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**Ashford Borough Council**

**FEASIBILITY REPORT  
A20 DEVELOPMENT SITES-  
ACCESS ASSESSMENT**

**JUNE 2017**





# Feasibility Report

## A20 Development Sites – Access Assessment

CO04300616/R/001 Revision 0

June 2017



**Document Control Sheet**

Project Name:	A20 Development Sites – Access Assessment
Project Number:	CO04300616
Report Title:	Feasibility Report
Report Number:	R/001

<b>Issue Status/Amendment</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>
Initial Issue	Name: Alice Alexander  Signature: <i>A Alexander</i>  Date: 26/05/2017	Name: Stephen Guile  Signature: <i>S. Guile</i>  Date: 15/06/2017	Name: Nick Flood  Signature: <i>N Flood</i>  Date: 20/06/2017
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## **Executive Summary**

Amey have been commissioned by Kent County Council to undertake a feasibility study in respect of the suitability of 3 potential allocation sites in terms of access (both vehicular and pedestrian).

Feasibility design options have been undertaken for the 3 sites and these can be found in Appendix A of this Report and the design rationale for each option outlined in Section 4, complete with indicative construction costs.

Preferred options are outlined in Section 4.9.

Site 1 has only one available option for both the development and the residential accesses; Site 2 has 3 options with either option 2 or 3 being the preferred, dependent on whether or not Oakover Nurseries land is developed and Site 3 has only one available option.

Should all three developments be taken forward, it is considered that any combination of the proposed junctions could be implemented without conflict occurring between the respective right turn facilities.

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## **1 Introduction**

### **1.1 Commission**

Amey have been commissioned by Kent County Council to undertake a feasibility study in respect of the suitability of 3 potential allocation sites in terms of access (both vehicular and pedestrian).

### **1.2 Project Description**

The 3 sites that are being promoted by landowners are in the A20 corridor between Ashford and Charing. The purpose of this study is to assess and inform Ashford Borough Council as to whether the proposed 3 development sites can provide a suitable vehicular access off the A20. Sites are located as follows:

- Land off Westwell Lane, A20 – Proposed for 75 dwellings
- Land rear of the Holiday Inn, A20 (Hothfield) – Proposed for 150 dwellings
- Land at Tutt Hill, A20, Westwell – Proposed for 100 dwellings

### **1.3 Report Objectives**

This report presents the findings of the site assessments and provides an outline design for each site.

The overall objectives are to:

- Assess whether suitable visibility splays can be provided, taking into account the current the existing speed limit along the A20 of 60mph;
- Assess the scale of access for each site, a minimum of a right hand turn lane is required as the A20 is the primary diversion during Operation Stack;
- Provide and outline design, along with a Stage 1 Road Safety Audit, for each site access.

## **1.4 Scope of Works**

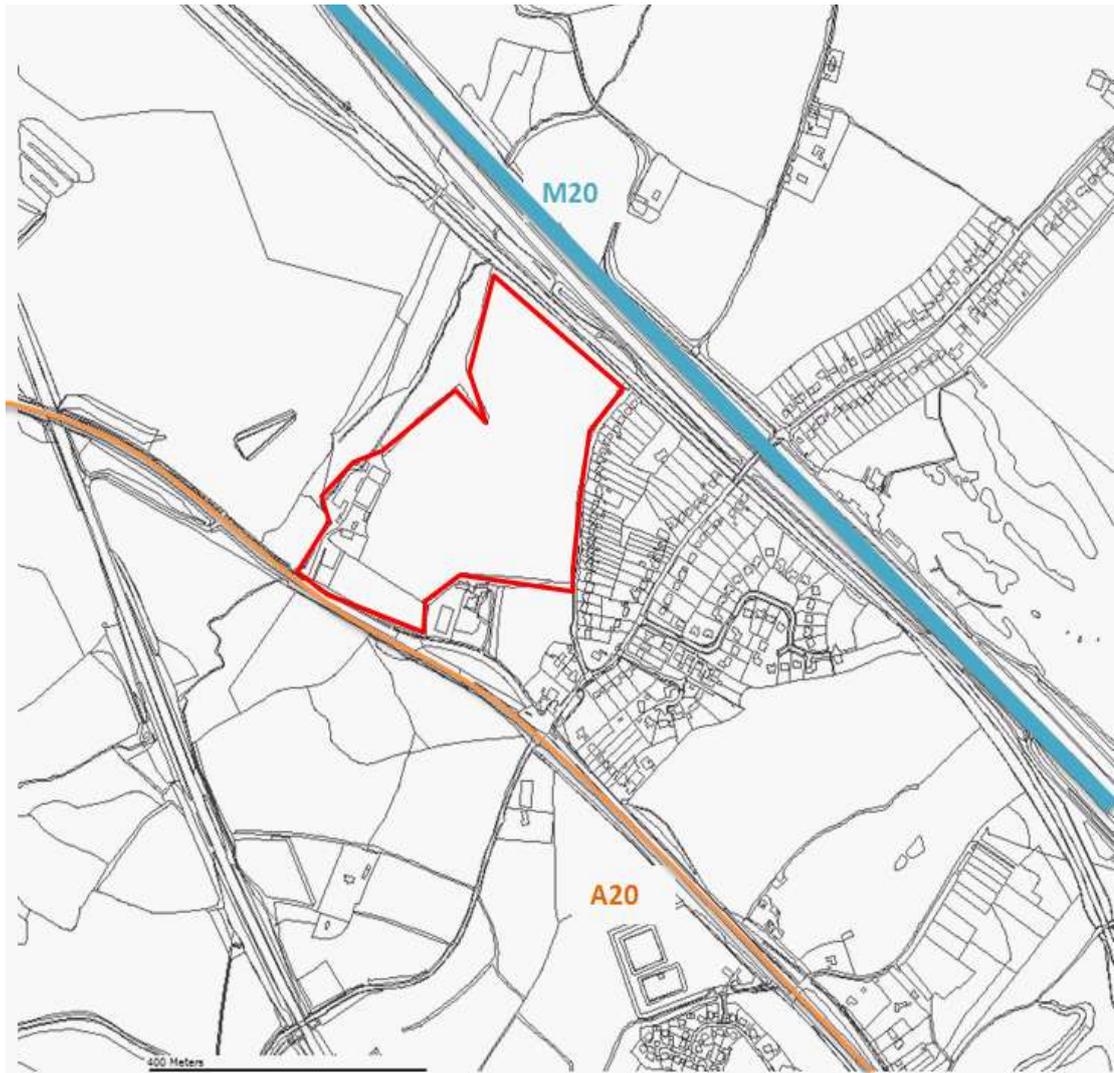
The full scope of this feasibility study includes:

- A review of current layouts ascertained by a site visit;
- An environmental scoping assessment to highlight any environmental issues to inform later design stages;
- NRSWA C2 enquiries and the production of a composite services plan;
- Production of feasibility designs, undertaken using OS base maps at the 3 junctions. The client has requested that priority junctions with a right hand turn lane be looked into;
- Production of high level indicative cost estimates for feasibility designs;
- A stage 1 RSA with designer's responses;

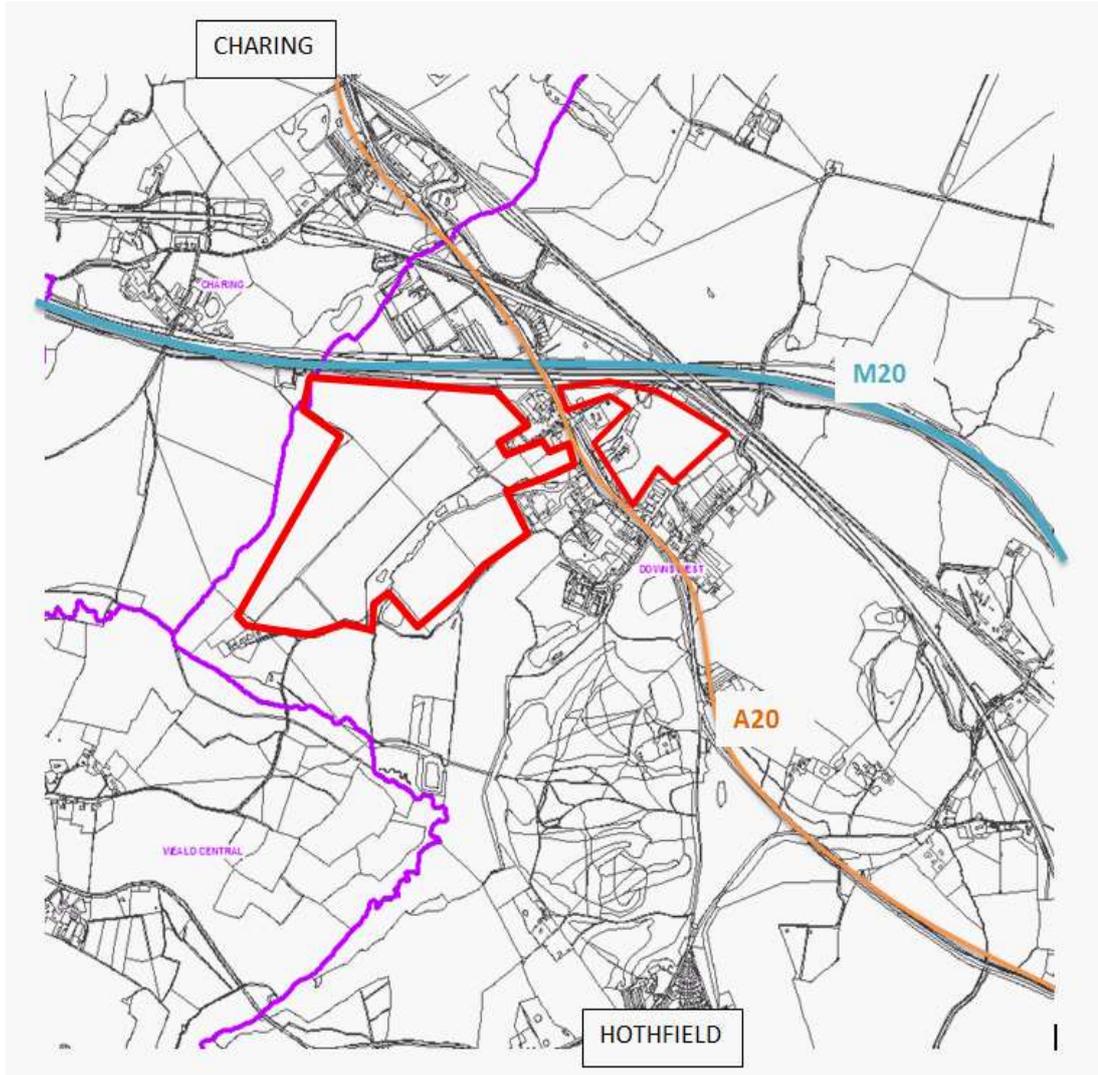
## 2 Site Profile

### 2.1 Site Location

The 3 sites are located along the A20 near Hothfield. Site 1 and 3 are to the north of the A20, south of the M20, whilst site 2 is west of the A20, south of the M20.



**Figure 1: Site 1 - Westwell Lane, A20**



**Figure 2: Site 2 (left) - Land near Holiday Inn, A20, Hothfield & Site 3 (right) - Land at Tutt Hill, A20, Westwell**

## **2.2 Surrounding Land Uses**

### **2.2.1 Site 1**

Site 1 is land situated between the A20 and M20 in Westwell, Kent approximately 2 miles from Ashford. It is surrounded by existing housing to the east, farm land to the west and a wooded area to the south.

There is a layby adjoining the south east corner of the site that is in KCC ownership and is currently used by lorries to park. A potential solution to this parking is also sought.

### **2.2.2 Site 2**

Site 2 is land situated to the south of the M20, west of the A20 in Hothfield, Kent approximately 3 miles from Ashford. It is surrounded by farm land with a Holiday Inn located to the north east corner of the site.

### **2.2.3 Site 3**

Site 3 is land situated to the south of the M20, east of the A20 in Westwell, Kent approximately 3 miles from Ashford. It is surrounded by farm land with a spiritual development centre located on the southern border of the site.

## **2.3 Site Description and Walkover Survey**

A site walk over survey was undertaken by a Senior Engineer and Graduate Engineer on 26th April 2017 between approximately 11am to 1pm. Weather conditions were good and traffic flow was medium, with vehicles observed to be travelling within the posted speed limit (60mph).

### **2.3.1 Site 1**

The layby adjacent to Site 1 was occupied by a number of vans and heavy goods vehicles and evidence of littering was observed.

### **2.3.2 Site 2**

A small number of vehicles were observed using the existing shared right turn facility to access the Holiday Inn and the track adjacent to Site 2.

### **2.3.3 Site 3**

No vehicles were observed using the existing right turn facility to access the existing farm land adjacent to Site 3.

## **2.4 Topographical Survey**

No topographical survey was available for this feasibility study, however it is recommended that more detailed survey information be commissioned to help inform the next stage of the design.

### **3 Statutory Undertakers Plant**

#### **3.1 NRSWA**

NRSWA C2 searches have been undertaken and the potentially affected parties identified. C3 searches will need to be undertaken at a later stage to establish the need for any potential diversionary works.

##### **3.1.1 Site 1**

The majority of the Statutory Undertakers plant appears to be present in the north verge of the A20 and either across or around the layby.

##### **3.1.2 Site 2 & 3**

Statutory Undertakers plant appears to be present in both the south western and north eastern verges of the A20.

## **4 Feasibility Designs**

Drawings showing the feasibility design layouts can be found in Appendix A of this report.

### **4.1 General Design**

#### **4.1.1 *Design Standards***

All designs have been carried out in accordance with the Design Manual for Roads and Bridges (DMRB), Volume 6, TD 42/95

#### **4.1.2 *Background Mapping***

All feasibility designs have been undertaken using an Ordnance Survey background and as such, the need for and extent of carriageway widening on the A20 will need to be ascertained at a subsequent stage of the Scheme using more detailed survey information.

#### **4.1.3 *Existing Road Markings***

The layout of the existing road markings has been shown on the drawings. Measurements for these have been obtained through the interrogation of Google Maps. It is recommended that the road markings are captured and included when the topographical survey is undertaken at a subsequent stage.

#### **4.1.4 *Design Speed***

The current speed limit on the A20 at all sites is 60mph. For the purposes of the Highway Design Standards a design speed of 100kph has been used.

#### **4.1.5 *Client Requirements***

The Client has instructed that priority junctions be investigated for each location complete with associated right turn facility. The Client has also indicated that no stacking length will be required within the right turn facility.

#### **4.1.6 *Lane widths***

In each scenario where new ghost islands are proposed, turning lane widths would be 3m and through lane widths 3.5m.

## **4.2 Site 1 – Access to Development**

### **4.2.1 Layout**

Refer to Drawing No. 4300616/000/101

The location of the proposed junction is dictated by the required length of the associated ghost island facility which incorporates an 80m deceleration length and a 10m turning length (90m total) from the start of the ghost island taper to the centre of the junction. The ghost island starts shortly west of the existing right turn facility which serves the lorry layby at the western end.

The design utilises the existing hatched area in the centre of the carriageway to accommodate the proposed ghost island, however the need for carriageway widening should be established using more detailed survey information – see 4.1.2 above.

### **4.2.2 Visibility**

Site clearance in the form of vegetation clearance and removal of established trees will be required to provide the required 2.4m x 215m visibility splay to the west of the junction.

Further environmental input may be required as a result.

### **4.2.3 Indicative costs**

Construction costs would be in the region of £50k

## **4.3 Site 1 – Access to Private Residence Incorporating a Layby Closure**

### **4.3.1 Layout**

Refer to Drawing No. 4300616/000/106

The location of the proposed priority junction is dictated by the required length of the associated ghost island facility which incorporates an 80m deceleration length and a 10m turning length (90m total) from the start of the ghost island taper to the centre of the junction. The ghost island starts approximately 20m west of the existing physical central island and the point at which the existing A20 dual carriageway merges into a single lane.

The design utilises the existing hatched area in the centre of the carriageway to accommodate the proposed ghost island, however the need for carriageway widening will need to be established using more detailed survey information – see 4.1.2 above.

It is proposed to utilise part of the layby to accommodate the new access road. The remainder of the layby on either side will be broken up, top soiled and seeded to create new verged areas.

In the current situation a bus stop is located within the layby and is accessed from the western end by the public service vehicles. It is proposed to relocate the bus stop adjacent to the diverge taper road which serves Sandyhurst Lane. A new footway link is proposed between the bus stop and the existing footway on the northern side of the layby.

#### **4.3.2 Visibility**

The required 2.4m x 215m visibility splays are achieved in both directions with minimal site clearance required

#### **4.3.3 Indicative costs**

Construction costs would be in the region of £55k

### **4.4 Site 2 – Access to Development - Option 1**

#### **4.4.1 Layout**

Refer to Drawing No. 4300616/000/102

This option utilises the existing track entrance and associated right turn facility as a means of accessing the proposed development site. The track would be widened to 6 meters and upgraded to full depth carriageway construction from the junction to the site entrance. From there the track would be retained as it currently is, with access to Oakover Nurseries maintained.

The existing right turn facility is approximately 82m in length and is currently serves to provide access to the Holiday Inn site to the west also.

It is considered that this design option is unacceptable for the following reasons:

- The existing right turn facility is of a sub-standard length and therefore insufficient deceleration length is available. Furthermore the A20 on the approach is on a downhill gradient.
- With the existing right turn facility serving the Holiday Inn as well, it is likely that a right turning vehicle could be sat within the deceleration length further shortening the available length and raising additional safety concerns.

#### **4.4.2 Indicative costs**

No costs are available for this option

### **4.5 Site 2 – Access to Development - Option 2**

#### **4.5.1 Layout**

Refer to Drawing No. 4300616/000/103

This option proposes a new skewed junction arrangement into the development site. The proposed right turn lane would begin at the same point as the current right hand facility for the farm land on the opposite side of the road, however, this only allows for a deceleration length of 55m, 25m short of the required 80m for the design speed. For this to be acceptable a reduction in the speed limit from 60mph to 50mph would be required.

This proposal would link to the existing track for access to the substation and nursery. The track to the west of the new junction would be stopped up and a turning head provided. A new footway on the south side of the A20 would be provided.

#### **4.5.2 Visibility**

The required 2.4m x 160m visibility splays are achieved in both directions with minimal site clearance required

#### **4.5.3 Indicative costs**

Construction costs would be in the region of £130k

### **4.6 Site 2 – Access to Development - Option 2A**

Refer to Drawing No. 4300616/000/105

This option takes into account the possibility of the development expanding further east into Oakover Nurseries land.

This proposal is for a priority junction arrangement which crosses and ties into the existing track, which would be retained to the west of the junction and stopped up to the east, with a turning head provided.

This option would allow for a ghost island incorporating the full 80m deceleration length required for the existing 60mph speed limit.

#### **4.6.1 Visibility**

The required 2.4m x 215m visibility splays are achieved in both directions with minimal site clearance required.

#### **4.6.2 Indicative costs**

Construction costs would be in the region of £125k

### **4.7 Site 3 – Access to Development**

#### **4.7.1 Layout**

Refer to Drawing No. 4300616/000/104

The location of the proposed priority junction is dictated by the required length of the associated ghost island facility which incorporates an 80m deceleration length and a 10m turning length (90m total) from the start of the ghost island taper to the centre of the junction. The ghost island starts approximately 10m west of the existing right turn facility which serves the Premier Inn.

The design requires a ghost island to be developed within the existing carriageway resulting in the need for carriageway widening on both the northern and southern sides of the A20. More detailed survey information will be required to ascertain the exact extent of widening required – see 4.1.2 above.

#### **4.7.2 Visibility**

The required 2.4m x 215m visibility splays are achieved in both directions with minimal site clearance required.

#### **4.7.3 Indicative costs**

Construction costs would be in the region of £55k

### **4.8 Combined Design Scenarios**

Should all three developments be taken forward, it is considered that any combination of the proposed junctions could be implemented without conflict occurring between the respective right turn facilities.

In the event that the private access adjacent to Site 1 is implemented, complete with the closure of the layby, the location of the junction proposed for Site 1 could be moved further east which would help to alleviate the visibility issue raised in 4.2.2 above.

## **4.9 Conclusions**

### **4.9.1 Site 1 – Development**

It is considered that, due to the existing site constraints, this is the best available option for this site and as such is recommended.

There is scope for the junction to be moved west to improve visibility should the option for the adjacent private access be implemented.

### **4.9.2 Site 1 – Private Residence**

It is considered that, due to the existing site constraints, this is the best option available for this location. It allows for a suitable distance between the point at which the A20 dual carriageway merges into single lane and the start of the ghost island.

### **4.9.3 Site 2**

There have been 3 options considered for this site;

Option 1 is not recommended as the existing right turn facility does not meet current design standards and the junction arrangement is at an acute angle making access/ egress difficult.

It is considered that, due to the existing site constraints, Option 2 is the only available option if the Oakover Nurseries land is not included within the development. This option incorporates a substandard layout for the current design speed and as such would require an order to be raised to reduce the existing speed limit from 60mph to 50mph.

Option 3 would be appropriate should the Oakover Nurseries land be developed. This incorporates full design standards for the current design speed and as such is recommended.

### **4.9.4 Site 3 – Development**

It is considered that, due to the existing site constraints, this is the best available option for this site and as such is recommended.

## **5 Road Safety Audit**

### **5.1 Stage 1 Road Safety Audit**

A Stage 1 Road Safety Audit was undertaken on all of the proposed junction arrangements, other than Site 1 - Option 1, in June 2017. The Audit Report and associated Design Team & Client responses can be found in Appendix B of this report.

## **6 Environment**

### **6.1 Environmental Scoping Assessment**

An Environmental Scoping Assessment was undertaken in June 2017. The assessment report can be found in Appendix C of this report. The following recommendations for further action or assessment have been made:

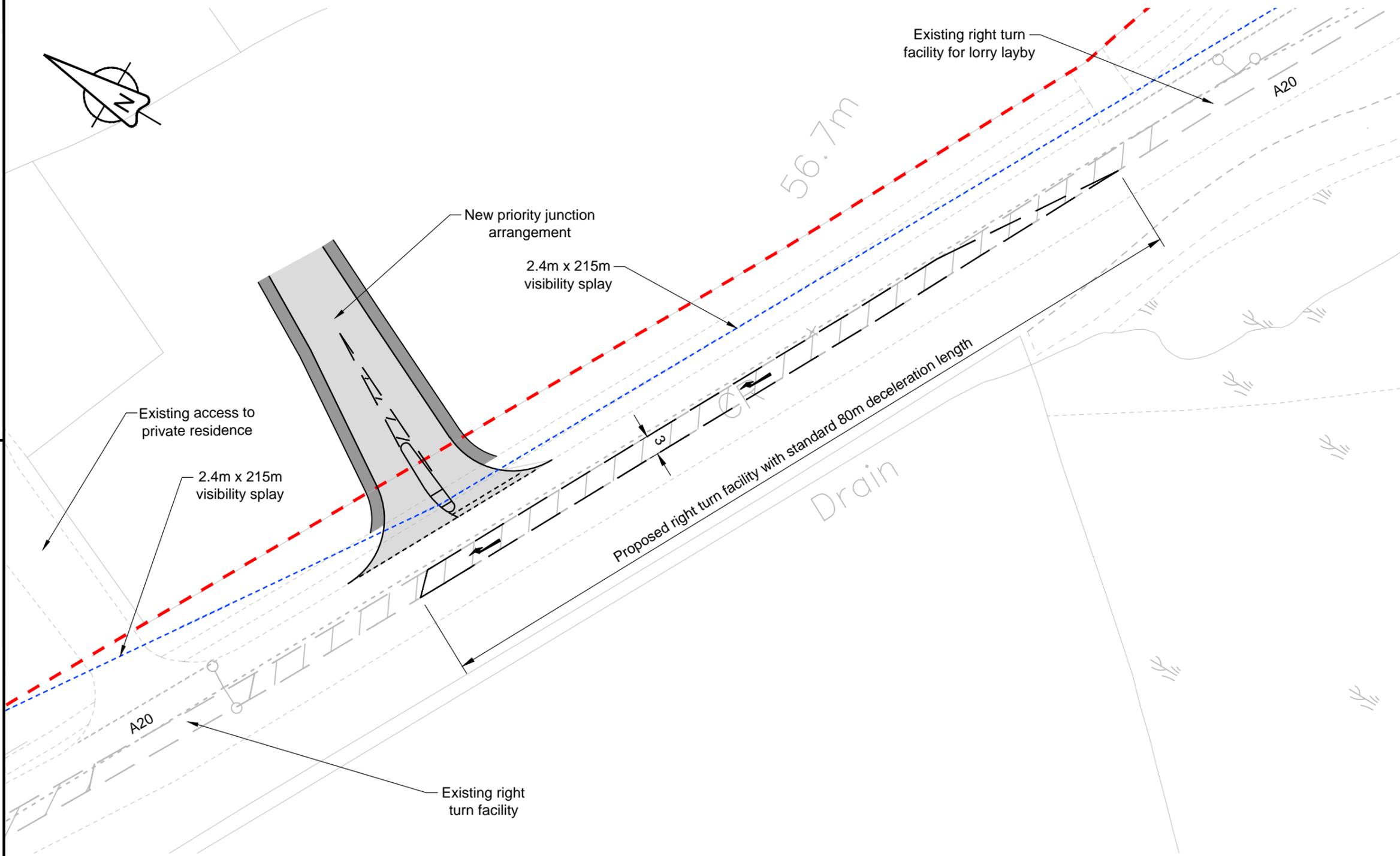
- Air quality: A construction dust impact assessment in accordance with IAQM Guidance on the assessment of demolition and construction dust.
- Noise and vibration: A noise and vibration specialist should undertake BS5228 calculations in order to inform construction plant, methodology and mitigation methods to be employed if works are to be undertaken outside normal permitted hours.
- Landscape effects: Preliminary landscape and visual appraisal.
- Ecology and nature conservation: Preliminary ecological appraisal required in order to identify habitats/potential species of interest.
- Drainage and the water environment: Preliminary Appraisal of drainage and the water environment.
- Effects on all travellers: Consultation with district council and local residents to discuss proposed plans.
- Effects on the community and private assets: Consultation with stakeholders about the potential disruption.



## **Appendix A Feasibility Design Layouts**

NOTES

- Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction



02	Vis splays added	LSC	NF	NF	26.05.17
01	Footways added	LSC	NF	NF	19.05.17
Rev	Rev details	Drwn	Chkd	Appd	Date

Designed:	LSC	Date:	01.05.17
Drawn:	LSC	Date:	01.05.17
Checked:	NF	Date:	12.05.17
Approved:	NF	Date:	15.05.17

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Client



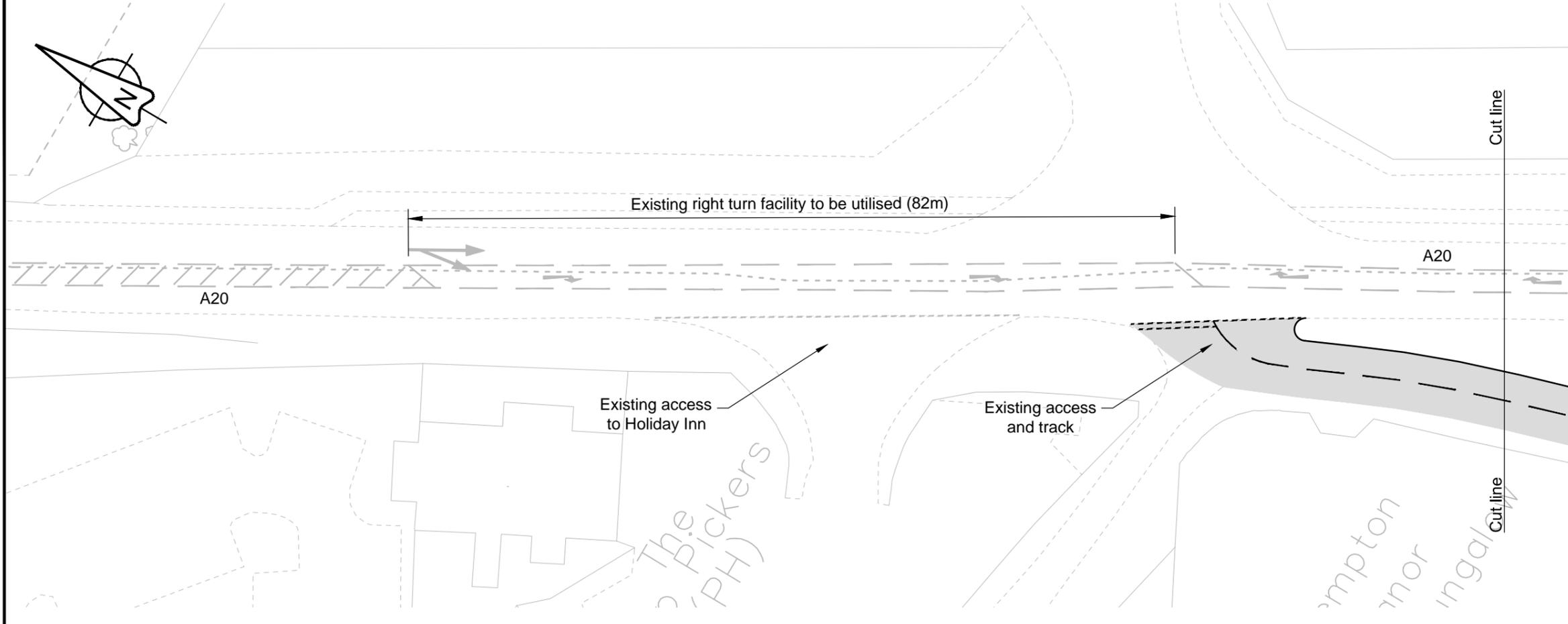
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**A20 Site Access**

Drawing Title  
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Development Site 1  
Proposed Access**

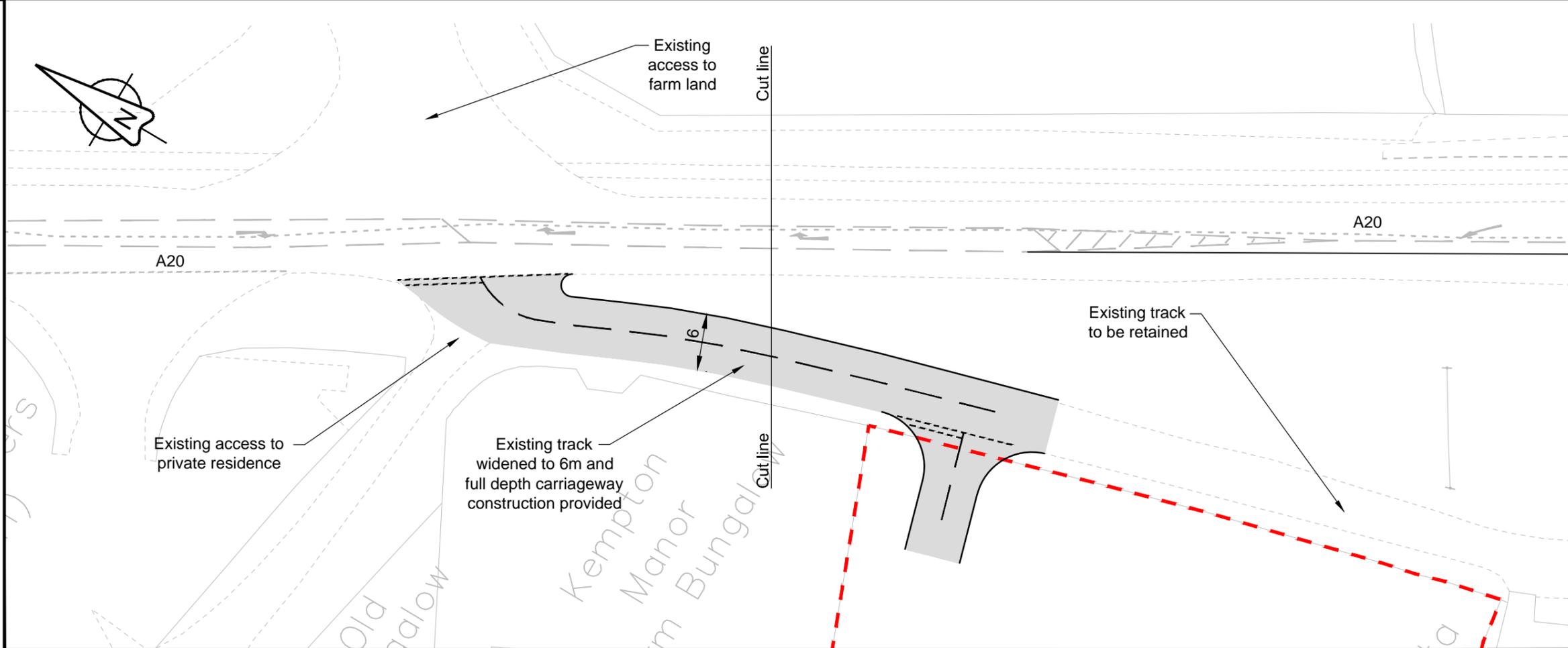
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Drawing No <b>4300616/000/101</b>	Revision 02
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- NOTES**
- Proposed Area of Development
  - Existing road markings
  - Proposed road markings
  - Full depth carriageway construction



Rev	Rev details	Drwn	Chkd	Appd	Date

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Project Name  
**A20 Site Access**

Drawing Title  
**Feasibility Design  
Development Site 2  
Proposed Access  
Option 1**

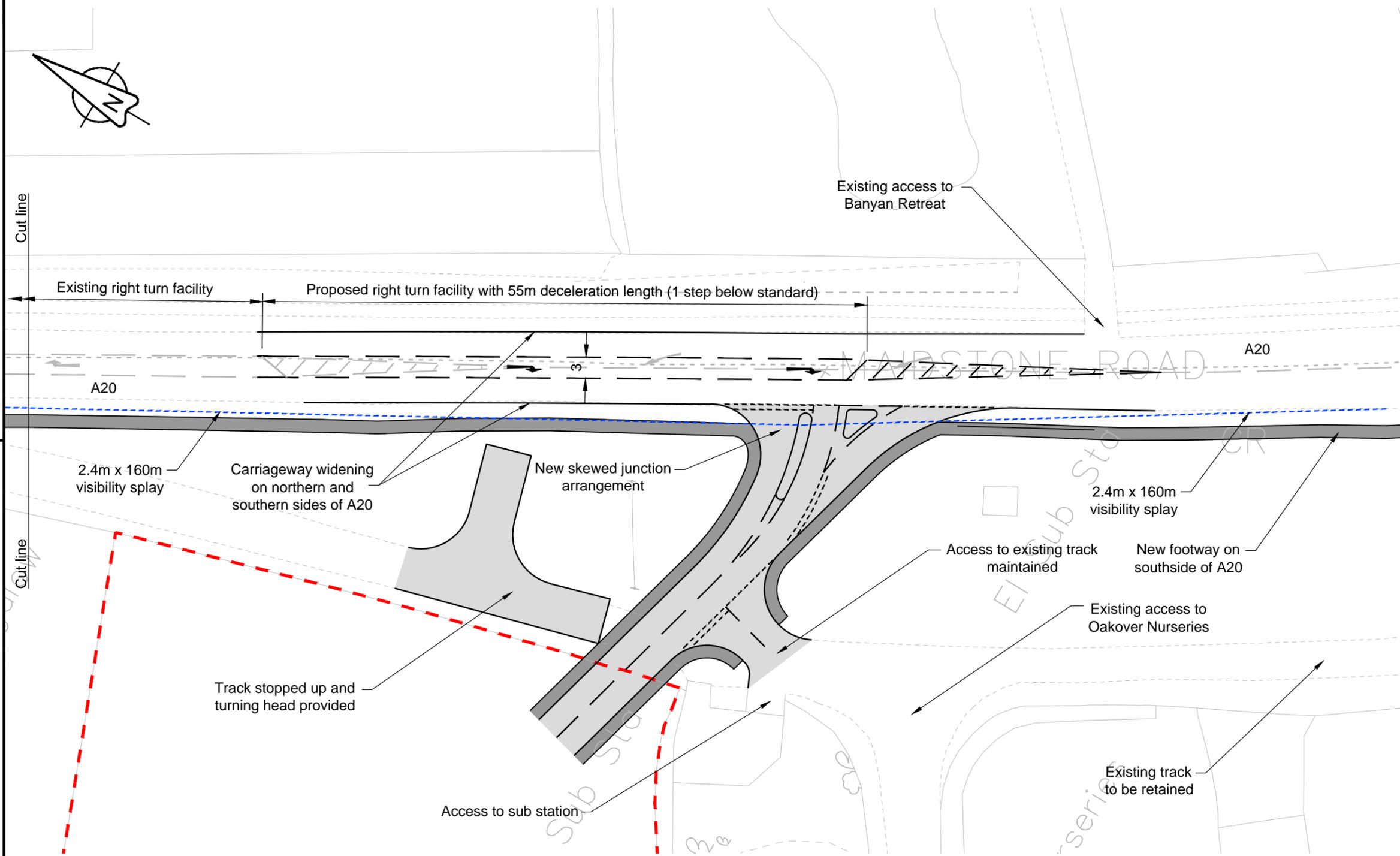
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Drawing Status  
**PRELIMINARY**    Suitability  
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Drawing No  
**4300616/000/102**    Revision  
00

**NOTES**

- - - Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction



02	Vis plays added	LSC	NF	NF	26.05.17
01	Footways added	LSC	NF	NF	19.05.17
Rev	Rev details	Drwn	Chkd	Appd	Date

Designed:	LSC	Date:	01.05.17
Drawn:	LSC	Date:	01.05.17
Checked:	NF	Date:	12.05.17
Approved:	NF	Date:	15.05.17

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Project Name  
**A20 Site Access**

Drawing Title  
**Feasibility Design  
Development Site 2  
Proposed Access  
Option 2**

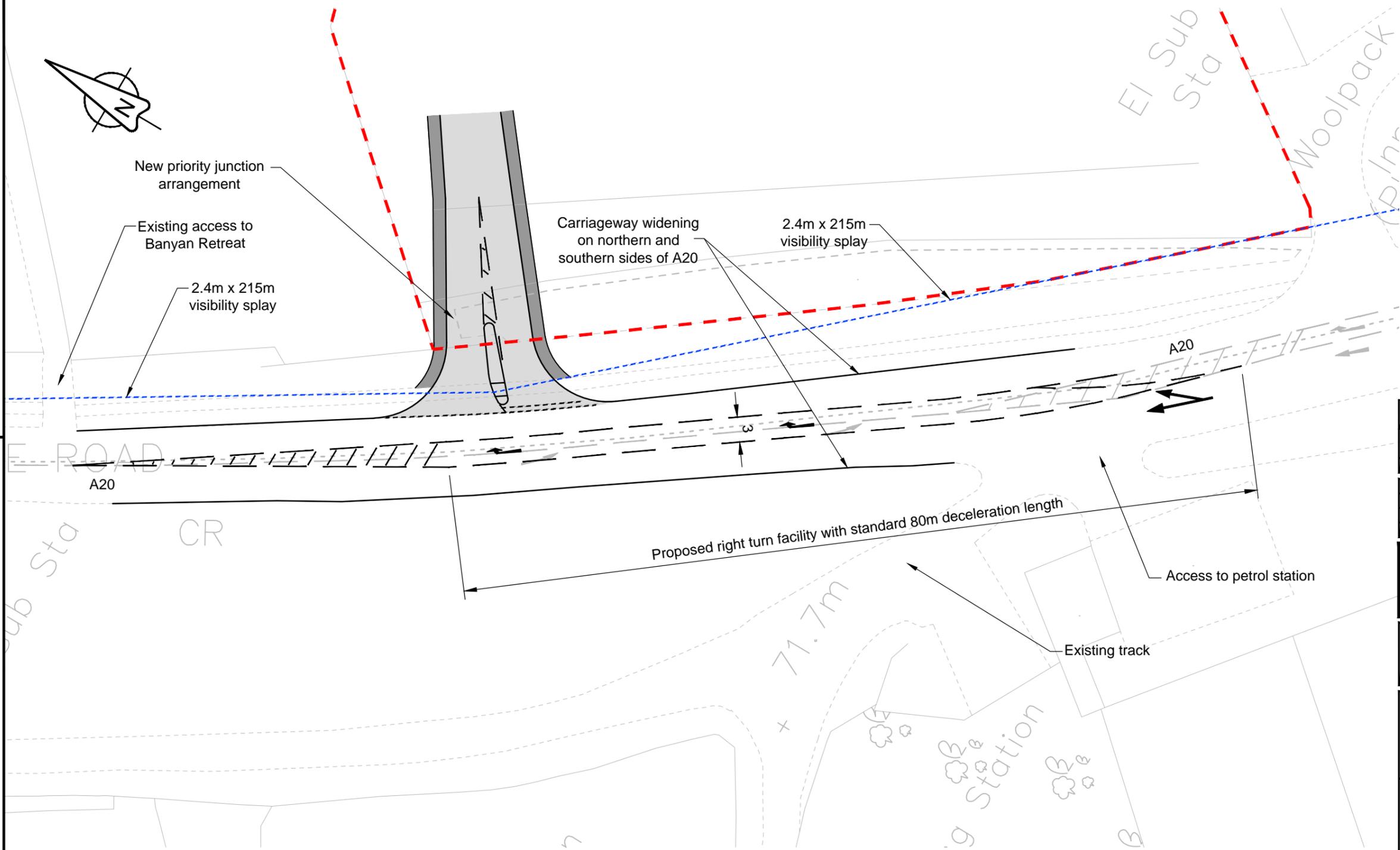
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Drawing No <b>4300616/000/103</b>	Revision <b>02</b>
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**NOTES**

- - - Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction



02	Vis splays added	LSC	NF	NF	26.05.17
01	Junct moved east	LSC	NF	NF	17.05.17
Rev	Rev details	Drwn	Chkd	Appd	Date

Designed:	LSC	Date:	01.05.17
Drawn:	LSC	Date:	01.05.17
Checked:	NF	Date:	12.05.17
Approved:	NF	Date:	15.05.17

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Project Name  
**A20 Site Access**

Drawing Title  
**Feasibility Design  
Development Site 3  
Proposed Access**

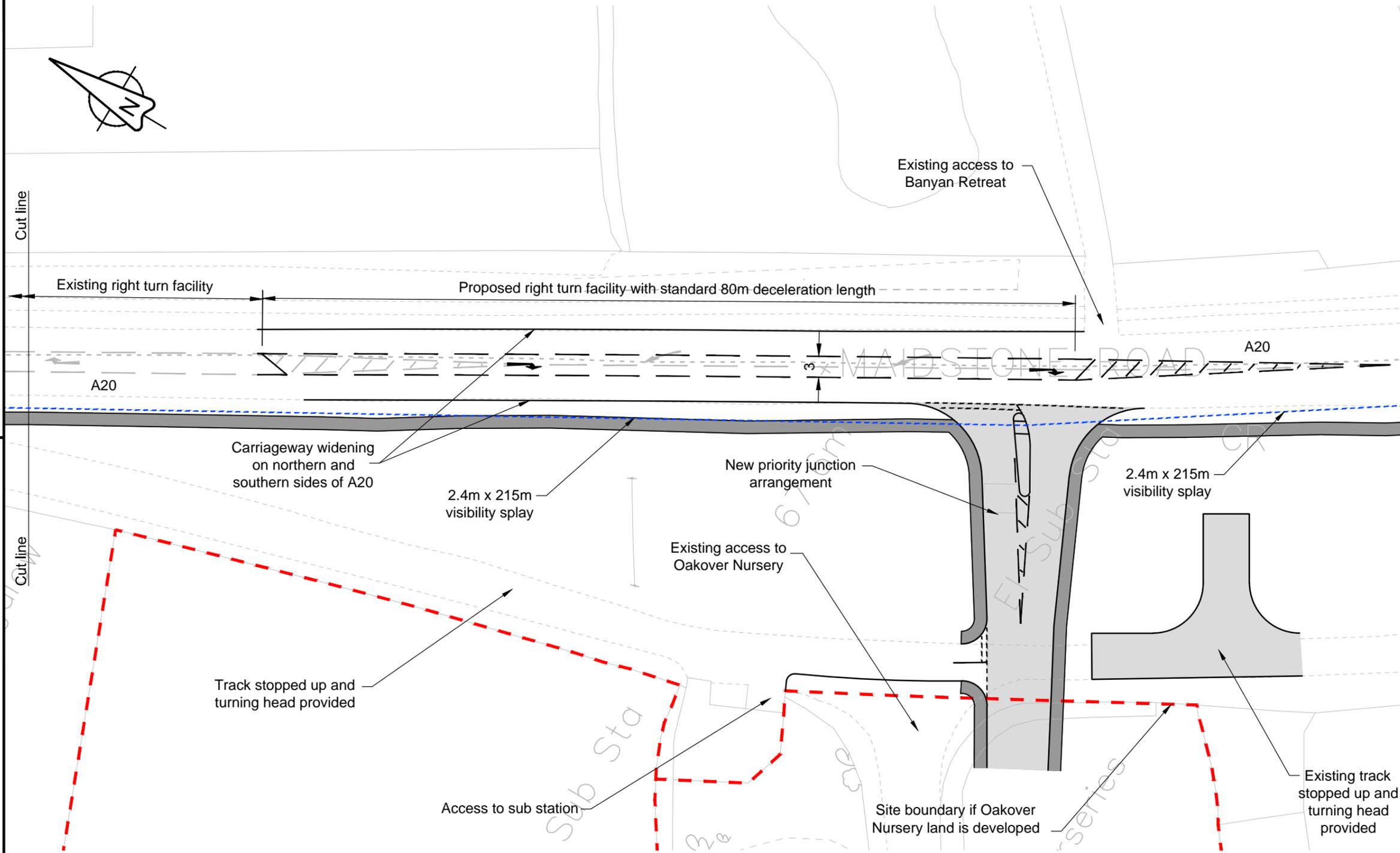
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Drawing No <b>4300616/000/104</b>	Revision 02
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NOTES

- - - Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction



01	Vis splays and turning head added	LSC	NF	NF	26.05.17
Rev	Rev details	Drwn	Chkd	Appd	Date
Designed: LSC		Date: 18.05.17			
Drawn: LSC		Date: 18.05.17			
Checked: NF		Date: 19.05.17			
Approved: NF		Date: 19.05.17			

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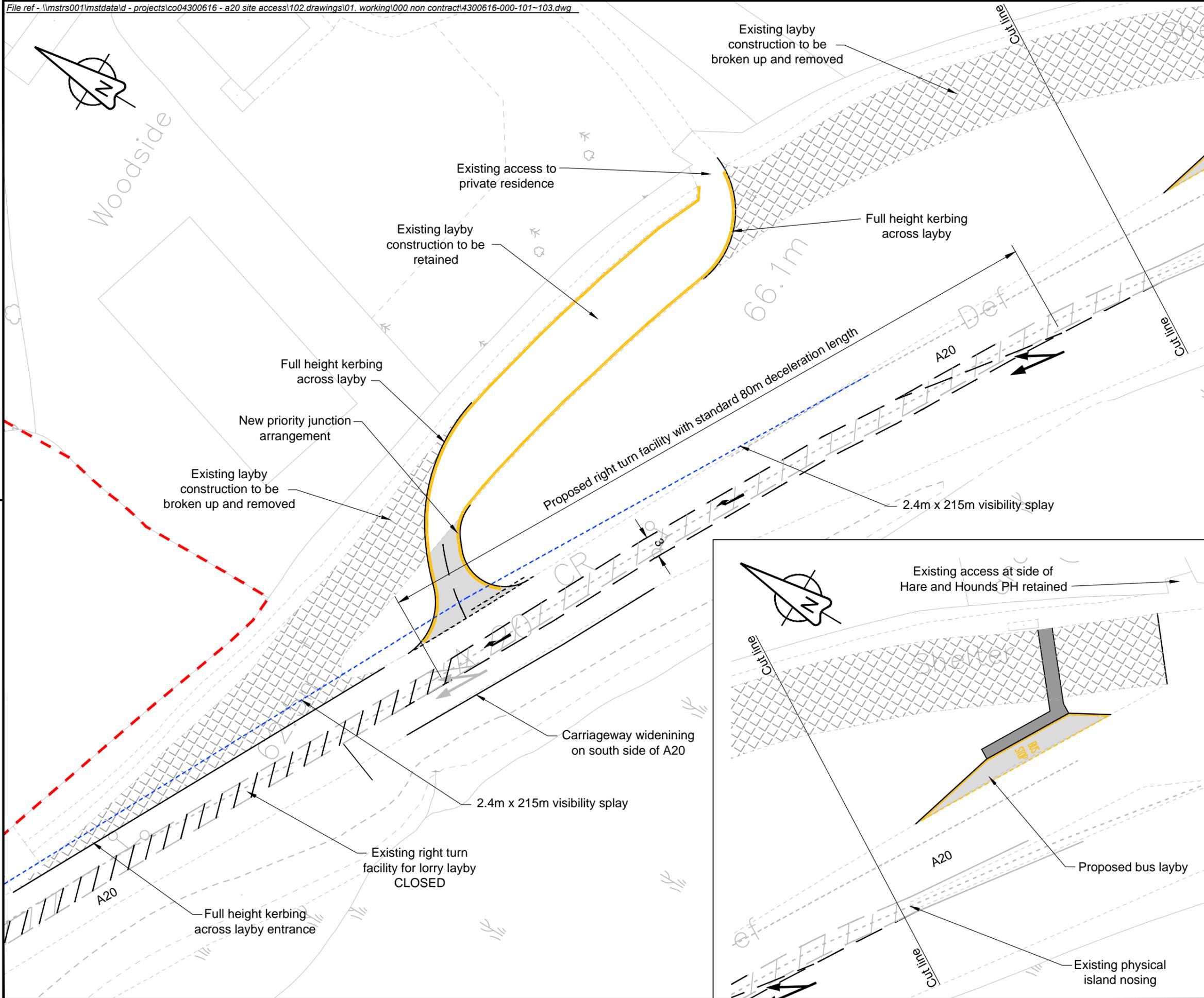
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Drawing Title  
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Development Site 2  
Proposed Access  
Option 2A**

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Drawing Status  
**PRELIMINARY**    Suitability  
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Drawing No  
**4300616/000/105**    Revision  
01



- NOTES**
- Proposed Area of Development
  - Existing road markings
  - Proposed road markings
  - Full depth carriageway construction
  - Footway construction
  - Area to be top soiled and seeded
  - Parking restrictions

03	Junction moved 20m west	LSC	NF	NF	08.06.17
02	Layby layout amended as Rev 00	LSC	NF	NF	08.06.17
01	Layout amended. Vis splays and DYs added.	LSC	NF	NF	26.05.17
Rev	Rev details	Drwn	Chkd	Appd	Date

Designed: LSC	Date: 24.05.17
Drawn: LSC	Date: 24.05.17
Checked: NF	Date: 24.05.17
Approved: NF	Date: 24.05.17

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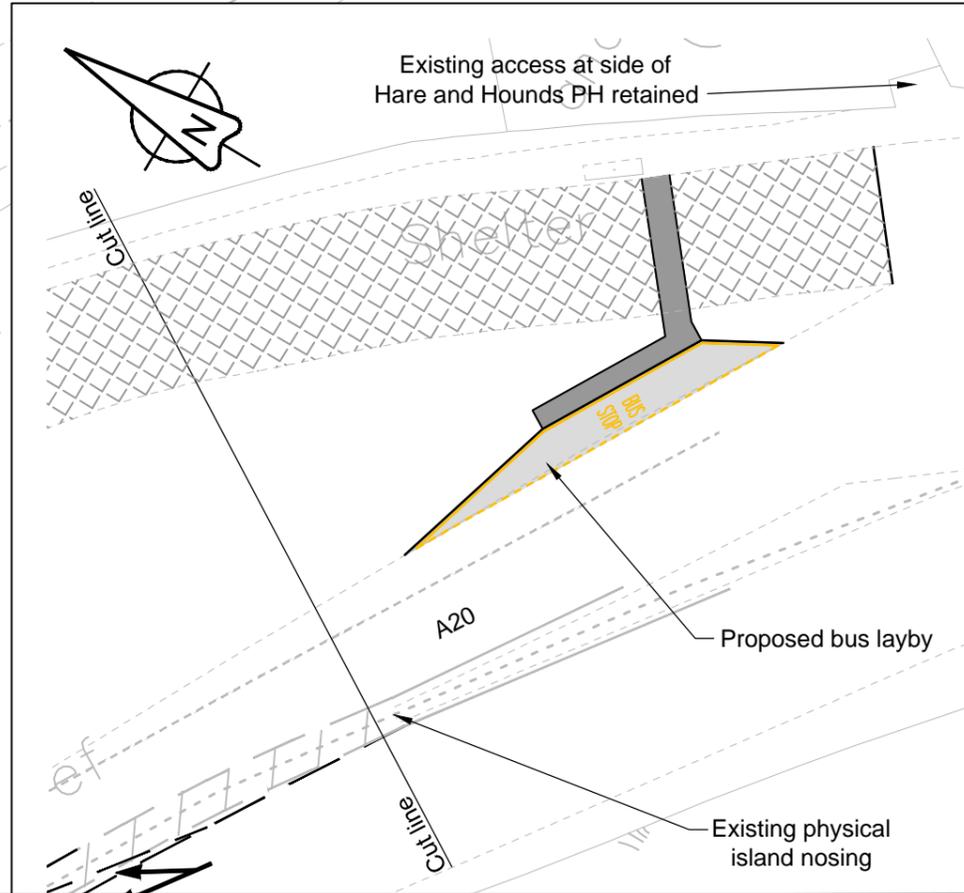
Project Name  
**A20 Site Access**

Drawing Title  
**Feasibility Design  
Private Property Nr Site 1  
Proposed Access**

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Drawing No <b>4300616/000/106</b>	Revision 03
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## **Appendix B Stage 1 Road Safety Audit**



# Stage 1 Road Safety Audit A20 Maidstone Road, Hothfield, Ashford: Access Assessment

CO04300616/RSA1/2017/016 Revision 1

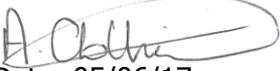
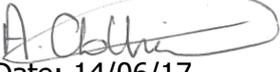
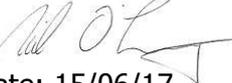
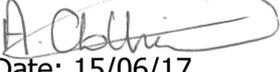
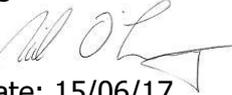
June 2017





**Document Control Sheet**

Project Name:	A20 Maidstone Road, Hothfield, Ashford: Access Assessment
Project Number:	CO04300616
Report Title:	Stage 1 Road Safety Audit
Report Number:	RSA1/2017/016

<b>Issue Status/Amendment</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>
Initial Issue	Name: Andy Haunton  Signature:  Date: 05/06/17	Name: Adrian Clothier  Signature:  Date: 05/06/17	Name: Neil O'Leary  Signature:  Date: 06/06/17
Revision 1 - Revised plan 106 submitted	Name: Andy Haunton  Signature:  Date: 14/06/17	Name: Adrian Clothier  Signature:  Date: 14/06/17	Name: Neil O'Leary  Signature:  Date: 15/06/17
Final Issue	Name: Andy Haunton  Signature:  Date: 15/06/17	Name: Adrian Clothier  Signature:  Date: 15/06/17	Name: Neil O'Leary  Signature:  Date: 15/06/17
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## **1 Introduction**

### **1.1 Commission and Terms of Reference**

1.1.1 This report results from a Stage 1 Road Safety Audit carried on the scheme 'A20 Sites, Access Assessment' at the request of Lee Cunningham, Amey Design Engineer on behalf of Matt Hogben, Project Sponsor for the Overseeing Organisation, Kent County Council (KCC).

1.1.2 The Audit Brief notes that Site 2, Option 2 would require a departure from standard for a sub-standard deceleration length for the design speed.

1.1.3 No data relating to traffic flows, speed or collisions was supplied within the Audit Brief.

1.1.4 The Amey Audit Team membership approved by Kent County Council for this audit was-

*Adrian Clothier, BEng(Hons), MCIHT, MSoRSA (Audit Team Leader)*

*Andy Haunton, BEng (Hons), MCIHT, FSoRSA (Audit Team Member)*

1.1.5 For the purposes of compliance with Highways England highway standard HD 19/15 Annex J it is recorded that both the Audit Team Leader and Team Member hold a Certificate of Competency.

1.1.6 The audit was undertaken during May/June 2017 at the offices of Amey, Brenchley House, 123-135 Week Street, Maidstone, ME14 1RF and The Regus building, 26 Kings Hill Avenue, ME19 4AE. The audit comprised an examination of documents forming the Audit Brief and an examination of the site during daylight hours. The documents were made available to the Audit Team by Lee Cunningham of Amey on the instructions of the KCC Project Sponsor. The total documents forming the Audit Brief are listed in Appendix A. This information was generally considered sufficient for the purpose of carrying out the Road Safety Audit requested.

- 1.1.7 The site was examined during the late morning of Tuesday 30<sup>th</sup> May 2017. The weather during the site visit was fine and clear. The carriageway and footway surfaces were dry. Traffic flows on the A20 Maidstone Road through the area were predominantly moderate with speeds consistent with the prevailing national limit, 60mph. The site was not visited again following the issue of Revision 03 to Drawing 106 on 8<sup>th</sup> June 2017.
- 1.1.8 The Terms of Reference are as described in the 'Design Manual for Roads and Bridges, Volume 5 Section 2, Part 2, document HD 19/15 Road Safety Audit'.
- 1.1.9 The Audit Team has examined and reported only on the road safety implications of the scheme as presented, and has not examined or verified the compliance of the design to any other criteria. To clearly explain a safety problem or recommendation the Audit Team may refer to a design Standard without touching on technical audit.
- 1.1.10 Unless general to the scheme each Problem location has been described in this report, and marked on a copy of the drawing supplied with the Audit Brief (please refer to Appendix B).
- 1.1.11 Safety issues identified during this Stage 1 Audit and site inspection which the Terms of Reference exclude from this report, but which the Audit Team wishes to draw to the attention of the Project Sponsor, will be set out in a separate letter.

## 2 Scheme Description

### 2.1 Location of the Scheme

2.1.1 The proposed accesses are located on the A20, to the north of Ashford.

2.1.2 The prevailing speed limit is 60mph.

2.1.3 There is no street lighting present at any of the locations.



Map 1: Location Plan (reproduced courtesy of Google ©)

## **2.2 Purpose of the Scheme**

2.2.1 The purpose of the commission is to inform Ashford Borough Council as to the suitability of three potential allocation sites in terms of access (both vehicular and pedestrian). The three sites that are being promoted by landowners are on the A20 corridor between Ashford and Charing:

- Site 1 – Westwell Lane, A20 (indicative 75 dwellings)
- Site 2 - Land rear of Holiday Inn, A20, Hothfield (indicative capacity 150 dwellings)
- Site 3 – Land at Tutt Hill, A20, Westwell (indicative capacity of 100 dwellings)

2.2.2 Two options are proposed for the layout at Site 2.

2.2.3 The proposals for Site 1 also include closure of a section of redundant carriageway near to Sandyhurst Lane that is extensively used for HGV parking, plus relocation of a bus stop.

2.2.4 It is understood that only one site will be selected for construction.

### **3 Audit Management**

- 3.1.1 A draft report will be submitted to the KCC Project Sponsor and the Design Team Lead for checking, consideration and approval. Notwithstanding paragraph 3.1.2 below, the KCC Project Sponsor is responsible for agreeing with the Audit Team the content of the final version of the report.
  
- 3.1.2 Upon issue of the draft version of the Road Safety Audit report the Project Sponsor will request the Design Team Leader/Project Manager to prepare a Road Safety Audit Response Report in line with Kent County Council Policy for Safety Audit 2004 (as amended). A copy of this should be issued to the Audit Team for information and inclusion in the final report.
  
- 3.1.3 If any problem or recommendation is not accepted on submission of the final report, a signed 'Exception Report' is to be produced by the Project Sponsor and approved by the Project Director, a copy of which should be sent to the Audit Team Leader for record keeping purposes.
  
- 3.1.4 Any other issues including those relating to maintenance which the Terms of Reference exclude from this report but which the Audit Team wishes to draw the attention of the Project Sponsor will be documented in a separate covering letter to this report.

## **4 Items raised at this Stage 1 Road Safety Audit**

### **4.1 Development Site 1 (Dwg 101)**

#### **4.1.1 PROBLEM**

**Location:** A – Proposed access.

**Summary:** Vegetation may constrain visibility to the right.

The visibility splay to the right at the proposed access coincides with existing vegetative growth. At this stage in the design process, intentions with respect to existing vegetation are not known. Failure to provide a robust visibility splay at the junction may, however, increase the risk of 'failed to give' way side impact collisions.



#### **Recommendation**

Ensure that visibility splays are clear of obstacles. Any planting or retained vegetation should allow growth to take place without frequent cutting back being required to maintain visibility.

#### 4.1.2 **PROBLEM**

**Location:** B – Splitter island, proposed access.

**Summary:** Island may increase the risk of cyclist or pedestrians being struck when crossing the junction.

Although the footway on the development site side of the A20 is not designated for shared use, it is likely that cyclists currently use it to avoid cycling on the carriageway. During the site visit one cyclist was seen doing just this. The proposed junction will therefore present an additional hazard for cyclists, as well as pedestrians, to negotiate. There will be a splitter island in the junction to help these vulnerable road users cross. Its dimensions however are not confirmed and it also encourages them to cross at a wider part of the carriageway where the junction bellmouth flares out. It is of concern at this stage of the design process that the island may not be wide enough to protect waiting cyclists from passing traffic and that both cyclists and pedestrians may be exposed to live traffic for longer than necessary when crossing. The problems may be exacerbated as traffic may be moving quite fast as it leaves the A20 and the area is not subject to street lighting.

#### **Recommendation**

Ensure that the island is configured so that it is wide enough to accommodate cyclists and that both cyclists and pedestrians are encouraged to cross where the carriageway is narrower, away from the bellmouth whilst still supporting the NMU desire line.

## **4.2 Private Access Near Development Site 1 (Dwg 106)**

### **4.2.1 PROBLEM**

**Location:** C – Northwest-bound passage along A20 towards the new priority junction arrangement.

**Summary:** Risk of side swipe or shunt collisions due to weaving / merging movements at the end of a dual carriageway.

The direct access to the layby off the A20 is to be moved southeast-wards of its current location, albeit by 20m less than was shown initially in Revision 01 of Dwg 106. In this new location the proposed ghost island junction is of concern as the start of the



bifurcation will coincide with the merge layout at the end of a section of dual carriageway. This may risk side swipe collisions between vehicles moving across from the nearside to enter the ghost island and others in the offside lane utilising the last opportunity offered by the dual carriageway to overtake.

### **Recommendation**

Ensure that there is adequate separation between the end of the dual carriageway merge layout and the start of the proposed ghost island junction.

#### 4.2.2 **PROBLEM**

**Location:** D – Proposed arrangement in the vicinity of the Hare & Hounds pub.

**Summary:** Risk of collisions involving vehicles accessing the pub.

At present the most appropriate way for northwest-bound drivers to approach the Hare & Hounds pub is via the lay-by. The proposals will see the lay-by closed. The proposed design, however, is not well resolved in the vicinity of the pub. There is concern, therefore, at this stage of design that the proposal to close the lay-by to all bar maintaining a private access may increase the risk of collisions occurring around the pub / on Sandyhurst Lane because:

- Access to the pub will be much more restricted for northwest-bound A20 traffic as the facility to turn back towards the pub via the lay-by will be removed. Drivers will have to continue much further to effect a safe 'U-turn'. This may result in a driver instead accessing the pub from Sandyhurst Lane, where there would be a risk of head-on collision with other vehicles leaving the A20 via the southeast-bound exit slip or buses pulling away from the relocated stop. Alternatively, drivers may utilise a less suitable access, field gateway, etc. to turn around, risking the likes of side impact or shunt collisions. Dark conditions may be particularly hazardous as this length of highway does not have street lighting.
- There may be an increased risk of collisions on the A20 southeast-bound exit slip between vehicles entering the pub side access (believed to be private, but public use may exacerbate due to higher traffic volumes) and any other vehicles exiting the A20. Following drivers may fail to anticipate that the vehicle ahead is slowing for the access and not the Sandyhurst Lane junction, increasing the risk of shunt collisions.
- The pub appears to have limited off-street parking and may rely on the lay-by to provide parking for some of its clientele. Removal of the lay-by may, therefore, see the remaining carriageway areas outside the pub utilised more intensively for parking. This may increase the risk of collisions between cars manoeuvring into or out of spaces and other passing traffic, especially on the A20 southeast-bound exit slip.

### **Recommendation**

The proposed layout outside the Hare & Hounds pub should be better resolved and submitted for a further stage 1 audit, taking into account the problems raised. It would be advisable to liaise with the landlord in order to better understand how the pub operates, if this has not been done already.

#### **4.2.3 PROBLEM**

**Location:** N – Retained lay-by carriageway.

**Summary:** Retained width may generate a higher volume of turning movements than intended.

The intention to retain part of the existing lay-by carriageway at its full width within the proposed access arrangement may generate a higher volume of turning movements than anticipated. The existing carriageway is wide, particularly with the addition of the footway. This paved area off the A20 may become attractive to the likes of Travellers, especially with the removal of HGVs, generating unintended traffic movements at the junction. As such, there may be a higher rate of collisions at this location than there might otherwise be.

### **Recommendation**

Reduce the remaining lay-by carriageway to the minimum width appropriate for its new role as a private access.

### **4.3 Development Site 2, Option 2 (Dwg 103)**

#### **4.3.1 PROBLEM**

**Location:** E – Old A20 alignment between the filling station and proposed access road.

**Summary:** Risk of imprudent use in accessing the development from the A20.

The old A20 alignment between the filling station and proposed access road may present some drivers with an early opportunity to access the development, particularly if they are impatient having been held up by slow moving traffic. This may see the employment of injudicious speed or driving style along this stretch of highway, risking head-on collisions with any opposing road users including pedestrians or cyclists, or side impact collisions with other vehicles exiting the filling station.

#### **Recommendation**

Use of the old A20 alignment to access the development should be deterred.

#### **4.3.2 PROBLEM**

**Location:** F – Proposed priority junction.

**Summary:** Lack of NMU/pedestrian crossing facilities on a likely desire line along the A20.

The proposed junction layout may make it difficult for pedestrians or cyclists using the new footway along the development side of the A20 to cross. They will have to deal with two traffic islands and assess three traffic streams including a slip-type layout for northbound traffic leaving the A20 if they are to cross safely. Failure to correctly assess from where traffic is approaching, it's approach speed, or utilise both islands to cross in stages may increase the risk of collisions involving members of these vulnerable road user groups.

#### **Recommendation**

Ensure that a straight forward, convenient crossing facility is provided for pedestrians that can also accommodate cyclists.

### 4.3.3 **PROBLEM**

**Location:** G – Left turn from the A20 onto the proposed access road.

**Summary:** Proposed geometry may increase the risk of collisions occurring from high exit speeds.

The left turn from the A20 onto the proposed access road has a slip-type layout. It is of concern that this layout may promote higher exit speeds, increasing the risk of collisions such as single vehicle loss of control, failure to give way to traffic turning right off the A20, or involving pedestrians/cyclists crossing the junction (see also problem 4.3.2).

#### **Recommendation**

The slip-type arrangement should be deleted from the proposals.

### 4.3.4 **PROBLEM**

**Location:** H – Right turn from the A20 onto the proposed access road.

**Summary:** Proposed deceleration length may increase the risk of shunt collisions on the A20.

The proposed ghost island on the A20 has a deceleration length of 55m, one step below standard. Although it is not within the scope of this audit to compare different options, it is noted that another similar option proposes 80m. The lower deceleration length may increase the risk of shunt collisions occurring.

#### **Recommendation**

The deceleration length should be as described in the geometric standard for the 85%ile speed along the route, particularly as lowering the speed limit in order to justify a shorter length, may be ineffective at reducing speeds due to the nature of the location.

#### 4.3.5 **PROBLEM**

**Location:** I – Left turn from the proposed access road onto the A20.

**Summary:** Proposed geometry may be difficult for larger vehicles to negotiate without impinging into the ghost island.

The angle of approach along the access road towards the A20 may make it difficult for left turning larger vehicles to negotiate the junction without impinging into the ghost island. This may increase the risk of offset head-on collisions between vehicles exiting the access road and those turning right from the A20 towards the development.

#### **Recommendation**

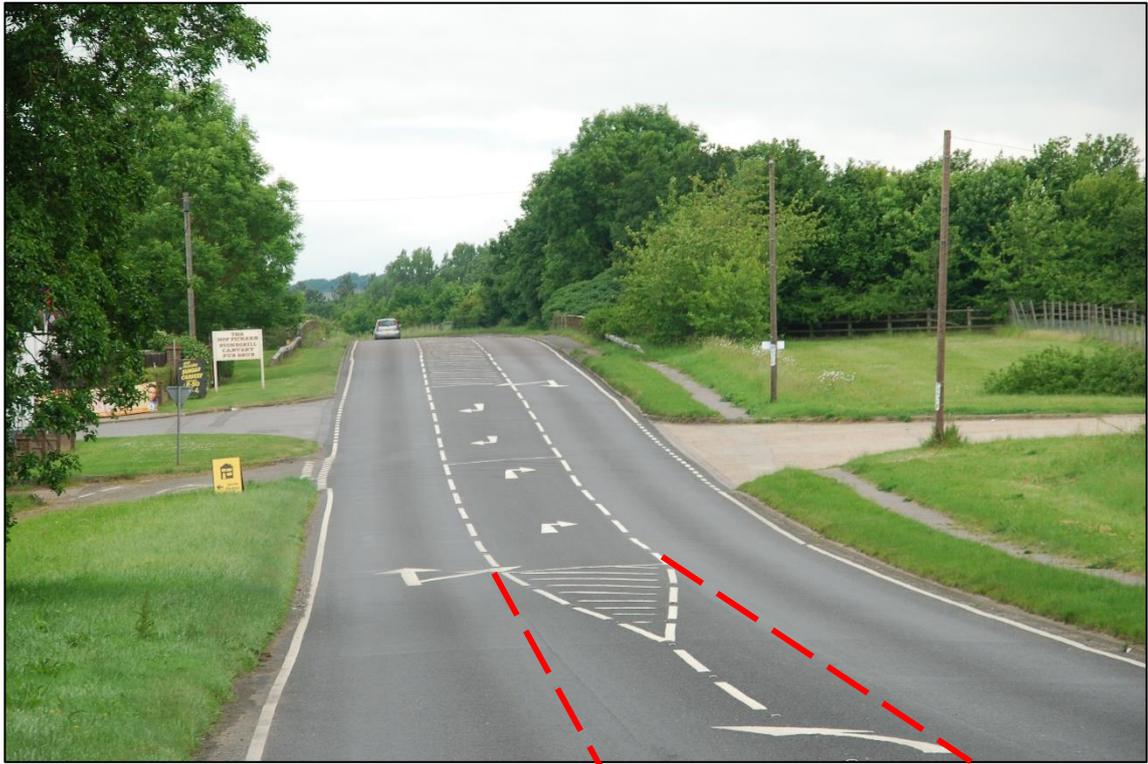
Swept path analysis should be used to demonstrate that all vehicles that may require access to the development can negotiate the junction without undue difficulty.

#### 4.3.6 **PROBLEM**

**Location:** J – A20 ghost island.

**Summary:** Risk of the extended ghost island layout along the A20 providing an opportunity to overtake slower moving traffic for impatient drivers.

The proposed ghost island for site 2 will, when implemented, extend the length of a sequence of existing ghost islands along this stretch of the A20. There is concern that this layout may present an opportunity to overtake slower moving traffic for some impatient drivers, particularly as the dip between the Holiday Inn hotel and Esso filling station provides for good forward visibility. This may increase the risk of collisions occurring, particularly between traffic turning onto or off the A20 at junctions or accesses served by the ghost islands and overtaking vehicles.



### **Recommendation**

Break up the clear run along the sequence of ghost islands with traffic islands to deter overtaking.

#### **4.3.7 PROBLEM**

**Location:** General – A20, incorporating access for Site 2.

**Summary:** Risk of the close proximity of a number of accesses, proposed and existing, being confusing for drivers to navigate.

The proposed ghost island for site 2 will, when implemented, add to a sequence of existing ghost islands along this stretch of the A20. The close spacing of the ghost islands may present some drivers with navigational difficulties, even if following Satnav instructions. This may increase the risk of shunts or side swipe collisions with following vehicles if drivers start to manoeuvre, realise that they have the wrong junction and move off again.

### **Recommendation**

Use a combination of road markings and local destination signing to give drivers the best chance of identifying the correct junction for their intended destination.

## **4.4 Development Site 2, Option 2A (Dwg 105)**

### **4.4.1 PROBLEM**

**Location:** K – Splitter island, proposed access.

**Summary:** Island should be of a sufficient size to accommodate cyclists.

Although the footway on the development site side of the A20 is not designated for shared use, it is likely that cyclists also use it to avoid cycling on the carriageway. The proposed junction will therefore present an additional hazard for cyclists, as well as pedestrians to negotiate. There will be a splitter island in the junction to help these vulnerable road users cross. Its dimensions however are not confirmed and it also encourages them to cross at a wider part of the carriageway where the junction bellmouth flares out. It is of concern at this stage of the design process that the island may not be wide enough to protect waiting cyclists from passing traffic and that both cyclists and pedestrians may be exposed to live traffic for longer than necessary when crossing. The problems may be exacerbated as traffic may be moving quite fast as it leaves the A20 and the area is not subject to street lighting.

#### **Recommendation**

Ensure that the island is configured so that it is wide enough to accommodate cyclists and that both cyclists and pedestrians are encouraged to cross where the carriageway is narrower, away from the bellmouth, whilst still serving the existing NMU desire lines.

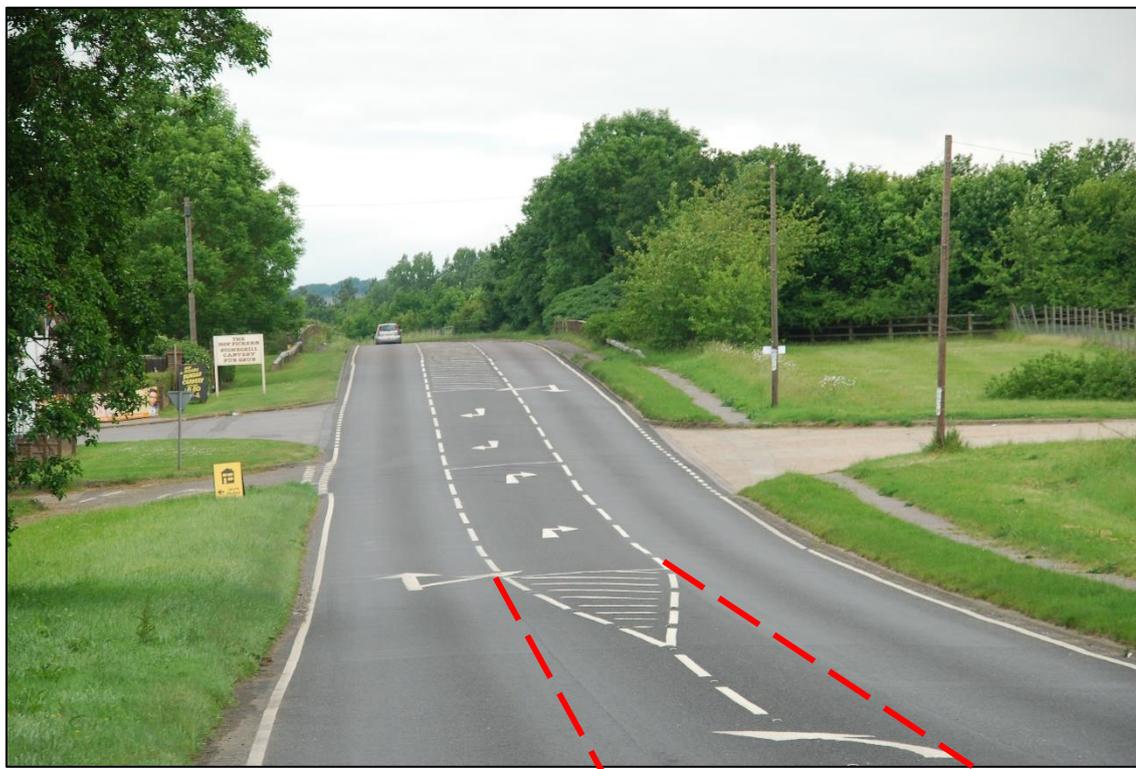
### **4.4.2 PROBLEM**

**Location:** L – A20 ghost island.

**Summary:** Risk of the extended ghost island layout along the A20 providing an opportunity to overtake slower moving traffic for impatient drivers.

The proposed ghost island for site 2 will, when implemented, extend the length of a sequence of existing ghost islands along this stretch of the A20. There is concern that this layout may present an opportunity to overtake slower moving traffic for some impatient drivers, particularly as the dip between the Holiday Inn hotel and Esso filling station provides for good forward visibility. This may increase the risk of collisions occurring, particularly between traffic turning onto or off the A20 at junctions or

accesses served by the ghost islands and overtaking vehicles.



### **Recommendation**

Break up the clear run along the sequence of ghost islands with traffic islands to deter overtaking.

#### **4.4.3 PROBLEM**

**Location:** General – A20, incorporating access for Site 2.

**Summary:** Risk of the close proximity of a number of accesses, proposed and existing, being confusing for drivers to navigate.

The proposed ghost island for site 2 will, when implemented, add to a sequence of existing ghost islands along this stretch of the A20. The close spacing of the ghost islands may present some drivers with navigational difficulties, even if following Satnav instructions. This may increase the risk of shunts or side swipe collisions with following vehicles if drivers start to manoeuvre, realise that they have the wrong junction and move off again.

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### **Recommendation**

Use a combination of road markings and local destination signing to give drivers the best chance of identifying the correct junction for their intended destination.

## **4.5 Development Site 3 (Dwg 104)**

### **4.5.1 PROBLEM**

**Location:** M – Splitter island, proposed access.

**Summary:** Island should be of a sufficient size to accommodate cyclists.

Although the footway on the development site side of the A20 is not designated for shared use, it is likely that cyclists also use it to avoid cycling on the carriageway. The proposed junction will therefore present an additional hazard for cyclists, as well as pedestrians, to negotiate. There will be a splitter island in the junction to help these vulnerable road users cross. Its dimensions however are not confirmed and it also encourages them to cross at a wider part of the carriageway where the junction bellmouth flares out. It is of concern at this stage of the design process that the island may not be wide enough to protect waiting cyclists from passing traffic and that both cyclists and pedestrians may be exposed to live traffic for longer than necessary when crossing. The problems may be exacerbated as traffic may be moving quite fast as it leaves the A20 and the area is not subject to street lighting.

#### **Recommendation**

Ensure that the island is configured so that it is wide enough to accommodate cyclists and that both cyclists and pedestrians are encouraged to cross where the carriageway is narrower, away from the bellmouth, whilst still serving the existing NMU desire lines.

### **4.5.2 PROBLEM**

**Location:** General – A20, incorporating access for Site 3.

**Summary:** Risk of the close proximity of a number of accesses, proposed and existing, being confusing for drivers to navigate.

The proposed ghost island for site 3 will, when implemented, add to a sequence of existing ghost islands along this stretch of the A20. The close spacing of the ghost islands may present some drivers with navigational difficulties, even if following Satnav instructions. This may increase the risk of shunts or side swipe collisions with following vehicles if drivers start to manoeuvre, realise that they have the wrong junction and move off again.

### **Recommendation**

Use a combination of road markings and local destination signing to give drivers the best chance of identifying the correct junction for their intended destination.

## **4.6 Overarching Problems**

### **4.6.1 PROBLEM**

**Location:** General – All proposals.

**Summary:** Lack of crossing facilities for pedestrians.

Traffic speeds along the A20 at each site appear to be generally in accord with the 60mph speed limit. Although there are breaks in the traffic flow, it can at times require considerable concentration to identify an appropriate opportunity for a pedestrian to cross. None of the potential site access arrangements will offer any additional facilities to help residents of the developments to cross the A20, e.g. to or from bus stops. This may increase the risk of collisions occurring involving pedestrian casualties.

### **Recommendation**

Provide appropriate facilities to help pedestrians cross the A20 safely.

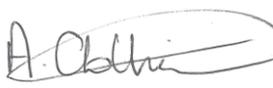
END OF ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT
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## **5 Audit Team Statement**

We certify that this audit has been carried out in accordance HD19/15.

### **AUDIT TEAM LEADER**

Adrian Clothier BEng (Hons) MCIHT, MSoRSA  
On behalf of Amey

Signed: 

Date: 15<sup>th</sup> June 2017

Amey Consulting and Rail  
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### **AUDIT TEAM MEMBER**

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On behalf of Amey  
Amey Consulting and Rail  
South East Hub  
Explorer II  
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Signed: 

Date: 15<sup>th</sup> June 2017

## **Appendix A Scheme Documentation**

The Road Safety Audit was conducted using the drawings and documents listed below.

### **Drawings**

4300616-000-101 Rev 02	Feasibility Design, Development Site 1, Proposed Access
4300616-000-103 Rev 02	Feasibility Design, Development Site 2, Proposed Access, Option 2
4300616-000-104 Rev 02	Feasibility Design, Development Site 3, Proposed Access
4300616-000-105 Rev 01	Feasibility Design, Development Site 2, Proposed Access, Option 2A
4300616-000-106 Rev 03	Feasibility Design, Private Property Nr Site 1, Proposed Access

### **Departures from Standard**

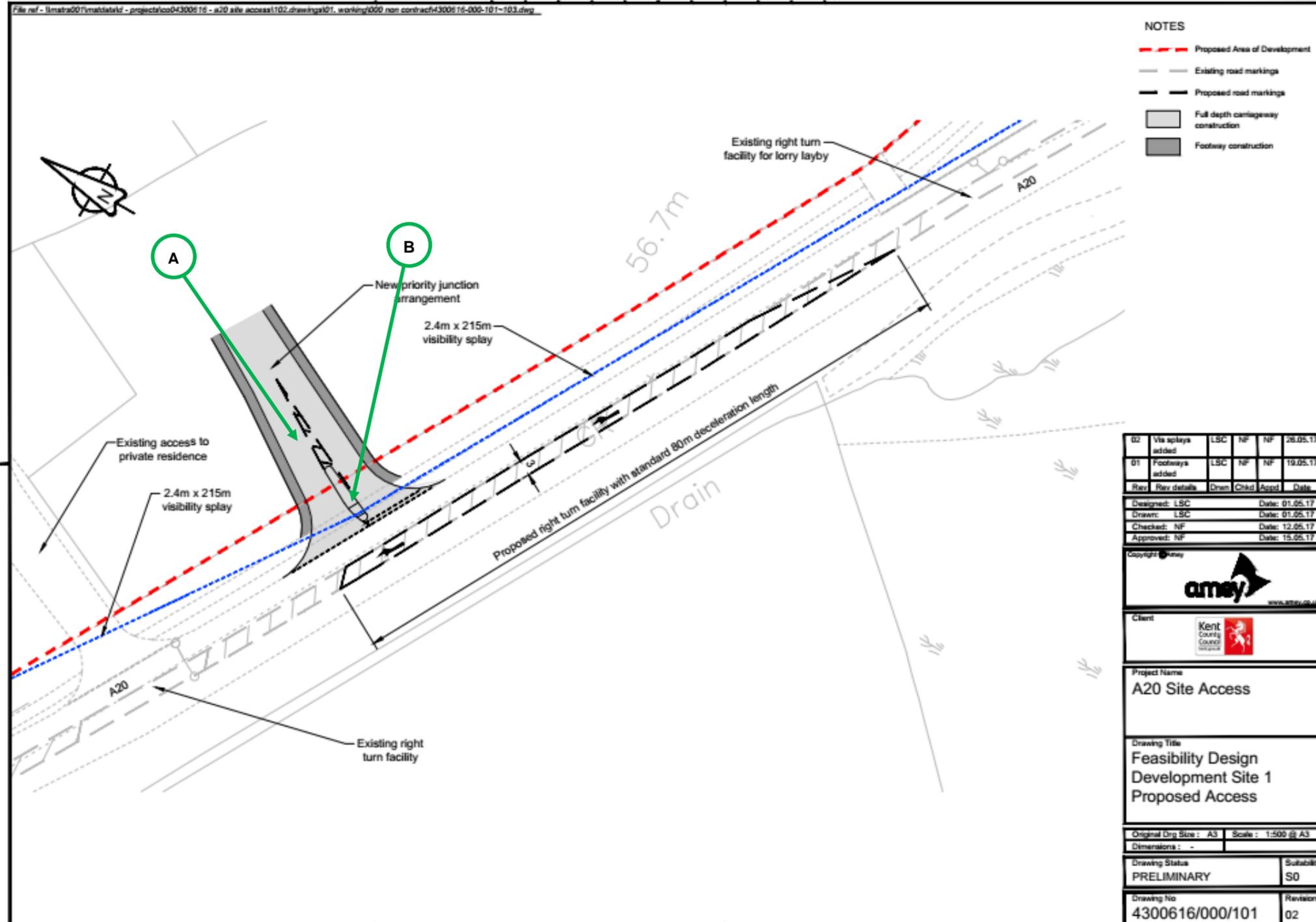
None

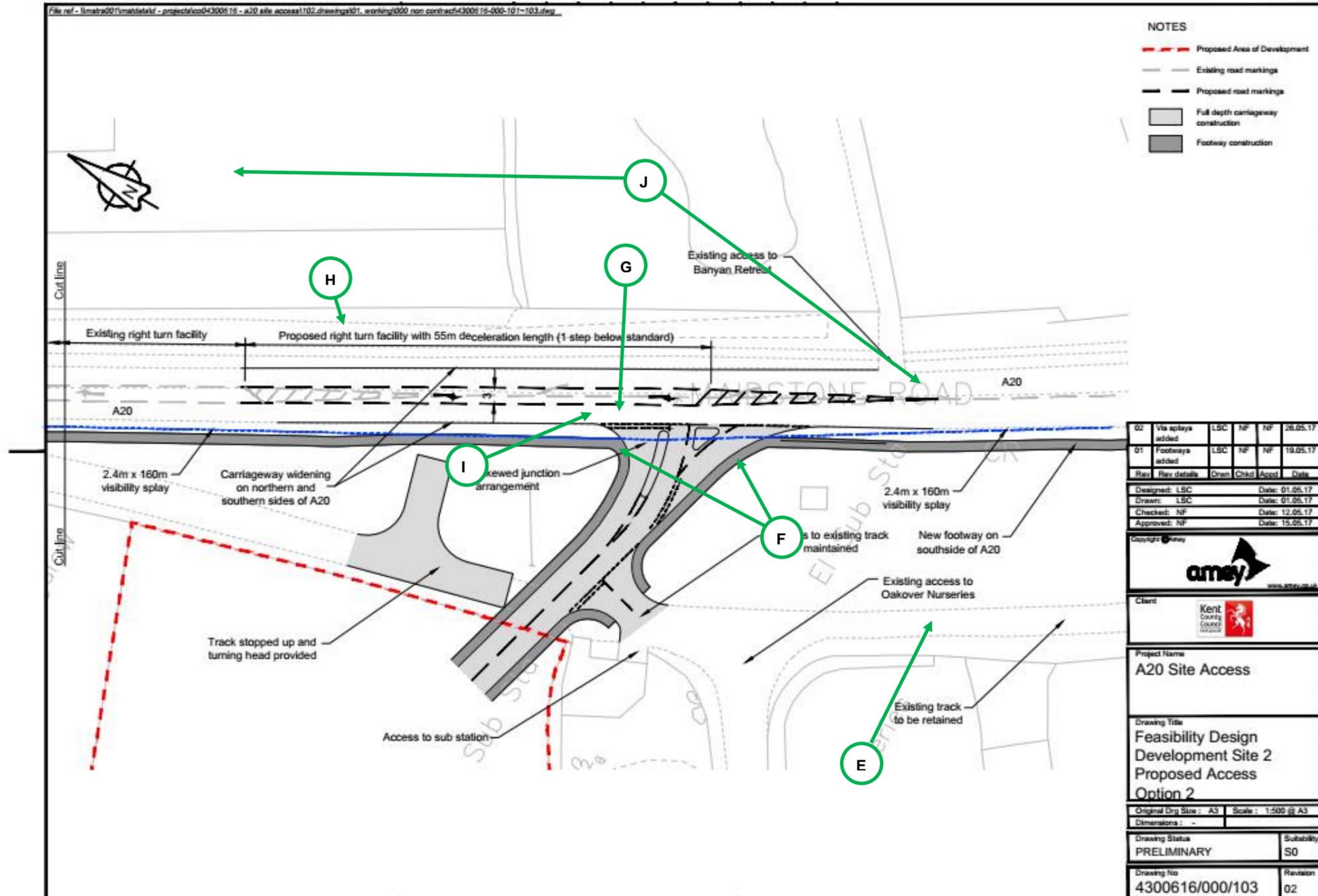
### **Other Documents**

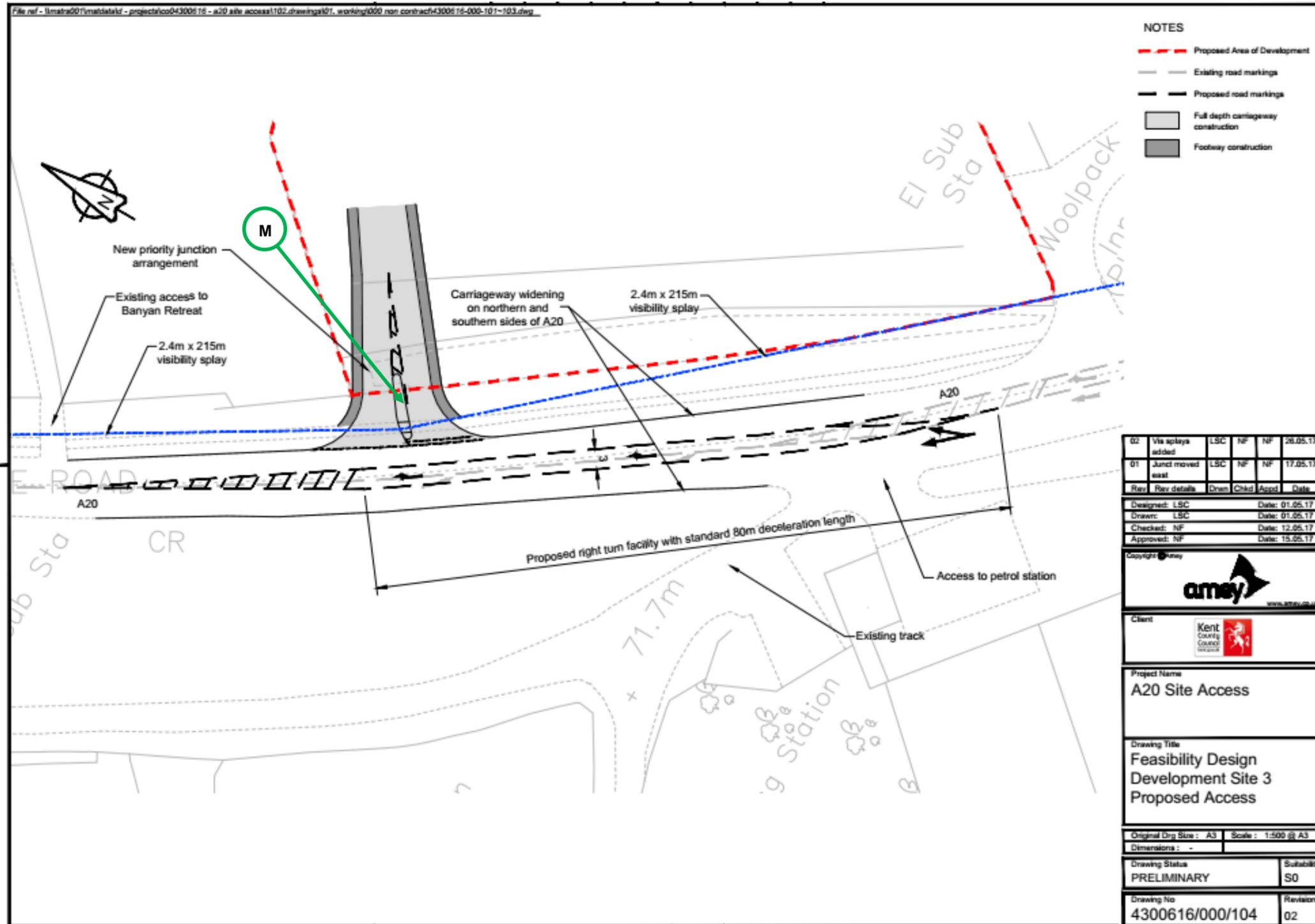
Road Safety Audit Brief, 19/05/17  
A20 Corridor Sites

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## **Appendix B Problem Location Plans**







**NOTES**

- Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction

02	Via splay added	LSC	NF	NF	26.05.17
01	Junct moved east	LSC	NF	NF	17.05.17
Rev	Rev details	Drawn	Chkd	Appd	Date
Designed: LSC		Date: 01.05.17			
Drawn: LSC		Date: 01.05.17			
Checked: NF		Date: 12.05.17			
Approved: NF		Date: 15.05.17			

Copyright © amey

Client: Kent County Council

Project Name: A20 Site Access

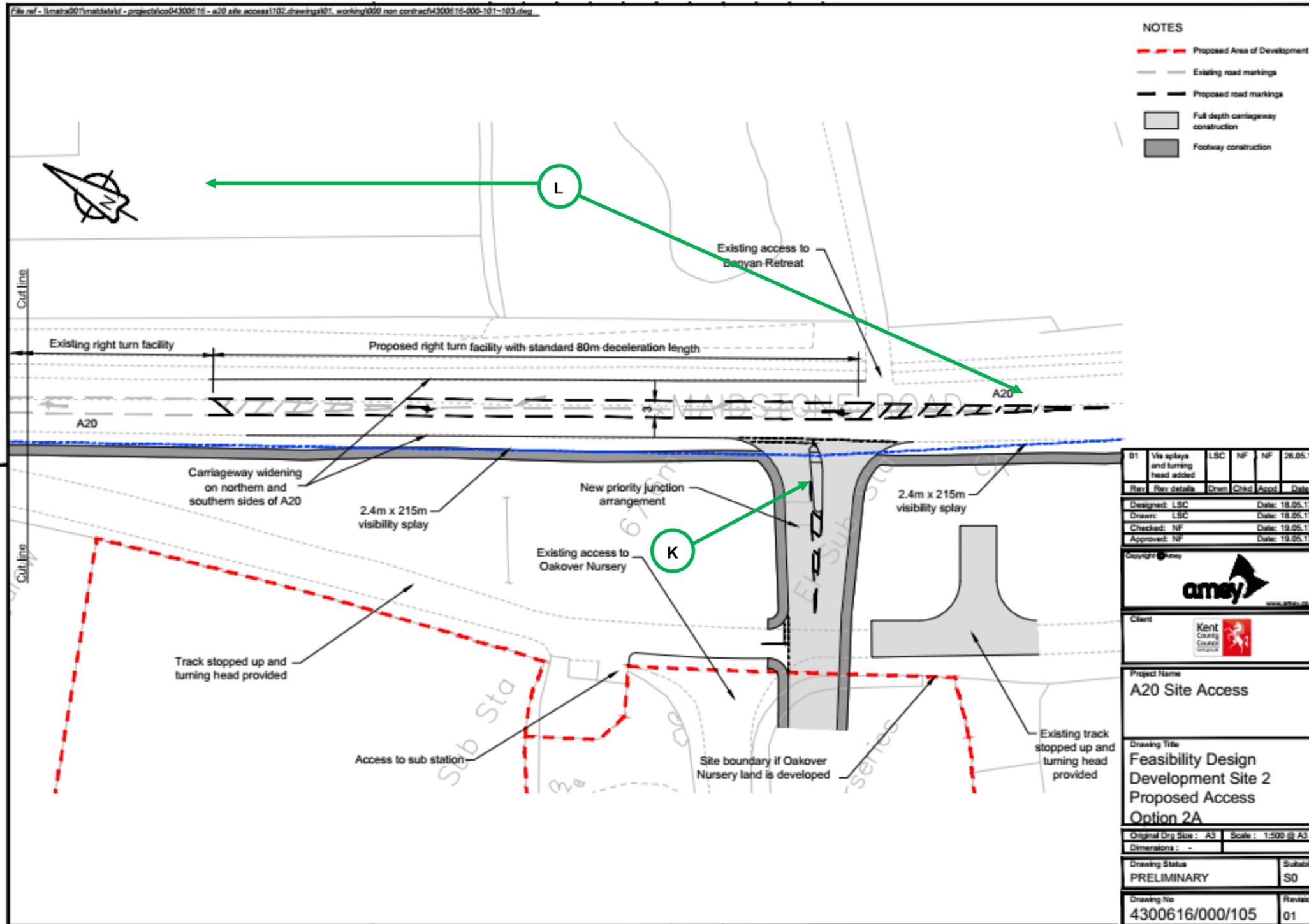
Drawing Title: Feasibility Design Development Site 3 Proposed Access

Original Dwg Size: A3 Scale: 1:500 @ A3

Dimensions: -

Drawing Status: PRELIMINARY Suitability: S0

Drawing No: 4300616/000/104 Revision: 02



**NOTES**

- Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction

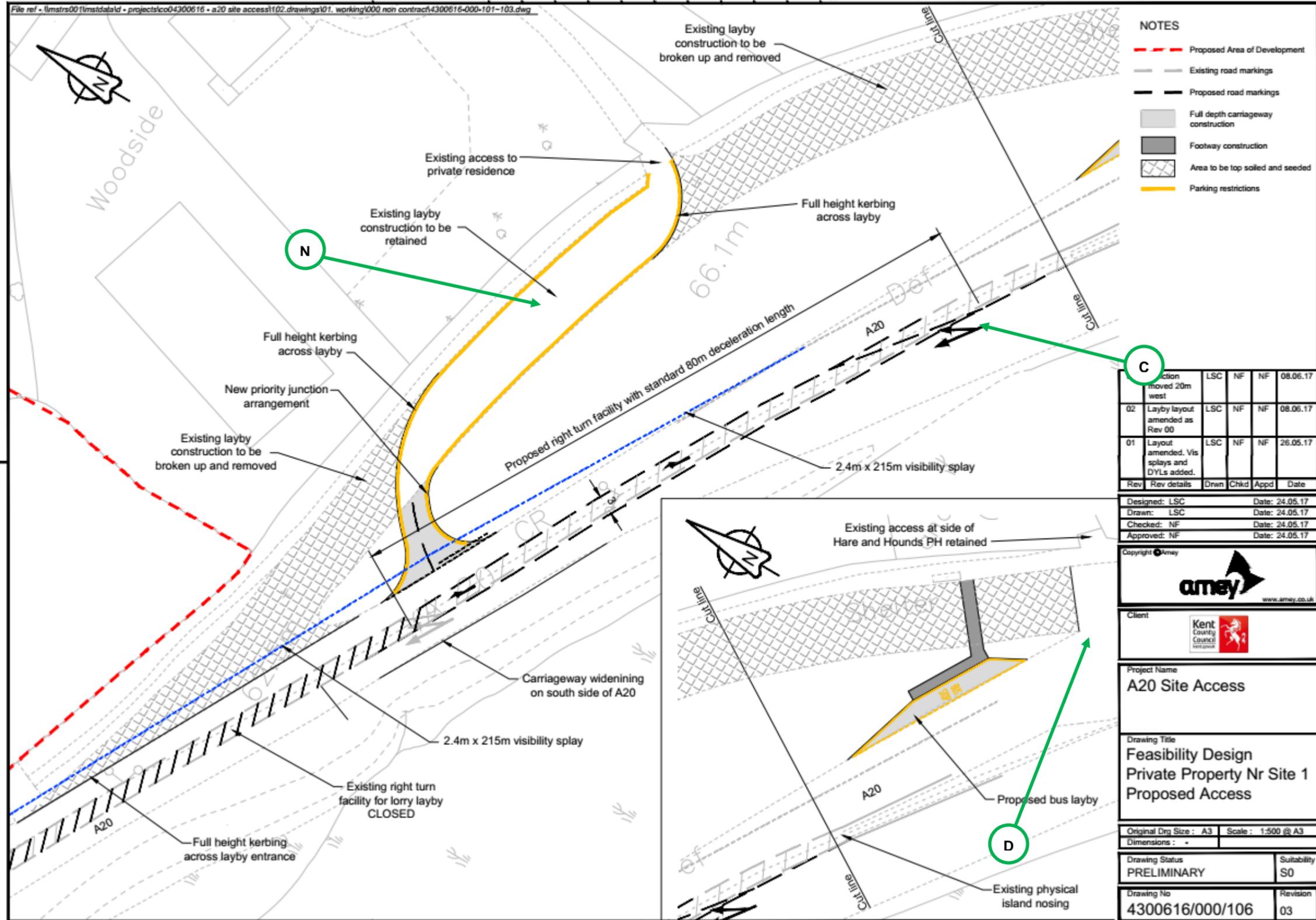
01	Vis splays and turning head added	LSC	NF	NF	28.05.17
Rev	Rev details	Drawn	Checked	Approved	Date
Designed:	LSC				Date: 18.05.17
Drawn:	LSC				Date: 18.05.17
Checked:	NF				Date: 19.05.17
Approved:	NF				Date: 19.05.17



Project Name  
**A20 Site Access**

Drawing Title  
**Feasibility Design Development Site 2 Proposed Access Option 2A**

Original Dwg Size : A3	Scale : 1:500 @ A3
Dimensions : -	
Drawing Status <b>PRELIMINARY</b>	Suitability <b>S0</b>
Drawing No <b>4300616/000/105</b>	Revision <b>01</b>

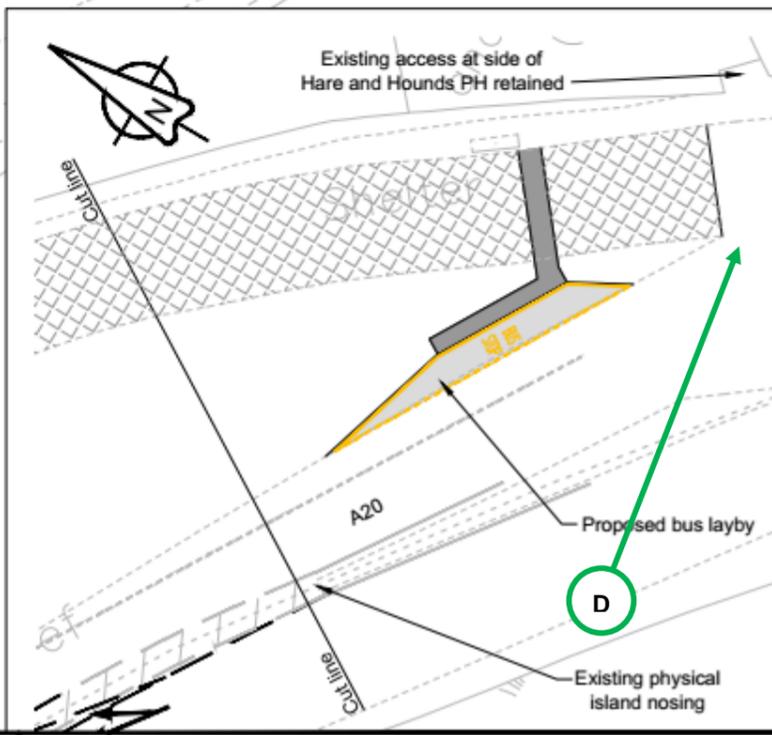


**NOTES**

- Proposed Area of Development
- Existing road markings
- Proposed road markings
- Full depth carriageway construction
- Footway construction
- Area to be top soiled and seeded
- Parking restrictions

Rev	Rev details	Drawn	Chkd	Appd	Date
03	Access moved 20m west	LSC	NF	NF	08.06.17
02	Layby layout amended as Rev 00	LSC	NF	NF	08.06.17
01	Layout amended. Vis splays and DYLS added.	LSC	NF	NF	26.05.17

Designed: LSC Date: 24.05.17  
 Drawn: LSC Date: 24.05.17  
 Checked: NF Date: 24.05.17  
 Approved: NF Date: 24.05.17



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Client: Kent County Council

Project Name: A20 Site Access

Drawing Title: Feasibility Design Private Property Nr Site 1 Proposed Access

Original Dwg Size: A3 Scale: 1:500 @ A3  
 Dimensions: -

Drawing Status: PRELIMINARY Suitability: S0

Drawing No: 4300616/000/106 Revision: 03



# Design Team Project Manager, and Project Sponsor Response Report

**Project Name** A20 Sites – Access Assessment

**Document Title** Design Team Project Manager, and Project Sponsor Response Report



## Document Control Sheet

<b>KENT COUNTY COUNCIL</b>	
<b>DESIGN TEAM AND PROJECT SPONSOR RESPONSE REPORT TO ROAD SAFETY AUDIT</b>	
Project Name:	A20 Sites – Access Assessment
Project Number:	CO04300616
Report Title:	Design Team Project Manager, and Project Sponsor Response Report
Report Number:	RSA1/R/001

<b>Issue Status/Amendment</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>
Initial Issue	Name: Lee Cunningham  Signature: <i>L Cunningham</i>  Date: 06/06/2017	Name: Claire Buxton  Signature: <i>Claire Buxton</i>  Date: 16/06/2017	Name: Nick Flood  Signature: <i>Nick Flood</i>  Date: 16/06/2017
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# **DESIGN TEAM PROJECT MANAGER AND PROJECT SPONSOR RESPONSE TO ROAD SAFETY AUDIT**

**Road Safety Audit Stage:** 1

**Project Title:** A20 Sites – Access Assessment

**Project Number:** CO04300616

**Project Sponsor:** Matt Hogben, Kent County Council

**Overseeing Organisation:** Kent County Council

## **Design Team Project Manager Response**

<b>Name:</b>	Lee Cunningham
Organisation/Team:	Amey South East Hub
Signature:	<i>L Cunningham</i>
Date:	16/06/2107

## **Project Sponsor Response**

<b>Name:</b>	Matt Hogben
Organisation/Team:	Kent County Council
Signature:	
Date:	

Para. No.	Issues Identified and Their Recommendations
4.1.1	<p>Vegetation may constrain visibility to the right.</p> <p>Ensure that visibility splays are clear of obstacles. Any planting or retained vegetation should allow growth to take place without frequent cutting back being required to maintain visibility.</p>
<b>Design Team Project Manager Response</b>	
<p>The Design Team accepts that, with the junction in its current location, there will be a need for some site clearance in the form of vegetation and potentially tree removal, to ensure that the required visibility splays are achieved. This may have environmental implications that will need to be further investigated at the next stage of the design.</p> <p>The current junction location is dictated by the existing right turn facility which currently serves the lorry layby. If the layby were to be closed, as proposed on Drg. 006, there would be opportunity to move the proposed junction further east which would serve to improve visibility to the right and also remove or greatly reduce the need for vegetation clearance.</p>	
<b>Project Sponsor Decision and Proposed Action</b>	
Accepted	

Para. No.	Issues Identified and Their Recommendations
4.1.2	<p>Island may increase the risk of cyclist or pedestrians being struck when crossing the junction.</p> <p>Ensure that the island is configured so that it is wide enough to accommodate cyclists and that both cyclists and pedestrians are encouraged to cross where the carriageway is narrower, away from the bellmouth whilst still supporting the NMU desire line.</p>
<b>Design Team Project Manager Response</b>	
<p>The size and location of the splitter island is indicative at this stage of the design. Further consideration will be given to catering for all users at subsequent design stages.</p>	
<b>Project Sponsor Decision and Proposed Action</b>	
Accepted	

Para. No.	Issues Identified and Their Recommendations
4.2.1	<p>Risk of side swipe or shunt collisions due to weaving / merging movements at the end of a dual carriageway.</p> <p>Ensure that there is adequate separation between the end of the dual carriageway merge layout and the start of the proposed ghost island junction.</p>
<b>Design Team Project Manager Response</b>	
<p>The Design Team accepts that the proposed right turn lane is in close proximity to the dual carriageway merging; however there is no scope for moving the junction further west whilst still providing an access road with suitable geometry to the entry of the private property.</p> <p>A potential solution would be to move the existing dual carriageway merge to a point east of Godinton Lane and hatch out the nearside lane on the approach to the proposed junction. The give-way markings and merge arrangement at Godinton Lane would need to be reconfigured as a result.</p>	
<b>Project Sponsor Decision and Proposed Action</b>	
<p>KCC would like to see the junction moved further west (circa 20 metres), further away from the merge facility to prevent any risk of swipe collisions. Part of the existing lay-by should still be used for access to the property. The width of the access / priority junction serving the single dwelling could be reduced to circa 5 metres in width. As this access will only serve 1 dwelling it is extremely unlikely that there will be any risk of vehicle conflict as a result of vehicles meeting one another at the junction with the A20.</p>	

Para. No.	Issues Identified and Their Recommendations
4.2.2	<p>Risk of collisions involving vehicles accessing the pub.</p> <p>The proposed layout outside the Hare &amp; Hounds pub should be better resolved and submitted for a further stage 1 audit, taking into account the problems raised. It would be advisable to liaise with the landlord in order to better understand how the pub operates, if this has not been done already.</p>
<b>Design Team Project Manager Response</b>	
<p>The Design Team considers that access to the Hare and Hounds and Sandhurst Lane from both directions is adequate and would contest that the most appropriate way to access the pub is via the layby, however it is accepted that some motorists may currently choose to do this. In terms of the</p>	

**Design Team Project Manager Response**

proposals, vehicles travelling eastbound on the A20 would access the pub and Sandhurst Lane via the existing diverge lane and access for vehicles travelling westbound remains unchanged. Only a small parking area exists to the east of the pub and this would remain easily accessible. The Hare and Hounds website suggests that the existing layby is currently utilised for additional parking, therefore some liaison may be prudent at the next stage of the scheme to establish to what extent this actually happens.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
4.2.3	Retained width may generate a higher volume of turning movements than intended. Reduce the remaining lay-by carriageway to the minimum width appropriate for its new role as a private access.

**Design Team Project Manager Response**

The full width of layby has been maintained in order to reduce construction costs and the provision of double yellow lines should help discourage illegal parking, however the Design Team accepts that there could be scope for abuse. A reduction of carriageway width could be considered at the next stage of the scheme.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
4.3.1	Risk of imprudent use in accessing the development from the A20. Use of the old A20 alignment to access the development should be deterred.

**Design Team Project Manager Response**

The Design Team doesn't consider that this to be an issue of particular concern; however a potential solution would be to provide some signage on the approach to and at the entrance of the lane, deterring access to the development via the lane.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
4.3.2	Lack of NMU/pedestrian crossing facilities on a likely desire line along the A20. Ensure that a straight forward, convenient crossing facility is provided for pedestrians that can also accommodate cyclists.

**Design Team Project Manager Response**

The junction layout is indicative at this stage. Further consideration will be given to suitable crossing locations and catering for the needs of all users at subsequent design stages.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
4.3.3	Proposed geometry may increase the risk of collisions occurring from high exit speeds. The slip-type arrangement should be deleted from the proposals.

**Design Team Project Manager Response**

The Design Team considers that the junction layout shown is a standard skew junction arrangement as recommended in TD 42/95 – Figure 7/15. The left turn arrangement from the major road is not intended to be a slip road.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
4.3.4	Proposed deceleration length may increase the risk of shunt collisions on the A20. The deceleration length should be as described in the geometric standard for the 85%ile speed along the route, particularly as lowering the speed limit in order to justify a shorter length, may be ineffective at reducing speeds due to the nature of the location.

**Design Team Project Manager Response**

The Design Team agrees that the deceleration length is sub-standard for the current design speed and would only be appropriate if a 50mph speed limit was introduced.

**Project Sponsor Decision and Proposed Action**

Accepted

Para. No.	Issues Identified and Their Recommendations
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4.3.5	Proposed geometry may be difficult for larger vehicles to negotiate without impinging into the ghost island.  Swept path analysis should be used to demonstrate that all vehicles that may require access to the development can negotiate the junction without undue difficulty.
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**Design Team Project Manager Response**

The junction layout is indicative at this stage. Further consideration will be given to catering for all vehicle movements at subsequent stages of the design.

**Project Sponsor Decision and Proposed Action**

Accepted

Para. No.	Issues Identified and Their Recommendations
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4.3.6	Risk of the extended ghost island layout along the A20 providing an opportunity to overtake slower moving traffic for impatient drivers.  Break up the clear run along the sequence of ghost islands with traffic islands to deter overtaking.
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**Design Team Project Manager Response**

The Design team agrees with the Audit Team. The provision of traffic islands should be considered at the next stage of the design.

**Project Sponsor Decision and Proposed Action**

Accepted

Para. No.	Issues Identified and Their Recommendations
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4.3.7	Risk of the close proximity of a number of accesses, proposed and existing, being
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Para. No.	Issues Identified and Their Recommendations
	<p>confusing for drivers to navigate.</p> <p>Use a combination of road markings and local destination signing to give drivers the best chance of identifying the correct junction for their intended destination.</p>
<b>Design Team Project Manager Response</b>	
<p>The Design team agrees with the Audit Team. The provision of suitable signage etc. should be considered at the next stage of the design.</p>	
<b>Project Sponsor Decision and Proposed Action</b>	
<p>Accepted</p>	

Para. No.	Issues Identified and Their Recommendations
4.4.1	<p>Island should be of a sufficient size to accommodate cyclists.</p> <p>Ensure that the island is configured so that it is wide enough to accommodate cyclists and that both cyclists and pedestrians are encouraged to cross where the carriageway is narrower, away from the bellmouth, whilst still serving the existing NMU desire lines.</p>
<b>Design Team Project Manager Response</b>	
<p>The size and location of the splitter island is indicative at this stage of the design. Further consideration will be given to catering for all users at subsequent design stages.</p>	
<b>Project Sponsor Decision and Proposed Action</b>	
<p>Accepted</p>	

Para. No.	Issues Identified and Their Recommendations
4.4.2	<p>Risk of the extended ghost island layout along the A20 providing an opportunity to overtake slower moving traffic for impatient drivers.</p> <p>Break up the clear run along the sequence of ghost islands with traffic islands to deter overtaking.</p>
<b>Design Team Project Manager Response</b>	
<p>The Design team agrees with the Audit Team. The provision of traffic islands should be considered at the next stage of the design.</p>	

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
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4.4.3	<p>Risk of the close proximity of a number of accesses, proposed and existing, being confusing for drivers to navigate.</p> <p>Use a combination of road markings and local destination signing to give drivers the best chance of identifying the correct junction for their intended destination.</p>
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**Design Team Project Manager Response**

The Design team agrees with the Audit Team. The provision of suitable signage etc. should be considered at the next stage of the design.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
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4.5.1	<p>Island should be of a sufficient size to accommodate cyclists.</p> <p>Ensure that the island is configured so that it is wide enough to accommodate cyclists and that both cyclists and pedestrians are encouraged to cross where the carriageway is narrower, away from the bellmouth, whilst still serving the existing NMU desire lines.</p>
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**Design Team Project Manager Response**

The size and location of the splitter island is indicative at this stage of the design. Further consideration will be given to catering for all users at subsequent design stages.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
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4.5.2	<p>Risk of the close proximity of a number of accesses, proposed and existing, being confusing for drivers to navigate.</p> <p>Use a combination of road markings and local destination signing to give drivers the best chance of identifying the correct junction for their intended destination.</p>
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**Design Team Project Manager Response**

The Design team agrees with the Audit Team. The provision of suitable signage etc. should be considered at the next stage of the design.

**Project Sponsor Decision and Proposed Action**

Accepted

<b>Para. No.</b>	<b>Issues Identified and Their Recommendations</b>
4.6.1	Lack of crossing facilities for pedestrians. Provide appropriate facilities to help pedestrians cross the A20 safely.

**Design Team Project Manager Response**

The Design Team considers that this is outside of the scope of the current brief, however agrees that there could be better provision for pedestrians along the A20.

**Project Sponsor Decision and Proposed Action**

Accepted



## **Appendix C Environmental Scoping Assessment**



## Document Control Sheet

Project Title:	A20 Sites – Access Assessment
Project Number:	CO04300616
Document / Report Title:	Environmental Scoping Assessment
Document / Report Number:	ESA

Issue Status/Amendment	Prepared	Reviewed	Approved
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Revision 00	Name: O. Ockenden Signature: <i>Oline Ockenden</i> Date: 6/6/17	Name: J. Taylor Signature: <i>J Taylor</i> Date: 7/6/17	Name: J. Taylor Signature: <i>J Taylor</i> Date: 7/6/17
Revision (Enter Details of Amendment)	Name:  Signature:  Date:	Name:  Signature:  Date:	Name:  Signature:  Date:
	Name: (print)  Signature:  Date:	Name: (print)  Signature:  Date:	Name: (print)  Signature:  Date:

## Environmental Scoping Assessment

	Name	Position	Date
Prepared by	O. Ockenden	Environmentalist	06/06/2017
Checked by	J. Taylor	Principal Environmentalist	7/6/17
Received by	Lee Cunningham	Project Manager	7/6/17

<b>Project No:</b>	CO04300616	<b>Scheme Title:</b>	A20 Sites – Access Assessment
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**Project description**

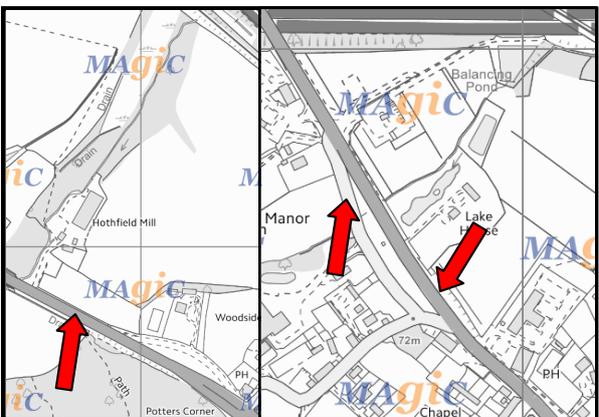
**Introduction:** The purpose of the scheme is to provide new access from the A20 for three new residential developments; two are in the vicinity of Ram Lane on either side of the A20, with the third to the south at Potter’s Corner before Ashford, this is illustrated in the figures below, with Potter’s bush on the left in Fig. 1 & 2 and Ram Lane on the right in fig. 1 & 2.

The designs for the access points to the future developments at this point are spurs that form new junctions with the A20, including the laying of short sections of new road and adjustment of the existing lines on the A20.

**Location:** The grid references for the sites are TQ 99067 44883 and TQ 96812 46810.



**Figure 1:** Satellite view of the site.



**Figure 2:** Street map view of the site.

**Timescale:** It is unknown when the works are to begin, however they are expected to last for 12 weeks.

**Traffic Management:** Unknown measures are to be taken during the construction to manage traffic flow.

<b>Emissions and Waste:</b> It is anticipated that the emissions and waste generated by the works may include excess construction material and emissions from onsite vehicles.		
<b>This project requires a Screening Opinion (EIA Regulations) (DMRB Vol.11 Sec.2 Part2 HD 47/08)</b>	YES	NO
<b>This project requires a Record of Determination (Applicable to Highways England work only) (IAD 126/15)</b>	YES	NO
<b>This project requires environmental permissions, licenses or consents (ENVT-EnvtAssess-PL-02)</b>	YES	NO
<p>Very Likely:  <b>Highway / footway/cycleway / car park diversion or closure</b> - The Highways Act, 1980            New Roads and Street Works Act, 1991</p> <p>Likely:  <b>Ecological consents to handle / move / disturb protected species</b> - Wildlife and Countryside Act, 1981, The Protection of Badgers Act, 1992</p>		
<b>What statutory procedures are involved?</b>		
Impacts Public Right of Way		
<b>References</b>		
Highways England (formerly the Highways Agency) Design Manual for Roads and Bridges (DMRB) Volume 11 (Environmental Assessment) Section 3 (Environmental Assessment Techniques). <a href="http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3.htm">http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3.htm</a> .		

<b>IDENTIFICATION OF POTENTIAL ENVIRONMENTAL EFFECTS</b>		
<b>AIR QUALITY</b>		
<b>Assessment methodology:</b>	Desk-based assessment (DBA); 350m search radius (200m for permanent effects) <i>Sources:</i> <ul style="list-style-type: none"> <li>Background maps for NO2 and PM10 <a href="http://uk-air.defra.gov.uk/data/laqm-background-home">http://uk-air.defra.gov.uk/data/laqm-background-home</a></li> <li>Designated sites <a href="http://magic.defra.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.aspx">http://magic.defra.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.aspx</a></li> <li>Air Quality Management Areas (AQMA)s <a href="http://uk-air.defra.gov.uk/aqma/maps">http://uk-air.defra.gov.uk/aqma/maps</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>There are no AQMAs at either of the sites.</li> <li>The works take place on the A20 and therefore the ambient air quality environment is likely dominated by traffic.</li> <li>The relevant receptors for this site include approximately 25 houses at Ram Lane and 5 at Potter's Corner.</li> <li>There are no schools, hospitals or churches within the search area.</li> <li>The type of development is road access.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>Site clearance;</li> <li>Excavation;</li> <li>Drainage;</li> <li>Road laying;</li> <li>Line marking;</li> <li>Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>Increase in dust and fine particulates associated with the construction phase.</li> <li>Increased exhaust fumes from plant movements.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>None predicted – for this stage.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>Adoption of Best Practicable Means to keep dust and fumes to a minimum.</li> </ul>		
<b>Further action/assessment required?</b>	YES	<del>NO</del>
<i>Construction dust impact assessment in accordance with IAQM Guidance on the assessment of demolition and construction dust.</i>		

<b>NOISE AND VIBRATION</b>		
<b>Assessment methodology:</b>	DBA; 300m search radius. <i>Sources:</i> <ul style="list-style-type: none"> <li>Noise Maps England <a href="http://services.defra.gov.uk/wps/portal/noise">http://services.defra.gov.uk/wps/portal/noise</a></li> <li>Planning Practice Guidance Noise <a href="http://planningguidance.planningportal.gov.uk/blog/guidance/noise/noise-guidance/">http://planningguidance.planningportal.gov.uk/blog/guidance/noise/noise-guidance/</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>The relevant receptors for this site include approximately 25 houses at Ram Lane and 5 at Potter's Corner.</li> <li>There are no schools, hospitals or churches within the search area.</li> <li>There are no Noise Important Areas within the search area.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>Site clearance;</li> <li>Excavation;</li> <li>Drainage;</li> <li>Road laying;</li> <li>Line marking;</li> <li>Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>Increase of noise and vibration for the duration of the work.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>None predicted – for this stage.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>Noise and vibration to be controlled as far as reasonably practical to protect sensitive receptors.</li> <li>Use of Best Practical Means to lesson noise levels during construction.</li> <li>Follow work hours agreed in advance with the Local Authority.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO
<i>A noise and vibration specialist should undertake BS5228 calculations in order to inform construction plant, methodology and mitigation methods to be employed if works are to be undertaken outside normal permitted hours.</i>		

<b>ARCHAEOLOGY AND CULTURAL HERITAGE</b>																																			
<b>Assessment methodology:</b>	DBA; 300m & 1km search radius. <i>Sources:</i> <ul style="list-style-type: none"> <li>• <a href="http://list.english-heritage.org.uk/mapsearch.aspx">http://list.english-heritage.org.uk/mapsearch.aspx</a></li> <li>• <a href="http://www.heritagegateway.org.uk/Gateway/CHR/">http://www.heritagegateway.org.uk/Gateway/CHR/</a></li> <li>• <a href="http://www.pastscape.org.uk/">http://www.pastscape.org.uk/</a></li> </ul>																																		
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>• There are no world heritage sites, scheduled monuments, parks and gardens, conservation areas or historical landscapes within the inner 300m or outer 1km search radius.</li> <li>• There are 4 listed buildings within 300m at Ram Lane and 3 at Potter's Corner featured in Table 1 below:</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 30%;">Name:</th> <th style="width: 15%;">Rating:</th> <th style="width: 30%;">Reference Number:</th> <th style="width: 25%;">Distance:</th> </tr> </thead> <tbody> <tr> <td><b>Sand Pit Cottages</b></td> <td>II</td> <td>1068648</td> <td>93m (RL)</td> </tr> <tr> <td><b>Britton Farmhouse</b></td> <td>II</td> <td>1362718</td> <td>102m (RL)</td> </tr> <tr> <td><b>The Wool Pack Inn</b></td> <td>II</td> <td>1071338</td> <td>133m (RL)</td> </tr> <tr> <td><b>Forge Cottage Myrtle Cottage</b></td> <td>II</td> <td>1362714</td> <td>140m (RL)</td> </tr> <tr> <td><b>Hothfield Mill</b></td> <td>II</td> <td>1362662</td> <td>110m (PC)</td> </tr> <tr> <td><b>Mill House</b></td> <td>II</td> <td>1071457</td> <td>120m (PC)</td> </tr> <tr> <td><b>Woodside Cottages</b></td> <td>II</td> <td>1362848</td> <td>284m (PC)</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• There are no further records of any archeologically significant finds.</li> </ul>			Name:	Rating:	Reference Number:	Distance:	<b>Sand Pit Cottages</b>	II	1068648	93m (RL)	<b>Britton Farmhouse</b>	II	1362718	102m (RL)	<b>The Wool Pack Inn</b>	II	1071338	133m (RL)	<b>Forge Cottage Myrtle Cottage</b>	II	1362714	140m (RL)	<b>Hothfield Mill</b>	II	1362662	110m (PC)	<b>Mill House</b>	II	1071457	120m (PC)	<b>Woodside Cottages</b>	II	1362848	284m (PC)
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<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>• Site clearance;</li> <li>• Excavation;</li> <li>• Drainage;</li> <li>• Road laying;</li> <li>• Line marking;</li> <li>• Signing.</li> </ul>																																		
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>• No effects predicted.</li> </ul>																																		
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>• None predicted.</li> </ul>																																		
<b>Mitigation / control measures:</b>																																			
<ul style="list-style-type: none"> <li>• Onsite training should include awareness of the risk of encountering archeologically important finds.</li> <li>• Should any potential historic finds be found on site, the advice and guidelines in DMRB Vol. 11 Section 3, Part 2 – Cultural Heritage must be adhered to.</li> <li>• Scheme planning should aim to avoid interfering with trees and listed buildings walls.</li> </ul>																																			
<b>Further action/assessment required?</b>	YES	NO																																	

<b>LANDSCAPE EFFECTS</b>		
<b>Assessment methodology:</b>	DBA; 300m search radius. <i>Sources:</i> <ul style="list-style-type: none"> <li>• U.K: <a href="http://www.legislation.gov.uk/all">http://www.legislation.gov.uk/all</a></li> <li>• Landscape institute: <a href="http://www.landscapeinstitute.org">http://www.landscapeinstitute.org</a></li> <li>• Kent Landscape Information System: <a href="http://www.kent.gov.uk/klis">www.kent.gov.uk/klis</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>• The sites are not within an Area of Outstanding Natural Beauty; however the Kent Downs AONB is within 500m to the north.</li> <li>• The sites are not within a National Park.</li> <li>• The Landscape Character Area is categorised as 120 – Wealden Greensand.</li> <li>• It is unknown if there are any Tree Preservation Orders on site.</li> <li>• The sites are not within any Conservation Areas.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>• Site clearance;</li> <li>• Excavation;</li> <li>• Drainage;</li> <li>• Road laying;</li> <li>• Line marking;</li> <li>• Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>• Temporary impact of plant, vehicles, materials and other work related paraphernalia.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>• New roads on the landscape – potential at this stage to mitigate impacts which could come when the full access roads are designed and built.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>• Limit the time plant, machines and materials are stored on site.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO
<i>Preliminary Landscape and Visual Appraisal.</i>		

<b>ECOLOGY AND NATURE CONSERVATION</b>		
<b>Assessment methodology:</b>	DBA; 2km search radius. <i>Sources:</i> <ul style="list-style-type: none"> <li>All U.K wide and national ecological legislation <a href="http://jncc.defra.gov.uk/page-1376">http://jncc.defra.gov.uk/page-1376</a></li> <li>Ecology society <a href="http://www.britishecologicalsociety.org/">http://www.britishecologicalsociety.org/</a></li> <li>CIEEM guidelines <a href="http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/EcIA_Guidelines/TGSEcIA-EcIA_Guidelines-Terrestrial_Freshwater_Coastal.pdf">http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/EcIA_Guidelines/TGSEcIA-EcIA_Guidelines-Terrestrial_Freshwater_Coastal.pdf</a></li> <li>National Biodiversity Map Search <a href="https://data.nbn.org.uk/Site_Datasets">https://data.nbn.org.uk/Site_Datasets</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>There is one Local Nature Reserves within the search area, Hothfield Common 1008966 about 150m away from Ram Lane.</li> <li>There are no Special Areas of Conservation</li> <li>There are no Marine Management Zones</li> <li>There are no National Nature Reserves</li> <li>There are no RAMSAR sites</li> <li>There is one SSSI within the search area, Hothfield Common 1000118 about 150m away from Ram Lane.</li> <li>There are no protected areas known for bat habitats within a 30km search radius.</li> <li>There are two Ancient Woodlands adjacent to the sites, Britton Farm in Ram Lane and Broomfield Woods at Potter's Corner.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>Site clearance;</li> <li>Excavation;</li> <li>Drainage;</li> <li>Road laying;</li> <li>Line marking;</li> <li>Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>There may be an ecological disturbance to the immediate vicinity of the site due to the removal of flora.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>Permanent loss of flora and interference with existing ditches.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>Site walkover is required by an ecologist to assess the potential for protected species onsite.</li> <li>Any disturbance of trees or shrubs must be done outside of the nesting season.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO
<i>Preliminary Ecological Appraisal required in order to identify habitats/potential species of interest.</i>		
This project requires Habitats Regulations Assessment / Assessment of Implications on European Sites (AIES) screening?	<del>YES</del>	NOT AT THIS STAGE – POTENTIALLY REQUIRED WHEN ROADS ARE BUILT OFF THE ACCESS POINTS DUE TO PROXIMITY OF SSSI

<b>GEOLOGY, SOILS AND CONTAMINATED LAND</b>		
<b>Assessment methodology:</b>	DBA; 300m search radius. <i>Sources:</i> <ul style="list-style-type: none"> <li>• Geological Conservation Review <a href="http://jncc.defra.gov.uk/page-4172">http://jncc.defra.gov.uk/page-4172</a></li> <li>• <a href="http://www.netregs.org.uk/">http://www.netregs.org.uk/</a></li> <li>• <a href="https://www.gov.uk/contaminated-land">https://www.gov.uk/contaminated-land</a></li> <li>• <a href="http://mapapps2.bgs.ac.uk/geoindex/home.html">http://mapapps2.bgs.ac.uk/geoindex/home.html</a></li> <li>• <a href="http://www.old-maps.co.uk/index.html">http://www.old-maps.co.uk/index.html</a></li> <li>• <a href="http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683&amp;y=355134&amp;scale=1&amp;layerGroups=default&amp;ep=map&amp;textonly=off&amp;lang=e&amp;topic=waste#">http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683&amp;y=355134&amp;scale=1&amp;layerGroups=default&amp;ep=map&amp;textonly=off&amp;lang=e&amp;topic=waste#</a></li> <li>• Specialists in Land Condition <a href="http://www.silc.org.uk/">http://www.silc.org.uk/</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>• The sites have been previously excavated or ploughed.</li> <li>• The sites are not located close to a landfill site.</li> <li>• The site sits on bedrock of Lower Greensand Group with negligible surface geological deposits.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>• Site clearance;</li> <li>• Excavation;</li> <li>• Drainage;</li> <li>• Road laying;</li> <li>• Line marking;</li> <li>• Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>• Any contaminated material if mishandled and spread could cause further contamination to other receptors.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>• No effects predicted.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>• Consult with the Geotechnical team in regards to contaminated land.</li> <li>• All hazardous materials should be segregated and be securely contained.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO

<b>DRAINAGE AND THE WATER ENVIRONMENT</b>		
<b>Assessment methodology:</b>	DBA; 300m search radius. <i>Sources:</i> <ul style="list-style-type: none"> <li>EA indicative water environment maps <a href="http://maps.environment-agency.gov.uk/wivby/wivbyController?ep=maptopics&amp;lang=e">http://maps.environment-agency.gov.uk/wivby/wivbyController?ep=maptopics&amp;lang=e</a></li> <li>Magic <a href="http://www.magic.gov.uk/">http://www.magic.gov.uk/</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>The sites have a very low risk of flooding.</li> <li>The sites are located within a mix of principal and secondary aquifers with ground water protection zones class 3.</li> <li>There are no major watercourses on site; however agricultural drains do cross them.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>Site clearance;</li> <li>Excavation;</li> <li>Drainage;</li> <li>Road laying;</li> <li>Line marking;</li> <li>Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>Potential for spills from fuel and oils.</li> <li>However, provided containment procedures are followed the potential for impacts from spills is low.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>Permanent increase of impermeable surface area.</li> <li>Potential for the local road drainage to be altered.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>Fuel, oil and other chemicals are to be stored properly to minimize pollution risk.</li> <li>Spill kits should be available in the event of an accidental spill.</li> <li>Best practice should be applied to the method and risk assessments for substances that are used during construction.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO
<i>Preliminary Appraisal of drainage and the water environment.</i>		

<b>MATERIALS &amp; WASTE</b>		
<b>Assessment methodology:</b>	DBA <i>Sources:</i> <ul style="list-style-type: none"> <li>• <a href="http://ec.europa.eu/environment/eussd/">http://ec.europa.eu/environment/eussd/</a></li> <li>• <a href="http://ec.europa.eu/environment/waste/index.htm">http://ec.europa.eu/environment/waste/index.htm</a></li> <li>• <a href="http://www.netregs.org.uk/">http://www.netregs.org.uk/</a></li> <li>• <a href="https://www.gov.uk/browse/environment-countryside/recycling-waste-management">https://www.gov.uk/browse/environment-countryside/recycling-waste-management</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>• Surplus waste materials may include earth, hard core, concrete, paint and asphalt.</li> <li>• A Site Waste Management Plan is not recommended as the scheme costs less than £300,000.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>• Site clearance;</li> <li>• Excavation;</li> <li>• Drainage;</li> <li>• Road laying;</li> <li>• Line marking;</li> <li>• Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>• Energy use from fuels.</li> <li>• Emissions to the atmosphere.</li> <li>• Generation of waste.</li> <li>• Material transportation.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>• Depletion of raw materials</li> <li>• Waste taken to landfill</li> <li>• Significant effects predicted – none.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>• Source local materials to minimise transportation costs.</li> <li>• Best practice to be applied.</li> <li>• Licenced Waste Contractor</li> <li>• Segregation of waste</li> <li>• Reuse and recycling</li> </ul>		
<b>Further action / assessment required?</b>	YES	NO
<b>Site Waste Management Plan recommended?</b>	YES	NO

<b>EFFECTS ON ALL TRAVELLERS</b>		
<b>Assessment methodology:</b>	DBA <i>Sources:</i> <ul style="list-style-type: none"> <li>• Sustainable transportation <a href="http://www.sustrans.org.uk/">http://www.sustrans.org.uk/</a></li> <li>• The DMRB guidelines <a href="http://www.dft.gov.uk/ha/standards/dmr/index.htm">http://www.dft.gov.uk/ha/standards/dmr/index.htm</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>• The works take place in Rams Lane and Potters Corner, near Ashford.</li> <li>• The works take place on the A20.</li> <li>• The works will likely affect commuters north/south bound avoiding the M20.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>• Site clearance;</li> <li>• Excavation;</li> <li>• Drainage;</li> <li>• Road laying;</li> <li>• Line marking;</li> <li>• Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>• Traffic management may add to journey time.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>• Access to three sites for future housing development.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>• Give prior notice to residents about the potential for disruption.</li> <li>• Utilise informative signage.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO
<i>Consultation with district council and local residents to discuss proposed plans.</i>		

<b>EFFECTS ON THE COMMUNITY AND PRIVATE ASSETS</b>		
<b>Assessment methodology:</b>	DBA <i>Sources:</i> <ul style="list-style-type: none"> <li>• Compulsory purchase of private or MoD property <a href="http://www.legislation.gov.uk/ukpga/2004/5/contents">http://www.legislation.gov.uk/ukpga/2004/5/contents</a></li> <li>• The DMRB guidelines <a href="http://www.dft.gov.uk/ha/standards/dmr/index.htm">http://www.dft.gov.uk/ha/standards/dmr/index.htm</a></li> </ul>	
<b>Key baseline conditions:</b>	<ul style="list-style-type: none"> <li>• It is unknown if there is a high interest in the works from the local people, however it is likely that word of new housing is being disseminated.</li> </ul>	
<b>Key construction activities:</b>	<ul style="list-style-type: none"> <li>• Site clearance;</li> <li>• Excavation;</li> <li>• Drainage;</li> <li>• Road laying;</li> <li>• Line marking;</li> <li>• Signing.</li> </ul>	
<b>Temporary effects:</b>	<ul style="list-style-type: none"> <li>• Potential disruption to traffic and pedestrians.</li> <li>• Obstruction of a bus stop.</li> </ul>	
<b>Permanent effects:</b>	<ul style="list-style-type: none"> <li>• Improved access to the development and walkways alongside the A20 in part provided.</li> </ul>	
<b>Mitigation / control measures:</b>		
<ul style="list-style-type: none"> <li>• Disruption to all users should be minimised. Alternate route management should be considered.</li> <li>• Advance notice for the works should be given along with planned duration.</li> </ul>		
<b>Further action/assessment required?</b>	YES	NO
<i>Consultation with stakeholders about the potential disruption.</i>		