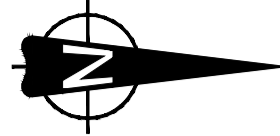


Appendix D: Route Option Drawings



Legend

— Proposed Route Options

— Study Area

Ver	Amendment	By	Checked	Approved	Date
Drawn	Date	Checked	Date	Approved	Date
RPW	27/04/15	VK	27.04.15	VK	27.04.15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



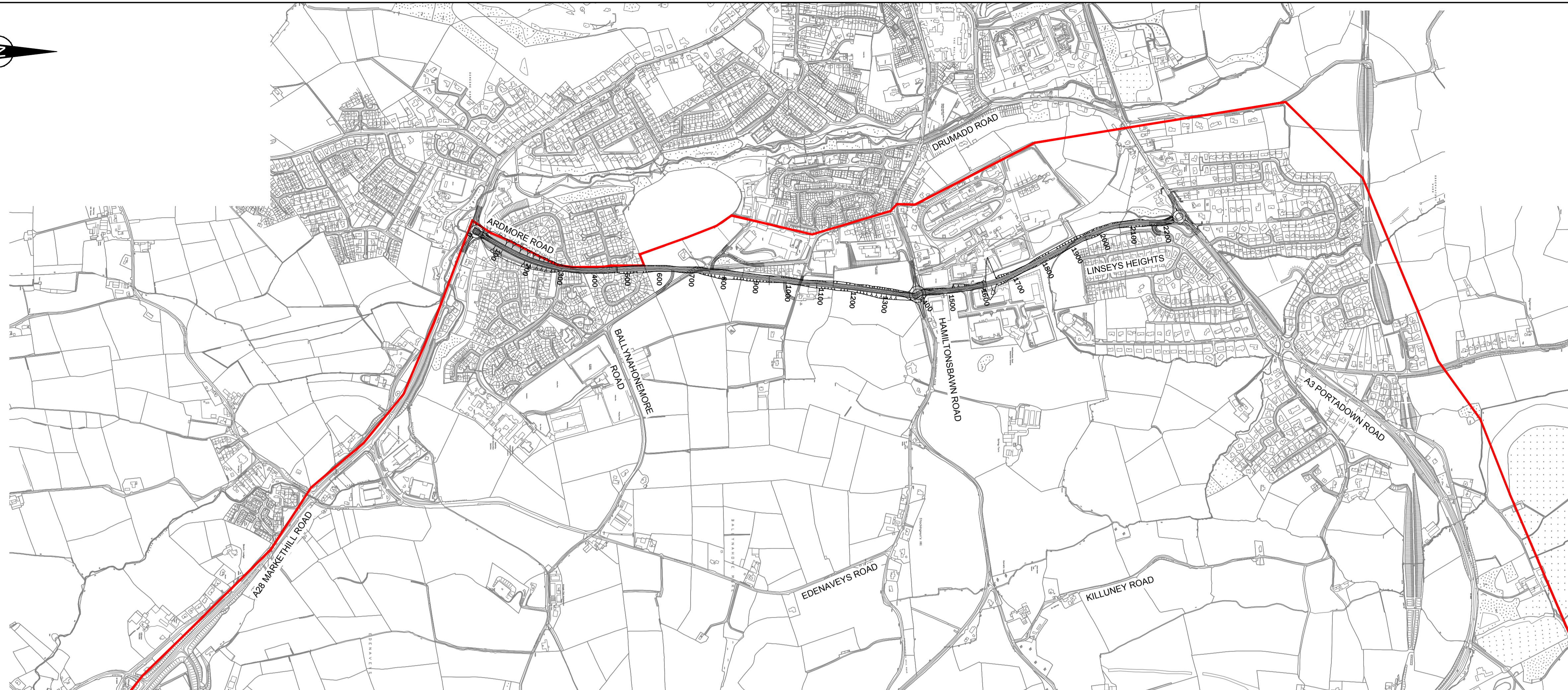
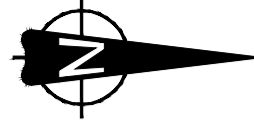
Client **transportni**

Project **Armagh East Link**

Purpose **Route Assessment Report**

Title **Armagh East Link Option Overview**

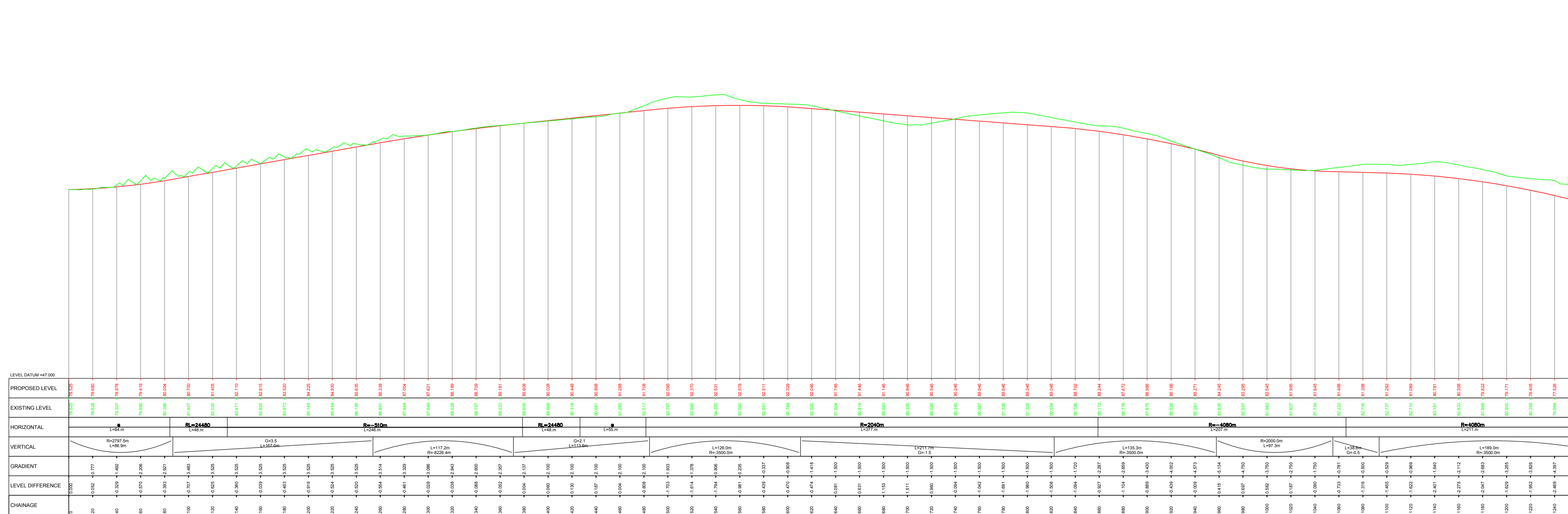
Scale @ A1	Not to Scale	Ver.
Drawing No.	1064968-A-D-0830	A



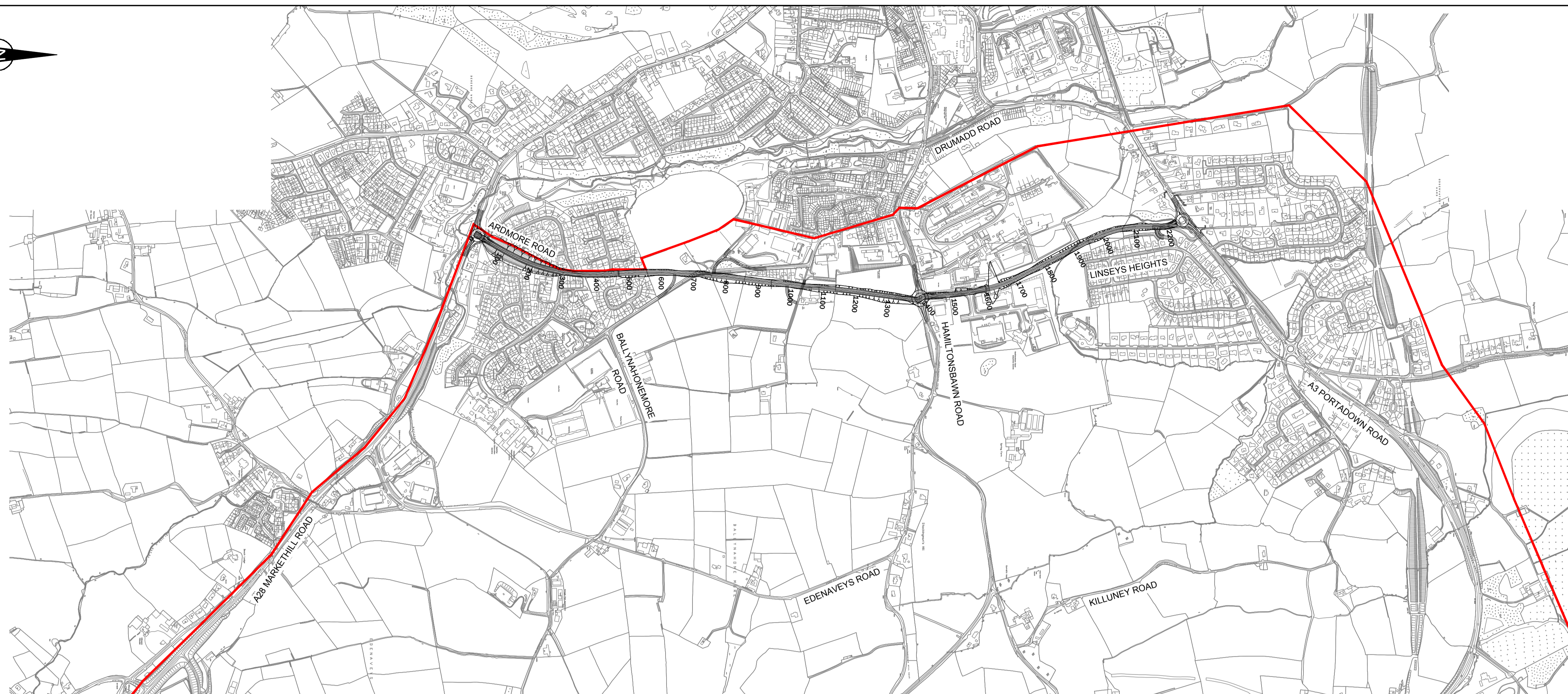
LENGTH OF ALIGNMENT = 2230m
70A DESIGN SPEED.

Legend
— Study Area

Legend
— Proposed Vertical Alignment
— Existing Ground Profile



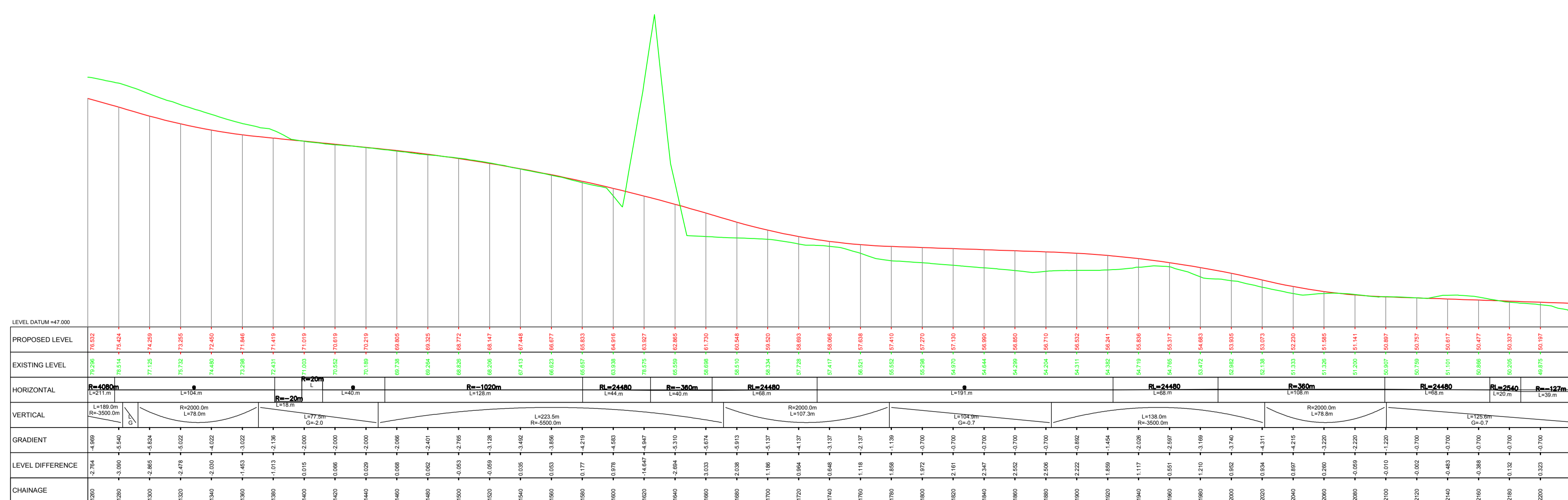
Ver	Amendment	By	Checked	Approved	Date
Drawn	Date	Checked	Date	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	30/06/15
Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214					
Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings					
This drawing may be used only for the purpose intended and only written dimensions shall be used					
Client	transportni				
Project	Armagh East Link				
Purpose	Route Assessment Report				
Title	Armagh East Link Proposed Options 2007 Preferred Option (Sht 1 of 2)				
Scale @ A1	1:7500				Ver.
Drawing No.	1064968-A-D-0823				A



LENGTH OF ALIGNMENT = 2230m
70A DESIGN SPEED.

Legend
 Study Area

Legend
 Proposed Vertical Alignment
 Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date

Drawn Date Checked Date By Approved Date
 RPW 12/03/15 VK 30/06/15 JTB 30/06/15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used

mouchel
building great relationships

Client **transportni**

Project **Armagh East Link**

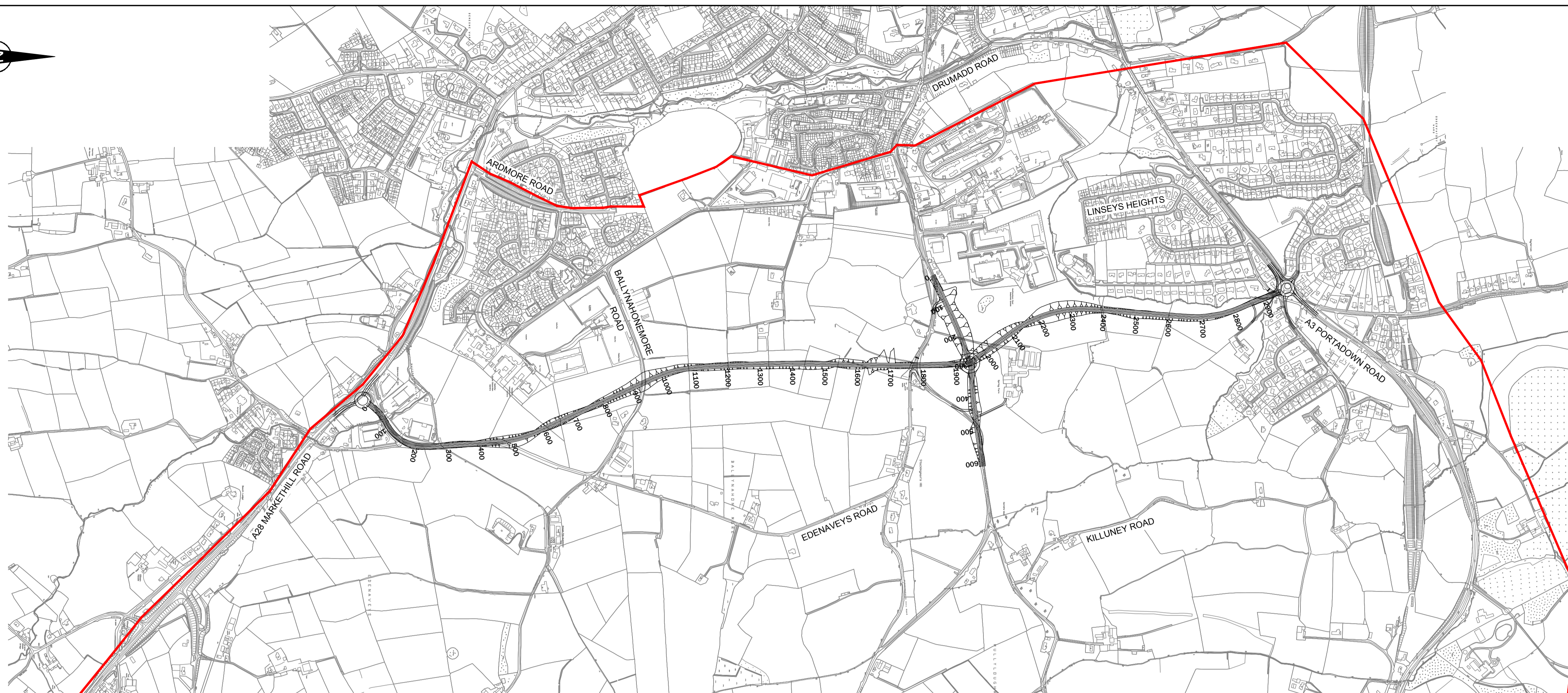
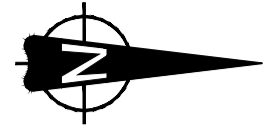
Purpose **Route Assessment Report**

Title **Armagh East Link Proposed Options 2007 Preferred Option (Sht 2 of 2)**

Scale @ A1 **1:7500**

Drawing No. **1064968-A-D-0823**

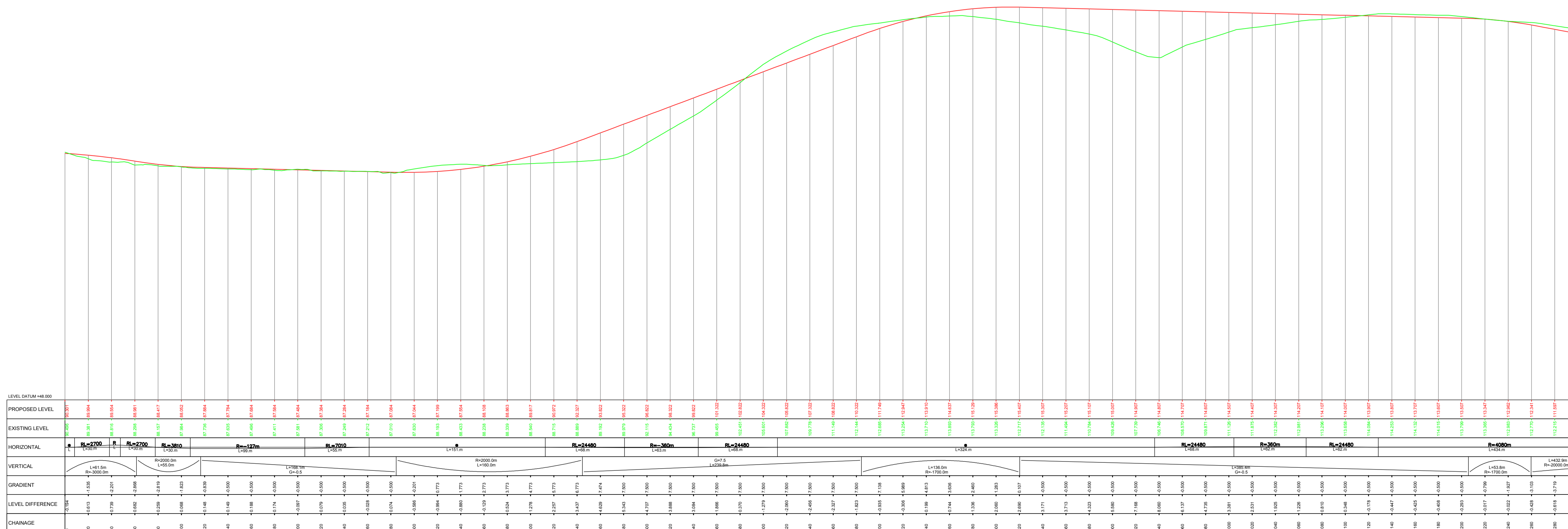
Ver. **A**



LENGTH OF ALIGNMENT = 2960m
70A DESIGN SPEED

Legend
 Study Area

Legend
 Proposed Vertical Alignment
 Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date
-----	-----------	----	---------	----------	------

Drawn	Date	Checked	Date	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	30/06/15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationery Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



Client **transportni**

Project **Armagh East Link**

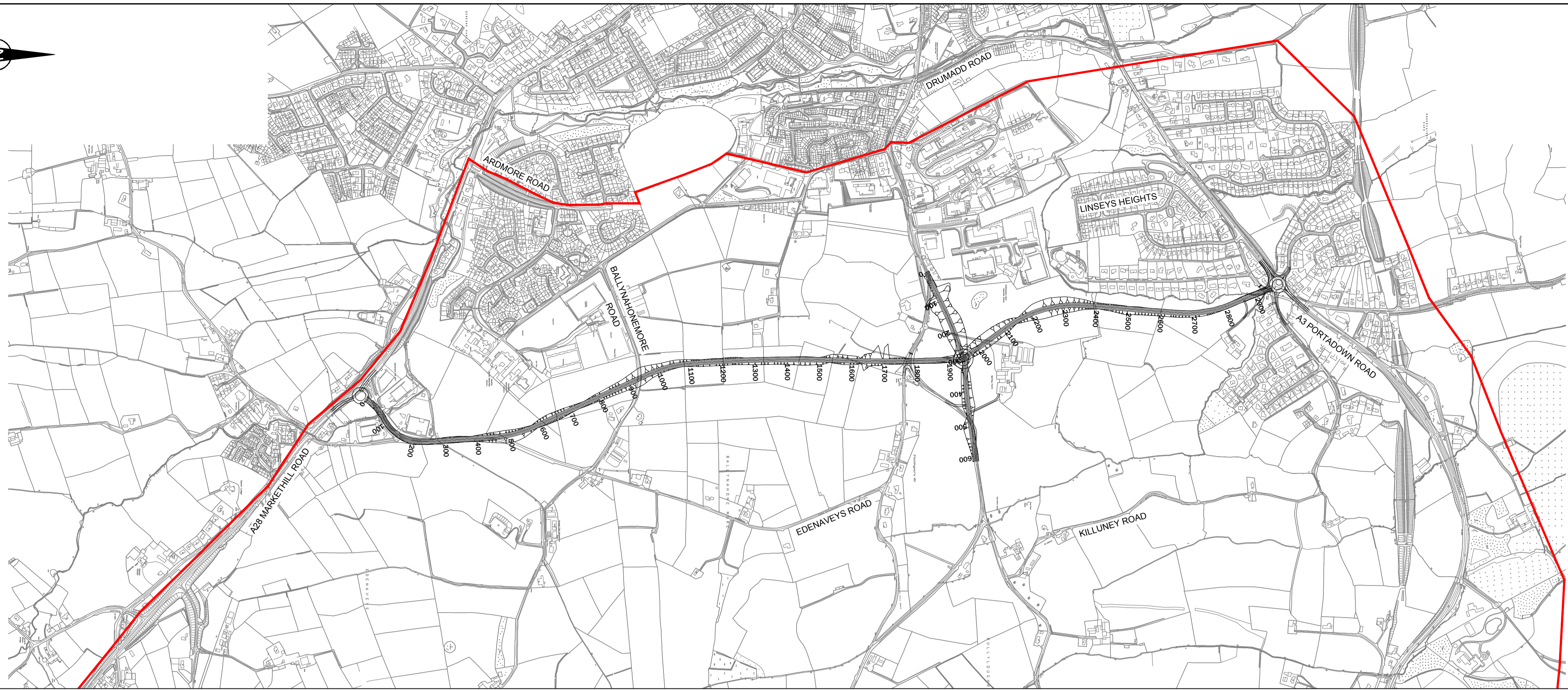
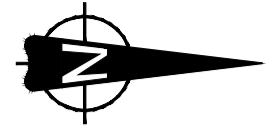
Purpose **Route Assessment Report**

Title **Armagh East Link Proposed Options Alignment 12 (Sheet 1 of 3)**

Scale @ A1 **1:7500**

Drawing No. **1064968-A-D-0824**

Ver. **A**

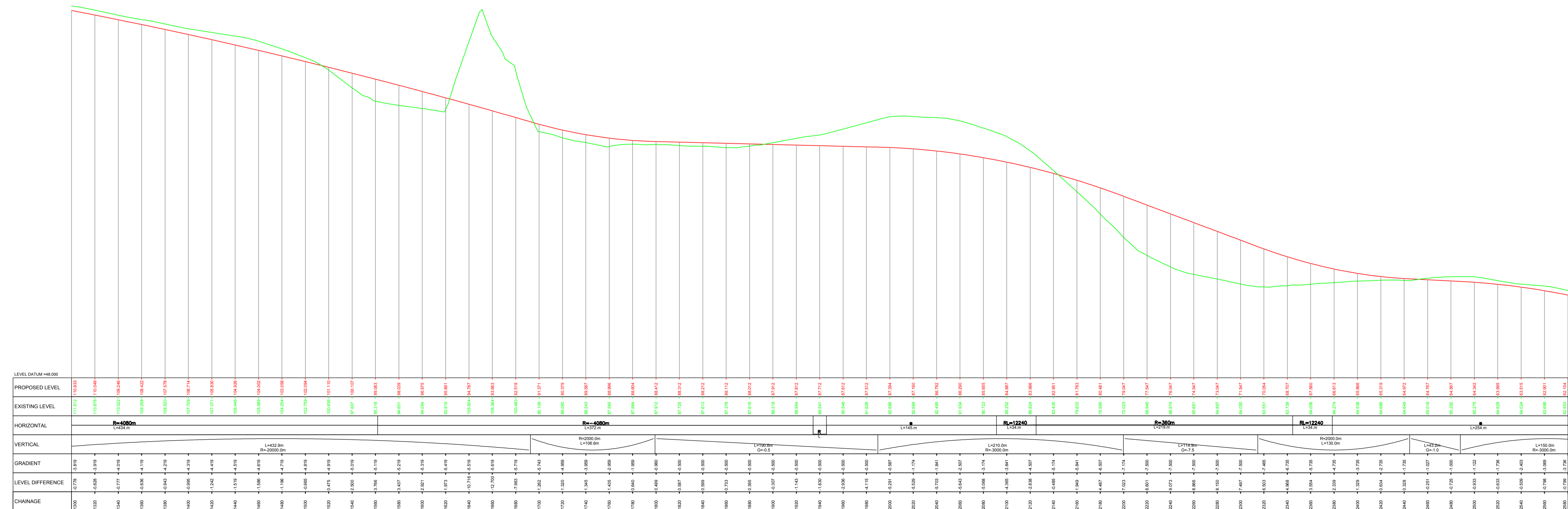


LENGTH OF ALIGNMENT = 2960m
70A DESIGN SPEED

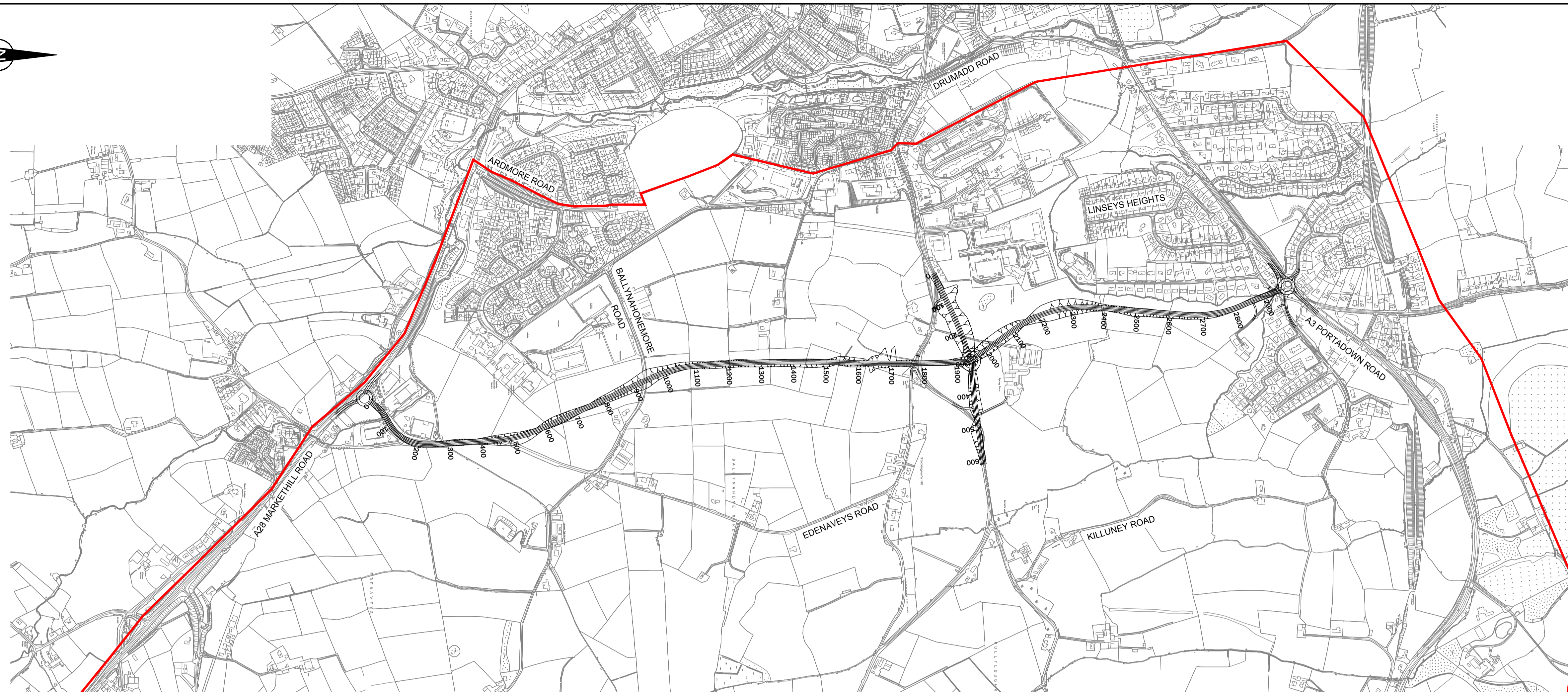
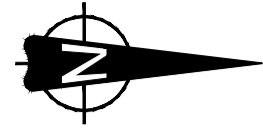
Legend
Study Area

Legend

- Proposed Vertical Alignment
- Existing Ground Profile



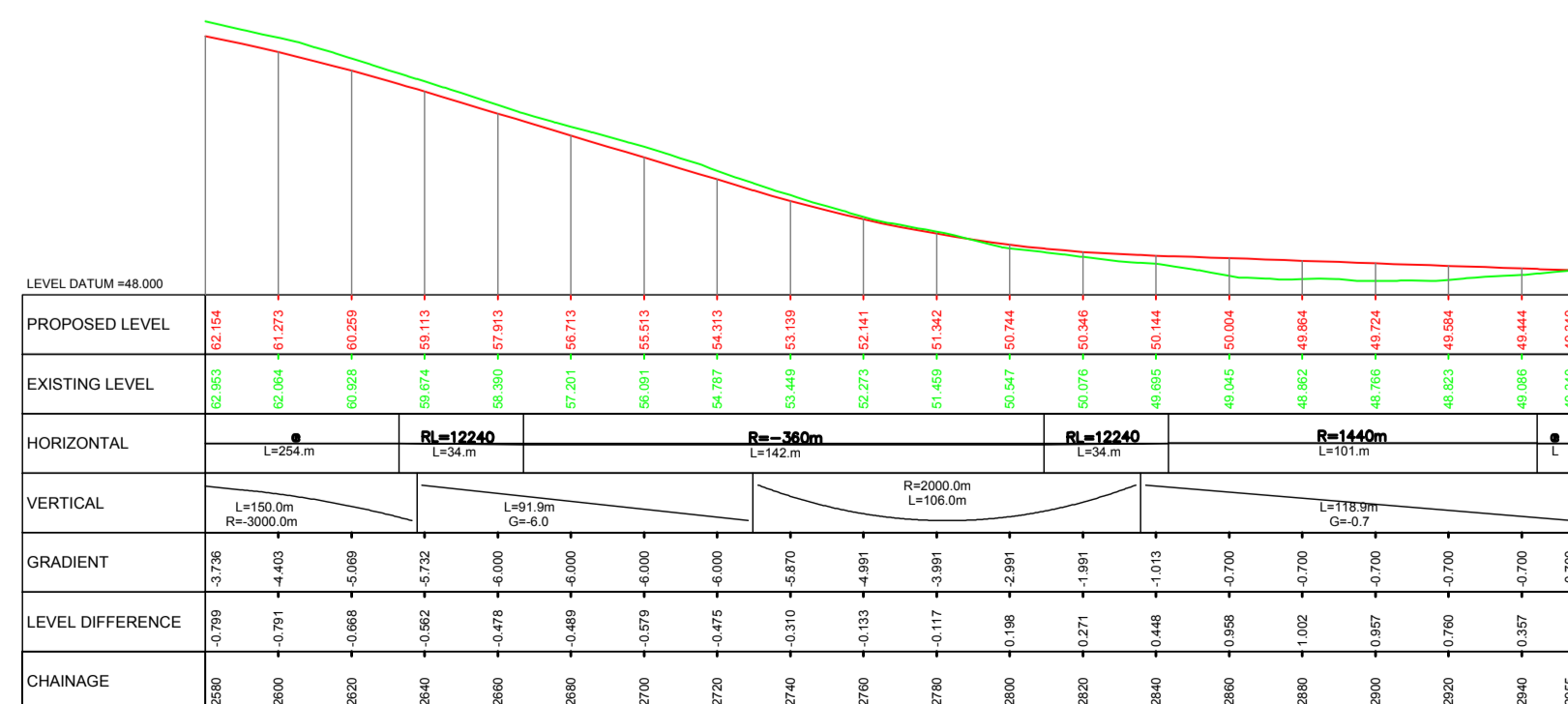
Ver	Amendment	By	Checked	Approved	Date
Drawn	Date	Checked	Date	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	30/06/15
Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214					
Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings					
This drawing may be used only for the purpose intended and only written dimensions shall be used					
Client	transportni				
Project	Armagh East Link				
Purpose	Route Assessment Report				
Title	Armagh East Link Proposed Options Alignment 12 (Sheet 2 of 3)				
Scale @ A1	1:7500				Ver.
Drawing No.	1064968-A-D-0824				A



LENGTH OF ALIGNMENT = 2960m
70A DESIGN SPEED

Legend
— Study Area

Legend
— Proposed Vertical Alignment
— Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date
Drawn	Date	Checked	Date	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	30/06/15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



Client **transportni**

Project **Armagh East Link**

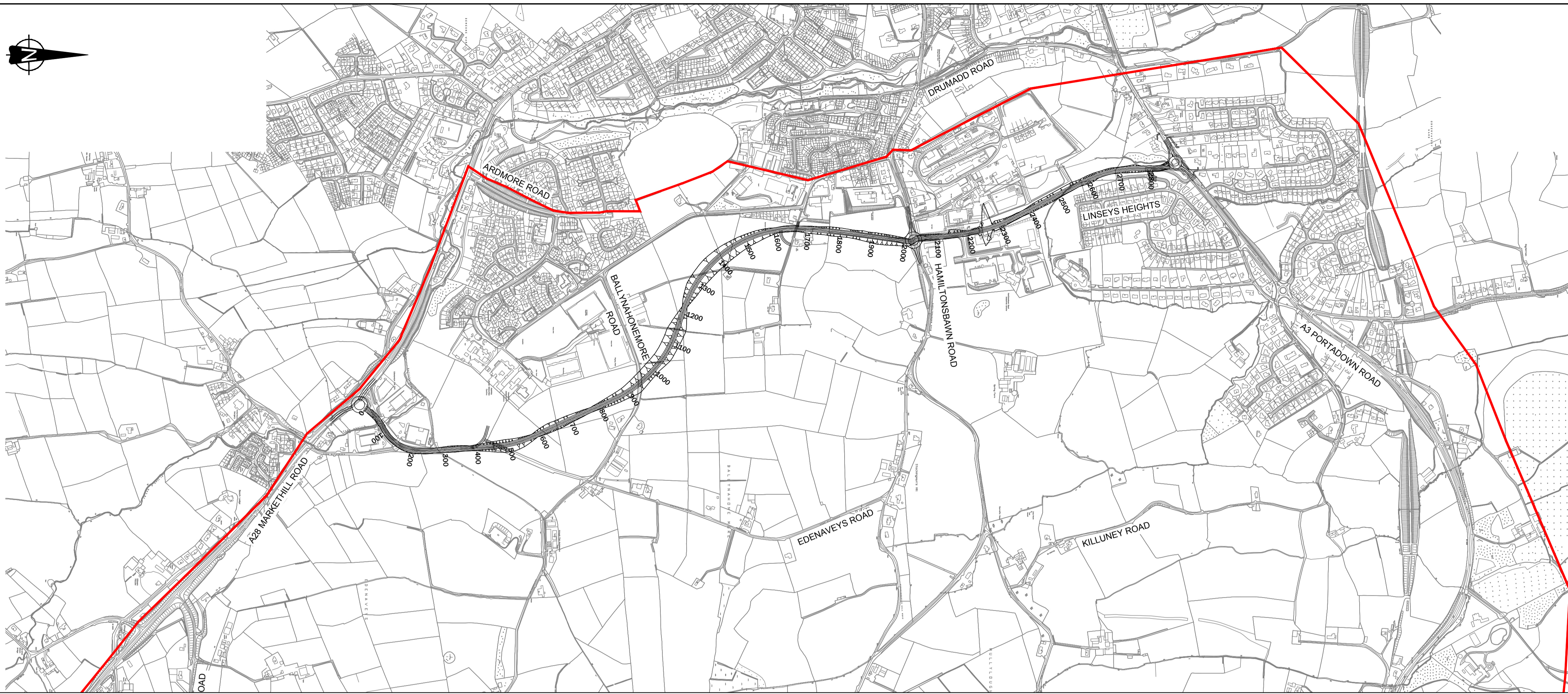
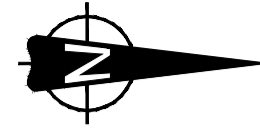
Purpose **Route Assessment Report**

Title **Armagh East Link Proposed Options Alignment 12 (Sheet 3 of 3)**

Scale @ A1 **1:7500**

Drawing No. **1064968-A-D-0824**

Ver. **A**

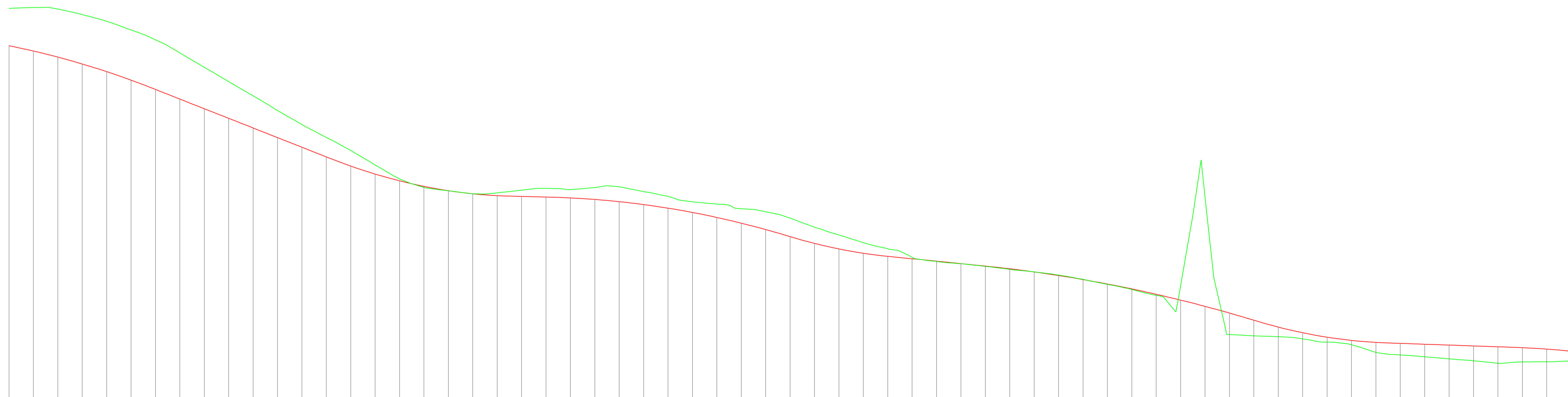


LENGTH OF ALIGNMENT = 2780m
70A DESIGN SPEED.

Legend
Study Area

Legend

Proposed Vertical Alignment
Existing Ground Profile



LEVEL DATUM +47.000	PROPOSED LEVEL	EXISTING LEVEL	HORIZONTAL	VERTICAL	GRADIENT	LEVEL DIFFERENCE	CHAINAGE
	112.272	104.143				8.129	1200
	112.429	103.244				9.185	1300
	112.711	104.291				8.420	1400
	111.267	103.165				8.102	1500
	110.180	101.950				8.230	1600
	109.144	100.915				8.229	1700
	107.720	98.987				8.733	1800
	106.076	97.467				8.609	1900
	105.021	96.267				8.754	2000
	103.280	94.247				9.033	2100
	97.999	92.697				5.302	2200
	95.937	91.097				4.840	2300
	93.235	88.807				4.428	2400
	91.121	87.067				4.054	2500
	88.976	85.403				3.573	2600
	86.604	83.111				3.493	2700
	84.223	84.002				0.211	2800
	82.126	83.204				1.078	2900
	82.204	82.286				0.918	3000
	81.811	81.878				0.933	3100
	82.027	81.567				0.460	3200
	82.447	81.438				0.909	3300
	82.167	81.238				0.929	3400
	82.448	81.200				1.248	3500
	82.000	80.890				1.110	3600
	82.019	80.897				1.122	3700
	82.232	80.709				1.523	3800
	82.000	80.600				1.400	3900
	81.811	80.487				1.324	4000
	81.302	80.240				1.062	4100
	81.114	80.284				0.830	4200
	80.883	80.217				0.666	4300
	80.644	80.421				0.223	4400
	80.693	80.000				0.693	4500
	80.465	80.077				0.388	4600
	80.004	80.081				0.077	4700
	80.037	80.472				0.435	4800
	80.448	80.810				0.362	4900
	81.395	83.412				2.017	5000
	81.028	82.026				0.992	5100
	80.104	80.289				0.185	5200
	80.238	80.389				0.151	5300
	80.602	84.437				3.835	5400
	81.395	83.412				7.983	5500
	81.028	82.026				0.992	5600
	80.104	80.289				0.185	5700
	80.238	80.389				0.151	5800
	80.602	84.437				3.835	5900
	81.395	83.412				7.983	6000
	81.028	82.026				0.992	6100
	80.104	80.289				0.185	6200
	80.238	80.389				0.151	6300
	80.602	84.437				3.835	6400
	81.395	83.412				7.983	6500
	81.028	82.026				0.992	6600
	80.104	80.289				0.185	6700
	80.238	80.389				0.151	6800
	80.602	84.437				3.835	6900
	81.395	83.412				7.983	7000
	81.028	82.026				0.992	7100
	80.104	80.289				0.185	7200
	80.238	80.389				0.151	7300
	80.602	84.437				3.835	7400
	81.395	83.412				7.983	7500
	81.028	82.026				0.992	7600
	80.104	80.289				0.185	7700
	80.238	80.389				0.151	7800
	80.602	84.437				3.835	7900
	81.395	83.412				7.983	8000
	81.028	82.026				0.992	8100
	80.104	80.289				0.185	8200
	80.238	80.389				0.151	8300
	80.602	84.437				3.835	8400
	81.395	83.412				7.983	8500
	81.028	82.026				0.992	8600
	80.104	80.289				0.185	8700
	80.238	80.389				0.151	8800
	80.602	84.437				3.835	8900
	81.395	83.412				7.983	9000
	81.028	82.026				0.992	9100
	80.104	80.289				0.185	9200
	80.238	80.389				0.151	9300
	80.602	84.437				3.835	9400
	81.395	83.412				7.983	9500
	81.028	82.026				0.992	9600
	80.104	80.289				0.185	9700
	80.238	80.389				0.151	9800
	80.602	84.437				3.835	9900
	81.395	83.412				7.983	10000

Ver	Amendment	By	Checked	Approved	Date
Drawn	Date	Checked	Date	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	30/06/15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationery Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



Client **transportni**

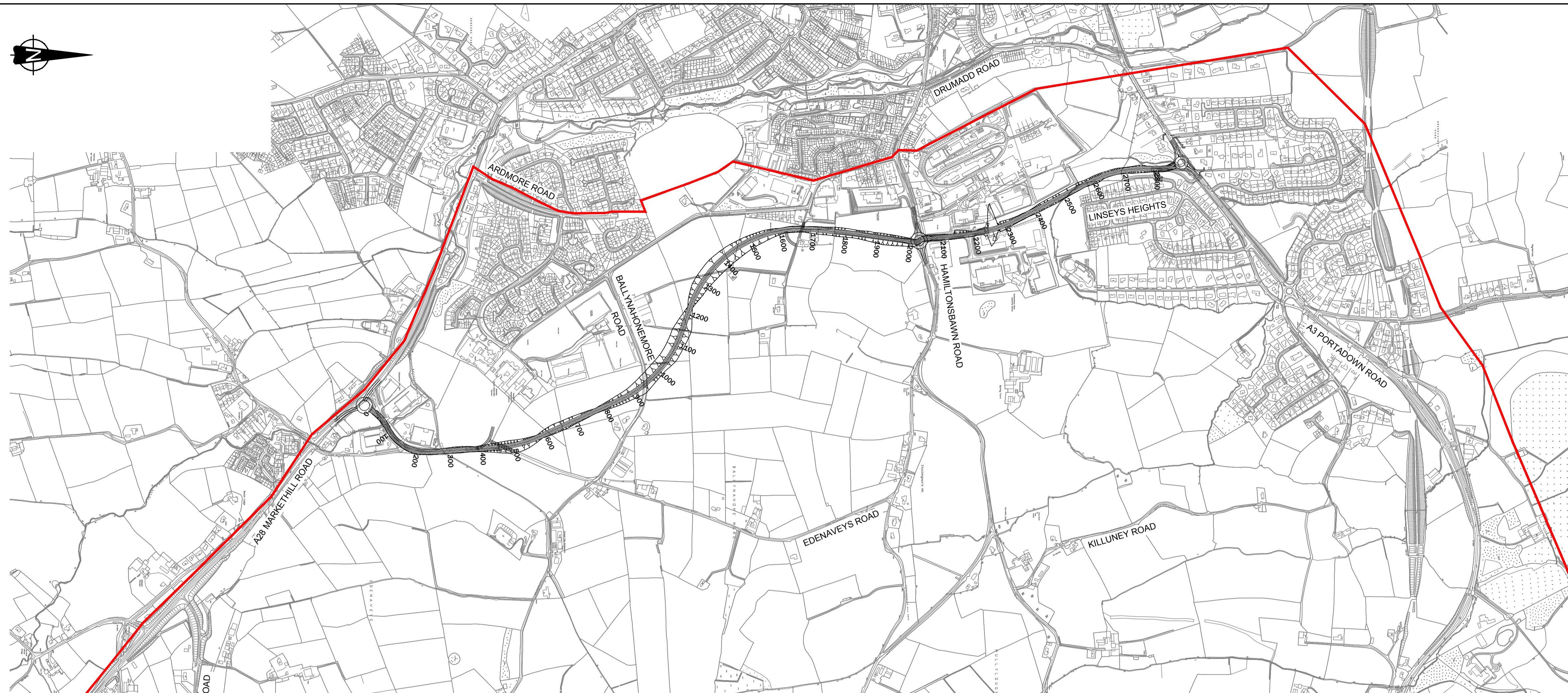
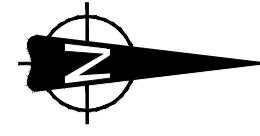
Project **Armagh East Link**

Purpose **Route Assessment Report**

Title **Armagh East Link Proposed Options Alignment 16 (Sheet 2 of 3)**

Scale @ A1 **1:7500**
Drawing No. **1064968-A-D-0825**

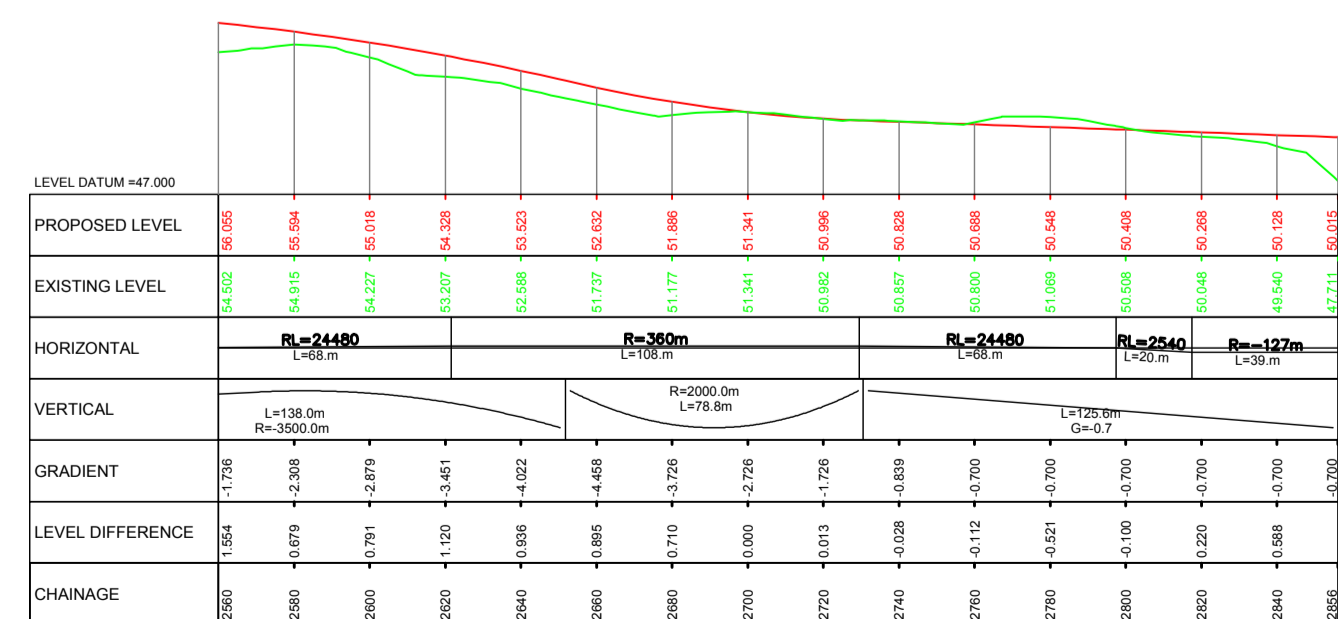
Ver. **A**



LENGTH OF ALIGNMENT = 2780m
70A DESIGN SPEED.

Legend
— Study Area

Legend
— Proposed Vertical Alignment
— Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date
-----	-----------	----	---------	----------	------

Drawn	Date	Checked	Date	By	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	JTB	30/06/15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



Client **transportni**

Project **Armagh East Link**

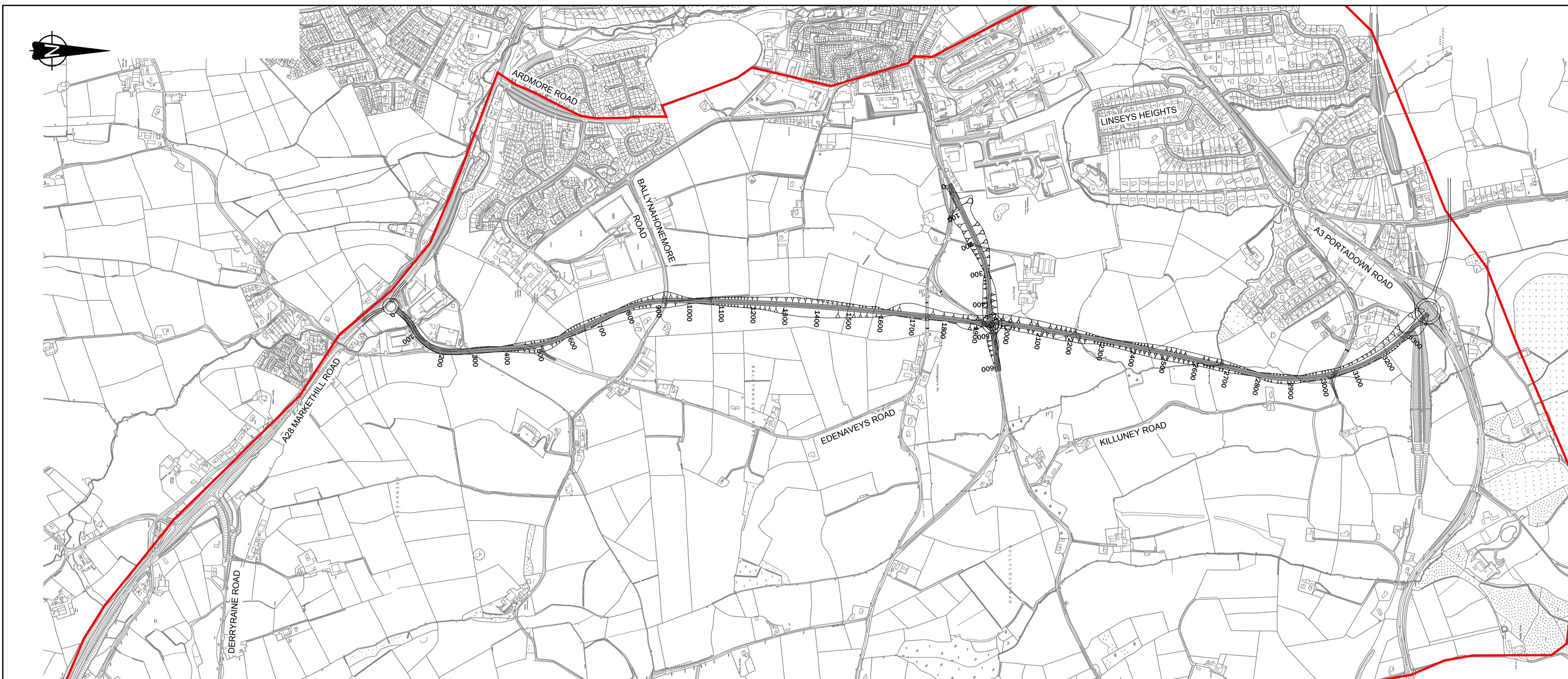
Purpose **Route Assessment Report**

Title **Armagh East Link Proposed Options Alignment 16 (Sheet 3 of 3)**

Scale @ A1 **1:7500**

Drawing No. **1064968-A-D-0825**

Ver. **A**

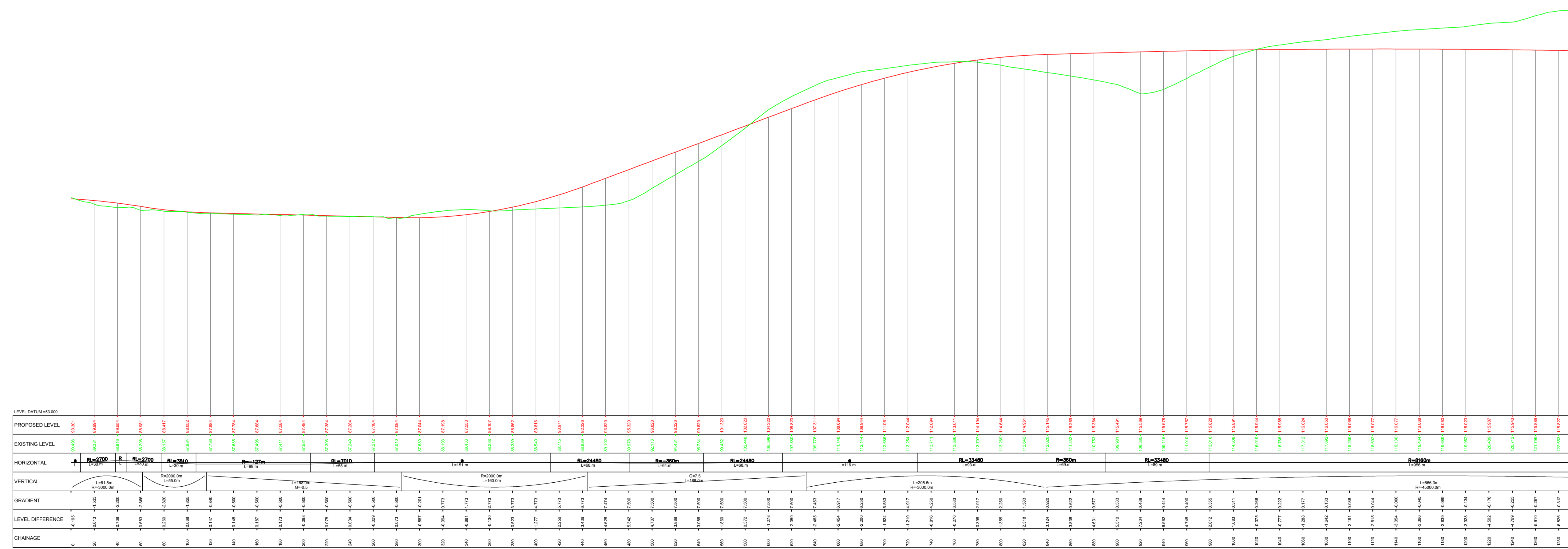


LENGTH OF ALIGNMENT = 3390m
70A / 100A DESIGN SPEED

Legend
Study Area

Legend

- Proposed Vertical Alignment
- Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date
Drawn	Date	Checked	Date	Approved	Date
RPW	12/03/15	VK	30/06/15	JTB	30/06/15
Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214					
Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings					
This drawing may be used only for the purpose intended and only written dimensions shall be used					

Client
transportni

Project
Armagh East Link

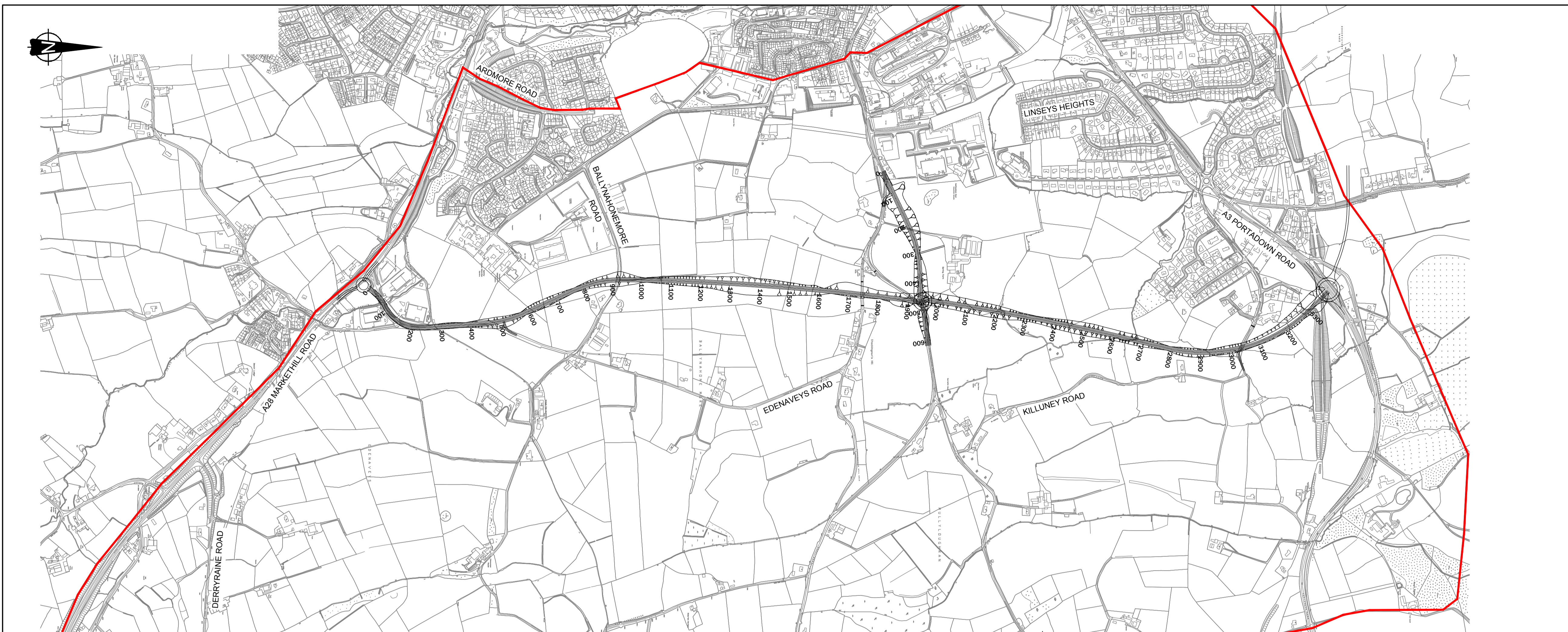
Purpose
Route Assessment Report

Title
Armagh East Link Proposed Options Alignment 50 (Sheet 1 of 3)

Scale @ A1
1:7500

Drawing No.
1064968-A-D-0826

Ver.
A

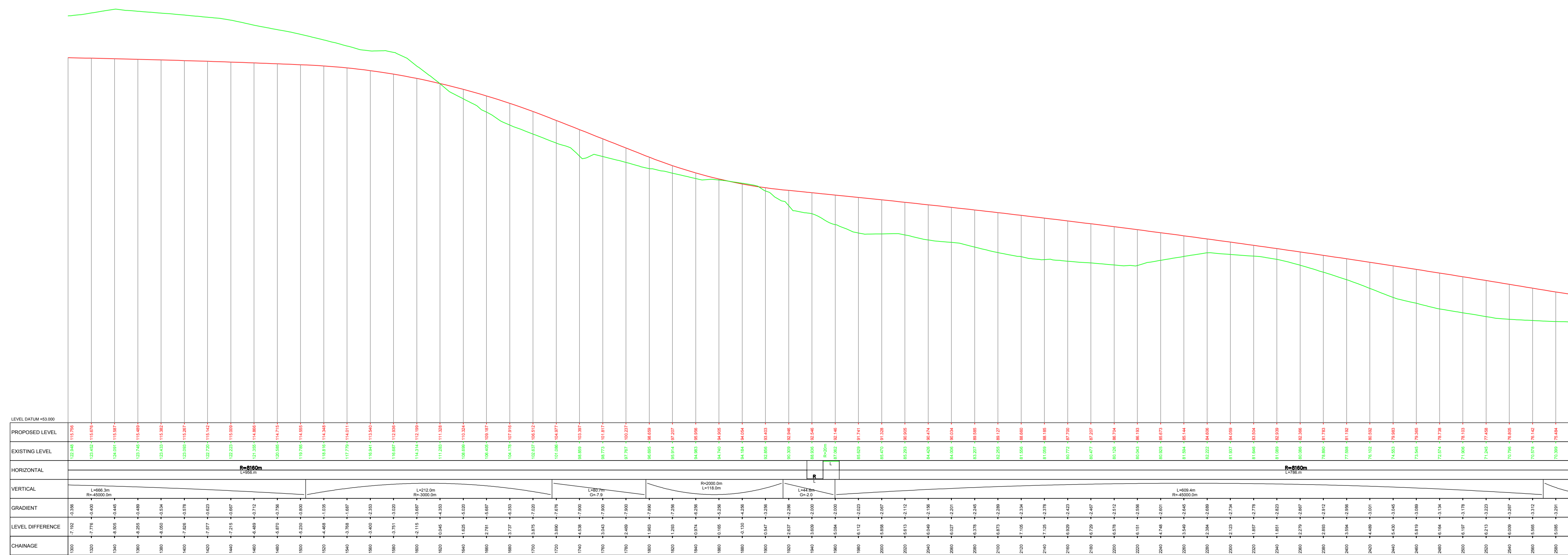


LENGTH OF ALIGNMENT = 3390m
70A / 100A DESIGN SPEED

Legend
 Study Area

Legend

Proposed Vertical Alignment
 Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date

Drawn: RPW Date: 12/03/15 Checked: VK Date: 30/06/15 Approved: JTB Date: 30/06/15
 Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationary Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



Client: **transportni**

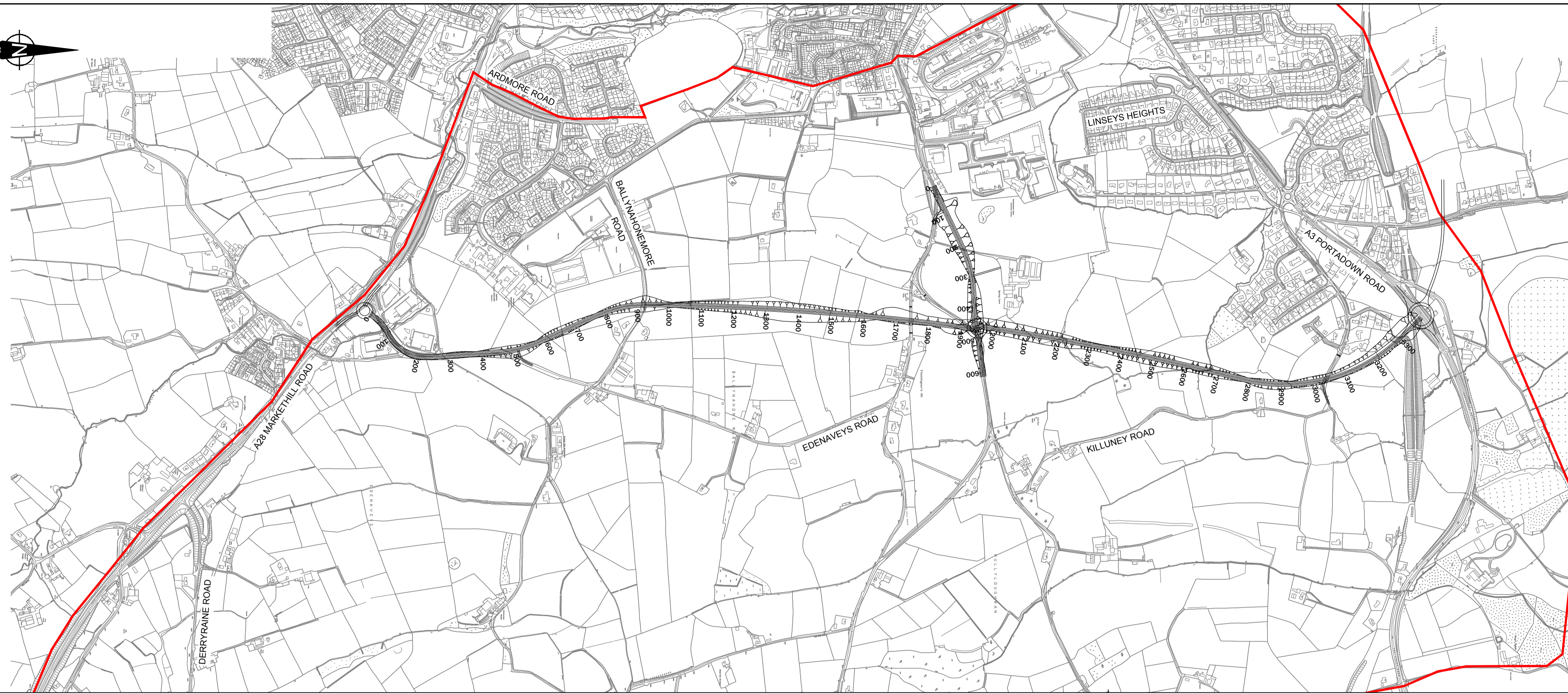
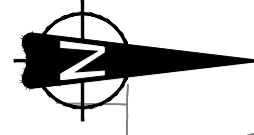
Project: **Armagh East Link**

Purpose: **Route Assessment Report**

Title: **Armagh East Link Proposed Options Alignment 50 (Sheet 2 of 3)**

Scale @ A1: **1:7500**
 Drawing No.: **1064968-A-D-0826**

Ver. **A**

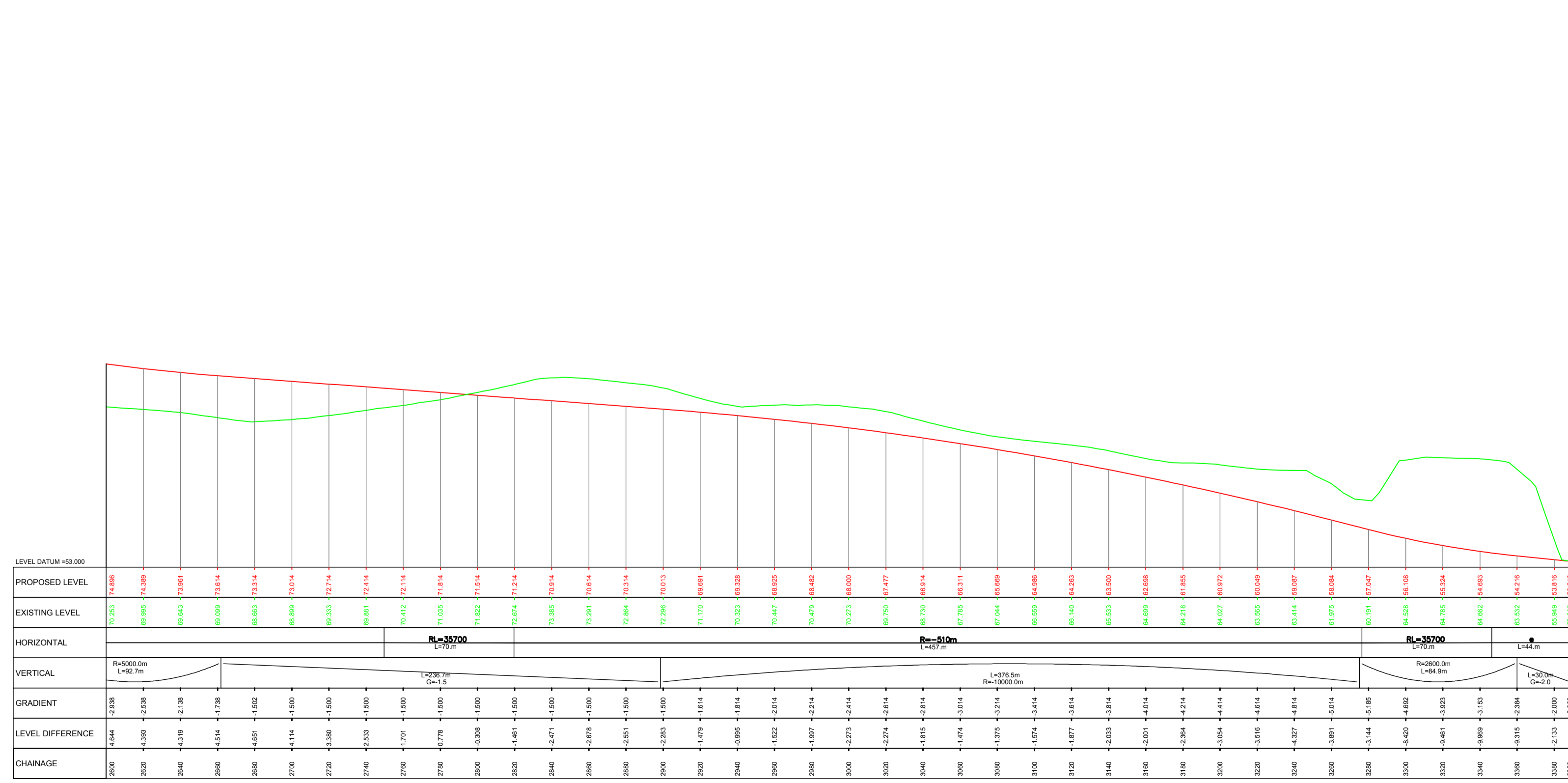


LENGTH OF ALIGNMENT = 3390m
70A / 100A DESIGN SPEED

Legend
— Study Area

Legend

- Proposed Vertical Alignment
- Existing Ground Profile



Ver	Amendment	By	Checked	Approved	Date

Drawn: RPW, Date: 12/03/15, Checked: VK, Date: 30/06/15, Approved: JTB, Date: 30/06/15

Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationery Office, © Crown copyright and database rights NIMA ES&LA214

Unauthorised reproduction infringes © Crown copyright and may lead to prosecution or Civil Proceedings

This drawing may be used only for the purpose intended and only written dimensions shall be used



Client: **transportni**

Project: **Armagh East Link**

Purpose: **Route Assessment Report**

Title: **Armagh East Link Proposed Options Alignment 50 (Sheet 3 of 3)**

Scale @ A1: **1:7500**

Drawing No.: **1064968-A-D-0826**

Ver. **A**

References

DEPARTMENT FOR TRANSPORT, 2006, *Transport Analysis Guidance* [online]. London: DfT. Available from <http://www.webtag.org.uk>

HIGHWAYS AGENCY, 1993, *Design Manual for Roads and Bridges Volume 6, Section 1, Part 1 – TD 9/93: Highway Link Design*. London: TSO

HIGHWAYS AGENCY, 1982, *Design Manual for Roads and Bridges Volume 5, Section 1, Part 4 – TD 30/82: Choice between Options for Trunk Road Schemes*. London: TSO

HIGHWAYS AGENCY, *Design Manual for Roads and Bridges Volume 10 – Environmental Design and Management*. London: TSO

HIGHWAYS AGENCY, *Design Manual for Roads and Bridges Volume 11 – Environmental Assessment*. London: TSO

HIGHWAYS AGENCY, *Design Manual for Roads and Bridges Volume 13 – Economic Assessment of Road Schemes*. London: TSO

http://www.doeni.gov.uk/niea/land-home/landscape_home/country_landscape/66.htm

http://www.doeni.gov.uk/niea/land-home/landscape_home/country_landscape/66/66-land.htm

<https://www.translink.co.uk/Documents/Services/Goldline/4186%20Goldline%20map%20interactive%2020130114.pdf?epslanguage=en>

http://www.doeni.gov.uk/niea/land-home/landscape_home/country_landscape/66/66-geo.htm

http://www.doeni.gov.uk/niea/land-home/landscape_home/country_landscape/66/66-bio.htm

<http://www.sustrans.org.uk/ncn/map?lat=54.616616921679416&lng=-7.272949656250036&zoom=8&route-type=all-routes®ion=Northern%20Ireland>

EHSNI – Environment & Heritage Service Northern Ireland

NORTHERN IRELAND EXECUTIVE, 2007 *Government Departments* [online]
<http://www.northernireland.gov.uk>

DEPARTMENT FOR REGIONAL DEVELOPMENT, *Planning Policy Statement 13 (PPS13) – Transportation and Land Use*

DEPARTMENT FOR REGIONAL DEVELOPMENT, *Shaping Our Future: Regional Development Strategy for Northern Ireland 2025*

DEPARTMENT FOR REGIONAL DEVELOPMENT, *Shaping Our Future: Regional Transportation Strategy for Northern Ireland 2002 – 2012*

DEPARTMENT FOR REGIONAL DEVELOPMENT, *Draft Sub-regional Transport Plan 2015 – Armagh City and District Council*

DEPARTMENT OF THE ENVIRONMENT, the Planning Service – *Armagh Area Plan 2018*

<http://www.nidirect.gov.uk/pointer>

<http://www.translink.co.uk/Documents/timetables/ulsterbus%20town%20services%20route%20maps/>