

Appendix A.7.3

Road Safety Audit Stage F Report (Part 1)

National Roads Authority
N6 Galway City Transport Project
Road Safety Audit Stage F (Part 1)

Issue 2 | 26 August 2015

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 233985-00

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Document Verification

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Job title		N6 Galway City Transport Project		Job number	
				233985-00	
Document title		Road Safety Audit Stage F (Part 1)		File reference	
				4.03-12.1	
Document ref					
Revision	Date	Filename	GCTP-RSA Stage F Part 1_Issue 1.docx		
Issue 1	30 Apr 2015	Description	First Draft		
			Prepared by	Checked by	Approved by
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		Signature	<i>Edel Casserly</i>	<i>Kieran Malone</i>	<i>Thomas Connell</i>
Issue 2	26 Aug 2015	Filename	GCTP-RSA Stage F Part 1_Issue 2.docx		
		Description	Second Issue		
			Prepared by	Checked by	Approved by
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		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

Issue Document Verification with Document



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Appendix A

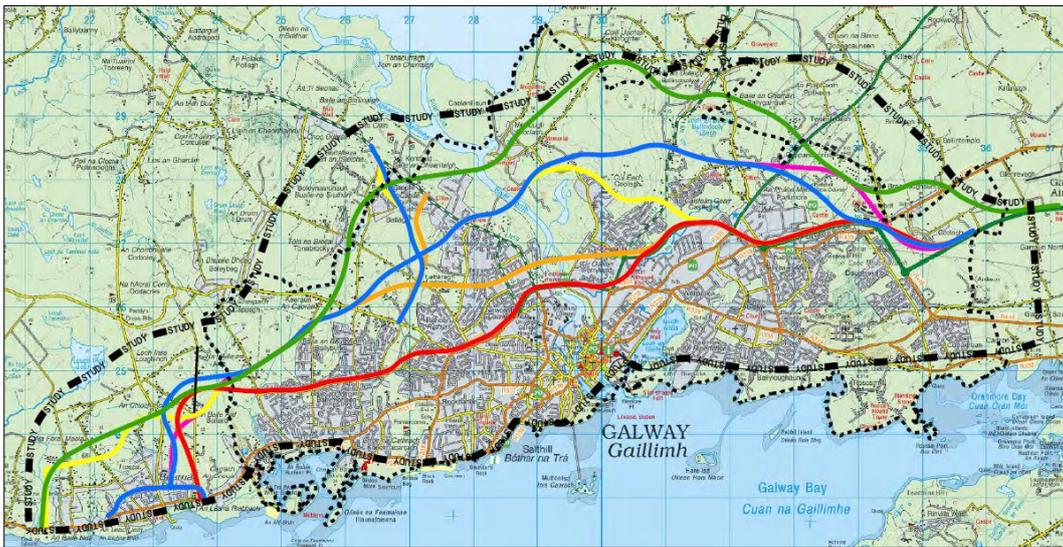
Drawings and documents

Appendix B

Audit Team Approval

1 Introduction

Arup, Dublin has been appointed to conduct a Stage F Road Safety Audit on the preliminary routes of the proposed N6 Galway City Transport Project. Six alternative options all connect the R336 on the west of the city to the existing N6 on the east of the city, utilising different corridors which vary in the extent to which the existing road infrastructure is reused. The options are colour coded for reference and detailed in Section 2 of this report. Whilst all are uniquely assessed, there are sections of each that may overlap with another option. A plan showing the location of the scheme in the context of the surrounding road network is presented in Figure 1.



Ordnance Survey Ireland EN 0002815 © Ordnance Survey Ireland/Government of Ireland

Figure 1: Route Options

The audit was completed on the 30th of April 2015 in the Arup Dublin office and included a site visit on the 1st and 2nd of April 2015.

The weather during the site visit was dry and sunny and the road surface was dry.

The audit team members were as follows:

- Thomas Connell (Team Leader)
- Kieran Malone (Team Member)
- Edel Casserly (Team Member)

An Audit Team Statement and feedback form is included at the end of the report.

This Stage F audit has been carried out in accordance with the relevant sections of NRA HD 19/15. The team has examined only those issues within the design relating to the road safety implications of the scheme, and has therefore, not examined or verified the compliance of the design to any other criteria.

2.6 The Pink Route Option

The Pink Route Option is similar to the Blue Route Option varying only where it travels from the Bearna Inner Relief Road to Knocknacarra, where it travels to the north of Galway Racecourse and in the Briarhill area.

2.7 N59 Link Road

The N59 Link Road is associated with the Blue, Orange, Yellow and Pink Route Options and connects the N59 to the north and Bothar Stiofan to the south, with each of the proposed route options.

3.6 Attractiveness

The attractiveness of each route option is a measure of the potential for road users within the central urban area to use the expressway in order to access the National Road Network.

Route Option	Rank Order
Green	LP
Blue	I
Red	P
Orange	I
Yellow	I
Pink	I

Figure 3.6: Overall route option attractiveness

Conclusion: The Red Route Option is located closest to the central urban area and consequently is the most preferred. The Green Route Option is furthest from the central urban area and is therefore the least preferred.

3.7 Consistency of Standards

The consistency of standards with the adjacent road network is a measure of whether the tie-in locations are of a similar or different format to the existing road network.

Route Option	Tie In	Tie in format	Rank Order
Green	East	1	I
	West	0	
Blue	East	1	I
	West	0	
Red	East	1	I
	West	0	
Orange	East	1	I
	West	0	
Yellow	East	1	I
	West	0	
Pink	East	1	I
	West	0	

Figure 3.7: Overall route option consistency of standards

Note: 1 = Similar tie-in format, 0 = Different tie-in format

In the case of all six options the eastern tie-in to the N6 is a match with the existing cross-section. The location of the western tie-in varies across all six options and the format of tie-in also varies be it via roundabouts or signalised junctions.

Conclusion: The rank order of each route option is the same.

5 Summary of Assessments

The following table includes all rank orders from the assessments in Section 3 to this report.

Route	Green	Blue	Red	Orange	Yellow	Pink
Route Length / collision risk	LP	P	LP	I	I	P
Travel time	I	LP	LP	P	I	I
Access control	P	P	LP	P	I	I
Number of structures	I	LP	LP	LP	P	I
Geometry	P	P	LP	I	I	P
Attractiveness	LP	I	P	I	I	I
Consistency with adjacent road network	I	I	I	I	I	I
Proportion online	P	P	LP	I	I	P
Pedestrians and cyclists	P	P	LP	I	I	P
Consistency of junction types/number of junctions	P	I	LP	I	I	I
Rank Order	P	P	LP	I	I	P

Figure 5.1: Overall route option summary of findings

6 Conclusion

It is the Audit Teams conclusion that the route options as presented rank as follows in terms of road safety:

1. Pink
2. Green & Blue
3. Yellow
4. Orange
5. Red

Note:

The Pink route is deemed the safest due to four **P**, six **I** and zero **LP**.

The Green and Blue routes are deemed next safest due to five **P**, three **I** and two **LP**.

The Yellow route is deemed next safest due to one **P** and, nine **I** and zero **LP**.

The Orange route is deemed next safest due to two **P**, seven **I** and one **LP**.

The Red route is deemed least safe due to one **P**, one **I** and eight **LP**.

Appendix A

Drawings and documents

A1

Drawings and documents received for the Stage F Road Safety Audit on possible road components of the Galway City Transport Project as follows:

Figure 7.3.1.0 – Stage 2 Red Route Option, Mainline Plan/Profile, Key Plan _I1;
Figure 7.3.1.1 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 0+000 to 1+650, Sheet 1 of 9_I1;
Figure 7.3.1.2 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 1+650 to 3+300, Sheet 2 of 9_I1;
Figure 7.3.1.3 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 3+300 to 4+950, Sheet 3 of 9_I1;
Figure 7.3.1.4 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 4+950 to 0+350, Sheet 4 of 9_I1;
Figure 7.3.1.5 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 0+350 to 0+250, Sheet 5 of 9_I1;
Figure 7.3.1.6 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 0+250 to 1+900, Sheet 6 of 9_I1;
Figure 7.3.1.7 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 1+900 to 2+050, Sheet 7 of 9_I1;
Figure 7.3.1.8 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 2+050 to 1+750, Sheet 8 of 9_I1;
Figure 7.3.1.9 – Stage 2 Red Route Option, Mainline Plan/Profile – Ch. 1+750 to 3+530, Sheet 9 of 9_I1;

GCOB-SK-R-276_I1 - Route Options Study, Options: Green, Yellow, Orange Plan Layout, Sheet 1 of 2

GCOB-SK-R-277_I1 - Route Options Study, Options: Green, Yellow, Orange Longsections, Sheet 2 of 2

GCOB-SK-R-278_I1 - Route Options Study, Options: Blue, Pink Plan Layout, Sheet 1 of 2;

GCOB-SK-R-279_I1 - Route Options Study, Options: Blue, Pink Longsections, Sheet 2 of 2;

GCOB-SK-R-295_I2 - Route Options Study, Options: Yellow, Pink Plan Layout, Sheet 1 of 2;

GCOB-SK-R-296_I2 - Route Options Study, Options: Yellow, Pink Longsections, Sheet 2 of 2;

N6 Galway City Transport Project, Public Consultation Jan/Feb 2015 Brochure

GCOB-4.04-11.1 (CBA Report v4)_Issue 1.pdf

Appendix B

Audit Team Approval

B1

*Paul Batty
Corporate House
Ballybrit Business Park
Ballybrit
Galway*

Date: 10/05/2015

Our Ref: 676439/4287/Stage F

re: N6 M/N6 Galway City Outer By-Pass

APPROVAL OF ROAD SAFETY AUDIT TEAM, Stage F

Dear Paul Batty,

The following members of the proposed road safety audit team are approved to carry out the Stage F road safety audit of N6 M/N6 Galway City Outer By-Pass.

1. Thomas Connell - Arup - Leader
2. Edel Casserly - Arup - Member

A copy of all audit reports, design team response and exception reports must be uploaded through RSAAS. Successful upload of these reports and completion of the audit approval process is necessary for any further audit approval on this scheme.

Yours sincerely,

Lucy Curtis

Regional Road Safety Engineer
roadsafetvaudits@nra.ie