

| | PIPE-1 | |
|------------------------|-------------|------------|
| | UPSTREAM | DOWNSTREAM |
| EASTINGS: | 462458.601 | 462504.117 |
| NORTHINGS: | 226727.220 | 226714.294 |
| EXISTING DITCH LEVELS: | 94.266 | 93.620 |
| PIPE INVERT: | 94.266 | 93.500 |
| HEADWALL: | TYPE 1 | TYPE 1 |
| PIPE TYPE: | FILTER PIPE | |
| MINIMUM COVER: | 300mm | |

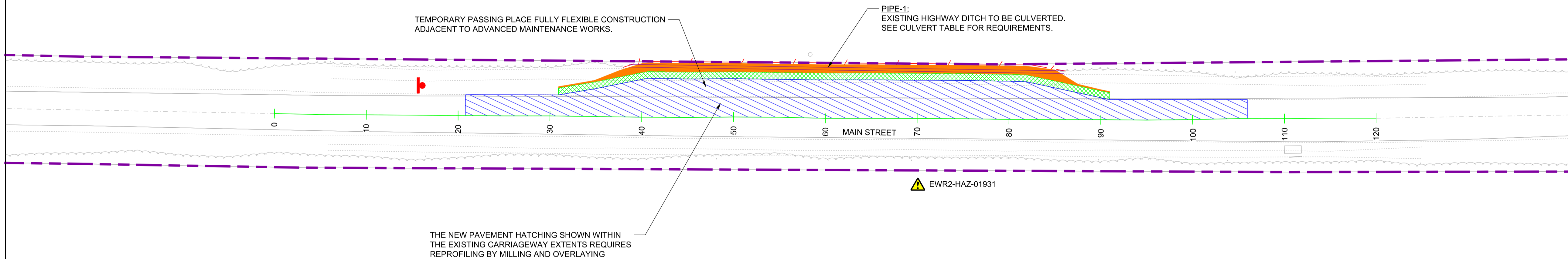
NOTES:

- PIPE PERFORATIONS ARE TO BE LAID FACING UPWARDS.
- REFER TO STANDARD DETAIL DRAWING 133735_RW-EWR-XX-XX-DR-CH-000131 FOR PIPE SURROUND AND BEDDING TYPES.
- THE EXISTING DITCH INVERT LEVELS ARE TAKEN FROM AVAILABLE TOPOGRAPHIC SURVEY INFORMATION, WHERE AVAILABLE. THE DELIVERY TEAM WILL NEED TO CONFIRM DITCH LEVELS BEFORE INSTALLING CULVERT. ANY DISCREPANCIES IN LEVEL WILL NEED TO BE DISCUSSED WITH THE DESIGNER.

CULVERT REQUIREMENTS

NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

- NOTES:
- THIS DRAWING IS NOT TO BE SCALED.
 - ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
 - WHEREVER REQUIRED, ROAD MARKINGS ARE TO BE LAID IN ACCORDANCE WITH THE TRAFFIC SIGN REGULATIONS AND GENERAL DIRECTIONS 2016 & 'TRAFFIC SIGNS MANUAL CHAPTER 5 (2003)'.
 - WHERE A FENCE IS PROPOSED IT SHALL TIE-IN TO THE EXISTING HEDGEROW OR BOUNDARY TREATMENT TO PROVIDE A SECURE BOUNDARY.



| Rev | Date | Description of Revisions | Desd | Chkd | Appr | Suitability |
|-----|----------|--------------------------|------|------|------|----------------|
| B01 | 12/08/19 | FOR INFORMATION | | | | N.T. N.R. E.F. |

Rev Status: SHARED - for Information Suitability: S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
PASSING PLACE A3_P_4 GENERAL ARRANGEMENT

| | | | | | |
|----------|--------------------------|--------|----------------|------|----------|
| Designed | Nagoth Thomas Ravi Kumar | Signed | N. T. R. Kumar | Date | 08/08/19 |
| Drawn | Ravikumar KN | Signed | R. KN | Date | 22/01/19 |
| Checked | Nadeem Rashid | Signed | N. Rashid | Date | 08/08/19 |
| Approved | Edward Findlay | Signed | E. Findlay | Date | 08/08/19 |

| | | | |
|------------------------------------|--------|--------------------------------------|--------|
| Scale(s) | 1:250 | ELR - Project Chainage (Miles Yards) | OXD - |
| Design Package Risk Classification | Normal | Sheet | 1 of 1 |
| Alternative Reference | | Revision | B01 |

Drawing Number
133735_2A-EWR-OXD-A3_P_4-DR-CH-010001

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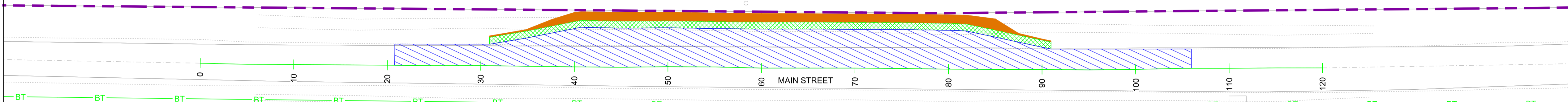
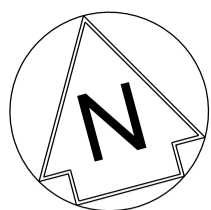
- HIGHWAY BOUNDARY
- EXISTING ROAD EDGE
- PROPOSED ROAD EDGE
- PROPOSED DRAINAGE CULVERT
- NEW PAVEMENT
- GRASS VERGE
- PROPOSED EARTHWORKS
- PROPOSED TRAFFIC SIGN
- PROPOSED POST & WIRE FENCE

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

THE WORKS ARE TO BE UNDERTAKEN BY A COMPETENT DELIVERY TEAM, AND THEREFORE ONLY EXCEPTIONAL RISKS RELATING TO THE WORKS ASSOCIATED WITH THIS DRAWING ARE IDENTIFIED BELOW. FOR FURTHER DETAILS AND PROPOSED SAFETY MEASURES REFER "EWR PHASE 2 HAZARD LOG WORKING COPY" EB DOC. REF: 133735-NWR-RSA-SSD-000001.

| ID | HAZARD DESCRIPTION |
|----------------|--|
| EWR2-HAZ-01931 | PRESENCE OF BURIED SERVICES/ UTILITIES |

INDICATES PROJECT RISKS (EWR2-DRIS-)
 INDICATES H&S RISKS (EWR2-HAZ-)



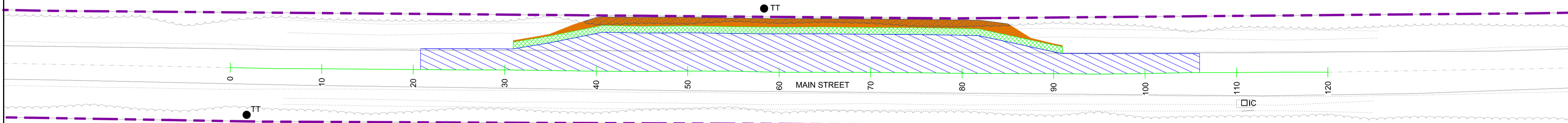
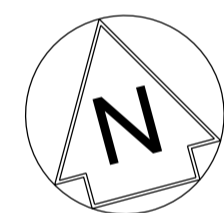
EXISTING UTILITIES

KEY:

| | |
|--|-------------------------------|
| | HIGHWAY BOUNDARY |
| | PROPOSED ROAD EDGE |
| | NEW PAVEMENT |
| | GRASS VERGE |
| | PROPOSED EARTHWORKS |
| | BT TELECOM UNDERGROUND CABLES |

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SCALE 1:250
@ A1 SHEET SIZE



SITE CLEARANCE

KEY:

| | |
|--|--------------------------|
| | HIGHWAY BOUNDARY |
| | PROPOSED ROAD EDGE |
| | NEW PAVEMENT |
| | GRASS VERGE |
| | PROPOSED EARTHWORKS |
| | EXTENTS OF DE-VEGETATION |

| RETAINED | REMOVE / RELOCATE | DESCRIPTION |
|----------|-------------------|--------------------|
| | NONE | TREE TRUNK |
| | NONE | INSPECTION CHAMBER |

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SCALE 1:250
@ A1 SHEET SIZE

NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

NOTES:

- THIS DRAWING IS NOT TO BE SCALED.
- ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
- THE EXACT LOCATION AND EXTENT OF BURIED SERVICES SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS. AGREEMENT WITH PRIVATE LANDOWNERS SHALL BE OBTAINED PRIOR TO WORKS WHERE ACCESS TO PRIVATE LAND IS REQUIRED.
- THIS DRAWING SHOWS THE POSITION OF UTILITY COMPANIES APPARATUS KNOWN TO OPERATE IN THE AREA IMMEDIATELY ADJACENT TO AND WITHIN THE LAND TAKE BOUNDARY FOR EAST WEST RAIL.
- THE POSITIONS INDICATED FOR THE APPARATUS ARE BASED ON RECORDS PROVIDED BY NETWORK RAIL. THE ACCURACY OF THE DRAWING IS THEREFORE LIMITED BY THE ACCURACY OF THE RECORDS MAINTAINED BY THE UTILITY COMPANIES. THE METHODS AVAILABLE TO PROCESS / REPRODUCE THIS INFORMATION IN THE DRAWINGS AND THE AGE OF THE INFORMATION. THERE IS THE POSSIBILITY THAT APPARATUS HAS BEEN ADDED OR REMOVED SINCE THE RECORDS WERE PROVIDED.
- ALL SEARCHES MUST BE VERIFIED AND ESTABLISHED ON SITE BEFORE WORK COMMENCES. IT IS THE RESPONSIBILITY OF THE EWR ALLIANCE TO IDENTIFY AND LOCATE UTILITY PLANT PRIOR TO WORK GOING AHEAD.
- PRIOR TO THE COMMENCEMENT OF WORKS, A SUITABLY QUALIFIED ECOLOGIST SHALL INSPECT THE SITE FOR THE PRESENCE OF PROTECTED SPECIES AND HABITAT. THE ECOLOGIST SHALL THEN ADVISE EWR ALLIANCE ON THE REQUIRED PRECAUTIONARY METHODS AND AREAS OF EXCLUSION.
- WHERE SITE CLEARANCE WORKS HAVE THE POTENTIAL TO IMPACT TREES OR HEDGES WHICH ARE TO BE RETAINED, AN ARBORICULTURALIST SHALL BE PRESENT TO ADVISE ON ROOT PROTECTION ZONE EXTENTS, ROOT PRUNING AND CROWN RAISING. WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS3998:2010.
- SITE CLEARANCE, WHERE THERE IS PROXIMITY TO HABITAT OF PROTECTED SPECIES, SHALL BE CARRIED OUT UNDER THE SUPERVISION OF A SUITABLY QUALIFIED ECOLOGIST.
- THE EXTENTS OF ALL SITE CLEARANCE WORKS SHALL BE RECORDED IN THE AS-BUILT SITE CLEARANCE DRAWINGS AND SHALL ALSO BE RECORDED, WITH PHOTOGRAPHS OF FEATURES PRIOR TO REMOVAL, IN THE SITE CLEARANCE REGISTER. THE SITE CLEARANCE REGISTER SHALL BE MAINTAINED BY EWR ALLIANCE AND WILL INFORM REINSTATEMENT DETERMINATION.
- IN LOCATIONS WHERE EXISTING TREES OVERHANG THE PASSING PLACE CROWN LIFTING, TO GIVE 5m CLEARANCE ABOVE GROUND LEVEL, SHALL BE UNDERTAKEN TO THE BACK OF THE PROPOSED VERGE. THIS SHALL BE UNDERTAKEN UNDER THE SUPERVISION OF AN ARBORICULTURIST.
- THE VEGETATION CLEARANCE SHOWN HERE ON THE DRAWING IS INDICATIVE ONLY. THE SITE TEAM NEEDS TO ASCERTAIN THE REQUIRED CLEARANCE BASED ON THE VISIBILITY SPLAY, INTERVISIBILITY ZONE AND OR WORKS REQUIRED FOR THIS SITE.
- FOR CLARITY ONLY THE TRUNKS OF EXISTING TREES ARE SHOWN. FOR CANOPY EXTENTS THE TREE SURVEY MODEL AND MASTER SCHEDULE ARE TO BE REFERRED TO.

| Rev | Date | Description of Revisions | Dsmd | Chkd | Appr | Suitability |
|--------|----------|--------------------------|------|------|------|----------------|
| B01 | 12/08/19 | FOR INFORMATION | | | | N.T. N.R. E.F. |
| Status | | | | | | S2 |



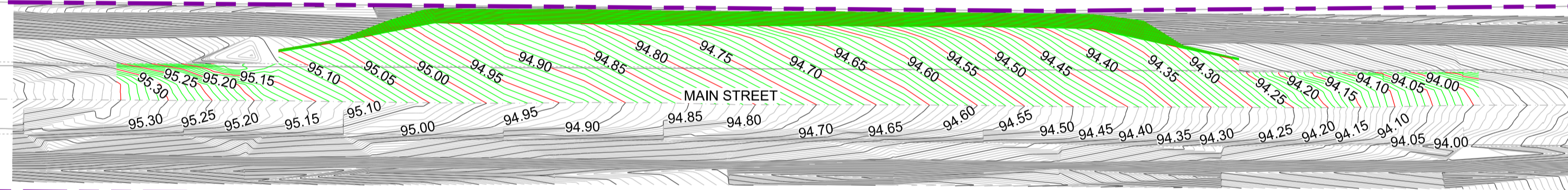
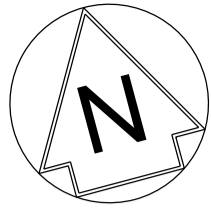
Project
East West Rail (Western Section) Phase 2

PASSING PLACE A3_P_4 EXISTING UTILITIES AND SITE CLEARANCE

| | | | | | |
|----------|--------------------------|--------|----------------|------|----------|
| Designed | Nagoth Thomas Ravi Kumar | Signed | N. T. R. Kumar | Date | 08/08/19 |
| Drawn | Ravikumar KN | Signed | R. KN | Date | 22/01/19 |
| Checked | Nadeem Rashid | Signed | N. Rashid | Date | 08/08/19 |
| Approved | Edward Findlay | Signed | E. Findlay | Date | 08/08/19 |

Scale(s)
1:250
ELR - Project Chainage (Miles Yards)
OXD -
Design Package Risk Classification
Normal
Sheet
1 of 1
Alternative Reference
Revision
B01
Drawing Number
133735_2A-EWR-OXD-A3_P_4-DR-CH-010002





 **DRAFT**





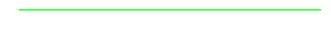
| Rev | Date | Description of Revisions | Desd | Chkd | Appr | Suitability |
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| Status | SHARED - for Information | | | | | S2 |



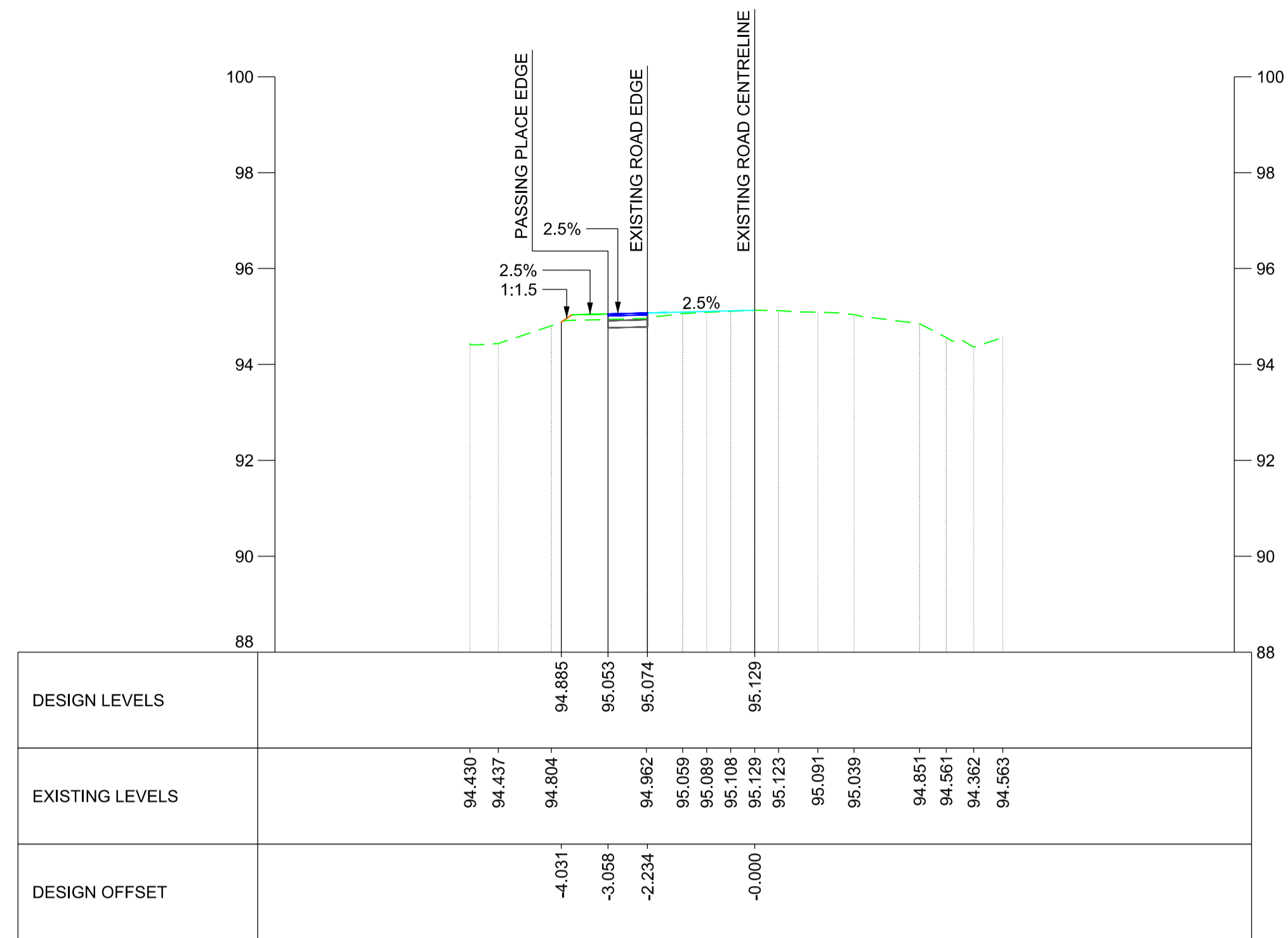
Project
**East West Rail
(Western Section)
Phase 2**

Drawing Title
**PASSING PLACE A3_P_4
EXISTING AND PROPOSED
CONTOURS**

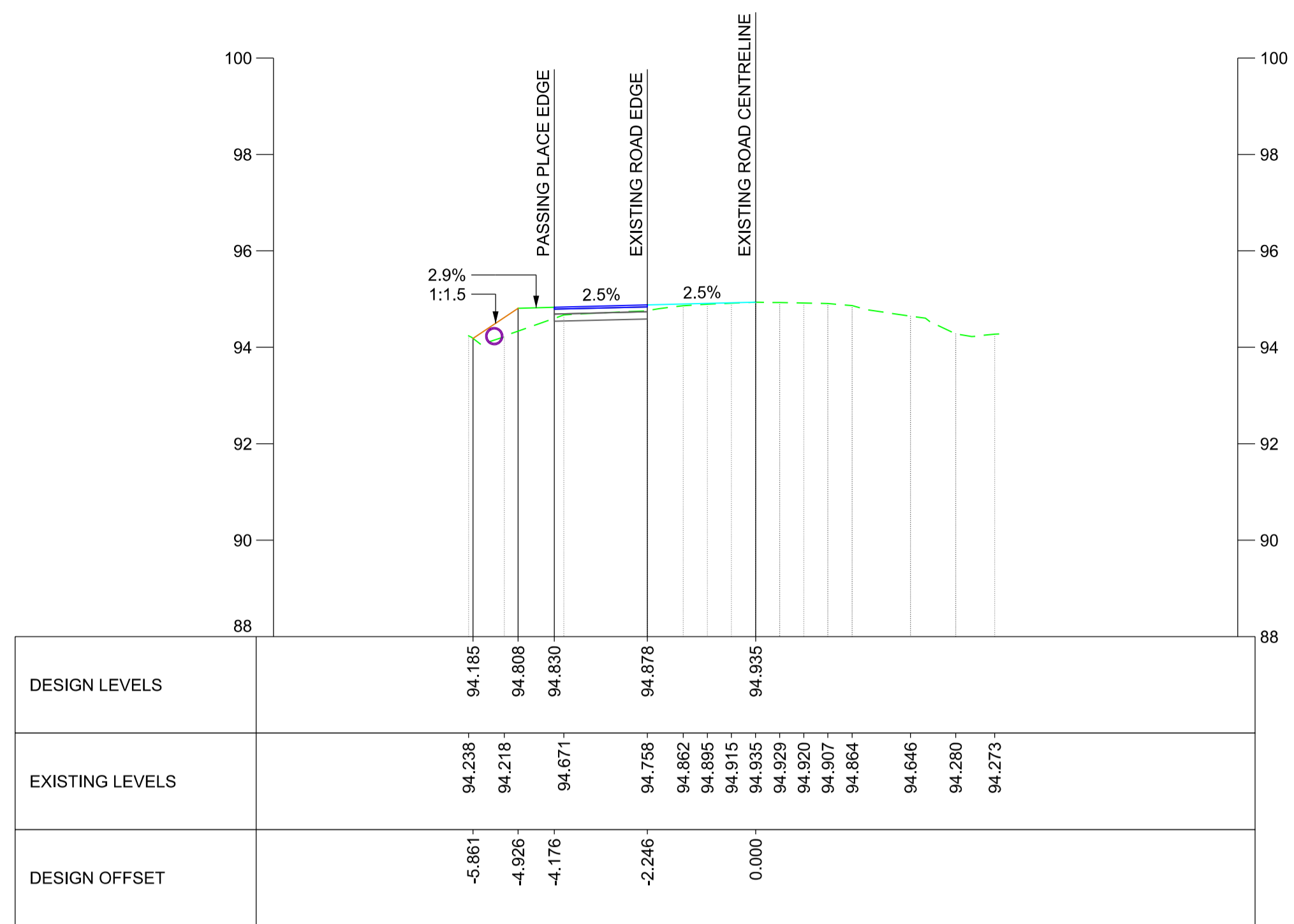
KEY:

| | |
|---|--|
|  | HIGHWAY BOUNDARY |
|  | EXISTING CONTOUR MAJOR @ 0.05m INTERVALS |
|  | EXISTING CONTOUR MINOR @ 0.01m INTERVALS |
|  | PROPOSED CONTOUR MAJOR @ 0.05m INTERVALS |
|  | PROPOSED CONTOUR MINOR @ 0.01m INTERVALS |

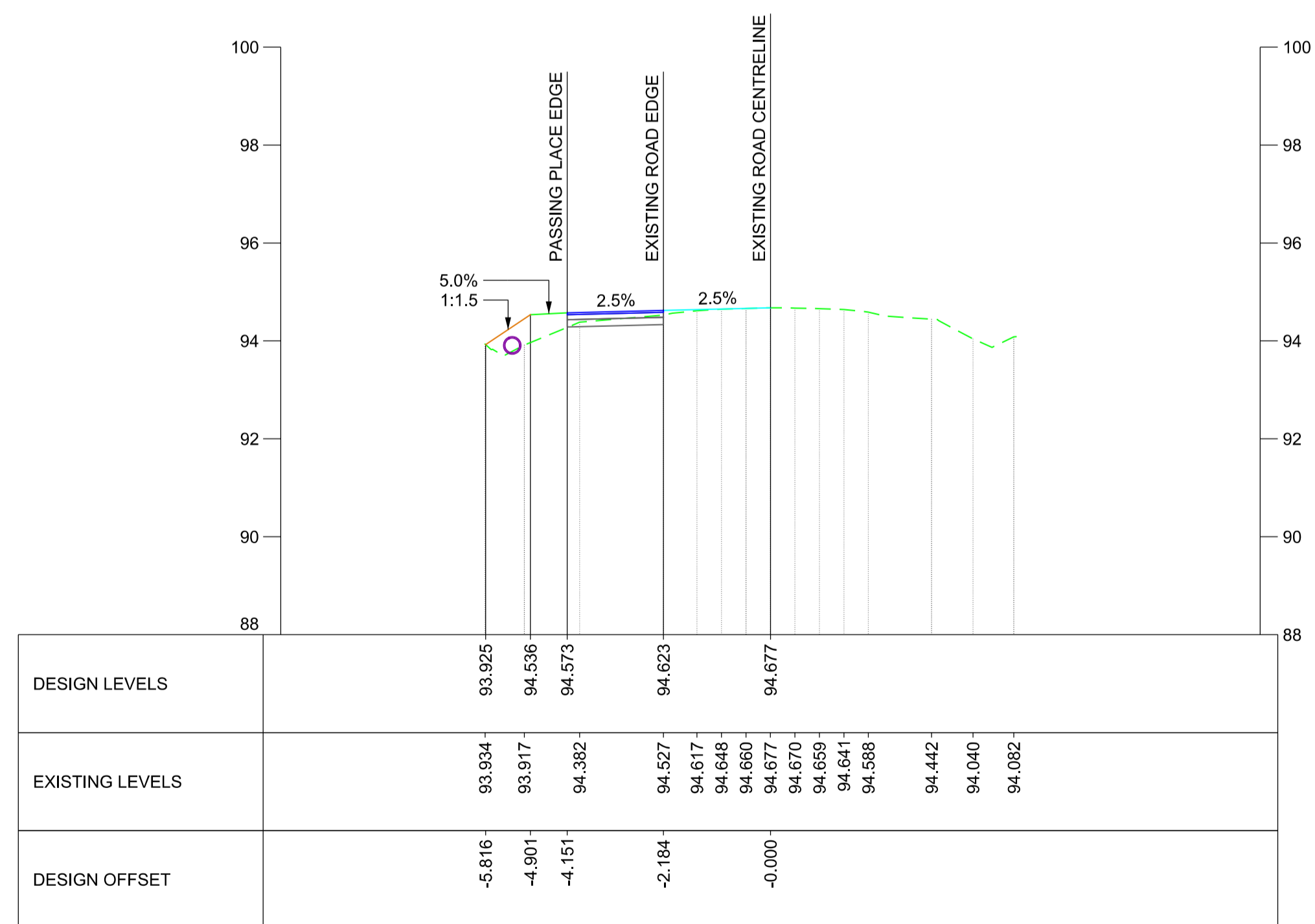
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| Drawn | Ravikumar KN | Signed | R. KN | Date | 22/01/19 |
| Checked | Nadeem Rashid | Signed | N. Rashid | Date | 08/08/19 |
| Approved | Edward Findlay | Signed | E. Findlay | Date | 08/08/19 |
| Scale(s) | 1:250 | | | | |
| Design Package Risk Classification | ELR - Project Chainage (Miles Yards) OXD - | | | | Sheet |
| Alternative Reference | Normal | | | | 1 of 1 |
| Drawing Number | 133735_2A-EWR-OXD-A3_P_4-DR-CH-010003 | | | | Revision |
| | | | | | B01 |



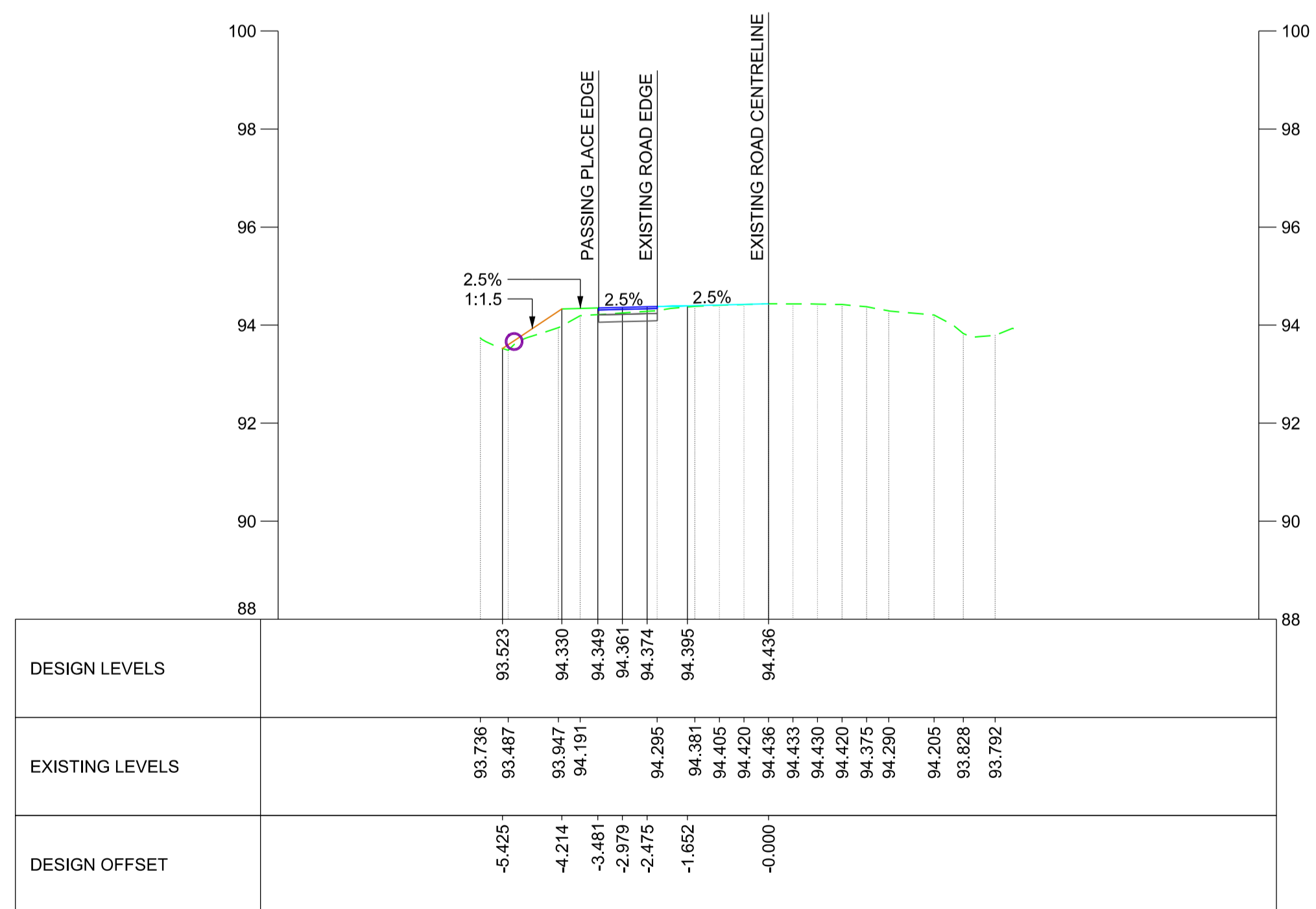
CHAINAGE - 35.0000



CHAINAGE - 50.0000



CHAINAGE - 70.0000



CHAINAGE - 85.0000

KEY:

- EXISTING GROUND
- EXISTING CARRIAGEWAY
- PROPOSED CARRIAGEWAY
- PROPOSED ROAD PAVEMENT
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS
- PROPOSED DRAINAGE CULVERT

SCALE H - 1:1000
V - 1:100
@ A1 SHEET SIZE

NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

NOTES:

1. THIS DRAWING IS NOT TO BE SCALED.
2. ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
4. CHAINAGES SHOWN ON THIS DRAWING ARE ALONG THE ROAD CENTRELINE AS SEEN ON GENERAL ARRANGEMENT DRAWING.



| Rev | Date | Description of Revisions | Desd | Chkd | Appr | |
|-----|----------|--------------------------|------|------|------|------|
| B01 | 12/08/19 | FOR INFORMATION | | N.T. | N.R. | E.F. |

SHARED - for Information S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
PASSING PLACE A3_P_4 CROSS-SECTIONS

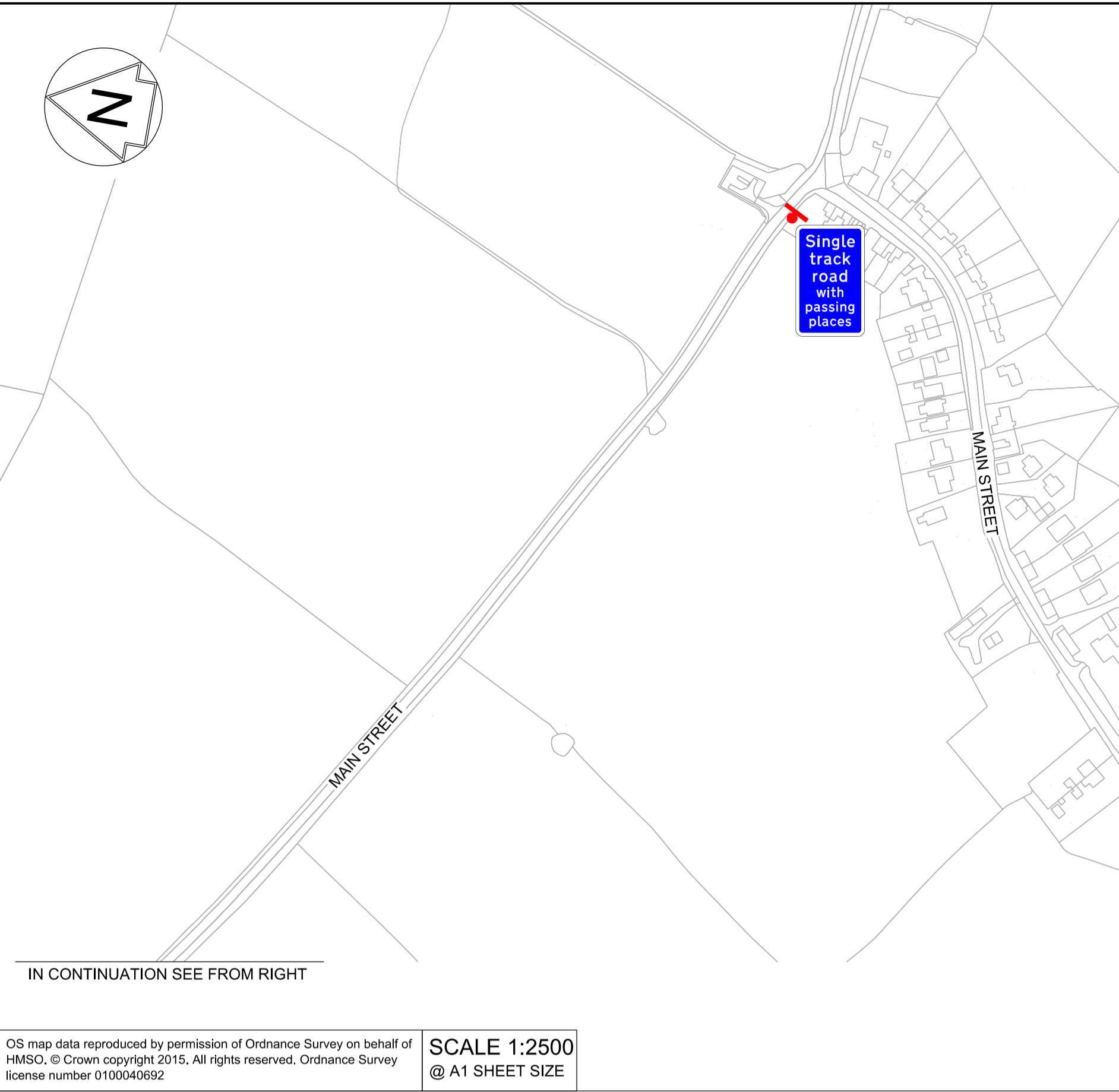
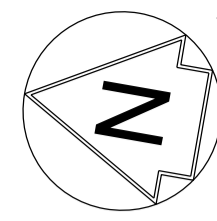
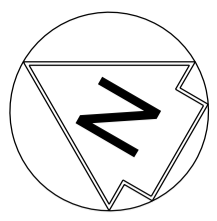
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| Designed | Nagoth Thomas Ravi Kumar | Signed | N. T. R. Kumar | Date | 08/08/19 |
| Drawn | Ravikumar KN | Signed | R. KN | Date | 22/01/19 |
| Checked | Nadeem Rashid | Signed | N. Rashid | Date | 08/08/19 |
| Approved | Edward Findlay | Signed | E. Findlay | Date | 08/08/19 |

Scale(s)
AS SHOWN ELR - Project Chainage (Miles Yards)
OXD -

Design Package Risk Classification
Normal Sheet 1 of 1

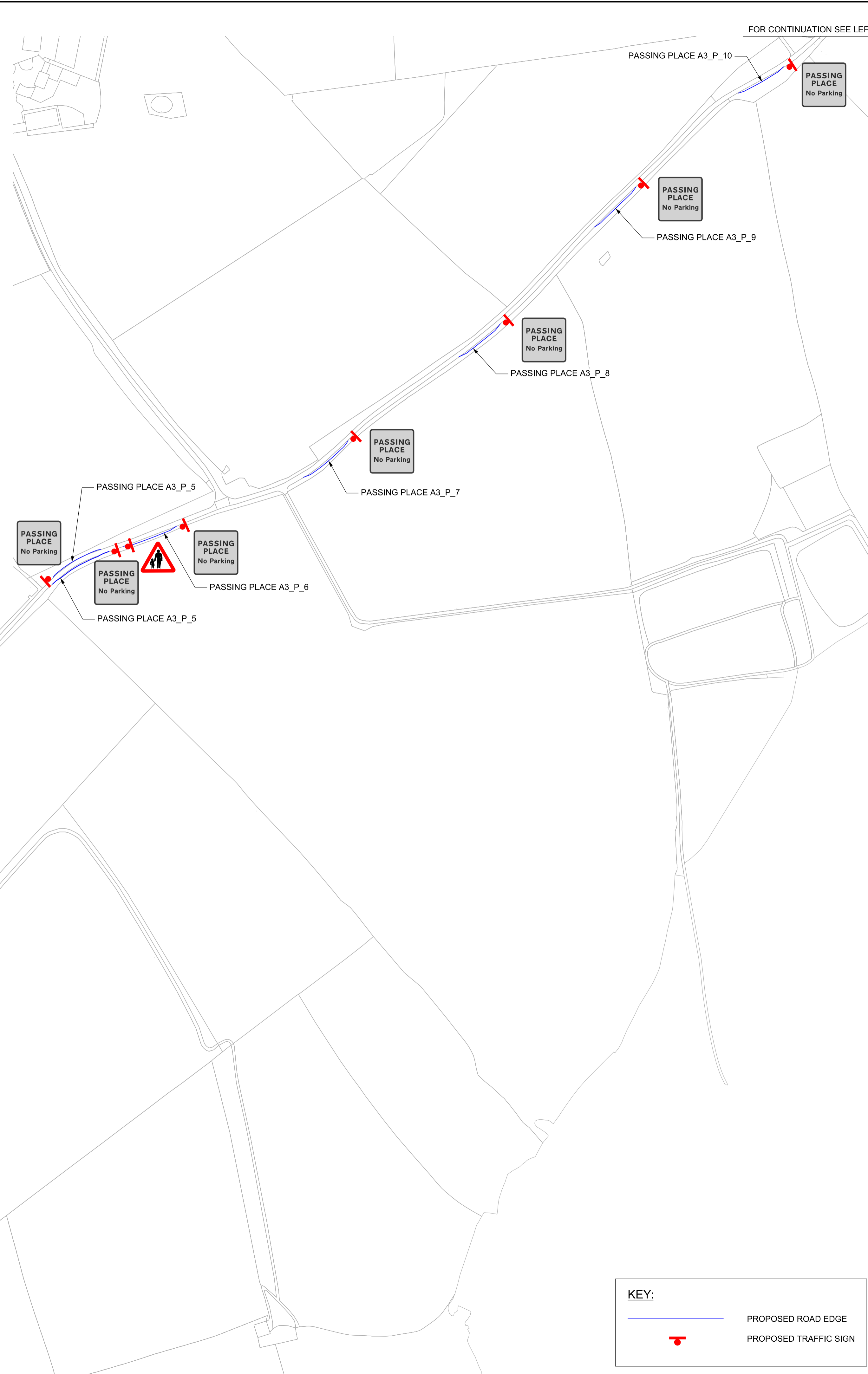
Alternative Reference
Revision
B01

Drawing Number
133735_2A-EWR-OXD-A3_P_4-DR-CH-030001



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SCALE 1:2500
@ A1 SHEET SIZE



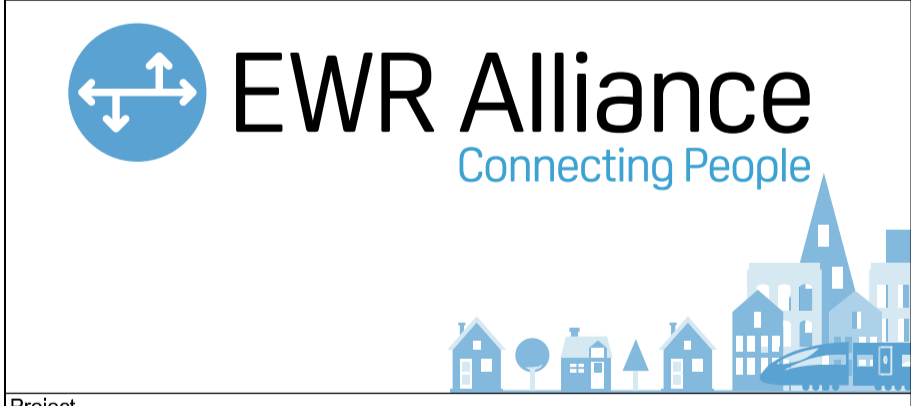
NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

- NOTES:
1. THIS DRAWING IS NOT TO BE SCALED.
 2. ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
 4. WHERE SITE CLEARANCE WORKS HAVE THE POTENTIAL TO IMPACT TREES OR HEDGES WHICH ARE TO BE RETAINED, AN ARBORICULTURALIST SHALL BE PRESENT TO ADVISE ON ROOT PROTECTION ZONE EXTENTS, ROOT PRUNING AND CROWN RAISING. WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS3998:2010.
 5. SITE CLEARANCE, WHERE THERE IS PROXIMITY TO HABITAT OF PROTECTED SPECIES, SHALL BE CARRIED OUT UNDER THE SUPERVISION OF A SUITABLY QUALIFIED ECOLOGIST.
 6. ALL SIGNS SHOWN HERE ARE INTENDED TO BE INSTALLED WITHIN THE HIGHWAYS BOUNDARY.



| Rev | Date | Description of Revisions | Desd | Chkd | Appr | Suitability |
|-----|----------|--------------------------|------|------|------|----------------|
| B01 | 12/08/19 | FOR INFORMATION | | | | |
| | | | | | | N.T. N.R. E.F. |

Status: SHARED - for Information S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
SIGNAGE STRATEGY DRAWING FOR OXFORDSHIRE COUNTY COUNCIL

| | | | | | |
|----------|--------------------------|--------|----------------|------|----------|
| Designed | Nagoth Thomas Ravi Kumar | Signed | N. T. R. Kumar | Date | 08/08/19 |
| Drawn | Ravikumar KN | Signed | R. KN | Date | 10/06/19 |
| Checked | Nadeem Rashid | Signed | N. Rashid | Date | 08/08/19 |
| Approved | Edward Findlay | Signed | E. Findlay | Date | 08/08/19 |

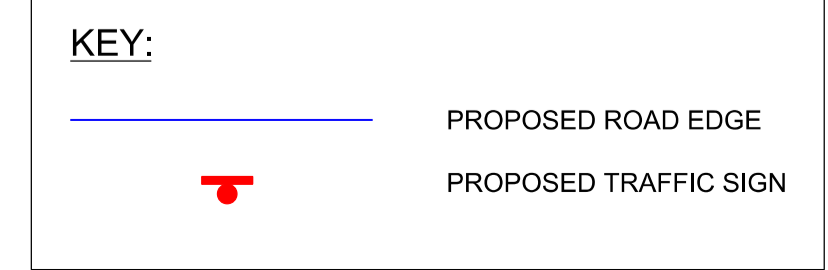
Scale(s)
1:2500

ELR - Project Chainage (Miles Yards)
OXD -

Design Package Risk Classification
Normal

Sheet
1 of 1

Alternative Reference
Revision
B01



East West Rail Phase 2

GRIP 5 Offline Highways

Stage 2 Road safety audit response report

Offline Highways Passing Places – Package 2 – Oxfordshire (A3 Marsh Gibbon – Compound Access)

Document Number: 133735_RW-EWR-XX-XX-RP-CH-000049

(ProjectWise no.)

xxx-xxx-xxx-xx (eB no.)

Rev B01

East West Rail Phase 2

Stage 2 Road safety audit response report

Offline Highways Passing Places – Package 2 – Oxfordshire (A3 Marsh Gibbon – Compound Access)

Prepared by EWR Alliance on behalf of Network Rail

Notice

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Document History

| Project Number: 133735 | | DOCUMENT REF: 133735_RW-EWR-XX-XX-RP-CH-000049 (ProjectWise no.) xxxx-xxxx-xxxx-xx (eB no.) | | | | |
|------------------------|-------------------------|---|------------|----------|------------|------------|
| Revision | Purpose and description | Originated | Checked | Reviewed | Authorised | Date |
| B01 | For LHA Approval | N. Rashid | E. Findlay | S. Abe | S. Abe | 22/05/2019 |
| | | | | | | |
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| Road safety audit decision log..... | 2 |
| Design organisation and Overseeing Organisation (EWR Alliance) statements | 3 |
| Design organisation statement | 3 |
| Overseeing Organisation (Network Rail) statement..... | 3 |
| Appendix A Road safety audit report | 4 |
| Appendix B Road safety audit decision log..... | 14 |

Authorisation sheet

| | |
|----------------------|---|
| Project: | East West Rail Phase 2 (EWR2) |
| Report title: | Stage 2 Road safety audit response report Offline Highways Passing Places – Package 2 – Oxfordshire (A3 Marsh Gibbon – Compound Access) |
| Prepared by: | |
| Name: | Nadeem Rashid |
| Position: | Lead Engineer |
| Signed: |  |
| Organisation: | EWR Alliance |
| Date: | 22/05/2019 |
| Approved by: | |
| Name: | Chris Uren |
| Position: | Designated Project Engineer |
| Signed: | |
| Organisation: | Network Rail |
| Date: | |

Introduction

The works are in association with the East West Rail Phase 2 (EWR2) project and are intended to provide the required 'offline highway' works to enable the movement of construction materials and plant on existing local highway authority networks. These works include the provision of temporary passing places, temporary junction improvements and temporary compound accesses for use during the construction period. Further works include the provision of additional temporary and permanent accesses which are to be used during the beyond the construction phase.

A Stage 2 Road Safety Audit has been carried out (Appendix A). The Road Safety Audit Report Title is Offline Highways Passing Places – Package 2 – Oxfordshire (A3 Marsh Gibbon – Compound Access) and it is dated 10/05/2019. This Road safety audit response report relates specifically to this report and has been prepared by Atkins Employees Nadeem Rashid, Lead Engineer and Edward Findlay, Design Manager. The report has been authorised by Stephen Abe, CRE on behalf of EWR Alliance (the Design organisation) and Chris Uren, Designated Project Engineer, on behalf of Network Rail (the Overseeing Organisation).

Key Personnel


| | |
|--|--|
| Overseeing Organisation (Network Rail): | Chris Uren (Designated Project Engineer) |
| RSA team: | Briony Mucklow (Lead RSA), Rachael Moulton (RSA Team Member) |
| Design Organisation (EWR Alliance): | Nadeem Rashid (Lead Engineer), Edward Findlay (Design Manager) |

Road safety audit decision log

Please refer to Appendix B.

Design organisation and Overseeing Organisation (EWR Alliance) statements

Design organisation statement

| | |
|---|---|
| On behalf of the Overseeing 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: | Stephen Abe |
| Signed: |  |
| Position: | CRE |
| Organisation: | EWR Alliance |
| Date: | 22/5/19 |

Overseeing Organisation (Network Rail) statement

| | |
|---|-----------------------------|
| On behalf of the Overseeing 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 design organisation; and | |
| 2) the agreed RSA actions will be progressed. | |
| Name: | Chris Uren |
| Signed: | |
| Position: | Designated Project Engineer |
| Organisation: | Network Rail |
| Date: | |

Appendix A Road safety audit report





Offline Highways Passing Places – Package 2 – Oxfordshire (A3 Marsh Gibbon – Compound Access)

Stage 2 Road Safety Audit

East West Rail (Western Section) Phase 2

May 2019



Notice

This document and its contents have been prepared and are intended solely as information for East West Rail and use in relation to the proposed passing places associated with the A3 Marsh Gibbon Compound in Buckinghamshire.

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This document has 16 pages including the cover.

Document history

| Revision | Purpose description | Originated | Checked | Reviewed | Authorised | Date |
|----------|---------------------|------------|---------|----------|------------|----------|
| Rev 1.0 | Initial Issue | RM | BM | JPD | BM | 10/05/19 |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

Client signoff

| | |
|-------------------------|--|
| Overseeing Organisation | East West Rail |
| RSA team organisation | Atkins |
| Report title | Offline Highways Passing Places Package 2 – Oxfordshire (A3 Marsh Gibbon – Compound Access) Stage 2 Road Safety Audit |
| Job number | 5187843-615 |
| Document reference | 5187843-615-RSA2-STR-D1 |
| Client signature / date | |



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1. Introduction

Commission and Terms of Reference

Atkins has been commissioned by East West Rail (EWR) to undertake a Stage 2 Road Safety Audit of the proposed passing places between Bicester, Fringford and Godington in Oxfordshire to provide access to the proposed EWR A3 Marsh Gibbon compound.

The Audit Team membership was as follows:

- Briony Mucklow** BSc. (Hons) MCIHT MSoRSA
Road Safety Engineer, Atkins Transportation
- Rachael Moulton** BEng (Hons), GMICE
Assistant Engineer, Atkins Transportation

The Audit comprised a desktop review of the information provided and a site visit. The site visit was undertaken during daylight hours on 23 February 2019 by both of the Audit Team members together to view the proposed locations of the passing places in and around Fringford in Oxfordshire, between 11:00 and 11:20.

During the site visit the road surface was dry, the weather was sunny, and traffic was free flowing.

The Audit has been conducted with reference to the procedures and scope set out in Design Manual for Roads and Bridges, Volume 5, Section 2, Part 2, Road Safety Audit Standard GG 119.

The Audit Team has examined and reported only on the road safety implications of the measures as proposed and has not specifically examined or verified the compliance of the designs to any other criteria.

The Audit Team were provided with the scheme drawings by Divit Kandel of Atkins, on behalf of East West Rail. Details of the information provided are included in Appendix A. Problems and recommendation locations are indicated on the plan of the scheme(s) included in Appendix B.

Scope

The proposal is for 13 temporary passing places to facilitate the movement of construction traffic to the East West Rail Phase 2 Marsh Gibbon compound in Buckinghamshire for a five-year period. The passing places have all been designed with a minimum of 6.5m width to enable two HGVs to pass each other. Vehicle tracking has not been provided.

The sites visited as part of this audit include: -

| Passing Place (Site Reference) | Location with nearest Post Code | Brief Site Description |
|--------------------------------|--|---------------------------|
| A3-P-1 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - eastbound |
| A2-P-1 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - eastbound |
| A2-P-2 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - eastbound |
| A2-P-8 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - eastbound |



| Passing Place (Site Reference) | Location with nearest Post Code | Brief Site Description |
|--------------------------------|--|---|
| A3-P-2 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - westbound |
| A3-P-3 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - westbound |
| A3-P-4 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - eastbound |
| A3-P-5 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place – eastbound and westbound |
| A3-P-6 | Unnamed Road (towards Mill Road), Bicester, OX27 9AD | Passing Place - eastbound |
| A3-P-7 | Unnamed Road (towards Mill Road), Bicester, OX27 9AE | Passing Place - westbound |
| A3-P-8 | Unnamed Road (towards Mill Road), Bicester, OX27 9AE | Passing Place - westbound |
| A3-P-9 | Unnamed Road (towards Mill Road), Bicester, OX27 9AE | Passing Place - westbound |
| A3-P-10 | Unnamed Road, Bicester, OX27 9BE | Passing Place - westbound |

Table 1.1 – List of Passing Places Audited

The issues raised by this Stage 2 Road Safety Audit are detailed in Section 2 with recommendations to be considered. Section 3 comprises the Audit Team Statement.

All comments and recommendations are referenced to the detailed design models shown in the Google Earth KMZ files within the information provided by Divit Kandel and the locations have been indicated on these.

Notes and clarifications

The Audit Team were provided with no details of any Departure from Standard applications associated with the proposals. It is the Designer's responsibility to ensure that any Departures and Relaxations are identified, recorded, and approval gained, where necessary.

The Audit team has been provided with no details of the following aspects: -

- Signing strategy;
- Road markings;
- Vehicle tracking;
- Drainage connections;
- Electrical connections, and;
- Revisions to existing fence lines.

The Audit Team have assumed these elements of the design will be resolved as the design process progresses.

2. Issues Raised at this Stage 2 Audit

This section details the issues raised by this Stage 2 Road Safety Audit.

PROBLEM 2.1

Location: Passing Places A3-P-1, A2-P-1, A3-P-2 and A3-P-8.
Unnamed Road (towards Mill Road).

Summary: Obstructions in verge increase risk of collision

Driver accessibility to passing places is obstructed by trees, and in some locations, signposts situated in the verge. There is a risk that drivers may collide with the trees on entry/exit of the passing place. Also, drivers' forward visibility is restricted by the location of these trees and as such, drivers of construction vehicles may not be aware that they should wait and might proceed, increasing the risk of side swipe collisions. Additionally, approaching drivers may not anticipate the construction vehicle leaving the passing place, leading to side swipe or head on collisions.

RECOMMENDATION

Obstructions should be removed from the verges.

PROBLEM 2.2

Location: Passing Place A2-P-8.
Unnamed Road (towards Mill Road).

Summary: Disused signpost increases potential severity of collision

There is a disused signpost in the nearside verge heading westbound on Unnamed Road (towards Mill Road), opposite the proposed passing place A2-P-8, which presents an unnecessary hazard to a vehicle, should a collision occur at this location. The likelihood of a vehicle striking the disused signpost is increased by the location of the passing place opposite as vehicles may pass closer to the verge to avoid construction traffic. This disused signpost may therefore lead to an increase in the collision severity should one occur.

RECOMMENDATION

Remove disused signpost.

PROBLEM 2.3

Location: Passing Places A3-P-2, A3-P-5 and A3-P-9.
Unnamed Road (towards Mill Road).

Summary: Proximity of passing place to public footpath access increases risk of pedestrian being struck by vehicle

There are access to public footpaths directly from Unnamed Road (towards Mill Road) in the nearside verges just before the proposed passing places A3-P-2 and A3-P-5. The proposed location of passing place A3-P-9 is directly between the accesses to public footpaths on the north and south sides of Unnamed Road (towards Mill Road), with the



passing place clashing with the access on the southern side. Due to the location of the passing places, there is an increased risk of a construction vehicle striking a pedestrian as they enter Unnamed Road (towards Mill Road), particularly as the construction vehicle will be preparing to enter the passing place. This issue is exacerbated by the lack of footway along Unnamed Road (towards Mill Road) as there is no segregation between vehicles and pedestrians.

RECOMMENDATION

A3-P-2, Unnamed Road (towards Mill Road) – Move passing place further downstream of public footpath access and provide traffic signing to warn pedestrians and construction vehicles of the passing place and presence of pedestrians, respectively. Trim back vegetation around the access to maximise visibility between pedestrians and drivers.

A3-P-5, Unnamed Road (towards Mill Road) – Provide traffic signing to warn pedestrians and construction vehicles of the passing place and presence of pedestrians, respectively. Trim back vegetation around the access to maximise visibility between pedestrians and drivers; or

Remove passing place A3-P-5 (eastbound) as passing place A3-P-6 is adjacent.

A3-P-9, Unnamed Road (towards Mill Road) – Move passing place A3-P-9 further downstream heading westbound towards passing place A3-P-8. Provide traffic signing to warn pedestrians and construction vehicles of the passing place and presence of pedestrians, respectively. Trim back vegetation around the access to maximise visibility between pedestrians and drivers.

PROBLEM 2.4

Location: Passing Places A2-P-1, A3-P-2, A3-P-3, A3-P-5, A3-P-7 and A3-P-10. Unnamed Road (towards Mill Road) and Unnamed Road.

Summary: Proximity of passing place to farm traffic access increases risk of collision. There are accesses used by farm traffic along the Unnamed Road (towards Mill Road). As a farm vehicle enters or exits these accesses from Unnamed Road (towards Mill Road), there is a likelihood that a construction vehicle may collide with it as they may not anticipate the turning farm vehicle, particularly when they are preparing to enter the passing place. This issue is exacerbated by the presence of vegetation around these accesses which reduces the visibility between farm traffic and construction drivers using the Unnamed Road (towards Mill Road).

RECOMMENDATION

Provide traffic signing to warn of construction passing places and farm traffic accesses. Trim back vegetation around the accesses to maximise intervisibility.

PROBLEM 2.5

Location: Passing Places A2-P-2, A3-P-2, A3-P-3, A3-P-4, A3-P-5, A3-P-6, A3-P-7, A3-P-8, A3-P-9 and A3-P-10.

Unnamed Road (towards Mill Road) and Unnamed Road.

Summary: Driver visibility reduced by vegetation

Passing places are proposed in positions where vegetation may restrict drivers' visibility of the route and the visibility of vehicles using the passing places. With this limitation, drivers of construction vehicles may not be aware that they should wait and might proceed, increasing the risk of side swipe collisions, or the risk of vehicles leaving the carriageway



on narrower sections of carriageway. Additionally, drivers of approaching vehicles may not anticipate the construction vehicle leaving the passing place, leading to side swipe or head on collisions.

There is further risk that existing vegetation will encroach into the carriageway increasing the risk of damage to vehicles and HGVs being pushed towards oncoming traffic.

RECOMMENDATION

The existing vegetation should be cut back to ensure clear visibility to all traffic signs and to keep the carriageway clear from obstructions.



3. Audit Team Statement

We certify that this road safety audit has been carried out in accordance with GG 119.

RSA Team

Road Safety Audit Team Leader

Name: Briony Mucklow

Signed: 


Position: Road Safety Engineer

Organisation: Atkins

Date: 10th April 2019

Road Safety Audit Team Member

Name: Rachael Moulton

Signed: 

Position: Assistant Engineer

Organisation: Atkins

Date: 10th April 2019

Appendix B Road safety audit decision log

| RSA Ref | Location | RSA Problem | RSA Recommendation | Design Team Response | Network Rail Response | Agreed RSA action |
|---------|---|--|--|---|-----------------------|---------------------------------|
| 2.1 | Passing Places A3-P-1, A2-P-1, A3-P-2 and A3-P-8. Unnamed Road (towards Mill Road). | Obstructions in verge increase risk of collision Driver accessibility to passing places is obstructed by trees, and in some locations, signposts situated in the verge. There is a risk that drivers may collide with the trees on entry/exit of the passing place. Also, drivers' forward visibility is restricted by the location of these trees and as such, drivers of construction vehicles may not be aware that they should wait and might proceed, increasing the risk of side swipe collisions. Additionally, approaching drivers may not anticipate the construction vehicle leaving the passing place, leading to side swipe or head on collisions. | Obstructions should be removed from the verges. | Accept the RSA problem and recommendation made by the RSA team. The site clearance drawings note that vegetation clearance shall be undertaken to provide suitable visibility. There is also a note for the lifting of tree crowns to provide 5m clearance above ground level to the back of the proposed verge. | Accepted | Proceed as Design Team Response |
| 2.2 | Passing Place A2-P-8. Unnamed Road (towards Mill Road). | Disused signpost increases potential severity of collision There is a disused signpost in the nearside verge heading westbound on Unnamed Road (towards Mill Road), opposite the proposed passing place A2-P-8, which presents an unnecessary hazard to a vehicle, should a collision occur at this location. The likelihood of a vehicle striking the disused signpost is increased by the location of the passing place opposite as vehicles may pass closer to the verge to avoid construction traffic. This disused signpost may therefore lead to an increase in the collision severity should one occur. | Remove disused signpost. | Accept the RSA problem and recommendation made by the RSA team. The disused signpost is included for removal in the Site Clearance Drawing. | Accepted | Proceed as Design Team Response |
| 2.3 | Passing Places A3-P-2, A3-P-5 and A3-P-9. Unnamed Road (towards Mill Road). | Proximity of passing place to public footpath access increases risk of pedestrian being struck by vehicle There are access to public footpaths directly from Unnamed Road (towards Mill Road) in the nearside verges just before the proposed passing places A3-P-2 and A3-P-5. The proposed location of passing place A3-P-9 is directly between the accesses to public footpaths on the north and south sides of Unnamed Road (towards Mill Road), with the passing place clashing with the access on the southern side. Due to the location of the passing places, there is an increased risk of a construction vehicle striking a pedestrian as they enter Unnamed Road (towards Mill Road), particularly as the construction vehicle will be preparing to enter the passing place. This issue is exacerbated by the lack of footway along Unnamed Road (towards Mill Road) as there is no segregation between vehicles and pedestrians. | A3-P-2, Unnamed Road (towards Mill Road) – Move passing place further downstream of public footpath access and provide traffic signing to warn pedestrians and construction vehicles of the passing place and presence of pedestrians, respectively. Trim back vegetation around the access to maximise visibility between pedestrians and drivers | Accept the RSA problem raised but suggest an alternative solution. Passing place to remain in proposed position in accordance with TWA0. Traffic signing to warn vehicles of the presence of pedestrians in advance of the public right of way interface shall be provided, on the northbound approach and before A3-P-2 and on the southbound approach and before A3-P-2. The site clearance drawings shall include vegetation clearance around the public right of way interface to maximise visibility for pedestrians and drivers. The RSA recommendations with respect to warning signage for pedestrians accessing the carriageway from a public right of way will be shared with the logistics team for inclusion. | Accepted | Proceed as Design Team Response |

| RSA Ref | Location | RSA Problem | RSA Recommendation | Design Team Response | Network Rail Response | Agreed RSA action |
|------------------|---|---|---|--|-----------------------|---------------------------------|
| 2.3 Continued | Passing Places A3-P-2, A3-P-5 and A3-P-9. Unnamed Road (towards Mill Road). | <p>Proximity of passing place to public footpath access increases risk of pedestrian being struck by vehicle</p> <p>There are access to public footpaths directly from Unnamed Road (towards Mill Road) in the nearside verges just before the proposed passing places A3-P-2 and A3-P-5. The proposed location of passing place A3-P-9 is directly between the accesses to public footpaths on the north and south sides of Unnamed Road (towards Mill Road), with the passing place clashing with the access on the southern side. Due to the location of the passing places, there is an increased risk of a construction vehicle striking a pedestrian as they enter Unnamed Road (towards Mill Road), particularly as the construction vehicle will be preparing to enter the passing place. This issue is exacerbated by the lack of footway along Unnamed Road (towards Mill Road) as there is no segregation between vehicles and pedestrians.</p> | <p>A3-P-5, Unnamed Road (towards Mill Road) – Provide traffic signing to warn pedestrians and construction vehicles of the passing place and presence of pedestrians, respectively. Trim back vegetation around the access to maximise visibility between pedestrians and drivers; or Remove passing place A3-P-5 (eastbound) as passing place A3-P-6 is adjacent.</p> | <p>Accept the RSA problem raised but suggest an alternative solution.</p> <p>Passing place A3-P-5 to remain in proposed position in accordance with TWAO. Traffic signing to warn vehicles of the presence of pedestrians in advance of the public right of way interface shall be provided, on the westbound approach and before A3-P-5 and on the eastbound approach and before A3-P-5 but after A3-P-6. The site clearance drawings shall include vegetation clearance around the public right of way interface to maximise visibility for pedestrians and drivers. The RSA recommendations with respect to warning signage for pedestrians accessing the carriageway from a public right of way will be shared with the logistics team for inclusion.</p> | Accepted | Proceed as Design Team Response |
| | | | <p>A3-P-9, Unnamed Road (towards Mill Road) – Move passing place A3-P-9 further downstream heading westbound towards passing place A3-P-8. Provide traffic signing to warn pedestrians and construction vehicles of the passing place and presence of pedestrians, respectively. Trim back vegetation around the access to maximise visibility between pedestrians and drivers.</p> | <p>Accept the RSA problem raised but suggest an alternative solution.</p> <p>Passing place to remain in proposed position in accordance with TWAO. Traffic signing to warn vehicles of the presence of pedestrians in advance of the public right of way interface shall be provided, on the eastbound approach and before A3-P-9 and on the westbound approach and before A3-P-9. The site clearance drawings shall include vegetation clearance around the public right of way interface to maximise visibility for pedestrians and drivers. The RSA recommendations with respect to warning signage for pedestrians accessing the carriageway from a public right of way will be shared with the logistics team for inclusion.</p> | Accepted | Proceed as Design Team Response |

| RSA Ref | Location | RSA Problem | RSA Recommendation | Design Team Response | Network Rail Response | Agreed RSA action |
|---------|--|---|---|---|-----------------------|---------------------------------|
| 2.4 | <p>Passing Places A2-P-1, A3-P-2, A3-P-3, A3-P-5, A3-P-7 and A3-P-10. Unnamed Road (towards Mill Road) and Unnamed Road.</p> | <p>Proximity of passing place to farm traffic access increases risk of collision There are accesses used by farm traffic along the Unnamed Road (towards Mill Road). As a farm vehicle enters or exits these accesses from Unnamed Road (towards Mill Road), there is a likelihood that a construction vehicle may collide with it as they may not anticipate the turning farm vehicle, particularly when they are preparing to enter the passing place. This issue is exacerbated by the presence of vegetation around these accesses which reduces the visibility between farm traffic and construction drivers using the Unnamed Road (towards Mill Road).</p> | <p>Provide traffic signing to warn of construction passing places and farm traffic accesses. Trim back vegetation around the accesses to maximise intervisibility</p> | <p>Accept the RSA problem and recommendation made by the RSA team. The design includes a signage strategy which provides signs to notify drivers that the road has passing places. The site clearance drawings include vegetation clearance to achieve required visibility and signage strategy drawings likewise include this provision.</p> | Accepted | Proceed as Design Team Response |
| 2.5 | <p>Passing Places A2-P-2, A3-P-2, A3-P-3, A3-P-4, A3-P-5, A3-P-6, A3-P-7, A3-P-8, A3-P-9 and A3-P-10. Unnamed Road (towards Mill Road) and Unnamed Road.</p> | <p>Driver visibility reduced by vegetation Passing places are proposed in positions where vegetation may restrict drivers' visibility of the route and the visibility of vehicles using the passing places. With this limitation, drivers of construction vehicles may not be aware that they should wait and might proceed, increasing the risk of side swipe collisions, or the risk of vehicles leaving the carriageway on narrower sections of carriageway. Additionally, drivers of approaching vehicles may not anticipate the construction vehicle leaving the passing place, leading to side swipe or head on collisions. There is further risk that existing vegetation will encroach into the carriageway increasing the risk of damage to vehicles and HGVs being pushed towards oncoming traffic.</p> | <p>The existing vegetation should be cut back to ensure clear visibility to all traffic signs and to keep the carriageway clear from obstructions.</p> | <p>Accept the RSA problem and recommendation made by the RSA team. The site clearance drawings include vegetation clearance to achieve required visibility and signage strategy drawings likewise include this provision.</p> | Accepted | Proceed as Design Team Response |

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