

Soham Station **Strategic Outline Business Case**

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SECTION 1 – THE STRATEGIC CASE

PART A. THE PROBLEM STATEMENT

A.1 Overview

There are ambitious growth plans across Cambridgeshire, with around 72,500 new homes expected to be built by 2031/6. Major economic opportunities will lie in Cambridge, Peterborough, Ely and Waterbeach. These centres and hubs require access to a suitably qualified, expanded workforce, which in turn requires access to housing and services. The County Council has worked closely with district and neighbouring authorities to produce a Long Term Transport Strategy (LTTS)¹ to support these areas and keep Cambridgeshire moving.

The LTTS, which covers the period 2011 to 2031, sets out the following strategic objectives for transport proposals:

- to ensure that the transport network supports sustainable growth and continued economic prosperity
- to improve accessibility to employment and key services
- to encourage sustainable alternatives to the private car, including rail, bus, guided bus, walking and cycling, car sharing and low emission vehicles
- to encourage healthy and active travel, supporting improved well-being
- to make the most efficient use of the transport network
- to reduce the need to travel
- to minimise the impact of transport on the environment
- to prioritise investment where it can have the greatest impact

The LTTS was produced in conjunction with the 3rd Local Transport Plan (LTP) for the county.

The Cambridgeshire Local Transport Plan² was adopted in July 2015, and contains the following overarching objectives for development and growth:

- Enabling people to thrive, achieve their potential and improve their quality of life.
- Supporting and protecting vulnerable people.
- Managing and delivering the growth and development of sustainable communities.
- Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.

¹ [Cambridgeshire Local Transport Plan 2011-2031 - Long Term Transport Strategy July 2015](#)

² [Cambridgeshire Local Transport Plan 2011-2031 - July 2015](#)

- Meeting the challenges of climate change and enhancing the natural environment.

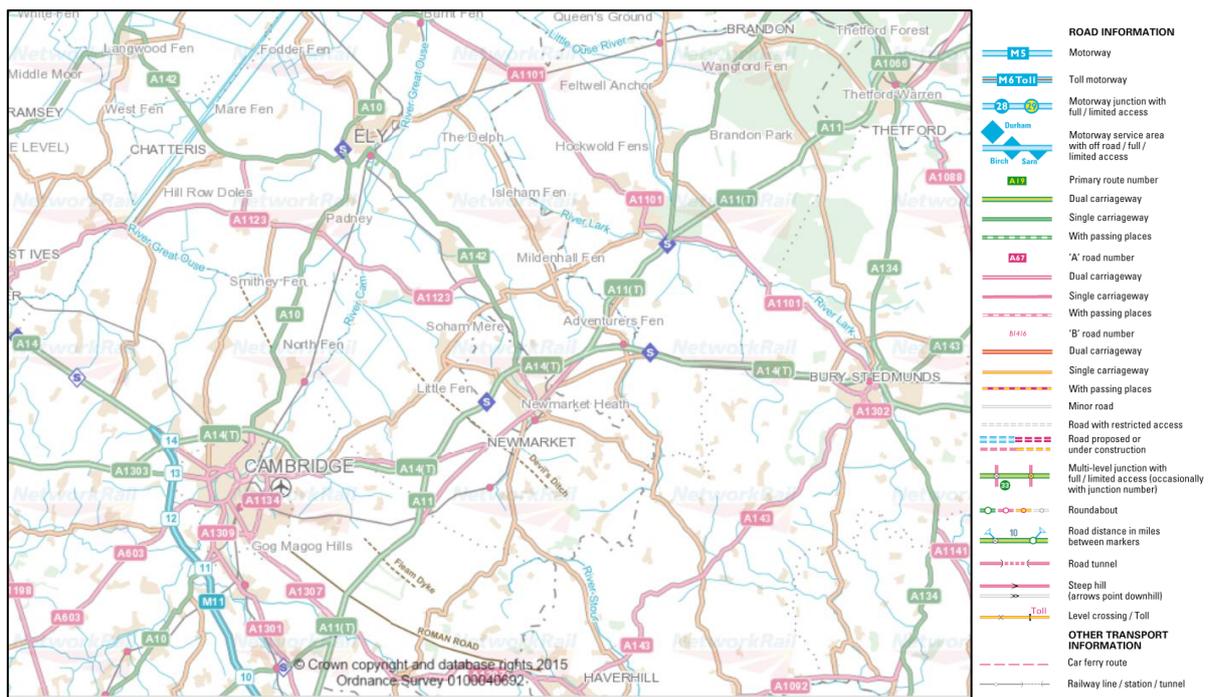
CCC, working in partnership with other agencies, including its constituent district and city councils and the Local Enterprise Partnership, aims to provide efficient and reliable travel between key locations for its residents and employees, helping to support a thriving local economy.

A2. The Challenge

Soham is a market town located on the A142 between Ely and Newmarket, and 20 miles from Cambridge and 6 miles from Ely. With 10,860 residents, from the 2011 census, it is one of the largest settlements in the East of England to have a railway line running through the town, but not have a station.

The local area, showing the main road links and existing rail lines, is illustrated in Figure 1 below.

Figure 1 – Map of the local area



Public transport is limited in Soham, with the town being served by an hourly bus service during the daily and Saturday peaks that connects it to Cambridge, Newmarket and Ely³. This lack of provision creates a major connectivity issue for people without access to a private motor car to reach nearby destinations and essentially forces the majority of residents to use a private car.

The East Cambridgeshire Local Plan⁴ identifies station development as a key infrastructure requirement and the Soham Masterplan⁵ envisages that the reopening of a rail station in Soham would be likely to dramatically increase demand for public transport. The East Cambridgeshire Local Plan is currently under review which could lead to further housing allocations in Soham.

If the station is not constructed, Soham would not be able to meet its housing delivery projections over the next planned period as these are dependent upon significantly improving public transport infrastructure and as a result this would seriously undermine broader housing delivery and targets across the district.

A3. Overview of the Area

The proposed station at Soham is geographically located on the Soham branch between Chippenham Junction and Ely Dock Junction (figure 2). The Soham branch contains a mixture of two-track railway from Chippenham Junction to Soham Junction, and then a single track railway from Soham Junction to Ely Dock Junction for some four and a half miles (figure 3). The single line sections constrains capacity, as only one train can pass between Ely Dock Junction and Soham Junction, which limits the amount of train services through this area.

The proposed station would be located on the single line section. There needs to be careful consideration in terms of the station layout as the Network Rail Anglia Route Study⁶ (published March 2016) has identified doubling the remaining single line sections as a mid-term choice for funders to allow for 48 freight train paths per today and to achieve increases in regional passenger services.

³ <https://bustimes.org.uk/operators/stagecoach-in-cambridge>

⁴ [East Cambridgeshire Local Plan - 2015](#)

⁵ [Soham Masterplan Vision](#)

⁶ [Network Rail Anglia Route Study - March 2016](#)

Figure 2 – Proposed location of new station

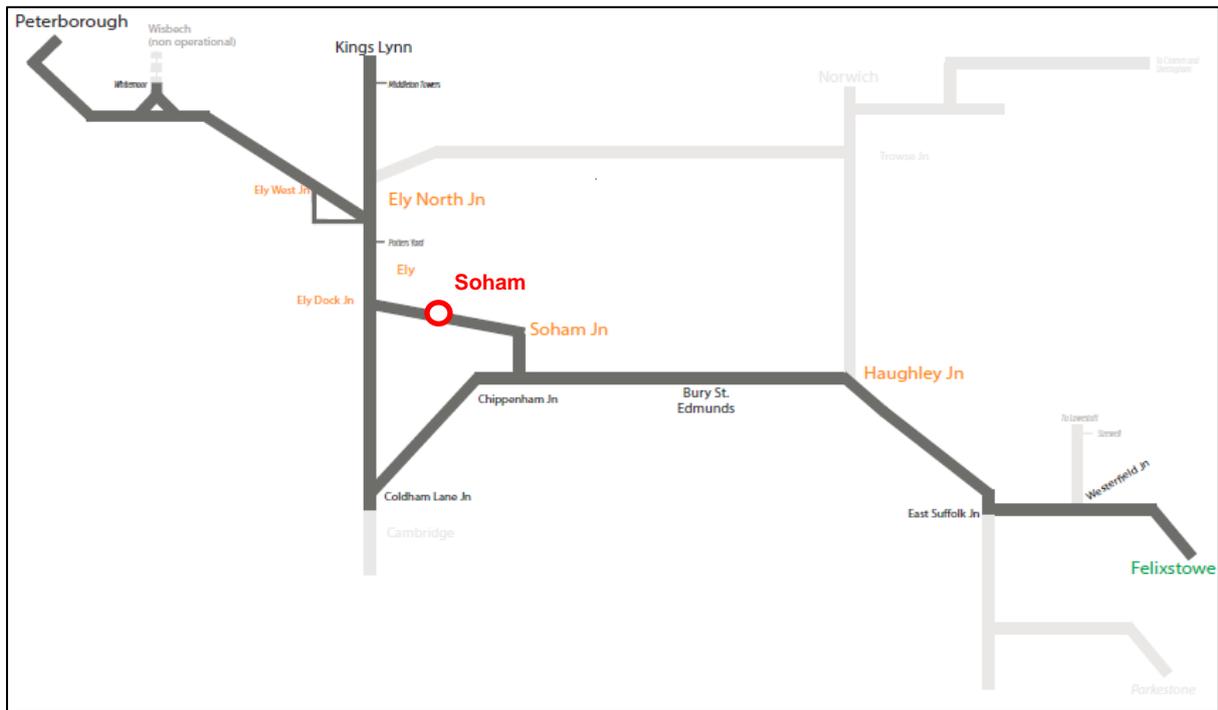
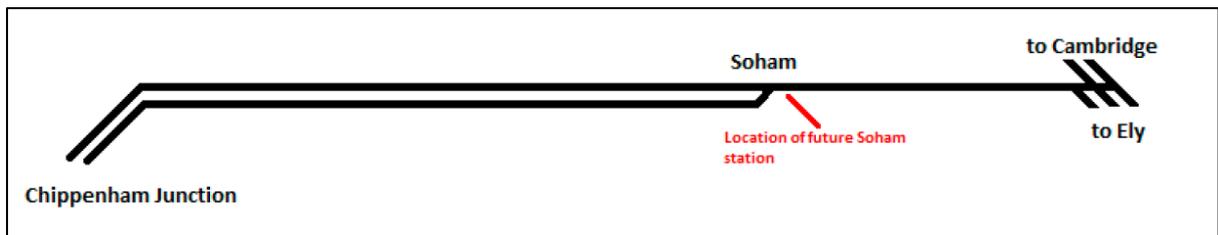
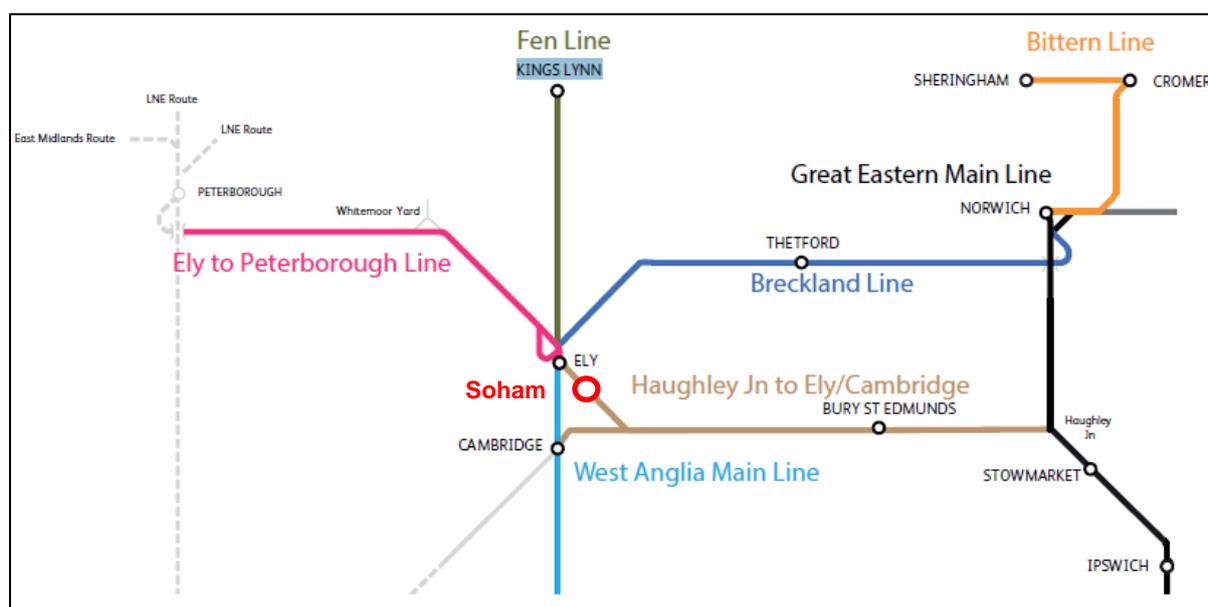


Figure 3 – Current layout between Chippenham Junction and Ely (simplified)



The Soham Branch line is a key route for freight services to and from Felixstowe and regional passenger services between Ipswich and Peterborough. These services pass through two other major key constraints that also define how these services are timetabled through Anglia - Ely Area and Haughley Junction. The Ely area has a number of complex constraints: single lead junctions, complicated crossing layouts, level crossings and load-restricting bridges, all of which restrict the number of trains and speed at which they can travel, and therefore the general capacity in this area. Haughley Junction is a single lead junction connecting the Bury St Edmunds line to the Great Eastern Main Line. The single lead junction and slow freight headways limit the number of trains that can use the infrastructure here.

Figure 4 - Ely area; indicating the merge point for a number of key routes



A.4 Target Passengers

The Soham Masterplan Vision was adopted by East Cambridgeshire District Council (ECDC) in May 2010 and sets proposals to transform Soham into a thriving 21st Century Cambridgeshire Market Town. It identifies a number of opportunities that will allow the town to grow by over 30% to a population of 16,500 by 2031. This will require the construction of over 1,750 homes. Broader growth in the adjoining Ely area identifies an additional 4,000 new homes and forecasts population growth of over 7,500 between 2011 and 2031. However, there are a number of infrastructure constraints that need to be addressed in order for this housing growth to take place, which includes the re-instatement of Soham station. At the time of publication of this SOBC, a new local plan was in development by ECDC.

Soham has already grown considerably over the last 10 years, with new housing developments to the north of the town, and on a range of other 'infill' sites. Whilst there are a number of employment opportunities in the town, including several industrial and trading estates, there are not sufficient jobs for all residents, and most workers commute out of the town to work in Cambridge and other locations⁷.

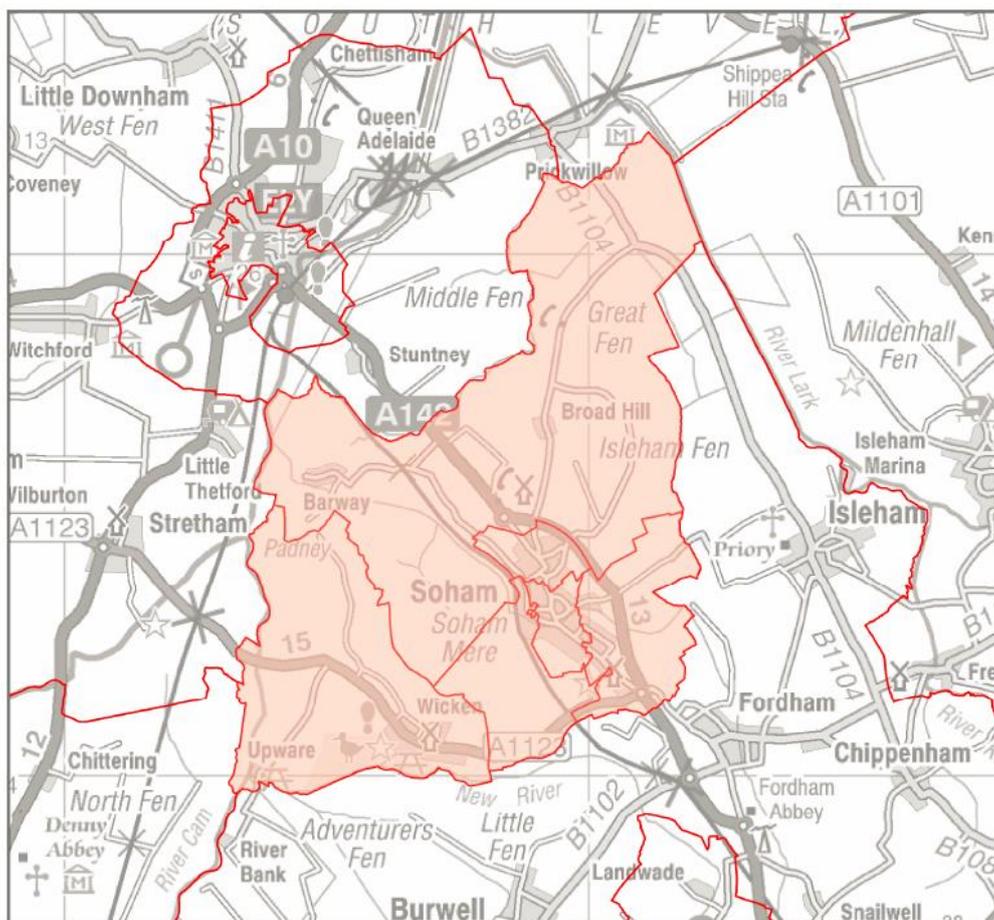
Cambridgeshire County Council recently consulted (March 2016) on the final draft of a Transport Strategy for East Cambridgeshire and the results revealed that 91% of respondents identified rail capacity and service improvements⁸ as a key need to be addressed with strong support among Soham residents for a station at Soham. More specifically, 81% of residents surveyed in the public consultation in April 2010 for the Soham Masterplan stated that the re-opening of the rail station was crucial to the future development of the town and would strongly support its reinstatement.⁹

⁷ [East Cambridgeshire Local Plan April 2015](#)

⁸ [Draft Transport Strategy for East Cambridgeshire 2016](#)

⁹ [Draft Soham Masterplan consultation](#)

Figure 5 – Soham Station catchment area



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The other main populated areas near the scheme are Ely and Stuntney. Ely is the main market town in East Cambridgeshire, with a population of approximately 19,000. The village of Stuntney is a fenland islet settlement with a population of approximately 200.

PART B. WHY NOW?

B.1 Benefits

Cambridgeshire is an area of high growth. Affordable housing options within reasonable commutes to employment opportunities are driving up house prices to unsustainable levels. Soham can provide more affordable housing options if connectivity is improved.

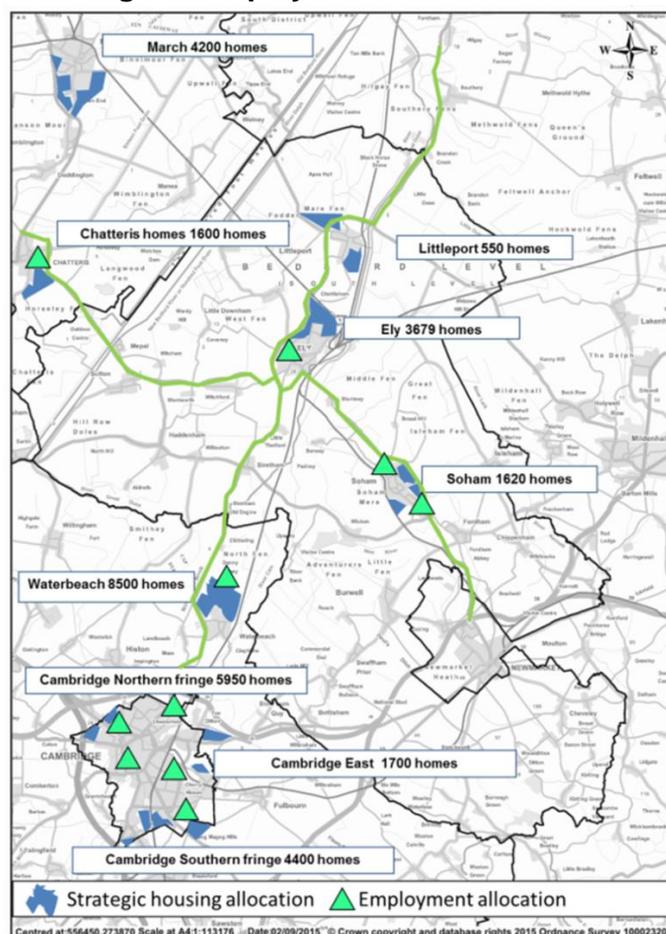
Motor traffic congestion is already a major constraint on key commuting corridors to Cambridge, Peterborough and to a lesser extent, Ely. The Long Term Transport Strategy aims to encourage sustainable transport alternatives to the private motor car, such as public transport.

B.2 Economic Growth

A large proportion of the town commutes to nearby towns such as Cambridge and other locations. Improved accessibility to the rail network for residents of Soham will enable better connectivity to employment in key areas such as Ely and Bury St Edmunds.

The Local, District and County Councils have identified areas in order to address the regions current housing shortfall in particular large areas in Ely, Littleport, Soham and at Waterbeach Barracks. Figure 6 below illustrates the location of planned employment and housing growth in East Cambridgeshire.

Figure 6 – Strategic housing and employment allocation¹⁰



B.3 Local and Regional Objectives

The East Cambridgeshire Local Plan (adopted April 2015), commits to tackle transport deficiencies and improve accessibility. Development of Soham Railway Station is identified in Policy GROWTH 3: Infrastructure requirements.

The Cambridgeshire and Peterborough Devolution Deal¹¹ to form a Combined Authority was agreed in November 2016. This Devolution Deal marks the next step in the transfer of resources, powers and accountability from central Government to Cambridgeshire and Peterborough. In return for this level of devolution and local control, Cambridgeshire and Peterborough have established a Combined Authority, chaired by the new, directly elected Cambridgeshire and Peterborough Mayor, James Palmer. The Combined Authority is responsible for a devolved and consolidated multi-year local transport budget for the area of the Combined Authority (i.e. the areas of the constituent councils) and adopting an integrated approach to transport and connectivity. The deal agreed with Government proposes the establishment of a Sub-national Transport Body (STB) to influence strategic national transport investment and also references the case to reopen Soham Station.

¹⁰ [Draft Transport Strategy for East Cambridgeshire 2016](#)

¹¹ [Cambridgeshire and Peterborough Devolution Deal](#)

The Strategic Economic Plan¹² adopted by the Greater Cambridge Greater Peterborough Local Enterprise Partnership (LEP) recognises that rail offers real potential to support growth. It includes a new station at Soham station and confirms the desire to see greater access to the rail network in order to unlock growth or regeneration, have transformative benefits to an area and provide direct links to key employment and areas and new settlements. The scheme has been allocated funding from a previous round of Growth Deal (GD) and has submitted a proposal for further funding from GD Round 3 which will be considered in the light of the outcome of both the LEP bid to Government and also the Devolution deal for Cambridgeshire and Peterborough.

The reopening of the station would complement Network Rail plans to introduce further capacity improvements on the Cross Country Corridor, a series of improvements to improve a complex bottleneck around Ely North junction, both of which have strong support from local stakeholders.

The scheme meets the objectives of the County Council's Local Transport Plan 3¹³ and Long Term Transport Strategy¹⁴ which include encouraging sustainable alternatives to the private car, including rail.

B.4 Network Rail Route Strategy Alignment

Based on current evidence, a single platform option can be supported by a 2 hourly service on the existing timetable without adversely impacting other operators. However a single platform option does not align with the East Anglia franchise commitment for an hourly Colchester to Peterborough service, or with the medium and long term strategy on the Cross Country Corridor as identified in the Anglia Route Study¹⁵ (published March 2016).

Network Rail have a number of projects on the Cross Country Corridor which are currently in development. These include:

- The doubling of the existing single lead Haughley Junction;
- The installation of additional signals to reduce headways between Kennet and Haughley Junction;
- The full or partial doubling of the existing single track between Soham and Ely;
- The remodelling of Ely North Junction.

Funding has been secured for Network Rail to develop the Ely Area Capacity Enhancements from GRIP (Governance for Railway Investment Projects) stage 1 (output definition) to GRIP stage 3b (option selection). Network Rail are awaiting funding outcomes for Ely to Soham doubling, Haughley Junction doubling and improvements to headways on the Bury St Edmunds line. Confirmation of these schemes will enable more benefits to the Soham Station project such as the East Anglia franchise commitments and increases in freight

¹² [Greater Cambridge and Greater Peterborough Enterprise Partnership Strategic Economic Plan](#)

¹³ [Cambridgeshire Local Transport Plan 2011-2031 - July 2015](#)

¹⁴ [The Long Term Transport Strategy](#)

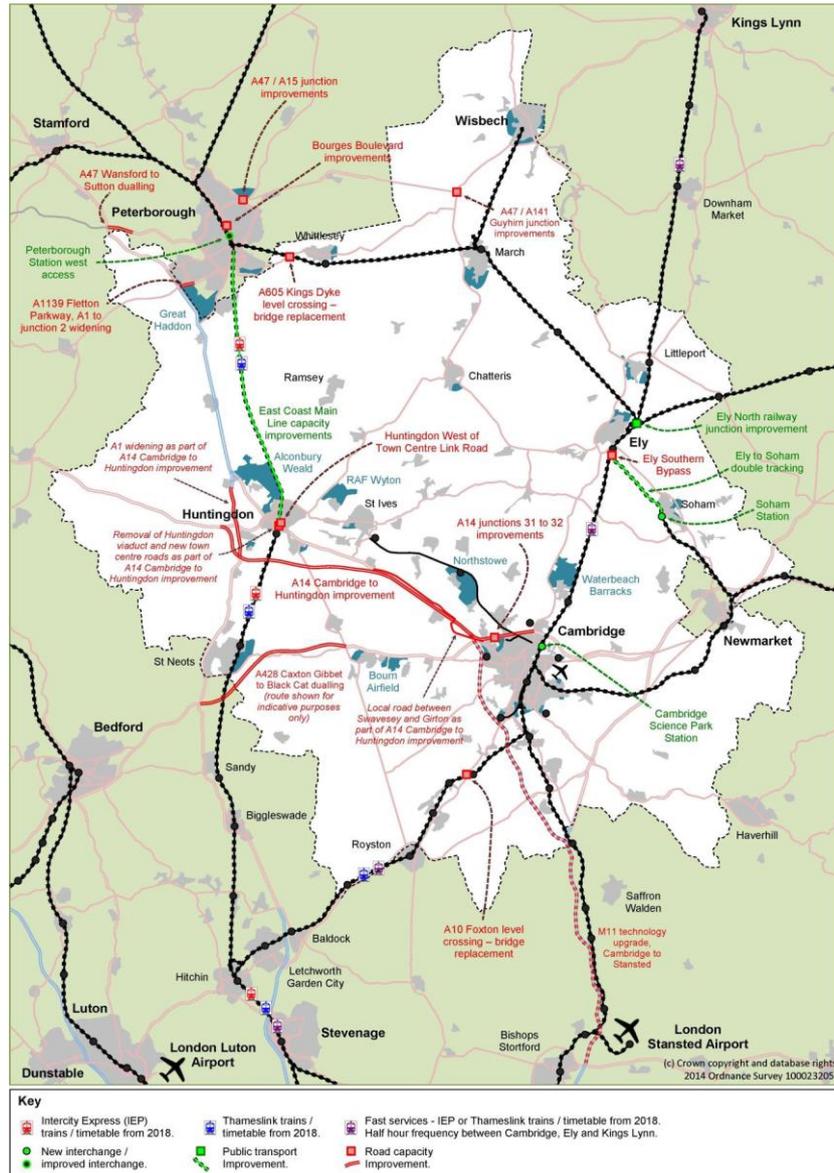
¹⁵ [Network Rail Anglia Route Study - March 2016](#)

services. Ely to Soham Doubling and Haughley Junction projects have both reached GRIP stage 3 Approval in Principle (AIP) but neither currently have funding to take them forward.

B.5. Other Proposed Improvements

Soham new station is only one of a number of proposed infrastructure enhancements in the Cambridgeshire area. The LTTS identifies a number of rail and road improvement schemes; these are illustrated in figure 7.

Figure 7 – Schemes that are planned for public sector delivery in the period from 2014 to 2021.¹⁶



¹⁶ [The Long Term Transport Strategy](#)

Locally the draft Transport Strategy for East Cambridgeshire identifies complementary local infrastructure works around the approaches to the station to improve access and multi modal linkages. This has been through consultation and a decision on adoption is expected in June 2017.

B.6. Stakeholder Support

The main local stakeholders are CCC, as the current scheme promoter at the SOBC stage and East Cambridgeshire District Council, as the local district authority, including planning, the Greater Cambridge and Greater Peterborough (GCGP) Local Enterprise Partnership (LEP), Soham residents and local land owners and businesses.

Soham residents have been consulted on the proposals to provide a new station. Cambridgeshire County Council recently consulted (March 2016) on the final draft of a Transport Strategy for East Cambridgeshire and the results revealed that 91% of respondents identified rail capacity and service improvements¹⁷ as a key need to be addressed with strong support among Soham residents for a station at Soham. More specifically, 81% of residents surveyed in the public consultation in April 2010 for the Soham Masterplan stated that the re-opening of the rail station was crucial to the future development of the town and would strongly support its reinstatement.¹⁸

Soham Station will be served by the Abellio Greater Anglia franchise. Representatives from the Train Operating Company (TOC) have been engaged in the study, informing them of the objectives and timescales, and obtaining their input into the station requirements.

Freight Operating Companies (FOCs) have been informed of the proposed scheme, and will be consulted with during the Approval in Principal design development stage.

¹⁷ [Draft Transport Strategy for East Cambridgeshire 2016](#)

¹⁸ [Soham Masterplan Vision Consultation exhibition boards](#)

PART C. DEVELOPMENT OF SOLUTIONS

C.1 Key Principles

A station at Soham needs to meet both short term and long term aspirations without compromising the operational requirements of the railway. Passenger services on the route comprise a two-hourly service between Ipswich and Peterborough via Ely calling at main stations, which would potentially call additionally at Soham. There are currently no intermediate stations between Chippenham Junction and Ely.

The route between Haughley Junction and Ely is also a vital part of the Felixstowe to Nuneaton (F2N) cross-country freight route. This provides an alternative route (as opposed to running via London) for intermodal freight traffic between Felixstowe and destinations in the midlands and north of Britain (via Ely, Peterborough, Leicester and Nuneaton). A large freight scheme (the F2N project) is currently involved in providing a significant upgrade to this whole route.

Early timetable modelling has indicated that a single platform station on this line could open within the current timetable of one passenger train every 2 hours. The station will sit on a line, that to support freight and demand growth is proposed to be doubled (subject to funding), therefore any station proposed needs to take cognisance of this and not add any additional cost or scope liability onto the proposed scheme.

C.2 Operational Constraints

The F2N project has identified that a key constraint to increasing freight traffic on the route is the section of single line between Soham and Ely Dock Junction. Early analysis proposed full doubling of this section to accommodate future freight growth, but engineering feasibility studies indicated that this would be very expensive. Since then, a series of capacity studies have been undertaken by Network Rail looking at various options for partial doubling (e.g. Ely – Soham Doubling Report, November 2013). However, the Ely to Soham doubling scheme was deferred to CP6 in late 2015 as part of the Enhancement Delivery Plan (formed through the Hendy Review¹⁹).

Timetable work shows that the station can be incorporated into the current timetable; however there is a commitment through the new East Anglia franchise to increase the service along this route to an hourly service²⁰. An increase in the service level would only be viable if other interventions in the surrounding area were implemented as listed in B4.

¹⁹ Website: <https://www.networkrail.co.uk/who-we-are/publications-resources/our-plans-for-the-future/the-hendy-review/>

²⁰ This service relies on infrastructure enhancements, which are not fully funded.

C.3 Timetable Modelling

A timetable study has been completed to consider the impact of the proposed new station at Soham on the available capacity of the route. Different infrastructure options have been tested for Soham station against several potential future service increments on the route.

The infrastructure scenarios considered are:

- A single platform on the existing railway (on the single line) before the Ely-Soham doubling occurs.
- A double platform station with either a shorter or longer section of new double track in the Soham area (either before or in conjunction with a partial Ely-Soham doubling).
- A double platform station in conjunction with or after the full Ely-Soham doubling is delivered.

As well as the feasibility of trains calling at the station with current service levels, a number of different service levels were tested to demonstrate that the station itself does not preclude the operation of a future service increase. The service levels tested were:

Table 1 – Number of trains per hour (TPH) for defined service levels

Service Group	Test 1 (today)	Test 2	Test 3	Test 4a	Test 4b
Peterborough – Ipswich	0.5	1	1	1	1
Cambridge – Ipswich	1	1	2	1	2
Freight	As today*	As today*	As today*	2	2

*The current level of freight in the Working Timetable (WTT) is between 0 and 2 tph each direction during the day. This equates to an average of 1 tph.

A range of timetable specification / infrastructure combinations were then considered to calculate theoretical capacity usage. It should be noted that this is an indicative value and does not represent a full Capacity Utilisation Index (CUI) value.

Table 2 – Calculated capacity usage of the single line section Soham – Ely Dock Junction

Infrastructure	Service Specification	Minutes per hour used	Capacity use (%)
Today (no station)	1 freight, 1 passenger (no call at Soham)	35	58
Today (no station)	2 freight, 1 passenger (no call at Soham)	53	88
Single platform	1 freight, 1 passenger (no call at Soham)	36	60
Single platform	2 freight, 1 passenger (no call at Soham)	54	90
Short double track (assumed to be as far as the Soham side of Middlemere Level Crossing, about 700m from the station location)	2 freight, 1 passenger (no call at Soham)	48	80
Long double track (assumed to be as far as the Ely side of Middlemere Level Crossing, about 1100m from the station location)	2 freight, 1 passenger (no call at Soham)	44	73
Full doubling	2 freight, 1 passenger (no call at Soham)	27	45

C.3.1 Conclusions

The key conclusion from the analysis is that the provision of calls at Soham has a minimal impact on available capacity. The need for additional infrastructure at Soham is due to other factors (primarily freight growth) and would be required (in lieu of full doubling) even if Soham station were not provided.

Calls can be provided at Soham in today's timetable with minimal impact on other services through reduction of existing excess allowance and dwell times. There is also minimal impact if an hourly Ipswich – Peterborough service is provided, although this has other timetable impacts independent of Soham station (such as the need to standardise freight paths).

Additional infrastructure only needs to be considered if the freight levels increase above today's approximate 1 path per hour in each direction. Even then the service can be provided, albeit at a high level of capacity use (and therefore performance risk).

PART D. DESCRIPTION OF THE PROPOSED WORKS

D.1 Project Description

The original Soham Station was opened in 1879, was destroyed by an exploding munitions train in 1944, reopened, and eventually closed in 1965. Since the station closed, Soham has grown markedly, and had a population of around 10,000 in 2011. Planned growth is likely to take the population of the town to around 18,000 by 2031.

The proposed Soham Station would be unmanned and be capable of accommodating trains up to 96m in length (a 4-car multiple unit). It would be located on the site of the former Soham Station, which was closed in 1965. This site is located to the south west of the town centre, near the junction between Station Road and Mereside.

Soham Station would be located on the Soham Branch at 7 miles and 78 chains. The Soham Branch line runs between Ely Dock Junction (near Ely, Cambridgeshire) and Chippenham Junction (near Newmarket, Suffolk). It is a non-electrified line formed of double track between Chippenham and Soham Junctions, and single bidirectional track between Soham and Ely Dock Junctions. There are no stations on the line. The Ely to Soham track forms part of the cross county route linking the East Coast Main Line (ECML) at Peterborough to the Great Eastern Main Line (GEML) at Haughley Junction.

D.2 High Level Project Requirements

The key project requirements are:

- A station shall be provided at Soham located on NR owned land;
- The platforms shall be able to accommodate trains up to 96m (4-cars) in length;
- The station shall be compatible with the proposed design of the Ely to Soham Track Doubling Scheme;
- The station shall be accessible to mobility impaired people;
- The station shall provide facilities for users arriving or departing by foot, bicycle, motorbike and car (both car parking and pick up/drop off);
- The station shall be unstaffed, but with space for the future provision of a ticket office;
- Train despatch would be by the Guard;
- The design shall allow for a rail replacement bus service to access the station;
- The station shall be designed to allow for the passage of W12 gauge trains, and with sufficient clearances for the future installation of overhead electrification equipment (OLE).

D.3 Constraints and interdependencies

D.3.1 Network Capacity

The Soham Branch line is a key route for freight services to and from Felixstowe and regional passenger services between Ipswich and Peterborough. These services pass through two other major key constraints that also define how these services are timetabled through Anglia – the Ely area and Haughley Junction. The Ely area has a number of complex constraints: single lead junctions, complicated crossing layouts, level crossings and load-restricting bridges, all of which restrict the number of trains and speed at which they can travel, and therefore the general capacity in this area. Haughley Junction is a single lead junction connecting the Bury St Edmunds line to the Great Eastern Main Line. The single lead junction and slow freight headways limit the number of trains that can use the infrastructure here.

D.3.2 Other Proposed Improvements

The existing passenger train service that passes the site of the proposed station is the Peterborough - Ipswich service. This currently operates once every two hours in each direction.

There is an aspiration amongst regional stakeholders to increase the frequency of the Peterborough – Ipswich service to hourly. Network Rail have stated that this frequency increase would require capacity enhancements to the existing rail network. These enhancements would likely be a combination of some of the following schemes:

- The doubling of the existing single lead Haughley Junction;
- The installation of additional signals to reduce headways between Kennet and Haughley Junction;
- The full or partial doubling of the existing single track between Soham and Ely;
- The remodelling of Ely North Junction.

D.3.3 Freight Services

The current average level of freight services which pass the proposed station site is of one train per hour in each direction, with the actual frequency varying between none and two freight trains per hour in each direction.

There is an aspiration to increase the capacity of the overall Felixstowe to Nuneaton route, which runs via Soham, to a level where it could accommodate an average of two freight trains per hour in each direction. The enhancement works that may be required to achieve this increase include those listed in section D.3.2, together with improvements to the Felixstowe Branch and in the East Midlands.

D.4 Station Layout Options

The following options have been considered for Soham station during the project’s Option Selection Phase:

- Option 1a - A single platform to be delivered ahead of the Ely to Soham Track Doubling Scheme;
- Option 1b - A two platform station to be delivered ahead of the Ely to Soham Track Doubling Scheme;
- Option 2 - A two platform station to be delivered as part of the Ely to Soham Track Doubling Scheme;
- Option 3 - A two platform station to be delivered after the Ely to Soham Track Doubling Scheme.

It was also required that station layouts should be considered for Options 1b, 2 and 3 that include footbridge access by either lifts or ramps.

Table 3 –Station layout options and indicative opening dates

Option	Description	Station Opening Date
1A	Single Platform Station	January 2021
1B	Double Platform Station delivered ahead of the Ely to Soham Track Doubling Scheme	July 2021
2	Double Platform Station delivered as part of the Ely to Soham Track Doubling Scheme	September 2024 Assumes Doubling Scheme delivered in CP6
3	Double Platform Station delivered after the Ely to Soham Track Doubling Scheme	February 2028

D.4.1 Station layout

D.4.1.1 Common Elements

The elements of the proposed Soham station which are not directly connected to the platforms or the bridge would be constant for all options. These are the access road, forecourt and car park and associated electrical, telecommunications and drainage works.

The station would be accessed via a road from a modified junction between Station Road and Mereside. This access road would connect to a roundabout equipped with a drop off/pick up area adjacent to the station forecourt. Extending south from the roundabout a further access road provides access to a new car park, a Network Rail CER and PSP (Principal Supply Point) compound and the existing Clark & Butchers UWC (user worked crossing).

The station forecourt would provide ticket retail and bicycle storage facilities for a minimum of 30 bicycles and the access route to the platforms. The forecourt would be arranged to maximise views of the entrance from Mereside, with all ticket vending machines (TVMs), structures, and circulation route entrances located on axis with the station entrance road and close to the proposed drop off to promote visibility and access.

D.4.1.2 Option 1A – Single Platform Station

The 104m long single platform would be located 20m clear of the existing turnout at Soham to ensure that it would be clear of end throw effects of rail vehicles traversing the turnout. This results in the proposed platform being located to the Ely side of the main station site and would likely require third party land purchase to provide suitable access and egress to the platform. Due to its location, parts of the platform would need to be located on a 1,000m radius curve.

The proposed station is laid out in a way that a second platform and access bridge could be provided at a future date without requiring significant demolition works.

D.4.1.3 Option 1b, 2 and 3 – Double Platform Station

The double platform station would have two 104m long platforms located in front of the station forecourt. Their proposed location is governed by the desire to maximise their straight length and for them to be located clear of the Soham Crossover proposed as part of the Ely to Soham Track Doubling project.

The proposed station layout allows for the station bridge to be accessed via stairs and lifts, or stairs and ramps or all three. The layout also allows a footpath to be diverted over the footbridge to enable it to be redirected away from Soham Station UWC.

D.4.2 Public Realm

D.4.2.1 Key Design Principles

The key principles for the public realm design were:

- Maintaining access to the two existing properties adjacent to the access track;
- Maintaining access to Clark and Butcher's UWC;
- Providing a layout that minimises the interaction between pedestrians and vehicles;
- Providing access for fire appliances and rail replacement bus services to the station forecourt;
- Maximising opportunities for passive surveillance of the forecourt and car park;
- Designing a layout to adoptable highway standards to provide future options for ownership and maintenance;
- Grading the site to provide level access to Platform 1, crossfalls in line with accessibility guidance and adequate drainage paths while avoiding the need for retention structures;
- Creating the possibility of a pedestrian link to the proposed residential development to the north of the station site.

D.4.2.2 Proposed Design

Mereside / Station Road Junction Improvements

It is proposed to improve the alignment of the existing junction between Mereside and Station Road to improve pedestrian safety. The proposed works include the creation of formal crossing locations through the realignment of kerbs, this would also reduce pedestrian crossing distances. Further pedestrian protection is proposed through the introduction of waiting and loading restrictions by means of double yellow lines in the immediate vicinity of the junction.

The pavement material for both the carriageway and footway at this location would be a black bituminous surface with a conservation kerb laid to the carriageway edge. However, only a resurfacing of the carriageway at this location is envisaged. All proposed works at this location would match and tie into existing highway alignment and construction.

Access Road

The existing access track providing connectivity with Mereside would be upgraded to provide a new 6.0m wide access road with a 2.0m wide footway on its northern side. The footway has been located to the northern side to maintain pedestrian access to adjoining premises, provide greater separation from the carriageway edge and to remove pedestrian road crossings. Waiting and loading restrictions by means of double yellow lines are proposed along the entire length of the access road to prevent parking. The pavement material for both the carriageway and footway at this location would be a black bituminous surface with a conservation kerb laid to the carriageway edge.

Station Forecourt

The station forecourt would be the main focus of activity for all trips generated by the station. A 28.0m wide turning area is proposed, capable of accommodating buses & coaches, providing access to the car park area, a dedicated set down & pick up area, cycle parking, ticket kiosk and space for unhindered movement of pedestrians.

A dropped kerb is proposed at the commencement of the pick up area to enable access to the forecourt by cyclists as well as any service and maintenance vehicles. The pavement material for this area is proposed to be a black bituminous surface for the carriageway, with high quality concrete block paving setts for the forecourt areas with conservation kerb laid to the carriageway edge.

Car Parking

The car park access road would extend south from the forecourt turning area and provide access to 50 parking bays, a PSP compound and Clark and Butcher's User Worked Crossing. The access road would run parallel to the existing land boundary, offset by a minimum of 4.0m to accommodate level differences and provide space for landscape planting.

A lockable height restriction barrier is proposed for the commencement of the car park access road to deter overnight parking by high sided vehicles. Restrictions on parking, waiting and loading on the access road would be communicated by means of double yellow lines. The pavement material for the carriageway and footways would be a black bituminous surface with a conservation kerb laid to the carriageway edge.

The car park is proposed to contain a total of 50 car parking bays, including 5 larger bays close to the station forecourt dedicated for mobility impaired parking. The parking bay dimensions are proposed to be 4.8m x 2.4m, with the mobility impaired bays being 3m wide. Parking bays would be individually marked by white road markings. The pavement material for both the carriageway and footway at this location will be a black bituminous surface with a conservation kerb laid to the carriageway edge.

Motorcycle Parking

Motorcycle parking would be provided to the southern side of the access road close to the station forecourt area. The motorcycle bays would be set back from the carriageway edge to enable safe movement of riders whilst attending to their motorcycles. A pedestrian footway would connect the motorcycle parking bays with the station forecourt via a dedicated crossing across the car park access road.

Network Rail PSP Compound

A Principal Supply Point (PSP) for the signalling power system would be located at Soham at the edge of the car park. The PSP would be located within a secure compound, with access required for emergency and routine maintenance. Access to the compound is from the car park access road and would be capable of accommodating large vehicles of up to 12.0m in length.

Access to Clark and Butcher's User Worked Crossing

Clark and Butcher's User Worked Crossing would be accessed from the end of the car park access road via a lockable gate. Beyond the gate the track would be constructed from compacted granular fill.

D.5 Selected Option

A hybrid option has also been discussed and is the selected option to be taken forward. This is a double platform option which can be built in phases dependent on the funding confirmation and progression of the Ely to Soham Doubling project. This allows a single platform option to be built if the funding and progression of the Ely to Soham Doubling project does not progress or clear timescales of delivery are not forthcoming. The freight and train operators support this approach as it gives them confidence that the Ely to Soham Doubling project will not then pick up the funding requirement for the 2nd platform and access from either side of the railway (via a footbridge).

PART E. BENEFITS

E.1 Principal Outputs

Access to opportunities for local residents have been constrained, both by the lack of attractive public transport provision and increased congestion on the highway network.

The scheme will deliver a range of benefits to the local residents of Soham who will have access to a local station, connecting them directly to Peterborough, Bury St Edmunds and Ely and therefore widening employment opportunities.

Soham Station will deliver the following benefits:

- **Relieving congestion and improving accessibility.**
 - The scheme will help reduce congestion along the A142 between Ely, Soham and Newmarket, a route already under traffic pressure, which is likely to worsen if sustainable alternatives to the private car are not provided, given the level of growth planned in Ely and Soham.
- **Generating rail trips and income for the rail industry.** The station will generate revenue for the rail industry.
 - With an hourly service pattern on the route between Ipswich and Peterborough, around 1.35M new rail passenger trips would be generated by the station over a 15 year period. This would generate around £6.88M net revenue for the rail industry.
- **Encouraging growth and supporting local businesses.**

The Station will support planned growth in and around the town:

- The project will support the delivery of 1,655 new homes in the town by 2031.
- It will contribute to the wider regeneration proposals for the Mereside area in Soham including the provision of new homes and office space which could lead to the creation of approximately 125 high-tech jobs.
- The station will lead to an estimated 0.5% increase in property values in the town; a total increase in value of around £4M.
- The station has potential to stimulate increased tourism activity, for example as an access point to Wicken Fen.

E1.1 Impact of scheme on LTP Objectives

Table 4 – Impacts of Soham Station²¹

LTP3 Objective	Impact	Description
Managing and delivering growth	Positive	<ul style="list-style-type: none"> Will provide significantly improved accessibility to rail network for residents of Soham, including to employment growth sites in Cambridge and Peterborough. Will support significant housing growth in Soham, and is likely to encourage business growth in the town.
Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise	Positive	<ul style="list-style-type: none"> Rail services will improve accessibility from Soham to Cambridge, Ely, Peterborough and beyond, widening employment opportunities for residents and enabling new business connections for employers in the town. Reduced traffic on the A142 will lead to reduced congestion, benefiting the local economy
Meeting the challenges of climate change and enhancing the natural environment	Positive	<ul style="list-style-type: none"> Reduced traffic on the A142 will lead to less congestion and reduced carbon dioxide emissions. Significantly improved sustainable transport access from Soham.
Enabling people to thrive, achieve their potential and improve their quality of life	Positive	<ul style="list-style-type: none"> Will provide significantly improved accessibility to rail network for residents of Soham, including to employment growth sites in Cambridge and Peterborough. Station will fully conform to the Disability Discrimination Act standards
Supporting and protecting vulnerable people	Positive	<ul style="list-style-type: none"> Secure station accreditation will be sought Station will fully conform to the Disability Discrimination Act standards

²¹ https://ccc-live.storage.googleapis.com/upload/www.cambridgeshire.gov.uk/residents/travel-roads-and-parking/The_Local_Transport_Plan_3%20%281%29.pdf?inline=true

SECTION 3 – THE ECONOMIC CASE

PART F. Economic Appraisal

F.1 Introduction

An economic case has been developed for the construction of Soham station, providing a value for money assessment of the station options described throughout this report. The economic appraisal has been conducted in a manner consistent with the Department for Transport (DfT) guidance on transport appraisal as documented in WebTAG.

F.2 Methodology

The benefits and costs of the Soham station scheme have been assessed for each of the options, in accordance with the WebTAG guidance.

The main scheme benefits that have been captured in the economic appraisal are journey time saving benefits, represented as the monetised benefits generated from a reduction in the rail passenger generalised journey time. Additionally, marginal external cost benefits have been assessed, including road decongestion and air quality benefits. The inputs for the benefits assessment are derived from the passenger demand assessment as described in Part B of this section.

The scheme costs include revenue (assessed as a negative cost), station operating costs, bus operating costs (for an alternative bus-based scenario) and infrastructure capital costs. Cost inputs are derived from the passenger demand assessment (for revenue), the station design team (for capital costs) and previous consultant experience (for operating costs). It has been assumed that there is no change in rolling stock deployment/diagramming as a result of trains calling at Soham, thus no change in rolling stock costs. In accordance with WebTAG, contingency risk has been removed and optimism bias applied as and when required for each of the above cost categories.

The Net Present Value (NPV) and Benefit Cost Ratio (BCR) have been calculated for each station option and rail service scenario, to provide an indication of scheme Value for Money (VfM) for each option.

F.3 Predicted Passenger Demand

F.3.1 Introduction

The future patronage of Soham station has been estimated in order to inform both the design of the station and as an input to the project's economic case. A summary of the predicted passenger demand is provided here, with full details contained in the project's 'Passenger Demand Assessment Report'.

F.3.2 Methodology

The demand forecast that has been undertaken relies on an existing bespoke mode choice model to assess the levels of demand for each transport mode (car, bus and rail) and an exogenous demand growth model to predict rail passenger forecasts in future years, both were developed by Atkins for previous Soham station studies.

The mode choice model compares the generalised cost of travel for each mode between each origin and destination zone by either car, bus or rail and predicts the likely share of trips between the competing modes.

This calculation is separated for users with and without access to a car. The previous model used inputs based on 2011/12 travel data; the current study has included an update of the demand base year to 2014/15, using the latest census, fares and Ely Southern Bypass data.

The demand growth model is an exogenous forecasting model compliant with WebTAG guidance. The model takes base rail demand for 2014/15 from MOIRA and the incremental demand matrices from the mode choice model. It has been updated from previous studies through the latest GDP, employment, population, car ownership and travel cost data. Two growth scenarios were tested, one with an extrapolation of existing population growth rates in Soham and a high growth scenario which assumed that the full housing and employment growth contained in the East Cambridgeshire Local Plan occurs as planned.

Station use was predicted for three different rail service scenarios:

- R1 – A two hourly passenger service at Soham;
- R2 – An hourly passenger service at Soham
- R3 – An hourly passenger service at Soham and increased Ely to Cambridge passenger service frequency of four trains per hour.

F.3.3 Predicted Demand

The demand predictions for Soham station are summarised in Table 5 and Table 6. It is expected that approximately 85% of passengers would travel towards Ely on their outbound journey, with 15% travelling towards Bury St Edmunds.

Table 5 – Summary of Predicted Daily Passenger Trips using Soham station

Scenario	Opening year for R1 (2021/22)	Opening year for R2 and R3 (2024/25)	Future year (2028/29)
R1 (current rail timetable)	335	353	383
R2 (Ipswich-Peterborough freq. doubled)	829	875	948
R3 (Ely-London freq. doubled)	894	944	1,023

Table 6 – Summary of peak hourly passengers using Soham station (both directions)

Peak hour patronage	Morning peak		Evening peak	
	2021/22	2028/29	2021/22	2028/29
Scenario R3 (Ipswich-Peterb'. & London-Cambridge freq. doubled)	96	132	109	150

F.3.4 Future Year Demand Projections

A future year demand projection has also been estimated to determine the number of daily passengers using Soham station at the time of station opening. This has been assumed to be 2024/2025 for scenarios R2 and R3, as the enhanced service frequency is dependent on the double-tracking of the rail section between Soham and Ely, as well as remodelling of Ely North Junction. Scenario R1 assumes that Soham station is opened in 2019/2020. The table below shows the daily demand of Soham for a number of selected years: the model base year, station opening year and a further forecast year of 2028/29.

Table 7 – Future year projections (daily passengers using Soham station)

Scenario	Reference year (2014/15)	Opening year (2019/20 for R1 and 2024/25 for R2 and R3)	Future year (2028/29)
R1 (current rail timetable)	478	535	630
R2 (Ipswich-Peterborough freq. doubled)	805	988	1,053
R3 (Ely-London freq. doubled)	865	1,063	1,134

Note that demand figures for the opening year are not comparable across scenarios as the opening year is different for scenario R1 and scenarios R2 and R3.

F.3.5 Station Access Mode

F3.5.1 Car

The number of Soham users accessing the station by car has been estimated for the enhanced service scenario (R3) in 2021/22 and 2028/29.

Rail trips accessing the station from the Soham urban area (estimated to be 747 out of 894 total rail trips in 2021/2022 under scenario R3) are assumed to access the station either by walking or cycling, given that the maximum walking time to the station from the immediate Soham area would be around 20 minutes. Passengers accessing from rural areas near Soham (the remaining 147 rail trips) are expected to drive to the station by car. The resulting number of passengers accessing the station by car, assuming that two rail trips equates to a single parking space, is calculated to be around 40 in 2021/22 and 50 in 2028/29.

Note that some of the passengers accessing by car may be dropped off at the station rather than parking their car at the station. Analysis of National Rail Travel Survey (NRTS) data for previous projects suggests that the proportion of passengers being dropped off by car at stations in East Cambridgeshire ranges between a quarter and a half of all trips which accessed the station by car.

Table 8 – Estimated Station Access by Car (number of passengers)

Daily passengers accessing Soham by car	2021/22	2028/29
Scenario R3 (Ipswich-Peterb. & London-Cambridge freq. doubled)	43	49

F3.5.2 Bicycle

Of the estimated 747 rail trips accessing Soham station from the Soham urban area for the enhanced service scenario (R3) in 2021/22, it is expected that a proportion of these trips would access the station by bicycle. Analysis of NRTS data for previous projects suggests that the proportion of passengers accessing stations in East Cambridgeshire by bicycle is likely to be in the region of 5 – 10% of total station users, which gives an estimated requirement for 20 – 40 cycle spaces for the enhanced service scenario (R3) in 2021/22, assuming two rail trips accessing Soham by bicycle require one cycle space.

F.4 Economic Case Scenarios

This economic case considers four station design options as described in Section D.4 of the Strategic Case, which are summarised in the table below. The table also indicates an estimated opening date of the station for each option, based on the required infrastructure to be built.

Table 8 – Summary of Construction Options for Soham Station

Option	Description	Station Opening Date
1A	Single Platform Station	January 2021
1B	Double Platform Station delivered ahead of the Ely to Soham Track Doubling Scheme	July 2021
2	Double Platform Station delivered as part of the Ely to Soham Track Doubling Scheme	September 2024 Assumes Doubling Scheme delivered in CP6
3	Double Platform Station delivered after the Ely to Soham Track Doubling Scheme	February 2028

Additionally, the economic assessment considers four rail scenarios as set out in the table below. Scenarios R1, R2 and R3 reflect different assumptions for the ‘Do Minimum’ rail service, but with the same assumption for the ‘Do Something’ intervention. Scenario B1 considers a bus-based intervention as an alternative to building a rail station:

Table 9 – Summary of Rail Scenarios for Soham Station

Scenario	Reference Case Assumptions (“Do Minimum”)	Intervention (“Do Something”)
R1	<ul style="list-style-type: none"> Rail timetable as existing (December 2015) 	<ul style="list-style-type: none"> New rail station at Soham – improved access to rail services from Soham zones Timings of Ipswich-Peterborough services altered to account for stop at Soham
R2	<ul style="list-style-type: none"> Enhanced rail timetable – R1 plus doubling of frequency of Ipswich-Peterborough service to 1 train per hour 	<ul style="list-style-type: none"> As R1 (new station at Soham)
R3	<ul style="list-style-type: none"> Enhanced rail timetable at Ely – R2 plus rail interchange at Ely reduced to a maximum of 15 minutes in rail timetable (as a result of doubling the frequency of Kings Lynn-Cambridge-London to 2 trains per hour) 	<ul style="list-style-type: none"> As R1 (new station at Soham)
B1	<ul style="list-style-type: none"> Rail timetable as existing (December 2015) 	<ul style="list-style-type: none"> No Soham station Enhanced Route 12 timetable to better connect with rail services to London Increased service frequency to half hourly with new early morning, late evening and Sunday journeys

F.5 Economic Appraisal Results

The tables below present a summary of the components of the economic case assessment for each of the options under the different rail scenarios. Components of the scheme’s benefits and costs are presented in present values for each of the scenarios. The monetised present values are expressed in 2010 prices and discounted to 2010. The appraisal is undertaken over a 60-year period starting from the station opening year.

Table 10 – Option 1A Economic Assessment (£m, 2010 present values)

Option 1A: Single Platform Station				
	R1	R2	R3	B1
Present Value of Benefits (PVB)	£17.5m	£26.1m	£28.0m	£51.6m
Revenue	-£4.0m	-£11.6m	-£13.0m	-£8.7m
Operating Cost	£1.4m	£1.4m	£1.4m	£10.1m
Capital Cost	£8.9m	£8.9m	£8.9m	£0.0m
Present Value of Costs (PVC)	£6.3m	-£1.3m	-£2.6m	£1.5m
Net Present Value (NPV)	£11.2m	£27.4m	£30.6m	£50.1m
Benefit Cost Ratio (BCR)	2.8	Fin +	Fin +	>> 4

Table 11 – Option 1B Economic Assessment (£m, 2010 present values)

Option 1B: Double Platform Station delivered ahead of the Ely to Soham Track Doubling Scheme				
	R1	R2	R3	B1
Present Value of Benefits (PVB)	£17.4m	£26.1m	£27.9m	£51.4m
Revenue	-£4.0m	-£11.7m	-£13.1m	-£8.6m
Operating Cost	£1.4m	£1.4m	£1.4m	£9.9m
Capital Cost	£18.9m	£18.9m	£18.9m	£0.0m
Present Value of Costs (PVC)	£16.3m	£8.6m	£7.3m	£1.4m
Net Present Value (NPV)	£1.1m	£17.5m	£20.7m	£50.0m
Benefit Cost Ratio (BCR)	1.1	3.0	3.9	>> 4

Table 12 – Option 2 Economic Assessment (£m, 2010 present values)

Option 2: Double Platform Station delivered as part of the Ely to Soham Track Doubling Scheme				
	R1	R2	R3	B1
Present Value of Benefits (PVB)	£17.1m	£25.8m	£27.7m	£50.5m
Revenue	-£3.7m	-£11.7m	-£13.1m	-£8.0m
Operating Cost	£1.3m	£1.3m	£1.3m	£9.4m
Capital Cost	£9.9m	£9.9m	£9.9m	£0.0m
Present Value of Costs (PVC)	£7.5m	-£0.5m	-£1.9m	£1.3m
Net Present Value (NPV)	£9.7m	£26.4m	£29.6m	£49.2m
Benefit Cost Ratio (BCR)	2.3	Fin +	Fin +	>> 4

Table 13 – Option 3 Economic Assessment (£m, 2010 present values)

Option 3: Double Platform Station delivered after the Ely to Soham Track Doubling Scheme				
	R1	R2	R3	B1
Present Value of Benefits (PVB)	£16.8m	£25.5m	£27.3m	£49.5m
Revenue	-£3.5m	-£10.9m	-£12.2m	-£7.4m
Operating Cost	£1.2m	£1.2m	£1.2m	£8.8m
Capital Cost	£11.1m	£11.1m	£11.1m	£0.0m
Present Value of Costs (PVC)	£8.8m	£1.3m	£0.1m	£1.4m
Net Present Value (NPV)	£8.0m	£24.2m	£27.3m	£48.2m
Benefit Cost Ratio (BCR)	1.9	>> 4	>> 4	>> 4

F.6 Summary of Economic Appraisal

In summary, the economic appraisal found that:

- The scheme benefits from journey time savings amount to between £1m to £11m under scenario R1 and between £18m and £30m under scenarios R2 and R3, expressed in 2010 present values;
- Change in rail revenue is between £3.5m and £4.0m under R1 and between £11.5m and £13.0m under R2 and R3, expressed in 2010 present values;
- The station operating costs are between £1.2m and £1.4m and the bus operating costs for the bus alternative scenario are between around £9.0m and £10.0m, expressed in 2010 present values;
- Capital costs for the construction of Soham station (including eventual renewals) are around £8.9m for Option 1A, around £9.9m for Option 2, around £11.1m for Option 3 and around £18.9m for Option 1B, expressed in 2010 present values;
- All options (except for Option 1B which has a higher capital cost investment) are almost financially neutral under scenarios R2 and R3 (i.e., generated industry revenue could almost cover all capital and operating costs, indicating that the scheme would require minimal net public expenditure), however it should be noted that operational constraints may prevent scenario R2 being provided with a single platform station (Option 1A);
- The scheme is expected to generate substantial social benefits at very little net cost, and represents high to very high value for money depending on the station option and the rail service scenario.

Table 14 below summarises the scheme's Present Value of Benefits and Costs and sets out their Net Present Value, under the service scenario R1:

Table 14 - Net Present Value Summary under scenario R1 (£m, 2010 prices and values)

Option	Present Value of Benefits (PVB)	Present Value of Costs (PVC)	Net Present Value (NPV)
1A (Single Platform Station)	£17.5m	£6.3m	£11.2m
1B (Double Platform Station delivered ahead of the Ely to Soham Track Doubling Scheme)	£17.4m	£16.3m	£1.1m
2 (Double Platform Station delivered as part of the Ely to Soham Track Doubling Scheme)	£17.1m	£7.5m	£9.7m
3 (Double Platform Station delivered after the Ely to Soham Track Doubling Scheme)	£16.8m	£8.8m	£8.0m

SECTION 4 – THE FINANCIAL CASE

PART G. OVERALL PROJECT

G.1 Status

Cambridgeshire County Council commissioned Network Rail to complete the option selection following the output of GRIP 2 (pre-feasibility) undertaken in March 2011. The project was then paused whilst funding was sought to progress passed GRIP 2.

Cambridgeshire County Council then approached Network Rail in 2015 with the funding to progress to GRIP 3 up to the completion of option selection. The Soham new station project has completed the option selection part of Network Rail's GRIP 3 option selection phase.

G.2 Expenditure so far

Network Rail were commissioned by Cambridgeshire County Council to undertake a GRIP 2 feasibility study in 2011, and to progress the GRIP 3 works to option selection (completed in 2016).

G.3 Assumed funding source for progression

Cambridgeshire County Council is currently investigating a range of funding sources to fund further development work and the construction of Soham Station.

The Local Transport Body has allocated £1M has been allocated from the priority scheme funding. A Growth Deal bid for an additional £3.7M has been submitted from by the Greater Cambridge Greater Peterborough Enterprise Partnership as part of their Strategic Economic Plan. The remaining funding for the scheme will come Community Infrastructure Levy, S.106 and from the District and County Councils.

G.4 Overall capital cost

Summary of capital cost assumptions for Soham station (2016/17 prices) inclusive of risk allowance:

Table 15 – Total Capital Cost Assumptions for Soham station options

Option	Total Capital Cost Assumption
Single Platform pre-doubling	£10.577m
Single Platform post-doubling	£21.865m
Double Platform alongside Ely to Soham Doubling	£14.588m
Double Platform after Ely to Soham Doubling	£19.177m

A Quantitative Cost Risk Assessment (QCRA) workshop was held on 20th September 2016 under the direction of the Network Rail Risk & Value manager. The assessment was carried out on the project threats and opportunities identified in the risk log as well as the estimate. The QCRA has produced P80 risk values as detailed in the table below.

Table 16 – Risk Provision

Option	P80 Risk Value	Percentage of Pint Estimate
Single Platform pre-doubling	£2,146,960	28.15%
Single Platform post-doubling	£2,980,000	17.40%
Double Platform alongside Ely to Soham Doubling	£2,350,766	23.78%
Double Platform after Ely to Soham Doubling	£2,350,766	18.78%

Updates and refinements to the capital costs estimates will be undertaken at subsequent GRIP stages.

G.4.1 Assumptions and qualifications

Following assumptions and qualification have been made based upon programmes for the different options.

The estimate base date for all options is: 3Q16

The mid-point of construction for option 1a will be: 4Q20

The mid-point of construction for option 1b will be: 4Q20

The mid-point of construction for option 2 will be: 3Q24

The mid-point of construction for option 3 will be: 3Q27

- No over and above allowance for Bank Holiday working was made in this estimate.
- The estimate excludes VAT.

- We have assumed there are no cost implications for interfaces with other projects, other than the works required to ensure that option 3 integrates with the Ely to Soham Doubling Scheme.
- We have assumed no additional costs related to new technology requirements or change in standards is required.
- We assume there will be no SSSIs & environmental issues.
- Any costs incurred by any potential changes in legislation have been excluded.
- The AFC for all options include NR Fee Fund and Industry Fee Fund.
- Works are assumed to take place predominantly in 27 hour Sunday possessions with Monday-Friday working allowed where possible for station works.
- It is assumed that the same organisation delivers Option 2
- Procurement strategy assumed to be GRIP 5 -8 Design & Construct
- It is assumed that standard station equipment will be available to procure within the timescales stipulated by the programme.
- Minor improvements are proposed for the Mereside/Station Road Junction to provide a running interface between Mereside and the station access road.
- It has been assumed that the required flow rate would be achieved at the fire hydrant without the use of pumps.
- For option 1a and 1b the design does not include facilities to turn back trains at Soham station.
- For all options the design does not include for lighting to be provided along footpaths at Soham Lode.
- There is insufficient fall for a foul sewer to run from the station to Mereside. Therefore, it has been assumed that any foul flows from a future toilet would be small enough to be dealt with by a septic tank.
- Standard paving materials for the car park and access road to the station are included in the design
- No GSMR link is proposed for the lifts.
- Due to a desire to not alter the location of the existing turnout at Soham, the single platform option would need an area of third party land to be purchased to provide access to the platform.

G.4.2 Efficiencies and opportunities

As the project has passed through each stage from pre-GRIP to GRIP 3 Option Selection confirmed efficiencies and opportunities have been incorporated into the estimate.

G.4.2.1 Efficiencies

- Ely to Soham Doubling Scheme design information has been incorporated into the development of Soham Station meaning that surveys have not been required for the development of all options.

G.4.2.2 Opportunities

- For Option 1a an opportunity exists (likelihood 10%) at a value of £100k to provide a mini supply point for signalling power instead of a full PSP.
- There is an opportunity to utilise the Maintenance 6-week cyclic access strategy on the SOB2 for 4nr 8-hour mid-week night possessions. This has not been used when considering the access strategy for the project. This is an opportunity for all options.
- An opportunity exists for the local highways authority to deliver some of the required works for the station access road for all options by using their own Framework contractor. The opportunity is for the local highways authority to complete this works.
- An opportunity exists to modify the type of construction solution for the platforms, depending on GI and further design development at GRIP 3 Single Option.
- An opportunity exists to explore funding and delivery efficiencies with the Ely to Soham Doubling Scheme.
- Investigate with Cambridgeshire County Council the possibility of doing the works without the need for full planning and do it under Permitted Development rights.

G.5 Financial authority points

It is too early to note what the financial authority points are but the assumption currently is that GRIP 3 AIP development will be completed and then a separate GRIP 4, and followed by GRIP 5-8 detailed design and delivery phase. So the latest full funding would need to be committed must be before entering a GRIP 5-8 contract.

G.6 Short term funding for next steps – design development costs further detail

Cambridgeshire County Council are funding Network Rail to progress with approval in principle design development.

SECTION 5 – THE COMMERCIAL CASE

PART H. COMMERCIAL CASE OVERVIEW

It is not possible to present a Commercial Case for the Soham Station scheme owing to the lack of development to date. This section will be updated following completion of development work to GRIP 3 AIP.

H.1 Key outputs, deliverables and success factors

Successful completion of the scheme would be the introduction of the station with the minimal impact on the operational railway which falls in line with the wider industry aspirations.

H.2 Capability and skills

Network Rail is proposing to utilising expertise either previously involved in the Ely to Soham Doubling scheme or with previous or relevant experience in the area.

H.3 Procurement strategy & sourcing options

The works are principally conventional civil engineering and railway systems, taking place in an environmentally sensitive and geologically distinctive setting, and therefore a contractor with the capability to deliver this type of work will need to be appointed.

It is currently proposed that the Network Rail Investment Projects multi-functional framework contractor, VolkerFitzpatrick Ltd, will undertake the design and implementation of the first phase of the scheme (single platform station with capability to introduce a second platform and footbridge).

H.4 Third party contributions

This scheme is 3rd party funded and Cambridgeshire County Council are taking the lead in securing the funding streams.

H.5 Contract management

The contract management strategy for the overall programme has yet to be developed.

For the work between this *interim* SOBC and OBC Network Rail will have a Sponsor team in place, to ensure that the works by Network Rail Infrastructure Projects is consistent with maximising value for the client.

SECTION 6 – THE MANAGEMENT CASE

PART I. MANAGEMENT CASE OVERVIEW

I.1 Governance structure

The governance structure for the scheme will be dependent upon the funding sources by which the scheme gets developed and how it's procured and delivered.

It is assumed that the Soham Station steering board will remain in place and is attended by council representatives alongside Network Rail.

I.2 Approach to risk

High level strategic risks have been identified during the GRIP 3 development work. A full risk register is included in appendix A.

These are:

- 1) There are a number of interfacing schemes in the area (Ely North area improvements, Haughley Junction, Ely to Soham Doubling) that could impact on the scheme and the anticipated outputs/benefits and timescales
- 2) Access to deliver the project could be a risk, particularly given the other access requirements of nearby schemes at the same time.
- 3) There is a risk that the station may not be cost neutral within an agreed timeframe
- 4) The timetable might not be able to accommodate the desired increase in train paths

I.3 The stakeholder environment

The main local stakeholders are CCC, as the current scheme promoter at the SOBC stage and East Cambridgeshire District Council, as the local district authority, including planning, the Greater Cambridge and Greater Peterborough (GCGP) Local Enterprise Partnership (LEP), Soham residents and local land owners and businesses.

This SOBC is based upon extensive stakeholder discussion. Key stakeholders involved to date have included:

- East Cambridgeshire District Council
- Cambridgeshire County Council
- Network Rail
- Train operating companies (TOCs) - Abellio East Anglia

- Freight operating companies (FOCs) - DB Schenker, GB Railfreight, Freightliner
- Local Soham residents

A stakeholder management plan has been developed, mapping the profiles of each of the stakeholders in terms of interest and influence. The method and frequency of engagement has been aligned to the stakeholder profile. The stakeholder management plan will be reviewed at regular intervals throughout the project lifecycle, and updated as necessary to reflect any changes in the stakeholder environment.

Appendix A – Risk Register