

REPORT

Greater Norwich Local Plan: Regulation 18 Representation

Highways and Transport Technical Note

Client: Crown Point Estate Office

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1 Introduction

1.1 Background

1.1.1 Royal HaskoningDHV has been commissioned by Pegasus Group, on behalf of Crown Point Estate Office, to provide transport and highways advice to support a Regulation 18 submission to the Draft Greater Norwich Local Plan (GNLP). This report provides a high-level review of the transport and highways characteristics associated with four sites located within South Norfolk District. The four sites are:

- Loddon Park and Ride (site reference GNLP3051);
- Park Farm (site reference GNLP 0323); and
- Octagon Farm (site references GNLP1032 and GNLP0321).

1.1.2 A plan showing the location of all of the sites covered in this report, can be found in **Appendix A**.

1.1.3 It is intended that the conclusions of this review will inform the Regulation 18 submission to be made by Pegasus Group.

1.2 Structure of Report

1.2.1 Following this introduction, the report structure is as follows:

- Section 2: a review of the existing sustainable transport conditions within the vicinity of each site; a review of the site history (if applicable); a high-level road safety assessment using data publicly available from CrashMap; and an overview of the potential sustainable transport opportunities and constraints for deliverability of the sites;
- Section 3: access strategy for each site considering appropriate and safe points of access; and
- Section 4: summary and conclusions.

2 Sustainable Transport

2.1 GNLP3051 Loddon Park and Ride Site

Site History

- 2.1.1 Site GNLP3051 which is roughly triangular in shape, is located in Bixley village, south of the city of Norwich and comprises 7.91 Hectares (Ha) of land, at the junction of Loddon Road and B1332 Bungay Road.
- 2.1.2 Park and Ride is a cornerstone of Norfolk County Council's transport policy, and features in a number of the Council's policies and the emerging GNLP. Policy TROW2, of the South Norfolk Local Plan: Site Specific Allocations and Policies Document (2015) allocated 3.2ha of land in Trowse. However, this allocation is not being progressed in the new GNLP.
- 2.1.3 GNLP3051, which is currently agricultural land, was promoted through the initial phases of the Regulation 18 consultations and was considered a reasonable alternative to TROW2.

Existing Site Accessibility

- 2.1.4 The GNLP3051 Loddon Park and Ride site is currently unoccupied and surrounded by agricultural land. The site is bounded to the north by A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction, to its eastern extent by A146 Loddon Road, to the west by B1332 Bungay Road and to the south by agricultural land.
- 2.1.5 Existing vehicle access to the potential Park and Ride site is gained via an informal route which connects to A146 Loddon Road approximately 600 metres (m) southeast of the A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction.
- 2.1.6 The A146 Loddon Road is single carriageway for the majority of its route, running between Norfolk and Suffolk for approximately 43 kilometres (km). Access to a number of residential properties situated 250m southeast of the A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction is gained via A146 Loddon Road.
- 2.1.7 A footway commences on Kirby Road, circa 70m north of its junction with A146 Loddon Road, and terminates approximately 100m northeast of the existing access to the Park and Ride site. The footway is present on the southbound side of A146 Loddon Road. In the vicinity of the site, street lights are present on A146 Loddon Road.
- 2.1.8 B1332 Bungay Road is a 6m wide single carriageway road which extends from the A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction northwest of Park Farm and runs south to B1332 Norwich Road.
- 2.1.9 Within the study area of this note, the A146 Loddon Road and B1332 Bungay Road are both subject to National Speed Limit of 60mph which change to 50mph on approach to the A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction.

- 2.1.10 The Norwich Public Right of Way interactive map¹ shows a cycle friendly bridleway and a footpath within a 1km radius from the Loddon Park and Ride site.
- 2.1.11 The generally accepted maximum walking distance for commuting, suggested by the Chartered Institution of Highways and Transportation (CIHT) is 2km, with a preferred distance of 1km for this mode. It is also widely acknowledged that cycling has the potential to replace short car journeys, particularly those under 5km which equates to approximately 24 minutes.
- 2.1.12 Accordingly, the above described walking and cycling catchments for the GNLP3051 Loddon Park and Ride site, are shown in **Appendix B**. The site is widely accessible on foot, by bicycle and public transport, including bus and rail as shown in the catchment plans. The cycle catchment plan includes the majority of Norwich city centre.
- 2.1.13 **Table 2.1** summarises the journey times to local amenities within walking and cycling distance from the site.

Table 2.1: Local Amenities Accessible from GNLP3051 Loddon Park and Ride site

Amenity	Walking		Cycling	
	Distance (m)	Journey time (minutes)	Distance (m)	Journey time (minutes)
Norwich Railway Station	3,800	49	4,180	17
Nearest Bus Stop	1,930	22	1,930	6
Trowse Primary School	1,930	22	1,930	6
Framingham Earl High School	2,900	36	2,900	10
Norfolk County Council	2,400	30	2,735	10

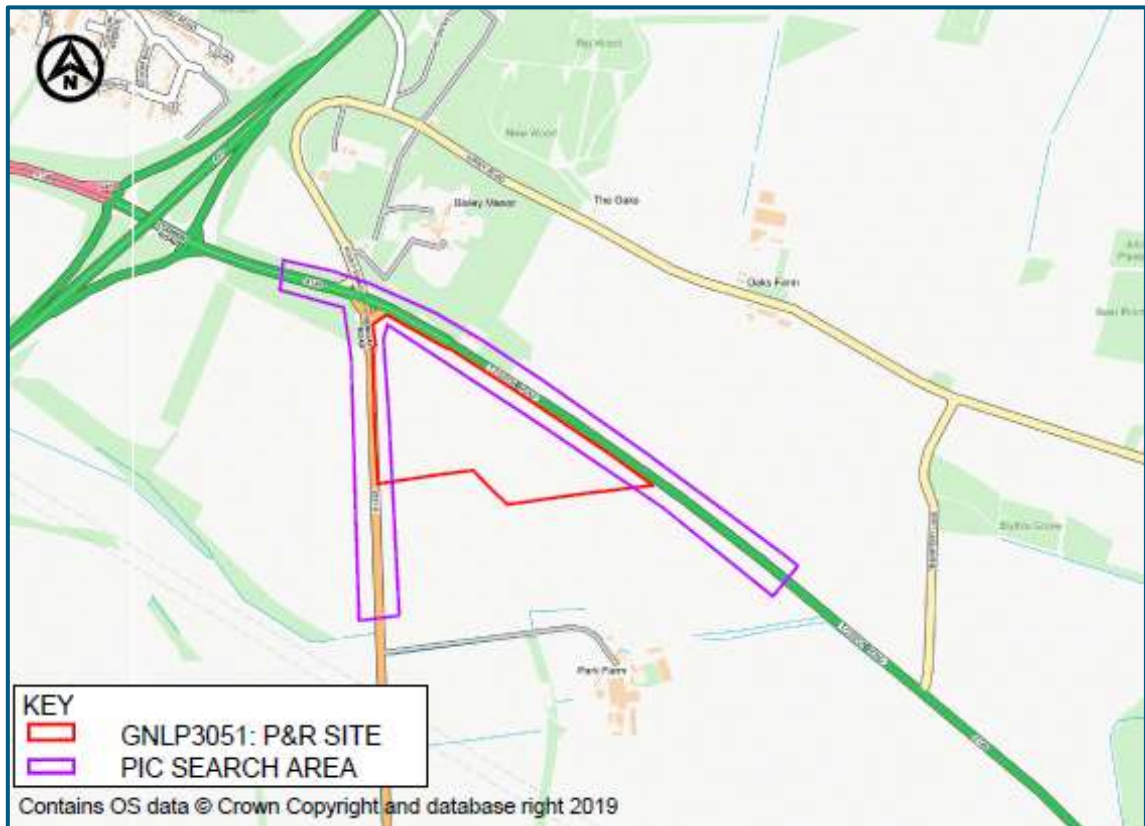
Personal Injury Collision Data Review

- 2.1.14 In order to establish whether there are any inherent safety concerns on the local highway network in the vicinity of the potential Park and Ride site, a preliminary review of personal injury collision (PIC) data has been undertaken using CrashMap².
- 2.1.15 The review, which focussed on the most recently available five-year period (2014 to 2018), identified seven collisions on the highway network deemed to be immediately relevant to the scheme. The PIC study area in relation to the Park and Ride site is shown on **Insert 2.1**.

¹ maps.norfolk.gov.uk/highways/

² www.crashmap.co.uk

Insert 2.1: GNLP3051 Personal Injury Collisions Study Area



- 2.1.16 All of the collisions identified in the vicinity of the potential Park and Ride site caused 'slight' injuries to casualties. A total of five collisions were recorded at the A146 London Road/ Kirby Road/ Bungay Road junction situated at the northwest of the P and Ride site of which one involved a Goods Vehicle.
- 2.1.17 Two collisions involving goods vehicles, were recorded on the section of A146 Loddon Road which bounds the eastern extent of the Park and Ride site. Of all the collisions identified in the study area, none led to injury of a vulnerable road user³.
- 2.1.18 No collision trends have been identified following a review of the available data, with no patterns relating to road surface, lighting conditions or time of day detected.
- 2.1.19 The above review demonstrates that there are no inherent highway safety issues associated with the alignment of the local highway network which could be exacerbated by the development proposals.

Potential Opportunities:

- Supports local, regional and national sustainable transport strategies;
- The development on implementation would reduce the carbon footprint in the area;
- Promotes the use of sustainable transport; and
- Potential for provision of ancillary amenity facilities or a petrol filling station.

³ Determined to be pedestrians, cyclists or motorcyclists

Potential Constraints:

- High traffic speeds on approach; and
- Incur additional cost in re-routing local buses.

2.2 GNLP0323 Park Farm Site

Site History

- 2.2.1 Park Farm is located south of the city of Norwich and north-east of the village of Arminghall. The farm is east of Bungay Road and west of Loddon Road.
- 2.2.2 GNLP0323, which is currently being used as an employment site, was promoted through the initial phases of the Regulation 18 consultations. A number of objections were raised including safe access and congestion on Bungay Road.
- 2.2.3 In September 2019 a retrospective application for commercial uses was granted on the site by South Norfolk Council.

Existing Site Accessibility

- 2.2.4 The GNLP0323 Park Farm site is located in Bixley village and surrounded by agricultural land. The site has a total area of 9.83 Ha and is currently occupied by a number of units which serve residential, agricultural and storage purposes.
- 2.2.5 The northern section of Park Farm comprises of two cottages, a farm house and several units for agricultural use. To the southern extents are storage and distribution units with an ancillary portacabin office.
- 2.2.6 Existing highway access to Park Farm is gained via a 500m paved access route which forms a priority junction with B1332 Bungay Road. The Norwich Public Right of Way interactive map shows a footpath situated circa 700m from the existing Park Farm highway access.
- 2.2.7 In the vicinity of the site, B1332 Bungay Road is a 6m wide single carriageway road which extends from the A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction northwest of Park Farm and runs south to B1332 Norwich Road.
- 2.2.8 For majority of its length, B1332 Bungay Road is subject to National Speed Limit of 60mph which changes to 50mph on approach to the A146 Loddon Road/ B1332 Bungay Road/ Kirby Road junction. Street lights are present on B1332 Bungay Road and verges are provided on both sides of its route.
- 2.2.9 The walking and cycling catchments for the GNLP0323 Park Farm site, are shown on **Appendix B**. The cycling catchment plan which includes part of Norwich city centre and several bus stops, shows that the site widely accessible by cycle and public transport.
- 2.2.10 **Table 2.2** summarises the journey times to local amenities within walking and cycling distance from the site.

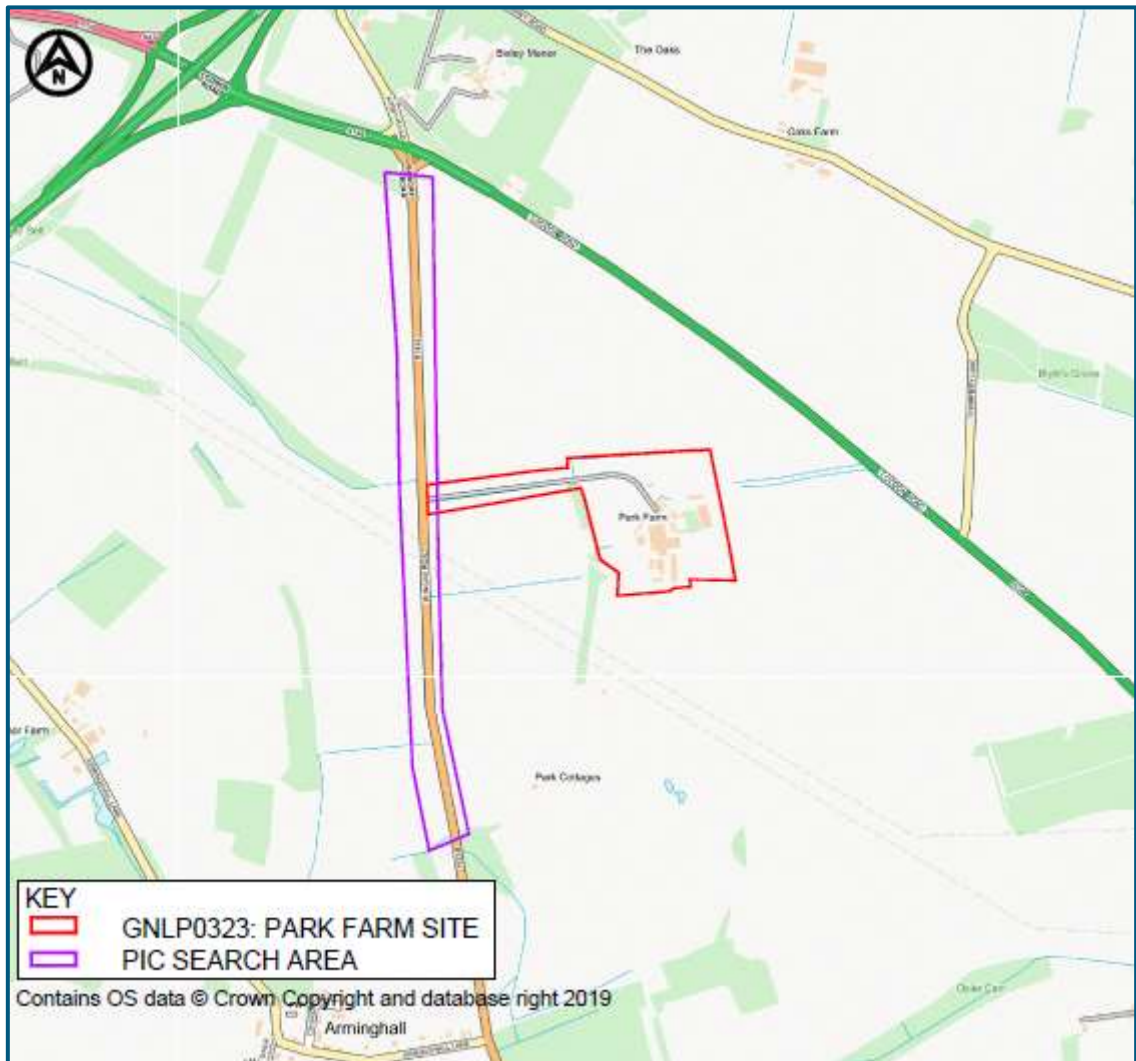
Table 2.2: Local Amenities Accessible from GNLP0323 Park Farm Site

Amenity	Walking		Cycling	
	Distance (m)	Journey time (minutes)	Distance (m)	Journey time (minutes)
Nearest Bus Stop	1,930	24	1,930	8
One Stop (Convenience store)	3,050	38	3,050	11
The Railway Tavern	3,200	41	3,200	12
Trowse Village Store	3,000	37	3,000	10
Crown Point Tavern	2,500	32	2,500	9

Personal Injury Collision Data Review

- 2.2.11 In order to establish whether there are any inherent safety concerns on the local highway network in the vicinity of the b, a preliminary review of personal injury collision data has been undertaken using CrashMap.
- 2.2.12 The review, which focussed on the most recently available five-year period (2014 to 2018), identified two collisions on the highway network deemed to be immediately relevant to the scheme. The PIC study area in relation to the Park Farm site is shown on **Insert 2.2**.

Insert 2.2: GNL0323 Personal Injury Collisions Study Area



- 2.2.13 Both collisions identified in the vicinity of the application site occurred on B1332 Bungay Road approximately 50m north and 700m south of the existing Park Farm site access. Of the collisions recorded in the study area, both involved 'young drivers', caused 'slight' injuries to casualties and did not lead to injury of a vulnerable road user.
- 2.2.14 No collision trends have been identified following a review of the available data, with no patterns relating to road surface, lighting conditions or time of day detected.
- 2.2.15 The above review demonstrates that there are no inherent highway safety issues associated with the alignment of the local highway network which could be exacerbated by the development proposals.

Potential Opportunities:

- The development is anticipated to have a negligible impact upon the operation of the existing local highway network;
- Improved access to the Park Farm site;
- Commercial use of the site is not out of character to its existing environment; and

- Regularises the current uses on the site.

Potential Constraints:

- Lack of pedestrian facilities along B1332 Bungay Road. However, the development is anticipated to generate little or no footfall; and
- High traffic speeds.

2.3 GNLP1032 and GNLP0321 Octagon Barn Sites

Site History

- 2.3.1 GNLP1032 and GNLP0321, are adjacent sites, located north of the village of Poringland, which itself is south of the city of Norwich. Both sites form part of Octagon Farm which is east of B1332 Bungay Road.
- 2.3.2 Between the two sites, on its frontage with B1332 Bungay Road, lies a gallery and studio, which includes a craft shop and café. The remaining land is currently agricultural.
- 2.3.3 The sites were promoted through the initial phases of the Regulation 18 consultations. An objection was received relating to increasing traffic, however, support was also received stating that the site was well positioned to allow development traffic to be mitigated.

Existing Site Accessibility

- 2.3.4 The GNLP1032 and GNLP0321 Octagon Barn sites have a combined land area of 8.48 ha. GNLP1032 is a 4.2 ha land area situated in Bixley village while GNLP0321 is situated in both Bixley and Farmingham Earl villages, covering an area of 4.28 ha.
- 2.3.5 The western extent of the sites is bounded by B1332 Bungay/ Norwich Road and bounded to the north, east and south by agricultural land. A number of settlements including Arminghall and Upper Stoke are situated west of the Octagon Barn sites.
- 2.3.6 Existing vehicular highway access to the Octagon Barn sites is gained via a gated crossover access which connects to B1332 Norwich Road. Additional informal access routes are provided approximately 70m and 150m northwest of the B1332 Norwich Road/ The Ramblers priority T-junction.
- 2.3.7 The B1332 Norwich Road is a 6m wide single carriageway which runs from B1332 Bungay Road to B1332 Norwich Road/ Stoke Road/ Long Road roundabout for approximately one kilometre.
- 2.3.8 B1332 Norwich Road, is lit and subject to a 30mph speed limit and benefits from pedestrian crossing facilities. A footway is present on the northbound side of B1332 Norwich Road surrounding the GNLP1032 site and footways are provided on both sides of the B1332 Norwich Road carriageway which bounds the GNLP0321 site.
- 2.3.9 In the vicinity of the sites, a cycle route is present on the southbound carriageway of B1332 Norwich Road to serve residential and educational development in the local highway network.

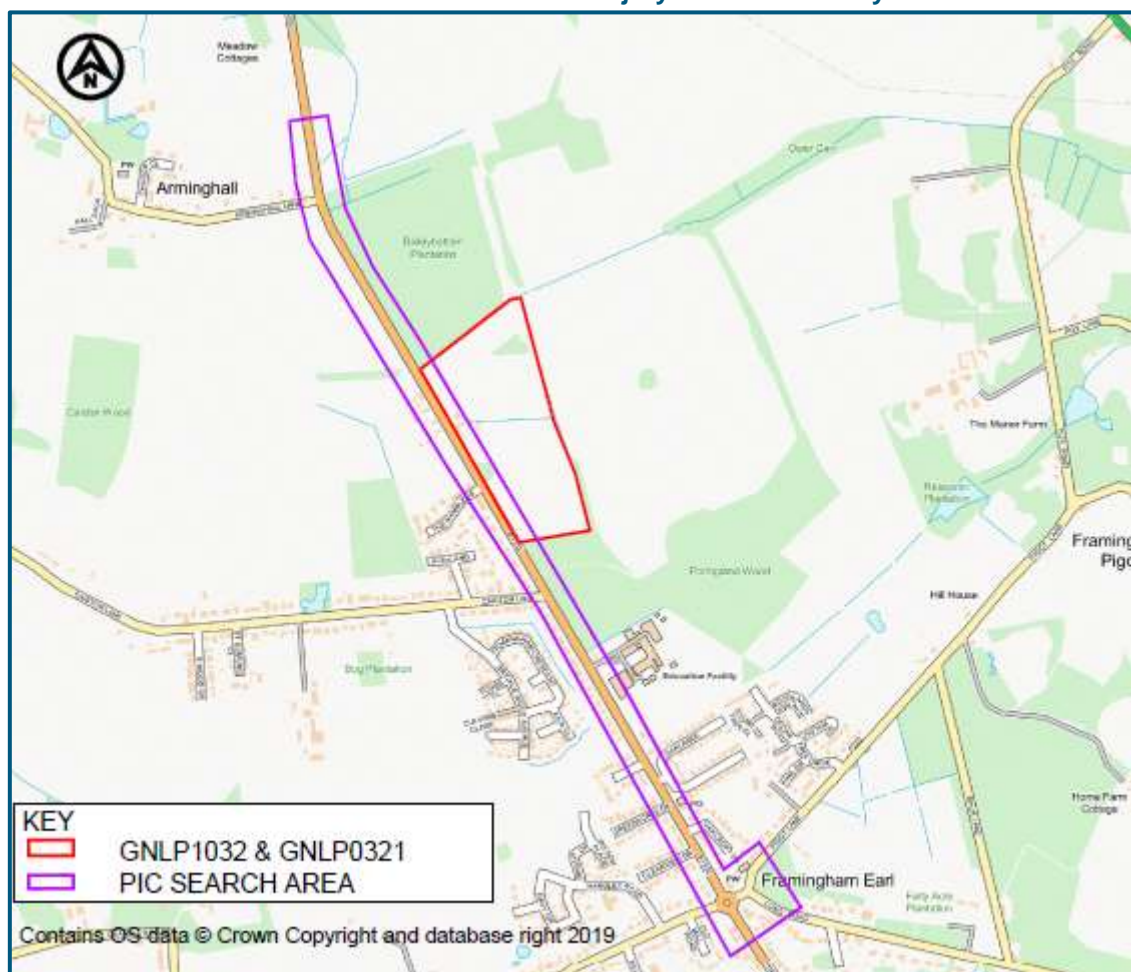
- 2.3.10 The walking and cycling catchments for the GNLP1032 and GNLP0321 Octagon Barn sites, are shown on **Appendix B**. The catchment plans show that both sites are widely accessible by foot and cycle to number of outlying regions including Howe, Poringland and Framingham.
- 2.3.11 Furthermore, the short walking distance of the bus stops and the high frequencies of buses in the vicinity of the sites provides comfortable access to Norwich city centre. **Table 2.3** summarises the journey times to a range of local amenities within walking and cycling distance from the site.

Table 2.3: Local Amenities Accessible from GNLP1032 and GNLP0321 Octagon Barn Sites

Amenity	Walking		Cycling	
	Distance (m)	Journey time (minutes)	Distance (m)	Journey time (minutes)
Nearest Bus Stop	110	3	110	1
Framingham Earl High School	650	9	650	2
Framington Earl Community Sports Centre	660	9	660	2
One Stop (Convenience store)	950	12	950	3
The Railway Tavern	1,100	15	1,100	4

Personal Injury Collision Data Review

- 2.3.12 In order to establish whether there are any inherent safety concerns on the local highway network in the vicinity of the sites, a preliminary review of personal injury collision data has been undertaken using Crashmap.
- 2.3.13 The review, which focussed on the most recently available five-year period (2014 to 2018), identified 10 collisions on the highway network deemed to be immediately relevant to the scheme. The PIC study area in relation to the Octagon Barn sites is shown on **Insert 2.3**.

Insert 2.3: GNL1032 and GNL0321 Personal Injury Collisions Study Area


- 2.3.14 Of the collisions identified in the vicinity of the application site, eight led to 'slight' injuries and two led to 'serious' injuries. The 'serious' collisions both involving motorcyclists, were recorded on B1332 Bungay Road approximately 600m northwest and 900m southeast of the mixed-use site.
- 2.3.15 A collision recorded on approach to the B1332 Bungay Road/ Framingham Earl High School access junction, caused 'slight' injuries to a pedestrian. Two 'slight' collisions, of which both involved young drivers, were recorded in close proximity to the B1332/ Stoke Road/ Long Road roundabout south of Octagon Barn sites.
- 2.3.16 No collision trends have been identified following a review of the available data, with no patterns relating to road surface, lighting conditions or time of day detected.
- 2.3.17 The above review demonstrates that there are no inherent highway safety issues associated with the alignment of the local highway network which could be exacerbated by the development proposals.

Potential Opportunities:

- Easy access to a range of local amenities;
- Site well positioned for traffic travelling to and from Norwich;
- Pedestrian and cyclist routes in the local highway network; and



- Multiple access arrangements can be delivered.

Potential Constraints:

- Number of personal injury collisions around the site, needs further investigation to identify any potential trends in the incidents.

3 Access Strategy

- 3.1.1 This section summarises the potential access arrangement options which have been explored to serve each site.
- 3.1.2 Two key criteria have been used in the design of each site access. The first includes demonstrating that the largest typical vehicle likely to use the site access can be accommodated within the geometry. The second key criteria ensures that adequate visibility can be achieved at each site access junction.
- 3.1.3 For all of the site access designs a degree of further work will be required, namely traffic surveys will be essential to allow the capacity and final form of the junctions to be determined.

3.2 GNLP3051 Loddon Park and Ride Site

- 3.2.1 Vehicular access to the site is proposed to be via B1332 Bungay Road. The site access could be provided in the form of a priority T-junction. The internal access roads would be two-way single lane carriageways designed to Norfolk County Council's design standards.
- 3.2.2 The design of the T-junction comprises a carriageway width of 7.3m with 10m kerb radii.
- 3.2.3 Swept path analysis of the potential site access has been undertaken using a standard rigid bus of 12m in length. This was to confirm that the proposed access layout could adequately accommodate a bus, which is the largest typical vehicle likely to access the site. Key manoeuvres relevant to the proposed site access include inbound and outbound movements to/ from north and south of the site.
- 3.2.4 As the speed limit of the carriageway (B1332 Bungay Road) within the proximity of the site varies from 60mph to 50mph, the worst case scenario has been adopted. The visibility splay requirement for a speed limit of 60mph is 2.4m x 215m in line with the Design Manual for Roads and Bridges.
- 3.2.5 The Swept path analysis and visibility splay drawings have been provided in **Appendix C**.

3.3 GNLP0323 Park Farm Site

- 3.3.1 Vehicular access to Park Farm Site is proposed to be via B1332 Bungay Road. The nature of the existing access indicates that a priority T-junction would provide a suitable form of access to the site. The design of the T-Junction is proposed to comprise a 6m width carriageway with 10m kerb radii.
- 3.3.2 To demonstrate that the proposed site access is suitable, visibility splays in line with the speed of the road, and swept path analysis using an articulated vehicle 16.5m in length have been illustrated on the site access drawing provided in **Appendix C**.
- 3.3.3 The site access design drawing shows that visibility splays of 2.4m x 215m can be achieved and the site access can accommodate an articulated vehicle, which is the largest typical vehicle likely to access the application site.

3.4 GNL1032 and GNL0321 Octagon Barn Sites

- 3.4.1 Two vehicular accesses are proposed for the Octagon Barn Sites via B1332 Bungay Road. The access to GNL0321 is proposed to be in the approximate location of the existing access to Octagon Barn, whilst an existing field access adjacent to the barn is proposed to be closed.
- 3.4.2 A second access which will serve the GNL1032 site is suggested further north. Both site accesses are proposed to be priority T-junctions with a carriageway width of 5.5m and 6m kerb radii.
- 3.4.3 Due to the absence of pedestrian facilities along B1332 Bungay Road, it is proposed to provide a footway east along B1332 Bungay Road which connects both site accesses and provides a pedestrian route to the proposed and existing commercial development at Octagon Barn.
- 3.4.4 To demonstrate that the proposed site accesses are suitable forms of access to accommodate the proposed residential and commercial development, visibility splays in line with the 85th percentile speeds limits and swept path analysis using a Pantehnicon, rigid bodied heavy goods vehicle, 11m in length, have been illustrated on the site access design drawings provided in **Appendix C**.
- 3.4.5 The site access design drawings show that visibility splays of 2.4m x 43m at the proposed site accesses can be achieved and that both site accesses can accommodate a Pantehnicon/Removals Van, which is the largest typical vehicle likely to access the site.

4 Summary and Conclusions

4.1 GNLP3051 Loddon Park and Ride Site

4.1.1 Park and Ride is a key component of the Norfolk County Council and Transport for Norwich's strategy and policy moving forwards. Park and Ride also aligns with the principles of the GNLP itself and national policy relating to the promotion of sustainable travel opportunities.

4.1.2 This note has established that GNLP3051 is well positioned in terms of the strategic road network and is situated on a key transport corridor into the city of Norwich. It has been demonstrated that suitable access can be provided from B1332 Bungay Road to serve the site. Subject to discussion with Norfolk County Council, a form of access could also be provided on the A146 Loddon Road.

4.1.3 Further work will be required, in consultation with the local authorities, regarding the feasibility of the site as a Park and Ride site. At this stage however, it is considered that the site is highly suitable for a Park and Ride facility, and it is recommended that it should be allocated in the GNLP.

4.2 GNLP0323 Park Farm Site

4.2.1 The Park Farm site is currently accommodating employment development and benefits from a recent planning approval on the site.

4.2.2 Concerns raised in previous consultations relate to the existing access to the site and its suitability in terms of safety.

4.2.3 This note has demonstrated that, despite the poor-quality access, there are no highway safety concerns associated with the operation of the site. The note has also provided a feasibility design of an access into the site, which conforms fully to the County Council's published standards. The provision of an access designed to published standards will provide improvements to the safe operation of the site and it is recommended that GNLP0323 is allocated in the GNLP.

4.3 GNLP1032 and GNLP0321 Octagon Barn Sites

4.3.1 These two sites are currently agricultural and wrap around an existing gallery and studio, which also includes a gift shop and café. Promoted as mixed-use, the sites brought forward individually or together, can expand the facilities already on the site and provide up to 160 residential units.

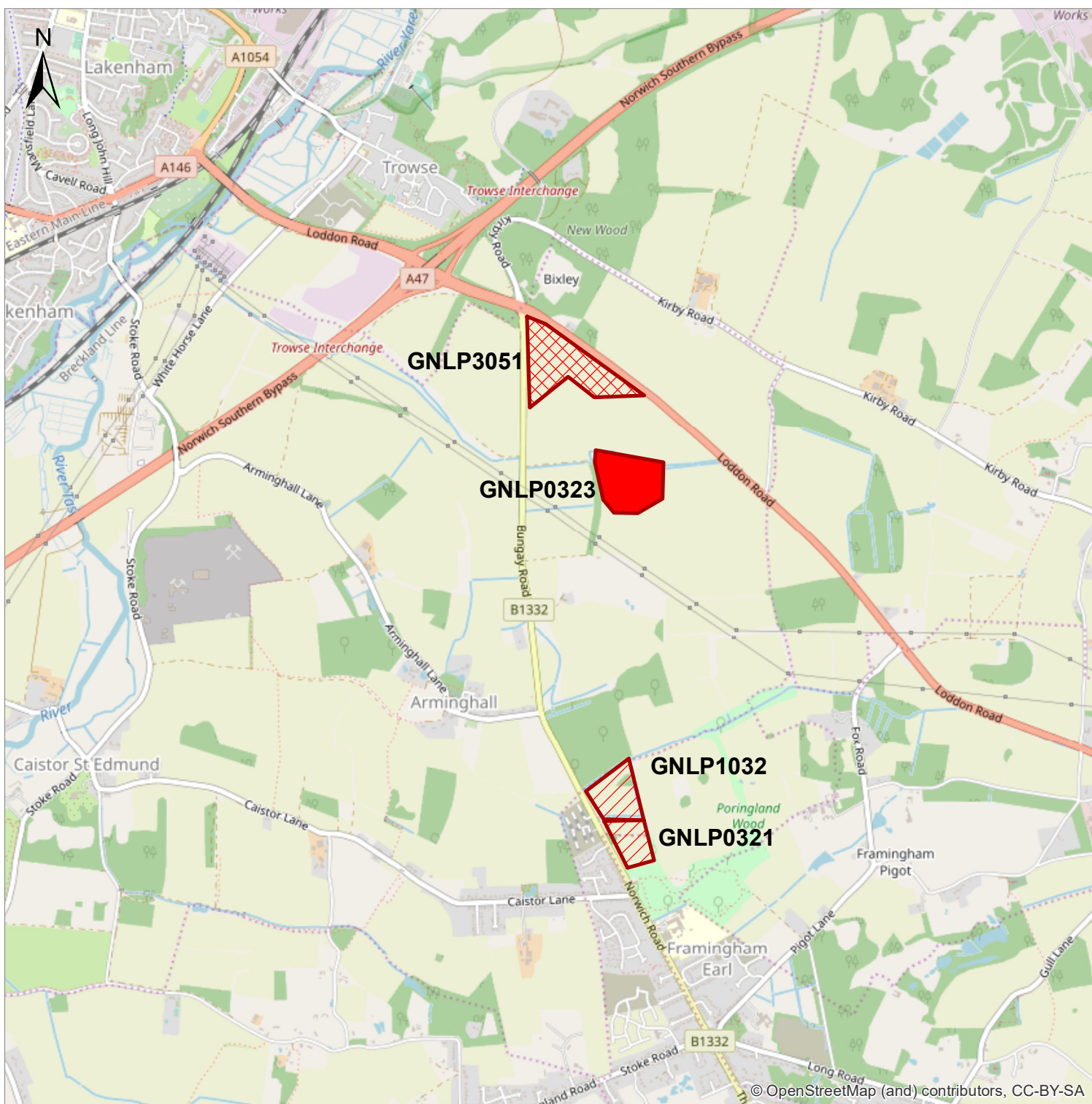
4.3.2 The sites are in a sustainable location and links can be provided to existing public transport routes and a range of local facilities. The sites are positioned at the northern extent of Poringland Village, making them well placed to cater for traffic travelling to and from Norwich. The location maximises the opportunity for employment and retail developments, minimising any potential impact on the rest of the settlement.

4.3.3 Two access points have been considered for the purposes of this note. The first is an improvement to the current access to Octagon Barn, allowing a greater quantum of development to be served. The second access would be a new junction on to B1332 Bungay Road. A number of access options can be delivered with minimal impact on the existing highway network. These options include a single access serving both sites, or separate accesses for either the residential and commercial uses, or for the individual sites themselves.



- 4.3.4 The sites can be delivered safely with minimal highway impact and it is recommended that they are allocated in the GNLP.


Appendix A Site Location Plan



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Legend

Site Location

-  Industrial Use
-  Mixed Use
-  Park and Ride

Title
Sites Location

Project
Arminghall GNL30 Representations

Client
Crown Point Estate Office

Date
13/03/2020

Scale
NTS

Appendix A

Checked by
NB

Number
1



Appendix B Walking and Cycling Catchment Plans





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Legend

-  GNL3051
-  Railway Station
-  Bus Stop

Walking Catchment

-  0-1 km
-  1-2 km

Title
Walking Catchment GNL3051

Project
Arminghall GNL3051 Representations

Client
Crown Point Estate Office

Date
13/03/2020

Scale
NTS

Appendix B

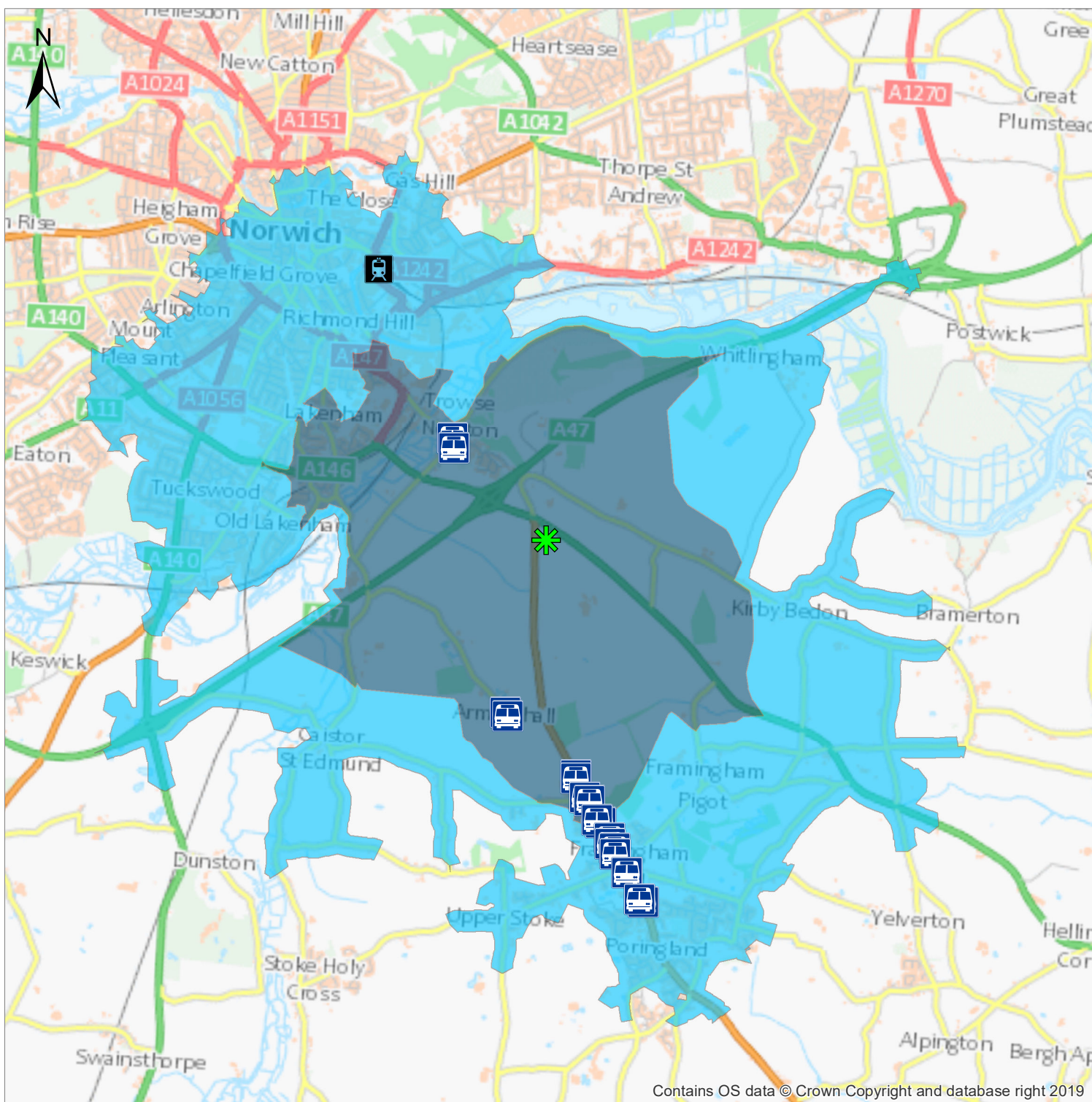
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Legend

-  GNL3051
-  Railway Station
-  Bus Stop

Cycling Catchment

-  0-3 km
-  3-5 km

Title
Cycling Catchment GNL3051

Project
Arminghall GNL3051 Representations

Client
Crown Point Estate Office

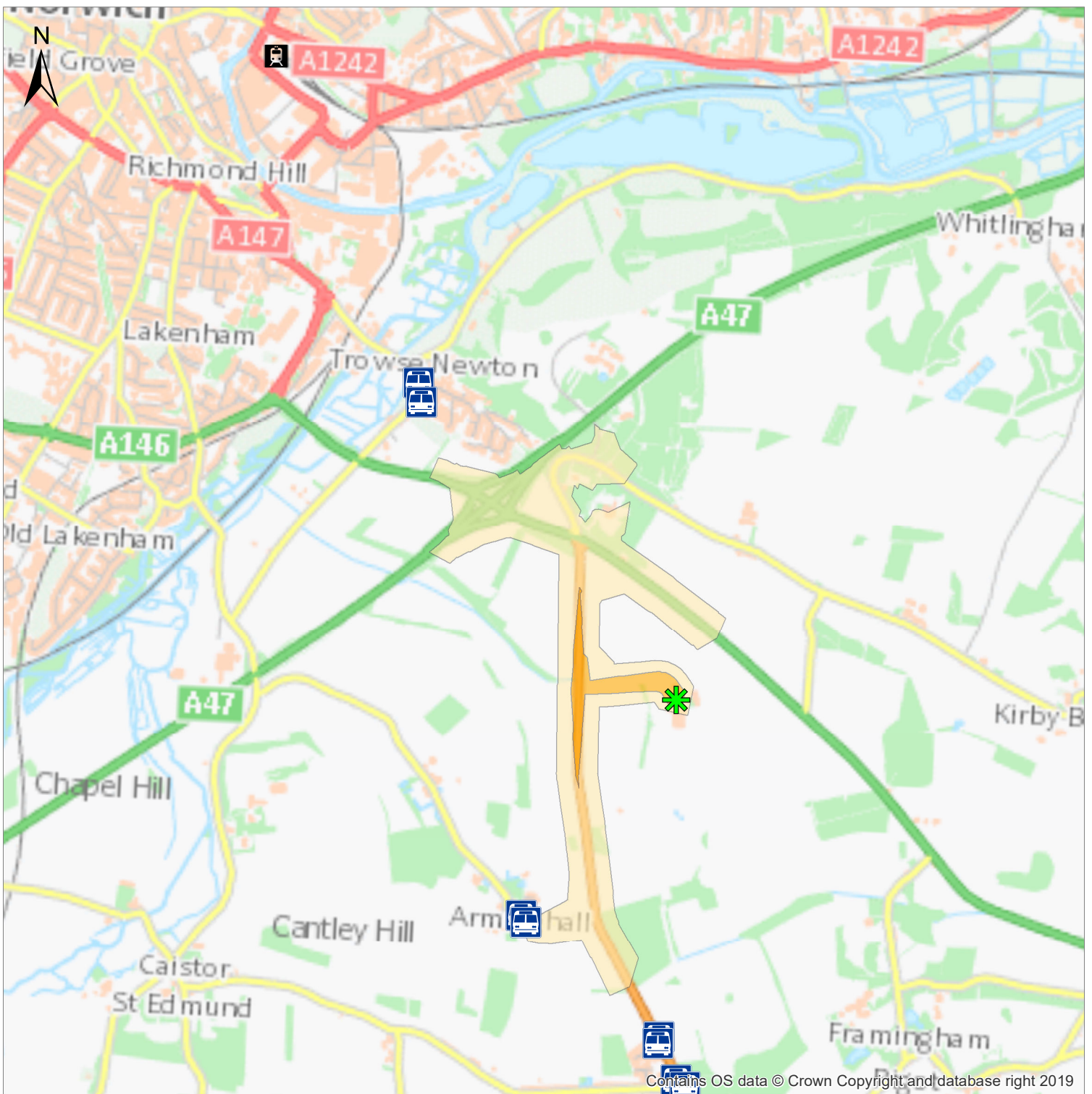
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Appendix B

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




Legend

-  GNL0323
-  Railway Station
-  Bus Stop

Walking Catchment

-  0-1 km
-  1-2 km

Title

Walking Catchment GNL0323

Project

Arminghall GNL0323 Representations

Client

Crown Point Estate Office

Date

13/03/2020

Scale

NTS

Appendix B

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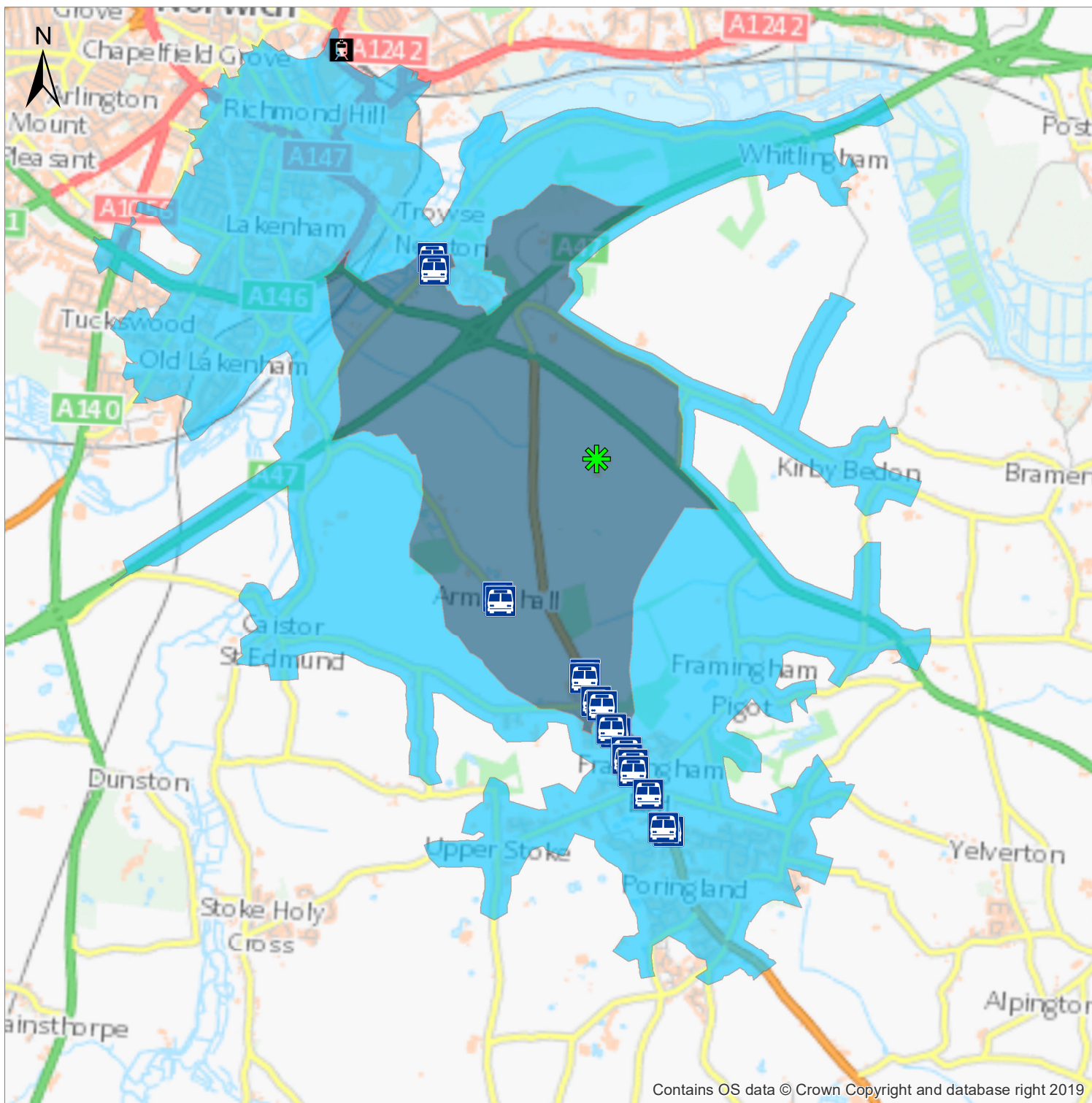
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Royal HaskoningDHV
Enhancing Society Together

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Legend

-  GNL0323
-  Railway Station
-  Bus Stop

Cycling Catchment

-  0-3 km
-  3-5 km

Title
Cycling Catchment GNL0323

Project
Arminghall GNL0 Representations

Client
Crown Point Estate Office

Date
12/03/2020

Scale
NTS

Appendix B

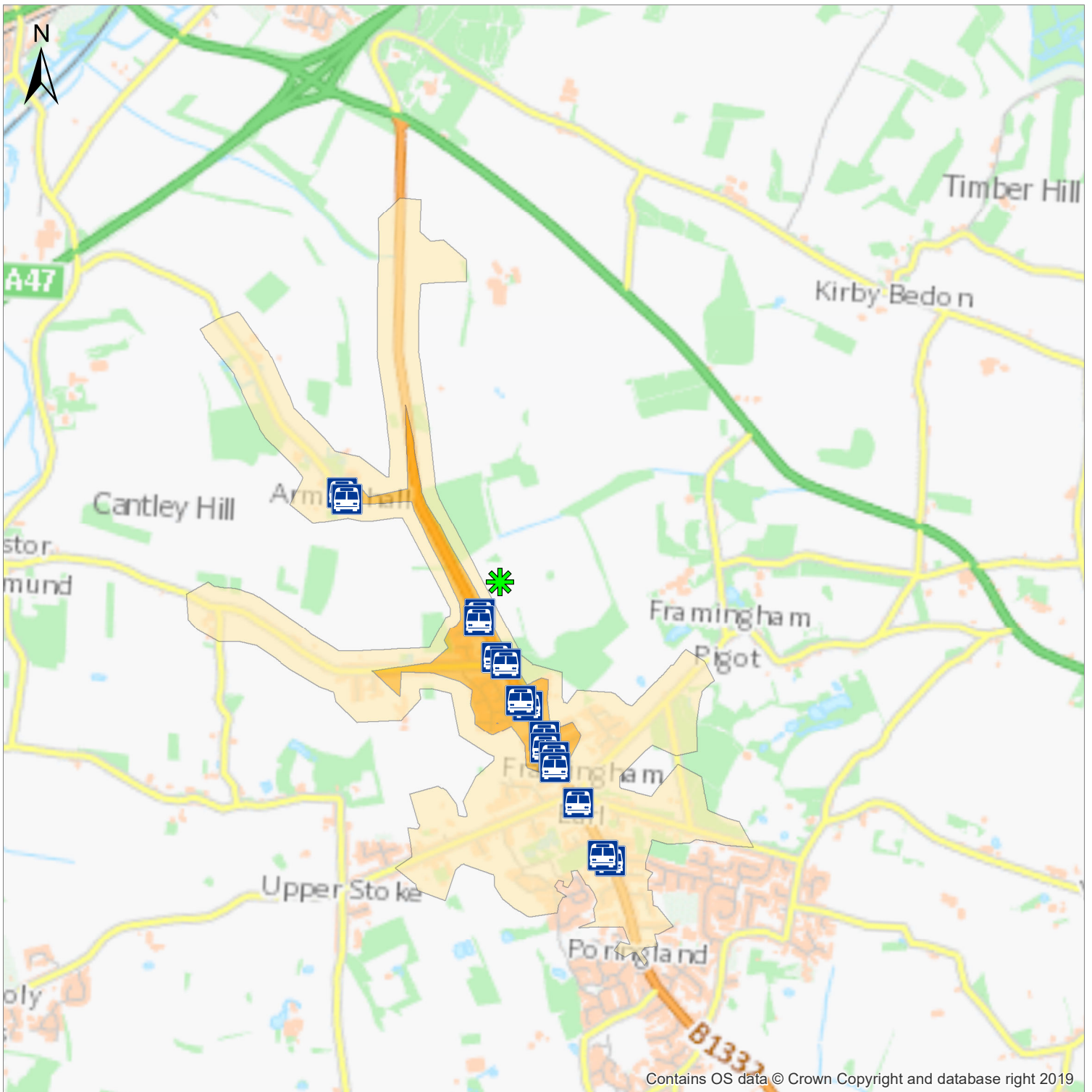
Checked by

NB

Number


1






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Legend

 GNL1032+GNL0321

 Bus Stop

Walking Cathcment

 0-1 km

 1-2 km

Title

Walking Catchment GNL102+GNL0321

Project

Arminghall GNL Representations

Client

Crown Point Estate Office

Date

13/03/2020

Scale

NTS

Appendix B

Checked by

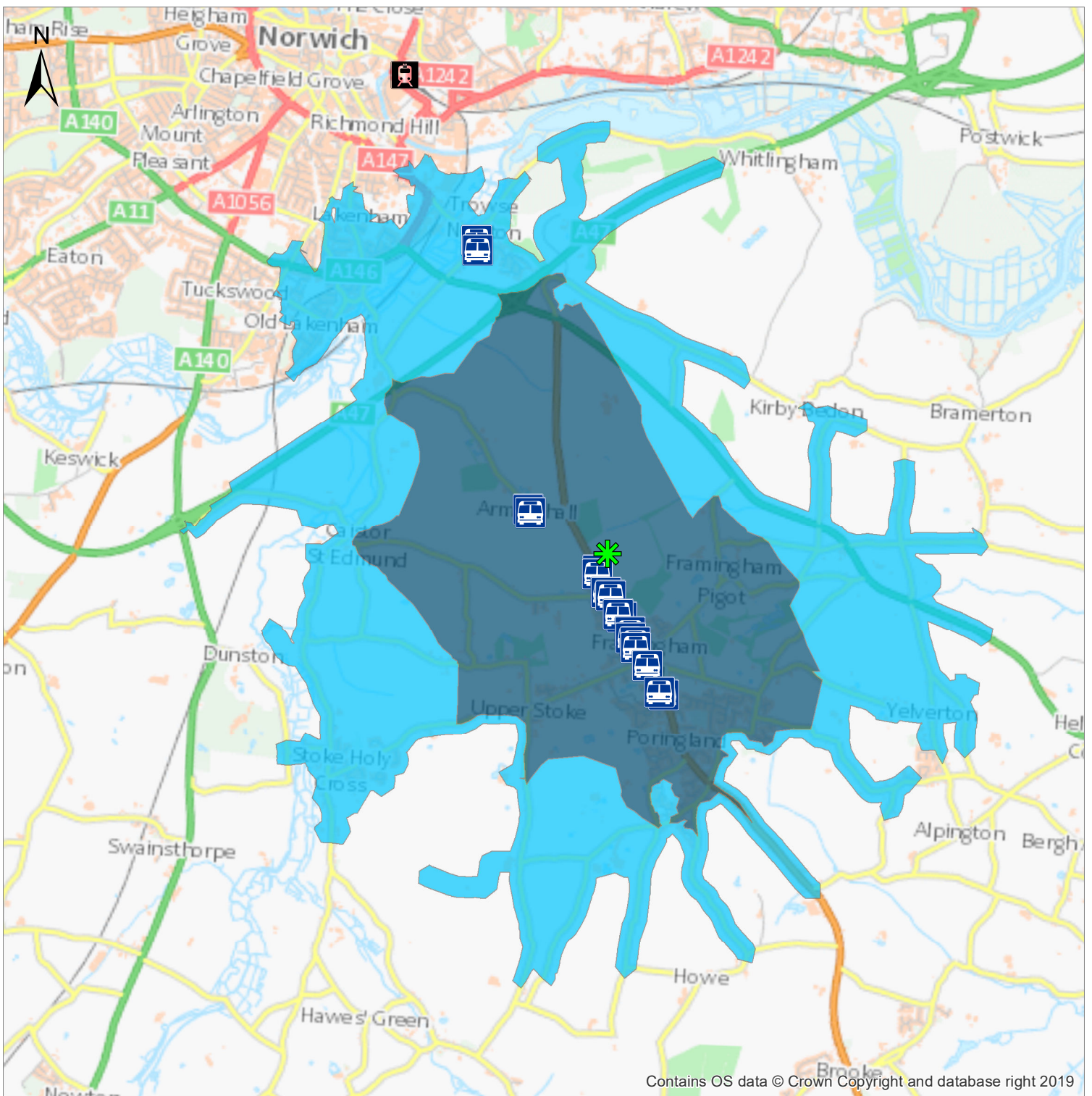
NB

Number

1






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Legend

-  GNL1032+GNLP0321
-  Railway Station
-  Bus Stop

Cycling Catchment

-  0-3 km
-  3-5 km

Title

Cycling Catchment GNL1032+GNLP0321

Project

Arminghall GNL1032+GNLP0321 Representations

Client

Crown Point Estate Office

Date

12/03/2020

Scale

NTS

Appendix B

Checked by

NB

Number

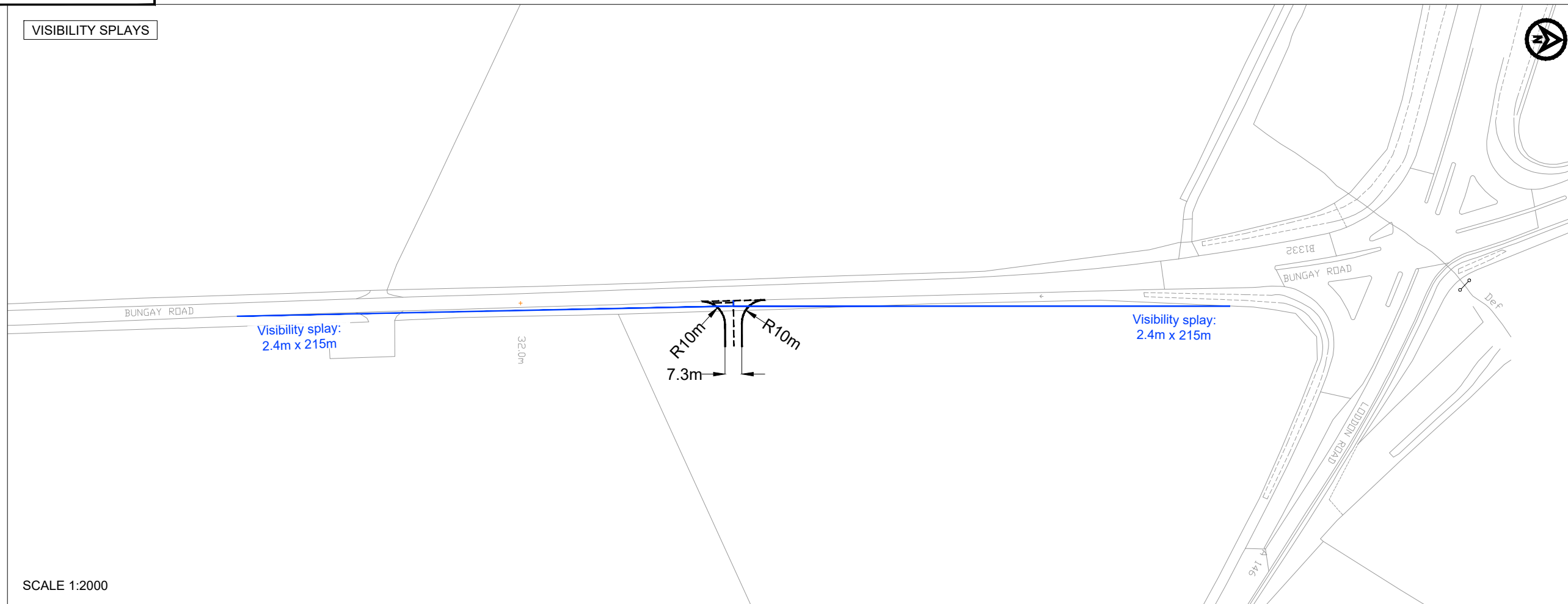
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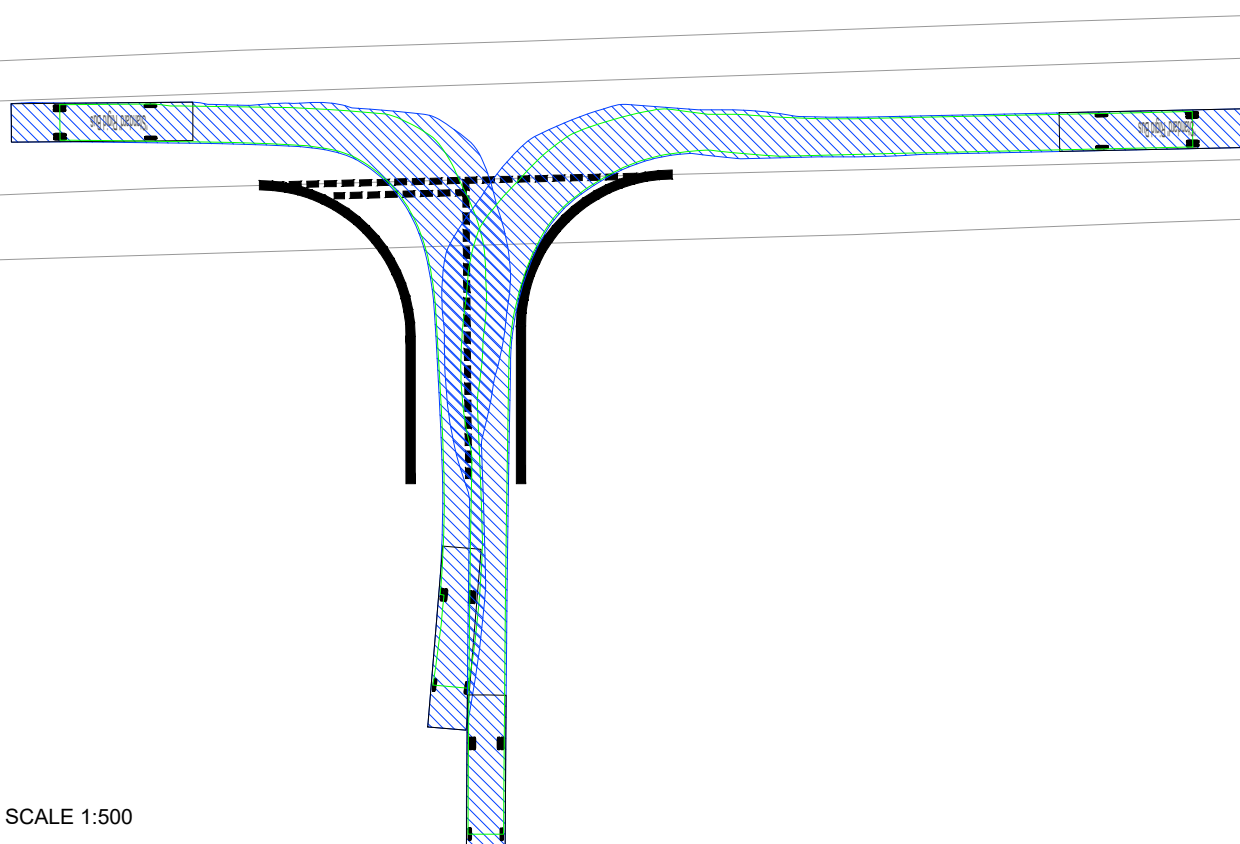
Appendix C Preliminary Access Design Drawings

VISIBILITY SPLAYS



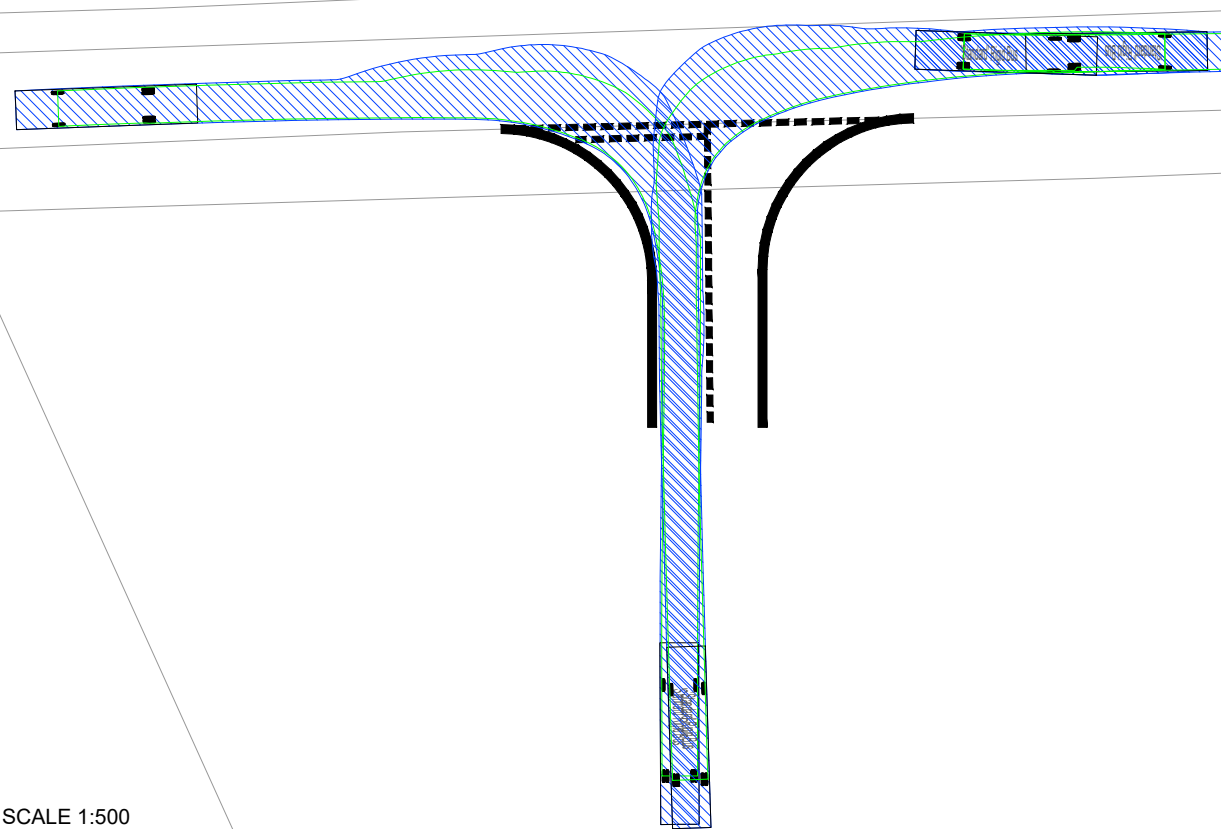
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INBOUND



SCALE 1:500

OUTBOUND

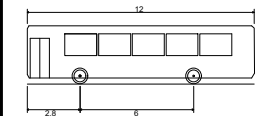


SCALE 1:500

NOTES

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- THIS DRAWING HAS BEEN BASED UPON OS DATA OBTAINED FROM EMAPSITE. ROYAL HASKONINGDHV CANNOT GUARANTEE THE ACCURACY OF DATA.

VEHICLE PROFILE



'Standard' Rigid Bus	12.000m
Overall Length	2.550m
Overall Width	3.060m
Overall Body Height	0.300m
Min Body Ground Clearance	2.350m
Track Width	4.00s
Lock-to-lock time	10.771m
Wall to Wall Turning Radius	

KEY

- PROPOSED SITE ACCESS
- VISIBILITY SPLAY
- VEHICLE BODY SWEEP PATH (FORWARD GEAR)
- VEHICLE CHASSIS SWEEP PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01.01	12.03.20	FOR INFORMATION	AA	AM	NB

REVISIONS

CLIENT

CROWN POINT ESTATE OFFICE

PROJECT

ARMINGHALL GNL P REPS

TITLE

GNLP3051 LODDON P&R SITE:
PRELIMINARY ACCESS DESIGN
AND SWEEP PATH ANALYSIS

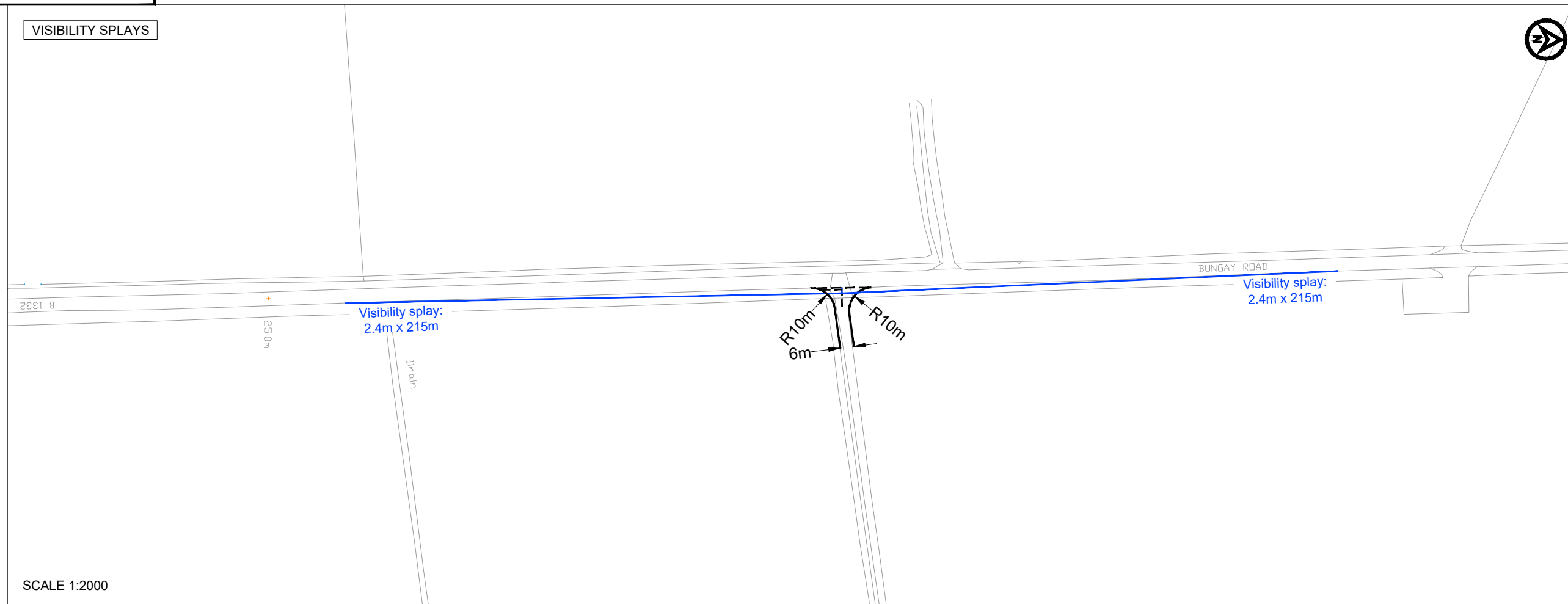


DRAWN	AA	CHECKED	AM	APPROVED	NB
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DATE	SCALE AT A3	CLIENT REF.
12.03.20	1:2000 / 1:500	

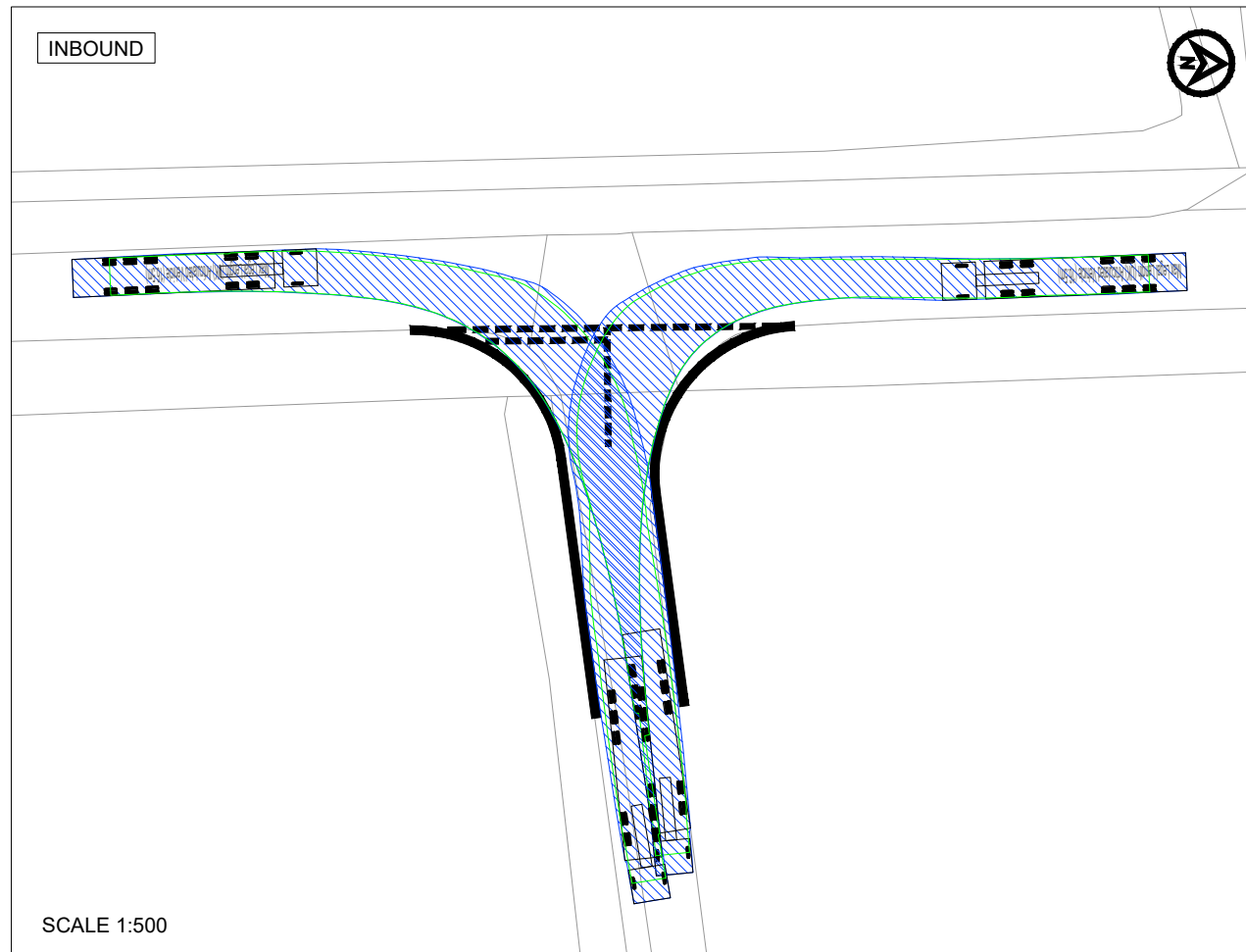
DRAWING No.	REVISION
PC1275-RHD-GR-SW-DR-D-0001	P01.01

VISIBILITY SPLAYS



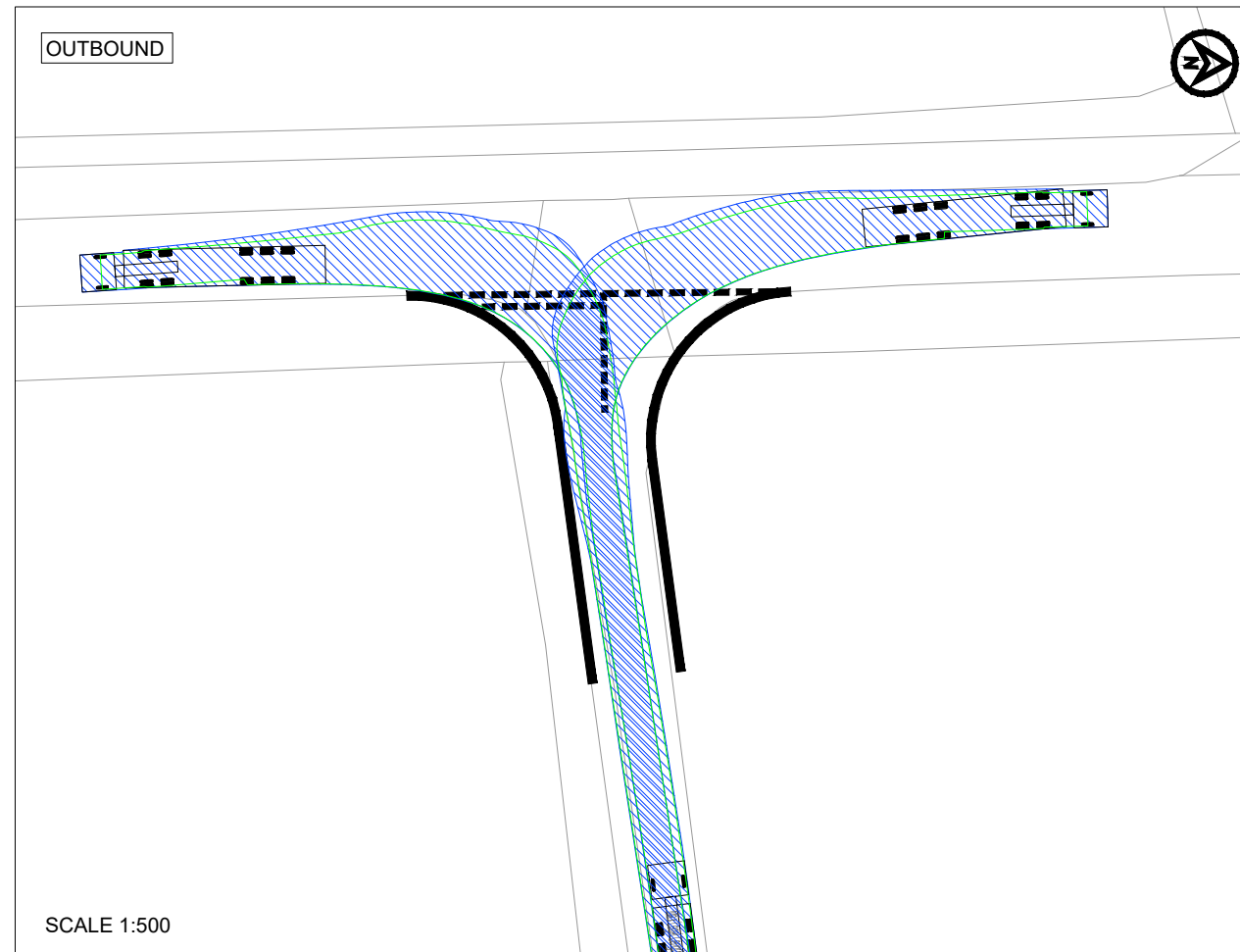
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INBOUND



SCALE 1:500

OUTBOUND

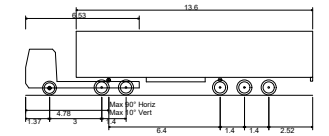


SCALE 1:500

NOTES

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VEHICLE PROFILE



Max Legal Length (UK) Articulated Vehicle (16.5m)	16.500m
Overall Length	13.800m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	6.530m

KEY

- PROPOSED SITE ACCESS
- VISIBILITY SPLAY
- VEHICLE BODY SWEEP PATH (FORWARD GEAR)
- VEHICLE CHASSIS SWEEP PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01.01	12.03.20	FOR INFORMATION	AA	AM	NB

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ESTATE OFFICE

PROJECT

ARMINGHALL GNLP REPS

TITLE

GNLP0323 PARK FARM SITE:
PRELIMINARY ACCESS DESIGN
AND SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	AM	APPROVED	NB
DATE	12.03.20	SCALE AT A3	1:2000 / 1:1000	CLIENT REF.	

DRAWING No.	PC1275-RHD-GR-SW-DR-D-0002	REVISION	P01.01
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VISIBILITY SPLAYS

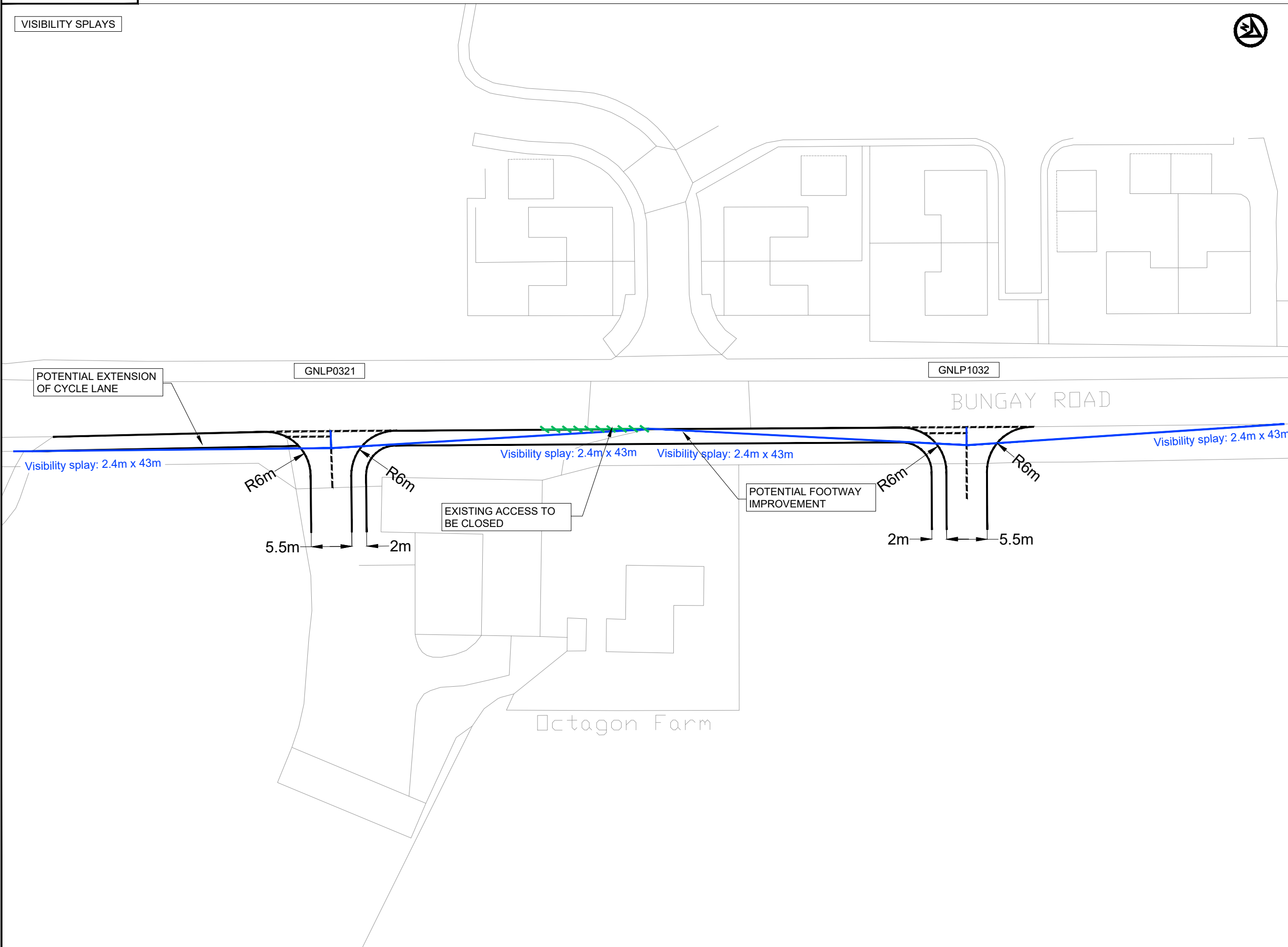


NOTES

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KEY

- PROPOSED SITE ACCESS
- VISIBILITY SPLAY
- EXISTING ACCESS TO BE CLOSED



REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT

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ESTATE OFFICE**

PROJECT

ARMINGHALL GNL0 REPS

TITLE

GNL0321 & GNL1032
OCTAGON BARN SITES:
PRELIMINARY ACCESS DESIGN

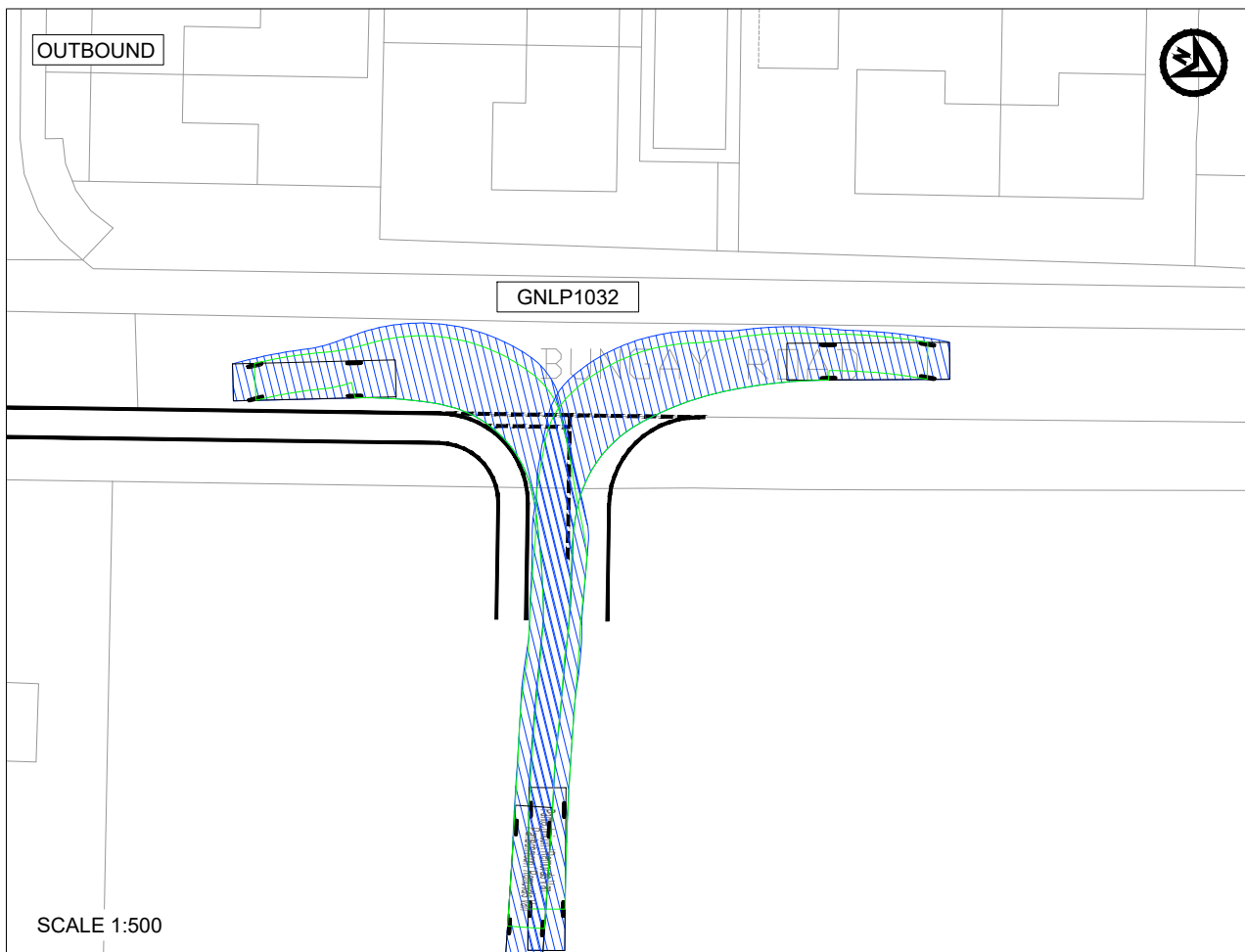
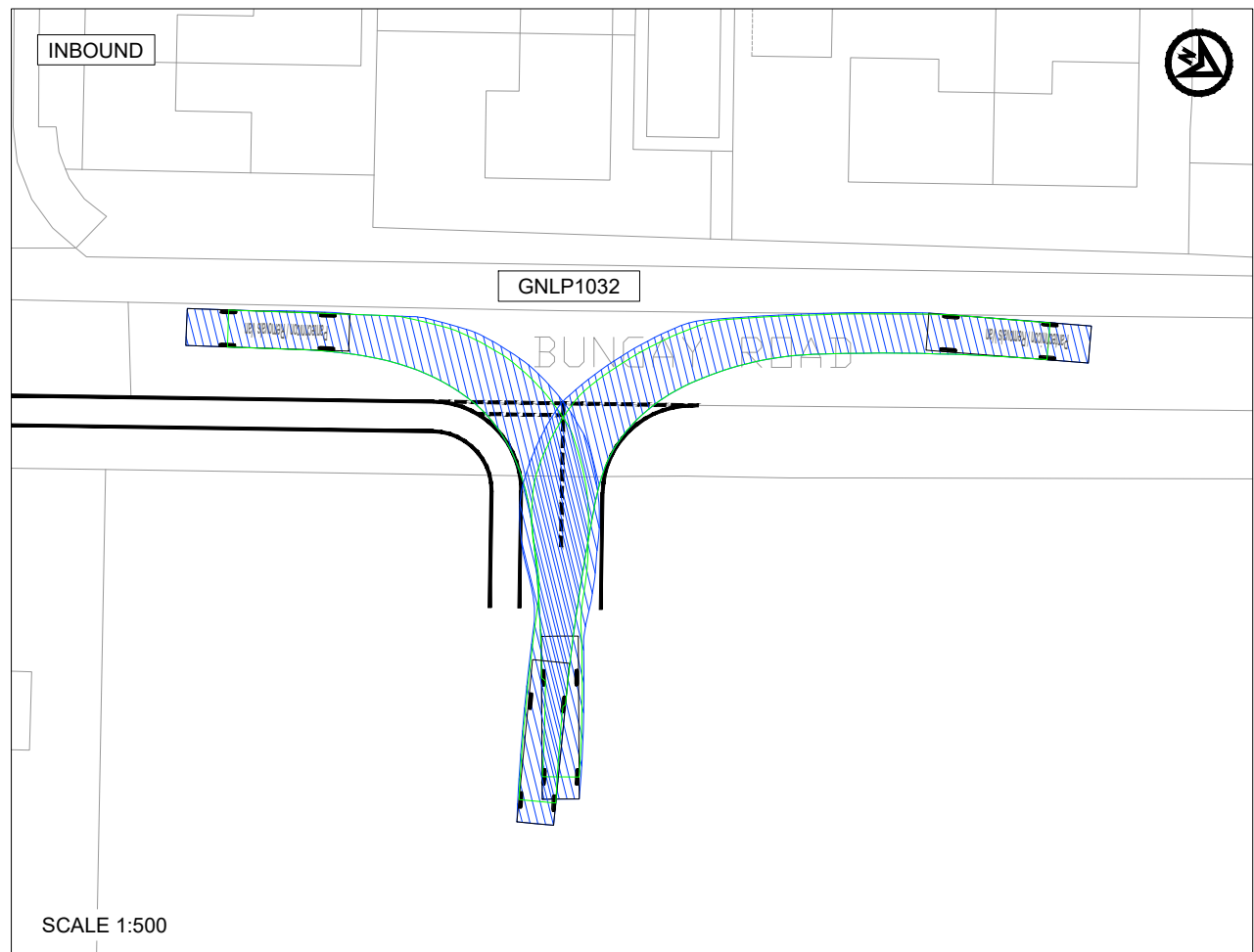
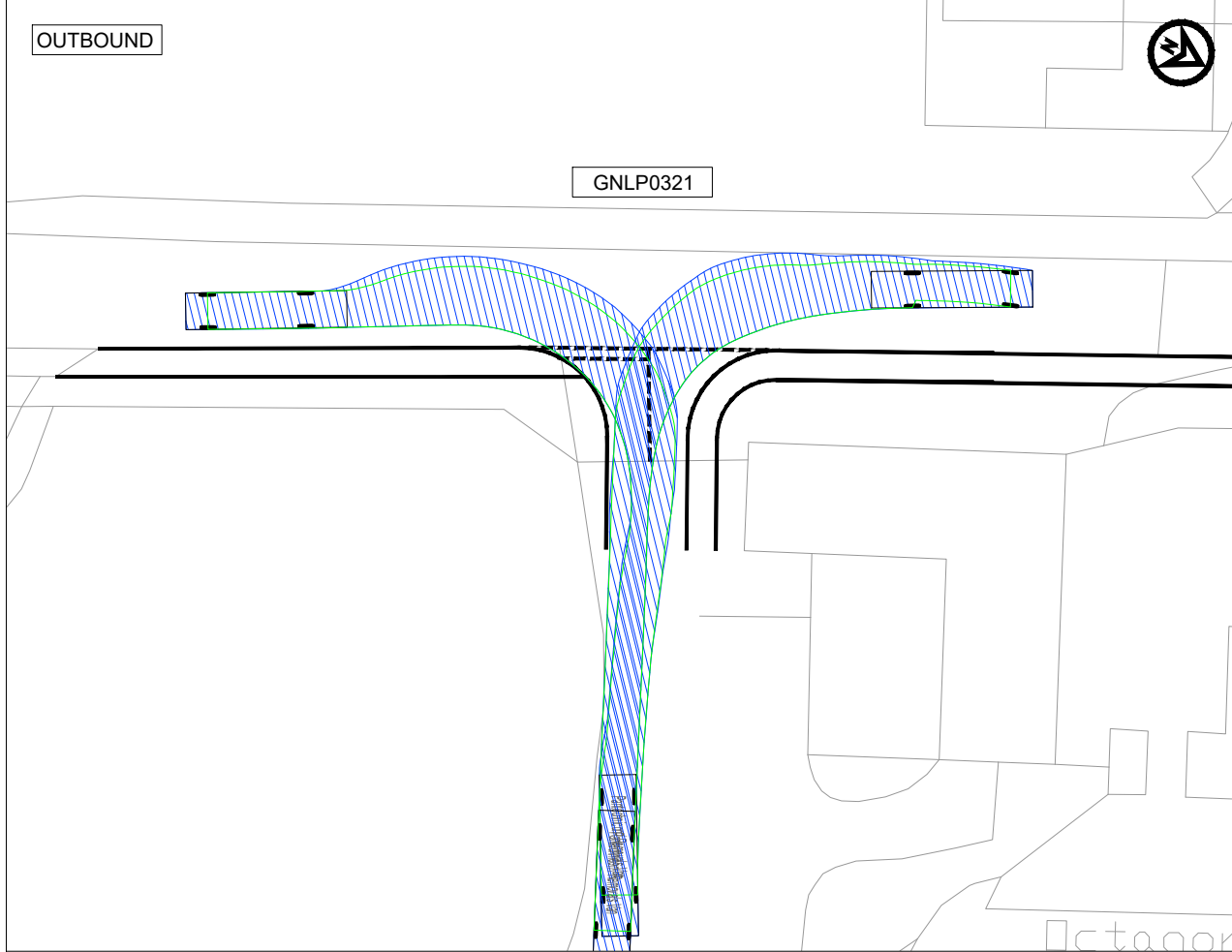
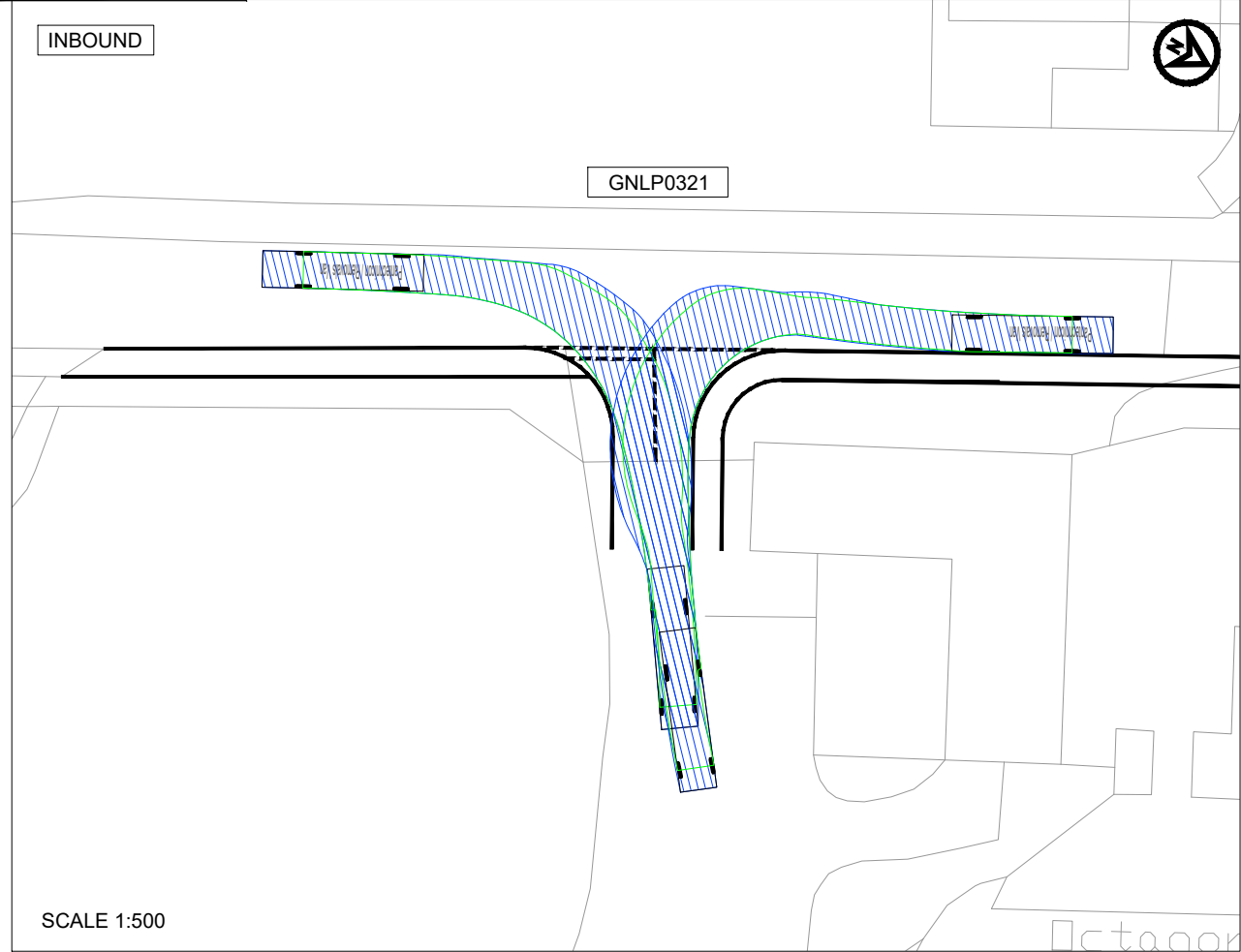
Royal HaskoningDHV
Enhancing Society Together

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Birmingham, B3 3NF
Tel +44 (0) 121 281 8918
www.royalhaskoningdhv.com

DRAWN	AA	CHECKED	AM	APPROVED	NB
DATE	12.03.20	SCALE AT A3	1:500	CLIENT REF.	

DRAWING No.	PC1275-RHD-GR-SW-DR-D-0003	REVISION	P01.01
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SCALE 1:500



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VEHICLE PROFILE

Pantechnic / Removals Van	11.000m
Overall Length	2.500m
Overall Width	4.730m
Overall Body Height	0.541m
Min Body Ground Clearance	2.500m
Track Width	6.00s
Lock-to-lock time	12.200m
Curb to Curb Turning Radius	

KEY

- VEHICLE BODY SWEEP PATH (FORWARD GEAR)
- VEHICLE CHASSIS SWEEP PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01.01	12.03.20	FOR INFORMATION	AA	AM	NB

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PROJECT

ARMINGHALL GNLP REPS

TITLE

GNLP0321 & GNLP1032
OCTOGON BARN SITES:
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	AM	APPROVED	NB
DATE	12.03.20	SCALE AT A3	1:1000	CLIENT REF.	

DRAWING No.	REVISION
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