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NORTH WEST CULLOMPTON TRANSPORT JUSTIFICATION REPORT

27/11/2014

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North West Cullompton Transport Justification Report

27/11/2014

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Table of Contents

1	Introduction	5
2	Western Access Road.....	6
3	Conclusions	8
	Appendices.....	9
	Appendix A – Drawings	10

1 Introduction

1.1.1 This report sets out the design process and option assessment associated with development of the masterplan access strategy.

1.1.2 The allocation of the North West Sector has been underpinned by the work carried out by Devon County Council in support of their representations to the Local Plan EIP. As part of that work a strategic level transport model was prepared, which considered the development options for Cullompton. This was summarised in their Written Representations to the EIP, in which they stated the following in relation to the principles of development and the access road through the site:

5. Western Development Access Route

5.1. Route

5.1.1. **The North West development site will be accessed by a through route which would connect with Tiverton Road at the southern end of the site and Willand Road at the northern end of the site, at the junction with Millennium Way.**

5.2. Design Principles

5.2.1. **The western development access route would be designed to Manual for Streets principles. It would be attractive for walking and cycling and would have residential frontages that would create a street environment that is characteristic of more than a traffic movement function.**

5.2.2. **The route would need to be suitable for use as a bus route. It is anticipated that an extension of the town bus service would serve the North West Development site by using this route.**

5.2.3. **The road layout, and how it integrates with walking and cycling routes, should be informed by a masterplan exercise.**

1.1.3 In the conclusions they then state

11.1.4. Development to the North West of Cullompton is acceptable and would require an access route with connections onto the existing highway network at Tiverton Road and Willand Road – the route must be suitable for future bus service provision. The access route can be established through a masterplan.

1.1.4 The endorsement of the strategy for the current allocation also needs to be considered in the knowledge of the issues around higher levels of traffic using Junction 28, which is an inevitable result of the allocation. The Highways Agency and Devon County Council have been cooperating on the design of improvements to Junction 28, which would accommodate the traffic generated by the current NW Cullompton allocation, along with the existing permitted developments in the area. It is understood that these improvements are to be implemented in the first quarter of 2015 and are planned on the basis of additional traffic movements with no Eastern Relief Road in place.

2 Western Access Road

- 2.1.1 With the principles of the Western Access Road accepted and with the necessary capacity improvements to junction 28 in hand during 2015 the primary issues to consider for the development are the evolution of the route of the Western Access Road and the form of the junctions at either end.
- 2.1.2 It was stated in the DCC reps that the route of the access road should be developed through the masterplan process. In accordance with this rationale for the NW Access Road, the layout has then been informed by the work that is underpinning the masterplan. This is particularly the physical constraints ie landscape and topography/ecology/flooding and then considered alongside the needs for the masterplan, ie land-use distribution, non-car access, optimum development layouts etc. The proposed layout of the Western Access Road is shown on Drawing 00782-GA-03 in Appendix A.
- 2.1.3 The topographical survey represents a major constraint and there is a need to achieve acceptable gradients for the road and footways, as well as minimising the requirement for earthworks along the road. This lead directly to an alignment that respected the existing contours of the land, that alignment was then considered against the various landscape and ecological constraints, particularly hedgerows and trees and the extent of flooding to the existing watercourses.
- 2.1.4 The form of the junctions at either end of the NW Access Road have then been considered.

Northern Junction

- 2.1.5 The original DCC proposal was that at the northern end the link road would come off the roundabout at the top of Millennium Way. The masterplan currently includes some employment land at the northern end of the allocation and it is proposed that this is accessed directly off the Millennium Way junction, with the junction for the NW access road moved further down Willand Road. The proposed northern junction is shown on Drawing 00782-PHL-05 and is included in Appendix A.
- 2.1.6 This avoids the need for the NW Access Road to cross Rull Lane, which is a partly sunken lane and would be consequently altered in character. It also however, enables a change in priority with southbound traffic on Willand Road being taken through a junction with a sweep onto the NW Access Road. This junction form combined with traffic calming further down Willand Road will assist in reducing the level of traffic driving into Cullompton Town Centre.
- 2.1.7 The nature of the traffic calming will need to be developed in more detail, but it will have the aim of reducing the attractiveness of traffic using Willand Road for through trips beyond Cullompton Town Centre.

Southern Junction

- 2.1.8 At the southern end there is a need for a junction onto Old Tiverton Road, for which a number of options have been considered. Firstly, the use of the existing stub connection built by Millwood Homes via Olympian Way. There is a significant concern over the standard of this junction and its appropriateness for the NW Access Road. The Millwood Homes access is shown on Drawing ATR-03, which shows a swept path analysis for the junction, and is included in Appendix A.
- 2.1.9 It is clear from the layout that has been constructed that the intention was to ultimately implement a roundabout with the existing tree in the centre of the roundabout island. However the levels of the central island necessary to accommodate the tree result in a significant impedence to visibility across the roundabout. Whilst it is accepted that the intention is for the access road to have a relatively low speed environment and hence lower visibility standards would apply, the visibility constraints would be sufficient to raise significant safety concerns.
- 2.1.10 Without a roundabout, the existing road width is not sufficient to accommodate two-way traffic, particularly with the intention to run buses along the access road and for the HGV access that will be

necessary to the local centre. It is concluded that the layout is too constrained for the level and type of traffic forecast to use the road.

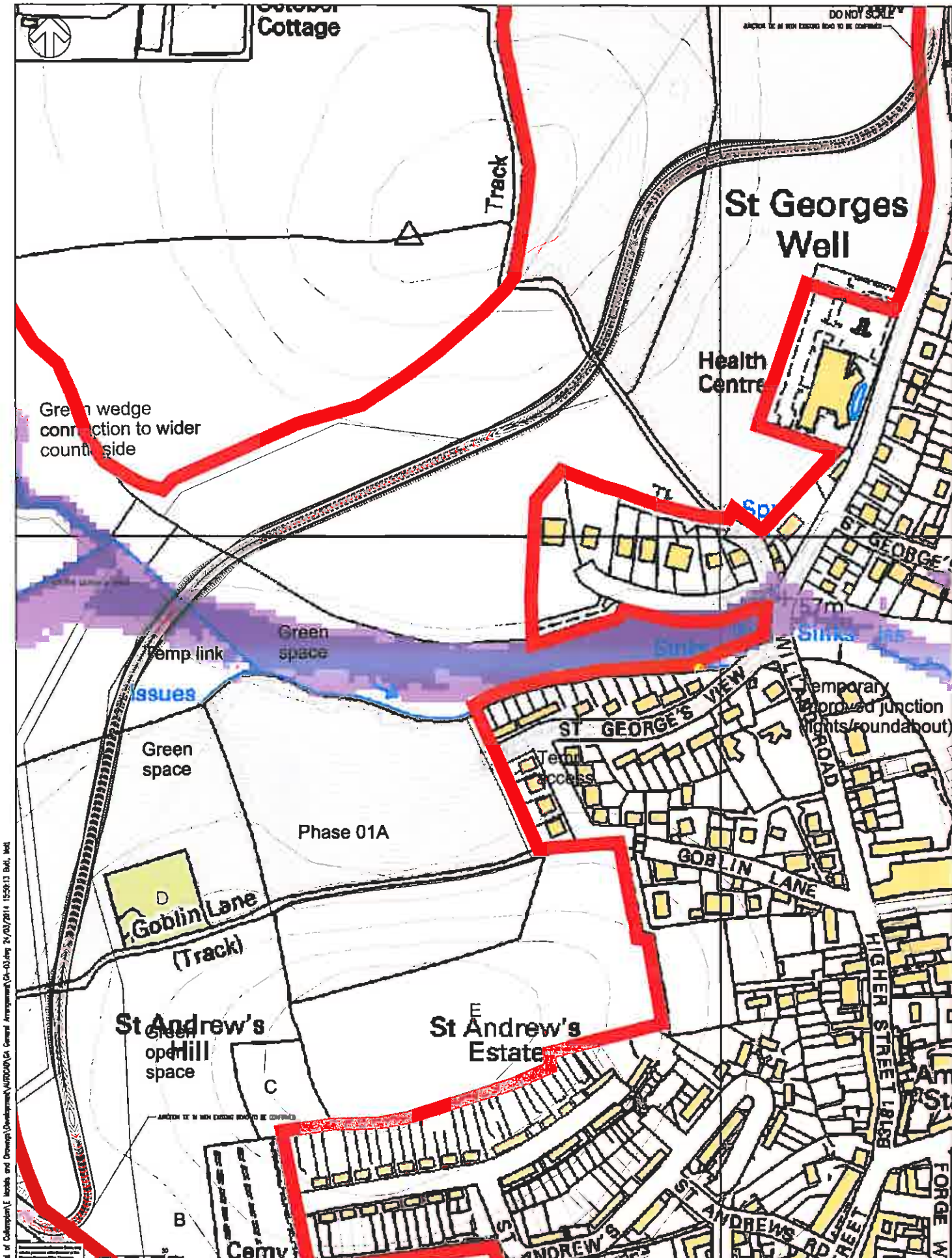
- 2.1.11 We have therefore looked at two options for a junction to the east of this, and to the west of the Cullompton Cemetery. The options are for a junction that will change the priority on Old Tiverton Road, again reducing the attractiveness for through traffic into the town and then a more simple T junction. The two access options for the southern junction are shown on Drawings 00782-PHL-03 and Drawing 00782-PHL-04 which are included in Appendix A. The final form of junction will be agreed with Mid Devon and Devon County Council as part of the Consultation process.

3 Conclusions

- 3.1.1 This report has set out the options and findings for the NW access road and associated northern and southern junctions.
- 3.1.2 The layout of the western access road has been informed by the work that is underpinning the masterplan. This is particularly the physical constraints ie landscape and topography/ecology/flooding as well as the masterplan needs.
- 3.1.3 The assessment of the western access road showed that the topographical survey represented a major constraint and there was a need to achieve acceptable gradients for the road and footways. This lead to an alignment that respected the existing contours of the land and considered the various landscape and ecological constraints.
- 3.1.4 In terms of the northern junction it was determined that the junction would be moved further down Willand Road. This avoids the need for the NW Access Road to cross Rull Lane, and enables a change in priority with southbound traffic on Willand Road. This junction form (as shown on Drawing 00782-PHL-05) combined with traffic calming further down Willand Road will assist in reducing the level of traffic driving into Cullompton Town Centre.
- 3.1.5 Three options have been considered for the southern junction onto Tiverton Road. The first was the use of the existing stub connection built by Millwood Homes via Olympian Way. However it was considered that the envisaged junction form (a roundabout with a tree in the centre of the island) was not appropriate due to the levels of the central island (necessary to accommodate the tree) which would result in a significant impedance to visibility across the roundabout.
- 3.1.6 Therefore two options were considered for the junction (as shown on drawings 00782-PHL-03 and 00782-PHL-04). The options are for a junction that will change the priority on Old Tiverton Road, and a more simple T junction. The final form of the junction will be agreed during the consultation process.

Appendices

Appendix A – Drawings



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NORTHWEST SECTOR CONSORTIUM

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LAND NORTHWEST OF COLLYMORE

 PRELIMINARY LINK ROAD OUTLINE DESIGN

NO	DATE	DESCRIPTION	BY	CHKD BY

PROJECT NO	50400782	PROJECT NAME	00782-GA-03
SCALE		DATE	

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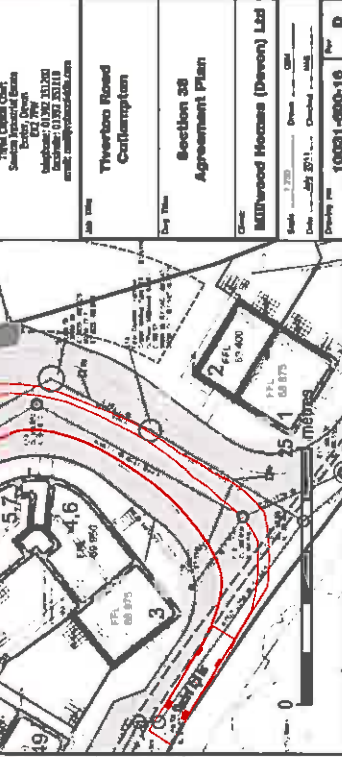
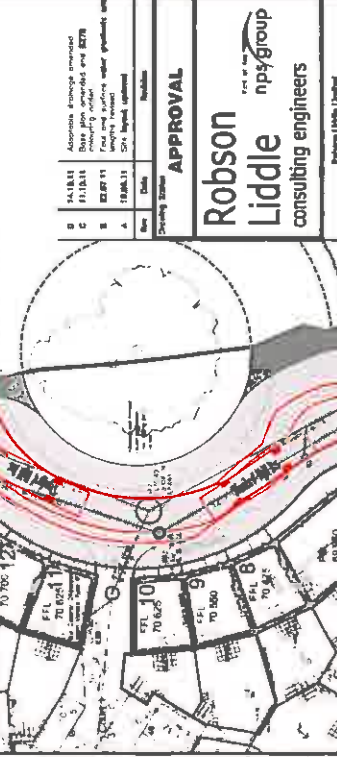
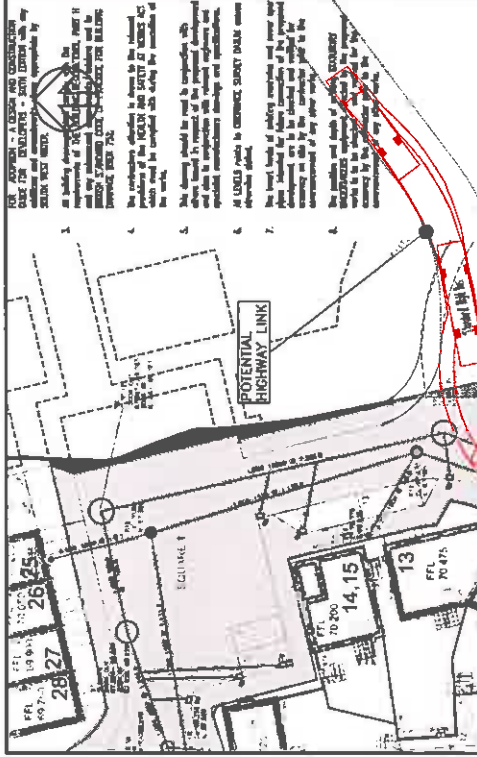
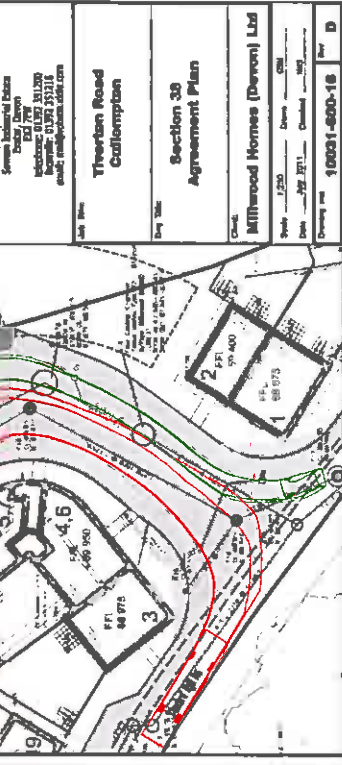
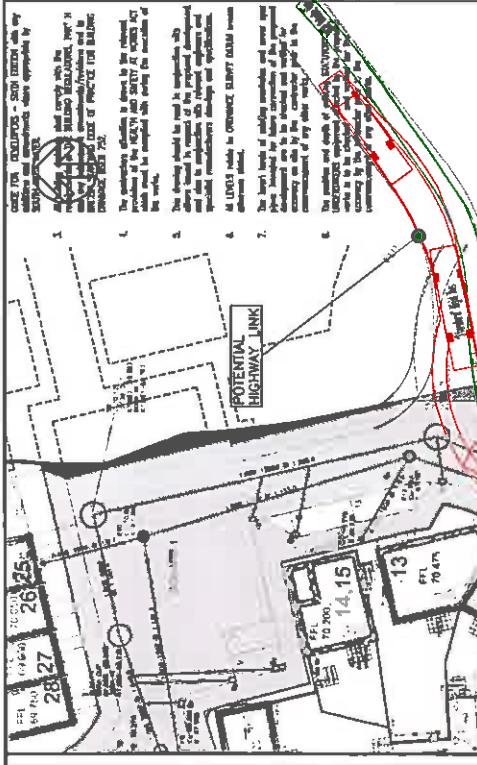
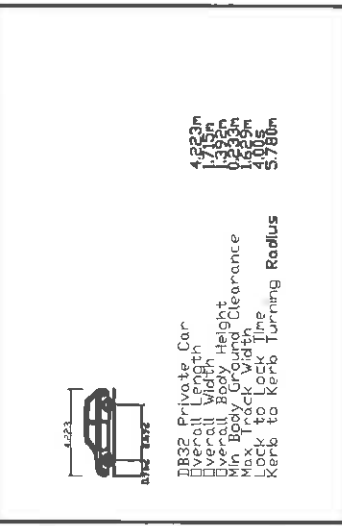
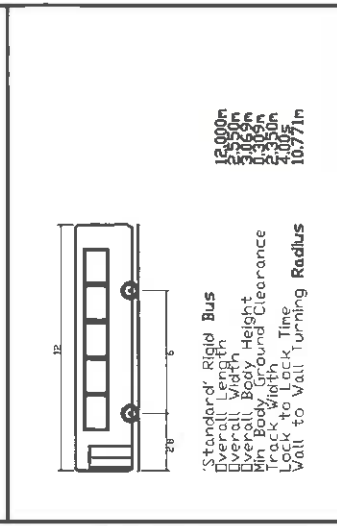
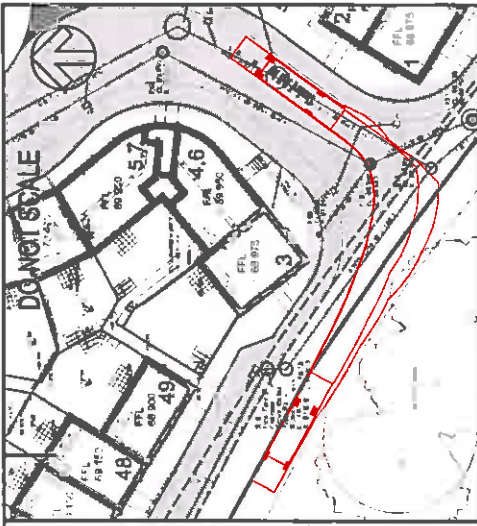
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DATE	PHL-05	DESIGNED BY	AJT	DATE	August 2014
PROJECT NO	50400782	DRAWING NO	00782-PHL-05	REV	A

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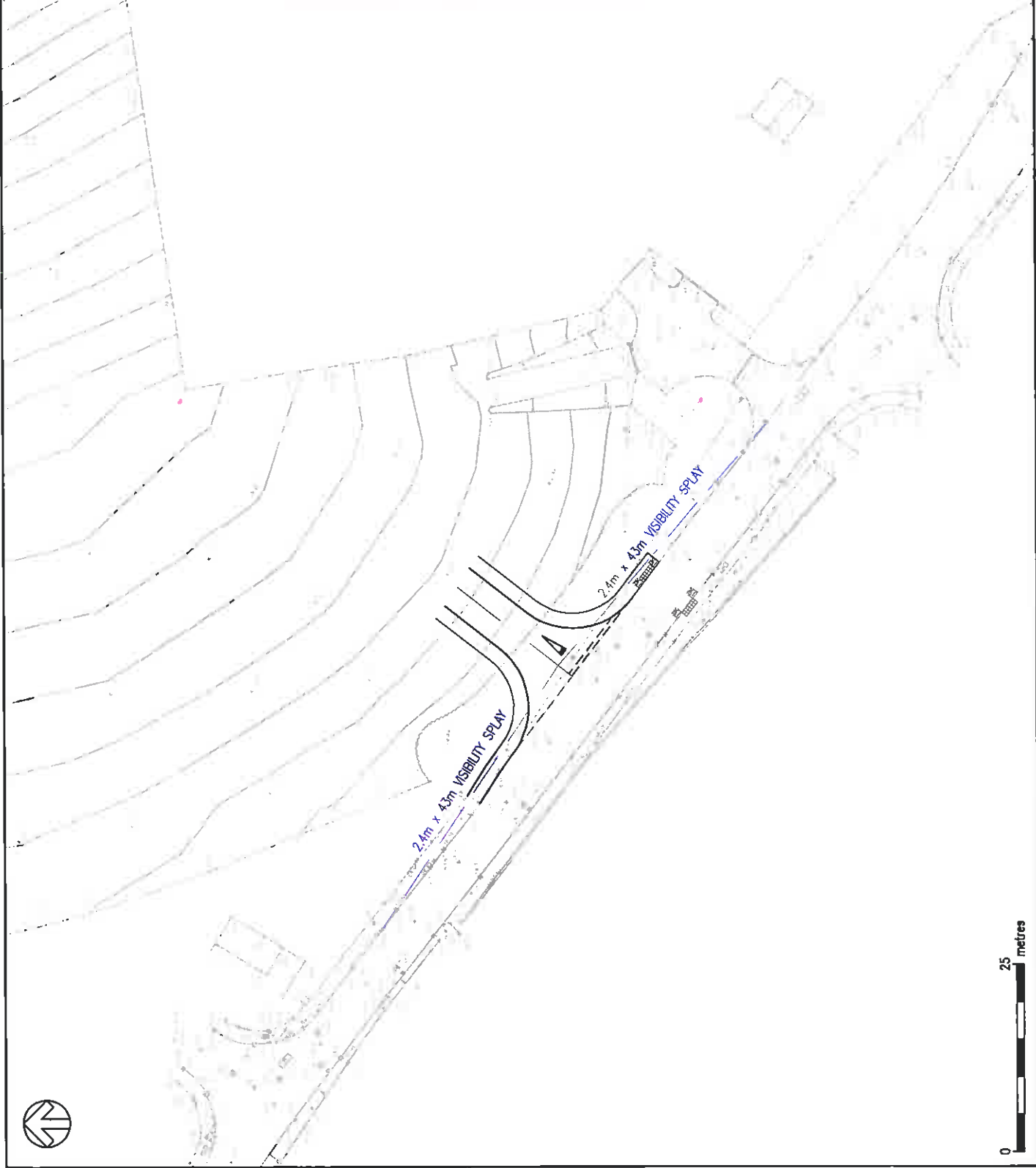
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PROJECT: LAND NORTH WEST OF CULLOMPTON

TITLE: PRELIMINARY PROPOSED LINK ROAD CONNECTION ON TO TIVERTON ROAD OPTION 1

SCALE: 1:500	DESIGNED: JEL	CHECKED: JEL	APPROVED: JP
DATE: PHL-04	DESIGNED: AJT	CHECKED: AJT	DATE: August 2014
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TITLE: PRELIMINARY PROPOSED LINK ROAD CONNECTION ON TO TIVERTON ROAD OPTION 2

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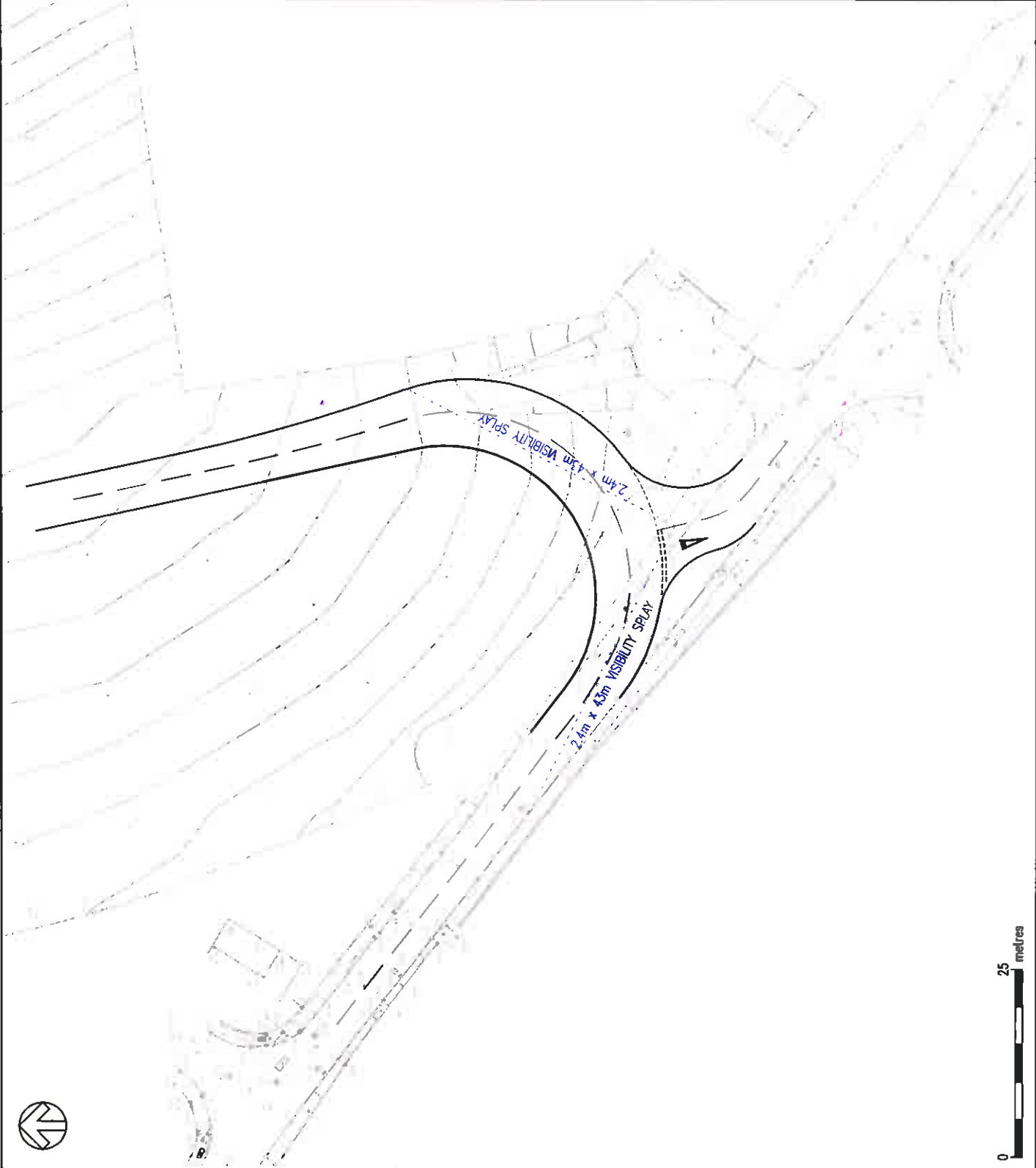
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