The Highland Council

Caithness Committee - 22 November 2016

Agenda	6.
Item	
Report	CC/22/
No	16

Roads Winter Maintenance Plan for 2016/17

Report by Director of Community Services

Summary

This report provides Members with information on winter maintenance preparations and arrangements for the 2016/17 winter period and invites the Committee to approve the Winter Maintenance Plans for Caithness.

1. Background

1.1 The Council's Scheme of Delegation to Area Committees gives the Caithness Area Committee the power:

" to approve the winter maintenance plan within the strategy and budget allocated by Community Services Committee"

- 1.2 Under Section 34 of the Roads (Scotland) Act 1984, a Roads Authority shall take such steps as they consider reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads.
- 1.3 The Transport, Environmental and Community Service Committee agreed a number of enhancements to the winter maintenance service at its meeting on 16 May 2013 (Report TEC-41-13). These enhancements were included in the revised Winter Maintenance Policy approved on 19 September 2013 (Report TEC-67-13). The Community Services Committee reviewed the winter Maintenance Policy on 28 April 2016 (Report COM23/16) which benchmarked winter maintenance against other Scottish Local Authorities.

On the 28 April 2016 the Community Services Committee noted that 10% of the gritter fleet could start one hour earlier at 5 am to aid treatment of roads in advance of commuter traffic as well as aiding service bus/school transport routes in urban areas, on a discretionary basis based on specific hazards such as heavy ice or snow. This equates to approximately one route in each Local Committee area.

1.4 The Council's Winter Maintenance Policy is in place to ensure a consistent level of service between Areas and to ensure, as far as possible, the safety of drivers/pedestrians. However, the operation of that Policy does not and cannot ensure that every road/footway will be free of ice and/or snow at all times.

1.5 Caithness Area has its own Winter Maintenance Plan which sets out the operational details required to deliver a service and comply with the Council's policy. The Caithness plan takes full account of the current policy.

2. Winter Maintenance Policy

- 2.1 The Council's Winter Maintenance Policy sets out the hierarchy of priorities for treatment, target times for treatment, and the hours of operation. The current Winter Maintenance Policy is contained in **Appendix A**.
- 2.2 Primary routes are treated first, thereafter Secondary routes and then all Other routes being treated as resources permit.
- 2.3 The total lengths of each Priority in Caithness are:

Primary	135km	33 %
Secondary	222 km	55%
Other	49 km	12%

- 2.4 The Council publishes "Winter Services" leaflets for each operational area providing the public with information on snow clearing and gritting of Council roads along with maps showing the Priority attributed to individual roads.
- 2.5 The leaflets and Policy information are provided on the "Winter Maintenance" pages on the Council's web site at:

www.highland.gov.uk/yourenvironment/roadsandtransport/wintermaintenance

The Priority location details and maps for the Area are reproduced at **Appendices B & C**. These are available on the Council's website and a copy of the Winter Maintenance Plans for the Area will be available at the Committee.

2.6 Secondary routes have varied from year to year to reflect school bus routes which included school buses, or mini buses with nine or more seats. The Community Services Committee on 28 April 2016 (Report COM23/16) approved the removal of the term "school bus route" from the policy and to introduce a preferred route system for school transport vehicles. Subsequently, after reviewing routes, resources and school transport information, there are no changes to Secondary routes in the Caithness Area.

The Community Services Committee also approved that future contracts for school transport services include the requirement that vehicles be fitted with all weather (mud and snow) tyres.

3. Forecast / Decision Making

- 3.1 The Council employs a professional forecast provider (Meteo Group Ltd) who provides daily and 5 day weather forecasts. Separate forecasts are received for the 7 climatic zones across Highland to support local decision making.
- 3.2 The daily forecast is received at noon and covers the following 24 hours. This forecast is used to plan treatment for the evening and following morning. The forecast is updated at 06:00. If there is any adverse deterioration in the forecast during the forecast period, an update is provided directly to the duty officer(s) by telephone.
- 3.3 Across The Highland Council, real time data is obtained from 30 icelert sites (including 8 located on the trunk road). These sensors provide information on the road surface temperature, surface condition (wet, dry, ice), and the presence of salt, graded 1, 2 or 3. A Salt 1 level will prevent freezing down to about minus 2 and Salt 3 down to minus 8 degrees Celsius.
- 3.4 Caithness Area operates a "Duty Officer" rota to ensure that there is always a suitably qualified and experienced member of staff available 24 hours a day, 7 days a week, to take decisions on the deployment of appropriate resources to deal with the prevailing weather conditions.
- 3.5 Duty officers have all had training from the weather forecast provider. Training is refreshed every three years.

4. Operatives

- 4.1 The numbers of manual workers allocated to road maintenance is determined by the number of routes required to deliver the winter maintenance policy. The current staff establishment is shown in table 4.4 below with the majority of operatives holding an LGV driving licence. Where possible, in order to optimise available resources, the number of drivers is supplemented by Waste Service drivers, for example, who may be available for evening pre-grit routes.
- 4.2 Operatives normally allocated to grounds maintenance and street sweeping are used to provide resources for treating footpaths. The majority of these operatives hold ordinary driving licences, which generally restrict their involvement to the operating of mini tractors and vehicles of 3.5 Tonnes or less.
- 4.3 A standby system is put in place over the winter period to ensure sufficient drivers are available to cover weekends. A small number of operatives are also put on standby during the week which allows an initial response to emergencies out of hours.

4.4 Caithness Area Staff Establishment

Staff Establishment	 Wick Office 1 Senior Engineer 1 Technician 1 Operational Support Officer 1 Inspector
	Wick Depot 1 Foreperson 10 Operatives
	Thurso Depot • 10 Operatives

5. Vehicles and Plant

- 5.1 There are 10 front-line gritters available and 4 footpath tractors. There are a limited number of spare gritters available across Highland.
- 5.2 Each vehicle treats, on average, 35.7km of Primary and Secondary routes followed by 5km of Other routes. Routes that are not classified as 'Primary', 'Secondary' or 'Other' are treated as a last priority if conditions dictate.
- 5.3 Some footway tractors treat several villages, which involves travel time between routes, this will impact on the length of surface they can treat in a day.

6. Treatments

- 6.1 Winter maintenance treatments consist of morning routes, evening precautionary treatment routes and, during extreme/poor conditions, continuous or all day treatments.
- 6.2 All operations begin at 0600hrs and can continue to 2100hrs. Sunday operations begin at 0700hrs and treat Primary routes and service bus routes. The routes covered on a Sunday may be extended during snow conditions. In reference to section 1.3 above, local arrangements have been put in place to improve treatment timings on the Drimnin road for example.
- 6.3 Treatments consist of the application of pure salt or occasionally salt/sand mix and where required blading or ploughing of the road surface. A spread rate for salt application has been agreed by Council, dependent on weather conditions.
- 6.4 The route chosen to receive 5am treatments in bad weather is route number D22, the A882 from Wick to the A9 at Georgemas.

7. Salt

- 7.1 The average annual usage of salt for Caithness Area is approximately 6,000 tonnes. Although the occurrence of snow lying on the roads has reduced, ice and frost remain prevalent especially on the higher routes. In the current year there is sufficient salt in stock or on order spread across our depot locations.
- 7.2 Salt usage varies with prevailing weather conditions and typical usage levels are shown below:

Evening Pre-treatment	20 tonnes
Morning treatment for ice	45 tonnes
Snow (repeated treatments)	100 tonnes

8. **Provision of Grit/Salt Bins**

- 8.1 Grit/salt bins are generally placed at locations with steep gradients where we are not providing a regular road or footway gritting service.
- 8.2 The bins are filled before the onset of winter conditions. They are replenished regularly over defined routes as well as on an ad-hoc basis as required subject to availability of resources.
- 8.3 Requests for additional bins are considered taking into account the following factors:
 - the elevation and steepness of the road/footpath
 - whether a regular road or footway gritting service is already provided
 - the needs and numbers of the regular users of the footpath/road
 - the resources available to service the bins

9. Co-ordination and Support for Other Services

- 9.1 There is on-going co-ordination between Council Services and in particular Community Services, Care and Learning and the NHS, to close any local gaps in the winter maintenance service at the schools, care homes and housing estates. For example, Community Services supplies schools with salt suitable for facilities management staff to spread on the paths and roads within school grounds.
- 9.2 At times of extreme weather, Council Services meet as a group to coordinate action to address issues of access to schools, health services and care services. Representatives from the Council's Emergency Planning section, Police, HIFRS, NHS; Transport Scotland, Trunk Road Operating Companies and other key agencies are involved if there is a requirement to consider the wider implications of a winter emergency. The meetings are normally chaired by a representative from the Chief Executive's Service. The Council's Press Office is kept informed to enable appropriate communication with the public through media and social networking channels.

10. Exceptional Conditions

- 10.1 While the resources set out above will deal with the majority of winter events, there may be occasions, for example periods of heavy prolonged snowfall, when additional resources are required.
- 10.2 To help deal with these exceptional situations, a framework contract is in place which allows us to bring in additional resources at short notice. Local contractors are available who can supply equipment and operators to assist in clearing deep snow at short notice.
- 10.3 Community Service resources are also available to assist with the treatment of footpaths.

11. Community Self-Help

- 11.1 The Council also encourages communities to "self-help" as much as possible and to generate awareness of people within their community that may need assistance from neighbours in clearing snow and ice or possibly shopping or accessing health and social services during extreme weather conditions.
- 11.2 Community self-help is also being encouraged under the Councils "Winter Resilience" scheme whereby communities can submit an application via their community council to carry out footway gritting operations within an agreed area. The Council will provide the community with salt/grit, bins, scrapers and reflective waistcoats. It is important to note that this does not replace the service provided by the Council, but allows the community to provide an enhanced level of service.
- 11.3 Guidance is also published on the Council web site and by the Scottish Government on their "Ready Scotland" web site urging people to be prepared for emergencies and extreme weather.
- 11.4 The Council also provides (on request) salt/gritting services for key strategic local service providers, including hospitals, health centres, fires stations, airports and train stations as examples.

12. Implications

- 12.1 This report has no impact on Equality, Gaelic, Climate Change, Carbon Clever or rural considerations nor are there any resource, legal or risk implications.
- 12.2 In relation to Carbon Emissions the Service provides specialist training for all operatives in respect to fuel efficient driving, and route plans are in place to achieve the most efficient routing of vehicles.

Recommendation

Members are invited to approve the Winter Maintenance Plan for the Caithness Area, which includes the priority road lists and maps presented in Appendices B & C.

Designation:Director of Community ServicesDate:7 November 2016

Author: Graham Mackenzie, Roads Operations Manager

APPENDIX A



The Highland Council

Transport, Environmental & Community Services

Winter Maintenance Policy

August 2013

Winter Maintenance Policy

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THE HIGHLAND COUNCIL

Transport, Environmental and Community Services

Winter Maintenance Policy

1.0 BACKGROUND

- 1.1 Under Section 34 of the Roads (Scotland) Act 1984, a Roads Authority shall take such steps as they consider reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads.
- 1.2 This Winter Maintenance Policy relates to the Council's responsibilities as Roads Authority for adopted roads, cycle ways, footways and footpaths.
- 1.3 Cross Service Working arrangements exist between Services to ensure that Council properties receive an appropriate winter maintenance service. The appropriate Service Director will determine the appropriate level of winter maintenance service for footpaths, car parks and other areas that are the responsibility of the Council but are not on the list of public Roads.

2.0 **GENERAL**

- 2.1 With the operational management devolved to the Areas it is essential that a common Winter Maintenance Policy is in place to ensure a consistent service for drivers passing between local Areas.
- 2.2 It is the aim of Highland Council in respect of its winter maintenance service to:-
 - 2.2.1 Provide a winter gritting and snow clearing service which, as far as is reasonably practical, using the resources available, permits the safe movement of vehicles and pedestrians on the adopted road and footway network and seeks to minimise delays attributable to weather conditions.
 - 2.2.2 Conduct operations having regard to the requirements of the Health and Safety at Work Act 1974 and EU and Domestic Driver Hours Regulations.
- 2.3 The Council as Roads Authority is <u>not</u> responsible for Winter Maintenance on unadopted roads and will not provide a Winter Maintenance service for unadopted roads. It will however make every effort to provide assistance for emergency and medical services during severe weather conditions where there is an urgent need for safe access.
- 2.4 The responsibility for Winter Maintenance on Trunk Roads lies with Transport Scotland.

2.5 The Council will source Winter Weather Forecasting Services from recognised Meteorological Service Providers during the period 1st October to 30th April.

3.0 TREATMENT OF ROADS

The Council will endeavour to provide the highest level of service possible within the resource available. During winter, especially during severe weather, it may not be possible to keep every road free from ice and snow at all times.

The treatment of roads will be carried out based on a hierarchical system dependant on route priority. The time taken to complete the treatment of routes will vary from day to day depending on actual weather conditions and can be expected to increase significantly during periods of snow due to having to plough both sides of the road.

3.1 NETWORK HIERARCHY

The following prioritised hierarchy will be used to determine the order of treatment of roads.

PRIMARY (Highest)	Strategic, Regional, Sub Regional and Link roads which serve the larger communities and permit the majority of road users to travel across the region. Main & Local distributor roads in the larger urban settlements. High frequency service bus routes operating at least 6 days a week and starting prior to 7am with identified hazards.
SECONDARY	Roads connecting smaller communities to the primary network. Link and Service roads within the larger urban settlements. Service and school* bus routes not covered by the Primary network.
OTHER	Minor rural and local access roads. Residential roads in urban settlements.

Gritting may not be completed on all routes before buses start their journeys.

* Contracted school buses and/or mini buses (9 passenger seats or more)

The priority network will be agreed by Area Committee. Leaflets with maps showing the Primary and Secondary network will be made available to the public at the start of each winter period.

3.2 TREATMENT TIMES - MONDAY TO SATURDAY

The service will be provided between 6am and 9pm. Treatment after 6pm will in general be restricted to Primary routes only.

3.3 TREATMENT TIMES – SUNDAYS AND PUBLIC HOLIDAYS

3.3.1 Sundays, 25th December and 1st January

The service will be provided between 7am and 9pm and will be restricted to the Primary network only. During periods of sustained snow, or where significant snow conditions are forecast, the service may be extended to include difficult Secondary routes.

3.3.2 26th December and 2nd January

The service will be provided between 7am and 9pm and treatment will be restricted to the Primary and Secondary networks only. Where December 26th and January 2nd fall on a Sunday then a Sunday service will be provided.

3.4 PRECAUTIONARY TREATMENT

Precautionary treatment carried out the previous evening, normally before 9pm, in advance of forecasted adverse weather, will in general be restricted to Primary routes only.

3.5 TREATMENT DURING SNOW CONDITIONS

In times of severe weather, resources will be concentrated on keeping the Primary network clear and as a result there may be a delay before it is possible to treat the Secondary and Other road network, including residential streets. In exceptional snow conditions external contractors will be deployed to assist with snow clearance.

3.6 SNOW GATES

For safety reasons Snow Gates are located on routes where drifting snow can make the route impassable very quickly. The closure and subsequent opening of snow gates will only take place with the authority of the Police.

The roads controlled by snow gates within the Highland area are as follows:

- A939 Bridge of Brown
- A939 Grantown to Dava
- A939 Dava to Ferness
- A832 Braemore to Dundonnell
- B9007 Carrbridge to Ferness
- B9176 Struie Hill Road
- Cairngorm Ski Road
- Bealach na Ba

In severe snow conditions the Council may withdraw resources from these roads and allow the storm to abate. In such circumstances resources may be diverted to assist snow clearing operations on other parts of the network. Additional resources may be employed during such snow conditions.

3.7 TARGET TREATMENT TIMES

The following are the target times for completion of routes during conditions of ice and light snow.

3.7.1 Monday to Saturday

PRIMARY ROUTES8.30amSECONDARY ROUTES9.00amOTHERAs resources and conditions permit.

3.7.2 Sundays, 25th / 26th December and 1st / 2nd January PRIMARY ROUTES 9.30am

3.8 **TREATMENT OF DIVERSION ROUTES.**

Where a road, including a trunk road, is closed to traffic due to either planned works or an emergency situation then the agreed diversion route will be treated as follows.

Trunk Road Closure.

The agreed diversion route will be treated to Primary standard and signs erected at each end of the diversion and any other junctions with trunk roads, stating that there will be no overnight salting.

In an emergency situation and after Transport Scotland or its trunk road management and maintenance agents have notified the Council of the closure, every endeavour will be made to both treat the agreed diversion route appropriately and erect signs before the first overnight period.

Council Road Closure.

Any part of the agreed diversion route that is of a lower priority than the closed road will be treated to the same priority as the closed road.

4.0 TREATMENT OF FOOTWAYS, FOOTPATHS AND CYCLE WAYS.

Treatment for ice and light snow conditions on adopted footways, footpaths and cycle ways will be carried out as set out below. Each gritting route will take a significant length of time to complete. The length of time taken will vary from day to day depending on actual weather conditions.

4.1 NETWORK HIERARCHY

The following prioritised hierarchy will be used in determining the order of treatment of footways.

Priority	Description
	Main urban shopping centres.
PRIMARY	Primary cycleways.
SECONDARY	Footways serving main urban areas, schools, hospitals and minor shopping

	areas.	
	Sheltered Housing and locations of special need with known identified hazards.	
OTHER	Other footways as resources allow.	

4.2 TREATMENT TIMES - MONDAY TO SATURDAY

The winter maintenance service will be provided between 6am and 6pm and routes will be treated on a priority basis as resources permit

4.3 TREATMENT TIMES - SUNDAYS AND PUBLIC HOLIDAYS

A service will be provided between 7am and Noon on Primary routes only. There will be <u>no</u> service for footways on Christmas Day or New Years Day.

-- End of Policy Statement --

APPENDIX B

A836	Meikle Ferry Roundabout	John O'Groats	Р
A837	Invershin	Lochinver	Р
A838	Dalchork Junction	Tongue	Р
A894	Skiag Junction	Laxford Bridge	Р
A897	Helmsdale	Melvich	Р
A949	Dornoch	Bonar Bridge	Р
A99	Wick	John O' Groats	P
B874	Princes St Thurso	A9 Hoy Junction	Р
B876	A99 junction	A836 junction	Р
B877	High Street, Thurso	Shore Street, Thurso	Р
B9168	Dornoch War Memorial	Trentham	Р
B9176	Struie Road		P
C1001	Glengolly	Reay	P
C1025	Mountpleasant Road, Thurso		Р
C1041	Willowbank, Wick	Church Street, Wick	P
C1073	Macarthur Street, Wick	Northcote Street	Р
C1077	A9	B877	Р
C1081	Lovers Lane, Thurso		Р
U1344	Airport Road, Wick	Wick Industrial Estate Road	Р
U3261	Embo Road		Р
U3311	Dornoch	Embo junction	Р
U3420	Ackergill Street, Wick		Р
U3458	Bankhead Road, Wick		Р
U3494	St Fergus Road, Wick		Р
U3500	Coach Road, Wick		Р
U3558	Stafford Terrace, Brora		Р
U3603	Martha Terrace, Wick		Р
U3624	North Murchison Street, Wick		Р
U3632	River Street, Wick		Р
U3647	Scalesburn, Wick		Р
U3651	Shore Lane, Wick		Р
U3660	Wellington Street, Wick		Р
U3664	Whitechapel Road, Wick		Р
U3805	Station Road, Wick		Р
U4003	Castlegreen Road, Thurso		Р
U4070	Janet Street, Thurso		Р
U4088	Millbank Road, Thurso		Р
U4135	Riverside Road, Thurso		Р
U4313	Provost Cormack Drive, Thurso		Р
U4341	Henderson Street, Thurso		Р
U4343	Provost Sinclair Road, Thurso		Р
U5063	Sir John's Square, Thurso		Р

B855	Dunnet	Brough	S
B869	Lochinver	Newton	S
B870	B876 junction	B874 junction	S
B874	A9 Hoy junction	A99 Junction	S
C1006	Wester Bridge - Greenland Road		S
C1010	Mey - Skarfskerry - Whitebridge road		S
C1018	Westerdale	Halkirk	S
C1019	Old Caithness Road		S
C1025	Mountpleasant	Durran	S
C1026	Skelbo Station	Dornoch	S
C1030	Gower Street, Brora		S
C1033	B876 junction	Greenland	S
C1033	Upper Gills	Everley	S
C1037	Hastigrow	Slickly Road junction	S
C1038	Achnhuie	Rovie Lodge	S
C1041	Broadhaven Road, Wick	Staxigoe	S
C1042	Rearguhar	Birichen	S
C1045	Main Street, Lybster	Jcn A99(T)	S
C1046	Gartymore	West Helmsdale	S
C1048	Castletown - Durran Mains road		S
C1049	Evelix	Rearquhar	S
C1057	Thrumster/Haster Road, Jcn A99(T)	Puldagon	S
C1058	Doll to Kilmain Road		S
C1061	Duncansby Road, A99 jcn	Beil Road junction	S
C1069	Poolhoy to Wester road		S
C1074	Altass Road		S
C1085	Gills West Branch Road		S
C1089	Dunbeath Brae Road (including to war memorial)		S
C1102	A839 junction	Schiberscross junction	S
C1103	Poles	Skelbo Station Road	S
C1109	Rosehall Link Road		S
C1138	Carron Bridge	Baldounie	S
C1140	Baldounie Bridge	Gledfield	S
C1148	Link Road A897	A9(T)	S
C1247	Brough	Barrock	S
U1053	Achmelvich Road		S
U1065	Latheronwheel - Braehungie Road, jcn A99(T)	Boultach	S
U1237	Puldagon - Newton - Whitebridge Road		S
U1280	Wester Watten - Newton Road		S
U1300	Gersa - Halcro road		S
U1316	Myrelandhorn/Quoybrae road		S
U1553	Auckengill Township Road		S
U1557	Freswick/Skirza Road		S

U1609	Seater/Canisbay/Hill of Warse Road		S
U1613	Kirkstyle - Canisbay Road		S
U1633	Mey Road		S
U1707	Lochend Road		S
U1755	Bowermadden - Gillock Road		S
U1802	Dunn - Lannergill Road		S
U1865	Braal Terrace		S
U1871	Halkirk/Plocan Road		S
U1913	Plocan - Brawlbin - Dorrery Road		S
U1927	Brawlbin - Shurrery Road		S
U2052	Forss	Achreamie	S
U2066	Buldoo/Achreamie Road		S
U2105	Forss - Westfield Road		S
U2110	Lythmore Road		S
U2144	Newlands of Geise - Langland Road		S
U2158	Holburn Head Road - round loop St Clair Ave/Holburn Place		S
U2188	Weydale Road		S
U2196	Sordale - Hilliclay Road		S
U2202	Knockarthur Road		S
U2211	Muie Road		S
U2220	Stonegun	Sibmister	S
U2247	Acheilidh	Inchcape	S
U2257	East Langwell Road		S
U2385	Munro's Bridge	West Helmsdale	S
U2390	Link Road U2385	U2394	S
U2394	Link Road C1148	C1046	S
U2485	Wick Industrial Estate		S
U2532	Lower Marrel Road		S
U2560	Marrel Road		S
U2766	Lothmore Road		S
U2780	Portgower Old Village Road		S
U2847	Johnstone Place, Brora		S
U2851	Johnstone Crescent, Brora		S
U2855	Tarbet Crescent, Brora		S
U2859	Seaforth Place, Brora		S
U2894	Dudgeon Par drive, Brora		S
U2929	Doll School Road		S
U2933	East Doll Road		S
U3103	Dunrobin Glen Road	Argo Terrace	S
U3140	Nursery Road, Backies		S
U3166	Backies Road, Golspie		S
U3299	Ardshave Road		S
U3316	Torboll Street		S

U3470	Battery Road, Wick		S
U3497	Cairndhuna Terrace, Wick		S
U3520	Girnigoe Street, Wick		S
U3521	A9(T)	Torboll Road	S
U3521	Lairg Road	Bonar Bridge Primary School	S
U3523	Glamis Road, Wick		S
U3541	Harrow Hill, Wick		S
U3547	Henrietta Street, Wick		S
U3551	Hill Avenue, Wick		S
U3557	Hospital Road, Wick		S
U3560	Huddart Street, Wick		S
U3561	Croik Manse Road		S
U3564	Baldounie Bridge	Amat	S
U3565	Kenneth Street, Wick		S
U3577	Leishman Avenue, Wick		S
U3618	Newton Road, Wick		S
U3637	Roxburgh Road, Wick		S
U3649	Seaforth Avenue, Wick		S
U3654	Smith Terrace, Wick		S
U3659	Wellington Avenue, Wick	Battery Road	S
U4017	Dale Road, Thurso		S
U4057	Heathfield Road, Thurso		S
U4064	Howburn Road, Thurso		S
U4115	Park Avenue, Thurso		S
U4119	Pennyland Drive, Thurso		S
U4151	St Andrews Drive, Thurso		S
U4293	Thorfinn Terrace, Thurso		S
U4299	Towerhill Road, Thurso		S
U4305	West Church Street, Thurso		S
U5431	Thurso Business Park		S

APPENDIX C

