



PERMANENT
Rail Engineering

Edinburgh Trams to Newhaven consultation response

For use by the City of Edinburgh Council to support further consultation

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Summary

The City of Edinburgh Council intends to extend the city's current tram system to a new terminus in Newhaven. This report details Permanent Rail Engineering's response to the first public consultation on these proposals.

Whilst the overall scheme will be of significant benefit to the city, there remain some significant shortcomings with respect to the incorporation of active travel provision and the lack of motor vehicle de-prioritisation.

Not only would resolving these shortcomings improve the health and safety of existing active travel users, it would increase the appeal for new users. This would increase Edinburgh Tram and local business footfall, greatly magnifying the success of the extension proposals.

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Introduction

Background

The existing Edinburgh Tram system

Running for around 14 km and including 16 stops, the current Edinburgh Tram system connects Edinburgh Airport with the city centre and has been in operation since May 2014. It includes a heavy rail interchange at Edinburgh Gateway station as well as connections with both Haymarket and Waverley stations and is formed of a single two track line operated by 27 CAF tram vehicles.

Despite failures during construction, Edinburgh Trams are widely considered as a success, with consistently high customer satisfaction scores and ridership well above the original predictions. System usage compares favourably with similar light rapid transit (LRT) systems in the UK, as shown in Table 1.

Table 1 - Relative ridership of UK LRT systems

UK LRT system	Relative ridership [million annual passengers per km]
Tramlink (London)	1.05
Nottingham Express Transit	0.51
Sheffield Supertram	0.43
Manchester Metrolink	0.41
Edinburgh Trams	0.38
Midland Metro	0.30
Blackpool Tramway	0.29

With new tram lines being successfully implemented elsewhere in the UK and following a succession of proposals through the 1990s and early 2000s, Edinburgh opted for a LRT system when the original enabling bills were passed by the Scottish Government in 2006.

LRT systems offer advantages in accessibility, flexibility and cost whilst sacrificing top speed when compared to using light rail systems (such as the Tyne and Wear Metro or Docklands Light Railway). For Edinburgh this meant a mixture of segregated and street running, allowing trams from the airport to access the city centre without requiring major sub-surface infrastructure works.

On the other hand, the choice of LRT over a traditional street-only tram system enables improved capacities and reduced journey times. It also allows for future tram-train operations¹, should the system continue to expand in the future.

The proposed Edinburgh Tram extension

As part of cost-saving measures, the original proposals to take the line to Leith and Newhaven were truncated, with the new terminus being located on York Place.

The success of the current line means that the City of Edinburgh Council (CEC) is now able to take a loan against future revenue to complete the line to Newhaven. At the end of 2017, the Outline Business Case was approved, and the existing extension plans were revised.

The proposals involve nearly 5 km of new twin-track line, including 7 new stops and one relocated stop (the York Place stop will be replaced by a stop on Picardy Place). The line will follow Leith Walk and Constitution Street for most of its length, following the coast to the new terminus on Lindsay Road. The proposed infrastructure will match the design characteristics of the existing system.

Commercial operation over the completed extension is planned for **Summer 2022**.

The City of Edinburgh Council public consultation

The previous construction programme was incredibly disruptive and the resulting strain on public relations is a good example of how not to manage the public interface on a major infrastructure project.

Having taken on board this experience, CEC has released its plans in their current form for public consultation in advance of the next design stage.

The consultation opened on 19 March 2018 and is planned for closure on **29 April 2018**. Following consideration of the consultation responses, CEC intends to go to consultation again in Summer/Autumn of 2018 in advance of the final decision to proceed in Winter 2018.

¹ Tram-train operations involve using LRT vehicles on heavy rail infrastructure, allowing the use of existing railway infrastructure that might otherwise operate only an infrequent service. Though the concept is in use in both Germany and France, trials in Sheffield have been successively delayed.

Purpose of this report

This report is intended to document Permanent Rail Engineering's response to CEC's public consultation on the Newhaven extension of the Edinburgh Tram system.

The first section will record the consultation responses, followed by detailed comments associated with the available landscape proposal drawings produced by Atkins² and available for download on CEC's website. There will naturally be duplication between these two sections.

Whilst this report has been written with the intention of being easily understood by any reader, it does contain reference to some technical aspects of railway systems. If any part of this report is unclear, then queries can be sent to contact@permanentrail.co.uk.

About Permanent Rail Engineering

Permanent Rail Engineering (UK) Limited is an engineering consultancy focussed on strategic planning, design and asset management for sustainable transport.

It was set up to gather, adapt and develop current railway knowledge and apply it to some of the varied challenges that face today's society. This means employing ideas that are at the forefront of engineering technology but also includes exploring the innovations of the past.

Our public work has so far focussed on providing detailed feedback to consultations on transport matters. We have also established a strong public outreach presence, attempting to convey ideas about railway engineering in an easily-digestible format.

Third-party input

This consultation response has reviewed and incorporated the findings and suggestions of some third-party organisations such as Spokes and Sustrans Scotland. This has generally been where these act as an aggregation of expert or user feedback on active travel modes.

² The latest available revision of this series of drawings (5149899-ATK-ETE-DRG-EN-00001 to 00014) is dated 14/03/2018. These are available via the CEC public consultation website.

Consultation responses

The following sections cover the responses made by Permanent Rail Engineering to the public consultation. The explanatory text used within the consultation (in *italics*) precedes each response.

Note that Pages 14 to 16 of the consultation relate only to the consultation responder and so have not been included here.

Consultation overview

Page 1 – Introduction

During this consultation your views are being sought on a variety of aspects related to taking Edinburgh Trams to Newhaven.

We would like to hear your opinions and suggestions on how we would like to build the line. This covers traffic management during construction, the final layout, landscaping design and tram infrastructure.

We would also like to hear your views on how we support local business during construction. Initial plans have been drawn up to include a series of measures that will be explained as you go through this consultation. We would like to know if you think we have considered all possible options or if there are any other measures we should consider.

Your contributions count and will help us reshape our plans before we consult again in Summer/Autumn 2018.

No response required.

Page 2 – Proposed project timeline

November 2017 to November 2018 Procurement and preferred bidder process

March 2018 to April 2018 Consultation 1

Summer/Autumn 2018 Consultation 2

Winter 2018 Final decision on whether to proceed

Spring 2019 Construction starts

Spring 2022 Construction completes and testing begins

Summer 2022 Route becomes operational

No response required.

Page 3 – Project overview

In November 2017, the City of Edinburgh Council approved the outline business case for taking Edinburgh Trams to Newhaven. This allowed the project team to develop early plans for how and when the new tram line would be built, should the project be approved by Council in Summer/ Autumn 2018. The team has also started the early steps to procure suppliers for the construction.

The proposed new line will run for 4.69 kilometres/2.91 miles, connecting Leith and Newhaven to the current end of the Edinburgh tram line at York Place. The look and feel of the stops, overhead lines and general design principles will follow similar ones to those used in the current line. This will mean that the new section of the tram line will tie in with the look and feel of the existing line.

New Stops

- *Picardy Place (will replace York Place)*
- *McDonald Road*
- *Balfour Street*
- *Foot of the Walk*
- *The Shore*
- *Port of Leith*
- *Ocean Terminal*
- *Newhaven*

No response required.

Infrastructure proposals

Page 4 – Trams in your area (City centre: Picardy Place)

We are planning to replace the existing stop at York Place with a new stop a short distance away at Picardy Place. The stop at York Place was always intended to be a temporary solution until the route could be taken to Newhaven via Leith. This stop will consist of an island platform with trams servicing either side.

If you're travelling from the north or west of the city, this stop will give easy access to the Edinburgh St James as well as Broughton Street, known for its independent boutiques, bars and eating places.

Picardy place tram stop

The current proposals for the tram stop at Picardy Place result in a significant volume of sterilised land where the tram line sixfoot (the interval between tracks) widens to accommodate the island platform.

Passenger flow and interchange between transport modes (i.e. buses) would be better facilitated by flanking platforms as are in use elsewhere on the existing Edinburgh Tram system.

This could result in an increased track radius for the northbound line at the eastern end of the platform, reducing long-term maintenance requirements.

From a traffic flow perspective, this would simplify the pedestrian/cycle crossing at the eastern end of the tram stop (the northern throat of the Picardy Place gyratory). At the western end of the tram stop, the additional freed space would support a less constrained design of the Broughton Street junction.

Flow speeds for cyclists would be improved by having direct cycle crossings at both ends of the tram stop. These could be enabled by aligning tram lines together across a regular sixfoot rather than separating their alignments.

The use of tram platforms by some buses (i.e. buses making use of the tramway) as is commonplace on systems in operation on mainland Europe would enable better access for passengers of reduced mobility as well as a simpler interchange between transport modes. This is applicable on tram stops across the rest of the Newhaven extension, and in some cases may free up space to improve overall sustainable transport (particularly active travel) provision.

Existing segregated cycling corridor

The recently installed segregated cycling infrastructure southwards between Pilrig Street and Annandale Street was designed to require minimal alteration to enable the Newhaven extension. Its retention will ensure it continues to be an exemplar in best practice for active travel provision.

London Road junction

As recommended by Sustrans Scotland, London Road junction should be enhanced as a more cycle-friendly junction, smoothly directing flows from London Road onto Leith Walk in both directions (and vice versa). This junction would then be a more suitable place for the transition between single direction and bidirectional cycle lanes, avoiding unnecessary incursion into pedestrian space.

Severed vehicular connections to Leith Walk

Montgomery Street's vehicular connection with Leith Walk should be severed, relying on the one-way flow along Elm Row as currently proposed for access.

Page 5 – Trams in your area (Leith: McDonald Road and Balfour Street)

The proposed stops at McDonald Road and Balfour Street will serve one of the most populated areas in the UK with around 25,000 people living within 800 metres of Leith Walk. We expect these stops to be amongst our busiest during rush hour. Both stops will consist of island platforms with tram lines servicing each side.

The McDonald Road stop will serve Hibernian's Easter Road stadium which is one of the largest football grounds in Scotland. The Balfour Street stop will give easy access to Pilrig Park and locals shops, bars and eating places.

Existing segregated cycling corridor

The recently installed segregated cycling infrastructure southwards between Pilrig Street and Annandale Street was designed to require minimal alteration to enable the Newhaven extension. Its retention will ensure it continues to be an exemplar in best practice for active travel provision.

Pilrig Street junction

For cyclists heading north along Leith Walk from Pilrig Street, there will be an abrupt end to the high quality segregated cycling corridor. The scale of the highway remodelling north of Pilrig Street should enable a more radical approach to be taken, extending the existing segregated cycle corridor north at least as far as the Foot of the Walk.

Leith Walk (Foot of the Walk to Pilrig Street) central reservation

We believe that, for a highway with the width of Leith Walk, a centrally supported two track cantilever catenary support as proposed in the current plans is appropriate to minimise the use of headspans and their associated poor engineering performance.

However, the current plans do not include enough crossings through the central reservation to permit a more natural flow of active travel users. Additional joint pedestrian and cycle crossing points should be included.

Leith Walk (Foot of the Walk to Pilrig Street) cycle provision

Currently, the proposals for the tramway corridor from the junction with Constitution Street up to Pilrig Street are wholly unacceptable. Not only has no effort been made to separate cycle and vehicular traffic, but the proposed advisory cycle lane is regularly interrupted by loading bays and parking. This will culminate in a greatly increased risk of collisions and injuries for cyclists.

It is our recommendation that a single, bidirectional segregated cycleway is installed on the eastern side of Leith Walk, tied into our proposed Newkirkgate cycleway in the north and the existing segregated cycle corridor on Leith Walk in the south. Combined with the termination of several side roads, this should greatly improve the quality of active travel provision along the length of Leith Walk.

This should enable sufficient highway width to allow the four-lane arrangement to be retained within the proposals, albeit further to the west than is currently shown, maximising tram timetable resilience.

An advisory cycle lane should be retained on the west side of Leith Walk, however the increased number of crossings detailed above should enable cycle users to quickly cross to the segregated cycleway.

Leith Walk (Foot of the Walk to Pilrig Street) loading/parking provision

The mandate for a roads authority to provide parking places is limited at best, and the extensive remodelling resulting from the Newhaven extension is an opportunity to further reduce the provision of on-street parking. Fewer parking places de-incentivises car use and increases the space for active travel provision or improvements to the public realm.

Removing permanent loading and parking provision would also further incentivise the use of sustainable travel modes along Leith Walk.

We recommend that no permanent loading or parking provision is made on Leith Walk between Foot of the Walk and Pilrig Street. Limited additional parking spaces can be provided at the terminated side streets as detailed below.

Severed vehicular connections to Leith Walk

Crown Street should be linked into Manderston Street and the vehicular connection with Leith Walk severed. The vehicular connection from the former Leith Central area car park onto Leith Walk via Crown Place should be severed. If required, the connection onto Easter Road should be improved to allow for slightly increased vehicular flow.

Vehicular connections with Leith Walk should be severed for Brunswick Street, Albert Street, Dalmeny Street, Lorne Street and Manderston Street, with traffic using Easter Road for access.

Vehicular connections with Leith Walk should be severed for Middlefield and Arthur Street, with traffic using Pilrig Street for access.

Stead's Place's vehicular connection with Leith Walk should be severed, with traffic using Springfield Street for access.

Kirk Street's vehicular connection with Leith Walk should be severed, with traffic using Casselbank Street for access.

Balfour Street

Whilst it is not possible to sever the vehicular connection from Balfour Street onto Leith Walk as no other access exists, particular attention is required at this junction as it also coincides with the proposed Balfour Street tram stop.

Casselbank Street

Whilst it is not possible to sever the vehicular connection from Casselbank Street onto Leith Walk as no other access exists, particular attention is required at this junction as it also coincides with a high-risk traffic merging area.

Page 6 – Trams in your area (Leith: Foot of the Walk and The Shore)

The proposed stop at Foot of the Walk will be at the Leith Walk end of Constitution Street. This end of Constitution Street will close to vehicles and bicycles, except for trams and buses, when the tram line opens. The street will remain open to all traffic from all other routes.

The stop at Foot of the Walk will be slightly different with platforms sharing space with the pavement on either side of the road. The stop at The Shore beside Bernard Street will consist of an island platform with tram lines servicing each side. We will also redesign the public area around the stop, making it easier for everyone to move around the area.

Commercial Street to Newkirkgate cycleway

The later described enhanced cycle corridor via Commercial Street, Dock Street, Sandport Place, Tolbooth Wynd and through to Newkirkgate Shopping Centre returns to the tramway corridor at the Foot of the Walk. The proposals for this junction should take account of this, funnelling cyclists onto this route and away from the narrow tramway section along Constitution Street.

Constitution Street restricted access

To permit a safer flow of tram and active travel users, Constitution Street should be restricted for buses and access only between Tower Street and Laurie Street. The proposed cycleway enhancements should reduce the flow of cyclists on Constitution Street discounting the need for segregated cycleway provision.

This may include altering the proposed layout of some or all of the junctions along this stretch of the tramway.

Bernard Street

As the main walking route between The Shore and its tram stop will be along Bernard Street, consideration should be made of further enhancing provision for pedestrians – in places the existing pavement narrows substantially and the introduction of further pedestrian flow to the new tram stop will exacerbate this problem.

Ocean Way segregated cycleway

A segregated cycleway should be installed on the eastern side of Ocean Way to connect the existing cycling provision to the pedestrianised section of Constitution Street to the south.

Junction of Ocean Drive and Ocean Way

Passive provision should be made for a tramway junction here with a potential connection towards Portobello and Musselburgh. Whilst this may result in no changes to the landscape proposals, the relocation of services should account for any future track alignment.

The Shore segregated cycleway

To facilitate further diversion of cyclists coming from the east away from Constitution Street, we would recommend that enhancements to existing cycle provision along The Shore are made, including (ideally) a segregated cycleway running from Victoria Bridge southwards along the waterfront. This would connect to the previously described Commercial Street to Newkirkgate cycleway at Sandport Place.

An alternative route would include providing a segregated cycleway along Rennie's Isle onto Dock Place and Sandport Street, via an improved waterway crossing at Teuchters Landing.

These routes would then enable cyclists to be diverted straight across the Constitution Street tramway corridor and along either Tower Street, Bernard Street or Tolbooth Wynd when travelling to/from the east.

Page 7 – Trams in your area (Waterfront: Port of Leith and Ocean Terminal)

The Waterfront area will be served by two proposed stops. We expect this key strategic site will see some of the largest developments in the city over the next 20 years. So, we are planning a stop at Ocean Drive (Port of Leith) for this future demand.

There will be another Waterfront stop outside Ocean Terminal, giving easy access to the centre's shops and attractions as well as the offices and restaurants in and around Commercial Quay. We will redesign the public space at Ocean Terminal with a layout which is friendlier for pedestrians and people cycling. Both stops will consist of island platforms with tram lines servicing each side.

Ocean Drive tramway corridor

The section of tramway between Ocean Terminal and Tower Place is arguably the most dangerous for active travel users. Under the existing proposals, vehicular traffic and cyclists will be competing on a narrow road with tram lines under their wheels, resulting in an unacceptable level of exposure to collision and injury.

The corridor between Ocean Terminal and Tower Place is not, therefore, suitable for cyclists and this should be reflected in the design of road furniture and markings. A segregated cycleway should be constructed, ensuring that flow is funnelled towards it from either side.

Ocean Drive segregated cycleway

There is a general lack of access for cyclists in the Ocean Terminal area. Diverting cycling through-traffic on a segregated cycleway on the opposite side of Ocean Drive to Ocean Terminal would deconflict

pedestrians and cyclists as well as improving access to Ocean Terminal itself. This would be an extension of the existing segregated cycleway at the north end of Ocean Drive.

Removal of the existing segregated cycleway on the south side of Ocean Drive without its relocation or replacement is not acceptable, particularly at one of the more dangerous sections of traffic conflict on the route.

A segregated cycleway should be constructed on the north side of Ocean Drive from the remodelled junction with the Ocean Terminal access road running eastwards, ensuring that pedestrians can safely use the proposed pavement provision on the southern side of Ocean Drive.

A cycle-friendly junction design will facilitate connectivity with the segregated cycleway on the east side of Ocean Drive opposite Ocean Terminal.

Ideally, the segregated cycleway would continue along the north side of Ocean Drive. This would require a bridge over the Water of Leith and could use the space on the north side of the historic building at the head of the Shore. Whilst this would entail a significant additional expense, it would likely garner additional grant funding or indeed could be financed separately from the Tram extension project.

The segregated cycleway should then tie back into the tramway-free vehicle lane on the eastern side of the junction with Tower Place, taking care to ensure that cyclists travelling westwards towards Ocean Terminal are not directed over the tramway at too shallow an angle.

Junction of Ocean Drive and Victoria Quay/Melrose Drive

The design of this junction should adequately account for the risks of vehicular and cycle flow merging into Melrose Drive. The provision of west-ward, north-ward and east-ward cycleways will reduce this risk, and the junction should be designed to facilitate cycle flow between these routes.

Commercial Street to Newkirkgate cycleway

There is the potential for cycleway enhancements from the junction of Ocean Drive and Victoria Quay/Melrose Drive using a route behind Commercial Street, via Dock Street, Sandport Place, Tolbooth Wynd and off-street through to Newkirkgate Shopping Centre and the Foot of the Walk.

This would remove some of the cycle traffic from the narrow stretches of tramway on Ocean Drive and Constitution Street, thereby reducing the risk of merging and other traffic conflict hazards.

Ocean Terminal tram stop

Whilst visually appealing, the use of grasscrete reduces the potential for pedestrian and cycle flow in front of Ocean Terminal, creating narrow channels of traffic adjacent to the tram stops without creating positions of safety for people crossing from Ocean Terminal. This could be mitigated either by installing wider joint-use crossings for pedestrians and cyclists or by using asphalt throughout.

The use of tram platforms by some buses (i.e. buses making use of the tramway) as is commonplace on systems in operation on mainland Europe would enable better access for passengers of reduced mobility as well as a simpler interchange between transport modes. This is applicable on tram stops across the rest of the Newhaven extension, and in some cases may free up space to improve overall sustainable transport (particularly active travel) provision.

Page 8 – End of the Line: Newhaven

The final stop on the proposed route will serve one of Edinburgh's northern villages, Newhaven. With its harbour and striking lighthouse as well as a variety of local and national restaurant chains, we expect this to be a popular destination for locals and visitors alike.

The stop will be located on Lindsay Road close to the roundabout entrance at Western Harbour. It will have a side platform with buffer stops at the end of both lines, just like the current stop at York Place.

The stop will be on the edge of one of the Waterfront's key development sites at Western Harbour. Developers of this site expect to build over 3,000 homes, a new park similar in size to Princes Street Gardens, a new primary school, and commercial and leisure space over the next 20 years or so.

Newhaven tram terminus

Passive provision should be made for further expansion of the tramway westwards. Whilst this may result in no changes to the landscape proposals, the relocation of services should account for any future track alignment.

Junction of Lindsay Road and Sandpiper Drive

This junction should be remodelled to bring cycle traffic off Lindsay Road and onto an upgraded segregated cycleway on Melrose Drive. It should be fully cycle-friendly.

Great Michael Drive and Hawthornvale junctions

Cycles should be given a left-turn only then brought to the Sandpiper Drive junction at both junctions with Lindsay Road. This would make the most of the two lane westwards flow to minimise conflict between transport modes.

Proposed junction of Melrose Drive and Lindsay Road

Care should be taken in the design of this junction owing to the inherent conflict between vehicles and crossing/merging cyclists.

Ideally, it would be remodelled from the layout shown, prioritising cycles moving from the segregated bidirectional cycleway back onto Lindsay Road, ensuring that tramway crossing angles are as close to perpendicular as possible.

The eastwards advisory cycle lane should be extended from this junction to meet the east-bound bus lane.

Melrose Drive cycleway enhancement

There is currently a cycleway on Melrose Drive that could be enhanced and extended to divert cyclists away from the constrained highway/tramway environment along Lindsay Road. This would deconflict what, in the current proposals, represents a significant pinch point. The merging of vehicular traffic and cyclists where the number of east-bound lanes decreases to one is likely to increase the occurrence of collisions.

This (ideally segregated) cycleway could then be extended along the north side of the tramway to connect with Ocean Terminal. This should be combined with improved connections to the existing segregated cycle network on the south side of Lindsay Road.

The enhanced cycleway should be continued along the north side of the road and tramway, taking account of the proposed stabling siding and other junctions. It would then tie into the pedestrianised frontage of Ocean Terminal and (ideally) bicycle storage facilities. This should incorporate the existing segregated cycleway adjacent to the southern end of the Ocean Terminal building.

Page 9 – What could change if the trams start running?

If the tram route is approved and becomes operational, there will be some changes to how the area you live, work and play looks. There will also be some changes to how you move around the area. While our plans are by no means final - and will change as we take on board views of residents, business and community groups - our current plans include these aspects:

- *Overhead lines will be installed along the route, which follow the alignment set out in the Tram Act.*
- *During morning and evening peak travel times, trams and buses will share a dedicated public transport 'corridor' in the centre of Leith Walk, with all other traffic using the two outside lanes.*
- *During off-peak hours all traffic will use the central lanes with the outside lanes being given over to parking and loading.*
- *The Duke Street entrance of Constitution Street will close to all traffic except for trams and buses.*
- *The roundabout at London Road will have traffic signals with no right turn onto Leith Walk.*
- *There will be no right-turns into and out of non-signalised junctions from Leith Walk for safety reasons (this is the case for nearly all tram lines in cities across the world).*
- *We will create new and improved public space at Elm Row and Ocean Terminal with new seating, planting and reinstated monuments.*
- *We will increase the number of trees and benches on Leith Walk in response to the feedback we got through the Leith Creative place-making study.*

The Newhaven extension offers a once-in-a-generation opportunity to de-prioritise private motor vehicles in favour of sustainable and active travel. We feel that this opportunity has not been adequately grasped.

With step-changes in public transport provision such as those that will be offered by the Newhaven extension, as well as the dissuasive effects of long-term major construction, comes the chance to reduce or even remove vehicular traffic from the city's roads. The current plans do not go far enough to exploit this opportunity.

This is also the case with the retention of much of the on-street parking provision. The mandate for a roads authority to provide parking places is limited at best, and the Newhaven extension gives an opportunity to further reduce the provision of on-street parking. Fewer parking places de-incentivises car use and increases the space for active travel provision or improvements to the public realm.

Not only would this be of major benefit to local businesses as the public realm would be much improved by the released street space, but this would represent a significant reduction in air pollution in a city that has regularly failed to meet air quality standards. It would also increase the appeal for new active travel users.

As well as the health benefits, there is a significant safety aspect to the removal of vehicular traffic and the segregation of active travel users, particularly cyclists. Mixing cyclists and tram lines does not have to be dangerous, but in Edinburgh the combination of cyclists, tram lines, and dense vehicular traffic has tragically shown itself to be fatal.

The priority for motor vehicles should be lower than for sustainable and active travel modes across the whole city, but this is an imperative where cyclists and tram lines intermingle. Segregation is key: eliminate flowing traffic and parked cars along the tram corridor and, as evidence shows elsewhere, you'll vastly reduce the risk of cyclist fatalities.

Line construction

Page 10 – How we will construct the line

We've thought a lot about how we should manage the construction. We believe that the plan we are proposing will cause the least amount of disruption overall. It should also allow us to finish the project as quickly as possible and in the most cost-effective way. We plan to close each of the proposed work sites once and will only re-open the site after all the works are complete. This is known as a 'one dig' approach. Works will include:

- *Putting in place traffic and public transport diversions;*
- *Setting up site boundary and clear all obstructions above the ground;*
- *Excavating around where the tram infrastructure will be built;*
- *Diverting and removing some utilities, and clear all obstructions underground;*
- *Building the tram infrastructure;*
- *Removing site boundaries and traffic management.*

No response required.

Page 11 – Building the line: proposed phasing

Information on our plans for constructing the line in each location.

London Road – Manderston Street (phase one)

Three lanes from London Road to Manderston Street will close for 18 months.

Leith-bound traffic will be diverted via Easter and Bonnington Roads.

City-bound traffic will continue to use Leith Walk.

Newhaven – Ocean Terminal (phase one)

Melrose Drive to the south of Ocean Terminal will be closed to all traffic.

Access will be maintained to the Ocean Terminal car parks and Cruise Liner Terminal.

Constitution Street (phases one and two)

The north and south ends will be closed in phase 1 while the area between Queen Charlotte Street and Coatfield Lane remains open

The section between Queen Charlotte Street and Coatfield Lane will be closed in phase 2 with the north and south ends open.

Ocean Terminal – Constitution Street (phases two and three)

During phase 2 we will complete the stretch between Ocean Terminal and Tower Place. We will maintain local access to the docks.

When all works between Ocean Terminal and Tower Place are complete, we will start on the section between Tower Place and Constitution Street. This section will be closed to all traffic while work takes place with access maintained to the dock area.

York Place – London Road (phases two, three and four)

During phase 2 we will complete the section between Picardy Place and Union Street.

In phase 3, we will complete the section between Union Street and London Road.

In phase 4, the existing tram line which currently ends on York Place will be tied in with the newly constructed line on Picardy Place. The stop at York Place will be decommissioned and replaced with a new stop at Picardy Place. We will maintain traffic flow through the area with a reduced number of lanes to allow work to take place.

In all cases, the natural reduction in appeal to motor vehicle users during construction should be exploited to permanently reduce or remove traffic from the tramway corridor. Not only would this have beneficial impacts on timetable resilience owing to the alleviation of congestion along the tram route, but it would greatly improve safety for active travel users (such as pedestrians and cyclists).

Non-access traffic should be wholly diverted from Leith Walk onto Easter Road to permit the retention of segregated cycleways on Leith Walk during construction work. Consideration should be made to permanent improvements to Easter Road prior to its use as a diversionary route to enable it to continue to act as the main route for vehicular traffic following completion of the Newhaven extension.

On Constitution Street, if the final proposals are altered to remove non-access traffic then the staged closure from Tower Street in the north to Foot of the Walk in the south can be tied into the construction programme as detailed above.

Phasing between Ocean Terminal and Tower Place is not sufficiently advanced to allow a detailed response, however the limited provision for active travel users on this section of the current proposals leaves little room for alternatives. This should be explored further following the aggregation of consultation responses.

The area between Picardy Place and London Road is complex, and the permanent improvements to Easter Road that we have proposed here would further alleviate the challenges here.

Through all stages of construction, residents and businesses should be involved in and kept updated on the planning of public space infringement and localised diversions.

Page 12 – Building the line: getting around

The proposed construction approach will change the way you usually move around the local area. To make things as easy as we can, we will put into place measures to help you travel, walk or cycle during construction. We will work with people in the local community during this consultation to better understand everyone's needs. Together, we will create a set of plans which we will present consult on in Summer/Autumn 2018.

More information on the proposed measures to help you travel, walk or cycle during construction.

Walking and cycling

We are working on plans so that so that pedestrians and people cycling will still have access to the streets in the construction areas. We will be talking to cycling and local interest groups - as well as people who

live and run businesses in the area - to make sure that alternative routes meet everyone's needs and that they are safe and convenient.

Motor vehicles

The proposed phase 1 closure of most of Leith Walk means that all Leith bound traffic will be diverted via either Easter Road or Bonnington Road for up to 18 months. City-bound traffic will continue to use Leith Walk in a single lane.

The northern and southern sections of Constitution Street will close during phase 1, with the central section completed during phase 2. We will maintain local access at all times, with vehicles diverted via Duncan Place, John's Place and Queen Charlotte Street.

Work at the Waterfront will mainly take place away from main roads, although some work to lower the level of Lindsay Road will require work to the road. We will put in place a contraflow system to allow this work to be carried out. We will maintain two-way traffic and access to Ocean Terminal and the docks area.

Proposed temporary parking arrangements for Leith Walk

During construction on Leith Walk we will need to remove all parking bays. To reduce the level of disruption that this could cause we are proposing the introduction of free parking at three locations along the street. These will allow for around 80 parking spaces to be retained throughout construction.

Working with Lothian Buses to keep the city moving

We have had early discussions with Lothian Buses. Both the Council and Lothian Buses want to cause the least amount of disruption to your normal routine. We will continue to meet with Lothian Buses to develop plans for diverting buses during construction. We will finalise our preferred solutions and include these as part of our second round of consultation in Summer/ Autumn 2018.

Our commitment to you

We will:

- Have regularly spaced crossing points along the length of the construction site to maintain access for pedestrians.*
- Use less intrusive fencing so that you can see across key routes.*
- Have an on-street customer service team to help you find your way and answer any questions you have.*
- Help people who are less mobile to access local services.*
- Work closely with the community to make sure alternative routes for cyclists are considered and appropriate.*
- Have a dedicated team to help local business get goods into and out of their premises.*

It is good to see that due consideration is being made of all transport modes, particularly pedestrians and cyclists. At this stage, the plans lack the resolution for detailed comment, but if the construction phase proposals follow the letter and the spirit of the approach detailed above, then many of the problems faced by the original Edinburgh Tram construction programme can be avoided.

Page 13 – Supporting local business

We are aware that there is likely to be some disruption during construction; making it more difficult for local business to sustain trade as it is today. We have also learned many vital lessons from the earlier phase of tram works.

We intend to work with local business, business groups, civic organisations and other interested parties to create a bespoke and targeted Support for Business plan for the affected area. We are still working up the finer details of what the scheme will look like although we can share some important aspects of what we are currently considering.

- A financial contribution targeted at small businesses to help maintain business continuity*
- The Assessor for Lothian Valuation Joint Board is to look proactively at all the issues surrounding the proposed tram works in relation to the impact on Non-Domestic Rates.*
- Logistics Centres at key locations to get deliveries in and goods out of local business*

- *Customer service and wayfinding staff to help people move around the area*
- *An open for business campaign*
- *Events and activities to encourage people into the area*
- *Free business improvement/diversification workshops for all*

As previously stated, all residents and businesses should be involved in and kept updated on the planning of localised diversions and public space infringement at all stages of construction.

This will be supported by a strong online presence, as much if not more than the traditional methods of notification. Twitter and Facebook are very valuable assets for disseminating information to local groups quickly, as is regular engagement with organisations such as Spokes and other community groups.

Recent examples of best practice in projects that successfully engage with local communities and businesses include the Borders Railway and Crossrail.

Detailed responses

This section of the report is best viewed alongside both the Atkins landscape proposal drawings (these can be found through the City of Edinburgh Council public consultation website) and the map provided on the Permanent Rail Engineering website.

Landscape proposal drawings

Sheet 1 of 14, Newhaven tram stop

Newhaven tram terminus

Passive provision should be made for further expansion of the tramway westwards. Whilst this may result in no changes to the landscape proposals, the relocation of services should account for any future track alignment.

Melrose Drive cycleway enhancement

There is currently a cycleway on Melrose Drive that could be enhanced and extended to divert cyclists away from the constrained highway/tramway environment along Lindsay Road. This would deconflict what, in the current proposals, represents a significant pinch point. The merging of vehicular traffic and cyclists where the number of east-bound lanes decreases to one is likely to increase the occurrence of collisions.

This (ideally segregated) cycleway could then be extended along the north side of the tramway to connect with Ocean Terminal. This should be combined with improved connections to the existing segregated cycle network on the south side of Lindsay Road.

Junction of Lindsay Road and Sandpiper Drive

This junction should be remodelled to bring cycle traffic off Lindsay Road and onto an upgraded segregated cycleway on Melrose Drive. It should be fully cycle-friendly.

Great Michael Drive and Hawthornvale junctions

Cycles should be given a left-turn only then brought to the Sandpiper Drive junction at both of these junctions with Lindsay Road. This would make the most of the two lane westwards flow to minimise conflict between transport modes.

Sheet 2 of 14, Melrose Drive

Proposed junction of Melrose Drive and Lindsay Road

Care should be taken in the design of this junction owing to the inherent conflict between vehicles and crossing/merging cyclists.

Ideally, it would be remodelled from the layout shown, prioritising cycles moving from the segregated bidirectional cycleway back onto Lindsay Road, ensuring that tramway crossing angles are as close to perpendicular as possible.

The eastwards advisory cycle lane should be extended from this junction to meet the east-bound bus lane.

Melrose Drive segregated cycleway

The enhanced cycleway should be continued along the north side of the road and tramway, taking account of the proposed stabling siding and other junctions.

Sheet 3 of 14, Ocean Terminal

Ocean Terminal tram stop

Whilst visually appealing, the use of grasscrete reduces the potential for pedestrian and cycle flow in front of Ocean Terminal, creating narrow channels of traffic adjacent to the tram stops without creating positions of safety for people crossing from Ocean Terminal. This could be mitigated either by installing wider joint-use crossings for pedestrians and cyclists or by using asphalt throughout.

The use of tram platforms by some buses (i.e. buses making use of the tramway) as is commonplace on systems in operation on mainland Europe would enable better access for passengers of reduced mobility as well as a simpler interchange between transport modes. This is applicable on tram stops across the rest of the Newhaven extension, and in some cases may free up space to improve overall sustainable transport (particularly active travel) provision.

Melrose Drive segregated cycleway

The enhanced cycleway should be continued along the north side of the road and tramway, tying into the pedestrianised frontage of Ocean Terminal and (ideally) bicycle storage facilities. This should incorporate the existing segregated cycleway adjacent to the southern end of the Ocean Terminal building.

Ocean Drive segregated cycleway

There is a general lack of access for cyclists in the Ocean Terminal area. Diverting cycling through-traffic on a segregated cycleway on the opposite side of Ocean Drive to Ocean Terminal would deconflict pedestrians and cyclists as well as improving access to Ocean Terminal itself. This would be an extension of the existing segregated cycleway at the north end of Ocean Drive.

Commercial Street to Newkirkgate cycleway

There is also the potential for cycleway enhancements from the junction of Ocean Drive and Victoria Quay/Melrose Drive using a route behind Commercial Street, via Dock Street, Sandport Place, Tolbooth Wynd and off-street through to Newkirkgate Shopping Centre and the Foot of the Walk.

This would remove some of the cycle traffic from the narrow stretches of tramway on Ocean Drive and Constitution Street, thereby reducing the risk of merging and other traffic conflict hazards.

Junction of Ocean Drive and Victoria Quay/Melrose Drive

The design of this junction should adequately account for the risks of vehicular and cycle flow merging into Melrose Drive. The provision of west-ward, north-ward and east-ward cycleways will reduce this risk, and the junction should be designed to facilitate cycle flow between these routes.

Sheet 4 of 14, Ocean Drive

Ocean Drive tramway corridor

The section of tramway between Ocean Terminal and Tower Place is arguably the most dangerous for active travel users. Under the existing proposals, vehicular traffic and cyclists will be competing on a narrow road with tram lines under their wheels, resulting in an unacceptable level of exposure to collision and injury.

The corridor between Ocean Terminal and Tower Place is not, therefore, suitable for cyclists and this should be reflected in the design of road furniture and markings. A segregated cycleway should be constructed, ensuring that flow is funnelled towards it from either side.

Ocean Drive segregated cycleway

Removal of the existing segregated cycleway on the south side of Ocean Drive without its relocation or replacement is not acceptable, particularly at one of the more dangerous sections of traffic conflict on the route.

A segregated cycleway should be constructed on the north side of Ocean Drive from the remodelled junction with the Ocean Terminal access road running eastwards, ensuring that pedestrians can safely use the proposed pavement provision on the southern side of Ocean Drive.

A cycle-friendly junction design will facilitate connectivity with the segregated cycleway on the east side of Ocean Drive opposite Ocean Terminal.

Sheet 5 of 14, Water of Leith crossing

Ocean Drive segregated cycleway

Ideally, the segregated cycleway would continue along the north side of Ocean Drive. This would require a bridge over the Water of Leith and could use the space on the north side of the historic building at the head of the Shore. Whilst this would entail a significant additional expense, it would likely garner additional grant funding or indeed could be financed separately from the Tram extension project.

The segregated cycleway should then tie back into the tramway-free vehicle lane on the eastern side of the junction with Tower Place, taking care to ensure that cyclists travelling westwards towards Ocean Terminal are not directed over the tramway at too shallow an angle.

The Shore segregated cycleway

To facilitate further diversion of cyclists coming from the east away from Constitution Street, we would recommend that enhancements to existing cycle provision along The Shore are made, including (ideally) a segregated cycleway running from Victoria Bridge southwards along the waterfront. This would connect to the previously described Commercial Street to Newkirkgate cycleway at Sandport Place.

An alternative route would include providing a segregated cycleway along Rennie's Isle onto Dock Place and Sandport Street, via an improved waterway crossing at Teuchters Landing.

These routes would then enable cyclists to be diverted straight across the Constitution Street tramway corridor and along either Tower Street, Bernard Street or Tolbooth Wynd when travelling to/from the east.

Sheet 6 of 14, Ocean Drive to Constitution Street

Junction of Ocean Drive and Ocean Way

Passive provision should be made for a tramway junction here with a potential connection towards Portobello and Musselburgh. Whilst this may result in no changes to the landscape proposals, the relocation of services should account for any future track alignment.

Ocean Way segregated cycleway

A segregated cycleway should be installed on the eastern side of Ocean Way to connect the existing cycling provision to the pedestrianised section of Constitution Street to the south.

Constitution Street restricted access

To permit a safer flow of tram and active travel users, Constitution Street should be restricted for buses and access only between Tower Street and Laurie Street. The proposed cycleway enhancements should reduce the flow of cyclists on Constitution Street discounting the need for segregated cycleway provision.

This may include altering the proposed layout of some or all of the junctions along this stretch of the tramway.

Sheet 7 of 14, Baltic Street to Queen Charlotte Street

Constitution Street restricted access

See comments for Sheet 6.

Bernard Street

As the main walking route between The Shore and its tram stop will be along Bernard Street, consideration should be made of further enhancing provision for pedestrians – in places the existing pavement narrows substantially and the introduction of further pedestrian flow to the new tram stop will exacerbate this problem.

Sheet 8 of 14, Foot of the Walk

Constitution Street restricted access

See comments for Sheet 6.

Sheet 9 of 14, Great Junction Street

Commercial Street to Newkirkgate cycleway

The previously described enhanced cycle corridor via Commercial Street, Dock Street, Sandport Place, Tolbooth Wynd and through to Newkirkgate Shopping Centre returns to the tramway corridor at the Foot of the Walk. The proposals for this junction should take account of this, funnelling cyclists onto this route and away from the narrow tramway section along Constitution Street.

Leith Walk (Foot of the Walk to Pilrig Street) central reservation

We believe that, for a highway with the width of Leith Walk, a centrally supported two track cantilever catenary support as proposed in the current plans is appropriate to minimise the use of headspans and their associated poor engineering performance.

However, the current plans do not include enough crossings through the central reservation to permit a more natural flow of active travel users. Additional joint pedestrian and cycle crossing points should be included.

Leith Walk (Foot of the Walk to Pilrig Street) cycle provision

Currently, the proposals for the tramway corridor from the junction with Constitution Street up to Pilrig Street are wholly unacceptable. Not only has no effort been made to separate cycle and vehicular traffic, but the proposed advisory cycle lane is regularly interrupted by loading bays and parking. This will culminate in a greatly increased risk of collisions and injuries for cyclists.

It is our recommendation that a single, bidirectional segregated cycleway is installed on the eastern side of Leith Walk, tied into our proposed Newkirkgate cycleway in the north and the existing segregated cycle corridor on Leith Walk in the south. Combined with the termination of several side roads, this should greatly improve the quality of active travel provision along the length of Leith Walk.

This should enable sufficient highway width to allow the four-lane arrangement to be retained within the proposals, albeit further to the west than is currently shown, maximising tram timetable resilience.

An advisory cycle lane should be retained on the west side of Leith Walk, however the increased number of crossings detailed above should enable cycle users to quickly cross to the segregated cycleway.

Leith Walk (Foot of the Walk to Pilrig Street) loading/parking provision

The mandate for a roads authority to provide parking places is limited at best, and the extensive remodelling resulting from the Newhaven extension is an opportunity to further reduce the provision of on-street parking. Fewer parking places de-incentivises car use and increases the space for active travel provision or improvements to the public realm.

Removing permanent loading and parking provision would also further incentivise the use of sustainable travel modes along Leith Walk.

We recommend that no permanent loading or parking provision is made on Leith Walk between Foot of the Walk and Pilrig Street. Limited additional parking spaces can be provided at the terminated side streets as detailed below.

Disjointed advisory cycle lane at bus stop

The cycle lane has not been correctly shown to connect into the proposed bus stop just south of the Foot of the Walk junction

Kirk Street

Kirk Street's vehicular connection with Leith Walk should be severed, with traffic using Casselbank Street for access.

Crown Place

The vehicular connection from the former Leith Central area car park onto Leith Walk via Crown Place should be severed. If required, the connection onto Easter Road should be improved to allow for slightly increased vehicular flow.

Crown Street

Crown Street should be linked into Manderston Street and the vehicular connection with Leith Walk severed.

Manderston Street

Manderston Street's vehicular connection with Leith Walk should be severed, with traffic using Easter Road for access.

Casselbank Street

Whilst it is not possible to sever the vehicular connection from Casselbank Street onto Leith Walk as no other access exists, particular attention is required at this junction as it also coincides with a high-risk traffic merging area.

Sheet 10 of 14, Balfour Street

Leith Walk (Foot of the Walk to Pilrig Street) recommendations

For recommendations regarding the central reservation, cycling, parking and loading provision between Foot of the Walk and Pilrig Street, see comments for Sheet 9.

Stead's Place/

Stead's Place's vehicular connection with Leith Walk should be severed, with traffic using Springfield Street for access.

Lorne Street

Lorne Street's vehicular connection with Leith Walk should be severed, with traffic using Easter Road for access.

Balfour Street

Whilst it is not possible to sever the vehicular connection from Balfour Street onto Leith Walk as no other access exists, particular attention is required at this junction as it also coincides with the proposed Balfour Street tram stop.

Sheet 11 of 14, Pilrig Street

Leith Walk (Foot of the Walk to Pilrig Street) recommendations

For recommendations regarding the central reservation, cycling, parking and loading provision between Foot of the Walk and Pilrig Street, see comments for Sheet 9.

Arthur Street

Arthur Street's vehicular connection with Leith Walk should be severed, with traffic using Pilrig Street for access.

Dalmeny Street

Dalmeny Street's vehicular connection with Leith Walk should be severed, with traffic using Easter Road for access.

Pilrig Street junction

For cyclists heading north along Leith Walk from Pilrig Street, there will be an abrupt end to the high quality segregated cycling corridor. The scale of the highway remodelling north of Pilrig Street should enable a more radical approach to be taken, extending the existing segregated cycle corridor north at least as far as the Foot of the Walk.

The recently installed segregated cycling infrastructure southwards between Pilrig Street and Annandale Street was designed to require minimal alteration to enable the Newhaven extension. Its retention will ensure it continues to be an exemplar in best practice for active travel provision.

Sheet 12 of 14, McDonald Road

Existing segregated cycling corridor

This should be entirely retained, as shown in the current landscape proposals.

Middlefield

Middlefield's vehicular connection with Leith Walk should be severed, with traffic using Pilrig Street for access.

Albert Street

Albert Street's vehicular connection with Leith Walk should be severed, with traffic using Easter Road for access.

Brunswick Street

Brunswick Street's vehicular connection with Leith Walk should be severed, with traffic using Easter Road for access.

Sheet 13 of 14, Elm Row

Existing segregated cycling corridor

This should be entirely retained, as shown in the current landscape proposals.

Montgomery Street

Montgomery Street's vehicular connection with Leith Walk should be severed, relying on the one-way flow along Elm Row as currently proposed for access.

Sheet 14 of 14, London Road to Picardy Place

London Road junction

As recommended by Sustrans Scotland, London Road junction should be enhanced as a more cycle-friendly junction, smoothly directing flows from London Road onto Leith Walk in both directions (and vice versa). This junction would then be a more suitable place for the transition between single direction and bidirectional cycle lanes, avoiding unnecessary incursion into pedestrian space.

Picardy place tram stop

The current proposals for the tram stop at Picardy Place result in a significant volume of sterilised land where the tram line sixfoot (the interval between tracks) widens to accommodate the island platform.

Passenger flow and interchange between transport modes (i.e. buses) would be better facilitated by flanking platforms as are in use elsewhere on the existing Edinburgh Tram system.

This could result in an increased track radius for the northbound line at the eastern end of the platform, reducing long-term maintenance requirements.

From a traffic flow perspective, this would simplify the pedestrian/cycle crossing at the eastern end of the tram stop (the northern throat of the Picardy Place gyratory). At the western end of the tram stop, the additional freed space would support a less constrained design of the Broughton Street junction.

Flow speeds for cyclists would be improved by having direct cycle crossings at both ends of the tram stop. These could be enabled by aligning tram lines together across a regular sixfoot rather than separating their alignments.

Overall comments

This is only the start of Edinburgh Tram expansion

The extension of the Edinburgh Tram system to Newhaven via Leith is a major step forwards for sustainable transport provision in the Scottish capital.

Trams offer a **fast, convenient and emissions-free** means of travel for large numbers of people through the city and, as was originally envisaged, the greatest benefit for Edinburgh will be unlocked by linking Leith in the east to Edinburgh Airport in the west, via Haymarket and Waverley stations.

The inevitable success of the Newhaven extension should mark the start, not the end, of the growth of the Edinburgh Trams system. Several opportunities exist for future expansion:

- a primarily on-street corridor southeast to **King's Buildings and Little France**;
- a primarily off-street corridor north towards **Granton**;
- a primarily on-street corridor southwest towards **Colinton**; and
- tram-train operation on the **South Suburban Line** connecting the existing line at Haymarket with Gorgie, Morningside, Cameron Toll, Nidrie and Newcraighall in the east.

An opportunity missed

However, there is room for improvement within the current plans.

The Newhaven extension offers a once-in-a-generation opportunity to **de-prioritise private motor vehicles** in favour of sustainable and active travel. We feel that this opportunity has not been adequately grasped.

With step-changes in public transport provision such as those that will be offered by the Newhaven extension, as well as the dissuasive effects of long-term major construction, comes the chance to **reduce or even remove vehicular traffic** from the city's roads. The current plans do not go far enough to exploit this opportunity.

This is also the case with the retention of much of the **on-street parking provision**. The mandate for a roads authority to provide parking places is limited at best, and the Newhaven extension gives an opportunity to further reduce the provision of on-street parking. Fewer parking places de-incentivises car use and increases the space for active travel provision or improvements to the public realm.

Not only would this be of **major benefit to local businesses** as the public realm would be much improved by the released street space, but this would represent a **significant reduction in air pollution** in a city that has regularly failed to meet air quality standards. It would also increase the appeal for new active travel users.

As well as the health benefits, there is a significant safety aspect to the removal of vehicular traffic and the segregation of active travel users, particularly cyclists. Mixing cyclists and tram lines does not have to be dangerous, but in Edinburgh the **combination of cyclists, tram lines, and dense vehicular traffic** has tragically shown itself to be fatal.

As Sustrans Scotland puts it:

“The proposed designs do not prioritise people on foot and on bikes above other modes of transport, failing to adhere to the [Scottish Government] transport hierarchy.”

The priority for motor vehicles should be lower than for sustainable and active travel modes across the whole city, but this is an imperative where cyclists and tram lines intermingle. Segregation is key: **eliminate flowing traffic and parked cars** along the tram corridor and, as evidence shows elsewhere, you'll vastly **reduce the risk of cyclist fatalities**.

A final word

Thanks to major cycling investment projects across the city, completion of electrification throughout the Scottish Central Belt and improvements to long-distance high-speed railway services, the provision of sustainable transport options in and around Edinburgh is rapidly improving.

The Newhaven extension of the Edinburgh Tram system can be a key component in enabling a step-change in this provision, so long as its progenitors are willing to flip the current transport hierarchy upside-down.

The contents of this document are intended to inform and support discussion about the development of future transport options.
They have been created independently from any studies undertaken by other parties.
They are not intended as a substitute for detailed analysis and as such no liability is to be associated with them.