



Livingston Signage Strategy Alderstone Road Route

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APPENDICES

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1 Introduction

- 1.1 Dougall Baillie Associates (DBA) were commissioned by West Lothian Council to produce supporting information to accompany a new signage strategy for the cycling and walking routes within Livingston.
- 1.2 Livingston is one of the new towns that were designated throughout Scotland and the town was originally developed in the 1960s.
- 1.3 It has many transport features that were common of new towns, such as highspeed distributor roads with paths segregated from motor traffic using underpasses.
- 1.4 The design of these paths, being located some distance from motor traffic, can make orientation around Livingston difficult.
- 1.5 Many of these paths have be re-determined which now allows the paths to be used by both pedestrians and cyclists.
- 1.6 They are however often are otherwise unconnected short sections of path, pavement or sometimes even roadway, joined together with sparse signage which do.

Study Objectives

- 1.7 The aim of the report is to outline the good cycle / walking network that is available in Livingston through production of a signing strategy.
- 1.8 This study will be undertaken in accordance with the following objectives specified by West Lothian Council
 - Identify a potential network of walking and cycling routes within Livingston;
 - Identify current usage of walking and cycling paths in Livingston;
 - Raise awareness of routes through an example signage strategy produced for the Alderstone Road route that could be replicated throughout West Lothian;
 - Identify measures to improve walking and cycling on Alderstone Road Route.

Study Methodology

- 1.9 The study will involve the following stages-
 - Stage 1 Desktop Review Relevant local and national policy documents were reviewed. These included Sustrans Cycling Signage Recommendations as well as their report on Livingston's cycle routes. Transport for London's standards for signing London's Quietways was also reviewed. Further to this mapping was reviewed to help gain an understanding of the local routes and to inform the further stages of the report.
 - **Stage 2 Site Visit** The Alderstone Road route was extensively cycled and walked by the project team to identify issues as well as photographed to gain a record of existing conditions. This informed the project team of any potential strengths or issues with the route.
 - **Stage 3 Survey of Usage** As discussed with West Lothian Council, 3 key locations were surveyed to determine the use of the routes at present. Due to extremely poor weather conditions experienced in March, it was agreed to hold surveys later in the spring, to gain an accurate understanding of current usage.
 - **Stage 4 Review of Route and Current Signage** Following the site visit a review of the current route and signage available was undertaken.
 - **Stage 5 Suggested Improvements** Following on from Stage 4, recommendations were made on any improvements or new signage to be provided.

2 Desktop Review

Geographical Context

- 2.1 Livingston is a large new town in West Lothian that was largely developed from the 1960s onwards. The current population is estimated at 56,000 people and it is the second biggest settlement within the Lothian region after Edinburgh.
- 2.2 Livingston is located approximately 10km east of Bathgate, 25km west of Edinburgh and 50km east of Glasgow. There are also a number of small towns and villages surrounding Livingston including West Calder, East Calder, Uphall and Blackburn.
- 2.3 Livingston is home to a large retail sector within the town centre including shopping malls and retail parks as well as leisure options such as cinemas and restaurants. Livingston Football Club play at Almondvale Stadium which is an 8,000 seater stadium located within the town.
- 2.4 There are several primary and secondary schools throughout Livingston.
- 2.5 St John's Hospital is a large general hospital which first opened in 1989. It has a 24 hour Accident and Emergency facilities as well as maternity and surgical services for patients across West Lothian.
- 2.6 There are many businesses based in Livingston which provide significant employment opportunities. These are mainly contained in several industrial districts, such as the Houston Industrial Estate, Brucefield Industrial Estate, Alba Campus and Kirkton Campus.
- 2.7 A bus station is located in Livingston on Almondvale Avenue within the centre of the retail area.
- 2.8 Livingston has 2 railway stations however neither are located particularly close to the town centre.
- 2.9 Livingston North which has 4 trains an hour during the day on the Glasgow-Airdrie-Bathgate-Edinburgh line. Due to the popularity of the service, the car park at Livingston North is frequently over capacity with commuter parking (see Photo 2.1) and encouraging active travel to the station may help relieve some of the excess parking experienced.
- 2.10 Livingston South which has 2 trains per hour on the Glasgow-Shotts-Edinburgh line. Livingston South station is currently being upgraded to have longer platforms and with the line electrified for electric trains.
- 2.11 Uphall Station is also located on the Glasgow-Airdrie-Bathgate-Edinburgh line and serves certain areas to the north east of Livingston.
- 2.12 These facilities are shown on a map in Appendix A.

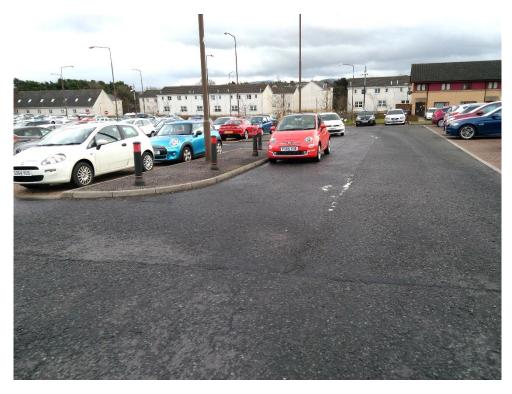


Photo 2.1 - Livingston North Car Parking out with bays

Commuting Data

- 2.13 Reference to commuting data for West Lothian, available in most recent Scottish Census, indicates that 49% of commuters remain within the West Lothian Council area. Livingston, as one of the major towns in the area is likely to be a significant attractor.
- 2.14 There is also a high flow of commuters to Edinburgh (22%), aided by the frequent rail links and short commuting time. There are also lesser flows of around 2% to Glasgow, North Lanarkshire, Falkirk and 1% to Fife.
- 2.15 Due to the number of commuters working locally, high quality walking and cycling routes within Livingston have the ability to encourage a shift to active travel.

Strava Data

- 2.16 As part of the study, DBA reviewed available Strava data. Strava data is collected from cyclists / runners when they record and share their activities on a compatible device.
- 2.17 Strava produces a heat map of these activities which is updated monthly and shows the most popular routes recorded in the last two years.
- 2.18 Reviewing this data indicated that despite that cyclists more commonly used the road network, rather than the off-road route. Runners, by comparison more

often stick to the footway/cycleway route. This can be seen clearly where the Alderstone Road route diverges from the road.

2.19 It is likely that some cyclists would choose to remain on the road rather than cycle on the shared path network for many reasons (desired speed being inappropriate for shared path etc), but it may be the case that some cyclists are not aware of the route and therefore cycle on the road.

Local Mapping

- 2.20 Unlike the roadways, some of the off-road paths in Livingston are not clearly or consistently mapped by mapping providers, particularly where paths do not follow road alignments.
- 2.21 This represents a challenge for users, as those planning a walking/cycling route using maps on a smartphone are often directed to use the road network, which can have discontinuous parallel footways, rather than the dedicated path network.
- 2.22 This can add to the notion that Livingston is challenging to walk/cycle through, despite the presence of good walking and cycling routes nearby.
- 2.23 There are 3rd party mapping arrangements such as the Spokes Cycle Mapping which detail the route networks within Livingston, however the Spokes map is chargeable which would limit usage by a casual user.

Relevant Studies and Policy Documents

- 2.24 DBA have reviewed both local and national policy documentation that is currently available.
- 2.25 Both West Lothian Council and Scottish Government policy encourage the uptake of active travel for environmental and public health reasons.
- 2.26 West Lothian Council have an Active Travel policy and the West Lothian Council website contains a section (<u>https://www.westlothian.gov.uk/activetravel</u>) which gives details on measures the council are taking to support active travel as well as information on active travel choices.
- 2.27 Along with local policy, National Policy has also been referred to in looking at the active travel route in Livingston. This includes, Cycling by Design, the Cycling Action Plan for Scotland and the National Walking Strategy all of which encourage active travel.



Figure 2.1 - Local and National Strategy Documents

- 2.28 Sustrans are a UK charity which supports active travel and implemented the National Cycle Network.
- 2.29 Sustrans have many policy documents on the signage of cycle routes, such as Technical Note 5 on Cycle network signage and Technical Note 27 on Signing and route branding which have been referred to within this review.

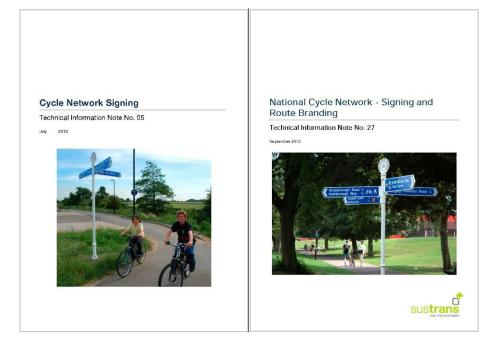


Figure 2.2 - Sustrans Technical Notes

2.30 Sustrans have also completed a review of signage of active travel in Livingston, which noted some of the challenges involved in navigating the local path network.

A review of signage for active travel in Livingston			
Main Project Report			
April 2015			
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Figure 2.3 - Sustrans Review of Livingston Signage

- 2.31 In recent years London has heavily developed cycle routes within the city including the 'cycle superhighway' and 'London Quietway' routes.
- 2.32 Many of the measures experimented in London were subsequently introduced into the latest Traffic Sign Regulations and General Directions (TSRGD) 2016 version.

2.33 As a result, London has produced guidance and best practice on cycle route design including signage. These documents have been reviewed to gain experience on London's recommended wayfinding measures.



Figure 2.4 - London Cycle Sign Guide

2.34 The Department for Transport has also produced guidance on reducing signage clutter in Traffic Advisory Leaflet 01/13, and it is important cognisance is taken of this advice when producing new signage schemes.

3 Signage Examples

- 3.1 The design and conditions of use of traffic signs on or near roads is set out in the Traffic Signs Regulations and General Directions (TSRGD). The most recent version of the TSRGD is the 2016 version.
- 3.2 TSRGD specifies diagram 2601.1/A, 2602.1/A/B/C, and 2602.2 for cycle routes. These signs can be adapted to suit various situations by using arrows pointing in all directions, adding pedestrian / horse symbols, displaying route numbers or names.





- 3.3 Many different types of signage schemes have been used for public paths, however some of these do not accord with TSRGD and therefore these signs would technically require authorisation by Transport Scotland or the Department for Transport.
- 3.4 DBA have undertaken a desktop review of various signage types used by other routes to gain an understanding of the positive and negative aspects of these signs.

London Cycle Superhighways and Quietways

- 3.5 London has seen high investment in cycle infrastructure in the last decade with the introduction of Cycle Superhighways and Quietways.
- 3.6 The Cycle Superhighways were introduced in 2008 with the intention of creating a numbered network of routes into central London from outer London.
- 3.7 The Quietways were introduced in 2016 and create numbered routes for less confident cyclists using quieter roads and back streets.
- 3.8 Both routes have distinctive signage aimed to promote the routes. Cycle Superhighways are numbered, with blue and white on-road markings. This is combined with distinctive pink branding on the signage and totem signage at key locations.
- 3.9 Cycle Quietways use similar branding but with purple colouring instead of pink. Examples of the signs can be seen in Image 3.2 below.



Image 3.2 - Cycle Superhighway Signage

- 3.10 The effect of the colour coding makes the network distinctive and easy to follow. The use of road markings also aids navigation whilst reducing signage clutter, albeit at the expense of additional maintenance.
- 3.11 Totem signage is also provided at key points. This is very distinctive and gives times to key places on each route along with a map to the rear, which can be used to aid navigation within the area.



Image 3.3 - Cycle Superhighway Totem Signage (Image from TfL Documentation and Wikimedia Commons)

South-West City Way (Glasgow City Council)

- 3.12 The South-West City Way is a segregated cycle route from Glasgow City Centre to Pollokshields in the south side of Glasgow.
- 3.13 As part of the route, map type signage is provided which allows users to orientate themselves with the route, where the route runs to and where key facilities, such as subway stations, are on the route.



Image 3.4 - Map type sign on South-West City Way

3.14 Supplementing the map type signage, is fingerpost signage to key routes and destinations as shown in Image 3.5.



Image 3.5 - Fingerpost destination sign on South-West City Way

- 3.15 These signs are not provided in the standard blue and white signage format but in Glasgow City Council colours of Green and Yellow.
- 3.16 The signage also uses times rather than distances, which can be more informative than distances, by demonstrating how quickly short distances can be covered.
- 3.17 This is a recent change in TSRGD due to users overestimating how long it takes to cycle/walk a trip. Using signage saying 18 minutes walk is often more encouraging than the distance of 1 mile.
- 3.18 It should however be recognised that times can only be approximates given different speeds that people can walk and cycle and may be inappropriate for some users, particularly those with mobility issues.
- 3.19 Fingerpoint signage as shown, can have disadvantages as if signs get turned they can point to the wrong direction.

National and Local Cycle Route Signage

- 3.20 National Cycle Routes used TSRGD compliant signage with the National Cycle Route numbers being reflected in red panels. Where the cycle route is part of a regional route, these numbers are shown in blue panels.
- 3.21 Local cycle route signage usually replicates this style and examples of these signs can be seen in Image 3.6 below.
- 3.22 The Alderstone Road path and National Cycle Route 75 in Livingston currently use the blue and white TSRGD signs along with other styles.



Image 3.6 - Typical National Cycle Route and Local Route Signage

4 Existing Signage

- 4.1 A wide range of existing pedestrian and cyclist signage is used in Livingston.
- 4.2 Image 4.1 shows an example of the current signage. This type of sign can be difficult to read due to mounting height combined with small x-height (text size).



Image 4.1 - Existing Green/White Path Signage

- 4.3 The name of the path is included on the signs but is at the bottom of the sign. As it is not highlighted it could be mistaken as directions to that path rather that the path being used.
- 4.4 There is also use made of standard blue and white pedestrian signage. This notes the path name clearly at the top along with local destinations and distances.
- 4.5 The x-height is also larger making the signs easier to read at a distance. Image 4.2 shows the typical blue and white signage.



Image 4.2 - Existing Blue/White Path Signage

- 4.6 As shown in Image 4.2 the signs for different directions are not incorporated into one sign face, this can lead to clutter and make the signage difficult to read at a glance.
- 4.7 The signage can often get twisted by vandalism / weather / vehicle strikes, which leads to signs pointing in the incorrect direction causing confusion.
- 4.8 Along with the above signage, there is also older brown background with white text signs. These signs are shown in Image 4.3.
- 4.9 These signs contain various destinations in differing directions on one panel, but do not state times or distances.
- 4.10 Many of these signs are showing signs of ageing and vandalism, with some missing letters and being difficult to read.
- 4.11 They however are fixed by two poles to the ground meaning they do not suffer from rotation.



Image 4.3 - Existing Brown/White Path Signage

Signage Clutter

- 4.12 Whilst the erection of signs can aid navigation, too many signs can cause sign clutter, leading to confusion whilst additional poles in footways can reduce pedestrian and cycle comfort.
- 4.13 Detailed signs should only be used at key decision points, for example at major junctions or facilities. Route confirmation signage should be used where route coherence could be lost i.e. crossing roads or where users would like be reassured they are still on the correct path.
- 4.14 Vertical and horizontal clearance are the two main considerations and so the following minimum requirements must be met.
 - The base of the sign should be no lower than 2.1 metres (2.3 metres if cyclists are using the space)
 - The edge of the sign should be no closer than 450mm from the edge of the carriageway

5 Walking and Cycling Network in Livingston

- 5.1 As noted, Livingston contains several named and signed paths which provide walking and cycling routes between various areas of the town.
- 5.2 This includes National Cycle Route 75, which travels east to west across the town.
- 5.3 Whilst many of these paths are named, they can often be short unconnected sections of path, pavement or sometimes even roadway.
- 5.4 The naming system and destinations on signs often refer to local residential areas / parks and this can be of lesser value to visitors who may be unfamiliar with local geography.
- 5.5 Path names are often inconsistently applied especially where paths share a common routing for a short section. As an example, the Alderstone Path shares a section of its route with Almond Path, however only the Almond Path is signed which can lead to confusion for those on the Alderstone Path.
- 5.6 Paths can often have multiple names rather than one name over the entire path length. For example, the Peel Path changes name to the Harrymuir Path instead of having a consistent name along its length.
- 5.7 Many of the paths would be able to be formed into routes which could help provide a coordinated network across Livingston.

Path and Signage Proposals

- 5.8 As part of the study, DBA have undertaken as desktop assessment of the existing path network within Livingston.
- 5.9 The key existing paths were identified, and a network of routes suggested that would give access to the majority of areas and serve key facilities throughout the town.
- 5.10 It should be noted that DBA have not undertaken audits of all paths for walking and cycling suitability as this was out with the scope of the current study.
- 5.11 The list of routes is not exhaustive and additional paths/routes would be able to be added where demand or development allows.
- 5.12 Each path will be given a 'colours and number system' of route naming and identification as permitted within the TSRGD.
- 5.13 In terms of numbering, a hierarchy would be introduced. Odd numbers would be used for routes that generally run north-south with even numbers for routes that generally run east-west.

- 5.14 For example, the Alderstone Road exemplar project would be named L1. The L in the route number stands for Livingston and could be rolled out to other towns in West Lothian where demand exists (B for Bathgate, W for Whitburn for example).
- 5.15 The number and colour coding will be easier for all users to follow than the current path names, which as noted can be discontinuously referenced.
- 5.16 Red and Blue would not be used for the colour coding due to their existing nationwide use as National / Regional Cycle Route identifiers.
- 5.17 It is suggested that the National Cycle Route 75 number is retained in any signage and that this route is not renumbered or recoloured to the local network.
- 5.18 To reduce sign clutter, use of thermoplastic road markings with the route number would also be made.
- 5.19 Based on the above, DBA would suggest the following hierarchy-
 - L1 Alderstone Route Orange
 - L2 Almond Route Bright Green
 - L3 Bankton Mains Path Grey/Silver
 - L4 Railway Route Yellow
 - L5 Loans Route Pink
 - L6 Peel Route White
 - L7 Kirkton Deans Route Purple
 - L8 Waverley Route Dark Green
 - L9 Folly Burn Route Black
 - L11 Grange Route Cyan
 - NCR 75 Red as per national standards
- 5.20 An illustrative map for suggested DBA routes, their numbers and colours are shown on the DBA Drawing within Appendix B.
- 5.21 The displayed route numbers are for example only and are in no way indicative of actual proposals which would be implemented by West Lothian Council as appropriate.

6 Alderstone Road Route Review

- 6.1 WLC identified the Alderstone Route as a key route within Livingston and as a route where an exemplar project should be implemented, showing what could be done more widely and providing learning for the roll out of further schemes.
- 6.2 The first step in this process was to review the existing situation on the Alderstone Road route to understand the current route and signage available.
- 6.3 As part of the study DBA travelled the length of the route by walking and by bike.
- 6.4 The audit was carried out by staff members who were not familiar with the Livingston area in order to replicate the situation a visitor to Livingston, who will be more reliant on signage, may experience.

Alderstone Road Survey

- 6.5 Travelling from North to South, the Alderstone Road route starts at Livingston North railway station where it meets with the Railway Path South.
- 6.6 The following photos show the route and signage at key points.
- 6.7 Covered cycle parking is provided at Livingston North Station as shown in Image 6.1. This would be ideal for commuters traveling to the station.



Image 6.1 - Cycle Parking at Livingston North Station

6.8 There is ramped access between the Railway Path and Alderstone Route as shown in Image 6.2. Signage for the Railway Path is attached to the lighting columns and



Image 6.2 - Signage for Railway Path and Ramped Access to Alderstone Path

6.9 The Alderstone Route starts adjacent to Alderstone Road at the railway bridge. Signage is attached to the lighting column as shown in Image 6.3, but it is not in a convenient location for users heading south from the westbound platforms.



Image 6.3 - Signage at Start of Alderstone Road

6.10 The signage also references 'Town Centre, Civic Centre, Almondvale' without any distances or times. The sign also does not reference key destinations, such as St. John's Hospital.

6.11 There is further signage to the south, also on a lighting column, with a green background as shown in Image 6.4.



Image 6.4 - Signage at Start of Alderstone Road

6.12 The Alderstone Route is at this point then diverges away from the road. It is generally of a width common with shared paths. A route confirmation sign is provided attached to the lighting column as shown in Image 6.5.



Image 6.5 - Route confirmation sign

6.13 The Alderstone Route then travels through an underpass of Houstoun Road, however no signage indicates which road you are passing under as shown in Image 6.6.



Image 6.6 - Route confirmation sign

6.14 Following this the route intersects other paths. Whilst signage is provided, it is high up on a lighting column and therefore is not easy to read.



Image 6.7 - Lack of directions at decision point



Image 6.8 - Signs difficult to read

- 6.15 At points the route splits to provide paths to bus stops as shown in Image 6.9. There is no indication to the unfamiliar user which route is the path at these locations.
- 6.16 This lack of clear guidance is noted at several points, particularly in crossing main roads or where paths split.



Image 6.9 - Unclear route directions



Image 6.10 Lack of clear information on route crossing road



Image 6.11 - Lack of clear route directions



Image 6.12 - Route is not obvious at a glance on bike causing uncertainty

6.17 Photo 6.13 shows signage where the Alderstone Road Route intersects with the Eliburn Path. The signage is located high up on the lamppost, presumably to deter the signs being turned, however the small text x-height used makes them hard to read.



Image 6.13- Difficult to read signage



Image 6.14- Bridge with low parapet height

- 6.18 At the bridge over A705 Cousland Road, the parapet height appears low, especially for cyclists. Sustrans has produced extensive guidance on parapet heights, but ideally cyclists should be channelled away from the parapet by road markings.
- 6.19 Image 6.15 shows a further location where no route confirmation is given.



Image 6.15- No confirmation as route branches



Image 6.16 - Multiple signs on one post

- 6.20 Image 6.16 shows multiple signs all located on one post. This is cluttered and should be replaced with a single sign. The signs have also become slightly twisted away from intended destinations.
- 6.21 Within Image 6.17, multiple signage types are shown near the hospital, indicating obsolete signage has not been removed as new signs provided.



Image 6.17 - Multiple signage types

6.22 Within Image 6.18 and 6.19 below, there is a clear uncertainty over the route choice at certain points with a lack of directional signage or road markings to give information.





Image 6.18 and 6.19 - Route Uncertainty



Image 6.20 - Signage Clutter

- 6.23 At the intersection with NCR75/Almond Path there is a multiple of signage, all with separate signage panels instead of one or two sign panels as appropriate.
- 6.24 The signage in is often at right angles to the route, and due to clutter can be difficult to read at a glance on a bike. This is shown in Images 6.20 and 6.21.



Image 6.21 - Signage Clutter



Image 6.22 - Cycle Route / Footway Provision

- 6.25 The Alderstone Path intersects with the Almond Path / NCR 75 at this location, running along a combined section until passing under Alderstone Road.
- 6.26 Despite this, the cycling and footway provision in this section is poor, with narrow paths including bushes overgrowing onto paths. There is no continuous path on the north side but no obvious crossing point is provided.
- 6.27 After passing under Alderstone Road, signage is provided but this has been twisted, and is on multiple panels adding to clutter as shown in Image 6.23.



Image 6.23 - Twisted signs on multiple panels



Image 6.24 - No Toucan Provision at Crossings

- 6.28 As the route reaches Almondvale Stadium and the Lidl Supermarket, new signalised junctions with crossings have been installed, however these junctions do not have Toucan provision as shown in Image 6.24.
- 6.29 Further to this the signage in this location is located on lighting columns, at right angles to the route, making it difficult to read at a distance or without stopping to read as shown in Image 6.25.



Image 6.25 - Signage at right angles to direction of travel



Image 6.26 - No signage provided to indicate route

- 6.30 The route reaches the Campus Roundabout however no signage is provided in this location as shown in Image 6.26 and 6.27.
- 6.31 It can also be difficult to cross the road at the roundabout in this location due to speed of traffic.



Image 6.27 - No signage provided to indicate route



Image 6.28 - No Pedestrian Phase at roundabout

- 6.32 The Almondvale Roundabout is signalised but no pedestrian/cyclist phase has been incorporated in the signalisation. This can make crossing difficult, particular on exits which are uncontrolled.
- 6.33 Signage is sporadically provided, occasionally on central islands, as shown in Image 6.29. This is not an optimum location as signage should be placed to allow decisions to be made before crossing roads.



Image 6.29 - Signage on Central/Splitter Island at Morrisons Approach



Image 6.30 - Signage not visible on approach

6.34 At the Adambrae Roundabout, the signage is again provided on the splitter island. As shown in Image 6.30, the signage is orientated to be visible when crossing from the island and is therefore not visible those approaching.



Image 6.31 - Signs on splitter island only visible from opposite angle



Image 6.32 - Path deviates from road towards underpass with no signage

- 6.35 As the path deviates from the road on the approach to the Bankton Roundabout there is no confirmation that you remain on the correct road.
- 6.36 Equally as shown in Image 6.33, when you reach the decision point at the underpass there is no signage indicating which path the route follows.



Image 6.33 - No signage to confirm route through underpass



Image 6.34 - Multiple sign types on lighting column

- 6.37 In Image 6.34, there are multiple different types of signage attached to the lighting column. The signs in green are difficult to read due to text size and mounting height.
- 6.38 At Birrell Gardens there are signs attached to the lighting column. The position of these signs means they are not obvious to a cyclist or pedestrian until they are right at the junction.



Image 6.35 - Signs on lighting column at Birrell Gardens



Image 6.36 - Footway Ends at Muirieston West

- 6.39 The signs in Image 6.35 also indicate that those travelling to Livingston South station should continue along Alderstone Road.
- 6.40 The continuous footpath on the north side of the road ends at the junction with Muirieston West. Users are expected to cross Alderstone Road using the pedestrian island outside of Muirieston Medical Practice, which is not signed.
- 6.41 DBA believe that signing the route using the pathways in Orange in Image 6.37 may present a better route for users.



Image 6.37 - Current Route (red) with suggested route (orange)



Image 6.38 - Deviating from Current Route at Birrell Gardens

6.42 Deviating from the current route at the junction of Birrell Gardens, the route would use a path parallel to Alderstone Road as shown in Image 6.39.



Image 6.39 - Path parallel to Alderstone Road



Image 6.40 - Connection with path from Bellsquarry

- 6.43 This path meets a high quality path from Bellsquarry that passes under Alderstone Road as shown in Image 6.40.
- 6.44 This path is wide and of a good alignment as shown in Images 6.41 and 6.42.



Image 6.41- Path from Bellsquarry



Image 6.42 - Path from Bellsquarry

6.45 This path meets the Bankton Mains Path, just before the underpass to Muirieston West Road. The signage at this location is contained on multiple signs as shown in Image 6.43 leading to sign clutter.



Image 6.43 - Multiple Signs at Muirieston West Road Underpass



Image 6.44 - Bankton Mains Path after Underpass

- 6.46 The Alderstone Route would then share a route with the Bankton Mains Route from this point. Image 6.44 shows this path.
- 6.47 At Bankton Place, both the Alderstone Route and Bankton Mains Route would turn off the path to the south, towards Livingston South Station.
- 6.48 This is clearly signed as shown in Image 6.45, but the sign type would be liable to rotation.



Image 6.45 - Signage at Bankton Place



Image 6.46 - Path to rear of houses on Bankton Place

- 6.49 The path from this point is of a good quality to the rear of houses on Bankton Place as shown in Image 6.46. There is one road to cross on this section, Bankton Place, which is a minor residential cul-de-sac.
- 6.50 Path users would then reach Alderstone Road. This crossing is currently uncontrolled, with red surface material defining the crossing as shown in Image 6.47.
- 6.51 Whilst Alderstone Road is traffic calmed, consideration should be given to upgrading the crossing to Toucan Control.



Image 6.47 - Crossing of Alderstone Road



Image 6.48 - Path from crossing towards Livingston South Station

- 6.52 There are two choices in routing from this point to Livingston South. It is possible to take the path parallel to Alderstone Road (Image 6.48) to the south side of the station.
- 6.53 The signage, as shown in Image 6.49, suggests users should continue north along the Bankton Mains Path, but currently the access to the station car park from this point was being used as a site compound for railway line electrification works as shown in Image 6.50.



Image 6.49 - Signage at Alderstone Road Crossing



Image 6.50- Bankton Mains Path to the South showing Site Compound

- 6.54 Livingston South station has covered cycle parking facilities. Given the improvement works taking place to the Glasgow-Edinburgh via Shotts line, it can be anticipated that usership will increase in future years.
- 6.55 Signage is provided at the station as shown in Image 6.51. The sign gives details to Bankton Mains Park, which is unlikely to be a key destination for rail users as well as the Town Centre.
- 6.56 The sign is also pointing towards the north west but it is not clear which path users should take, with no confirmation signage being provided on any path after this to indicate that the correct route has been taken. Totem signage indicating a greater range of destinations as well as map could be more useful in this location.



Image 6.51- Signage and Cycle Parking at Livingston South Station

7 Usage Surveys

- 7.1 In order to understand the use of the path network, usage surveys were implemented in 3 locations.
- 7.2 The 3 locations were located across Livingston on the Alderstone Path. These locations were-
 - Alderstone Path / Railway Path South at Livingston North Railway Station
 - Alderstone Path / NCR 75 location
 - Alderstone Path / Bankton Mains Path
- 7.3 The surveys were undertaken from 6am to 7pm on a weekday.
- 7.4 Due to inclement weather experienced in March 2018 and then the Easter holiday period, the usage surveys were postponed until April.
- 7.5 Due to repeated vandalism of camera equipment at the Alderstone Path / NCR 75 location, this survey required to be manually counted and did not take place on the same date as the other surveys.
- 7.6 The survey results are provided in Appendix C for the full day and peak AM and PM commuting periods.

8 Proposed Alderstone Road Signs

- 8.1 It is proposed to introduce a colours and numbers method of route numbering as outlined in Section 5 of the report.
- 8.2 DBA have proposed that the Alderstone Route would be coloured orange and numbered L1, however this is only a suggestion and the numbering and the colour can be amended as required.
- 8.3 Image 8.1 below shows a typical design of key waypoint sign on the Alderstone Route.



Image 8.1 - General Signage

- 8.4 In Image 8.1 the route name and number are shown at the top in a box along with the colour coding. This allows easy route identification at a glance.
- 8.5 Times are used instead of distances, as this is through to be more user friendly and encouraging, particularly over short distances.
- 8.6 For example, a pedestrian seeing '20 minutes walk' may interpret this as a walkable journey whereas the distance of '1 mile' may make it seem like a longer journey needing alternative travel options.
- 8.7 It is recognised that due to the range of users, including elderly and disabled persons, the times are only an estimate and would not be exact.
- 8.8 The key points and times shown on the sign can be varied and are listed in closest at the top of the sign.
- 8.9 As noted by Sustrans, current signage uses finger point designs that can firmly point users in an incorrect direction if twisted by vandalism or weather.
- 8.10 The use of arrows in the designs and potentially multiple posts over street funiture, can help to mitigate this issue.
- 8.11 Image 8.2 shows a typical design of sign where multiple routes /direction are involved.



Image 8.2 - Multiple Destinations on one sign

- 8.12 Rather than multiple separate signs, as is often the case at present, the destinations would be coordinated onto one sign.
- 8.13 This reduces signage clutter, and as there is only one sign it would reduce the chances of signs being turned pointing in incorrect directions.
- 8.14 At certain points, route confirmation signs would be required, rather than full signs with destinations and times, to give confidence to users that they are still following the route.
- 8.15 Image 8.3 gives examples of these both with full route names, route numbers and multiple route numbers where routes share the same paths.
- 8.16 The route confirmation signs are smaller than the full destination signs so could be mounted on street furniture / lighting columns, where appropriate, subject to the risk of turning.



Image 8.3 - Multiple Destinations on one sign

Page 49

- 8.17 It is acknowledged that increasing the number of directional signs may increase sign clutter.
- 8.18 At points where paths diverge, road markings could be used either in place of signs to reduce sign clutter or at key points to supplement signage.
- 8.19 Image 8.4 gives examples used in London with arrows and route numbers to TSRGD Diagram 1057 and 1057.1



Image 8.4 - Road Marking Route Number (Examples from TfL Cycle Guidance)

- 8.20 These could be used at points such as in Image 8.5 where additional signs may be difficult to install or where a simple indication of route is desirable.
- 8.21 The addition of a marking would also prevent confusion if any signs are missing/turned



Image 8.5 - Path Diverage Location where Road Marking may be useful

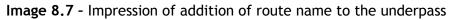
8.22 At underpasses, DBA noted that many did not indicate which road was passing over. it would be proposed to add a nameplate of the road passing over to aid orientation. This would be in the Style noted in Image 8.6



Image 8.6 - Route Name

8.23 Image 8.7 gives an impression of this showing the addition of the Houstoun Road name plate to the underpass.





- 8.24 At key locations, (e.g. railway stations, public transport interchanges, St. John's Hospital) consideration should be given to providing bespoke totem directional signage, with distances, times and an area map.
- 8.25 This would be in a similar form to the 'Trueform Totem Style' signs provided for the London Cycle Superhighway project, with a list of destinations on one side and an area/route map on reverse. A sample style design is shown below on Image 8.8.



Image 8.8- Example of Layout for Totem Sign

8.26 Full proposals including example signage faces and sign locations are provided in Appendix D.

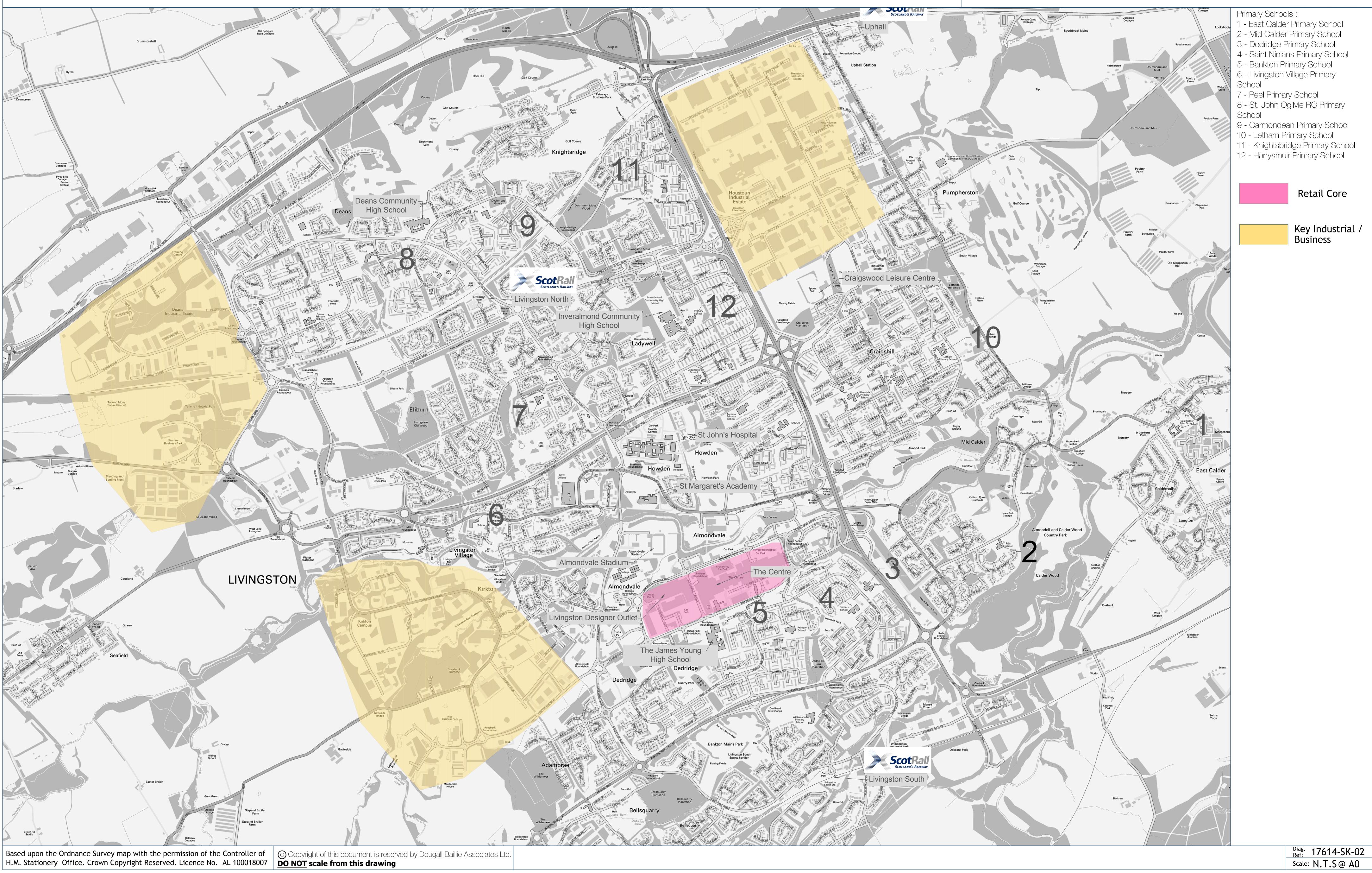
9 Conclusion

- 9.1 Dougall Baillie Associates (DBA) were commissioned by West Lothian Council to produce supporting information to accompany a new signage strategy for the cycling and walking routes within Livingston.
- 9.2 As part of the study DBA conducted a background review on current policy documents and existing signage types used throughout the UK on cycling and walking routes.
- 9.3 WLC identified the Alderstone Route as a key route within Livingston and as a route where an exemplar project should be implemented, showing what could be done more widely and providing learning for the roll out of further schemes.
- 9.4 As part of the project DBA undertook a visit of this route to assess the route and current signage as well as to identify areas for improvement.
- 9.5 Following the review of the route, DBA identified a signage strategy suitable to be applied to this route, but also more widely across Livingston and West Lothian.
- 9.6 DBA have produced sample signage proposals which indicate sign faces and the location of these signs.
- 9.7 A usage assessment was carried out at 3 key points allowing future monitoring of uplift in usage to be undertaken.

Appendix A

Local Area and Facilities

Key Local Facilities and Attractions within Livingston





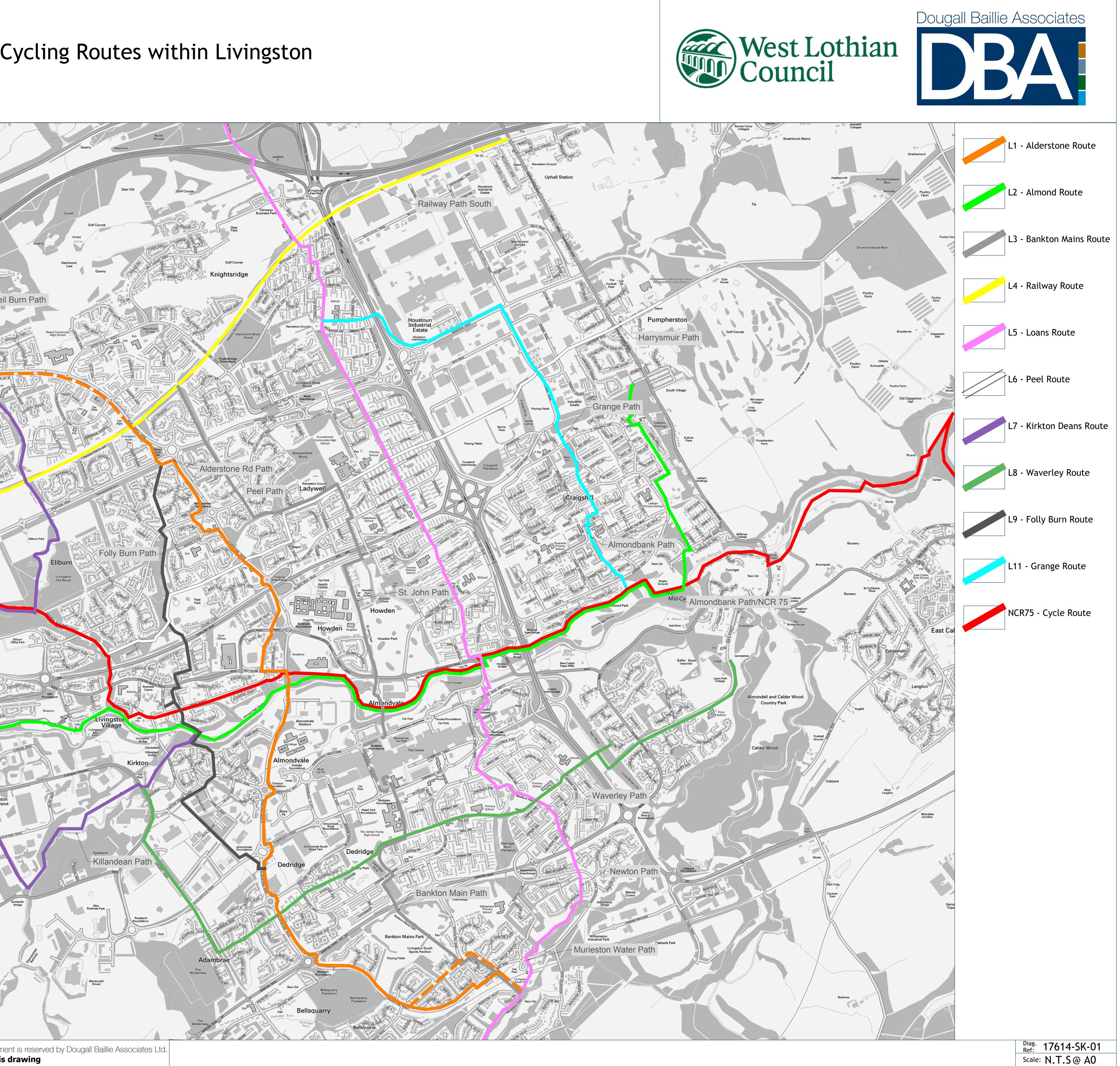
Dougall Baillie Associates

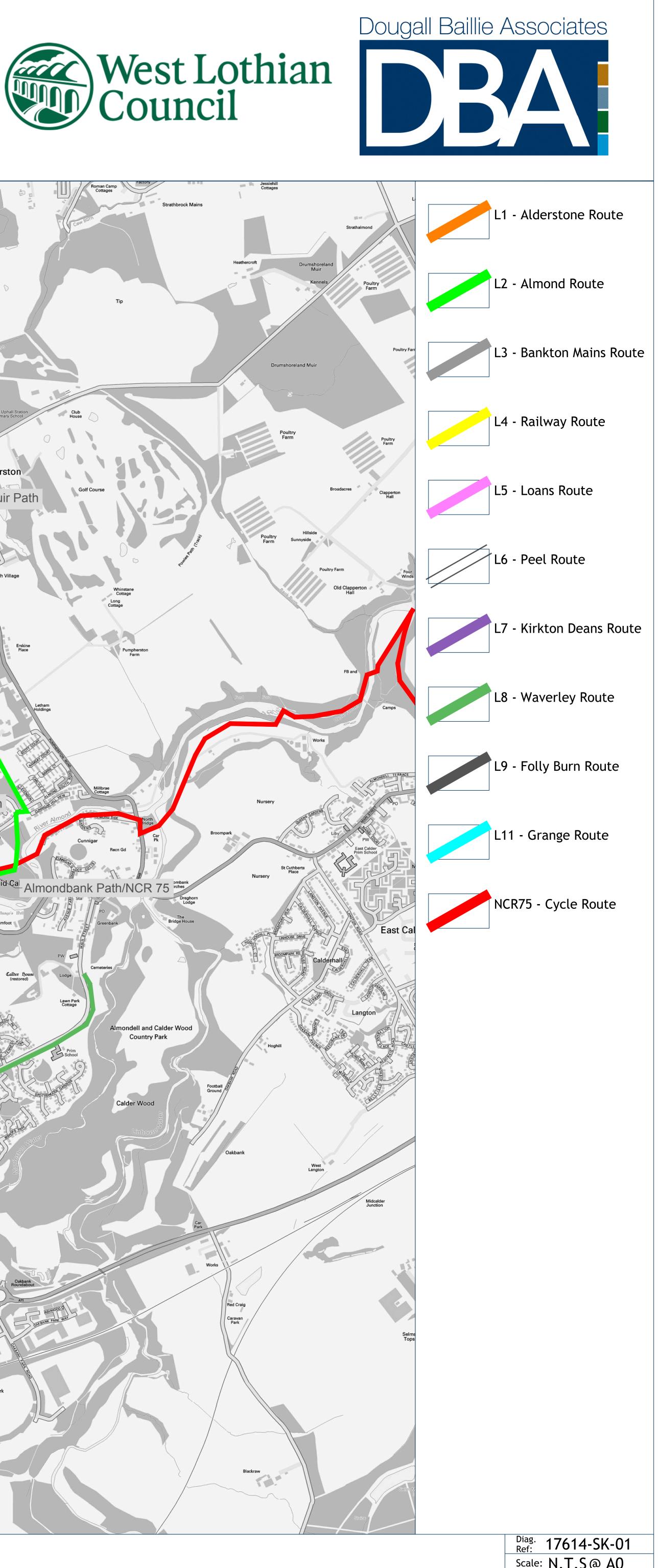


Appendix B

Route Hierarchy

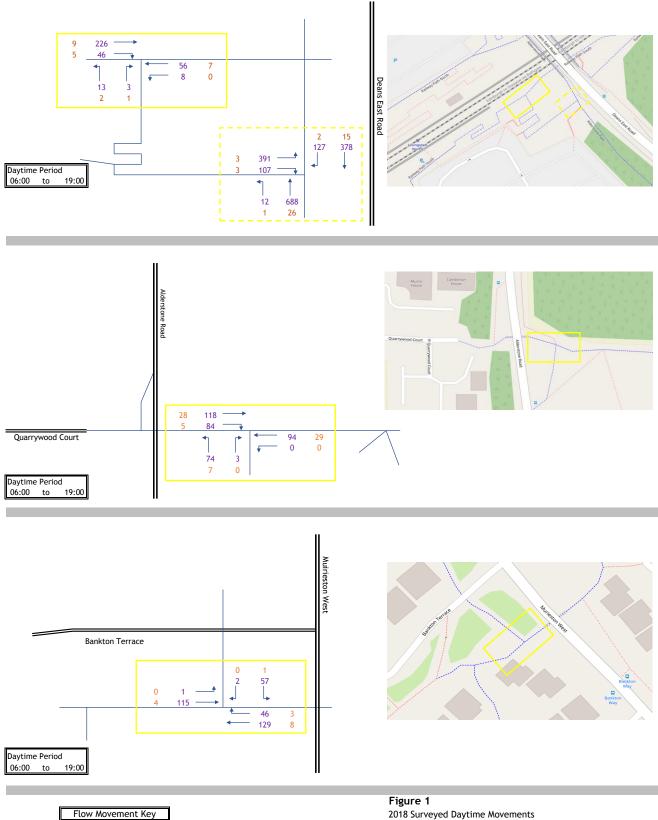
Livingston Signage Strategy Existing and Potential Pedestrian and Cycling Routes within Livingston Old Bathgate Road Cottages Knightsrid Drumcross Cottages Byres Brae Cottage Ralston Alderstone Rd Path Appleton Parkway Roundabout Folly Burn Path Lochshot Burn Park-Tailend Moss (Nature Reserve) Easdale Starlaw Cottage Blending and Bottling Plant Eliburn Office Park Cousland Wood West Long Livingston LIVINGSTON Almondval Kirkton -Killandean Pa Alba Business Park Grange Riding Easter Breich Breich Pit Studio © Copyright of this document is reserved by Dougall Baillie Associates Ltd. **DO NOT** scale from this drawing Based upon the Ordnance Survey map with the permission of the Controller of H.M. Stationery Office. Crown Copyright Reserved. Licence No. AL 100018007





Appendix C

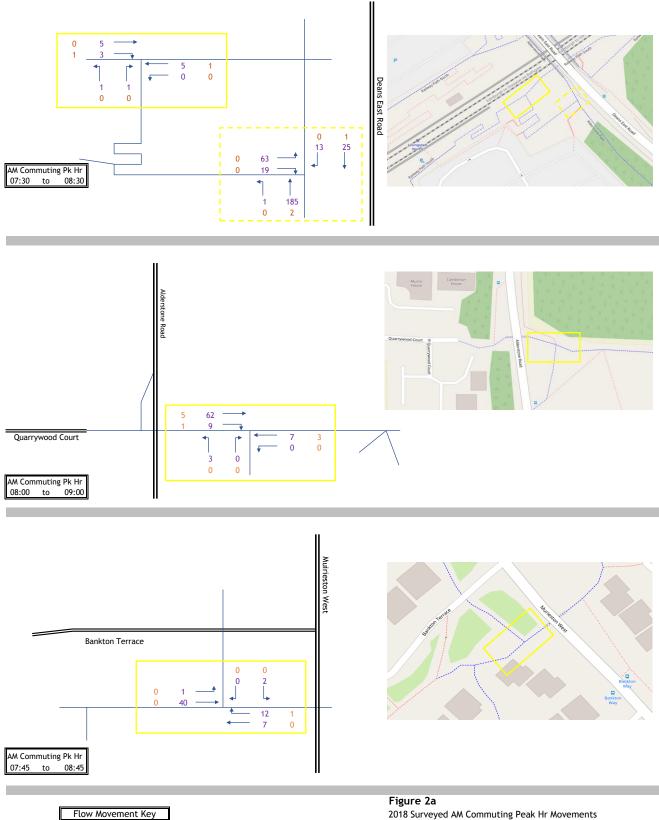
Usage Survey Data



Cycle Cycle Cycle Movements Key Movements Movements Movements Movements

Figure 1 2018 Surveyed Daytime Movements Weekday Period (13 hours): 06:00 to 19:00 Dougall E





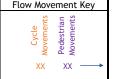
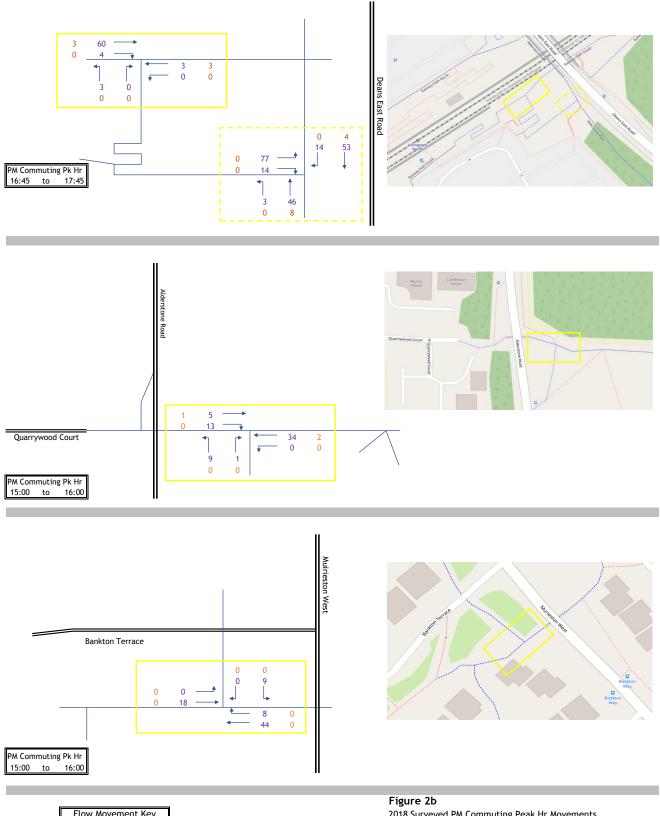


Figure 2a 2018 Surveyed AM Commuting Peak Hr Movements Weekday AM Commuting Peak Hour: Busiest hour at each junction between 07:00 to 09:30 Dougall Baillie Associates





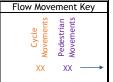


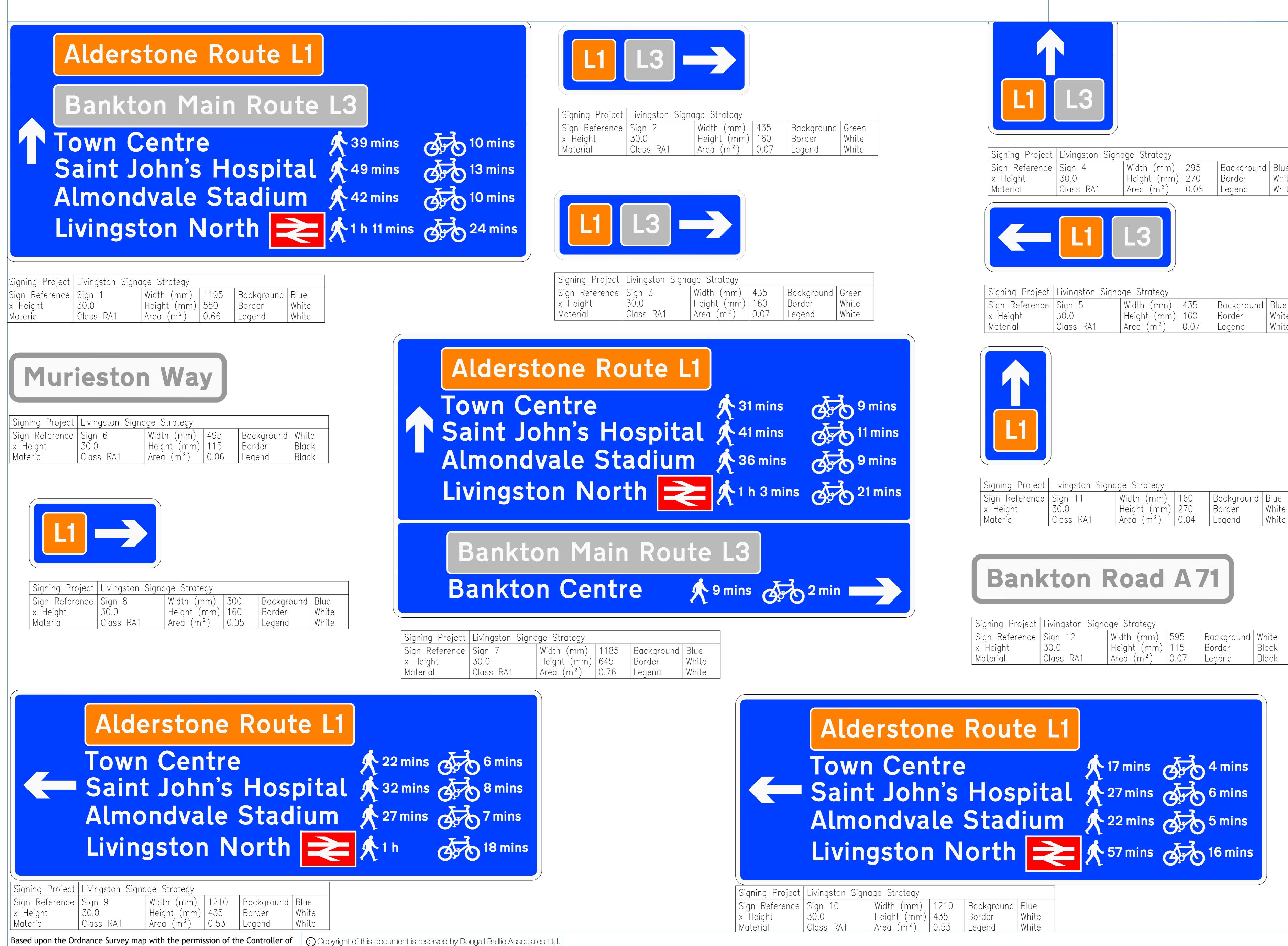
Figure 2b 2018 Surveyed PM Commuting Peak Hr Movements Weekday PM Commuting Peak Hours: Busiest hour at each junction between 15:00 to 18:00 Dougall Baillie Associates



Appendix D

Signage Proposals

Alderstone Road Route - Proposed Signage -North Bound Sheet 1



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Signing Project	Livingston Signo	age Strategy		
Sign Reference	Sign 2	Width (mm)	435	Back
x Height	30.0	Height (mm)	160	Borc
Material	Class RA1	Area (m²)	0.07	Lege



Signing Project	Livingston Sign	age Strategy	
Sign Reference	Sign 3	Width (mm)	Backo
Height	30.0	Height (mm)	Borde
Material	Class RA1	Area (m²)	Legen



Signing Project	Livingston Signo	ige Strategy		
Sign Reference	Sign 12	Width (mm)	595	Back
J		Height (mm)	115	Bord
Material	Class RA1	Area (m²)	0.07	Lege

Livingston Signag	e Struteyy			
Sign 10 V	Width (mm)	1210	Background	Blue
30.0	Height (mm)	435	Border	White
Class RA1 A	Area (m²)	0.53	Legend	White

Dougall Baillie Associates

Background Border Legend	5	Blue White White	
Legena		WINC	
D			
Background Border Legend		Blue White White	
ackground order		llue /hite	
egend	W	/hite	

Notes:

Sign References correspond with location numbers on DBA Drawings 17614-SK-07

Sign text subject to review by West Lothian Council

Place names and distances subject to further confirmation

Sign locations and faces to be checked on site before face manufacture

Signs subject to foundation design

Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs

Alderstone Road Route - Proposed Signage -North Bound Sheet 2



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30.0

Class RA1

x Height

Material

Height (mm) 480

Area (m²) 0.56

Border

Legend

White

White



gning Project	Livingston Signo	age Strategy				Signing Project	Livingston Signo	age Strategy			
Sign Reference	Sign 14	Width (mm)	160	Background	Blue	Sign Reference	Sign 15	Width (mm)	300	Background	
x Height	30.0	Height (mm)	270	Border	White	x Height	30.0	Height (mm)	160	Border	\
Material	Class RA1	Area (m²)	0.04	Legend	White	Material	Class RA2	Area (m²)	0.05	Legend	V



	Signing Project	Livingston Sigi	nage Strategy			
	Sign Reference	Sign 17	Width (mm)	160	Background	Blue
Х	Height	30.0	Height (mm)	270	Border	White
	Material	Class RA1	Area (m²)	0.04	Legend	White

Alderstone Route L1

Signing Project	Livingston Signo	ige Strategy		
J	30.0	Width (mm) Height (mm) Area (m²)	415	Backgr Border Legenc









NCR 75 Edinburgh 5 -



round	Blue
r	White
d	White

Dougall Baillie Associates

	Notes:
	Sign References correspond with location numbers on DBA Drawings 17614-SK-07
	Sign text subject to review by West Lothian Council
	Place names and distances subject to further confirmation
	Sign locations and faces to be checked on site before face manufacture
	Signs subject to foundation design
ue nite	Sign foundation and positions subject to services
nite	Suitable traffic management to be used when installing signs
nins mins	Passively safe poles may be required next to high speed roads

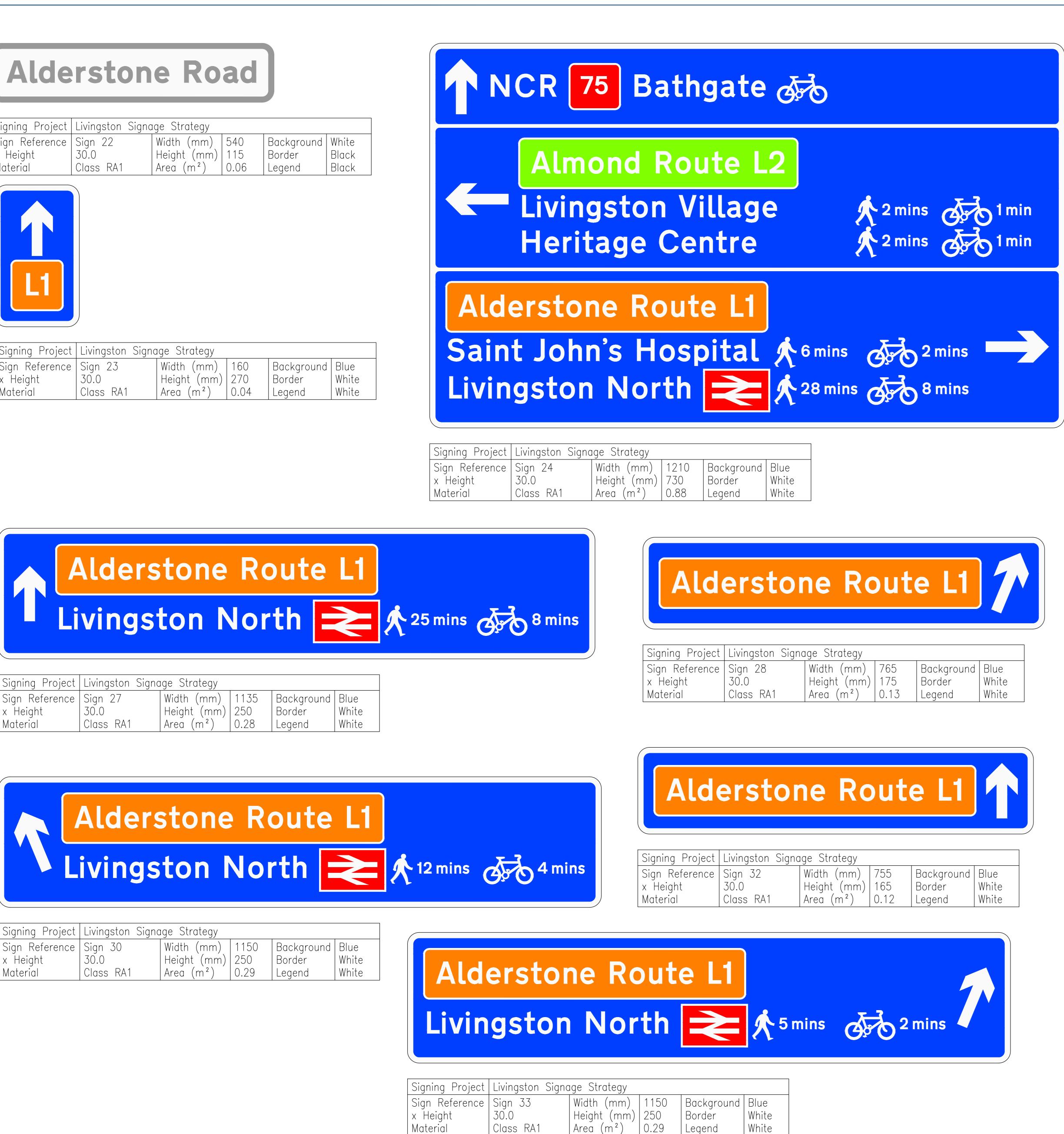
Alderstone Road Route - Proposed Signage -North Bound Sheet 3

Alderstone Road

Livingston Signa	ige Strategy				
Sign 22 30.0 Class RA1	Width (mm) Height (mm) Area (m²)	540 115 0.06	Background Border Legend	White Black Black	
Material Class RA1 Area (m²) 0.06 Legend Black					
┝	Sign 22 30.0	30.0 Height (mm)	Sign 22Width (mm)54030.0Height (mm)115	Sign 22Width (mm)540Background30.0Height (mm)115Border	



Signing Project	Livingston Signo	ige Strategy			
Sign Reference	Sign 23	Width (mm)	160	Background	Blue
x Height	30.0	Height (mm)	270	Border	White
Material	Class RA1	Area (m²)	0.04	Legend	White



Signing Project	Livingston Signo	ige Strategy		
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	Background Border Legend	Blue White White

x Height Material



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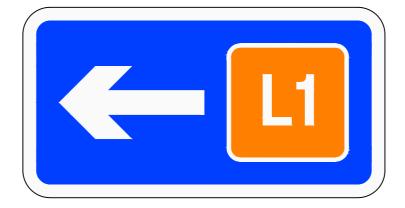


Kirkton N Road

Signing Project	Livingston Signo	age Strategy			
J	30.0	Width (mm) Height (mm) Area (m²)	115	Background Border Legend	Wh Blo Blo

Saint John's Hospital

Signing Project	Livingston Signo	ige Strategy		
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	Background Border Legend	BI Wł Wł
L			5	



Signing Project	Livingston Signo	ige Strategy		
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	Background Border Legend	{ \ \



	1			
Signing Project	Livingston Signo	age Strategy		
	30.0	Width (mm) Height (mm) Area (m²)	115	Backgrour Border Legend
		•		•

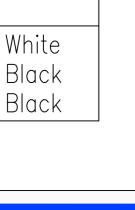
Houstoun Road

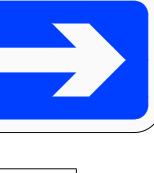
Signing Project	Livingston Signo	ige Strategy	
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	Background Border Legend



Signing Project	Livingston Signo	ige Strategy			
Sign Reference	Sign 35	Width (mm)	755	Background	Blu
x Height	30.0	Height (mm)	250	Border	Wh
Material	Class RA1	Area (m²)	0.19	Legend	Wh

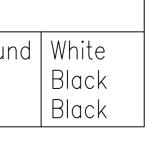
Dougall Baillie Associates

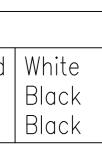












Blue White Vhite

Notes:

Sign References correspond with location numbers on DBA Drawings 17614-SK-07

Sign text subject to review by West Lothian Council

Place names and distances subject to further confirmation

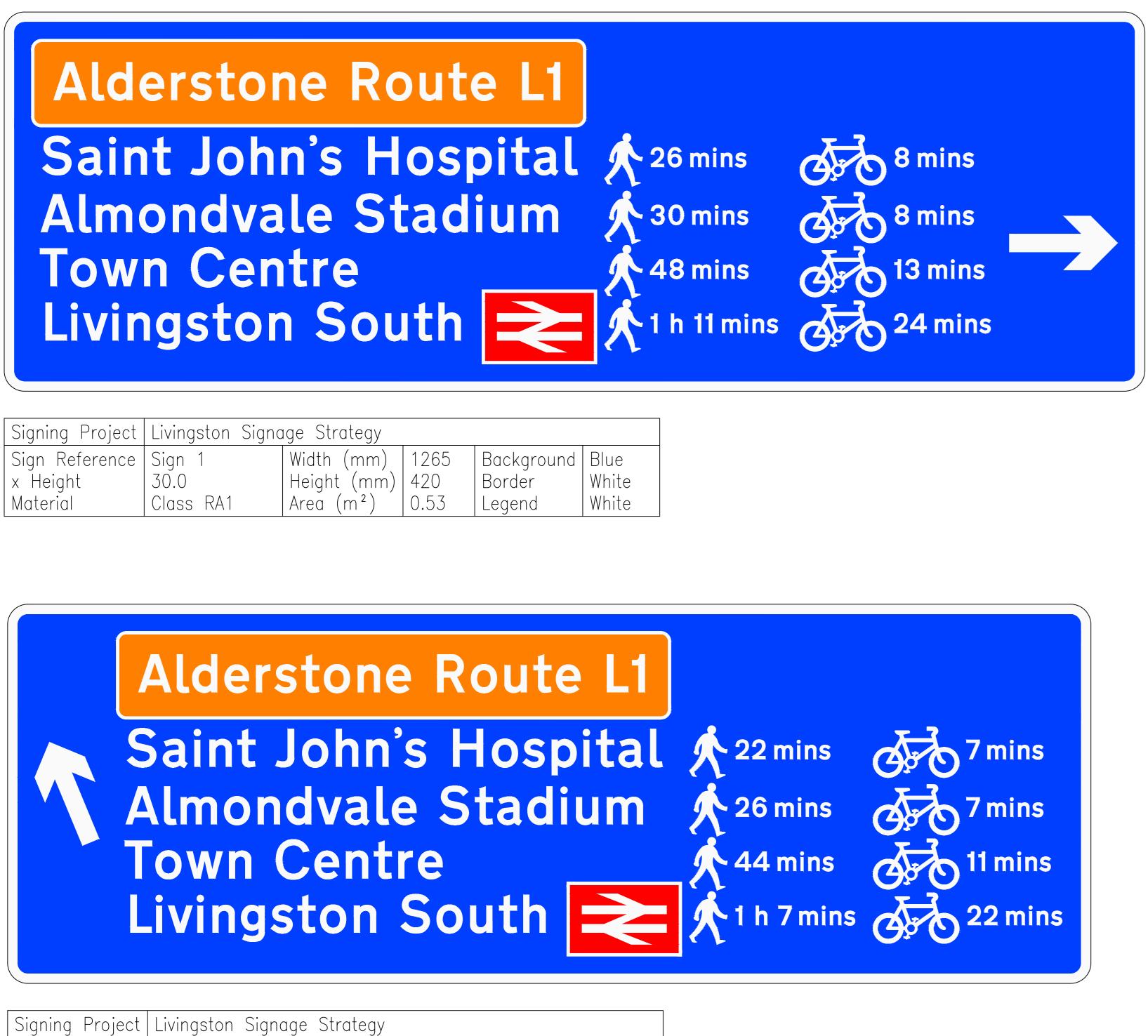
Sign locations and faces to be checked on site before face manufacture

Signs subject to foundation design

Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs

Alderstone Road Route - Proposed Signage - South Bound Sheet 1

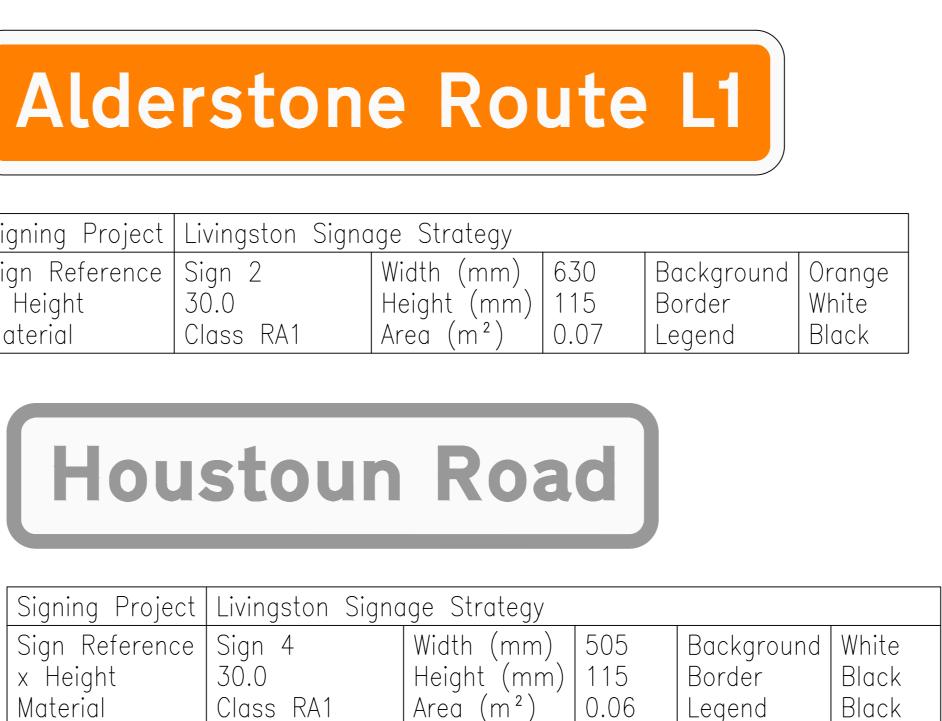


Signing Project	Livingston Signo	ige Strategy			
Sign Reference	Sign 5	Width (mm)	1200	Background	Blue
x Height	30.0	Height (mm)	420	Border	White
Material	Class RA1	Area (m²)	0.50	Legend	White

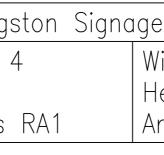


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Signing Project	Livingston Signo	ige Strategy
Sign Reference x Height Material	Sign 2 30.0 Class RA1	Width (mm) Height (mm) Area (m²)



Signing Project	Livingstor
Sign Reference x Height Material	Sign 4 30.0 Class RA



ige strutteg
Width (mm
Height (m
Area (m²)

Alderstone Route L1

Signing Project	Livingston Signo	ige Strategy	
Sign Reference x Height Material	30.0	Width (mm) 7 Height (mm) 1 Area (m²) 0	£ 6

Alderstone					
Signing Project L	ivingston Signa	ge Strategy			
x Height 3	ign 9 10.0 Class RA1	Height (mm)	815 160 0.13		
Signing Drojoct					
Signing Project	<u>_</u>		700		
Sign Reference x Height	Sign 10 30.0	Width (mm) Height (mm)	300		
Material	Class RA1	Area (m²)	0.05		



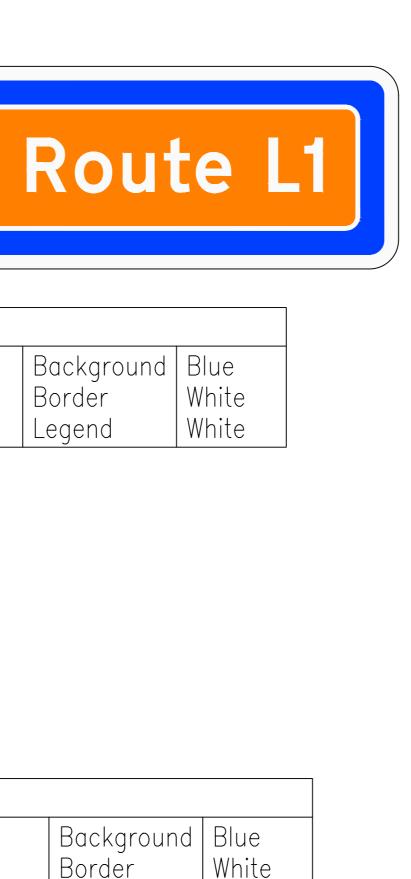


Signing Project	Livingston Signo	ige Strategy	
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	





Signing Project	Livingston Signo	ige Strategy	
Sign Reference	Sign 7	Width (mm)	
x Height	30.0	Height (mm)	115
Material	Class RA1	Area (m²)	0.05
	•	•	



White

Legend



Signing Project	Livingston Signo	ige Strategy	
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	

Dougall Baillie Associates



Background Border	Blue White
_egend	White

Background	White
Border	Black
Legend	Black

Background	Blue
Border	White
Legend	White

Notes:

Sign References correspond with location numbers on DBA Drawings 17614-SK-06

Sign text subject to review by West Lothian Council

Place names and distances subject to further confirmation

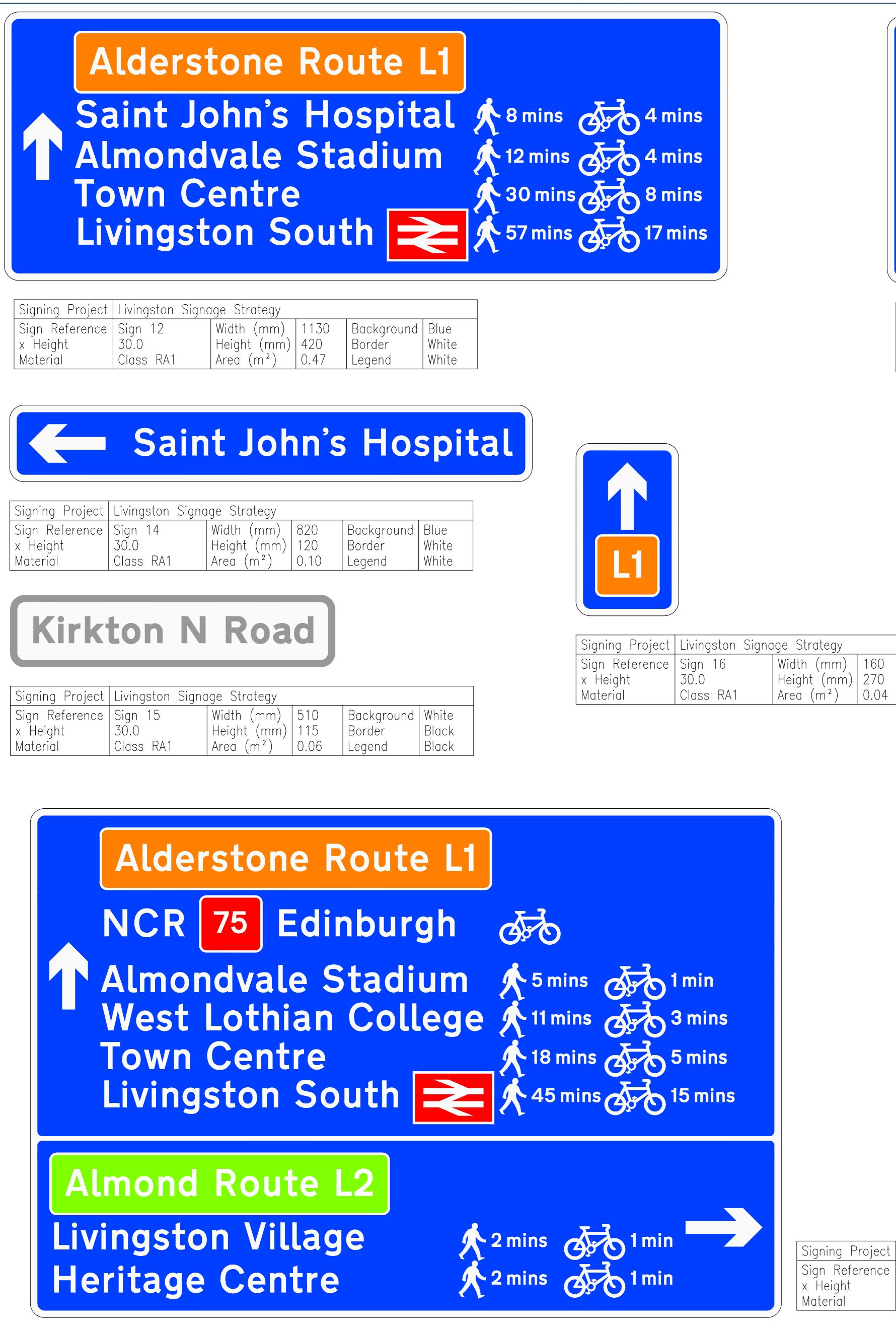
Sign locations and faces to be checked on site before face manufacture

Signs subject to foundation design

Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs

Alderstone Road Route - Proposed Signage -South Bound Sheet 2





Background Blue

White

White

Border

Legend

Signing Project	Livingston Signo	ige Strateg
Sign Reference		Width (mr
j	30.0	Height (m
Material	Class RA1	Area (m²



Signing Project	Livingston Signa	ige Strategy			
Sign Reference	Sign 16	Width (mm)	160	Background	Blue
x Height	30.0	Height (mm)	270	Border	White
Material	Class RA1	Area (m²)	0.04	Legend	White



Sigr Sigr x H Mate

Signing Project	Livingston Signo	ige Strategy			
Sign Reference	Sign 18	Width (mm)	1175	Background	Blue
x Height		Height (mm)	795	Border	White
Material	Class RA1	Area (m²)	0.93	Legend	White
				•	•





ning Project	Livingston Signo	ige Strategy		
n Reference Height terial	1 5	Width (mm) Height (mm) Area (m²)		Blue White White



Signing Project	Livingston Signo	ige Strategy		
Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	Background Border Legend	Blue White White



Signing Project | Livingston Signage Strategy Sign Reference | Sign 20 Width (mm) 540 Height x Height 30.0 115 (mm)| Area (m²) (0.06 Class RA1 Material

Dougall Baillie Associates



Notes:

Sign References correspond with location numbers on DBA Drawings 17614-SK-06

Sign text subject to review by West Lothian Council

Place names and distances subject to further confirmation

Sign locations and faces to be checked on site before face manufacture

Signs subject to foundation design

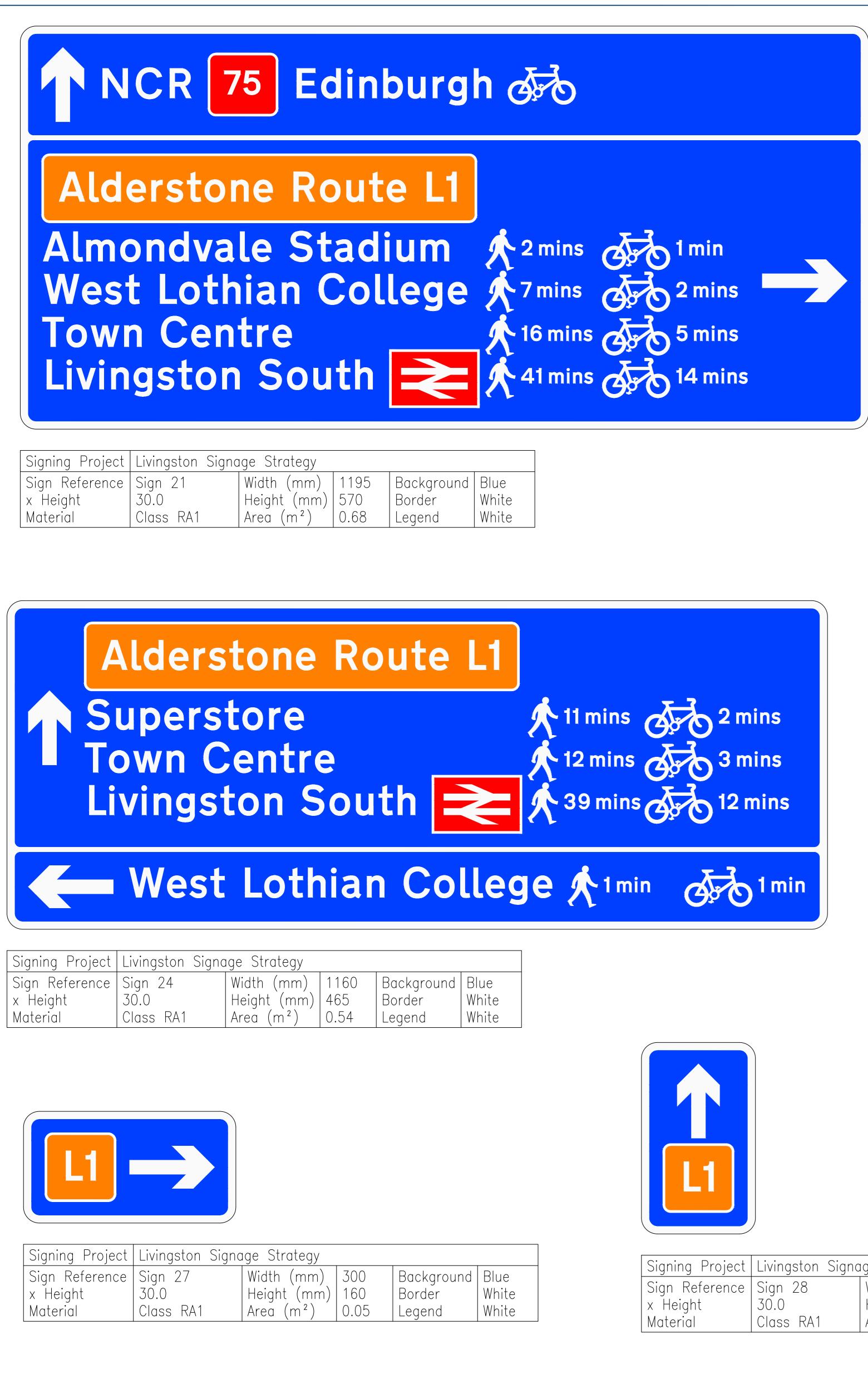
Sign foundation and positions subject to services

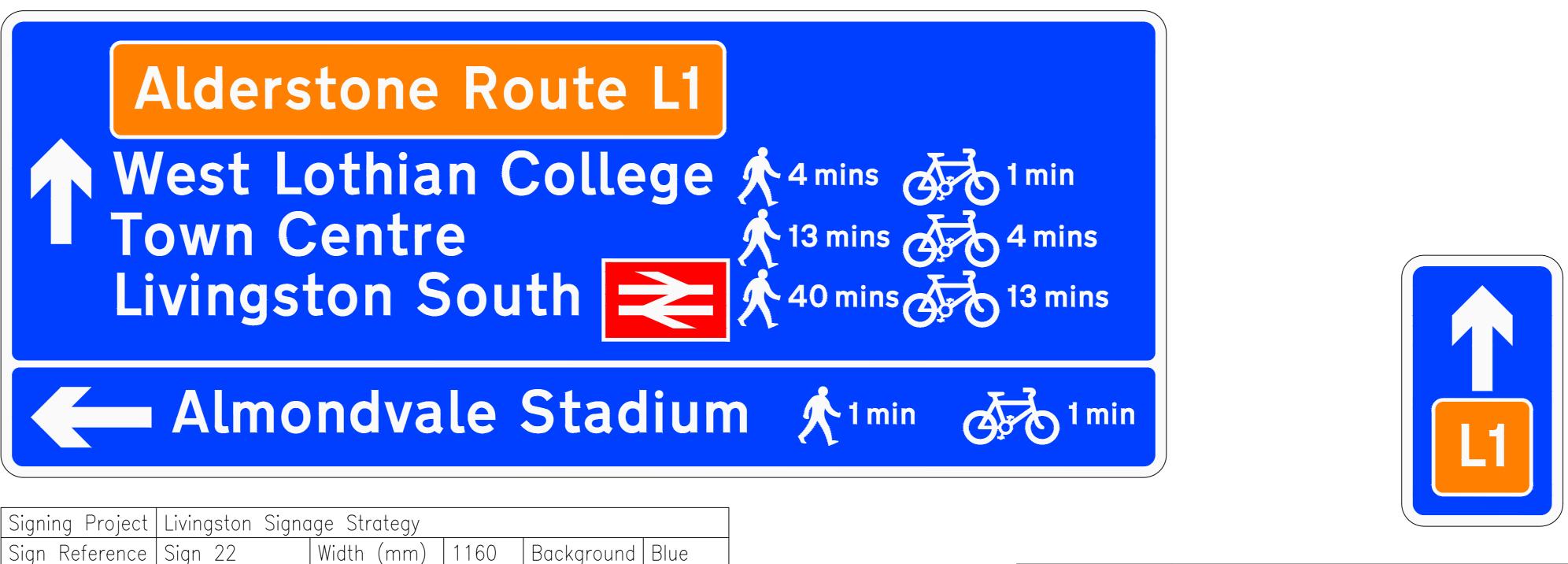
Suitable traffic management to be used when installing signs

Passively safe poles may be required next to high speed roads

| Background | White Border Black Legend Black

Alderstone Road Route - Proposed Signage -South Bound Sheet 3





Border

Legend

White

White

White

30.0

Class RA1

Signing Project	Livingston Signo	ige Strategy	
Sign Reference	Sign 22	Width (mm)	1160
x Height	30.0	Height (mm)	465
Material	Class RA1	Area (m²)	0.54



Signing Project	Livingston Signo	ige Strategy		
	30.0	Width (mm) Height (mm) Area (m²)	270	Backgrou Border Legend
		•		

Signing Project	Livingston Signo	ige Strategy		
Sign Reference x Height Material		Width (mm) Height (mm) Area (m²)	Background Border Legend	Blue White White



Width (mm)1205BackgroundBlueHeight (mm)370BorderWhiteArea (m²)0.45LegendWhite

White



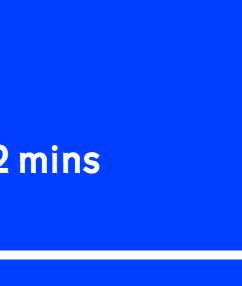


Signing Project	Livingston Signo	ige Strategy	
	30.0	Width (mm) Height (mm)	
Material	Class RA1	Area (m²)	0.0

	Alde	rstone	Rout	e L1			
	То	wn Cen	tre		6 n	nins 🛵	<u></u>
S L	upe	rstore ston So	outh		1 m	in Constant	る1 る1
		Signing Project	Livinaston Sia	nage Strategy			
ground er ad	Blue White White	Sign Reference x Height Material	Sign 26 30.0 Class RA1	Width (mm) Height (mm) Area (m²)	1195) 450 0.54	Background Border Legend	Blue White White

Dougall Baillie Associates

)) 4	Background Border Legend	Blue White White
	J	







Notes:

Sign References correspond with location numbers on DBA Drawings 17614-SK-06

Sign text subject to review by West Lothian Council

Place names and distances subject to further confirmation

Sign locations and faces to be checked on site before face manufacture

Signs subject to foundation design

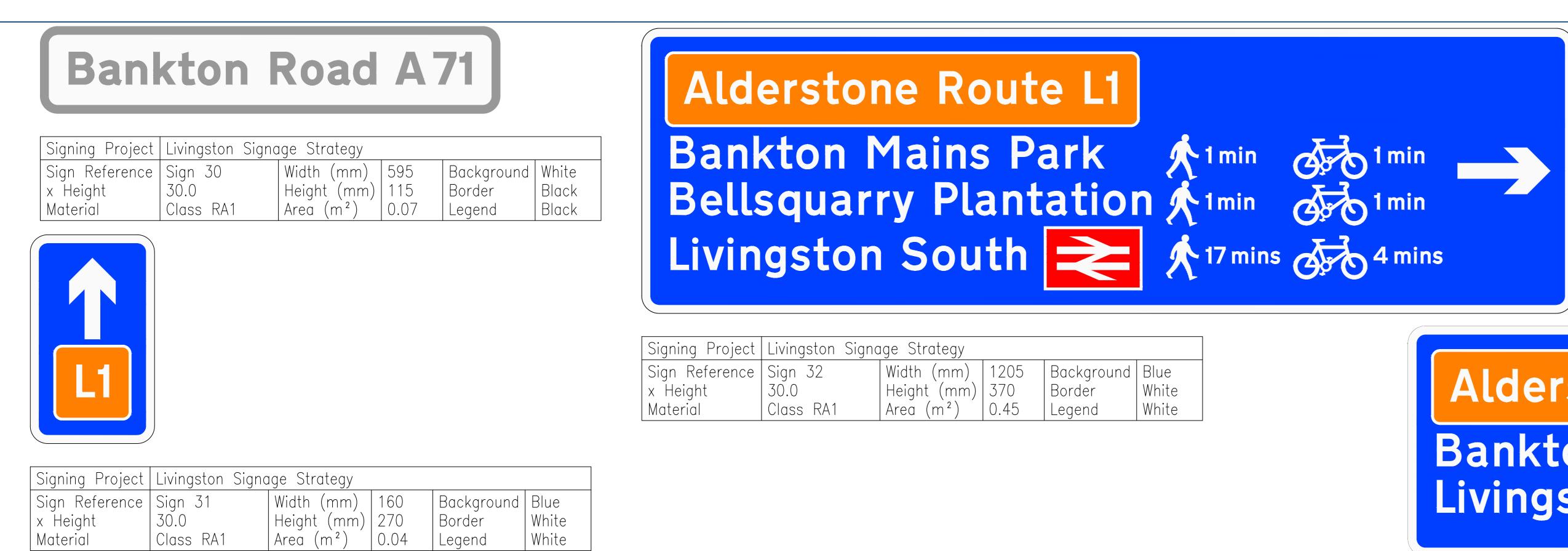
Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs

Material

Class RA1

Alderstone Road Route - Proposed Signage -South Bound Sheet 4





Signing Project	Livingston Signo	ige Strategy			
Sign Reference	Sign 34	Width (mm)	1205	Background	Blue
x Height	30.0	Height (mm)	295	Border	White
Material	Class RA1	Area (m²)	0.36	Legend	White

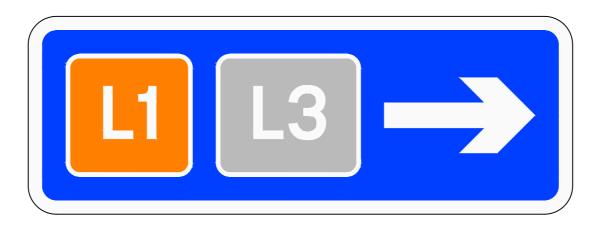


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Signing Project	Livingston Signo	ige Strategy			
Sign Reference	Sign 32	Width (mm)	1205	Background	Blue
x Height	30.0	Height (mm)	370	Border	White
Material	Class RA1	Area (m²)	0.45	Legend	White



_				
	Signing Project	Livingston Signo	ige Strategy	
	Sign Reference x Height Material	30.0	Width (mm) Height (mm) Area (m²)	49 1 0



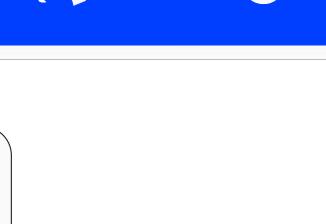
Signing Project	Livingston Signo	ige Strategy	
	30.0	Width (mm) Height (mm)	
Material	Class RA1	Area (m²)	0.0



Signing Project	Livingston Signa	ige Strategy			
Sign Reference x Height Material	Sign 33 30.0 Class RA1	Width (mm) Height (mm) Area (m²)	1205 295 0.36	Background Border Legend	Blue White White
ite L1					
	1 0 mi	ns of c) 2 mii	ns 🚬 🤇	
	10 mi	ns Arc	2 mii 3 mii	ns	

Alderstone Rou Bankton Centre Livingston South







5	Background	White
5	Border	Black
)6	Legend	Black

Background Blue

Sign Reference Sign 40

100.0

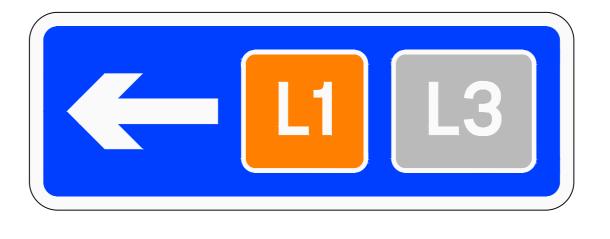
Class RA1

x Height

Material

White

Signing Project	Livingston Signo	age Strategy		
	30.0	Width (mm) Height (mm) Area (m²)	270	Ba Bo Leo
	I		I	<u></u>

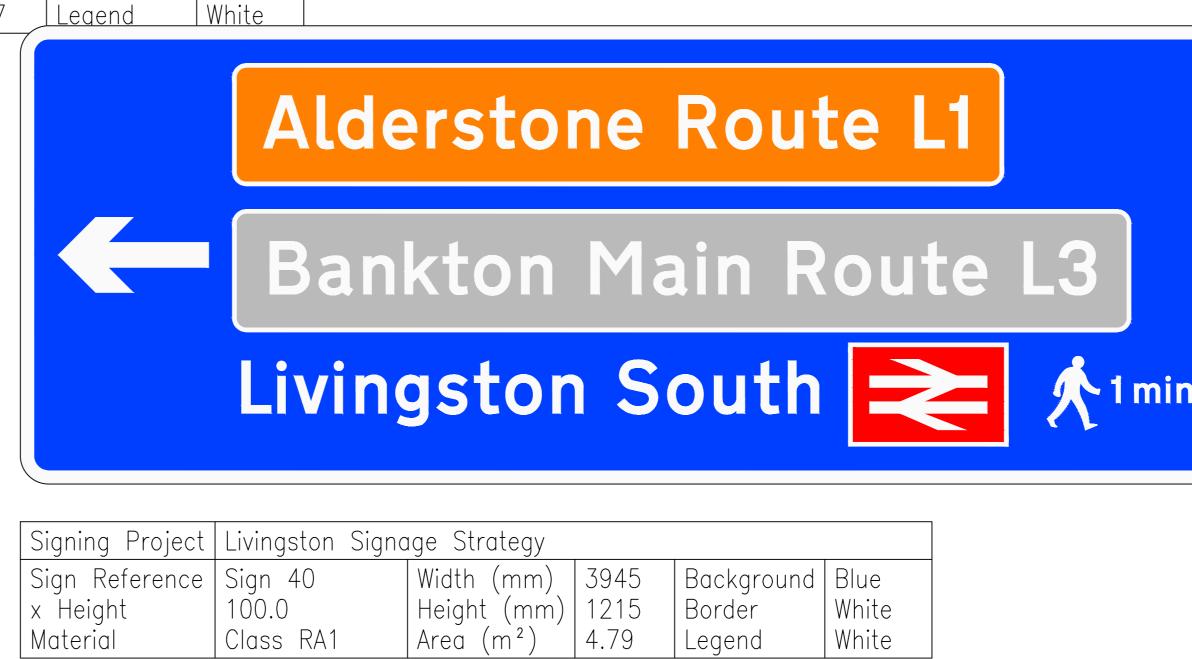




Background Blue

White

White



Dougall Baillie Associates

Notes:

Sign References correspond with location numbers on DBA Drawings 17614-SK-06

Sign text subject to review by West Lothian Council

Place names and distances subject to further confirmation

Sign locations and faces to be checked on site before face manufacture

Signs subject to foundation design

Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs

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Alderstone Road Route - Southbound Sign Locations and References





Dougall Baillie Associates

Sign Location and reference

Notes:

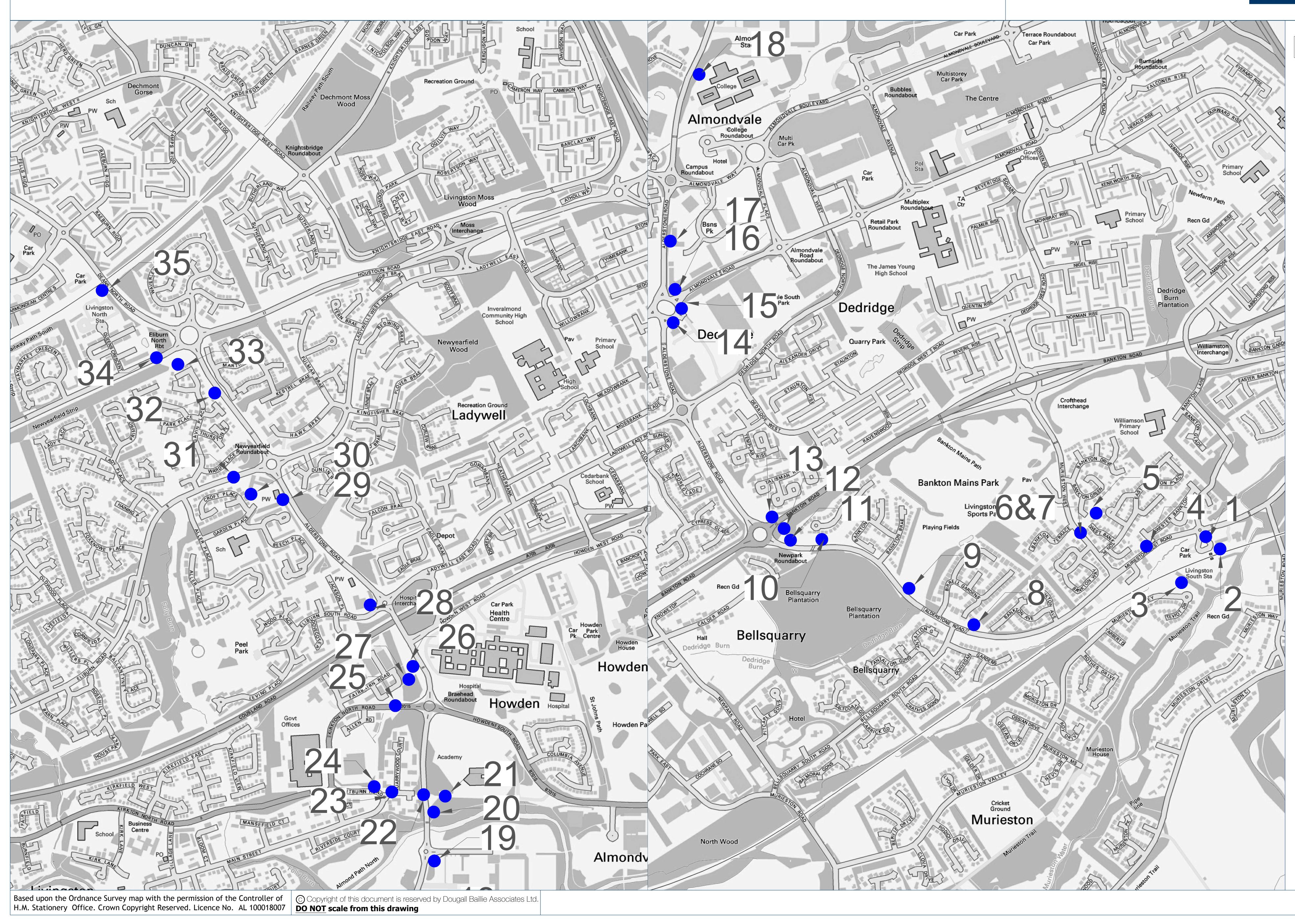
Sign locations to be agreed on site

Signs subject to foundation design

Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs

Alderstone Road Route - Northbound Sign Locations and References





Dougall Baillie Associates

Sign Location and reference

Notes:

Sign locations to be agreed on site

Signs subject to foundation design

Sign foundation and positions subject to services

Suitable traffic management to be used when installing signs