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**Consulting Transportation
Civil & Structural Engineers**

Technical Report 01

New Access to Re-Aligned A90: Initial Appraisal

May 2008



Trump International Golf Links
SCOTLAND

Document Control Sheet

Project Title Technical Report 01
Document Title New Access to Realigned A90, Initial Appraisal
Issue 01
Status Final
Issue Date 09/05/2008

Record of Issue

Issue	Date	Status	Author	Check	Authorised
01	09/05/2008	Final	KC	IR	IR

Distribution

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Introduction

As part of the future access strategy for the Trump International Golf Links Scotland proposed development at Menie Estate, consideration has been given to the construction of a new junction on the planned Balmedie to Tippierty dualling scheme. Provision of a new grade separated access between the existing planned junctions at Balmedie and the A975 Newburgh has been identified as providing relief to (what will become) the 'old' A90, particularly with regard to traffic to and from the resort passing through Balmedie

Options for providing this junction were investigated and TIGLS presented each option in a consultation with Transport Scotland and their Consultants, Grontmij Ltd. in December 2007. Four options were discussed;

- Option 1 – “Do Nothing” and keep remaining junctions with development traffic routeing through Balmedie;
- Option 2 – relocate A975 junction further south to a location opposite Menie Estate;
- Option 3 – utilise proposed new underpass and associated connector road linking to the existing A90 at Dabrae by constructing new northbund on and southbound off ramps;
- Option 4 - utilise proposed new overbridge and associated connector road linking to the existing A90 at South Orrock by way of new northbund on and southbound off ramps.

An initial appraisal of the feasibility and suitability of each option has been carried out.

Option 1

The “do nothing” has been considered in the event that a new junction cannot be provided on the new A90 and TIGLS development traffic has to route via the existing planned accesses. TIGLS has undertaken to minimise the impact of development traffic through the provision of a traffic management scheme through Balmedie on Old Road as well as signing the Resort via the A975 junction to the north of the Balmedie interchange.

Option 2

The relocation of the A975 junction would deliver a solution without the requirement for additional infrastructure, however it would require a re-assessment of the overall scheme, changes to Road and CPO Orders, the Environmental and Traffic Assessments and require the public consultation to be repeated, significantly delaying delivery of the entire scheme. This option has therefore been discounted.

Option 3

Provision of a new grade separated “half diamond” interchange at Dabrae utilising the proposed underpass would require only additional infrastructure in the form of new slip ramps and would result in a junction at the optimal location close to the proposed resort entrance. However there would a greater environmental impact on the existing property at Dabrae located alongside the connector road and the SUDS basin located adjacent to the underpass would have to be relocated in order to accommodate the slip ramps.

This would involve a re-design of the drainage in that area potentially leading to changes to the CPO orders and the environmental assessment.

Option 4

The provision of a “half diamond” grade separated interchange utilising the proposed overbridge at South Orrock. Linked to the new Orrock access road connecting to the old A90 would deliver a junction connection to the south of the site, immediately north of the existing Pettens access road and in line with the proposed residential site. There are no properties within immediate proximity of the new infrastructure and additional environmental impact is limited to that caused by the slip roads being slightly closer to South Orrock House than the main carriageway. Further quantification of the environmental impact would be required but there appears to be sufficient distance between for any impact to be readily absorbed or mitigated. In proximity terms the environmental impact would be significantly less than at Dambrae where the property is immediately adjacent to the connector road. The main disadvantage to the provision of Option 4 is the availability of land to construct the slip road. Transport Scotland have confirmed that the necessary land does not fall within the CPO boundary for the main scheme.

Preferred Option

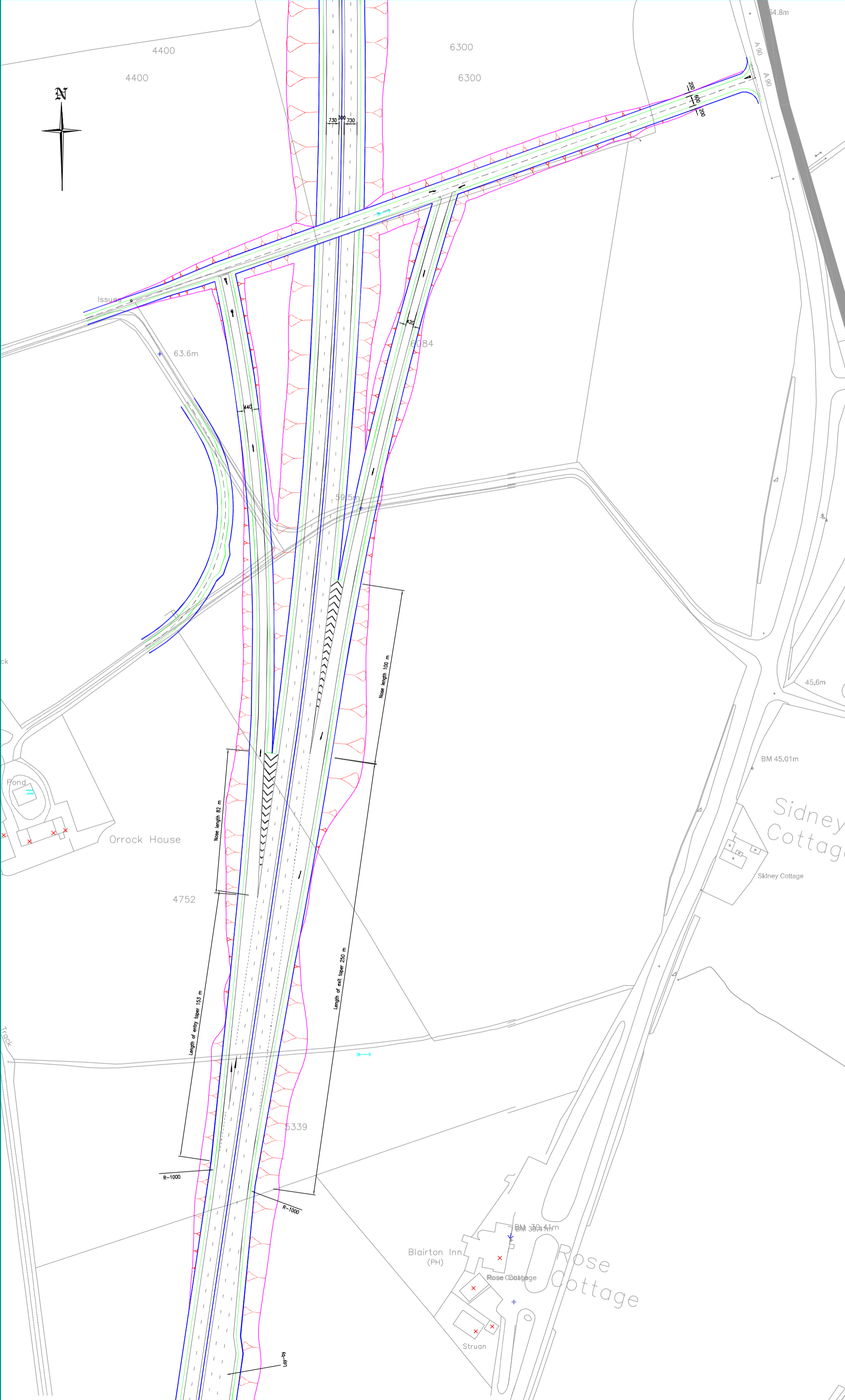
Option remains the initial preferred solution although this would be subject to further detailed assessment. It can only be delivered in the event that the necessary land becomes available and thus Option 1, involving the provision of traffic calming in Balmedie and signage to route Resort traffic via the A975 junction, would be the second preference in terms of deliverability.

TIGLS however, are committed to delivering a new access to the new A90 so as to remove the development traffic from the local road network. Option 4 would achieve this objective with little or no detriment to road users or residents. A design for the potential new junction has been taken forward in order to confirm that it is technically feasible to construct and this is given in Appendix A. Subject to a more detailed assessment of ground conditions etc, it shows that a junction in accordance with DMRB standards as laid out in TD 22/06¹.

¹ Design Manual for Roads and Bridges, Vol 6, Section 2, Part 1: TD 22/06 *Layout of Grade Separated Junctions*

Appendix A

Option 4 - Preliminary Junction Design



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09/05/08
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71236/00010

**TRUMP INTERNATIONAL
 MENIE ESTATE DEVELOPMENT**

**PROPOSED ORROCK JUNCTION
 PRELIMINARY LAYOUT**



Rev.	Date	Description	Drawn	Checked	Approved
-	09/05/08	PRELIMINARY	WZ	KC	IR