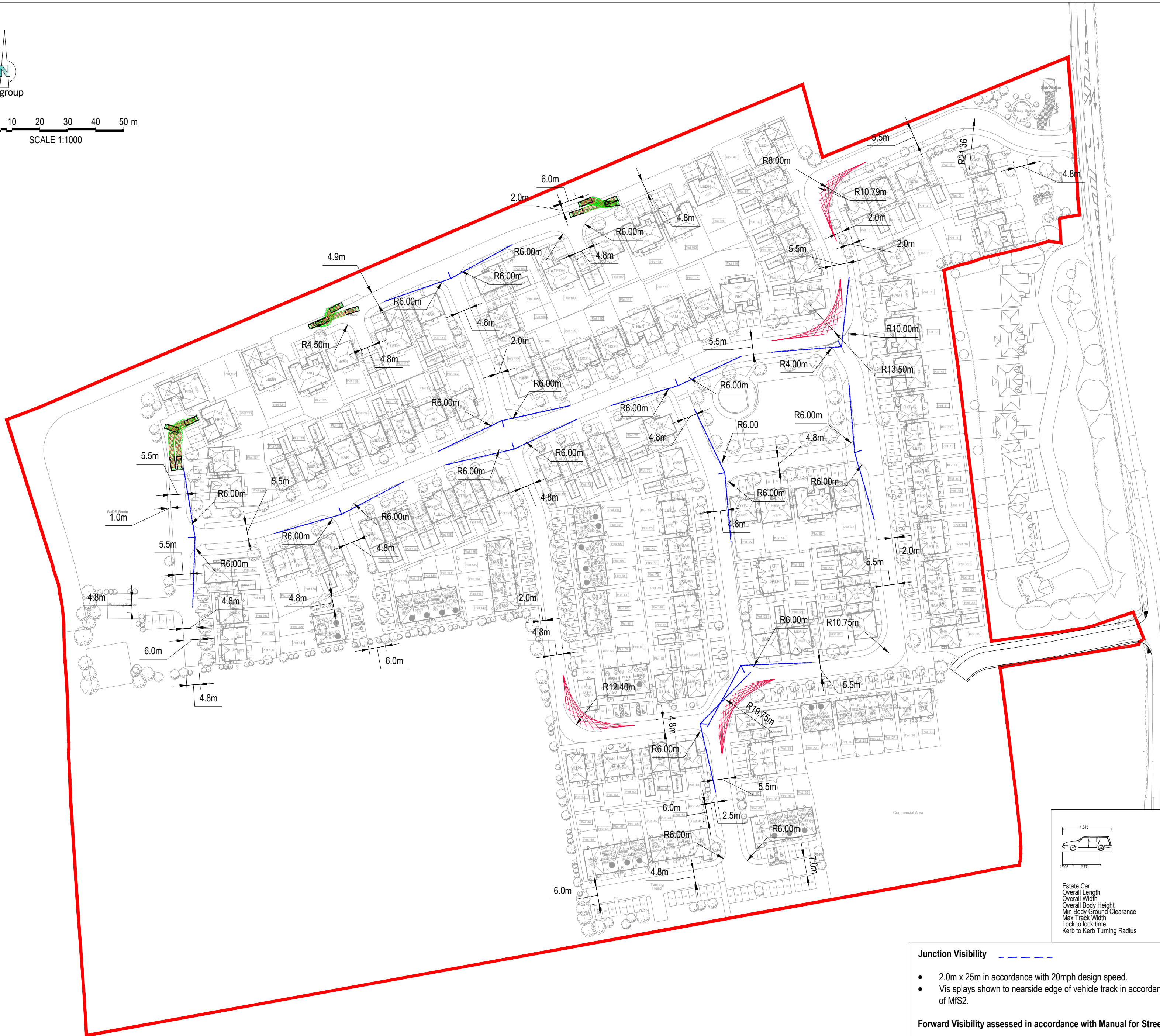
20232 P201 Rev L Site Plan

Appendix B

C86473-JNP-66-XX-DR-T-7109 P03 Highway Geometry and Visibility Splays



0 10 20 30 40 50 m
SCALE 1:1000



Junction Visibility

- 2.0m x 25m in accordance with 20mph design speed.
- Vis splays shown to nearside edge of vehicle track in accordance with Para 10.5.3 of MfS2.

Forward Visibility assessed in accordance with Manual for Streets (MfS)

- Reductions in stopping sight distance (SSD) around speed control bends have been manually calculated in accordance with Para 8.3.8 of MfS2.
- Bend Radius (R) determined using the centre of the carriageway lane for robustness.

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P03	12/08/2022	Fourth Issue	EL/BD/BD
P02	03/08/2022	Third Issue	EL/BD/BD
P01	28/01/2022	Second Issue	EL/SW/SW
Rev.	Date	Description	Dm / Chkd / App'd

Suitability: S2 - Suitable for Information

Client Logo:

REDROW
HOMES

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Client: Redrow Homes Limited

Job: Arundel Road, Angmering

Title: Highway Geometry and Visibility Splays

Classification: FI_60_20
Scale @ A2: 1:1000

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number
C86473 - JNP-66-XX-DR-T-7109

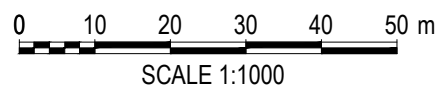
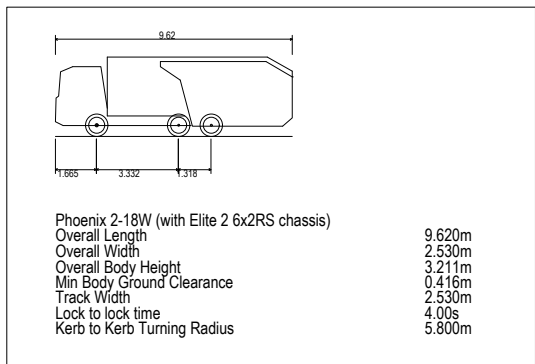
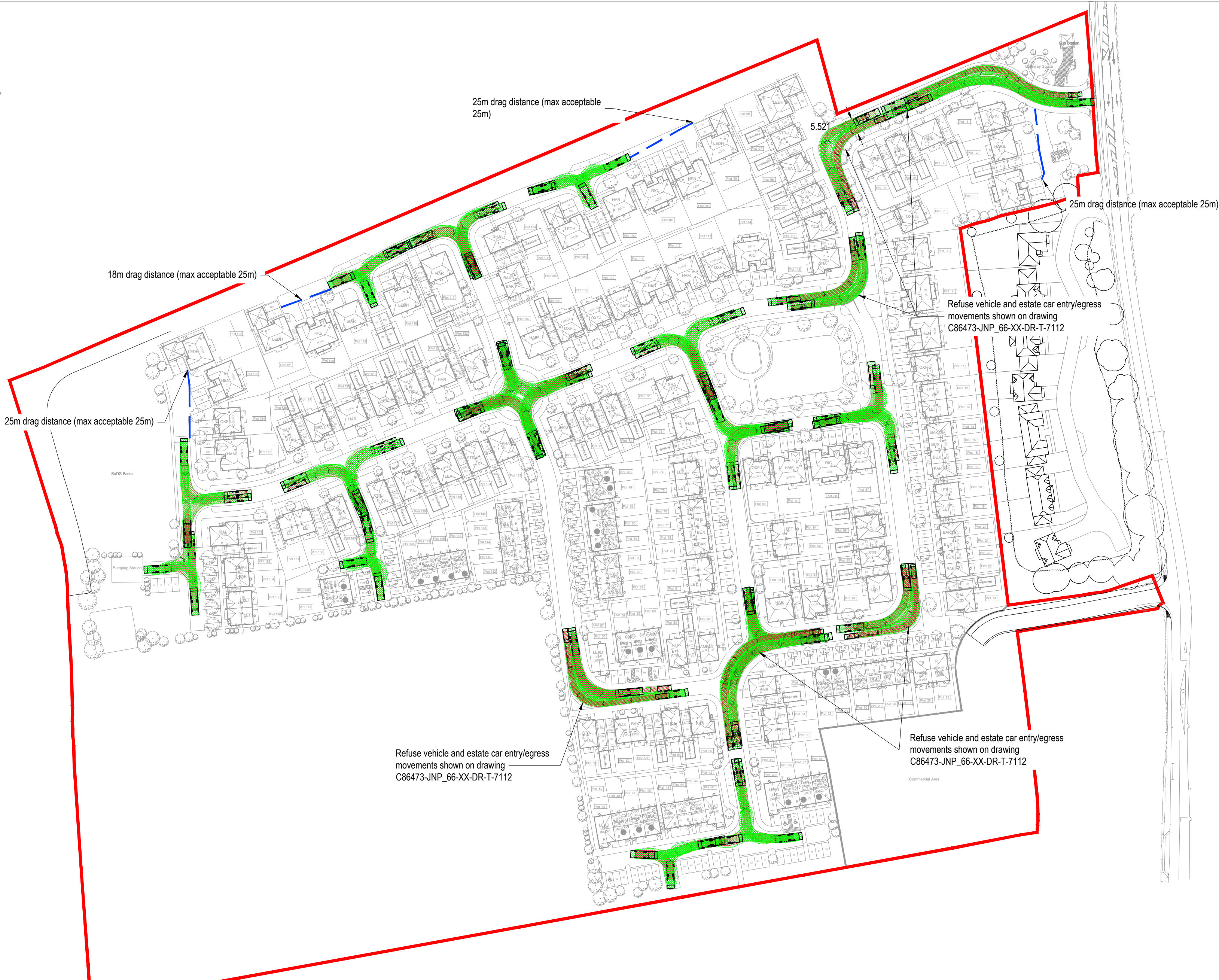
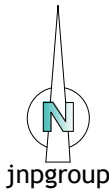
Revision: **P03**

Document/Drawing Number

Appendix C

**C86473-JNP-66-XX-DR-T-7110 P03
Refuse Vehicle Swept Path Analysis**

**C86473-JNP-66-XX-DR-T-7112 P01
Refuse Vehicle and Estate Car Swept
Path Analysis**



Legend

25m distance between dwelling and waste collection point in accordance with Paragraph 1.8 (Section H6) of The Building Regulations 2010 Approved Document H - Drainage and Waste Disposal (2015 edition)

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Suitability: S2 - Suitable for Information



Client: Redrow Homes Limited

Job: Arundel Road, Angmering

Title: Refuse Vehicle Swept Path Analysis

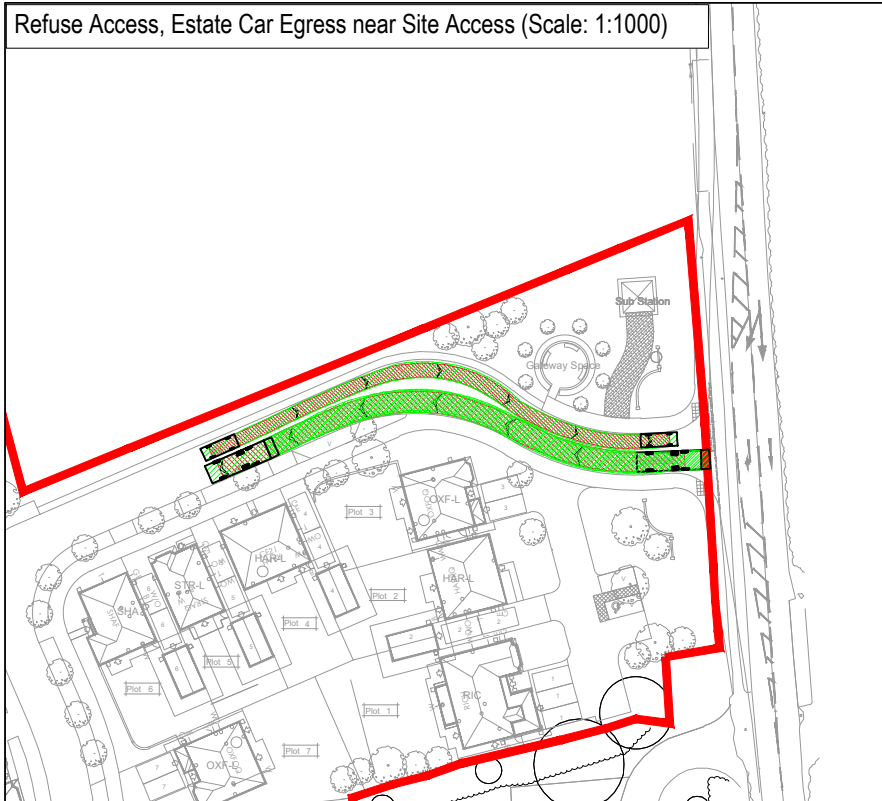
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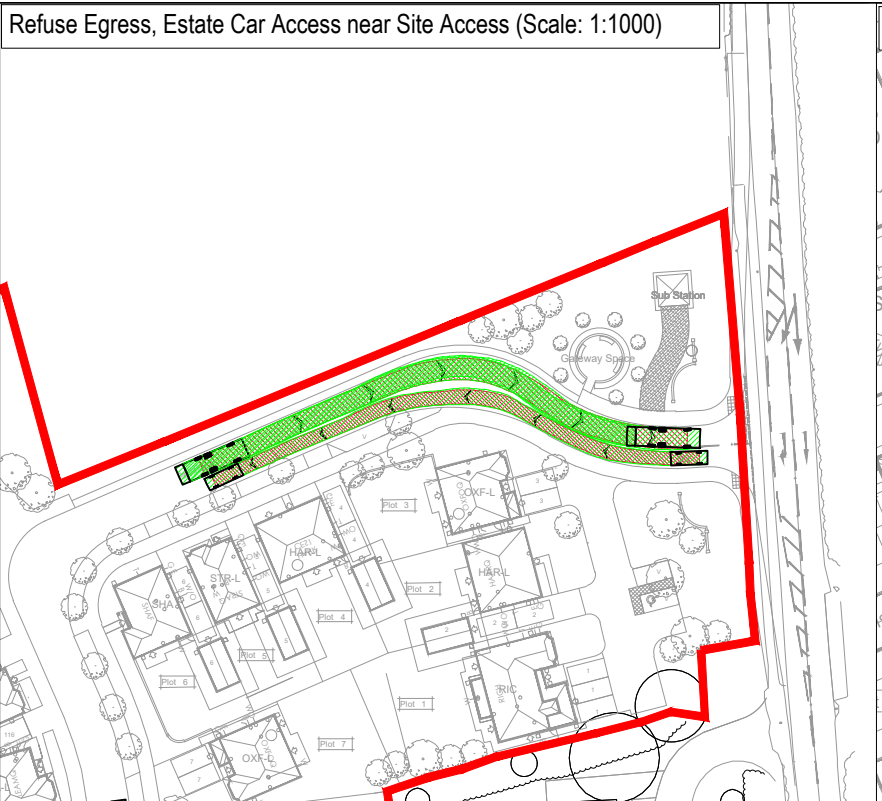
Revision: P03

Document/Drawing Number

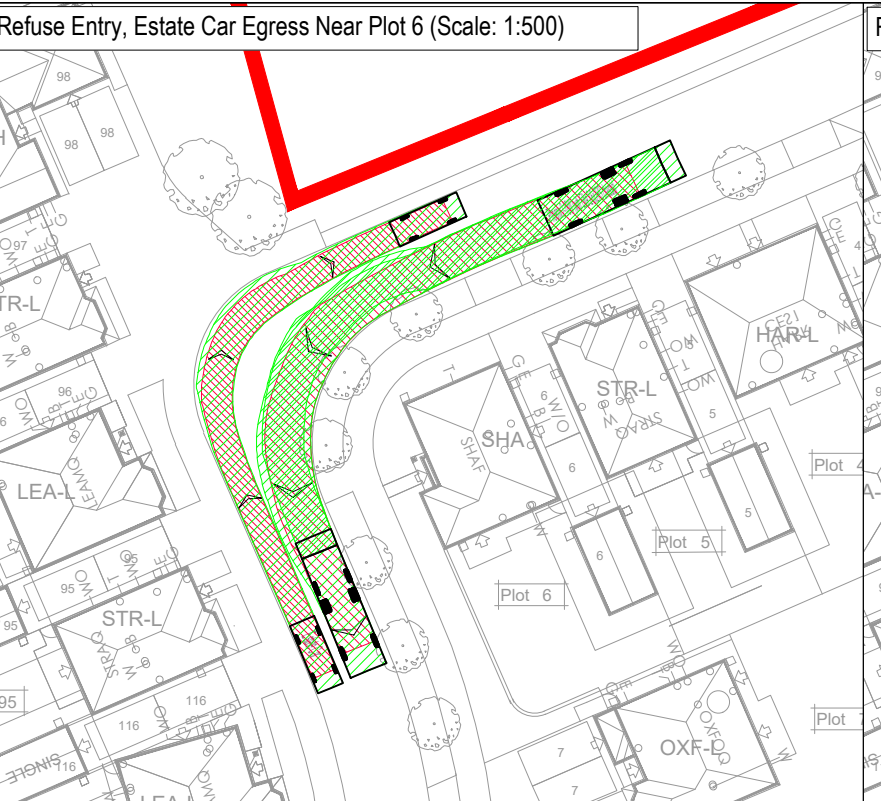
Refuse Access, Estate Car Egress near Site Access (Scale: 1:1000)



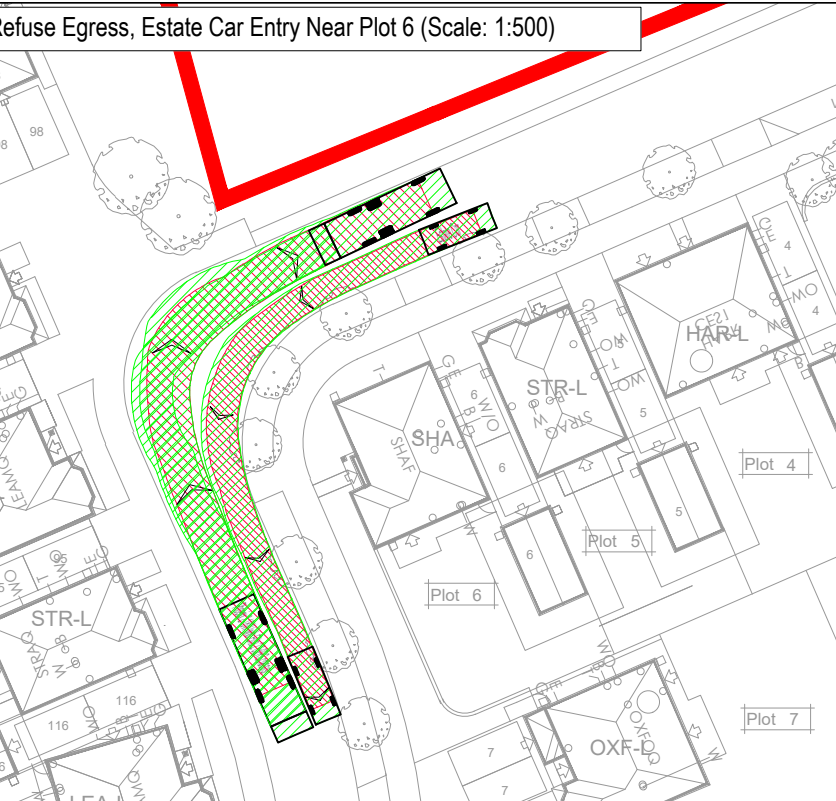
Refuse Egress, Estate Car Access near Site Access (Scale: 1:1000)



Refuse Entry, Estate Car Egress Near Plot 6 (Scale: 1:500)



Refuse Egress, Estate Car Entry Near Plot 6 (Scale: 1:500)



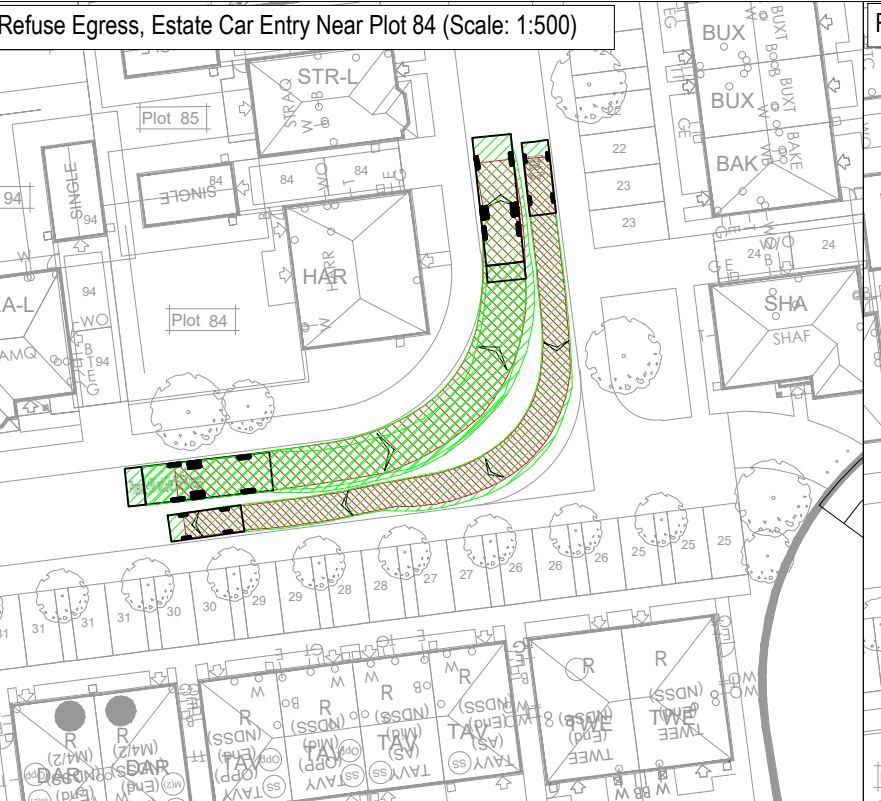
Refuse Egress, Estate Car Entry Near Plot 115 (Scale: 1:500)



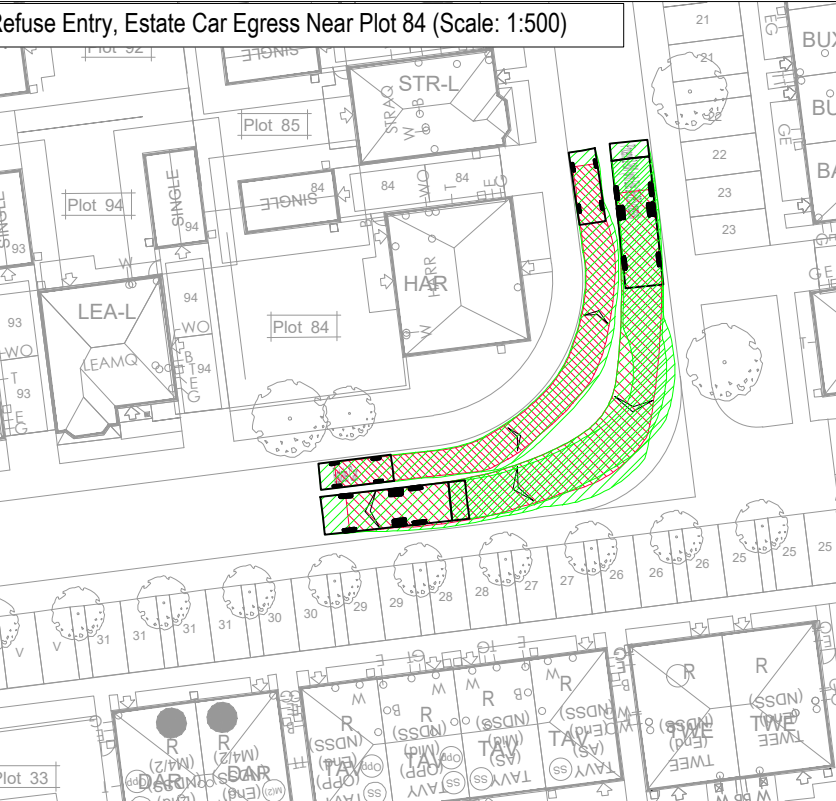
Refuse Access, Estate Car Egress Near Plot 115 (Scale: 1:500)



Refuse Egress, Estate Car Entry Near Plot 84 (Scale: 1:500)



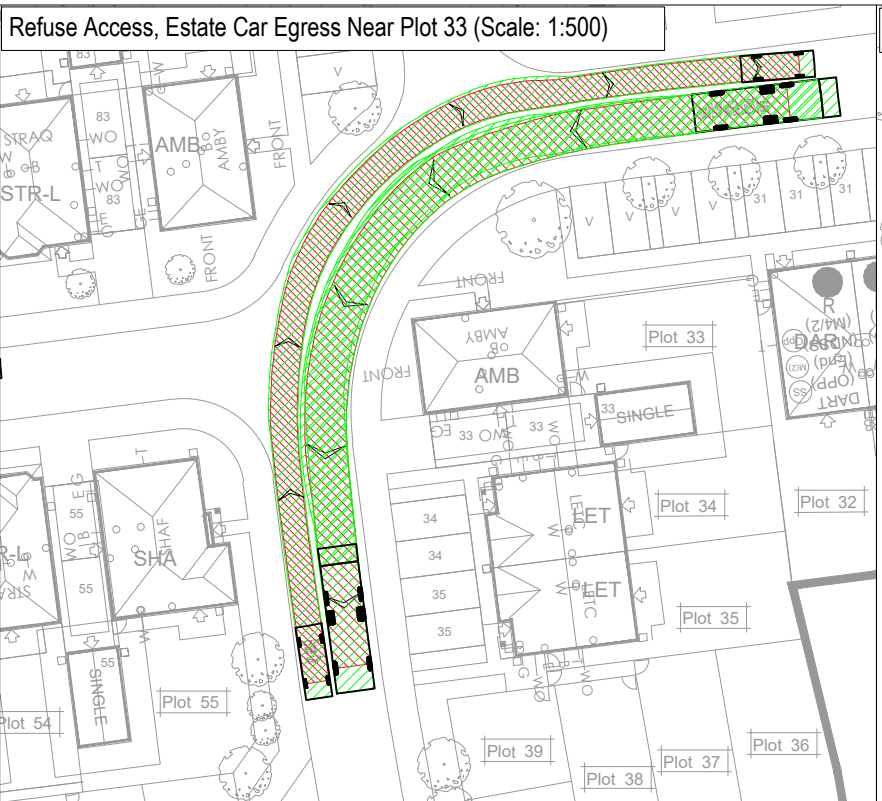
Refuse Entry, Estate Car Egress Near Plot 84 (Scale: 1:500)



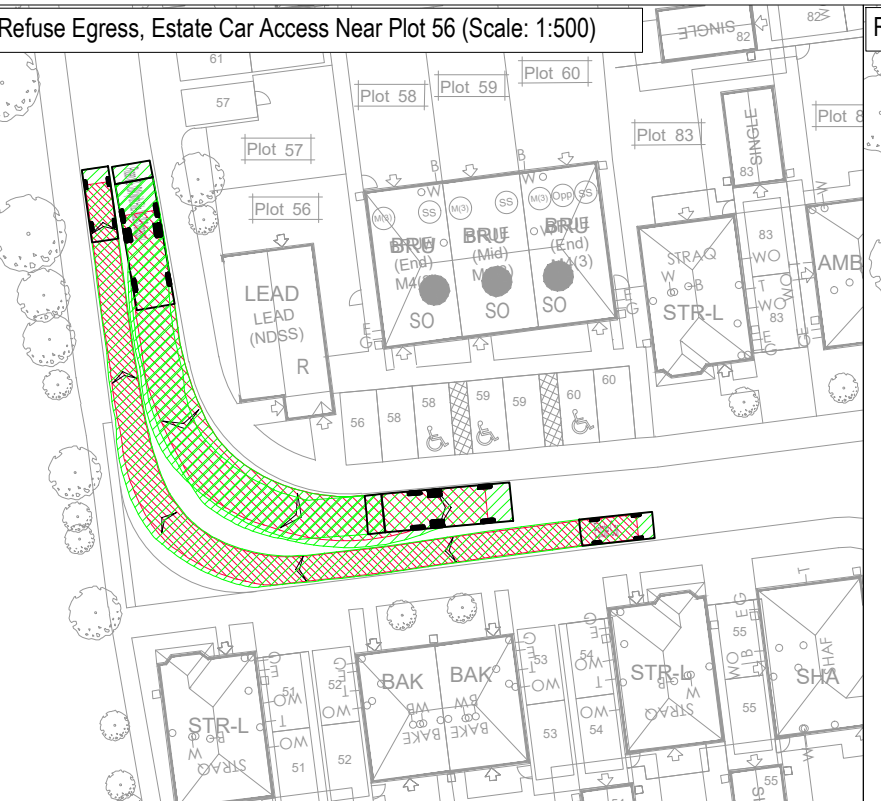
Refuse Egress, Estate Car Access Near Plot 33 (Scale: 1:500)



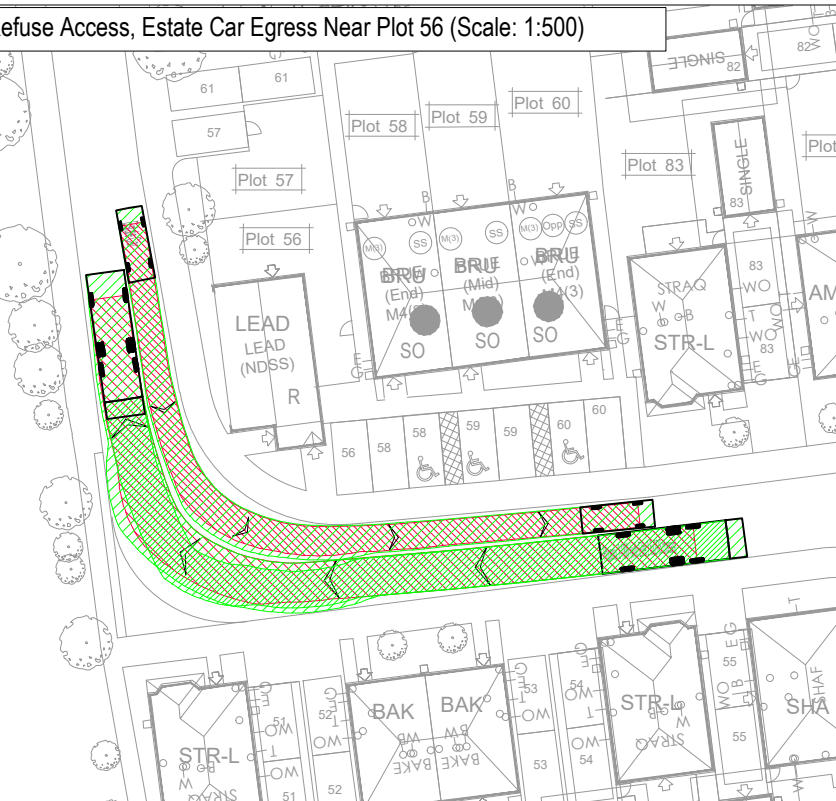
Refuse Access, Estate Car Egress Near Plot 33 (Scale: 1:500)



Refuse Egress, Estate Car Access Near Plot 56 (Scale: 1:500)



Refuse Access, Estate Car Egress Near Plot 56 (Scale: 1:500)



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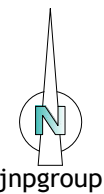
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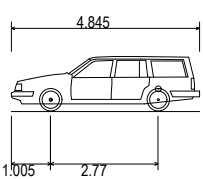
Title:

Refuse Vehicle Swept Path Analysis
Plan View of Refuse Vehicle and Estate Car on Bends

Classification: FI_60_20				
Scale @ A2: As Stated	Accredited Contractor	Accredited Contractor	Accredited Contractor	Supplier No. 000026
Project - Originator - Volume/System - Level/Location - Type - Discipline - Number C86473 - JNP - 66 - XX - DR - T - 7112	Revision: P01	Document/Drawing Number	Document/Drawing Number	Document/Drawing Number

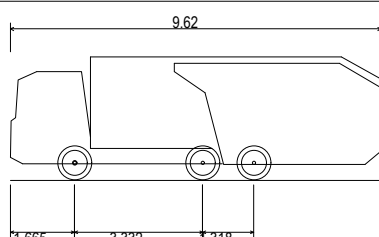


0 10 20 30 40 50 m
SCALE 1:1000



Estate Car
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock to lock time
Kerb to Kerb Turning Radius

4.845m
1.750m
1.424m
0.189m
1.655m
4.00s
4.950m

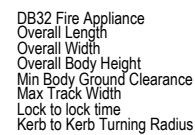
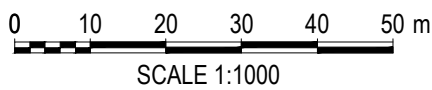


Phoenix 2-18W (with Elite 2 6x2RS chassis)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

9.620m
2.530m
3.211m
0.416m
2.530m
4.00s
5.800m

Appendix D

C86473-JNP-66-XX-DR-T-7111 P03 Fire Tender Swept Path Analysis



8.680m
2.180m
3.452m
0.337m
2.121m
6.00s
7.910m

20m

Maximum 20m reversing distance for fire tenders in accordance with Building Regulations Approved Document B (2020)

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Client

Job:

Title:

Classification:

EI 60 20

FI_60_20



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Revision

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03