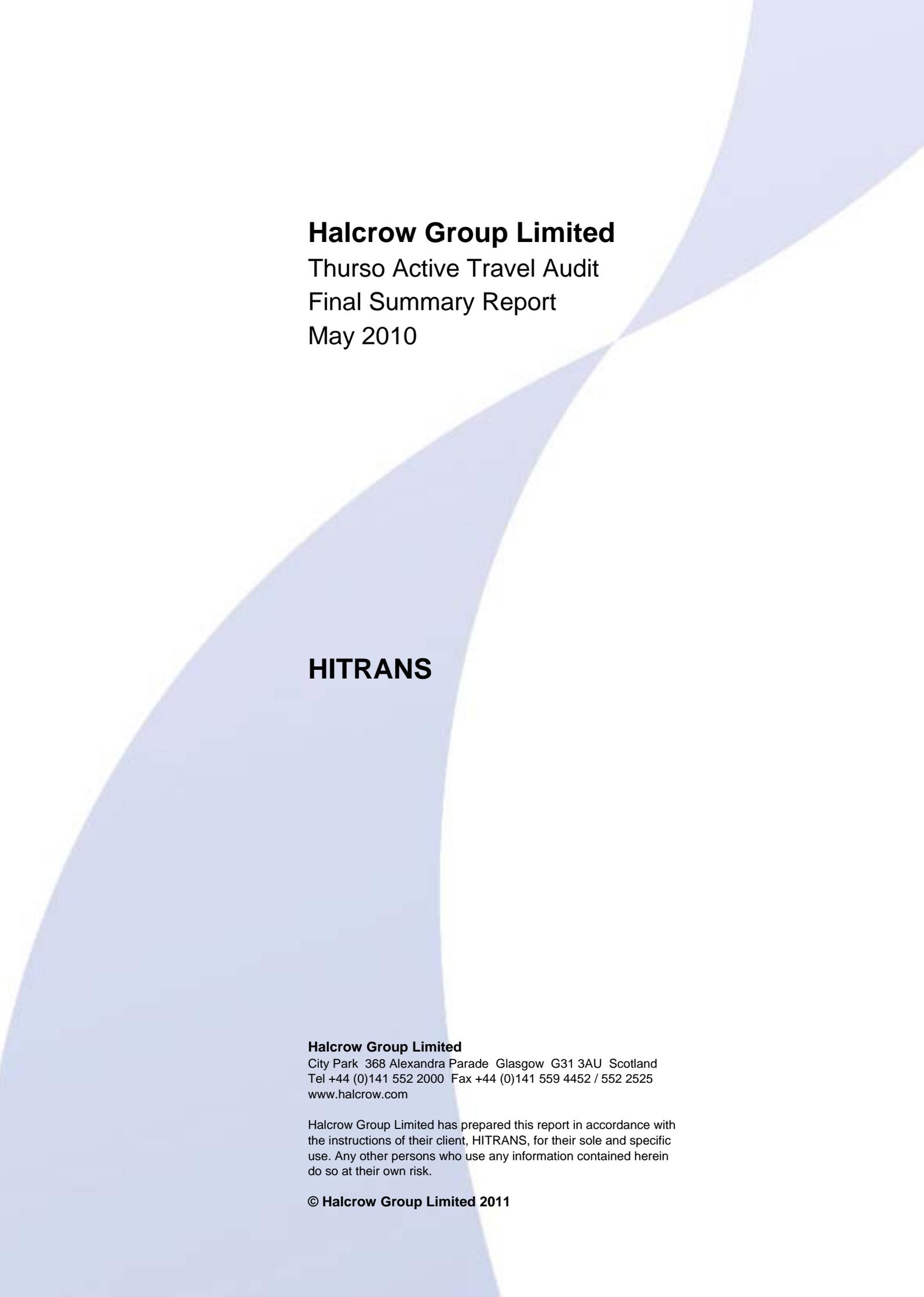


Halcrow Group Limited
Thurso Active Travel Audit
Final Summary Report
May 2010



HITRANS



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Contents

1	Introduction	1
1.1	<i>Background</i>	1
2	Active Travel Methodology	2
2.1	<i>What is the methodology?</i>	2
3	Walking and Cycling in Thurso	4
3.1	<i>Overview of current conditions for active travel</i>	4
3.2	<i>Study Area</i>	5
3.3	<i>Existing provision for cycling</i>	12
3.4	<i>Existing cycle parking</i>	13
3.5	<i>Traffic Flow and Accident Data</i>	14
3.6	<i>Public Transport</i>	15
3.7	<i>The Highland Council Policy Documents</i>	18
3.8	<i>Planning Application for Retail Development</i>	19
3.9	<i>Current Issues</i>	22
3.10	<i>SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis of Active Travel in Thurso</i>	23
3.11	<i>Potential Thurso Active Travel</i>	24
3.12	<i>Active Travel Network</i>	24
4	Prioritised Action Plan	26
4.1	<i>The Priorities</i>	26
4.2	<i>Priority 1 Recommendation: Walking Promotion</i>	26
4.3	<i>Priority 2 Recommendation: Grass Roots Cycling</i>	27
4.4	<i>Priority 3 Recommendation: National Cycle Network</i>	29
4.5	<i>Priority 4 Recommendation: Scrabster Route</i>	30
4.6	<i>Priority 5 Recommendation: New Town Links</i>	32
4.7	<i>Priority 6 Recommendations: Thurso East Links</i>	33
5	Conclusion	35
	Appendix A: Thurso Active Travel Audit – Potential Improvements and Mapping	36

1 Introduction

1.1 *Background*

1.1.1 Halcrow Group Ltd was commissioned by HITRANS, the Highlands and Islands Regional

Transportation Partnership to:

- Develop a methodology to audit existing active travel infrastructure
- Provide baseline information on existing infrastructure provision for active travel
- Recommend priorities for future investment

1.1.2 The overall aim is to assess where best to apply available funding in order to increase the potential for active travel and ideally to see an increase in the numbers of people choosing to walk or cycle.

1.1.3 In particular, the key purpose of the audits is to identify:

“A practical network of high quality routes suitable for cycling within each settlement that provides convenient and safe access to all major destinations”

And

“A network of routes for pedestrians focused upon railway stations, bus stations, ferry terminals, major employment areas, local shopping areas, leisure/recreation centres, hospitals and main trip generators.”

1.1.4 This document summarises the main findings of the methodology as applied to Thurso.

2 Active Travel Methodology

2.1 *What is the methodology?*

2.1.1 Halcrow has developed a methodology to assess existing and proposed active travel infrastructure. This methodology is based on the following key parameters:

- A desktop study including demographics, travel to work patterns, public transport information and traffic accident data
- Analysis of main trip generators/attractors
- Consultation with the Local Authority and other interested parties
- On site audits
- Application of a 'prioritisation filter'

2.1.2 The prioritisation filter is an analysis tool to identify those corridors where there is the greatest potential for modal shift. The filter encompasses information from the desktop study such as demographic data, trip generators and attractors, planning proposals and the result of stakeholder consultation. The filter also assesses the 'implementability' of a route compared to its potential usage.

2.1.3 On site audits for walking are carried out utilising the Transport Research Laboratory (TRL) Pedestrian Environment Review System (PERS) whilst an Institution of Highways and Transportation (IHT) cycle audit is undertaken. Both systems audit the condition of existing facilities for pedestrians and cyclists to identify where proposed measures can be effectively targeted.

The outputs from the application of the methodology are:

- An Active Travel Prioritised Action Plan
- An Active Travel Master Plan

2.1.4 The prioritised action plan identifies areas and schemes where there is the greatest potential to achieve modal shift or where there is the greatest need for infrastructure for pedestrians and cyclists. The master plan is a core network for pedestrians and cyclists that provide direct, convenient, safe, attractive and coherent links between journey origins and journey attractors. The proposals contained within the prioritised action plan and master plan will require further investigation and feasibility work.

2.1.5 Consultation plays an integral role in the identification of routes for walking and cycling and also helps to pinpoint, at a very local level, the barriers to active travel. In Thurso the following individuals and organisations were consulted:

- The Highland Council: Access Officer, Roads Department, Planning Department, School Travel Officer, Public Transport Officer
- Sustrans
- Local bike shop

- Paths for All
- Thurso Community Council

3 Walking and Cycling in Thurso

3.1 Overview of current conditions for active travel

3.1.1 There are 7737 people living in Thurso of which 35% are not in employment or full time education, a figure which is comparable to the rest of the Highlands and Scotland as a whole. Table 3-1 below shows a comparison of how people travel to work and study in Thurso compared to the region and the whole of Scotland.

Table 3-1: Comparison of mode of transport for journeys to work and study – regional and national comparison

Mode of transport	Thurso	Highlands	Scotland
% Taking bus	11	13	16.58
% Car and passenger	50	56	53
% Cycle	1	3	1.3
% Walk	34	24	23
% Train	1	1	2

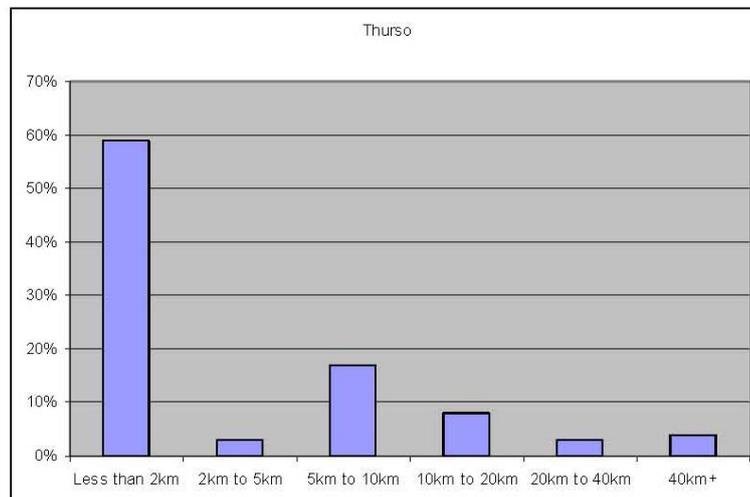
(Data supplied by SCROL)

3.1.2 The data from the 2001 Census shows that:

- There are high levels of walking in Thurso – over a third of all journeys
- There is a lower percentage of journeys by car compared to the Highlands and Scotland
- Levels of cycling are low
- Bus use in Thurso is lower than the rest of Scotland

3.1.3 Census data has also been used to provide a snapshot of the distances travelled to work and study in Thurso and is shown below in Figure 3-1:

Figure 3-1: Distance Travelled to Work and Study in Thurso



- 3.1.4 The vast majority of journeys (59%) are less than 2km (which is the equivalent of a 6 minute bike ride and 62% of journeys are less than 5km – distances that are well within the comfort zones for walking and cycling.

3.2 *Study Area*

- 3.2.1 Thurso is the most northerly town on the UK mainland situated on the River Thurso, the name derived from the Norse god ‘Thor’ reflects the history of the area and its importance to Viking raiders. It is the main market town for north Caithness and Sutherland with a number of key services and leisure facilities in the area. There are several different industries which have brought people to the area: fishing, flagstones, ferry links to Orkney and the Dounreay Experimental Nuclear Reactor. In recent years, the town has become famous for its almost consistent surf and has hosted a number of competitions including a world championship qualifying event in 2009.
- 3.2.2 The centre of Thurso to the west of the river is built in a grid pattern and is a dense, highly permeable, residential area with narrow footways and wide streets linking to the main retail area on the pedestrianised Rotterdam Street and Traill Street. The oldest part of Thurso lies at its most northerly point next to Thurso Beach and is typified by its medieval street layout consisting of narrow quaint streets and alleys where much of the fisher folk lived in the 18th and 19th century, known locally as ‘Fisherbiggins’. The majority of the town centre is listed as an ‘Outstanding Conservation Area’. The rest of Thurso to the east of the river (known as Thurso East and Mount Vernon to the south), south of the town centre (Ormlie and High Ormlie) and out to the west (Pennyland) are post war residential estates, many of which are designed around cul de sacs.
- 3.2.3 The population of Thurso more than doubled from the 1950s when the experimental reactor was built at Dounreay and, as a result, saw an increase in housing stock, namely Mount Vernon and Pennyland. The pedestrianised town centre has recently been refurbished including new surfacing, street furniture, façade cleaning and a new clock.



Figure 3.2: Grid pattern in town centre has wide roads and narrow footways



Figure 3.3: Newly refurbished pedestrianised precinct



Figure 3.4: Alley in medieval part of 'Fisherbiggins'



Figure 3.5: Surfer at O'Neill Cold Water Classic, 2009

3.2.4

Thurso is a compact town with adequate provision for pedestrians, although in the older parts of town the footways can be very narrow. Many of the footways are constructed from block paving and there is inconsistency in the provision of dropped crossings. Tactile paving is virtually restricted to signalised crossings. The area is also relatively flat with steeper sections radiating from the town centre up to the residential estate of Mountpleasant, Ormlie Road and up to Castlegreen Road. There are two pedestrian only bridges across the River Thurso in addition to the main A9 artery. These bridges provide direct links from residential areas to the town centre. Recent improvement works have taken place on the most southerly bridge and a new access ramp has been created from high quality materials. Victoria Walk is a well used traffic free route from the esplanade to the Scrabster road. Although windswept and unlit, the path has a sealed surface is popular with walkers. There are a number of well used walks along both banks of the River Thurso, although the traditional kissing gates restrict access for cyclists, wheelchair users and people with prams.



Figure 3.6: Good quality path with lighting on west bank of River Thurso



Figure 3.7: Typical footway detail in Thurso town centre: block paving with poor quality dropped crossings



Figure 3.8: Esplanade in Thurso



Figure 3.9: Victoria Walk



Figure 3.10: Access ramp on pedestrian bridge

3.2.5

To the west of the town a new Business Estate has been built where the main employers are BT and the hi-tech lithium ion battery factory - AGM Batteries Ltd. A traffic free path adjacent to Burnside Burn provides access to the estate and could be linked to Victoria Walk. The Burnside Burn path is in poor condition in places and there are steep ramps and kerbs on one of the bridges and poor connectivity to the adjacent estate. There is a pedestrian desire line across the A836 to the business park from this path at a blind bend. It is a difficult place to cross the road and a safer alternative is provided at the main vehicle entrance to the business park.



Figure 3.11: Access point to track adjacent to Burnside Burn from A9



Figure 3.12: No access to Burnside Burn path from housing estate



Figure 3.13: Desire line from Burnside Burn path to Thurso Business Estate

3.2.6

Ormlie to the south of the town was selected to take part in a pilot Home Zone project part funded by the Scottish Government in 2003. The area has relatively high levels of unemployment and single parent families as well as low car and home ownership. The total cost of the scheme was £200,000 and provided new play areas, horizontal and vertical traffic calming, improved boundary walls and public art.



Figure 3.14: Ormlie Home Zone



Figure 3.15: Traditional materials used in public art/street furniture in Home Zone

3.2.7

There are two signalised junctions on the A9 through Thurso: one at the junction of Bridgend and Castletown Road which also serves the main entrance to the supermarket and one in the centre of town at the gyratory on Princes Street/Trail Street. There are some pedestrian phases at these junctions, but not on all desire lines. There is a pedestrian crossing from Trail Street to the pedestrianised precinct which is very well used although the dropped crossings are not fully flush.



Figure 3.16: Gyratory system in town centre is not pedestrian friendly



Figure 3.17: Pedestrian crossing to pedestrianised area



Figure 3.18: No pedestrian phase at signalised junction at supermarket

3.2.8

There are two signalised junctions on the A9 through Thurso: one at the junction of Bridgend and Castletown Road which also serves the main entrance to the supermarket and one in the centre of town at the gyratory on Princes Street/Trail Street. There are some pedestrian phases at these junctions, but not on all desire lines. There is a pedestrian crossing from Trail Street to the pedestrianised precinct which is very well used although the dropped crossings are not fully flush.



Figure 3.19: Uncontrolled crossing at Mountpleasant Primary School



Figure 3.20: Pedestrian desire line from Mountpleasant Estate to supermarket across the A9



Figure 3.21: Desire line to supermarket from Millbank Playing Fields

3.2.9

Part time 20mph zones have been implemented outside all of the schools in Thurso. The pedestrian route to Mountpleasant Primary School is supported by a full time 20mph zone with traffic calming on Castle Terrace, but the uncontrolled crossing point here and on Castletown Road are not very pedestrian friendly and are characterised by narrow refuges and pens. Pedestrian access to the supermarket in Thurso East is also poor and there are a number of informal pedestrian desire lines that show demand for better facilities.



Figure 3.22: Wide footway on A9 to Scrabster Harbour



Figure 3.23: Braes of Scrabster

3.3 *Existing provision for cycling*

- 3.3.1 Route 1 of the National Cycle Network runs through Thurso entering the town at the south at Ormlie, following the A9 through the town centre and leaving on the fairly steep Mountpleasant Road. Route 1 is well used by touring cyclists as it eventually ends at John O’Groats and is a well known route for people taking the challenge to cycle from ‘End to End’ of the UK. There are no specific cycle facilities on Route 1 apart from signing.
- 3.3.2 Apart from cycle parking and the 20mph zones discussed earlier, there are no facilities to aid cyclists in Thurso. There are also a number of one-way streets in the older part of the town which force cyclists to make longer and more circuitous journeys. There are no cycle facilities from Thurso to the Business Estate or Scrabster Harbour and cycling is prohibited on Ellan Bridge – one of the traffic free bridges linking east and west Thurso over the river.
- 3.3.3 A byelaw to ban cycling on Victoria Walk, the traffic free route along the coast is currently being pursued by elected members in Thurso. Local Councillors have pursued the ban following complaints about anti-social cycling. At present this is one of the few places where people can cycle away from traffic in Thurso.



Figure 3.24: One-way working is a disincentive for cyclists



Figure 3.25: Cycling banned at Ellan Bridge



Figure 3.26: Route 1 of the National Cycle Network on the A9



Figure 3.27: Poor quality signing on Route 1

3.4 *Existing cycle parking*

3.4.1 The majority of cycle parking in Thurso consists of butterfly stands which do not allow cyclists to lock the frame of the bike. These stands are available in the town centre, Highlands and Islands Enterprise offices and the Co-operative supermarket. A number of key sites in the town have no cycle parking at all: for example, the swimming pool, cinema, Dunbar Hospital, North Highland College and the Lidl supermarket. The cycle parking at the Thurso Business Estate is of particularly poor quality. The train station has indoor cycle parking but is closed when the station is unmanned (which is all day Sunday and outwith the hours 9am to 5pm Monday to Saturday). Very few bicycles were observed parked in Thurso as well as very few cyclists.



Figure 3.28: Cycle parking in town centre



Figure 3.29: Cycle parking at Co-operative supermarket in town centre



Figure 3.30: Cycle parking at Thurso Business Estate



Figure 3.31: Rare sighting of utility cyclist in Thurso



Figure 3.32: Long distance cycle tourers are a common sight in Thurso



Figure 3.33: Poor quality cycle parking at North Highland College

3.5

Traffic Flow and Accident Data

3.5.1

Traffic count data for two sites on the A9 shows that traffic flows are relatively light in the area. The average annual daily flows to the south of Thurso are 3044 and on the Scrabster Road to the harbour, the flows are marginally higher at 3261 (2009 data from Transport Scotland.)

3.5.2

The Road Safety Plan for Highland (The Highland Council) has adopted National Targets for accident reduction and is on course to meet the 2010 targets. The Scottish Government has set out road safety targets in their latest Road Safety Framework to 2020 as follows:

- Reduce adult deaths by 40% and reduce the number of serious injuries by 55%
- Reduce child deaths by 50% and reduce the number of serious injuries by 65%

3.5.3

Pedestrian and cyclist accident data for 2006 to 2009 was obtained from The Highland Council. During this period there have been no pedestrian or cyclist deaths. A total of 13 accidents between vehicles and pedestrians were

recorded, four of which the pedestrian suffered serious injuries, the rest were slight. The pedestrian accidents are mostly clustered around the high school and college on Ormlie Road and within the town centre. Most pedestrian/vehicle accidents have occurred while pedestrians were attempting to cross the road (11 out of the 13 accidents). More detailed accident data is needed to determine the cause of these accidents.

3.5.4 Out of the six accidents between vehicles and cyclists, only one was classed as serious, and the other five cyclists received only slight injuries. The serious accident happened on Castlegreen Road in the residential area of Pennyland. There is no obvious pattern to the other cyclist injuries that occurred in residential areas and only one was on a main road on the A9 at St George Street bridge which forms part of the National Cycle Network.

3.5.5 There was one reported accident between a cyclist and a pedestrian which occurred at Ellan Bridge. The pedestrian received only slight injuries.

3.5.6 The reported accidents are shown in Figure A-1 of Appendix A.

3.6 *Public Transport*

3.6.1 During the day, all parts of Thurso are well served by public transport via town circulars and long distance routes. However, during the evening and at weekends, services are much reduced. In May 2009, the local bus services operated by Stagecoach was rebranded as the 'Caithness Compass' and a number of low-floor buses introduced.

3.6.2 A major problem for Thurso is the absence of a bus station/stance in the town centre which has also been identified in the Highland Council draft Local Transport Strategy 2009-2012. For instance, the works bus from Dounreay deposits people at the junction of Orlig Street and Princes Street in the evening which causes disruption to other road users. The lack of a dedicated space for buses can be a deterrent for encouraging people to try the bus as it is not clear where buses leave/depart from.

3.6.3 Scheduled buses are timed to serve the Orkney ferries from Scrabster and there is also a rail station with four trains a day to Inverness and Wick.

3.6.4 Table 3-2 below is a summary of the current bus services in Thurso. Figure A-2 in Appendix A shows where the Highland Council may need to consider extending bus services to serve new developments as per the Local Plan.

Table 3-2: Bus services in Thurso

Route	From	To	Via	Weekday		Saturday		Sunday		Notes
				Daytime	Evening	Daytime	Evening	Daytime	Evening	
X99	Inverness	Thurso	-	2	4	2	4	2	3	Serves rail station. One service a day to Scrabster
70/73	Thurso	Tongue	Bettyhill	2	2	2	2	-	-	Serves railway station and high school
74/274	Thurso	Bettyhill	Reay	3	1	-	-	-	-	Daytime services are school buses
77	Wick	John O'Groats	Thurso	3	3	4	2	-	-	One service a day operates on school days only
78	Thurso	Scrabster	-	4	1	2	1	2	1	Serves rail station
79/79A/79C	Thurso circular			17	2	17	2	-	-	-
80/180	Thurso	John O'Groats	-	11	1	7	1	-	-	Four services a day operate on school days only
80/181	Scrabster	Wick	Thurso	16	2	7	1	4	-	Two services a day from Scrabster, Monday to Friday, three on Saturday and one on Sunday. Majority of services leave from Thurso town centre
82	Thurso	Wick Airport	Halkirk	13	4	10	4	5	1	-
276/277/281	Staxigoe	AE Technology	Thurso	4	1	2	1	2	1	Works bus

Route	From	To	Via	Weekday		Saturday		Sunday		Notes
				Daytime	Evening	Daytime	Evening	Daytime	Evening	
279	Thurso	Vulcan RR&A	-	1	2	-	-	-	-	Works bus
280	John O'Groats	Dounreay	Thurso	1	1	-	-	-	-	Works bus
282/283/284	Wick	AETechnology	Thurso	1	1	-	-	-	-	Works bus

Table 3-3: Train services in Thurso

Route	From	To	Via	Weekday		Saturday		Sunday		Notes
				Daytime	Evening	Daytime	Evening	Daytime	Evening	
	Inverness	Thurso/Wick	-	2	2	2	2	-	1	-
	Thurso/Wick	Inverness	-	3	1	3	1	1	-	-

3.7 *The Highland Council Policy Documents*

3.7.1 The Local Plan for Thurso was adopted in September 2002 as part of the Caithness Local Plan and will eventually be updated via a new Highland wide Local Development Plan which is a requirement under the Planning etc (Scotland) Act 2006. The current plan for Thurso shows that the majority of development in the town will be residential (approximately 300 homes) to the west of the Pennyland area as well as a new distributor road/potential bypass to link to the A9 road to Scrabster. There is currently no set timescale for the building of these new homes or new road. A planning application for a new supermarket on the disused auction mart site on Ormlie Road is currently being reviewed by planning officers.

3.7.2 Planning has an important role to play in the development of new infrastructure for pedestrians and cyclists. For example, a small housing development is currently under construction in Thurso East, just off Harald Drive. Although a traffic free link has been created into the existing residential estate, relatively minor design details affect the overall quality of provision. The path is lit, but it is narrow and has a lack of dropped kerbs. In addition, dropped kerbs in the new housing estate do not have tactile paving and paths do not 'link up' and provide direct routes for pedestrians.



Figure 3.34: Poor continuity between pedestrian paths in new development



Figure 3.35: New dropped crossing with no tactile paving in new development



Figure 3.36: Dropped crossing does not serve pedestrian path in new development

3.7.3 Of the nine objectives within the draft Local Transport Strategy for the Highlands 2009-2012 (LTS), five have a direct impact on the encouragement and increase of walking and cycling:

- Social Inclusion: Facilitate travel to enable economic/social involvement and improve access/travel choices to essential services for those without access to a private car
- Environment: Manage/reduce the impacts of transport on the natural and built environment
- Health: Increase levels of cycling and walking to promote health improvement and modal shift
- Personal Safety: Address issues of perceived safety and personal security particularly where they are a barrier to walking, cycling and public transport
- Traffic Reduction: Where appropriate consider targets for reducing traffic, although noting the variation in conditions and requirements between rural and urban areas

3.7.4 In addition, the LTS also incorporates local outcome 10.1 of the Highlands Council's Single Outcome Agreement, "to increase the number of children walking and cycling to school."

3.8 *Planning Application for Retail Development*

3.8.1 A planning application for a proposed new retail development at the former auction site in Thurso has been submitted and the current layout has been assessed in relation to 'Designing for Sustainability in the Highlands' which was published by The Highland Council in 2006. The document recommends that the design statement for a new development should demonstrate how the development will be accessed by modes of transport other than the car, what types of facilities should be provided for cyclists and how measures can reduce and mitigate the impact of road traffic.

3.8.2 The key themes within 'Designing for Sustainability' that should be applied include:

- Well planned access to the development by different modes
- High quality pedestrian and cycle routes
- Good facilities for cyclists
- Links with public transport networks
- Reduced impact of road traffic through the design of road layouts and car parks.

Importantly in relation to Core Paths, the documents states: 'Ensure that new developments have good pedestrians links into existing areas of a town or village and, where relevant the Highlands' new core-path network.'

3.8.3

The proposed retail development is located adjacent to the Core Path 213.024 (Thurso to Glengolly Roadside Link) which provides direct access to the rear of the site (Figures 3-37 and 3.38). This existing route could be upgraded to provide an access for pedestrians and cyclists which would be of particular benefit for people living south of the river and would be a considerably shorter journey than by car.



Figure 3-37: Core Path 213.024



Figure 3-38: Existing entrance to school from Core Path

3.8.4

A review of the development proposal plan highlights the following issues:

- Proposed new signalised junction:
 - No pedestrian facilities are provided on Ormlie Road
 - No advanced stop lines to improve cyclist safety
 - A staggered crossing is proposed on the access road to the development which gives priority to motorised vehicles
- Proposed pedestrian route to supermarket entrance:
 - The proposed route is very convoluted and could be made more direct
 - 'Right angles' on the route need to be chamfered or rounded to mimic pedestrian movements
 - Paths should be made shared use for pedestrians and cyclists
 - Proposals should include pedestrian and cycle routes leading through the car park
 - Ensure DDA compliance of pedestrian routes and facilities, including crossings, dropped kerbs and bus stops
- Proposed disabled access ramp
 - Remove sharp right angles with more pedestrian friendly rounded corners
 - Provide a short set of steps for use by non-disabled pedestrians
- Proposed filling station
 - No pedestrian access is outlined within the plans

- Proposed cycle parking
 - This should be as close to the main entrance to the development as possible and should be located on the pedestrian/cyclist route
- National Cycle Network
 - Ormlie Road forms Route 1 of the National Cycle Network. As a steep hill going out of town it would benefit from an uphill cycle lane (Figure 3-39)
- Traffic Management
 - Residents currently park on wasteland opposite houses on Ormlie Road where there is a proposed bus stand. There is the potential for this to be abused by residents. It should be ensured that displaced car parking does not cause traffic management problems on Ormlie Road
 - The junction of Ormlie Road and Castlegreen Road is very wide and is difficult for pedestrians to cross (Figure 3.41). This problem may be exacerbated by increased levels of traffic travelling to the new development. The junction should be 'shrunk' to improve pedestrian crossing provision
 - Thurso High School is adjacent to the site school traffic needs to be taken into account for traffic management proposals as well as pedestrian desire lines from school to supermarket



Figure 3-40: Ormlie Road



Figure 3-39: Resident parking on footway, residents cars parked on opposite side of Ormlie Street



Figure 3-41: Junction at Ormlie Road/railway station

3.9

Current Issues

The audit process identified a number of key issues that act as a disincentive for active travel:

- 1) **National Cycle Network**
 - Ill defined and un-promoted cycle route
 - No specific facilities to aid cyclists
 - Could become a core spine route for walking and cycling
- 2) **Cycle parking**
 - Very poor quality cycle parking stands
 - Key locations with no cycle parking
- 3) **No local cycling culture**
 - Perception that cycling is purely for tourists
 - Difficult to change culture/attitudes and instigate behaviour change
- 4) **Existing traffic free bridges**
 - Poor linkages between town centre/residential areas and the existing bridges
 - Cycling prohibited on Ellan Bridge
 - Access ramp on southern bridge not conducive to cycling

3.10

***SWOT (Strengths, Weaknesses, Opportunities and Threats)
Analysis of Active Travel in Thurso***

Strengths	Weaknesses
<p>Relatively flat area</p> <p>Prevalence of long distance touring cyclists</p> <p>Two traffic free bridges</p> <p>Pedestrianised town centre</p> <p>Good local bike shop</p> <p>A number of existing traffic free walking/cycling routes</p> <p>Compact town</p> <p>High levels of walking to work/study</p>	<p>Trunk road through centre of town</p> <p>No cycling culture</p> <p>Poor quality cycle parking</p> <p>Poor connectivity between traffic free bridges/residential areas/town centre</p> <p>Poor quality walking/cycling infrastructure at new residential developments</p> <p>Access to primary school in Thurso East severed by main road</p>
Opportunities	Threats
<p>Traffic free route to Thurso High School could be improved</p> <p>Build on success on pilot Home Zone</p> <p>Cycle route to Scrabster could be implemented at relatively low cost</p> <p>Improvement of National Cycle Network</p> <p>Scope for pedestrian/cyclist priority scheme utilising grid layout in 'new town'</p> <p>Medieval street layout west of river conducive to pedestrian priority</p> <p>Build on existing high levels of walking</p>	<p>Potential reluctance of local people to embrace active travel</p> <p>Lack of provision for pedestrians and cyclists in new developments</p> <p>Lack of funding and resources to improve/build active travel infrastructure</p> <p>Declining population as Dounreay decommissioning is completed</p> <p>Proposed cycling ban on Victoria Walk</p>

3.11

Potential Thurso Active Travel

3.11.1

The active travel audit identified potential walking and cycling routes that could link residential areas to the main trip generators and attractors to form a strategic network for the area. The main trip generators are:

- Town centre – Rotterdam Street, Traill Street, Princes Street including supermarket
- Scrabster Harbour
- Thurso Business Estate
- North Highland College
- Thurso High School
- Cinema
- Swimming Pool/Playing Fields
- Tesco supermarket
- Thurso Railway Station
- Pennyland and Mountpleasant Primary Schools

3.11.2

The study has developed a set of long term objectives for encouraging walking and **cycling as follows:**

Objective 1: Build on walking culture in Thurso with a year round programme of promotional activities

Objective 2: Improve linkages around traffic free bridges

Objective 3: Improve facilities and profile of the National Cycle Network

Objective 4: Work with key individuals/organisations to develop a culture of cycling through grass roots activities

3.11.3

The objectives centre mainly around the high levels of walking in Thurso and increasing it through promotion and the improvement of pedestrian links to the traffic free bridges. Encouraging cycling from its very low base level is a much harder target and is best achieved through aiding young people to develop their own facilities for sport such as BMX.

3.11.4

Improvements to the National Cycle Network can help address some of the safety issues around Ormlie Road and also potentially re-route it through the town centre.

3.12

Active Travel Network

3.12.1

The following corridors have been identified as having the potential to provide the most direct and coherent network of routes to the destinations listed in 4.1.1. The routes are:

- National Cycle Network
- Thurso East Links
- River Route

- Scrabster/Business Park Links
- Pennyland Link
- Ormlie Radial route
- New Town Links
- Existing leisure routes

3.12.2 A full description of the routes with potential improvements subject to consultation, feasibility and design are included in Appendix A of this report. The action plan in the following sections identifies the key priorities in the development of the aforementioned routes along with ‘softer’ initiatives to encourage active travel in Thurso. Figure A-4 in Appendix A shows the extent of the potential active travel network in relation to the Local Plan for Thurso.

3.12.3 The issue of bikes on trains was raised by a number of different stakeholders during the audit. The current service from Thurso to Inverness can carry four bikes per train, free of charge, but the spaces must be reserved in advance. Thurso is very popular with cyclists as it is the nearest station to John O’Groats – the start/finish for people embarking on the challenge to cycle to/from Lands End. Reserving bicycles on the system also appears to be a ‘hit and miss’ affair with varying levels of success for users. A number of consultees also made reference to the lack of bike carriage facilities between Wick and Thurso which is an important consideration as the towns are within commuting distance of each other.

4 Prioritised Action Plan

4.1 *The Priorities*

4.1.1 This prioritised Active Travel Plan sets out the key measures needed to encourage walking and cycling in Thurso. As well as incorporating parts of the strategic walking and cycling network, it also includes promotion and 'soft' measures which form part of a package of works which have been used successfully in those towns and cities where there has been an increase in sustainable modes.

4.1.2 The following measures are the key priorities for encouraging active travel in Thurso:

- Priority 1: Walking Promotion
- Priority 2: Grass Roots
- Priority 3: National Cycle Network
- Priority 4: Scrabster Route
- Priority 5: New Town Links
- Priority 6: Thurso East Links

4.1.3 Each of these individual priorities are summarised below and form part of the wider Thurso Active Travel Network outlined in chapter 4.

4.2 *Priority 1 Recommendation: Walking Promotion*

4.2.1 Thurso is in the fortunate position in that it already has an environment which is conducive to walking and cycling: it is relatively flat, compact, has well connected streets many of which are on a grid layout, two traffic free bridges and low traffic volumes. In fact, there are very few physical barriers to active travel, which is borne out in the high levels of walking to work (35%) as shown in Census data. Walking is clearly part of the culture in the town and the types of infrastructure projects needed to encourage more walking are small scale traffic management schemes such as speed reduction, improved crossing facilities and the provision of dropped kerbs.

4.2.2 There is virtually no culture of cycling in the town, even though conditions for cycling are very good. Persuading people to take up cycling where very few people are already cycling is very difficult indeed. There is a lack of social acceptability for cycling in Thurso that is a barrier to increasing cycling for utility trips. Social attitudes towards cycling would need to change, so that it becomes seen as a normal, everyday activity by all ages, sexes and abilities. Hence, at present the first priority for active travel should be to focus resources upon increasing levels of walking.

4.2.3 A package of measures to encourage walking should be designed for Thurso, taking into account local conditions and acceptability of measures. These measures could be the production of maps showing isochrones to local destinations or calorie maps to encourage uptake for health benefits, pedometer challenge, publish success stories, walking champions, web based promotion such as a 'Thurso Walking' website, Park and Stride sites and improved signage.

4.2.4 Ownership of the proposals and implementation and support by local people and organisations is of fundamental importance. A partnership approach involving as many organisations should be pursued to ‘sell’ the many physical and financial benefits of walking, since it is unlikely that promotion of walking will gain momentum if people think there is nothing in it for them.

4.2.5 The recommendations are summarised below in Table 4-1.

Table 4 -1: Priority 1 Recommendations Summary Table – Walking Promotion	
Description	
<ul style="list-style-type: none"> • Develop a walking promotion package that reflects the culture, attitude and conditions in Thurso 	
Issues for consideration	
<ul style="list-style-type: none"> • Initiative will not work without local ‘buy in’ • A not for profit partnership or organisation may be able to access funding from a range of sources to develop promotion programme • Poor weather conditions may prove to be difficult to overcome 	

4.3 *Priority 2 Recommendation: Grass Roots Cycling*

4.3.1 As discussed in 3.1, there is very little cycling at a local level in Thurso, with one exception: there is a significant number of young people with BMX bikes in the town. The local bike shop appears to be a hub for these young people where the shop staff have a positive and progressive attitude towards them: they encourage the young cyclists to learn about how to maintain their bikes and provide tools to allow them to keep their bikes in roadworthy condition. .

4.3.2 Supporting young people to develop a passion and enthusiasm for healthy and positive activities could have benefits for the whole community. One option for creating a grass roots cycling culture in Thurso is to build on the desire for BMX and provide young people the chance to create for themselves, a dedicated area for the sport. The creation of a BMX track is not necessarily expensive or difficult. Key elements are the donation or dedication of a piece of land, the loan of earth moving plant for a few days and a supply of spades to help maintain the earth jumps/ramps. There are numerous examples across the country of young people building their own ‘playgrounds’ which they themselves, **Manage, police and maintain.**

4.3.3 One example of a community where young people successfully developed their own skate/BMX park is in Hopeman, Moray. With the help of parents, a dedicated group of young people in the town which has a population of just under 2000, raised £200,000 to create a skate/BMX park in 2003 after residents complained of bored youngsters causing trouble in the area. The park is maintained using membership fees which cost £7.50 for individual life membership or £10 for family membership and there are now over 400 members. People using the park must display their membership tag which is policed by ‘committee members’ consisting of parents and young people. The park has hosted a number of competition and display events and was officially opened by the Duke of York in 2008. Following the success of the park in Hopeman two new skateboard/BMX parks have been approved for Elgin and Buckie, whilst the existing Inverness BMX park was recently reopened that includes a new forum to manage the park consisting of users and Council officers.

4.3.4 BMX has experienced a revival in recent years and there is the likelihood that the sport will become increasingly popular as it becomes an official entry in the 2012 Olympics for the first time. Supporting and growing a BMX community has the potential to help make cycling part of the culture in Thurso. It is a healthy pastime for young people which can help establish good habits of physical activity that may last a lifetime and is a good potential partner sport to surfing which has helped to put Thurso ‘on the map’.

4.3.5 The recommendations are summarised below in Table 4-2

Table 4-2: Priority 2 Recommendations Summary Table – Grass Roots Cycling	
Description	
<ul style="list-style-type: none"> Form a working group to investigate helping young people in Thurso develop their own BMX park 	
Issues for consideration	
<ul style="list-style-type: none"> First steps in taking this forward would be the setting up of a working group involving young people, local councillors, police, residents etc Planning application for change of use may be necessary Location of potential park should be easily accessible without the need of a car <p style="text-align: center;">Relatively low cost to build (plant hire/contractors may donate equipment)</p>	



Figure 4.1: User made jumps in Delamere Forest, Cheshire



Figure 4.2: User led track building in Portreath, Cornwall



Figure 4.3: Local supporters at Hopeman BMX/skate park



Figure 4.4: Trails at Glentress, Peebles

4.4 ***Priority 3 Recommendation: National Cycle Network***

- 4.4.1 One of the main thrusts of improving the National Cycle Network through Thurso is to address a number of safety issues, especially for pedestrians. It is not envisaged that cycling within the local community will increase, but measures to reduce the speed of traffic in the town and make junctions safer for pedestrians will benefit all road users. There has been cluster of accidents involving pedestrians and vehicles near to the school and college on Ormlie Road and an accident involving a cyclist and a car on St George's Bridge/Bridgend. No speed surveys have been undertaken as part of this study but consultations have established that Ormlie Road is of particular concern as it was regarded by local people to be an area where motorists were often likely to 'speed up'. The road itself is straight and traffic flows relatively light and has a 60mph speed limit outwith the town. During the audit, motorists were often observed accelerating out of town whilst within the residential area.
- 4.4.2 The gyratory system around Sir John's Square is a junction which can be intimidating to cyclists. The one way system accommodates vehicles coming from different directions and cyclists may have to cross lanes. The gyratory would also benefit from improvement for pedestrians as there are a number of arms at the junction without pedestrian facilities.
- 4.4.3 One option for the National Cycle Network would be to re-route it along Princes Street through the pedestrianised area. This would enable cyclists to avoid the gyratory and may benefit local businesses by directing touring cyclists to local services. The new route could also include Wilson Street and Ellan Bridge. Cycling is currently prohibited on the pedestrianised high street and on Ellan Bridge. There has also been one reported collision between a cyclist and a pedestrian on the traffic free Ellan Bridge and one drawback to this proposed route is the perception that allowing cycling in these areas will lead to an increase in accidents. Research conducted into the behaviour of cyclists and pedestrians in car free areas has revealed that there are virtually no issues with allowing the two modes to mix freely¹, however it should be noted there is a perception that cyclists are 'dangerous'. One option could be to allow cycling in the pedestrianised area during commuting hours on a trial basis and monitor behaviour to determine any risks. Ellan Bridge is the absolute minimum width for a shared use facility, but the risks of cyclist/pedestrian collisions on the bridge should be compared to the risks of cyclist/vehicle collisions on the current route of Sir George's Street/Bridgend to determine which route carries the least risk of injury.
- 4.4.4 Princes Street is an attractive and wide street in the heart of the town that is dominated by through traffic and car parking. Given the space available, it could be possible to redesign the streetscape into an attractive boulevard with more space for pedestrians and local businesses. Inevitably a scheme like this would be likely to reduce on street parking and would be an expensive capital project, but it has the potential to completely revitalise the area.
- 4.4.5 The National Cycle Network continues along Mountpleasant Road out of Thurso. The junction of Castletown Road/Mountpleasant Road is indirect for pedestrians and cyclists and there are no specific crossing facilities. This junction should be redesigned to improve the alignment between

Mountpleasant Road and Ellan Bridge for pedestrians and cyclists and make crossing easier, especially at peak times.

4.4.6 Mountpleasant Road is similar to Ormlie Road in that it is a long, straight road where it appears that some motorists instinctively speed up in the residential area as they head out of town. On both roads data collection surveys are needed to determine the exact speed of traffic, the type and volume of vehicles in order to decide how best to create environments that are more conducive to walking and cycling.

4.4.7 The recommendations are summarised below in Table 4-3.

Table 4-3: Priority 3 Recommendations Summary Table – National Cycle Network	
Description	
<ul style="list-style-type: none"> • Improve the National Cycle Network (NCN) through Thurso to make walking and cycling safer and more attractive • Consider re-routing the NCN to avoid Sir George's Bridge/Bridgend/Sir John's Square 	
Issues for consideration	
<ul style="list-style-type: none"> • Consider a trial to allow cyclists in pedestrianised areas during commuting hours (outside 10am to 4pm) • Redesign of Princes Street is a potential regeneration project with wider benefits for the community 	
Recommended Interventions (subject to feasibility and design)	
Carry out speed/volume/classification surveys needed on Ormlie Road and Mountpleasant Road to understand existing conditions and potential solutions	
Work with developer at former auction mart to improve pedestrian and cyclist facilities in the area.	
Improve junction of Ormlie Road/Castlegreen Road	
Install good quality cycle parking (Sheffield type stands) in the town centre	
Allow two way cycling on Wilson Street	
Improve connectivity between Wilson Street and Ellan footbridge and Mountpleasant Road and the footbridge to provide a more continuous route	
Consider the installation of an uphill advisory cycle lane on Mountpleasant Road	
Provide flush dropped crossings and tactile paving at all side roads along the route	
As well as signing for destinations outside Thurso, install signing to local attractions along the route	

4.5 ***Priority 4 Recommendation: Scrabster Route***

4.5.1 In many ways, this recommendation is a 'quick win' as much of the infrastructure is already in place. The footway from the junction of the A836 and A9 to the outskirts of Scrabster is wide enough to accommodate a shared use footway/cycle track with only three side roads to cross. If the footways were redetermined to allow cycling legally, it has the potential to become a near continuous route to the harbour, requiring only additional signing, markings and small scale improvements to the road crossings

4.5.2 Where the footway becomes too narrow for a shared use footway/cycle track close to Scrabster, consideration should be given to reducing the 40mph speed limit as cyclists will have to rejoin the carriageway.

4.5.3 The northern side of the footway from the Scrabster Road Junction on Smith Terrace to Durness Street also has potential to become a shared use footway/cycle track providing access to side streets opposite is

accommodated. The footway is wide and adjacent to open space and the caravan/camping site, so could be widened if necessary.

- 4.5.4 On the approach to Thurso town centre along Odrig Street, the footways narrow and become busier and are therefore less suitable to conversion to shared use. At this point, cyclists should be encouraged to use the carriageway by creating conditions on road whereby cyclists feel safe. Odrig Street is part of the trunk road network so any changes or proposals will need to be agreed with Transport Scotland. The majority of bus services in the town use Odrig Street to set down and pick up passengers and during peak times, the street can be very busy. Specific cycle facilities such as on road cycle lanes may be abused by motorists, so further investigation is needed to find a solution to making this road more attractive for cyclists.
- 4.5.5 This route is also the only way to access Thurso Business Park. Currently, there is a footway on the northern side of the A836 which crosses to the southern side part way along at an uncontrolled crossing point. An alternative could be to create a new footway/cycle track on the southern side of the road adjacent to the fields for the entire route from the junction with the A9.
- 4.5.6 The route to Scrabster for pedestrians is of relatively good quality and requires minor improvements such as flush dropped crossings with tactile paving at all side roads. The junction of the A9 and A836 does not serve pedestrians particularly well which can be observed from the desire lines at the junction. More direct pedestrian routes are required in this area that accommodates the proposed routes and the presence of cyclists.
- 4.5.7 The recommendations are summarised below in Table 4-4.

Table 4-4: Priority 4 Recommendations Summary Table – Scrabster Route	
Description	<ul style="list-style-type: none"> Provide traffic free routes from Thurso to Scrabster and Thurso Business Park
Issues for consideration	<ul style="list-style-type: none"> The A9 is a trunk road and consultation and agreement is needed with Transport Scotland A potential 'quick win' as much of the infrastructure is already in place Both routes are identified as 'Core Paths'
Recommended Interventions (subject to feasibility and design)	<p>THC to consider redetermination of northern side footway to shared use walking and cycling from Castlegreen Road to outskirts of Scrabster. Early dialogue with Transport Scotland required if this is to be progressed.</p> <p>Signing and lining would be required to show route is shared use</p> <p>Improve side road crossings to ensure they are flush and have appropriate tactile paving</p> <p>Provide a new shared use footway/cycle track from Scrabster Road to Thurso Business Park on the southern side of the road</p> <p>Consider reducing the speed limit into Scrabster where cyclists rejoin the carriageway</p> <p>Improve the junction of the A9/A836 to improve pedestrian routes, provide for cyclists and link into any proposed new routes</p> <p>Work with Transport Scotland to improve conditions on the carriageway for cyclists on Odrig Street</p>

4.6 *Priority 5 Recommendation: New Town Links*

4.6.1 The grid layout of the New Town area of Thurso provides a dense myriad network of routes linking the more recent residential areas such as Pennyland to the town centre. The purpose of the recommendations is to identify a number of key corridors in the new town and designate them as pedestrian and cyclist priority. The potential routes identified in this report should be considered as a starting point for consideration by The Highland Council and future consultation with residents. They have been chosen as they provide opportunities to link directly into the wider active travel network.

4.6.2 Creating priority areas for vulnerable road users is as much about changing people's perceptions of the area as well as potential changes to the infrastructure. One way to make these areas more attractive for walking and cycling is to try and reduce through traffic, which could be delivered through selective road closures or the creation of false one way streets as shown in figure 4.5 below. If the amount of through traffic can be reduced, there is relatively little else required.

4.6.3 Junction treatment is needed where the New Town links join to other parts of the network, for example, build outs on Princes Street would help pedestrians and cyclists 'edge out' into the street and improve visibility for crossing the road.

4.6.4 To help change people's attitudes towards the use of these streets and return dominance to pedestrians and cyclists, gateway features and signing could be used to make a psychological change. In the Netherlands, general roads often form part of the cycle network but signing is used to inform motorists that they are 'guests' and cyclists have priority. These signs called 'Auto te gast' or the 'car is a guest' are illustrated below in figure 4.6. The New Town is a conservation area, so any signing must consider the public realm and attractiveness of the area.

4.6.5 The recommendations are summarised below in Table 4-5.

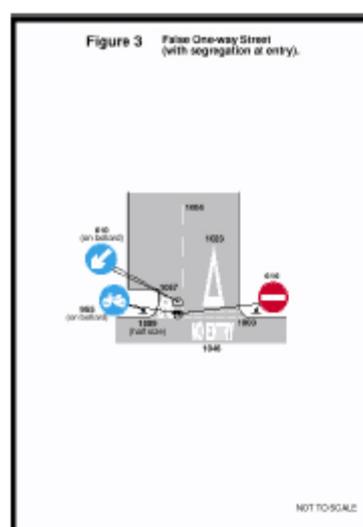


Figure 4.5: Illustration of false one way street (DfT, TAL 08/98)



Figure 4.6: Cyclist priority signs in the Netherlands (Bicycle street, cars are guests)

Table 4-5: Priority 5 Recommendations Summary Table – New Town Links
Description
<ul style="list-style-type: none"> • Create key pedestrian and cyclists priority corridors linking the town centre with residential areas via New Town
Issues for consideration
<ul style="list-style-type: none"> • Changing people's perceptions of the streets may be more effective than changing the infrastructure, but harder to achieve • Proposals require consultation with residents • Erection of 'traffic signs' in conservation area may not be popular
Recommended Interventions (subject to feasibility and design)
Identify key corridors (east to west and north to south) that link into Pennyland and Ormlie, and consult with local residents on ways to reduce through traffic
Consider implementation of false one way street on key corridors
Consider signing to indicate priority for vulnerable road users
Consider improving visibility on Princes Street at junctions of key corridors by creating build outs

4.7

Priority 6 Recommendations: Thurso East Links

4.7.1

Although people living in Thurso East are separated from the town centre by the River Thurso, there are good traffic links into the north and south of the town via the pedestrian footbridges. Also, the footways along the main road (St George's Road/Bridgend) into Thurso are wide and link directly into the town centre. In addition, people living in this part of Thurso have a number of facilities on this side of the town such as a supermarket, primary school, swimming pool, parks and theatre. However, the main roads in the area and a number of gaps in the pedestrian network mean that walking and cycling to these destinations are not convenient or pleasant.

4.7.2

One of the main issues is the lack of pedestrian crossings at the A9/A836 junction used to access the supermarket. On Bridgend and Castletown Road there are no pedestrian phases at the signalised junction which means that pedestrians have to wait for gaps in traffic. There is also a well worn shortcut across the A9 from Oldfield Hill to the supermarket which and pedestrian access to the supermarket site is further hindered by the lack of a formal back entrance from Millbank Road. Residents living in the St Andrew's Drive/Mill Road area have created their own route to the supermarket at the end of Millbank Playing Fields which avoids a circuitous route on the main roads.

4.7.3

As discussed earlier, there are very few people cycling for utility journeys in the town, but there is potential to create a network of traffic free routes. A new route from Ellan Bridge to Park Lane via Sir George's Park would provide a north to south route and a new ramp at the existing steps from Bridgend into the park would provide a direct route to the swimming pool. The installation of cycle parking stands at the swimming pool could also encourage people to cycle and are relatively inexpensive to install. The provision of advanced stop lines at the junction of the A9 and A836 would also aid cyclists using the route which currently forms part of the National Cycle Network as well as providing on road cycle lanes (mandatory or advisory) on St George's Street/Bridgend.

4.7.4 Any improvements for pedestrians and cyclists on the A9 will require consultation and approval from Transport Scotland.

4.7.5 The recommendations are summarised below in Table 4-6.

Table 4-6: Priority 6 Recommendations Summary Table – Thurso East Links	
Description	<ul style="list-style-type: none"> • Improve pedestrian linkages to the supermarket and swimming pool in Thurso East and work with Transport Scotland to improve the National Cycle Network on the A9 and improve pedestrian crossing facilities at the junction of the A9/A836.
Issues for consideration	<ul style="list-style-type: none"> • Improved access to the supermarket will require consultation with the land owners • A negative attitude towards cycling may hinder proposals to provide shared used footways/cycle tracks in the parks
Recommended Interventions (subject to feasibility and design)	<p>Work with Transport Scotland to improve the junction of the A9/A836 to ensure there are pedestrian phases on all arms of the junction and consider the introduction of advanced stop lines</p> <p>Work with supermarket to provide a formal rear entrance to the store including a new track at the edge of Millbank playing fields to link into the residential area off Mill Road</p> <p>Install cycle parking at the swimming pool</p> <p>Consider the introduction of advisory or mandatory cycle lanes on Sir George's Bridge/Bridgend</p>

5 Conclusion

- 5.1.1 The absence of major barriers to walking and cycling such as heavily congested roads, physical barriers such as water/railways, steep hills and dispersed settlements means that Thurso has great potential for active travel. In fact, the conditions have already fostered a healthy culture of walking to work, which with some encouragement could be increased and the promotion of this mode should become the main focus in working to increase active travel in Thurso.
- 5.1.2 Unfortunately, increasing cycling will be much more difficult, but not impossible. In 1998, a European project called ADONIS was carried out to collate best practice into ways of encouraging people to walk and cycle. The report concluded that *'in cities with almost no cycling and walking it will be difficult to 'get the machine started' but if people use a bicycle or walk for leisure, there is a good chance that they will use these modes more easily for other purposes'*. This advice is particularly relevant for Thurso as levels of cycling are very low. The best way to grow a culture of cycling is to develop a love of cycling in young people and the example of the creation of a dedicated BMX facility for young people in the town would assist in this regard.

Appendix A: Thurso Active Travel Audit – Potential Improvements and Mapping



**Figure A-1:
Reported Accidents in Thurso
(2006-2009)**

- Key:
- Pedestrian / Bicycle
 - Pedestrian / Car
 - Bicycle / Car
 - S Serious injury

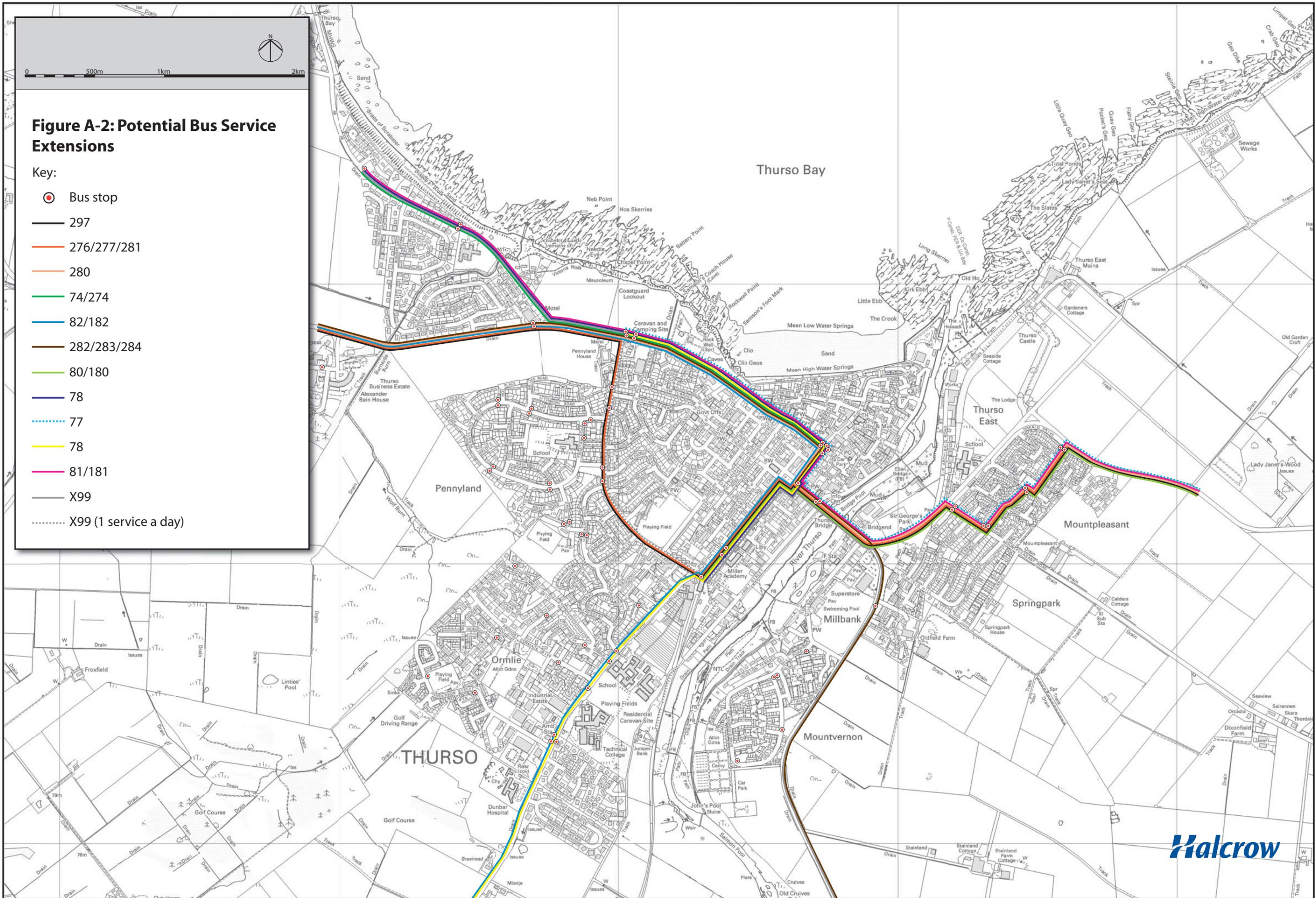




Figure A-2: Potential Bus Service Extensions

Key:

- Bus stop
- 297
- 276/277/281
- 280
- 74/274
- 82/182
- 282/283/284
- 80/180
- 78
- 77
- 78
- 81/181
- X99
- X99 (1 service a day)



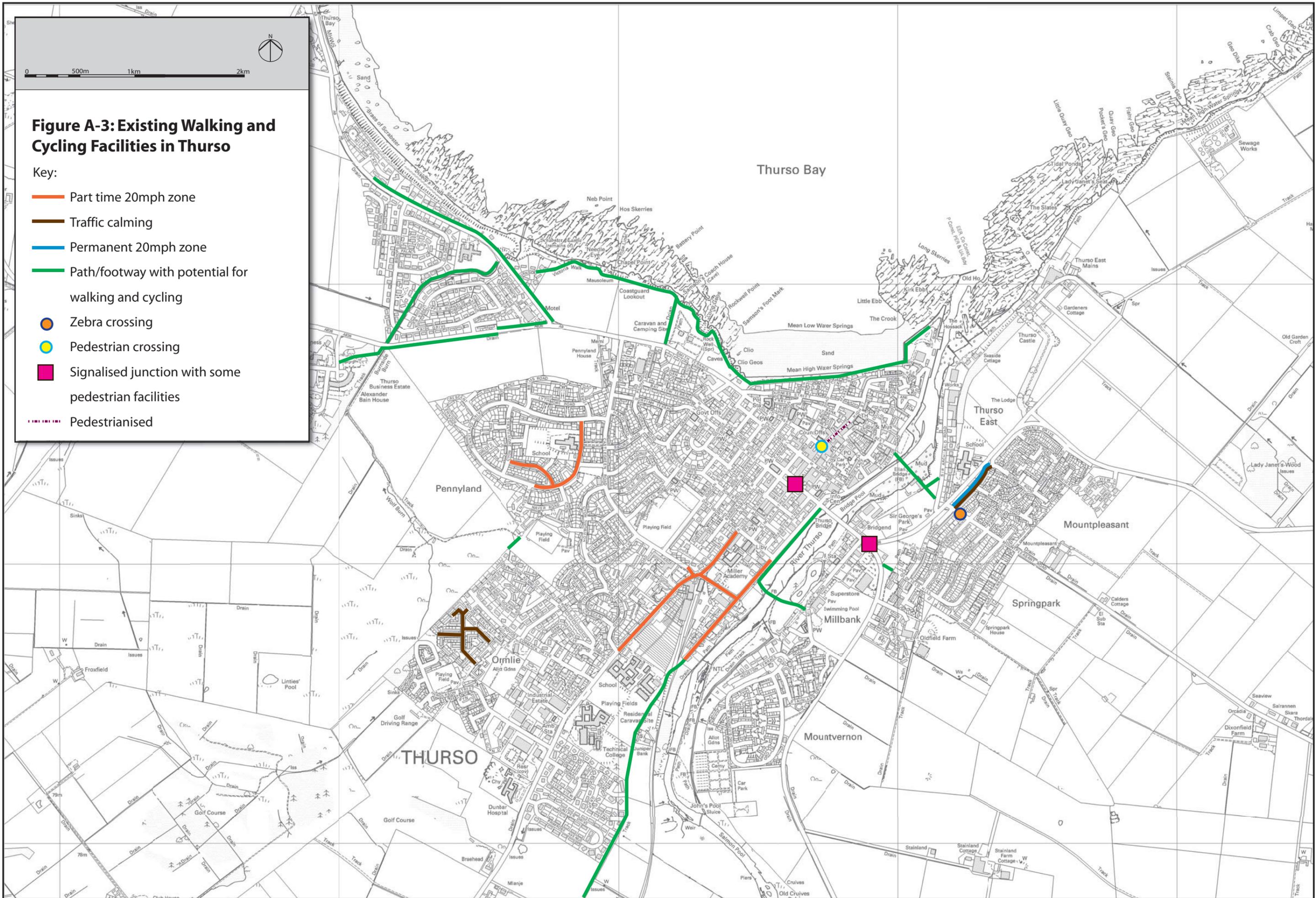
0 500m 1km 2km



Figure A-3: Existing Walking and Cycling Facilities in Thurso

Key:

-  Part time 20mph zone
-  Traffic calming
-  Permanent 20mph zone
-  Path/footway with potential for walking and cycling
-  Zebra crossing
-  Pedestrian crossing
-  Signalled junction with some pedestrian facilities
-  Pedestrianised



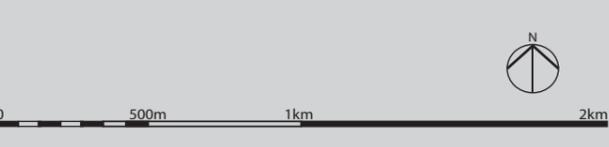
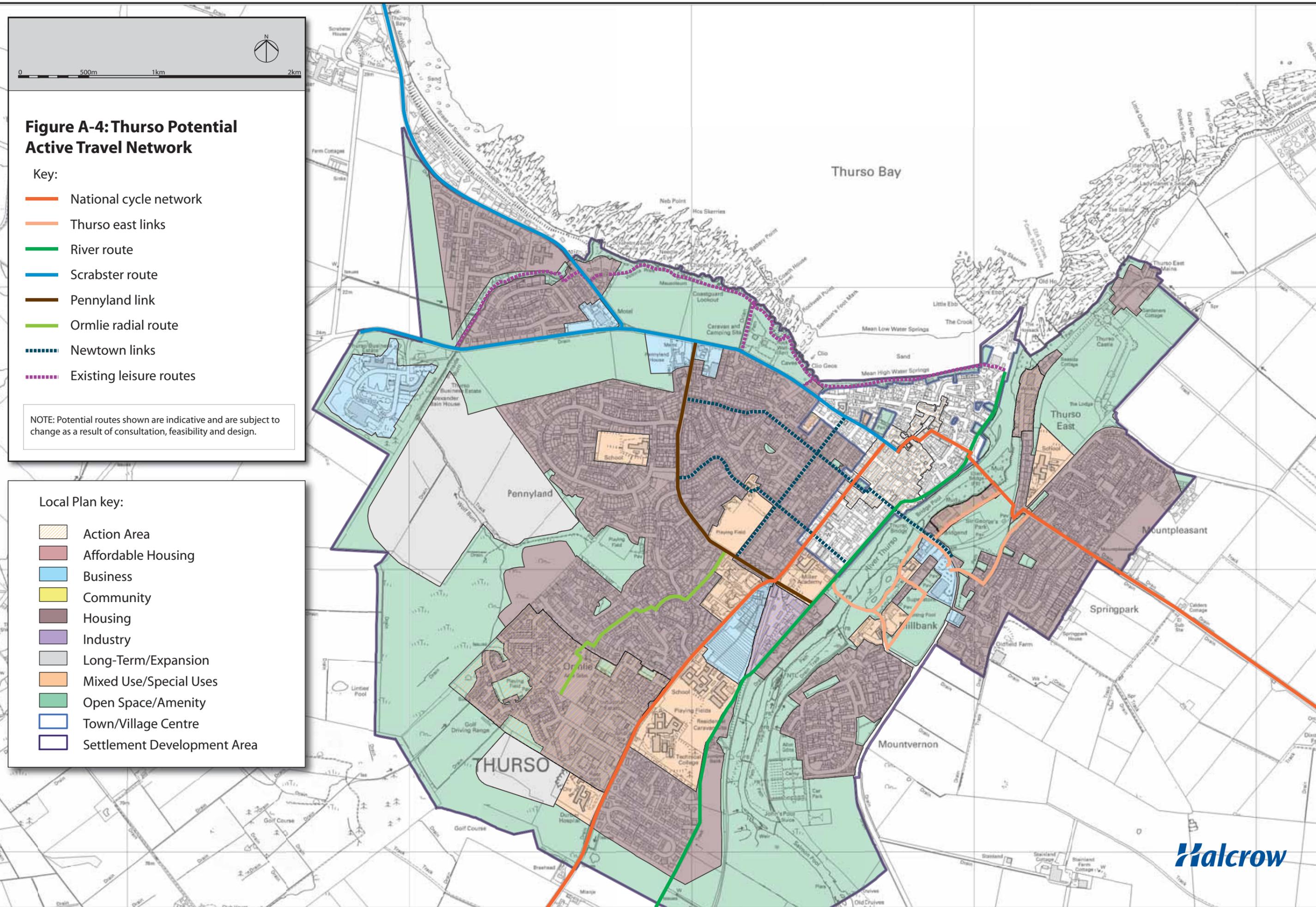


Figure A-4: Thurso Potential Active Travel Network

- Key:
- National cycle network
 - Thurso east links
 - River route
 - Scrabster route
 - Pennyland link
 - Ormlie radial route
 - - - Newtown links
 - - - Existing leisure routes

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.

- Local Plan key:
- Action Area
 - Affordable Housing
 - Business
 - Community
 - Housing
 - Industry
 - Long-Term/Expansion
 - Mixed Use/Special Uses
 - Open Space/Amenity
 - Town/Village Centre
 - Settlement Development Area



Route 1 – National Cycle Network

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
1a	Ormlie Road	30mph zone	Castlegreen Road	Further investigation needed to determine intervention to make road more pedestrian and cyclist friendly. Possible solutions could be traffic calming or on road cycle lanes. Provide flush dropped crossings with tactile paving at all side roads. Improve footway outside disused auction mart.
1b	Junction of Castlegreen Road/Ormlie Road			Alter junction to reduce width of junction mouth, provide flush dropped crossings with tactile paving.
1c	Princes Street	Castlegreen Road	Olig Street	Consider the introduction of on road cycle lanes, potentially with segregation from general traffic. Provide flush dropped crossings with tactile paving at all side roads. Consider footway widening and redesign of streetscape to provide pedestrian priority and attractive boulevard.
1d	Olig Street	Princes Street	Rotterdam Street	See Route 4 – Scrabster and Business Park Links
1e	Rotterdam Street (pedestrianised)	Olig Street	High Street	Consider allowing cycling outside of peak hours. Provide good quality cycle parking.
1f	Wilson Street	Rotterdam Street	Riverside Road	Allow two way cycling on Wilson Street. Provide flush dropped crossing with tactile paving on all side roads.
1g	Ellan Bridge			Improve pedestrian and cyclist route from Wilson Street. Remove prohibition of cycling and consider raising height of parapet to 1.4m. Provide a new footway/cycle track from Ellan Bridge to junction of Sir Archibald Road/Castletown Road.
1h	Junction of Castletown Road/Mountpleasant Road/Sir Archibald Road			Provide a direct pedestrian/cyclist route with improved crossing provision on Castletown Road.
1i	Mountpleasant Road	Castletown Road	End of 30mph zone	Consider the provision of an uphill advisory cycle lane. Provide flush dropped crossings with tactile paving at all side roads.
1j	Whole route			Provide signing for local and area wide destinations

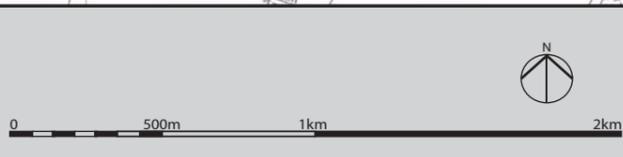


Figure A-5: Thurso Potential Active Travel Network - Route 1: National Cycle Network

Key:
 National cycle network

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



1b The junction at Castlegreen Road/Ormlie Road is very wide and intimidating for pedestrians.



1c Princes Street could become an attractive boulevard. Flush dropped kerbs with tactile paving would improve the street for pedestrians.



1g Improved connectivity from Ellan Bridge to the town centre is needed.



1h The junction of Sir Archibald Road and Castletown Road needs to be amended to improve connectivity between Ellan Bridge and the Mountpleasant Road community.



1i An uphill lane on Mountpleasant Road would be of benefit to cyclists on this steep section.



Route 2 – Thurso East Links

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
2a	Queens Terrace	Mountpleasant Road	Oldfield Hill	Provide flush dropped crossings with tactile paving at all side roads and at traffic free paths at Queens Square.
2b	Oldfield Hill	Queens Terrace	Brdgend/Supermarket	Provide an improved walking/cycling route from Oldfield Hill across A9 to supermarket.
2c	Sir George's Park	Ellan Bridge	Bridgend	Provide an improved walking cycling route from Ellan Bridge to Park Lane.
2d	Millbank Playing Fields	Millbank Road	Rear (unofficial) entrance to supermarket	Provide a new walking/cycling route on periphery of playing field to supermarket boundary with a new side/rear entrance into supermarket to replace existing desire line.
2e	Thurso Riverside	Bridgend	Janet Street	Provide a ramped access from Bridgend into park. Widen paths and resurface to allow shared use walking and cycling. Install parapets to 1.4m on bridge.
2f	Millbank Road	Bridgend	Mill Road	Provide flush dropped crossings with tactile paving at all side roads. Improve accessibility for cyclists and pedestrians to paths/bridge in Thurso Riverside.
2g	Ellan Bridge			Improve pedestrian and cyclist route from Wilson Street. Remove prohibition of cycling and consider raising height of parapet to 1.4m. Provide a new footway/cycle track from Ellan Bridge to junction of Sir Archibald Road/Castletown Road.
2h	Junction of Castletown Road/Mountpleasant Road/Sir Archibald Road			Provide a direct pedestrian/cyclist route with improved crossing provision on Castletown Road.
2g	Whole route			Provide signing for local and area wide destinations

0 500m 1km 2km



Figure A-6: Thurso Potential Active Travel Network - Route 2: Thurso East Links

Key:
 Thurso east links

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



2a Flush dropped crossings for pedestrians on Queen's Terrace would help improve access to green spaces.



2b Pedestrian route from Oldfield Hill to supermarket requires improvement.



2c Sir George's Park would benefit from a new and accessible pedestrian/cyclist route.



2f Flush dropped crossings and tactile paving are needed on Millbank Road, especially near the swimming pool.



Route 3 – River Route

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
3a	Juniper Bank Track	Donald Grant Road	Janet Street	Resurface track to provide a smooth surface for walking and cycling and provide access points into rear of Thurso High School and North Highland College. Consider providing protection to railway at bridge.
3b	Janet Street	Juniper Bank Track	Sir George's Street	Provide flush dropped crossings and tactile paving at all side roads. Improve road surface at junction with Davidson's Lane. Investigate ways to make road more friendly to cycle traffic.
3d	The Mall	Bridge to Thurso East	Sir George's Street	Improve access points to allow wheelchair/pram/bicycle access.
3e	Junction of Janet Street/Sir George's Street			Improve access across St George's Street to provide continuous route to Janet Street and The Mall from Riverside Road.
3f	Riverside Road	Sir George's Street	Harbour	Provide flush dropped crossings with tactile paving at all side roads. Investigate ways to make the road more friendly to cycle traffic including investigating anecdotal evidence of speeding traffic.
3g	Whole route			Provide signing for local and area wide destinations

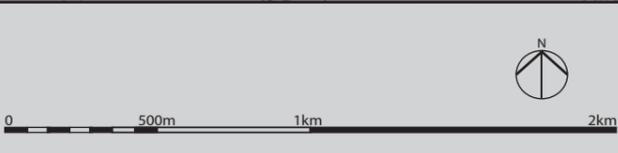


Figure A-7: Thurso Potential Active Travel Network - Route 3: River Route

Key:
 River route

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



3a Juniper Bank track would benefit from resurfacing



3a Improved access to the high school and college from Juniper Bank track is required.



3b Janet Street would benefit from flush dropped kerbs and ways to make it more 'cycle friendly'.



3e Improved connectivity is needed from the Mall riverside path to Riverside Road.



3f Riverside Road - part of 'circuit' for young drivers. Speed reducing measures may be needed pending further investigation.



Route 4 – Scrabster/Business Park Links

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
4a	Scrabster Road	Scrabster	Durness Street	Consider the provision of a shared use footway/cycle track, widening footway where necessary on the north side of the road. Provide improved pedestrian/cyclist crossing provision at junction with A9/A836.
4b	Olig Street	Durness Street	Rotterdam Street	Provide flush dropped crossings with tactile paving at all side roads. Investigate the potential for on road cycle lanes or other measures to create a more cyclist friendly environment.
4c	A836	A9	Thurso Business Estate	Consider the provision of a shared use footway/cycle track on the south side of the road.
4d	Whole route			Provide signing for local and area wide destinations

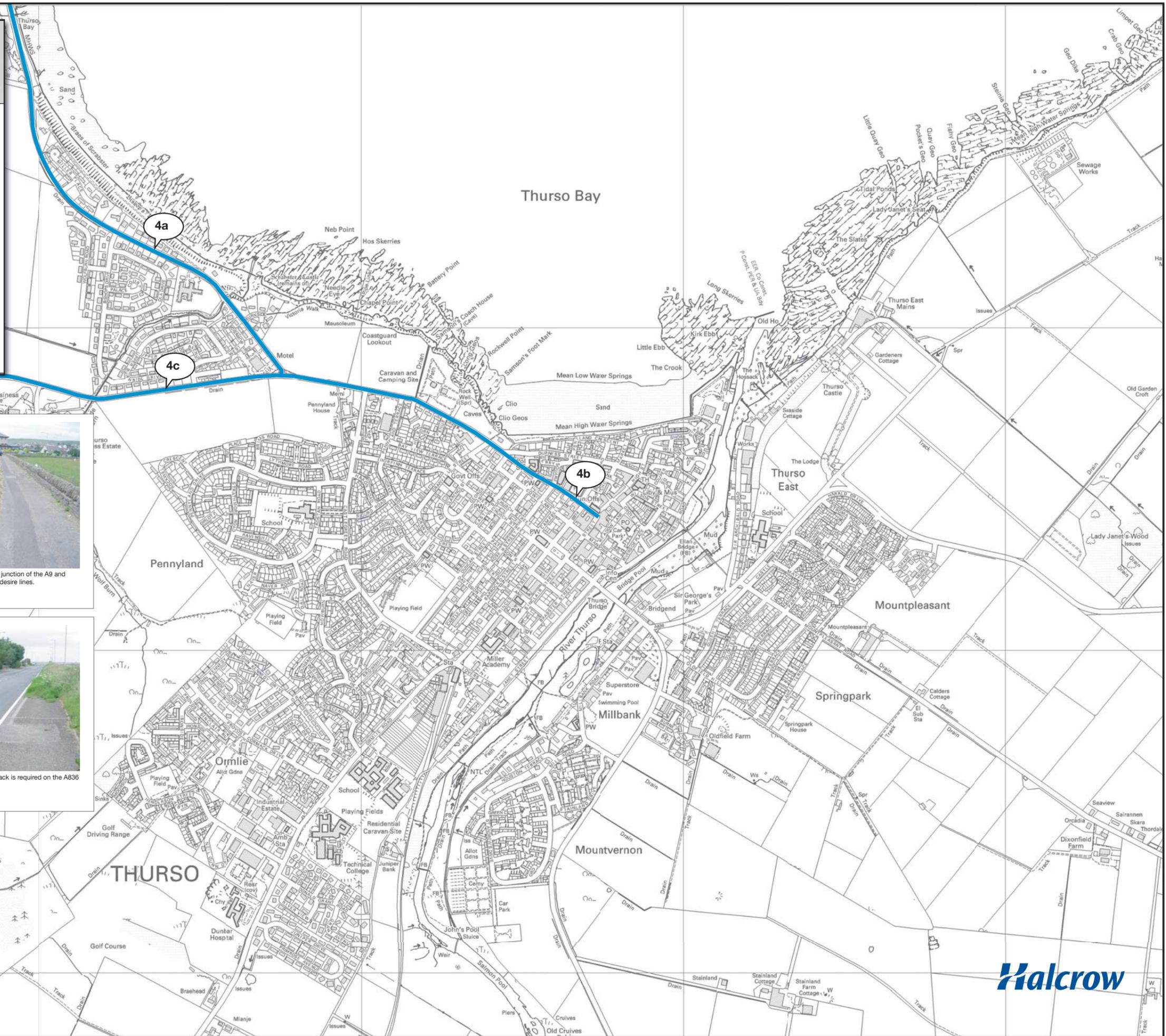
0 500m 1km 2km



Figure A-8: Thurso Potential Active Travel Network - Route 4: Scrabster Route

Key:
 Scrabster route

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



4a The footway on Scrabster Road could be easily converted to shared use for cyclists and pedestrians.



4a The pedestrian facilities at the junction of the A9 and A836 do not serve pedestrian desire lines.



4b Orlog Street can be very busy with traffic. It is a wide road that could accommodate facilities for cyclists.



4c A shared use footway/cycle track is required on the A836 to the business park.



Route 5 – Pennyland Link

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
5a	Castlegreen Road	Smith Terrace	Ormlie Road	Provide flush dropped crossings with tactile paving at all side roads. Investigate ways to make cycling more attractive such as traffic calming and junction improvement.
5b	Junction of Castlegreen Road/Browhill Road			Amend junction to provide a continuous route for pedestrians and cyclists from Duncan Street to Browhill Road including the provision of flush
5c	Lovers Lane	Ormlie Road	Janet Street	Improve footway surface and provide flush dropped crossings with tactile paving at all junctions.
5d	Whole route			Provide signing for local and area wide destinations

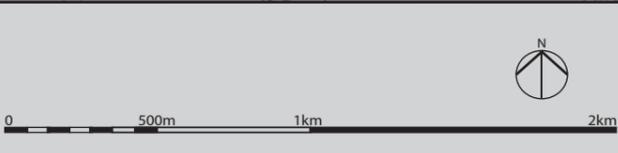


Figure A-9: Thurso Potential Active Travel Network - Route 5: Pennyland Link

Key:
 Pennyland link

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



5a Surveys will help determine the speed of traffic, especially on the straighter sections of Castlegreen Road.



5b Junction mouths on Castlegreen Road could be reduced in width to aid pedestrians. Further investigation is needed to determine how this local distributor road can be made more cycle friendly.



Route 6 – Ormlie Radial Route

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
6a	Browhill Road/Heathfield Road	Castlegreen Road	Ormlie Crescent	Provide flush dropped crossings with tactile paving at all side roads.
6b	Pedestrian access from Ormlie Crescent to Ormlie Hill			Consider working with residents living adjacent to paths to widen existing path and remove step.
6c	Junction of Ormlie Hill and Provost Cormack Drive			Provide flush dropped crossings with tactile paving at all side roads.
6d	Ormlie Allotment Gardens Path	Provost Cormack Drive	Henderson Street	Widen existing path to provide a shared use footway/cycle track with a sealed surface, flush dropped kerbs at Provost Cormack Drive and Henderson Street.
6f	Whole route			Provide signing for local and area wide destinations

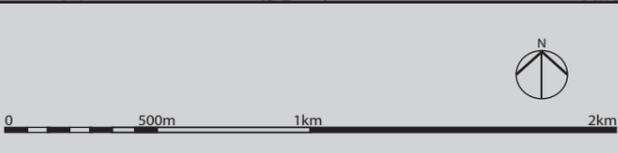


Figure A-10: Thurso Potential Active Travel Network - Route 6: Ormlie Radial Route

Key:
 Ormlie radial route

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



6a The junction of Castlegreen Road and Brownhill is relatively wide and does not connect well to Duncan Street.



6d The existing track to Ormlie could be improved with the addition of dropped kerbs.



Route 7 – New Town Links

Ref	Street	Start	End	Intervention (All subject to feasibility and design)
7a	St Magnus Road	Castlegreen Road	Sweyn Road	Provide flush dropped kerbs with tactile paving at all side roads.
7b	Traffic free link from Sweyn Road to Duncan Street			Provide an improved route between the roads with consideration giving consideration to improving informal route across disused land.
7c	Davidson's Lane	Duncan Street	Janet Street	Consider the creation of a pedestrian/cyclist priority area with measures to reduce through traffic such as strategic road closures. Provide flush dropped kerbs with tactile paving at all side roads.
7d	Thorfinn Terrace	Castlegreen Road	Granville Street	Provide flush dropped kerbs with tactile paving at all side roads.
7e	West Church Street	Granville Street	Princes Street	Consider the creation of a pedestrian/cyclist priority area with measures to reduce through traffic such as strategic road closures. Provide flush dropped kerbs with tactile paving at all side roads.
7f	Sir John's Square	West Church Street	Sir George's Street	Provide signalised pedestrian crossing facilities at all arms of the junction with flush dropped kerbs and tactile paving. Provide advanced stop lines.
7g	Sir George's Street/Bridgend	Sir John's Square	Castletown Road	Consider the implementation of on road cycle lanes (mandatory or advisory). Provide advanced stop lines at signalised junctions. Provide signalised pedestrian crossing facilities at all arms of the junction with flush dropped kerbs and tactile paving. Provide flush dropped crossings to allow road crossing from Park Lane to Thurso Riverside (See Route 2e)
7h	Duncan Street	Olrig Street	Castlegreen Road	Provide flush dropped crossings with tactile paving at all side roads. Consider the creation of a pedestrian/cyclist priority area with measures to reduce through traffic such as strategic road closures.
7i	Whole route			Provide signing for local and area wide destinations

0 500m 1km 2km



Figure A-11: Thurso Potential Active Travel Network - Route 7: New Town Links

Key:

..... Newtown links

NOTE: Potential routes shown are indicative and are subject to change as a result of consultation, feasibility and design.



7b The existing shortcut to Sweyn Street - there is an alternative route across the playing field.



7c/7e The lanes in the new town are dense and permeable and could be made more pedestrian and cyclist friendly by reducing through traffic.



7d Thorfinn Terrace requires flush dropped kerbs with tactile paving.



7g A number of pedestrian crossings are not signalled at the Bridgend / A9 junction.



7g Sir George's Street/Bridgend could accommodate on road cycle lanes.

