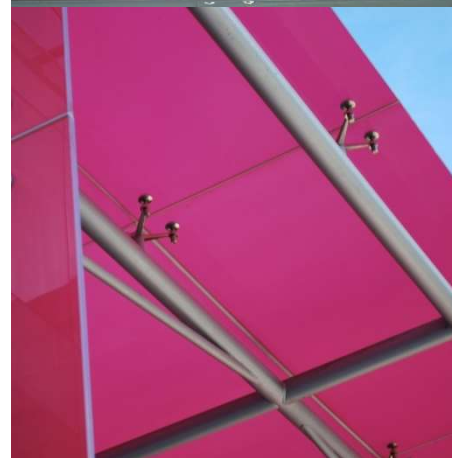
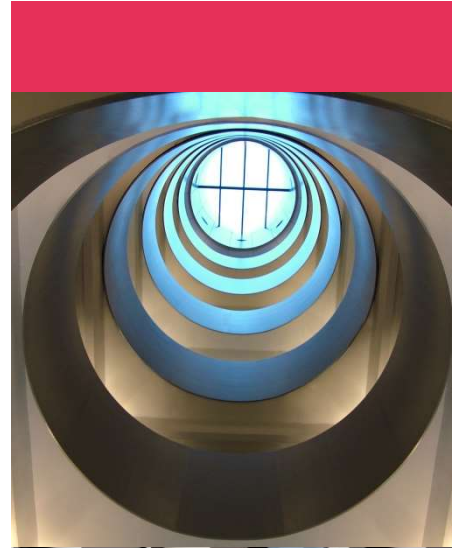


# Proposed Zip Wire Development at St John's Beacon and Central Library

## Transport Statement (with Safety Assessment)

Curtins Ref: 074185-CUR-00-XX-RP-TP-001-V02-TS  
Revision: Final  
Issue Date: 19 December 2019

Client Name: Zip World Ltd



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## Control Sheet

This report has been prepared for the sole benefit, use, and information for the client. The liability of Curtins with respect to the information contained in the report will not extend to any third party.

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**Appendix A** – LCC Scoping Note

**Appendix B** – Proposed Site Plans

**Appendix C** – Loose Article Agreements

## 1.0 Introduction

### 1.1 Background

- 1.1.1 Curtins has been appointed by Zip World Ltd to provide traffic and transportation advice in relation to a planning application for a proposed two-line zip line in central Liverpool. The zip line will extend for approximately 400m beginning at Level Two of St John's B and descending to the roof of the Central Library storage building.
- 1.1.2 The vision for the project is to create an exciting and engaging adventure sports venue on an iconic part of Liverpool City Centre architecture. Ongoing conversations with interested parties have result in positive outcomes in terms of feasibility and support.

### 1.2 Purpose and Scope of this Report

- 1.2.1 This Transport Statement (TS) has been prepared to inform Highways Officers at Liverpool City Council (LCC) of the development proposals and consider their potential impact on the surrounding area from a traffic and transportation perspective. On the above basis this TS contains the following:
  - A description of the highway network in the vicinity of the site, including site visit photography;
  - A review of the accident record in the immediate vicinity of the site for a five-year period;
  - A summary of the highway operation;
  - A summary of the development proposals (including elevation details);
  - A highway safety assessment (based upon DMRB's GG104 methodology) which scores hazards based upon likelihood, frequency and severity.
  - Identification of any potential mitigation measures if the assessment identifies a requirement; and,
  - Commentary on the highway impact associated with the proposed zipline.
- 1.2.2 This report follows on from a Scoping Note which was formally issued to LCC in November 2019. The Scoping Note sought approval from the highway development control section of LCC (LCC Highways) to the key parameters to be used in the TS, particularly with regards to the methodology utilised to identify any potential risks or hazards associated with the proposed scheme and the geographic scope of assessment. Reference should be made to **Appendix A** to the rear of this report for a copy of the Scoping Note.

- 1.2.3 LCC Highways subsequently responded with its comments being limited to a feeling that a wider geographic study area should be considered compared with that which Curtins had proposed within its Scoping Note. In response to this, Curtins has expanded its assessment study area to include the additional areas of Islington/Hunter Street, London Road, Brownlow Hill, extended sections of Lime Street, Byrom Street, Victoria Street and the Queensway Tunnel exit.
- 1.2.4 The highway safety assessment aspect of this report is based upon the nationally accepted GG104 methodology from the Design Manual for Roads and Bridges (DMRB). GG104 sets out the approach for safety risk assessment to be applied when undertaking any activity that does or can have an impact on road safety, either directly or indirectly. It provides a framework for identifying hazards, assessing, evaluating and managing safety risks and assuring safety risk governance.

### 1.3 Structure of this Report

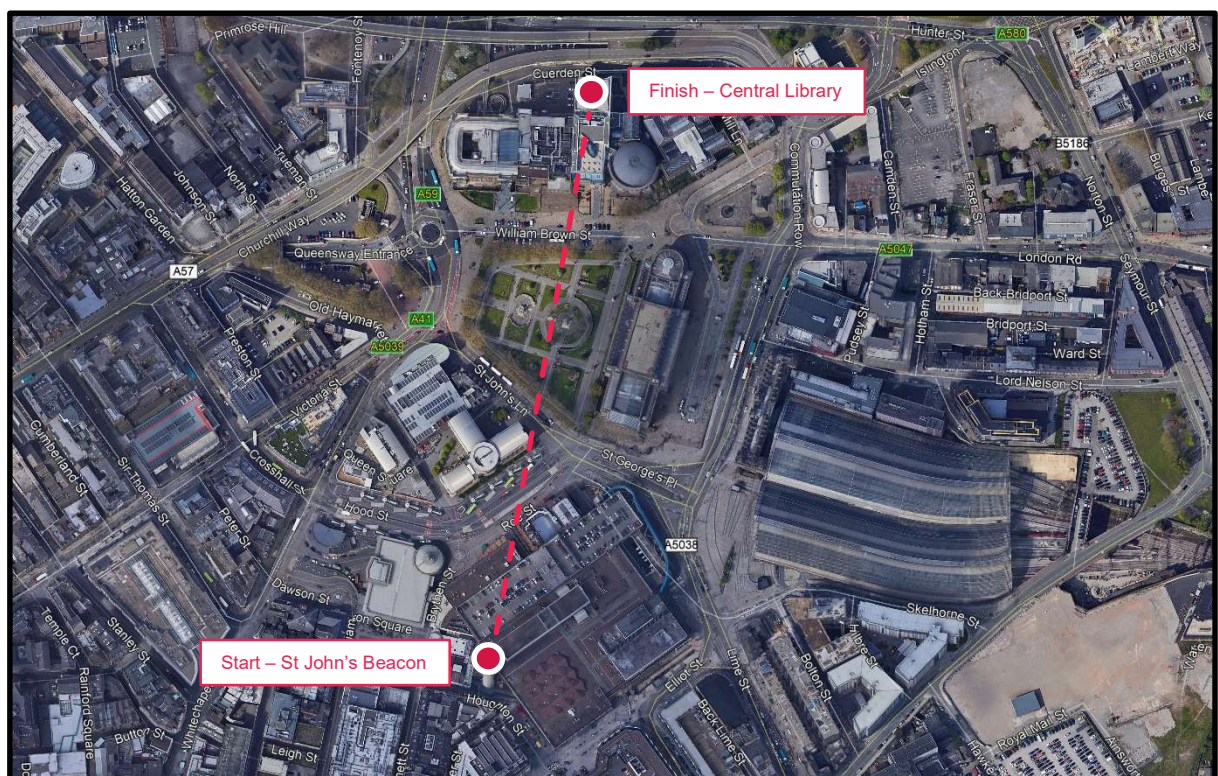
- 1.3.1 Following this introduction, **Section 2** of the report provides a comprehensive description of the existing site and its location. **Section 2** also reviews the local area in terms of highways safety by way of obtaining records of accidents adjacent to the site over the most recent five-year period available.
- 1.3.2 The development proposals are summarised in **Section 3**. **Section 4** contains an assessment of the site by non-car modes of transport.
- 1.3.3 **Section 5** provides the highway safety assessment (with due reference to the DMRB's GG104 methodology) which scores hazards based upon likelihood, frequency and severity.
- 1.3.4 A review of local and national transport planning policy is included in **Section 6**, and the report is summarised and concluded in **Section 7**.



## 2.0 Site Location and Highway Layout

### 2.1 Site Location

- 2.1.1 The zip lines will extend for approximately 400m beginning at Level Two of St. John's Tower and descending to the roof the Central Library Storage building. The location and route of the proposed zip line is shown in **Figure 2.1** below:



**Figure 2.1 – Proposed Zip line – Site Location**

### 2.2 Surrounding Highway Network

#### **A5038**

- 2.2.1 The A5038 lies east of the proposed development and runs in a general north-south alignment at this location, between signalised junctions with the A5047 and Liverpool Lime Street. Further afield the A5038 provides connections from Liverpool city centre towards Toxteth in the south.
- 2.2.2 In the vicinity of the site the A5038 is street lit and operates typically a dual carriageway separated by a central reservation, occasionally the carriageway widens to accommodate turning manoeuvres into the adjacent roads. Further south the A5038 narrows to a single carriageway when navigating through the denser areas of the city centre.

- 2.2.3 Past the site, the A5038 is subject to a 30mph speed limit and there are double yellow line parking restrictions in place along both sides of the carriageway. There are excellent pedestrian and cyclist facilities in place on the A5038, include wide footways, signalised crossing arrangements, dropped kerbs, tactile paving and guard railing where necessary.
- 2.2.4 There are also bus stops available on the A5038, the closest of which are located directly opposite St George's Hall. Both of these stops provide shelter, seating and timetable information. **Section 4** of this report discusses the local public transport options in greater detail.

***Roe Street/Hood Street***

- 2.2.5 From the signalised junction with Whitechapel, Roe Street and Hood Street extend in an eastern direction towards St Georges Plaza for approximately 200m. Through this section the carriageway has an approximate width of 11m and central reservation is in place. Queen's Square Bus Station is located on Roe Street and Hood Street, and as such the carriageway is restricted to bus travel only.
- 2.2.6 Roe Street and Hood are subject to a 10mph speed limit and there are numerous bus stops/shelters present along both sides of the carriageway, situated in layby arrangements. There are wide footways either side of the road with varying widths. At either end of the road, there are signalised pedestrian crossing facilities, as well as a further crossing approximately halfway along the road's length, all complete with dropped kerbs, tactile paving and guard railing.

***St Johns Lane/St George's Place***

- 2.2.7 St John's Lane and St George's Place run along a north-west/south-east alignment in the vicinity of the site for approximately 230m, between its junctions with Old Haymarket and the A5038 Lime Street. St John's Lane/St George's Place operates with two running lanes in each direction and total carriageway width of approximately 13m.
- 2.2.8 The roads benefits from wide foodways along both sides of the carriageway, approximately 3.5m in width. At the junction between St John's Lane and Roe Street there are staggered signalised pedestrian crossing facilities in place, which include dropped kerbs, tactile paving, refuge islands and guard railing.
- 2.2.9 St Johns Lane/ St Georges Place is a street-lit carriageway subject to a 30mph speed limit, with double yellow line parking restrictions in place for the entirety of its length. On the south bound carriageway there are bus stops present in the form of a simple flag and pole arrangements.



### ***William Brown Street***

- 2.2.10 William Brown Street is situated directly adjacent to the Central Library (the proposed landing zone for the zip line) and runs along an east-west alignment for approximately 150m. At its eastern end a roundabout arrangement provides a suitable location for turning manoeuvres.
- 2.2.11 The road surface is cobbled and as such encourages reduced vehicle speeds. Alongside both sides of the carriageway parking spaces are provided, which includes standard bays as well as disabled and coach parking. William Brown Street is lightly trafficked and is primarily used for parking for the adjacent land uses, or as a pick-up point for some cars and taxis.
- 2.2.12 William Brown Street is street-lit and has wide footway along both sides of the carriageway. Where formal car parking bays are not provided, double yellow line parking restrictions are in place for some parts.

## **2.3 Existing Highway Operation**

- 2.3.1 A high-level review of the local highway network described above has been undertaken utilising Google Traffic, a feature available on Google Maps. Google Traffic works by analysing the GPS-determined locations of mobile phone users and calculating their speed along a length of road (in relation to the prevailing speed limit) and their subsequent congestion times at junctions.
- 2.3.2 Within Google Traffic users can access historical data to present the “typical traffic” for an area based on the time of day and day of the week. A coloured overlay appears on top of the road with ‘green’ representing a normal speed of traffic, ‘orange’ representing slower traffic and ‘red/dark red’ indicating congestion. A review of both the AM and PM peak hours, on a Tuesday, Wednesday and Thursday demonstrates that large section of the local highway is ‘orange’ or ‘red/dark red’ – indicating congestion occurs.
- 2.3.3 **Figures 2.2 and 2.3** below illustrate typical weekday traffic in Liverpool, based on Google Traffic data, during the traditional AM and PM peak hours.

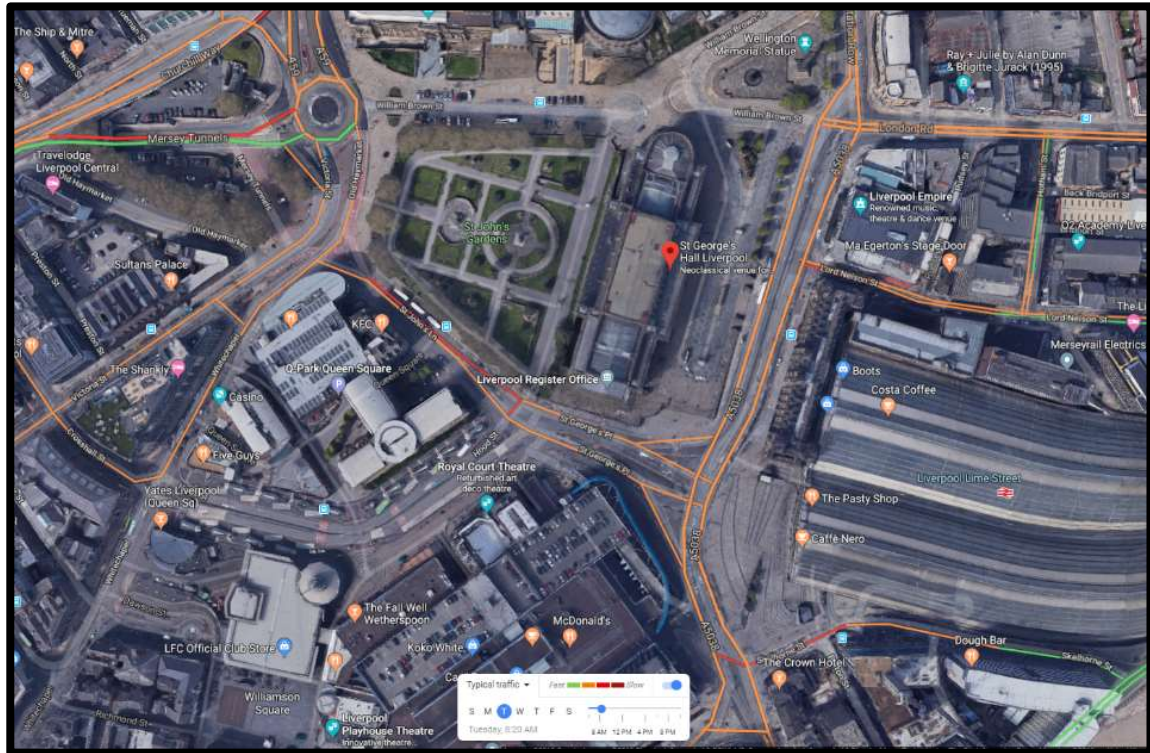


Figure 2.2 – Typical AM Peak Traffic (Tuesday 8:20am) in Liverpool (Google Traffic)

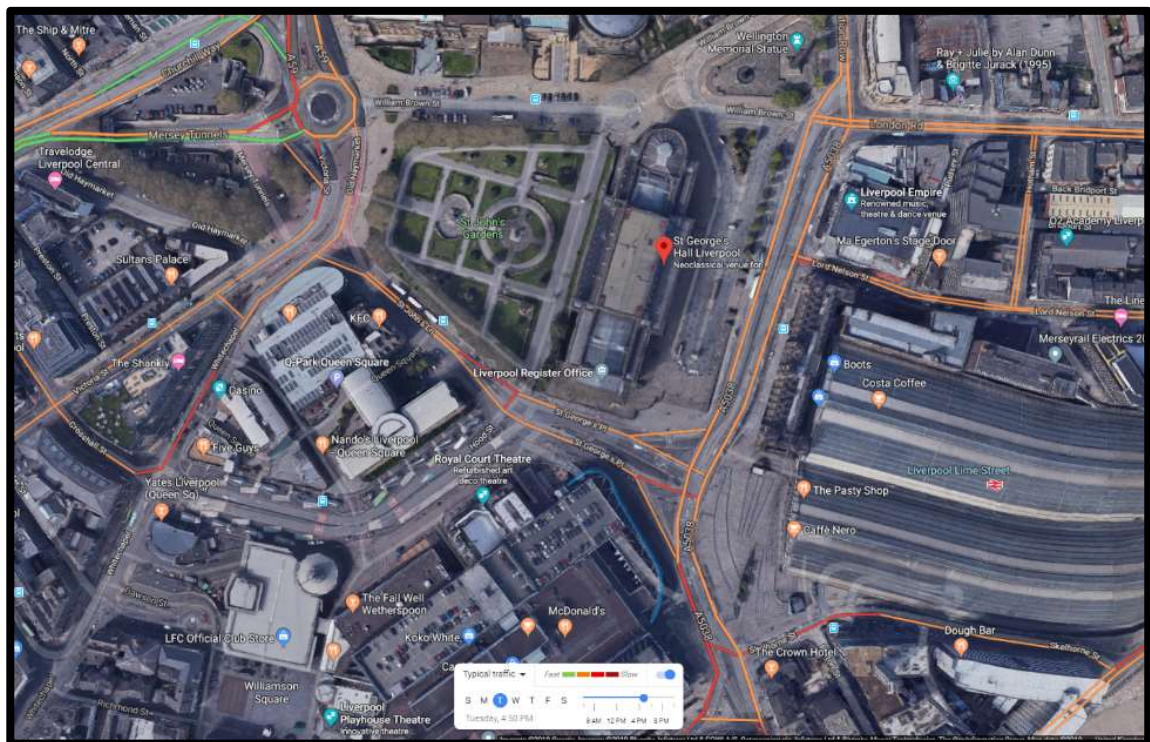


Figure 2.3 – Typical PM Peak Traffic (Tuesday 4:50pm) in Liverpool (Google Traffic)

- 2.3.4 A review of the operation of the local highway network outside of the typical peak hours indicates that **Figures 2.2 and 2.3** are generally representative of the daily traffic profile. Through the day Google traffic demonstrates that the adjacent roads are generally 'orange' and 'red', suggesting that traffic in the area typically moves at a slow rate.

## 2.4 Highway Safety

- 2.4.1 An assessment of Personal Injury Accident (PIA) data from the most recently available three-year period has been undertaken (2016 to 2018 inclusive) using the online Crashmap resource. **Figure 2.4** illustrates the area examined.



**Figure 2.4** – Typical PM Peak Traffic (Tuesday 4:50pm) in Liverpool (Google Traffic)

- 2.4.2 A total of 35 accidents occurred within these extents during the assessment period, 33 of which were slight and 2 serious, there were no fatal accidents recording. There are some junctions with higher concentrations of accidents such as the William Brown Street/Queensway roundabout. However, this volume of accidents at busy junction in an urban area is not considered to be an unusually high level over a period of three years.



- 2.4.3 In general, the overall frequency of accidents reported on the road network local to the site is considered to be low over the three-year assessment period. All but two of the accidents that occurred at the junctions resulted in slight injuries. No accidents occurred in the vicinity of the Central library on William Brown Street. A breakdown of the locations suggests that the majority of the accidents occurred where the zip line would not be visible, or within the driver's eyeline and therefore can be discounted in the context of this application.
- 2.4.4 In respect of the potential for general traffic to be distracted by the proposed zip line, the existing highway record does not point towards any particular issues at this location. **Section 5** of this report considers the introduction of the zip line's impact on road safety at the surrounding junctions in greater detail, however based on the information presented above it is considered unlikely to have any noticeable adverse effects on the prevailing trends.

## 3.0 Development Proposals

### 3.1 General

3.1.1 Zip World are seeking to construct a two-line zip line that will begin at Level Two of the St. Johns tower Crow's Nest and descend to the roof of the Library Storage building. The proposals involve three different components of existing architecture:

- 1) St John's Base - Visitors centre and kitting up;
- 2) St John's Beacon - Viewing platform and launch; and,
- 3) Library roof - Landing zone and access in to library (and exit).

3.1.2 The development description is to be read as follows:

*"Application for full planning permission for a zip line development comprising of the erection of two zip lines, external alterations to the second floor of St John's Beacon, installation of landing gantries and associated infrastructure, change of use of floor space on the second floor of St John's Beacon and part of ground floor at Central Library".*

3.1.3 Reference should be made to **Figure 3.1** below for an illustration of the proposals and **Appendix B** for further site plans.

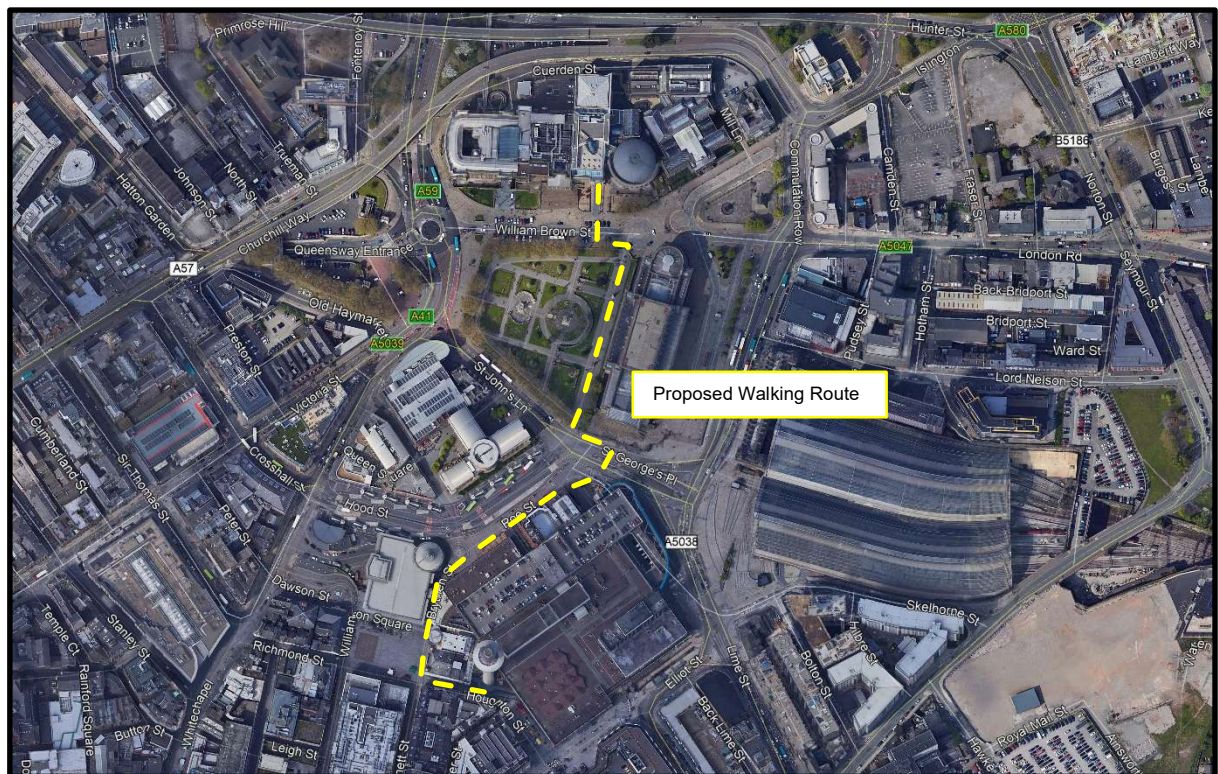


**Figure 3.1** – Illustration of Development Proposals

- 3.1.4 It is anticipated that visitors will arrive at the Zip World facility and visitor's centre in St John's Shopping Centre, here they will receive their equipment and initial briefing. After, they will be led to the base of the tower and taken up to the top via a lift, visitors will then descend in pairs down the zip lines, with a secondary set of breaking wires above them that will be used to slow the passengers when landing.
- 3.1.5 Once the ride is complete, a structure will bring visitors down from the roof on to the existing Library Terrace where they can enter the Library and make their way down to ground level and exit.
- 3.1.6 Visitors will then walk and carry their equipment back to the Zip World facility within St. John's Shopping Centre, to pick up their belongings left in lockers.



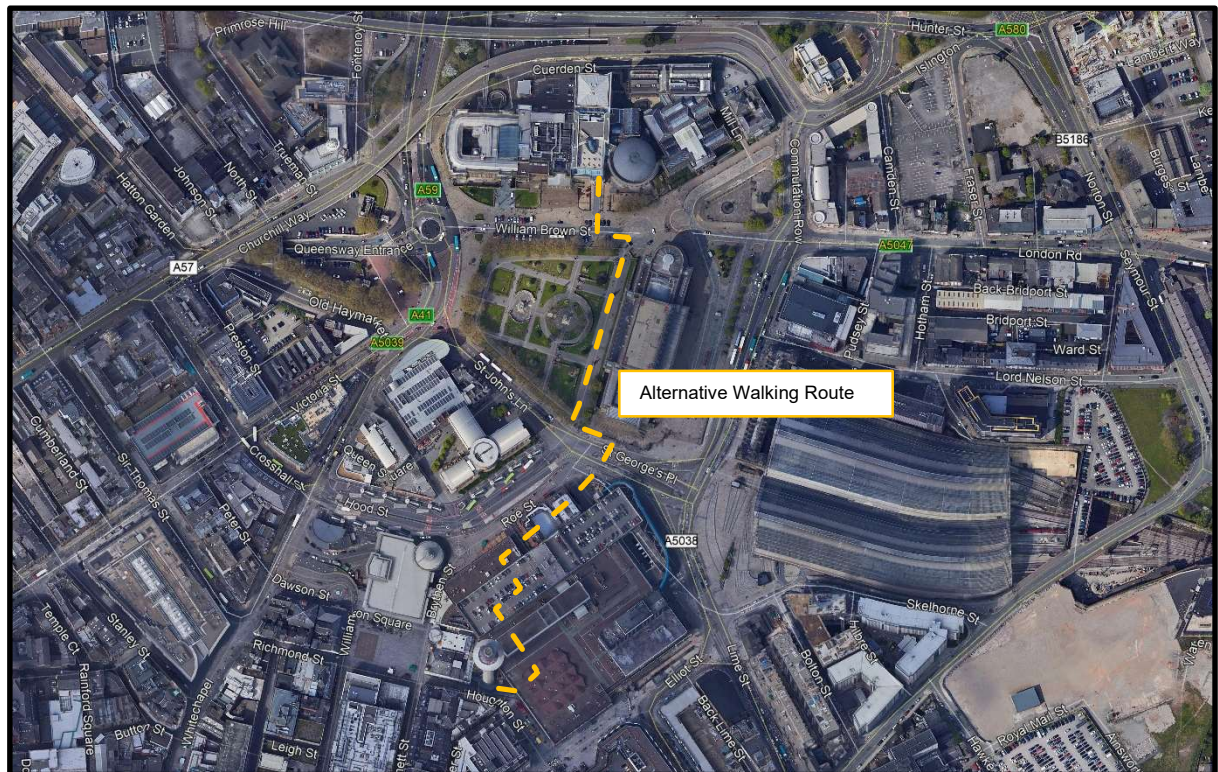
3.1.7 The proposed walking route is shown at **Figure 3.2** below:



**Figure 3.2** – Proposed Walking Route

- 3.1.8 As shown on **Figure 3.2** it is proposed that visitors would exit the library, cross the lightly trafficked William Brown Street, before passing through St John's Gardens. After this, visitors would be able to utilise the signalised crossing arrangement on St John's Lane and walk down the wide pedestrian concourse on Roe Street, before crossing Williamson Square and entering the Tower via Houghton Street. The majority of this walking route is 'traffic free' and where crossing the highway network is necessary excellent pedestrian facilities currently exist.
- 3.1.9 A secondary walk route has also been considered which will be reserved as an alternative route in inclement weather or for disabled access. This is shown at **Figure 3.3** below and as demonstrated utilises St John's Shopping Centre.





**Figure 3.3 – Alternative Walking Route**

3.1.10 Curtins understand from earlier discussions with the highway development control section of LCC, that several concerns were raised with regards to loose articles potentially falling from zip line users onto the local highway network.

3.1.11 Ensuring that no objects of belongings fall from any staff or participants is of paramount importance for the safety of staff, customers and the public. This has been achieved at other Zip World sites through a number of tried and tested means. The procedure to ensure that there are no falling objects is outlined in **Appendix C** to the rear of this report and include measures such as the following:

- A pre-arrival warning/check in process (including wand scanners);
- No personal technology is allowed on the ride;
- Laced up shoes and no jewellery;
- Pockets must be empty;
- Free lockers are to be provided;
- Grey coveralls are to be worn by users (with reinforced elasticated cuffs); and
- Zip World personal protective equipment will be provided (which are securely attached).

3.1.12 Zip World have operated for 6 years, on a variety of sites. The zip lines cross over both pathways and roads and there has not been an incident of an object dropping on someone due to strict policies and training in place. Across the world there are a number of zip lines that cross over pedestrianised areas, within Dubai and Las Vegas to name a few, and operationally it is possible to ensure that the likelihood of an incident like this occurring is minimal.

## 4.0 Accessibility by Sustainable Modes of Transport

### 4.1 Introduction

4.1.1 A key element of national and local policy is to ensure that new developments are located in areas where alternative modes of travel are available. It is important to ensure that developments are not isolated but are located close to complementary land uses. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

4.1.2 The accessibility of the proposed development is considered in this context for the following modes of travel:

- Pedestrian accessibility;
- Cycle accessibility; and,
- Public transport.

### 4.2 Pedestrian Accessibility

4.2.1 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution of Highways and Transportation (CIHT) document entitled 'Providing for Journeys on Foot' suggests walking distances which are relevant to this planning application. These are reproduced in **Table 4.1**.

CIHT Classification	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
<b>Desirable</b>	200	500	400
<b>Acceptable</b>	400	1,000	800
<b>Preferred Maximum</b>	800	2,000	1,200

**Table 4.1** – CIHT Recommended Walking Distances

4.2.2 To assist in summarising the accessibility of the site by foot, distances of 500m, 1,000m and 2,000m have been considered. These are termed 'Desirable', 'Acceptable' and the 'Preferred Maximum' by the CIHT for sightseeing trips, which are likely to be the most significant categories of trips generated by the proposed development.

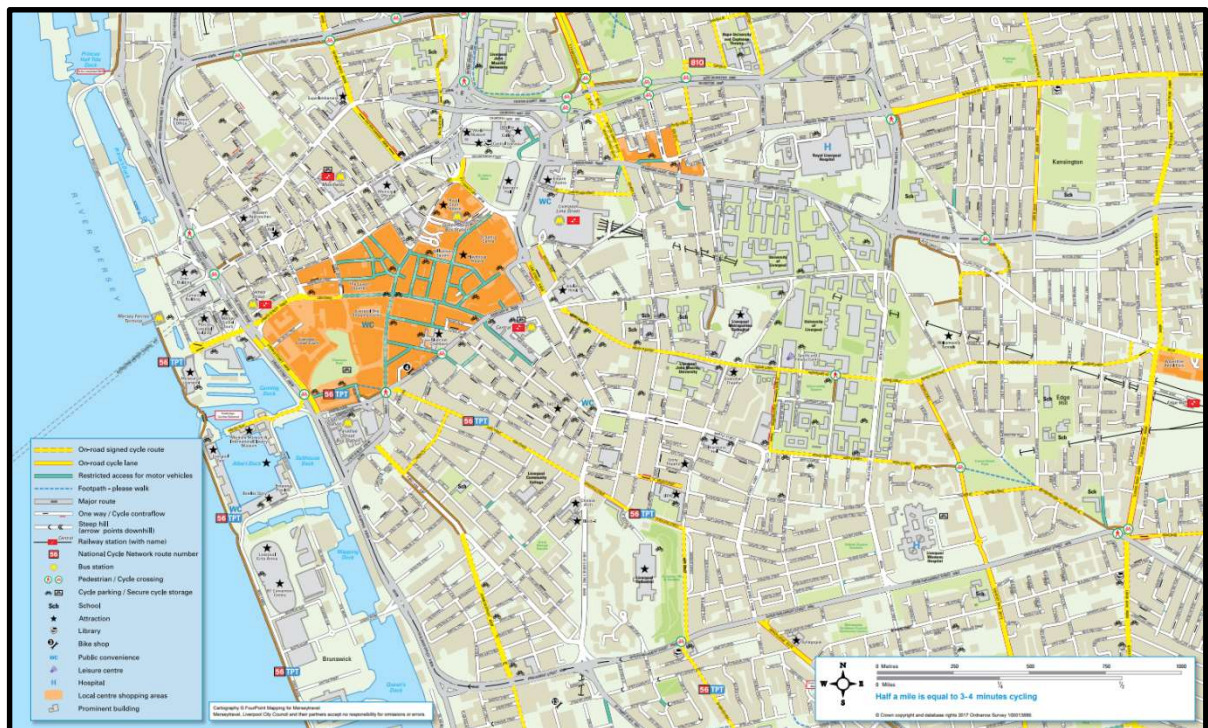
- 4.2.3 The surrounding land uses around the development location, and the pre-existing areas and tourist attractions within Liverpool City Centre, ensures that the site is situated adjacent to potential site users and with good levels of pedestrian infrastructure (for example within surrounding St John's Shopping Centre). It is therefore considered from a highway perspective, that the development location is highly suitable.
- 4.2.4 Within 500m of the development, there are a number of pre-existing opportunities available within Liverpool City Centre. There is a wealth of leisure and retail opportunities for example St John's Shopping Centre and the bars/restaurants located within Queen Square, amongst many others.
- 4.2.5 This catchment includes further tourist attractions, museums, local landmarks as well as surrounding employment and business districts. Other notable locations within this catchment include Queen Square bus station, as well as Liverpool Central and Liverpool Lime Street Railway Stations, which are discussed in further detail within the public transport section of this chapter
- 4.2.6 Within an 1km walk of the site, the majority of Liverpool One is accessible. Liverpool One is a large shopping, residential and leisure complex, anchored by department stores Debenhams and John Lewis and including additional facilities such as a 14-screen Odeon cinema and 36-hole adventure golf course, amongst manor others. There are also further restaurants, cafés and bars available along Liverpool's iconic waterfront, as well as increased employment opportunities and Moorfields Railway Station.
- 4.2.7 Within a 2km walk of the site there are also further restaurants, cafés and bars available along Liverpool's iconic waterfront, as well as increased sightseeing opportunities and Liverpool James Street Railway Station.
- 4.2.8 In summary, in light of the site's location close to existing local facilities it has been demonstrated that the site is highly accessible for pedestrians.

### **4.3 Accessibility by Cycle**

- 4.3.1 In order to assist in assessing the accessibility of the site by cycle an 8km cycle catchment for the site has been considered. The 8km cycling distance refers to a recommendation by Cycling England in the document 'Integrating Cycling into Development Proposals' (2009). This equates to a journey time of around 40 minutes, cycle at a speed of 12kph.
- 4.3.2 The catchment extends as far as Seaforth in the north, Norris Green to the east, Aigburth in the south and Upton to the west via the Queensway tunnel. The whole of Liverpool City Centre and the large residential areas of Bootle, Toxteth and Wavertree can be reached from the site via an accessible cycle ride.



- 4.3.3 In addition to the above there are ferries that run across the River Mersey on daily basis, which allow cyclist to take their bikes on board. As such, residents, employees and visitors will be able to utilise the ferry service to access areas of the Wirral Peninsula via bike.
- 4.3.4 In the immediate vicinity of the site there are several recommended or signed routes for cycling. These are traffic-free sections (including segregated and shared surfaces). Reference should be made to **Figure 4.1** which is an extract of Merseytravel's Cycle Map for the surrounding area, which details a number of the local routes.



**Figure 4.1** – Extract of Merseytravel's Local Cycle Mapping

- 4.3.5 Within the 8km cycle catchment of the site a number of National Cycle Network (NCN) Routes are also accessible. The nearest of which to the proposed development is NCN Route 56 which is located 1km south of the site. Locally NCN Route 56 offers a mostly off-road cycle path along the banks for the River Mersey, travelling through Liverpool City Centre and numerous residential areas.
- 4.3.6 All of the previously described retail, leisure and employment opportunities found within an accessible walk distance, can be reached within 10-minute cycle journey and the proposed development is ideally placed to take advantage of the cycle connections around Liverpool.
- 4.3.7 In summary, it is considered that cycling is a realistic mode of travel for future staff and visitors at the development.



## 4.4 Accessibility by Public Transport

### *Bus Accessibility*

- 4.4.1 Guidance from the Chartered Institution of Highways and Transportation (CIHT) document 'Guidelines for Planning for Public Transport in Development' indicates that ideally, a bus stop should be located within 400m from a new development.
- 4.4.2 Queen Square Bus Station is located approximately 100m south east of the site. Queen Square Bus Station is a calling point for many services travelling to and from Liverpool. A large number of Liverpool's suburbs are accessible from the bus station, should employees and visitors wish to travel to the site using bus transport.
- 4.4.3 Queen Square Bus Station includes 13 bus stands and destinations includes; Bootle, Kirkby, Preston, St Helens and Widnes. The Queen Square Bus Station is also served by night buses and many of the city's tourist open top services.
- 4.4.4 In summary, in light of the site's location close to a number of existing services at Queen Square it has been demonstrated that the site is highly accessible by bus.

### *Rail Accessibility*

- 4.4.5 The Chartered Institution of Highways and Transportation (CIHT) document, 'Planning for Public Transport in Developments' notes that visitors travelling to a site by rail will typically be prepared to walk further to the site than visitors travelling by bus, with a preferred distance of 800m. The nearest local train station to the development is Liverpool Central, located approximately 250m to the south of the site.
- 4.4.6 The Merseyrail service operates from Liverpool Central and the station provides regular and frequent trains (every 15 minutes) towards Southport, West Kirby and Chester, as well as many of the nearby local stations across Merseyside. At the station itself there is CCTV coverage, toilets, lifts, escalators, customer help and a ticket office. Reference should be made to **Table 4.2** below which summarises the rail services available from Liverpool Central James Street.

Destination	Frequency		
	Mon – Fri	Sat	Sun/Hols
<b>West Kirby</b>	15mins	15mins	30mins
<b>Chester</b>	15mins	15mins	30mins
<b>Southport</b>	15mins	15mins	30mins

**Table 4.2** – Summary of Rail Services from Liverpool Central

4.4.7 In addition to the above, Liverpool Lime Street is located 250m east of the site and provides regional and national rail services towards destinations such as Manchester, Birmingham and London.

## **4.5 Summary**

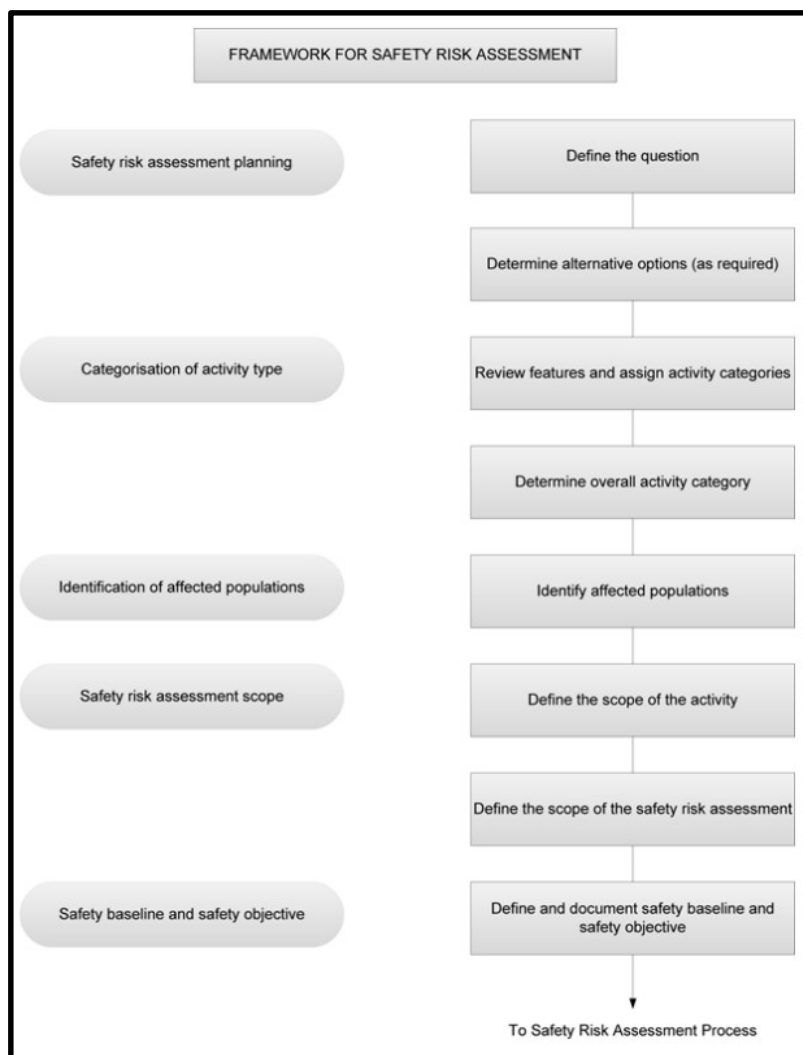
4.5.1 It is considered the site is highly accessible by sustainable modes of transport. The surrounding area exhibits excellent levels of pedestrian and cycling infrastructure, and there are a number of public transport opportunities within acceptable walking distance of the site. Overall and considering this, the site can be seen to be highly accessible by multiple modes of sustainable transport such as walking, cycling and public transport. No barriers to sustainable travel to and from the site have been identified with this TS.

## 5.0 Highway Safety Assessment

### 5.1 Introduction

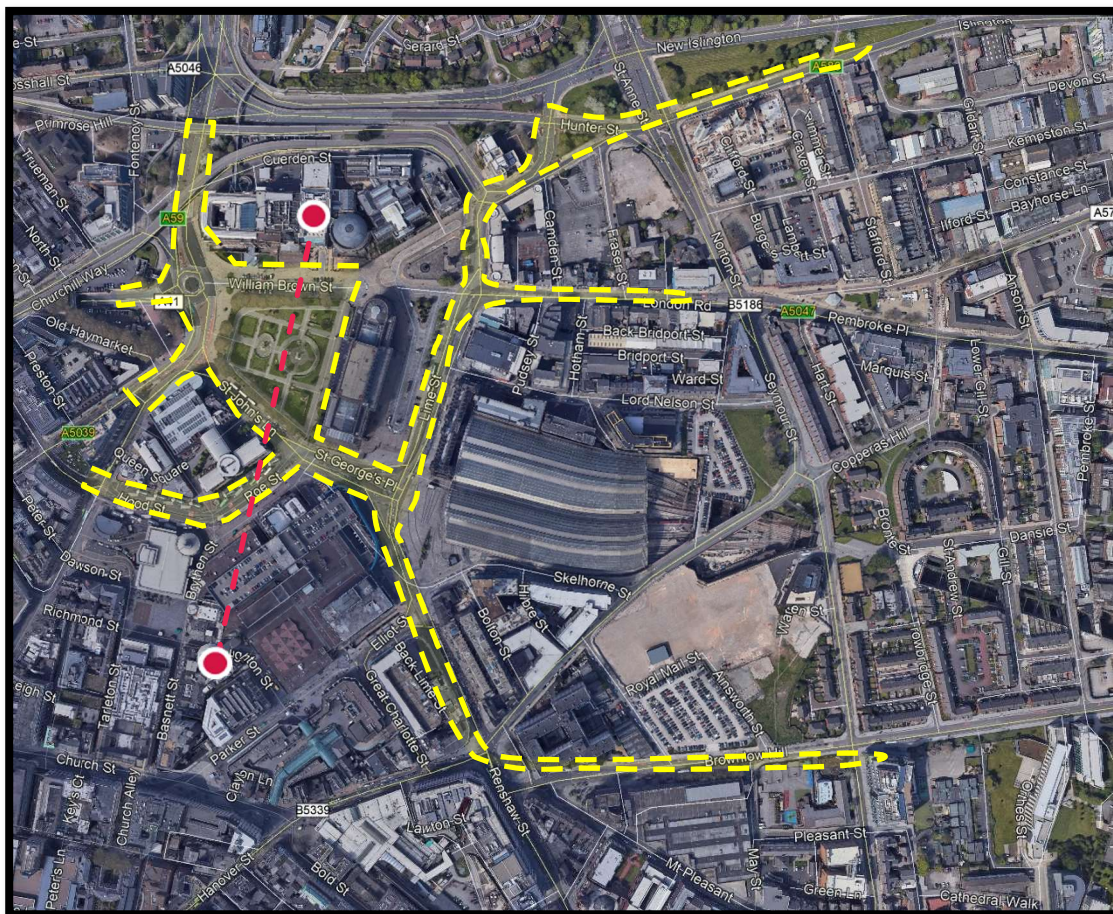
5.1.1 The Highway Safety Assessment found within this section of the TS has been prepared in broad accordance with the nationally accepted GG104 methodology from the DMRB. This document sets out the approach for safety risk assessment to be applied when undertaking any activity that does or can have an impact on safety on [Highways England's motorway and all-purpose trunk] roads, either directly or indirectly. It provides a framework for identifying hazards, assessing, evaluating and managing safety risks and assuring safety risk governance.

5.1.2 Reference should be made to **Figures 5.1** below which is an extract of the DMRB's GG104 Framework and Process for Safety Risk Assessments:



**Figure 5.1 – Framework for Safety Risk Assessment**

- 5.1.3 Curtins has undertaken numerous site visits in order to record locations where the attraction would be visible from the local highway network. This has formed an 'Area of Influence' (AoI) to be considered during this assessment, which has been expanded in line with the request by LCC Highways. Reference should be made to **Figure 5.2**, below which shows the 'AoI' for the proposed zip line.
- 5.1.4 The AoI has taken into consideration the local highway network with regards to the elevation and route of the proposed zip line, as well as the proximity and heights of adjacent building which will likely restrict driver's views of the development proposals.
- 5.1.5 Informed by the framework and processes found within GG104, **Section 5.2** below identifies and scores hazards within the below AoI based upon likelihood, frequency and severity. Hazards will include due consideration of potential risk factors (such as driver distraction, junction safety etc) and provide a clear and succinct red/amber/green scoring system. If deemed necessary, a package of mitigation works will be identified to make the risks ALARP (as low as reasonably practical).



**Figure 5.2 – Area of Influence (for Assessment Purposes)**

- 5.1.6 In addition to the above DMRB methodology this Chapter also includes a commentary on the general highway safety implications of the proposed zip line (**Section 5.3**) and researches other similar development uses and precedents (**Sections 5.4**).

## 5.2 GG104 Assessment

- 5.2.1 This section of the report utilises relevant aspects from the DMRB GG104 Assessment Guidance, notwithstanding that the guidance is specifically produced for use on roads within the UK's Trunk Road Network managed by Highways England.

### ***Safety Risk Assessment***

- 5.2.2 The Safety Risk Assessment process as outlined in Section 3 of the DMRB GG104 guidance has been applied to the evaluation of the proposed zip line.

### ***Hazard Identification***

- 5.2.3 Within the study area the key perceived hazard is the potential for drivers to glance at the zip line or its terminal points. We have broken down this potential hazard into a number of categories as follows:
- i. Zip line in view on approach to a pedestrian crossing facility
  - ii. Zip line in view on approach to a traffic signal controlled junction
  - iii. Zip line in view on approach to a priority controlled junction (including roundabouts)

### ***Hazard Analysis***

- 5.2.4 The hazard (or perceived hazard) relates to the interest or instance of driver seeing activity of persons using the zip line. Drivers may be tempted to look away from their immediate field of view, as they perhaps would if another feature was present such as an LCD advertising screen, or a fixed image advertising hoarding ("bill board"), or even at roads close to an airport's flight path where aeroplanes frequently cross in view of drivers' field of vision. Refer to Section 5.4 of this report which considers precedent examples.
- 5.2.5 When any such features are present, drivers of vehicles are fully expected to keep their focus and attention upon the road and the other road users, it is ultimately the driver's responsibility to do so. Doing otherwise would potentially risk a driver committing a traffic offence such as "*Offence Code CD10 - Driving without due care and attention*" which carries a penalty of between 3 and 9 points on the driver's licence.



***Analysis of Safety Risk.***


- 5.2.6 When a new feature or potentially distracting activity changes the baseline conditions in an area, it is suggested that the conditions quickly become normalised and drivers become very used to the new conditions around them. This was indeed the case when the large LCD advertising screen was installed along Lime Street. Drivers became used to this potentially distracting feature and have been observed to glance at the display whilst stationary at a red traffic signal, reverting their attention to the road and other road users in good time before the start of the green phase of the traffic signal sequence.

***Evaluation of Safety Risk***

- 5.2.7 The safety risk has been considered across the Aol using categories i to iii as outlined in the Hazard Identification section above. This evaluation has been set against the distance from the potential hazard and the potential hazard's position within the driver's field of view.
- 5.2.8 A summary of the risk evaluation process is provided in **Table 5.2** on the following page and a plan which identifies the key locations is presented in **Figure 5.3** which follows that table.

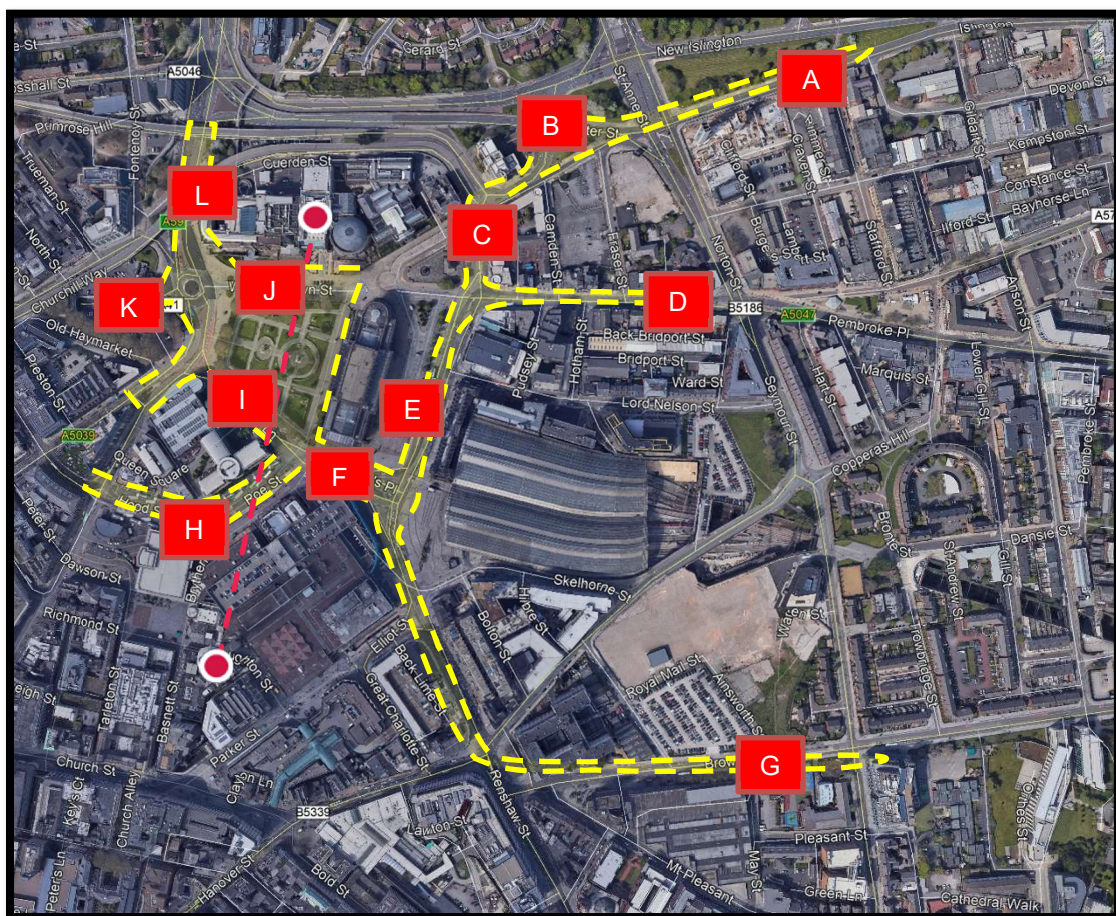


Transport Statement (with Safety Assessment)

Location	Road Name	Hazard Type	Distance from Zipline	Field of view	Comments	R.A.G
<b>A</b>	Islington	ii	450m	Side	Only glimpses of the zip line are achieved along this route due to the built-up frontage along the road.	
<b>B</b>	Hunter Street	ii	350m	Side	Zip line is barely visible, aided by tree cover.	
<b>C</b>	Commutation Row	ii	240m	Front	Zip line is visible in front at a low level, driver's eye will be looking ahead with any pedestrians within the same field of view.	
<b>D</b>	London Road	ii	400m	Front	Zip line is barely visible in front at a very low level due to the road topography.	
<b>E</b>	Lime Street	ii	200m	Front/Side	Zip line is visible in front and to the side at varying levels.	
<b>F</b>	St Georges Place	ii	100m	Front	Zip line is predominantly obscured by the limits of the driver's windscreen, to varying degrees subject to the vehicle type and seat position.	
<b>G</b>	Brownlow Hill	ii	400m	Front	As drivers pass through the junction of Clarence Street, the zip line is visible in the distance. By the time drivers reach Mount Pleasant MSCP the zip line is no visible	
<b>H</b>	Roe/Hood Street	ii	100m	Front	Buses only. The proximity of the zip line dictates that the top edge of the driver's windscreen will obscure views of the zipline.	
<b>I</b>	St Johns Lane	ii	60m	Side/Front	As drivers enter St Johns Lane, their view is obscured by the St Johns Shopping Centre. Once drivers pass that building at the junction with Hood Street the zip line is visible but soon becomes obscured by the limits of the windscreen.	
<b>J</b>	William Brown Street	iii	90m	Front	This road is a lightly trafficked cul-de-sac with a cobbled surface. Traffic speeds are low.	
<b>K</b>	Queensway Tunnel Exit	iii	160m	Front	There are no pedestrian facilities at this junction and guard railing deters such activity. All pedestrians are routed across the eastern footway alongside the gardens.	

					Any residual risk may be limited to rear-end vehicle to vehicle shunts.	
L	A59	iii	130m	Front/Side	As drivers pass where the flyovers have recently been removed, their view of the zip line is obscured by the museum/library buildings. As drivers approach the pedestrian crossing ahead of the tunnel entrance/exit roundabout, their view of the zip line in the distance is possible. Then, as drivers approach the roundabout the zip line is more visible, however the risk of rear-end shunts is possible but to a lesser extent than at location K.	

**Table 5.2 – Potential Hazard View Points**



**Figure 5.3 – Potential Hazard View Point locations**

### ***Safety Risk Mitigation***

- 5.2.9 Notwithstanding the above, it is recognised that some mitigation measures may be prudent in order to eliminate the risk of items falling from those riding the zip line, therefore, any loose articles will be collected from riders before they depart from level 2 of St Johns Tower. Those articles will be transported on foot to locker facilities at the terminal end of the zip line.
- 5.2.10 The riders themselves would be required to wear grey-coloured suits, provided by the zip line operators, again, this would be in place in order to minimise any residual risks of distraction. In addition, bus drivers could be provided with training / briefing in order to make them aware of the zip line proposals and to ensure those drivers are encouraged to ignore the activity and to rightfully focus on their duty of care to their passengers and to other road users.

## **5.3 Appraisal of Highway Safety**

- 5.3.1 Firstly, as a general principle it should be noted that drivers are almost always continually assimilating sensory inputs from multiple sources during the course of driving. It is not considered that the presence of a new tourism attraction at this location would represent a material departure from the types of features that drivers are used to seeing roadside all the time. Furthermore, it is the responsibility of the driver of any vehicle to keep its attention focussed upon the road and its users.
- 5.3.2 This is particularly true at this location where the surrounding roads hosts various off-carriageway infrastructure, such as the large LED advertising billboard on Lime Street, as well as events such as the Christmas markets opposite St George's Hall. Therefore, it is can be said that motorists are used to illumination from the LED displays and other road side interference, meaning a zipline would not represent an unusual feature to passing motorists and should be easily assimilated by them as part of the general urban streetscape and character of the area.
- 5.3.3 If a motorist was to witness a zip line user within its vision while driving, it would not tend to be a result of a motorists moving their head to look at them, as they would be passing through their field of vision. This would therefore mean that the drivers would still have the road encompassed in their peripheral vision, further minimising the potential for any distraction.
- 5.3.4 It should also be noted that the vehicle movements at the traffic signals within the aforementioned AoI, specifically those in which the zip line will be visible from are all conflict-free traffic phases within the staging sequence. Furthermore, there are excellent designated pedestrian crossing facilities at the junction as discussed in **Section 2**.

- 5.3.5 Drivers passing through the junction effectively have only one piece of information to assimilate over and above their normal driving activity – which is whether the signal head for the lane they are in shows green or red, and therefore whether they should proceed or stop. Drivers passing through the junction are aided further still in their path by the inclusion of directional green signal heads and carriageway road markings.
- 5.3.6 Similarly to when a driver glances at a road sign, a driver looking at the proposed zip line will still be able to hold a reasonable appreciation of the situation on the road around them using a combination of sensory information, including their peripheral vision. The built-up environment surrounding St John's Beacon (and the neighbouring roads) limits the visibility of the zip line from the surrounding highway network, for example building such as St George's Hall, Queen Square car park and St John's Market, amongst many others will obscure drivers' views of the zip line.
- 5.3.7 The A5038 Lime Street, St John's Lane and Roe Street, as well as many other roads surrounding Liverpool City Centre, all operate with very slow-moving traffic (as illustrated in **Figures 2.2** and **2.3** above). William Brown Street, which is located adjacent to the proposed landing site on Central Library, is subject to very little traffic due to its primary parking usage and also consists of a cobbled road surface, encouraging motorists to travel at low speeds,

## 5.4 Existing Precedents

- 5.4.1 As mentioned earlier in this report, it is not uncommon for features to be present alongside and/or above the highway which may have a perceived potential to distract drivers' attention.



### ***Roadside LCD Display Screens***

- 5.4.2 The most proximate precedent example of such a feature is the large LCD advertising screen which is positioned alongside Lime Street which is depicted in **Figure 5.4.1** below.



**Figure 5.4.1** – LCD Display Screen at Lime Street, Liverpool

- 5.4.3 The display screen has been in place alongside Lime Street for a number of years and the surrounding highway is heavily trafficked by motor vehicles, pedestrians and cyclists. Since the sign's installation there has been no apparent increase in accident frequency or severity. From earlier discussions with Merseytravel Curtins understand that whilst the LCD display screens caused problems for a few days following installation, their presence in the streetscape soon became the norm.

### ***Aircraft Flight Paths / Aircraft Activity***

- 5.4.4 During the final approach to a runway, aircraft fly sufficiently low enough to fall within a driver's field of vision. Many airports are located adjacent to built-up areas, where local roads cross the flight path.
- 5.4.5 An example of this can be seen in **Figure 5.4.2** below which presents a driver's eye view of an aeroplane approaching the runway at Manchester Airport.



**Figure 5.4.2** – Aircraft descending on approach to Manchester Airport

- 5.4.6 As can be seen within the image at Figure 5.4.2 the passing aircraft is within full view of drivers as they approach a traffic signal-controlled pedestrian crossing facility, in addition, shared pedestrian/cycle route exist along each side of the carriageway.
- 5.4.7 Several more examples of potentially distracting activity within a driver's field of vision are presented in the various images below which would have been subject to significant highway safety consideration prior to their implementation.







## 5.5 Conclusion

- 5.5.1 It is considered that whilst highway safety is a material planning consideration, there are no unacceptable highway safety concerns which would warrant the refusal of planning permission for the proposed development.

## 6.0 Transport Planning Policy

### 6.1 Introduction

- 6.1.1 The following section sets out key national and local Transport Planning policies and how the proposals accord with these.

### 6.2 National Planning Policy Framework (NPPF) 2019

- 6.2.1 NPPF sets out the current national transport planning policy and outlines the important role that transport policies have to play in facilitating sustainable development. From the outset, the Minister for Planning's Foreword lays the foundations for current policy thinking;

*"The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs".*

- 6.2.2 Paragraph 11 states that at the heart of NPPF is a "presumption in favour of sustainable development". For decision making this means granting permission unless:

*"...any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

- 6.2.3 Section 9 of the NPPF is entitled Promoting Sustainable Transport, and outlines the important role that transport policies have to play in facilitating sustainable development. The section states that:

*"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making".*

- 6.2.4 Paragraph 108 of the NPPF states that:

*"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- a) *Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location".*

- b) *Safe and suitable access to the site can be achieved for all users, and,*
- c) *Any significant impacts from the development of the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree".*

6.2.5 Paragraph 109 of the NPPF states that:

*"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".*

6.2.6 It has been demonstrated throughout this TS that the residual cumulative impacts of the proposed development would not be 'severe' from a highways and transportation perspective and the site is located in highly sustainable location. The proposed development accords with the NPPF.

### **6.3 National Planning Practice Guidance (NPPG)**

6.3.1 In addition to the NPPF, a National Planning Practice Guidance (NPPG) document has also been developed by the government. Within this document there is a specific section that clarifies the overarching principles on Travel Plans, Transport Assessments and Transport Statements.

6.3.2 Travel Plans, Transport Assessments and Statements can positively contribute to:

- 1) Encouraging sustainable travel;
- 2) Lessening traffic generation and its detrimental impacts;
- 3) Reducing carbon emissions and climate impacts;
- 4) Creating accessible, connected, inclusive communities;
- 5) Improving health outcomes and quality of life;
- 6) Improving road safety; and
- 7) Reducing the need for new development to increase existing road capacity or provide new roads.

6.3.3 The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required. It is appropriate that a Transport Statement is provided for a development of this scale. The NPPG has been considered in the production of this TS.

### **6.4 Merseyside Local Transport Plan**

6.4.1 The Local Transport Plan sets out implementation plans for the medium and long term and aims to improve transport within the Merseyside region. The Third Local Transport Plan envisions the following;

*"A city region committed to a low carbon future, which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice".*

6.4.2 The Local Transport Plan has six goals;

- *"Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, the Local Enterprise Partnership and the Local Strategic Partnerships.*
- *Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability.*
- *Ensure the transport system promotes and enables improved health and wellbeing and road safety.*
- *Ensure equality of travel opportunity for all, through a transport system that allows people to connect easily with employment, education, healthcare, other essential services and leisure and recreational opportunities.*
- *Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods.*
- *Maintain our assets to a high standard."*

6.4.3 As described in **Section 4** of this TS, the site is considered to be accessible by sustainable modes, including walking, cycling and public transport and is therefore considered to be consistent with the objectives of the LTP.

## **6.5 Liverpool City Council Policy: Liverpool Core Strategy**

6.5.1 Liverpool City Council in 2012 released a draft document of the 'Liverpool Core Strategy' which outlines the policies that should be taken into consideration when new developments within the city and surrounding areas are being planned and designed.

6.5.2 The Core Strategy includes section 6: 'The Delivery Strategy for Liverpool' and within this section there is the subsection: 'Strategic Policies' which includes the objectives that new developments should consider.

6.5.3 'Strategic Objective Seven - Maximising Sustainable Accessibility' is included in the 'Strategic Policies' subsection and outlines the main objectives and policies that are associated with travel, transport and accessibility of new developments.

6.5.4 Strategic Policy 34 states that:

*“Improving Accessibility and Managing Demand for Travel Development proposals should make the best use of existing transport infrastructure. Where this cannot be achieved, development should be phased to coincide with new transport infrastructure provision.*

*Developments which singly or in combination have a significant impact on the movement of people or goods, should, through the provision of Travel Plans, positively manage travel demand and contribute to the improvement of accessibility in general, particularly by more sustainable modes of transport including walking, cycling and public transport.”*

6.5.5 **Section 4** of this report shows that the proposed development is adjacent to existing public transport links and as there are several ways of accessing the site via sustainable modes of transport.

## **6.6 Conclusions**

6.6.1 In summary, the development proposals are considered to be consistent with local and national transport planning policy.



## 7.0 Summary and Conclusions

### 7.1 Summary

- 7.1.1 Curtins has been appointed by Zip World to provide traffic and transportation advice in relation to a planning application for a proposed two-line zip line in central Liverpool. The zip line will extend for approximately 400m beginning at Level Two of St John's Beacon and descending to the roof of the Central Library storage building.
- 7.1.2 The vision for the project is to create an exciting and engaging adventure sports venue on an iconic part of Liverpool City Centre architecture. Ongoing conversations with interested parties have result in positive outcomes in terms of feasibility and support.
- 7.1.3 A review of accidents on the local highway network does not indicate any correlations that would suggest that highway condition, layout or design were significant contributory factors in the accidents.
- 7.1.4 The highway safety assessment in broad alignment with Highways England guidance GG 104 has determined that the propose zip line will not create any material highway safety risks, particularly as the onus is always on drivers of motor vehicles to do so with due care and attention. Notwithstanding, some prudent mitigation measures are being proposed by the applicant in order to address potential issues regarding loose articles, prevent riders from wearing bright clothing and to inform bus drivers of their duty of care.
- 7.1.5 The site is located in the heart of Liverpool City Centre where pedestrian facilities already exist and are of a high standard with well-lit, well-used and well-defined footway networks close to the site. The walking, cycling and public transport opportunities at the site constitute alternative modes of travel to the car which are considered to be realistic modes of travel for commuter-based journeys.
- 7.1.6 A review of relevant local and national transport planning guidance has been undertaken. It is considered that the proposed development conforms with such policy.

### 7.2 Conclusions

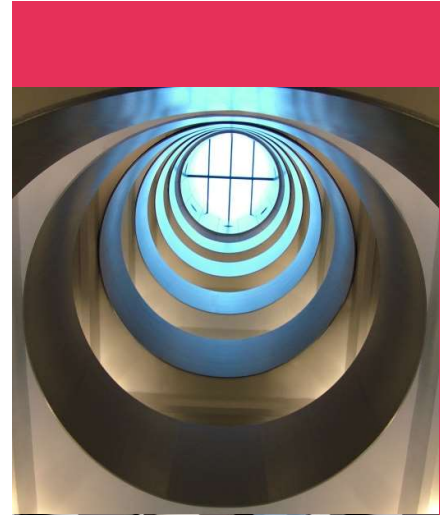
- 7.2.1 It is considered that whilst highway safety is a material planning consideration, there are no unacceptable highway safety concerns which would warrant the refusal of planning permission for the proposed development.
- 7.2.2 The proposed development meets the sustainable objectives of the National Planning Policy Framework and its residual traffic impacts are not severe.

## Appendix A – LCC Scoping Note

# Zip World, Liverpool

## Scoping Note for Traffic Safety Assessment

Curtins Ref: B07418  
Revision: V01  
Issue Date: 07 November 2019



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## Control Sheet

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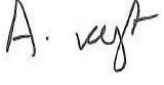
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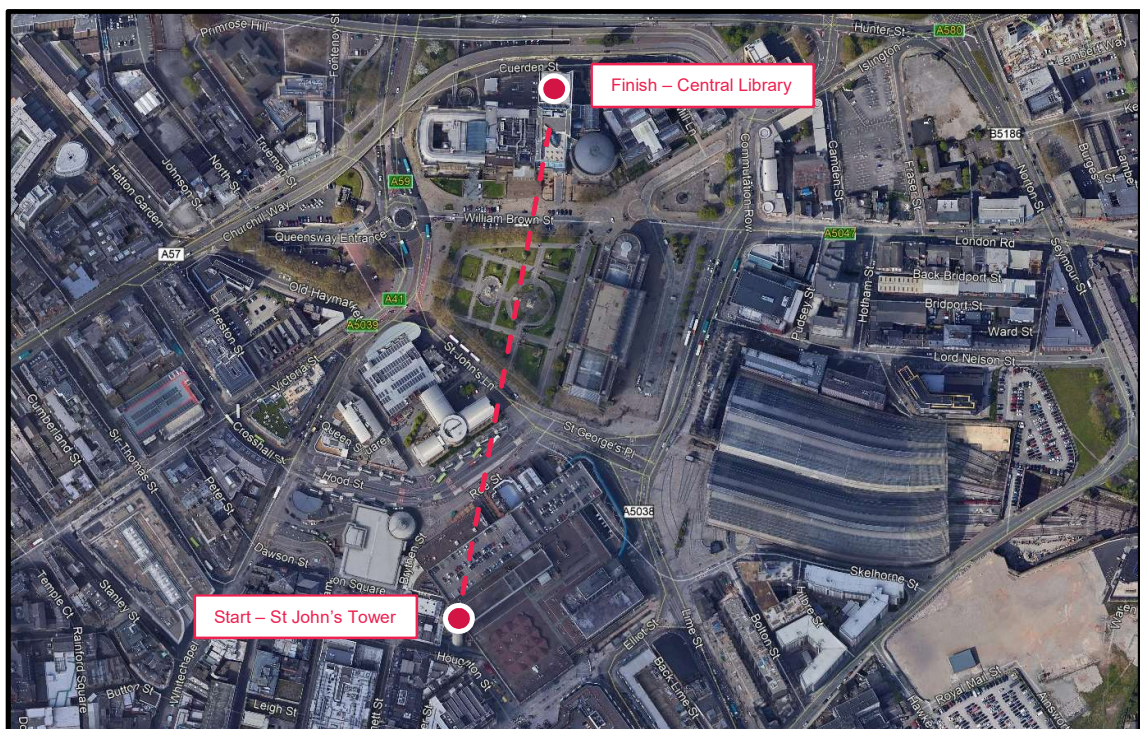
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## 1.0 Introduction

### 1.1 Site Proposals and Scoping Note

- 1.1.1 Curtins have been appointed by Zip World to produce a Traffic Safety Assessment (TSA) to accompany a planning application for a proposed two-line zip wire in central Liverpool. The zip wire will extend for approximately 400m beginning at Level Two of St. John's Tower and descending to the roof of the Central Library Storage building. The location and route of the proposed zip wire is shown in **Figure 1.1** below:



**Figure 1.1 – Proposed Zip Wire – Site Location**

- 1.1.2 It is anticipated that visitors will arrive at the Zip World facility and visitor's centre in St John's Shopping Centre, here they will receive their equipment and initial briefing. After, they will be led to the base of the tower and taken up to the top via a lift, visitors will then descend in pairs down the zip wires, with a secondary set of breaking wires above them that will be used to slow the passengers when landing. Once the ride is complete, a structure will bring visitors down from the roof on to the existing Library Terrace where they can enter the Library and make their way down to ground level and exit.
- 1.1.3 Visitors will then walk and carry their equipment back to the Zip World facility within St. John's Shopping Centre, to pick up their belongings left in lockers. Another other option currently being considered would be for a periodic electric bus to transport riders from the Library back to the Shopping Centre.

- 1.1.4 This Scoping Note seeks approval from the highway development control section of Liverpool City Council (LCC) to the key parameters to be used in the TSA, particularly with regards to the methodology utilised to identify any potential risks or hazards associated with the proposed scheme and the scope of assessment.

## 2.0 Proposed Methodology

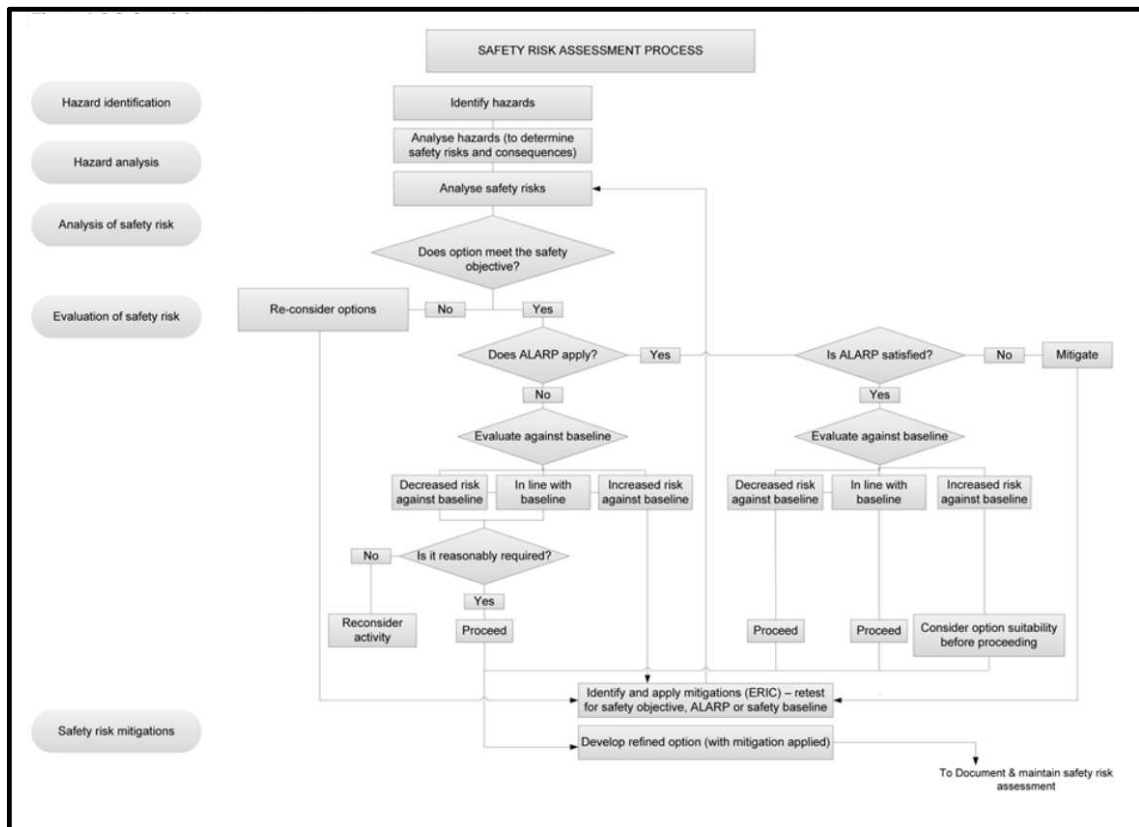
### 2.1 Methodology

- 2.1.1 The TSA will be prepared in broad accordance with the nationally accepted GG104 methodology from the Design Manual for Roads and Bridges (DMRB). This document sets out the approach for safety risk assessment to be applied when undertaking any activity that does or can have an impact on safety on [Highways England's motorway and all-purpose trunk] roads, either directly or indirectly. It provides a framework for identifying hazards, assessing, evaluating and managing safety risks and assuring safety risk governance.

- 2.1.2 Reference should be made to **Figures 2.1** and **2.2** below which are extracts of the DMRB's GG104 Framework and Process for Safety Risk Assessments:



Figure 2.1 – Framework for Safety Risk Assessment

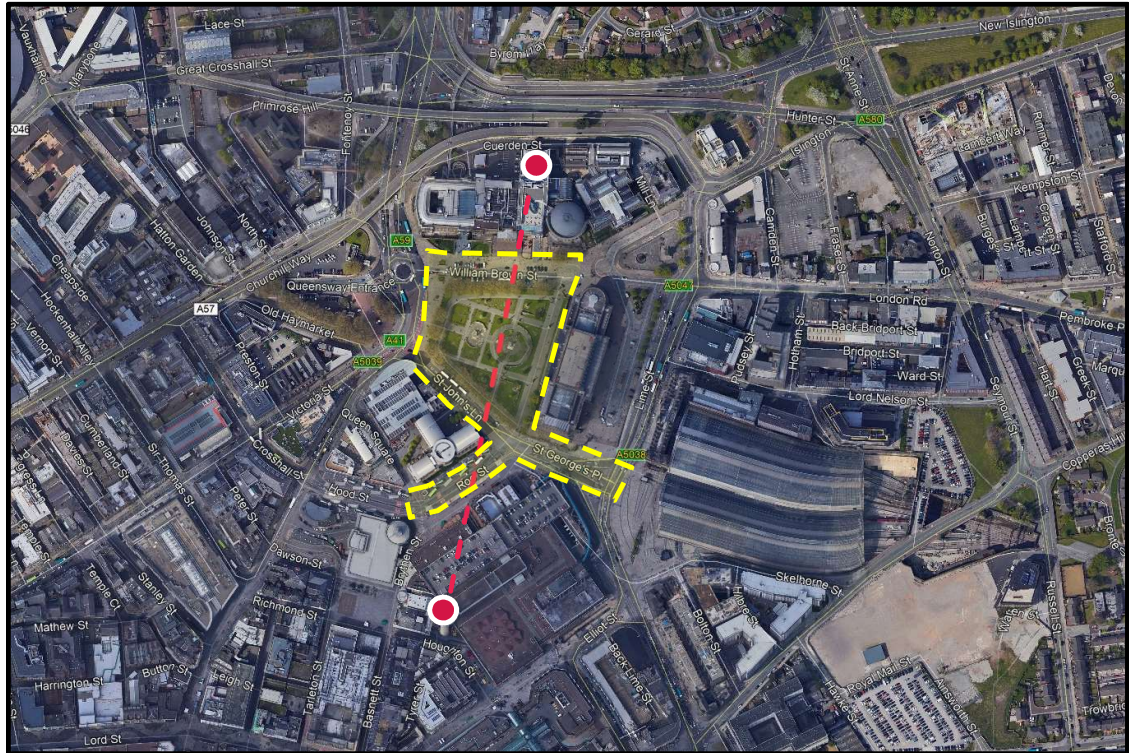


**Figure 2.2 – Safety Risk Assessment Process**

2.1.3 Prior to completing the above, Curtins have undertaken a site visit to record locations where the attraction would be visible from the local highway network (photography to be provided within the TSA). This has formed an 'area of influence' (AoI) to be considered during the assessment stage. Reference should be made to **Figure 2.3**, overleaf which shows the proposed 'AoI'. LCC's feedback on the proposed area is respectfully requested.

2.1.4 The AoI has taken into consideration the local highway network with regards to the elevation and route of the proposed zip wire, as well as the proximity and heights of adjacent building which will likely restrict driver's views of the development proposals.





**Figure 2.3 – Proposed Area of Influence (for Assessment Purposes)**

- 2.1.5 Informed by the framework and processes found within GG104, the TSA will identify and score hazards within the above AoI based upon likelihood, frequency and severity. Hazards will include due consideration of potential risk factors (such as driver distraction, junction safety etc) and provide a clear and succinct red/amber/green scoring system. If deemed necessary, a package of mitigation works will be identified to make the risks ALARP (as low as reasonably practical).

## 3.0 Conclusion

### 3.1 Scope of the TSA

- 3.1.1 On the basis of this Scoping Note, the TSA will contain the following:

- A description of the highway network in the vicinity of the site, including site visit photography;
- A review of the accident record in the immediate vicinity of the site for a five-year period;
- A summary of the highway operation;
- A summary of the development proposals (including elevation details);
- A highway safety assessment (based upon DMRB's GG104 methodology) which scores hazards based upon likelihood, frequency and severity.
- Identification of any potential mitigation measures if the assessment identifies a requirement; and,
- Commentary on the highway impact associated with the proposed zipline.

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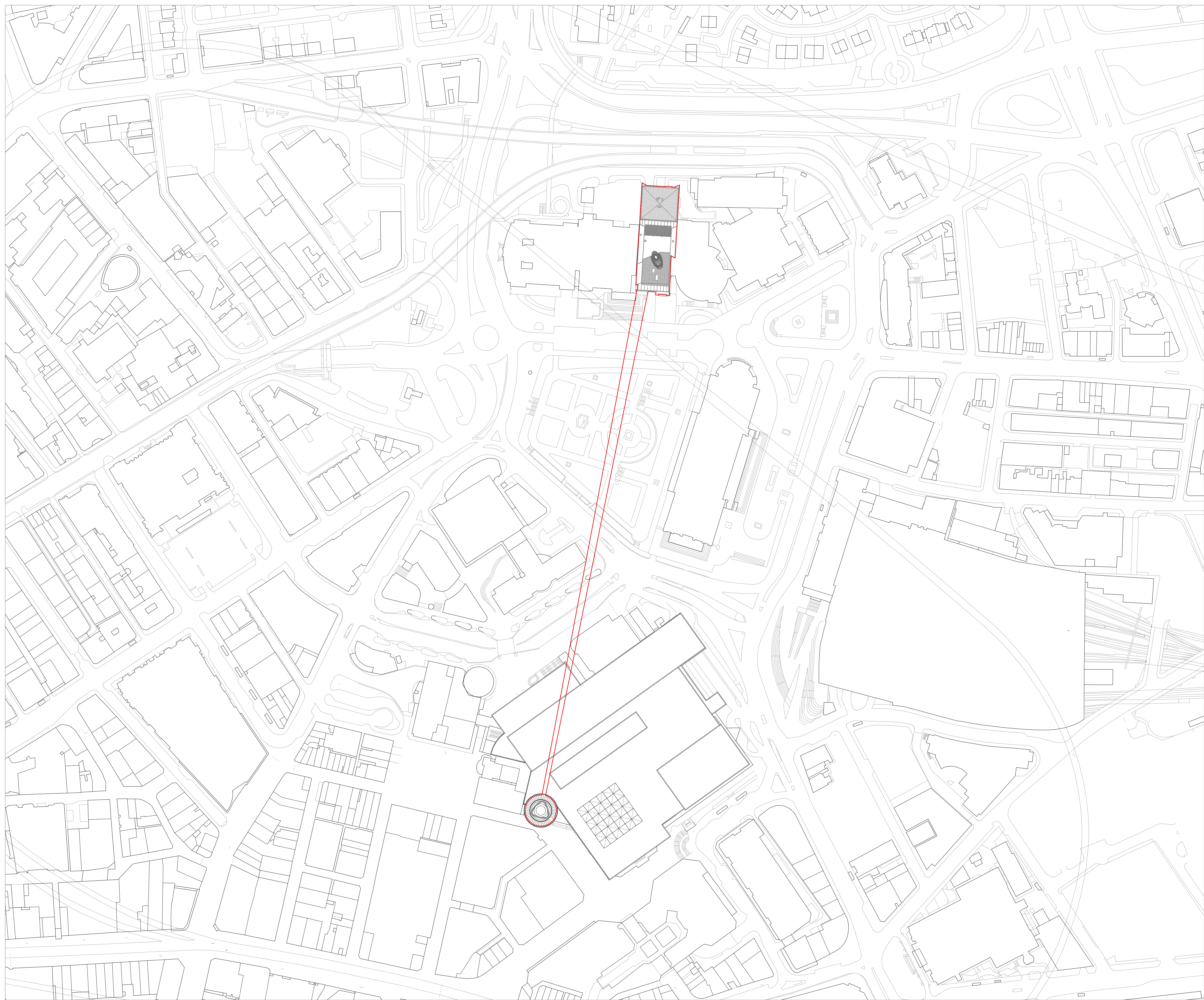
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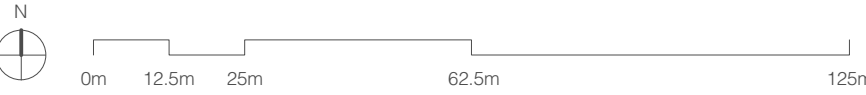
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## Appendix B – Proposed Site Plans





REVISION NOTES		
Revision	Date	Description



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## Appendix C – Loose Article Agreements



**Zip World Liverpool**  
**Loose article agreements**  
**Date: 11/10/2019**

**1.0 Planning - Loose article agreements.**

Ensuring that no objects or belongings fall from any staff or participants is of paramount importance for the safety of staff, customers and the public. This has been achieved at our other sites through a number of tried and tested means. The procedure to ensure that there are no falling objects are outlined below.

**1.1 Policy** - Within the terms and conditions of the adventure, it will state that in order to take part in the activity, you must not carry any loose objects on your person. For medical reasons, a secured pouch can be utilised.

**1.2 Pre Arrival/Check in** - Before the customer arrives to partake in the activity, they will be informed by the check in staff that there is strictly no loose items allowed on the adventure. This forms a part of our check in procedure on sites.

**1.3 No personal Technology** - Personal Technology, such as phones and cameras will not be allowed on the adventure. There will be a Zip World approved vendor for videos, which will be a tried and tested product, ensuring that it is suitably attached to the customer so that it can not fall off.

**1.4 Lase up shoes** - At check in and Kit up, shoes will be inspected to make sure that they are secure and not likely to fall. It will be specified in the terms and conditions that in order for people to participate, shoes must be laced and securely tied.

**1.5 No Jewelry** - At check in and Kit up, the staff will do a visual check of the customer to ensure that they do not have any jewelry on there person before they are kitted up. They will be given a locker space to place there belongings.

**1.6 Empty Pockets** - At check in and Kit up, the staff will ask the customers to empty their pockets. The customers will then verbally confirm that they do not have any loose items or belongings on their person. If there is a need for medical equipment to be on the person then a small secure pouch will be provided, which will be attached to their harness.

**1.7 Free Lockers** - Lockers will be available for participants to utilise so that any personal items can be safely stored, erasing the need for people to take items with them.

**1.8 Wand Scanners** - Prior to participants getting kitted up for the adventure, a wand scanner will be used to make sure that there are no object on the person that could potentially fall. This is mainly looking for jewelry, mobile phones and money.



**1.7 Adventure Safety Brief** - A safety brief is conducted once the customer has completed the check in, and has been kitted up. This brief outlines what to expect from the adventure, what you can and can not do and reiterates the point that no loose items are allowed on the adventure.

**1.8 Coveralls with reinforced elasticated cuffs** - To ensure that all items of clothing, are secured and should an object be in a pocket and fall out, it will be caught by the elastic at the cuff of the coverall.

**1.9 Zip World Equipment** - Personal protective equipment and equipment that will be worn by the customers is outlined below.

**1.9.1 Helmets.** Helmets will be attached via chin strap and secured with a rear adjustment band to ensure that the helmet is securely fitted, ensuring it is not able to fall off. Zip World are to review whether helmets are required, if they are not then they will not utilise them.

**1.9.2 Goggles.** Goggles will be attached via secondary attachment point so they can't fall off independently.

**1.9.3 Camera.** Camera mount will be permanently attached, with a lanyard to act as a safety backup.

## **2. Summary.**

Zip World have operated for 6 years, on a variety of sites. The zips cross over both pathways and roads and we have not had an incident of an object dropping on someone. This is down to strict policies and training. Across the world there are a number of zips that cross over pedestrianised areas, within Dubai and Las Vegas to name a few. Operationally it is possible to ensure that the likelihood of an incident like this occurring is minimal.

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