

- 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. 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).
 5. FOR DETAILS OF ROAD MARKINGS, REFER TO STANDARD CONSTRUCTION DETAIL TW5 ROAD MARKINGS FOR COMPOUND ACCESS DRAWING No. 133735_RW-EWR-XX-XX-DR-CH-000122.

DRAFT

Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	18/03/20	FOR INFORMATION				
Status						S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
HAUL ROAD CROSSING HRC_2 GENERAL ARRANGEMENT

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	10/06/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	12/03/20

Scale(s)
1:250

Design Package Risk Classification
Normal

Alternative Reference

Sheet
1 of 1

Revision
B01

Drawing Number
133735_2A-EWR-OXD-HRC_2-DR-CH-010001

KEY:

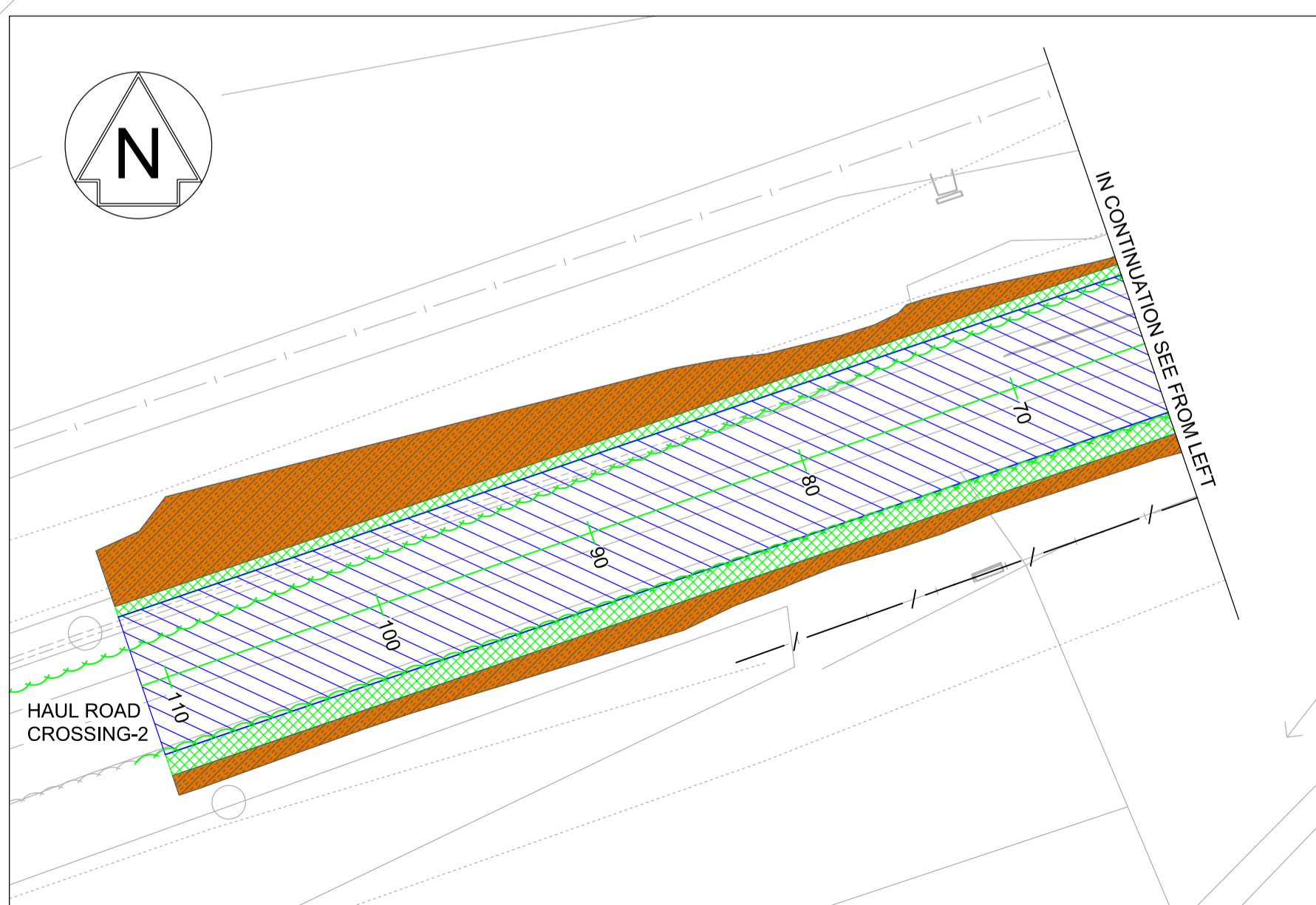
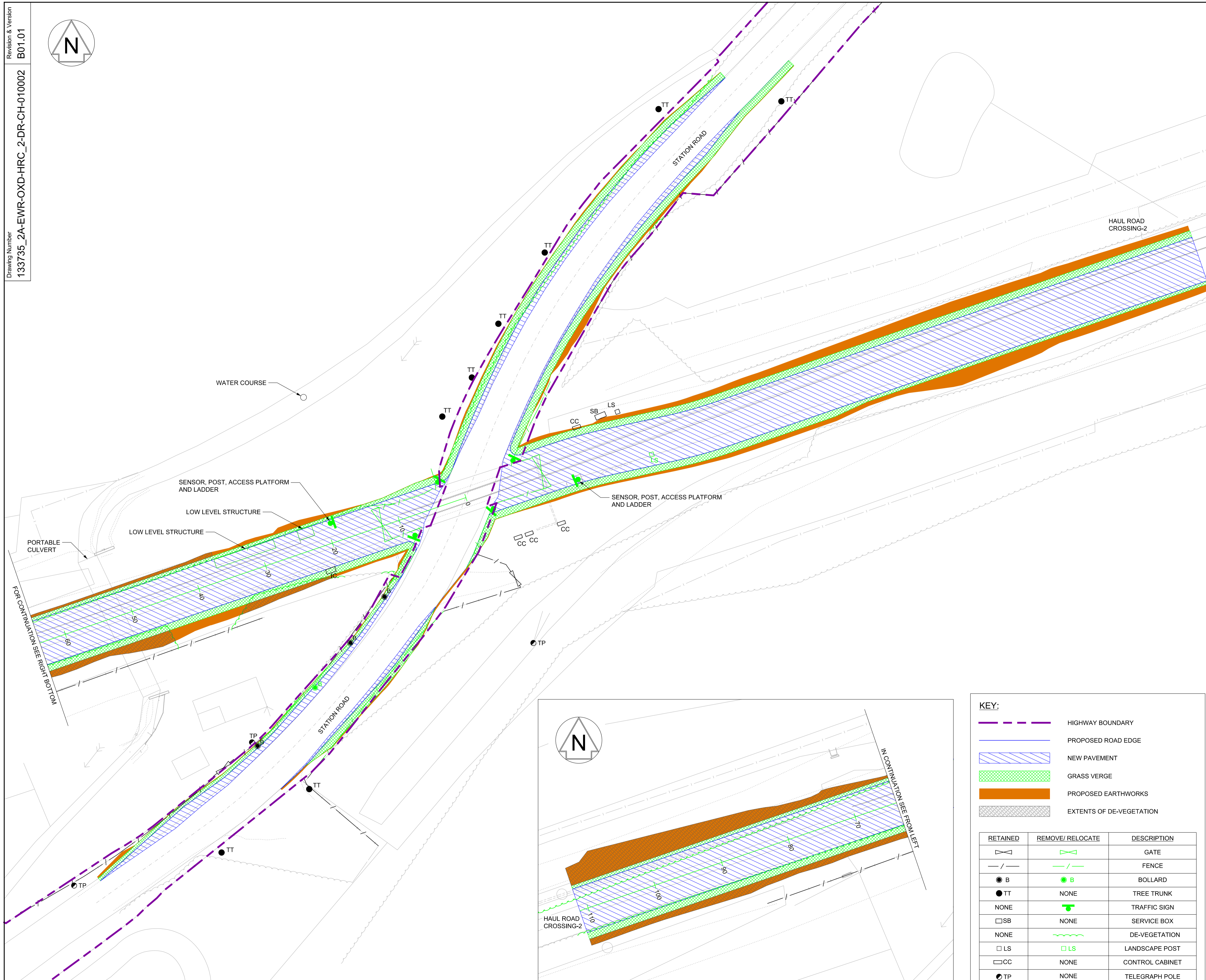
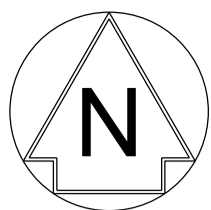
	HIGHWAY BOUNDARY
	EXISTING ROAD EDGE
	PROPOSED ROAD EDGE
	PROPOSED WHITE ROAD MARKER
	PROPOSED YELLOW ROAD MARKING
	NEW PAVEMENT
	GRASS VERGE
	PROPOSED EARTHWORKS
	RELOCATED TRAFFIC SIGN
	RELOCATED LANDSCAPE POST
	RELOCATED BOLLARD
	PROPOSED POST & WIRE FENCE
	PROPOSED TRAFFIC SIGNALS

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-02495	OVERHEAD HIGH AND LOW VOLTAGE CABLES
EWR2-HAZ-02496	PRESENCE OF BURIED SERVICES/ UTILITIES

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



KEY:

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

RETAINED	REMOVE/RELOCATE	DESCRIPTION
		GATE
		FENCE
		BOLLARD
	NONE	TREE TRUNK
NONE		TRAFFIC SIGN
	NONE	SERVICE BOX
NONE		DE-VEGETATION
		LANDSCAPE POST
	NONE	CONTROL CABINET
	NONE	TELEGRAPH POLE
	NONE	INSPECTION CHAMBER

- 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.
 - 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 ARBORICULTURIST 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	Dsnd	Chkd	Appr	Suitability
B01	23/10/19	FOR INFORMATION		N.T.	G.J.	S.A.
Status						S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
HAUL ROAD CROSSING HRC_2 SITE CLEARANCE

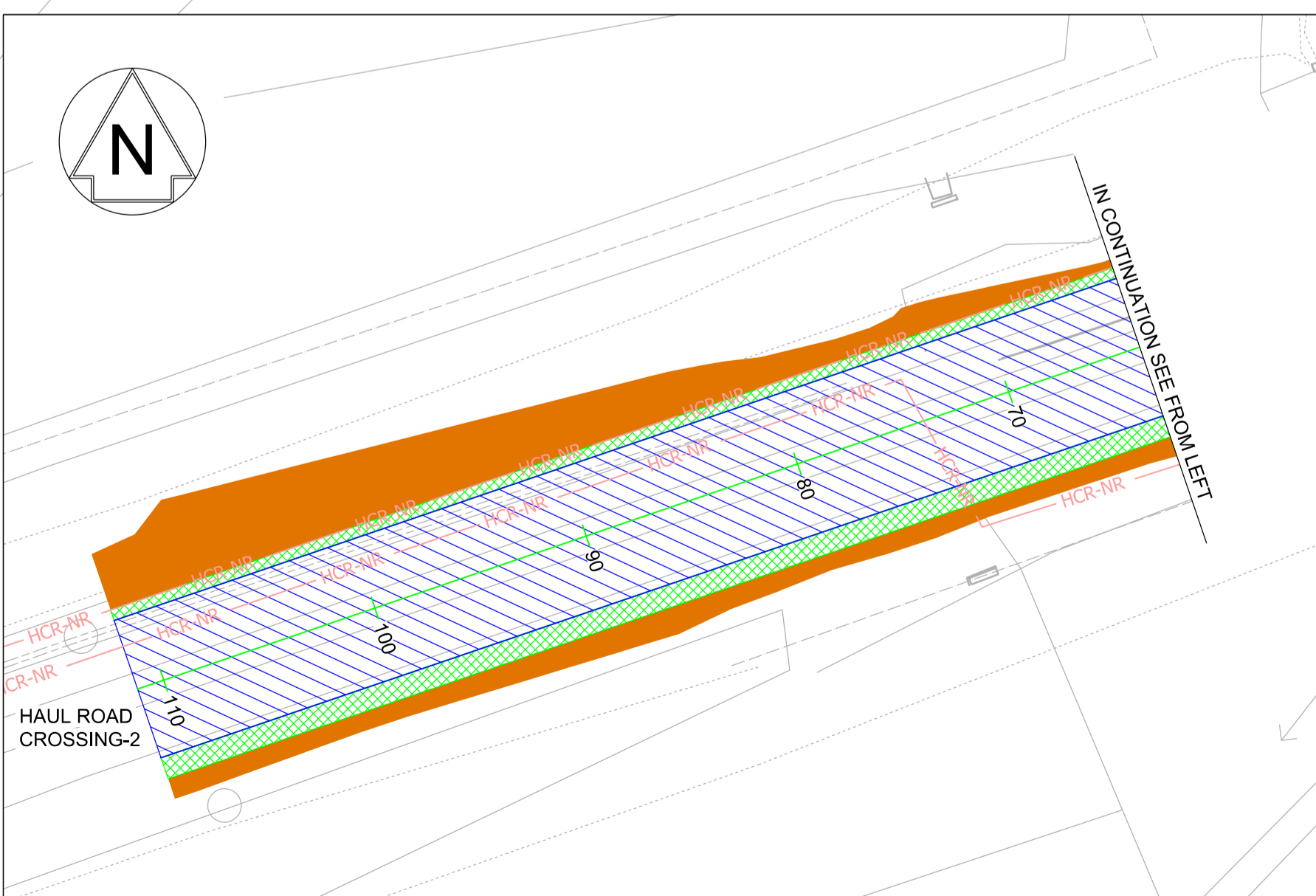
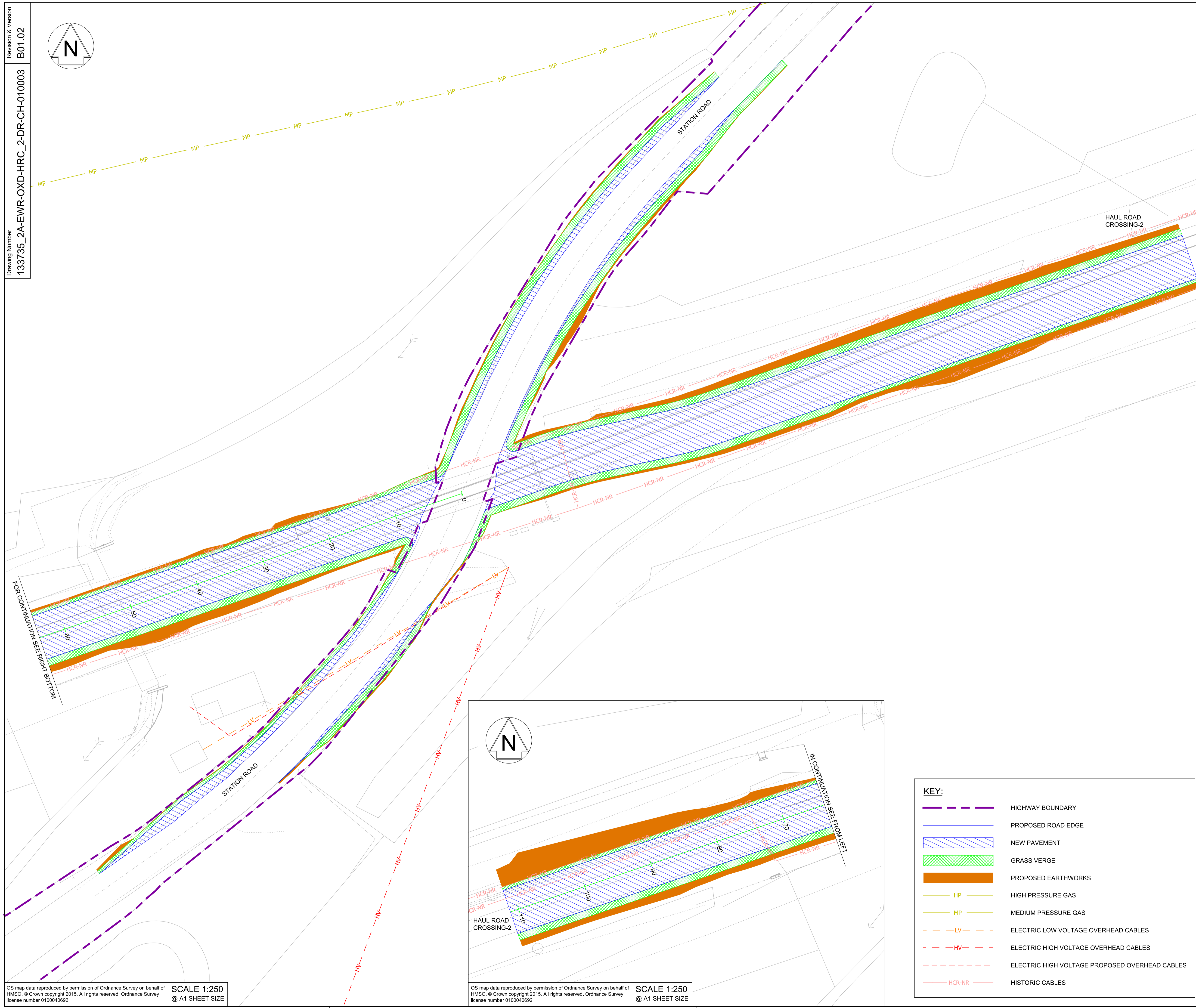
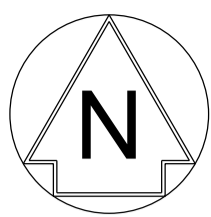
Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	19/10/19
Drawn	Ravikumar KN	Signed	R. KN	Date	10/06/19
Checked	Garth Johnston	Signed	G. Johnston	Date	21/10/19
Approved	Stephen Abe	Signed	S. Abe	Date	21/10/19

Scale(s)
1:250
ELR - Project Chainage (Miles Yards)
OXD -

Design Package Risk Classification
Normal

Sheet
1 of 1

Alternative Reference
Revision
B01



KEY:

	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE
	NEW PAVEMENT
	GRASS VERGE
	PROPOSED EARTHWORKS
	HP HIGH PRESSURE GAS
	MP MEDIUM PRESSURE GAS
	LV ELECTRIC LOW VOLTAGE OVERHEAD CABLES
	HV ELECTRIC HIGH VOLTAGE OVERHEAD CABLES
	ELECTRIC HIGH VOLTAGE PROPOSED OVERHEAD CABLES
	HCR-NR HISTORIC CABLES

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. 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.
 5. 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.
 6. 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.
 7. 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.



B01	18/03/20	FOR INFORMATION	N.T.	L.T.	G.J.
Rev	Date	Description of Revisions	Desd	Chkd	Appr
Status	SHARED - for Information				S2



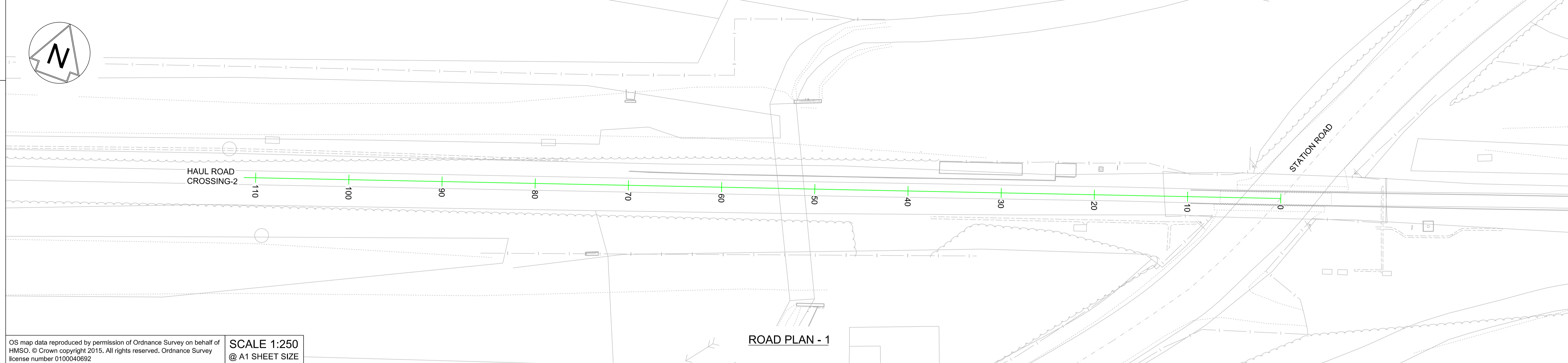
East West Rail (Western Section) Phase 2

HAUL ROAD CROSSING HRC_2 EXISTING UTILITIES

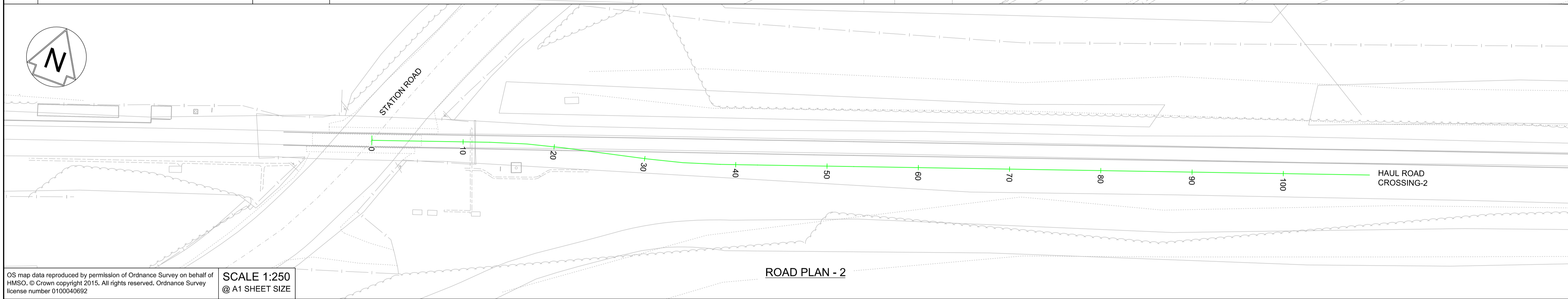
Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	10/06/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	12/03/20

Scale(s)	1:250	ELR - Project Chainage (Miles Yards)	OXD -
Design Package Risk Classification	Normal		Sheet
Alternative Reference			1 of 1
Drawing Number	133735_2A-EWR-OXD-HRC_2-DR-CH-010003		Revision
			B01

Revision & Version
B01.01
Drawing Number
133735_2A-EWR-OXD-HRC_2-DR-CH-010004

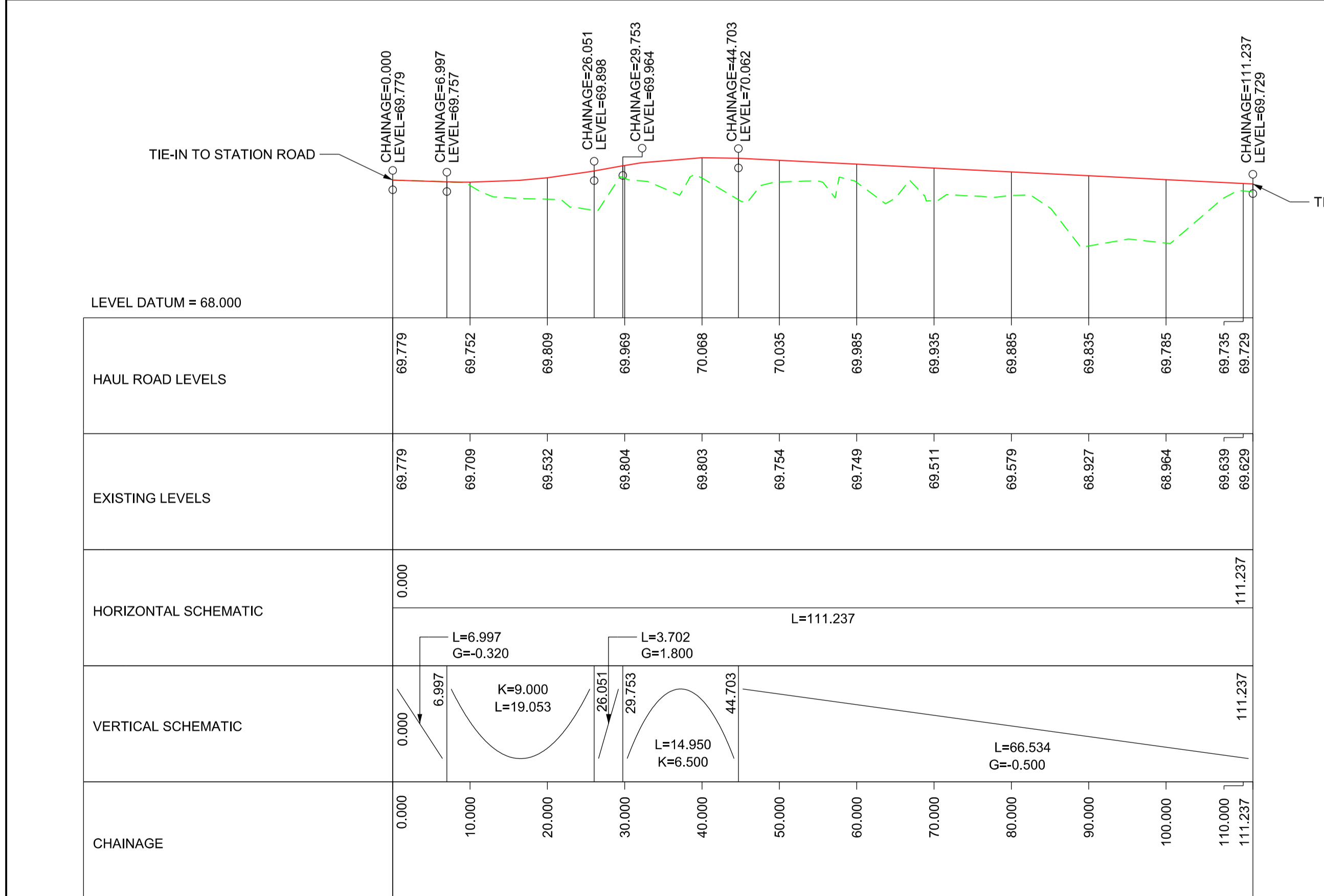


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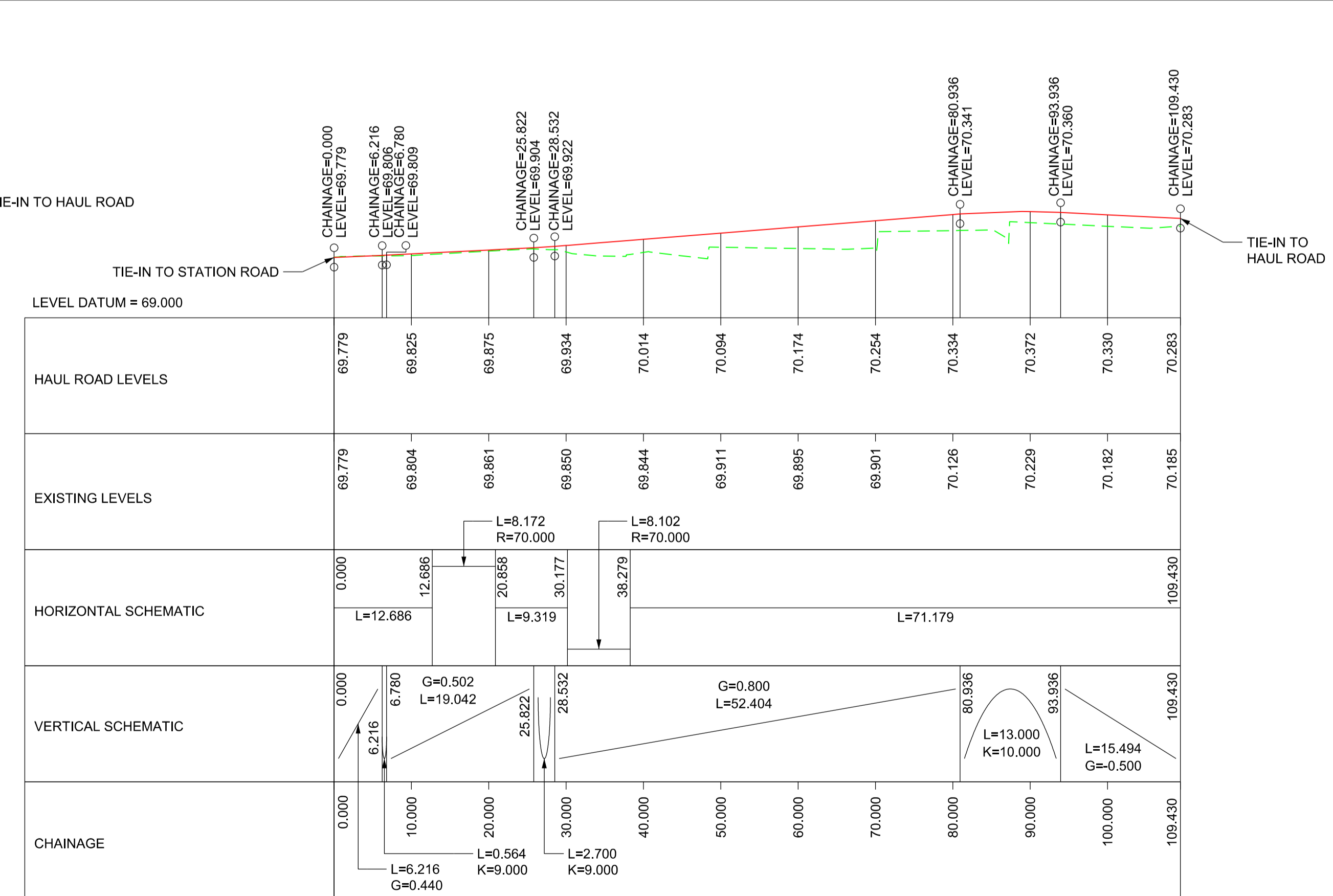


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NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)
NOTES:
1. THIS DRAWING IS NOT TO BE SCALED.
2. ALL DIMENSIONS AND LEVELS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.



ROAD PROFILE - 1
SCALE = H - 1:500
V - 1:50



ROAD PROFILE - 2
SCALE = H - 1:500
V - 1:50

KEY:
— NEW ROAD EDGE LEVEL
- - - EXISTING SURFACE LEVEL

DRAFT

B01	23/10/19	FOR INFORMATION	N.T.	G.J.	S.A.
Rev	Date	Description of Revisions	Dsnd	Chkd	Appr
Status	SHARED - for Information			S2	

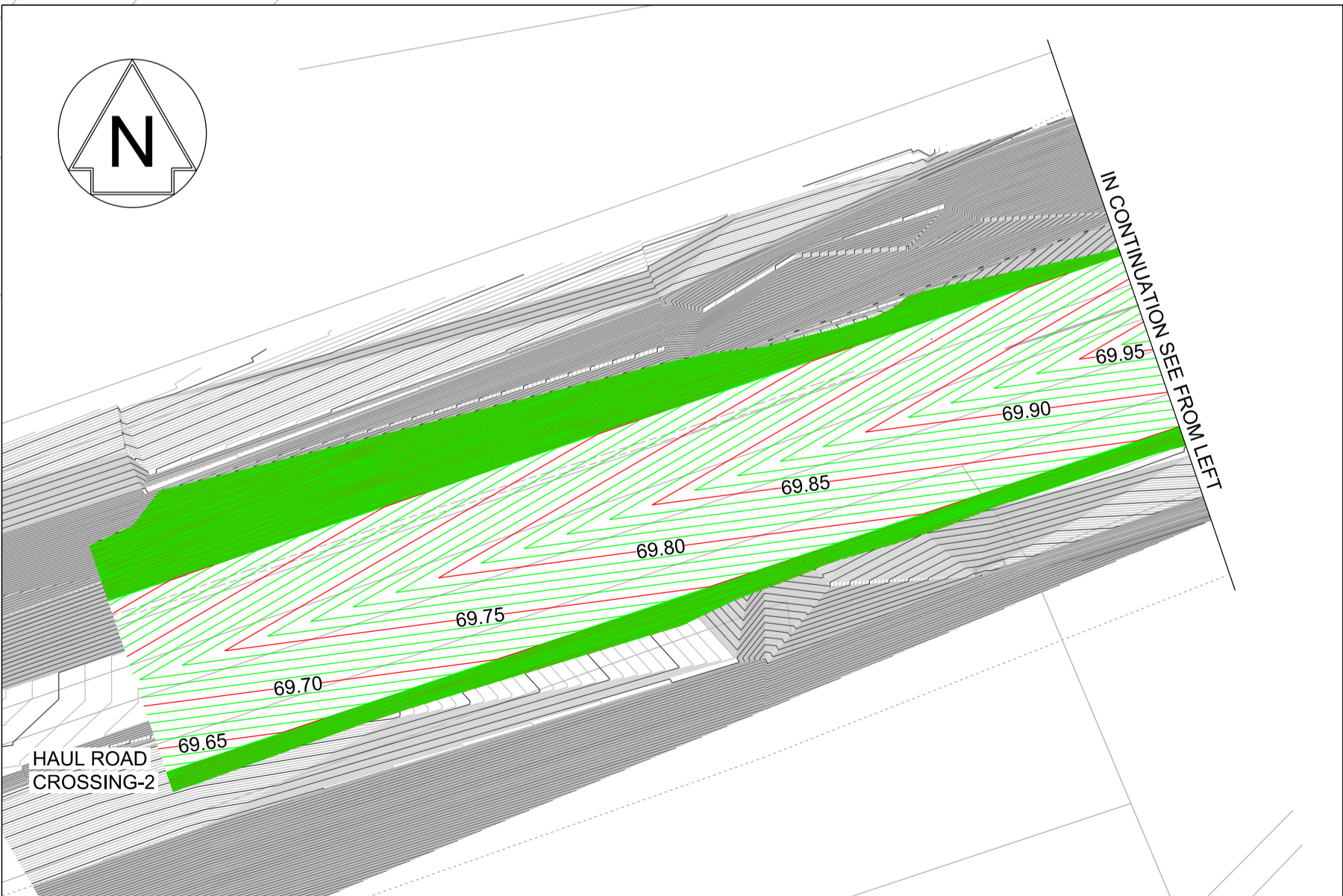
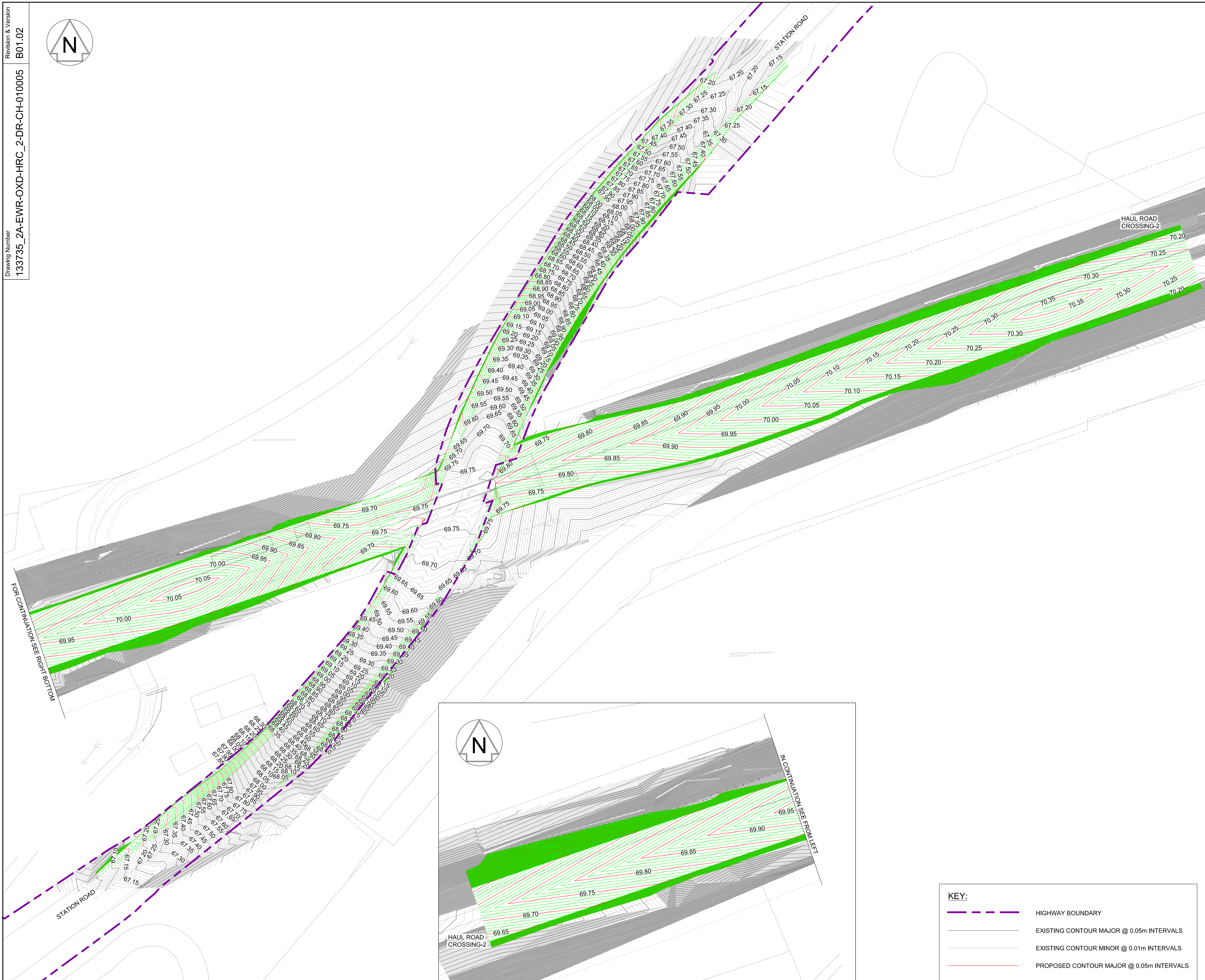
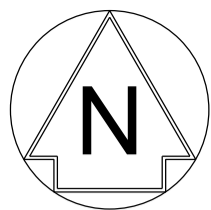


Project
East West Rail (Western Section) Phase 2
Drawing Title
HAUL ROAD CROSSING HRC_2 ROAD PLAN AND PROFILE

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	19/10/19
Drawn	Ravikumar KN	Signed	R. KN	Date	10/06/19
Checked	Garth Johnston	Signed	G. Johnston	Date	21/10/19
Approved	Stephen Abe	Signed	S. Abe	Date	21/10/19

Scale(s)
AS SHOWN
Design Package Risk Classification
Normal
Alternative Reference
Drawing Number
133735_2A-EWR-OXD-HRC_2-DR-CH-010004

SCALE : AS SHOWN
@ 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. ALL WORKS TO BE IN ACCORDANCE WITH THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAYS WORKS VOL 1 (SPECIFICATION FOR HIGHWAY WORKS) AND STANDARD CONSTRUCTION DETAILS.
5. THE DELIVERY TEAM IS TO VERIFY DIMENSION ON SITE AND ADVISE OF ANY INFORMATION DISCREPANCIES. TIE-IN POINTS SHOULD BE VERIFIED ON SITE WITH THE ENGINEER PRIOR TO CONSTRUCTION.



Rev	Date	Description of Revisions	Desd	Chkd	Appr	
B01	18/03/20	FOR INFORMATION		N.T.	L.T.	G.J.
Status SHARED - for Information S2						



Project
East West Rail
(Western Section)
Phase 2

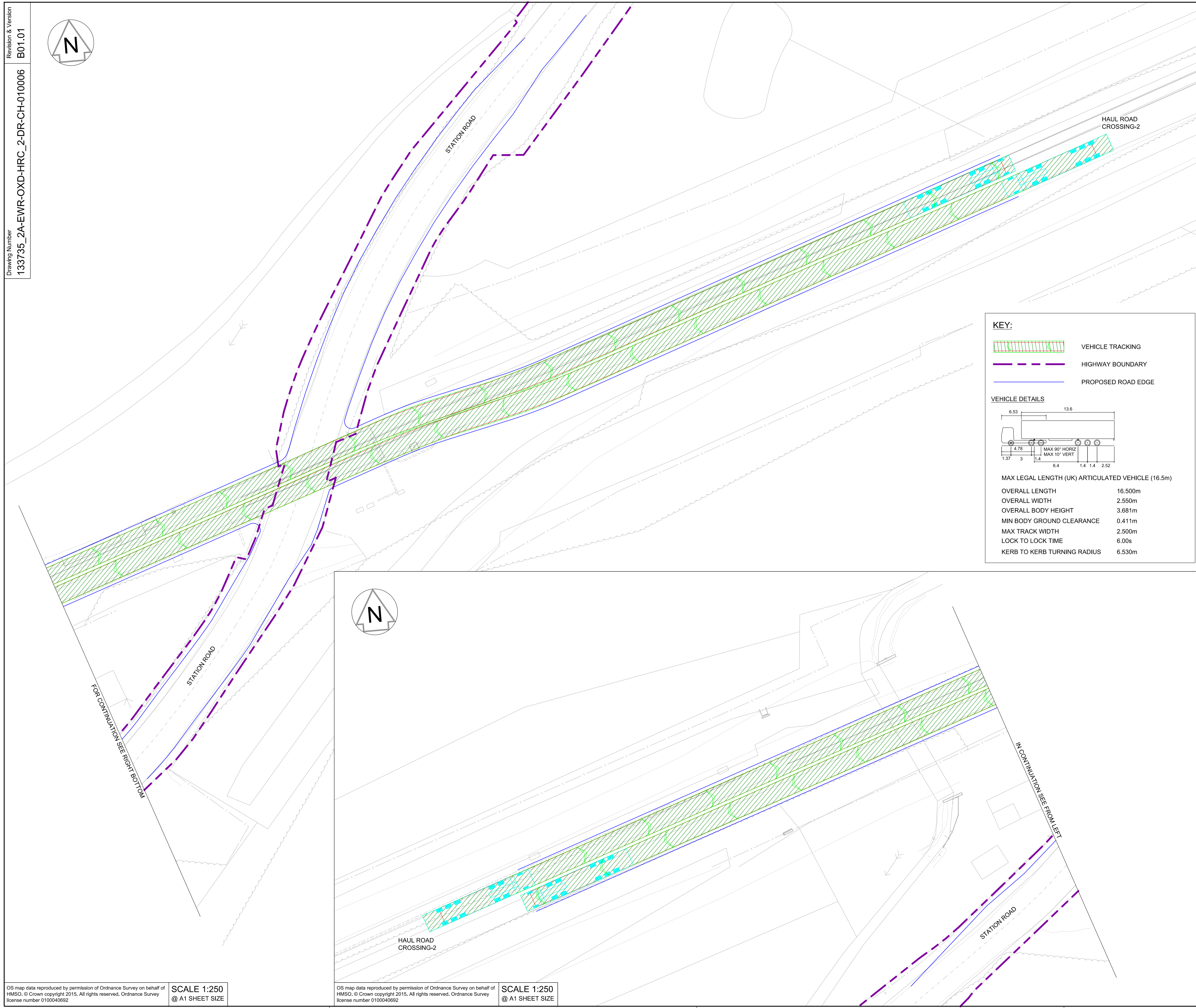
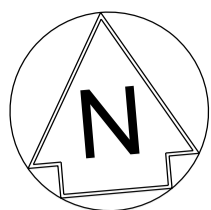
Drawing Title
HAUL ROAD CROSSING HRC_2
EXISTING AND PROPOSED
CONTOURS

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	10/06/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	12/03/20

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-HRC_2-DR-CH-010005



KEY:

- VEHICLE TRACKING
- HIGHWAY BOUNDARY
- PROPOSED ROAD EDGE

VEHICLE DETAILS

MAX LEGAL LENGTH (UK) ARTICULATED VEHICLE (16.5m)

OVERALL LENGTH	16.500m
OVERALL WIDTH	2.550m
OVERALL BODY HEIGHT	3.681m
MIN BODY GROUND CLEARANCE	0.411m
MAX TRACK WIDTH	2.500m
LOCK TO LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	6.530m

- NOTES:**
- THIS DRAWING IS NOT TO BE SCALED.
 - ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
 - VEHICLE TRACKING IS UNDERTAKEN WITH COMPUTER MODELLING SOFTWARE AND IS BASED ON IDEAL SITUATIONS WHERE REAL WORLD OBSTRUCTIONS ON THE ROAD NETWORK SUCH AS PARKING OR LOADING ACTIVITY WOULD NOT HAVE BEEN FORESEEN.
 - THE MODELLING IS BASED IN 2D PLAN WHERE SWEEP PATHS ARE INFLUENCED BY ANTICIPATED MOVEMENTS AND THEREFORE LEAD TO IDEAL APPROACH ANGLES, WHICH MIGHT NOT BE OBVIOUS IN REALITY.
 - APPROACH SPEEDS, APPROACH ANGLES, ROAD SURFACE, WEATHER CONDITIONS AND TYRE WEAR ARE ALL FACTORS THAT WILL INFLUENCE VEHICLE PATHS.



Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	23/10/19	FOR INFORMATION		N.T.	G.J.	S.A
Status						S2



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

Drawing Title
**HAUL ROAD CROSSING HRC_2
 VEHICLE SWEEP PATH ANALYSIS**

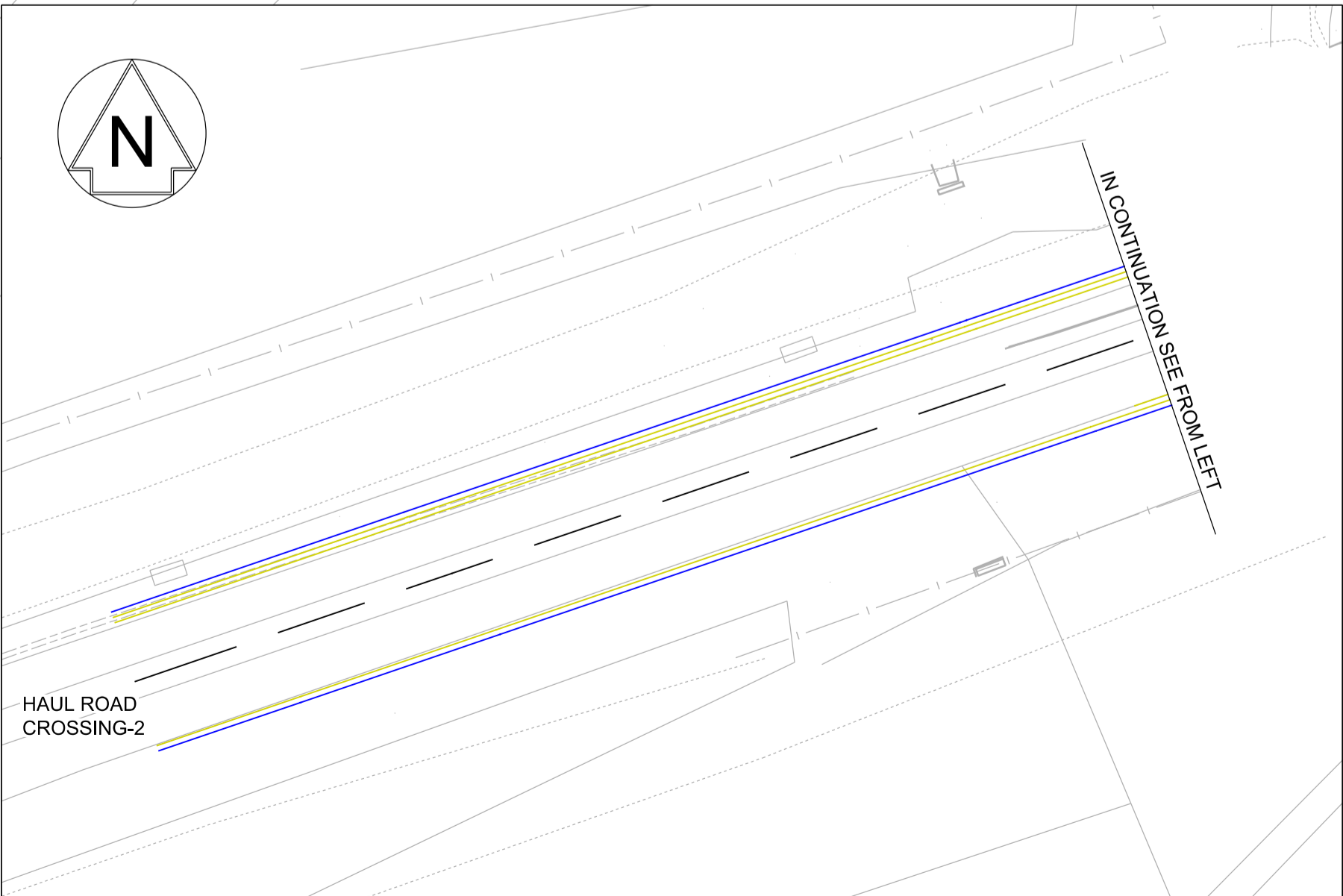
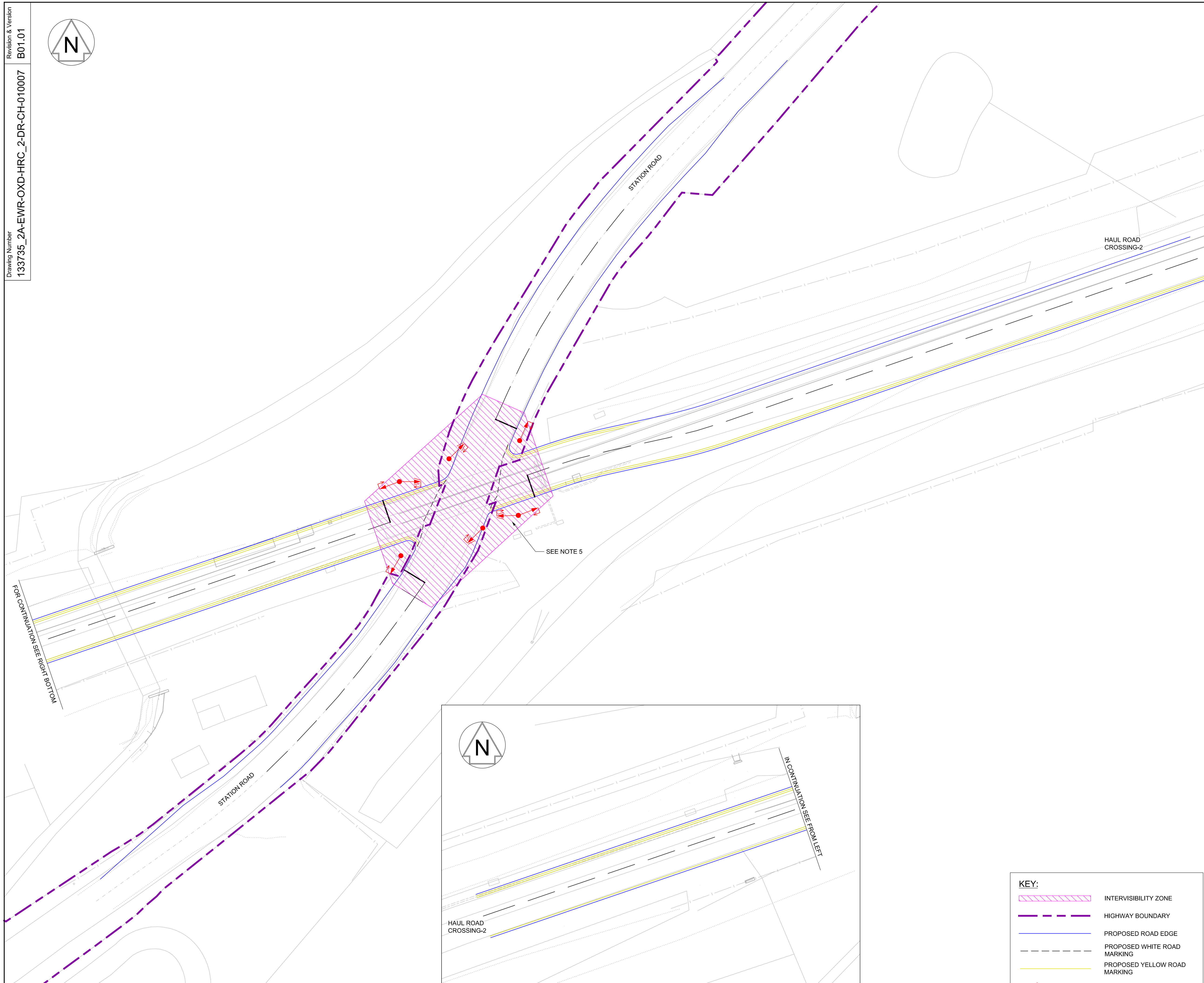
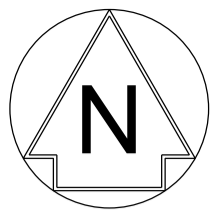
Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	19/10/19
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Approved	Stephen Abe	Signed	S. Abe	Date	21/10/19

Scale(s)
 1:250
 ELR - Project Chainage (Miles Yards)
 OXD -

Design Package Risk Classification
Normal

Sheet
 1 of 1

Alternative Reference
 Revision
 B01



KEY:

	INTERVISIBILITY ZONE
	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE
	PROPOSED WHITE ROAD MARKING
	PROPOSED YELLOW ROAD MARKING
	PROPOSED TRAFFIC SIGNALS

- 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. THE SITE TEAM NEEDS TO ASCERTAIN THE REQUIRED CLEARANCE BASED ON THE VISIBILITY SPLAY INTERVISIBILITY ZONE AND OR WORKS REQUIRED FOR THIS SITE.
 4. 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).
 5. JUNCTION INTERVISIBILITY ZONE AS PER DMRB TD 50.

DRAFT

Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	23/10/19	FOR INFORMATION				N.T. G.J. S.A
Status						SHARED - for Information S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
HAUL ROAD CROSSING HRC_2 INTERVISIBILITY ZONE

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	19/10/19
Drawn	Ravikumar KN	Signed	R. KN	Date	10/06/19
Checked	Gareth Johnston	Signed	G. Johnston	Date	21/10/19
Approved	Stephen Abe	Signed	S. Abe	Date	21/10/19

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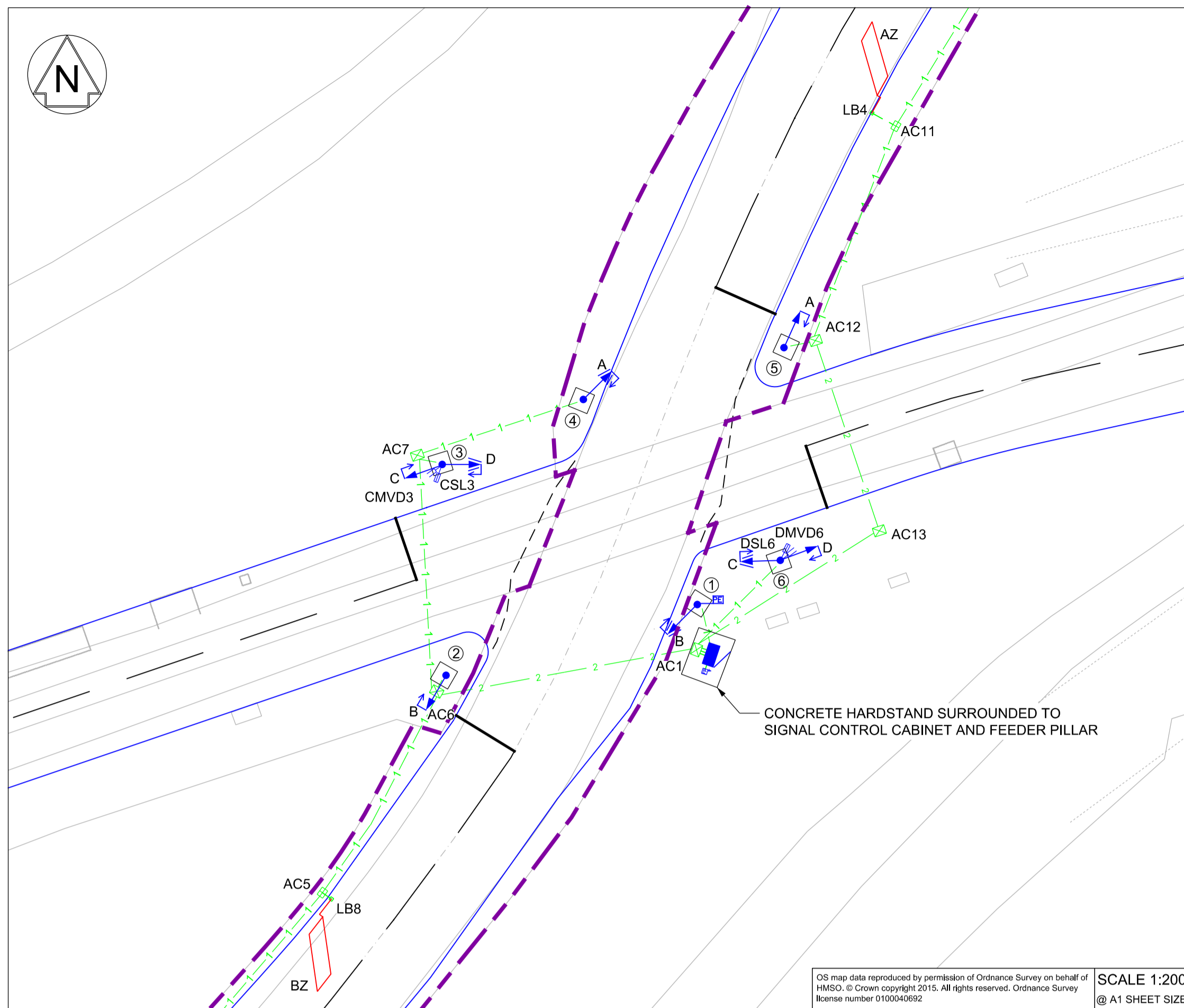
ELR - Project Chainage (Miles Yards)
OXD -

Design Package Risk Classification
Normal

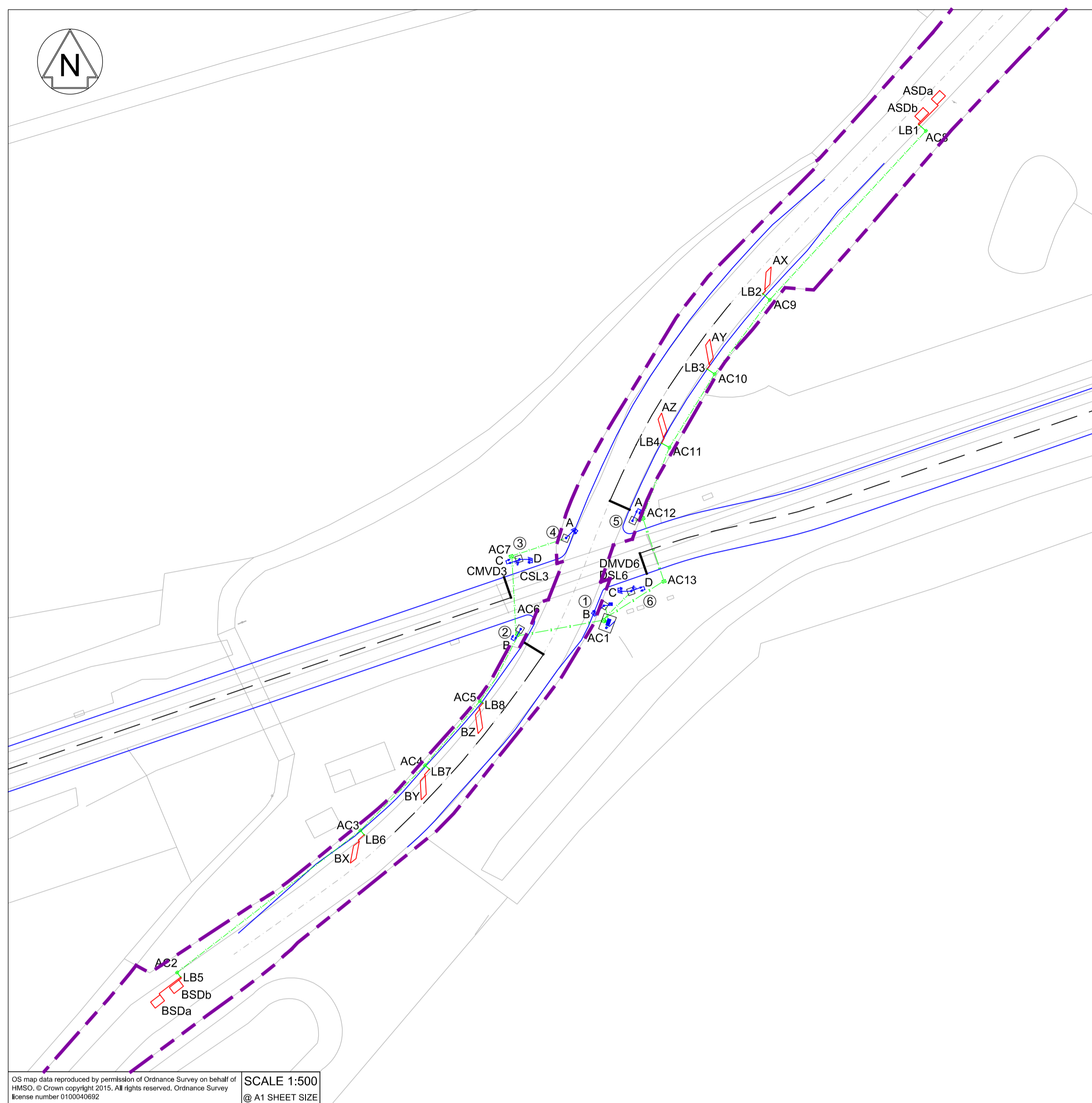
Alternative Reference

Sheet
1 of 1

Revision
B01



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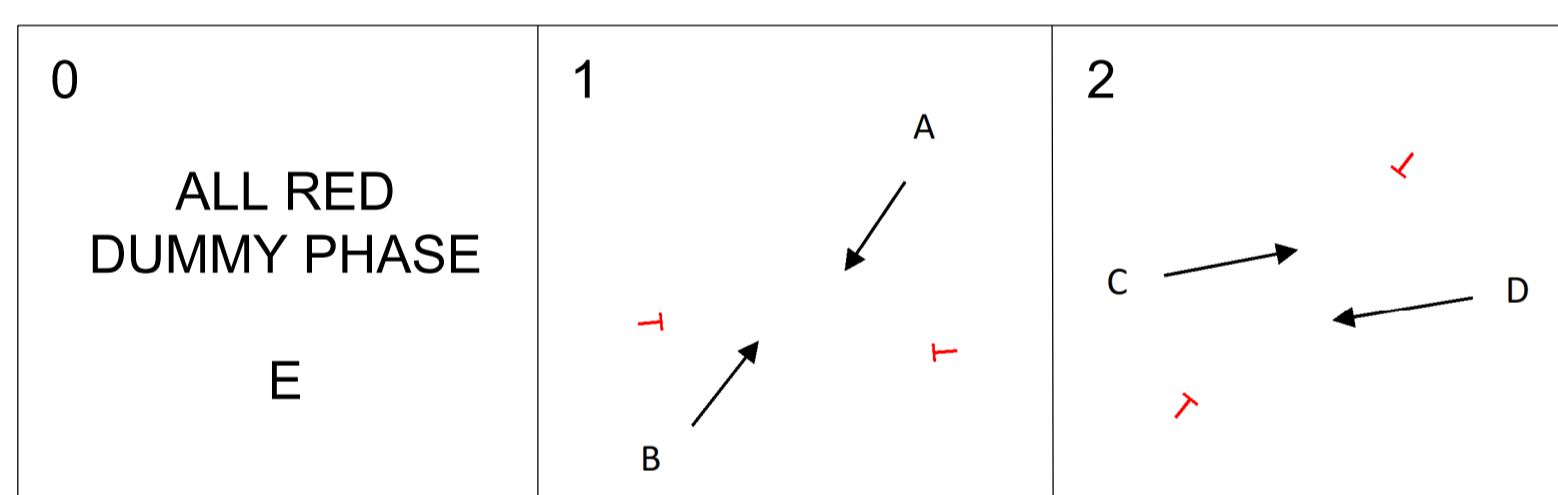
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NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

- NOTES:**
1. ALL TRAFFIC SIGNAL EQUIPMENT TO BE ELV.
 2. ALL TRAFFIC SIGNAL ASPECTS TO BE CLS LED TYPE.
 3. SIGNAL DIMMING IS TO BE PROVIDED. THE SOLAR CELL TO BE INSTALLED ON THE POLE INDICATED ON THE DRAWING.
 4. RED LAMP MONITORING IS TO BE PROVIDED.
 5. SIGNAL POLES, CONTROLLER CABINET AND BASE, AND FEEDER PILLAR ARE TO BE GREY IN COLOUR AND IN ACCORDANCE WITH THE APPENDIX 12/5.
 6. SIGNAL POLE LOCATIONS ARE TO BE AS SHOWN ON THIS SIGNAL DRAWING. POLE LOCATIONS ARE TO BE MARKED ON THE GROUND AND THE POSITION AGREED WITH THE SIGNAL DESIGN ENGINEER BEFORE INSTALLATION.
 7. ALL SIGNAL POLES ARE TO BE SECURED IN SIGNAL POLE RETENTION SOCKETS 'DUCK FOOT' TYPE. RETENTION SOCKETS ARE TO BE CONNECTED TO THE ASSOCIATED FOOTWAY ACCESS CHAMBER BY 1 X 100mm DIA SIGNAL DUCT.
 8. ALL 100mm SIGNAL DUCTS ARE TO BE PROVIDED AFTER INSTALLATION AND HAVE A DRAW CORD FITTED. THE DRAW CORD IS TO BE SECURED AT EACH END IN ALL ACCESS CHAMBERS.
 9. SIGNAL HEADS ON POLES ARE TO BE MOUNTED WITH A MINIMUM CLEARANCE OF 2.1m ABOVE THE FINISHED FOOTWAY SURFACE LEVEL AND A MINIMUM OF 2.4m ABOVE THE FINISHED CYCLEWAY SURFACE LEVEL FOR CYCLEWAYS.
 10. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE APPENDIX 12/5 TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS AND APPENDIX 5/2 DUCTING REQUIREMENTS, CD 123 AND ANY OTHER DOCUMENTS ISSUED IN RELATION TO THESE WORKS.

KEY:

	HIGHWAY BOUNDARY
	EXISTING ROAD EDGE
	PROPOSED ROAD EDGE
	PROPOSED WHITE ROAD MARKING
	TRAFFIC SIGNAL CONTROL CABINET ON RAISED BASE
	TRAFFIC SIGNAL 'MINI' FEEDER PILLAR
	SIGNAL HEAD RAGa (AHEAD) (PRIMARY)
	SIGNAL HEAD RAGa (AHEAD) (SECONDARY)
	MICRO-WAVE VEHICLE DETECTOR (MVD)
	STOPLINE DETECTOR
	PHOTO ELECTRIC CONTROL UNIT (PE CELL)
	TRAFFIC SIGNAL POLE 115mm DIA WITH 1m X 1m CONCRETE FOUNDATION
	VEHICLE DETECTOR LOOP
	SIGNAL POLE RETENTION SOCKET
	CARRIAGEWAY LOOP BOX
	600 X 450 ACCESS CHAMBER
	450 X 300 ACCESS CHAMBER
	50mm TRAFFIC SIGNAL DUCT
	100mm TRAFFIC SIGNAL DUCT



SIGNAL EQUIPMENT SCHEDULE

POLE NUMBER	POLE TYPE	SIGNAL HEAD	HOOD TYPE	SIGNAL DETECTION	OTHER EQUIPMENT
1	4m	1 x RAGa (AHEAD)	SECONDARY	-	PE CELL
2	4m	1 x RAGa (AHEAD)	PRIMARY	-	-
3	4m	1 x RAGa (AHEAD) 1 x RAGa (AHEAD)	PRIMARY SECONDARY	1 x MVD 1 x STOPLINE	-
4	4m	1 x RAGa (AHEAD)	SECONDARY	-	-
5	4m	1 x RAGa (AHEAD)	PRIMARY	-	-
6	4m	1 x RAGa (AHEAD) 1 x RAGa (AHEAD)	PRIMARY SECONDARY	1 x MVD 1 x STOPLINE	-

DETECTOR SCHEDULE

DETECTOR NUMBER	DETECTOR NAME	DISTANCE FROM STOPLINE (m)	PHASE(S) DEMANDED	PHASE(S) EXTENDED	DETECTOR TYPE
1	AX	39	A	A	LOOP
2	AY	25	A	A	LOOP
3	AZ	12	A	A	LOOP
4	ASD	79	-	-	LOOP
5	BX	39	B	B	LOOP
6	BY	25	B	B	LOOP
7	BZ	12	B	B	LOOP
8	BSD	79	-	-	LOOP
7	CSL3	POLE 3	C	C	RADAR
8	CMVD3	POLE 3	C	C	RADAR
9	DSL6	POLE 6	D	D	RADAR
10	DMVD6	POLE 6	D	D	RADAR

CHAMBER AND LOOP BOX SCHEDULE

CHAMBER NUMBER	CHAMBER SIZE (mm)		LOOP BOX
	600 x 450	450 x 300	
AC1	1	-	-
AC2	-	1	LB5
AC3	-	1	LB6
AC4	-	1	LB7
AC5	-	1	LB8
AC6	1	-	-
AC7	1	-	-
AC8	-	1	LB1
AC9	-	1	LB2
AC10	-	1	LB3
AC11	-	1	LB4
AC12	1	-	-
AC13	1	-	-

SIGNAL POLE RETENTION SOCKET SCHEDULE

POLE/SOCKET NUMBER	DISTANCE FROM STOPLINE (m)	DISTANCE FROM KERBFACE (m)
1	8	1
2	1.5	1
3	3	1
4	7	0.8
5	1.5	1
6	3	1

ALL DISTANCES ARE TO THE CENTRE OF THE POLE RETENTION SOCKET POLE HOUSING

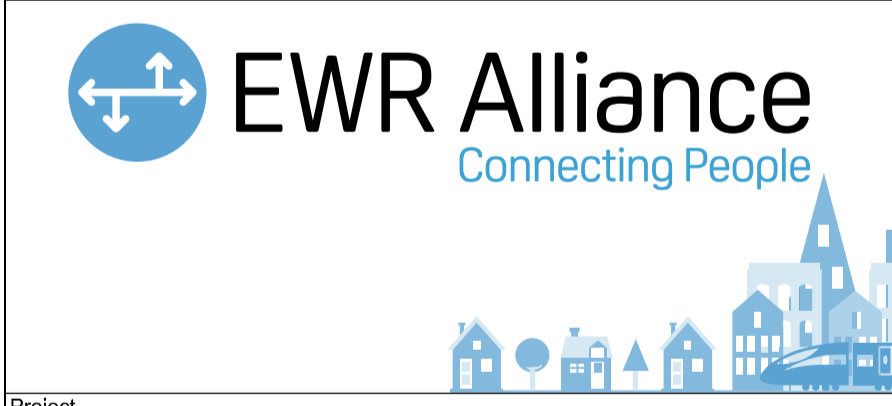
DUCT SCHEDULE

FROM	TO	DUCT X No	DUCT DIA (mm)	DISTANCE (m)*
FEEDER PILLAR	CONTROLLER	1	50	1
AC1	CONTROLLER	3	100	1
AC1	POLE 1	1	100	3
AC1	POLE 6	1	100	6
AC2	LB5	1	50	1
AC2	AC3	1	100	36
AC3	LB6	1	50	1
AC3	AC4	1	100	14
AC4	LB7	1	50	1
AC4	AC5	1	100	14
AC5	LB8	1	50	1
AC5	AC6	1	100	11
AC6	AC1	2	100	13
AC6	POLE 2	1	100	2
AC6	AC7	1	100	11
AC7	POLE 3	1	100	2
AC7	POLE 4	1	100	9
AC1	AC13	2	100	10
AC13	AC12	2	100	10
AC12	POLE 5	1	100	2
AC12	AC11	1	100	12
AC11	LB4	1	50	2
AC11	AC10	1	100	13
AC10	LB3	1	50	2
AC10	AC9	1	100	14
AC9	LB2	1	50	2
AC9	AC8	1	100	34
AC8	LB1	1	50	2

*ALL DISTANCES SHOWN ARE INDICATIVE

Rev	Date	Description of Revisions	Desd	Chkd	Appr
B01	18/03/20	FOR INFORMATION	N.T.	L.T.	G.J.

Rev Status: SHARED - for Information S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
HAUL ROAD CROSSING HRC_2 TRAFFIC SIGNAL LAYOUT

Design	Drawn	Checked	Approved
Designated: Nagoth Thomas Ravi Kumar	Drawn: Tamsin Leaman-Hewitt	Checked: Lisa Taylor	Approved: Gareth Johnston
Signed: N. T. R. Kumar	Signed: T. Leaman-Hewitt	Signed: L. Taylor	Signed: G. Johnston
Date: 11/03/20	Date: 10/10/19	Date: 11/03/20	Date: 12/03/20

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

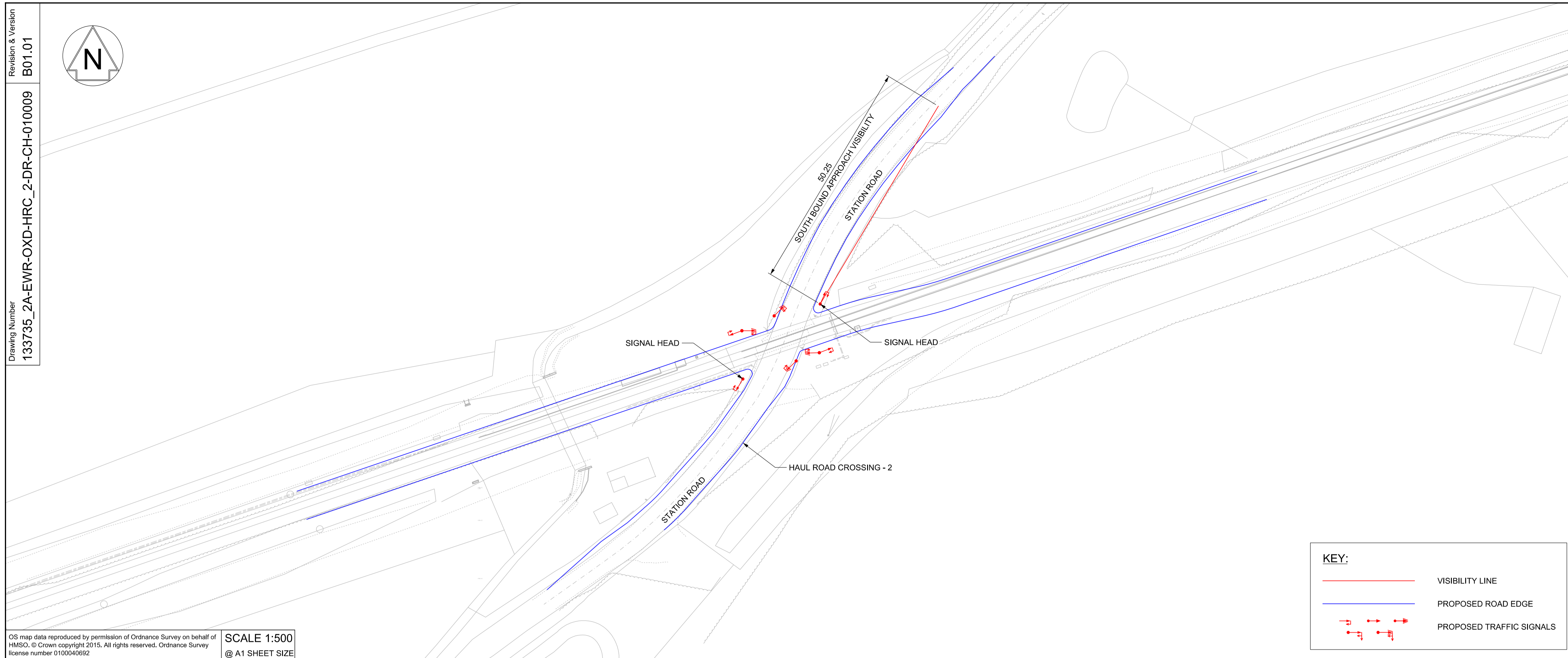
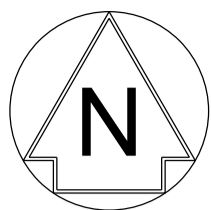
Design Package Risk Classification: Normal

Alternative Reference: Sheet 1 of 1

Drawing Number: B01

133735_2A-EWR-OXD-HRC_2-DR-CH-010008



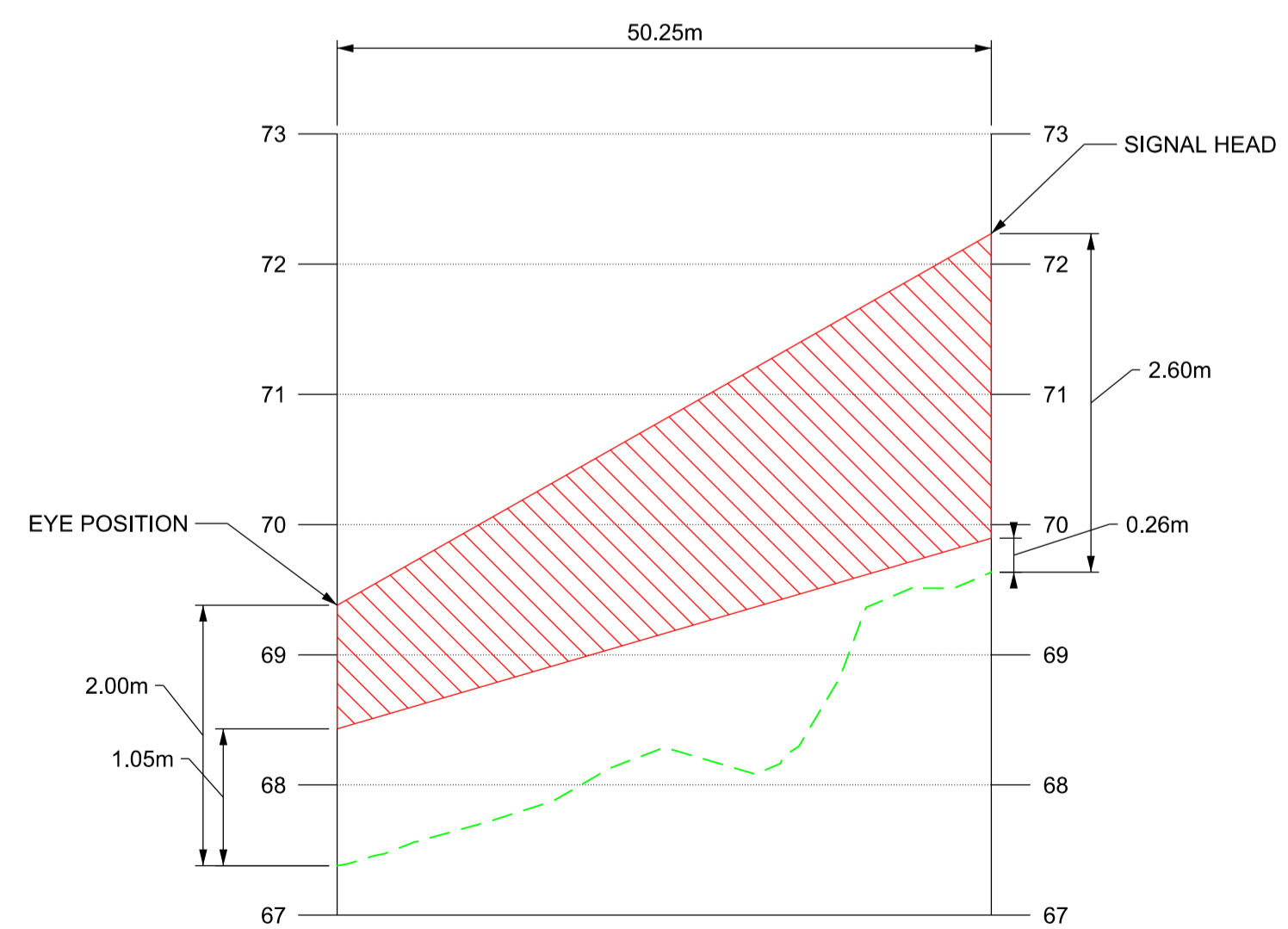


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SCALE 1:500
@ A1 SHEET SIZE

KEY:

- VISIBILITY LINE
- PROPOSED ROAD EDGE
- PROPOSED TRAFFIC SIGNALS

- 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 VISIBILITY ENVELOPE DEVELOPED IS AS PER DMRB TD50.



VISIBILITY ENVELOPE ON SOUTH BOUND APPROACH TO SIGNAL HEAD 50.25m

KEY:

- VISIBILITY ENVELOPE
- - - EXISTING GROUND PROFILE

SCALE H - 1:100
V - 1:10
@ A1 SHEET SIZE



Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	18/03/20	FOR INFORMATION				

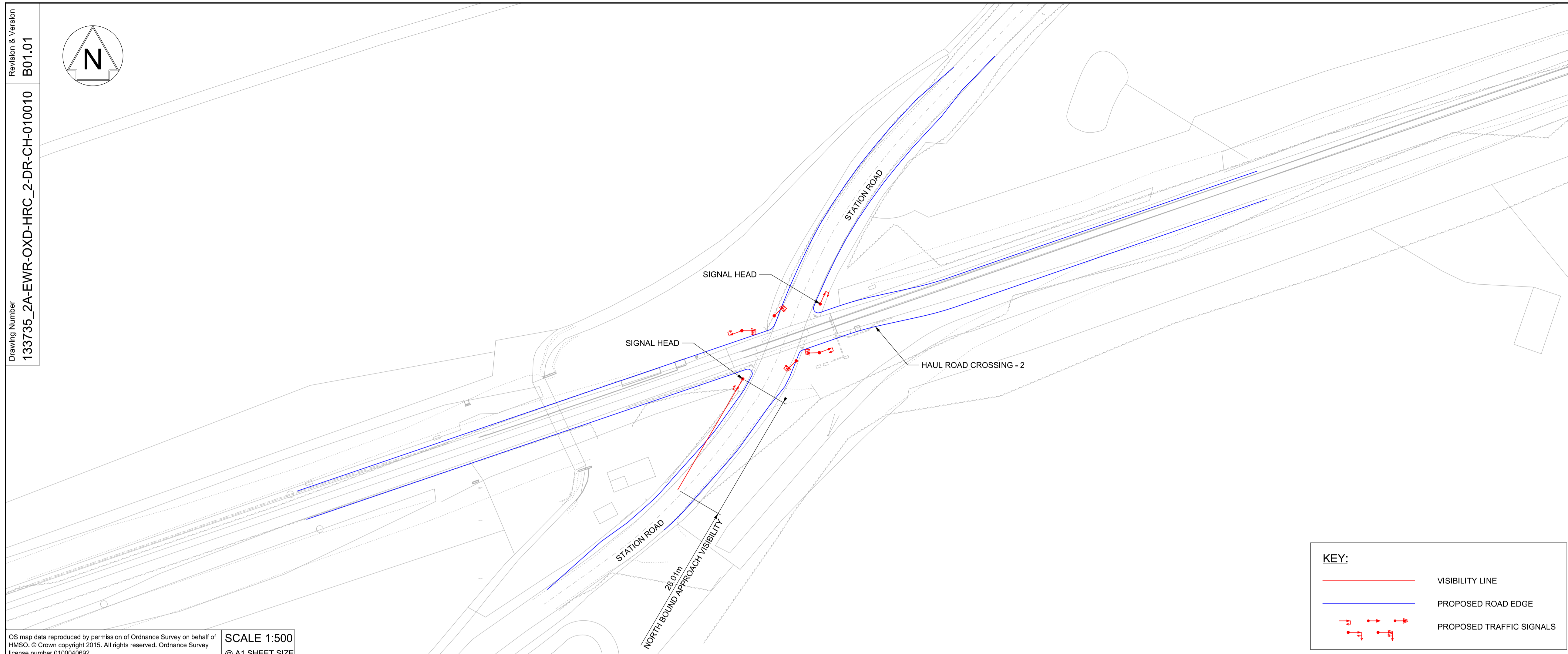
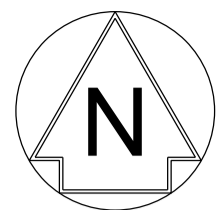


Project
East West Rail (Western Section) Phase 2

Drawing Title
HAUL ROAD CROSSING HRC_2 SIGNAL HEADS VISIBILITY

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	11/11/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	12/03/20

Scale(s)	ELR - Project Chainage (Miles Yards)	AS SHOWN	OXD -
Design Package Risk Classification	Normal	Sheet	1 of 2
Alternative Reference		Revision	B01
Drawing Number	133735_2A-EWR-OXD-HRC_2-DR-CH-010009		



KEY:

- VISIBILITY LINE
- PROPOSED ROAD EDGE
- PROPOSED TRAFFIC SIGNALS

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SCALE 1:500
@ A1 SHEET SIZE

DRAFT

Rev	Date	Description of Revisions	Desd	Chkd	Appr
B01	18/03/20	FOR INFORMATION	N.T.	L.T.	G.J.
Status					S2



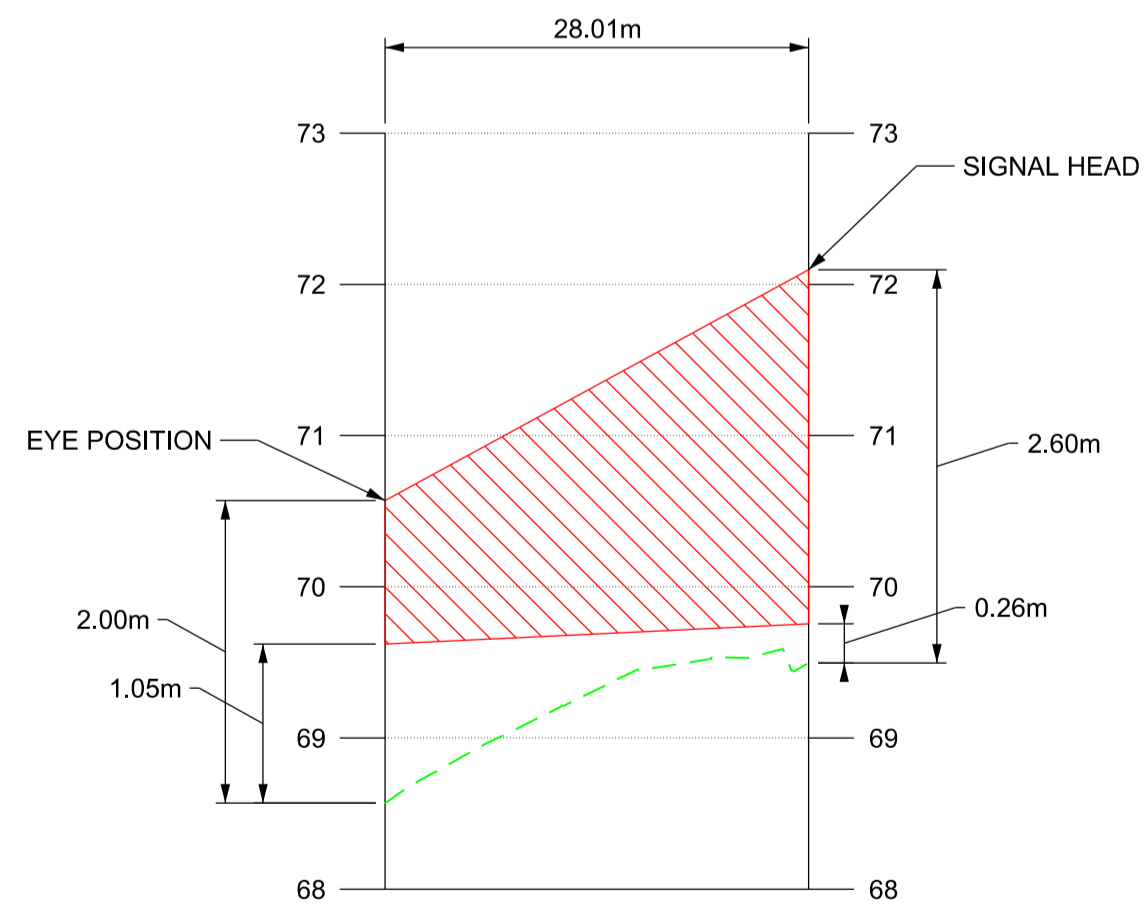
Project
**East West Rail
(Western Section)
Phase 2**

Drawing Title
**HAUL ROAD CROSSING HRC_2
SIGNAL HEADS VISIBILITY**

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	11/11/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	12/03/20

Scale(s)
AS SHOWN
Design Package Risk Classification
Normal
Alternative Reference
Drawing Number
133735_2A-EWR-OXD-HRC_2-DR-CH-010010

Sheet
2 of 2
Revision
B01

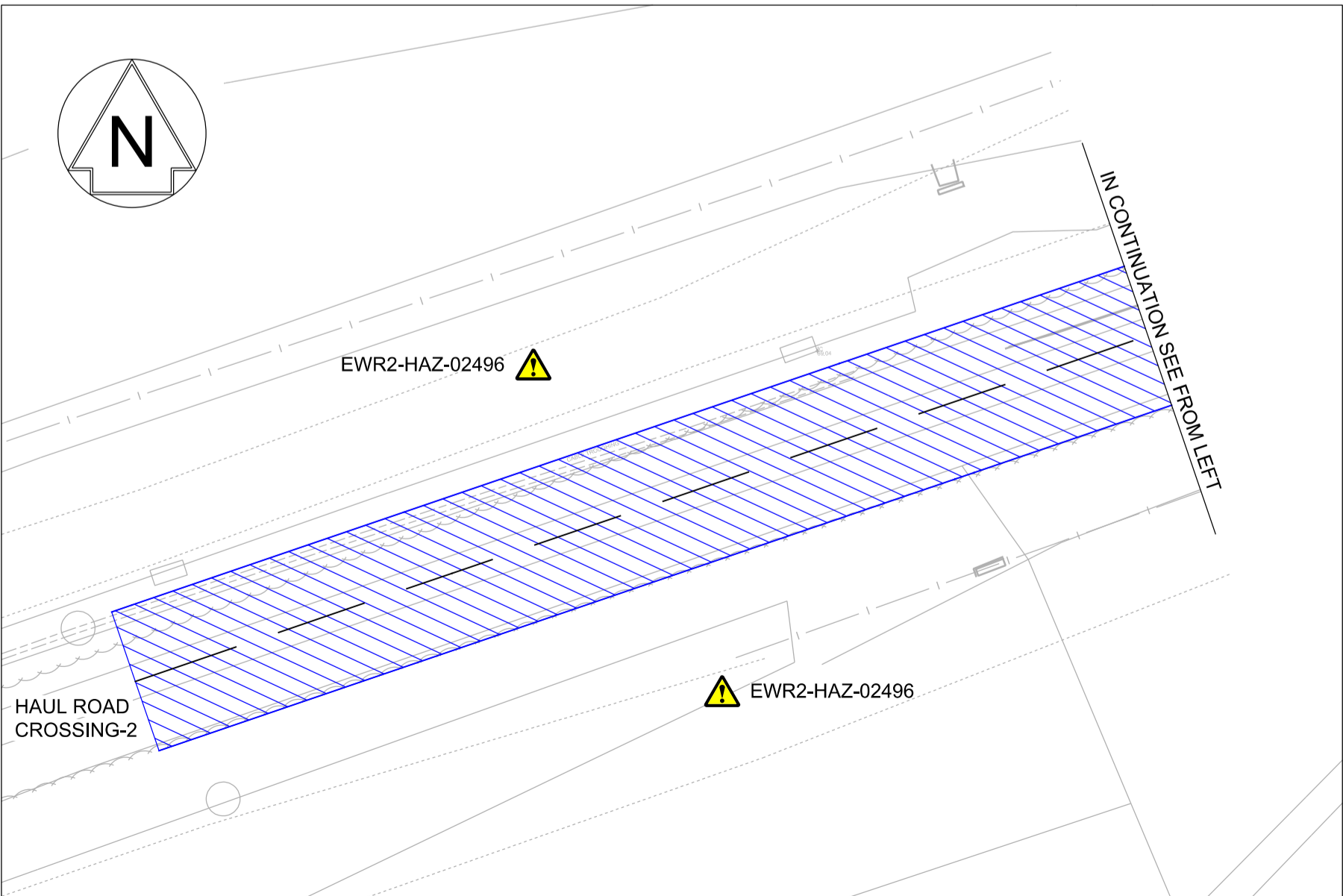
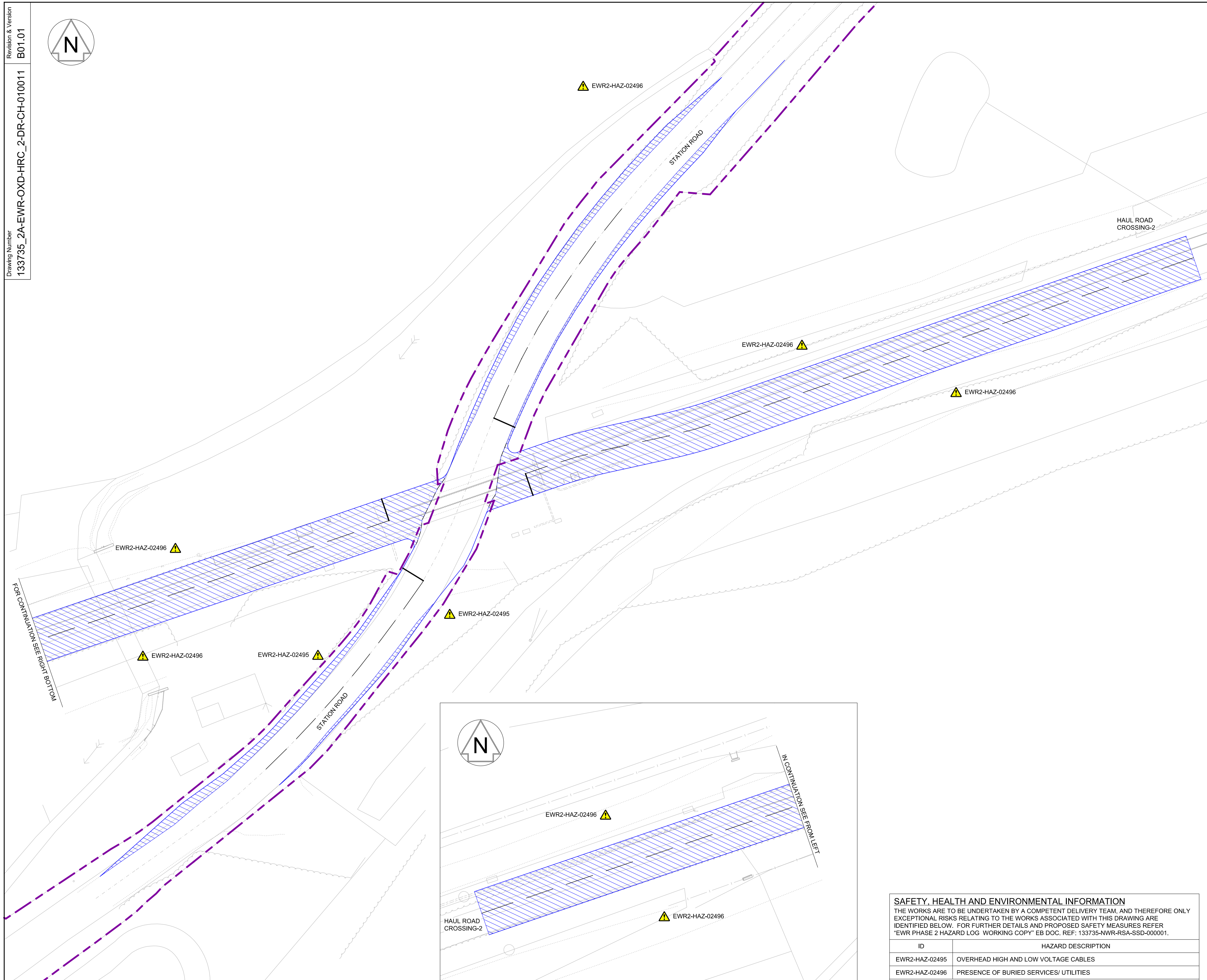
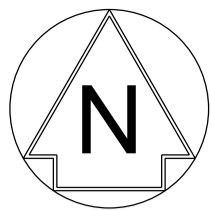


VISIBILITY ENVELOPE ON NORTH BOUND APPROACH TO SIGNAL HEAD 28.01m

KEY:

- VISIBILITY ENVELOPE
- EXISTING GROUND PROFILE

SCALE H - 1:100
V - 1:10
@ 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.

DRAFT

KEY:

	HIGHWAY BOUNDARY
	EXISTING ROAD EDGE
	PROPOSED ROAD EDGE
	NEW PAVEMENT

Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	18/03/20	FOR INFORMATION				
Status						S2



Project
East West Rail (Western Section) Phase 2

Drawing Title
HAUL ROAD CROSSING HRC_2 PAVEMENT LAYOUT

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Tamsin Leaman-Hewitt	Signed	T. Leaman-Hewitt	Date	22/01/20
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	12/03/20

Scale(s)
1:250

Design Package Risk Classification
Normal

Alternative Reference

Sheet
0 of 1

Revision
B01

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-02495	OVERHEAD HIGH AND LOW VOLTAGE CABLES
EWR2-HAZ-02496	PRESENCE OF BURIED SERVICES/ UTILITIES

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