

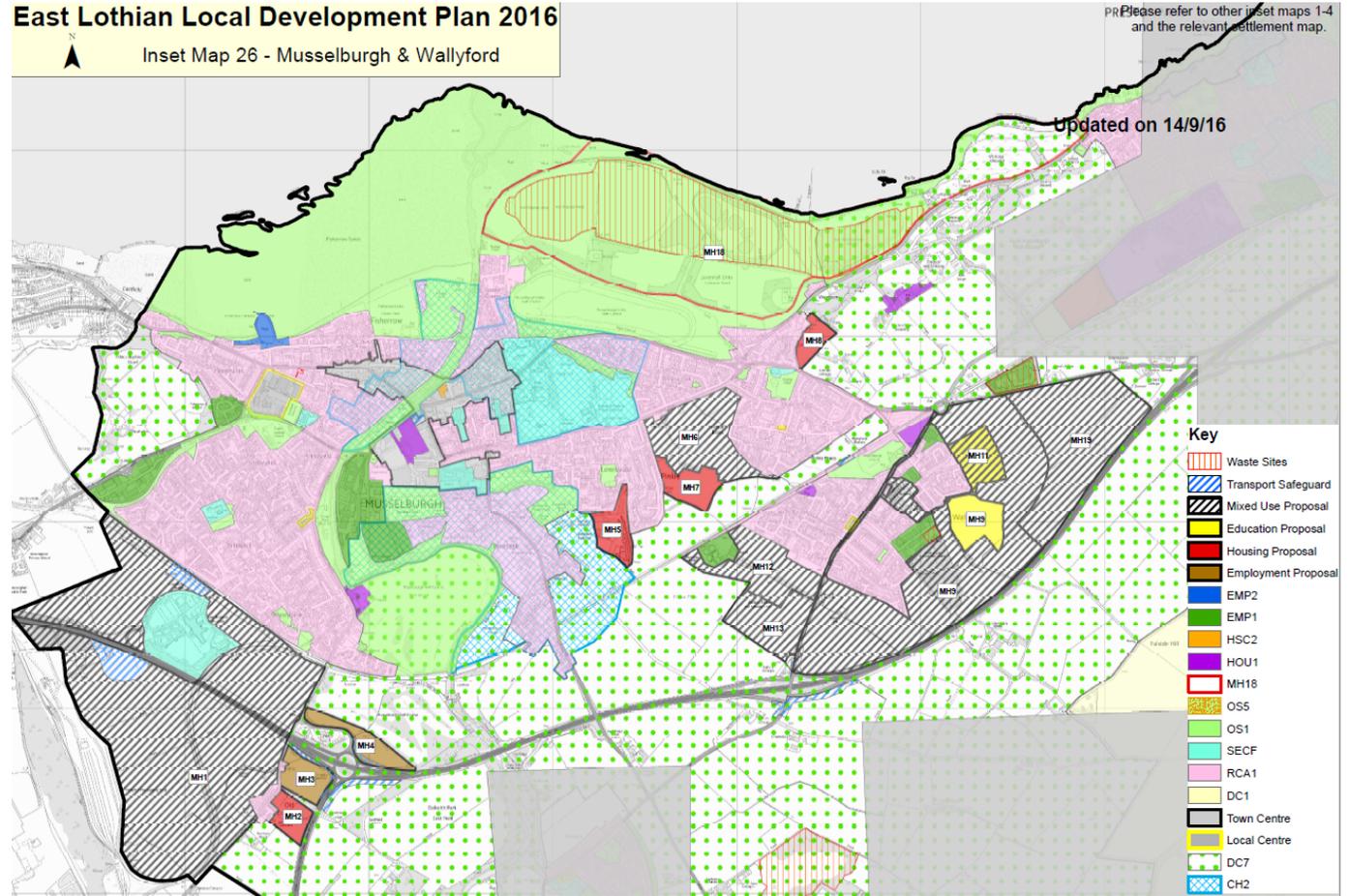
Extract from the East Lothian Local Development Plan 2008

### East Lothian Local Development Plan 2016

Inset Map 26 - Musselburgh & Wallyford

Please refer to other inset maps 1-4 and the relevant settlement map.

Updated on 14/9/16



## 2.4 Local Planning Context – East Lothian

East Lothian markets itself as a wonderful county for walking, cycling and horse riding. The local path network provides a variety of opportunities to explore the scenic coastline, attractive villages set in rolling countryside and the foothills of the Lammermuir hills. In addition to the local path network, Sustrans has signed 3 cycle routes, including the National Cycle Network (NCN) 1, NCN196 and the North Sea Cycle Route along NCN 76.

Over the coming decades, the county is facing great change in its population and economy. Projections anticipate that by 2035 East Lothian's population is set to increase by 33%, the highest percentage rate of growth in Scotland. The Emerging Local Development Plan Main Issues Report recommends that the focus for new housing and economic development land should be to the west of the area. As a result, pressure on the existing path, road and sustainable transport networks will increase. There is a need to upgrade and consolidate the network, in response to the lack of capacity in the current strategic transport infrastructure to meet demand from the rising population and an increase in cycle commuting to work.

### ***East Lothian Local Development Plan 2008***

The map opposite indicates that the area of coast, which is under review for a potential path link between Portobello Promenade and Musselburgh Promenade, is identified on the ELC LDP proposals map as open space. The missing section is covered by **Policy C3: Protection of Open Space**, which states that alternative uses will only be considered where there is no significant loss of amenity or impact on the landscape setting and:

- i the loss of a part of the land would not affect its recreational, amenity or landscape potential, or
- ii alternative provision of equal community benefit and accessibility would be made available, or
- iii provision is clearly in excess of existing and predicted requirements.

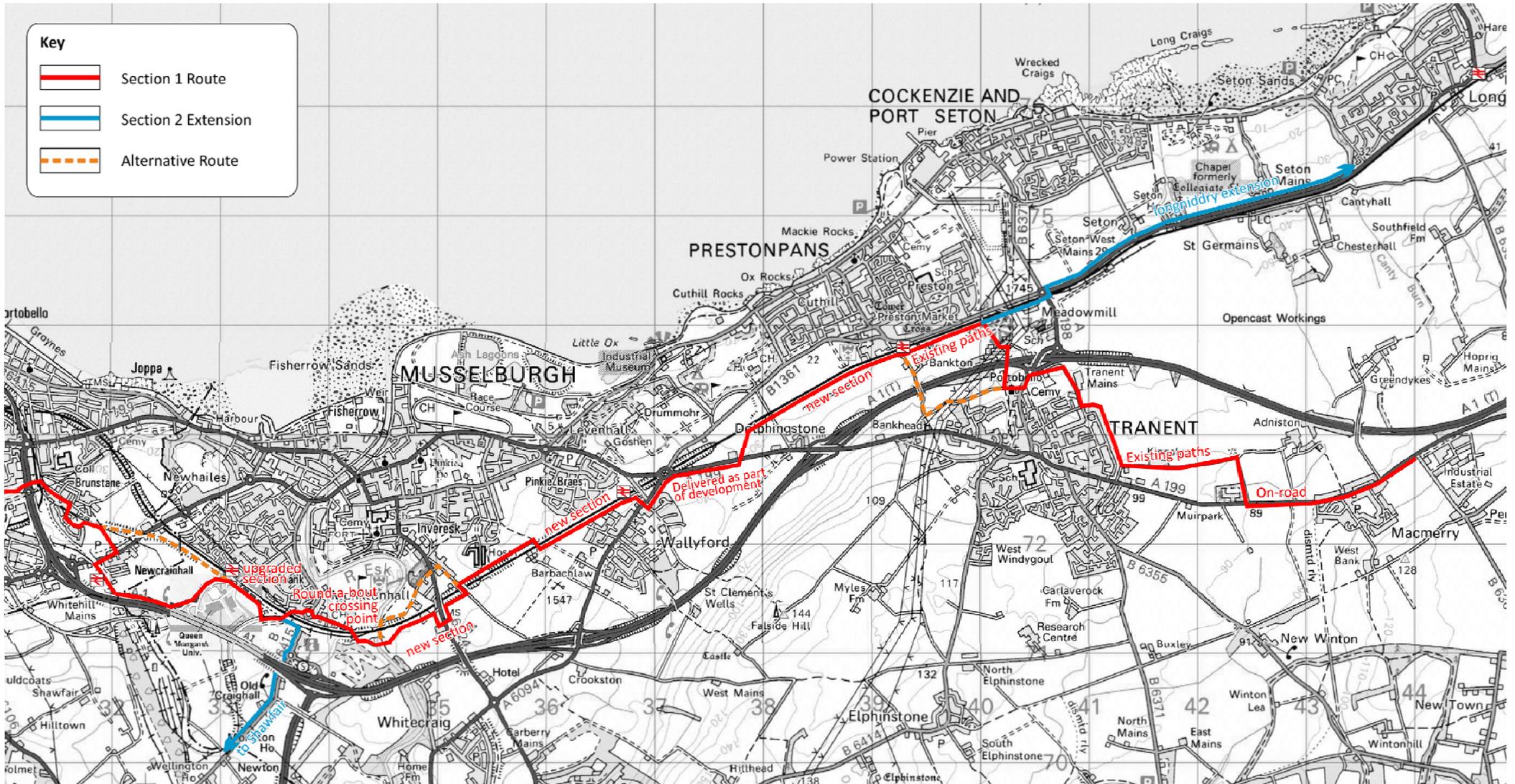
### ***East Lothian Segregated Active Travel Corridor***

In conjunction with the development of the East Lothian Active Travel Improvement Plan, The feasibility of creating a Segregated Active Travel Corridor (SATC) is being explored, which will connect East Lothian's major settlements to City of Edinburgh, Midlothian and beyond. A more accessible cycle network will provide greater opportunity to choose alternative modes of travel, therefore improve health and well-being. The study, progressed through workshops and stakeholder consultation focused on the feasibility and options for:

1. Creating a SATC along the A199 from Dunbar to Wallyford
2. Planning Section 1 of the SATC from Macmerry to Musselburgh, and connecting with the National Cycle Network
3. Developing the wider East Lothian Active Travel Network, in relation to the existing strategic and local path network

ELC is currently developing **Green Networks Supplementary Planning Guidance (SPG)**, which identifies key sites, and includes active travel routes such as Core Paths, Sustrans Cycle Routes, Rights of Way and recreational routes. The aim of the East Lothian Green Network is "to create a network which connects habitats and communities, improves access to the countryside and the coast, and enhances the character and appearance of the area".

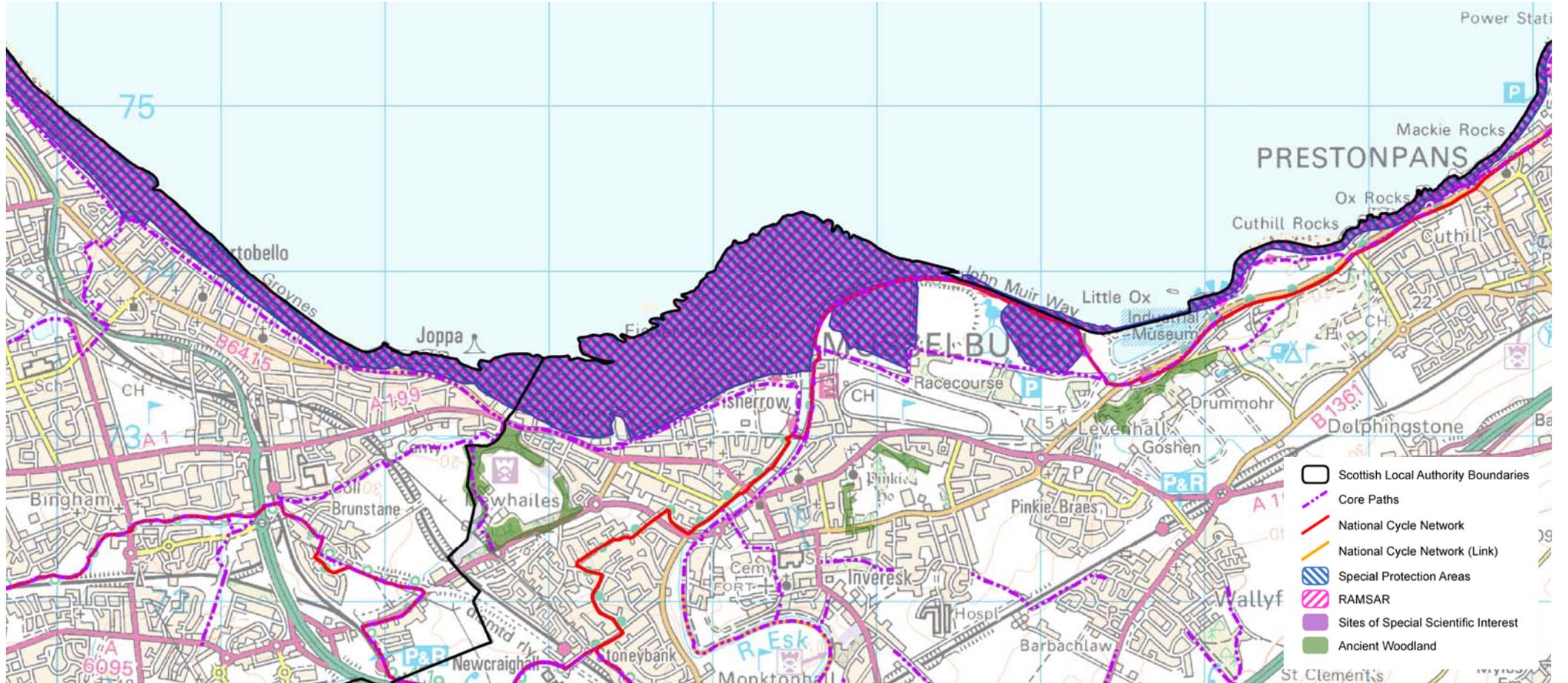
Proposed route for the Segregated Active Travel Corridor (SATC)



***Active Travel Improvement Plan, East Lothian Council***

East Lothian Council is currently developing an Active Travel Improvement Plan as a key component of East Lothian's revised Local Transport Strategy. Shaping a network hierarchy (local routes / town networks / National Cycle Routes) has highlighted opportunity to create a 'superhighway' or strategic spine for the county. The proposed active travel route will be a key component of East Lothian's Green Networks Strategy Supplementary Planning Guidance (2015) and will be included in the emerging Local Development Plan.

## Landscape Designations and Local Access Network



## 3.0 Landscape and Access Considerations

### 3.1 Landscape and Cultural Heritage Designations

#### *Environmental Sensitivities*

The feasibility study included a desk based review of the proposed route, from the end of Portobello Promenade into Musselburgh, with regard to landscape and cultural designations. The proposed works have the potential to impact on a sites designated for their natural heritage and it is therefore likely that a level of environmental / ecological assessment and reporting would be required. Surveys would have a time and cost implication which would need to be factored in to programmes.

The site borders the Firth of Forth Special Protection Area (SPA) and Ramsar site, which is a European designated site protected for its wintering bird assemblages. The site is underpinned by the Firth of Forth SSSI (Site of Special Scientific Interest). The Firth of Forth Site of Special Scientific Interest (SSSI) is an extensive coastal area designated for a variety of geological and geomorphological features, coastal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds.

We recommend that SEStran seek early consultation response from Scottish Natural Heritage as to the potential impacts and survey / assessment that may be required as part of the consenting process for each of the proposed options. There may be a need for a Habitats Regulation Appraisal if there is potential for likely significant effects on the conservation objectives or features of the SPA.

There are areas of Ancient Woodland on the Newhailes estate, along with a Local Nature Conservation Site along the Brunstane Burn. The proposals are adjacent to the Portobello Conservation area, but would not impact the local heritage. There are no other local or nationally significant cultural heritage designations within the study area.

Areas of Musselburgh are identified as being at medium to high risk of coastal flooding, as shown on SEPA's Flood Hazard Maps (1 in 200 year flood extent). The majority of the study area lies within a Potential Vulnerable Area.

### John Muir Way



### **3.2 Local and National Access Networks**

The feasibility study included a desk based review of the proposed route, from the end of Portobello Promenade into Musselburgh, in light of the wider strategic active travel network. The local path network around Musselburgh, Joppa and Portobello provides a variety of opportunities to explore the scenic coastline, attractive promenades and walk / cycle to school, work or to the local shops.

Sustrans has signed 2 cycle routes through the Edinburgh and area, including the National Cycle Network 1 and the North Sea Cycle Route along NCN 76. The Edinburgh and East Lothian Core Path network provides connections to the National Cycle Network and local routes. The network includes the Portobello and Musselburgh promenades, Fisherrow, the Joppa seafront and inland routes along Brunstane Burn.

The John Muir Way extends westwards from Prestonpans, around the Ash Lagoons, along Fisherrow, down the Edinburgh Road and off-road along side the Brunstane Burn to connect with the Innocent Railway Path.



Street view looking east along B6415 at the Rockville Restaurant



Street view looking east at A199 junction



Street view looking east along A199 besides Brunstane Burn path



Street view looking east along A199 at New Street Junction



Alternative Route existing photographs



Alternative Route existing photographs

## 4.0 Site Survey

### 4.1 Site Audit

A key part of the project was the site audit, which was undertaken by the team to assess the study area and gather information on the context and wider path network. A site walk over survey of the proposed route between Portobello Promenade and John Muir Way on the Edinburgh Road was undertaken and information analysed and mapped.

The following information was collated, reviewed and analysed:

1. Consideration of the wider network and connections, including potential connections to the wider path network:
  - Use of roadway and/or verges along Seaview Terrace and Eastfield
  - econfiguration of the junction of Eastfield and Milton Road East (A199), Edinburgh
  - Configuration and Layout of the A199 into Musselburgh beyond the Eastfield/Milton Road Junction
  - Potential provision of linkages through adjacent adopted and unadopted paths
  - Links to Musselburgh via Musselburgh Promenade
  - Direct connections with the Brunstane Burn Path at Eastfield
2. Review of the technical aspects of the spatial options and practical issues, including:
  - On-carriageway Cycle Lanes (dual and single directions)
  - Shared Use paths
  - Reconfiguration and amended use of existing roads and paths
  - Additional / revised crossing facilities
  - Direct whole or partial promenade connection on seaward side of current housing

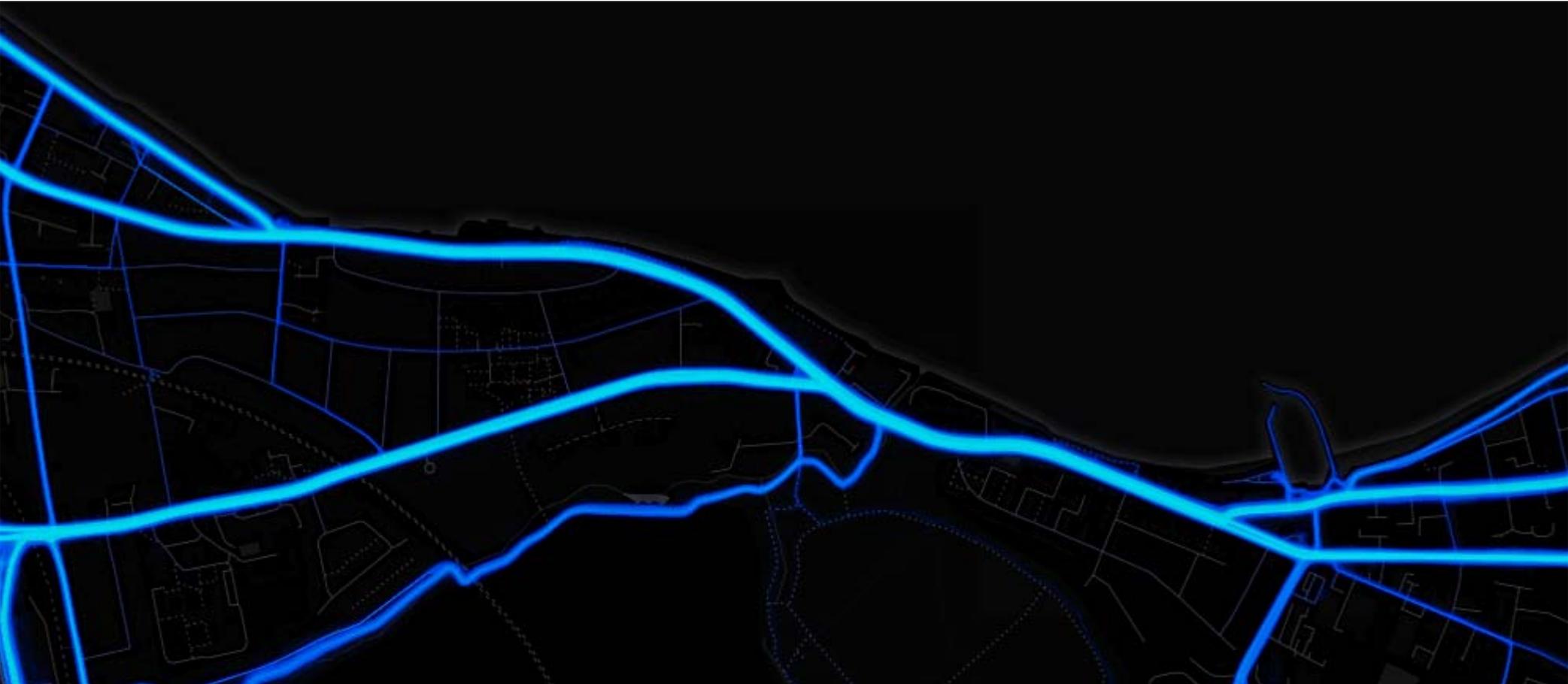
3. Camera surveys of traffic and pedestrians for baseline data. Details of the camera surveys and baseline data are contained in Appendix A.
4. Preparation of draft option maps for discussion with the Steering Group and targeted Council Officer groups.

Survey team walked the length of the proposed route and prepared a photographic record of the current details, together with a selection of detailed level cross-sections to properly inform the engineering options considerations.

Traffic survey information was collected at the A199/ B6415 Eastfield junction by means of both camera survey and pressure-tube vehicle counting. Figures for vehicle, bicycle and pedestrian traffic are contained within the appendix to this report.

Desk Study with mapping of local and connecting paths and cycle routes and interrogation of complementary traffic data including public Strava cycling app records

Extract from the Strava Heat Map



## 4.2 Findings

The conclusions of the site walk-over survey and outline design work were as follows:

1. The existing road corridor is of a substantial width, currently providing footways together with parking to both sides within the Edinburgh area, and footways, cycleways and parking to one side within East Lothian. The A199 main road within East Lothian is marked with painted cycle lanes.
2. Within the City of Edinburgh section, the existing B 6415 main road corridor provides strong opportunity to reconfigure the spatial arrangements to provide additional, separated, cycle path options whilst maintaining the majority of the existing parking space.
3. Within the East Lothian section, the A199 carriageway offers opportunity to provide reallocation of road space to permit both additional, predominantly separated, cycle paths and formalised parking.
4. The boundary between the two council areas runs along Brustane Burn as it crosses below the main road. The bridge across the burn at this location is the single most constrained section of road along the potential; road corridor route; we believe that it is possible, but will require careful consideration to provide a continuous, safe path route across the existing bridge and enhancement to the entrance to the Brunstane Burn path.
5. The A199/ B6415 junction at Eastfield requires substantial change if it is to form a safe, through route for cyclists and pedestrians. The existing junction form has been configured in order to serve the historic road layout, that presented east-bound traffic to the junction in two lanes, on both the A199 and the B6145 approaches.
6. Currently the road usage and parking arrangements result in the junction having effectively single-lane approaches on both of these legs. This presents opportunity for the necessary reconfiguration and should aid the traffic modelling that will be required – we suggest that modelling should be carried out with the existing capacity premised upon effective single-lane entries.
7. Existing road levels suggest that there are options for carriageway and footways to be selectively remodelled in sections without substantial excavation and reconstruction being required. We envisage that rear-of-footway levels may remain unchanged, although modifications to the carriageway levels should be anticipated, dependent upon the options selected.
8. Carriageway cross-section revisions propose a 6.5m running width through the Edinburgh sections and the initial constrained section in East Lothian adjacent to the A199 bridge. Elsewhere, the main carriageway width is proposed to be wider, at up to 8m in width.
9. Off-road 'coastal' options are possible, albeit that they present substantial land ownership, regulatory and engineering/ cost challenges. 'Coastal' route options provide poor permeability for mid-route access.
10. There are existing sections of the path running between housing and the sea at Eastfield, and further east, at Musselburgh harbour. We consider that these sections may be connected by additional coastal route construction to link the existing sections and to bridge the Brunstane Burn. It appears possible to construct these links above MHWST level.

11. Land ownership along the coastal route has not been investigated in detail, although we understand that there is no clear definition of 'council' ownership between current property boundaries and the high water mark in East Lothian. Each property will require individual interrogation in order to determine the extents of ownership and occupation/ access rights and consents.
12. In Edinburgh, the coastal edge is defined by retaining walls and protective rock fill; path construction here will require works within the sea, in an area falling within 3 legislative protection zones. Again, individual property searches and definitions of access and occupation rights and obligations, will be required.
13. Existing bus stop details are a mixture of kerbside and build-out halts, with the majority being kerbside halts within parking areas. A possible reduction in carriageway width to a proposed 6.5m would, in our consideration, then be complemented by on-carriageway kerbside bus stops, located on build-outs.
14. A parking survey has not been carried out, although a count of existing parking spaces has been made and comparison made with the proposed amendments
15. Proposals to provide this route offer opportunity for environmental and visual improvements to the corridor (planting works / planters etc) and for increasing the pedestrian crossing locations.

The preceding map illustrates the Strava heat map, showing the intensity of cyclist and runner activity using the Strava app along the key routes. The map demonstrates the substantial level of use of Milton Road East to Duddingston, Musselburgh Road (B6415) through Portobello and the Edinburgh Road through Musselburgh.

### 4.3 Conclusions

1. We conclude that there are options available to provide a separated cycling and walking route between Portobello and Musselburgh.
2. Outline designs for three route options have been prepared.
3. The options available offer the possibility of a 'coastal' route that largely avoids the existing road corridor; a road corridor route that provides sub-optimal carriageway levels, and a full road corridor route that provides fully renewed road, cycle path, footway, drainage and lighting. These options are referred to within this report as being the 'Coastal Route', 'North Path' or 'Full Road Corridor' options.
4. Existing carriageway spatial arrangements and the need to form connections with existing promenades results in all three route options being on or beyond the northern side of the existing carriageway. Only minor works to improve the existing southern footways in specific locations are proposed.
5. We conclude that the options that we have considered should be subject to future consultation, possibly via internal council consideration coupled with discussions with potential funding partners, followed and accompanied by a wider stakeholder consultation and discussion of a favoured route; the costs for each of the route options vary, and we consider that funding options and availability may drive the route selection and programme.
6. We conclude that the proposed route through both East Lothian and Edinburgh provides benefits throughout its length; there are undoubted immediate, but reduced, benefits also to be derived from the provision of small sections of the proposed path within a wider selected and favoured route, once this is agreed and decided upon.

Aerial photograph of proposed route



## 5.0 Option Appraisal

### 5.1 Vision for the Route

The Musselburgh to Portobello Active Travel Link will connect Portobello and Musselburgh Proms, and will aim to:

- Promote and enable cycling & walking for all – young, old, families & commuters
- Provide multi-use paths enabling a variety of journeys, as part of a network
- Provide safe crossing points
- Connect to other local and regional routes
- Provide segregated routes for walkers and cyclists
- Provide appropriately lit and maintained paths
- Provide continuity of path across interruptions and joining roads and junctions
- Provide clear visual route identity
- Offer opportunity for environmental enhancement

### 5.2 Route Options

Initial review work concluded that there were two major options, which are explored in more detail below and illustrated on the following maps:

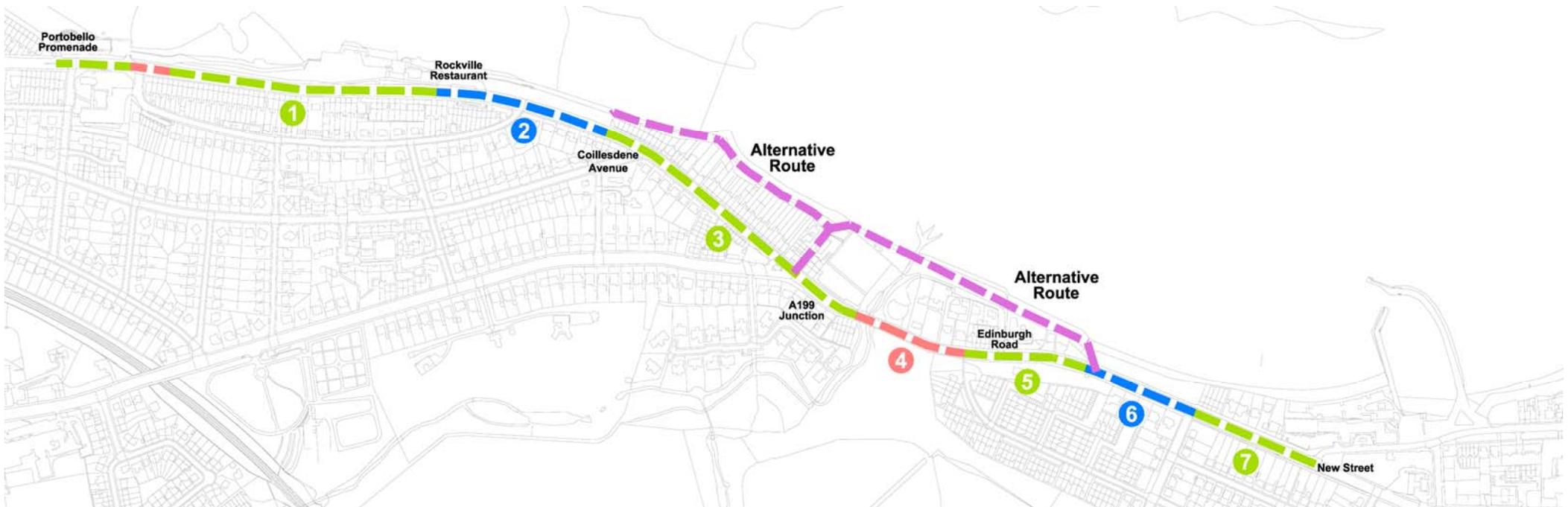
- **Option 1: Existing B6415 / A199 Road Corridor**, involving the widening of the existing footway, maintaining parking and providing crossing points. (This presents two sub-options - the North Path, and the Full Corridor option)
- **Option 2: Coastal Route**, involving the development of a new, separate, path routed largely to the seaward side of the existing coastal built development, connecting Portobello Promenade with Musselburgh Promenade

### 5.3 Option 1: Existing Road Corridor

The study work to date has focused on review and development of options for widening of existing footway, maintaining parking and providing site crossing points. Key decisions / options arising from the feasibility study included:

- Direct access to/ from Portobello Promenade and Musselburgh Promenade.
- Minimal changes to existing road construction.
- 7m shared space corridor provided to north side of road; generally shown at present as 3m footway, 3m cycleway, 1m buffer zone. Local narrowing required at “pinch points”, with short sections of shared use path provided.
- Footway to south side of road generally unaltered, with local widening to 2m around the northern entry / exit point of Brunstane Burn path.
- Provision of new / additional formal pedestrian crossing points.
- Alternative northern route for Brunstane Burn Path identified. (New bridge required across the Burn)
- Formal parking bays provided throughout; minor reductions in capacity to accommodate pedestrian/cycle crossing locations
- 2.5m wide parallel parking bays; locally narrowed to 2m at “pinch points”.
- Bus stops relocated to build-outs.
- Carriageway width 6.5m generally, widening to 8m at Musselburgh easternmost section.
- Reconfiguration of road junction at A199/ B6415 to provide single lane entry on all approaches, with cycle lane within slip road access route westbound to Milton Road.

Proposed route and typical widths section plan



	1	2	3	4	5	6	7
Existing wall to wall	20/21m	32m	16-18m	13m	16-18m	35m	21m
Existing road kerb to road kerb	15m	15m	12.5m	10m	11m	12.5m	14m
Proposed road kerb to road kerb	12.3m	12.3m	8m	6.5m	8m	11.5m	12.5m
Notes	Northern parking omitted at 19m section						
Parking proposed N	Yes	Yes	Yes	No	Yes	Yes	Yes
Parking proposed S	Yes	Yes	No	No	No	Yes	Yes

- New Street (Musselburgh) northern footway reconfigured to 3m wide shared use to provide the main cycle/ footway route to Musselburgh Harbour, with a shared use path at Edinburgh Road north side, connecting users with the signal-controlled junction at the petrol station.

Nine 'typical' cross sections have been examined and possible engineering solutions to roadway and drainage needs demonstrated through levelled section drawings. Three different options for road cross section amendments have been selected for consideration; these to be tailored to suit individual location needs.

The plans and sections for this option are illustrated on Drawings 4691\_110 & 111 (Plans), Drawings 4691\_112 (sections), 4691\_109 (Road centreline options) and associated Powerpoint slides (sections). Full details are contained in Appendix C.

The section on costs (Section 7.0) considers two options for this route

- The North Path Option (limited physical works)
- The Full Road Corridor Option

#### 5.4 Option 2: Coastal Route

The existing B6415 / A199 corridor offers immediate options for the development of Active Travel opportunity to support local journeys and longer distance travel, and promotes direct connection between Musselburgh & Portobello. However, there is also opportunity to connect Portobello and Musselburgh promenades, which are heavily used by both leisure and commuter traffic, by constructing an alternative sea-front route.

There are a number of strategic priorities, which support this aspiration:

- The City of Edinburgh Council currently promotes the long-term development of a continuous sea-front promenade from east-west city boundary
- East Lothian Council are promoting the concept of an SATC (Strategic Active Travel Corridor) connecting the East Lothian hinterland with Musselburgh and Newcraighall
- East Lothian are promoting Musselburgh Harbour and locale as a leisure destination
- Musselburgh Harbour Group have an aspiration to create a sea-front connection between Town Limit Park and Musselburgh Harbour

Furthermore, the physical layout and configuration of local streets, connecting the main road corridor with the sea-front, affords significant possibilities for the provision of sea-front pathways. In light of these points, consideration has been given to the provision of a sea-front linkage. Key decisions / options arising from the feasibility study included:

- Scale of construction – lengths of new path will need to be provided beyond the current coastal edge, and above general high water level. These will involve significant cost and engineering interaction, although



the engineering challenges appear surmountable. The current consensus is that any new path should be 6m wide, offering the same usable width as the overall width proposed to be provided along the road corridor route.

- Works within protected marine environment – lengths of new and up-graded path within both East Lothian and City of Edinburgh areas will need to be constructed within environmentally protected zones (SPA, Ramsar, SSSI), which will entail significant engagement and discussion with legislative and oversight bodies, with no certainty at this stage that agreement can be reached on details and construction methods. Within CEC, an approximate minimum of 300m of new and 200m of existing coastal path will need addressing; within ELC, an approximate minimum of 150m of new and 300m of existing coastal path will need to be addressed. The remaining sections could be built outwith the protected zone.
- Introduction of new public space to the immediate seaward side of existing properties and land holdings, possibly attached to the property boundary features/walling.
- Path and path user exposure to northerly/ North Sea weather – compared with the relatively more sheltered “main road” route.
- Reduction in path accessibility from the populated landward side – substantial sections of the route will become available only as ‘end-to-end’ routes.
- Conflicting usage demands - there is an ongoing and not-insignificant management issue associated with a space that is shared by both walkers and cyclists whilst supporting an offer of both ‘travel’ and ‘promenading’. This issue is currently evident along the Promenades at Portobello and at Musselburgh.

An outline plan and some potential construction cross-sections for this coastal option, together with a high-end cost budget estimate have been prepared and are included in Appendix C. The plans and sections for this option are illustrated on Drawings 4691\_801\_ & 801\_2 (Plans) and Drawings 4691\_108\_1A & 108\_2A. (sections), included in Appendix C.

The significant differences in costs and ease of delivery between this coastal option and the road corridor options are such that we have explored this no further at this stage.

Aerial photograph at Musselburgh Harbour



## 5.5 Recommendations

The feasibility study has concluded the following:

- Development of a new dedicated active travel route through the B6415 / A199 road corridor appears to be readily possible.
- Development of a new dedicated active travel path / promenade along the coastal route appears to be possible in engineering terms, although there will be significant issues in relation to ecological protection zones, land ownership and engineering practicalities.

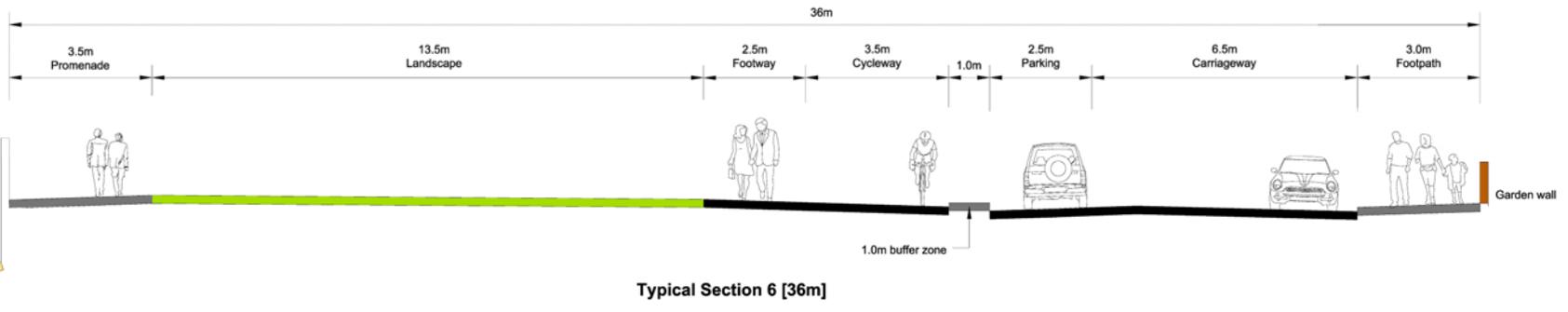
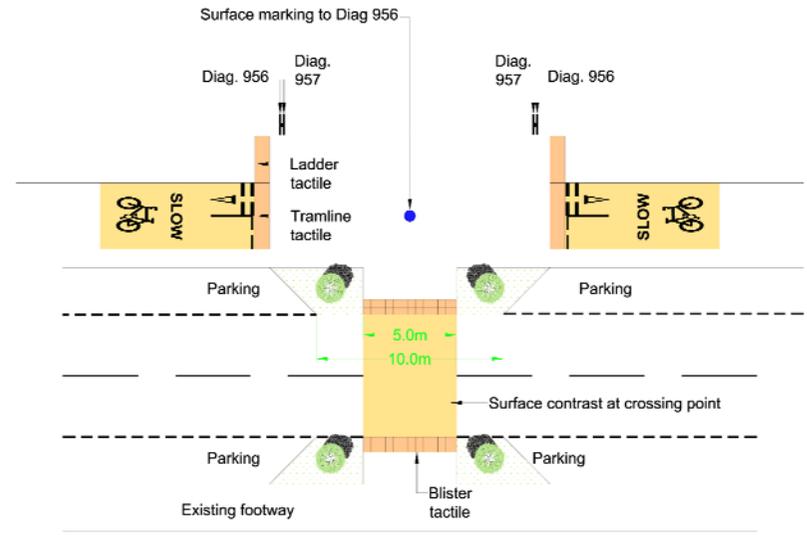
However, there are a number of risks to the project, which should be considered during the consultation and development stages of the project and include the following:

- Landscape sensitivities / flood risk
- Planning restrictions / land ownership
- Connectivity with existing sustainable travel infrastructure, including the core path network
- Localised changes to likely traffic / cycle / walking flows (eg. education institutions)
- Current and future planning constraints, development proposals and opportunities in East Lothian and City of Edinburgh
- Availability of funding

The feasibility study has concluded that the differences in costs and ease of delivery between the coastal route (Option 2) and the existing road corridor option (Option 1) are such that the coastal path route option will be better explored and developed as a companion, longer-term project. The existing road corridor option is more readily achievable, cheaper and better suited to meet the requirements of Active Travel users.

We recommend taking forward the proposed B6145 / A199 road corridor route for further consultation and discussion, with recognition that discussions may result in the final preferred route incorporating some sections of path realigned to take advantage of the sections of open ground that afford less challenging options for the construction of a 'coastal' route.

Illustrative example of cross sections and junction details (refer to Appendix C for further infor-



## 6.0 Indicative Design of Preferred Option

### 6.1 Path Design Principles

The indicative design recommendations for the preferred option have been based on “fit for purpose” design parameters, and have been designed to cater for all path user types, all abilities access and Secured by Design principles. The path construction specification and the design of entrance features, access controls, road crossings, safety barriers and signage will be undertaken in accordance with the following guidance:

- Cycling by Design (Transport Scotland)
- National Cycle Network - Guidelines and Practical Details Issue 2 (Sustrans)
- Living Streets Design Guidance
- Handbook for Cycle-friendly Design (Sustrans) 2014
- Standards for Development Roads (ELC-Transport Scotland)
- Connect2 Greenways Guide

The proposed active travel route will meet the National Cycle Network standard, which requires they should be attractive and comfortable for the less confident cyclist (a sensible unaccompanied 12 year old or novice adult). The network will be safe, convenient, continuous and attractive to encourage new cyclists to use the route.

Cycling by Design Guidance (Transport Scotland 2011) sets out the following design principles, which have under pinned the advice on cycle route provision:

- **Safety:** Design should minimise the potential for actual and perceived accident risk.
- **Coherence:** Cycling infrastructure should form a coherent network which links origins and destinations.

- **Directness:** Cyclists should be offered as direct a route as possible based on existing and latent trip desire lines, minimising detours and delays.
- **Comfort:** Non-sports cyclists prefer sheltered, smooth, uninterrupted, well-maintained surfaces with gentle gradients.
- **Attractiveness:** The perception of a route is important, particularly in attracting new users. Infrastructure should be designed in harmony with its surroundings in such a way that the whole experience makes cycling and walking attractive options.

### 6.2 Indicative Outline Design

- Outline design routes are illustrated on Ironside Farrar drawings reproduced in Appendix 3.

### 6.3 Trial Temporary Measures

- Temporary measures will be better considered in detail following selection of preferred route.
- For on road sections, low cost trial options include:
  - \* Remove existing traffic islands and road-mark the proposed new spatial layout/carriageway arrangements
  - \* Install physical definition to proposed carriageway arrangements via bolt-down kerbs or bumpers
  - \* Trial operate the A199/B6145 junction in accordance with proposed layout in tandem with, or ahead of modelling (The junction has no filter light provision and operates as a simple two traffic phase plus pedestrian phase junction)
  - \* Coastal Route sections could investigate the possibility of a trial boardwalk style path along the beach section in East Lothian between the Harbour and the pocket park on the A199



#### **6.4 Key Landowners**

- For works located within the existing adopted road corridor, the controlling owner will be the respective Council body, with private ownerships to individual properties adjacent the road corridor.
- For the Coastal Route, land above MHWST will be defined by means of the defined boundaries to the properties to the north side of the A199/B6415. There is potential that the relevant Council will own, or have rights upon, any undefined land between the property boundary and MHWST.

#### **6.5 Future Maintenance of the Route**

- For works located within the existing adopted road corridor, standard council maintenance regimes for adopted roads should apply, with little increase to existing maintenance regimes or costs. Some additional street cleaning and litter collection arrangements may be necessary to ensure cleanliness of separate carriageway spaces.
- For the Coastal Route, new maintenance activities will be necessary to address the challenges of an exposed location and the need to ensure safe cycle and pedestrian passage in all weathers. The regular maintenance demands may be high, if steelwork or other structures are provided, or comparable with existing new roads and paths, if a path is provided upon substantial rockfill or similar. Regular inspections and potential repairs will be needed to ensure that storm damage is monitored and addressed.



## 7.0 Cost Estimate

Cost Budgets have been prepared for both on-road and coastal route options.

The budgets have been prepared for two options for the on-road route, and for a single option for the coastal route.

Plan view of the road corridor route options is shown on drawings 4691\_110 & 4691\_111

Plan view of the coastal route option is shown on drawings 4691\_801\_1 & 4691\_801\_2

Illustrative cross-sections for the on-road options are shown on Ironside Farrar drawing 4691-112. This drawing details the proposed spatial allocations for both road corridor options.

Engineering options for carriageway detailing are shown on drawing 4691\_109

Budgets have been prepared on the basis of assumed/estimated unit rates, and have then been adjusted to reflect a calculated 'optimism bias' allowance. Calculations of the allowance are documented separately to the basic cost budget. This allowance, will be addressed and mitigated through the next design phase.

### OPTIONS SUMMARY

The three option costs are based upon the following:

#### North Path Option Cost:

- Spatial allocation and 6.5m road carriageway in accordance with drawing 4691-112.
- Engineering cross sections in accordance with Drawing 4691\_113
- Reconstruction and reprofiling of the existing north footway to 3m wide, provision of new 3m dedicated surfaced cycleway with drainage and safety buffer zone complemented with resurfaced, defined, parking bays to north side of existing road corridor.
- Remodelled bus stops and additional pedestrian crossing points
- Remodelling of existing B6415/ A199 junction.
- Provision of twin route legs at Musselburgh (to harbour and to High Street).

#### Full Corridor Option Cost:

***This is our preferred and recommended route option.***

- Spatial allocation and 6.5m road carriageway in accordance with drawing 4691-112 and all works as North Path Cost Option.
- Additional works to remodel and resurface the entire remaining carriageway, kerblines and southern footway; provide new streetlighting and relaid kerbs and drainage to give a complete, newly engineered, road corridor.
- Engineering cross sections in accordance with Drawing 4691\_102E



**Coastal Route Option Cost :**

- Full 6m shared-use path width.
- New construction generally based upon new rock-armour infill.
- Full railing/ walling provision to seaward side.
- Minimal intervention, via relining works, in the Musselburgh harbour vicinity.
- No coastal provision around Joppa pumping station.
- Presumed (but not yet tested) consent for works within protected zones.
- Cross sections are shown on Drawings 4691\_108\_1A & 4691\_108\_2A

Delivery of the North Path Option will require technical acceptance of the road crown location being off-centre within the eastbound carriageway. This is option 3 of the engineering options illustrated on drawing 4691-109.

Delivery of the Full Corridor Option allows remodelling of the carriageway to optimum cross-sections, as shown on Options 1 & 2 on drawing 4691-109.

**BUDGETS SUMMARY**

The cost budgets for the road corridor options are:

**North Path Option:**

Construction Budget:	£2.385m
Optimism Bias:18%	£0.429m
Total:	£2.814m

**Full Corridor Option:**

***This is our preferred and recommended route option.***

Construction Budget:	£3.426m
Optimism Bias:18%	£0.617m
Total:	£4.043m

**Coastal route option:**

Construction Budget:	£5.275m
Optimism Bias:40%	£2.110m
Total:	£7.385m



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