

SKANSKA

Wisbech Bus Station

Wisbech Access Study

August 2017

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Wisbech Bus Station

Cambridgeshire County Council / Fenland District Council

August 2017

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1. Report Overview

Skanska have been commissioned by Cambridgeshire County Council (CCC) and Fenland District Council (FDC) to undertake an assessment of Wisbech Bus Station as part of the Wisbech Access Study.

The aim of this assessment is to identify a preferred option to reconfigure or relocate the bus station.

The structure of this report is outlined within the diagram below, and has been influenced by a series of workshops attended by a project steering group that established a long list of potential options, and then gradually shortlisted and refined these options.

Workshops were conducted in January, April, September and November of 2016, with members of the steering group consisting of Transport Planners as well as officers from both Cambridgeshire County Council and Fenland District Council representing the Passenger Transport, Transport Development and Infrastructure, and Local Growth and Economy. For more information regarding the workshops and steering group, please see Table 1.1 below.



Figure 1.1: Wisbech Bus Station Report Structure

Table 1.1: Details of Workshops and the Bus Station Steering Group

Workshops	Date	Location
1) Option Development – Initial Site List	8 th January 2016	Room 53, Fenland Hall, March
2) Option Sifting – Phase 1 Long List	15 th April 2016	Room 68, Fenland Hall, March
3) Option Sifting – Phase 2 Short List	9 th September 2016	Room 38, Fenland Hall, March
4) Option Sifting - Phase 3 Preferred Options	9 th November 2016 30 th November 2016	Room 38, Fenland Hall, March

Member	Job Title	Organisation
Wendy Otter	Transport Development Manager	Fenland District Council
Jack Eagle	Lead Transport and Infrastructure Officer	Cambridgeshire County Council
Paul Nelson	Interim Head of Passenger Transport	Cambridgeshire County Council
Gary Edwards	Engineering Team Leader	Fenland District Council
Justin Wingfield	Head of Growth and Economy	Fenland District Council
Trevor Watson	Head of Assets and Projects	Fenland District Council
Yolanda Rankin	Graduate Transport Planner	Cambridgeshire County Council
Richard Jones	Senior Transport Planner	Skanska
Hayley Townsend	Transport Planner	Skanska

2. Scheme Background

Wisbech Access Study

This assessment forms part of the first phase of the Wisbech Access Study. The Wisbech Access Study consists of two distinct phases. The first phase is a series of individual scheme assessments, and the second phase of the study consists of a packaging assessment, as shown in Figure 2.1 beneath. Note that this assessment is highlighted in green to demonstrate its relationship to the wider study.



Figure 2.1: Wisbech Access Study Components

Wisbech Bus Station

Horsefair Bus Station is one of the nine individual schemes outlined in the Wisbech Access Study. The study proposal identifies the bus station as a key area in the town that will benefit from improved operation, by either reconfiguring the existing space or relocating the station to a larger site to support the town's growth strategy.

Current issues with the existing bus station include user conflict, limited station facilities and difficult access for drivers onto Freedom Bridge Roundabout. In connection with the future growth of Wisbech, issues that need to be addressed for a new bus station include:

- Station capacity;
- Existing and future services;
- Improvements to current location or relocation;
- Access onto Freedom Bridge Roundabout or new exit roads; and,
- Issues with layover space.

Scheme Location

Horsefair Bus Station is positioned centrally within the town, providing convenient public access to Horsefair Shopping Centre and wider services such as healthcare. Additionally, the location off Freedom Bridge Roundabout provides access to the wider transport network including the A1101 and A47, linking Wisbech to Peterborough, March, King's Lynn, Norwich and Yarmouth.

Adjacent to the bus station is the Horsefair Shopping Centre, with the wider core shopping area of the town located in the south. The surrounding land use of the bus station is shown beneath in Figure 2.2, which shows that the residential areas are predominantly located in the north of Wisbech with smaller areas in the south, and employment areas are generally situated to the south of the town.

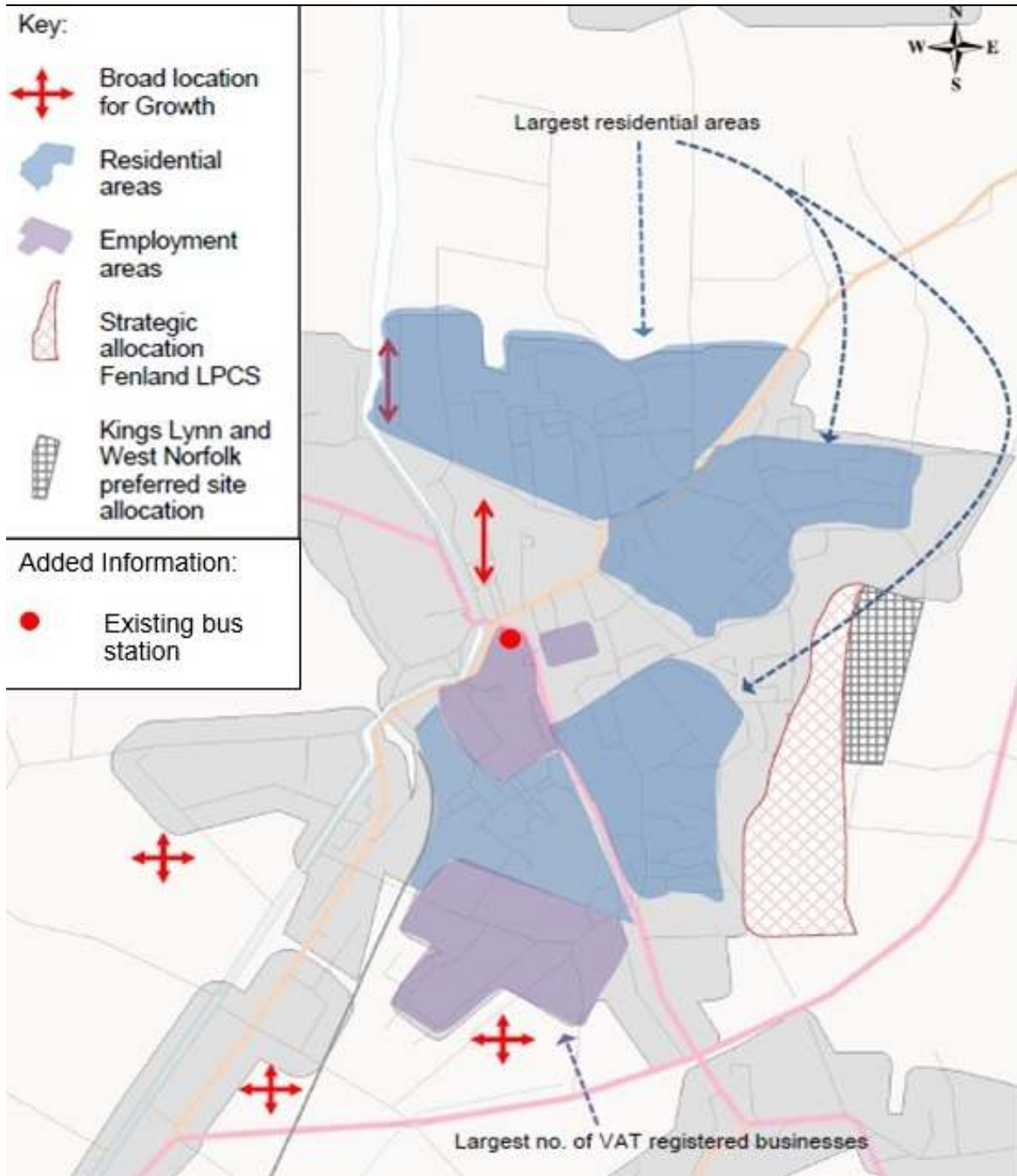


Figure 2.2: Land use surrounding the Horsefair Bus Station

3. Existing Conditions

Existing Bus Station Layout

The bus station operates a Drive-in-Reverse-out (DIRO) system, with access from Horsefair via Freedom Bridge Roundabout. Current access into the bus station is sign-posted as 'buses, taxis and deliveries only', however this doesn't preclude any passenger service vehicle such as tourist and school coaches from using the bus station.

The bus station has six operational stands which are set at 90 degrees to the concourse. Additional characteristics of the bus station include:

- A covered passenger concourse;
- One bus layover space;
- A taxi rank with space for 7 vehicles;
- Access to a private car park belonging to a health and beauty salon, and other Hill Street premises;
- One loading bay for commercial premises; and,
- Offices for an external company (The Workshop).

The current layout of the station is shown beneath in Figure 3.1.

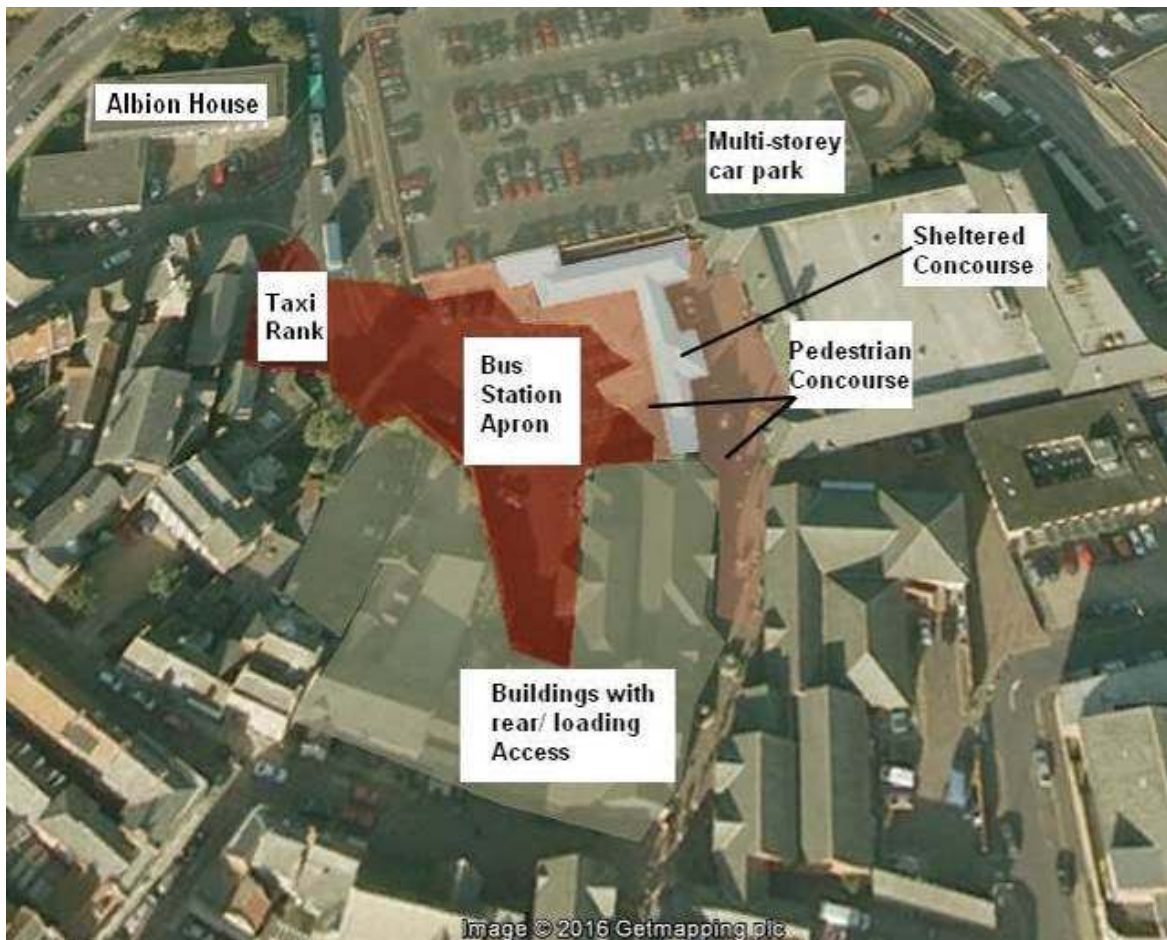


Figure 3.1: Current Layout of Horsefair Bus Station

The bus station can be accessed on foot from the north via Horsefair which links to School Lane and Freedom Bridge Roundabout. To the east, the bus station can be accessed via Horsefair shopping Centre and the adjoining multi-storey car park.

Land Ownership

There are currently multiple land ownerships within the station boundary, including:

- Passenger concourse – Horsefair Shopping Centre;
- Bus station / bus apron – Fenland District Council;
- Taxi Rank – Horsefair Shopping Centre / leased by Fenland District Council, and part public highway;
- Goods loading bay – Horsefair Shopping Centre; and,
- Road (Horse Fair) – Public highway.

A rights of access order for the beauty salon located on Hill Street also applies within the boundary of the bus station, with rights of way for deliveries to the Horsefair shops, service road and the rear of other Hill Street premises.

Existing Bus Routes and Service Frequencies

The following bus services currently arrive or depart at Horsefair Bus Station:

Table 3.1: Bus Services Operating within Horsefair Bus Station

Stand	Bus Service	Route	Operator
Bay 1	50 (Mon-Sat)	Wisbech – Long Sutton	Stagecoach
Bay 2	390 (Weds only)	Wisbech – Parsons Drove – Throckenholt – Peterborough	W & M Travel
	49 (Mon-Sat)	Wisbech – Spalding	Stagecoach
Bay 3	X1 (Runs daily)	Lowestoft – Yarmouth – Norwich – King's Lynn – Peterborough	First Eastern Countries
Bay 4	46 (Runs daily)	King's Lynn – Wisbech St. Mary – March	Stagecoach
Bay 5	51 (Mon-Sat)	Wisbech – Gorefield	Stagecoach
	56 (Mon-Sat)	Wisbech – March – Manea / Benwick	Stagecoach
	60 (Mon-Sat)	Wisbech Circular	Stagecoach
	446 (Mon-Sat)	Wisbech Tydd St. Giles / Thomas Clarkson Academy Walsoken	Stagecoach
	371 (Mon-Sat)	Birmingham – Great Yarmouth	National Express
Bay 6	66 (Mon-Sat)	Wisbech Town Route	Stagecoach

As shown in Table 3.1, the primary bus operator for Wisbech is Stagecoach, which operates both local and long distance services from the station. Current services provide access to Wisbech and surrounding areas of Peterborough, Long-Sutton, March, King's Lynn, Norwich, Yarmouth and Lowestoft. The routes of the main bus services operating in Wisbech are highlighted in Figure 3.2.

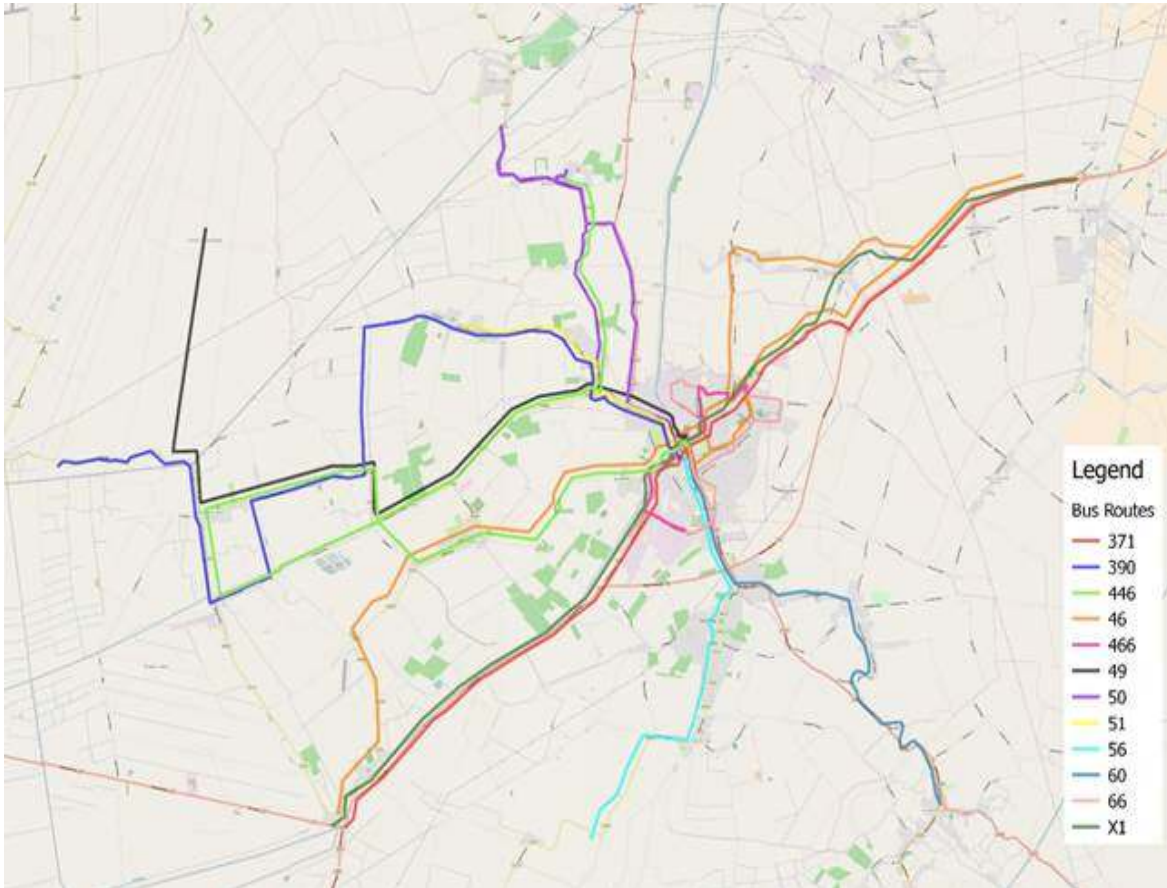


Figure 3.2: Routes of Current Services that Operate within Horsefair Bus Station

Conflicting Movements

Horsefair Bus Station has to accommodate buses, taxis and pedestrians. A right of way order for commercial and private premises access is also in effect within the bus station boundary. With multiple users operating within a confined layout, conflicting movement has always been one of the primary issues with the existing station layout.

Buses

Conflict for bus drivers is exacerbated as their reversing pathways are encroached by other users of the bus station. Difficulty is compounded by poor visibility while reversing from the stands, and minimal room for manoeuvre when adjacent bays and the opposite layover bay are occupied. In regards to the bus station layout, bus manoeuvres are reported to be easier in bays 3, 4 and 5 and harder within bays 1, 2 and 6. Reversing movements per bay, as documented in the Horsefair Bus Station Safety Report (2011), can be seen in Appendix A.

Taxis

All taxis and private hire vehicles are permitted to use the bus station for dropping off, ranking or picking up fares, within the designated taxi ranks / drop off point. It is stated within the FDC Safety Report (2011) that taxis use the bus station as their focal point, due to quick turn over and potential for additional fares.

Conflict between taxis and buses occurs upon entry and exit of Horsefair, where different user pathways cross. Conflict between taxis and buses has however been reduced, following the completion of a new taxi rank layout in 2012. The new layout enables taxis to enter the taxi rank via Albion Place and exit via Horsefair. However, upon exiting taxis are still required to share the existing pathway of buses exiting the bus station. The new layout is explained in more detail within this chapter, see Figure 3.4.

Commercial / Private Access

Signage upon entry to the bus station allows deliveries to be made in the loading bay, however limited control is enforced in regards to size of vehicle or maximum time permitted. Conflict with bus services occurs when delivery vehicles encroach on the reversing area of buses, making manoeuvres more difficult. Private access to the car park for the beauty salon also results in more vehicles driving through the bus apron, resulting in increasing chances of user conflict.

Pedestrians

Pedestrians are only permitted to use the concourse, with movement around the bus station being controlled by barriers. Entry / exit onto buses is a direct movement to / from the concourse.

Access onto Freedom Bridge Roundabout

Freedom Bridge Roundabout is a key junction for traffic moving through the town, and is the point at which all key routes into Wisbech meet. As a result, Freedom Bridge Roundabout is often congested which impacts on the efficiency of the whole highway network across Wisbech.

Bus drivers face difficulty when entering / leaving the bus station due to congestion at this roundabout, especially during peak hours. Traffic Survey footage recorded on the 14th January 2016 demonstrates that the majority of buses are stationary upon exit of Horsefair. However, as indicated in Table 3.2 on the following page, this stationary delay period varies significantly across the AM and PM peak hours.

Table 3.2: Bus Delay at Freedom Bridge Roundabout

AM Peak			PM Peak		
Arrival at Junction	Entering the Circulatory	Delay (sec)	Arrival at Junction	Entering the Circulatory	Delay (sec)
08:00:14	08:00:59	45	17:07:28	17:10:09	161
08:01:40	08:01:46	6	17:11:17	17:11:50	33
08:10:33	08:10:40	7	17:12:05	17:12:35	30
08:11:32	08:11:37	5	17:13:38	17:14:41	63
08:20:39	08:20:54	15	17:22:11	17:22:13	2
08:24:36	08:24:54	18	17:24:39	17:24:41	2
08:25:09	08:25:31	22	17:37:32	17:38:27	55
08:30:32	08:31:09	37	17:38:58	17:39:25	27
08:37:19	08:37:43	24	17:39:25	17:39:50	25
08:47:40	08:47:45	5	17:58:04	17:58:20	16
08:56:17	08:56:22	5	17:59:37	17:59:55	18
08:57:32	08:57:34	2			
	Total	191			432
	Average	15.9			39.3
	Max	45			161

The data shows that there is significant delay caused to buses waiting to join Freedom Bridge Roundabout, especially during the PM peak hour when their average delay recorded was approximately 40 seconds, with the maximum delay recorded of 161 seconds. This represents the difficulty that bus drivers experience in joining the roundabout whilst waiting for suitable gaps in the traffic flows from the B198 Lynn Road and the A1101 Churchill Road. With varying degrees of delay recorded there is potential for bus service reliability to be decreased across the area, making public transport a less appealing alternative to the car.

Constraints

Wisbech is one of Fenland’s ten conservation areas (Appendix B) designated by the Local Planning Authority, which is recognised as having “special architectural or historic interest, and the character or appearance of which it is desirable to preserve or enhance”.

Under the title of conservation area, listed buildings are further protected under the 1990 Planning Act. There are seventy listed buildings within the core shopping area (outlined in blue beneath) located to the south of Wisbech Bus Station, as shown in Figure 3.3. The presence of listed buildings means that by law any work that involves extension, alterations or demolition, listed building consent must be obtained prior to work commencing.

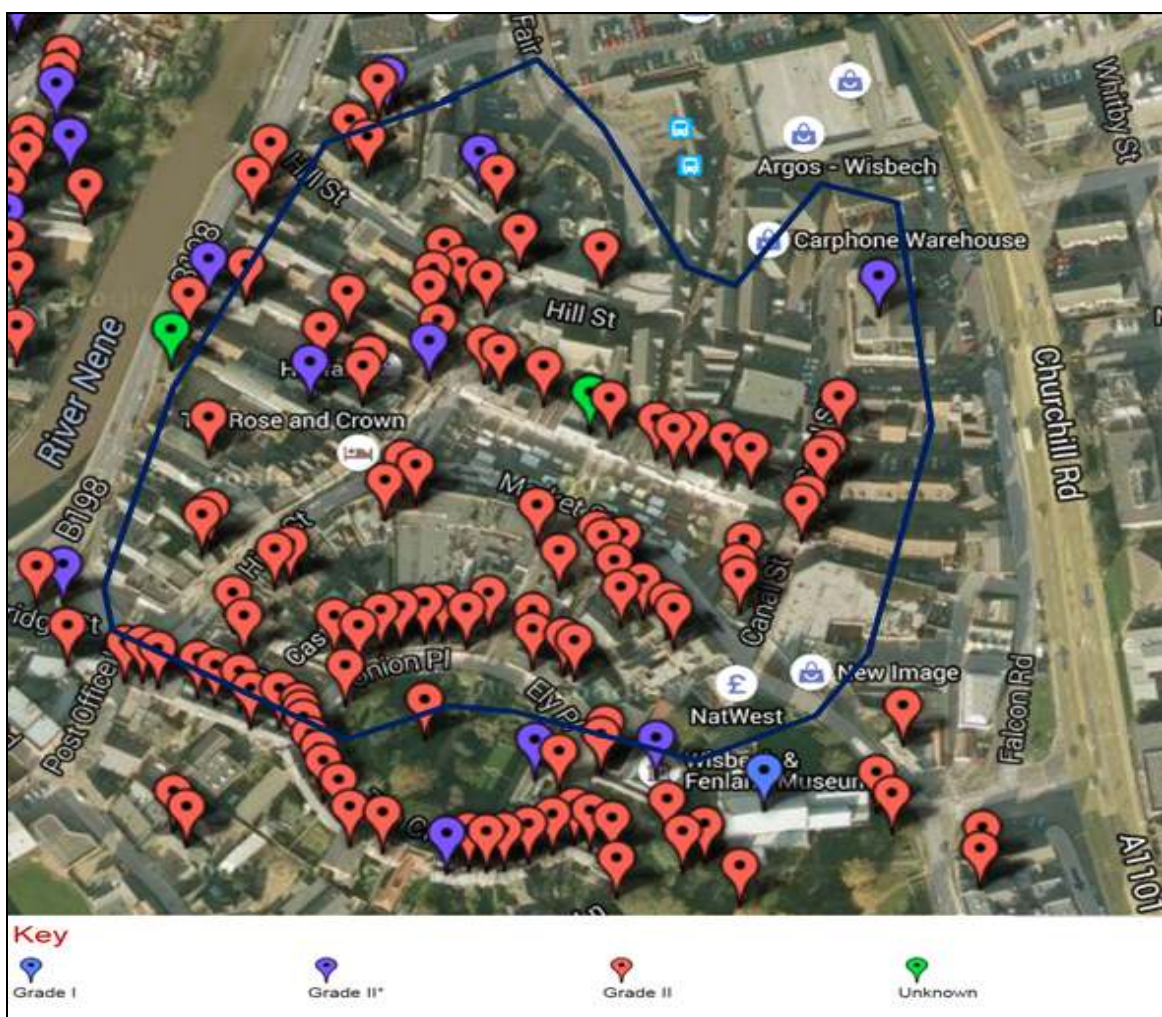


Figure 3.3: Listed Buildings within the Core Retail Centre of Wisbech

Accident Data

Note: Information displayed in the table beneath highlights accidents that occurred under the old bus station and taxi rank layout. Since the current Horsefair scheme was introduced in 2012, no accidents have been reported within the bus station.

Accident data for the Horsefair Bus Station has been obtained from Cambridgeshire County Council, for the period between 1st January 2005 and 31st July 2010. Within this time period two personal-injury accidents and five damage-only incidents were reported. The table beneath provides a summary of the accidents that have occurred within the bus station between 2005 and 2010.

Table 3.3: Accident Data for Horsefair Bus Station, 2005 – 2010.

Category	Year	Accident Details
Personal-injury	2005	Accident involved a car travelling south towards multi-storey car park then made a sudden right turn, causing the on-coming bus travelling towards the bus station to brake suddenly, resulting in a passenger being slightly injured.
Personal-injury	2006	Accident involved a car travelling west from the multi-storey car park striking a pedestrian, causing slight injury to the elderly gentleman.
Damage - only	2008	A private vehicle was reversing into the taxi rank, when struck by a reversing bus, resulting in damage to the front bumper of the private vehicle.
Damage - only	2008	Incident involved 2 private vehicles, vehicle 1 was attempting to reverse into the taxi rank when hit stationary vehicle 2 causing damage to the front bumper.
Damage - only	2010	Incident involved a private vehicle and a taxi, vehicle 1 (private) was pulling away from the taxi rank when vehicle 2 (taxi) rear door was opened causing slight damage to the back panel of vehicle 1.
Damage - only	2010	Incident involved 2 taxis, vehicle 1 rear door was opened causing slight damage to vehicle 2.
Damage - only	(year/unknown)	Incident involved a taxi and a minibus, taxi was stationary after leaving taxi rank when hit by minibus, damage caused to rear bumper.

As shown by the details in Table 3.3, user conflict is the underlying cause of the historic accidents within the bus station. As discussed above, user conflict within the bus station takes many forms, however the predominant issue results from the requirement for buses to reverse out of their bays into a very constrained space. A primary example of this issue is highlighted by the 2008 incident involving a bus reversing into a private vehicle that was trying to access the taxi rank. Additionally, private vehicles are present in five of the seven incidents detailed in Table 3.3. It's this presence of additional users, that are prohibited from using the bus station, which increases the likelihood of an accident occurring.

Measures to increase safety were implemented within the vicinity of the bus station in 2012, and are detailed beneath.

Previous Work

Horsefair Bus Station – Safety Report (2011)

The report outlined issues that needed to be considered in order to improve the safety of the bus station.

In 2011 it was determined that the bus station layout should be improved to reduce the future rate of accidents. High capacity coupled with the physical constraints of the site have prevented re-design to eliminate bus reversing. This has meant accompanying vehicle movements (mainly taxis) have had to be controlled more tightly. As a result, two options reconfiguring taxi movements were considered. A summary of the two options is provided below.

Options 1 - Key features include:

- Eliminate reversing movements on the part of taxis;
- Provide a pavement area for taxi passengers so that they are no longer circulating or standing in the swept paths of taxis;
- Provide a separate drop off / pick up area for taxis dropping fares and for minibuses owned by the Workshop;
- Provide clearer delineation between the car park access (left turn) and bus station access straight ahead movement;
- Refresh / provide signs and lines as appropriate and provide Give Way signage at the exit to the multi-storey car park; and,
- Upgrade pedestrian crossing points.
- Preliminary cost estimate **£135,000**.

Option 2 - Key features include:

- Eliminate reversing movements on the part of taxis;
- Provide a pavement area for taxi passengers so that they are no longer standing in the swept path of taxis;
- Refresh / provide signs and lines as appropriate and provide Give Way signage at the exit to the multi-storey car park;
- Upgrade pedestrian crossing points; and,
- Implement the policy - no requirement for taxis to access the bus station apron.
- Preliminary cost estimate **£53,000**.

Following consultation with key stakeholders, including council members and members of the licensing committee, Option 2 was recommended to the cabinet. Option 2 was considered to be a more suitable option as it provided a solution to addressing key safety issues with measures to improve the operation and management of the bus station. Figure 3.4 below highlights the Option 2 safety improvement scheme that was implemented at Horsefair Bus Station in 2012.

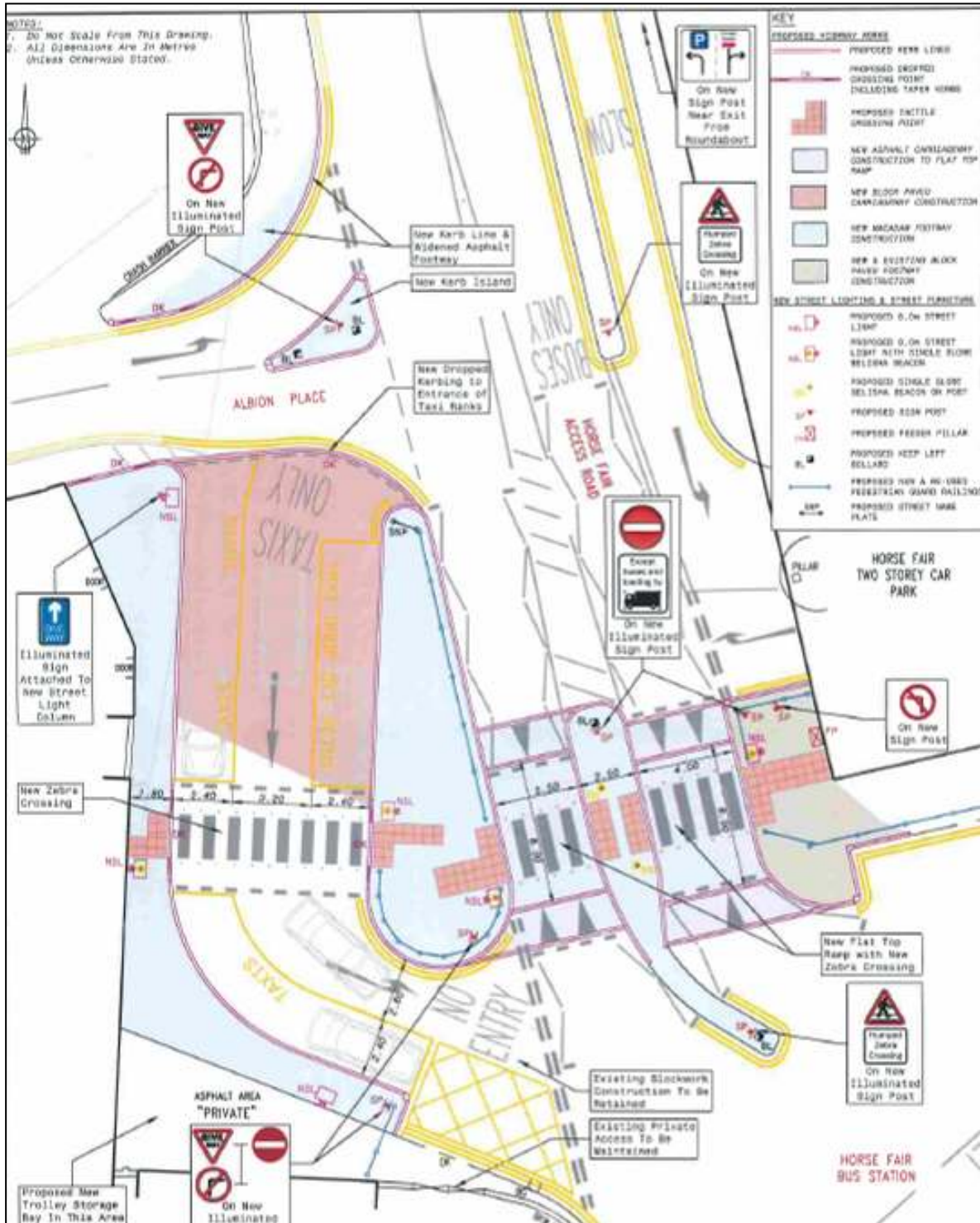


Figure 3.4: Horsefair Bus Station Safety Improvement Scheme (2012)

Wisbech Growth

As indicated in the 2020 Vision Infrastructure for Growth Document, Wisbech is recognised as a town in strong need of regeneration. Proposed growth areas for Wisbech are highly focussed on improving the provision of housing, employment and retail. As outlined in the Local Plan (Policy LP8) urban extensions, either strategic allocation or broad locations of growth include; East Wisbech, West Wisbech, South Wisbech and the Nene Waterfront and Port area.

The proposed growth for all locations listed above are constrained by the capacity of the highway network, internally within the town and externally along strategic routes like the A47. Following this, development proposals for all sites will have a strong focus on sustainable transport initiatives, which may result in a modal shift towards public transport. Therefore the growth of future bus services is an important factor that needs to be strongly considered as part of Wisbech’s growth aspirations.

Bus Service Growth

Based on anecdotal evidence from bus drivers working on behalf of the principle operator Norfolk Green (supplied in the Cabinet Report, 2010), the number of bus services accessing Horsefair Bus Station have grown significantly over the past few decades. Comments suggest that bus services entering / leaving the bus station for an average peak hour have increased from 6 or 7 in the 1990’s, to the current provision of 12 (AM peak hour) and 14 (PM peak hour).

As a result of a 50% rise in the number of services, the existing bus station is operating close to full capacity. Calculations for future growth up to 2026 have been undertaken accounting for the development of all urban extensions. Calculations are reported within the Wisbech Area Transport Study (WATS) Technical Note C - Public Transport Mode Choice Model which was produced by Atkins in 2011.

This assessment considers options for additional public transport services to support the growth areas identified in the LDF. The test indicates a need to introduce an additional 30 minute bus service per development, resulting in the need for three additional bus bays to be incorporated into the bus station. Therefore, to maintain a steady capacity and accommodate for future growth, the bus station will have to increase the number of bays available to a minimum of nine. Figure 3.5 provides a visual representation of bus service growth to date and predicted growth until 2026.

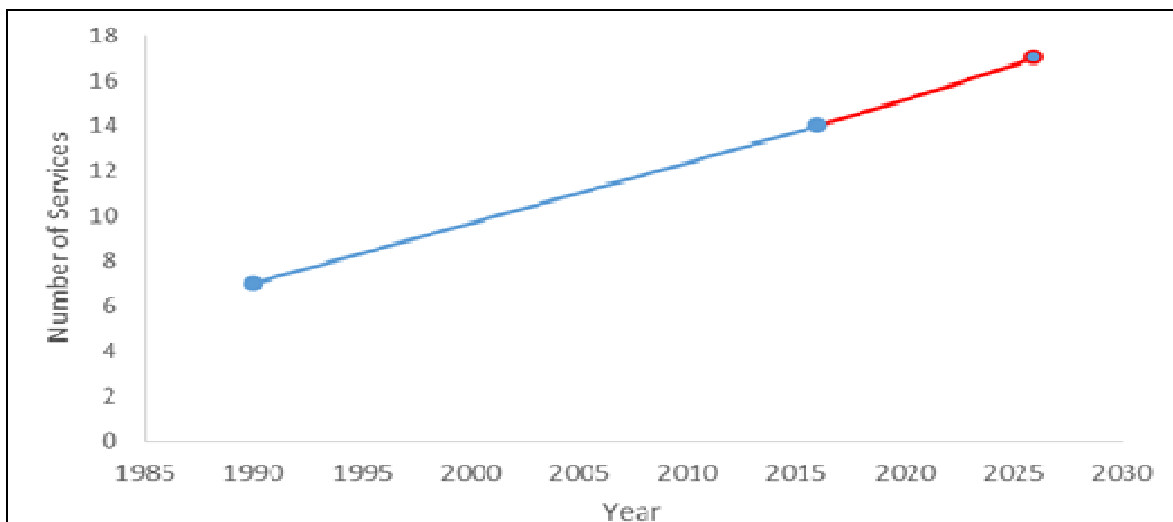


Figure 3.5: Historic Service Numbers and Predicted Growth

Local Transport Policy

The following policy guidance has been reviewed as part of this study:

Wisbech Market Town Transport Strategy (2014)

The Transport Strategy forms part of the Third Cambridgeshire Local Transport Plan (LTP3), and sets out transport priorities for Cambridgeshire County Council and Fenland District Council. Issues outlined within set priorities, are existing and potential future transport issues in Wisbech and its surrounding area. The strategy includes an action plan identifying possible solutions to address the issues that have been identified.

Chapter 4 'Access to Services and Public Transport in Wisbech', outlines the issue of poor accessibility via public transport for some residential (North), industrial and commercial (South) areas within Wisbech. The action plan for bus services stated within the strategy include:

- Enhance the provision of bus services within the town, alongside enhancing awareness of existing bus services through the provision of appropriate travel information to residents;
- Follow aspiration for the Horsefair Bus Station to be significantly improved;
- Individual bus stops across Wisbech to be improved in a number of ways including; suitable covered waiting facilities, up-to-date travel information and appropriate lighting;
- New developments in Wisbech will be expected to provide high-quality bus waiting facilities as part of new developments or at existing stops close to the new developments; and,
- Extension of bus services will need to take into account commercial considerations because the majority of services in Wisbech are commercial operations.

Vision 2020

The Wisbech 2020 Vision is broken down into three elements; Making Wisbech a great place to work, live and visit. This was created through analysis of eight themes by different stakeholders at workshops to discuss the following:

- Future Economic Role of the Town;
- Transport and Infrastructure;
- Stronger Families;
- Housing;
- Education, Skills and Aspirations;
- Cohesion;
- Pride, Reputation and Image; and,
- Leisure, Culture, Cycling and Tourism.

Outlined within the Transport and Infrastructure action plan, the Vision states 'we will continue to investigate opportunities to improve key junctions and routes around the town in line with those identified in the 'Market Town Transport Study'. Actions within the study in relation to the bus station and service routes can be viewed above under the heading Wisbech Market Town Transport Strategy (2014) .

Wisbech Area Transport Study (WATS) / Transport Mitigation Study

The WATS was completed between 2008 and 2013, and provides evidence of traffic models used to test transport implications of housing and employment growth for the area in and around Wisbech. The Transport Mitigation Study was developed in order to address transport issues raised by projected growth in Wisbech.

A key focus of The Transport Mitigation Study includes bus station access changes and corresponding changes to Freedom Bridge Roundabout. The study aimed to provide transport benefits whilst reducing traffic impacts and congestion.

As discussed above, Technical note C of the WATS outlines a Public Transport Modal Choice Model (2011), which was developed in order to assess the effectiveness of new bus service options for Wisbech.

Fenland Local Plan

The local Plan sets out policies and the broad locations of growth and regeneration for Fenland over the next 20 years. Under the chapter 'Delivering Infrastructure', transport objectives are identified as follows:

- Vision for a sustainable transport network in Fenland;
 - Seek to deliver an integrated approach to transport in Fenland that is; sustainable, facilitates growth, links town and country, encompasses cross boundary transport issues and improves accessibility for all modes of transport.
- Deliver new transport related infrastructure;
 - Improve and better manage strategic road infrastructure; and,
 - Improve and better manage wider road infrastructure to benefit local communities.
- Improve public and community infrastructure;
 - Assist with the delivery of transport hubs that improve links to wider transport networks, offering realistic interchange opportunities between buses, trains, taxis, walking, cycling and car; and,
 - Deliver flexible transport services that combine public and community transport needs, using local approaches.

Cambridgeshire Local Transport Plan (LTP 3)

The LTP3 sets out transport objectives, policies and strategy for the county. Transport objectives for Fenland covering the period up to 2031 include;

- Remove transport barriers so that children and young people can access transport, particularly at weekends and evenings;
- Remove transport barriers for health care, ensuring appointment arrangements are available;
- Improve infrastructure to support bus services;
- Reduce the effect of transport on the environment; and,
- Ensure travel choice for everyone who lives and works in Fenland.

4. Initial Site List

Introduction

This chapter introduces bus station layouts commonly used within the UK, outlines facilities that are generally associated with bus stations and discusses the initial list of potential options to reconfigure or relocate Horsefair Bus Station.

Bus Station Layout Options

The majority of all new bus stations constructed in the UK over recent years conform to either a Drive-in-Reverse-out (DIRO) or a Drive-in-Drive-out layout (DIDO). Additionally, the layout of DIDO can be incorporated into on-street bus layby designs, therefore providing an alternative to having the physical infrastructure of a bus station. Each layout commonly includes a shallow saw-tooth arrangements however both systems have their own set of advantages and disadvantages, and are discussed in greater detail beneath.

Drive-In Reverse Out (DIRO)

The DIRO layouts are well suited for larger bus stations with an adequate number of stands. Key design features include a 45 / 60 or 90 degree approach angle and adjustable spacing between stands depending on the constraints of the site. Examples of bus stations in the UK that conform to this layout include Northampton, Bedford, Preston and Bristol. An example of this layout is shown in the Figure beneath.

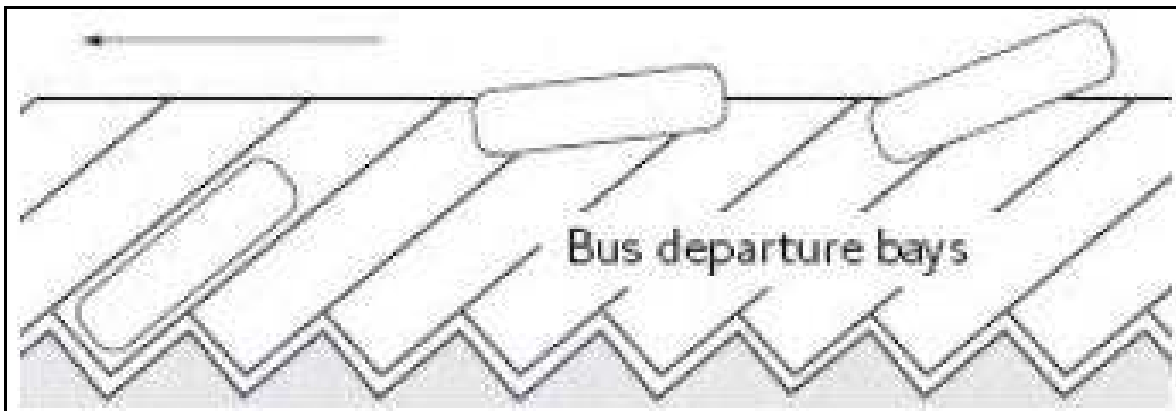


Figure 4.1: DIRO layout with saw-tooth design

The advantages of this type of layout are that it:

- Reduces the site footprint, as stands can be positioned closer together;
- Minimises walking distances between stands;
- Has the ability to provide clear boarding areas, producing greater control over passenger desire lines; and,
- Enclosed concourse minimises vehicle and passenger conflict.

The disadvantages of this layout are that:

- Reversing is required when pulling away from stands, potential for user conflicts to occur;
- Reversing layouts are not appropriate for high frequency services, tail-backs can be created blocking space needed for manoeuvring;
- Potential health and safety issues are associated with user conflicts, bollard protection is needed for pedestrians;
- Staff are ideally needed to supervise manoeuvres, reducing collisions at bus stands; and,
- Service times may increase due to the increased manoeuvre time is required.

Drive In- Drive Out (DIDO)

DIDO layouts can consist of linear (curb-side) or angled saw-tooth stands, as shown in Figures 4.2 and 4.3. Passenger movement is directed straight from the vehicle to the concourse via boarding areas. A key feature of this layout is that it can be incorporated into on-street stand designs or within the confined space of a bus station. A less favourable arrangement of this layout incorporates island platforms, however pedestrian safety is reduced due to the need to cross in front of moving vehicles in order to access each platform. Examples of UK bus stations that use / incorporate this layout include Cambridge Drummer Street and Northampton Drapery.

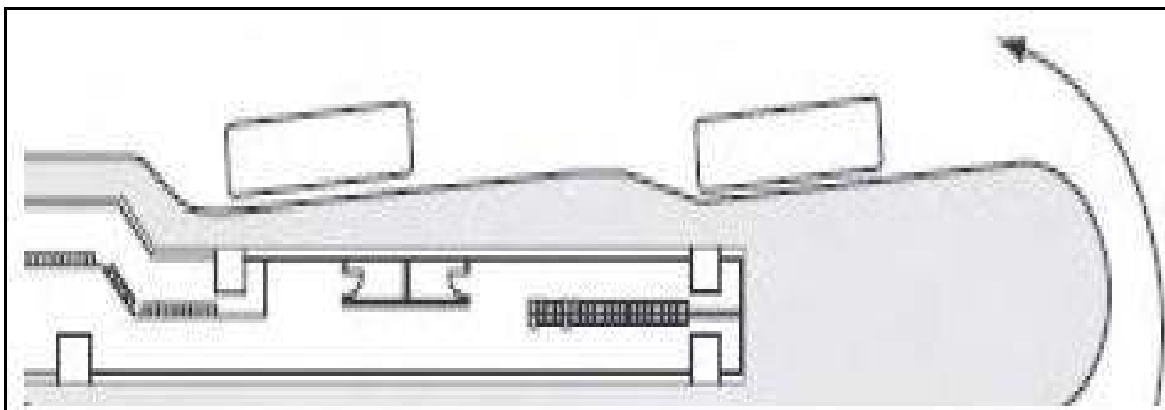


Figure 4.2: DIDO layout with Saw-tooth Bays

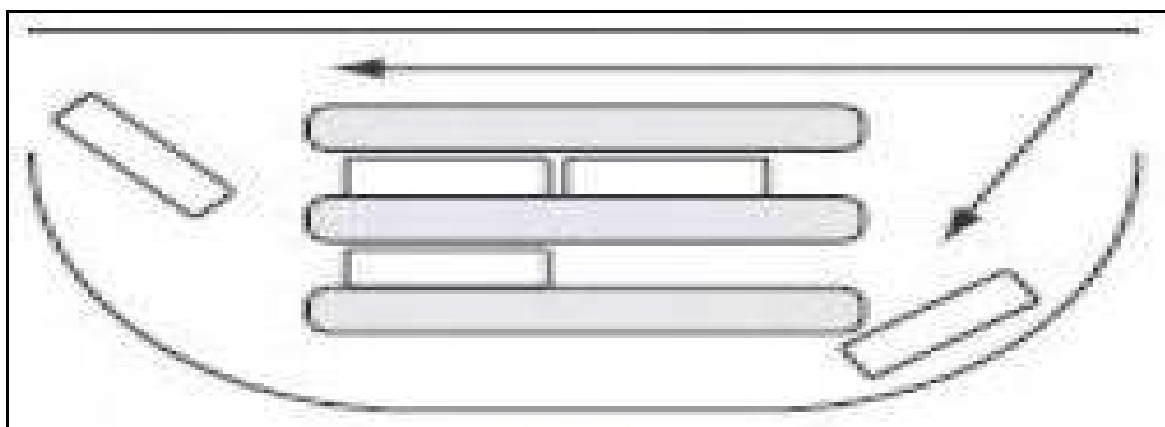


Figure 4.3: DIDO layout with Island Platforms

The advantages of this type of layout are:

- No reversing movement is required for buses, reducing conflict with other buses;
- Time saving due to the ability to drive straight on and off stands; and,
- Design encourages drivers to pull close to the kerb aiding passenger boarding via designated areas.

The disadvantages of this type of layout are that it is:

- A less efficient use of space;
- If associated with island platforms;
 - Increased need for passengers to cross between platforms; and,
 - Increased pedestrian and bus conflict.
- If on-street, then the arrangements provide no passing space or through road which can cause delay to other vehicles; and,
- Layout is not compatible with layover bays, therefore buses may need to drop-off passengers and then move to a layover area.

Case Studies of Bus Station Stand Options

A review has been undertaken of infrastructure design and stand configuration at recently built bus stations across the UK to provide a visual representation of what a new Wisbech bus station could look like (either a re-configured or a re-located station). The following images provide bus station examples of Stourbridge, Castleford and Wolverhampton.



Figure 4.4: Stourbridge Bus Station Design Case Study



Figure 4.5: Castleford Bus Station Design Case Study



Figure 4.6: Wolverhampton Bus Station Design Case Study

Bus Station Facilities

A review of market research into public expectations of the provision of services and facilities at bus stations has been undertaken to understand what other features a new Wisbech bus station would be expected to include (either a re-configured or a re-located station). This information has been used to assess the potential footprint of a new station at each of the potential sites considered.

The market research into public consultations of newly built bus stations in the UK including; Northampton, Bolton, Bedford and Sudbury, has highlighted common facilities that are included within the pedestrian concourse. Facilities that appeared across all bus station designs due to public expectation include:

- Sheltered concourse, with natural lighting;
- Ample seating areas (additional seating between stands);
- Real time travel information boards;
- Secure cycle facilities;
- Accessible toilets;
- Retail and café units; and,
- CCTV and staff presence.

For the purpose of this study the following facilities have been assumed to comprise part of a new bus station and incorporated into the bus station footprint calculations:

- Toilets (male and female blocks and disabled) – 6m x 10m;
- Small retail / food unit – 2m x 2m; and,
- Cycle storage facilities – consisting of two blocks of Sheffield stands with 5 rails on each block, aisle access – 6m x 6m.

The following figure highlights a proposed floor plan of the facilities described above.

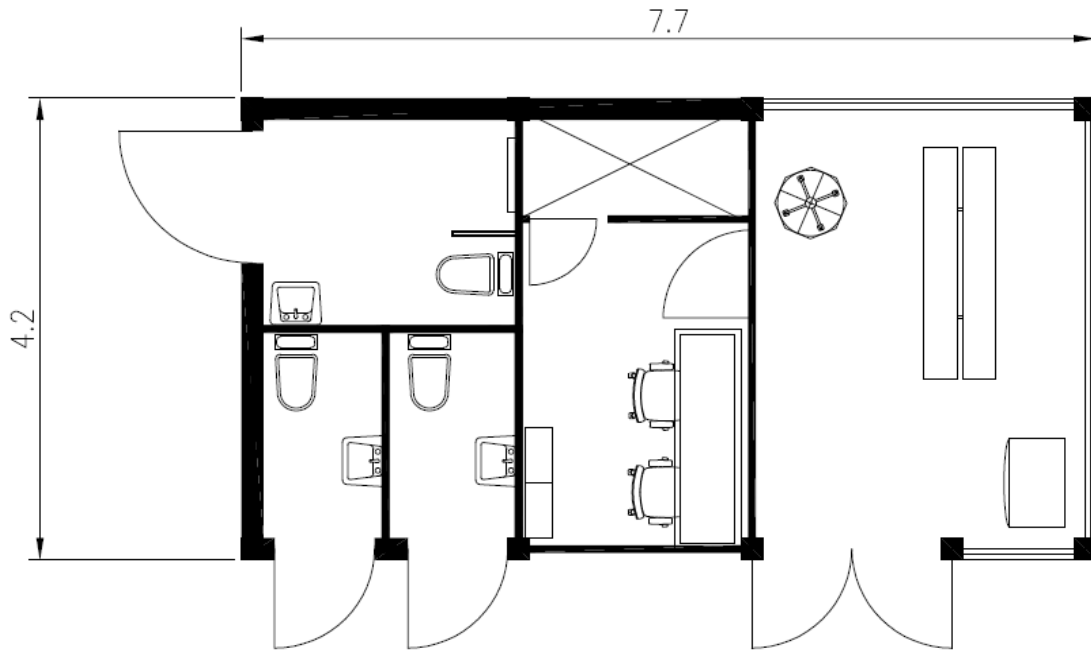


Figure 4.7: Floorplan of Proposed Station Facilities

Potential Bus Station Sites

A meeting was held on the 8th January 2016 at Fenland District Council to discuss potential options to either relocate or reconfigure the existing Horsefair Bus Station. Eight sites were chosen to be investigated as part of this study. These sites are listed in Table 4.1 beneath, and are shown in Figure 4.8 on the following page.

Table 4.1: Site Locations considered for Re-location or Re-configuration

Site	Location	Post Code
1	Existing bus station	PE13 1DT
2	Albion House	PE13 1AN
3	Nene Waterfront Regeneration Area	PE13 3BN
4	Chapel Road Car Park	PE13 1RG
5	Somers Road Car Park	PE13 2RA
6	Church Terrace Car Park	PE13 1BL
7	Union Street	PE13 1HB
8	Market Street and The High Street	PE13 1DD
9	Canal Street Taxi Rank	PE13 1AR

An assessment (SWOT analysis) has been undertaken to identify the strengths, weaknesses, opportunities and threats for each of these locations. This is discussed in turn for each site beneath.



Figure 4.8: Initial Site Locations

Reconfiguration of the Existing Bus Station

Due to size and layout constraints of the existing bus station, the options considered for reconfiguring either extend beyond the existing boundaries of the site, or involve the removal of the taxi rank facility. The reconfiguration options are described below:

- 1A – Adjoining two sites for a larger station footprint;
- 1B – Relocating the taxi rank in order to reduce user conflict and create a larger station footprint; and,
- 1C – Using the existing bus station and creating a new route through to Union Street to create additional on-street bus bays.

1A - Reconfiguration (Sites 1+2)

This option involves using the existing bus station with additional land (1,490m²) at the site of Albion House, which is located to the northwest of Horsefair. The footprint for this site is indicated in Figure 4.9 beneath. Albion House is currently used as government offices and is the location of the Wisbech Jobcentre Plus. It is understood that there is the opportunity to redevelop or demolish the building in the near future.



Figure 4.9: Option 1A – Reconfiguration (Sites 1 + 2)

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.2.

Table 4.2: SWOT Analysis of Option 1A

Strengths	Weaknesses
<ul style="list-style-type: none"> • Increases the footprint of the bus station • Improves the lay over space • Creates options to reduce conflicting reversing movements • Maintains central location, 200 m walking distance for pedestrians • Utilises existing infrastructure of the bus station 	<ul style="list-style-type: none"> • Multiple users of the bus station remain • Conflicting movements are reduced but not eliminated • Demolition is required • Existing DIRO movement would be retained
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Improves layout and safety for all users • Potential relocation of the taxi rank • Chance to upgrade pedestrian facilities 	<ul style="list-style-type: none"> • Future growth cannot be accommodated due to layout constraints • Objection to demolition

1B - Reconfiguration (Sites 1+9)

This option involves using the site of the existing bus station in connection with the relocation of the taxi rank to site 9 adjacent to Churchill Road, as indicated on Figure 4.10. This option has previously been discussed by Fenland District Council and is reported within the 2011 Safety Report.

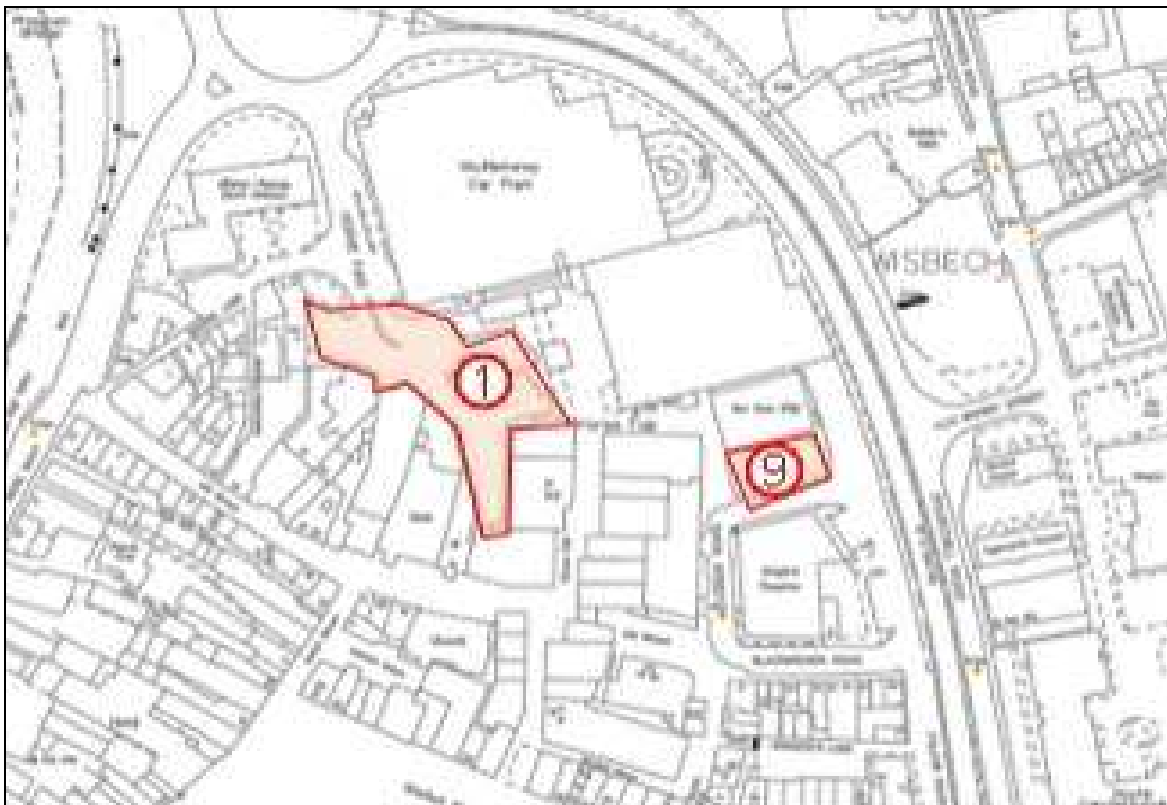


Figure 4.10: Option 1B – Reconfiguration (Sites 1 + 9)

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.3.

Note that this option retains a reconfigured bus station within the boundary of the existing site (1) and relocates the taxi rank to site 9.

Table 4.3: SWOT Analysis of Option 1B

Strengths	Weaknesses
<ul style="list-style-type: none"> • Creates options to reduce conflicting reversing movements, reducing safety risks associated with the bus station apron • Maintains central location, 200 m walking distance for pedestrians • Utilises existing infrastructure of the bus station 	<ul style="list-style-type: none"> • Multiple users of the bus station remains • Conflicting movements are reduced but not eliminated • Existing DIRO movement would be retained
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Improves layout and safety for all users • Potential relocation of the taxi rank • Chance to upgrade pedestrian facilities 	<ul style="list-style-type: none"> • Future growth cannot be accommodated due to layout constraints • Objection by taxi companies

1C - Reconfiguration (Sites 1+7)

This option involves creating a new through road on Union Street, which would adjoin the south of the existing bus station. The adjoining road would allow for additional on street bus bays to be created, in order to increase capacity for future services. Additionally, it would create a one way bus system on which buses exit onto the western corner of the Market Square, passing through the High Street and re-joining the network on Nene Quay. The site footprint and direction of traffic flow can be seen below in Figure 4.11.

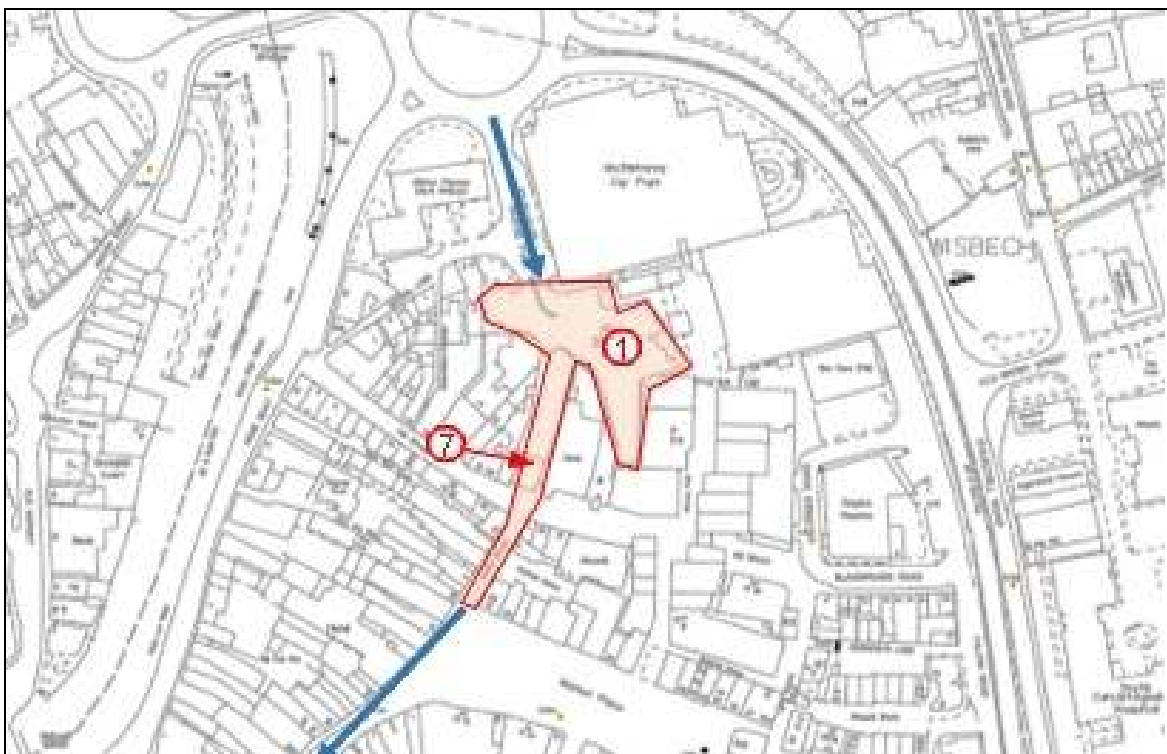


Figure 4.11: Option 1C – Reconfiguration (Sites 1 + 7)

The demolition of some existing infrastructure would have to occur for this option to be viable. Demolition in this instance would include a hair and beauty salon and its rear car park. This commercial building, located on Union Street, holds a listed building status and is situated within the conservation area of the town. Therefore, under the protection of the Planning Act 1990, consent for demolition would be required. Additionally, disabled and loading bay parking on The High Street would have to be displaced to existing parking available within the Market Square.

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.4.

Table 4.4: SWOT Analysis of Option 1C

Strengths	Weaknesses
<ul style="list-style-type: none"> • Utilises existing infrastructure of the bus station • Maintains central location, 200 m walking distance for pedestrians • On-street bus bays eliminate the need for reversing • Site becomes adequate for future growth 	<ul style="list-style-type: none"> • Demolition is required on through road • Conflicting movements are reduced but not eliminated
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Improves layout and safety for all users • Chance to upgrade pedestrian facilities 	<ul style="list-style-type: none"> • Public objection to demolition • Impact on the town centre

Relocation of the Existing Bus Station

In addition to the options that consider variations on reconfiguring the existing bus layout, a range of options have also been considered to relocate the bus station to a new location. This would remove many of the existing issues and constraints experienced at the current location.

The relocation options are described below:

- 3 – Creation of a new bus station on land at Nene Quay;
- 4 – Creation of a new bus station on land at Chapel Road Car Park;
- 5 – Creation of a new bus station on land at Somers Road Car Park;
- 6 – Creation of a new bus station on land at Church Terrace Car Park; and,
- 8 – Creation of on-street bus bays along Market Street / High Street.

Sites 4, 5 and 6 currently exist as council managed car parks. Car park occupancy surveys were undertaken in order to assess the potential impact of displaced parking should a new bus station be built on an existing car park. The surveys were undertaken on the 24th March 2016, between 07:00 – 19:00, and the survey data was recorded in fifteen minute intervals. The survey results are discussed within each of the relevant options. Details on the site plans and the entrance / exit points observed during the occupancy surveys are shown in Appendix C.

Option 3

Site 3 is adjacent to the eastern bank of the River Nene, and is located 220m north of the existing bus station and commercial centre of Wisbech. The site is part of the Nene Waterfront Project, and planning proposals to regenerate the land already exist with Fenland District Council.

The site boundary (red) for the Nene Waterfront Project, as shown in Figure 4.12, includes De Havilland Road in the east, the port (and The Boathouse Business Centre) in the north, Lynn Road and Freedom Bridge Roundabout in the south and the River Nene to the west. Access to the site is currently off Freedom Bridge Roundabout, via Bedford Street or Chase Street which operate as one-way roads.

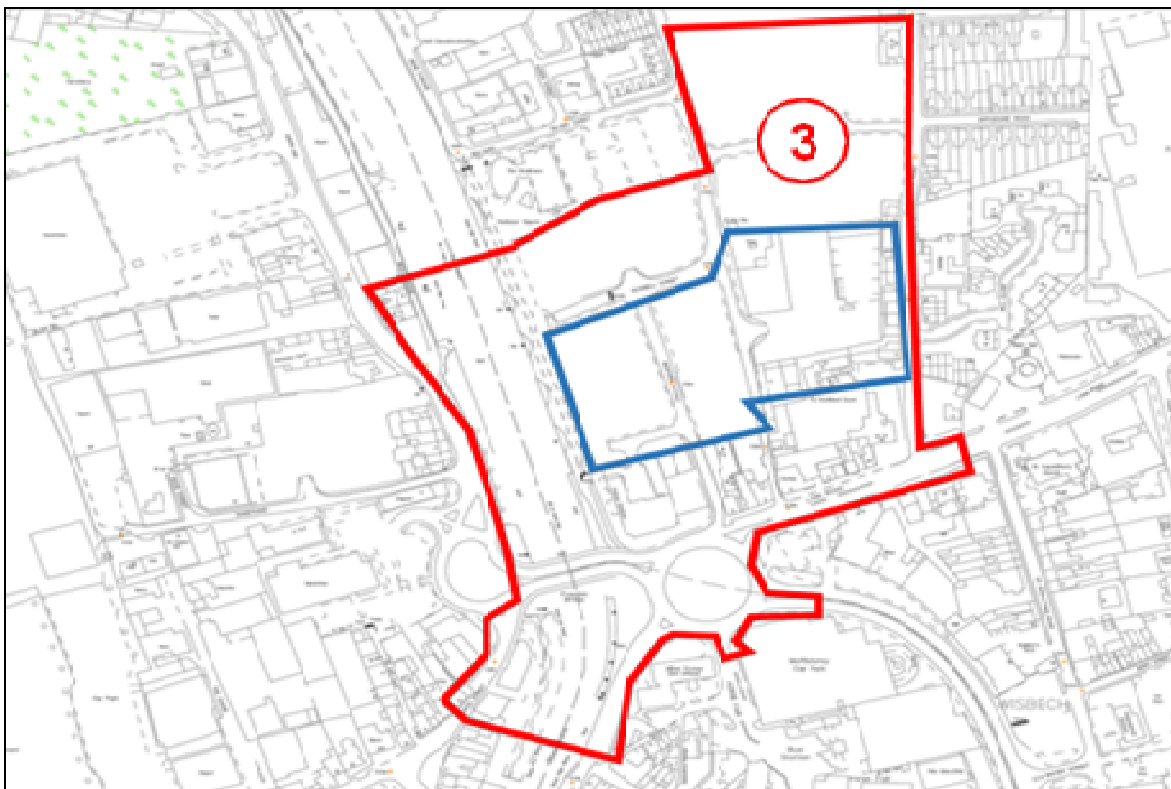


Figure 4.12: Relocation to Site 3

Despite being part of the existing regeneration project, the area outlined in blue (above figure) highlights the land that is currently undeveloped. This site covers an area of 1.45ha and could potentially accommodate a new bus station on a portion of the available land. Proposed access off the network would be via Freedom Bridge Roundabout onto Bedford Street.

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.5.

Table 4.5: SWOT Analysis of Option 3

Strengths	Weaknesses
<ul style="list-style-type: none"> • Maintains central location, 200 m walking distance for pedestrians • Site becomes adequate for future growth • Size of site has the potential to accommodate either a DIDO or a DIRO layout 	<ul style="list-style-type: none"> • Pedestrian facilities and movement required across Freedom Bridge Roundabout • Potential impact on residential areas nearby in the future
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Increase / upgrade pedestrian facilities at the roundabout • Improves layout and safety for all users 	<ul style="list-style-type: none"> • Existing housing proposals for Nene Waterfront area

Option 4

Site 4 is located on Chapel Road, 355m west of the existing bus station and the commercial centre of Wisbech. The site of the car park covers an area of 0.495ha, 50% of which would be needed for a new bus station. The existing car park provides 192 parking spaces within Wisbech. The current layout of the site can be seen in Figure 4.13 below. Additionally, the car park holds Historic Funfair Rights, and is therefore currently unusable at particular times of the year.

Access to the car park is via Freedom Bridge Roundabout / North Street in the northeast or via Town Bridge and Old Market in the south. The surrounding land use to the east of the car park is predominantly industrial and retail units. To the west of the car park is the open space of Harecroft Road Playing Fields, which facilitates the Wisbech Rugby Club and the Wisbech Town Cricket Club.



Figure 4.13: Relocation to Site 4

Car park occupancy data for Chapel Road is shown in Figure 3.14 beneath. It should be noted that data presented on the following page was collected on a Thursday, and therefore reflects occupancy levels for a market day.

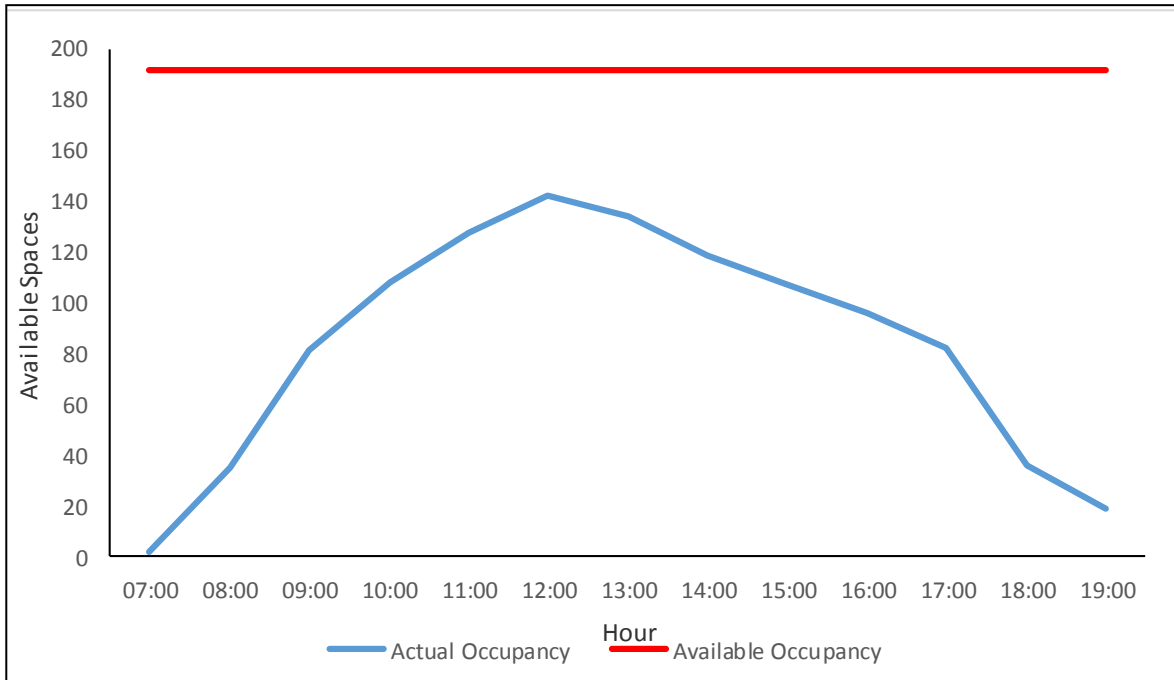


Figure 4.14: Chapel Road Car Park Occupancy Results

Figure 4.14 highlights the highest occupancy for Chapel Road Car Park was recorded at midday. During the AM peak a steady increase in occupancy occurs, reaching 42% before 9am. In contrast, occupancy in the PM peak is reduced, with only 19% of the car park occupied at around 6pm.

.A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.6.

Table 4.6: SWOT Analysis of Option 4

Strengths	Weaknesses
<ul style="list-style-type: none"> • 400 m walking distance for pedestrians to town centre • Site becomes adequate for future growth • Reduced conflicting movements within new site 	<ul style="list-style-type: none"> • Layout constraints – long narrow site • Location positioned outside of immediate town centre area • Potential displacement of 192 parking spaces
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Increase / upgrade pedestrian facilities on route to town centre • Improves layout and safety for all users 	<ul style="list-style-type: none"> • Town Bridge traffic flow potential to increase • Site layout • Taxi company objection with location away from town centre • Loss of town parking • Displacement of vehicles on wider network in search of parking

Option 5

Site 5 is the location of Somers Road Car Park, which is situated 313m southwest of the existing bus station. The surrounding land use of site 5 is residential, with industrial areas located 150m to the south. The council run car park covers an area of 0.798ha and provides 280 spaces for the town centre. Of this land, approximately 33% will be needed to accommodate a new bus station. The location of the site in relation to the wider network is shown in Figure 4.15 below.



Figure 4.15: Relocation to Site 5

Primary access to the car park is via Somers Road off Cromwell Road / South Brink, to the west of the town centre. Access from the east is via Queens Road, Victoria Road and ultimately Churchill Road. A pedestrian walkway linking directly to The High Street / town centre is located in the north corner of the car park. The car park has two entrances / exits, with a one way system operating within the car park.

It should be noted that survey results were taken on market day and also include the 73 spaces for The Queen Mary Centre, taking the total number of car parking spaces within the boundary to 353. Car parking occupancy survey results can be seen beneath in Figure 4.16.

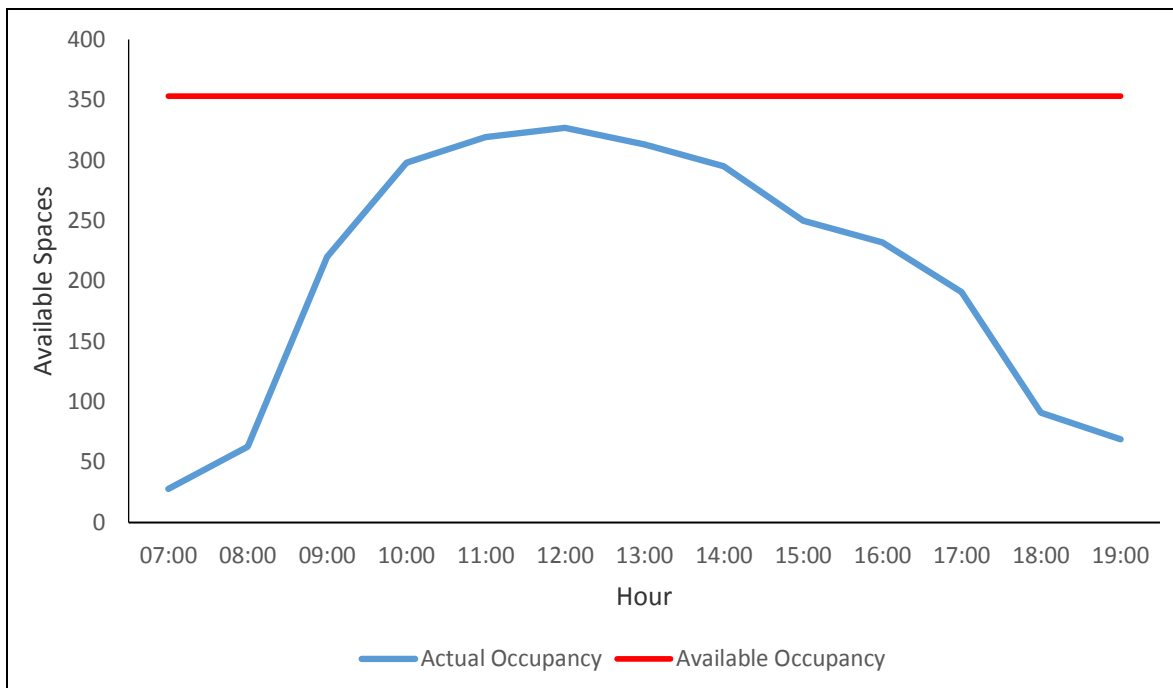


Figure 4.16: Somers Road Car Park Occupancy Results

The car park occupancy for Somers Road Car Park was greatest between 11:00 – 12:00, reaching 94%. In comparison, the highest occupancy in the AM peak was 62%, and 41% in the PM peak.

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.7.

Table 4.7: SWOT analysis of Option 5

Strengths	Weaknesses
<ul style="list-style-type: none"> • 400 m walking distance for pedestrians to town centre • Site becomes adequate for future growth • Reduced conflicting movements within new site • Size of site able to accommodate both DIDO and DIRO layouts • Site is close to a second town centre car park 	<ul style="list-style-type: none"> • Location positioned outside of immediate town centre area • Potential displacement of parking spaces, impact on wider network
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Increase / upgrade pedestrian facilities on route to town centre • Improves layout and safety for all users • Potential to retain some parking bays, 50% of site required 	<ul style="list-style-type: none"> • Taxi company objection with location away from town centre • Loss of town parking • Displacement of vehicles on wider network in search of parking

Option 6

Site 6 is the location of Church Terrace Car Park, which is situated 319m southeast of the existing bus station. This car park is the largest council run car park in Wisbech, offering 401 spaces. The car park covers an area of 0.856ha, of which approximately 33% would be needed for a new bus station.

Access to the car park can be via King’s Walk off Churchill Road to the east of the town centre, and via Alexandra Road to the west off Cromwell Road / South Brink. The car park has two entrances / exits, with pedestrian movement toward the town centre being via the Market Street, in the southeast corner of the core shopping area (as outlined in Figure 3.4). Figure 4.17 below highlights the car parks access points as well as its location in relation to the wider network. The surrounding land use of the car park is residential.

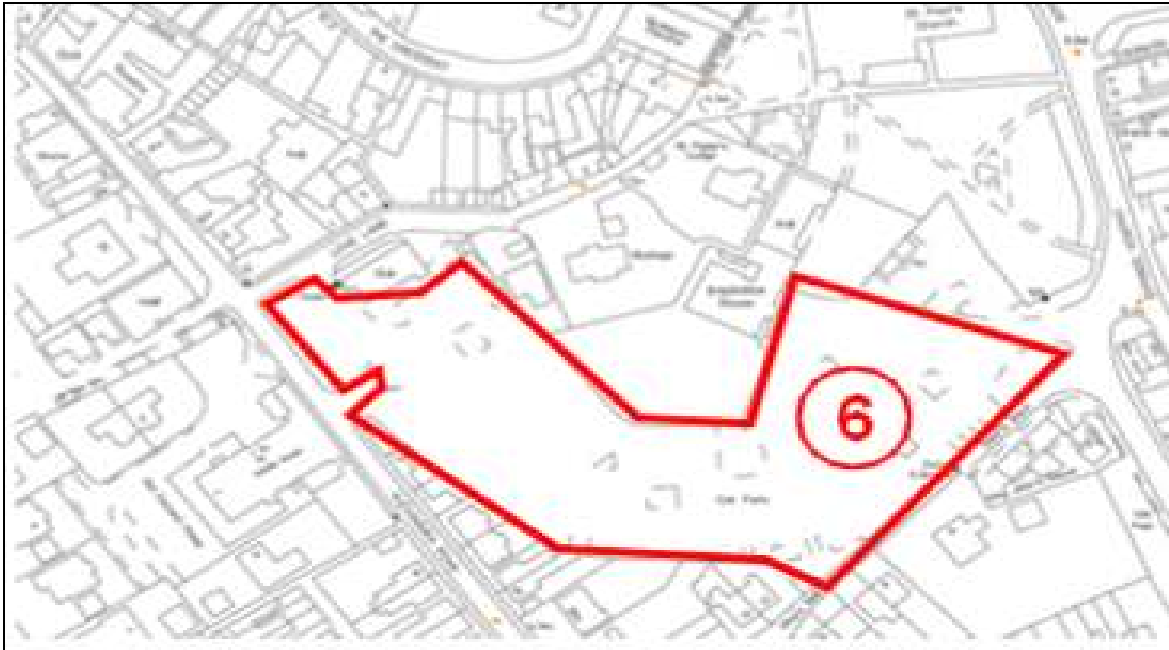


Figure 4.17: Relocation to Site 6

Car park occupancy data for Church Terrace Car Park is shown in Figure 4.18 beneath.

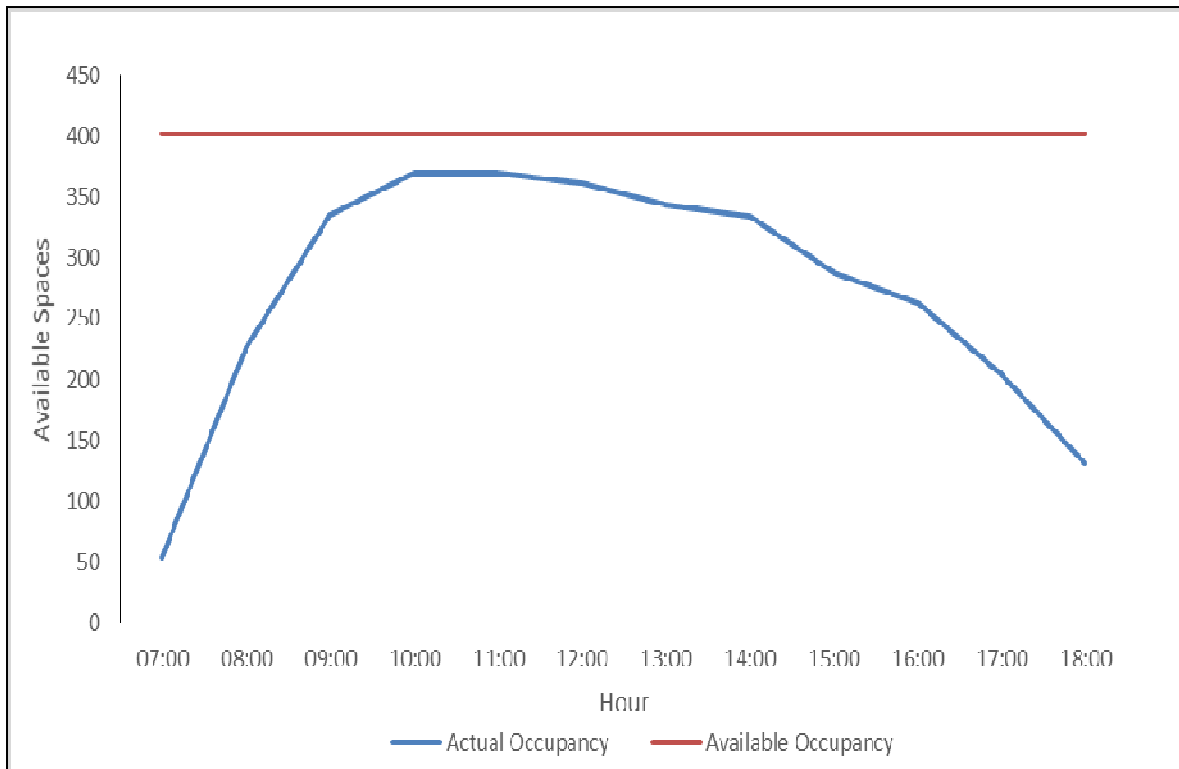


Figure 4.18: Church Terrace Car Park Occupancy Results

The car park occupancy was highest around between 10:00, with approximately 370 spaces occupied.

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.8.

Table 4.8: SWOT analysis of Option 6

Strengths	Weaknesses
<ul style="list-style-type: none"> • 400m walking distance for pedestrians to town centre • Site becomes adequate for future growth • Reduced conflicting movements within new site • Size of site able to accommodate both DIDO and DIRO layouts 	<ul style="list-style-type: none"> • Potential displacement of 401 parking spaces, impact on wider network • Site located in close proximity to residential areas
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Increase / upgrade pedestrian facilities on route to town centre • Improves layout and safety for all users 	<ul style="list-style-type: none"> • Taxi company objection with location away from town centre, and possible separation of taxi rank • Loss of town parking • Displacement of vehicles on wider network in search of parking • Residential objection

Option 8

This option would involve creating six on-street bus bays along Market Street and The High Street, which are located to the south of the existing bus station. The location of the one-way system and proposed location of bus bays is shown in Figure 4.19. Note that in this option, on-street bus bays are a replacement to the infrastructure of a bus station, rather than an extension of the bus station.

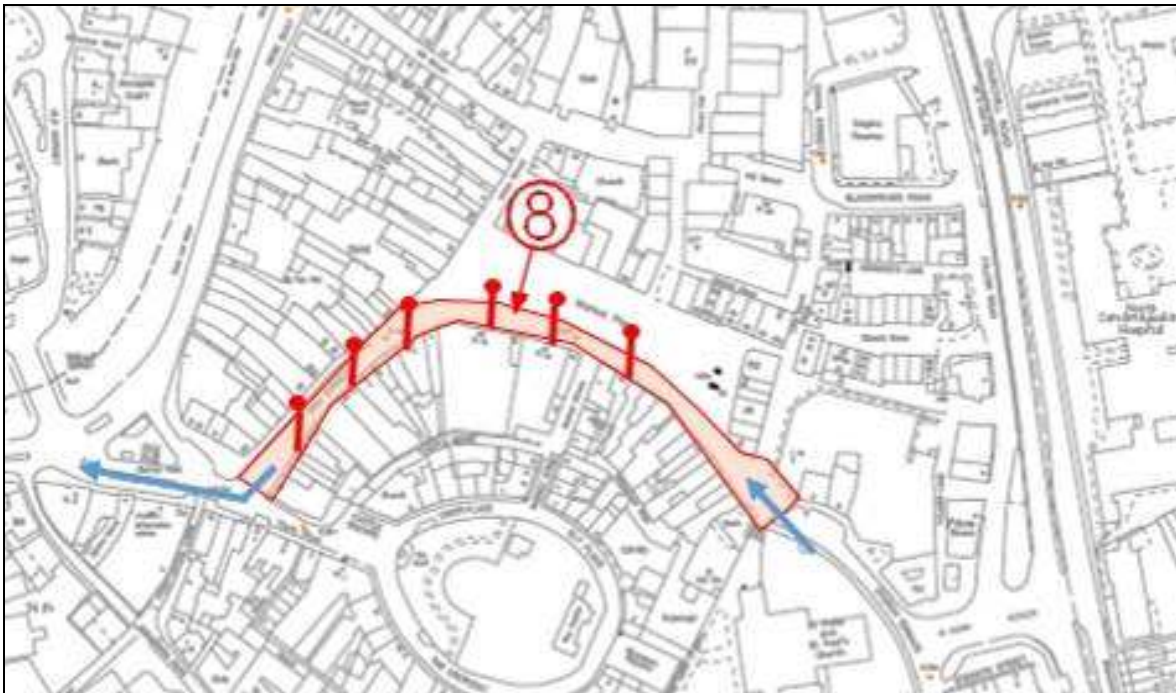


Figure 4.19: Option 8

There are some key existing features to note at this location, which include:

- A one-way system running through the Market Square in the town centre, accessed via Church Terrace and which exits onto the network via Nene Quay at Town Bridge;
- The road within Market Square is 2 lanes wide however this is reduced to a single lane at entrance and exit junctions;
- The one-way system has 9 on-street disabled spaces and 4 loading bays of varying lengths; and,
- Traders are allowed access into the Market Square on market day.

Key assumptions about this option include:

- Looks to make use of the existing infrastructure;
- Keeps the one-way system and present access points;
- Reallocates disabled spaces and loading bays to the Market Square parking which is already available;
- Continue to allow disabled access and commercial vehicles to use the one-way system; and,
- Bus bays will occupy a single lane, allowing other vehicles to pass in the second lane.

A SWOT analysis has been undertaken to identify the strengths, weaknesses, opportunities and threats associated with this option, and is shown beneath in Table 4.9.

Table 4.9: SWOT analysis for Option 8

Strengths	Weaknesses
<ul style="list-style-type: none"> • Utilises the existing infrastructure within the town centre • Central location, 200 m walking distance for pedestrian • Smaller land take required • Conflicting movement with taxis is removed • Reversing required removed with on street bays 	<ul style="list-style-type: none"> • Inadequate space within town centre for future growth requirement • Issues with lay over bays in this location • Control and safety of pedestrians within town centre • Impact on disabled parking, relocation of spaces required
Opportunities	Threats
<ul style="list-style-type: none"> • Regeneration of the bus station • Improves layout and safety, however pedestrian movement will need to be tightly controlled • Regeneration of the town centre 	<ul style="list-style-type: none"> • Taxi company objection with location away from buses • Objection from shop owners/ traders • Limiting space, and impact on heritage assets close by • Displacement of vehicles on wider network in search for parking • Potential impact on traders and the growth of the town centre

5. Option Assessment of Initial Sites

Introduction

This chapter assesses the options identified in the previous chapter against a series of criteria. Options to reconfigure and relocate the bus station have been assessed separately. Each of the options will be considered and ranked against the different criteria to provide a comparison of sites.

The proposed options to reconfigure the existing bus station are:

- 1A – Redevelopment of the existing bus station, with added land take of Albion House. (Combined site of 1 + 2);
- 1B – Redevelopment of the existing bus station, with the relocation of the taxi rank to Canal Street. (Combined site 1 + 9); and,
- 1C – Redevelopment of the existing bus station, with an adjoining through road on Market Street providing on-street bus bays. (Site 1 + 7).

The proposed options to relocate the bus station are:

- 3 – Relocate bus station to land of the Nene Waterfront Regeneration Area;
- 4 – Relocating the bus station to Chapel Road car park;
- 5 – Relocating the bus station to Somers Road car park;
- 6 – Relocating the bus station to Church Terrace car park; and,
- 8 – Creating on-street bus bays in Market Square/ High Street.

Assessment Criteria

The following criteria has been used to score and compare each of the sites;

- Accessibility and walking distances;
- Bus detours;
- Environmental impact; and,
- Car parking displacement (for Options of 4, 5 and 6).

Each criteria has been considered in turn, with options being ranked. The options to reconfigure the existing bus station have not been ranked as these criteria listed above relates to moving the bus station to a new location, however the reconfiguration options are still presented alongside the relocation options in the table below, and are considered further into this report.

Accessibility and Walking Distances

National guidance suggests that there should be a point of access to public transport within 400m, however for mobility impaired or elderly people this is reduced to a 200m walking distance. Figure 5.1 shows the location of the proposed options, in relation to a 200m and 400m ring around the town centre (which has been defined as Market Square for the purpose of this assessment).

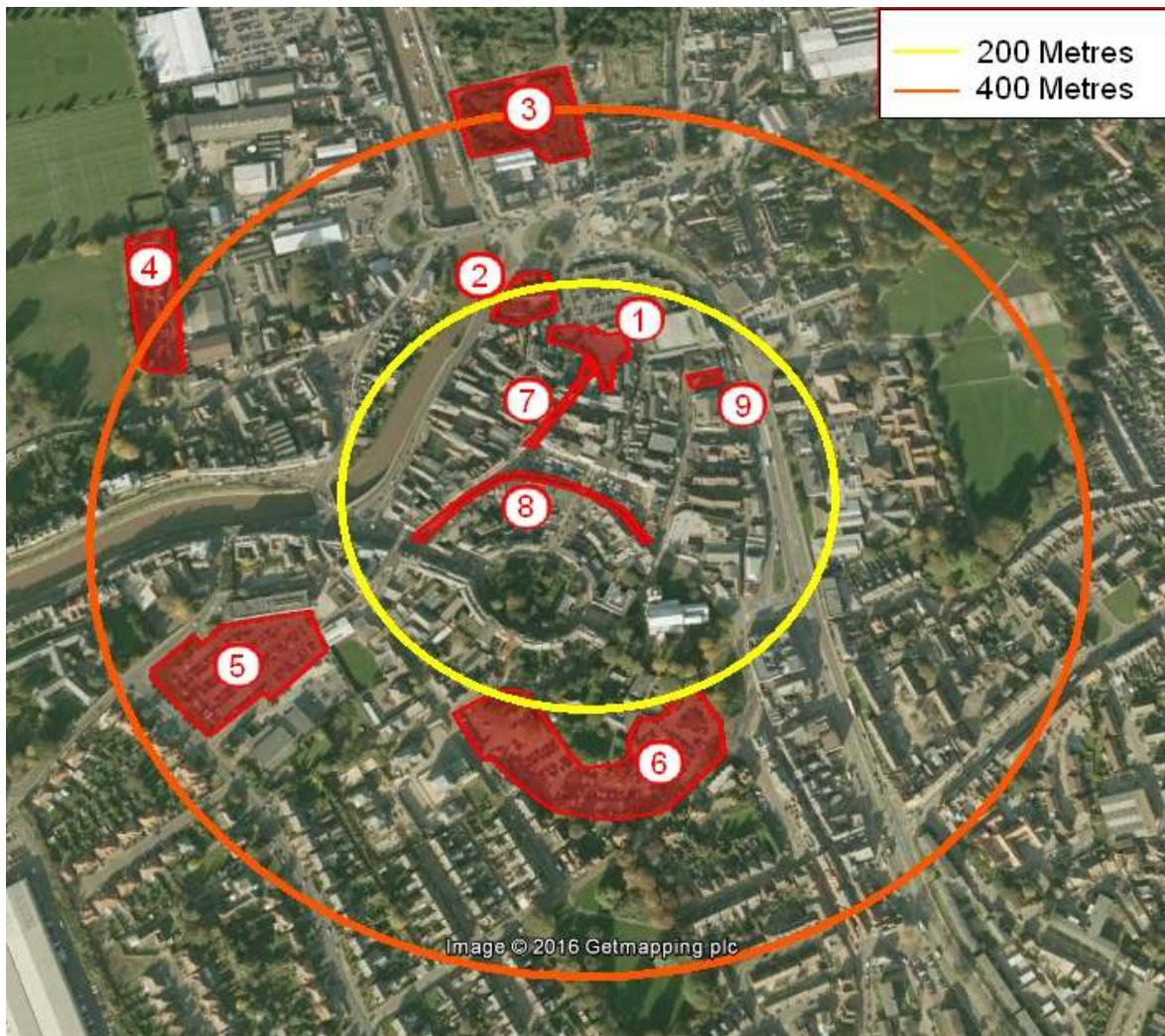


Figure 5.1: Location of proposed sites, in relation to a 200m and 400m walking distance from the Market Square

The 2008 Fenland District Car Park Review Report indicates that the main journey purpose for the majority of car park users, is to access shops and other services within the town centre. Therefore, one key aspect contributing towards the success of a new bus station, which will enable public transport to compete with private car trips, is its proximity to the town centre. The Figure beneath outlines the core shopping area used to calculate walking distances from each of the proposed sites.

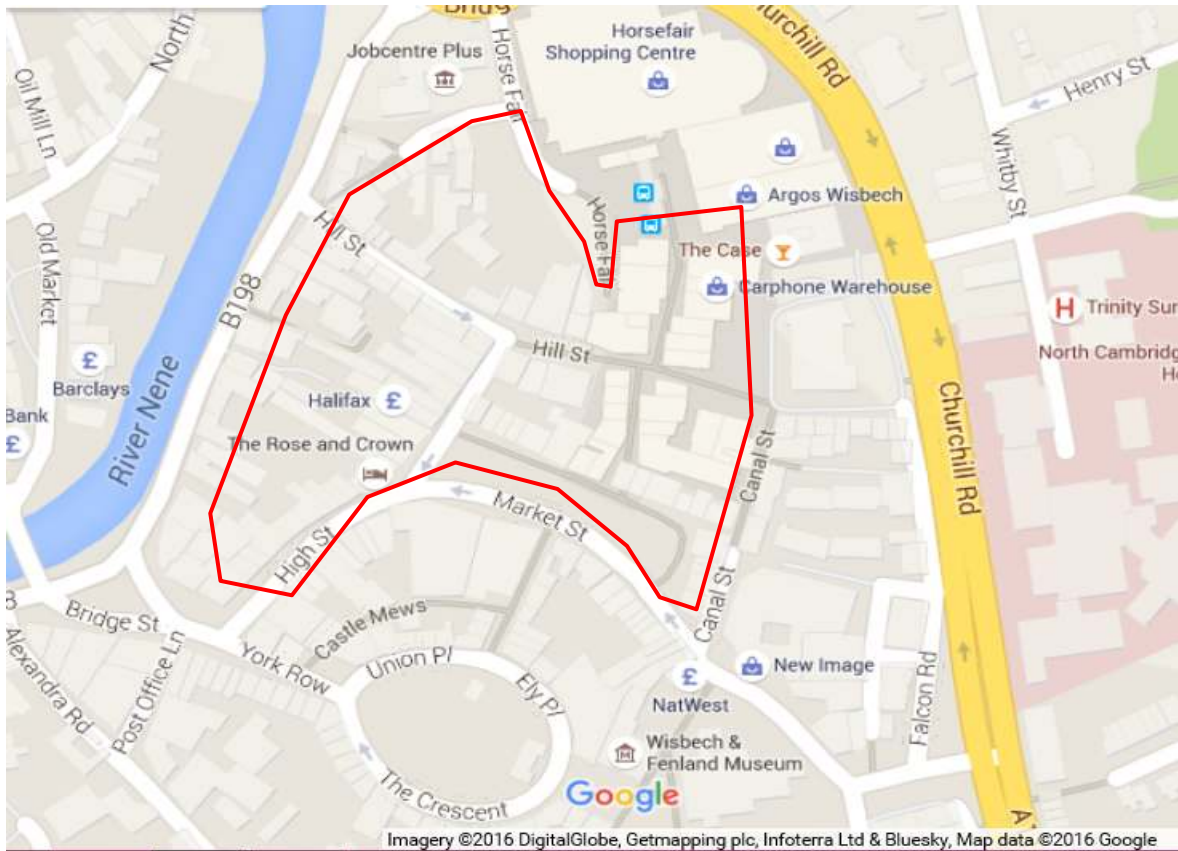


Figure 5.2: Core Shopping Area of Wisbech

In order to assess the accessibility of each proposed option further, three walking distances have been calculated. Walking distances measured include:

- The minimum distance walked to reach the nearest edge of the town centre’s core shopping area;
- To a common-point, which is the centre of the Market Square; and,
- The maximum distance walked to reach the furthest edge of the town centre’s core shopping area.

Appendix D shows the routes used to calculate the walking distances stated above.

Results from the walking analysis are provided in Table 5.1 beneath.

Table 5.1: Walking Distances to the Core Shopping Area of Wisbech

Option	Minimum distance walked (m)	Distance walked to common-point (m)	Maximum distance walked (m)	Rank (by minimum distance)
1A	40	85	239	
1B	40	85	239	
1C	113	143	176	
3	469	605	702	5
4	346	478	638	4
5	124	278	422	2
6	231	281	429	3
8	22	58	186	1

The results from Table 5.1 indicate the preferred relocation options in relation to walking distances include:

- Option 8 – which creates a one-way bus system with on-street bus bays in the centre of the town;
- Option 5 – which is located at Somers Road car park; and,
- Option 6 – which is located at Church Terrace car park.

In addition to ranking the options against the criteria of accessibility, a walking audit has been conducted across the town centre (core shopping area) and the surrounding area around Freedom Bridge Roundabout. The purpose of the walking audit was to observe the pedestrian facilities around the town centre, in order to identify improvements that should be made to pedestrian facilities alongside the construction of a new bus station for each of the options. During the walking audit, the following points were considered:

- The quality of pedestrian crossings (surfaces, road markings), ease of crossing if not signalised;
- The location of crossing in relation to town centre access points;
- The quality of the footpaths around the town centre;
- Street furniture or obstacles along footpaths; and,
- Public realm and town centre access.

Figure 5.3 below outlines the area that was audited, including the key areas where pedestrian facilities were noted to be of high quality or in need of improvement.

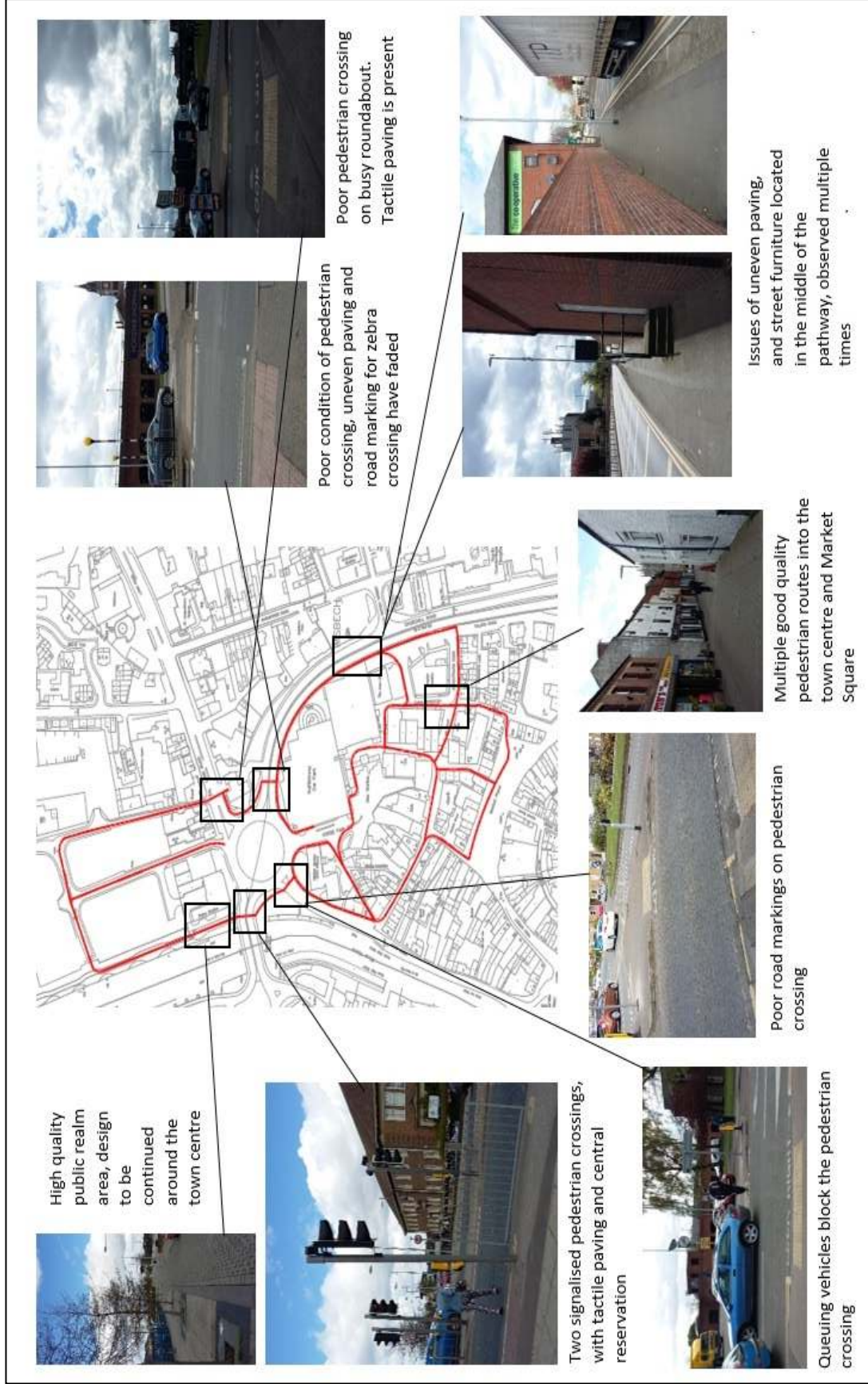


Figure 5.3: Area Walked During the Walking Audit of Wisbech Town Centre

As shown in the figure above, areas of high quality pedestrian facilities were found around the Nene Waterfront Regeneration Area (North of Freedom Bridge Roundabout), and along multiple side streets leading to the Market Square. In contrast areas of poor quality provision were concentrated around Freedom Bridge Roundabout and Churchill Road. This was primarily due to the high number of informal crossing points that feature within this area, as well as the low quality surface condition of pavements. Improvements that could be made alongside construction of a new bus station include:

- Upgrading the central reservations / waiting areas of the informal crossings, adding railing to guide pedestrians to the same crossing point;
- Improve the road markings of the crossings, to warn drivers of pedestrian right of way;
- Resurface pathways that lead into the town centre, providing better accessibility for all users; and,
- Ensure street furniture is positioned strategically to avoid obstacles along the main routes into the town centre.

In order to improve the public realm and routes into the town centre, improvements could continue the design found along the Nene Waterfront Regeneration Area, as well as the older and historic design found across the town centre. Consideration about specific pedestrian route improvements should feature as part of the detailed design of any bus station improvement works.

Bus Detours

The capacity of the road network across Wisbech is currently highly constrained, and Freedom Bridge Roundabout has been observed to be congested at peak times. This issue has a significant impact on the operational efficiency of bus services. With current bus services approaching Horsefair Bus Station from all arms of the roundabout, the length of potential bus detours for each of the locations needs to be considered. Potential bus detours will also have a commercial impact on operators using the bus station, as extended routes will increase fuel use and journey times.

The additional distance has been calculated in order to assess the extent of bus detours needed for each of the proposed options. Additional distances travelled were calculated by comparing potential detour routes to the existing bus route. Details of the detour routes used to calculate the additional distance for all of the existing bus services are highlighted in Appendix E.

The values in Table 5.2 represent the additional metres needed for both the arrival and departure of services, when measured from the entrances of proposed locations to the point where they would re-join their existing route.

Table 5.2: Bus Detours from each Proposed Option (metres)

	Option 1A	Option 1B	Option 1C	Option 3	Option 4	Option 5	Option 6	Option 8
Route X1	0	0	-105	+363	+393	+188	+1328	-337
Route 60	0	0	+562	-367	+214	+205	-413	-136
Route 66	0	0	+611	+43	+474	+615	+330	+59
Route 56	0	0	+562	-367	+214	+205	-413	-136
Route 51	0	0	+235	+236	+476	+667	+954	+812
Route 50	0	0	+562	-367	+214	+205	-413	-136
Route 46	0	0	-67	-69	-601	+417	+469	+608
Route 446	0	0	-105	+363	+393	+188	+1328	-337
Route 371	0	0	-105	+363	+393	+188	+1328	-337
Total metres	0	0	+2148	+198	+2170	+2878	+3560	+52
Rank				2	3	4	5	1

The results from Table 5.2 indicate that the preferred options in relation to bus detours include:

- Option 8 – which creates a one-way bus system with on-street bus bays in the centre of the town; and,
- Option 3 – which relocates the bus station to the Nene Waterfront Regeneration Area on the opposite side of Freedom Bridge Roundabout.

Environmental Impacts

The environmental impact of each option has also been assessed, including the demolition and disruption of existing buildings, impact on the streetscape and potential car parking displacement. The assessment has been summarised in Table 5.3 beneath.

Table 5.3: Description of Environmental of Proposed Options

Option	Environmental Impact / disruption	Rank
Reconfiguration Options		
1A	Demolition of Albion House, disruption of bus services	
1B	No impact caused	
1C	Demolition of beauty salon building and rear car park, disruption to shops along Union Street, disruption to bus services	
Relocation or on-street bay Options		
3	Development will override existing plans for housing development. Disruption to the network on smaller side streets	1
4	Displacement of potentially 182 vehicles on the wider network	2
5	Displacement of potentially 280 vehicles on the wider network, impact on nearby residents during construction	3
6	Displacement of potentially 401 vehicles onto the wider network, impact on nearby residents during construction	5
8	Displacement of disabled and loading bay parking, impact on shops on Market Street and the High Street. Issues with street widths may cause demolition of some buildings within the town centre	4

The results from Table 5.3 indicate the preferred options in relation to environmental impact include;

- Option 3 – which relocates the bus station to the opposite side of Freedom Bridge Roundabout; and,
- Option 4 – which is Chapel Road car park.

Car Parking Displacement

Option 4 (Chapel Road), 5 (Somers Road), and 6 (Church Terrace) currently operate as council managed car parks. If one of these sites were to be chosen to accommodate a new bus station, a number of parking spaces would be lost, and vehicles using these would be displaced to other parking locations around Wisbech.

Date taken from car park occupancy surveys undertaken on 24th March 2016 indicates that the highest occupancy level recorded in each car park was:

- Chapel Road Car Park – 76%;
- Somers Road Car Park – 94%; and,
- Church Terrace Car Park – 92%.

This equates to:

- Chapel Road Car Park – 145 vehicles out of a total of 192 spaces;
- Somers Road Car Park – 257 vehicles out of a total of 280 spaces; and,
- Church Terrace Car Park – 376 vehicles out of a total of 401 spaces.

If one of these car parks were to be converted into a bus station, then there would be a significant amount of parking that would need to be accommodated elsewhere on the network. Figure 5.4 beneath shows the results from the car park occupancy surveys across all four sites. Note that the dark blue line shows the combined parking occupancy of the four car parks surveyed, and the flat green line represents the total available parking provision.

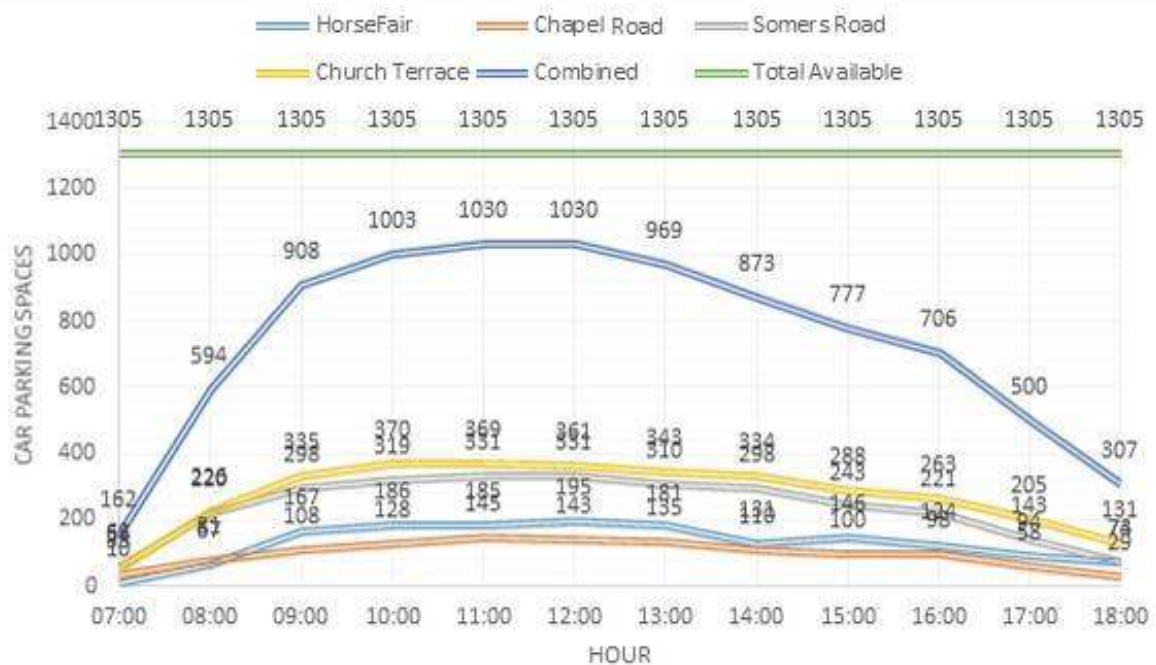


Figure 5.4: Comparison of Car Park Occupancy

Figure 5.4 shows that there are a total of 1305 spaces available across the four car parks surveyed. When focusing on the combined number of spaces (dark blue line) available across all four car parks, it is apparent that the combined occupancy does not reach 100%. The highest occupancy in the combined count totals 1030 spaces (78% occupied), during the busiest hour between 11-12 am. This demonstrates that there are currently 275 spaces (22%) available across all four car parks.

The following analysis considers the impact on the existing spare capacity should one of the car parks be removed. Table 5.4 beneath shows the impact on occupancy levels across all four car parks following the removal of each car park. The blue column represents the combined occupancy with all car parks fully operational (as existing). The cells shaded red indicate where occupancy levels have exceeded the total number of spaces available across all of the car parks if one was fully removed.

Table 5.4: Occupancy after Car Parks (Fully) Removed

Hour	Existing Combined Occupancy	Horsefair Removed	Chapel Road Removed	Somers Road (Fully) Removed	Church Terrace (Fully) Removed
07:00	12%	17%	15%	17%	18%
08:00	46%	63%	53%	62%	66%
09:00	70%	96%	82%	95%	100%
10:00	77%	106%	90%	105%	111%
11:00	79%	109%	93%	108%	114%
12:00	79%	109%	93%	108%	114%
13:00	74%	102%	87%	102%	107%
14:00	67%	92%	78%	92%	97%
15:00	60%	82%	70%	82%	86%
16:00	54%	75%	63%	74%	78%
17:00	38%	53%	45%	53%	55%
18:00	24%	32%	28%	32%	34%

As demonstrated in the table above, the total parking occupancy would exceed 100% if one of Horsefair, Somers Road or Church Terrace car parks are fully removed. As shown by the red shading an additional 14% of parking would be required to cater for the displaced vehicles, if the largest car park (Church Terrace) were to be removed. This 14% of parking required equates to approximately 196 spaces. In contrast, if Chapel Road was to be fully removed, no additional parking would be required, with the displaced vehicles being able to use the remaining car parks across the town centre. However, it should be noted that Chapel Road is the only car park of the three located to the west of the river, and it should not be assumed that displaced parking from following the closure of this car park would simply distribute across one of the other three sites.

Following this, a second assessment was undertaken on that basis that only 50% of the Somers Road or Church Terrace sites are required to accommodate a new bus station. As shown in the table below, in this scenario the combined occupancy of the four car parks is only exceeded if Horsefair was to be fully removed, in which case additional parking provision of 9% (or 106) spaces would be required to manage the displacement of vehicles. In contrast, if the other three sites were to be removed additional parking provision would not be required, however all three remaining sites would exceed 90% at some point throughout the day.

Table 5.5: Occupancy after Car Parks Fully or Partially Closed

Hour	Existing Combined Occupancy	Horsefair Removed	Chapel Road Removed	Somers Road Partially Removed (50% Removed)	Church Terrace Partially Removed (50% Removed)
07:00	12%	17%	15%	14%	15%
08:00	46%	63%	53%	53%	54%
09:00	70%	96%	82%	80%	82%
10:00	77%	106%	90%	89%	91%
11:00	79%	109%	93%	91%	93%
12:00	79%	109%	93%	91%	93%
13:00	74%	102%	87%	86%	88%
14:00	67%	92%	78%	77%	79%
15:00	60%	82%	70%	69%	70%
16:00	54%	75%	63%	63%	64%
17:00	38%	53%	45%	44%	45%
18:00	24%	32%	28%	27%	28%

All of the options considered that would require the demolition of Horsefair multi-storey car park would create sufficient space to include some replacement parking provision to accommodate the displaced parking. This could be easily adapted to be as little or as much as desired if it took the form of a multi-storey car park.

Alternatively, the decision may be taken not to replace the lost parking spaces to discourage private car travel and make public transport, via the new bus station, a more attractive alternative.

Recommendations

The assessment of each of the options against the criteria described above has been summarised in the table beneath.

Table 5.6: Option Ranking Summary

Option	Walking Distances	Bus Detours	Environmental Impact	Total	Rank
Reconfiguration Options					
1A	2	1	2	5	
1B	2	1	1	4	
1C	1	2	3	6	
Relocation on-street bay Options					
3	6	3	1	10	2
4	5	4	2	11	3
5	3	5	3	11	3
6	4	6	5	15	5
8	1	2	4	7	1

As shown in Table 5.6, the highest scoring relocation options are:

- **Option 8** - On-street bus bays, which create a one-way bus system in the centre of the town on Market Square and The High Street; and
- **Option 3** – which relocates the bus station to the opposite side of FBR, on land that is part of the Nene Waterfront Regeneration Project.

6. Option Sifting – Long List

The following chapter outlines the process used to shortlist options, and the outcome from this, including the justification for shortlisting or dismissing each of the options introduced in the previous chapter.

The Workshop

A workshop was held on the 15th April 2016 at Fenland District Council, with the aim of:

- Reviewing the options taken forward from January's meeting (options outlined in previous chapters);
- Comparing the nine options strengths and weaknesses; and,
- Shortlisting several options to be assessed in further detail.

The meeting was attended by representatives of Fenland District Council, Cambridgeshire County Council and Skanska Transport Planners.

Option Review

The nine options identified in January's meeting, and discussed in the previous chapter, were reviewed in turn, with discussion focusing on the following points:

- Land availability and land take required;
- Walking distances and accessibility;
- Transport issues;
- Public realm and area regeneration; and,
- Deliverability and Future Proofing.

Additional options were also identified during the review process, for inclusion in the option assessment process, these were:

- 1D – Hybrid option to reconfigure the bus station, using elements of Options 1A and 1C;
- 2 – Creating a through road with on-street bus bays between Nene Quay and Churchill Road;
- 6B – Creating a through road with on-street bus bays on West Street, east of Church Terrace car park; and,
- 9 – Relocating the bus station to Canal Street, using land currently occupied by the Empire Theatre.

A brief summary of each of the options and the workshop discussion on whether they should be shortlisted for further consideration, or dismissed, is provided beneath.

Option 1A

To use additional land take at Albion House in connection with the current bus station area. The group discussion regarding this option was positive, with all members agreeing that this option should be shortlisted to assess further. Table 6.1 below provides a summary of the strengths and weaknesses of this option.

Table 6.1: Summary of the Workshop Discussion for Option 1A

Strengths	Weaknesses
No change to the current bus service routes, easy access onto the network	Current station is a poor environment for shoppers and commuters
Within 200m walking distance of Town Centre	User conflict with buses and taxis will remain
Opportunity to improve the public realm of the station and to improve station facilities	Access on to FBR would continue to be difficult at peak times, if access remains
Land availability caters for future growth	Issues with reversing movements might remain

Outcome: Shortlisted

Option 1B

To use the existing bus station whilst relocating the taxis to the current overflow area located on Canal Street (Site 9). The overall view of this option was negative on the basis that it had been attempted before and failed to receive any support from taxi operators. Table 6.2 below provides a summary of the strengths and weaknesses of this option.

Table 6.2: Summary of the Workshop Discussion for Option 1B

Strengths	Weaknesses
No change to the current bus service routes, easy access onto the network	Taxi operators have previously objected to this idea
Opportunity to improve the public realm of the station and to improve station facilities	Issues with the physical layout / confined space would remain with using the existing bus station
Within 200m walking distance of Town Centre	Access on to FBR would continue to be difficult at peak times, along delay on FBR having no improvement
No loss of public parking	Reversing movement would remain

Outcome: Dismissed

Based on the points noted in Table 6.2 this option was dismissed.

Option 1C

To create a new through road on Union Street, which would adjoin the south of the existing bus station. The adjoining road would allow buses to exit via Nene Quay, eliminating the current need to exit onto Freedom Bridge Roundabout. This option was flagged as one that was ‘radical’, but ‘opens up opportunity for regeneration’. Table 6.3 below provides a summary of the strengths and weaknesses of this option.

Table 6.3: Summary of the Workshop Discussion for Option 1C

Strengths	Weaknesses
Improved access when re-joining the network, via Nene Quay	Layout constraints, user conflict and reversing movements would remain in using the existing bus station
Opportunity for regeneration / public realm	Environment on Union Street is narrow, impacting bus manoeuvres
Within 200m walking distance of Town Centre	Impact on retail, objection form shop owners
	Additional land take would be required on Union Street to cater for on-street bays and through road

Outcome: Dismissed

Based on comments outlined in Table 6.3, it was agreed that this option would be dismissed from shortlisting, as the limitations outweigh the benefits. The group did however state that the through road concept was positive, but disagreed with adding on-street bus bays within this location.

Option 1D

This was a new option created during the review process. Figure 6.1 outlines the option boundary, which connects ideas from:

- 1A – using the existing bus station and land of Albion House; and,
- 1C – creating a through road (without on-street bays) / one-way system on Union-Street.



Figure 6.1: Option 1D

Table 6.4 below provides a summary of the strengths and weaknesses of this option.

Table 6.4: Summary of the Workshop Discussion for Option 1D

Strengths	Weaknesses
Improved access when re-joining the network, via Nene Quay, delay reduced on FBR	User conflict and reversing movements would remain when using the existing bus station
Opportunity for regeneration / public realm	Environment on Union Street is narrow, impacting bus manoeuvres
Within 200m walking distance of Town Centre	Impact on retail, potential objection from shop owners
Future growth is catered for using additional land	

Outcome: Shortlisted

It was felt that this hybrid option should be considered at this stage, as it takes into account aspects of previous ideas that individual group members thought were positive and would improve the environment for people who use public transport to access the town centre. Consequently this option was progressed for further assessment.

Option 2

A new option created during the review process, which involves creating an east to west through road with on-street bus bays. This option is located within the vicinity of the existing bus station, as shown in Figure 6.2 below.

The demolition of Albion House and Horsefair Multi-storey car park would be required for this option to be viable, however this would create a significant opportunity for urban regeneration in this area. The bus station (and taxi rank) would be accessed directly off Nene Quay and Churchill Road, via signal controlled junctions operating on bus priority.

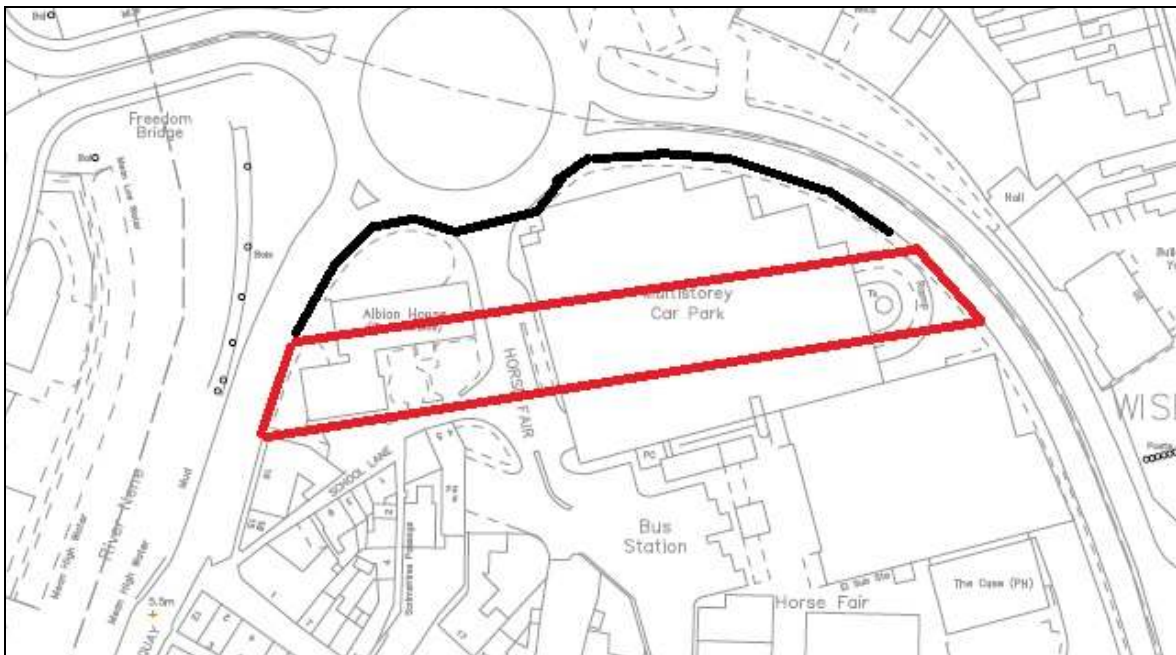


Figure 6.2: Option 2

Table 6.5 below provides a summary of the strengths and weaknesses of this option.

Table 6.5: Summary of the Workshop Discussion for Option 2

Strengths	Weaknesses
Improved access when re-joining the network, via Nene Quay, reduced delay to bus services	Demolition of Albion House and Multi-storey car park is required
Opportunity to improve pedestrian facilities surrounding the site (FBR) and within the town centre	Car parking displacement of approx. 400 spaces. Replacement car park will be required
On-street bus bays provide an alternative to reversing movement required for DIRO layout	New signals on Nene Quay and Churchill Road may introduce delay
Removal of Horsefair arm will ease congestion on FBR	Pedestrian movement around bays needs to be controlled
Potential to reduce user conflict, with taxis having a separate space within this design	Current service access to premises on Hill Street needs to be maintained
Maintains a central location in town centre	

Outcome: Shortlisted

This option was shortlisted based on the comments shown in Table 6.5, specifically those relating to easing congestion on Freedom Bridge Roundabout and providing an alternative layout to the current DIRO layout.

Option 3

This option involves uses the undeveloped land located within the Nene Waterfront Regeneration Area, to the north of Freedom Bridge Roundabout. The overall opinion of the relocation site was positive, however there were concerns about existing issues of pedestrian accessibility over Freedom Bridge Roundabout and its distance from the Town Centre. Table 6.6 lists the strengths and weaknesses of this option.

Table 6.6: Summary of the Workshop Discussion for Option 3

Strengths	Weaknesses
Would extend the town centre connecting with the Nene Waterfront Area	Access on / off FBR will be an issue
Diversions for bus routes would be minimal, with good access onto the network (except at FBR)	Side streets are observed to be congested with parked cars, one way or bus only may have to be implemented
Opportunity to extend regeneration and public realm improvements	Pedestrian movement across FBR are difficult

Outcome: Shortlisted

Option 4

This option involves relocating the bus station to Chapel Road Car Park, located to the west of the existing bus station. The overall opinion for this option was negative, with it viewed as being located too far away from the town centre. Table 6.7 below provides a summary of the strengths and weaknesses of this option.

Table 6.7: Summary of the Workshop Discussion for Option 4

Strengths	Weaknesses
Site will accommodate a bus station of various stand designs	Is outside the recommended 200m walking distance
Would allow for user conflict to be reduced	Pedestrian movements / quality of paths are poor when travelling from the site to the town centre
	The site is leased with the National Trust, holds historic funfair rights as well as has numerous TPO's in place
	Is thought it would discourage the public of using public transport due to its location

Outcome: Dismissed

Option 5

To relocate the bus station to Somers Road Car Park, which is located to the south of the existing bus station. This option initially considered positively, however concern was raised over diversions to existing bus routes, and access into the site off the main highway network was thought to be an issue. Strengths and weaknesses of this option are detailed in the table below.

Table 6.8: Summary of the Workshop Discussion for Option 5

Strengths	Weaknesses
The size and location of the car park	Diversions for buses would be lengthy
Opportunity for further development in the site alongside a bus station	Access to the site from Nene Quay would be difficult
Public realm / regeneration opportunity	Residential impact
Within 200m walking distance of Town Centre	Delay to services needs to be considered

Outcome: Dismissed

Based on the comments above it was agreed that this option would not be shortlisted for further assessment.

Option 6A

This option involves relocating the bus station to Church Terrace Car Park, which is located to the south-east of the existing bus station. Table 6.9 below provides a summary of the strengths and weaknesses of this option.

Table 6.9: Summary of the Workshop Discussion for Option 6A

Strengths	Weaknesses
Large site would accommodate for various types of bus stands	Bus detours would be lengthy, objection from bus operators likely
Within 200m walking distance of Town Centre	Residential impact
Opportunity for further development in the site alongside a bus station	Difficult manoeuvres for bus drivers
Public realm/ regeneration opportunity	Biggest car park in the town centre, therefore displacement traffic would be an issue that needs to be considered

Outcome: Dismissed

Despite this site having various positives associated with it, the decision was to dismiss this option based on the bus detour lengths, difficulty with bus manoeuvres on the adjoining highway network and also due to concern over the impact on local residents.

Option 6B

This option was a new option created during the review process, and involves creating on-street bus bays along West Street. The site is located east of site 6A mentioned above, and the current land use of the site is residential with on-street parking bays. This option was created by the group to increase the number of options involving a through route as an alternative to the physical structure of a bus station. Figure 6.3 shows the boundary and location of this option.



Figure 6.3: Option 6B

Table 6.10 below provides a summary of the strengths and weaknesses of this option.

Table 6.10: Summary of the Workshop Discussion for Option 6B

Strengths	Weaknesses
Public realm/ regeneration opportunity	Bus detours would be lengthy, objection from bus operators
Within 200m walking distance of Town Centre	Residential impact
	Difficult manoeuvres for bus drivers
	Limited space for future growth
	Side streets are observed to be narrow and have issues with parked cars
	Re-locating residential parking is needed

Outcome: Dismissed

Despite this option increasing the variability of option design, the weaknesses of site location outweighed the benefits. Therefore, this option was not taken forward for further assessment.

Option 8

This option involves creating on-street bus bays along the Market Square and High Street, with access onto the one-way system being via Church Terrace and re-joining the network via Nene Quay. This option received positive feedback, however it was felt the location would have adverse effects on the market square and retail in the town centre, and was therefore ruled out of the shortlisting process. Table 6.11 below provides a summary of the strengths and weaknesses of this option.

Table 6.11: Summary of the Workshop Discussion for Option 8

Strengths	Weaknesses
Public realm/ regeneration opportunity	Using Market Square/ High street would make manoeuvres for buses difficult
Maintains a 200m walking distance	Public movement would have to be tightly controlled
On-street bays – alternative to a bus station – removing the need for reversing	Limited space on site for future growth
Smaller land- take is required	Retail impact, shoppers objection
	Fair using the site at certain times of year
	Reallocation of loading/ disabled bays needs to be considered

Outcome: Dismissed

Option 9

This option was a new option created during the review process, which involves using land adjacent to Churchill Way that is currently occupied by the Empire Theatre. The option would involve the demolition of the Empire Theatre located in the centre of the site, as shown in the site boundary shown in Figure 6.4. Access for this option would be via Churchill Road.



Figure 6.4: Option 9

Table 6.12 below provides a summary of the strengths and weaknesses of this option.

Table 6.12: Summary of the Workshop Discussion for Option 9

Strengths	Weaknesses
Public realm/ regeneration opportunity	Demolition is required of a grade II* Listed building, of national importance
Maintains a 200m walking distance	Current conditions on site involve on-street parking, taxi bays and rear shop loading access
Good pathways for pedestrians connecting to the town centre/ Market Square	Shop rear access points will need to be considered moving forward
Taxi over flow reservoir already at the site, or opportunity to relocate taxis to the current bus station	Access onto Churchill Road will need to be implemented
Opportunity to implement a bus priority junction to aid bus movement onto and off of the network	
Size of the site can accommodate future growth, layover spaces	

Outcome: Shortlisted

Shortlisted Options

The following table shows which of the options were dismissed, and which were shortlisted for further assessment.

Table 6.13: Initial Option Shortlisting Summary

Option	Shortlisted	Dismissed
1A	✓	
1B		✓
1C		✓
1D	✓	
2	✓	
3	✓	
4		✓
5		✓
6A		✓
6B		✓
8		✓
9	✓	

7. Option Sifting – Short List

Introduction

This chapter corresponds to the third workshop held on the 9th September 2016, where options shortlisted during the option sifting workshop (described in the previous chapter), were reviewed and considered against the following points:

- The potential design of the physical station infrastructure and / or bus stand layout;
- The advantages and disadvantages of the option; and,
- The associated benefits of the option, if taken forward.

As summarised at the end of the preceding chapter, the options shortlisted for assessment were 1A, 1D, 2, and 3 and 9. An additional variation of Option 2 was devised during the workshop, and it discussed beneath alongside the other five options.

Option 1A

As stated within previous chapters this option involves using land take of Albion House alongside the existing Horsefair Bus Station.

As shown in Figure 7.1, the proposed bus station will be positioned within the space of Albion House, which will provide 10 bays configured within a Drive in Reverse out Layout. Overlay bays are proposed to be positioned within the existing bus station, alongside a taxi rank which will cater for nine parking bays.

Access into the reconfigured bus station will be via Freedom Bridge Roundabout, however access back onto the network will be via a new (bus priority) junction on Nene Quay, as shown in Figure 7.1. Taxis, loading vehicles and vehicles entering the Horsefair car park, will enter and exit Horsefair via Freedom Bridge Roundabout.

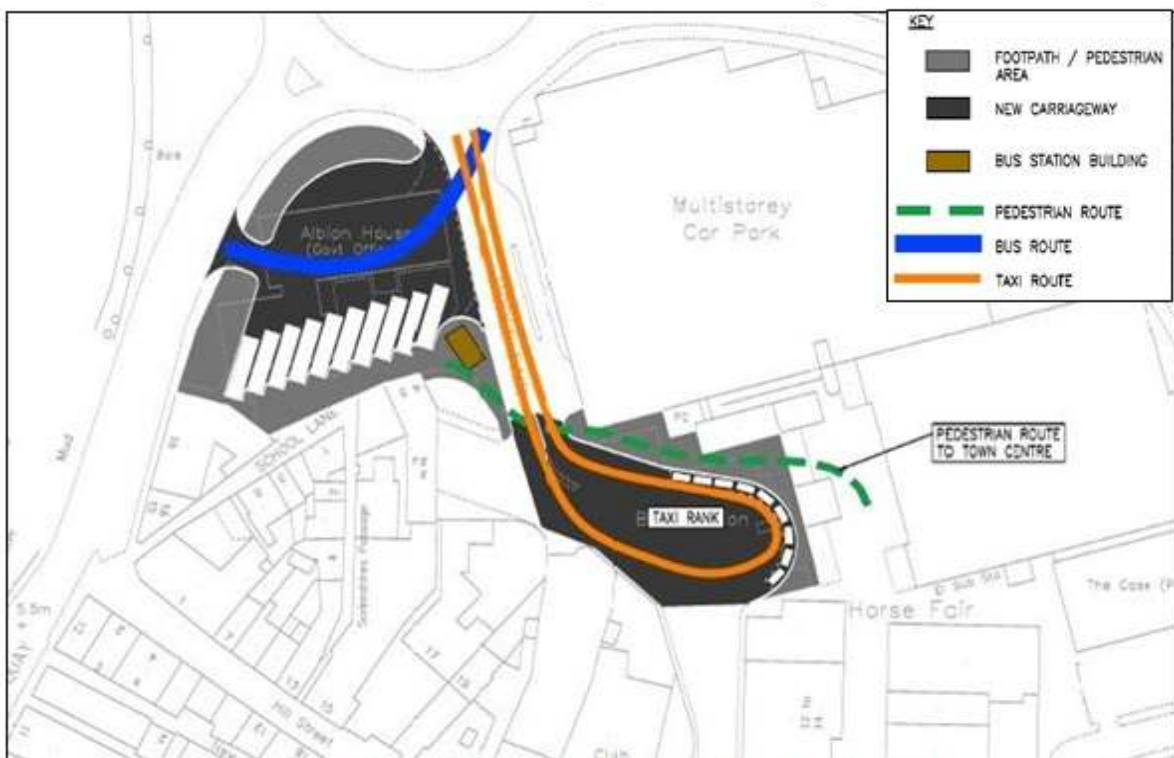


Figure 7.1: Design Proposal for Option 1A

Table 7.1 outlines the advantages and disadvantages associated with this option.

Table 7.1: Advantages and Disadvantages of Option 1A

Advantages	Disadvantages
No lengthy detours required for bus operators, sufficient access onto the wider network remains	Safety issues will remain with the need to reverse with the DIRO layout
New location will minimise the conflict between buses and taxis, however taxis will remain within close proximity	Some traffic will still use the Horsefair approach to FBR (taxis, vehicles using the multi-storey car park and loading vehicles)
New junction onto Nene Quay removes the current difficulty experienced when joining the circulatory of Freedom Bridge Roundabout	Demolition is required for Albion House and number 16
New location / infrastructure will improve the aesthetics and feel of the area, as a gateway for accessing the town centre	New bus priority junction on Nene Quay may create delays when approaching Freedom Bridge Roundabout during the peak hours
Opportunity to improve pedestrian facilities within the vicinity of the bus station	Option does not meet the Local Transport Plan user hierarchy. Option seen to favour taxis rather than buses.

If this option were to be developed, the key benefits to the bus station, as well as to the wider highway network and surrounding area include:

- The safety of the bus station would be improved, with conflict between users minimised;
- Pedestrian facilities within the vicinity of the bus station would be improved, making the Town Centre more accessible;
- The aesthetics of the bus station along with station facilities would be improved creating a more pleasant environment for members of the public;
- The bus station acts as a gateway to the Town Centre, improvements would provide a more positive impression of the area for visitors;
- No detours would be required for bus operators, and the positioning on the network would remain the same, with good access to all major routes;
- Public realm of the area around the vicinity of the bus station can be matched to existing areas; and,
- With buses leaving the bus station via Nene Quay, the delay experienced exiting the bus station is removed.

Based on consideration of the advantages, disadvantages and wider benefits, this was considered to be a **strong** option. The addition of a new exit junction diverting buses onto Nene Quay also meets numerous objectives set out in the LTP3, Fenland Local Plan and facilitates improvements at Freedom Bridge Roundabout (as described in the *Freedom Bridge Roundabout Option Assessment Report*).

Option 1D

This option is a variation of Option 1A involving:

- Land take of Albion House catering for 10 bays configured in a Drive in Reverse our layout; and,
- The existing bus station, catering for a taxi rank with around ten parking bays.

In addition to the option description outlined above (Option 1A), a through route has been added to the south boundary of the existing Horsefair Bus Station. This would provide an alternative exit to the current requirement of re-joining the network via Freedom Bridge Roundabout. The through route, as shown in Figure 7.2, would allow both buses and taxis to exit southbound via Union Street and The High Street. Access to re-join the network would be via the Town Bridge Junction onto Nene Quay. Taxis within this option would also be able to exit via Freedom Bridge Roundabout.

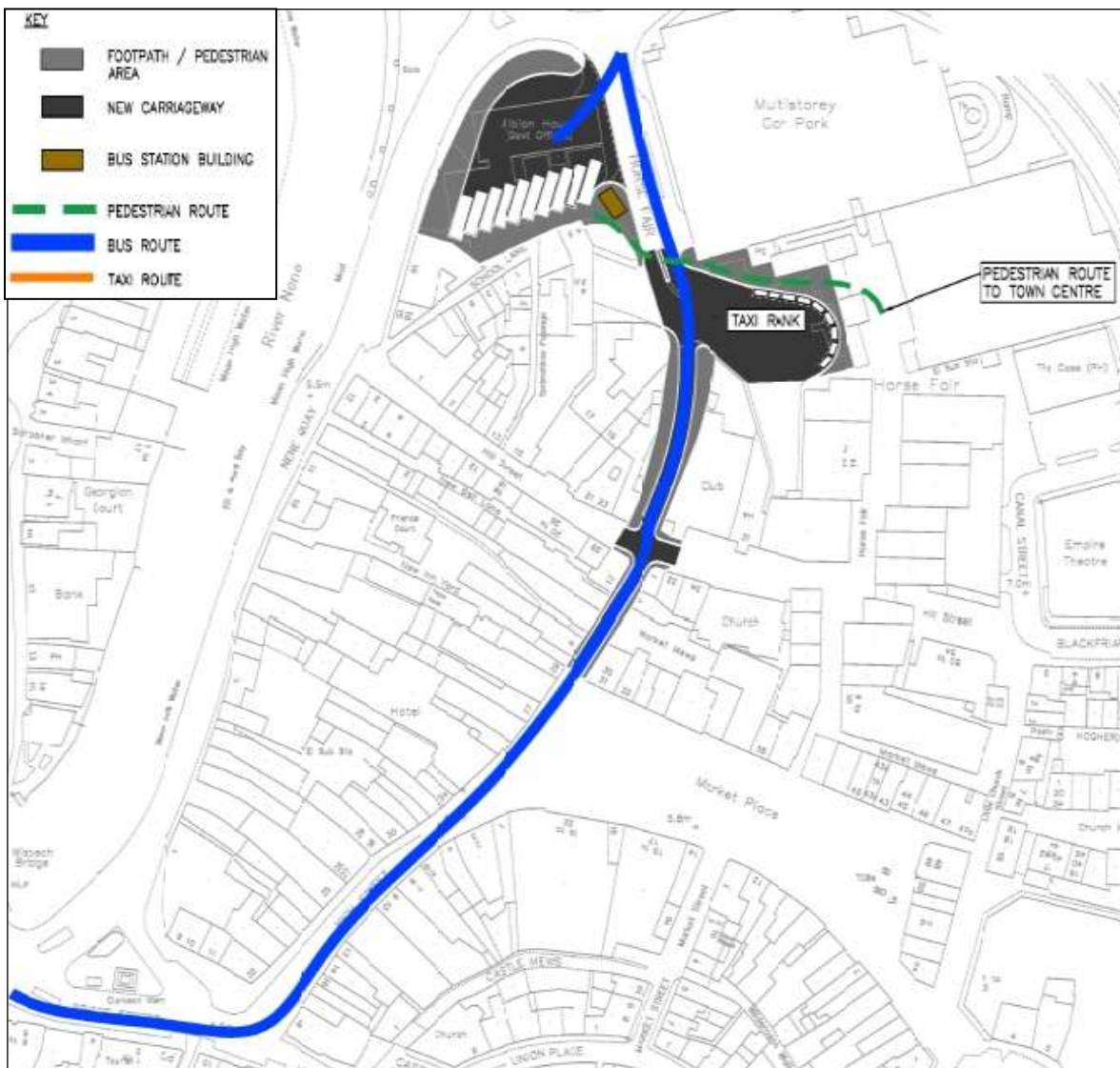


Figure 7.2: Design Proposal for Option 1D

Table 7.2 outlines the advantages and disadvantages associated with this option

Table 7.2: Advantages and Disadvantages of Option 1D

Advantages	Disadvantages
New through road will eliminate the delay and difficulty currently faced by bus drivers when trying to join the circulatory of FBR	Demolition is required for Albion House and the listed building located on Union Street (along with rear car park). Further land take is required along Union street due to the narrow road layout
New exit route will add minimal diversion miles for bus operators	Regular buses travelling through Market Square, will have a negative impact on retail and may generate shop owner objection
Buses and Taxis will remain within close proximity to each other	Some Market Square parking will be displaced, and pedestrian movement will have to be controlled
Could create new bus stops on the Market Square	The positioning of bays may create issues between buses when reversing, entering the stands and proceeding along the new exit route
	The likelihood of user conflict between taxis and buses will be higher within this option compared to Option 1A
	Environmental impact on the town centre, impact of vibrations on listed buildings within the conservation area

The key benefits associated with this option to the bus station, the wider highway network and surrounding area include:

- The safety of the bus station would be improved, with the separation between users being improved;
- Pedestrian facilities within the vicinity of the bus station would be improved, making the Town Centre more accessible.
- The aesthetics of the bus station ,along with station facilities would be improved creating a more pleasant environment for members of the public;
- The bus station acts as a gateway to the Town Centre, improvements would provide a more positive impression of the area for visitors;
- Public realm of the area around the vicinity of the bus station can be matched to existing areas; and,
- With buses leaving the bus station via Nene Quay, delay experienced when entering the circulatory of Freedom Bridge Roundabout is removed.

Based on consideration of the advantages, disadvantages and wider benefits, this was considered to be a **weaker** option, due to the extent of demolition required within a conservation area, as well as the visual and economic impact on the Town Centre (Market Square).

Option 2A

This option was a new option raised within the second workshop, which provides an alternative to having the conventional physical infrastructure of a bus station. This option would involve demolishing Albion House and the Horsefair multi-storey car park, in order to create a through road with on-street bus bays.

The layout of this option is shown in Figure 7.3. Access would be via both Nene Quay and Churchill Road, therefore minimising the need for bus diversions. New junctions positioned along these roads would be signalised with bus priority. Taxis would remain in close proximity to the location of buses, and make use of approximately nine parking bays within the existing Horsefair bus station (see Figure layout) or within the re-development area (as indicated within the figure by blue shading). Access to the taxi rank would be via a new junction as shown in Figure 7.3.

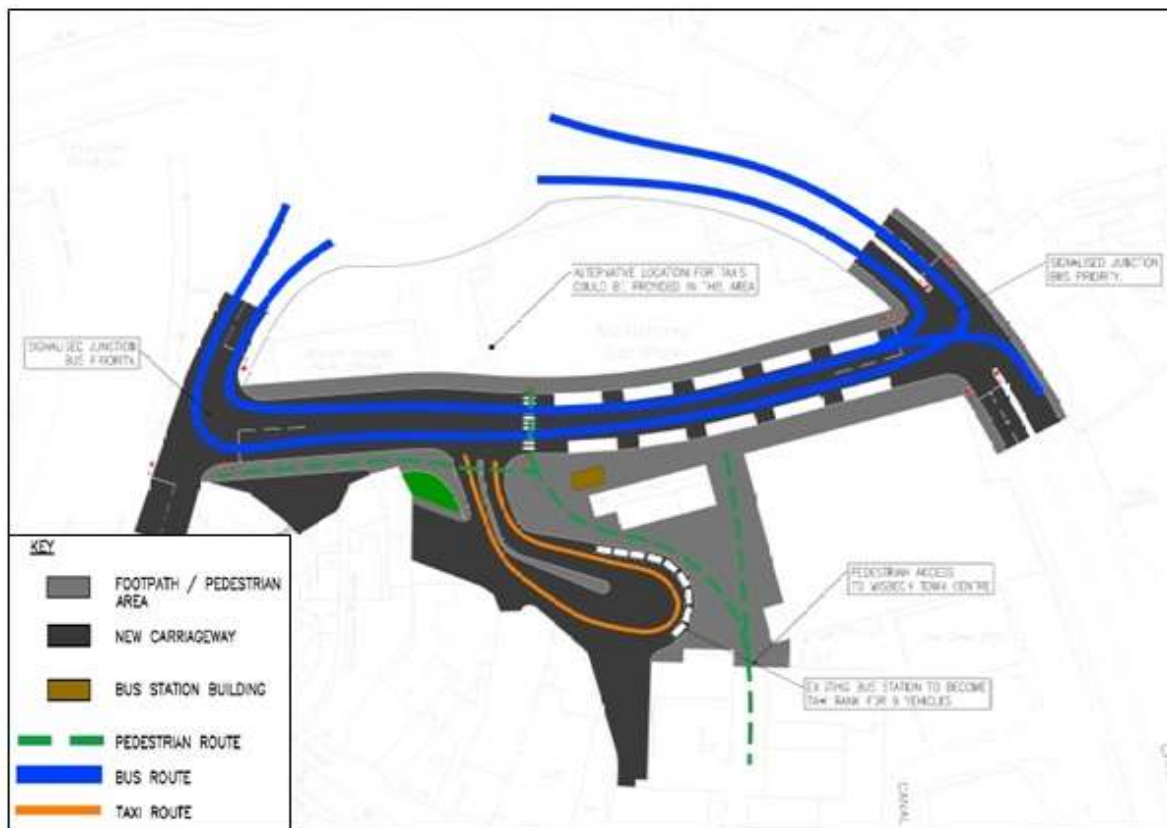


Figure 7.3: Design Proposal for Option 2A

Table 7.3 outlines the advantages and disadvantages associated with this design proposal.

Table 7.3: Advantages and Disadvantages of Option 2A

Advantages	Disadvantages
Design provides an alternative to current Drive in Reverse out	Demolition is required for Albion House and the multi-storey car park
On-street bus bays eliminate the need for reversing movement, reducing safety risks	The largest car park of the town will be lost, and need to be relocated to an extent
New layout will separate buses and taxis, eliminating user conflict	Pedestrian movement will have to be controlled, issues may arise with pedestrians walking between bus stands
A greater area becomes available for re-development / public realm opportunities	Traffic signals may create delay on the southbound / northbound approaches of Churchill Road and Nene Quay for wider traffic
The new junction on Churchill Road and Nene Quay will allow full movement of buses, minimising the requirement for bus detours, and bus priority would avoid delays for buses joining the network	The requirement of access for customers of the beauty salon and delivery vehicles will remain, with the existing bus station
Pedestrian facilities within the vicinity of the bus bays as well as around Freedom Bridge Roundabout will be improved	

If this option were to be developed, the key benefits to the bus station, as well as to the wider highway network and surrounding area would include:

- This would reduce the number of approaches onto Freedom Bridge Roundabout (and the petrol station exit);
- The number of vehicles entering the circulatory of the roundabout at any one time would be reduced, relieving delay and congestion;
- Pedestrian facilities within the vicinity of the bus station would be improved, making the town centre more accessible;
- There is opportunity to re-develop the area around the bus stands, with the aesthetics matching the current street scape;
- On-street bus bays reduce the associated safety risks in comparison to DIRO layouts;
- The new transport hub would act as a gateway to the town centre, improvements would provide a more positive impression of the area for visitors; and,
- Detours for bus operators would be minimal with the addition of a new bus priority junctions positioned on Churchill Road and Nene Quay.

Based on consideration of the advantages, disadvantages and wider benefits, this is considered to be a **strong** option due to the removal of access onto Freedom Bridge Roundabout, regeneration of the area currently occupied by Albion House and Horsefair multi-storey car par, and the provision of bus priority access onto the highway network.

Option 2B

This option is a variation of Option 2A, using the same elements of:

- On-street bus bays; and,
- New bus priority junctions positioned on Churchill Road and Nene Quay.

The main differences between this option and Option 2A are the access points, stand layout and the location of the taxi bays within this shared space. As shown in Figure 7.4, access for buses and taxis onto the one-way system would be via Freedom Bridge Roundabout, and access back onto the network would be via a signalised bus priority junction on Churchill Road. The layout for this options consists of parallel stands, allowing buses to be either stationary within a bay or to manoeuvre out and continue straight ahead to the junction. Six taxi bays would be located before the bus bays. The layout for this options consists of parallel stands, allowing buses to be either stationary within a bay or to manoeuvre out and continue straight ahead to the junction. Six taxi bays would be located before the bus bays.

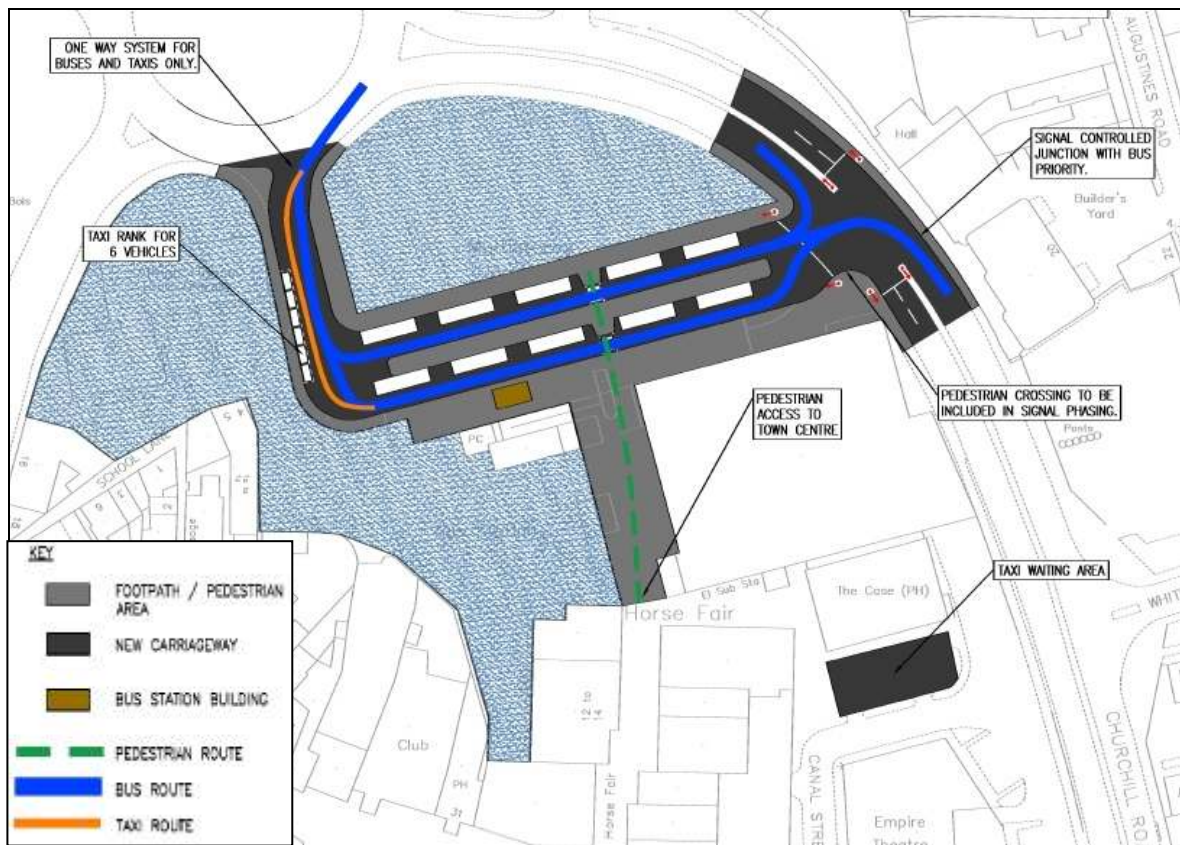


Figure 7.4: Design Proposal for Option 2B

The advantages and disadvantages for option 2B are detailed in Table 7.4 below.

Table 7.4: Advantages and Disadvantages of Option 2B

Advantages	Disadvantages
Greater land take becomes available for re-development / public realm	There will be little separation between taxis and buses compared to option 2A
Minimal bus diversions are required	A new access point will have to be developed for delivery vehicles and customers using the rear car park of the beauty salon
The addition of a bus priority junction will reduce delay for buses when re-joining the network	Parallel stands create safety concerns in regards to pedestrian movement, stricter control on pedestrian movement is needed as a result
The new layout of parallel stands will enable buses to pull of stands quicker than the current layout, reducing delay to services	A reduced amount of taxi bays can be accommodated in this layout, however the taxi reservoir positioned on Canal Street will be used
	Maintaining the arm on FBR, limits the improvements that can be completed at the junction
	Limited room compared to 2A to reallocate parking in this location, concerns for attracting visitors to the town in the future

If this option were to be developed, the key benefits to the bus station, as well as to the wider highway network and surrounding area would include:

- Horsefair would become a one-way system, removing the need for buses to join the circulatory of Freedom Bridge Roundabout. This would remove the issues of delay currently experienced by bus drivers upon exit of the bus station, along with potentially relieving delay and congestion on Freedom Bridge Roundabout;
- Pedestrian facilities within the vicinity of the bus station (FBR) would be improved, making the town centre more accessible;
- There is opportunity to re-develop the area around the bus stands, with the aesthetics matching the current street scape;
- On-street bus bays reduce the associated safety risks in comparison to DIRO layouts, however there are risks associated with parallel stands;
- The new transport hub would act as a gateway to the town centre, improvements would provide a more positive impression of the area for visitors; and,
- Detours for bus operators will be minimal with the addition of a new bus priority junction positioned on Churchill Road.

Based on consideration of the advantages, disadvantages and wider benefits, this was considered to be a **weaker** option compared to Option 2A. This is primarily because retaining the connection onto Freedom Bridge Roundabout limits future opportunities to improve that junction.

Option 3

This option involves using the undeveloped land of the Nene Waterfront Regeneration Area, located to the north of Freedom Bridge Roundabout. As shown in Figure 7.5, the design of the new bus station would consist of DIRO stands, with a saw-tooth arrangement. The size available within this plot of land could accommodate the ten bays needed to meet predicted future growth.

Access into the site for buses and taxis would be via Bedford Street, immediately off Freedom Bridge Roundabout. As shown in Figure 7.5, the bus station itself would follow a one way system, with buses entering the station apron at the southeast corner of the site. Once reversed buses would exit to the northwest of the site, continuing along Nene Parade, in order to join the approach to Freedom Bridge Roundabout.

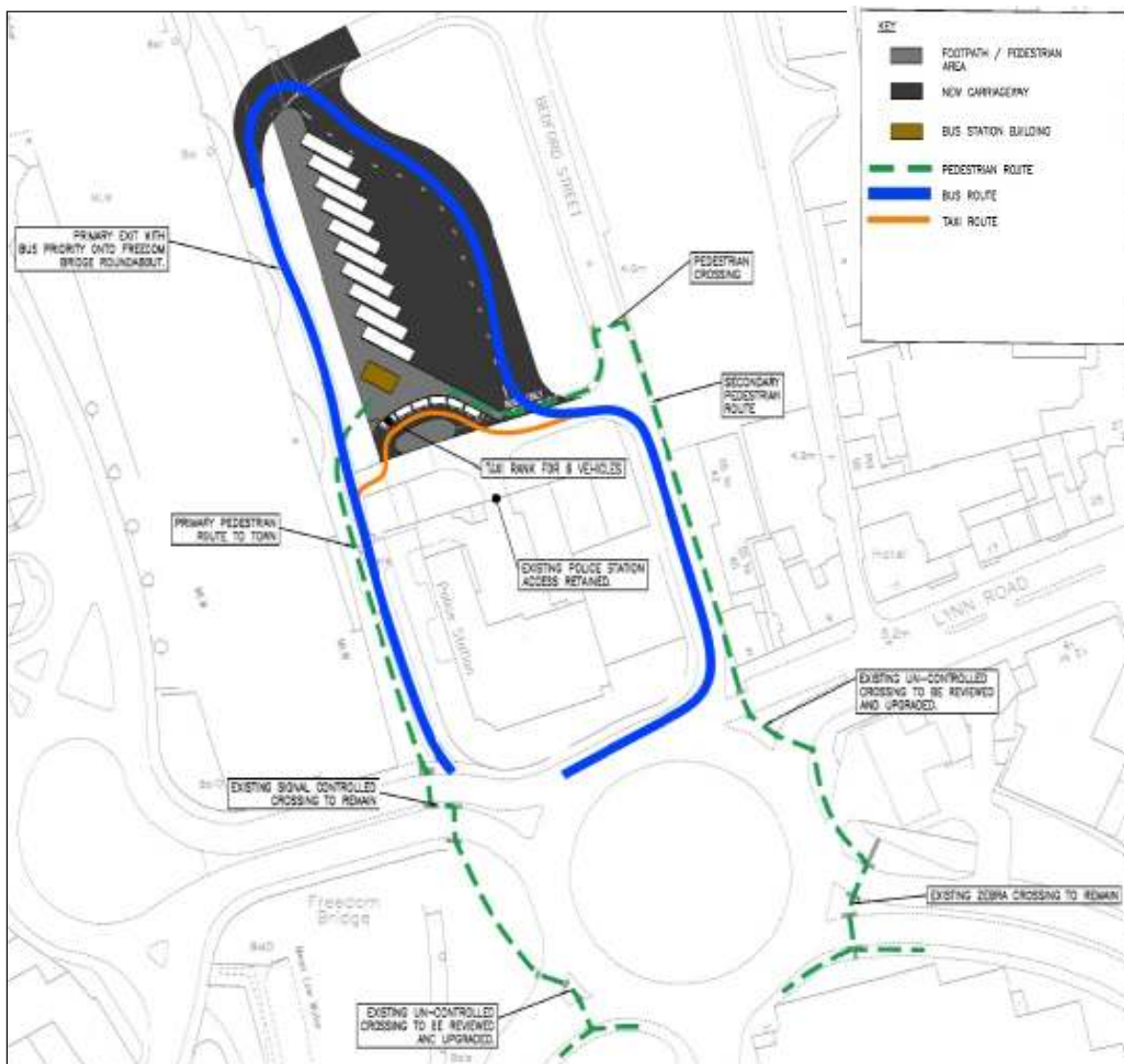


Figure 7.5: Design Proposal for Option 3

It has been assumed that the exit from Nene Parade would be connected to the pedestrian crossing on the A1101, and operate on bus priority. A taxi rank with six bays has been located to the south of the site as part of this option. A new junction and connection through to Nene Parade would be created for taxis, therefore allowing taxis the same route out as buses.

A further point to note about this option is that any significant re-development of the Nene Quay Regeneration Area will almost certainly require new and substantially improved access arrangements onto Freedom Bridge Roundabout (and the rest of the network). A bus station at this location could then use this new connection rather than the Nene Parade route. Table 7.5 below highlights the advantages and disadvantages associated with this option.

Table 7.5: Advantages and Disadvantages of Option 3

Advantages	Disadvantages
The new site would extend the reach of the town centre	Safety issues associated with DIRO layout will remain
Public realm and aesthetics would coincide / extent the Nene Waterfront Area (East of the River)	Bus drivers may experience delay when trying to join the circulatory at FBR, if bus priority is not introduced
Detours for bus operators would be minimal, with FBR remaining the main access point onto the wider network	The possible of widening the junction at Bedford Street/ FBR will require additional land take/ demolition of buildings
The size of the new site caters for future growth	Pedestrian movement from bus to concourse will have to be controlled
Opportunity to improve the junction on Bedford Street, alongside improving access on / off FBR	This location may have a visual/ noise impact on nearby residential areas
	The addition of bus priority on Nene Parade may add congestion along the A1101, when approaching Freedom Bridge Roundabout
	Safety concerns for pedestrian movement across FBR, increased from current situation
	Pedestrian priority scheme on Nene Parade will be lost to make scheme viable

If this option was to be developed, the key benefits to the bus station, as well as to the wider highway network and surrounding area would include:

- Pedestrian facilities within the vicinity of the bus station (FBR) would be improved, making the Town Centre more accessible;
- There is the opportunity to re-develop the area around the bus station, Nene Quay and FBR, with the aesthetics matching the current street scape of Nene Waterfront Area (east of the river);
- The new transport hub will extend the Town Centre, with the development area creating a more positive impression of the area for visitors; and,
- Detours for bus operators would be minimal with Freedom Bridge Roundabout remaining as the main access point for buses re-joining the network.

Based the advantages, disadvantages and wider benefits, this was considered to be a **weaker** option. This was primarily due to the safety concerns across associated with routing more pedestrian traffic around Freedom Bridge Roundabout.

Option 9

This option was devised within the second workshop, and involves relocating the bus station to Canal Street and the site currently occupied by the Empire Theatre building. As shown in Figure 6.6 this option consists of a DIRO layout, configured with a one way system and a new bus priority junction positioned on Churchill Road. Buses would enter the bus station apron at the southwest corner of the site, via the new slip road directly from Churchill Road. Upon exit buses would leave via the new bus priority junction, which would enable both right and left turning movements.

The new junction would be a signalised crossroads, with Churchill Road and Whitby Street. This junction would give buses priority when re-joining the network, in addition to allowing traffic on Whitby Street to turn right, compared to the current restricted left turn movement.

Taxis within this option would remain in close proximity to buses, however they would be located outside of the new bus station. As shown in Figure 6.6 the primary taxi rank for this option would be located on Canal Street, using the existing taxi layover site. The existing bus station site would become a taxi overspill site. Access to the taxi rank would be via Falcon Road and then Canal Street. Exiting taxis would leave via the new junction on Churchill Road, as shown in the figure below.



Figure 7.6: Design Proposal for Option 9

Table 7.6 beneath outlines the advantages and disadvantages of this option.

Table 7.6: Advantages and Disadvantages of Option 9

Advantages	Disadvantages
The new site would remain in close proximity to the town centre, with several pedestrian routes into the town centre already in place	Safety issues associated with DIRO layout will remain
Detours for bus operators would be minimal, aided by the new junction on Churchill Road	Pedestrian movement from bus to concourse will have to be controlled
The size of the new site caters for future growth	Introducing traffic signals along Churchill Road may add delay to other road users
Opportunity to improve the public realm and aesthetics of this area	This site would require the demolition of a Grade II* listed building, planning permission is required
User conflict will be reduced, with users having segregated areas	Some current on-street parking would be lost and would need to be replaced elsewhere
Pedestrian facilities will be improved around the bus station and across the town centre	The town centre is part of the Conservation Area therefore any design needs careful consideration
The new junction with bus priority will ease delay currently experienced on FBR, alongside eliminating the need for detours when exiting Whitby Street	Diversions for taxis will be required with access being via Falcon Road
Loading access for retail units will remain on Canal Street	
New location will reduce the number of arms on FRB, contributing to reducing congestion on the circulatory	

If this option were developed, the key benefits to the bus station, as well as to the wider highway network and surrounding area would include:

- Pedestrian facilities within the vicinity of the bus station would be improved, making the Town Centre more accessible;
- There would be the opportunity to re-develop the area around the bus station;
- The new transport hub would develop the area creating a more positive impression for visitors;
- Detours for bus operators would be minimal with the addition of bus priority signals at the new Churchill Road Junction;
- The number of approaches to Freedom Bridge Roundabout would be reduced.

Based on consideration of the advantages, disadvantages and wider benefits, this is considered to be a **strong** option as it relocates the bus station to a larger site with excellent pedestrian access into the town centre. This option also provides good bus priority access onto the wider highway network.

Workshop Outcome

Out of the six shortlisted options discussed above, three were considered to be strong options (with three considered to be weaker). The three stronger options were:

- Option 1A;
- Option 2A; and,
- Option 9.

Design Refinements

Some further design refinements were made to Option 1A, 2A and Option 9 following the workshop in order to address some of the limitations and weaknesses identified with the options. Please note that the option numbers remained the same following the design amendments, as the design concepts remained the same, and to ensure consistency in the option assessment.

The design refinements were:

Option 1A:

- Switch the positioning of bus stands and taxis to:
 - Comply with DfT town centre hierarchy - placing public transport closer to the town centre than other modes such as taxis;
 - Enable the use of the existing taxi rank area.
- Utilise land take from Albion House to accommodate new access onto Nene Quay, and bus layover etc.; and,
- Alter the multi-storey car park access, to create a separated entry lane.

Option 2A:

- Detail the route of service / customer vehicles entering the existing bus station apron.

Option 9:

- Reconfigure the layout of bus stands to DIDO, removing safety concerns associated with DIRO;
- Reconfigure the junction on Churchill Road to a single location for entry / exit, to accommodate access and swept paths of HGV'S for Argos and Co Op; and,
- Position taxi rank in the existing bus station location.

8. Option Sifting – Preferred Option

This chapter corresponds to two workshops undertaken in November 2016, during which the stronger options identified within the ‘short list’ (preceding chapter), underwent a final review in order to identify a preferred option. This included input from Fenland District Council’s Conservation Officer on each of the options.

Option Summary

A description and image of each option is provided below. Please note that these concept designs include the design refinements discussed in the previous chapter.

Option 1A

To use the existing bus station location and stand layout, as well as the land of Albion House to accommodate additional layover bays, separated car park entry lane and a new signalised bus priority junction onto Nene Quay.

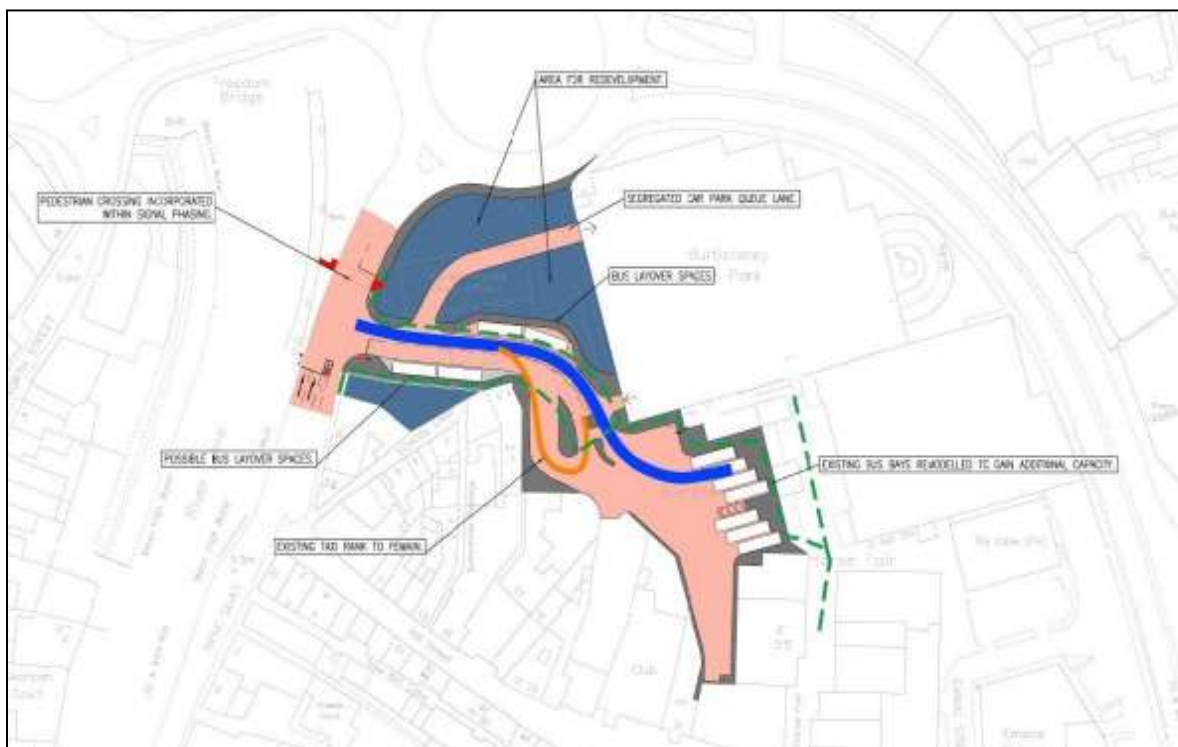


Figure 8.1: Design Proposal for Option 1A

Option 2A

To create on-street bus bays on an east to west route in the area north of the existing bus station and Horsefair multi-storey car park. Note that this option would require the demolition of Albion House and the multi-storey car park. Access points would be via signalised bus priority junctions onto Churchill Road and Nene Quay.



Figure 8.2: Design Proposal for Option 2A

Option 9

To utilise the land currently occupied by the Empire Theatre to accommodate a new bus station, with a DIDO stand layout.

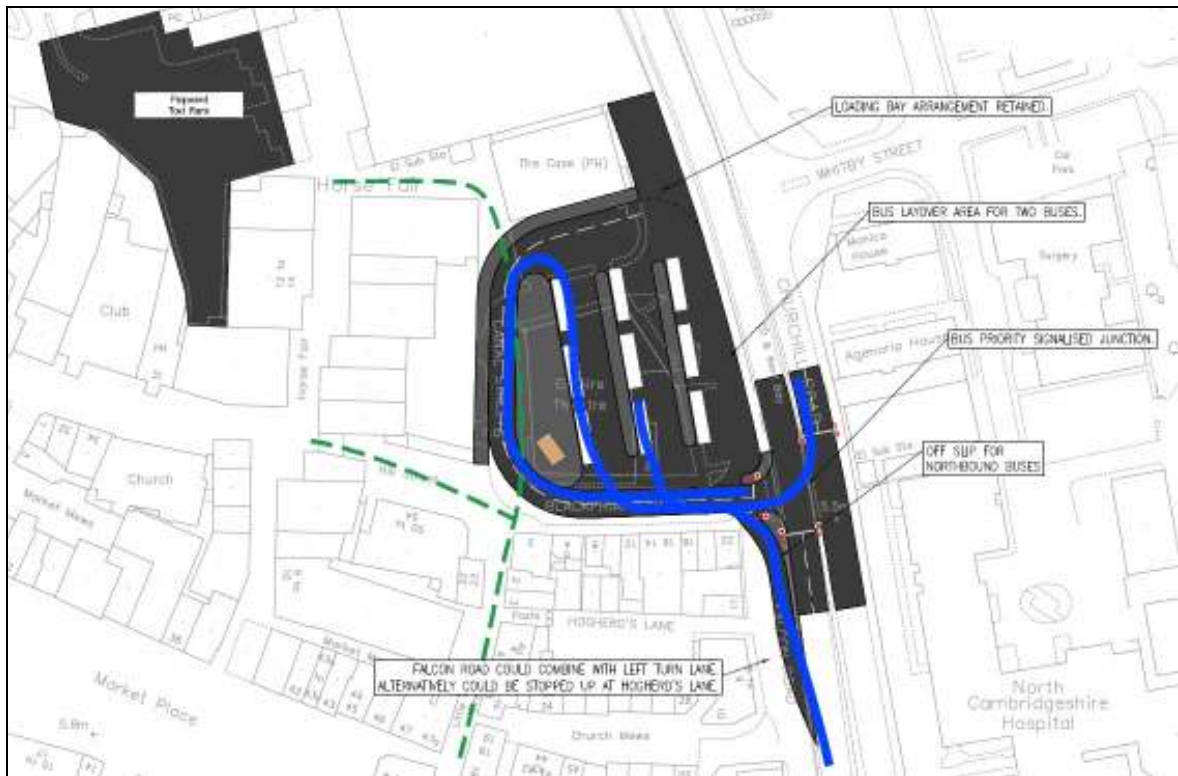


Figure 8.3: Design Proposal for Option 9

Heritage Constraints

A meeting was held on the 30th November 2016 with a Conservation Officer from Fenland District Council to discuss the heritage constraints associated with each the bus station options in greater detail. The meeting primarily focussed on the listed grade of the Empire Theatre included within Option 9, as well as several listed buildings within the vicinity of the existing bus station which are relevant to Options 1A and 2A.

Option 1A & 2A

There are 10 listed buildings (of varying grades) within the vicinity of the existing bus station, these are shown in Figure 8.1 below. Despite the position of these buildings, there was not considered to be any adverse impact on conservation and heritage as a result of Option 1A or Option 2A.



Figure 8.4: Listed Buildings in the Vicinity of the Existing Bus Station

Option 9

The Empire Theatre grade is currently listed as a Grade ii*. This particular grade status accounts for just 5.5% of listed buildings within the UK. The building has been awarded this grade to reflect its national importance, and specifically applies to the interior décor which dates to the 1930's.

Consequently, it is believed that the required application for demolition of this building would be declined, especially with the presence of alternative options such as Option 1A and Option 2A which do not require the demolition of any listed buildings. On the basis of this information, Option 9 was not progressed as a preferred option.

Workshop Review – Preferred Options

Following the further option assessment discussed above, Option 1A and Option 2A have been identified as the stronger options, with Option 1A considered to be the preferred option for the initial implementation, and Option 2A considered to be a long term aspiration that could be realised when conditions are appropriate.

Option 1A

The group consensus of the design presented for this option was positive, with minor comments made concerning the introduction of cycle parking to encourage a modal shift, and improvements to pedestrian facilities when approaching the town centre from Freedom Bridge Roundabout.

In retaining the existing bus station location and current site constraints (such as limited space and multiple users), it was concluded that this option would provide short term benefits to users of the bus station, whilst providing the opportunity to develop the bus station in the future to become Option 2A.

Option 2A

This option was perceived to offer greater long-term benefit, whilst minimising both safety concerns and site constraints associated with the current bus station. However, it was noted that there are some significant deliverability challenges with this option, and that it may not be achievable in the immediate future.

With this said it was concluded that this option (if achieved) would be implemented outside of the Wisbech Access Study, as part of a town centre and regeneration project, and therefore **dismissed** from further progression within this study.

Option 1A is explained in more within the following Concept Design Chapter.

9. Concept Highway Design

Introduction

This chapter outlines the Concept Highway Design and cost estimates for the preferred options identified within this report. The chapter includes:

- Design and input decisions;
- Concept Design Drawings;
- STATS Review;
- Road Safety Review; and,
- Cost Estimates.

Preferred Option

The schemes within the Wisbech Access Study have been designed to concept design level. Designs are based on national and local highway standards, and make clear reference where departures from standards are proposed. Any further level of design would require highway surveys, including topographical surveys.

Scheme designs have been informed by an initial STATs search, to identify if any public utilities would be affected by the scheme which may compromise scheme delivery.

As identified within the previous chapter, Option 1A is the preferred option and has been progressed to the concept design stage. The description below provides a summary of this option:

- 1A - Retains the existing bus station bay and taxi rank configuration, and uses land currently occupied by Albion House to facilitate a new access onto Nene Quay, as well as providing layover bays and, segregated car park.

Design Assumptions and Input Decisions

All designs are concept designs based on Ordinance Survey mapping. Level information is unknown and therefore embankments / cuttings and footprints should be treated as indicative.

This option has been designed using the Manual for Streets 1 & 2 alongside the Cambridgeshire Estate Road specification.

The design assumptions made for these two options are:

- The removal of the Horsefair arm of Freedom Bridge roundabout, traffic diverted via new Nene Quay junction;
- Increased bus stand capacity and increased number of layover bays.

Figures 9.1 on the following page shows the concept designs for Option 1A.

STATS Review

As part of the concept design process, searches have been undertaken to determine whether any STATS exist within the vicinity of the proposed schemes. STATS refers to utilities or services which run beneath the surface of the road, for example:

- Electricity Cables;
- Gas Mains;
- Water Mains and sewers; and,
- Telecommunications Wires.

This information will be necessary for further design stages, including more detailed scheme cost estimates. The presence of STATS may also dictate amendments to a scheme design at a later point.

Figure 9.2 on the following pages shows the STATS present within the vicinity of the scheme location. The full STATS drawings can also be found in Appendix F.

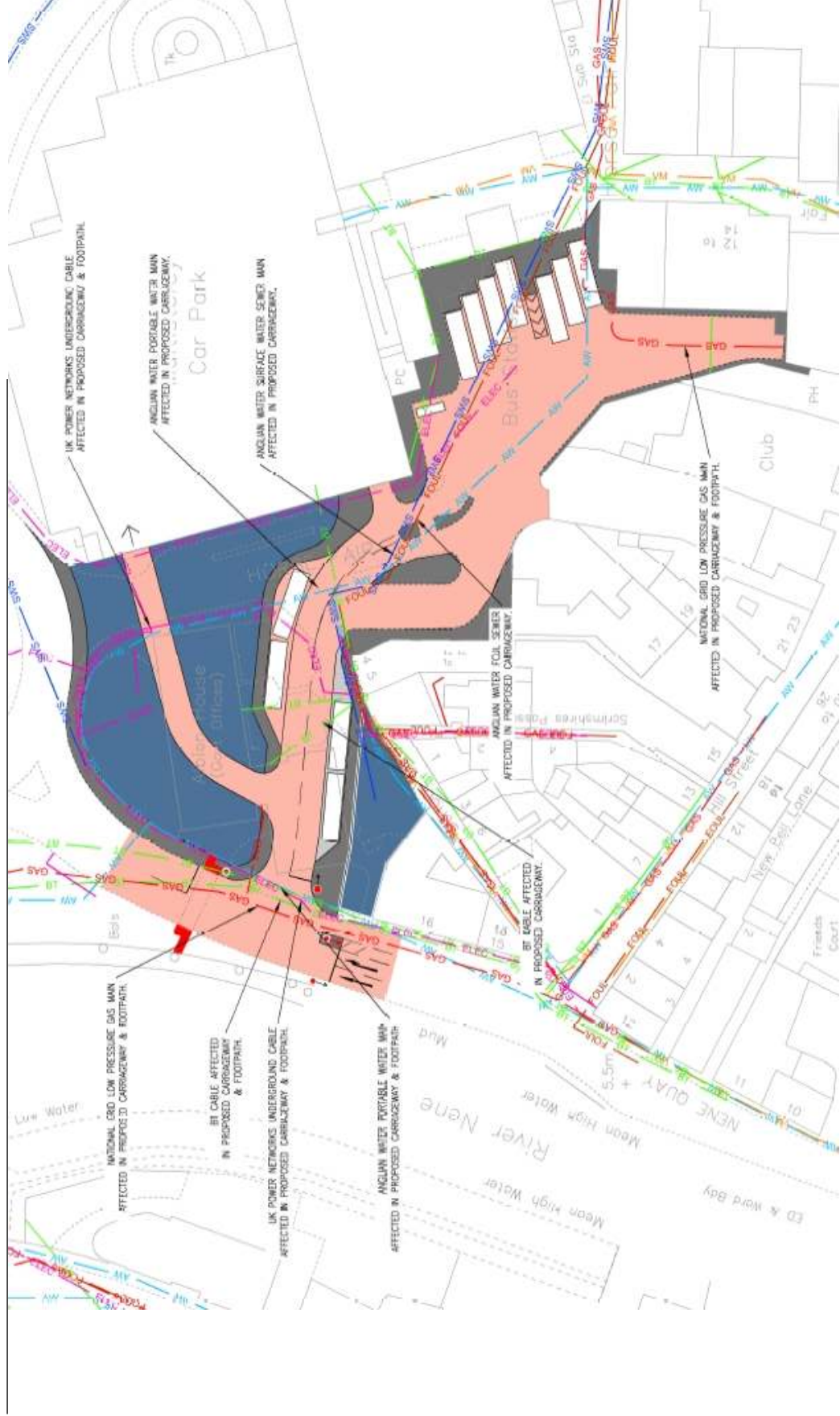


Figure 9.2: STATS Plan for Option 1A

Road Safety Review

The concept designs have been subject to an initial Road Safety Review by Cambridgeshire County Council. The purpose of the Road Safety Review is to identify potential safety issues associated with the schemes prior to any further design phase, and in particular any that could compromise scheme deliverability. It should be noted that this does not form part of a formal Road Safety Audit (RSA).

Comments from the Road Safety Review are documented in Table 9.1 below

Table 9.1: Road Safety Review for the Bus Station Option 1A

Road Safety Feedback	Comment
The forward visibility to the signal heads on Nene Quay, from the exit of the roundabout, may be inappropriate and may result in shunt type accidents as drivers accelerate away from the roundabout and then meet queuing traffic or pedestrians crossing.	Signal re-alignment of the Nene Quay exit from Freedom Bridge Roundabout could be considered at the detailed design stage. Additionally speed calming measures or advanced signage could also be incorporated into the further design work.
Buses parking in layover spaces just prior to the signal heads may block the forward visibility to the signals and result in red light running.	This is not considered likely. The site is too constrained to relocate the bus layover bays. An additional signal head could be provided opposite the exit during the detailed design stage if critical.

Scheme Cost Estimate

A cost estimate has been produced for Option 1A, which is produced using 2017 prices. Although considered robust, the cost estimate outlined below is based on a concept level design, and may alter in the future subject to further information becoming available during later design stages.

Note: the construction industry inflation is approximately 4-5% per annum.

The cost estimate includes the following items:

- Drainage;
- Carriageway;
- Junctions;
- Footpaths;
- Street Lighting;
- Signing and Lining;
- Preliminaries, including design (10% const. cost) and supervision (20% const. cost);
- Traffic Management;
- Land purchase and compulsory purchase estimates;
- Demolition;
- Land Acquisition; and,
- Optimism Bias @ 45%.

The cost estimate excludes the following items:

- Services Diversions;
- Contaminated Land Treatment; and,
- Local Planning Fees.

Land Acquisition and Demolition Costs

The following costs have been applied where land acquisition or demolition is required by a scheme. These costs are considered relevant to the location of the schemes and are derived from experience of other similar schemes within the region.

- Land Acquisition – Urban / Built £125,000 per hectare;
- Compulsory Purchase Order – Dwelling £277,500 per dwelling; and,
- Demolition – £70m² or £7,500 per dwelling.

It should also be noted that no acquisition costs have been included for Albion House as this is currently a government owned building, and it is understood that it could be acquired without cost.

Optimism Bias

The scheme costs also include 45% optimism bias. This is an uplift that is applied to the final scheme cost in line with DfT guidance on preparing scheme cost estimates. The DfT describes optimism bias in their Web Tag Note 'A1.2 Scheme Costs' (November 2014) as:

'Optimism bias is the demonstrated systematic tendency for appraisers to be overly optimistic about key parameters. Theorists on cost overrun suggest that optimism bias could be caused by the organisation of the decision-making process and strategic behaviour of stakeholders involved in the planning and decision-making processes.'

Different levels of optimism bias should be applied to scheme costs depending on the nature of the scheme (road, rail, ITS etc.) and how developed proposals or designs are. The schemes costed as part of the study are road schemes and are all at the first stage of scheme development. As a result of this an optimism bias of 45% is applied to the scheme costs.

The cost estimate for the scheme, including optimism bias is summarised in the table beneath. More detailed breakdowns of the costs are provided in Appendix G Note that the cost assumes this scheme is delivered in isolation, and does not reflect the potential cost savings that may be associated with delivering adjacent or overlapping schemes at the same time.

Table 9.2: Option 1A Scheme Cost Estimate

Item	Cost
Land Acquisition	£9,375.00
Demolition	£52,500.00
Construction	£821,517.00
Design (10% of const. cost)	£82,151.70
Supervision, Site Facilities & Site Fences (20% of const. cost)	£164,303.40
Traffic Management	£66,000.00
Sub Total	£1,195,847.10
Optimism Bias (@45%)	£538,131.20
Total	£1,733,978.30

10. Summary

Skanska have been commissioned by Cambridgeshire County Council to undertake an assessment of options for re-configuring or re-locating Wisbech bus station to provide an improved facility. This assessment forms part of the first phase of the Wisbech Access Study.

The purpose of this scheme is to determine preferred bus station sites that address existing issues of user conflict in a confined space, safety risks associated with stand layout and site accessibility.

This report has considered the existing conditions of the bus station including layout, services and user conflict, alongside heritage and policy considerations.

A qualitative assessment, facilitated by scheme workshops involving representatives from Skanska, Fenland District Council and Cambridgeshire County Council, has been used to review the options devised for the Wisbech Bus Station. This assessment therefore informed decisions to either retain or discard options from further progression within the study challenge / sifting processes.

The workshop phasing and option sifting outcomes are detailed below:

- Phase 1 – Corresponds to the first workshop undertaken in January 2016, during which an **initial list** of potential sites suitable for a bus station were chosen;
 - Eight sites within 400 m of the town centre were chosen to assess, of which three were to reconfigure and five were to relocate the bus station.
- Phase 2 – Corresponds to the second workshop undertaken in April 2016, during which a **long list** of twelve options was discussed and;
 - Options shortlisted within the workshop included two options to reconfigure, two options using on-street bus bays and two options to relocate the bus station.
- Phase 3 – Corresponds to the third workshop undertaken in September 2016, during which the **short list** of options was discussed; and,
 - Three options were shortlisted during the workshop, one utilising the existing bus station site, one including on-street bus bays and one site for relocation.
- Phase 4 – Corresponds to the fourth workshop undertaken in November during which **preferred options** were identified and progressed to a Concept Design stage.
 - Option 1A was identified as the preferred option for initial implementation of a bus station scheme.

Below is a summary of the preferred option for the bus station;

- **1A** - Retains the existing bus station bay and taxi rank configuration, and uses land currently occupied by Albion House to facilitate a new access onto Nene Quay, as well as providing layover bays and, segregated car park.

The report includes details of the concept design, STATs review, Road Safety review and outline cost estimate.