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RiverOak Strategic Partners

Revised Surface Access Strategy

TR020002/D9/SAS

Examination Document

Project Name:	Manston Airport Development Consent Order
Application Ref:	TR020002
Submission Deadline:	9
Date:	28 June 2019

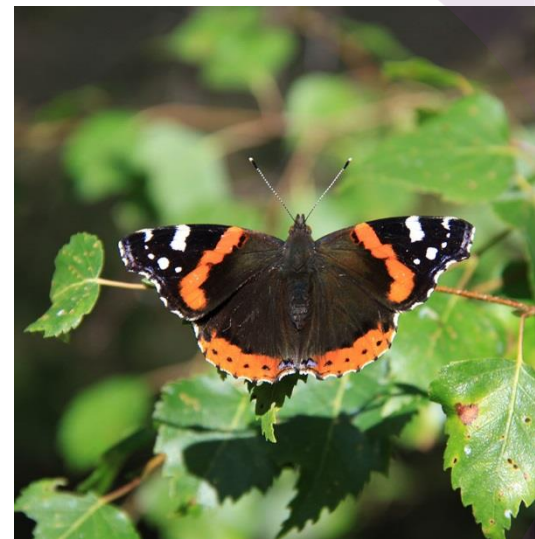
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RiverOak Strategic Partners Limited

Manston Airport DCO

TA Appendix I – Airport Surface
Access Strategy



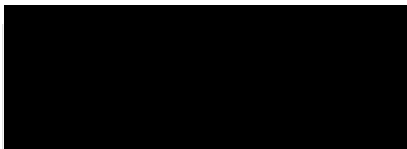
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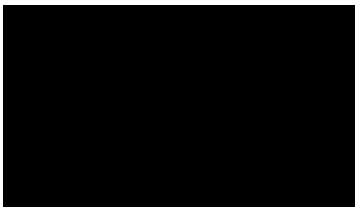
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Document revisions

No.	Details	Date
1	Draft	November 2017
2	Draft for Review	February 2018
3	Final	March 2018
4	Final Revised	March 2019
5	Final (Deadline 9)	June 2019



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1. Introduction

1.1 Background

- 1.1.1 RiverOak Strategic Partners Limited (hereafter referred to as 'RiverOak') is seeking to secure the future of Manston Airport (the 'Proposed Development') as a valuable regional and national asset by re-developing the site as a freight airport. The proposals will provide much needed additional air freight capacity to the United Kingdom and serve to relieve pressure from other, already heavily congested, London and South East airports.
- 1.1.2 Under the *Planning Act 2008*¹ (the '2008 Act') the redevelopment of Manston Airport as a freight airport is considered a Nationally Significant Infrastructure Project (NSIP). RiverOak is making an application under the 2008 Act for a permission known as a 'Development Consent Order' (DCO) to re-open and operate Manston Airport. The application will be submitted to the Planning Inspectorate which will examine it and make a recommendation to the Secretary of State for Transport, who will then make a decision on whether the Proposed Development is granted consent.
- 1.1.3 This Airport Surface Access Strategy (ASAS) is one of a suite of reports which have been produced in the support of the DCO application, which includes a Transport Assessment (TA) and Environmental Statement (ES). Alongside the Travel Plan, the ASAS forms the long-term access and sustainable transport strategy for both staff and passengers. The ASAS takes into consideration the guidance set out in the Department for Transport's (DfT) *Aviation Policy Framework*².
- 1.1.4 This third version of the ASAS is an update that includes:
- Responses to Written Representations and the Examining Authority's written questions; and
 - Changes related to the traffic generation methodology agreed with Kent County Council (KCC) after the DCO submission;
 - More detail on commitments and targets following a request from the Examining Authority at the Transport Hearing on 6th June 2019;
 - More detail on the commitments related to fly parking and Controlled Parking Zones;

1.2 Overview

- 1.2.1 The site is located approximately 4km to the west of Ramsgate and 5km south of Margate in the district of Thanet, East Kent and covers an area of approximately 303.2ha.
- 1.2.2 The site has provided a variety of operational airport-related services since 1916. Until 1998 it was operated by the Royal Air Force (RAF) as RAF Manston, and for a period in the 1950s was also a base for the United States Air Force (USAF).
- 1.2.3 From 1998 it was operated as a private commercial airport, known as Kent International Airport. The airport offered a range of services including scheduled passenger flights, charter flights, air freight

¹ The Planning Act 2008, [online]. Available at: <https://www.legislation.gov.uk/ukpga/2008/29/contents> [Accessed: 27/03/2019].

² Department for Transport (2013), *Aviation Policy Framework*, [online]. Available at: <https://www.gov.uk/government/publications/aviation-policy-framework> [Accessed: 27/03/2019].

and cargo, a flight training school, flight crew training and aircraft testing. In recent years it was operating as a specialist air freight and cargo hub servicing a range of operators. Although the airport was closed in May 2014, much of the airport infrastructure, including the runway, taxiways, aprons, cargo facilities and passenger terminal remain.

1.2.4 The Proposed Development shall consist of the following principal components, as shown in **Figure 1.1** (shown in Volume 4 of the ES):

- Runways and taxiways suitable for the take-off and landing of a broad range of cargo aircraft;
- New aircraft stands;
- An area for cargo freight operations able to handle at least 10,000 movements per year and associated infrastructure, including:
 - ▶ a new Air Traffic Control (ATC) tower;
 - ▶ a fire and rescue station;
 - ▶ a fuel farm; and
- Facilities for other airport-related development, including:
 - ▶ a passenger terminal and associated facilities;
 - ▶ an aircraft teardown and recycling facility;
 - ▶ a flight training school;
 - ▶ a base for at least one passenger carrier;
 - ▶ a fixed base operation for executive travel; and
 - ▶ business facilities for airport related organisations.

1.3 Need for a Surface Access Strategy

1.3.1 Good surface access and transport connections are crucial to any airport growth strategy, with impacts on: traffic congestion on the local network; the economic and environmental sustainability of the airport; and general customer satisfaction. As passenger numbers grow, sustainable access would therefore require the reduction of reliance in private car use, placing the emphasis on public transport.

1.3.2 The primary focus of the Proposed Development is on air freight and cargo operations, but as detailed below in section 4 it is anticipated that there will be passenger services from Year 3 of the Proposed Developments operation, culminating in an anticipated 9,298 air transport movements (ATM) per year in Year 20 of operation.

1.3.3 In accordance with the DfT *Aviation Policy Framework*², an ASAS should aim to set out:

- Targets for increasing the proportion of staff and passengers accessing the airport by sustainable transport;
- Details of the strategic approach used to achieve these targets; and
- A strategy for implementation and monitoring the strategy.

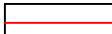
- 1.3.4 The focus of the ASAS is on multi-modal access to the Proposed Development, as a way to reduce its environmental impact and its impact on neighbouring communities. An understanding of the catchment area that both passengers and staff are likely to derive from is included in this strategy.

1.4 Structure of the ASAS

- 1.4.1 The ASAS is set out as follows:
- Chapter 2: Aims and Objectives;
 - Chapter 3: Existing Surface Access Arrangements;
 - Chapter 4: Future Surface Access Arrangements; and
 - Chapter 5: Targets.

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Key
 Order Limits

0 m 750 m
 Scale 1:15,000 @ A3

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Manston Airport DCO
 Airport Surface Access Strategy

Figure 1.1
Proposed Site Layout

March 2019


wood.

For details of existing approach lights refer to drawing NK018417-RPS-MSE-X-DR-C-1011

2. Aims and Objectives

2.1.1 The Airport Surface Access Strategy (ASAS) sets out the measures that the Proposed Development can take to meet accessibility and sustainability objectives. This will require:

- Integration with the wider transport network;
- Ensuring connectivity to serve the needs of East Kent and the surrounding area;
- Supporting economic growth in the region; and
- Reducing the carbon footprint of Manston Airport.

2.2 Objectives

2.2.1 In order to achieve the aims identified above, the ASAS has the following objectives:

- To minimise the number of trips made by single occupancy vehicles;
- To facilitate sustainable access to employment opportunities from the surrounding areas by ensuring easy, reliable and efficient access to the Proposed Development; and
- To maximise the number of trips being made by public transport, with a target of 20% of all passenger trips and 10% of staff trips by Year 20 of operation.

2.2.2 This ASAS identifies suitable embedded measures which should be incorporated into the design of the Proposed Development. The new elements to be constructed as part of this will include:

- Traffic calming on less desirable routes;
- Increased and enhanced facilities for taxis, buses and coaches for passengers and staff;
- A network of internal footpaths and cycle paths for staff use;
- Upgrade and/or enhancement of existing pedestrian and cycle provisions within the vicinity of the site; and
- Additional public service bus stops, and public bus service frequency and route changes (to be agreed with the local authority and bus route operators).

3. Existing Surface Access Arrangements

3.1 Introduction

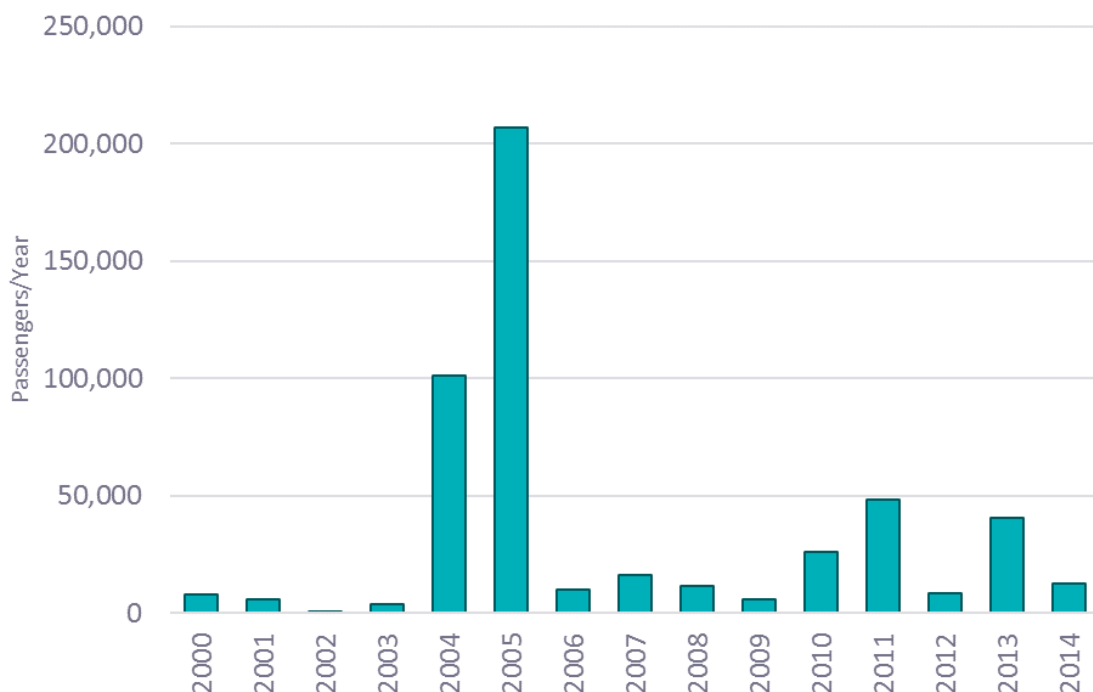
3.1.1 The site is on the existing site of Manston Airport, west of the village of Manston and north east of the village of Minster. The town of Margate lies approximately 5km to the north of the site and Ramsgate approximately 4km to the east. Sandwich Bay is located approximately 4-5km to the south-east.

3.1.2 This chapter sets out the existing surface access arrangements by all forms of transport and includes information on passenger numbers when Manston Airport was last operational.

3.2 Previous Airport Passenger Numbers

3.2.1 Between 2000 and 2014, when Manston Airport ceased operation, the number of passengers using the airport fluctuated significantly. **Figure 3.1** shows the number of passengers per year at Kent International Airport until its closure in 2014 (CAA)³. The peak year for passenger movements in this period occurred in 2005, when the Irish low-cost carrier EUJet had its hub at Kent International Airport. However, the company went out of business in July 2005, hence the subsequent drop in passenger numbers.

Figure 3.1 Passenger demand at Manston/Kent International Airport 2000-2014



³ Civil Aviation Authority (2015). Airport data 1990 onwards, [online]. Available at: <https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/Airport-data-1990-onwards/> [Accessed: 27/03/2019].



3.3 Road Network

- 3.3.1 The site has good road access, with links to Canterbury to the south-west, Ramsgate to the east and Dover to the south. It is in close proximity to two Primary Road Network (PRN) routes: the A299, which runs along the southern boundary of the site, is a two-lane dual carriageway which links to the M2 in the west; and the A28 to the west of the site, which provides a link to Canterbury. Access to the site from the A299 is via the B2190 Spitfire Way and the B2050 Manston Road, which runs adjacent to the site and links to the south-western side of Ramsgate. The local road network is shown in **Figure 3.2**.
- 3.3.2 The main access to the existing terminal building is via a priority T junction off B2050 Manston Road. It is proposed to upgrade this to a linked signal junction with the access to the north with the norther grass area south access to allow for the extra capacity and highways safety reequipments required of this junction. This is set out within the Transport Assessment.
- 3.3.3 The locations which can reach Manston Airport by car within 30, 45 and 60 minutes are respectively highlighted in **Figure 3.3**. Coupling this with mid-term census population estimates⁴ gives the following population in each catchment as shown in **Table 4.1**

Table 4.1 Population within each threshold (ONS, 2015)

Drive time	Population	Population Centres
Within 30 minutes	411,930	Ramsgate; Margate; Canterbury; Dover; Deal
Within 45 minutes	697,347	Folkstone; Ashford; Sittingbourne
Within 60 minutes	1,350,398	Gillingham; Maidstone

3.4 Public Transport Provision

Bus services

- 3.4.1 Bus services 11, 38 and 38A currently operate along Spitfire Way and Manston Road. There are two pairs of bus stops provided along the site boundary, one set on Minster Road to the south-west of the site and one along Spitfire Way, at Spitfire Corner. A further bus stop is provided outside of the former terminal building. Facilities at these bus stops are limited with flag poles and timetable information at some stops and a shelter provided on Spitfire Way.
- 3.4.2 Bus routes 9 and 9X operate services along Canterbury Road West to the south-east of the site. A pair of bus stops are provided along this road to the south of the eastern extents of the site. These stops feature bus stop flags and timetable information. The frequency of bus services in the vicinity of the site is summarised in **Table 3.2**.

⁴ Office for National Statistics (2015). Population estimates, [online]. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates> [Accessed: 27/03/2019].



Table 3.2 Bus Services, Frequencies and Routes in the vicinity of the site

Service	Destinations	Weekday Frequency Per Day Outbound	Weekday Frequency Per Day Inbound	First/Last Bus Outbound	First/Last Bus Inbound
9/9X	Westwood Cross -Canterbury	12	14	06:18 / 16:42	08:45 / 18:15
11	Broadstairs – Westwood – Minster – Ickham - Canterbury	5	5	10:51 /18:41	07:04 / 16:05
48	Dumpton – Ramsgate – Manston - – Birchington on Sea	7	8	07:46 / 17:36	08:38 / 17:52
48A	Dumpton – Ramsgate – Manston -	3	2	07:11 / 16:13	07:55 / 07:55

- 3.4.3 The location of bus stops and bus routes are illustrated in **Figure 3.4**.
- 3.4.4 The 9 and 9X routes run between Canterbury and Westwood Cross. The services combine to provide approximately one service per hour in either direction during the day. The 9X service provides one AM peak hour service towards Canterbury, however, there are no AM peak hour services provided in the opposite direction towards Westwood Cross.
- 3.4.5 The 48 and 48A routes run between Ramsgate and Birchington and combine to provide a service with a headway of approximately one hour during the day. One AM peak hour service is provided from Birchington to Ramsgate via the site, however, there are no AM peak hour services provided in the opposite direction.
- 3.4.6 Bus route 11 runs between Canterbury and Westwood Cross and operates with a headway of two to three hours throughout the day with no peak hour services.
- 3.4.7 An assessment of the suitability of the destinations served by existing bus routes has been undertaken to understand whether the existing routes would be sufficient to serve the Proposed Development. An interrogation of Census 2011 Journey to Work data has been undertaken to identify where previous employees of the site have travelled from. The site is located within the Thanet 014A lower-Level Super Output Area, as illustrated in **Figure 3.5** and analysis of the journey to work travel patterns for this lower layer is set out in **Table 3.3**.

Figure 3.5 Thanet 014A lower-Level Super Output Area

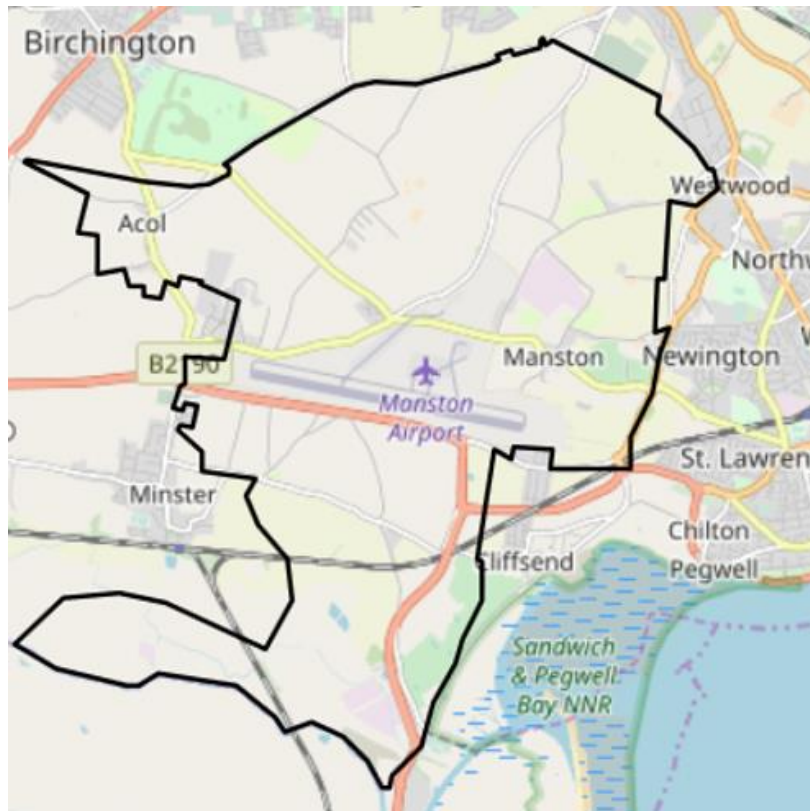


Table 3.1 Distribution of Census 2011 Journey to Work Trips

Origin	Distribution
Thanet District	79.9%
Dover District	5.7%
Canterbury District	7.7%
Shepway District	1.7%
Ashford District	1.4%
Swale District	3.7%
Total	100%

3.4.8 The bus routes available within the vicinity of the site serve Ramsgate, Broadstairs, Westwood Cross (near Northwood), Birchington-on-Sea and Canterbury. These routes may offer an alternative mode of transport to the private car for 45% of journeys to work, subject to appropriate service timing enhancements and assuming that the potential employees originate in similar locations. The bus service coverage is therefore considered to be reasonable and appropriate, subject to appropriate re-routing and increases in frequency. Rail services

3.4.9 Ramsgate station is operated by Southeastern and benefits from access to both high speed and standard services. A wide range of destinations across Kent are accessible directly from Ramsgate

including Dover, Folkestone, Canterbury, Ashford and the Medway Towns with onwards travel to London St. Pancras, London Charing Cross and London Victoria.

3.4.10 Access to high speed services from Ramsgate are provided via two routes. The first provides an hourly service to London St Pancras via Canterbury West with a journey time of approximately 80 minutes. A further north Kent loop service travels via Whitstable, Sittingbourne and the Medway Towns and takes approximately 110 minutes to reach London. Combined these services provide trains to and/or from London on a 30-minute frequency throughout the day. Ramsgate Station is also served by an hourly standard service train to London Charing Cross via Canterbury West, and one train an hour to London Victoria via Sittingbourne and Bromley South. The station is served by bus route 11 and therefore connects the proposed development site to the station.

3.4.11 Minster Station is located approximately 2km south of the south-west corner of the site. It is considered accessible by cycling and bus routes 38A and 11 as well as private car. Minster train station provides one train per hour to London Charing Cross (via Canterbury). However, the station does not offer access to high speed services making this station less attractive for access to rail based public transport.

3.4.12 **Figure 3.6** shows the rail network in the vicinity of the Proposed Development.

Figure 3.6 Local Rail Network



3.4.13 Locations within an hour of the Proposed Development, via public transport are shown on **Figure 3.7**. This accounts for the frequency of the service, and any interchanges required. Approximately 122,259 individuals are able to access the Proposed Development, this being less than 10% of the population which can reach it by car.

- 3.4.14 The proposed 'Thanet Parkway Station' to the south of the site, planned for 2020, will provide further enhanced rail connections and access to Kent's high-speed rail services.
- 3.4.15 Thanet Parkway Station is part of a wider package of improvements on the Ramsgate to Ashford line that aims to reduce journey times to London from Ramsgate to approximately one hour. This two-phase project split into two distinct phases, as follows:
- Phase 1 - Ashford to Canterbury West; and
 - Phase 2 - Canterbury West to Ramsgate.
- 3.4.16 Reduced journey times to London will greatly enhance the accessibility of Thanet.
- 3.4.17 The journey time between Thanet Parkway Station and the Proposed Development is marginally shorter and quicker than from Ramsgate Station.
- 3.4.18 A planning application for the Thanet Parkway Station was submitted by KCC to KCC Planning Officers in June 2018 (application reference: KCC/TH/0105/2018). The application has been validated, however, is still under consideration. The South East Local Enterprise Partnership is providing £10million from the Local Growth Fund, while KCC is contributing £2.65million. Further funding is required to deliver the scheme.

3.5 Pedestrian Infrastructure

- 3.5.1 The Chartered Institute of Highways and Transportation (CIHT) *guidelines 'Providing for Journeys on Foot'*⁵ provides details on acceptable walking distances. For commuting, the guidelines state that a distance of up to 0.5km is considered to be desirable, whilst 1km and 2km are considered to be acceptable and preferred maximum walking distances. These distances have been used when assessing pedestrian infrastructure in the vicinity of the site.
- 3.5.2 There are currently limited facilities for pedestrians on the highway network in the vicinity of the site. The B2050 which intersects the site has no pedestrian footway provision along the site frontage. Where the B2050 Manston Road bisects the village of Manston, a footway is provided on the northern side of the carriageway. The village of Manston is some 800m east of the site access, which is considered to be an acceptable distance to travel on foot or by bicycle. However, it is recognised that pedestrian infrastructure in the area is limited to support this.
- 3.5.3 There are no pedestrian facilities provided along Spitfire Way which bounds the site to the west with the exception of a short section of shared cycle/footway near to Manston Business Park and an additional footway between Bell Davies Drive and Spitfire Corner. There is a section of informal shared cycle/footway adjacent to the A299 Hengist Way which bounds the site to the south. This connects the Minster roundabout with the old Canterbury Road West highway providing some amenity for pedestrians and cyclists wishing to travel along the southern boundary.
- 3.5.4 There are footways in the vicinity of the Minster roundabout and a toucan⁶ crossing across the A299 Hengist Way, linking the southwestern corner of the site to Minster and the Viking Coastal Trail to the south. However, current provision is disjointed, and overall pedestrian infrastructure is considered limited.
- 3.5.5 In addition to the provision of some footways adjacent to highways in the local area, there is a network of Public Rights of Way (PRoW) comprising public bridleways and public footpaths.. Most

⁵ The Chartered Institute of Highways and Transportation (2000). Guidelines for Providing for Journeys on Foot, [online]. Available at: <http://www.hwa.uk.com/site/wp-content/uploads/2017/09/NR.4.3F-CIHT-Guidelines-for-Providing-Journeys-on-Foot-Chapter-3.pdf> [Accessed: 27/03/2019].

⁶ Toucan – A Pedestrian and Cycle Crossing

notably are TR8, 9 and 10, which pass through the site and connect the east of the site with Ramsgate.

3.5.6 **Figure 3.8** shows the sections of footway, crossings and PRowS alongside walking isochrones for 2km from the centre of the site.

3.5.7 There will be limited opportunities for walking to the Proposed Development for staff and passengers, other than those originating from the village of Manston, or potentially Minster.

3.6 Cycling Infrastructure

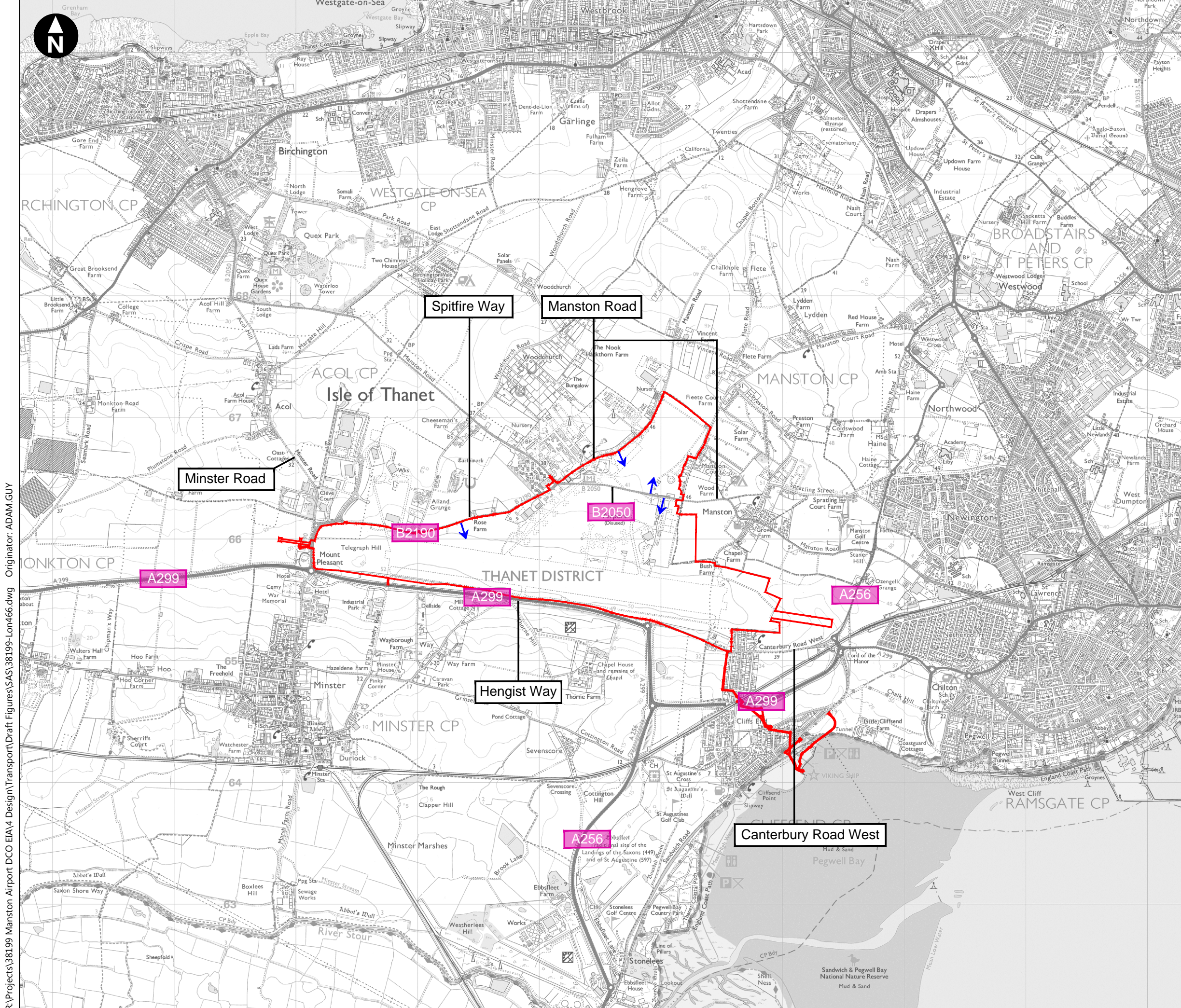
3.6.1 The Department for Transport (DfT) *Local Transport Note 2/08 'Cycling Infrastructure Design'*⁷ states that many utility cycle trips are less than three miles (4.8km), but for commuter journeys a distance of over five miles (8km) is not uncommon. Distances of up to 8km have been used to define the study area for cycle infrastructure.

3.6.2 There is no formal provision of cycle facilities along Manston Road; however, a local on-road route is located along Spratling Street, Haine Road and Stirling Way, providing access to Westwood Cross and Newington. Although there are no cycle facilities provided on Spitfire Way, a shared cycle and/or footway is provided from Manston Business Park to the Minster roundabout. At this junction, a toucan crossing is provided to facilitate cycle connections south towards Minster village and west along the A299. A section of shared cycle and/or footway is provided between the Minster roundabout and the old highway of Canterbury Road West to the immediate south of the site.

3.6.3 The nearest National Cycle Network (NCN) route identified, by Sustrans who maintain the national cycle network map, is Regional Route 15 (RR15), located 800m (crowfly distance) south of the site's southern boundary. Regional Route 15 is also known as the Viking Trail and runs from St. Nicholas At Wade and follows the coast north-east through Ramsgate, Margate and Broadstairs and south-east to Whitfield and Dover. **Figure 3.9** illustrates the Sustrans cycle routes and includes a cycle isochrone, representing an 8km journey from the centre of the site. This illustrates that a number of villages and towns are accessible within 8km of the site.

3.6.4 Population data from 2015 shows that approximately 140,000 people live within 8km of the Proposed Development, a reasonable distance for cycling to have a comparative advantage over travel by private vehicle.

⁷ Department for Transport (2008). Cycle infrastructure design (LTN 2/08), [online]. Available at: <https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-208> [Accessed: 27/03/2019].



Key

Order Limits

0 m 1.5 km

Scale 1:30,000 @ A3

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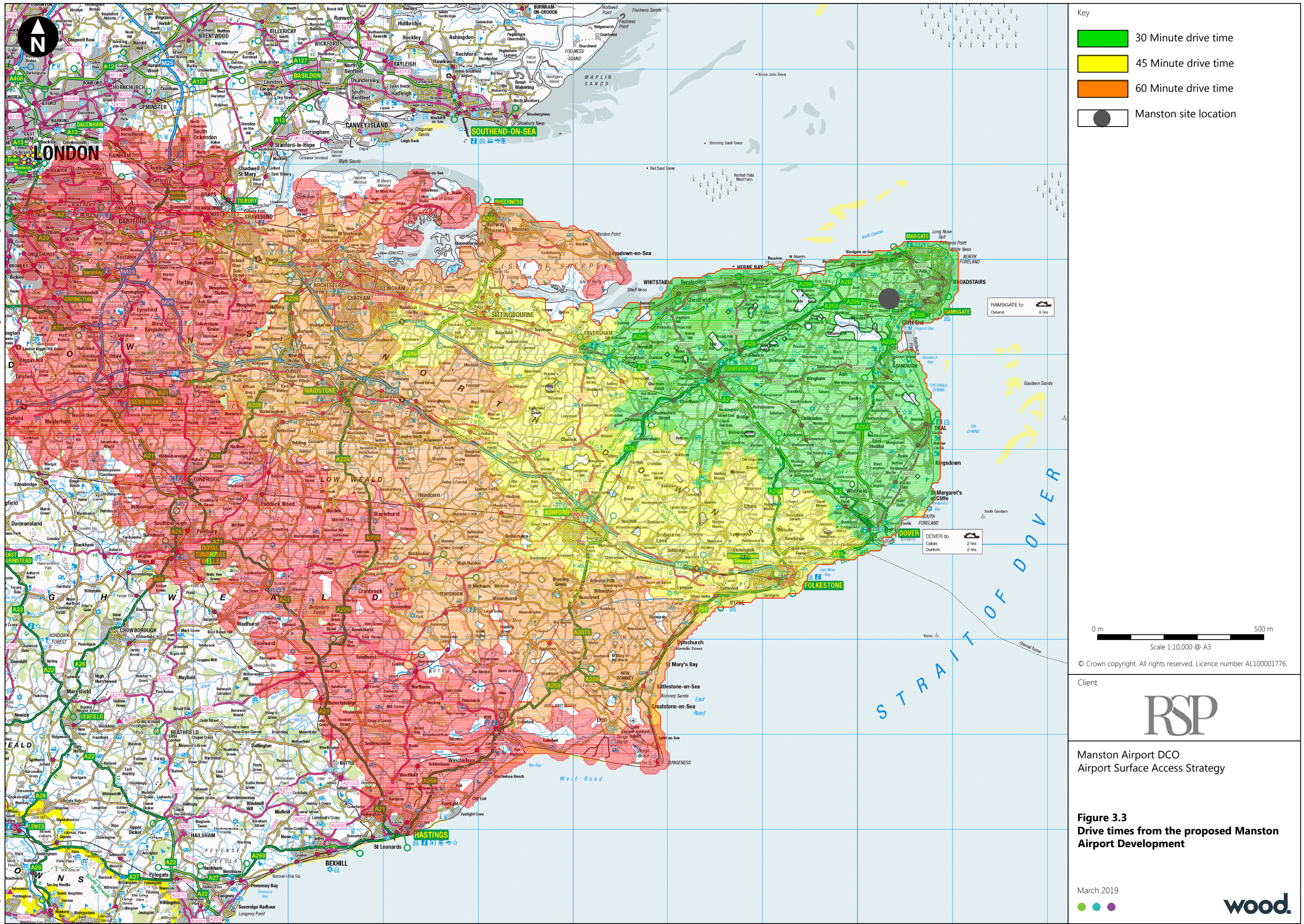
Manston Airport DCO
Airport Surface Access Strategy

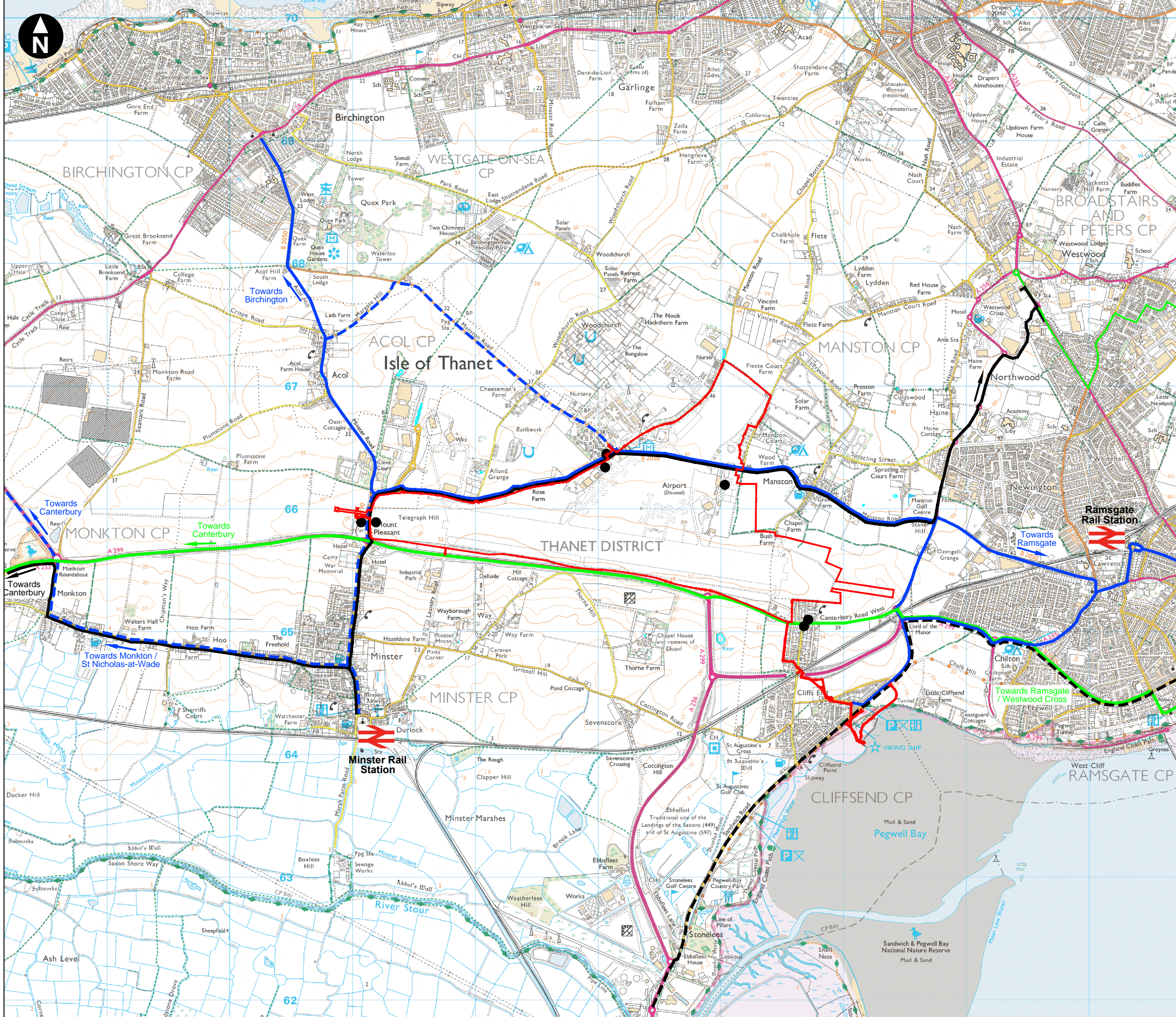
Figure 3.2
Site Boundary and Local Transport Network

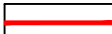

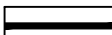


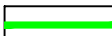
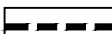
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- Key
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 -  Bus stop
 -  Route 11
 -  Route 38
 -  Route 38(A)
 -  Route 9 (9X)
 -  Route 87/88

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 Scale 1:10,000 @ A3
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Manston Airport DCO
 Airport Surface Access Strategy

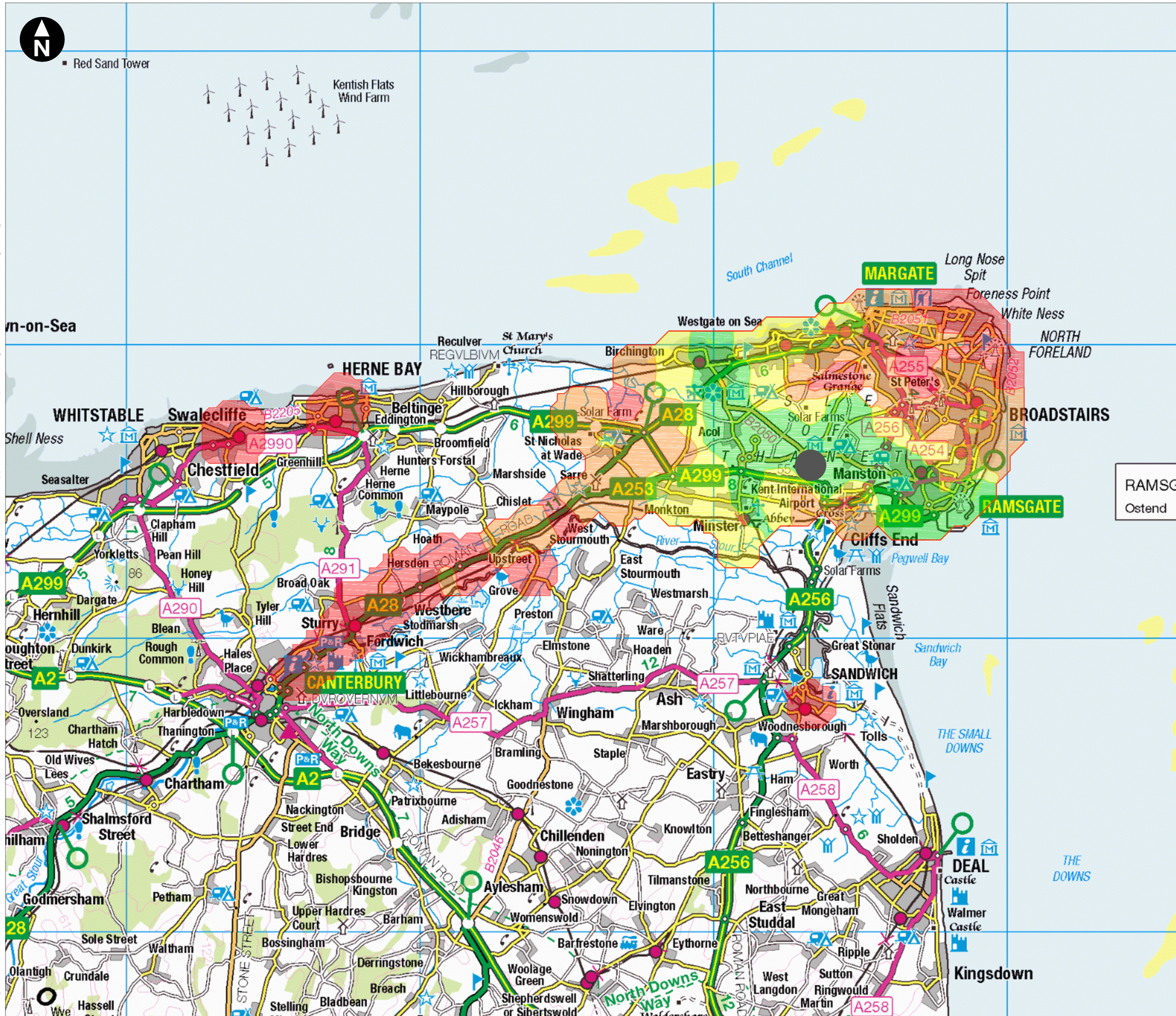
Figure 3.4
Existing bus infrastructure and routes



Red Sand Tower

Kentish Flats Wind Farm

- Key
- 30 Minute drive time
 - 45 Minute drive time
 - 60 minute drive time
 - Manston site



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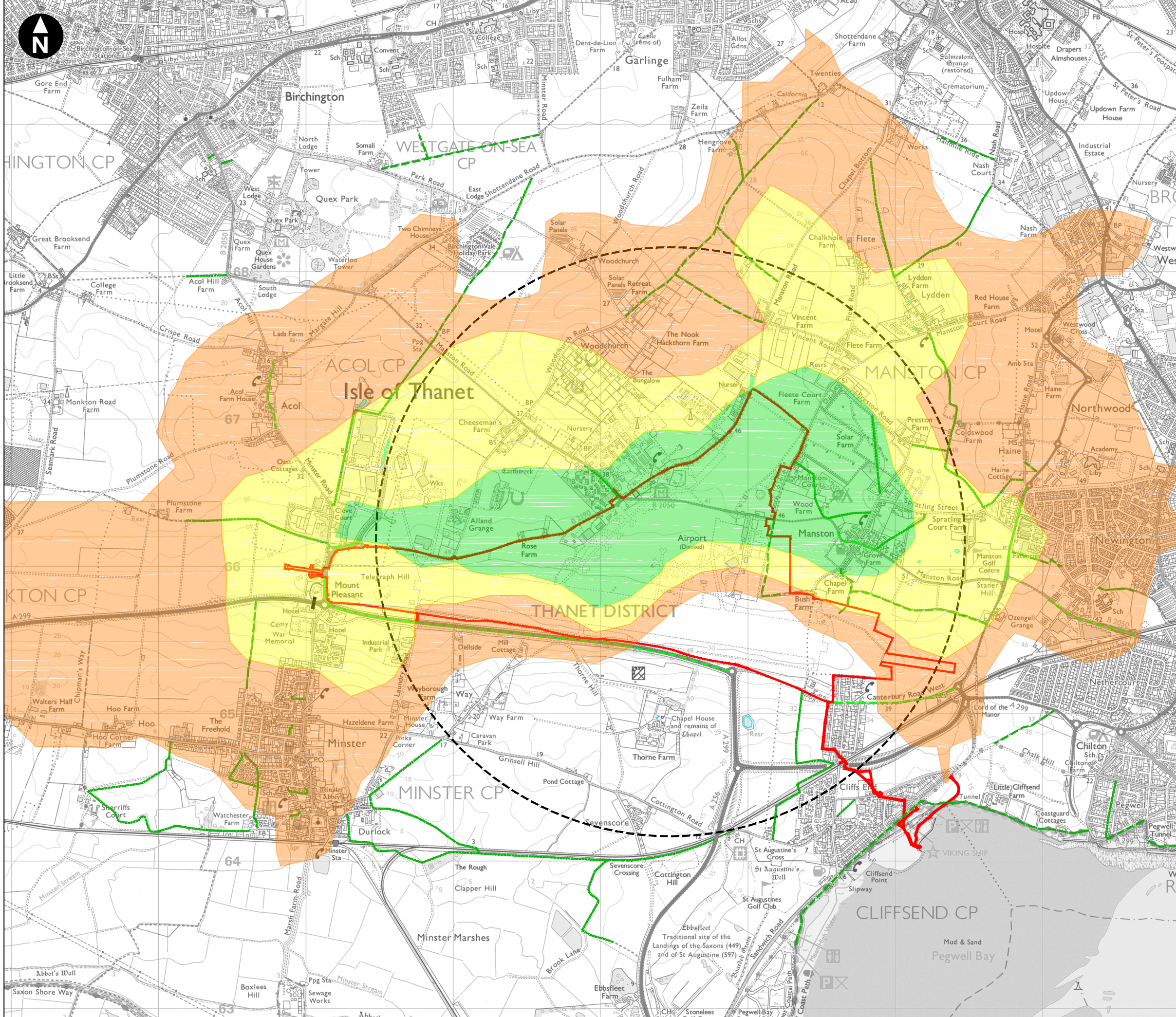


Manston Airport DCO
Airport Surface Access Strategy

Figure 3.7
Locations accessible within an hour of the site using Public Transport

February 2018





- Key
- Application boundary
 - 2km isochrone
 - Public footpath
 - Public Bridleway
 - Long distance footpath
 - Footway
 - Signal controlled crossing
 - 0-30 minute journey time
 - 30-45 minute journey time
 - 45-60 minute journey time

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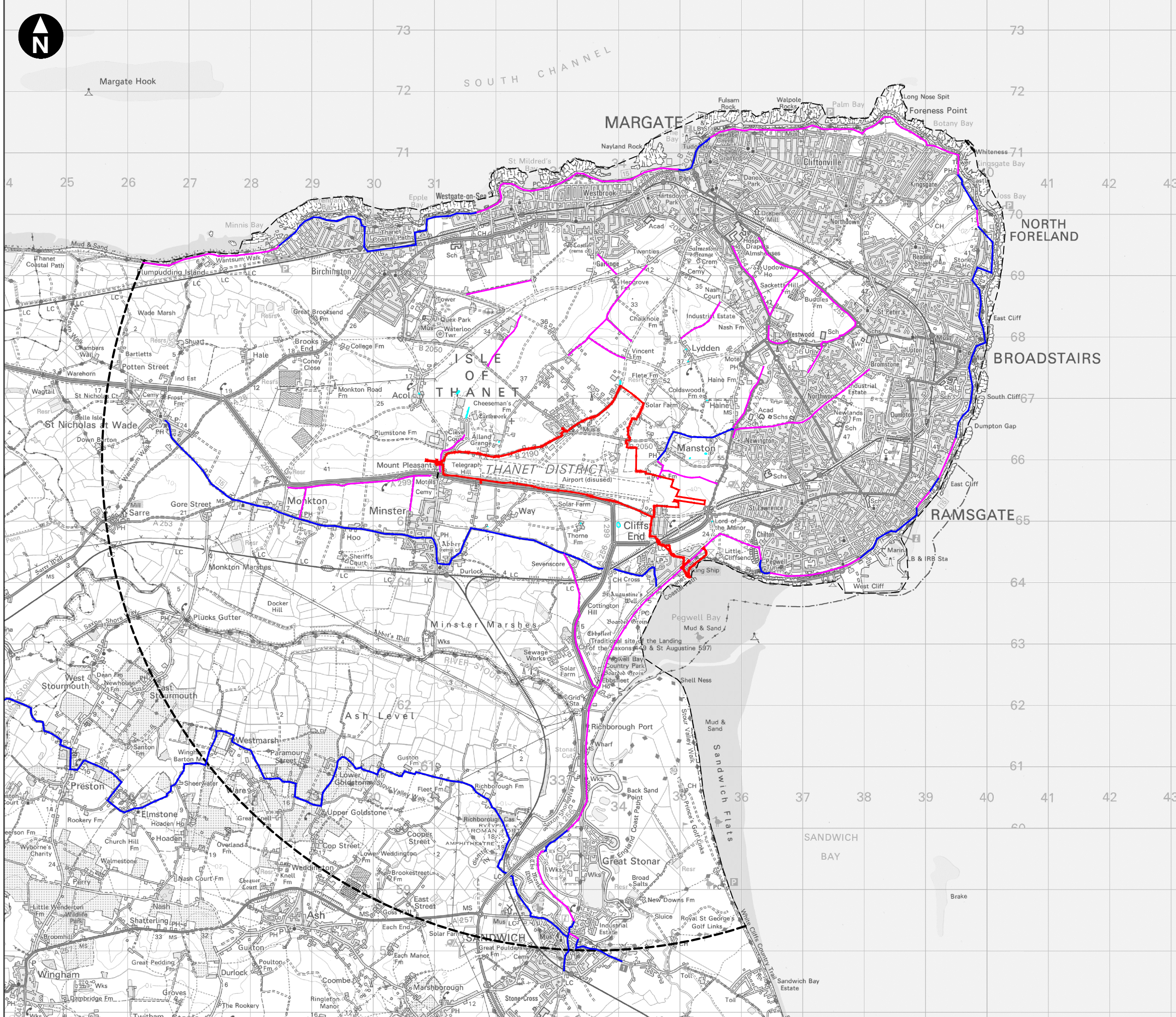
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Manston Airport DCO
 Airport Surface Access Strategy

Figure 3.8
Existing pedestrian infrastructure and isochrone

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Key

- Order Limits
- 8km isochrone
- Traffic free cycle route
- On-road cycle route

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Manston Airport DCO
Airport Surface Access Strategy

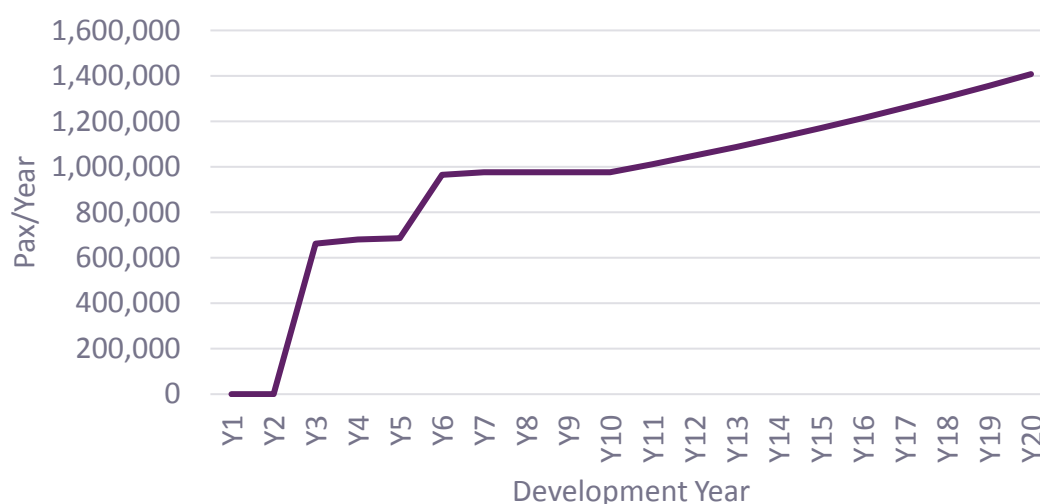
Figure 3.9
Existing cyclist infrastructure and isochrone

4. Future Surface Access Arrangements

4.1.1 Details of the proposed passenger flight schedules for the first twenty years of operation have been used to estimate the combined inbound and outbound demand at Manston Airport.

4.1.2 The expected passenger growth during this time is illustrated in **Figure 4.1**.

Figure 4.1 Forecast Growth in Passenger Numbers (boarding and terminating passengers)



4.1.3 It is anticipated that by 2039 (Year 20 of operation), the number of passengers will be 1,407,753 accommodated by 9,298 air traffic movements (ATMs) per annum. **Table 4.1** gives the estimated breakdown of passengers by flight.

Table 4.1 Annual Demand Forecast by Flight (Year 20)

Operator	ATM/Year	Pax/Flight	Pax/Year
KLM	1,456	52	75,712
Charter Market	178	135	23,980
Blue Air	237	170	40,286
Cruise Flights (and Florida)	154	198	30,481
Ryan Air	7,274	170	1,237,294
Total	9,298		1,407,753

4.1.4 By Year 20, this forecast would place the Proposed Development at similar passenger levels experienced by Cardiff Airport and Southampton Airport in 2016.

4.2 Catchment Area

Outbound trips

- 4.2.1 The Proposed Development will predominately cater for passengers living in Kent who are within 60 minutes travel time.. This area includes the towns in Thanet, Dover, Canterbury, Ashford and Maidstone amongst others. There are currently no major airports within 50km of the Proposed Development The major London hubs at Heathrow and Gatwick are over 100km away, as shown in **Figure 4.2.**
- 4.2.2 Approximately 1.4 million people are within a 60-minute drive to Manston Airport⁴ . This includes the towns of Ramsgate, Margate, Canterbury, Dover, and Deal (within 30 minutes); Ashford, Folkestone, Sittingbourne (within 45 minutes); Maidstone and Gillingham (within 60 minutes). These locations are likely to be where the majority of staff and passengers originate from.
- 4.2.3 The Lower Thames Crossing, to be constructed east of Gravesend, provides the possibility of expanding the catchment area into Essex, directly competing with Southend Airport.

Inbound trips

- 4.2.4 The proposal for a major attraction park in Dartford (formally known as Paramount Studios) creates a potential major trip generator for inbound flights to Manston Airport, although this is 80km away from Manston Airport and within 52km of Southend Airport.

4.3 Surface Access Infrastructure

- 4.3.1 Additional parking facilities, public transport improvements and cycling and/or walking infrastructure will be required to meet the surface access demands of the 1,407,753 passengers forecast to use the Proposed Development in Year 20. This equates to approximately 3,856 passengers per day.
- 4.3.2 The physical transportation components, that are a feature of the passenger terminal area of the Proposed Development are as follows:
- New passenger car park of;
 - ▶ 150 Short Stay "drop off" parking spaces;
 - ▶ 1,665 longer term parking spaces;
 - ▶ 1,815 total parking spaces required; and
 - ▶ Additional "overflow" car park spaces for passengers which provide a maximum capacity of 2,966 spaces.
 - New staff car parks at the cargo access and main airport terminal access of;
 - ▶ 279 staff spaces at the main airport terminal access; and
 - ▶ 563 staff spaces at the cargo access;
 - Car parks designed to relevant local car parking standards for the Northern Grass Area B1/B8 business unities;
 - Sufficient disabled parking spaces to meet the relevant design standards;
 - Sufficient electric car charging parking spaces to meet relevant design standards;

- Taxi drop-off and pick-up bays;
- Two bus stops;
- The extension and increase of bus routes, including the introduction of a shuttle service between Ramsgate Railway Station; and
- Associated pedestrian and cycle infrastructure within the site.

4.4 Car Parking Strategy

- 4.4.1 One of the main comparative advantages of Manston Airport compared to other aviation hubs in the south-east is its ability to offer the people of Kent an airport that can be accessed without the need to travel through London or the heavily congested M25 and other radial routes. For drivers, this will lead to improvements in journey time reliability.
- 4.4.2 Availability of adequate and well-priced car parking facilities is therefore a vital aspect of the strategy to attract this sector of the market.
- 4.4.3 Ensuring easy, reliable access for staff is also important for workforce retention.

Quantity of spaces

- 4.4.4 The provision of car parking spaces has been determined by the volume of passengers and staff numbers the Proposed Development is expected to accommodate in Year 20. A detailed breakdown of the calculations and assumptions used to inform this methodology is set out in the Car Park Management Strategy (Appendix N of the TA).
- 4.4.5 Reviewing the breakdown of flights, analysis of shift patterns and future calculated traffic generation, a total provision of 2,657 spaces is anticipated, with additional space for passenger overflow parking also required. The parking is split as follows;
- 1,815 spaces allocated for passengers, a mixture of long stay, short stay and drop-off spaces;
 - 279 staff parking spaces for employees based in the terminal building; and
 - 563 staff parking spaces for employees working on the cargo sites, situated away from the main terminal building and accessed via the proposed new cargo access.
- 4.4.6 At the passenger terminal, 1,815 spaces have been provided as set out in the Car Park management Strategy however the recovered ground from the contractors' compounds is also shown as "overflow parking" which can be used only after the works are complete in Phase 4 of the construction programme. This gives an estimated maximum capacity for passengers of **2,966 spaces**. Some flexibility is required on the numbers set out in the calculations, hence the need for overflow parking to take into account the following;
- Final flight schedules and operators are unknown;
 - Car park will experience seasonal peaks across the calendar year;
 - Estimated mode share targets might not be fully realised for some time; and
 - Nature of flights (short/long) are not known at this stage.
- 4.4.7 An element of the overflow car parking is also anticipated to accommodate some hire car facilities and electric car charging points (larger spaces required).

4.4.8 Car parking provision for the passenger terminal set out in the masterplan is set out in **Figure 1.1** of Volume 4 of the ES.

Parking charges

4.4.9 Parking charges will be set at a level which is competitive with other airports in the South East.

Staff Car Parking Management

4.4.10 Two car parks will be assigned for staff use only, one for terminal staff and the other for cargo staff.

4.4.11 Managing staff car parking to ensure there are sufficient spaces available and also to encourage sustainable travel, such as car sharing, use of bus and rail and cycling, will be important. Consideration will be given to a permit system which would need to take account of staff home locations, shift patterns and access to sustainable travel options, as well as the potential implications of restrictive parking, such as overspill parking onto the local road network. This is considered to be unlikely due to the site location and the nature of the roads in the vicinity of the Proposed Development.

4.4.12 Parking charges will not be introduced for staff since this could have a negative effect in staff retention. The staff car parks, as set out in the masterplan⁸, are located in areas where safe and convenient access to the relevant work areas can be achieved with a focus on disabled spaces being the closest to buildings.

Blue Badge/Disabled Parking

4.4.13 The quantum of Blue Badge car parking will be based on a review of provision and take-up at other comparable airports, and the KCC *Supplementary Planning Guidance SPG 4 Kent Vehicle Parking Standards*, July 2006, and the British Parking Association (BPA) recommendations of six spaces plus 3% of total car parking for car parks over 1,000 spaces.

4.4.14 The design and location of the spaces will be based on the following principles:

- Parking bays for the mobility impaired will be conveniently located and clearly signed. They will be located as close as possible to the main entrance.
- Access between the car parking spaces and the entrance to buildings will be where possible as flat as possible.
- Parking bays will be 4.8m long (plus a 1.2m safety zone at the rear) × 3.6m wide to accommodate transfer from the car to a wheelchair, noting that space can be saved by combining spaces in pairs of 4.8m × 2.4m with a common transfer zone of 1.2m.
- The management of the disabled park bay will be monitored by the car park management company employed once services start from the development.

Electric Vehicle Parking

4.4.15 The last few years has seen rapid growth in electric vehicles (EV) in the UK with new registrations of plug-in cars increasing from 3,500 in 2013 to more than 214,000 by the end of May 2019, with an average of 5,000 per month during 2018.

4.4.16 An electric car can take anything from half an hour to up to 12 hours to charge. This all depends on how big the battery is as the type of charging point and its speed of charging. The majority of

⁸ Section 7.1 of the DCO Submission – Drawing Number -

charging takes place at home and is done overnight, but there is a need for supplementary charging during the daytime, such as at workplaces, town centres, train stations and at service stations.

- 4.4.17 Electric car charging infrastructure is still an evolving technology, but many train stations and airports have already started to provide spaces.
- Birmingham Airport - EV charging points that are suitable for many types of EV are located within the Premium Set Down car park and are available to use with the parking charge discounted to £2 for the first hour (charging takes about 20 minutes). Thereafter normal charges apply. The Airport also offers an Airparks Drop & Go with electric vehicle charge for those needing to park for longer
 - Luton Airport has 10 charging point spaces in its multi-storey car park which is free to use but normal parking charges apply (£8 for up to 30 minutes to £49 for 5 – 9 hours). It also offers an Airparks Drop & Go with electric vehicle charge for those needing to park for longer.
 - Bristol Airport - two car electric charging points are situated in the Short Stay & Pick Up car park.
- 4.4.18 Allocation of EV spaces will be in short stay parking areas and will be available for the public and also for a valet parking 'drop and go' package, whereby an EV is dropped off, and it is charged before being parked in a long stay parking space.
- 4.4.19 At this stage it is proposed that 10% of the short stay spaces have "active provision" -in the form of a rapid charging point enabling an EV to be charged in less than one hour. It is anticipated that more of the car park will be provided with "passive provision", whereby the car park is built with the relevant ducting and cables installed in the ground below the surface so that should there be a need for further spaces, these can be provided with the minimum of disruption. This will be defined during detailed design.
- 4.4.20 The principles for the design will be as follows.
- Where possible the least amount of infrastructure to serve the maximum number of vehicles will be provided. At a minimum, a charging point should serve two vehicles, but where four spaces meet in two rows of two one post can serve four cars.
 - Charging points will be located in locations where they are prominent.
 - Sufficient space will be given in spaces to allow for differing cars with differing car charging point locations to be able to efficiently use the charging point. Cable lengths will be long to allow for numerous vehicle types to use the facilities.
 - The area of charging points will be designed to avoid main pedestrian routes as to avoid the trip hazards these cables can present and relevant warning signage will be installed at all spaces.
 - All signage will include the DfT approved signage for EV charging points, car park signage will be installed to direct users to these spaces.
- 4.4.21 EV charging spaces will be surfaced with a green surface to make these spaces more visible
- 4.4.22 As with the short stay car parking at the passenger terminal it is proposed that each of the staff car parks proposed on the Proposed Development will include for 10% electric charging parking spaces. The same principles set out above in section 2.4 apply.
- 4.4.23 As with the short stay car parking at the passenger terminal it is proposed that each of the staff car parks proposed on the Proposed Development will include for 10% electric charging parking spaces.

Monitoring of Parking on Local Road Network

4.4.24 As part of the Travel Plan, airport related parking on the local road network, “fly parking”, will be monitored by the Travel Plan Co-ordinator on a regular basis, and discussion with KCC will take place regards this issue. If this is found to be an ongoing concern, then KCC and the Applicant will discuss and potentially establish Controlled Parking Zones (CPZs)⁹ on the local road network around the site.

4.5 Road Improvements

4.5.1 To facilitate safe, convenient and appropriate access to the proposed terminal, a series of road improvements are required to the local highways network, as follows;

- Widening of Spitfire Way between Columbus Avenue and Manston Road to a 7.3m wide carriageway;
- Widening of Manston Road between Spitfire Way and the Airport Terminal Access to a 7.3m wide carriageway;
- A new signalised junction at the junction of Manston Road and Spitfire Way with pedestrian facilities;
- A new signalised junction which links the two close adjacent junctions with Manston Road/Manston Court Road and the Airport Terminal Access; and
- Improvements to pedestrian footways alongside Manston Road and Spitfire Way.

4.5.2 These improvement schemes are provided on the masterplan to support the application; further details of the design and modelling of these improvements are set out in the Transport Assessment (TA).

4.6 Pedestrian and Cycle Access Strategy

4.6.1 Passengers are unlikely to consider walking or cycling to the Proposed Development as a viable option, given the experience from other UK airports. The Travel Plan submitted to support the Transport Assessment as Appendix L, set out details of mode share that indicate the limitations of walking and cycling to airports particularly for passengers.

4.6.2 Instead, it is more viable to encourage staff to commute to the Proposed Development using active travel modes. The towns of Ramsgate, Broadstairs and Margate are all within 8km of the airport, which is considered appropriate cycling distance. This area has a population of around 140,000 people.

4.6.3 To encourage cycling to work, a number of infrastructure developments are recommended, as identified in the Travel Plan, these include:

- Cycle and walking routes extended to the entrances of the terminal building;
- On-site provision of showers; changing rooms; and secure parking facilities; and
- Methods to promote cycling such as: an interest-free bike loan; bicycle hire schemes; and maintenance workshops.

⁹ A CPZ is an area where all on street parking is controlled. When you enter a zone there are entry signs to tell you restrictions apply there. Parking is only allowed in parking bays and yellow line restrictions apply everywhere else.

- 4.6.4 To encourage some walking trips predominantly from Manston Green Development and Manston Village the following is proposed;
- Provision of pedestrian footways along the B2050 Manston Road and Spitfire Way as part of the development proposals;
 - Provision of pedestrian crossings on the B2050 Manston Road and Spitfire Way as part of the development proposals;
 - Upgrading of PRoW TR10 which links to the new Manston Green development in the east and the western outskirts of Ramsgate;
 - Upgrading (and diverting) TR9 around the fringe of the site to link the site access and TR10;

4.7 Public Transport Strategy

Bus network

- 4.7.1 The current operation and capacity of the local bus routes is insufficient to meet the 6% modal share in Year 20. It is therefore proposed to enhance the bus service provision by:
- Increasing the frequency of services to the Proposed Development;
 - Extending bus operating times; and
 - Introducing new routes and extending existing provision to service the Proposed Development.
- 4.7.2 The existing routes link Manston to Canterbury and Ramsgate. These services will be retained, but to increase their viability as a mode of transport to access the Proposed Development, these will have a higher frequency of at least 2 buses per hour. An additional service could also run between Margate and the Proposed Development, to accommodate any demand generated from there.
- 4.7.3 The Proposed Development has an internal road arrangement which will allow buses to route into the site, with bus stop facilities outside the passenger terminal. For destinations further than Canterbury, rail would be the more likely mode choice and will be supported by the introduction of a high-quality bus shuttle service linking Ramsgate Railway Station. There is also a possibility of a link to the proposed Thanet Parkway Station but at this stage this does not form part of the formal proposals for this application. Coach services could also replace the bus services for longer distance journeys, as described in 4.7.9.

Rail network

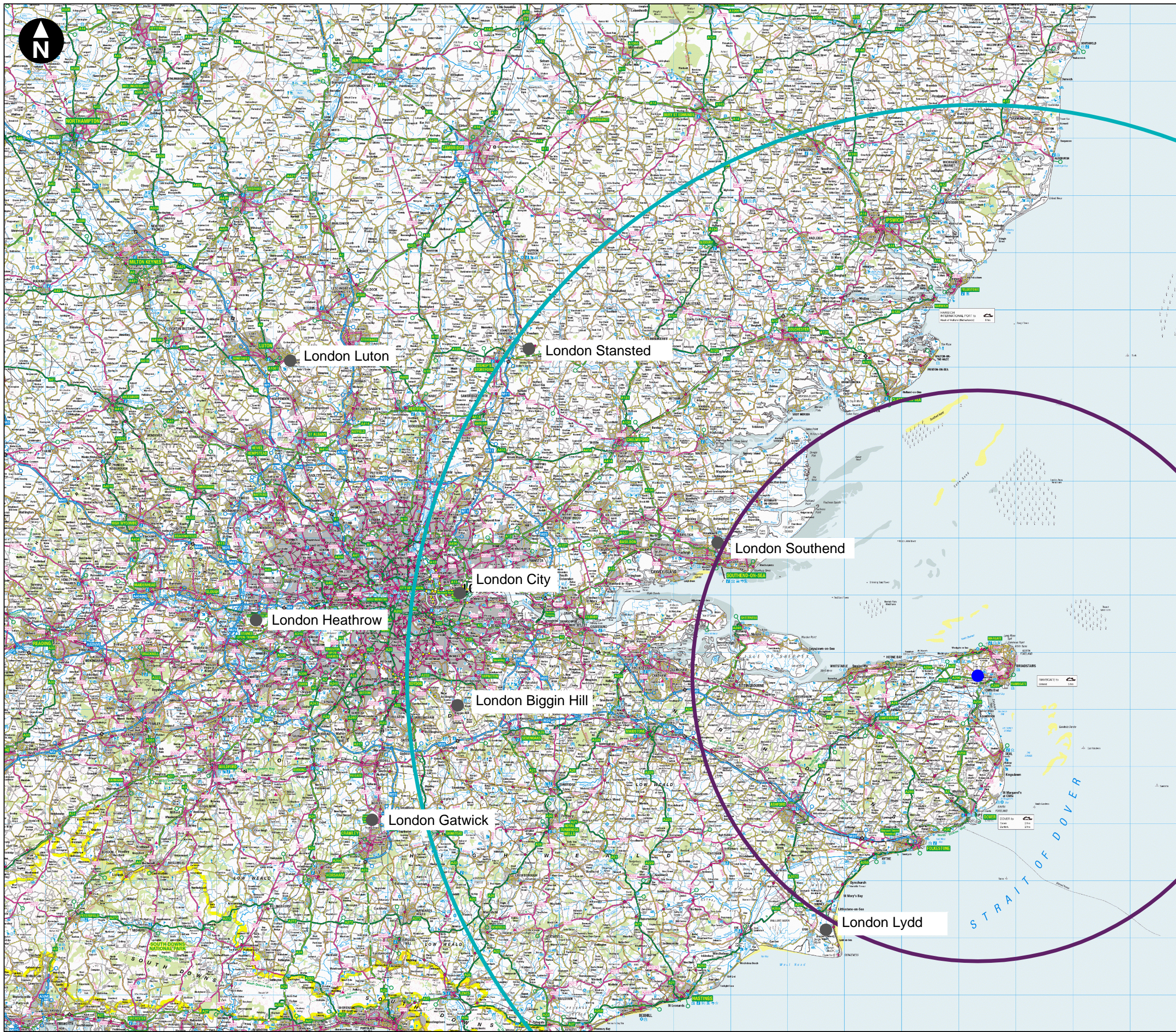
- 4.7.4 The proximity of Ramsgate Railway Station and the proposed Thanet Parkway Station offers the opportunity to connect the Proposed Development to the wider Kent area by rail. For this to be viable, a shuttle service will run between both or either station and the Proposed Development. This will comprise small, single deck vehicles with a capacity of 20-40 passengers to facilitate a quick turnaround.
- 4.7.5 The cost of the service will either be included in the rail ticket or the plane ticket, to avoid passengers having to purchase additional tickets and ensure a smooth transition between the rail services and the shuttle.
- 4.7.6 The times and frequency of the shuttle should be closely integrated with the rail services arriving and departing from the station, and the inbound flight timetable. This would avoid excessive

waiting at the station and help to create a seamless interchange for passengers. Timetables require development; however, it is likely that these will be revised nearer the time of service installation due to existing train timetables changing from what is currently timetabled.




- 4.7.7 Ramsgate Railway Station has a high-quality bus station on Station Approach Road, adjacent to the main entrance, and it is proposed that this is used as the terminus for services to and from the Proposed Development. There may be the need for small-scale improvements at the station as a result of instigating this service, and discussions with Network Rail will be undertaken to agree the best form of support for the services to all modes.

Coaches

- 4.7.8 Coach travel is aimed at pre-organised group travel for population centres that are not served by rail. It can also offer a cheaper alternative to rail travel. For a successful strategy to be employed, it is proposed that an infrequent service run from London, the timings of which should be tied into the airline schedule. The inclusion of a limited number of pickup points along the route, for example in Maidstone or Canterbury, would help to maximise the viability of this service.



Key

-  Manston Site Location
-  50km isochrone
-  100km isochrone

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Figure 4.2
Location of Manston Airport relative to other passenger airports in the South East

5. Targets

5.1 Passenger Modal Share

- 5.1.1 As the existing Manston Airport is not currently operational, no modal share data available for passenger flights. Based on observed experience from other UK Airports (Newquay, Cardiff, Exeter, Inverness, Durham Tees Valley, Norwich and City of Derry) and analysis of the future transport options, assumptions have been made regarding the base case modal shares. This has been used to inform the future Year 10 and Year 20 targets, as set out in **Table 5.1**.
- 5.1.2 It is assumed that through travel plan measures and the introduction of new infrastructure developments, the percentage of travel by sustainable modes will increase, as set out in **Table 5.1**.

Table 5.1 Modal Share Assumptions and Targets

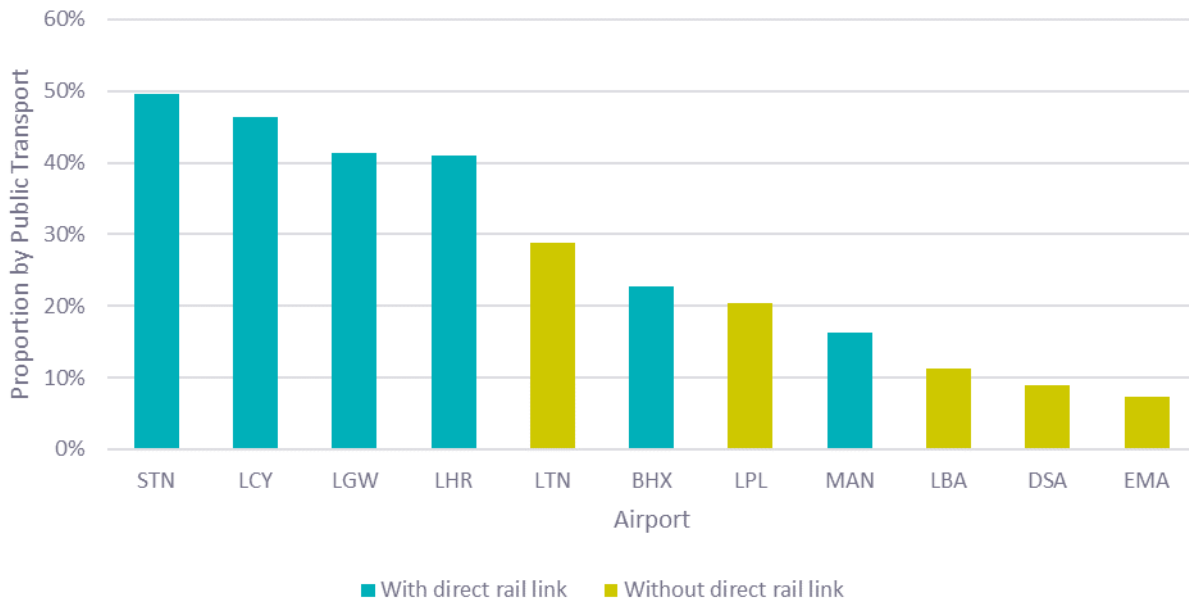
Mode of Transport	Base Year	10 Years	20 Years
Bus	3%	7%	10%
Taxi	5%	6%	6%
Car parked	46%	41%	37%
Car drop off	46%	41%	37%
Rail (then bus)	-	5%	10%
TOATL	100%	100%	100%

- 5.1.3 The initial mode shares in **Table 5.1** are based on those typical for smaller airports (i.e. less than 2 million passengers per annum (mppa)) in:
- Rural locations,
 - Away from major population centres;
 - With functional (but not direct) trunk road access – (i.e. it is accessible within a few miles on A or B class roads);
 - No proximate rail station;
 - Mainly outbound, but also with niche tourism opportunity; and
 - Locations where a car parking strategy which seeks to balance the need for the airport to raise revenue with incentives to passengers and staff to use public transport along corridors, offering sufficient demand where it is convenient for them to do so.
- 5.1.4 Newquay, Cardiff, Exeter, Inverness, Durham Tees Valley, Norwich and City of Derry are useful benchmarks for the assumed 'base' mode split and future year targets. However, each site is unique and dependent on its location and levels of accessibility. The mode share targets have been based on the location of the site, its accessibility to public transport and the aspirations of RiverOak to discourage single occupancy vehicle SOV usage and encourage sustainable travel by public transport and shared vehicle use. RiverOak engaged with Kent County Council (KCC) Highways in the post Development Consent Order (DCO) submission period to discuss and agree the traffic

generation and distribution. This resulted in the removal of the shared taxi element as KCC felt that this would not be achievable in the Thanet district.

5.1.5 Data available from the CAA³ details public transport splits observed at a sample of UK airports, as shown in **Figure 5.1**. Airports where there is not a direct rail service are highlighted.

Figure 5.1 Proportion of Passengers Travelling by Public Transport at UK Airports



5.1.6 The initial public transport modal share for Manston Airport is expected to be relatively low, with a forecast of 3% of passengers likely to use the bus. The shuttle bus service from Ramsgate Railway Station and/or the proposed Thanet Parkway Station may not be operational during the initial year.

5.1.7 The Year 20 forecast 20% modal share would result in Manston Airport having similar level of public transport usage to Liverpool Airport. Liverpool operates the 500 bus route between the airport Liverpool One bus station and Liverpool South Parkway in both directions, similar to what is proposed between the Proposed Development and Ramsgate and/or the proposed Thanet Parkway.

5.2 Staff Model Share

5.2.1 The Proposed Development is expected to support 1,250 jobs directly, within the terminal building and air fields.

5.2.2 The 2011 Census suggests that for travel to work in Thanet, the overall mode split is 71% of passengers using private motorised vehicles or taxis to access their workplace.

5.2.3 However, in the area that includes the Proposed Development, the split for travel to work by car is 84%, owing to the rural surroundings the site is located in. The 2011 travel to work statistics for Thanet and Manston are given in **Table 5.2**.

Table 5.2 Travel to Work Splits

Mode	Thanet District	Manston (MSOA)
Car (driver, passenger, motorcycle, taxi)	71%	85.5%
Public transport	9%	3.5%
Active travel	20%	10.5%

- 5.2.4 A base and future targeted modal share has been developed for the Proposed Development and has accounted for the following:
- Mode split for staff (especially at small airports) is highly dependent on geography, shift patterns and company policy to discourage car access and/or encourage public transport use. The dominant geographical consideration is the extent to which airport employees, or those working for companies based on the airport, live in settlements within easy walking or cycling distance, or along good public transport corridors to large urban areas; there is undoubtedly a decay function with distance, but this is tempered where buses or trains are regular, run early in the morning and late at night, and provide easy and cost-effective point to point journey; and
 - The airport and its tenant companies can influence the underlying geographical and economic dynamics, either by increasing constraints (e.g. staff parking places where parking overall is in short supply) or introducing incentives (changing facilities for those walking or cycling), support for season tickets, allowances for buying cycling equipment or bonuses for non-car use.
- 5.2.5 Deals with taxi operators to take staff home at night or to the airport in the morning by co-ordinating the inbound and outbound journeys of airport-based taxis can also be an effective measure.
- 5.2.6 The base case modal share and targets for staff travel are given in **Table 5.3**, which sets low initial thresholds. This will allow for initial recruitment of staff, the pattern and distribution of staff journey to work movements to become established, and agreements to be reached with operators and employees before company policies are rolled out. However, it does set similar targets by comparison to Derry Airport in the longer term which targeted 86% Car, 11% public transport and 3% taxi in their Draft Masterplan 2012¹⁰.

Table 5.3 Base Case and Target Travel to Work Modal Splits

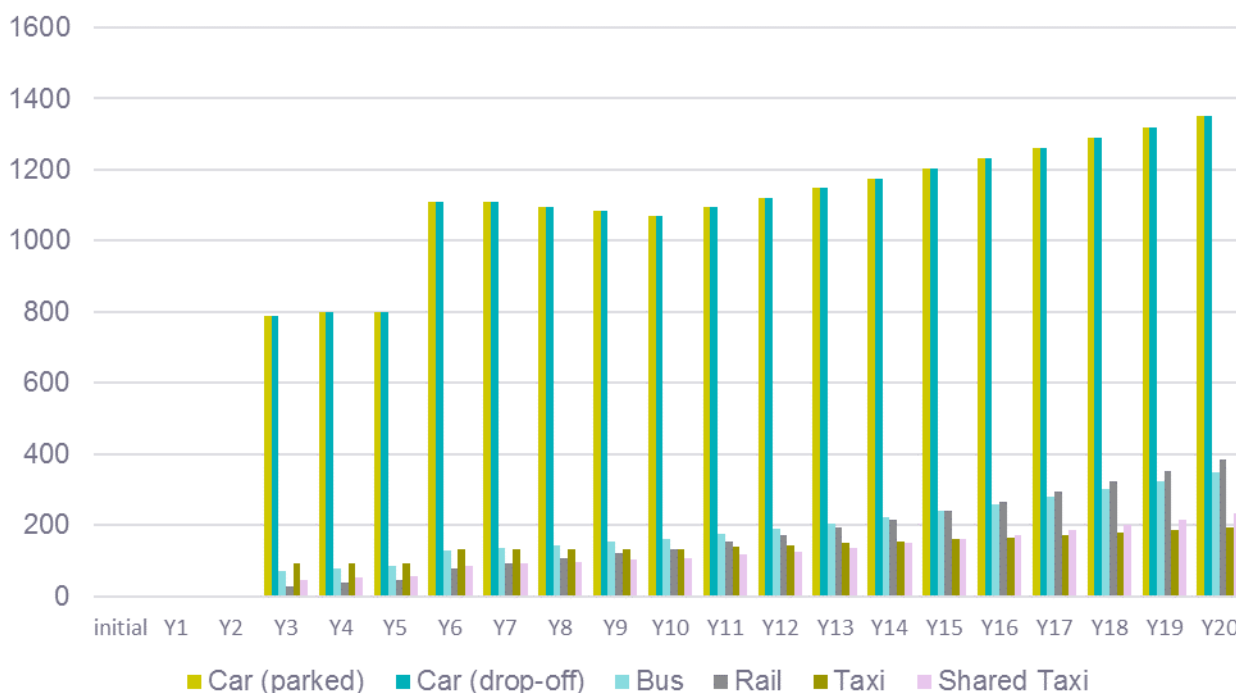
	Initial	10 Years	20 Years
Car	97%	92%	87%
Bus	2%	4%	6%
Walking or cycling	1%	2%	3%
Rail (with bus link)	0%	2%	4%

- 5.2.7 Based on the forecast modal splits, the average daily demand across the 20-year period accessing the Proposed Development by each mode is shown in **Figure 5.2**.

¹⁰ City of Derry Airport (2012). City of Derry Airport Draft Masterplan, [online]. Available at: <https://www.cityofderryairport.com/wp-content/uploads/2012/11/Masterplan.pdf> [Accessed: 27/03/2019].



Figure 5.2 Staff Daily Trips by Mode



5.3 Action Plan

5.3.1 **Table 5.4** presents a summary of the mitigation measures that form the basis for the targets listed above in tables 5.1 and 5.3. However, these measures may change as the Travel Plan develops prior to commencement of construction. The report will be a working document throughout the life of the Proposed Development that remains in outline form until agreements with key stakeholders are reached.

Table 5.4 Suggested Sustainable Mitigation

Public Transport	Cycling	Walking	Car Sharing	Site Design	Other
Offer season ticket loans with "travel through salary pay"	Changing facilities and showers 1 per 200 employees	Provision of footways as identified in the Transport Assessment	Arrange guaranteed ride home services for staff car sharers with taxi operators	20% EV charging points (ultra-low emission parking spaces) in the staff and short stay passenger car parks – provided on a phased basis with 5% on opening	The provision of pool umbrellas and wet weather garments within the staff common rooms
Provide discounted public transport travel for staff	Secure cycle parking; covered / cycle lockers / CCTV / signposted for 1 per 150 employees initially	Retention of Public Rights of Way (PRoW) – see Figures 2.7, 3.1, 3.2 for the PRoW Management Strategy	Establish and promote an internal database for staff car sharing with a "guarantee to get you home"	Internal site speed restriction to 10 mph	Staff bonuses/rewards for non-car use

Lobby for integrated ticketing, in the absence of this provide machines for bus/coach/rail tickets in the terminal	Offer cycle loans with "travel through salary pay"	Enhancement of PRow - see Figures 2.7, 3.1, 3.2 for the PRow Management Strategy	Provide 2% car share parking spaces	Travel information and updates – web based, notice boards, bulletins in key locations at the terminal and local transport hubs
Extend the bus operating hours to 24 hours	Enter into a partnership with local bike shops for discounted items Dr Bike sessions, training courses, cycle maintenance courses			Support four national events per year: such as Walk to Work Week and Cycle to Work Week, The Challenge, Step Count Challenge
Increase frequency of bus services to every 30 minutes	Extension to the cycle network connecting the provision on the new Manston to Haine Link Road with the Airport	Informal tracks and paths – see Masterplan reference DCO 7.1		Provide Personalised travel planning for all employees
Provide new bus shuttle to Ramsgate station and/or Thanet Parkway Station matched to train timetable				Travel information pack/employee welcome pack for all employees
Discuss links with coach operators				Monitoring of Fly parking and if required establishment of a CPZ
Provide all bus stops with shelters within the airport (wet and windy weather protection), timetables, seats and space for luggage				

wood.

