

# Aberdeen Western Peripheral Route (AWPR)

A90 Cycle Routes

Murcar North

Feasibility Study

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# 1 INTRODUCTION

The A90 Balmedie – Tippetty (B-T) scheme involves the upgrading of 3 km of existing dual carriageway between Blackdog and Balmedie, and the construction of 9 km of new dual carriageway north of Balmedie to tie-in with the existing dual carriageway at Tippetty. In 2010, Scottish Ministers indicated that the B-T improvement would be combined with the Aberdeen Western Peripheral Route (AWPR). Subsequently, Aberdeen City Council has been appointed to act as Agent, on which basis the Council will act as the procuring Authority for the AWPR/B-T Project. Furthermore, it was recommended that Transport Scotland should give consideration to measures for encouraging journeys by bicycle between Balmedie and Aberdeen, taking cognizance of the proposed AWPR and B-T schemes.

The structural department has been requested to carry-out the detailed design of the cycle path between Murcar North to Balmedie. From this report, we aim to determine the following:

- Existing land boundaries and the subsequent constraints/implications in the design of the proposed cycle paths.
- Existing utilities and the extent of provision required for new utilities.
- Existing drainage details and possible solution for drainage.
- Extent of topographical survey required to influence detailed design.

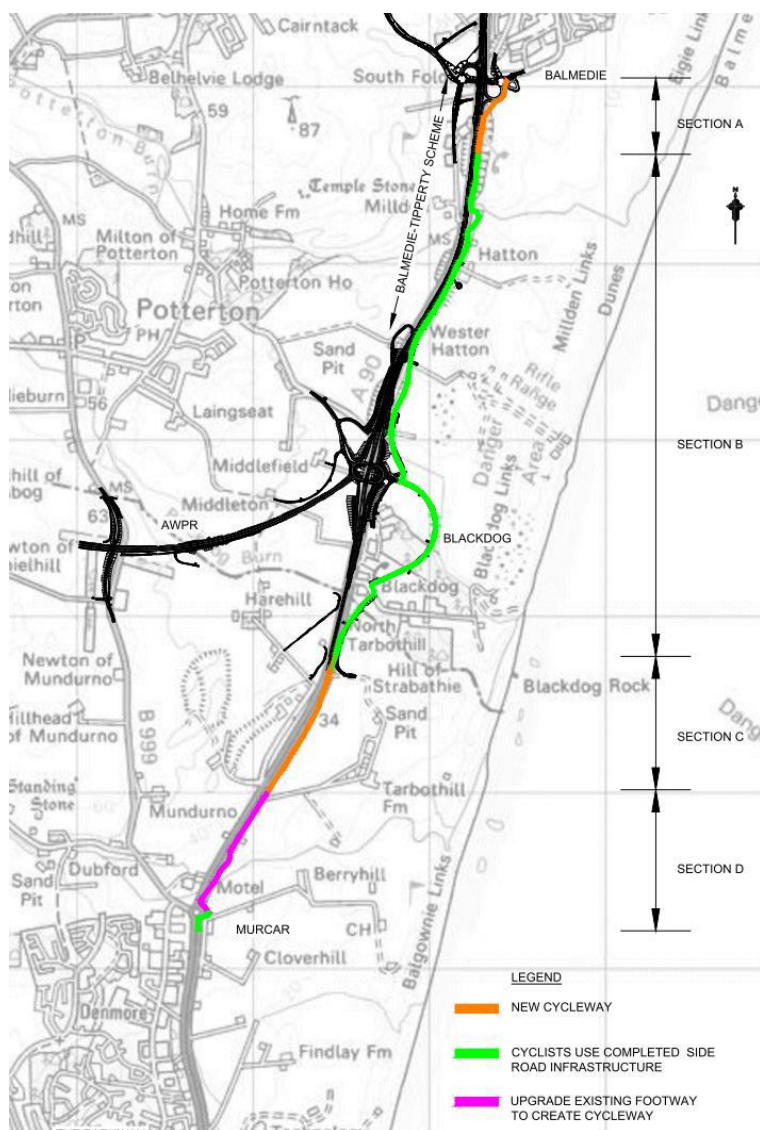


Figure 1.1 – Extent of cycle route (Extract from Cycle Context Report)

## 2 LAND CONSTRAINTS

Along this section the existing footpath is typically 1, 5m wide. There is an existing filter trench between the footpath and carriageway which is typically 1, 0m – 1, 2m.



Figure 2.1 – Existing footpath

Along the existing footpath there are 3 lightning columns and 11 road signs. These may need to be re-located. There are also sections with a lot of trees and bushes which will need removing or cutting back.



Figure 2.2 – Existing lightening columns.

There is an existing watercourse. It may not be possible to ensure that there is 1, 5m separation between the cycleway and the carriageway unless the cycleway is less than 3, 0m wide.



Figure 2.3 – Existing watercourse.



Figure 2.4 – Existing bridge.

It may be possible to link the new cycle path (yellow line) to the existing field road (green line). This would avoid the width restriction caused by the watercourse.



Figure 2.5 – Existing

The width between existing private building and carriageway is only 2, 6m. A possible is to install a safety cycle barrier along the side of the carriageway – about 25 m long.

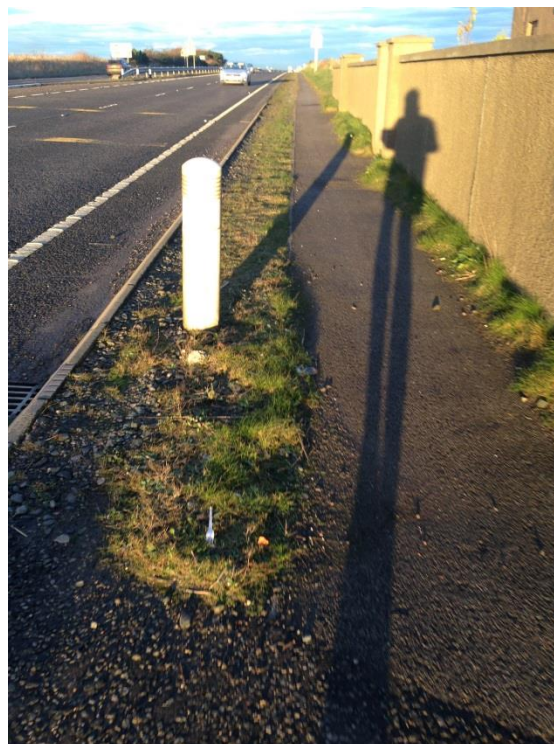


Figure 2.6 – Width restriction.

The solution for this section -cyclists dismount .



Figure 2.7 – Safety barriers.

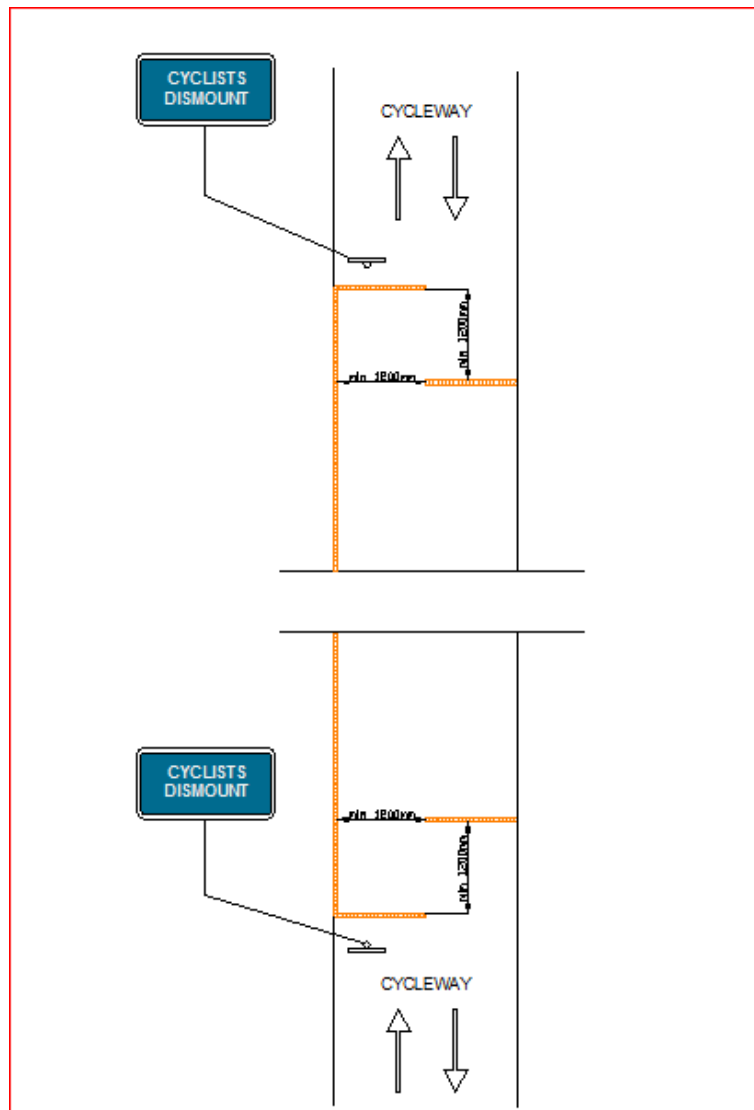


Figure 2.8 – Cyclist Dismount.

To gain 1, 5m separation between carriageway and cycleway in some places we could mark white thick line in variable distance from filter trench.



Figure 2.9 – Example of separation line.

There are existing vehicle restraint barriers. It may not be possible to ensure that there is 1, 5m separation between the cycleway and the carriageway. They need to be re-positioned. Some of them are stopping traffic falling into a water course another are located just before traffic junction.



Figure 2.10 – Existing vehicle restraint barriers.



There are areas where the adjacent ground slopes upwards away from the path. We will need to have a permission of field owners to excavate and re-grade up to 5 m.



Figure 2.11 – Slope



Figure 2.12 – Slope.

### 3 UTILITIES

The existing BT line is crossing twice our cycle route. First crossing is right before cottage houses and the second is on the junction with private farm road.

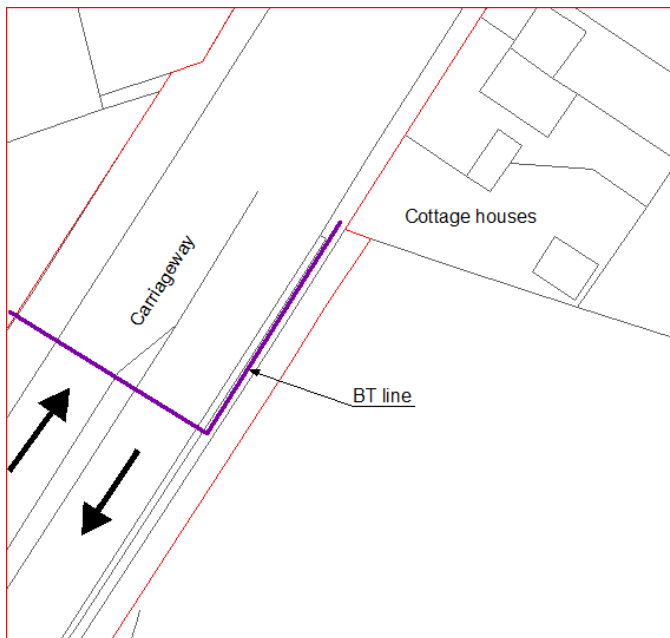


Figure 3.1 – BT line.

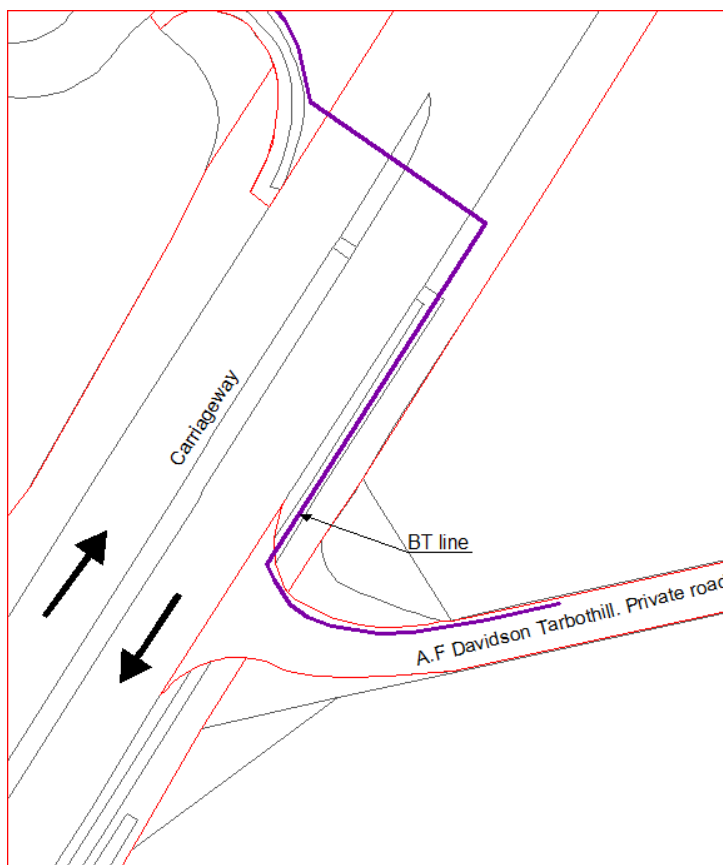


Figure 3.2 – BT line.

SSE connections.

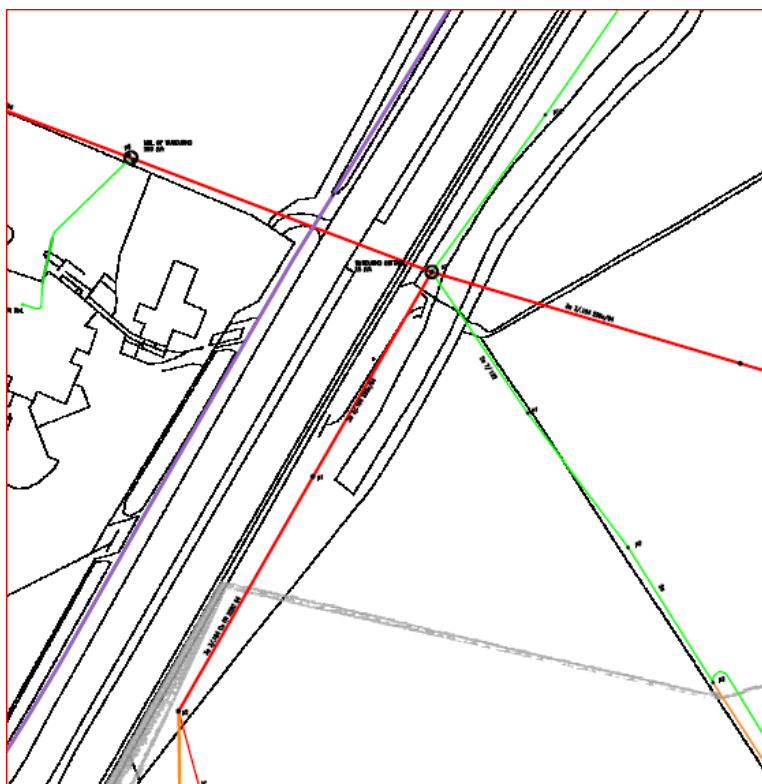


Figure 3.3 – SSE.

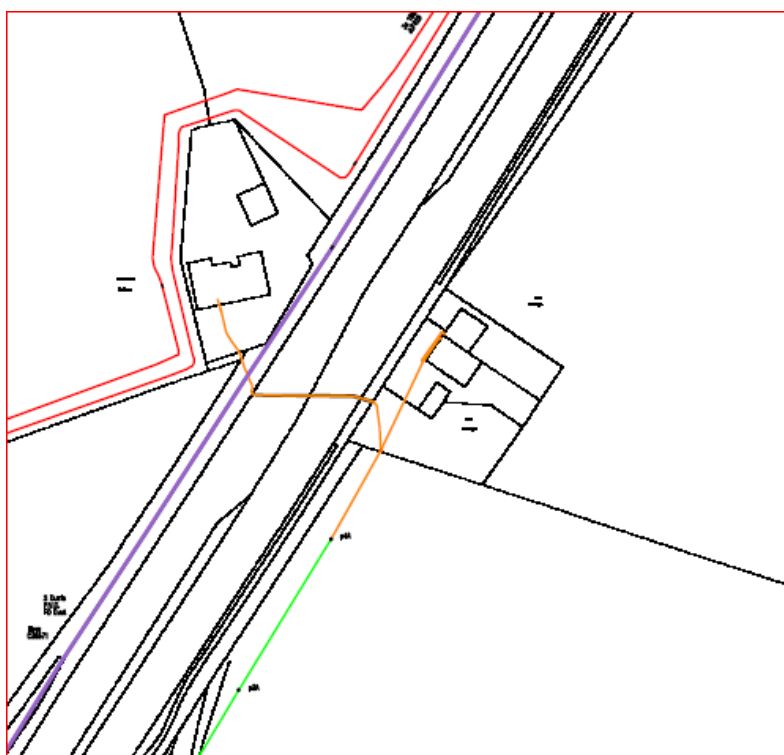


Figure 3.4 – SSE.

Gas line is extending along whole section.

#### 4 DRAINAGE

Existing filter trench to be remain and use as a hard separation between carriageway and cycleway.

#### 5 TOPOGRAPHICAL SURVEY REQUIREMENTS

Following details to pick up only of the eastern side of A90:

- The boundaries to land.
- Existing building positions.
- Road and path locations.
- Street furniture's (lamps post, road signs)
- Watercourses
- Contours
- Individual groups of trees, bushes.
- Road channels, top of kerbs, footpath.
- Boundary features – walls , fences.
- Manhole covers, gullies, gas covers, BT junction boxes – existing levels.
- Top and bottom of embankments.

#### 6 OPTIONS CONSIDERED

Proposed cycleway will be located adjacent to the existing filter trench which will be use as a hard separation. It would be a possible to construct cycleway 3.0 m wide almost in whole section. The cycleway width would be lower than 3.0 m only in two places where we have not enough room. There are: next to existing building and right above watercourse - see drawing S-2605349-001, (the minimum width will be around 1. 1 m) but within acceptable standards over a short distance.

There are two proposed options for new cycleway route. First option - see drawing S-2605349-003 showing two places with cyclist dismount. In the second option if it is possible to use existing field road would be there only one cyclist dismount next the existing building - see drawing S-2605349-005. That is means the second option would more suitable then first one regarding to safety and cyclist comfort.