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NORTH HYKEHAM RELIEF ROAD
STAGE 1 ROAD SAFETY AUDIT RESPONSE REPORT

TRANSPORT

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STAGE 1 ROAD SAFETY AUDIT RESPONSE REPORT

Project name	**North Hykeham Relief Road**
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Recipient	**Balfour Beatty & Lincolnshire County Council**
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Date	**15/08/23**
Prepared by	**---**
Checked by	**B.Williams**
Approved by	**B.Williams**
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Functional Breakdown	**Highways-General**
Spatial Breakdown	**North Hykeham Relief Road**

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Revision	Date	Prepared by	Checked by	Approved by	Description
C01	**15/08/23**	BW	BW	BW	NH Responses and Agreed responses added.
P02	15/08/23	BW	BW	BW	NH Responses and Agreed responses added.
P01	08/08/23	BW	BW	LF	First Issue

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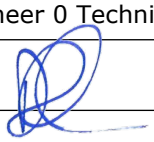
1. PROJECT DETAILS

Report title	Stage 1 RSA Response Report
Date	…
Document reference and revision	NHRR-RAM-HGN-HYKE-RP-CH-01011
Prepared by	Ramboll UK Limited
On behalf of	Lincolnshire County Council

1.1 Authorisation Sheet

Project	North Hykeham Relief Road
Report title	Stage 1 RSA Response Report
Prepared by	Ramboll UK Limited
Name	Barry Williams
Position	Associate
Signed	
Organisation	Ramboll UK Limited
Date	03/08/2023
Approved by	Lincolnshire County Council
Name	Dave Chetwynd
Position	Principal Engineer 0 Technical Services Partnership
Signed	
Date	07/08/2023
Approved by	National Highways
Name	Catherine Townend
Position	Spatial Planner
Signed	Catherine Townend
Date	~~14/08/2023~~ 06/09/2023

2. INTRODUCTION

2.1 Description of the Scheme, Objective and the Locality

The NHRR, previously known as the Lincoln Southern Bypass (LSB), will link the recently constructed Lincoln Eastern Bypass (LEB) with the Lincoln Western Relief Road (LWRR) and the A46 on the Strategic Road Network (SRN). The NHRR is the last major highway scheme contained within the Lincoln Integrated Transport Strategy (LITS). The NHRR is also the last element of a complete ring road around the greater Lincoln urban area comprising both Lincoln and North Hykeham. The completed ring road will comprise of four sections of carriageway: the Lincoln Western Relief Road (LWRR), the Lincoln Northern Relief Road (LNRR), the Lincoln Eastern Bypass (LEB), and the NHRR. The NHRR will also form part of the Lincolnshire Coastal Highway.

The NHRR, comprises a Dual All-Purpose 2 lane Carriageway with a combined foot and cycleway, linking the A46 to the Lincoln Eastern Bypass (LEB). The combined footway and cycleway runs to the north of the east-bound carriageway between the A46 and Station Road. From Station Road to Grantham Road, the combined footway/cycleway will run to the south of the westbound carriageway before returning to the north of the east-bound carriageway between Grantham Road and the A15 Sleaford Road where it will connect to the LEB combined footway/cycleway. Feature requirements include:

- River Witham Crossing
- Station Road Crossing
- A46 NMU Crossing
- Wath Lane NMU Crossing
- Viking Way NMU Crossing
- Additional arm to A46 Roundabout
- New South Hykeham Road Roundabout
- New (A607) Grantham Road Roundabout
- New Brant Road Roundabout
- Additional arm to LEB Roundabout
- Green Lane Drain Crossing
- South Hykeham Drain Crossing
- Waddington Dyke Drain Crossing

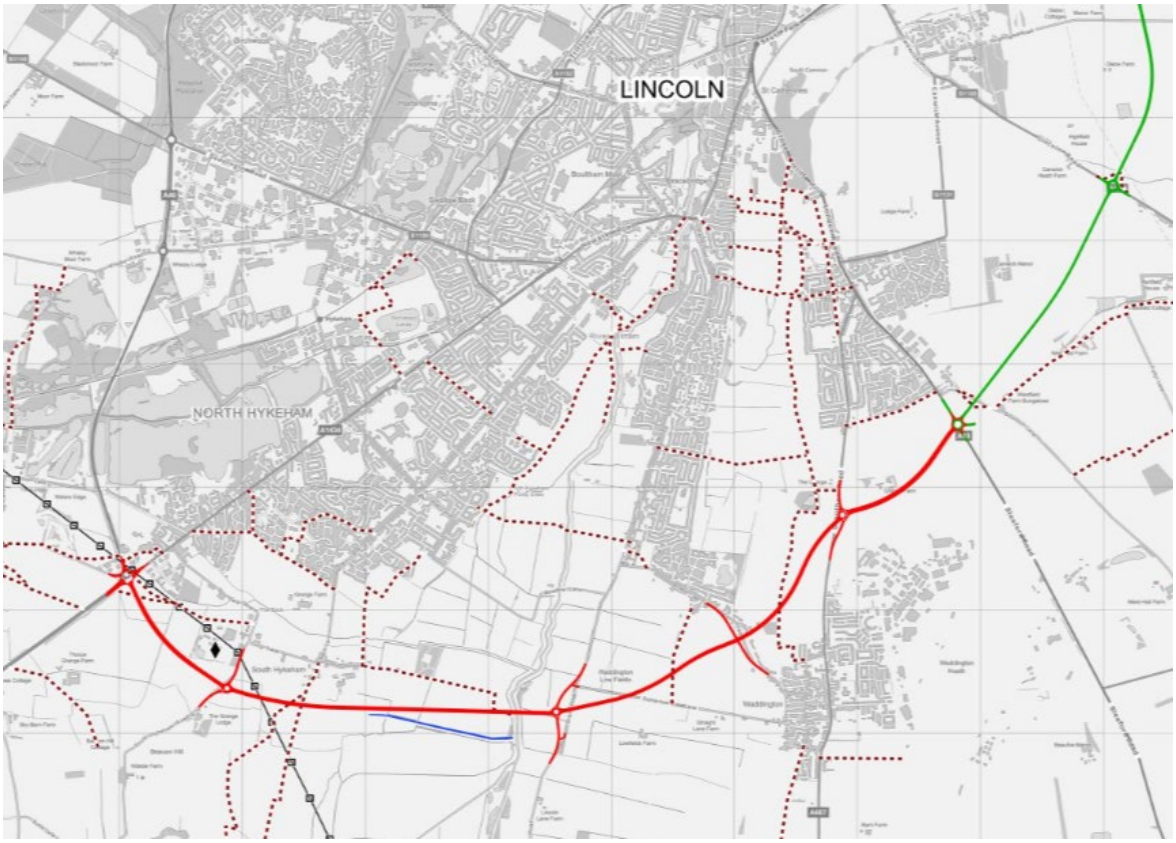


Figure 1 – Location Plan, NHRR (Red), LEB (Green)

3. KEY PERSONNEL

Overseeing Organisation:	
RSA team:	Simon Hawley, Road Safety Audit Team Leader Graeme Turner Road Safety Audit Team Member (For CV's/Qualifications refer to Document NHRR-RAM-HGN-HYKE-RP-CH-01006 and NHRR-RAM-HGN-HYKE-RP-CH-01005)
RSA Observer	
Design Organisation:	Barry Williams Ramboll UK Ltd, 2nd Floor, The Exchange St. John Street Chester CH1 1DA https://uk.ramboll.com
Lincolnshire County Council	David Chetwynd Lincolnshire County Council Technical Services Partnership County Offices Newland Lincoln LN1 1YL
National Highways	Catherine Townend National Highways Operations Directorate (Midlands)

4. ROAD SAFETY AUDIT DECISION LOG

4.1 Items Raised at this Stage 1 Road Safety Audit relating to both the NH and the LCC Highway Network

PROBLEM 1 NH LCC	
Location:	Public Footpath TOTM/17/1 on Western side of A46 north of Hykeham Roundabout (Location 1 NH LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HMK-HYKE-DR-CH-12001
Summary:	No NMU facilities provided across the A46 resulting is NMU collision with vehicles or trips/falls type injuries.
The crossing (at-grade) of the A46 from the existing public footpath TOTM/17/1 has not been considered. No dropped kerbs, tactile paving or finger post signing has been provided to direct and assist pedestrians crossing the A46. This may result in slip/trip type falls or conflict with passing vehicles due to the uncontrolled crossing behaviour of pedestrians.	
RECOMMENDATION	
Provide at-grade crossing facilities at the A46 for pedestrians with appropriate wayfinding signage.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Alternative solution proposed.** Design development has resulted in the design proposals changing in this area. Footpath TOTM/17/1 is difficult to access on its legal alignment and is indeed fenced off through the golf course, adjacent to Middle Lane. Members of the public have been recorded traversing along the edge of the field adjacent to Middle Lane before accessing Middle Lane via the existing field entrance. NHRR Scheme proposals, following consultation with LCC, have been amended to propose the footpath to be re-aligned along the field edge to the access, with a footway constructed along Middle Lane to the roundabout.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
NATIONAL HIGHWAYS RESPONSE	Agree with the Designers Response provided the Detailed Design includes comprehensive signing to direct pedestrians to the A46 crossing point provided.
AGREED RSA ACTIONS	Alternative NMU solution to be progressed at detailed design stage.

PROBLEM 2 NH LCC	
Location:	W/B A1434 on approach to Hykeham Roundabout (Location 2 NH LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HMK-HYKE-DR-CH-12001
Summary:	W/B A1434 diverge into 3 lanes at junction stop line on approach to Hykeham Roundabout may result in side-swipe/shunt type collisions.
The A1434 Newark Road on the W/B approach to Hykeham Roundabout indicates that the existing W/B single lane develops into 3 lanes over a shorth distance of approximately 25m. This short diverge taper does not allow for drivers to change lanes/bifurcate in a gradual manner. There are no advance signing or road markings to indicate to drivers that the road layout is changing. Design standards indicate a minimum rate of change of 1:5, but generally a 1:10 taper length. This may result in poor lane management leading to side-swipe or shunt type collisions.	
RECOMMENDATION	
Increase the transition length over which the single lane diverges to 3 lanes and provide advance road signing and markings to indicate to drivers the downstream road layout.	
DESIGN ORGANISATION RESPONSE	**Disagree. Recommendation to provide additional signage accepted.** Risk is considered to be low due to the existing (and proposed) 40mph speed limit on the approach. In reality, vehicles will transition over a longer length than the diverge provided. Advance signage will be provided, and the modelled queue lengths investigated at detailed design stage with a view to increasing the transition length if possible.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
NATIONAL HIGHWAYS RESPONSE	Agree with Designers response.
AGREED RSA ACTIONS	Additional signage and markings to be provided as appropriate at detailed design stage.

PROBLEM 3 NH LCC	
Location:	E/B along Middle Lane on approach to Hykeham Roundabout (Location 3 NH LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HMK-HYKE-DR-CH-12001
Summary:	Insufficient entry path deflection resulting in high vehicle speeds hence possible loss of control type collisions.
The southeast shift in the proposed gyratory (island) position compared to the existing (island) position has resulted in a reduced entry path deflection for vehicles travelling E/B on Middle Lane through the roundabout resulting in potentially high vehicle speeds which may lead to loss of control type collisions. The RSA team note from the information provided that the Middle Lane approach arm will enter the roundabout under a give-way priority and not traffic signal control.	
RECOMMENDATION	
Amend the roundabout geometry to increase the entry path deflection from Middle Lane thereby reducing the likelihood of vehicles travelling at high speeds through the roundabout from this approach especially given the absence of signal control.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Roundabout geometry will be looked at during the detailed design phase with a view to ensuring that there is suitable entry path deflection provided on the Middle Lane approach and entry into the roundabout.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
NATIONAL HIGHWAYS RESPONSE	Agree with Designers response.
AGREED RSA ACTIONS	Review roundabout geometry at detailed design stage with a view to ensuring that there is suitable entry path deflection provided on the Middle Lane approach and entry into the roundabout.

PROBLEM 4 NH LCC	
Location:	Middle Lane E/B entry into service station site (Location 4 NH LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HMK-HYKE-DR-CH-12001
Summary:	No diverge taper provided resulting in shunt type collisions.
No diverge taper has been provided for E/B vehicles on Middle Lane turning left into the service station site on north side which may result in late vehicle braking in order to enter into the minor road leading to shunt type collisions.	
RECOMMENDATION	
Provide diverge exit taper off Middle Lane into service station site.	
DESIGN ORGANISATION RESPONSE	**Disagree.** The left turn movement will be tracked and will be suitable for HGV's, though it is noted that there is an Environmental Weight Limit in place on Middle Lane from Thorpe on the Hill, restricting use by vehicles >7.5T coming from this direction, except those using the road for access, so usage will be minimal, with the vast majority of the HGV traffic using the services, accessing Middle Lane from the A46 roundabout. As such, a diverge taper for eastbound traffic entering the Service Area is not considered necessary and as such, no changes are proposed.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
NATIONAL HIGHWAYS RESPONSE	Agree with Designers response.
AGREED RSA ACTIONS	No updates to be made at this stage.

PROBLEM 5 NH LCC	
Location:	Hykeham Roundabout (Location 5 NH LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01001
Summary:	Roundabout exit width to E/B NHRR may be insufficient from roundabout resulting in side-swipe type collisions.
Tracking drawings have not been provided but from inspection there may be insufficient carriageway width at the 2-lane exit arms (dual carriageway sections). This may lead to side swipe type collisions. It is noted that CD116 guidance has not been followed at the 2-lane exit arms of the roundabout.	
RECOMMENDATION	
Ensure design vehicle tracking has been undertaken for a realistic vehicle speed. Based on the results it may be necessary to increase the exit widths for the 2-lane dual carriageways. The single lane exit arms should also be tracked at a realistic vehicle speed to ensure sufficient widening has been provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Exit widths will be increased to a minimum of 10m on the 2-lane dual carriageway exits, as required by CD 116. Vehicle tracking will be undertaken.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
NATIONAL HIGHWAYS RESPONSE	Agree with Designers response.
AGREED RSA ACTIONS	Exit widths to be increased to a minimum of 10m on the 2-lane dual carriageway exits, as required by CD 116 and vehicle tracking to be undertaken at detailed design stage.

4.2 Items Raised at this Stage 1 Road Safety Audit relating to the Lincolnshire County Council (LCC) Highway Network

PROBLEM 1 LCC	
Location:	South Hykeham Road Roundabout (Location 1 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HMK-HYKE-DR-CH-12003
Summary:	Insufficient carriageway widths throughout the roundabout have been provided leading to side swipe type collisions occurring.
No swept path or dimensions provided but given a high-level overview by the RSA Team it appears that insufficient carriageway widths throughout the roundabout have been provided leading to side-swipe type collisions.	
RECOMMENDATION	
Undertake swept path analysis with CD116 design vehicle to ensure sufficient carriageway widths have been provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Roundabout circulatory widths will be increased to a minimum of 9.3m to match the maximum entry width as required by CD 116.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Roundabout circulatory widths to be increased to a minimum of 9.3m to match the maximum entry width as required by CD 116.

PROBLEM 2 LCC	
Location:	Westbound carriageway ch 5730 to ch 5830 (Location 2 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HML-HYKE-DR-CH-01009
Summary:	The presence of the 8% downhill gradient may lead to loss of control type collisions occurring.
The 8% longitudinal down gradient may not be anticipated by W/B drivers particularly during the hours of darkness or during the winter months or periods of high rainfall. This may lead to excessive vehicle speeds resulting in loss of control type collisions occurring.	
RECOMMENDATION	
Providing appropriate warning signs for drivers approaching this downhill gradient.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Additional warning signage to be provided.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Provide warning signage to indicate approaching downhill gradient.

PROBLEM 3 LCC	
Location:	Westbound carriageway ch 5550 to ch 6570 (Location 3 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HML-HYKE-DR-CH-01010
Summary:	The presence of the 8% downhill gradient with a proceeding crest curve relaxation may lead to loss of control type collisions occurring.
It is noted that there is a relaxation in the proceeding crest curve before the 8% gradient and although permitted under CD109 the resultant SSD of 100m to the low object height may not give drivers sufficient time to anticipate the 8% gradient resulting in loss of control or shunt type collisions occurring particularly during the hours of darkness or during the winter months or periods of high rainfall. This may lead to excessive vehicle speeds resulting in loss of control type collisions occurring.	
RECOMMENDATION	
Provide appropriate warning signs for W/B drivers approaching this downhill gradient. It is noted that TSM provides guidance on the use of warning signs for gradients of 10% or greater. However, due to the relatively 'flat' nature of the proposed NHRR elsewhere and the general surrounding topography similar warning signs may be required elsewhere within the scheme. It is recommended that the warning sign requirements throughout the scheme are reviewed, and appropriate signs are provided as required.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** The crest curve of 10,000mR is a 1-step reduction from the desirable minimum of 18,200mR. This results in a corresponding 1-step reduction in Stopping Sight Distance, from the desirable minimum of 295m to 215m over the section between Chainage 6070 and 6340. Visibility to the low object is therefore reduced. Whilst it will however be clear to drivers that they are approaching a downhill slope, as noted in the response to LCC Problem 2, signage warning of the upcoming gradient will be provided. Warning signage across the scheme will be reviewed as recommended, though it is not anticipated at this stage that further warning signage in relation to gradients will be required.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Provide warning signage to indicate approaching downhill gradient and review warning signage provision scheme wide during detailed design stage.

PROBLEM 4 LCC	
Location:	Westbound carriageway ch 6360 (Location 4 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HML-HYKE-DR-CH-01009
Summary:	The change from left hand superelevation to right hand superelevation (i.e. west to east) may result in surface water crossing the carriageway resulting in loss of control type collisions occurring.
During periods of heavy rainfall, the transition between superelevations may result in excessive surface water run-off crossing the carriageway leading to loss of control type collisions occurring particularly during the hours of darkness.	
RECOMMENDATION	
Ensure that the application of superelevation and the transition between the left and right hands does not result in surface run-off crossing the carriageway. Furthermore, ensure that surface water drainage collection is sufficient to intercept run-off. It is noted that surface contour and drainage drawings have not been provided to the RSA Team for review.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** The transition across the superelevation is applied over a 250m length between chainages 6240 and 6490. The length of drainage path and flow depth generated will be checked at detailed design stage and the transition adjusted if necessary. Verge drainage proposed in this section is over the edge to a grassed surface water channel. The verge level will be left low as per MCHW edge of pavement details.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Transition across superelevation to be reviewed with a view to ensuring that drainage paths are suitable.

PROBLEM 5 LCC	
Location:	Scheme wide - Maintenance access track/PMA (Location 5 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01001 series drawings
Summary:	Width of maintenance access tracks throughout the scheme results in side-swipe or loss of control type collisions.
The proposed maintenance access tracks at some locations around 1km in length with a carriageway width in the region of 3.5m which is insufficient for two vehicles to pass one another. This may result in side-swipe or loss of control collisions occurring.	
RECOMMENDATION	
Provide passing bays at regular intervals along the proposed maintenance access track.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Passing areas will be added during the detailed design.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Passing areas to be added during the detailed design.

PROBLEM 6 LCC	
Location:	Brant Roundabout (Location 6 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01008
Summary:	Roundabout exit widths may be insufficient from roundabout resulting in side-swipe type collisions.
Tracking drawings have not been provided but from inspection there may be insufficient carriageway width at the 2-lane exit arms (dual carriageway sections). This may lead to side-swipe type collisions. It is noted that CD116 guidance has not been followed at the 2-lane exit arms of the roundabout.	
RECOMMENDATION	
Ensure design vehicle tracking has been undertaken for a realistic vehicle speed. Based on the results it may be necessary to increase the exit widths for the 2-lane dual carriageways. The single lane exit arms should also be tracked at a realistic vehicle speed to ensure sufficient widening has been provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Exit widths will be increased to a minimum of 10m as required by CD 116. Vehicle tracking will be undertaken.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Exit widths to be increased to a minimum of 10m as required by CD 116 and undertake vehicle tracking.

PROBLEM 7 LCC	
Location:	South Hykeham Road Roundabout (Location 7 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01003
Summary:	Roundabout exit width to E/B and W/B NHRR may be insufficient from roundabout resulting in side swipe type collisions.
Tracking drawings have not been provided but from inspection there may be insufficient carriageway width at the 2-lane exit arms (dual carriageway sections). This may lead to side swipe type collisions. It is noted that CD116 guidance has not been followed at the 2-lane exit arms of the roundabout.	
RECOMMENDATION	
Ensure design vehicle tracking has been undertaken for a realistic vehicle speed. Based on the results it may be necessary to increase the exit widths for the 2-lane dual carriageways. The single lane exit arms should also be tracked at a realistic vehicle speed to ensure sufficient widening has been provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Exit widths will be increased to a minimum of 10m as required by CD 116. Vehicle tracking will be undertaken.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Exit widths to be increased to a minimum of 10m as required by CD 116 and undertake vehicle tracking.

PROBLEM 8 LCC	
Location:	Sleaford Road Roundabout (Location 8 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01015
Summary:	Roundabout exit width to W/B NHRR may be insufficient from roundabout resulting in side-swipe type collisions.
Tracking drawings have not been provided but from inspection there may be insufficient carriageway width at the 2-lane exit arms (dual carriageway sections). This may lead to side swipe type collisions. It is noted that CD116 guidance has not been followed at the 2-lane exit arms of the roundabout.	
RECOMMENDATION	
Ensure design vehicle tracking has been undertaken for a realistic vehicle speed. Based on the results it may be necessary to increase the exit widths for the 2-lane dual carriageways. The single lane exit arms should also be tracked at a realistic vehicle speed to ensure sufficient widening has been provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Exit widths will be increased to a minimum of 10m as required by CD 116. Vehicle tracking will be undertaken.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Exit widths to be increased to a minimum of 10m as required by CD 116 and undertake vehicle tracking.

PROBLEM 9 LCC	
Location:	Grantham Road Roundabout (Location 9 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01013
Summary:	Roundabout exit width to E/B and W/B NHRR may be insufficient from roundabout resulting in side-swipe type collisions.
Tracking drawings have not been provided but from inspection there may be insufficient carriageway width at the 2-lane exit arms (dual carriageway sections). This may lead to side swipe type collisions. It is noted that CD116 guidance has not been followed at the 2-lane exit arms of the roundabout.	
RECOMMENDATION	
Ensure design vehicle tracking has been undertaken for a realistic vehicle speed. Based on the results it may be necessary to increase the exit widths for the 2-lane dual carriageways. The single lane exit arms should also be tracked at a realistic vehicle speed to ensure sufficient widening has been provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Exit widths will be increased to a minimum of 10m as required by CD 116. Vehicle tracking will be undertaken.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Exit widths to be increased to a minimum of 10m as required by CD 116 and undertake vehicle tracking.

PROBLEM 10 LCC	
Location:	Wath Lane (Location 10 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HGN-HYKE-DR-CH-01004
Photograph:	Photo B (Appendix 2)
Summary:	Sudden change in road surface may lead to NMUs (cyclists) losing control.
Assuming that the proposed footway/cycleway pavement is a bound surface there will be a sudden change in pavement surfaces which may lead to loss of control type collisions. It is noted that this change in pavement surface occurs after a downhill approach and a left hand horizontal bend.	
RECOMMENDATION	
Continue the proposed bound pavement up to the extent of the existing bound pavement to the north of the current proposed tie-in point.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Additional bound surfacing will be added to the design proposals.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Additional bound surfacing will be added to the design proposals.

PROBLEM 11 LCC	
Location:	Scheme wide (Various locations referenced 11 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HMK-HYKE-DR-CH-12001 to 12017
Summary:	Edge of carriageway lines not provided resulting in over-shoot/side swipe type collisions.
At numerous maintenance and PMA accesses there are no edge of carriageway lines provided which may result in vehicle drivers over-shooting the junction resulting in side-swipe type collisions.	
RECOMMENDATION	
Provide edge of carriageway lines to diag. 1010 (where appropriate).	
DESIGN ORGANISATION RESPONSE	**Disagree.** Generally, edge lines are not proposed on the radial roads to/from Lincoln and as such, markings are not proposed across the proposed PMA/Maintenance accesses. It is noted that these facilities are not proposed for use by the general public and will generally be gated near the access points to the various carriageways.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	No update at this stage.

PROBLEM 12 LCC	
Location:	Sleaford Road (Location 12 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HSN-HYKE-DR-CH-12045
Photograph:	Photo C (Appendix 2)
Summary:	Existing sign may obstruct intervisibility between road users resulting in NMU injury type collisions.
The existing route (A607) destination distance sign may obstruct intervisibility which may result in vehicle/NMU collision. It is noted that the existing shared use facility (Lincoln Eastern By-pass) to the east is for pedestrians, cyclists and equestrians.	
RECOMMENDATION	
Relocate road sign away from intervisibility zone.	
DESIGN ORGANISATION RESPONSE	**Disagree.** The existing ADS is in excess of 100m in advance of the proposed NMU crossing and so, should not pose an obstruction to the crossing point. This will be checked and confirmed during the detailed design stage.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	ADS position to be checked during detail design, with appropriate action taken at that stage.

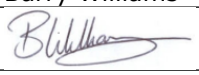
PROBLEM 13 LCC	
Location:	Sleaford Road (Location 13 LCC on Plan in Appendix 1).
Plan:	NHRR-RAM-HSN-HYKE-DR-CH-12045
Photograph:	Photo C (Appendix 2)
Summary:	Tactile paving has not been provided on the existing Lincoln Eastern Bypass scheme or shown on the RSA brief information. This may result in vehicle/NMU collisions.
The absence of tactile paving and adequate equestrian facilities may result in vehicle/NMU type collisions. It is noted that the existing shared use facility (Lincoln Eastern By-pass) to the east is for pedestrians, cyclists and equestrians.	
RECOMMENDATION	
Provide adequate NMU at-grade crossing facilities such as tactile paving and a segregated equestrian holding area should be provided.	
DESIGN ORGANISATION RESPONSE	**Problem accepted. Recommendation accepted.** Tactile paving will be provided to the existing LEB footway/cycleway access, with further amendments made to allow southbound cycle access to the crossing.
OVERSEEING ORGANISATION REPSPONSE – LCC	Response accepted.
AGREED RSA ACTIONS	Provide tactile paving to the existing LEB footway/cycleway access, with further amendments made to allow southbound cycle access to the crossing.

5. DESIGN ORGANISATION AND OVERSEEING ORGANISATION STATEMENTS

Include the following statements to be signed by the design organisation and the Overseeing Organisation.

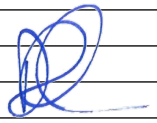
On behalf of the design organisation, I certify that:

1) **The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.**

Name	Barry Williams
Signed	
Position	Associate
Organisation	Ramboll UK
Date	15/08/2023

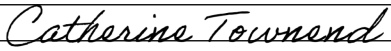
On behalf of the Overseeing Organisation (LCC), I certify that:

1) **The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and**
2) **The agreed RSA actions will be progressed.**

Name	David Chetwynd
Signed	
Position	Principal Engineer TSP
Organisation	Lincolnshire County Council
Date	

On behalf of National Highways (Operators of the SRN asset), I certify that:

1) **The RSA actions identified in response to the road safety audit problems, that relate to the Strategic Road Network, in this road safety audit have been discussed and agreed with the design organisation; and**
2) **The agreed RSA actions will be progressed.**

Name	Catherine Townend
Signed	
Position	Spatial Planner
Organisation	National Highways
Date	14/08/2023