

Duchy of Lancaster

Park Farm, Donington

Transport Statement



October 2016

Amec Foster Wheeler Environment
& Infrastructure UK Limited



Report for

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1. Introduction

1.1 Background

This Transport Statement (TS) has been prepared to support the planning application for a development of two B1c/B2/B8 units off the A52 in Donington, Lincolnshire. This TS reports on an appraisal of the effects that the proposed development will have on the local transport network.

1.2 Developer and Project Team

The Duchy of Lancaster has appointed Amec Foster Wheeler Environment and Infrastructure UK Ltd (Amec Foster Wheeler) to advise on technical and environmental aspects relating to the planning application for the proposed development. This includes the traffic and transport related supporting documents to the planning application. Amec Foster Wheeler has been responsible for the preparation of this TS.

1.3 Scope of the Transport Statement

The National Planning Policy Framework (March 2012) states “All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment”. A Transport Statement is considered sufficient to support this application.

1.4 Structure of the TS

The remainder of the TS is structured as follows:

- ▶ Chapter 2 describes the current conditions within the defined study area and a review of the transport network;
- ▶ Chapter 3 describes the development proposals, the associated traffic characteristics and an assessment of the impact of the development traffic generation on the surrounding highway network; and
- ▶ Chapter 4 summarises the proposals and concludes the impact of the scheme.

2. Existing Conditions

2.1 Existing Site

The development site is located on the outskirts of the village of Donington in the South Holland parish of Lincolnshire. The site is currently agricultural in allocation. (NB South Holland District Council, alongside Boston Borough Council and Lincolnshire County Council (LCC) have commenced a review of the South Holland Local Plan). The surrounding area consists of agricultural land and the current access to the site is a shared access track with Park Farm.

The track accesses the A52 roundabout which has four arms comprising:

- ▶ A52 (north);
- ▶ A52 (south west);
- ▶ A152 Station Street (east) which leads into the residential area of Donington; and
- ▶ Park Farm and proposed site (west).

Figure 2.1 shows the site location with key highways and transport features.

2.2 Sustainable Transport

Bus

The nearest bus stops to the proposed site are located on Station Street. The northbound and southbound stops are located approximately 480m from the proposed site. Figure 2.1 shows the location of the nearest bus stops. The distance between the site and both the stops is slightly longer than the recommended 400m maximum walking distance as set out in paragraph 6.20 of the 1999 Institution of Highways & Transportation (IHT) publication, *Guidelines for Planning for Public Transport in Developments*. 400m equates to approximately a 5 minute walk. Therefore, the nearest bus stops are approximately a 6 minute walk from the site. These bus stops are served by bus service numbers: G79, K59; K59 runs an hourly service during the day between Boston and Spalding. CallConnect service numbers 7B and 16S are also available from these stops. Further services can be accessed in the centre of the village, 700m from the site: G78, G79, K59, S116 and S126.

For a rural location it can be deemed that the site is well served.

Walking

The centre of the village of Donington is 700m from the site, which is considered to be a reasonable walking distance. Though the nature of the wider surrounding area is agricultural, the A52 has a lit footway on one side of the carriageway leading from the access and has a crossing facility with dropped kerbs at the roundabout. The footway leads into Donington village on Station Street and provides good walking access into the village with a lit footway.

Cycling

The A52 and the A152 (Station Street) are identified as “roads with heavy traffic - best avoided” in the LCC cycling infrastructure map. There are however four routes within the residential area of Donington that are classified as “routes found useful by local cyclists – mainly on quiet roads”, these are shown in Figure 2.1. These routes connect up to provide a network for cycling through the village; with cyclists able to dismount and use the pedestrian facilities over the A52 to the site.

2.3 Local Highway Network

All traffic from the proposed development site will join the strategic road network using the access onto the A52 roundabout. The access is via a track that also serves the neighbouring agricultural farm buildings of Park Farm. (The full access arrangements are to be confirmed).

The A52 is a single lane A road which enters and exits the roundabout as a single lane in all directions. The A52 runs approximately North-South. The roundabout is lit and has four arm entry; the westbound arm is the access to the proposed development site and the eastbound arm leads into the village of Donington. The roundabout has a footway and dropped kerbs between the A52 south and A152 Station Street.

Figure 2.1 illustrates the existing highway network local to the site.

2.4 Existing Accident Analysis

Records of all reported accidents have been obtained from LCC for the five year period from 2012 to 2016 for the area within 700m of the A52 roundabout. The area of the accident study is shown in Figure 2.2 and covers all of the identified roads in the study area.

Table 2.1 summarises the number of accidents over the assessment period.

Table 2.1 Summary of Accident Records 2012-2016

Road	Fatal	Serious	Slight
A52 (south west)	0	0	0
Unnamed (Park Farm/site access)	0	0	0
A52 (north)	0	0	0
Station Street	0	0	0
Total	0	0	0

No recorded accidents in the last five years suggest that there is no inherent safety problem.

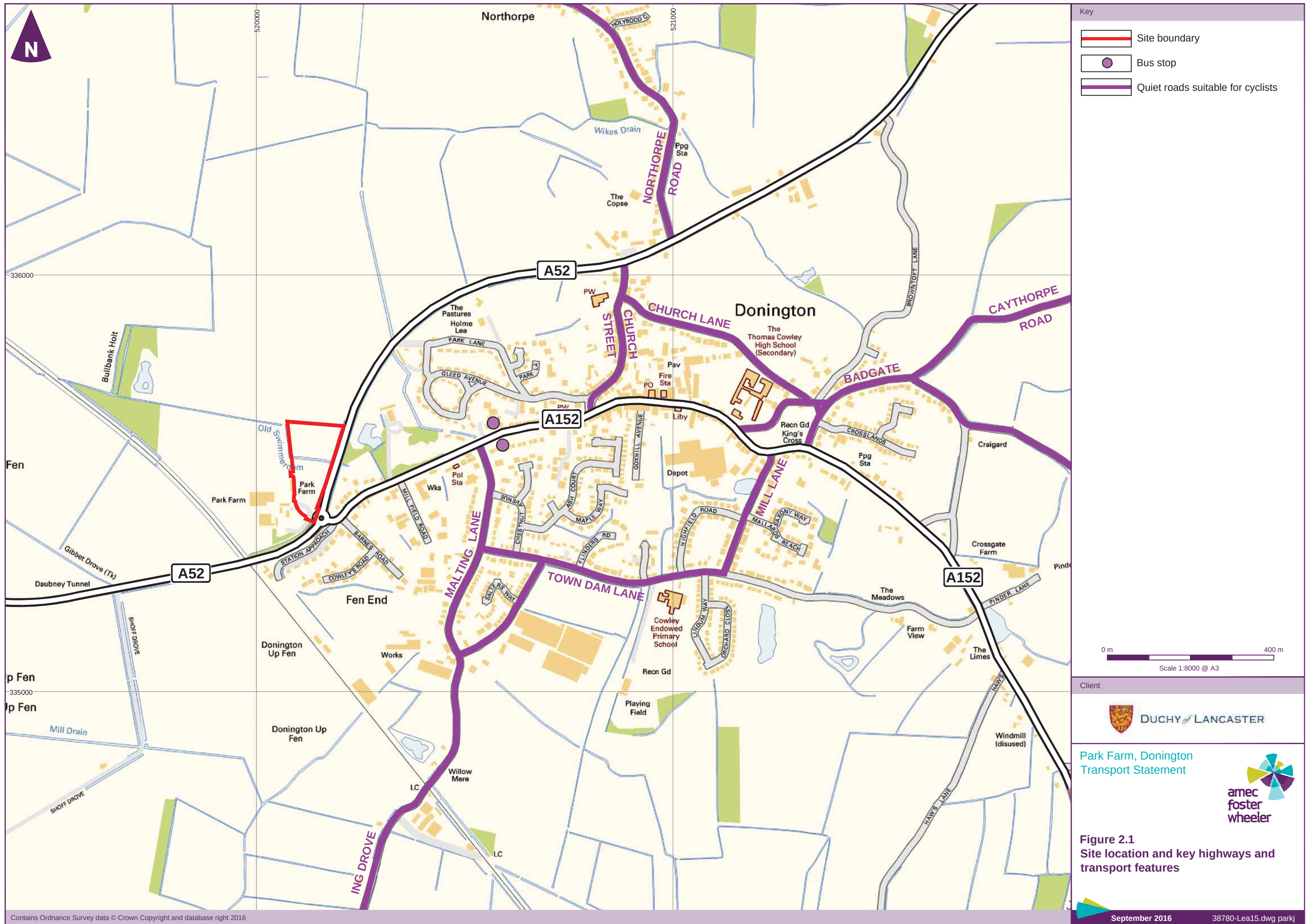
2.5 Traffic Counts

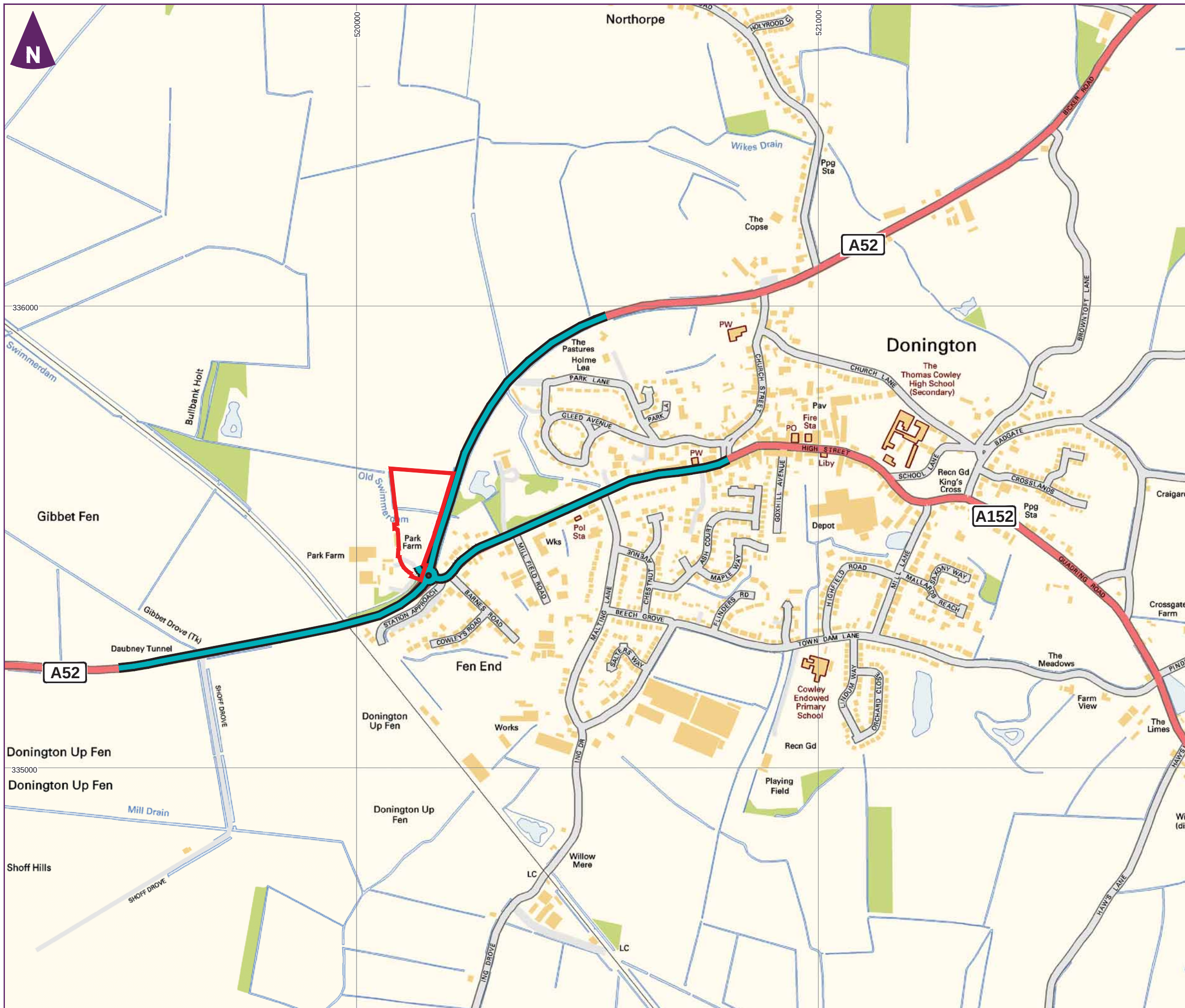
In order to understand the existing traffic conditions within the area, Amec Foster Wheeler commissioned Streetwise Services Ltd, to undertake a traffic count at the roundabout on the A52 where the development will access the local highway network. The traffic survey was undertaken at:

- ▶ A52 (south west) / Unnamed road (site access) / A52 (north) / A152 Station Street.

The fully manual classified count was undertaken on Thursday 14 July 2016 between the hours of 06:30am and 19:30pm. This provided base network flows which have been used to inform the future year traffic flows.

Details of the traffic counts are provided within Appendix A.





Key

- Site boundary
- Accident assessment area

0 m 400 m
Scale 1:8000 @ A3

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Figure 2.2
Accident assessment area

3. Development Proposals

3.1 Development Proposals

A plan of the proposed development, which is illustrative at this stage, is shown in Figure 3.1.

The proposed development is for two units with associated parking provision with a user class of either B1c (business for any industrial process) or B2 (general industrial) or B8 (use for storage or as a distribution centre):

- ▶ Unit 1 is proposed as 1,868m² (of which 510m² is ancillary office);
- ▶ Unit 2 is proposed as 2,994m² (of which 576m² is ancillary office).

It is likely that on one of the units is for a company who already operate in the area and are wishing to relocate.

3.2 Access and Movement

The physical transportation components that are a feature of this proposal are as follows:

- ▶ A new driveway from the access track to access the two units;
- ▶ Widening of the existing driveway to allow inbound and outbound HGVs to pass unimpeded;
- ▶ 24 bike stands;
- ▶ Five secure motorcycle parking spaces; and
- ▶ 64 car parking spaces (including five accessible spaces).

Figure 3.2 presents the new access arrangements with swept paths. A swept path analysis has been undertaken using Autodesk CAD. The access, via the roundabout on the A52 is shown to clearly accommodate two HGVs, one accessing and one egressing the site simultaneously.

3.3 Car Parking Facilities

The 4th Lincolnshire Local Transport Plan (published April 2013) states "...through the development control process, the County Council continues to seek to ensure that new developments provide appropriate levels of parking for cars, service vehicles, cyclists, motorcyclists and those with disabilities."

The rates given for this type of development are LCC maxima 1 / 65 m², consequently car parking provision has therefore been determined in line with the LA guidance:

- ▶ Unit 1: 31 car spaces (including 2 accessible spaces). LA maxima 1 / 65 m²;
- ▶ Unit 2: 49 car spaces (including 3 accessible spaces). LA maxima 1 / 65 m².

These will be designed in accordance with current guidelines and will include two spaces allocated for the mobility impaired per unit. It is considered that all parking demand will be met by the on-site provision.

3.4 Cycle Parking Facilities

The cycle parking rates given for this type of development are a minimum of 1 stand per 200m². Consequently cycle parking provision has therefore been determined in line with the LCC guidance:

- ▶ Unit 1: 9 cycle stands. LA minima 1 / 200 m²;



- ▶ Unit 2: 15 cycle stands. LA minima 1 / 200 m².

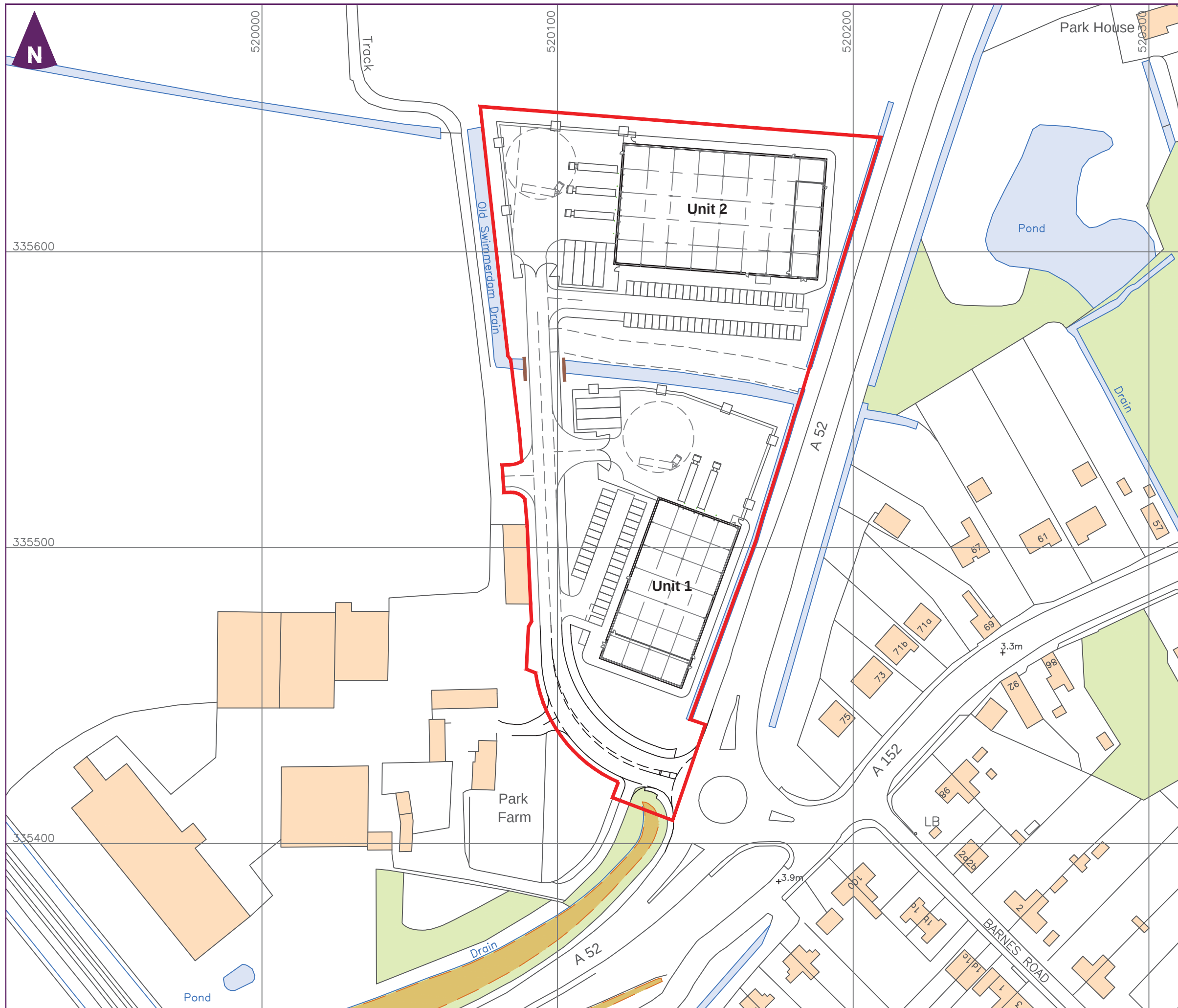
These will be designed in accordance with current guidelines; generally be of the “Sheffield Stand” type with all long stay cycle stands under cover and within a locked compound. It is considered that all parking demand will be met by the on-site provision.

3.5 Motorcycle Parking Facilities

The motorcycle parking rates given for this type of development are a minimum of 1 per 20 car parking spaces. Consequently motor cycle parking provision has therefore been determined in line with the LCC guidance:

- ▶ Unit 1: 2 motorcycle spaces. LA minima 1 / 20 car parking spaces;
- ▶ Unit 2: 3 motorcycle spaces. LA minima 1 / 20 car parking spaces.

These will be designed in accordance with current guidelines with secure anchor points. It is considered that all parking demand will be met by the on-site provision.



Key

Site boundary

0 m 50 m

Scale 1:1250 @ A3

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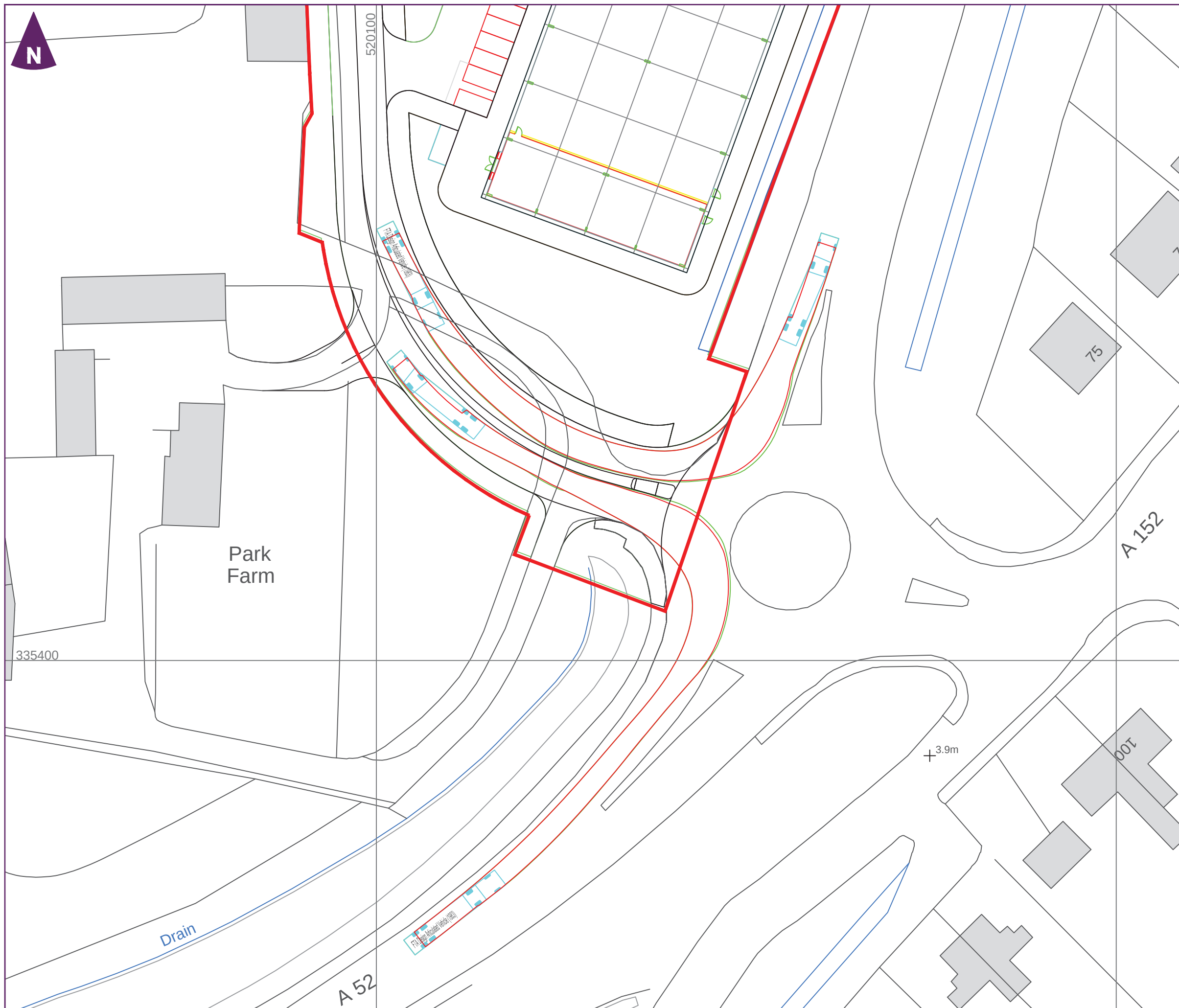

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Figure 3.1
 Proposed development

Based upon the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright. 100001776.

September 2016

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- Key
- Site boundary
 - Site Access
 - Vehicle wheel
 - Vehicle body overhang

0 m 30 m
Scale 1:500 @ A3

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Figure 3.2
Site access arrangement with Swept
Path Analysis

4. Traffic Impact Assessment

4.1 Traffic Flow Scenarios

In order to establish a basis for understanding the impact of any new development, it is necessary to develop and compare a series of robust future traffic flows for the situation where the development does not occur (do minimum) and when it does (do something). 2019 is believed to be the year that the development will be completed and so has been chosen as the assessment year.

For this assessment the “do minimum” scenario comprises 2019 future baseline and the “do something” comprises 2019 future baseline plus the proposed traffic generated. Figures 4.1 to 4.2 presents the traffic flows on the network during the peak periods in each of the two scenarios.

4.2 Background Traffic Growth

Traffic Growth

To establish the 2019 future baseline, the flows from the 2016 traffic count were factored by background traffic growth. The peak period background traffic growth expected between 2016 and 2019 has been calculated and can be seen in Table 4.1. The growth rate has been developed based on the National Trip End Model (NTEM) growth rates extracted from the Department for Transport's Trip End Model Presentation Program (TEMPO) version 7.0 software for the Lincolnshire and South Holland area.

Table 4.1 Traffic Growth

Peak	South Holland	
	Light vehicles	HGVs
AM (07.00-08.00)	1.01465	1.0302
PM (17.00-18.00)	1.01435	1.0792

4.3 Development Traffic

Trip Generation

Trip generation has been calculated based on the square meterage of the proposed two units and using trip rates taken from the TRICS database.

Table 4.2 Trip Rates - Total Vehicles

Development Type	Number	Unit	AM PEAK				PM PEAK			
			Rate (Vehicles)		Trips		Rate (Vehicles)		Trips	
			Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
B1(c) or B2 or B8	4862	Sqm (GFA)	0.586	0.167	28	8	0.063	0.711	3	35

Table 4.3 Trip Rates - HGV

Development Type	Number	Unit	AM PEAK				PM PEAK			
			Rate (Vehicles)		Trips		Rate (Vehicles)		Trips	
			Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
B1(c) or B2 or B8	4862	Sqm (GFA)	0.042	0.042	2	2	0.000	0.000	0	0

Trip Distribution

The trip distribution has been calculated as follows:

- ▶ 75% traffic arriving and departing from the A52 (south west);
- ▶ 5% traffic arriving and departing from A152 Station Street; and
- ▶ 20% traffic arriving and departing from the A52 (north).

4.4 Junction Capacity Assessment

The capacity assessments have been undertaken using industry standard software for roundabout junctions, JUNCTIONS 9. Junction geometry has been based on Ordnance Survey data. Details of the capacity assessment incorporated within this section are presented within Appendix B.

Table 4.4 A52 Donington Roundabout – 2019 future baseline plus proposed development (Do Something)

Arm	AM Peak (07:00-08:00)			PM Peak (17:00-18:00)		
	RFC	Queue (veh)	Delay	RFC	Queue (veh)	Delay
A52 (north)	0.24	0.3	0.08	0.29	0.4	0.08
Station Street	0.12	0.1	0.06	0.16	0.2	0.07
A52 (south west)	0.46	0.9	0.12	0.3	0.4	0.08
Unnamed (Park Farm/proposed site access)	0.01	0.0	0.06	0.03	0.0	0.05

The result of the future 2019 plus proposed development (do something) scenario analysis presented within Table 4.4 above show that the junction operates with a maximum ratio of flow to capacity (RFC) of 0.46 in the AM peak hour and 0.29 in the PM peak hour. This level of RFC is significantly lower than the industry acceptable value of 0.85. Therefore, it can be concluded that the junction would operate well in the future with the proposed development.

As the junction operates within acceptable limits in the “do something” scenario, it is not considered necessary to appraise other time periods and scenarios.