The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case



TRANSPORT AND WORKS ACT 1992

TRANSPORT AND WORKS (INQUIRIES PROCEDURE) (ENGLAND AND WALES) RULES 2004

THE NETWORK RAIL (CAMBRIDGE SOUTH INFRASTRUCTURE ENHANCEMENT) ORDER

STATEMENT OF CASE OF

NETWORK RAIL

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The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case

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Statement of Case

CONTENTS

GLO	oss	ARY/ LIST OF ABBREVIATIONS	
1.		RODUCTION	
	1.1	Foreword	1
	1.2	Structure of the Statement of Case	1
	1.3	The Applicant	2
	1.4	The CSIE Project	2
	1.5	Aims of the CSIE Project	3
	1.6	Consents sought	∠
2.	ТНІ	E CASE FOR THE PROJECT	6
	2.1	Introduction	6
	2.2	Background	6
	2.3	Problems Identified	8
	2.4	Impact of Not Changing	10
	2.5	National, Regional and Local Policy Context	11
	2.6	Planning Policy	12
	2.7	Future needs	14
	2.8	Conclusion	14
3.	PLANNING MATTERS		15
	3.1	Introduction	15
	3.2	Permitted development rights	15
	3.3	Planning and transport policy context	15
	3.4	Local Planning Policy	19
	3.5	Relevant Policy Allocations	20
	3.6	Conclusion	24
4	PROJECT DEVELOPMENT		

Statement of Case

	4.1	Introduction	26	
	4.2	GRIP 1: Output Definition	27	
	4.3	GRIP 2 - Feasibility	29	
	4.4	Evolution of the Design in GRIP 2	32	
	4.5	GRIP 3: Option Selection	36	
	4.6	Consultation During GRIP 3	41	
	4.7	Conclusion	41	
5.	THI	E PROJECT	42	
	5.1	Introduction	42	
	5.2	The Site and Surrounding Area	42	
	5.3	The Proposed Development	44	
	5.4	Cambridge South station works	45	
	5.5	Hills Road Junction works	46	
	5.6	Shepreth Branch Junction works	46	
6.	BE	BENEFITS OF THE PROJECT4		
	6.1	Introduction	48	
	6.2	Travel Time Savings and Benefits to Passengers	48	
	6.3	Sustainable Transport Access & Highway Congestion	50	
	6.4	City Centre Reliance	52	
	6.5	International Connectivity	52	
	6.6	Integration with Other Schemes	53	
	6.7	Conclusion	53	
7.	PR	OJECT DELIVERY	54	
	7.1	Introduction	54	
	7.2	Construction methodology	54	
	7.3	Construction programme	55	
	7.4	Construction access and compounds	56	

Statement of Case

	7.5	Code of Construction Practice (CoCP)	60
8.	CO	STS AND FUNDING	61
	8.1	Costs	61
	8.2	Funding	61
9.	EN	/IRONMENTAL ISSUES	62
	9.1	Introduction	62
	9.2	Summary of Environmental Effects	62
10.	CO	NSULTATION AND ENGAGEMENT	68
	10.1	Introduction	68
	10.2	Early Engagement	68
	10.3	Identification of Stakeholders	69
	10.4	Round One Consultation	69
	10.5	Engagement following Round One Consultation	70
	10.6	Round Two Consultation	71
	10.7	Key Changes	72
	10.8	Ongoing Engagement with Stakeholders	73
11.	LAN	ND AND PROPERTY	74
	11.1	Introduction	74
	11.2	Justification for the acquisition and use of the land and property	74
	11.3	Summary	76
12.	SPE	ECIAL CATEGORY LAND	77
	12.1	Introduction	77
	12.2	Open Space	77
	12.3	Application for Certificates in relation to open space	77
	12.4	Case in relation to public open space	78
	12.5	Scheduled Monument	80
13.	HUI	MAN RIGHTS AND EQUALITIES	82
	13.1	Human Rights	82

OFFICIAL

The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case

	13.2 Equalities	83
14.	SUPPORT, REPRESENTATIONS AND OBJECTIONS	84
	14.1 Managing Objections and Representations	84
15.	CONCLUSIONS	102
ΑP	PENDIX 1 – List of Supporting Documents	104
ΔΡ	PENDIX 2 – HIGH-I EVEL CONSTRUCTION PROGRAMME	108

Statement of Case

GLOSSARY/ LIST OF ABBREVIATIONS

ADF	Southern Fringe Area Development Framework	
AZ	AstraZeneca	
BMV	Best and most versatile	
BNG	Biodiversity Net Gain	
СВС	Cambridge Biomedical Campus	
CCiC	Cambridge City Council	
CCoC	Cambridgeshire County Council	
CD&E	Construction, Demolition and Excavation	
CGB	Cambridgeshire Guided Busway	
CIGBBS	Cambridge Inner Green Belt Study	
CLP	Cambridge City Local Plan	
СоСР	Code of Construction Practice	
CPLTP	Cambridgeshire and Peterborough Local Transport Plan	
CSET	Cambridge South East Transport	
CSIE	Cambridge South Infrastructure Enhancements	
СТМР	Construction Traffic Management Plan	
DAS	Design and Access Statement	
DCLG	Department for Communities and Local Government	
DfT	Department for Transport	
DIA	Diversity Impact Assessment	
DPD	Development Plan Document	
EA	Environment Agency	
EIA	Environmental Impact Assessment	
EMS	Ecological Method Statement	
ES	Environmental Statement	
EWR	East West Rail	

Statement of Case

FRA	Flood Risk Assessment
GCP	Greater Cambridgeshire Partnership
GCSP	Greater Cambridge Shared Planning
GHG	Greenhouse gas
GPDO	Town & Country Planning (General Permitted Development) Order (England) 2015
GSM-R	Global System for Mobile Communications – Railway
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
LTP	Local Transport Plan
NCN	National Cycle Network
Network Rail	Network Rail Infrastructure Limited
NMU	Non-motorised users
NPPF	National Planning Policy Framework
NPPG	National Planning Policy Guidance
NPS	National Policy Statement For National Networks
NSIPs	Nationally significant infrastructure projects
OBC	Strategic Case Outline Business Case - Cambridge South Rail Station
OHLE	Overhead Electric Line Equipment
ORR	Office of Rail and Road
PRoW	Public Right of Way
ROGs	The Railways and Other Guided Transport Systems (Safety) Regulations 2006
SCDC	South Cambridgeshire District Council
SCLP	South Cambridgeshire Local Plan
SOBC	Strategic Outline Business Case
SPD	Supplementary Planning Document
SuDS	Sustainable Drainage System
SWMP	Site Waste Management Plan

Statement of Case

TOCs	Train Operating Companies	
TSCSC	Transport Strategy for Cambridge and South Cambridgeshire	
TWAO	Transport and Works Act Order	
UK	United Kingdom	
'Up' and 'Down'	The terms 'Up' and 'Down' are rail industry standards for the direction of train travel. At this location, 'Up' means trains travelling towards London and 'Down' means trains moving towards Cambridge Station. The terms are, by extension, commonly used to refer to the lines the trains use and the side of the railway alignment. In this location, the 'up' side is the eastern side of the railway alignment.	
WAML	West Anglia Main Line	

Statement of Case

1. INTRODUCTION

1.1 Foreword

- 1.1.1 On 18 June 2021, Network Rail Infrastructure Limited (Network Rail) applied to the Secretary of State for Transport for an Order (the Network Rail (Cambridge South Infrastructure Enhancements) Order (NR1) made under sections 1 and 5 the Transport and Works Act 1992 (TWA 1992) (B1) for powers to construct, maintain and operate works comprising the Cambridge South Infrastructure Enhancements (CSIE). In this Statement of Case this is hereafter referred to as the "CSIE Order application".
- 1.1.2 The CSIE scheme includes the construction of a new railway station adjacent to the Cambridge Biomedical Campus (CBC) with associated access and rail infrastructure, the closure of two level crossings, and other related works. In this Statement of Case this is hereafter referred to as the "CSIE Project".
- 1.1.3 Following informal consultation undertaken prior to its making, statutory consultation on the CSIE Order application was undertaken from 18 June to 2 August 2021. 22 objections, 9 representations and 5 letters of support have been received in response to the CSIE Order application.
- 1.1.4 On 4 August 2021, the Secretary of State for Transport announced that there would be a public inquiry into objections to the CSIE Order application.
- 1.1.5 Rule 7 of the Transport and Works (Inquiries Procedure) Rules 2004 **(B4)** requires Network Rail to provide a Statement of Case by 15 September 2021. This document is Network Rail's Statement of Case. It sets out the particulars of the case that Network Rail intends to make in support of all of its applications at the public inquiry.
- 1.1.6 Appendix 1 is a list of the documents to which Network Rail currently intends to refer or put in evidence at Inquiry. These documents are available for public inspection at the locations and times set out in this appendix.
- 1.1.7 In this Statement of Case, references to documents included in Appendix 1 are shown in **bold font**.

1.2 Structure of the Statement of Case

- 1.2.1 The Statement of Case contains 15 sections, as follows:
 - **Section 1:** Introduction
 - **Section 2:** The Case for The Project
 - Section 3: Planning Matters
 - Section 4: Project Development
 - **Section 5:** The Project
 - **Section 6:** Benefits of the Project

Statement of Case

- Section 7: Project Delivery
- **Section 8:** Costs and Funding
- **Section 9:** Environmental Issues
- **Section 10:** Consultation and Engagement
- Section 11: Land and Property
- Section 12: Special Category Land
- Section 13: Human Rights and Equalities
- **Section 14:** Support, Representations and Objections
- **Section 15:** Conclusions

1.3 The Applicant

- 1.3.1 Network Rail owns and operates the rail infrastructure of Great Britain (the network). Its purpose is to deliver a safe, reliable and efficient railway for Great Britain.
- 1.3.2 Network Rail is primarily responsible for maintenance, repair and renewal of track, stations, signalling and electrical control equipment. Train services on the network are operated by Train Operating Companies (TOCs) to which Network Rail, as facility owner, grants rights to use the network in the form of track, station, and depot access contracts approved by the Office of Rail and Road (ORR).
- 1.3.3 The activities of Network Rail as network operator are regulated by the ORR by means of a network licence granted under section 8 of the Railways Act 1993 (B9). The network licence requires Network Rail to secure the renewal and replacement of the network, and the improvement, enhancement and development of the network, in each case in accordance with best practice and in a timely, economic and efficient manner so as to satisfy the reasonable requirements of persons providing services relating to railways and funders in respect of the quality and capability of the network.
- 1.3.4 As the infrastructure manager, Network Rail is also under a duty as regards the safety of the network, principally under The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) (B10). The ROGS implement the EU Railway Safety Directive and require that any Infrastructure Manager or railway operator on the mainline railway must maintain a Safety Management System (SMS) and hold a safety certificate or authorisation indicating that the SMS has been accepted by the relevant safety authority, before being allowed to operate. The ROGs are EU-derived domestic legislation which continue to have effect in accordance with section 2 of the European Union (Withdrawal) Act 2018 (B11).

1.4 The CSIE Project

1.4.1 The CSIE Project will deliver a new passenger railway station and associated infrastructure required to maintain capacity and train performance. Key elements of this comprise:

Statement of Case

- (a) A new railway station with four platform faces including forecourts, pedestrian and cycle access paths, new interchange for taxi and pick up/drop off points, cycle parking spaces, and limited parking for staff/contractors and blue badge holders, together with associated works. The new station will be located between the CBC and Hobson's Park and bordered to the north by the Cambridge Guided Busway;
- (b) introduction of 2 additional loop lines on West Anglia Main Line (WAML) for the purpose of enabling trains to access the eastern and western platforms in the area of the new station and associated Overhead Line Equipment and signalling;
- (c) track replacement/modification/additional loop line to the WAML;
- (d) new Overhead Line Equipment and improvement works at Shepreth Junction and replacement of the GSMR mast;
- (e) new permanent rail systems compound and associated works to the south-west of Addenbrooke's Road (Nine Wells Bridge);
- (f) attenuation ponds and drainage works;
- (g) closure of Dukes No.2 Level Crossing and Webster's Level Crossing over the WAML at Shelford and extinguishment of the existing private access rights over the crossings together with provision of alternative access measures; and
- (h) replacement open space provision.
- 1.4.2 The CSIE Project is described in greater detail in Section 5 below.

1.5 Aims of the CSIE Project

- 1.5.1 The core objectives of the CSIE Project, as identified in the Statement of Aims (NR4) and the Outline Business Case (NR20) are to:
 - (a) Improve sustainable transport access to housing, services, and employment within the Cambridge Southern Fringe and the CBC area, to fulfil existing and future demands.
 - (b) Contribute to minimising highway congestion associated with the Southern Fringe and CBC by increasing the mode share for sustainable transport modes.
 - (c) Reduce reliance on Cambridge City Centre transport infrastructure for serving the Southern Fringe and CBC.
 - (d) Be capable of integrating with and enhancing the opportunities presented by Thameslink and East West Rail, to support development of the CBC as part of the Golden Triangle life sciences cluster.
 - (e) Increase public transport connectivity between the CBC and international gateways, in recognition of its international significance.
- 1.5.2 Whilst these are the core aims of the CSIE Project, other factors such as the impact on adjacent land and stakeholders have been central to the development and design of the scheme.

Statement of Case

1.5.3 Further detail on the need for the CSIE Project and its benefits are set out in Sections 2 and 6 below.

1.6 Consents sought

The Order

- 1.6.1 The CSIE Order application seeks powers to construct, operate and maintain the works comprised in the CSIE Project.
- 1.6.2 The main works to be authorised by the Order and the deemed planning permission (addressed below) are as follows:

In the County of Cambridgeshire, City of Cambridgeshire and District of South Cambridgeshire

In the County of Cambridgeshire, City of Cambridge—

- (a) Work No. 1 A railway (Down Cambridge Loop Line) (580 metres in length) on the western side of the course of the existing railway (Bethnal Green to King's Lynn line) commencing 20 metres north of Long Road (A1134) overbridge and terminating at Work No.3.
- (b) Work No. 2 A railway (Up Cambridge Loop Line) (586 metres in length) on the eastern side of the course of the existing railway (Bethnal Green to King's Lynn line) commencing 20 metres north of Long Road (A1134) overbridge and terminating at Work No.3.
- (c) Work No. 3 A new station (Cambridge South) located directly south of the (Guided Busway) overbridge consisting four new platforms and associated railway lines, a station footbridge with stairs and lifts, high level concourse, eastern and western entrance buildings with ticketing and staffing facilities and associated forecourt areas and a secondary means of escape footbridge.
- (d) Work No. 4 A new path (pedestrian and cycling) (378 metres in length) commencing at the Guided Busway route on the west side of Hobsons Park and terminating at Work No. 3.
- (e) Work No. 5 A new pedestrian path (96 metres in length) including an at grade crossing over the Guided Busway commencing at Work No.4 in Hobson's Park and terminating 96 metres on the north of its commencement on the north of the Guided Busway route within the Active Recreation Area.
- (f) Work No. 6 A railway (Down Cambridge Loop Line) (448 metres in length) on the western side of the course of the existing railway (Bethnal Green to King's Lynn line) commencing at Work No.3 and terminating 110 metres south of Addenbrookes Road (Nine Wells) overbridge.
- (g) Work No. 7 A railway (Up Cambridge Loop Line) (447 metres in length) on the eastern side of the course of the existing railway (Bethnal Green to King's Lynn line) commencing at Work No.3 and terminating 108 metres south of Addenbrookes Road (Nine Wells) overbridge.

Statement of Case

In the County of Cambridgeshire, District of South Cambridgeshire [Parish of Great Shelford]—

- (h) Work No. 8 Realignment of the railway (Down Shepreth Branch Line) (1036 metres in length) on the western side of the existing railway commencing 775 metres south of Addenbrookes Road (Nine Wells) overbridge and terminating 25 metres east of Cambridge Road overbridge, works include the relocation of the existing telecommunications mast and associated equipment and the installation of a new equipment building.
- (i) Work No. 9 A crossover (138 metres in length) between the Up and Down railway lines of the existing railway (Bethnal Green to King's Lynn line) commencing 35 metres south of Dukes No.2 Level Crossing and terminating 138 metres south of its commencement.
- (j) Work No. 10 Realignment of the railway (Up Shepreth Branch Line) (502 metres in length) on the eastern side of the existing railway commencing 200 metres north of Webster Level Crossing and terminating 25 metres east of Cambridge Road overbridge.

In the County of Cambridgeshire, City of Cambridge and District of South Cambridgeshire [Parish of Great Shelford]—

- (k) Work No. 11 Agricultural accommodation bridge over the Hobsons Brook 420m west of the railway, commencing at a point 25 metres south of Addenbrookes Road and terminating at a point 82 metres south of its commencement
- 1.6.3 The draft CSIE Order **(NR2)** also includes powers to compulsorily purchase and temporarily use land and property, stop up streets and public rights of way, undertake street works, construct and maintain new or altered highways, carry out survey and investigatory work and undertake other ancillary works and activities.

Deemed planning application

- 1.6.4 In addition, Network Rail has applied to the Secretary of State for Transport under section 90(2A) of the Town and Country Planning Act 1990 (B7) for a direction that planning permission, so far as it is required, be deemed be granted for the Order works.
- 1.6.5 In making the request for Deemed Planning Permission, it is proposed that a direction be given that planning permission shall be deemed to be grant subject to the conditions which are set out in the Appendix to NR13. These draft planning conditions were prepared by Network Rail in consultation with officers from the Greater Cambridgeshire Shared Planning Service.

Open space certificate

- 1.6.6 On 23 August 2021, Network Rail applied to the Secretary of State for Transport for a certificate (the Open Space Certificate) (NR21) under section 19 and under section 28 and Schedule 3 of the Acquisition of Land Act 1981 (the 1981 Act) (B12) in respect to the provision of replacement land following the compulsory acquisition of open space land.
- 1.6.7 Network Rail is currently waiting for confirmation from the Secretary of State for Communities and Local Government whether he is minded to grant the necessary certificates, further details are provided in section 12 of this Statement of Case.

Statement of Case

2. THE CASE FOR THE PROJECT

2.1 Introduction

- 2.1.1 The CSIE Project supports multiple critical national and local policy goals and will have significant benefits for the area. It will reinforce the growth expected at the internationally significant Cambridge Biomedical Campus (CBC) by significantly improving the connectivity of the site. This will also assist with retention of the existing high quality workforce, widen the labour pool and give greater access to high quality employment for communities in the wider region. Local residents will also benefit from an additional option for rail travel that removes the need to interchange in the city centre.
- 2.1.2 This section provides context to the need for the CSIE Project, describing the employment and transport context for South Cambridge, before going on to identify the transport-related problems in the area, the potential impacts of failing to implement the changes proposed as part of the CSIE Project, and the local (non-planning) policy context relevant to the need to pursue it. It then outlines future needs. The section then concludes that the CSIE Project is needed to meet both existing and future needs, and to avoid the substantial disbenefits associated with failing to take action.
- 2.1.3 This section must be read together with section 3 dealing with Planning Matters and section 6, which summarises the Project Benefits.

2.2 Background

Cambridge Biomedical Campus

- 2.2.1 Addenbrooke's Hospital to the south of Cambridge is a major employment centre and a renowned teaching hospital linked to Cambridge University. Surrounding the hospital is the emerging CBC. Royal Papworth Hospital has relocated to the CBC, with a new 310-bed specialist cardiac facility.
- 2.2.2 The CBC is soon expected to house the largest concentration of biomedical expertise in Europe, including an international conference centre and high-capacity hotel. At present approximately 20,000 people are employed at the hospital and on the CBC. Strong employment growth is anticipated to continue as the campus develops, with an additional 1,000 staff by 2024, and a total of 27,000 jobs anticipated by 2031.
- 2.2.3 Transport connectivity is key to enabling this growth and the economic potential of the site, but at present is limited by significant highway and motorway congestion, and a lack of direct longer distance public transport. Excellent transport provision is required so that the highly skilled workforce and visitors are able to travel to the campus.
- 2.2.4 Improving access from areas where accommodation costs are lower than in the city of Cambridge will also open high-skilled training and employment opportunities to people who may not otherwise find equivalent prospects elsewhere.

Life Sciences Industrial Strategy (D19)

2.2.5 CBC is expected to become an integral part of the UK life sciences industry. The industry is a key economic sector for the UK, generating £74 billion turnover and employing almost a quarter of a

Statement of Case

- million people. The health life sciences industry also achieves high productivity compared to many other industrial sectors.
- 2.2.6 The UK Life Sciences Industrial Strategy aims to put the UK in a world-leading position to take advantage of the health technology trends of the next 20 years. The strategy includes efforts to maintain scientific strength and international competitiveness, encourage growth of companies in the sector, support industry collaboration with the NHS, make the best use of data and digital tools, and to ensure the sector has a strong supply of skilled people.
- 2.2.7 The UK has an internationally recognised life sciences cluster known as the Golden Triangle, which comprises Oxford, Cambridge and London and the area between. It houses four of the world's top twenty universities (three in the top ten), four of the top ten medical sciences faculties in
- 2.2.8 the world and some of the world's largest research institutes. Many international pharmaceutical companies wish to be located close to the most successful universities for biomedicine. For example, AstraZeneca is currently in the final stages of constructing a new global research and development centre in Cambridge, at which they expect to employ 2000 staff. The Golden Triangle cluster also contains substantial science infrastructure and a large number of small and medium-sized life sciences companies. Cambridge alone has over 200 biotech companies and the largest array of science infrastructure in the cluster.
- 2.2.9 Core recommendations of the Life Sciences Industrial Strategy point to the need for government and industry to work together to ensure the right infrastructure is in place to support life science cluster and network growth. This includes transport into and across clusters. Several Initiatives have since been established to increase funding for life sciences companies, as well as an additional £4bn spent on research and development since 2017 to invest in infrastructure to achieve the goals of the Life Sciences Industrial Strategy.

Attracting a highly skilled workforce

- 2.2.10 A successful biomedical science base in UK will require highly skilled workers. Potential disruption associated with Brexit could lead to some loss of talent from the sector. Therefore 'creating an opportunity to bring very high-level talent into the country over the next five years is important' (Life Sciences Strategy (D19))
- 2.2.11 Growth of the CBC will help to attract a highly skilled workforce and contribute to the successful biomedical science base. Accompanying investment in transport infrastructure is required to provide national and international connectivity for businesses and their employees.

Area of Major Change

2.2.12 The Cambridge Local Plan (**D6**) identifies the Southern Fringe of Cambridge (the Southern Fringe) as an 'area of major change' in which extensive development is to take place over the 2011-2031 plan period. The vision for the Southern Fringe is 'to create attractive, well-integrated, accessible and sustainable new neighbourhoods for Cambridge.' It is intended that the Southern Fringe development will provide approximately 3,300 new homes (plus additional housing in adjacent sites and sites outside the City boundary in South Cambridgeshire) during the plan period.

Statement of Case

2.2.13 The Southern Fringe development will be integrated with the adjacent CBC, which by the mid-2020s could be home to more than 15% of all employment within the Cambridge City boundary. As noted above, unlocking longer distance access to this site will enable this growth and help to maximise the economic potential of the activity there.

East West Rail

2.2.14 East West Rail (EWR) is a major rail infrastructure project with preparatory work well underway for both the committed and proposed route sections. It is expected to connect Oxford, Milton Keynes, Bedford, Cambridge and further into East Anglia. East West Rail is being planned in three stages. Stage 3 of the EWR project would increase the train service quantum through Cambridge South. At the time of writing, funding has only been announced for Stage 1 of this scheme, the section between Oxford and Bletchley/Milton Keynes. If completed, this scheme will provide an opportunity for people to access direct rail services from Cambridge to destinations across the Golden Triangle.

Thameslink Programme

2.2.15 Fundamental changes to timetables along the WAML were completed in 2018 connecting Cambridge into the Thameslink network. New services allow the potential for direct access between Cambridge and London Gatwick airport, as well as a range of other destinations, via central London, including a direct link to London St Pancras International allowing for easier access to the Euostar.

2.3 Problems Identified

- 2.3.1 The scale and type of growth taking place within the Southern Fringe and CBC necessitates excellent transport infrastructure. A range of existing and future transport problems have been identified and are summarised in this sub-section:
 - Lack of Long-Distance Public Transport Opportunities to the CBC and the Southern Fringe;
 - Indirect public transport connectivity to international gateways;
 - Indirect public transport accessibility, with a dependence on public transport infrastructure within Cambridge City Centre;
 - Highway congestion and associated environmental concerns; and
 - Parking availability.

<u>Indirect Connectivity to International Gateways</u>

2.3.2 International connectivity will be important to the success of the CBC, as it is intended to attract a highly skilled workforce from around the world. Even with new Thameslink rail services, public transport access to major airports will be limited and journey times increased by the need to travel via Cambridge station, as summarised in Table 1.

Statement of Case

Table 1: Public transport access to major international gateways in 2022

Gateway	Public transport journey	Number of interchanges	Generalised Journey Time (minutes) ⁹
London	Cambridge Busway Addenbrooke's Hospital to Cambridge station. <i>Interchange</i> .		
Heathrow	Thameslink rail service Cambridge to Farringdon. Interchange.	2	245
	Elizabeth line (Crossrail) service to Heathrow once open.		
London	Cambridge Busway Addenbrooke's Hospital to Cambridge station. Interchange.		450
Stansted	Rail Cambridge to Stansted Airport.	1	150
London	Cambridge Busway from Addenbrooke's Hospital to Cambridge station.		
Gatwick	Interchange.	1	280
	Thameslink rail service Cambridge to Gatwick Airport.		

Source: Outline Business Case (NR20)

Indirect Public Transport Accessibility

- 2.3.3 Absent the CSIE Project, the majority of public transport trips with an origin or destination in the Southern Fringe or CBC will need to travel via Cambridge City Centre. Furthermore, all rail trips will need to route via Cambridge station. Given the scale of development proposed over the next 10-15 years this arrangement would be likely to place considerable pressure on Cambridge station, leading to significant overcrowding issues exacerbating problems seen prior to the COVID-19 pandemic.
- 2.3.4 An indirect public transport journey which requires an interchange between modes (rail / bus) is also likely to discourage greater use of public transport among those who would otherwise choose to travel by private car. For example, the research summarised in the Passenger Demand Forecasting Handbook suggests that passengers perceive the inconvenience of an interchange to be the equivalent of up to 25 minutes for the types of journeys relevant here such as business travel and commuting.

Highway Congestion and Environmental Concerns

- 2.3.5 The rural nature of Cambridgeshire means that commuting journeys are currently dominated by private car use (estimated at 42.2% in the 2011 census). Only 2.5% of working age residents currently commute by train. As a result, highway congestion is a significant problem for the city.
- 2.3.6 Congestion occurs on all radial routes into Cambridge during the morning peak period and in both directions during evening peak periods. Routes in the Southern Fringe area that are particularly affected are:
 - A1134 Hauxton Road / High Street from M11 Junction 11.
 - A1307 Babraham Road
- 2.3.7 Peak period congestion occurs on all main roads within the Cambridge City boundary.
- 2.3.8 Congestion on trunk and primary routes towards Cambridge in the morning peak period, and away from Cambridge in the evening peak period, affects the A10 from Ely, A14 from Huntingdon, and the A428 / A1303 route from St Neots in particular.

Statement of Case

- 2.3.9 Evening peak period congestion occurs on Addenbrooke's Road and on other local routes surrounding the Biomedical Campus, including Shelford Road and Long Road.
- 2.3.10 The congestion issues that already exist around the CBC are concerning, and will almost certainly be exacerbated by continued employment growth. The sustainable transport offer will need to be increased considerably in order to mitigate this issue.
- 2.3.11 As well as causing delays and inconvenience to transport users, highway congestion across Cambridge will continue to lead to local air quality concerns. In 2005 Cambridge City Council (CCiC) declared an Air Quality Management Area (AQMA) covering the entire city centre. The southern boundary to the AQMA is approximately 1 mile north of the CBC. Any large increase in traffic flow associated with the CBC would therefore have the potential to affect emissions levels within the AQMA.

Parking Availability

- 2.3.12 In recognition of the congestion and environmental issues associated with high levels of private car use, parking availability at the CBC is currently constrained and will continue to be constrained as the area develops. However, in order for parking constraints to deliver the desired outcome of reduced car use without affecting overall development viability, alternative sustainable forms of transport must be available and need to be attractive to use.
- 2.3.13 This is consistent with local planning policy.

2.4 Impact of Not Changing

- 2.4.1 Taking into account the current conditions, aspirations and issues described above, without further significant investment in public transport infrastructure within the Southern Fringe and CBC, the following impacts are likely:
 - Increased pressure on an already constrained Cambridge station, as all rail trips associated with the Southern Fringe and CBC route through the main city centre station.
 - Increased levels of highway congestion on radial routes, and local routes throughout the
 - Southern Fringe, and for longer periods of the day. Increased congestion may reduce the attractiveness and viability of later development phases.
 - Accessibility problems for employees based at, and visitors to, the CBC, due to highway congestion, constrained parking availability, and indirect public transport journeys.
 - Increased emissions and reduced air quality within the Cambridge AQMA.
- 2.4.2 Together these problems have the potential to affect the ability for businesses at the CBC to retain their highly skilled and globally mobile employees, and ultimately the success of the entire CBC.
- 2.4.3 Supporting the workforce with good connectivity between key employment and residential sites will continue to be important for Cambridge's current and future economic competitiveness on an international scale. This is likely to increase in importance as competitor cities around the world enhance their transport networks and may become more favoured as places to live by talented workers

Statement of Case

and places to invest by global and high-tech businesses. For example, the BioValley life sciences cluster in the North Rhine valley is accessible from a number of desirable locations across France, Germany and Switzerland, and has excellent international transport connections. Similarly, the Medicon Valley life sciences cluster in Scandinavia has a residential catchment including the picturesque Copenhagen area in Denmark and southern Sweden, as well as regular and convenient transport to elsewhere in Europe and beyond.

2.5 National, Regional and Local Policy Context

2.5.1 Any investment in transport infrastructure at the Southern Fringe and Cambridge Biomedical Campus needs to align with national, regional, and local policy and strategy. Alignment with national (Department for Transport (DfT)) objectives is outlined in Section 2.1. Key relevant points identified in regional and local policy and strategy documents are set out in this sub-section.

HMT Green Book Review

- 2.5.2 On 25th November 2020 HM Treasury published the *Green Book Review 2020: Findings and response* (**D22**) This paper sets out requirements for some key changes to UK investment appraisal. At the heart of this is a greater emphasis on how schemes contribute to key national policies, in particular:
 - Net Zero.
 - Levelling Up.
 - Equalities and Distributional Effects.
- 2.5.3 The review also requires a greater emphasis on Place Based Impacts to take explicit consideration of the effect of investment on the local area.
 - Greater Cambridge Greater Peterborough Enterprise Partnership Strategic Economic Plan (SEP) (D24)
- 2.5.4 The SEP, which was revised in 2016, seeks to generate a £2.8bn per annum uplift in GVA, by delivering 70,000 new jobs and 50,000 new dwellings. The CBC and the Cambridge Southern Fringe development will contribute to achieving these targets. These developments require sustainable access, although it is acknowledged that the road network already experiences significant peak period congestion.
- 2.5.5 Without targeted investment in sustainable transport measures, the economic growth benefits of the Southern Fringe and CBC are unlikely to be realised. The SEP therefore proposed further consideration of a new station to serve Addenbrooke's Hospital and the CBC, as part of EWR.

Greater Cambridge City Deal (GCCD) (D25)

2.5.6 The City Deal emerged from the SEP process and is a deal with Government that will enable a new wave of innovation-led growth by investing in infrastructure, housing and skills, thereby addressing housing shortages and high congestion levels. By investing in infrastructure, the City Deal will ensure that Greater Cambridge can deliver the current growth identified in the Local Plans and that the conditions are in place to deliver post-2031 growth. The growth strategy will require a transport network that addresses congestion and public transport capacity issues, to help stimulate further economic growth.

Statement of Case

- 2.5.7 The four strategic objectives of the GCCD are to:
 - **Create and retain investment** to nurture the conditions necessary to enable the potential of Greater Cambridge to create and retain the international high-tech businesses of the future.
 - Target business investment supporting the Cambridge Cluster to the needs of the Greater Cambridge economy by ensuring those decisions are informed by the needs of businesses and other key stakeholders such as the universities.
 - **Improve connectivity and networks** between clusters and labour markets so that the right conditions are in place to drive further growth.
 - Attract and retain skills by investing in transport and housing whilst maintaining a good quality of life, in turn allowing a long-term increase in jobs emerging from the internationally competitive clusters and more university spinouts.

COVID-19

- 2.5.8 At the time of writing rail passenger numbers are significantly reduced from 2019 levels owing to the COVID-19 pandemic and the changes to travel patterns it has brought about. In general, whilst leisure travel has seen reasonably strong recovery, the commuter and business markets remain diminished. Whilst this will have some short or medium-term impact on the travel patterns at Cambridge South station it should be noted that many people accessing the campus will still need to travel in person. These include:
 - Healthcare professionals working at the existing three hospitals
 - Other hospital support staff
 - Researchers and laboratory staff who can only undertake their work with specialist facilities
 - Patients visiting the hospitals.
- 2.5.9 The campus is designated for research and development use, therefore generic office accommodation is limited which serves to make the area less vulnerable to the potential continuation of home working that has been seen since Spring 2020.
- 2.5.10 Nationally significant employment locations, not least those at the forefront on medicine and healthcare look sure to have a strategic role in the UK's economic recovery from the crisis. Given COVID-19 safe measures for passengers and/or post COVID-19 direct rail links to and from London, regional employee catchments and international gateways will be a catalyst for the future success of the site and the wider growth of the regional and UK economy.

2.6 Planning Policy

2.6.1 Planning and transport policy is set out in Section 3. Key points of those policies in relation to this section are presented below:

Statement of Case

The 2020 Decarbonising Transport DfT Policy Paper (D23)

- 2.6.2 This sets out the challenge of reducing transport emissions to achieve Government's Net Zero target. Key pillars of DfT's policy are:
 - Accelerating modal shift to public and active transport; and
 - Place-based solutions.
- 2.6.3 Serving a busy and growing site of employment with sustainable public transport is aligned with this policy.
- 2.6.4 Achieving a modal shift to public transport is also likely to improve the wider Cambridge South area as a place to live and work, helping to avoid problems of highway congestion and the associated impacts seen over the last few years.

Cambridge Local Plan (D6)

- 2.6.5 The Cambridge Local Plan (2018) sets out the way in which the development needs of Cambridge will be met during the 2011 to 2031 period. Policy 5 (strategic transport infrastructure) states that Cambridge City Council will support a range of sustainable transport interventions. In particular, by promoting sustainable transport and access for all to and from major employers, education and research clusters, hospitals, schools and colleges.
- 2.6.6 Investment in sustainable transport infrastructure within the Cambridge Southern Fringe can contribute towards several of the objectives of this policy

South Cambridgeshire Local Development Plan (D8)

- 2.6.7 The South Cambridgeshire Local Plan, which covers the area immediately to the south of the Cambridge Biomedical Campus as well as part of the Southern Fringe development area, contains six key objectives.
- 2.6.8 Investment in sustainable transport infrastructure to serve the Southern Fringe and Biomedical Campus can contribute to two of these:
 - To support economic growth by supporting South Cambridgeshire's position as a world leader in research and technology-based industries, research, and education; and supporting the rural economy.
 - To maximise potential for journeys to be undertaken by sustainable modes of transport including walking, cycling, bus and train.

Cambridgeshire Local Transport Plan (LTP) 2011-2031 (D18)

- 2.6.9 Investment in sustainable transport infrastructure in the Southern Fringe area aligns well with the current LTP, which sets out challenges associated with tackling road congestion in Cambridgeshire and the resultant socio-economic and climate change problems. These challenges include:
 - Reducing the length of commute and the need to travel by private car.

Statement of Case

• Making sustainable modes of transport a viable and attractive alternative to the private car. More specifically, the LTP identified the need for a new rail station at Cambridge South.

Transport Strategy for Cambridge and South Cambridgeshire (TSCSC), 2014 (D10)

2.6.10 The TSCSC identified a longer-term opportunity for a new rail station at Cambridge South. This is part of an overall strategy that aims to 'strengthen the employment hubs and high-tech clusters in Cambridge and South Cambridgeshire, and in the surrounding towns, by making movement between them straightforward and convenient'. The strategy also seeks to reduce reliance on the private car.

2.7 Future needs

- 2.7.1 A key interface for the project is the EWR Connection Stage 3 (EWR CS3), which would reinstate a rail link from between Cambridge and Bedford, with services running through to Oxford. Should EWR CS3 progress to delivery it will drive the need further infrastructure between Shepreth Branch Junction and Cambridge Station that is not being delivered by the CSIE project. This includes substantial works at Cambridge Station itself.
- 2.7.2 The CSIE Project as proposed delivers the scope necessary to achieve its aims and realise the identified benefits. It also does so in such a way as to not preclude options for EWR CS3, which is at an earlier stage of design and so potentially subject to change. In particular, as East West Rail Ltd. have not yet formally announced whether a Southern or Northern approach to Cambridge is proposed. Given this, and the fact that EWR CS3 is not committed for delivery, it would be inappropriate for the CSIE Project to seek to deliver all the infrastructure expected to be required by EWR CS3. This would represent an inflation of scope for CSIE without associated benefits which could not be justified either from a funding or consenting perspective.
- 2.7.3 The CSIE and EWR CS3 teams have worked closely together throughout the development of their respective projects to mitigate issues for EWR CS3's potential delivery.
- 2.7.4 The station is capable of catering for projected demand until at least 2043 with the ability to accommodate demand significantly in excess of the central case as set out in the Outline Business Case (**NR 20**). As the design of the station building is further developed it will be subject to further pedestrian capacity modelling to reconfirm this.

2.8 Conclusion

2.8.1 The CSIE Project addresses identified current and future transport needs for the region, and the south of Cambridge in particular. Without the project the continued growth of the campus may be hampered due to the existing level of connectivity. As part of a globally connected research ecosystem CBC must have strong links to international gateways that can only be provided by rail given the distances involved. Adequate transport infrastructure is also essential to the attraction and retention of a high quality skilled workforce. Not delivering the project would place further demands on existing local infrastructure which is already heavily utilised.

Statement of Case

3. PLANNING MATTERS

3.1 Introduction

- 3.1.1 The CSIE Project is consistent with, and supported by, all levels of planning policy including national, regional and local planning policy. It is also supported by the Government's infrastructure policy and transport strategies. Full details of the assessment of relevant planning matters are reported in the Planning Statement (NR14).
- 3.1.2 As set out in section 1 above, the CSIE Order application includes an application for deemed planning permission, so far as it is required, for the works that would be authorised by the CSIE Order.
- 3.1.3 Not all of the works authorised by the CSIE Order require planning permission. One element of the work proposed can be undertaken pursuant to Network Rail's permitted development rights, and this is described in this section.
- 3.1.4 The section then goes on to provide an outline of the planning and transport policy context relevant to the determination of the CSIE Order application and the associated deemed planning application, before providing a summary of Network Rail's conclusions on planning matters.

3.2 Permitted development rights

- 3.2.1 One element of work comprised in the CSIE Project, the change to track layout on the southern approach to Cambridge Station (referred to in this section as the 'track layout works'), can be delivered using rights enjoyed by Network Rail as a statutory undertaker pursuant to the Town and Country Planning (General Permitted Development) Order 2015 (as amended) (the GPDO) (B13).
- 3.2.2 In summary the track layout works involve an extension to the existing shunt spur and the addition of a switchover which will connect the shunt spur to the main line.
- 3.2.3 The proposed track layout works can be delivered under Part 18, Class A (not requiring prior approval) of the GPDO.
- 3.2.4 As a result of the availability of the permitted development rights described above, the CSIE Order application does not seek powers to carry out the track layout works described or deemed planning permission for the same. As the track layout works nonetheless form part of the overall CSIE Project they have however been subject to environmental impact assessment reported in the Environmental Statement (NR16).
- 3.2.5 The track layout works would have some benefits if delivered early or in isolation due to the improved capability it provides for platforms 7 and 8 and Cambridge Station.

3.3 Planning and transport policy context

3.3.1 This section of the statement outlines the planning and transport policy framework against which the CSIE Project is to be considered. This includes planning policy and guidance at a national level, as well as adopted and emerging policies at a local level. Furthermore, the relevant transport policy is also set out within this section.

Statement of Case

National Planning Policy Framework, DCLG (2021)

- 3.3.2 The National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government (DCLG) on the 27th March 2012. The NPPF provides the Government's planning policies for England and sets out how these are expected to be applied. At the time of the submission of the CSIE Order application the last iteration was February 2019, subsequently a further iteration has been issued dated July 2021 (D1).
- 3.3.3 Chapter 2, paragraph 11 of the NPPF explains that, at the heart of the Framework, is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking. For decision-taking this means:
 - 'c) approving development proposals that accord with the development plan without delay; or
 - d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
 - i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.'
- 3.3.4 Chapter 2, paragraph 8 sets out the three key objectives of the planning system economic, social and environmental objectives all interdependent but necessary to achieve the sustainable agenda and underpin both plan-making and decision-taking. They are specifically:
 - 'a) **an economic objective:** to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
 - b) **social objective:** to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
 - c) an environmental objective: to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.'
- 3.3.5 The NPPF sets out national policy on a number of areas, against which proposals are to be considered. Those of particular relevance to the CSIE Project are detailed below:
 - Chapter 2 (Achieving sustainable development)
 - Chapter 6 (Building a strong, competitive economy)

Statement of Case

- Chapter 8 (Promoting healthy and safe communities)
- Chapter 9 (Promoting sustainable transport)
- Chapter 12 (achieving well-designed places)
- Chapter 13 (Protecting Green Belt Land)
- Chapter 14 (Meeting the challenge of climate change, flooding and coastal change)
- Chapter 15 (Conserving and enhancing the natural environment)
- Chapter 16 (Conserving and enhancing the historic environment)
- Chapter 17 (Facilitating the sustainable use of minerals)
- 3.3.6 The NPPF (2021) provides a strong positive framework for decision making. Major planned infrastructure investments which facilitate growth qualify for the strongest national policy support.

Relevant National Transport Policy

- 3.3.7 Britain's railway plays an essential role in supporting and creating economic growth by enabling safe, fast, efficient movement of passengers and goods into and between major economic centres and international gateways.
- 3.3.8 Consistent with Government transport strategy, the railway industry's ambition is to increase rail's already significant contribution to the country's economic, social and environmental welfare linking people and communities in an environmentally sustainable way.
- 3.3.9 In 2011 the Government recognised that there is a need for radical change in transport policy. The Government White Paper (Creating growth, cutting carbon: Making Sustainable Transport happen) (2011) (D26) was published in January 2011. Paragraph 1.3 of the White Paper, explained that the government's vision is for 'a transport system that is an engine for economic growth but one that is also greener and safer and improves quality of life in our communities.' 5.4.4 Paragraph 2.2 of the paper highlighted the crucial role that sustainable transport can play in terms of enabling growth whilst also reducing carbon emissions and addressing climate change. It stated that 'sustainable transport modes can enable growth, for instance by improving access to work, to shops and other services, at the same time as cutting carbon emissions and tackling climate change. Certain interventions can also make a significant contribution to public health and quality of life.'

<u>Transport Decarbonisation Plan</u>

- 3.3.10 In July 2021 the DfT published the 'Decarbonising Transport, A Better, Greener Britain' **(D27)** plan setting out the Government's strategy for delivering transport's contribution to legally binding carbon budgets and delivering net zero by 2050.
- 3.3.11 The summary of commitments for decarbonising our railways, as detailed in the plan, which are relevant to the CSIE Project are set out below:

Statement of Case

- 'We are building extra capacity on our rail network to meet growing passenger and freight demand and support significant shifts from road and air to rail
- We will work with industry to modernise fares ticketing and retail to encourage a shift to rail and cleaner and greener transport journey
- We will improve rail journey connectivity with walking, cycling and other modes of transport'

National Policy Statement for National Network

3.3.12 The National Policy Statement for National Networks (NPS) (**D5**) was published in December 2014 and sets out the need for, and Government's policies to deliver, development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. Whilst the CSIE Project falls under the threshold detailed in the Planning Act 2008 (as amended), section 1.4 of the NPS states that:

'In England, this NPS may also be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 or any successor legislation. Whether, and to what extent, this NPS is a material consideration, will be judged on a case by case basis.'

- 3.3.13 It is therefore the case that whilst the NPS is primarily to guide and inform NSIP applications, it does have some degree of material weight in relation to the CSIE Project as the rationale supporting the proposed works is for improvements to be delivered to parts of the national rail network, and should therefore be appraised accordingly. It is also important to understand the context of the Government's policy stance on rail infrastructure given the limited detail within the NPPF.
- 3.3.14 Section 2 of the NPS sets out the need for development of the national networks and details the Government's vision and strategic objectives:

'The Government will deliver national networks that meet the country's long-term needs; supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. This means:

- Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs.
- Networks which support and improve journey quality, reliability, and safety.
- Networks which support the delivery of environmental goals and the move to a low carbon economy.
- Networks which join up our communities and link effectively to each other.'
- 3.3.15 Paragraph 2.2 explains that 'There is a critical need to improve the national networks to address road congestion and crowding on the railways to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth. Improvements may also be required to address the impact of the national networks on quality of life and environmental factors.'

Statement of Case

- 3.3.16 Paragraph 2.4 goes on to mention the pressures the national networks are under, including a projected increase of 40% of journeys undertaken by rail and rail freight having the capacity to double by 2030.
- 3.3.17 Paragraph 2.6 states that improved transport links help to rebalance the economy.
- 3.3.18 Within paragraph 2.10 the NPS sets out an overarching statement that the Government concludes at a strategic level that there is a compelling need for the development of national networks.
- 3.3.19 The need for development of the national rail network is set out from paragraphs 2.28 2.41. These paragraphs identify the importance of the rail network as a vital part of the national transport infrastructure and for the growing demand for rail travel and future projected growth which together support the compelling need for developing the country's rail network.
- 3.3.20 Paragraph 2.29 presents the Government's vision for the Transport system in which railways must:
 - 'offer a safe and reliable route to work;
 - facilitate increases in both business and leisure travel;
 - support regional and local public transport to connect communities with public services, with workplaces and with each other; and
 - provide for the transport of freight across the country, and to and from ports, in order to help meet environmental goals and improve quality of life.'
- 3.3.21 Paragraph 2.37 highlights the need to improve the network:

'In the short to medium term the Government's policy is to improve the capacity, capability, reliability and resilience of the rail network at key locations for both passenger and freight movements to reflect growth in demand, reduce overcrowding, improve journey tines maintain or improve operational performance and facilitate modal shift from road to rail. The rail network is predominantly a mixed traffic network and the provision of capacity for both freight and passenger services is core to the network.'

Adding that:

'Relatively modest infrastructure interventions can often deliver significant capacity benefits by removing pinch points and blockages.'

3.3.22 The CSIE Project supports and contributes to the delivery of the Government's policy for rail, as set out in the NPS.

3.4 Local Planning Policy

- 3.4.1 The proposed Development is situated within the administrative boundaries of CCiC and South Cambridgeshire District Council (SCDC). The planning policy and development control services of both authorities have come together to create a joint planning authority, Greater Cambridgeshire Shared Planning (GCSP).
- 3.4.2 The Local planning policy documents of relevance to the CSIE Project are set out below:

Statement of Case

- Cambridge City Council Local Plan (2018) (D6)
- South Cambridgeshire Local Development Plan (2018) (D8)
- Cambridgeshire and Peterborough Local Transport Plan (2020) (D9)
- Transport Strategy for Cambridge and South Cambridgeshire (2014) (D10)
- Cambridge Southern Fringe Area Action Plan (2008) (D11)
- Sustainable Design and Construction SPD (2020) (D12)
- Cambridgeshire Flood and Water SPD (2018) (D13)
- Public Art SPD (2010) (D14)
- Cambridge Inner Green Belt Boundary (2015) (D15)

Whilst the following document does not contain planning policies, it does provide relevant context in relation to the CSIE Project and is also therefore considered to be a material consideration in the determination of the CSIE Order application and deemed planning permission request (other similarly relevant policies have been referred to in section 2 above).

- Cambridgeshire and Peterborough Combined Authority: Business Plan (2019-2020 (D16)/ 2020-2021 (D17))
- 3.4.3 It is important to note that GCSP is currently developing a new local plan. The preparation for this is at very early stages, with the preferred options for the emerging Greater Cambridge Local Plan not expected to go out for consultation until autumn 2021. The policy options and evidence published may be relevant to any future submission for discharge of conditions depending on timescales.
- 3.4.4 Further details on the relevant policies within the above documents will be provided in Network Rail's evidence to the public inquiry.

3.5 Relevant Policy Allocations

3.5.1 Figure 3.1 (Extract from the Cambridge Policies Map 2018) **(D7)** shows the administrative boundary between CCiC and SCDC. The proposed new station and associated works will be located within CCiC's boundary. The works involving Shepreth Junction, alterations to Webster's footbridge, and the majority of the RSC will be situated within SCDC'S boundary. Elements of the proposed Development, including the accommodation bridge over Hobson's Brook will span both administrative areas.

Statement of Case



Figure 3.1: Extract from the Cambridge Policies Map (2018)

3.5.2 A summary of relevant Policy Allocations, within CCiC and SCDC Local Plans, which relate to the CSIE Project is provided below.

CCiC relevant policy allocations/designations

The site boundary includes the following designations:

- Green Belt
- Area of Major Change / Proposal Site (M15)
- Area of Major Change / Proposal Site (R42a)
- City Wildlife County Wildlife and Local Nature Reserve
- Protected Open Space (St Mary's School Playing Field / Long Road Sixth Form)
- Waste Consultation Area

SCDC relevant policy allocations/designations

The site boundary includes the following designations:

- Green Belt
- Improved Landscaping (Policies CSF/5 (2f-m)
- Scheduled Ancient Monument

The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case

- Area Action Plan Boundary (Cambridge Southern Fringe)
- Employment Allocation (E/2)

The site boundary is located adjacent to following designations:

- Special Policy Area (SC/1 (2e))
- Waste Consultation Area

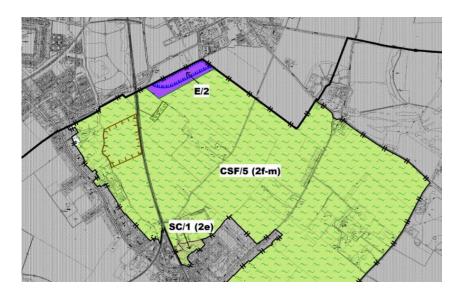


Figure 3.2: Extract from the SCDC's Adopted Policies Map (2018) – Inset E South Addenbrooke's

Cambridgeshire and Peterborough Local Transport Plan (2020) (D9)

- 3.5.3 The Cambridgeshire and Peterborough Combined Authority published CPLTP in January 2020. The vision of the plan is 'To deliver a world-class transport network for Cambridgeshire and Peterborough that supports sustainable growth and opportunity for all'.
- 3.5.4 The CPLTP supports the delivery of the proposed new Cambridge South station and explains the significant benefits that the station would have in improving access and connectivity within the local area and beyond. For instance, paragraph 2.42 states that 'Rail usage has risen considerably over the Combined Authority area and continues to increase; therefore, we will promote a range of schemes to help encourage, maintain and accommodate this trend. For example, there are a number of new railway stations being proposed for the region, including Soham station that would reintegrate the town with the national rail network. In addition, Cambridge South station will significantly improve access to the Cambridge Biomedical Campus from the region and beyond.'
- 3.5.5 Paragraph 3.66 expands on the benefits of the new station, explaining that 'Cambridge South station will support development at the Cambridge Biomedical Campus, expected to generate over 30,000 additional journeys by 2031, and relieve congestion in and around the campus by providing greater sustainable transport options. Commuting into Cambridge by rail will become a more attractive option,

Statement of Case

allowing residents to switch from car and improving access to skilled labour for our dynamic, productive firms.'

Transport Strategy for Cambridge and South Cambridgeshire (2014) (D10)

- 3.5.6 The Transport Strategy for Cambridge and South Cambridgeshire (TSCSC), which was adopted by CCoC on 4 March 2014, seeks to ensure that local councils plan collaboratively for sustainable growth and continued economic prosperity in the area.
- 3.5.7 The TSCSC provides a detailed policy framework and high-level programme of major transport schemes within the area across various timescales. The Strategy highlights the focus on increasing sustainable transport capacity, in particular connecting residents with the key economic hubs and enabling accessibility to services.
- 3.5.8 The need for a new station to serve the CBC is recognised within the TSCSC, which explains at Section 5-4, under the heading Interventions in Cambridge, that:
 - 'In the city, passenger transport, walking and cycling will be the priority. A new station and transport interchange will be provided at Cambridge Science Park, allowing much better penetration into the north of the city by passenger transport. In the longer term, three new rail stations may be provided on the outskirts of the city at Addenbrooke's (to serve the Cambridge Biomedical Campus) Cherry Hinton and Fulbourn to provide new gateways into the city.'
- 3.5.9 Figure 5.2. (List of interventions in Cambridge) of the TSCSC also lists the 'Consideration of a new railway station at Addenbrooke's' as a medium to long term intervention to provide interchange and service improvements. Figure 3.3 of this statement presents an extract from Figure 5.3. (Major interventions in Cambridge) of the TSCSC. The extract shows the possible location, adjacent to the CBC and south of the Guided Busway, of the possible new railway station. This is the approximate location of the new Cambridge South Station which is pursuant to the CSIE Order application.

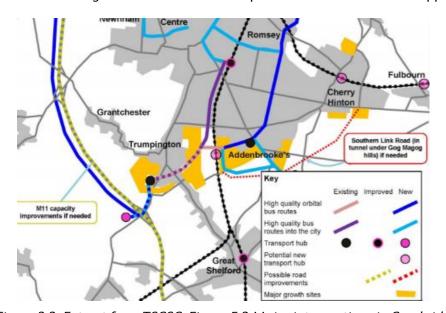


Figure 3.3: Extract from TSCSC: Figure 5.3 Major interventions in Cambridge

Statement of Case

3.5.10 Figure 5.6. (List of interventions on the Newmarket to Cambridge), Figure 5.4. (List of interventions on the Ely and Waterbeach to Cambridge corridor), Figure 5.10. (List of interventions on the Saffron Walden to Cambridge corridor) and Figure 5.12. (List of interventions on the Royston to Cambridge corridor) of the TSCSC also reference the 'Consideration of a new railway station at Addenbrooke's' as a medium to long term intervention.

<u>Cambridgeshire and Peterborough Combined Authority: Business Plan 2019-2020 (**D16**)/ 2020-2021 (**D17**) / 2021-2022 (**D28**)</u>

- 3.5.11 The Cambridgeshire and Peterborough Combined Authority has published three business plans, in 2019-2020, 2020-2021 and 2021-2022 (Ref 1.18). Whilst the respective business plans do not contain planning policy, each plan refers to the delivery of a new Cambridge South Station.
- 3.5.12 Cambridge South Station is referenced within the 'Key Project Commitments for Delivery 2021/22' section of the 2021-2022 business plan. The plan states that 'During 2021/22, the Combined Authority will continue to engage with Network Rail and the DfT in the development of a new railway station adjacent to the Cambridge Biomedical Campus'.

3.6 Conclusion

- 3.6.1 The CSIE Project, has been considered against the relevant national and local, planning and transport policy identified above. Assessed against those policies, as per the Planning Statement (NR14), it will be seen that the CSIE Project is in accordance with the up to date planning framework, both nationally and for the local area. The proposed creation of a new station at Cambridge South and associated railway infrastructure improvements will provide significant economic, social, and environmental benefits to the local area and wider Cambridgeshire region.
- 3.6.2 In particular, the CSIE Project would deliver an inclusive 'Access for All' railway station, providing greater connectivity and access to Hospitals, the CBC and local community infrastructure. Through providing a more attractive public transport alternative to the private car, the CSIE Project will support sustainable transport strategies, encouraging a modal shift to sustainable transport modes and reducing traffic congestion in the local area.
- 3.6.3 The enhancement of sustainable transport access to housing, services and employment will support the growth of the Cambridge Southern Fringe and CBC area.
- 3.6.4 The impact of the CSIE Project on the Cambridge Green Belt has been appropriately assessed and the CSIE Project is consistent with national and local Green Belt policy.
- 3.6.5 The design evolution of the CSIE Project has carefully considered the sites location and surrounding context. The proposed conditions which form part of the submission will ensure that this is carried through into the submission of detailed design of the CSIE Project.
- 3.6.6 The provision of replacement public open space land will address the impact of existing public open space land lost as a result of the CSIE Project. Future landscaping design and works will ensure that the replacement land is of an equal or better standard compared to the area of land that will be lost.

Statement of Case

- 3.6.7 Overall, the findings of the ES **(NR16)** have concluded that the majority of the potential adverse effects from the CSIE Project can be mitigated to a level that is not significant. Where certain impacts cannot be mitigated fully, it is considered that the substantial benefits of the CSIE Project would outweigh these impacts.
- 3.6.8 Taking these factors into consideration, the approval of the deemed planning consent request will be shown to be justified.

Statement of Case

4. PROJECT DEVELOPMENT

4.1 Introduction

4.1.1 The CSIE Project has been developed since early 2018 using Network Rail's Governance of Railway Infrastructure Projects (GRIP) process¹, which has been in use for many years and seeks to explore a broad range of options at the outset of a project, narrowing these down in line with emerging technical information, stakeholder feedback and development of the business case. This section explains this process for the CSIE Project and provides an indication of the main reasons for selecting the preferred option which is now the subject of the CSIE Order application, taking into account the likely significant environmental effects of the proposed works.

4.1.2 GRIP stages completed so far are:

Stage	Dates*	Headline activities for CSIE
GRIP 1: Output Definition	March 2018- Oct 2018	Working with funders to clarify remit Procurement of design contractors for GRIP 2 and 3 Setting up project team
GRIP 2: Feasibility	Oct 2018- April 2020	Development of 'Concept' scope Development of 'OBC' (remitted) scope Surveys Round One Public consultation (key focus – station location)
GRIP 3: Option Selection	Oct 2019- May 2021	Refinement to infrastructure designs including feedback from Round One consultation Selection of station location Round Two Public consultation (key focus – access to station, footprint and construction arrangements) Additional surveys

^{*}Please note that GRIP 2 and GRIP 3 were overlapped to aid with programme acceleration.

- 4.1.3 During the GRIP stages described above, the following principal alternative options for the CSIE Project were considered:
 - No development
 - Four means of public transport (of which one was the railway station)

¹ GRIP has recently been replaced with PACE (Project Acceleration in a Controlled Environment) but this is not relevant to the Project development

Statement of Case

- Six railway station locations and layouts and four Shepreth Branch Junction layouts
- 4.1.4 During this process, the options were assessed against the following strategic objectives (the Strategic Objectives):
 - Improvement in sustainable transport access to housing, services, and employment within the Cambridge Southern Fringe and CBC area, to fulfil existing and future demands.
 - Contribution to minimising highway congestion associated with the Southern Fringe and Cambridge Biomedical Campus by increasing the mode share for sustainable transport modes.
 - Reducing reliance on Cambridge city centre transport infrastructure for serving the Southern Fringe and Biomedical Campus.
 - Capacity to integrate with and enhance the opportunities presented by Thameslink and East West Rail, to support development of the Biomedical Campus as part of the Golden Triangle life sciences cluster.
 - Increasing public transport connectivity between the Cambridge Biomedical Campus and international gateways, in recognition of its international significance.
- 4.1.5 Details of the consideration of each option, and the subsequent development and refinement of the CSIE Project is set out below, by GRIP stage.

4.2 GRIP 1: Output Definition

4.2.1 At the inception of the project, a Strategic Outline Business Case (SOBC) (C3) was produced, which assessed the option of a railway station adjacent to the CBC. The outcomes of this assessment led to funders remitting Network Rail to undertake development work on a railway station and formed the starting point for GRIP 1. It was at this stage that the alternative options set out in the Introduction above were initially considered. The conclusions of the assessment of each of the options is summarised briefly below.

The 'No Development' option

- 4.2.2 At the time of the assessment, the (now superseded) Cambridgeshire Local Transport Plan (LTP) 2011-2031 (D18) identified the need for a new station to serve the Addenbrooke's Hospital, the Cambridge Biomedical Campus and the Cambridge Southern Fringe residential development.
- 4.2.3 The LTP Long Term Transport Strategy (**D18**) also recognised that 'additional track capacity is likely to be needed between Cambridge Station and Shelford junction [referred to as Shepreth Branch Junction within this Statement of Case] to facilitate this work'.
- 4.2.4 Network Rail therefore concluded that a 'No Development' option would not be in line with planning policy.
- 4.2.5 Subsequently, the LTP 2011-2031 **(D18)** was superseded by the Combined Authority Local Transport Plan **(D9)**. The current Plan identifies Cambridge South Station as one of the Combined Authority's priority transport schemes, and recognises that the new station would support development at the

Statement of Case

- CBC and would help to relieve congestion in and around the campus. The view that a 'No Development' option would conflict with planning policy therefore continues to be valid, notwithstanding the change of policy.
- 4.2.6 It was further recognized that the planning policies adopted in Cambridgeshire indicate that it is expected to accommodate a significant level of employment and housing growth. Having regard to this, and as set out in the Outline Business Case for the Cambridge South Rail Station (2021) (NR 20), the 'No Development' alternative was considered also to be likely to result in:
 - Increased pressure on an already constrained Cambridge Station, as all rail trips associated with the Southern Fringe and CBC currently route through the main city centre station;
 - Increased levels of highway congestion on radial routes, and local routes throughout the Southern Fringe, and for longer periods of the day. Increased congestion is likely to reduce the attractiveness and viability of later development phases;
 - Accessibility problems for employees based at the CBC, due to highway congestion, constrained parking availability, and indirect public transport journeys; and
 - Increased emissions and reduced air quality within the Cambridge Air Quality
- 4.2.7 Management Area, which would additionally have adverse climate change implications.
- 4.2.8 In combination, these issues have the potential to affect the ability of businesses at the CBC to retain their highly skilled and globally mobile employees, and ultimately the success of the entire CBC.
- 4.2.9 Supporting the workforce with good connectivity between key employment and residential sites will continue to be important for Cambridge's current and future economic competitiveness on an international scale.
- 4.2.10 On the basis of all of the above, it was therefore concluded that the 'No Development' alternative would not meet the Strategic Objectives.

Four Public Transport Options

- 4.2.11 Four public transport options were considered in the SOBC **(C3)** against the Strategic Objectives. These were:
 - New Cambridge South rail station and associated rail line improvements
 - New longer distance direct bus or coach services
 - Busway service enhancement
 - Expanded Park and Ride sites
- 4.2.12 Each of the options were scored against the Strategic Objectives using a seven-point scale large, moderate, slight beneficial / adverse, or neutral. The options were also awarded a red, amber or green rating for deliverability, financial affordability, and stakeholder acceptability risks.

Statement of Case

- 4.2.13 It was identified that a new Cambridge South Station has the potential to bring about large beneficial impacts aligned to four of the five objectives, and therefore achieved the highest rating. The Strategic Outline Business Case (SOBC) (C3) reported as follows:
 - A new Cambridge South rail station would connect the CBC directly to international airports including London Stansted and London Gatwick, via the rail network. Long distance coach services could also be beneficial, but only if direct services were provided from multiple airports to the Biomedical Campus. The other options would not lead to a noticeable benefit for international travellers.
 - All options improve sustainable transport accessibility, but Cambridge South Station is rated above other options because it represents a substantial upgrade in provision.
 - Three of the four options would help to minimise highway congestion associated with the development areas. However, Park and Ride expansion received an adverse rating as this would be likely to encourage higher traffic volumes in the Southern Fringe area.
 - To effectively reduce reliance on city centre transport infrastructure, the selected scheme must provide direct access to the CBC from the national transport network. Long distance coach services could contribute to this. Cambridge South Station would contribute the most by connecting the Southern Fringe area to London and in future the East West Rail link could connect the area to other parts of the Golden Triangle.
 - The Cambridge South Station proposal is designed to integrate with and complement the Thameslink and potential future East West Rail schemes. The other options have less of an ability to integrate.
 - Deliverability risk is considered to be higher for options requiring a significant level of new infrastructure.
- 4.2.14 Although the Cambridge South Station option is likely to be the most challenging option in terms of deliverability and is the highest cost option, the assessment that formed part of the SOBC showed that the station is the most effective way to deliver the Strategic Objectives. This is largely because it provides the most substantial improvement in public transport accessibility between the CBC and the Southern Fringe and the largest potential catchment area. The OBC (NR 20) reconfirmed this conclusion.
- 4.2.15 No design work for the CSIE Project took place in GRIP 1 other than very high-level operational modelling which produced some indicative track layouts. Refinements to the remit during this stage allowed the project to progress with GRIP 2 without undue risk of excessive development costs that could have resulted from a poorly defined remit. Procurement during this stage gave funders confidence of cost certainty for GRIP 2 and 3.

4.3 GRIP 2 - Feasibility

4.3.1 During this stage our design consultant was brought on board, and significant development work commenced to identify feasible options that achieved remitted outputs in a way that was likely to represent good value for money.

Statement of Case

4.3.2 As site constraints and opportunities formed an integral part of the sifting and option selection process for the project these are explained here before the process of development itself is explained.

Site Constraints and Opportunities in South Cambridge

Site Constraints

4.3.3 Project constraints were identified as part of the GRIP 2 process (the project feasibility stage). The key engineering and environmental constraints are outlined below.

Key engineering constraints

- 4.3.4 A number of structures or civil assets, including bridges, culverts and a Global System for Mobile Communications-Railway (GSM-R) mast, were identified along the proposed route. It is noted in the Cambridge South Infrastructure Enhancements Feasibility Report for Outline Business Case Designs (GRIP 2) that within the proposed extents (i.e. just south of Shepreth Branch Junction to Cambridge Station) there are a number of assets that require consideration when producing the design options. Mainly, these are structures that are identified as constraints or would need to be modified, removed or replaced.
- 4.3.5 A review of the existing buried services identified several buried services present within the project boundary. A schedule of the assets and whether the service is likely to be impacted by various layout options was included in Cambridge South Infrastructure Enhancements Feasibility Report for Outline Business Case Designs (GRIP 2).
- 4.3.6 Existing overhead line equipment constraints between Shepreth Branch Junction and Cambridge Station were identified as:
 - Position of the Neutral section² and Track Sectioning Cabin³
 - Overbridge electrical clearances
 - Overbridge parapet heights

Environmental constraints

- 4.3.7 The location of the CSIE Project is subject to a number of environmental constraints which have been taken into account in the project development, including:
 - Green belt designation;
 - Flood risk:
 - Historic environment; and

 $^{^{2}}$ Neutral section is a section of overhead line that is not energised

³ Track sectioning cabin - At the neutral section between the feeder stations, a Track Section Location (TSL) or a Track Section Cabin (TSC) can be found. These are in place to measure and transform the current and the voltage to the overhead line

Statement of Case

Biodiversity interest

Green Belt

4.3.8 The Green Belt designation relates to the western portion of the site, which lies within Hobson's Park, which forms part of the Cambridge Green Belt, and contains the Hobson's Park Nature Reserve.

Flood risk

- 4.3.9 The Environment Agency (EA) 'Flood Map for Planning (Rivers and Sea)' (see Figure 7 in the FRA (NR16 Volume 3: Appendix 18.2)) shows that the majority of the CSIE Project is located in Flood Zone 1 (low probability). Land where the station is proposed is designated as Flood Zone 2 (medium probability) and Flood Zone 3 (high probability). The source of flood risk is identified by the EA as the North Ditch.
- 4.3.10 A study has been undertaken to qualify fluvial flood risk to the CSIE Project from North Ditch. The modelling results showed that no out-of-bank flooding is predicted for the 1 in 100 year or 1 in 1,000 year events.
- 4.3.11 There are areas of elevated surface water flood risk and a surface water flow path in the vicinity of the proposed station. These have been taken into account in the drainage design for the proposed station, as detailed in section 6 of the FRA (NR16 Volume 3: Appendix 18.2). Similarly, areas of elevated surface water flood risk along the railway line have informed the drainage proposals for the rest of the CSIE Project.
- 4.3.12 Further details are provided in Chapter 18: Water Resources and Flood Risk of the Environmental Statement (NR16).

Historic environment

- 4.3.13 There is one designated asset within the CSIE Project boundary, being the Scheduled Monument west of White Hill Farm. There are several Listed Buildings within 200m of the boundary, including thr Nine Wells Monument, located within the Nine Wells Local Nature Reserve.
- 4.3.14 The land within the site boundary and the surrounding landscape demonstrates significant archaeological potential, with all periods represented in the archaeological resource from the Mesolithic through to the Modern. The focus of activity in the study area occurred during the Iron Age and Roman periods when the landscape was more actively used by human settlement.

Biodiversity

4.3.15 Eversden and Wimpole Wood Special Area of Conservation is located approximately 11km from the site. There are also a number of Local Nature Reserves of county importance within 2km of the site, including the Nine Wells Local Nature Reserve. There are City Wildlife Sites within the site boundary, namely Hobson's Brook, as well as adjacent to the site boundary, namely Long Road Plantation. There are also a number of City Wildlife Sites and County Wildlife Sites within 2km of the site. Further detail is provided in Chapter 8: Biodiversity of the Environmental Statement (NR16).

Statement of Case

Site Opportunity

- 4.3.16 In addition to the site constraints, the area of the CSIE Project presents an opportunity in relation to sustainable travel.
- 4.3.17 As part of the Transport Assessment, a gap analysis of the existing walking and cycling infrastructure was undertaken to identify opportunities to improve provision, connections,
- 4.3.18 widths and quality of existing infrastructure and facilities where possible without adding in additional scope or cost to the project or TWAO.
- 4.3.19 To facilitate access to the station and to promote sustainable transport modes for passengers, several additional improvements to the existing infrastructure are proposed:
 - Widening of the existing crossing on the southern arm of Francis Crick Avenue/CGB junction to accommodate additional pedestrian and cycle movements between the station and trip attractors and generators within the CBC; and
 - Widening of the existing crossing on the CGB connecting Trumpington residential area and Hobson's Park and adjacent section of the shared use path on the western side of the CBG to accommodate additional pedestrian and cycle movements.
- 4.3.20 The CSIE Project will encourage active travel which also has positive health and climate change implications, although this is not location specific.

4.4 Evolution of the Design in GRIP 2

- 4.4.1 As set out in the Introduction above, the design for Cambridge South Station evolved through three clear stages within Network Rail's project governance model known as Governance for Railway Investment Projects (GRIP). GRIP 1 is a pre-feasibility stage involving problem definition, GRIP 2 is an option identification and feasibility stage. GRIP 3 is option development and single option selection.
 - Initial Concept Design (GRIP2A) for the Wider Railway Network around Cambridge
- 4.4.2 Design work started in GRIP 2 Concept Designs were developed during GRIP 2A for different operational concepts for a future 4 track layout.
- 4.4.3 Different track layout options and different station locations were developed to deliver the 2043 Indicative Train Service Schedule (ITSS). This ITSS is a document that includes potential future uplifts in services on the railway network around Cambridge Station including those anticipated to be operated by the East-West Rail company.
- 4.4.4 The key purpose of this work was to anticipate future railway layouts running through Shepreth Branch Junction to the south, a new station at Cambridge South, Cambridge Station and onwards to the north to the Coldham's Lane Junction, and ensure that the CSIE Project could co-exist successfully with those if and when they eventually come forward.
 - Outline Business Case Design (GRIP2) for the Cambridge South Station

Statement of Case

- 4.4.5 GRIP 2 designs specific to the CSIE Project were limited to the railway infrastructure required to support a new station, comprising:
 - Track layouts
 - Station locations; and
 - Operational layouts

Track layouts

4.4.6 Track and signalling layouts were designed to accommodate a new station for Cambridge South to deliver the 2020 Indicative Train Service Schedule. The key objective is that the new Cambridge South station does not preclude concept layouts in the future.

Station Locations

- 4.4.7 At GRIP 2 stage, station design was primarily associated with location and these were referred to as the South, Central and North options, referring to the proposed location of the station between Addenbrookes Road (Nine Wells bridge) in the south and the Guided Busway bridge (Addenbrookes Bridge) to the north.
- 4.4.8 The 3 alternatives considered were:
 - North close to the Guided Busway bridge
 - South close to the Addenbrookes Road bridge
 - Central located almost equidistant between the two bridges
- 4.4.9 Images of these station options are provided in Figure 4.1.

Statement of Case

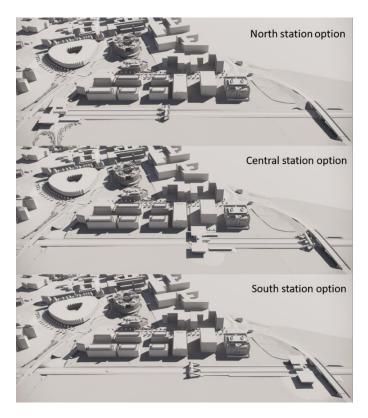


Figure 4.1 Station options

4.4.10 There was no preference identified at this stage as to whether the main station facilities would be focussed to the west of the railway or the east, or both. The options proved the high-level feasibility of the proposals.

Operational layouts

- 4.4.11 Track and signalling high level designs and a footprint for a station were developed for the three Operational Layouts (see Figure 4.2), with tweaks for each of the three station location options. Layouts proposed also included layouts with curved platforms to avoid the Scheduled Monument to the south all were considered to be feasible.
- 4.4.12 The three Operational Layouts were:
 - Option T2a a four-platform station with two island platforms with loops either side
 - Option T2b a four-platform station with three island platforms
 - Option T6 'Lite' a hybrid of T2a/T2b, and T6 (i.e. four-platform layout with additional platforms constructed to the site) with less infrastructure

Statement of Case

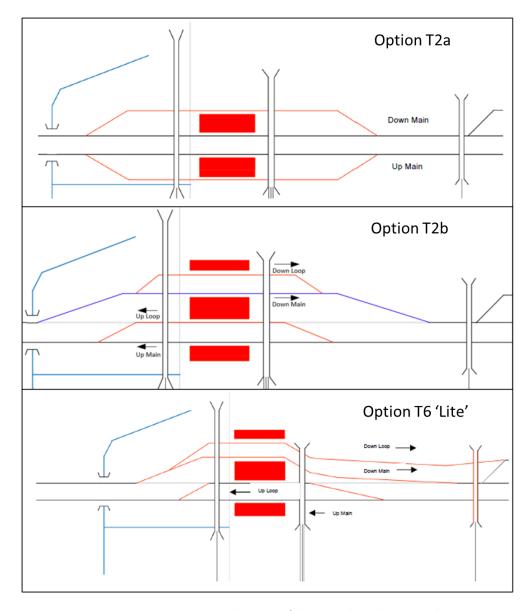


Figure 4.2 Operational Layouts⁴ (T2a, T2b and T6 'Lite')

Consultation During GRIP 2

- 4.4.13 This level of design information was used to inform the first round of consultation with statutory and non-statutory consultees. In summary, the feedback received concerning the location options was as follows:
 - The Northern station option was favoured by the majority of stakeholders as it is closest to the centre of the CBC, and offers the best opportunity for interchange between services on the Busway and bus stops. However, concerns were expressed that this location could cause the most disruption to Addenbrooke's Bridge (Guided Busway) during construction.

⁴ Platforms are shown in red

Statement of Case

- The Central station location option poses spatial constraints for the University of Cambridge's developments adjacent to the railway track.
- The Southern station location option was favoured by a small number who felt it would better serve the future proposed expansion of the CBC, which is proposed to the south.
- 4.4.14 Where environmental concerns were raised during the first round of consultation, these were taken into account during the process of option selection as appropriate. The Environmental Statement (NR16) outlines how consultation feedback has been addressed in each topic chapter.

4.5 GRIP 3: Option Selection

4.5.1 GRIP 3 built upon all the information gathered and produced in GRIP 2 to further refine remaining options and compare and contrast their benefits and challenges in order to select a single option. This included consideration of feedback from the first round of consultation.

Operational concept development

4.5.2 Early operational modelling of the railway in GRIP 3 predicted that the Option T6 Lite layout offered additional benefits, but the additional cost and environmental impact was not considered justified. This option extended a third track to the north of the proposed Cambridge South station connecting to the Down Loop line at Long Road (see Figure 4.2). In view of the additional cost and environmental impacts, the project team took a decision to stop the development of T6 Lite options. Only the T2a and T2b layouts were therefore pursued at this time.

Track and Signalling development

- 4.5.3 During GRIP 3, track layouts were prepared for individual station locations.
- 4.5.4 An opportunity was also identified to modify the T2b layout to support an option for a northern station that both obviated the need to demolish and reconstruct Addenbrookes Bridge carrying the Guided Busway and which had a reduced footprint in Hobsons Park. This became known as T7.
- 4.5.5 Track layouts associated with the T2a, T2b, T6 Lite and T7 operational layouts were sifted at a workshop on 24 February 2020. The workshop concluded that the T7 options were preferred. This sift was nominally part of GRIP 2 but took place at the outset of GRIP 3 given the overlap of stages.

Station location options

- 4.5.6 Conceptual station arrangements were considered for each of the Southern, Central and Northern locations between the Nine Wells and Addenbrookes bridges.
- 4.5.7 An initial sift was undertaken, rationalising the conceptual arrangements to six feasible station access options. The six options were:
 - North 2 (West = Full access; East = pedestrian and cycle (P&C) access)
 - North 4 (West = P&C access; East = Full access)
 - Central 2 (West = Full access; East = P&C access)

Statement of Case

- Central 4 (West = P&C access; East = Full access)
- South 2 (West = Full access; East = P&C access)
- South 4 (West = P&C access; East = Full access)
- 4.5.8 These options all met Network Rail's key criteria, which were:
 - Provide access for passenger & emergency vehicles to one side of the railway only.
 - Provide pedestrian and cyclist access to both sides of the railway.
- 4.5.9 However, these options did not all perform equally well with regards to Network Rail's 'additional development objectives', which are set out below:
 - To ensure there is likely to be no significant detrimental impact upon the purposes of the Cambridge Green Belt in this area.
 - To ensure there is likely to be no significant detrimental impact upon purposes and character of the adjacent Hobson's Park.
 - To ensure there is likely to be no significant detrimental impact upon the route, character, hydrology and biodiversity of Hobson's Conduit and its tributaries.
 - Avoiding a significant impact upon the purpose biodiversity of the surface water attenuation features between Addenbrooke's Bridge and Nine Wells Bridge.
 - Providing a legible transport interchange within the Southern Fringe between the CBC and Clay Farm.
 - To ensure there is likely to be no significant detrimental impact upon the local road network and parking.
 - Avoiding a significant detrimental impact upon the scheduled monument and its setting.
- 4.5.10 North 4, Central 4 and South 4 performed well; no significant detrimental impacts upon the additional development objectives were predicted, while North 2 and Central 2 did not perform well. These options were considered likely to bring about significant detrimental impacts upon the Green Belt and Hobson's Park due to the imposition of the station's full vehicular access requirements in that location. This was factor was also applicable to South 2, but just in terms of the likely impact on the Green Belt.
- 4.5.11 These six layouts were then developed forming localised responses to acknowledge key site constraints and opportunities. Although it was identified that three of the options would likely bring about significant negative environmental effects, those options nonetheless met the key criteria. Other factors were required to be taken into account, for example, operational performance and cost. In addition, the iterative design process presented an opportunity to mitigate the risks identified.

Statement of Case

Sifting Station Location and Access Options

- 4.5.12 Two separate sift workshops were conducted to reduce the number of station location and access options. Initially, the list of six options was reduced to three at a sift workshop on 1 April 2020. These were:
 - North 4 (West = P&C access; East = Full access)
 - Central 4 (West = P&C access; East = Full access)
 - South 2 (West = Full access; East = P&C access)
- 4.5.13 Generally, the provision of full access via routes through Hobsons Park was not preferred due to the environmental impact. However, it was judged that a western highway access for a southern station had less impact on the park directly, albeit this was still in the Green Belt. The southern station option was further developed to move the station building further to the south alongside the Addenbrookes Road embankment to further reduce the visual impact.

Option selection

4.5.14 An option selection sift workshop was held on 28 May 2020 where the three options were considered. These three options all shared track layout T7 and a comparable station building concept and size. The track layout had been chosen to minimise impact on the Green Belt and existing infrastructure, but the station building had not yet been developed in significant detail. The three options considered are summarised below:

Table 3.1 Key advantages and disadvantages of the three station options

Station	Road	Key Advantages	Key Disadvantages
Northern	East	 Preferred by most stakeholders and public Closest to key destinations/greatest passenger journey time benefit DfT/funder preference Smaller land take requirement than Southern option Avoids High Pressure Gas main Least operational noise impacts 	 Site is most constrained (adjacent to AstraZeneca and drainage structures) Marginal journey time impact (c. 2 seconds) for some non-stopping trains Possible need for Temporary Speed Restrictions during construction (c.2seconds of journey time impact) More complex and slightly longer construction programme

Statement of Case

Station	Road	Key Advantages	Key Disadvantages
Central	East	- More space on eastern side - No marginal journey time impact for some non-stopping trains	 Conflict with land to East identified for future lab development. Traverses High Pressure Gas Main Significant Landowner security concerns over sharing access roads Concerns around visual and access impact on Hobson's Park Potential higher operational noise impacts at the Anne McLaren Building Least popular at consultation
Southern	West	 No marginal journey time impact for some non-stopping trains Sufficient space for bus turnaround facilities etc. Avoids High Pressure Gas Main Least constrained option for construction and future growth 	- Strong stakeholder objections to western road access (including council planning department) impacting Hobson's Park - Greatest use of green belt - Furthest away from campus destinations so smallest journey time benefit.

- 4.5.15 The sift considered many factors, but the key differentiators are shown in the table above. In general, there were no significant differences in the overall environmental impact of the Northern, Central and Southern options. The conclusion reached in the sift workshop was that the Southern option was preferred from a technical perspective (as it has the least engineering, programme and cost risk due to lesser complexity and the greater amount of space). However, it was clear that stakeholders had to a great extent expressed a preference for the northern option, and that progressing the southern option would likely make the future of the project far more challenging due to the concerns previously raised by key stakeholders. Further design work on Shepreth Branch Junction, to increase the line speed, has subsequently removed the journey time impacts associated with the Northern option.
- 4.5.16 The project team discussed the issues with the DfT, as lead client, which confirmed that as the options were expected to be of similar cost, and because of the strength of support for the Northern option as

Statement of Case

- well as level of stakeholder concerns regarding the Southern option, it was most prudent to proceed with the option which would retain the greatest level of local support. This led to the selection of the northern option.
- 4.5.17 This option was expected to have the simplest passage through the TWAO process, and also provides the best access to key destinations, which is evidenced by OBC (NR20) work on journey time savings undertaken by DfT.
 - Additional Track and Signalling Works to Enhance Operational Performance
- 4.5.18 Network Rail reviewed the operational performance of the proposals at each stage of option development. The final iteration of operational modelling identified some concerns that the proposed track and signalling layouts could have a negative impact on some services. This was a key project requirement and opportunities to develop additional capability were therefore explored.
- 4.5.19 Primarily, this looked to increase the operational speed of Shepreth Branch Junction, which is currently 30mph and which needed to be increased to 50mph. In addition, a new crossover was proposed at Hills Road just outside Cambridge Station to support parallel moves into and out of Platform 7&8. Some modifications to signal locations were also proposed to reduce headways (i.e. space between trains).
- 4.5.20 Whilst the signalling works and the works at Hills Road are contained entirely within the railway boundary, the modifications to Shepreth Branch Junction needed to be more extensive and the options were explored and are summarised in the following section.
 - Shepreth Branch Junction
- 4.5.21 The junction remodelling would be achieved by means of an 'opened out' double junction. Four options were considered in order to deliver a junction speed of 50mph, in terms of their impacts upon the area of the existing junction and surrounding infrastructure, constructability, maintainability and prevalence of any non-preferred geometry or componentry.
- 4.5.22 The option referred to as Option 3 was selected as the preferred layout for the proposed modifications to Shepreth Branch Junction. This decision was predominantly safety and engineering driven since one option was not acceptable to the route asset engineer and another would have introduced additional safety risks to maintenance staff seeking to access the GSMR mast. Of the two remaining options, the one with the lowest impact on non-railway land was chosen. Option 3 was the minimum operationally acceptable solution.

Conclusion of option selection process

4.5.23 The project identified that a northern station location with vehicular access from Francis Crick Avenue provides the best solution for a Cambridge South Station. Additional infrastructure is required to ensure that there are no service disbenefit for passengers resulting from the new station. These works are in the form of a new higher speed extended double junction at Shepreth Branch Junction along with a new crossover immediately south of Cambridge Station at Hills Road.

Statement of Case

4.5.24 The environmental impacts for all options for the station location and Shepreth Branch Junction works were assessed but were not the deciding factor during the option selection process as the decision was made against cumulative impact when considering all categories equally.

4.6 Consultation During GRIP 3

4.6.1 This selected single option for the proposed Cambridge South station and associated infrastructure was used to inform the second round of consultation with statutory and non- statutory consultees.

The feedback from this and actions taken by the Project as a result is discussed in Section 10.

4.7 Conclusion

- 4.7.1 Throughout the development process the Project team has sought to balance the objectives of the Project, engineering feasibility, the sensitivity and constraints of the site, stakeholder feedback, and value for money. The proposed infrastructure represents due consideration of these key factors by:
 - Protecting the capacity and performance of the network,
 - Providing passenger facilities appropriate for the setting and demand profile of the station,
 - Creating a station accessible from both sides of the railway and,
 - Mitigating the need to acquire additional land.

Statement of Case

5. THE PROJECT

5.1 Introduction

5.1.1 This section of the statement provides an overview of the existing site and surrounding area and a description of the layout and physical characteristics of the CSIE Project.

5.2 The Site and Surrounding Area

5.2.1 The site boundary covers an area of approximately 46.5ha. and lies within and adjacent to the existing railway corridor from Hills Road overbridge in the north and Shepreth Branch Junction to the south (see Figure 5.1 below). The site is located immediately west of the CBC. The CSIE Project is located in the administrative areas of CCiC and SCDC. The southern part of the site is also located within the parish of Great Shelford.

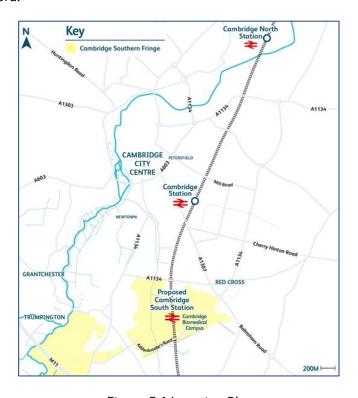


Figure 5.1 Location Plan

- 5.2.2 The CSIE Project site is generally flat and contains the existing railway line. The eastern portion of the site is bordered by the CBC and is mainly occupied by associated buildings, hard standing areas and car parks. The proposed eastern station forecourt connects to Francis Crick Avenue. To the south of the CBC lies Addenbrookes Road which forms the junction of Francis Crick Avenue and Dame Mary Archer Way. Within adjacent land, south of Dame Mary Archer Way is Abcam Plc, associated storage yards and car parking. The area further to the south is occupied by arable farmland.
- 5.2.3 The majority of the western portion of the CSIE Project site lies within Hobson's Park which is greenfield in nature and contains Hobson's Park Nature Reserve. Arable farmland lies to the south west of Addenbrookes Road, which contains a Scheduled Monument with all periods represented in

Statement of Case

- the archaeological resource from the Mesolithic through to the Modern. Hobson's Brook is also located within the site's western boundary and lies in a north-south orientation.
- 5.2.4 At Shepreth Branch Junction, residential properties lie along the east of A1301 Cambridge Road and adjacent to Davey Crescent. There are two Grade II Listed Buildings, Four Mile House, located west of Cambridge Road on the north of the railway, and De Freville Farmhouse, located west of Cambridge Road, on the south side of the railway.
- 5.2.5 The northern area of the site predominantly comprises existing railway infrastructure. This area is bordered by large educational and industrial buildings. Along the Cambridgeshire Guided Busway (CGB) route, which crosses over the northern portion of the site, there are stretches of national cycle route, public rights of way (PRoWs), and minor roads which frame the site and create connectivity to surrounding areas.
- 5.2.6 The geology beneath the site is identified as: chalk of the Zig Zag Chalk Formation; Totternhoe Stone Formation, and the West Melbury Marly Chalk Formation over the Gault Formation. This is overlain by superficial deposits of sand and gravel River Terrace Deposits.
- 5.2.7 The site is predominantly located in Flood Zone 1 but small areas along both sides of the railway line are located in Flood Zone 2 and 3. A Flood Risk Assessment (NR16 Volume 3: Appendix 18.2) was included in the CSIE Order application.
- 5.2.8 The surrounding area contains significant archaeological potential, including rich Prehistoric and Roman activity. Key areas have previously been investigated through archaeological excavations east of the site including: the Addenbrooke's Hospital and the Addenbrooke's Link Road; the AstraZeneca site; Clay Farm excavations, works at Trumpington Meadows and around Granham's Farm. Potential for archaeology presents a key constraint, as it surrounds the site boundary on all sides. The conditions proposed to be attached to the deemed planning permission include a pre-commencement condition relating to archaeology (NR12).
- 5.2.9 Within the site boundary and surrounding area, there is a range of transport infrastructure in the form of roads, the CGB, railway lines and cycle paths. Public footpaths, permissive paths and cycle routes also cross the area.
- 5.2.10 Within the site boundary, Hobson's Brook, a partially natural watercourse, rises from Nine Wells Local Nature Reserve. The Brook is an important ecological feature and wildlife corridor and comprises grassland, ruderal species and a number of ponds. Beyond the western boundary the area is characterised by the River Cam which flows north to south approx. 2km parallel to the west of the railway.
- 5.2.11 There are two Sites of Special Scientific Interest (SSSI) within 2km of the CSIE Project: Gog Magog Golf Course besides Babraham Road and Cherry Hinton Pit alongside Limekiln Road. There are a number of listed buildings adjacent to the eastern fringe, the closest is the Dovecote at Granham's Farm which is a Grade II listed building at a distance of approximately 30m from the CSIE Project boundary.

Statement of Case

5.3 The Proposed Development

- 5.3.1 As stated in the Introduction, the aim of the CSIE Project is to provide infrastructure necessary to deliver a new station adjacent to the CBC whilst maintaining capacity and improving capability of the network. The CSIE Project would provide facilities to accommodate 240m length trains at the new station, additional track infrastructure to allow services to stop at the station whilst protecting train capacity and performance.
- 5.3.2 The CSIE Project comprises these three main components:
 - A new connection between existing lines at Hills Road (to improve the southern access to Cambridge Station)
 - A new Cambridge South station
 - Junction improvements at Shepreth Branch junction
- 5.3.3 The latter two components above are proposed to ensure that there are no service disbenefits for passengers as a result of the proposed new Cambridge South station.
- 5.3.4 Table 5.1 below provides a summary of the key features of the CSIE Project.

Table 5.1: Summary of key features of the CSIE Project

Feature	Description	
Station	Construction of a new station on the WAML with two lifts per platform, stairs and footbridges, access for vehicles on the east, access for pedestrians and cyclists from both sides of the railway, five bays for Blue Badge holders and three bays for drop-off by private cars and three bays for drop-off by taxis on the east and space for a total of 1,000 cycles arranged on both sides of the railway.	
Track and platforms	Remodelling the existing track layouts and installing two additional loops to serve four platforms. Enhancements to track at Shepreth Branch Junction. Improvements to shunt spur at Hills Road Junction.	
Plant	Provision of supporting infrastructure such as overhead line electrification (OLE) equipment and provision of a Railway Systems Compound which includes a substation for the purpose of powering railway systems.	
Signalling	Modification of existing signals, equipment and associated cabling to allow new layout to be installed.	
Telecommunications	Provision of new telecommunications facilities, relocation of a Global System for Mobile Communications-Railway (GSM-R) mast and associated cabling.	
Electrical and Power	Provision of power cables to serve railside and station infrastructure.	

Statement of Case

Drainage and culverts	Reconstruction of Tibbets Culvert to minimise flood risk and provision of additional sustainable drainage for the railway infrastructure and modification of several existing culverts to receive new track layout.
Highways	Modifications to roads and crossings as required to facilitate access and to the southern embankment of the CGB to accommodate cycle parking on the east of the railway.
Level crossings	Closure of two private level crossings and provision of alternative access by means of a new private bridge across Hobson's Conduit, adjacent to Addenbrooke's Road.
Footbridge and Public Rights of Way	Modifications to Websters footbridge (BGK/1543B) and, if required, to Great Shelford footpath FP1.
NCN Route 11	Temporary diversion of NCN Route 11 (cycle track) and reinstatement post construction to its original alignment under Nine Wells Bridge.
Ancillary infrastructure	Additional elements to ensure the CSIE Project is built and can be operated in a safe, efficient manner, such as fencing, lighting, electrical connections, pedestrian and vehicle access.
Maintenance infrastructure	Provision of permanent maintenance compounds and rail access points for maintainer vehicles and/or pedestrians.
Landscaping	Hard and soft landscaping works across the CSIE Project.

5.4 Cambridge South station works

5.4.1 The proposed station works comprise of:

- a) A two-storey station building, ticket office and ticket vending machines, along with automatic ticket gates; facilities such as a retail/catering unit, waiting room, toilets, Changing Places for the mobility impaired, baby changing facilities, and staff facilities;
- b) Four platforms with step-free access via a footbridge and lifts;
- c) An emergency evacuation footbridge and stairs a secondary covered footbridge at the platforms' southern end (providing, in an emergency, a secondary means of escape for passengers);
- d) Seating and platform canopies for waiting passengers;
- e) Cycle parking on both sides of the railway for a total of 1,000 cycles;
- f) Pedestrian and cycle access paths on both sides of the railway;

Statement of Case

- g) A station forecourt containing five parking bays for Blue Badge Holders; two parking bays for station staff; two parking bays for maintenance staff; three bays for drop-off/pick-up by private cars; and three bays for drop-off/pick-up by taxis; and
- h) Addition of 2 loop lines.
- 5.4.2 To improve pedestrians and cyclist access to the proposed new station from the west, a new segregated cyclist and pedestrian path across Hobson's Park will be provided. This path will connect into the existing pathway network.
- 5.4.3 The space for 1,000 cycles will be arranged on both sides of the railway (with the precise split to be determined at the detailed design stage) and will include a variety of "Sheffield stands" two-tier racks and parking for non-standard cycles. The precise configuration of the cycle stands will be finalised during the detailed design of the station.
- 5.4.4 Access for emergency and maintenance vehicles to the western station building will be provided through the repurposing and occasional re-aligning of the existing park maintenance track off Addenbrooke's Road.
- 5.4.5 The station is proposed to be built out in phases, whilst maintaining the current live operational railway.
- 5.4.6 For further information and details in relation to the proposed Cambridge South Station works, please refer to the ES (NR16), Design and Access Statement (NR15) and deemed planning drawings (NR13).

5.5 Hills Road Junction works

- 5.5.1 In summary the works at Hills Road Junction involve an extension to the existing shunt spur and the addition of a switchover which will connect the shunt spur to the main line.
- 5.5.2 The proposed track works at Hills Road shunt spur can be delivered using Network Rail's existing permitted development powers under Part 18, Class A (not requiring prior approval) of the Town & Country Planning (General Permitted Development) Order (GPDO) 2015 (as amended) (B7). Therefore, Network Rail are not seeking permission for these works as part of the request for deemed planning permission.
- 5.5.3 The works have been included within the EIA and are documented in the ES (NR16).

5.6 Shepreth Branch Junction works

- 5.6.1 The CSIE Project involves improvements to Shepreth Branch Junction, these works include:
 - a) Remodelling of the switches (pointwork) at Shepreth Branch Junction (in Great Shelford) and minor realignment of the track for short distance toward Royston. This will permit line speeds to be increased from 30 mph to 50 mph which will also help provide robust performance.
 - b) Works to existing railway embankments to accommodate and support the new railway infrastructure.

Statement of Case

- c) Installation of safety screens to Websters footbridge.
- d) Creation of a small railway maintenance area to the east of the existing Websters footbridge.
- e) Slight movement of the existing GSM-R mast and compound.
- 5.6.2 Please refer to deemed planning drawing 158454-ARC-ZZ-ZZ-DRG-LEP-000055 (detailed within NR13) for further details in relation to the works at Shepreth Branch Junction.
- 5.6.3 The CSIE Project seeks to close two level crossings in the vicinity of Shepreth Branch Junction (Webster's and Dukes No 2) which are currently used to access the farmland on the west of the railway. A new accommodation bridge is proposed over Hobson's Brook to give access to that land from Addenbrooke's Road. Please refer to deemed planning drawing, 158454-ARC-ZZ-ZZ-DRG-LEP-000053 (see NR13) for further details in relation to the proposed accommodation bridge.
- 5.6.4 A Railway Systems Compound (RSC) will also be provided as part of the CSIE Project. The RSC will be located south of Nine Wells Bridge and will contain an electrical substation, a small single-storey building housing signalling, electrical supply and telecommunications equipment, space for maintenance vehicle parking and material lay-down, all contained within a fenced enclosure. Please refer to deemed planning drawing, 158454-ARC-ZZ-ZZ-DRG-LEP-000054 (see NR13) for further details in relation to the proposed RSC.

Statement of Case

6. BENEFITS OF THE PROJECT

6.1 Introduction

- 6.1.1 This section provides a summary of the benefits that will be realised by the delivery of the CSIE Project, as set out in the Outline Business Case (**NR20**) approved by the DfT.
- 6.1.2 Throughout the development of the Project there has been an effort to explore benefits where possible and to consider these throughout the evolution of the design to improve value for money. This has led to an improvement in the Benefit Cost Ratio (BCR) of the project from 1.3-1.5 in the 2017 Strategic Outline Business Case (C3) to 1.9 in the Outline Business Case (NR20). Additional analysis in August 2021 has indicated that the BCR may sit around 2.2, representing high value for money. This will be confirmed as part of the Full Business case that will be submitted in early 2022.
- 6.1.3 The benefits identified in the OBC relate to:
 - Travel Time Savings and Benefits to Passengers
 - Sustainable Transport Access & Highway Congestion
 - City Centre Reliance
 - International Connectivity
 - Integration with Other Schemes
- 6.1.4 Each of these is discussed in turn in the remainder of this section.

6.2 Travel Time Savings and Benefits to Passengers

- 6.2.1 When assessing the economic benefits of a transport intervention to passengers, the monetised value of time saved is the key metric. Option sifting has identified that a new Cambridge South rail station stands to deliver the highest passenger benefit in comparison to other public transport options tested (as set out in Section 4) due to the superior point-to-point journey times that can be delivered by rail, compared to other modes. The journey time advantages also enable rail to cover a wider catchment area, delivering benefit to a larger demand base than could be offered by bus or direct coach alternative.
- 6.2.2 The DfT conducted a demand scoping exercise to identify both the current and future origins of demand for travel to the CBC. An appreciation for the true origin and destination of passengers is intrinsic to the understanding of how best to meet the needs of the travelling public, promote demand growth and influence behavioural change.
- 6.2.3 The DfT has utilised data from the Cambridge Sub-Regional Model (CSRM), a strategic model maintained by Cambridgeshire County Council (CCoC) and Greater Cambridgeshire Partnership (GCP), used to inform both local and regional transport policy and planning decisions. This provides more granular information for the region when compared with national models.
- 6.2.4 The 2015 demand matrix from the CSRM indicates that the CBC has a wide- reaching catchment area, covering the majority of East Anglia. The 2026 scenario from the CSRM, which contains known

Statement of Case

changes in housing, jobs and planned transport schemes, indicates that key growth areas for travel to the CBC are:

- Central London
- Outer London
- Ely
- Stevenage
- Letchworth Garden City
- Bishop Stortford
- Gatwick, Heathrow & Stansted Airports.
- 6.2.5 The growth areas identified are of a distance from the CBC where bus or coach services are unlikely to deliver journey time benefits comparable to rail.
- 6.2.6 Journey time savings have also influenced the design of the station itself, for example having station entrances on both sides of the railway has a quantifiable impact on journey time and improves the value for money of the CSIE Project.
- 6.2.7 Figure 6.1 illustrates the potential saving in generalised journey time for an average trip to the CBC, both with and without the new station. It can be seen that for the average rail journey, a new station could reduce the generalised journey time by approximately 20%, with this significant saving delivered to a large catchment of both current and potential travellers. The SOBC indicated that 1.8m passengers per annum could be attracted to Cambridge South Station in the first few years after opening.

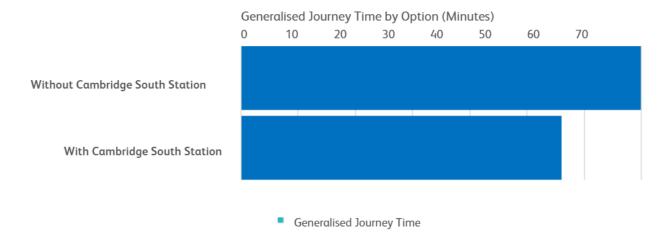


Figure 6.1 - Average generalised journey time by rail for a trip to the CBC, with and without a new station at Cambridge South.

Statement of Case

- 6.2.8 In short, this reduced time to travel to the campus and the other areas near the station will make some journeys that people already make quicker and easier, and will enable others to travel to the campus who either currently rely on private transport or, in the case of potential future campus employees, do not currently travel to the area at all.
- 6.2.9 Detailed analysis of the values attached to this benefit are contained in the Outline Business Case (NR 20). They amount to c.£3.2m per annum (2010/11 prices) which is significant when applied to the 60-year appraisal period.

6.3 Sustainable Transport Access & Highway Congestion

- 6.3.1 The Cambridge Local Plan (2018) (**D6**) places a significant emphasis on mitigating transport impacts of housing and employment growth. It states that CCiC will support a range of sustainable transport interventions, by promoting sustainable transport and access for all to and from major employers, education and research clusters, hospitals, schools and colleges.
- Rail passenger count data published by the DfT for 2019 indicate that for trains arriving into Cambridge Station during the AM Peak period (07:00 09:59), 54% of seated capacity is unused. For the AM Peak hour (08:00-08:59), 36% of seated capacity is unused. With a proportion of these services passing the CBC, a new station at Cambridge South provides the opportunity for new passengers to utilise existing capacity on the network, thereby improving the commercial viability of existing services. In addition, utilising existing capacity removes the need to provide additional services, thus not impacting on rail network congestion.
- 6.3.3 Both busway enhancements and longer distance bus/coach services would offer a degree of sustainable transport access, due to the potential for travellers to transfer from private cars, reducing road congestion and vehicle emissions. However, this would require the provision of additional services and capacity, unlike rail where the capacity is already present.
- 6.3.4 As noted in section 6.1 above, analysis has been undertaken to understand the origins of current passengers and likely future growth areas, using the CRSM, for a base year of 2015. Figure 6.2 illustrates the origin of demand for travel to the CBC, with the depth of the purple shading corresponding to a higher number of origins. Even in the absence of a rail station, the CBC has a wide-reaching catchment area, covering the majority of East Anglia.

Statement of Case

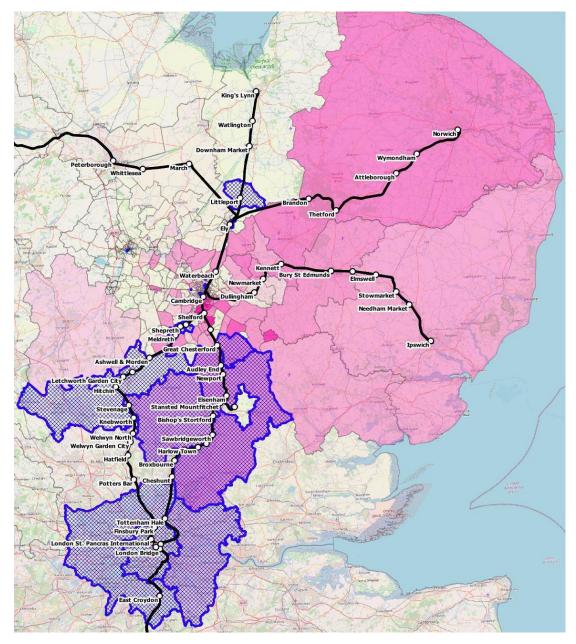


Figure 6.2 - Origins of 2015 Demand to the Cambridge Biomedical Campus (Purple) and Potential Future Growth Areas (Source: Mott MacDonald / CSRM Model)

- 6.3.5 Also shown on the map are areas identified either from the SOBC or from the CSRM model future scenarios, that are likely to generate significant increases in trips to the CBC in future years (blue shading). Except for Ely, the major growth areas are forecast to be concentrated in South Cambridgeshire, Hertfordshire and Greater London.
- 6.3.6 In the absence of a rail station at Cambridge South, it is likely that future growth in these areas identified would see a proportional increase in private car access to the campus. Expanding Park and Ride sites could reduce traffic at the CBC, but vehicular access to the Park and Ride sites would still contribute to increased levels of highway congestion at points on the network.

Statement of Case

6.4 City Centre Reliance

- 6.4.1 A new rail station at Cambridge South will reduce city centre reliance, as passengers travelling by rail will no longer need to interchange at Cambridge Station and then use another transport mode to access the CBC. Cambridge station has seen rapid growth in demand over the past twenty years and can become crowded at peak times.
- 6.4.2 Whilst a limited number of passengers will use their interchange at Cambridge station as an opportunity to access the city centre, for many this need to interchange not only increases pressure on the local transport infrastructure, it also represents an inconvenience when compared with being able to take a train directly to Cambridge South station.
- 6.4.3 The benefits of enhanced bus options would only serve passengers travelling relatively short distances to the CBC, passengers from further afield would still be reliant on the city centre, therefore offering no improvement. Direct bus/coach services may be able to serve catchments slightly further away but are unlikely to offer a competitive service at more significant distances, thus only marginally benefitting city centre reliance.

6.5 International Connectivity

- 6.5.1 The UK Life Sciences Industrial Strategy highlights the importance of international competitiveness to put the UK in a world-leading position to take advantage of the health technology trends of the next 20 years. This is a sector that has only increased in prominence as a result of COVID-19. International connectivity will therefore be important to the success of the CBC, as it is intended to attract a highly skilled workforce and visiting professionals from around the world. Minimising the travel time to international gateways, such as London Heathrow, Gatwick, and Stansted Airports is therefore relevant and important.
- 6.5.2 Option sifting between other public transport options has identified that a new Cambridge South rail station would be the best scheme for reducing travel times to international gateways. With existing rail services to Stansted Airport already operating on the track passing the CBC, the new station creates the opportunity for a direct rail link between Cambridge South and Stansted Airport via existing services. The same is true of Thameslink services, which could provide direct rail access to Gatwick Airport. For Heathrow, Cambridge South Station could offer direct rail services to London, with onward connections to Heathrow via the Elizabeth Line from Liverpool Street or Farringdon, or the Piccadilly Line from Kings Cross. Only rail can provide this connectivity.
- 6.5.3 The Passenger Demand Forecasting Handbook identifies passengers travelling to/from airports as the most time sensitive user class, with their sensitivity to changes in generalised journey time up to 35% higher than other passengers. Therefore, the necessity to interchange (due to the associated impact on generalised journey time) can be a significant detractor for using public transport for airport access and may ultimately deter passengers from travelling at all.
- 6.5.4 Expanding Park & Ride sites is unlikely to have an impact on international connectivity, as this method of access/egress is unlikely to be utilised by passengers travelling to/from international gateways.

Statement of Case

6.6 Integration with Other Schemes

- 6.6.1 A station at Cambridge South allows integration with other schemes, such as the recent Thameslink upgrades and potential East West Rail Connection Stage 3. In addition to this, it would also offer a direct service to Liverpool Street for connections to the Elizabeth Line.
- 6.6.2 The Cambridge South East Transport (CSET) project, under the sponsorship of the GCP, will improve the transport corridors between the Cambridge south area and each of Haverhill and Babraham. This will increase the onward travel options for people using CSET as they have the option of accessing rail at the new station rather than the city centre.
- As neither the CSET nor the CSIE Projects are formally committed for delivery, each has progressed a separate design to be implemented should the other project not be delivered. A joint design has also been developed that will be used should both projects be delivered. This joint design sees stops on the CSET alignment (which runs along Francis Crick Avenue) placed as close to the station entrance as current requirements allow. These stops will be moved closer to the entrance of the eastern station forecourt if this is found to be possible through further refinements to design.
- 6.6.4 The CSET and CSIE Projects are expected to complement one another as they both serve different markets but seek to improve public transport connectivity to the area.

6.7 Conclusion

- 6.7.1 There are multiple benefits arising from the scheme, all of which seek to deliver upon existing national and local planning, transport and economic policies and allow the region to continue to prosper whilst mitigating some of the potential negatives of this such as increased road congestion.
- Reducing the journey time for people wishing to access the CBC and other areas in the vicinity of Cambridge South Station is fundamental to the case for this project, and will make trips easier for patients visiting the hospitals, medical staff, researchers, and other employees, residents accessing the station to travel elsewhere, and business travellers meeting others on the campus.

Statement of Case

7. PROJECT DELIVERY

7.1 Introduction

- 7.1.1 The aim of the CSIE Project is to provide infrastructure necessary to deliver a new station adjacent to the CBC whilst maintaining capacity and improving capability of the network. The proposed development would provide facilities to accommodate 240m length trains at the new station and additional track infrastructure to allow services to stop at the station whilst protecting train capacity and performance.
- 7.1.2 The following section outlines Network Rail's proposals for delivering the CSIE Project. The construction programme and methodology are being developed by our Contractor to align with our selected design options.
- 7.1.3 The early-stage construction methodology and access opportunities have been adapted to reflect our current strategy, and by utilising survey outputs, consultation feedback and the sifted design options an efficient delivery methodology has been identified which minimises our impact to residents, businesses, stakeholders and the local environment.
- 7.1.4 Discussions are underway with the Train Operating Companies (TOCs) and Network Rail's access planners to agree this proposal. Agreement with the TOCs are required for track access (possessions), to align with the projects proposed staging strategy.

7.2 Construction methodology

- 7.2.1 The main construction activities would include the following:
 - Construction of the station buildings, stairs, connecting footbridges, lift shafts, forecourts and access paths;
 - Installation of new tracks and platforms and associated infrastructure including new signalling, Overhead Line Equipment (OLE) structures and associated utility diversions;
 - Shepreth Junction works including new track alignment, telecoms mast relocation, modifications to footbridge and embankment works
 - Changes to the intersection of the Guided Busway and Francis Crick Avenue to create a station forecourt entrance.
 - Drainage works require excavation of new attenuation basins and outfalls prior to the commencement of the main construction works.
- 7.2.2 The station is proposed to be built out in phases, whilst maintaining a live operational railway.
- 7.2.3 Construction is proposed to be carried out in 4 phases. These phases are reliant upon access negotiations but are currently planned as:

Statement of Case

- Phase 1 'Down Loop' Construction of the 2No. western most platforms and railway
 infrastructure in order to divert the existing railway around the newly constructed western
 and island platforms.
- Phase 2 'Up Loop' Completion of the remaining island and the eastern platforms, construction of the remaining railway infrastructure within the station area and commissioning of the complete station railway 'system'
- Phase 3 'Shepreth Junction' Construction of the new extended Shepreth branch track and associated infrastructure
- Phase 4 'Hills Road' Construction of the new extended siding connection to the main line to the south of Cambridge Station
- 7.2.4 Whilst these works have been considered in phases, in order to deliver the most efficient programme of works, the Contractor will explore opportunities to undertake these works concurrently where railway access and programme allows.

Project stage	Anticipated duration/key dates
Pre-construction and enabling works	Autumn 2022
Start of construction	Spring 2023
Construction period	115 weeks
Station opening date	Summer 2025

Figure 7.1 Key Dates and Durations

- 7.2.5 Figure 7.1 shows the key dates of the programme as outlined in the CSIE Order application. Programme efficiencies have been identified by the Project which are subject to final access agreements but are detailed as per the following programme in Figure 7.1 (below).
- 7.2.6 It is envisaged that early land acquisition will be sought to support the mobilisation phase and site set up in early 2023.
- 7.2.7 A detailed construction methodology is outlined in the Chapter 4 of Environmental Statement (NR16).

7.3 Construction programme

- 7.3.1 The following programme has been produced on an assumed level of access that is to be agreed with the train and freight operators in the coming months. This logic will be further developed in line with design progression during the next design stage.
- 7.3.2 A copy of the high-level construction programme detailed in Figure 7.2 below, is included in Appendix 2 to this statement.

Statement of Case

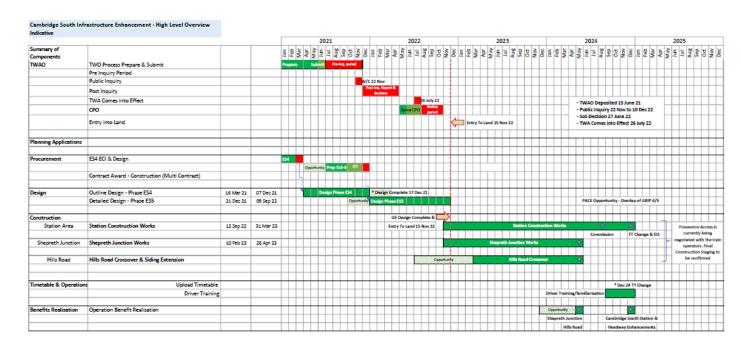


Figure 7.1 High level Construction Programme

7.4 Construction access and compounds

Overview

- 7.4.1 Construction access requirements are being developed with the Contractor. The construction access and compounds are aligned with the four-phase construction methodology. It is currently assumed that the following will be required as detailed below and in the accompanying Figures:
 - Phase 1 'Down Loop' Construction Compounds (CC) CC1, CC2, CC3, CC4, and CC5 utilising Access Route (AR)1, AR3, AR5, AR6 and Haul Road (HR)2, HR3 and HR4.
 - Phase 2 'Up Loop' Compounds CC1, CC2, CC6 and utilising AR1, AR4, AR5, AR6, HR5 and HR6
 - Phase 3 'Shepreth Junction' Compounds CC7, CC8, CC9, CC10 utilising AR7 and HR7
 - Phase 4 'Hills Road' The works will predominantly be undertaken on the railway infrastructure but will utilise compounds available at the time for construction and materials.

Site access

7.4.2 The site access roads are shown in Figure 7.2*Figure 7.2* and Figure 7.3. Haul roads are shown in Figures 7.5 and 7.6.

Statement of Case



Figure 7.2 Access Routes



Figure 7.3 Southern Access Route

- 7.4.3 The proposed access points are shown in detail in Appendix 17.1 of the Transport Chapter of this ES (Chapter 17) (NR16).
- 7.4.4 The Contractor is developing a strategy that will utilise road and rail deliveries for import fill and waste removal. Where practicable the materials will be delivered 'just in time' and during major

Statement of Case

railway possession works, rail transportation will be used where possible. The Contractor shall seek to utilise haul road access where possible to minimise use of existing roads, although consideration will need to be given to the impact of doing so in relation to the sensitive equipment in the nearby buildings. The Contractor will continue to work with the project stakeholders to refine the construction strategy to reduce the overall impact of the works so as far reasonably practicable.

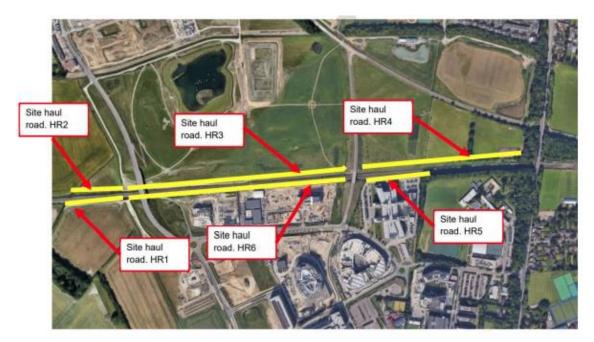


Figure 7.4 Haul Roads

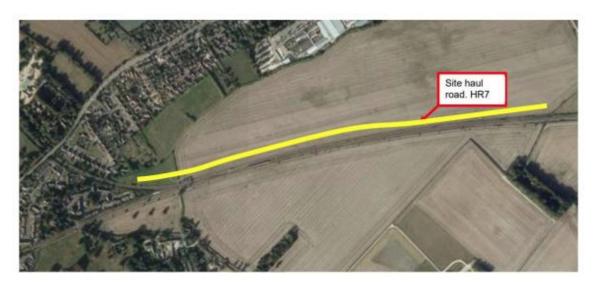


Figure 7.5 Shepreth Haul Road

Construction compounds

7.4.5 A number of construction compounds are required in order to facilitate and manage construction. The proposed siting of compounds has taken into account public consultation responses, initial

Statement of Case

engagement with landowners, environmental features, topography and ownership of land for access. Each compound will act as a point of access off the highway network to the proposed development for each sub-section of the site. There are proposed to support the different elements in the vicinity of the new station. Each compound will require utilities to be supplied. Where local services are available this will be from mains-provided connections, where not available temporary utility connections will be installed. Connections will be determined on a site-by-site basis.

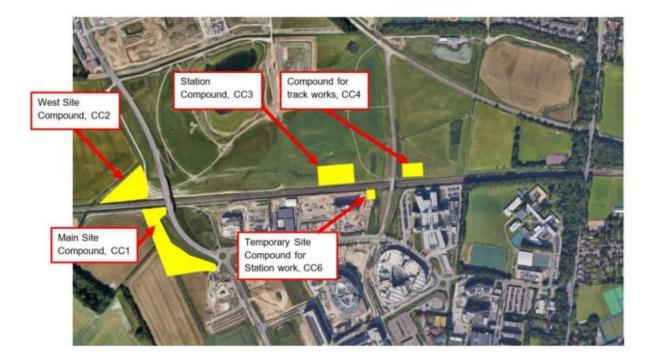


Figure 7.6 Construction Compounds

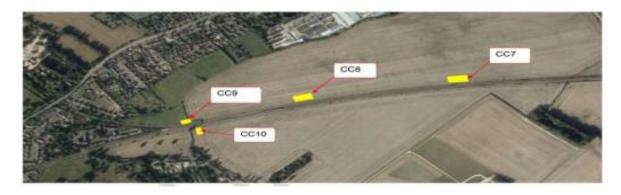


Figure 7.7 Shepreth Construction Compounds

7.4.6 Where practicable, the works will be demobilised following the conclusion of work in each compound area to reduce the visual and environmental impact of the works.

Statement of Case

7.5 Code of Construction Practice (CoCP)

- 7.5.1 A CoCP Part A (NR16, Volume 3: Appendix 2.4) has been prepared to inform the environmental impact assessment undertaken in respect of the CSIE Project. The CoCP Part A sets out the principles that will be applied to the project during construction to minimise our impact on the residents, businesses, stakeholders and the local environment.
- 7.5.2 A CoCP Part B will be produced by the Contractor, developing the principles set out in Part A into detailed methodologies, which will be submitted to the relevant local planning authority (Greater Cambridge Shared Planning) for approval prior to commencement of construction of the CSIE Project. This is detailed in the Condition 10 of the proposed Planning Conditions within Schedule 1 of the Requested for Deemed Planning Permission (NR12).

Statement of Case

8. COSTS AND FUNDING

8.1 Costs

- 8.1.1 The anticipated final cost (AFC) of the CSIE Project in the Estimate of Costs (NR6) accompanying the CSIE Order application was approximately £183.7m.
- 8.1.2 An efficiency of £1.7m has since been realised within the previous design stage meaning that the AFC now stands at £182m. This efficiency does not change the proposed requirements, scope, or outputs of the project.
- 8.1.3 Ongoing value engineering and design refinement (whilst still delivering against the project's objectives and key requirements, and within the scope of the Project's environmental assessment) are expected to result in further reductions to the AFC prior to the proposed construction programme and Final Investment Decision (FID).

8.2 Funding

- 8.2.1 In April 2021 the Secretary of State for Transport approved the Outline Business Case for the project. This met the criteria of the Memorandum of Understanding between the DfT and Network Rail on rail enhancements.
- 8.2.2 A Funding Statement (NR5) setting out the intention of HM Government to fund the scheme to delivery, subject to continued value for money, was confirmed in June 2021 and submitted with the CSIE Order application. This reinforces the commitment made to deliver of the project in the March 2020 Budget (C2).
- 8.2.3 As the organisation accountable for the funding strategy of this project, the DfT is exploring the possibility of other parties contributing to the funding of the project, particularly where this relates to additional elements of scope requested by those or other stakeholders. In the absence of such funding streams, the Department will fund the CSIE Project in accordance with the Funding Statement.

Statement of Case

9. ENVIRONMENTAL ISSUES

9.1 Introduction

- 9.1.1 The CSIE Project is supported by detailed assessments of all principal effects, drawn from extensive consultation with relevant stakeholders including Natural England, English Heritage, and the Environment Agency. These are set out in detail in the Environmental Statement (ES) (NR16).
- 9.1.2 Overall, the ES identifies relatively limited adverse environmental effects from the CSIE Project, with only a limited number of significant adverse effects likely to arise for a temporary period during its construction. This is in part because of the careful design that has been responsive to constraints identified in the relevant assessments. In addition, mitigation measures and strategies have been incorporated into the design of the scheme and form part of the management of the construction phase. An outline Code of Construction Practice (CoCP Part A) has been submitted as part of the CSIE Order application which describes the management and mitigation requirements to be implemented during the construction works. These will be further specified in the CoCP Part B, to be prepared by Network Rail's contractor and agreed prior to construction works. This is detailed in the Condition 10 of the proposed Planning Conditions within Schedule 1 of the Requested for Deemed Planning Permission (NR12).

9.2 Summary of Environmental Effects

- 9.2.1 The scope of the Environmental Impact Assessment (EIA) was established by considering the likely significant effects of the CSIE Project without effective mitigation. The scope of the EIA and its methodology were agreed with the Infrastructure Planning Unit of the DfT. The following sections provide a summary of the topics assessed and the residual environmental effects of the project, taking into account measures proposed to avoid or reduce adverse effects where these have been identified and those proposed to maximise beneficial effects.
- 9.2.2 The above assessments also include, where appropriate and practicable, in-combination assessments with the Cambridge South East Transport scheme (CSET) owing to its proximity to the CSIE Project.

Landscape and visual amenity

- 9.2.3 The proposed location of the CSIE Project lies between the CBC, a research facility, and Hobson's Park Nature reserve (through which runs Hobson's Conduit, a partly artificial watercourse). It is bordered by large educational and industrial buildings. The assessment of the potential effects of the CSIE Project on landscape character and visual amenity (carried out in conjunction with GCSP) identified the most sensitive views and those views which would be changed by the CSIE Project. A computer model established the areas where the CSIE Project would be visible from. The most sensitive views include Hobson's Park, local public footpaths to the south of Addenbrooke's Road, National Cycle Route 11 the Genome Path, the east side of Clay Farm residential area, and Nine Wells Local Nature Reserve. In these locations it was recognised that, absent mitigation, there was a likelihood of harm arising to both landscape character and visual amenity in these locations.
- 9.2.4 The design was accordingly modified to avoid, design-out and/or reduce potential harmful impacts on landscape character identified in the assessment. Such harm will be mitigated at both the construction and operation phases through careful construction management proposals (including protection of

Statement of Case

retained trees and limits on the heights of materials stockpiles), design (including sloping biodiverse green roofscapes and sympathetic materials); integrating the CSIE Project into its setting (through native tree and shrub planting); and the creation of a forecourt that coheres with the CBC public realm. Following the application of these measures, no significant negative effects upon visual amenity or landscape character are predicted to arise during either construction or operation.

9.2.5 Further, the assessment noted that the CSIE Project would also benefit the landscape in that the station and related planting and habitat creation proposals would soften the contrast between the informal nature of Hobson's park and the pronounced edge of the CBC.

Acoustic Assessment Part I: Noise

- 9.2.6 Existing baseline noise levels within the study are dominated by road traffic noise and passing trains, particularly within the CBC adjacent to the railway line. No significant effect upon any noise sensitive receptors is expected as a result of the CSIE Project. In particular, the potential noise impact associated with the operational phase of the CSIE Project has been assessed and it is expected that significant effects can be avoided through detailed design.
- 9.2.7 Any increase in noise and/or vibration during the construction works which may affect particular buildings close to the railway in the CBC will be mitigated through measures set out in CoCP Part B. While significant impacts are anticipated on certain buildings in CBC, these are expected to be temporary and will cease when the operational phase commences. Network Rail is in any event working with affected parties to seek to identify further mitigation that may be employed.

Acoustic Assessment Part II: Vibrations

- 9.2.8 Both the construction of the new station building and the track re-alignment works at Shepreth Branch Junction have been assessed for vibration. Studies were conducted on the CBC, in residential areas, and residential properties near Shepreth Branch Junction. Specific consultation has been undertaken with owners of relevant CBC buildings, and an agreed methodology has been tailored to assess the potential risk of harm to particularly sensitive buildings.
- 9.2.9 Whilst during the construction phase there is the potential for significant adverse effects on scientific and research buildings on the CBC and in residential areas next to the CSIE Project, this would be subject to specific mitigation in the CoCP Part B. In particular, any piling activity would be carefully controlled and a consultation and liaison plan would ensure that stakeholders are given advance notice of works that may affect them.
- 9.2.10 The CSIE Project has been designed so that new track switches and crossings have been positioned away from sensitive buildings where practicable. No significant vibration effects are predicted in the operational phase, save for only the most sensitive imaging equipment within the Laboratory of Molecular biology which will be the subject of a tailored mitigation plan (currently undergoing consultation).
- 9.2.11 As for noise, Network Rail is in any event working with affected parties to seek to identify further mitigation that may be employed during both the construction and operation phases.

Statement of Case

Transport and movement

- 9.2.12 The key potential traffic impacts (on pedestrian, cyclists and other road users) during the construction phase are unlikely to result in significant adverse effects. Mitigation including design strategies will minimise impacts on other road users, with a Construction Traffic Management Plan to ensure that construction traffic operates in a safe and compliant manner.
- 9.2.13 The CSIE Project has been designed in consultation with key stakeholders, including occupiers of the CBC, to integrate with the existing urban environment. It will provide direct access and interchange with local populations and services. Further, the CSIE Project has been designed to feed into other modes of transport. In particular: existing crossings have been widened to accommodate additional pedestrian and cycle movement both between the station and within the CBC, and to maintain connectivity with Hobson's Park. 1000 cycle spaces are to be provided, and 95% of passengers are expected to use sustainable modes of travel to and from the station.
- 9.2.14 The CSIE Project also includes a new connection between existing lines at Hills Road and junction improvements at Shepreth Branch station, to ensure that there are no service disbenefits for other passengers. The proposed station will provide a legible transport interchange (i.e. one which is easy for users to understand and use).
- 9.2.15 The station itself will have overall net beneficial effects during the operational phase as it will encourage more people to travel by rail to and from the CBC and surrounding area.

Climate Change

- 9.2.16 Adaptation. The vulnerabilities of the CSIE Project to climate change (including heavy precipitation events, prolonged droughts, and more extreme weather events) have carefully been considered. They will be addressed in the operational phase through mitigation measures such as balancing ponds to manage surface water drainage and design materials that are resistant to extreme weather events, and in the construction phase by careful selection of materials and effective transportation.
- 9.2.17 *Greenhouse Gas Emissions.* The CSIE Project's contribution to the Government's carbon budgets set under the Climate Change Act 2008 will be no more than 0.00003% of the current five-yearly carbon budget. That contribution will further be mitigated through measures such as selecting renewable materials with low stored carbon and using a local work force; and during operation by encouraging sustainable modes of transport such as cycling and walking.

<u>Cultural heritage</u>

- 9.2.18 The site of the CSIE Project is situated in an area of known cultural heritage. There has been significant engagement with Historic England and CCoC Historic Environment Team through the assessment process, and both desk-top and field-based surveys have been undertaken of the site and its surroundings.
- 9.2.19 The area surrounding the proposed location has high archaeological potential. This has been identified as a key constraint. There is, further, a Scheduled Monument (a series of cropmarks) in the farmland south-west of Addenbrooke's Road. The North proposed location was chosen in part to avoid

Statement of Case

- a significant detrimental impact on the Scheduled Monument and its setting, and other design features ensure that encroachment on that monument is avoided.
- 9.2.20 Most residual effects to heritage assets are not significant, save two on the Scheduled Monument namely (i) impacts caused by construction of the proposed haul road and (ii) its non-designated archaeological features. Both will be the subject of appropriate mitigation measures, including sympathetic planting and landscaping to preserve the monument. Overall, residual effects on heritage assets are classed as not significant.

Air Quality

- 9.2.21 An increase in studied pollutants (namely, nitrogen dioxide and particulate matter) is expected during the construction phase due to an increase in road-traffic exhaust emissions associated with construction vehicles. However, the assessment (whose methodology was agreed with Natural England and other local stakeholders), shows that the current levels are below health-based air quality objectives. Further, the results of that assessment show that the construction vehicles would have a negligible impact on air quality along the roads used by the vehicles in the vicinity of the CSIE Project. No significant adverse effects are therefore predicted during the construction phase.
- 9.2.22 The CSIE Project is expected to lead to a small improvement in air quality as pollutant will decrease as a result of the predicted shift from road to rail once operational. This is a beneficial effect of the CSIE Project.

Biodiversity

- 9.2.23 Network Rail have consulted with a wide range of stakeholders, including Natural England, CCoC and the Royal Society for the Protection of Birds. The assessment identified three relevant biodiversity constraints:
 - Designated sites, the nearest of which are Nine Wells Local Nature Reserve (0.1km to the east of the site); Hobson's Brooke City Wildlife Site (within the Site boundary) and "Triangle North of Long Road" (within the Site Boundary).
 - Habitats contained principally within Hobson's Park (and associated Conduit).
 - Species (including great crested newts, reptiles, birds, bats, water vole, badger and invasive nonnative plant species).
- 9.2.24 The proposed location (called 'North') has been carefully selected over two others (called 'Central' and 'Southern') so as to ensure there is no likely significant effect on the biodiversity interest of Hobson's Park and Hobson's Conduit and tributary. The CSIE Project has been designed to ensure that the most valuable habitats are retained, and impacts are avoided. Where such impacts cannot be avoided, mitigation methods will be proposed to reduce or eliminate them.
- 9.2.25 The CSIE Project would increase the biodiversity of hedgerow and river units of 11% and 10%. The overall 5% decrease in biodiversity will be offset by the creation of biodiversity units off-site so that Network Rail's commitment to 10% net biodiversity growth is attained.

Statement of Case

9.2.26 There are no significant residual impacts on the majority of the ecological receptors, and for three of them – water vole, great crested newt, and habitats along the verge of the railway line – there will be significant beneficial effects at the local scale. The only locally significant residual impact from the CSIE Project is the loss of woodland habitat. That is however due to the longer period of time it will take for replacement woodland to be established.

Ground Conditions and Contamination

- 9.2.27 Soils beneath the CSIE Project site are Grade 2: Very Good Quality Agricultural Land under the Agricultural Land Classification system, of which 4.5ha will be permanently lost. This is a significant adverse effect.
- 9.2.28 It also sits on a Secondary 'A' Aquifer and a Principal Aquifer. A railway line has existed on the Site since at least 1888, and that provides the most likely contamination risk.
- 9.2.29 Prior to construction, intrusive investigation will be undertaken for the detailed design stage, and as will any necessary remediation (to be completed prior to commencement).
- 9.2.30 The residual effects to ground conditions are considered to be not significant. Removal of contamination (if any) would be beneficial.
- 9.2.31 Operational phase effects on ground conditions were scoped out.

Waste Management and Resource Use

- 9.2.32 In agreement with Greater Cambridge Shared Planning, the Waste Needs Assessment does not consider the material consumption and waste generation during the operational phase of the CSIE Project as it is expected to be minimal.
- 9.2.33 *Material* Materials usage will be subject to the CoCP Part B, to promote resource efficiency and use of reclaimed material. The material palette is expected to include materials that are free from known issues regarding supply and stock (concrete, steel, bricks and Asphalt).
- 9.2.34 Waste 96.7 % (by volume) of construction and demolition waste will be re-used on site. The remaining 3.3 %, consisting of office and canteen waste will be sent to landfill. That remaining percentage represents a 0.003 % reduction in regional non-hazardous landfill capacity, which is not significant. The Waste Needs Assessment concludes that if waste management targets are achieved, the existing capacity is sufficient to accommodate the region's disposal need. A detailed Site Waste Management Plan will be drawn up at the detailed design stage to establish a methodology for measuring and reducing demolition and excavation waste.
- 9.2.35 Overall, no significant construction phase effects on materials and waste are expected.

Population and Human Health

9.2.36 The CSIE Project is not expected to have any significant health effects or on people's access to community services (including hospitals and medical facilities) and on public rights of way and open space. Any effects on crime and safety of the CSIE Project during construction phase are considered minimal, and access to existing public rights of way will be preserved. Amenity for residents, including

Statement of Case

patients in and employees of the CBC, will be ensured through mitigation measures to reduce any slight increases in noise, air quality, vibration and traffic impacts. Overall, there will be no significant adverse effects during construction.

9.2.37 Once completed, access to community facilities and public rights of way will be significantly enhanced, with attendant community health benefits. The improved access to community infrastructure is a significant beneficial effect. A replacement of approximately 2 hectares of land is being provided to compensate for the equivalent amount of land in Hobson's Park around the new station that will be required for the CSIE Project. The station itself will ensure accessibility through step free access and provide an improved environment and sustainable travel provision.

Socio-economics

- 9.2.38 The construction phase of the Development is expected to lead to the creation of 114 full-time jobs, a minor beneficial effect. While short-term effects of the construction work on the local residential amenity cannot be excluded, there are no likely longer-term impacts during the operational phase of the Development. None of the residual effects during either phase are anticipated to be significant.
- 9.2.39 In its operational phase, the Development will directly generate roughly 10 new permanent jobs in the station, with 44 indirectly related jobs in the local wider economy. This is a minor beneficial effect.

Water resources and flood risk

- 9.2.40 The design of the CSIE Project is informed by a flood risk assessment, and consultations with the Environment Agency, the Lead Local Flood Authority (Cambridgeshire County Council) and the Hobsons Conduit Trust. The assessments have included a desk study, site walkover and survey, and a hydraulic modelling of a tributary of the Hobson's brook.
- 9.2.41 Overall, EA flood maps show the vast majority of the study area as at low risk of flooding from rivers, with a small area at medium to high risk from the North Ditch. There is no expected significant negative effect from the CSIE Project on water resources and flood risk, either during operation or construction.
- 9.2.42 During the construction phase, the risk of runoff pollution will be managed by adherence to the CoCP Part A, and detailed control measures to be implemented in CoCP Part B. There are no expected significant risks to either surface or groundwater quality. Any additional impermeable surface areas would be managed in accordance with best practice.
- 9.2.43 During the operational phase, surface runoff will be treated through sustainable drainage features. Water efficient facilities will reduce demands on the area's limited surface and groundwater resources. A culvert on a watercourse in Hobson's park (to be extended) will be designed in line with best practice to reduce localised hydraulic effects. Again, no significant effects are anticipated during this phase.

In-combination effects

9.2.44 CCoC proposes a Cambridge South East Transport (CSET) scheme. The potential for in-combination effects from the CSIE Project and the CSET scheme have been carefully considered as part of the overall environmental assessment, and no significant in combination effects are expected.

Statement of Case

10. CONSULTATION AND ENGAGEMENT

10.1 Introduction

- 10.1.1 This section summarises the consultation undertaken by Network Rail detailed further in the Consultation Report (NR7) in relation to the CSIE Order application. The stages reported on in this section are:
 - The early engagement undertaken with key stakeholders in 2016 and 2017
 - Stakeholder identification
 - The carrying out of a first round of consultation between 20 January and 2 March 2020 to seek feedback predominantly on three options for the location of the station and potential access from both sides of the railway for each option (Round One consultation).
 - Engagement following the Round One consultation
 - The carrying out of a second round of consultation held between 19 October and 29 November 2020 to obtain views on the massing and footprint for the station, to demonstrate an operational layout and space for 1,000 cycles, access arrangements on both sides of the railway, the need and scope of enhancement works at Shepreth Branch Junction, how the station could look and emerging construction design and methodology. (Round Two consultation)
 - Engagement following the Round Two consultation

10.2 Early Engagement

- 10.2.1 A station to serve the CBC was identified as part of the Cambridgeshire Long Term Transport Strategy. It was considered that a railway station adjacent to the CBC would provide a significant benefit to the local transport network, the CBC and to current and new residents in the south of Cambridge.
- 10.2.2 Early work undertaken in 2016 by John Laing Group Plc, with support from AstraZeneca and CCoC, focused on timetable feasibility of a station with two platforms on the current twin tracks of the WAML.
- 10.2.3 Further timetable analysis was subsequently carried out which demonstrated the need for a station with four platform faces to provide a reasonable level of service at the station and having four tracks in the vicinity of the station to allow non-stopping trains to pass by without journey times being impeded.
- 10.2.4 In the 2017 Autumn Statement, the Chancellor announced £5m to match funds from three local partners, the GCP, AstraZeneca UK and Cambridgeshire and Peterborough Combined Authority, and consequently Network Rail assumed responsibility for progressing the development of a station with four platform faces and enabling works.

Statement of Case

10.3 Identification of Stakeholders

- 10.3.1 A stakeholder mapping exercise was undertaken to assist consultation in terms of compliance with the Transport and Works Act Application Rules 2006 "2006 Rules" (B3) (Rule 10(2)(d), it has also aided the general method of consultation and engagement. In addition, Network Rail has also sought to engage with others who are not specified within the 2006 Rules but have been identified as part of the ongoing engagement strategy.
- 10.3.2 Table 3.1 of **NR7** sets out all groups and organisations that were consulted upon the CSIE Project through two rounds of public consultation and who were served or notified under either Schedule 5 or Schedule 6 of the 2006 Rules (known as Schedule 5 or 6 consultees).
- 10.3.3 The administrative boundary between Cambridge City Council and South Cambridgeshire District Council runs through the CSIE Project. Network Rail entered into formal pre-application discussions with the authorities' fully integrated planning service delivered through the Greater Cambridge Shared Planning (GCSP) Service. Regular meetings have taken place between Council officers and the Network Rail project team, its consultants and designer. This engagement has seen GCSP provide technical and planning input into both the design and scope of the Environmental Statement chapters in particular.
- 10.3.4 Engagement has been undertaken with the CCoC as the Local Highways Authority on the Transport Assessment, as the Lead Local Flood Authority on flood issues and as landowners on property matters.
- 10.3.5 Network Rail has been in technical dialogue with all known statutory undertakers who have equipment in the areas that are subject to the proposed CSIE Order.
- 10.3.6 Network Rail has undertaken a land identification exercise for each round of consultation that identified those with an interest in the land within the footprint of the CSIE Project in respect of which compulsory acquisition powers could be sought through the TWAO application if private treaty arrangements could not be made with the affected landowners in advance of the TWAO application being submitted.
- 10.3.7 Contact has been made with those identified as having a potential land interest and offers of engagement have been made to those parties to discuss the CSIE Project with the Network Rail Property Surveyor and its land agent (previously Brown & Co and subsequently Bruton Knowles). This engagement remains ongoing at the time of submission of this Statement of Case.
- 10.3.8 Discussions regarding the land required to be taken and the rights over land which are required for the CSIE Project have continued with the aim of securing these by private treaty. However, as these discussions have not yet concluded, land has been included within the proposed Order in the event that those discussions are not successful.

10.4 Round One Consultation

- 10.4.1 The Round One consultation ran for a six- week period from 20 January to 2 March 2020.
- 10.4.2 Three station location options were put forward for consultation: a northern location Option 1; central location Option 2 and southern location Option 3 (Further detail on the options can be found in **NR7** Section 4.1)

Statement of Case

- 10.4.3 Each option showed the potential preliminary permanent and temporary land requirements for the platforms, infrastructure and proposed temporary use of a portion of Hobson's Park as a work site.
- 10.4.4 Feedback was sought on the location options between the two bridges and how access arrangements would work for passengers for each location.
- 10.4.5 Recognising the diverse range of stakeholders with different interests in the project, consultation was carried out using a variety of communication and engagement activities.
- 10.4.6 Various promotional activities were used to raise awareness amongst stakeholders of the consultation and when and how they could participate and contribute. Further details about promotion of Round One consultation can be found in **NR7** Section 4, copies of promotional materials used to support Round One Consultation can be found in **NR7** Appendix A.
- 10.4.7 A total of 967 items of feedback were received for Round One Consultation, of these 867 specified that they either strongly supported or supported the station in the south of Cambridge; 21 strongly did not support or did not support the station and 35 declared they were 'undecided'.
- 10.4.8 Themes emerging during the first phase of consultation were mainly focused on preference of station location, with option 1 (the northern location) being the preferred option. Other emerging themes included access to the station and the design of the building; cycle spaces; pedestrian connections, road congestion; impacts on the environment (in particular noise, vibration and biodiversity); land requirements including challenges on permanent and temporary land use requirements; location of construction compounds and interface with other proposed transport schemes and drainage.
- 10.4.9 Overall, the level of support from Schedule 5 and 6 consultees was high with comments on the improved connectivity the Project brings to visitors to the CBC and requests that detailed proposals were discussed at the earliest opportunity with stakeholders.

10.5 Engagement following Round One Consultation

- 10.5.1 Following the first round of consultation, it was clear that what was important to stakeholders in relation to the location were access and how the location would interact with the wider environment and future developments.
- 10.5.2 Each option took into consideration the high-level feasibility of construction, operation and maintenance. To demonstrate the feasible footprint and massing required, a preliminary station building design for each option was developed to justify spatial provision for operations, passenger capacity and growth, interchange and connectivity to and from the station. Outline layouts for each option were developed to inform further engagement with stakeholders.
- 10.5.3 Engagement was carried out as follows:
 - with officers from Cambridgeshire County Council's highways team to discuss the scope of the Transport Assessment
 - with cycling teams to discuss cycling facilities and potential changes to NCN Route 11;

Statement of Case

- with officers from Greater Cambridge Shared Planning (involving Cambridge City Council and South Cambridgeshire District Council) planning, landscape, Open Spaces and ecology teams to gain views on the location options in the context of the relevant discipline;
- with Cambridge City Council's Access Officer, Disability Cambridgeshire, Cambridgeshire County Council's Equality Officer, Cambridge University Hospitals NHS Trust, Cambridgeshire and Peterborough Healthwatch and the University of Cambridge to gain views on the location options in relation to accessibility and to inform the Diversity Impact Assessment (DIA)
- with representatives of the University of Cambridge, AstraZeneca, Cambridge University
 Hospitals NHS Trust, Abcam, Medical Research Council, GCP, Cambridge Medipark Limited, CBC
 Estate Management Ltd, Cambridge Past, Present and Future, Smarter Cambridge Transport,
 Trumpington Residents' Association, Cambridgeshire Constabulary, Cambridgeshire Fire and
 Rescue Services, Camcycle, CTC Cambridgeshire, Countryside Properties, East of England
 Ambulance Service, Queen Edith's, Hobson's Conduit Trust, Railfuture, Ramblers' Association,
 Stagecoach and Sustrans to gain views on the location options.
- 10.5.4 The northern location option was preferred on the basis that it could be most visually contained in the Green Belt because it would fit in between existing or approved developments.
- 10.5.5 CCoC expressed a preference for a northern station location as this would be closest to the centre of the CBC and would remain so even as further growth pulls the centre of the Campus southwards. This option also would offer the best opportunity for interchange between existing bus services and with new bus stops on Francis Crick Avenue.
- 10.5.6 Following input from the DfT, the northern option was selected as the preferred station location. The preferred option was then developed further in advance of the second round of consultation.

10.6 Round Two Consultation

- 10.6.1 The Coronavirus pandemic meant changes were made on how the second round of consultation was conducted. This resulted in a greater focus on digital and non- digital methods of engaging with members of the public and stakeholders.
- 10.6.2 Traditional consultation events were replaced by webchats and a freephone telephone line so engagement could still take place directly. The consultation brochure was despatched to households and businesses within the consultation area, posters were put up in a number of railway stations along the route, and a static stand was displayed in Cambridge Station and two London stations Liverpool Street and Kings Cross. Full details of how the consultation was promoted and conducted can be found in Section 6 of NR7.
- 10.6.3 The consultation ran for a six- week period from 19 October to 29 November 2020.
- 10.6.4 The preferred station location was refined further for the second round of consultation. The proposals focussed on its location and general layout the station footprint, access by foot, cycle and by road, emerging construction aspects such as location of compounds and haul roads, and cycle facilities.

Statement of Case

- 10.6.5 531 items of feedback were received: 11 emails providing feedback were received from Schedule 5&6 Consultees, 20 items were received from Community Groups and other interested parties and the remainder came from the general public.
- 10.6.6 Feedback that emerged from Round Two Consultation included: role of the station, elements of station design; sustainability, access arrangements; interface between pedestrians and cars/cycles; Francis Crick Avenue interface with the Guided Busway and CSET and integration with other transport developments; NCN 11; Cambridge Biomedical Campus integration; integration with Astra Zeneca; land acquisition; drainage and community impact.

10.7 Key Changes

10.7.1 The key changes made to the CSIE Project in response to consultation and engagement are set out in the table below:

Table 10.1 – Key changes made to the CSIE Project in response to consultation

Proposal/theme	Change Made		
Station location	Preferred station location selected nearest to Addenbrooke's Bridge (the northern option)		
Station facilities	Incorporated two lifts per platform instead of one lift and provided contingency against lift breakdown.		
	Incorporated a Changing Places facility and breast feeding facilities into station footprint		
	Installed shelters on platforms for passenger comfort		
	Bays for Blue Badge holders positioned parallel to the kerb		
Station Access	Station access road moved further south to take into account consider CSET interface		
	Boundary treatment between station and AstraZeneca plot on the east		
	Retention of NCN Route 11 under Nine Wells Bridge after construction		
	Link to Trumpington at the west end of Guided Busway where ground is more level		
Land Requirements	Reduced land requirements on Hobson's Park in the permanent state and temporarily during construction, minimising impact on landowners and users of the Park		
Environment	As part of the Project's BNG an additional 8 ponds will be developed across the footprint of the project.		
Exchange land	Exchange land will be provided to account for the loss within Hobson's Park		

Statement of Case

10.8 Ongoing Engagement with Stakeholders

10.8.1 Engagement with the CSIE Project's stakeholders has continued following the submission of the CSIE Order application and is currently ongoing. A 'relationship manager' has been appointed for each organisation or individual who has raised an objection or representation in relation to the Order application. These relationship managers provide a consistent and direct point of contact to the project team and enable questions and concerns to be promptly considered and addressed. Regular meetings have been and are being held and correspondence exchanged thereby maintaining an ongoing dialogue with parties.

Statement of Case

11. LAND AND PROPERTY

11.1 Introduction

- 11.1.1 The land which is intended to be acquired or used for the construction, operation and maintenance of the CSIE Project is identified on the deposited land plans (NR9), draft Order (NR2) and Book of Reference (NR8).
- 11.1.2 The land to be acquired or used has been defined by identifying land required for the construction, operation, maintenance and protective works to take place, or over which new rights are to be acquired for the future operation of the project to enable its maintenance.
- 11.1.3 Powers are sought in the draft Order to acquire and use the land in a number of different ways including:
 - a) permanent acquisition of land and property;
 - b) permanent acquisition of rights over land and property;
 - c) temporary use or possession of land for construction purposes;
 - d) access to land and property to carry out surveys and (if required) protective works; and
 - e) extinguishment of private rights over level crossings.

11.2 Justification for the acquisition and use of the land and property

- 11.2.1 The permanent acquisition of land and property is required for the purposes of the construction, retention and maintenance of the new station and the new railway tracks proposed as part of the authorised works.
- 11.2.2 Save as described at sub-paragraph (I) immediately below, powers of permanent acquisition are limited to each of the 11 works (as identified in section 1 above), which in summary comprise the following:
 - a) Work No. 1 permanent land take for new railway track on western side of existing railway;
 - b) Work No. 2 permanent land take for new railway track on eastern side of existing railway;
 - c) Work No. 3 permanent land take required for new passenger station facility, comprising four new platforms, associated railway lines, station footbridge with stairs, high level concourse, eastern and western entrance buildings with ticketing and staffing facilities together with associated forecourt areas and access and secondary means of escape footbridge;
 - d) **Work No. 4** permanent land take required for a new pedestrian and cycling path on the west side of Hobson's Park;
 - e) **Work No. 5** permanent land take required for a new pedestrian path including an at grade crossing over the Cambridgeshire Guided Busway;

- f) Work No. 6 permanent land take for new rail track on western side of existing railway;
- g) Work No. 7 permanent land take for new rail track on eastern side of existing railway;
- h) **Work No. 8** permanent land take for realignment of railway (down Shepreth Branch Line) and the relocation of existing telecommunications mast and associated equipment together with installation of new equipment building;
- i) Work No. 9 permanent land take for cross over between the existing railway lines;
- j) Work No. 10 permanent land take for realignment of railway on the eastern side;
- k) **Work No. 11** permanent land take required for construction of agricultural accommodation bridge over Hobson's Brook;
- I) In addition to land required for the identified works permanent land take is also required for:
 - i. the provision of replacement open space comprised in Plot 92 on the deposited land plans;
 - ii. land for the installation of soil nails comprised in Plot 31; and
 - iii. permanent maintenance access for railway infrastructure in Plot 1a.
- 11.2.3 Temporary use of land is required to enable the construction of the project where that land will not be required for the future operation of the authorised works. Temporary possession of land is necessary for the provision of construction compound areas, works access areas, environmental mitigation works, landscaping works, crane oversailing and provision of construction of all roads.
- 11.2.4 Plot 6 within Hobson's Park is the largest area identified for temporary possession. Network Rail is currently reviewing the extent of the identified area. It is anticipated this area will be reduced and updated plans will be made available in due course. Plot 6 is currently identified for accommodation works, landscaping works, drainage works, environmental mitigation, temporary storage of materials as required for the construction of the authorised works.
- 11.2.5 Access to land and property to carry out surveys is also required to enable Network Rail to minimise the effects of construction of the project on existing land and property.
- 11.2.6 In relation to new rights sought, these are identified in Schedule 3 of the draft Order (NR2) but in summary the rights sought are to allow for the following:
 - a) access for maintenance of authorised works;
 - b) use of land as works site in association with maintenance;
 - c) rights to access the replacement open space land and the ability to grant permitted rights of access for the public generally to use that land including, the rights for the authorised users who will be permitted to use the new bridge as a substitute access following the closure and extinguishment of private rights over the Dukes No. 2 Level Crossing and Webster's Level Crossing;

Statement of Case

- d) rights to pass and repass over Francis Crick Avenue and Robinson's Way for the purposes of access and egress for the station and for its licensees. This is required because Francis Crick Avenue and Robinson's Way are private roads and Network Rail needs certainty that both it and people using the station have the rights to use Francis Crick Avenue and Robinson's Way for that purpose.
- e) the right for the emergency egress and safe passage from the station for Network Rail and its licensees this; is over the Astra Zeneca car park comprised in Plots 42 and 43 and is required to provide a secondary means of escape from the station in event of an emergency.
- 11.2.7 In accordance with Rule 15 of the Transport and Works Act Application Rules 2006 **(B3)**, notices have been served by Network Rail on the owners, lessees and occupiers of land affected by the project as set out in the Book of Reference **(NR8)**.
- 11.2.8 Network Rail's aim is to minimise the use of compulsory purchase and, in an effort to achieve that, it continues to negotiate with affected landowners. In many cases discussions with land owners requiring the project began well before the CSIE Order application was made and will continue to be given priority by Network Rail.
- 11.2.9 A Code of Construction Practice (see proposed planning condition 10 of document **NR12**) will be put in place and this will minimise the impact of the works on owners, lessees and occupiers of land affected, for example by minimising construction traffic on Francis Crick Avenue and Robinson's Way.

11.3 Summary

- 11.3.1 The powers over land and proprietary rights sought in the draft Order are for the construction, operation and maintenance of the project and have been limited so far as possible to ensure that they are only those necessary for the requirements of the CSIE Project.
- 11.3.2 Network Rail considers there is a compelling and justified case in the public interest for these powers and proprietary rights to be granted as part of the proposed Order.

Statement of Case

12. SPECIAL CATEGORY LAND

12.1 Introduction

- 12.1.1 This section considers the following special categories of land that will be affected by the CSIE Order:
 - a) open space (see paragraphs 12.2 to 12.4 inclusive); and
 - b) a scheduled ancient monument (see paragraph 12.5).

12.2 Open Space

- 12.2.1 The CSIE Order, if made, provides for Network Rail to compulsorily acquire:
 - a) land which is, or may be, open space within the meaning of the Acquisition of Land Act 1981 (ALA 1981) (B12) (hereafter referred to as the Existing Open Space); and
 - b) permanent new rights and / or temporary rights/possession over land which is, or may be, open space (hereafter referred to as the Affected Open Space)
- 12.2.2 Consequently, the CSIE Order will be subject to Special Parliamentary Procedure unless the Secretary of State for Housing Communities and Local Government gives certificates in accordance with the provisions of Section 19, Section 28 and Schedule 3, Paragraph 6(1)(a) of the ALA 1981. Network Rail has therefore submitted an application for the relevant certificates (NR21) as detailed in paragraph 12.3 below.
- 12.2.3 Network Rail's case in support of the acquisition of open space land, and rights over such land, is summarised at paragraph 12.4 below and is set out in more detail in the Public Open Space Assessment (NR19), which was submitted as part of the CSIE Order application.
- 12.2.4 Since the application was made Network Rail have appointed a contractor which has enabled it to review the construction methodology insofar as it relates to the temporary land possession identified in relation to Hobsons Park. Network Rail is in the process of revising the land plans which it is anticipated will reflect a reduced temporary land take in relation to Hobsons Park and the final plans will be published in advance of the Inquiry. The Public Open Space Assessment will also be updated accordingly.

12.3 Application for Certificates in relation to open space

- 12.3.1 On 23 August 2021, Network Rail made an application to the Secretary of State (**NR21**) under the ALA 1981 for the following certificates (hereafter referred to as the Certificates):
 - a) a certificate under section 19(1)(a) ALA 1981 confirming that in relation to the acquisition of the Existing Open Space that there will be given Replacement Land in exchange; and
 - b) a certificate under section 28 and Schedule 3, Paragraph 6(1)(a) ALA 1981 confirming that in relation to the acquisition of rights over land and/or temporary use during the construction period, the Affected Open Space, when burdened with those rights, will be no less advantageous

Statement of Case

to those persons in whom it is vested and other persons, if any, entitled to rights of common or other rights, and to the public, than it was before.

The effect of the grant of the Certificates sought would be that no order is required to be made under the Statutory Orders (Special Procedure) Act 1945 prior to the confirmation of the CSIE Order.

- 12.3.2 Network Rail is currently awaiting confirmation from the Secretary of State as to whether he is minded to issue the Certificates so that they may give public notice of that intention.
- 12.3.3 Network Rail has requested that if any objection is raised in response to such public notice or if the Secretary of State is not minded to give the requested certifications, consideration of the application for the Certificates be considered concurrently with the public inquiry in respect of the CSIE Order.
- 12.3.4 Network Rail reserves the right to make further comments in relation to the Certificates once objections to them (if any) have been received.

12.4 Case in relation to public open space

- 12.4.1 The CSIE Order provides for the Existing Open Space (comprising plots 003, 004a, 004b, 004c, 005a, 006b, 007, 014, 084a, 086) to be acquired compulsorily on a permanent basis in order to accommodate the operational activities of the proposed development (including the western station building, platform, cycle and pedestrian path, cycle parking, new hard landscaping, rail systems compound and widening of the railway corridor to service the new station). The Existing Open Space is shown coloured orange on the Open Space Plans (which form part of **NR9**).
- 12.4.2 The majority of the Existing Open Space is informal open space comprising predominantly scrub land and bordered by the existing railway to the east. It is considered that the nature and composition of the Existing Open Space limits its practical use for public recreation.
- 12.4.3 The Replacement Land (comprising plot 092 and shown coloured green on the Open Space Plan (NR9)) will be acquired under the CSIE Order and will be provided in exchange for the Existing Open Space.
- 12.4.4 The Replacement Land is considered to be equally advantageous to the rights-holders and to the public as the Existing Open Space Lane for the following reasons:
 - a) the amount of Replacement Land (approximately 20,840m²) exceeds the size of the Existing Open Space that is to be acquired (approximately 20,742m²);
 - b) the Replacement Land, when laid out, will be of at least as equivalent quality as the Existing Open Space and will provide informal footpaths, biodiverse habitats (including a pond) and seating areas. It will be accessible to the public for similar recreational and leisure activities as the Existing Open Space being acquired. It will not be possible to complete the laying out of the Replacement Land at the date the Existing Open Space is acquired as planting and allowing planting to become established will take time. The supporting material accompanying the Certificate applications contains indicative drawings of how the Replacement Land will be laid out (NR13) and Network Rail has proposed a planning condition be included on the deemed planning

- permission to secure the laying out of the Replacement Land to a standard which is acceptable to the local planning authority (**NR12**).
- c) Network Rail realises that, for the purposes of the Certificates, the date of exchange is the date of assessment but submits that, once the landscaping of the Replacement Land has been carried out and then allowed to mature and develop, and once access to it by the public has been provided, the Replacement Land will be no less advantageous to its owner and to the public as the Existing Open Space land currently is and that this is sufficient; and
- d) the Replacement Land is within close proximity to the Existing Open Space and the CSIE Order makes provision for Network Rail to secure the necessary rights to allow the Replacement Land to be enjoyed by the same users of the Existing Open Space.
- 12.4.5 The Affected Open Space will be affected in two ways:
 - a) Affected Open Space over which permanent new rights are sought for access, for inspection, management and maintenance needed for the long-term maintenance of the authorised works (comprising plots 002 and 008); and
 - b) Affected Open Space over which temporary rights/possession will be required for purposes associated with the construction of the authorised works (comprising plots 002, 004, 004d, 004e, 004f, 004g, 005, 006, 006a, 008, 008a, 010, 011, 012, 013, 084, 085, 087 and 090).
- 12.4.6 The Affected Open Space, when burdened with the rights acquired by Network Rail, is considered to be no less advantageous to the rights-holders and the public for the following reasons:
 - a) Permanent rights these rights will be used infrequently by Network Rail and its contractors for inspection, management and maintenance purposes (with or without vehicles and machinery). It is not anticipated that this will require the closure of any part or parts of the Affected Open Space and it is expected that members of the public will be able to continue to use the Affected Open Space as usual.
 - b) Temporary Rights/Possession part of the open space will be occupied for construction purposes during the construction period (which is anticipated to be between 18 and 24 months) to provide temporary access, facilitate the carrying out of the works and provide works sites. Noise and dust are not considered to generate any impacts in view of the proposed mitigation measures set out in the ES and through the preparation of the CoCP. Network Rail will also be re-landscaping and planting the Affected Open Space following completion of the construction period (save where natural regeneration is more appropriate), thereby ensuring that the Affected Open Space can continue to be enjoyed and used by the public. The open spaces that will be temporarily acquired form part of a much larger areas of public open space which will remain available to public during the construction phase.
- 12.4.7 In summary Network Rail considers that the CSIE Project has been designed to keep to a minimum the extent of the permanent open space land take required for the works and, as identified in the Open Space Assessment (NR19) considers the Replacement Land satisfies the statutory requirements. Network Rail is also currently reviewing the extent of temporary land take within Hobsons Park in order

Statement of Case

to reduce the amount identified. Network Rail reserves its position to respond to further representations made on the issue of Open Space.

12.5 Scheduled Monument

12.5.1 A Scheduled Monument containing evidence of Roman and Prehistoric activity is located within the site boundary to the west of White Hill Farm (as shown hatched blue in figure 12.1 below, extracted from the Environmental Statement (NR16)). The Scheduled Monument is a cropmark complex of rectangular enclosures, which have been interpreted as an Iron Age to Roman period settlement. It has historic and evidential interest for its potential to yield further information on the Prehistoric and Roman settlement of the area and group value as it forms part of a multi-period landscape.

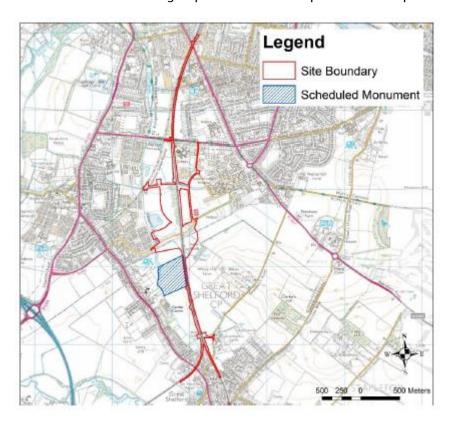


Figure 12.1 – Location of Scheduled Monument in relation to the CSIE Project

12.5.2 Chapter 11 'Cultural Heritage' of the Environmental Statement (NR16) outlines the potential effects of the proposed CSIE Project on the Scheduled Monument during construction and operation (hereafter referred to as the Cultural Heritage Assessment). The Cultural Heritage Assessment indicates that the ground intrusive element of the proposed development at the site of the Scheduled Monument would result in a major magnitude of impact on this asset of high value resulting in a large adverse significance of effect. Following mitigation by way of a strip, map and record excavation prior to construction to preserve assets by record, the impact on the Scheduled Monument would be moderate adverse and remain significant.

- 12.5.3 The Cultural Heritage Assessment states that for archaeological assets (such as the Scheduled Monument), permanent impacts from the construction phase would continue into the operational phase but would not give rise to additional effects. Therefore, the Cultural Heritage Assessment finds that no additional mitigation measures are considered necessary during the operational phase for such assets.
- 12.5.4 Network Rail has engaged with consultees at Historic England and CCoC Historic Environment Team in respect of the Scheduled Monument. All works that will take place within the Scheduled Monument will be carried out following consultation with Historic England and, where applicable, Scheduled Monument Consent will be applied for prior to works taking place.
- 12.5.5 Network Rail will present evidence at the public inquiry to confirm that a programme of archaeological mitigation will be put in place to protect the Scheduled Ancient Monument during the construction process. The proposed scheme, approach and mitigation work will be detailed in a Written Scheme of Investigation which will be submitted to and agreed with the archaeological advisors at CCoC (see proposed Planning Condition 11 in NR12). As is identified in document NR10, Network Rail will need to secure schedule ancient monument consent for the proposed mitigation works to be put in place to protect the scheduled ancient monument during construction. It is considered that the benefits of the CSIE Project (as set out in Section 6) outweigh any impact to the Schedule Monument given the proposed mitigation measures which seek to preserve assets by record in advance of construction of the CSIE Project.

Statement of Case

13. HUMAN RIGHTS AND EQUALITIES

13.1 Human Rights

- 13.1.1 The Human Rights Act 1998 (HRA 1998) **(B14)** prohibits public authorities from acting in a way that is incompatible with the Convention for the Protection of Human Rights and Fundamental Freedoms (the Convention). The following Articles are of particular relevance in the context of the CSIE Order application:
 - a) Article 1 of the First Protocol to the Convention (A1P1), which entitles every person to the peaceful enjoyment of property;
 - b) Article 6, which protects a person's right to a fair and public trial and hearing (including where a public authority is making a decision that has an impact upon civil rights or obligation);
 - c) Article 14, which requires all of the rights and freedoms set out in the HRA 1998 to be protected and applied without discrimination.
- 13.1.2 A1P1 is a qualified right, being is subject to the State's right to enforce such laws as it deems necessary to control the use of property in accordance with the general interest. The European Court of Human Rights has recognised in the context of A1P1 that regard must be had to the fair balance that has to be struck between the competing interests of the individual and the community as a whole. Both public and private interests are to be taken into account in striking this balance.
- 13.1.3 The CSIE Order, if made and implemented, would entitle Network Rail to compulsorily acquire land, interests in land, and rights over land, thereby interfering with rights under the HRA 1998. These rights have been taken into account in respect of the CSIE Project.
- 13.1.4 The CSIE Project is necessary to improve connectivity and capacity in the Cambridgeshire region and to accommodate future growth in the area. At present, there is a lack of long-distance public transport opportunities to access the CBC and Cambridge Southern Fringe area. The CSIE Project will improve journey times to and from the CBC and support its ongoing growth as a global centre for biomedical research. The CSIE Project will also significantly improve public transport access to the three hospitals on the campus and support major residential expansion which is planned and being delivered in the Cambridge Southern Fringe.
- 13.1.5 Those whose interests are acquired under the CSIE Order will also be entitled to compensation which will be payable in accordance with the compulsory purchase compensation code, assessed on the basis of the market value of the property interest acquired, disturbance (i.e. reasonable moving costs and costs/losses directly related to the compulsory acquisition) and statutory loss payments. The reasonable surveying and legal fees incurred by those affected in transferring interests to Network Rail will also be paid by the Council. The Compensation Code has been held to be compliant with A1P1.
- 13.1.6 The compulsory acquisition of land, and rights in land, is necessary to facilitate the delivery of the CSIE Project. It is considered that any interference with the rights under the HRA 1998 is lawful, proportionate to the public benefit that will be derived from the CSIE Project and in the wider public interest in order to secure the benefits resulting from the delivery of the CSIE Project (as summarised in Section 6). Any interference is therefore considered justified.

Statement of Case

13.2 Equalities

- 13.2.1 Network Rail has complied with the public sector equality duty set out in s149(1) of the Equality Act 2010 (**B15**) and, in preparing the CSIE Order, has engaged with affected parties (as set out in Section 10).
- 13.2.2 Network Rail has carried out a Diversity Impact Assessment (DIA) **(C1)** to help inform the design development and construction planning for the CSIE Project. The DIA sought to identify and suggest ways to remove or mitigate any adverse effects for people sharing protected characteristics as well as to enhance the equality benefits of the completed project. The DIA will be refreshed in advance of the public inquiry.

Statement of Case

14. SUPPORT, REPRESENTATIONS AND OBJECTIONS

14.1 Managing Objections and Representations

- 14.1.1 At the time of this Statement of Case being finalised, 22 objections, 9 representations and 5 letters of support have been received in response to the CSIE Project. Network Rail has contacted most statutory objectors (and will be contacting the remaining objectors imminently) and remains willing to meet with them to discuss the concerns raised. A number of meetings have already taken place.
- 14.1.2 Network Rail continues to engage with statutory bodies such as the Environment Agency, Historic England, CCoC and the GCP. Good working relationships have already been established with these bodies through engagement and consultation prior to the submission of the application for the Order.
- 14.1.3 Network Rail will be holding regular meetings with these statutory bodies to address grounds of objection (or other representations) made with the aim of agreeing a Statement of Common Ground and securing the withdrawal of objections (where applicable). Network Rail is currently in the process of finalising a Statement of Common Ground with CSET; this will address a number of the concerns raised by objectors regarding the engagement that has been had with the GCP on the interrelationship of the project and CSET and further the approach being taken by both parties to minimise the manage the construction effect of both schemes if built our concurrently.
- 14.1.4 Where the Order seeks compulsory powers to take temporary possession of land or to permanently acquire interests in land, Network Rail's objective is to continue engagement with the affected landowner and to reach acceptable terms to address the concerns raised in the letter of objection.
- 14.1.5 The majority of the objections received include statements of qualified support for the project. The following section summarises the principal themes raised in the objections and outlines Network Rail's summary response. A more detailed response to the remaining objections will be included in Network Rail's evidence to the public inquiry.

Table 14.1 - Themes of Objectors' Issues

Issue	Number of times raised
Criticisms of Open Space Assessment	An Open Space Assessment has been carried out which set out the methodology for assessing the existing open space, the criteria for assessing the extent of land take (both permanent and temporary) in relation to the open space and the approach taken to identifying appropriate replacement open space. Network Rail will provide evidence at the Public Inquiry to support the approach taken, which it considers to have been appropriate. A short update to the Open Space Assessment will be provided to reflect the anticipated reduced temporary land take at Hobson's Park. This will be made available before the Inquiry.
Closure of Webster's and Dukes No.2 Level Crossings	Network Rail considers that the alternative access proposals to replace the extinguishment of private rights and the closure of

Issue	Number of times raised	
	Webster's and Dukes No.2 Level Crossing are appropriate, based on the information available to Network Rail at the time of writing.	
	Network Rail will continue to engage with the affected landowner and occupiers to agree the appropriate design of the new bridge for the access works and the rights required.	
Lack of clarity on extent of permanent and/or temporary acquisition	Network Rail considers that the draft Order, deposited plans and Book of Reference clearly identify the extent of the land taken in terms of permanent acquisition, rights to be acquired and temporary possession sought.	
	Where parties have raised issues over lack of clarity, Network Rail has, or will, provide detailed responses on the extent of interests affected and the purpose for the land identified.	
	Network Rail will present evidence at the Inquiry to confirm the extent of the land required and the need for each parcel.	
Land acquisition for permanent compounds	Network Rail has identified the most appropriate location for permanent compounds as part of the overall project development.	
	Network Rail will provide evidence at the Inquiry to demonstrate the location for the permanent compounds is appropriate and confirm the impact/interaction with any adjoining footpaths and/or cycleways and/or accesses.	
Extent of Land Acquisition	Network Rail has identified the land and rights required to facilitate the development of the Project.	
	In response to objections raised regarding the extent of temporary land take for Hobson's Park, since the application Network Rail now has a contractor appointed and has reviewed the extent of temporary land take.	
	As a consequence, Network Rail anticipates being able to reduce the extent of land identified and updated plans will be provided in due course.	
Station Capacity	The design parameters of the station have had regard to existing and future capacity requirements.	
	Network Rail will provide evidence at the Inquiry to demonstrate that the station parameters are appropriate to accommodate future capacity requirements, and that it would not be appropriate to use the future demand figures promoted by objectors.	
Drainage attenuation/impact on Hobson's conduit	Network Rail is engaging with those objectors who have raised concerns relating to drainage.	

Issue	Number of times raised
	Network Rail will present evidence at the Inquiry to address concerns around drainage.
Traffic impact	Network Rail has undertaken a transport assessment of the Project as part of the application.
	Some objectors have raised detailed technical points on the transport assessment and Network Rail will be liaising with those objectors to address and clarify those points raised.
	Network Rail will be presenting evidence to the Enquiry to confirm the overall acceptability of the traffic impact of the Project on the local network.
Lack of consultation/engagement	As set out above, Network Rail has undertaken a range of consultation from one to one meetings with key stakeholders, public consultation and consultation with affected landowners. It has complied with the statutory requirements relating to the same.
	Network Rail remains committed to continuing with engagement and dialogue with all parties and will continue to do so in parallel to the Transport and Works Act process.
Cycle access and cycle parking	The cycle access and parking are subject to detailed design arrangements.
	The final details will be submitted pursuant to a planning condition as part of the deemed planning permission.
Impact on blue light routes	Network Rail has met with the Cambridge University Hospitals NHS Foundation Trust to confirm the construction of the Project will have a minimal impact on blue light routes.
	Network Rail will continue to engage with the Trust to provide any necessary assurances it requires to protect blue light routes.
Temporary impact on Hobson's Park	Network Rail since the submission of the application has an appointed contractor and as a consequence, the extent of temporary land take of Hobson's Park has been reviewed.
	Network Rail anticipates proposing to reduce the extent of the land take from Hobson's Park and will prepare and produce updated plans shortly for consideration.
Noise and vibration impacts	Network Rail is liaising with those objectors who have concerns around noise and vibration impacts.
	Network Rail will present evidence at the Inquiry to address the concerns raised.

Issue	Number of times raised
Impact on other development proposals in the area (not including CSET)	Network Rail continues to liaise with Astra Zeneca regarding further development proposals on the campus.
CSETY	Both parties are in discussions to agree entering into legal documentation to ensure that the construction of future development projects at the campus alongside the CSIE Project can be carried out harmoniously.
Interrelationship and cumulative impact with CSET	Network Rail has engaged with GCP and CCoC prior to the submission of the application to understand and ensure that the Project does not prejudice the CSET proposals.
	A common statement of ground is currently being finalised with GCP and further agreements are proposed to be entered into that confirm that both schemes can be delivered concurrently in order to minimise construction impacts on the local area.
Impact on guided busway infrastructure	Network Rail has been in discussions with CCoC regarding the construction impacts on the guided busway infrastructure.
	Protective provisions are currently being negotiated between the parties and it is anticipated that these can be agreed with the protective provisions currently within the draft Order updated in due course.
Lack of clarity on footpaths/routes stopped up	Network Rail is of the view that the draft Order, and order plans appropriately identified the routes subject to temporary stopping up powers.
	A response has been sent to the Ramblers providing clarity on the extent of the stopping up of footpaths and cycleways.
	As a consequence of the anticipated reduced extent of land take to Hobson's Park, it is also anticipated that the footpath from Addenbrookes Road to Hobsons Park will now be unaffected by the need for temporary stopping up and this will be confirmed in due course.
	Network Rail will present evidence to the Inquiry confirming the extent of the routes to be stopped up albeit on a temporary basis.
Construction traffic on St Francis Crick Avenue, Robinson's Way and other local roads	Network Rail has included as part of the proposals haul roads and other temporary possession of land for construction access purposes.
	A construction management plan will manage construction traffic, with minimal construction traffic permitted to use St Francis Crick Avenue and/or Robinson's Way.

Statement of Case

Issue	Number of times raised
	Network Rail will present evidence to the Inquiry to set out the proposed construction traffic methodology.
Replacement open space land and access	Through the Open Space Assessment Network Rail identified the most appropriate area for the replacement open space land and has incorporated within the Order the necessary provisions to ensure public access to that land can be retained. Network Rail will present evidence at the Inquiry to confirm the approach taken and the access provisions to be made available.
Impact on Nine Wells Local Nature Reserve	No significant impact on Nine Wells LNR is anticipated and Network Rail will present evidence to the Inquiry confirming this.
Impact on utilities	Protective provisions are currently being negotiated with statutory undertakers who have objected to the Order.
	It is anticipated that protective provisions can be agreed and incorporated within the draft Order once that agreement is in place.

14.1.6 Table 2 below identifies the 22 Objections received to the proposed Order, a summary of the issues raised in the objection letter and a summary of Network Rail's position in relation to the objection received.

Table 14.2 – Summary of objections received

TIPU Ref	Name	Themes of Objections	Network Rail Summary Position
OBJ01	St Johns College, Cambridge	 Arbitrary approach to assessing and identifying replacement land for exchange of open space Closure of Websters & Dukes No.2 level crossing, new access arrangements and design of new bridge Land being acquired for permanent rail systems compound and interaction with existing Sustrans cycleway Costs 	A draft response has been prepared and will be sent to the Objector imminently. Network Rail does not accept that its approach to the replacement land has been inappropriate. Nonetheless, it remains willing to continue discussing the issues raised by St John's, together with agreeing an appropriate design and specification for the access bridge comprised in Works 11. Network Rail remains committed to reaching agreement with St John's and although undertakings for costs have already been provided, it will discuss the scope of costs further with St John's. Network Rail

TIPU Ref	Name	Themes of Objections	Network Rail Summary Position
			remains committed to working with St John's to reach resolution on these issues.
OBJ02	Chris Pointon	Underestimated the required capacity for the station, and consequently the provision for transport links that serve it	See response to OBJ22 Smarter Cambridge Transport
OBJ03	Stephen Walker (CBRE) on behalf of AstraZeneca	 Drainage attenuation Car Parking Proposed new boundary Existing infrastructure Crane locations Station forecourt Office development Alignment of programmes Easement terms – SME route Plot 039 – tunnel beneath 	Network Rail will continue to work with AstraZenaca to address the various concerns raised and formulate any appropriate commitments to secure the withdrawal of the objection. It is considered that appropriate terms can be secured by way of legal agreement to address some of the issues and Network Rail is currently working these up to discuss with AstraZenaca.
OBJ04	Saba Infra Cambridgeshire Ltd	 Impact on traffic flows to MSCP Lack of consultation Short and long term impacts on the MSCP No attempt to acquire land by agreement Want HoT for providing the necessary protection, compensation and accommodation works for Saba. 	Network Rail responded to the objection on 7 September 2021 summarising the proposed effects of the project insofar as it relates to the MSCP, which in summary are negligible. Network Rail is also seeking a meeting with Saba to explain the proposed scheme and confirm that no acquisition of Saba interests is proposed.
ОВЈ05	Environment Agency	Absence of sufficient hydraulic modelling to support the Flood Risk Assessment (FRA)	Further modelling has been provided to the Environment Agency and Network Rail will continue to liaise with the Environment Agency on this issue.
OBJ06	Cambridge University Hospitals NHS Foundation Trust	 Cycle Access and Cycle Parking split should be focused on greater provision to the east Motorcycle access and parking Impacts on Blue Light Routes Avoiding through traffic Personal Safety of Cycle Routes Integration of Transport Projects and Solutions Land Acquisition – 	Network Rail met with CUH on 2 September 2021 to discuss the concerns raised in the letter of objections and good progress was made. Further meetings are being set up and Network Rail will continue to liaise with CUH to resolve the concerns raised. Network Rail is preparing a written response to the Objection letter, to be issued shortly.

TIPU Ref	Name	Themes of Objections	Network Rail Summary Position
		 Construction and operational use of Long Road and Robinson Way Use of MRC property Cumulative Impacts with CSET Accessibility for All Lorry and fire tenders use of the eastern forecourt Capacity of existing pedestrian and cyclist routes (and crossings) within the Campus Disruption and Impacts during Construction ANPR Enforcement and Monitoring Drainage Transport Assessment and Environmental Statement Observations Patronage estimates for Cambridge South Cycle Parking Spaces Sufficient weighting provided to blue light routes Capacity to accommodate additional sustainable mode trips Overestimation of beneficial impacts of Station on Francis Crick Avenue and Robinson Way The lack of consideration of the public transport interface between train, CSETS, the Guided Busway and any future potential public transport connections through the site 	
OBJ07	Trumpington Residents Association	 Adverse Effects on Hobson's Park Proposed pedestrian access to the western station building Cycle parking at the western 	Network Rail is reviewing the temporary land take in relation to Hobson's Park and will confirm its position on reduced land take shortly. A detailed response is being

TIPU	Name	Themes of Objections	Network Rail Summary Position
Ref			.,
		 Electricity sub-station and rail systems enclosure Maintenance track within the western boundary of Hobson's Park Adverse Effect on Nine Wells Local Nature Reserve Transport Context – Highways and Public Transport Trumpington NOT Great Kneighton 	prepared to the other points raised and will be issued shortly.
ОВЈ08	University of Cambridge	 Noise and Vibration impacts Compulsory acquisition of land and rights in land Drainage Impacts on Hobson's Conduit Impacts on development of Plot 9 Impacts on ancillary rights (access and utilities) Errors and omissions in the Book of Reference 	Network Rail provided a response to issues raised on 2 September 2021. Network Rail will continue to engage with the Objector to resolve and respond to the concerns raised and will be arranging a series of meetings to further progress these discussions.
ОВЈ09	Medical Research Council	 Vibration from the Construction Works Electromagnetic Interference Generation of Dust and Dirt Noise Tree Line Impact of the Haul Road and on-going Rights of Access for Maintenance Drainage Goods delivery and service access for the LMB Future Power provision for the LMB Utility diversions Biodiversity Security Alternatives Not Considered Required Mitigation Lack of negotiations Funding and Viability 	Network Rail has met on-site with the Objector to discuss the concerns raised. Network Rail will continue to engage with the MRC and will arrange a series of meetings to further progress discussions. A response to the objection letter will be provided shortly.

TIPU	Name	Themes of Objections	Network Rail Summary Position
Ref			
ОВЈ10	CBC Estate Management Company Limited	 Extent of land acquisition Impact on drainage systems Impact on infrastructure at the Biomedical Campus Impact on the ability to bring forward the remainder of Phase 2 of the development Cumulative impacts with the GCP proposals for the Biomedical Campus 	Network Rail wrote to the Objector on 10 September 2021 responding to the issues raised and confirming the nature of interests affected and the purpose for the temporary or permanent acquisition. Network Rail will continue to engage to resolve and clarify the issues raised throughout the TWAO process.
OBJ11	Cambridge Medipark Limited	 Extent of land acquisition Failure to take reasonable steps to acquire the land by agreement Impact on drainage systems Impact on infrastructure at the Biomedical Campus Impact on the ability to bring forward the remainder of Phase 2 of the development Cumulative impacts with the GCP proposals for the Biomedical Campus 	Network Rail wrote to the Objector on 10 September 2021 responding to the issues raised and confirming the nature of interests affected and the purpose for the temporary or permanent acquisition.
OBJ12	Cadent Gas Limited	Protective Provisions	Protective provisions are currently being negotiated with Cadent Gas, which it is hoped will enable the withdrawal of the objection.
OBJ13	Cambridge Group, Ramblers	 Has not provided intelligible maps indicating which footpaths and cycle tracks are to be stopped (permanently and temporarily) or diverted and the period of any temporary stoppage. Has not addressed "footpath access to Hobson's Park from Addenbrookes Road" as promised in Network Rail email, dated 4 Jan 2021. Has not identified which footpaths within Hobson's Park will not be affected by the development work or those footpaths that will be affected. 	Network Rail wrote to the Objector on 13 September 2021 responding to the issues raised. Following the appointment of its construction contractor, Network Rail is reviewing the extent of the temporary land take on Hobsons Park to reduce the area affected and considers this will address many of the concerns raised.

TIPU Ref	Name	Themes of Objections	Network Rail Summary Position
ОВЈ14	Cambridge Past, Present and Future	 Temporary Adverse Effects on Hobson's Park Light pollution and permanent impact on Hobson's Park Permanent impact on Hobson's Park and failure to integrate with Hobson's Park Electricity sub-station and rail systems enclosure Maintenance track within the western boundary of Hobson's Park Compensation for loss of Hobson's Park land – "Exchange land" 	Network Rail is reviewing the extent of the temporary land take on Hobsons Park which it considers will address many of the concerns raised. Network Rail is preparing a response to address the remaining concerns raised which will be provided shortly.
ОВЈ15	The Pemberton Trustees	 The Extent of Land Taken The Nature of Rights Taken Impact on the existing and proposed infrastructure Interface with Cambridge Guided Busway 	Network Rail has consulted with the Objector throughout the TWAO process and remains committed to reaching an agreed position. A response is being finalised and will be issued imminently.
OBJ16	South Staffordshire Water PLC	 Limited consultation Land referencing anomalies Protective Provisions 	Network Rail has confirmed it is willing to agree acceptable Protective Provisions for inclusion in the Order and will continue to engage with the statutory undertaker to reach agreement. Network Rail considers it has carried out appropriate consultation, this is further detailed in Section 10 above. Network Rail is reviewing the issues raised on land referencing and will respond shortly.
OBJ17	Countryside Cambridge One Limited and Countryside Cambridge Two Limited	 Extent of land acquisition Impact on infrastructure at the Biomedical Campus Impact on drainage systems Cumulative impacts with the GCP proposals for the Biomedical Campus 	Network Rail wrote to the Objector on 10 September 2021 responding to the issues raised and providing clarification of the extent of land acquisition. Network Rail will continue to engage to resolve and clarify the issues raised throughout the TWAO process.
OBJ18	Cambridgeshire County Council and Greater	Compulsory acquisition powers over plot numbers 004a and 004c – these areas lie directly under the Busway track	Network Rail wrote to the Objector on 24 August 2021 responding to the issues raised and providing clarification on the extent of land acquisition. Network Rail

TIPU Ref	Name	Themes of Objections	Network Rail Summary Position
	Cambridgeshire Partnership	 Temporary possession powers over plot 004 – this is a large area and covers a significant part of the Busway track Compulsory acquisition of plot 031 - "to install soil nails and anchors together with associated ground stabilization works to support the proposed retaining wall of the Cambridge Guided Busway, situated to the west of Francis Crick Avenue" GCP specific 	subsequently met with the Objector on 13 September 2021 and continues to try and resolve the concerns raised and will continue to progress the discussions.
		 Land Requirements Design Francis Crick Avenue interface Biodiversity Net Gain Attenuation ponds, landscaping and drainage Construction programme 	
ОВЈ19	St Mary's School, Cambridge	 Impacts on access through NR's use of Plot 001 Requirement to access over Plot 002 to maintain new fence Proposed accommodation works 	A response has been prepared and will be sent to the Objector shortly. Discussions have previously taken place with the Objector; Network Rail will continue to engage to resolve and clarify the issues raised throughout the TWAO process.
ОВЈ20	Dave Jackson	 Supports TRA objection Size of the works compound on the Western side of the track Idea of the station being used to reduce reliance on Cambridge Station in the City Centre 	See OBJ07
ОВЈ21	Richard and Vanessa Price	 Impact on Hobson Park Extensive cycle parking on the west side of the station New access path to the station along the south side of North Ditch Existing footpath approaching the station from the SW is being 	A holding response was sent on 27 August 2021. Network Rail is currently reviewing the extent of temporary land take for Hobsons Park and will confirm its position shortly.

Statement of Case

TIPU Ref	Name	Themes of Objections	Network Rail Summary Position
OBJ22	Smarter	"raised to provide level access into the station" Siting of the rail systems compound Construction compound locations Proposed station design	A holding response was sent to the
36,72	Cambridge Transport	 Lacks sufficient capacity for a realistic level of usage Provides no room for future expansion Has highly conflicted access arrangements Poorly integrated with bus services. 	objector on 18 August 2021. A detailed response is being prepared to address the technical points raised and will be sent to the Objector shortly.

14.1.7 Table 14.3 below identifies the 9 Representations received to the proposed Order, a summary of the issues raised in the representation letter and a summary of Network Rail's position in relation to the representation received.

Table 14.3 – Summary of Representations received

TIPU Ref	Name	Theme of Representation	Network Rail Summary Response
REP01	Richard Wakeford	 Adequacy of the Station Building and Facilities Duplication of work and consequent waste if Cambridge South Station and associated works are not integrated with those consequent to the introduction of EWR Unnecessary land 'take' both temporarily during construction and permanently 	Network Rail is currently reviewing the extent of temporary land take for Hobsons Park and will confirm its position shortly. A draft response has been prepared and will be issued imminently.
REP02	Joseph Saunders	 Land being taken in Hobson's Park Maintenance access parallel with the rail tracks Access to exchange land 	Network Rail is currently reviewing the extent of temporary land take for Hobsons Park and will confirm its position shortly. A draft response has been prepared and will be issued imminently.

TIPU	Name	Theme of Representation	Network Rail Summary Response
Ref		·	
REP03	Sav Patel	 Impact of building Cambridge South Station will have on local stations on the network The potential for an increase in people choosing to leave their cars at local stations Demand for the station will come from and if it will be via local train stations Have there been any considerations for supporting an increase in local station car parking 	Network Rail provided a written response on 18 August 2021 responding to the issues raised.
REP04	Great Shelford Parish Council	 Potential impact the temporary roadway (for construction traffic) will have on an ancient monument Requested sight of the Construction Transport Plan for Granhams Road and Addenbrookes Road 	Network Rail provided a written response on 17 August 2021 responding to the issues raised.
REP05	Mark Chaplin	Methodology and conclusions of the Public Open Space Assessment (Document NR19)	Network Rail provide a written response on 31 August 2021 responding to the issues raised.
REP06	National Grid	No apparatus in the vicinity of the TWAO. Therefore, National Grid would not object to the Order	Network Rail provided a written response on 18 August 2021.
REP07	Historic England	 Proposed length of haul road accessing the Shepreth Branch Junction, which runs within the eastern edge of the Scheduled Monument Minor modifications to the wording of condition 11 Welcome an outreach programme in any WSI, to widen public knowledge and understanding of the area. 	Network Rail provided a written response on 27 August 2021 responding to the issues raised.
REP08	Cambridge City Council	Essential information missing from the application which must be provided: • Evidence to support the case for a Green Belt location in order to meet the exception	A draft response has been prepared responding to the issues raised and will be sent shortly.

TIPU	Name	Theme of Representation	Network Rail Summary Response
Ref	Nume	Theme of Representation	Network Ruii Summary Response
Kei			
		for inappropriate development in the NPPF paragraph 150; Confirmation that no spoil will be permanently placed within areas of public open space, which must also be secured	
		through a condition; Controls on the temporary storage of spoil within areas of public open space, including the site compound area and duration which must be minimised, and details of the ground preparation works within the compound;	
		 AIA and AMS to assess the impact on TPOs and other effected trees, hedgerows and existing planting; 	
		 Information on the deliverability of options to achieve the biodiversity net gain target on site, or as close to the site as possible; 	
		Confirmation of proposals for biodiverse green roofs and amendments to notation on the drawings to remove reference to this as being	
		 'potential'; BREEAM pre-assessment to demonstrate the scheme is on- target to achieve BREEAM 'excellent' rating; 	
		Comments from CCoC Highways Authority regarding the predicted trip generation, modal share and number of cycle parking spaces;	
		A commitment within the Design Principles to limit the number of car parking spaces to the specified maximum number for each user group in the locations identified; and	
		 Details as requested by the Sustainable Drainage Engineer. 	

Statement of Case

TIPU	Name	Theme of Representation	Network Rail Summary Response
Ref			
		Detailed issues raised:	
		Detailed issues raised.	
		1. Principle of development	
		2. Response to context	
		3. Impact on public open space	
		4. Biodiversity	
		5. Impact on trees	
		6. Impact on residents and sensitive uses	
		7. Sustainable construction	
		8. Cycling infrastructure	
		9. Car parking	
		10. Drainage	
		11. Public art	
REP09	South Cambridgeshire District Council	 Biodiversity net gain Landscape and visual impact Impact on local residents Replacement wording for condition 24 – Artificial lighting Connectivity Impact on cycle network Archaeology Drainage - any surface water drainage alterations which contribute to change of rate/volume of flow would require land drainage bye law approval by the Council 	A draft response has been prepared responding to the issues raise and will be provided shortly.

14.1.8 For completeness, Table 14.4 below identifies and summarises the letters in support of the CSIE Project.

Table 14.4 – Summary of Support

TIPU	Name	Theme of Support	Network Rail Summary Response
Ref			
SUP01	Railfuture East Anglia	 We wish to register our strong support for this application This station is urgently needed to help make travel in the Greater Cambridge area more sustainable Unparalleled connectivity from a huge area to the adjacent 5 major specialist hospitals and the 30k+ Jobs on the also adjacent Cambridge Bio Medical Campus Hope and expect this order to be approved without more delay so that work can 	n/a
SUIDOS	Hobsons Conduit	commence at the earliest opportunity	n/a
SUP02	Hobsons Conduit Trust	 Very favourably impressed with both the Network Rail team and their chosen consultants Pleased to have been given the benefit of Protective Provisions under the proposed Order Unquestionably a need for the proposed station to support existing and future growth on both sides of the railway The Exchange Land proposed to the south of Addenbrooke's Road to the west of the railway is very important to the Trust, as it will enable removal of that margin of the Brook from intensive arable farming In relation to drainage and the interaction with the Brook we have had useful and productive discussions with Network Rail that give us considerable confidence that the arrangements to be agreed for the surface water from Cambridge South entering the Brook will have the necessary safeguards and 	n/a

TIPU Ref	Name	Theme of Support	Network Rail Summary Response
SUP03	Fen Users Association	 Strongly supports Network Rail's TWAO application for Cambridge South Infrastructure Enhancements. The proposed new Cambridge South station provides direct rail access to the Cambridge Biomedical Campus for employees and hospital visitors and outpatients, including those living in west Norfolk and north-east Cambridgeshire This station is urgently needed and we hope construction will be able to begin with the 	n/a
SUP04	M Beckett	 minimum of delay The reason for my formal support is that direct rail access to the two adjacent hospitals from the proposed new station would be of considerable use and value to hospital outpatients, visitors and staff using trains from all stations between King's Lynn and Cambridge North The proposed new station would also benefit employees working at and visitors to companies located on the adjacent Cambridge Biomedical Campus and using stations between King's Lynn and Cambridge North. 	η/α
SUP05	RESCINDED now REP09	,	n/a
SUP06	Janet Swadling	 I support the principle of the station and that it should be very accessible by local residents as well as users of the biomedical campus. However, both during construction and when completed, every step possible should be taken to reduce additional vehicle traffic in the 	Network Rail responded on 18 August and confirmed it is willing to facilitate a "drop in" session for residents with further detail on the construction methodology and mitigation.

TIPU Ref	Name	Theme of Support	Network Rail Summary Response
		area, which is already heavily congested, and to minimise disruption to the country park and Ninewells. I do not support the cycle park being on the Hobson's Park side of the track. This needs to be on the actual campus so as not to intrude into the park. Indeed, cycles should be discouraged from use of the park. I would welcome a dedicated session restricted to close residential neighbours who actually look onto the site in order to be taken through what is proposed and the mitigations to disruption. Environmentally, I would like to see a lot more trees planted asap in the park for the climate benefits but also to enable them to mature to screen the station when completed Do please come back to me about specific interaction with the directly locally impacted community as opposed to the wider groups that may be responding	

Statement of Case

15. CONCLUSIONS

- 15.1.1 As has been explained in Section 2, the CSIE Project addresses and identified existing and future transport need for the South of Cambridge in particular, and the wider region.
- 15.1.2 It will be located in a prime major employment centre adjacent to the CBC which is expected to become an integral part of the UK life sciences industry. Addenbrooke's Hospital is a major employment centre and Papworth Hospital has also relocated to the CBC.
- 15.1.3 It is supported by the Government's infrastructure policy and transport strategies as is further detailed in Section 2 and 3 above. The CSIE Project would deliver an inclusive "Access for All" railway station, which provides greater connectivity and access to hospitals, the CBC and local community infrastructure.
- 15.1.4 The CSIE Project is consistent with and supported by all levels of planning and transport policy including national, regional and local planning and transport policy. The CSIE Project will support sustainable transport strategies, encourage a modal shift in sustainable transport and reduce traffic congestion in the local area. The enhancement of sustainable transport access to housing, services and employment will support the growth of the Cambridge southern fringe and CBC area. A new rail station at Cambridge South will reduce city centre reliance, as passengers travelling by rail will no longer need to interchange at Cambridge Station and then use another transport mode to access CBC.
- 15.1.5 The design and evolution of the CSIE Project has carefully considered the site's location and its surrounding context. The proposed planning conditions which form part of the deemed planning permission submission, will ensure that it is carried through into the detailed design of the CSIE Project.
- 15.1.6 In relation to the powers sought over land in relation to compulsory acquisition of land, new rights and temporary possession, it is considered these have been limited so far as possible to ensure they are only necessary for the requirements of the CSIE Project. Care has been taken, in response to the consultation process undertaken, to minimise the extent of permanent acquisition of open space land.
- 15.1.7 The provision of replacement open space land will address the impacts of lost existing public open space land. Following the appointment of a construction contractor, Network Rail has reviewed further the ability to reduce the temporary land take within Hobson's Park and anticipates this will be possible. Network Rail will finalise its position on this shortly. Future landscaping, design and works will ensure the replacement land is of an equal or better standard to that which will be lost.
- 15.1.8 The new station also allows integration with other schemes such as the proposed east/west rail connection, the recent Thameslink upgrade, potentially CSET, and the ability to interchange with use of the guided busway.
- 15.1.9 The Government has set out its intention to fund the CSIE Project as is set out in the funding statement (NR5).
- 15.1.10 Network Rail has complied with all statutory requirements relating to consultation and engagement in relation to the CSIE Project including carrying out two rounds of public consultation. That consultation has informed the final application design of the CSIE Project.

- 15.1.11 Overall, Network Rail considers there is a compelling case in the public interest for the powers sought to be granted as part of the Order. In relation to the objections and representations received in response to the Application for the CSIE Project, it is noteworthy that the majority of these provide qualified support for the scheme overall.
- 15.1.12 Network Rail remains committed to working with objectors throughout the TWAO process to resolve as many of the concerns raised as possible and in order to secure withdrawal of objections prior to the public enquiry. Network Rail will provide evidence at the forthcoming public inquiry to address the concerns raised and to support its position that the Order be made.

The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case

APPENDIX 1 – LIST OF SUPPORTING DOCUMENTS

Catego	ry A: Applicαtion Documents
NR1	Transport and Works Act Order Application Letter
NR2	Draft of the proposed Order
NR3	Explanatory Memorandum
NR4	Statement of Aims
NR5	Funding Statement
NR6	Estimate of Costs
NR7	Consultation Report
NR8	Book of Reference
NR9	Deposited Plans and Section and Open Space Plans
NR10	List of consents, permissions or licences under other enactments
NR11	Waiver directions given under Rule 18
NR12	Request for Deemed Planning Permission and statement of proposed conditions
NR13	Deemed Planning Drawings in support of the request for a planning direction
NR14	Planning Statement
NR15	Design and Access Statement
NR16	Environmental Statement
NR17	Rule 14(4A) Notice
NR18	Consideration of Green Belt Issue
NR19	Public Open Space Assessment
NR20	Outline Business Case - Cambridge South Rail Station (February 2021)
NR21	Application for certificate under section 19 and section 18 and Schedule 3 of the Acquisition of Land Act 1991

Statement of Case

Categ	ory B: Legislation
B1	Transport and Works Act 1992
B2	Part 3 and Part 8, Planning and Compulsory Purchase Act 2004
В3	Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006
B4	Transport and Works (Inquiries Procedure) Rules 2004
B5	Transport and Works (Model Clauses for Railways and Tramways) Order 2006
B6	Planning and Compulsory Purchase Act 2004
B7	Town and Country Planning Act 1990
B8	Compulsory Purchase Act 1965
B9	Railways Act 1993
B10	The Railways and Other Guided Transport Systems (Safety) Regulations 2006
B11	European Union (Withdrawal) Act 2018
B12	Acquisition of Land Act 1991
B13	Town and Country Planning (General Permitted Development) Order 2015
B14	Human Rights Act 1998
B15	Equality Act 2010

Catego	ory C: Scheme Development Documents
C1	Diversity Impact Assessment (including appendix)
C2	Budget 2020
C3	Strategic Outline Business Case (2017)

Category D: National and Local Policy and Guidance Documents

D1	National Planning Policy Framework (July 2021)
D2	Guidance on Compulsory purchase process and the Crichel Down Rules (July 2019)
D3	A Guide to TWA Procedures
D4	National Planning Practice Guidance (relevant extracts)
D5	National Policy Statement for National Networks
D6	Cambridge City Council Cambridge Local Plan (October 2018)
D7	Cambridge Policies Map 2018
D8	South Cambridgeshire Local Development Plan (2018) (including errata relating to Chapter 3: Strategic Sites)
D9	Cambridgeshire and Peterborough Local Transport Plan (2020)
D10	Transport Strategy for Cambridge and South Cambridgeshire (2014)
D11	Cambridge Southern Fringe Area Action Plan (2008)
D12	Sustainable Design and Construction SPD (2020)
D13	Cambridgeshire Flood and Water SPD
D14	Public Art SPD (2010)
D15	Cambridge Inner Green Belt Boundary Study (November 2015)
D16	Cambridgeshire and Peterborough Combined Authority: Business Plan (2019-2020)
D17	Cambridgeshire and Peterborough Combined Authority: Business Plan (2020- 2021)
D18	Cambridgeshire Local Transport Plan 2011 – 2031: Long Term Transport Strategy (July 2015)
D19	Life Sciences Industrial Strategy
D20	Transport Investment Strategy – Moving Britain Ahead (July 2017)
D21	National Planning Policy Framework (February 2019)
D22	Green Book Review 2020: Findings and response
D23	Decarbonising Transport – Setting the Challenge (2020)

Statement of Case

D24	Greater Cambridge Greater Peterborough Enterprise Partnership Strategic Economic Plan
D25	Greater Cambridge City Deal
D26	Government White Paper (Creating growth, cutting carbon: Making Sustainable Transport happen) (2011)
D27	Decarbonising Transport, A Better, Greener Britain
D28	Cambridgeshire and Peterborough Combined Authority: Business Plan (2021-2022)

Catego	ry E: Pre-inquiry documents
E1	Statement of Case, Network Rail, September 2021

Network Rail reserves the right to update this documents list ahead of the Inquiry.

This Statement of Case and its supporting documents are available electronically at:

https://gateleyhamer-pi.com/en-gb/csie/

Subject to payment of a reasonable charge, copies can be provided of the documents upon request. Requests should be directed to Georgina Reeves at Dentons UK and Middle East LLP either:

By telephone: 020 7246 7245

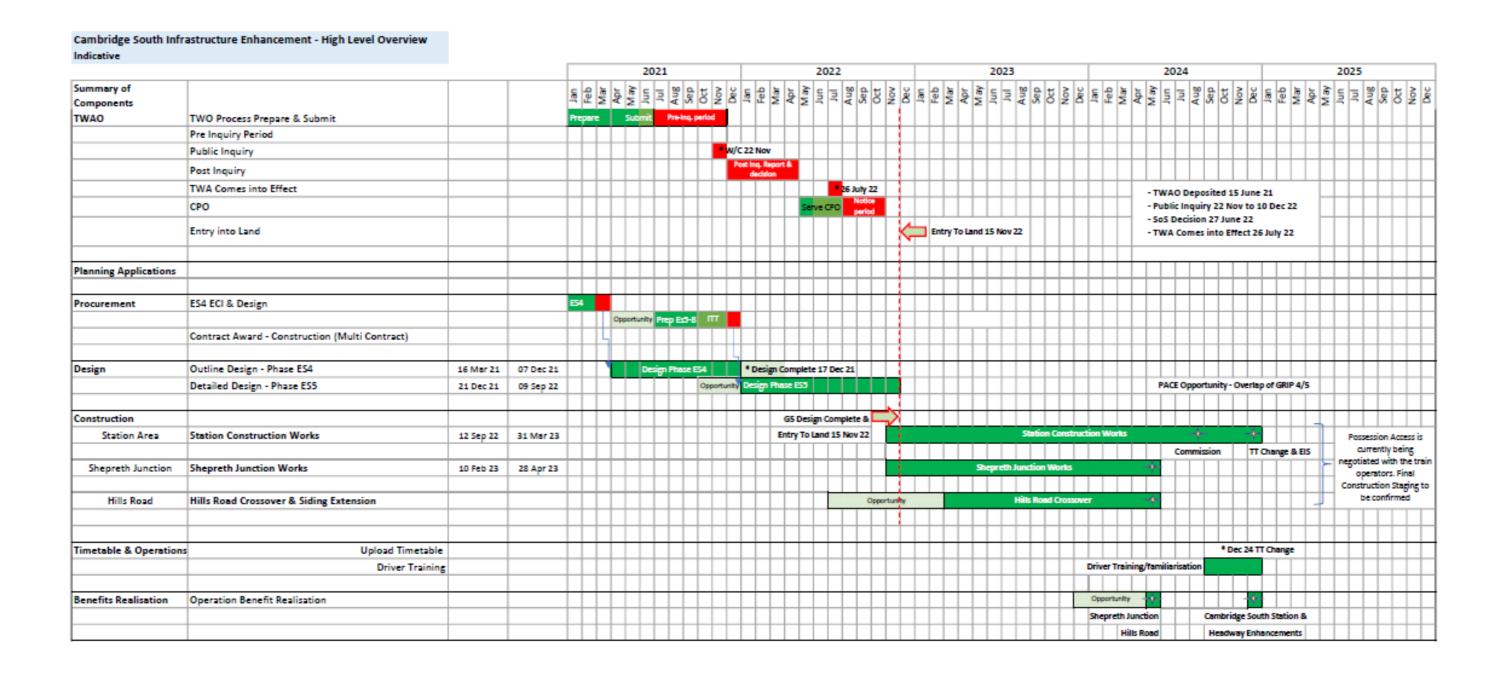
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The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case

APPENDIX 2 – HIGH-LEVEL CONSTRUCTION PROGRAMME



The Network Rail (Cambridge South Infrastructure Enhancement) Order Statement of Case

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