6 LAND USE

6.1 INTRODUCTION

This chapter describes the land uses in proximity to the proposals and appraises the effects on these including footpaths and footways[72], public transport, property, community land and businesses in the vicinity of the scheme corridor, which could arise from development of the proposals. Key features described in the text are shown on Figure 6.1.

6.2 SOURCES OF INFORMATION

Information for the assessment was gathered from:

- site visits by the team;
- consultations with residents in the area, local people, public utility companies and relevant agencies and organisations (see Section 1.6.3 and Annex A);
- guidance within the Design Manual for Roads and Bridges: Volume 11, Section 3, Part 6; and
- the 1:25 000 Ordnance Survey (OS) map, Loch Lomond North (Explorer 364).

6.3 CONSULTATIONS

Key issues raised by consultees included:

- the impact of the bypass on the West Highland Way and existing path links should be considered and safe pedestrian access across the road provided (LLTNP, November 2006 and December 2007);
- the Strathfillan to Glendochart cycle route is proposed for 2007/2008, a section of which runs through Crianlarich (LLTNP, March, 2007);
- that a forest road access will be needed in the future for Ewich Forest and it would be sensible to build this into the bypass design. The best location for access would be from the southern roundabout (Forestry Commission, December 2007);
- any trees felled or fence removed as part of the proposals should be cut far enough back to present an attractive forest edge and allow compensatory amenity planting (Forestry Commission, December 2007); and
- there are a number of existing water mains at various locations within the proposed works. Some of these could need to be realigned/re-routed (Scottish Water, April 2007).

6.4 BASELINE

6.4.1 Introduction

The proposals are located in Crianlarich in the Loch Lomond and Trossachs National Park, north west of Stirling (see Section 1.1). The bypass would skirt the western side of the village which is situated between the junction of the A85(T) and the A82(T) at the edge of the floodplain of the River Fillan (see Figure 6.1). Surrounding land uses in the area include extensive areas of forest on the lower slopes of the hills surrounding the village and grazing land in the river valley.

6.4.2 Road and Rail Network

Crianlarich is at the junction of the A85(T) and A82(T) roads. The A82(T), running from Glasgow through Fort William up to Inverness is the main road link to the

[72] A footpath is a pedestrian route remote from the road and a footway is adjacent to the road carriageway

west of Scotland. The A82 is some 270km in length and is mainly a two lane single carriageway of changeable quality with no alternative routes within its corridor. The A85 runs from Perth, through Crianlarich to Oban.

Crianlarich is also at the junction of three railway lines, the West Highland Line from Glasgow, runs into Crianlarich from the south where it then divides into the Oban Branch Line which runs north west out of the village and the Fort William Branch Line, which runs north out of the village over the Glenbruar Viaduct and the Fillan Viaduct (see Figure 6.1 and Photograph 5, Annex E).

The A82(T) enters Crianlarich from the south as the Glenfalloch Road, passes under the West Highland Line railway bridge and meets the Callander Road at a T-junction in the centre of the village. It then turns north west becoming the Tyndrum Road, passing under the restrictive[73] Oban Branch Line railway bridge and runs out of the village past Tyndrum Terrace and the residential property the Shieling. Minor access roads to properties and local amenities are located on both sides of the road.

6.4.3 Public Transport

Crianlarich is accessible by train with four to five trains from Glasgow to Oban and Mallaig stopping daily in the village.

Bus services run by CityLink connect Crianlarich to Glasgow, Edinburgh, Oban, Fort William (and Skye) and Perth etc with two bus stops in the village, one by the Crianlarich Hotel and one by the public toilets (see Figure 6.1). Crianlarich is a popular destination for coach tours that may stop over at the Crianlarich Hotel.

6.4.4 Pedestrian Routes, Cycleways and Bridleways

The National Catalogue of Rights of Way[74] includes three records of rights of way including:

- CS374, a spur off the West Highland Way into the village;
- CS316, to the west and north of the village; and
- CS317, access through gates located beside the Glenbruar Viaduct on the north side of Callander Road offering access to the north and westwards along the bank of the River Fillan.

There are also circular footpaths in the Crianlarich community woodland area (see Section 6.4.5) and the footways within the village are used by local residents and tourists to access community facilities (e.g. local shop, public toilets) and destinations such as the youth hostel, Crianlarich Station, bus stops and the West Highland Way spur. The area around the River Fillan to the east and west of the Glenbruar Viaduct is used for recreational walking and for access by fishermen.

A proposal to extend the Glen Dochart Cycle Route via an off-road path between Crianlarich and Tyndrum has been consented and is programmed for construction in 2008. A planning application for a further extension of the cycle route through the village on the Tyndrum Road and Callander Road has been lodged with the National Park Planning Authority (see Section 5.7).

[73] The Oban Branch Line railway bridge is on a tight bend with poor visibility. It is also quite narrow
[74] National record of public rights of way within England, Wales and Scotland, http://www.way-finder.co.uk/

6.4.5 Forestry

There are two large blocks of commercial plantation forestry in the vicinity of the scheme:

- Inverardran Forest, to the east and south of the village is, comprised of mainly older conifer plantations. Some of the forest has been recently felled to the west of the village; and
- Ewich Forest, to the west and north of the village, comprising immature forestry plantations and open ground.

A community woodland (the Crianlarich Woodland) was established in 1998 in the area north of Inverardran Forest with a public car park, footpaths, signing and interpretation panels (see Section 6.4.4).

6.4.6 Agriculture

There is land used for grazing in the valley of the River Fillan to the north of the village but the bypass would not cross any land in agricultural production.

6.4.7 Residential, Commercial and Community Property

Most properties in Crianlarich are sited alongside the main and local roads. Table 6.1 summarises the properties within the village of Crianlarich (see also Figure 6.1)[75].

Table 6.1: Residential, Commercial and Community Properties within the Village of Crianlarich

Distance from Road Edge[76]	East and North of the A82	West and South of the A82
0 – 50m	Sharneil No 3 Glenfalloch Road Northumbria Bed & Breakfast (B&B) and chalet 1 & 2 Glenfalloch Road Hillview B&B Station House Crianlarich Station Dunvegan Block Glenbruar B&B B&B opposite Branch Cottage Laurelbank Ardlea The Shieling	Stronua House Stronua Cottage Crianlarich Hotel Branch Cottage 1 – 3 Willow Brae 1 – 7 Willow Square Carna Cottage Strathview Dunfraoich 1, 3, 5, 7 9 and 11 Tyndrum Terrace
50 – 100m	Crianlarich Youth Hostel Crianlarich Engine Shed 1-6 Strathfillan Terrace 1-5 Strathmore Terrace 3-6 Railway Cottages	Gleann Fiadh Lodge 9 & 11 Willow Square
100 - 150m	1 & 2 Railway Cottages Crianlarich Parish Church Glendale Crianlarich Shop and Post Office Crianlarich Police Station	

[75] NB property records are as accurate as possible but there could be occasional properties which have not been identified

[76] The distance of properties from the edge of the A82 has been provided to help locate the property and understand ho it could be affected by the proposals

Distance from Road Edge[76]	East and North of the A82	West and South of the A82
	Crianlarich Community Hall Crianlarich Fire Station	
150 – 200m	Crianlarich Primary School Children's Nursery	
200 – 300m	Rod and Reel Public House and chalets 1 & 2 Meadowbank Craigbank Glendaran	

6.4.8 Other Sensitive Properties

Other sensitive properties within Crianlarich include:

- Crianlarich primary school;
- Crianlarich parish church; and
- Crianlarich village hall.

6.4.9 Private Water Supplies

No public or private groundwater or surface water abstractions have been identified in the area of which could be affected by the proposals. Five septic tanks have been identified within the village, one of which (belonging to the hotel) is now out of use (see Section 8.9.1 and Appendix 8.1).

6.4.10 Development Land

There are several areas within Crianlarich designated for development in the Stirling Council Local Plan (see Section 5.6).

6.4.11 Utilities

Table 6.2 summarises the utilities located in the scheme area. The key facilities are shown on Figure 6.2.

Table 6.2: Existing Utilities

Utility Provider	Plant Location
SSE Power Distribution (part of Scottish and Southern Energy)	11kV overhead lines coincident with proposed scheme route for approximately 800m between chainages 400 and 1150
Openreach (part of BT)	At the north roundabout and tie-in, overhead distribution points (mounted on telephone poles) and overhead cables are located at the existing entrance to The Shieling property and similarly at Tigh Na Struith
Scottish Water	A 4' water main/pipe crosses beneath road alignment at approximate chainage 25

6.5 ASSESSMENT METHODOLOGY

To assess the overall significance of the potential effects of the proposed scheme on land use and property an assessment has been made of the sensitivity of the resource to impact and magnitude of potential impacts (see Section 1.6.4).

The assessment of land use effects has considered:

- current land uses within the scheme corridor;
- surrounding land uses in the corridor;
- the implications of the loss of land for development; and
- the compatibility of the new land use with existing land uses.

The magnitude of the impacts and the sensitivity of the land uses and properties have been assessed qualitatively. The assessment of the magnitude of impact is based upon the anticipated land-take and the distance of the property from the scheme. Issues such as severance, access to and from properties and changes in use of the land are also identified and considered in the magnitude assessment (see also Section 15.5). The assessments of sensitivity are based on the quality and use of the land affected, and the type of property affected e.g. residential, commercial and community. The assessment of magnitude and sensitivity has been based upon indicative criteria and professional judgement.

Table 6.3: Sensitivity of Receptor

Sensitivity	Characteristics and Examples
High	• Residential property • Land attached to a residential property • Property or land used by the community e.g. schools, community hall etc • Land attached to a community property • Core path, long distance path and national cycle route
Medium	• Other footpaths, bridleways, cycleways • Land designated for development
Low	• Commercial property • Land attached to commercial property • Utilities

Table 6.4: Magnitude of Impact

Magnitude of Impact	Impact Description (one or more criteria)
High	• Demolition of property • Significant land take from property
Medium	• Moderate land take from property
Low	• Minor land take from property
Negligible	• Negligible change to any of the above factors

Professional judgement and awareness of the relative balance of importance between sensitivity and magnitude allows the overall significance of impact to be assessed in accordance with the general approach and methods adopted in this document and the following table.

Table 6.5: Significance of Effect

Magnitude	Sensitivity		
	High	**Medium**	**Low**
High	Major	Moderate/Major	Moderate

Magnitude	Sensitivity		
	High	**Medium**	**Low**
Medium	Moderate/Major	Moderate	Minor/Moderate
Low	Minor/Moderate	Minor	None/Minor
Negligible	Minor	None/Minor	None

The table provides a guide as to the significance of impact, although it should be noted that professional judgement is used to determine the final significance category. The significance of impact is assessed taking account of agreed mitigation to define residual effects (see Section 1.6).

6.6 POTENTIAL IMPACTS

6.6.1 Permanent

Potential permanent impacts include:

- direct and indirect impacts to properties including demolition, interruption of access etc;
- direct and indirect impacts to current land uses including loss of commercial forest and threat of windblow to the remaining forest;
- permanent loss of land to the proposals;
- incompatibility of new land uses with existing land uses;
- impacts to utilities in the area; and
- interruption to pedestrian routes, cycleways and bridleways, including the West Highland Way spur.

6.6.2 Construction

Potential construction impacts include:

- conflicts between construction activities and users of the existing A82 and A85;
- interruption to existing land uses by ongoing construction activities;
- increased hazards to users of the area from construction activities; and
- interruptions to services through interference with utilities.

6.6.3 Operational

Potential operational impacts include:

- improved travelling time and driver safety;
- interference with current activities because of changed traffic patterns.

6.7 MITIGATION MEASURES

LU1. All redundant areas of road following construction of the new road would be grubbed up unless consultation with the landowner identifies these should be left for other purposes.

LU2. The West Highland Way spur would be realigned and access under the road provided by an underpass.

LU3. Access to the West Highland Way would be maintained during construction and any diversions well signed.

LU4. All residents and businesses in proximity to the works would be informed about the details of the final proposals and the construction timetable in advance of construction beginning.

LU5. The land take for the proposals would be kept to the minimum necessary for safe construction and mitigation of the works.

LU6. All utilities which would be affected by construction would be protected to ensure that the supplies of water, electricity, telephone etc to properties would be maintained. If any short interruptions were required to join in new connections to the site affected parties would be notified in advance.

LU7. Forestry would be felled to a wind-firm edge as agreed with the Forestry Commission.

6.8 RESIDUAL EFFECTS

6.8.1 Permanent

The construction of the scheme would result in a change of land use of some 13[77] ha (of which 3ha are outwith the site boundary). Landtake would be mainly from degraded peatland and commercial forestry (see Section 9.10.1). This total includes the land required for construction of earthworks, the new road, tie ins and roundabouts, road drainage (including filter trenches, and detention basins) and land for essential mitigation, principally new landscaping and noise bunding (Section 10.7 and 13.7). There would be no loss of land from gardens of properties. Landtake is under different ownerships but is not in formal landuse. No public open space would be affected by the proposals. The land take is not considered significant.

No property demolitions would be required for construction and no residential property would lose land as a result of the scheme. No access to property would be permanently disrupted. Access within Crianlarich for traffic and pedestrians would be improved due to the reduction of traffic in the village. There would be no direct land use effects on any of the sensitive properties within the village. The assessment of the potential effects on the setting of Crianlarich Parish Church as a B Listed Building is included in Section 11.8.1.

The scheme would result in the permanent loss of a 5ha of plantation forestry. 2ha of planting would be felled to facilitate the safe construction of the scheme. An additional 3ha of forestry outwith the land made available for the scheme would be felled to take the remaining forestry back to a wind-firm edge and reduce the risk of future windblow. Compensatory planting would be provided by Transport Scotland in this area (see Section 10.7). This land would remain in ownership of the Forestry Commission and the Commission would be responsible for maintenance of the new planting. This is not considered significant in land use terms because of the very small area of immature timber that would be lost. The ecological and landscape significance of the change in land use are considered in Sections 9.10 and 10.8 respectively.

The proposed bypass crosses a spur to the West Highland Way. Access would be maintained by realigning the path by some 100m to the south. The realigned path would cross the new road by means of an underpass (see Figure 3.1a) and the impacts of the proposals mitigated.

There is potential for the north roundabout to impact on the proposals for a extension to the Crianlarich to Tyndrum cycle route (see Section 5.7). Whilst these proposals have not yet been consented, provision for cyclists to access the village at the northern roundabout has been designed to tie into the extension and therefore no significant impact on the proposed cycle route is predicted.

[77] All landtake figures in the ES are approximate as exact figures would depend on the details of the final design

A number of utilities would require to be diverted as part of the works. Table 6.6 lists the utilities which would be affected and the proposed mitigation works. If any short interruptions in utilities were required during construction all residents, businesses and community facilities would be notified in advance. The overhead electricity lines would be realigned and undergrounded within the road verge. Where the disruption would affect local residents they would be informed prior to construction and all services would be reinstated as soon as possible.

Table 6.6 Utilities Affected by the Works

Utility Provider	Schedule of Required Diversionary Works
SSE Power Distribution (part of Scottish and Southern Energy)	An 11kV overhead cable is located adjacent to the proposed mainline of the road scheme. SSE would propose to utilise this existing overhead line where possible. Where this was not possible, the overhead line would be replaced with an underground cable
Openreach (part of BT)	Diversion of Openreach apparatus would be required at north and south tie-ins
Scottish Water	Diversion of Scottish Water apparatus would be required at both roundabouts and their tie-ins to the existing road. Schedule of Works proposed by Scottish Water include: 2 no. 125mm diameter high performance polyethylene (HPPE) mains laid inside 2 no. 180 ducts HPPE ducts under road extending beyond verge at south tie-in 125mm diameter HPPE main to be constructed in verge towards southern tie-in New meter and 20m of 100mm diameter HPPE main to be constructed at south roundabout Possible requirement for a new 32mm HPPE communication pipe to the Shieling from 11 Tyndrum Terrace at north roundabout and tie-in Possible requirement for diversion of main and terminal hydrant, requiring 125mm diameter HPPE main at northern tie-in with Tyndrum Terrace

6.8.2 Construction

Access to all properties would be maintained during construction and access to the West Highland Way via the spur would be maintained although a diversion could be required. The contractor would be required to maintain traffic flow on the existing A82, using traffic management where appropriate. Information on construction activities and timing would be provided to residents and those passing through the area before and during construction. Road signs directing pedestrians, cyclists and equestrians would be used where appropriate to ensure safety at all times.

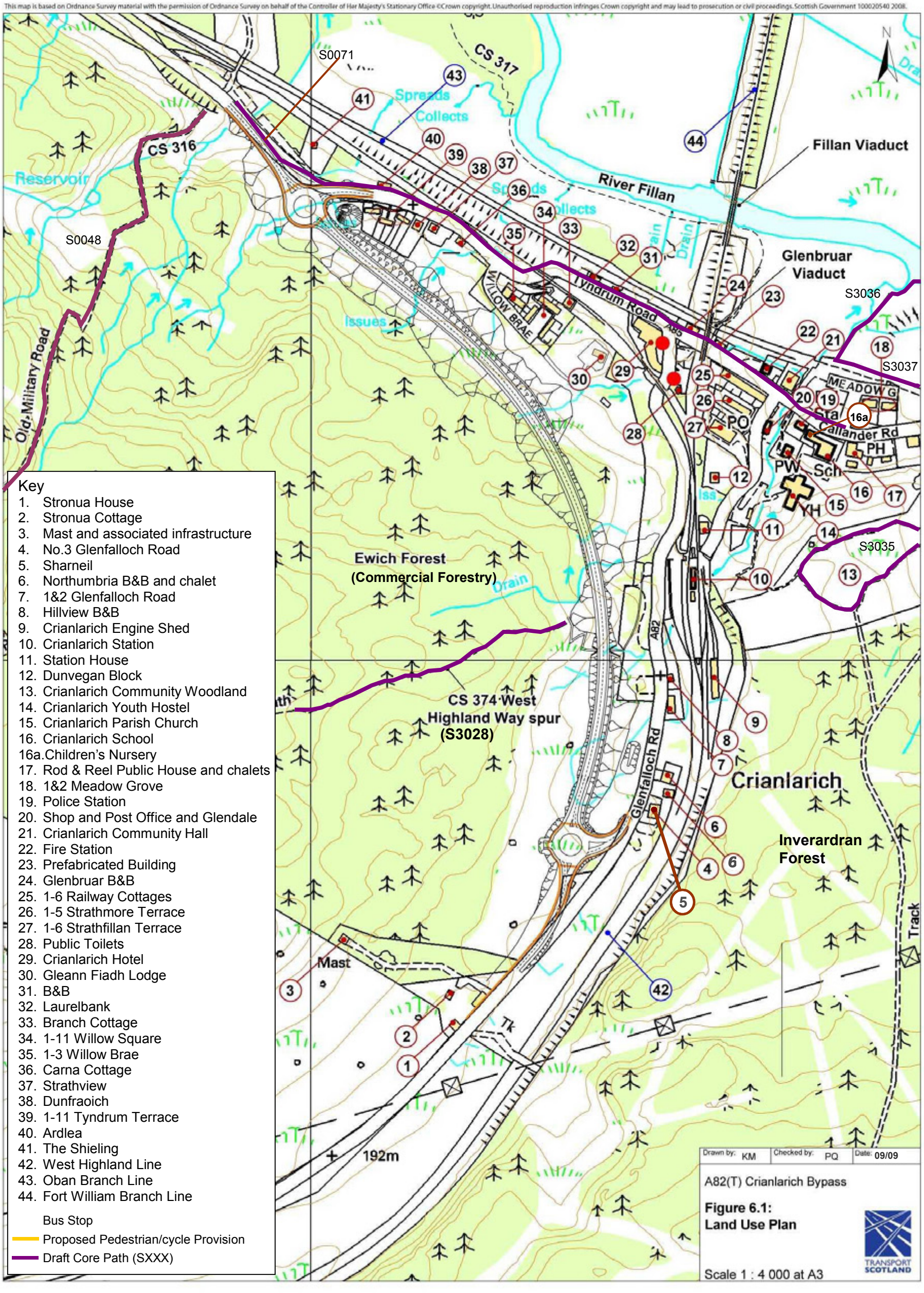
There would be some disruption to local residents and recreational visitors during construction (see also Sections 12.9 and 15.8) but with implementation of all committed mitigation effects would be minor for most of the construction period.

6.8.3 Operational

The construction of the scheme would result in improved journey times on the A82(T) and reduce traffic volumes through the village with local and strategic benefits (see Section 4.3.1 and Section 16.8). Maintenance activities would be mainly within the road corridor and are unlikely to affect residents and businesses in any significant way. Current bus services would not be affected but could benefit from easier passage through the village.

6.8.4 Summary

- The construction of the scheme would result in the change of land use of some 13ha (of which 3ha are outwith the site boundary).
- Construction of the scheme would result in the realignment of the spur linking Crianlarich to the West Highland Way by some 100m to the south. The realigned path would pass under the new road by means of an underpass.
- Some 2ha of plantation forest would be removed to facilitate construction and a further 3ha would be felled (in agreement with the Forestry Commission) to ensure a wind-firm edge for the remaining forest. Felling of this small amount of immature commercial timber is not considered to be significant.
- There are some 67 properties within 300m of the scheme of which 57 are residential and ten are commercial/community buildings. No property demolitions would be required for construction of the scheme and there would be no land lost from any gardens of properties or from public open space.
- Access to all properties would be maintained during construction and operation of the scheme.
- There would be benefits to local and strategic traffic once the bypass was operational.



Key

1. Stronua House
2. Stronua Cottage
3. Mast and associated infrastructure
4. No.3 Glenfalloch Road
5. Sharneil
6. Northumbria B&B and chalet
7. 1&2 Glenfalloch Road
8. Hillview B&B
9. Crianlarich Engine Shed
10. Crianlarich Station
11. Station House
12. Dunvegan Block
13. Crianlarich Community Woodland
14. Crianlarich Youth Hostel
15. Crianlarich Parish Church
16. Crianlarich School

16a. Children's Nursery

17. Rod & Reel Public House and chalets
18. 1&2 Meadow Grove
19. Police Station
20. Shop and Post Office and Glendale
21. Crianlarich Community Hall
22. Fire Station
23. Prefabricated Building
24. Glenbruar B&B
25. 1-6 Railway Cottages
26. 1-5 Strathmore Terrace
27. 1-6 Strathfillan Terrace
28. Public Toilets
29. Crianlarich Hotel
30. Gleann Fiadh Lodge
31. B&B
32. Laurelbank
33. Branch Cottage
34. 1-11 Willow Square
35. 1-3 Willow Brae
36. Carna Cottage
37. Strathview
38. Dunfraoich
39. 1-11 Tyndrum Terrace
40. Ardlea
41. The Shieling
42. West Highland Line
43. Oban Branch Line
44. Fort William Branch Line

Bus Stop

Proposed Pedestrian/cycle Provision

Draft Core Path (SXXX)

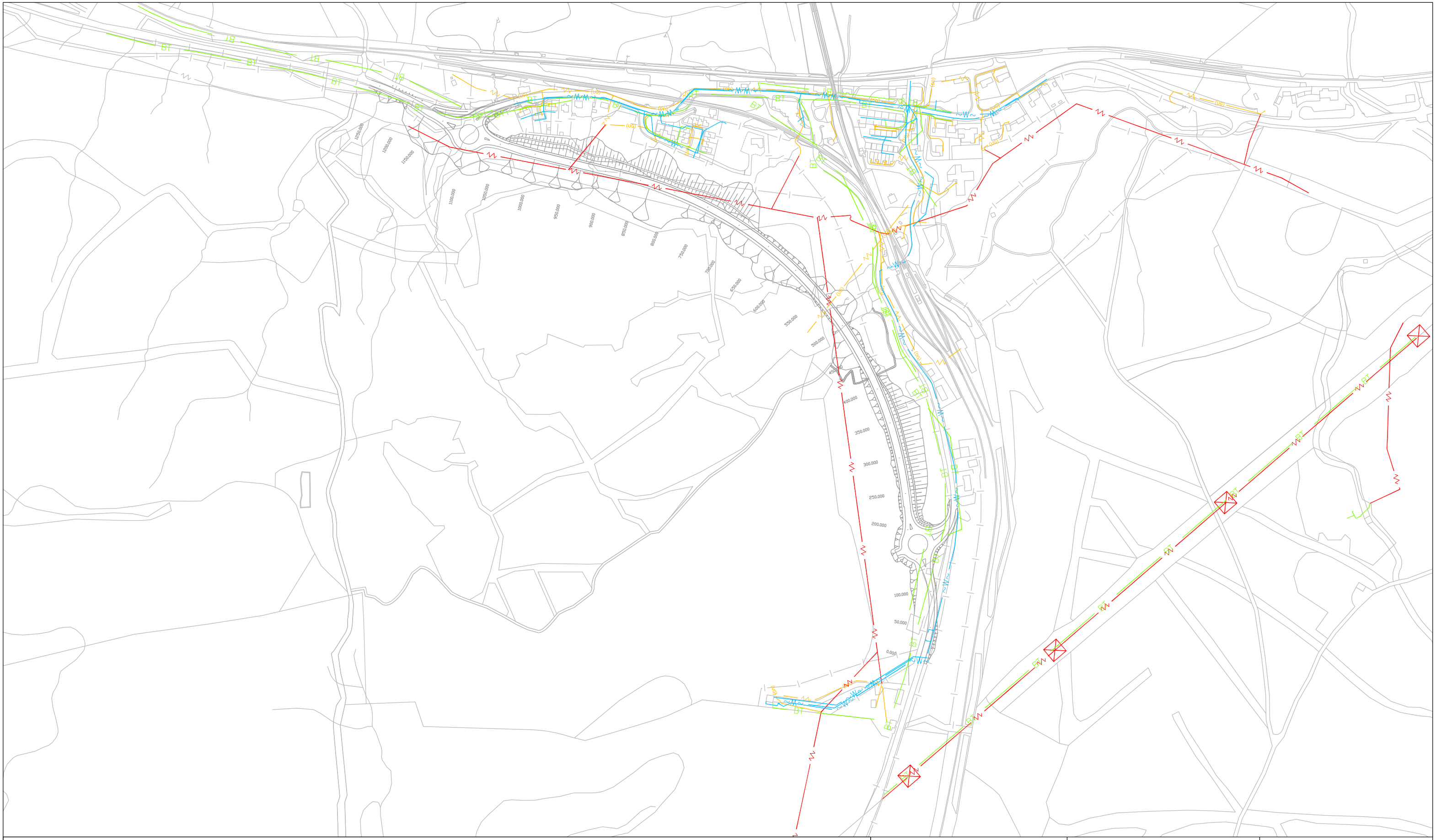
Drawn by: KM	Checked by: PQ	Date: 09/09

A82(T) Crianlarich Bypass

Figure 6.1: Land Use Plan

Scale 1 : 4 000 at A3

TRANSPORT SCOTLAND



Key

BT BT	British Telecom (BT)
(UG) (UG) (UG)	Scottish and Southern Energy Under Ground (SSE)
	Scottish and Southern Energy Above Ground (SSE)
~W~ ~W~	Scottish Water

DRAWN BY:	CHECKED BY:	DATE:
INS	PQ	08/08

A82(T) Crianlarich Bypass

Figure 6.2: Utilities

Scale: Not to Scale

TRANSPORT SCOTLAND