### **Tritax Symmetry (Hinckley) Limited**

# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

## The Hinckley National Rail Freight Interchange Development Consent Order

**Project reference TR050007** 

# **Geometric Design Strategy Record**

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#### 1. INTRODUCTION

#### Introduction

- 1.1 Tritax Symmetry (Hinckley) Limited (the Applicant), have submitted an application for a Development Consent Order (DCO). The DCO will authorise the Applicant to construct and operate a Strategic Rail Freight Interchange (SRFI), which is a "nationally significant infrastructure project", as defined in the Planning Act 2008.
- 1.2 The SRFI site is proposed on land to the north west of the M69 motorway off J2 and to the south east of the Leicester to Hinckley railway line. It comprises a total of approximately 247 ha (610 acres) including the works associated with Junction 2.
- 1.3 A detailed description of the SRFI development is found at Chapter 2 of the Environmental Statement. The proposals include significant improvements to M69 J2 and the construction of a new link between the B4668 and M69 J2.
- 1.4 The report is based on the following information:
  - Design standards listed in Chapter 2 below
  - Topographical survey information by MK Surveys
  - OS mapping, aerial photos and Google Streetview

### **Purpose**

- 1.5 The purpose of this report is to record the strategy for the geometric design for the upgrades to J2 and the construction of the new link between the B4668 and the M69. Hence this report is termed the Design Strategy Record (DSR). It covers all the upgrades to J2 and the construction of the new link between the B4668 and the M69, as well as commentary on the proposed remote junction improvement works within Leicestershire County Council's (LCC) jurisdiction as Highway Authority.
- 1.6 For each aspect of geometric design this report will describe the proposed geometry. Where relaxations or departures from standard are required, these will be highlighted and a justification provided.
- 1.7 This report does not include analysis of the motorway highway works or other works to the Strategic Road Network (SRN), these are covered in a separate report.

#### Overview of the Scheme

- 1.8 The purpose of the junction upgrades and the new link is to provide access and sufficient capacity to facilitate the development of the NRFI. The junction upgrades and the new link would consist of the following:
  - New link from M69 J2 to the B4668
  - Capacity upgrades to M69 J2.



1.9 The drawings listed below show the scheme layouts.

### **List of Drawings**

1.10 The following 1:500 scale drawings are found at **Appendix A:** 

Section of Scheme	Drawing Number
B4668 New Roundabout	HRF-BWB-HGN-HW01-DR-CH-0100_General Arrangement Sheet 1
Link Road North of Railway	HRF-BWB-HGN-HW02-DR-CH-0100_General Arrangement Sheet 2
Link Road North of Railway	HRF-BWB-HGN-HW03-DR-CH-0100_General Arrangement Sheet 3
Railway Bridge Area	HRF-BWB-HGN-HW04-DR-CH-0100_General Arrangement Sheet 4
Link Road South of Railway	HRF-BWB-HGN-HW05-DR-CH-0100_General Arrangement Sheet 5
Roundabout 3	HRF-BWB-HGN-HW06-DR-CH-0100_General Arrangement Sheet 6
Link Road and bus interchange	HRF-BWB-HGN-HW07-DR-CH-0100_General Arrangement Sheet 7
Roundabout 2	HRF-BWB-HGN-HW08-DR-CH-0100_General Arrangement Sheet 8
Roundabout 1	HRF-BWB-HGN-HW09-DR-CH-0100_General Arrangement Sheet 9
M69 J2 west	HRF-BWB-HGN-HW10-DR-CH-0100_General Arrangement Sheet 10
M69 J2 east	HRF-BWB-HGN-HW11-DR-CH-0100_General Arrangement Sheet 11
B4669/Stanton Lane Junction	HRF-BWB-HGN-HW16-DR-CH-0100_General Arrangement Sheet 16
B581/Hinckley Road Junction	HRF-BWB-HGN-HW17-DR-CH-0100_General Arrangement Sheet 17
Sapcote Village	HRF-BWB-HGN-HW18-DR-CH-0100_General Arrangement Sheet 18
Normandy Way/Ashby Road Junction	HRF-BWB-HGN-HW19-DR-CH-0100_General Arrangement Sheet 19
A47/B4668/The Common Roundabout	HRF-BWB-HGN-HW20-DR-CH-0100_General Arrangement Sheet 20
B4114/Croft Road Junction	HRF-BWB-HGN-HW21-DR-CH-0100_General Arrangement Sheet 21
A5 Cross in Hand Roundabout	HRF-BWB-HGN-HW22-DR-CH-0100_General Arrangement Sheet 22
Bostock Close/B581 Crossing	HRF-BWB-HGN-HW23-DR-CH-0100_General Arrangement Sheet 23
B4114/Broughton Road Junction	HRF-BWB-HGN-HW24-DR-CH-0100_General Arrangement Sheet 24

1.11 The highway information can also be found on the highway plans (Sheets 1 – 8) found within the formal documentation associated with the Development Consent Order application. In addition, long sections associated with the A47 link road can be found at **Appendix A** on drawing HRF-BWB-LSI-D1-DR-CH-00105, Document 2.4J (PINS Ref APP-030)



#### 1.12 The following vehicle tracking drawings are found at **Appendix B**:

Section of Scheme	Drawing Number
Roundabout 3	HRF-BWB-HGN-HW06-DR-CH-0115_Vehicle Tracking Roundabout 3
Link Road and bus interchange	HRF-BWB-HGN-HW07-DR-CH-0115_Vehicle Tracking Bus Interchange
Roundabout 2	HRF-BWB-HGN-HW08-DR-CH-0115_Vehicle Tracking Roundabout 2
Roundabout 1	HRF-BWB-HGN-HW09-DR-CH-0115_Vehicle Tracking Roundabout 1
M69 J2 west	HRF-BWB-HGN-HW10-DR-CH-0115_Vehicle Tracking Junction 2 West
M69 J2 east	HRF-BWB-HGN-HW11-DR-CH-0115_Vehicle Tracking Junction 2 East
B4669/Stanton Lane Junction	HRF-BWB-GEN-XX-DR-TR-129_B4669_Stanton Lane Mitigation Swept Paths
B581/Hinckley Road Junction	HRF-BWB-GEN-XX-DR-TR-124_B581_Hinckley Road_New Road Mitigation Swept Paths
Sapcote Village	HRF-BWB-GEN-XX-DR-TR-135_Sapcote Swept Paths
Normandy Way/Ashby Road Junction	HRF-BWB-GEN-XX-DR-TR-128_A47 Normandy Way_Ashby Rd Mitigation Swept Paths
A47/B4668/The Common Roundabout	HRF-BWB-GEN-XX-DR-TR-125_A47_The Common_Leicester Rd Mitigation Swept Paths
B4114/Croft Road Junction	HRF-BWB-GEN-XX-DR-TR-127_Coventry Rd_Croft Rd Mitigation Swept Paths
A5 Cross in Hand Roundabout	HRF-BWB-GEN-XX-DR-TR-126_A5_Coal Pit Ln_A4303 Mitigation Swept Paths
B4114/Broughton Road Junction	HRF-BWB-GEN-XX-DR-TR-133_B4114 B581 Mitigation Swept Paths



#### 2. GEOMETRIC DESIGN STANDARDS

### **Existing Situation**

- 2.1 The existing M69 J2 is subject to national speed limit. The B4668 is subject to 50mph in the area of the proposed new roundabout.
- 2.2 The M69 J2 circulatory is not currently signalised. LCC are the highway authority for the circulatory carriageway and surrounding roads with the exception of the north facing slip roads to the M69 which are the responsibility of National Highways. The boundary is shown on the highway plans.
- 2.3 There are existing entry path deflection departures on the B4669 approaches to the circulatory in both directions.
- 2.4 The B4668 is a rural single carriageway road with a shared footway/cycleway to its north side.
- 2.5 There is an existing access to a traveller's site in the vicinity of the proposed roundabout and a layby to the south west of the proposed roundabout.

#### Standards Used

- 2.6 Unless stated otherwise the upgrades to J2 and the construction of the new link between the B4668 and the M69 will be designed in accordance with the following Design Manual for Roads and Bridges (DMRB) standards:
  - CD109 "Highway Link Design"
  - CD116 "Geometric Design of Roundabouts"
  - CD127 "Cross-Sections and Headrooms"
  - CD123 "Geometric design of at-grade priority and signal-controlled junctions"
  - CD143 "Designing for walking, cycling and horse-riding"
  - CD169 "The design of lay-bys, maintenance hardstandings, rest areas, service areas and observation platforms"
  - CD195 "Designing for cycle traffic"

### **Design Speed**

2.7 The design speeds for each section of the scheme are given as follows.

Road/Link Section	Road/Link Type	Design Speed (kph)	Derived from
M69 J2 to B4668 Link			
M69 J2 to Roundabout 1	Urban dual carriageway	70kph	CD109 Table 2.5 for 40mph speed limit
Roundabout 1 to	Urban dual carriageway	70kph	CD109 Table 2.5 for



		I		
Roundabout 2			40mph speed limit	
Roundabout 2 to Roundabout 3	Urban dual carriageway	70kph	CD109 Table 2.5 for 40mph speed limit	
Roundabout 3 to a point 200m north of the rail bridge	Urban single carriageway	70kph	CD109 Table 2.5 for 40mph speed limit	
From point 200m north of the rail bridge to the B4668	Rural single carriageway	100kph	CD109 Figure 2.1	
North east of B4668 roundabout	Urban single carriageway	70kph	CD109 Table 2.5 for 40mph speed limit	
South west of B4668 roundabout	Urban single carriageway	85kph	CD109 Table 2.5 for 50mph speed limit	
M69 Junction 2				
B4669 East approach to J2	Rural single carriageway	85kph	CD109 Figure 2.1	
B4669 West approach to J2	Rural single carriageway	100kph	CD109 Figure 2.1	



### 3. HORIZONTAL DESIGN OF LINKS

3.1 The horizontal alignment consists of various elements, depending on the type of link. Each aspect is considered below

### M69 J2 to B4668 Link

M69 J2 to Roundabout 3					
		Standard	Proposed Design		
Chainage	Element	(70kph design speed)	Details	Relaxations/Departures	
0-56.874	Roundabout				
56.874-109.713	Right hand curve – Approach to roundabout	360m desirable min radius	255m	None – CD 116 applies	
109.713- 171.730	Right hand curve	360m desirable min radius	180m	Two steps below desirable minimum is a permitted relaxation	
171.730- 263.410	Roundabout				
263.450- 349.650	Straight	-	-	None	
349.650- 430.470	Right hand curve	360m desirable min radius	1020m	None	
430.470- 542.920	Roundabout				
542.920- 586.440	Left hand curve	360m desirable min radius	255m	One step below desirable minimum is a permitted relaxation	
586.440- 664.640	Transition to straight	~78.2m length transition curve	~78.2m length transition curve	None	
664.640- 671.011	Straight	-	-	None	
671.011- 826.478	Right hand curve	360m desirable min radius	1020m	None	
826.478- 829.216	Straight	-	-	None	
829.216- 853.467	Right hand curve	360m desirable min radius	1440m	None	
853.467- 927.150	Straight	-	-	None	
927.150- 949.614	Roundabout				



Roundabout 3 to Chainage 1855.374				
		Standard	Proposed Design	
Chainage	Element	(70kph design speed)	Details	Relaxations/Departures
1009.590- 1048.530	Roundabout			
1048.530- 1094.089	Straight	-	-	None
1094.089- 1162.089	Transition to Curve	~68m length transition curve	~68m length transition curve	None
1162.089- 1407.096	Curve	360m desirable min radius	360m	None
1407.096- 1475.096	Transition to straight	~68m length transition curve	~68m length transition curve	None
1475.096- 1609.506	Straight	-	-	None
1609.506- 1682.106	Transition to Curve	~72.6m length transition curve	~72.6m length transition curve	None
1682.106- 1782.774	Curve	360m desirable min radius	220m	Two step below desirable minimum is a permitted relaxation
1782.774- 1855.374	Transition to straight	~72.6m length transition curve	~72.6m length transition curve	None

Chainage 1855.374 to B4668				
		Standard (100kph design speed)	Proposed Design	
Chainage	Element		Details	Relaxations/Departures
1855.374- 1938.245	Straight	-	-	None
1938.245- 2299.534	Curve	720m desirable min radius	2040m	None
2299.534- 2363.534	Transition	64m length transition curve	64m length transition curve	None
2363.534- 2550.782	Curve	720m desirable min radius	720m	None
2420.110- 2546.547	Roundabout			



### 4. SIGHT DISTANCE ON LINKS

4.1 The stopping sight distance is assessed for each of the links identified above. Note that visibility to traffic signals or rounda bout give way lines are assessed separately.

#### M69 J2 to B4668 Link

M69 J2 to Roundabout 3 Northbound (70kph)				
Chainage	Junction Features within Length	Proposed SSD (120m desirable SSD)	Relaxations / Departures	
0	M69 Junction 2			
0-13.939	None	≥120m	None	
13.939-193.939	Immediate approach to proposed roundabout 1	≥120m	None	
193.939-241.423	Roundabout 1			
241.423-283.998	None	≥120m	None	
283.998-463.998	Immediate approach to proposed roundabout 2	≥120m	None	
463.998-523.990	Roundabout 2			
523.990-769.614	None	≥120m	None	
769.614-946.614	Immediate approach to proposed roundabout 3	≥120m	None	
946.614	Roundabout 3			

M69 J2 to Roundabout 3 Southbound (70kph)					
Chainage	Junction Features within Length	Proposed SSD (120m desirable SSD)	Relaxations / Departures		
946.614	Roundabout 3				
946.614-703.990	None	≥120m	None		
703.990-523.990	Immediate approach to proposed roundabout 2	≥120m	None		
523.990-463.998	Roundabout 2				
463.998-421.423	None	≥120m	None		
421.423-241.423	Immediate approach to proposed roundabout 1	≥120m	None		
241.423-193.939	Roundabout 1				
193.939-180	None	≥120m	None		
0-180	Immediate approach to M69 Junction 2	≥120m	None		
0	M69 Junction 2				

Roundabout 3 to Chainage 1855.374 Northbound (70kph)					
Chainage	Junction Features within Length	Proposed SSD (120m desirable SSD)	Relaxations / Departures		
1009.590	Roundabout 3				
1009.590-1524.990	None	≥120m	None		



1524.990-1704.990	Immediate approach to minor junction	≥120m	None
1655.790-1855.374	None	≥120m	None
1855.374	Change in speed limit		

Roundabout 3 to Chainage 1855.374 Southbound (70kph)					
Chainage	Junction Features within Length	Proposed SSD (120m desirable SSD)	Relaxations / Departures		
1855.374	Change in speed limit				
1855.374-1704.990	Immediate approach to minor junction	≥120m	None		
1704.990-1189.590	None	≥120m	None		
1189.890-1009.590	Immediate approach to proposed roundabout 3	≥120m	None		
1009.590	Roundabout 3				

Chainage 1855.374 to B4668 Northbound (100kph)					
Chainage	Junction Features within Length	Proposed SSD (215m desirable SSD)	Relaxations / Departures		
1855.374	Change in speed limit				
1855.374-2199.047	None	≥215m	None		
2199.047-2521.547	Immediate approach to proposed B4668 roundabout	≥215m	None		
2521.547	B4668 roundabout				

Chainage 1855.374 to B4668 Southbound (100kph)						
Chainage	Junction Features Proposed SSD (215m Relaxations / within Length desirable SSD) Departures					
2521.547	B4668 roundabout					
1855.374-251.547	None	≥215m	None			
1855.374	Change in speed limit					



### 5. VERTICAL DESIGN OF LINKS

5.1 The vertical alignment consists of various elements, depending on the type if link. Each aspect is considered below.

### M69 J2 to B4668 Link

M69 J2 to Roundabout 3 Northbound (70kph)					
	Vertical		Minimum	Proposed design	
Chainage	alignment feature	Junction features within the section		Details	Relaxations / Departures
0	M69 Junctic	on 2 Exit			
5.689-49.122	Grade	None	0.5%-4%	-0.568%	None
49.122-129.120	Crest Curve	Immediate approach to proposed roundabout 1	30KF	40KF	None
129.120-180.799	Grade	Immediate approach to proposed roundabout 1	0.5%-4%	-2.568 %	None
180.799-193.939	Sag Curve	Immediate approach to proposed roundabout 1	20KF	300KF	None
193.939-241.423	Roundabou	† 1			
241.423-283.998	Sag Curve	None	20KF	300KF	None
283.998-463.998	Sag Curve	Immediate approach to proposed roundabout 2	20KF	300KF	None
463.998-523.990	Roundabout 2				
523.990-769.614	Sag Curve		20KF	300KF	None
769.614-946.614	Sag Curve	Immediate approach to proposed roundabout 3	20KF	300KF	None
946.614	Roundabou	t 3		<u>'</u>	

M69 J2 to Roundabout 3 Southbound (70kph)					
	Vertical Lunchian Southwest Administration		Proposed design		
Chainage	alignment feature	Junction features within the section	Minimum Standard	Details	Relaxations / Departures
946.614	Roundabout 3	3			
946.614-703.990	Sag Curve	None	20KF	300KF	None
703.990-523.990	Sag Curve	Immediate approach to proposed roundabout 2	20KF	300KF	None
523.990-463.998	Roundabout 2	2			
463.998-421.423	Sag Curve	None	20KF	300KF	None
421.423-241.423	Sag Curve	Immediate approach to proposed roundabout 1	20KF	300KF	None
193.939-241.423	Roundabout 1				
193.939-180.799	Sag Curve	None	20KF	300KF	None
180.799-129.120	Grade	Immediate approach to M69 Junction 2	0.5%-4%	-2.568%	None
129.120-49.122	Crest Curve	Immediate approach	30KF	40KF	None



		to M69 Junction 2			
49.122-5.689	Grade	Immediate approach to M69 Junction 2	0.5%-4%	-0.568%	None
0	M69 Junction	2 Exit			

Roundabout 3 to Chainage 1855.374 (70kph)					
	Vertical	ertical		Proposed design	
Chainage	alignment feature	Junction features within the section	Minimum Standard	Details	Relaxations / Departures
1009.590	Roundabout 3	3			
1009.590- 1311.808	Sag Curve	None	20KF	300KF	None
1311.808- 1483.707	Sag Curve	None	20KF	100KF	None
1483.707- 1524.990	Crest Curve	None	30KF	30KF	None
1524.990- 1669.659	Crest Curve	Immediate approach to minor junction	30KF	30KF	None
1669.659- 1855.374	Sag Curve	Immediate approach to minor junction	20KF	175KF	None
1855.374	Change in spe	eed limit			

Chainage 1855.374 to B4668 (100kph)					
	Vertical	Junction features	Minimum	Pro	posed design
Chainage	alignment feature	within the section	Standard	Details	Relaxations / Departures
1855.374	Change in sp	eed limit			
1855.374- 2260.160	Sag Curve	None	26KF	175KF	None
2260.160- 2307.376	Sag Curve	Immediate approach to proposed B4668 roundabout	26KF	175KF	None
2307.376- 2521.547	Grade	Immediate approach to proposed B4668 roundabout	0.5%-4%	0.369%	Deviation from recommendation in CD 109 para 5.2.2 but <b>not</b> a departure from standards
2521.547	B4668 Rounda	tuoda			



### 6. CROSS SECTIONS OF LINKS

- 6.1 Proposed cross sections of the links to CD 127 are shown on the drawings. These are summarised as follows:
  - M69 J2 Roundabout 1 D2UAP urban dual carriageway
  - Roundabout 1 Roundabout 2 D2UAP urban dual carriageway
  - Roundabout 2 Roundabout 3 D2UAP urban dual carriageway
  - Roundabout 3 to Ch 1855.374 SU2 urban single carriageway
  - Ch 1855.374 B4668 roundabout S2 rural single carriageway



#### 7. M69 J2 TO B4668 LINK JUNCTION AND FEATURES

#### Roundabout 1

- 7.1 The proposed ICD is 60.0m and the circulatory width is 10.0m, which is between 1 and 1.2 times the maximum entry width of 9.0m.
- 7.2 There will be two approaches to the roundabout and these are assessed as follows:

Roundabout 1 Northbound Approach (Design speed: 70kph)						
Requirement	Requirement Criteria Actual provided					
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No			
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No			
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No			
Entry path curvature	≤ 100m	82.87m	No			
Entry angle	20° to 60°	32°	No			
Entry radius	20m to 100m	20m	No			
Lane width on entry	3-4.5m	2x4.5m	No			

Roundabout 1 Southbound Approach (Design speed: 70kph)						
Requirement	Criteria	Criteria Actual provided				
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No			
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No			
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No			
Entry path curvature	≤ 100m	96.4m	No			
Entry angle	20° to 60°	43.5°	No			
Entry radius	20m to 100m	20m	No			
Lane width on entry	3-4.5m	2x4.5m	No			

#### Roundabout 2

- 7.3 The proposed ICD is 60.0m and the circulatory width is 10.0m, which is between 1 and 1.2 times the maximum entry width of 9.0m.
- 7.4 There will be four approaches to the roundabout and these are assessed as follows:



Roundabout 2 Northbound Approach (Design speed: 70kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	94.36m	No
Entry angle	20° to 60°	31.1°	No
Entry radius	20m to 100m	20m	No
Lane width on entry	3-4.5m	2x4.5m	No

Roundabout 2 Southbound Approach (Design speed: 70kph)				
Requirement	Criteria	Actual provided	Departure from Standard?	
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No	
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No	
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No	
Entry path curvature	≤ 100m	91.70m	No	
Entry angle	20° to 60°	39.3°	No	
Entry radius	20m to 100m	20m	No	
Lane width on entry	3-4.5m	2x4.5m	No	

Roundabout 2 Westbound Approach (Design speed: 60kph)				
Requirement	Criteria	Actual provided	Departure from Standard?	
Visibility on approach	90m for 135m (1.5 x SSD)	≥ 90m for 135m	No	
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No	
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No	
Entry path curvature	≤ 100m	76.33m	No	
Entry angle	20° to 60°	40°	No	
Entry radius	20m to 100m	20m	No	
Lane width on entry	3-4.5m	2x4.25m	No	



Roundabout 2 Eastbound Approach (Design speed: 40kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	70m for 135m (1.5 x SSD)	≥ 70m for 135m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	56.87m	No
Entry angle	20° to 60°	32.7°	No
Entry radius	20m to 100m	20m	No
Lane width on entry	3-4.5m	4.5m	No

### Roundabout 3

- 7.5 The proposed ICD is 60.0m and the circulatory width is 10.0m, which is between 1 and 1.2 times the maximum entry width of 9.0m.
- 7.6 There will be four approaches to the roundabout and these are assessed as follows:

Roundabout 3 Northbound Approach (Design speed: 70kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	97.05m	No
Entry angle	20° to 60°	40.3°	No
Entry radius	20m to 100m	20m	No
Lane width on entry	3-4.5m	2x4.5m	No

Roundabout 3 Eastbound Approach (Design speed: 60kph)			
Requirement Criteria Actual provided Departure from Standard?			
Visibility on approach	90m for 135m (1.5 x SSD)	≥ 120m for 180m	No



Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	77.78m	No
Entry angle	20° to 60°	29.5°	No
Entry radius	20m to 100m	40m	No
Lane width on entry	3-4.5m	2x4.25m	No

Roundabout 3 Southbound Approach (Design speed: 70kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	71.80m	No
Entry angle	20° to 60°	32.8°	No
Entry radius	20m to 100m	20m	No
Lane width on entry	3-4.5m	2x3.5m	No

Roundabout 3 Westbound Approach (Design speed: 60kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	90m for 135m (1.5 x SSD)	≥ 120m for 180m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	96.27m	No
Entry angle	20° to 60°	39.5°	No
Entry radius	20m to 100m	20m	No
Lane width on entry	3-4.5m	2x4.25m	No

### **B4668 Roundabout**

7.7 The proposed ICD is 50.0m and the circulatory width is 10.0m, which is between 1 and 1.2 times the maximum entry width of 8.75m.



7.8 There will be three approaches to the roundabout with a segregated left turn lane (SLTL) on the westbound approach and these are assessed as follows:

B4668 Roundabout Northbound Approach (Design speed: 100kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	215m for 322.5m (1.5 x SSD)	≥ 215m for 322.5m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	65.10m	No
Entry angle	20° to 60°	41°	No
Entry radius	20m to 100m	30.0m	No
Lane width on entry	3-4.5m	2x4.5m	No

B4668 Roundabout Eastbound Approach (Design speed: 70kph)			
Requirement	Criteria	Actual provided	Departure from Standard?
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	97.90m	No
Entry angle	20° to 60°	29.2°	No
Entry radius	20m to 100m	20.0m	No
Lane width on entry	3-4.5m	4.5m	No

B4668 Roundabout Westbound Approach (Design speed: 70kph)				
Requirement	Criteria	Actual provided	Departure from Standard?	
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No	
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No	
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No	
Entry path curvature	≤ 100m	67.90m	No	



Entry angle	20° to 60°	25.4°	No	
Entry radius	20m to 100m 22.0m		No	
Lane width on entry	3-4.5m 4.5m		No	
SLTL Radius	-	100m	No	
SLTL Width	6.2m	6.2m	No	
Lane Width	3.7m	3.7m	No	

#### M69 Junction 2 Roundabout

- 7.9 The M69 Junction 2 roundabout is to be widened in various locations and fully signalised. New south facing slip roads are to be connected to the southern half of the roundabout.
- 7.10 The existing bridge structures over the M69 are unaffected by the proposed works, with no widening proposed, nor new connections to the structures.
- 7.11 The roundabout is to be widened on the eastern and western sections to 13.5m. This is between 1 and 1.2 times the maximum approach width of 13.3m.
- 7.12 The B4668 arms are to be realigned to provide suitable entry path deflection and permit space to install the new site access arm and the new south facing merge slip road.
- 7.13 The geometry of the roundabout is assessed below.

M69	M69 J2 Site Access Arm Approach (Design speed: 70kph)					
Requirement	Criteria	Actual provided	Departure from Standard?			
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No			
Visibility on entry  40m at 15m back from give way line		≥ 40m at 15m back from give way line	No			
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No			
Entry path curvature	≤ 100m	70.0m	No			
Entry angle	20° to 60°	36.1°	No			
Entry radius	20m to 100m	35m	No			
Lane width on entry	3-4.5m	3x4.4m	No			

M69 J2 Southbound Diverge Approach (Design speed: 70kph)				
Requirement	Criteria	Actual provided	Departure from Standard?	



Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	95.0m	No
Entry angle	20° to 60°	23.8°	No
Entry radius	20m to 100m	45m	No
Lane width on entry	3-4.5m	2x4.4m	No

M69 J	2 B4669 Westbound App	roach (Design speed: 10	00kph)	
Requirement	Criteria	Actual provided	Departure from Standard?	
Visibility on approach	215m for 332.5m (1.5 x SSD)	≥ 215m for 322.5m	No	
Visibility on entry	40m at 15m back from give way line ≥ 40m at 15m back from give way line		No	
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No	
Entry path curvature	≤ 100m 98.0m		No	
Entry angle	20° to 60°	68°	Not in accordance with recommendations but <b>not</b> a departure from standards.	
Entry radius	20m to 100m	30m	No	
Lane width on entry	3-4.5m	3x4.4m	No	

M69 J2	M69 J2 Northbound Diverge Approach (Design speed: 70kph)					
Requirement	Criteria	Actual provided	Departure from Standard?			
Visibility on approach	120m for 180m (1.5 x SSD)	≥ 120m for 180m	No			
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No			
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No			
Entry path curvature	≤ 100m	90.0m	No			



Entry angle	20° to 60°	42.2°	No No	
Entry radius	20m to 100m	30m		
Lane width on entry	3-4.5m	2x4.1m	No	

M69	J2 B4669 Eastbound App	roach (Design speed: 70	kph)
Requirement	Criteria Actual provided		Departure from Standard?
Visibility on approach	215m for 332.5m (1.5 x SSD)	≥ 215m for 332.5m	No
Visibility on entry	40m at 15m back from give way line	≥ 40m at 15m back from give way line	No
Visibility to right on entry	40m from give way line and 15m back from give way line	≥ 40m at 15m back from give way line	No
Entry path curvature	≤ 100m	98.0m	No
Entry angle	20° to 60°	48.4°	No
Entry radius	20m to 100m	30m	No
Lane width on entry	3-4.5m	3x4.4m	No

### **Bus Lay-by**

7.14 A bus lay-by will be provided on both the northbound and southbound sides between roundabouts 2 and 3. Both of these have been designed in accordance with CD169 and are dimensioned on the drawings.

### Non-motorised user (NMU) crossing points

- 7.15 Shared footway/cycleways are provided along the length of the link road as shown on the layout drawings. These are provided on both sides of the road through the 'urban' section and on the south western side only through the 'rural' section to the north of the railway. An uncontrolled crossing point is provided to the north of the railway to provide connectivity between the two sides of the carriageway.
- 7.16 At the B4668 roundabout, an uncontrolled crossing point utilising the splitter island on the eastbound approach is provided to link the new footway/cycleway along the link road to the existing footway/cycleway to the north of the B4668.
- 7.17 A permissive path is provided along the private means of access to Bridge Farm in order to link the bridleway (U52/9) to the footway/cycleway on the link road.
- 7.18 A bridleway underpass is provided in this location to connect Burbage Common Road to U59/2.
- 7.19 NMU crossing points have been incorporated into the splitter islands where footway cycleway is present. The predominant crossing points will be over the site access arms



- of the roundabouts on the link roads where the expected AADT is below the recommended threshold for introducing controlled crossings.
- 7.20 Controlled crossing points for the link road are provided at two locations. A two stage toucan crossing near the proposed bus stops and a one stage pegasus crossing near the M69 J2 roundabout.
- 7.21 Uncontrolled crossing points are provided over the link road at the splitter islands on the roundabouts but it is not expected that these will form a significant desire line and therefore they are not expected to be heavily used.
- 7.22 At M69 J2, the existing uncontrolled crossing points over the north facing slip roads will be retained and improved with new tactile paving and widened footway provision. These will become 'walk with traffic' style crossings as the roundabout is to be signalised. The expected AADT utilising the north facing slip roads is below the threshold for provision of controlled crossings.



### 8. REMOTE JUNCTION MITIGATION

- 8.1 The geometric design of the remote junction mitigation works is driven predominantly by vehicle tracking. Drawings showing these are appended to this report.
- 8.2 Key geometric features, footway/cycleways, traffic signals, crossing points and other details are labelled on the layout plans.

Hinckley National Rail Freight Interchange Geometric Design Strategy Record (GDSR) November 2023 HRF-BWB-HML-A47-RP-CH-00100

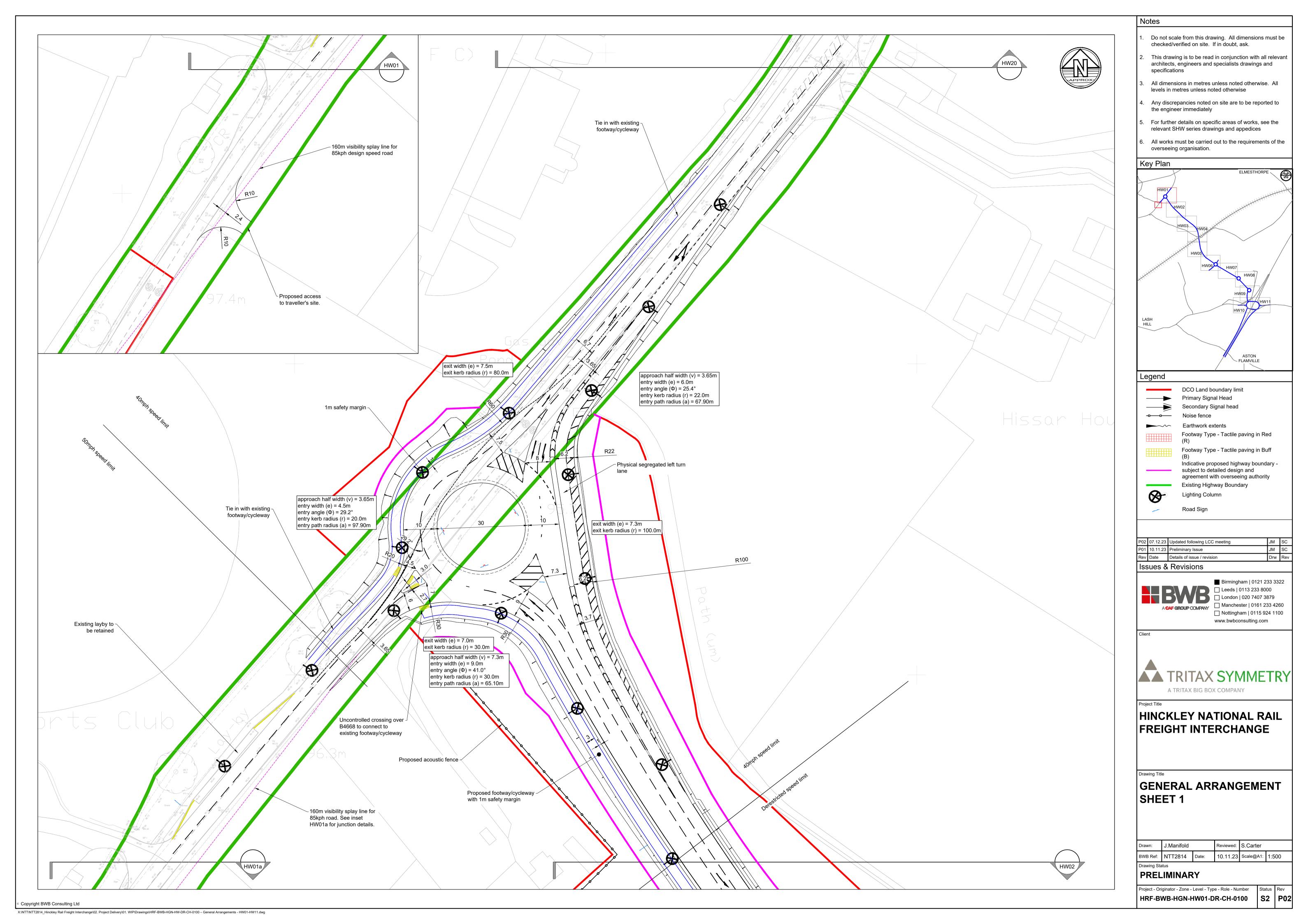


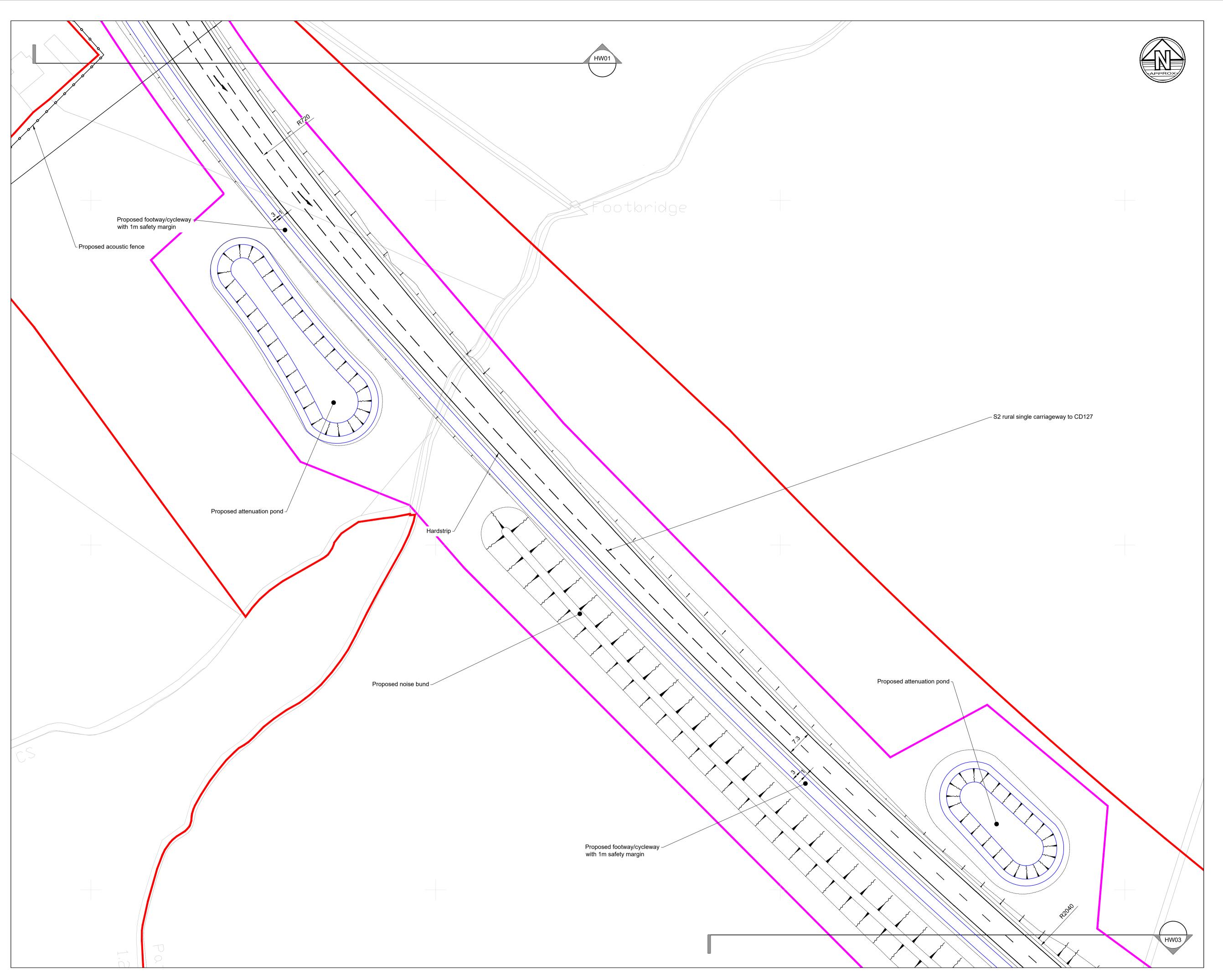
### **APPENDICES**

Hinckley National Rail Freight Interchange Geometric Design Strategy Record (GDSR) November 2023 HRF-BWB-HML-A47-RP-CH-00100



**APPENDIX A: Scheme Layout Drawings and Long Sections** 





- Do not scale from this drawing. All dimensions must be checked/verified on site. If in doubt, ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and
- specifications All dimensions in metres unless noted otherwise. All

levels in metres unless noted otherwise

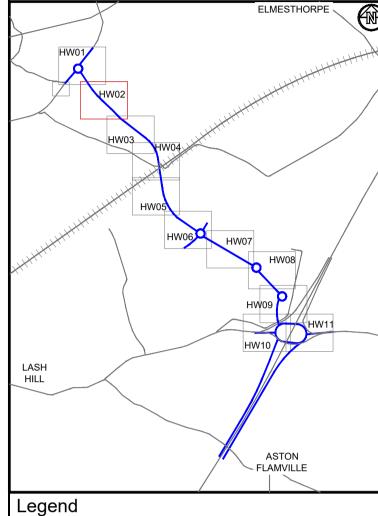
overseeing organisation.

- Any discrepancies noted on site are to be reported to the engineer immediately
- For further details on specific areas of works, see the

relevant SHW series drawings and appedices

. All works must be carried out to the requirements of the





DCO Land boundary limit ——— Primary Signal Head Secondary Signal head ----- Noise fence

Earthwork extents Footway Type - Tactile paving in Red

Existing Highway Boundary

Footway Type - Tactile paving in Buff Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority

P02	07.12.23	Updated following LCC meeting	JM	sc
P01	10.11.23	Preliminary Issue		sc
Rev	Rev Date Details of issue / revision		Drw	Rev

# Issues & Revisions



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# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

# GENERAL ARRANGEMENT SHEET 2

Drawn:	J.Manifold		Reviewed:	S.Carter		
BWB Ref:	NTT2814	Date:	07.12.23	Scale@A1:	1:500	

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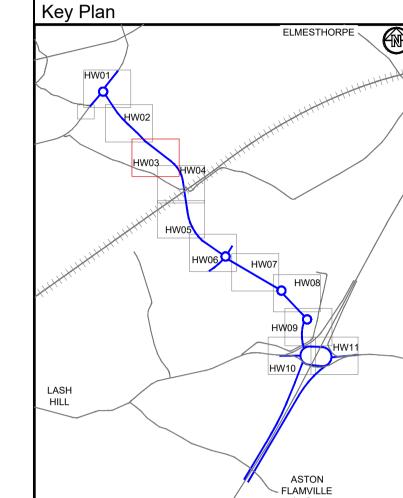
Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW02-DR-CH-0100 S2 P02



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## Legend

DCO Land boundary limit ——— Primary Signal Head Secondary Signal head ----- Noise fence

Earthwork extents Footway Type - Tactile paving in Red

> Footway Type - Tactile paving in Buff Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority

Rev	Date	Details of issue / revision	Drw	Rev
P01	10.11.23	Preliminary Issue	JM	SC
202	07.12.23	Updated following LCC meeting		SC

# Issues & Revisions



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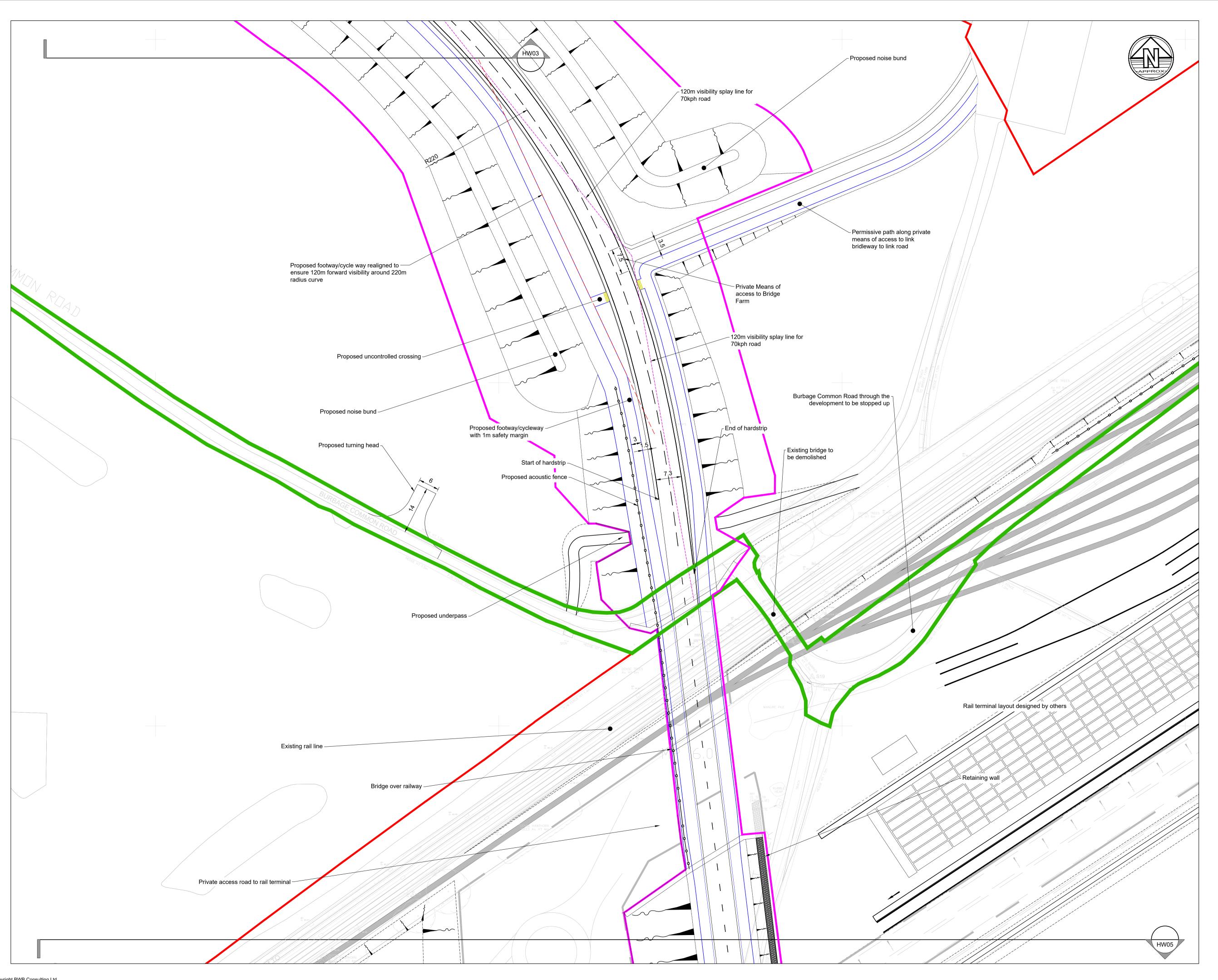
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# GENERAL ARRANGEMENT SHEET 3

Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	07.12.23	Scale@A1:	1:500

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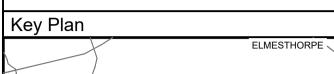
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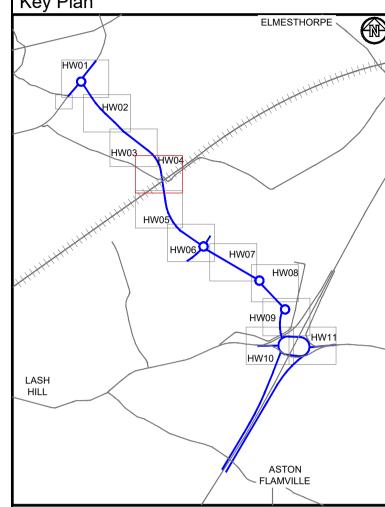


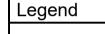
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- specifications All dimensions in metres unless noted otherwise. All
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DCO Land boundary limit ——— Primary Signal Head Secondary Signal head ----- Noise fence

Earthwork extents Footway Type - Tactile paving in Red

> Footway Type - Tactile paving in Buff Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority **Existing Highway Boundary**

P02 07.12.23 Updated following LCC meeting
P01 10.11.23 Preliminary Issue
Rev Date Details of issue / revision

# Issues & Revisions



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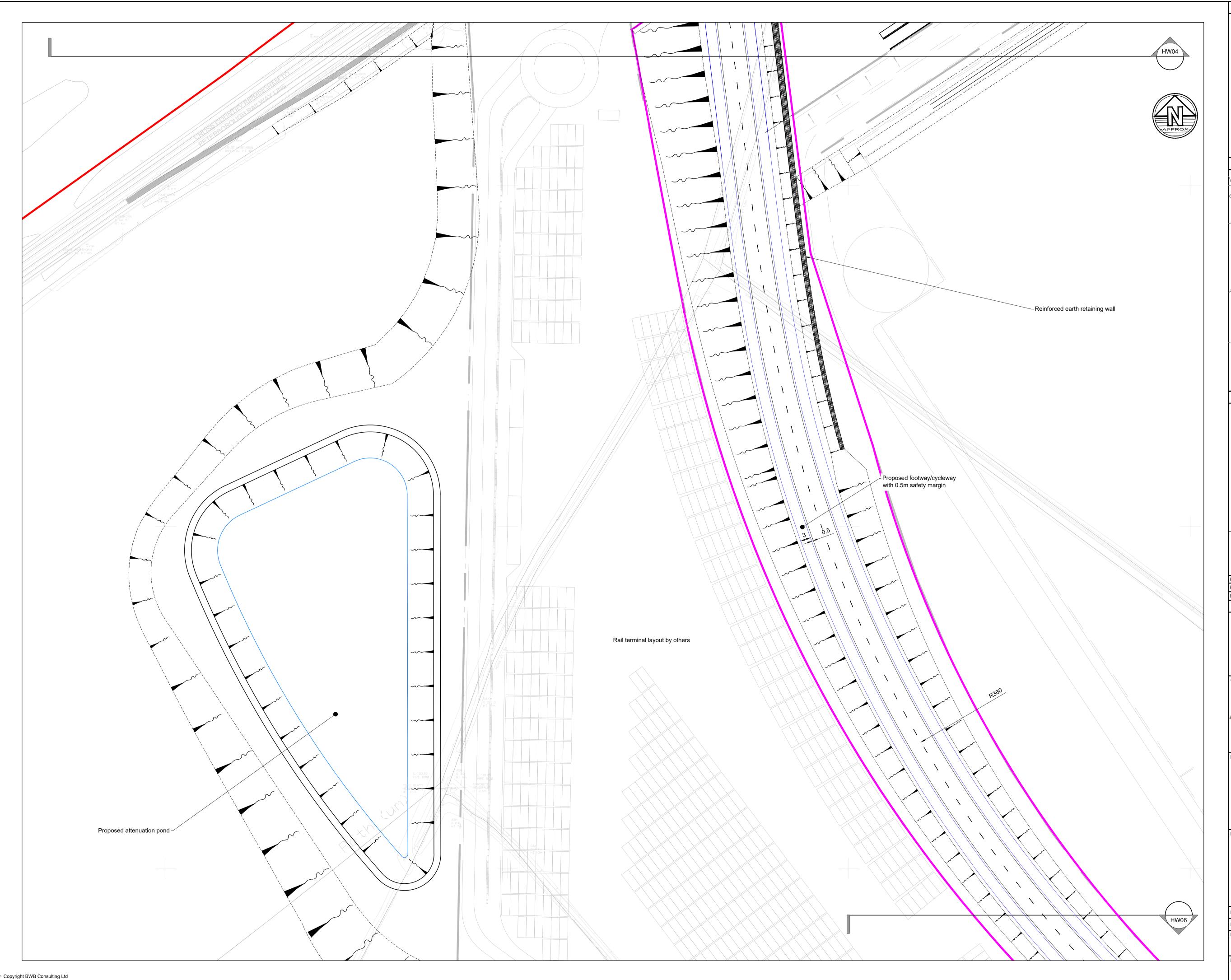
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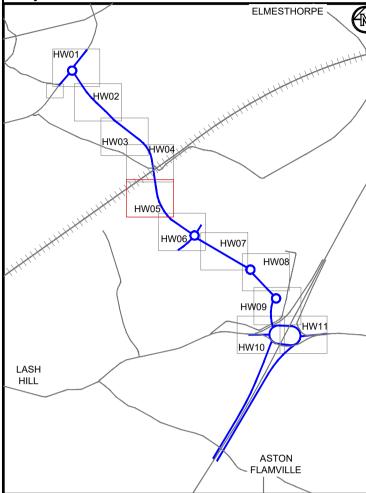
Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW04-DR-CH-0100



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# Legend

DCO Land boundary limit ——— Primary Signal Head Secondary Signal head ----- Noise fence Earthwork extents

Footway Type - Tactile paving in Red Footway Type - Tactile paving in Buff

Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority Existing Highway Boundary

P02 07.12.23 Updated following LCC meeting
P01 10.11.23 Preliminary Issue Rev Date Details of issue / revision

# Issues & Revisions



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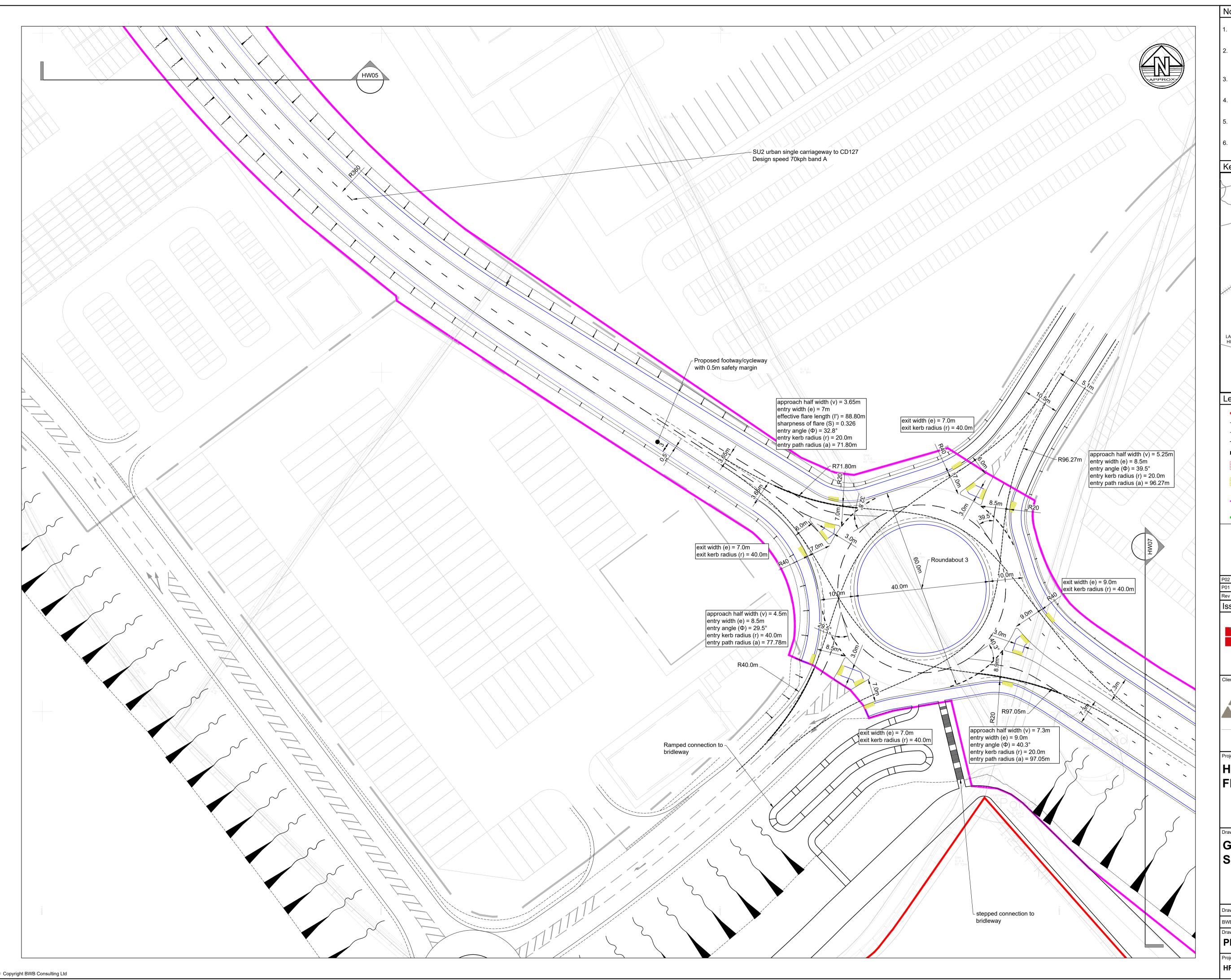
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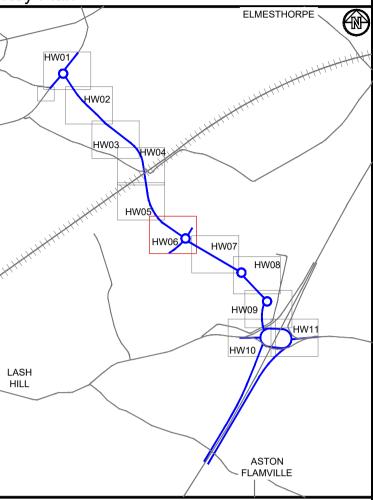
Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW05-DR-CH-0100 S2 P02



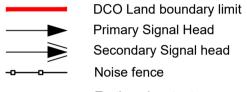
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  - For further details on specific areas of works, see the relevant SHW series drawings and appedices
  - 6. All works must be carried out to the requirements of the overseeing organisation.





## Legend



Earthwork extents Footway Type - Tactile paving in Red

Footway Type - Tactile paving in Buff

Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority Existing Highway Boundary

	_			
Rev	Date	Details of issue / revision		R
P01	10.11.23	Preliminary Issue		S
P02	07.12.23	Updated following LCC meeting		

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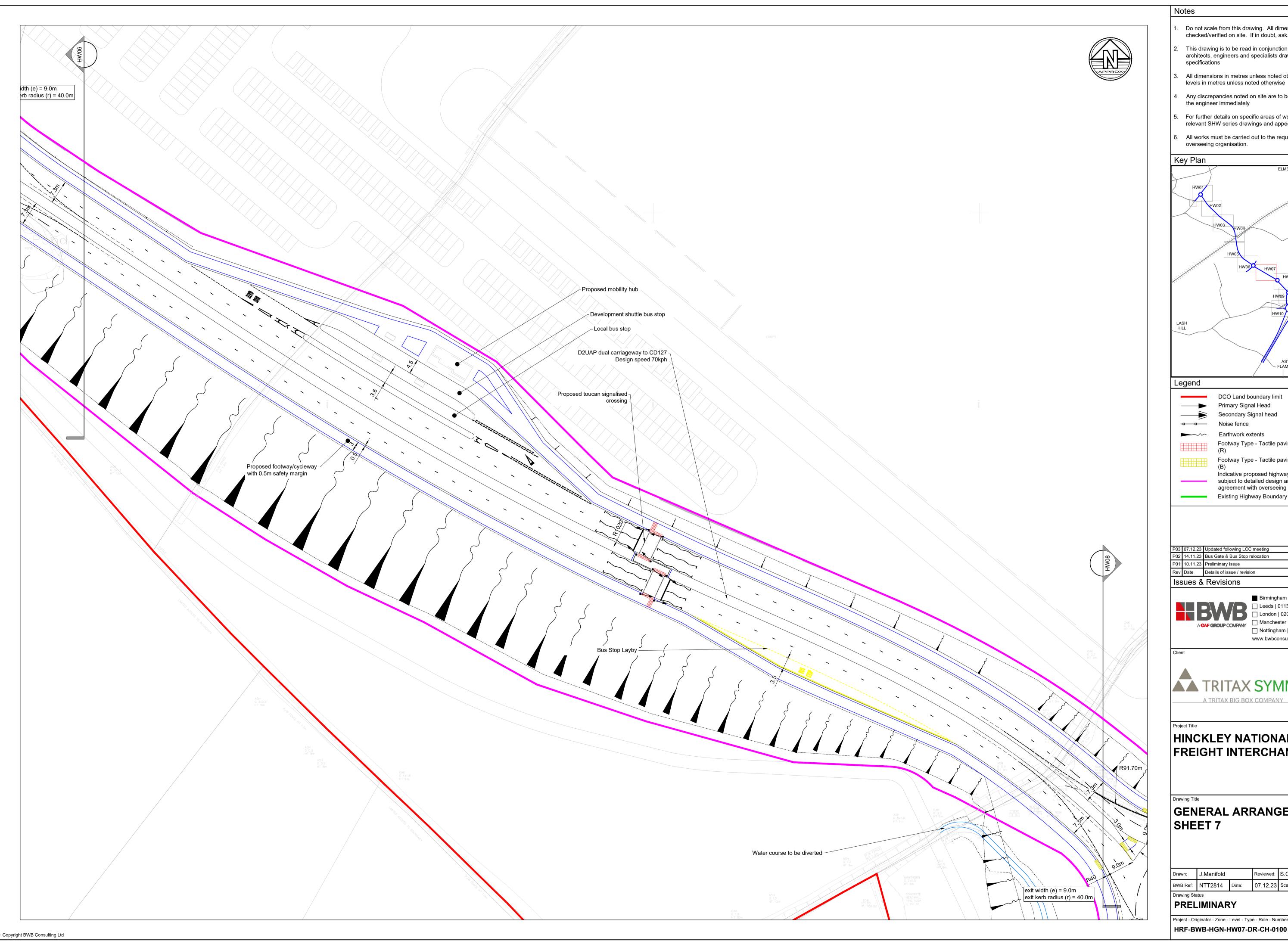
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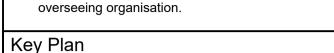
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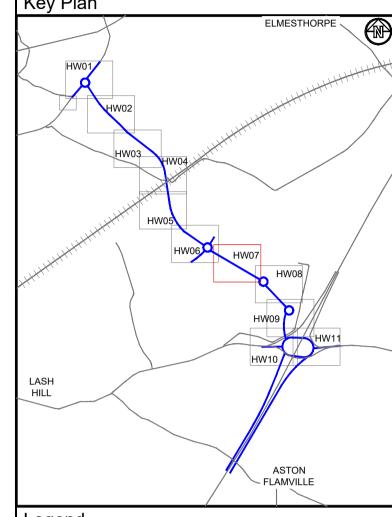
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  - For further details on specific areas of works, see the relevant SHW series drawings and appedices
  - 6. All works must be carried out to the requirements of the





# Legend

DCO Land boundary limit ——— Primary Signal Head Secondary Signal head ----- Noise fence

Earthwork extents Footway Type - Tactile paving in Red

Footway Type - Tactile paving in Buff

Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority Existing Highway Boundary

P03	07.12.23	Updated following LCC meeting	,			
P02	14.11.23	Bus Gate & Bus Stop relocation	,			
P01	10.11.23	Preliminary Issue	,			
Rev	Date	Details of issue / revision	ī			

# Issues & Revisions



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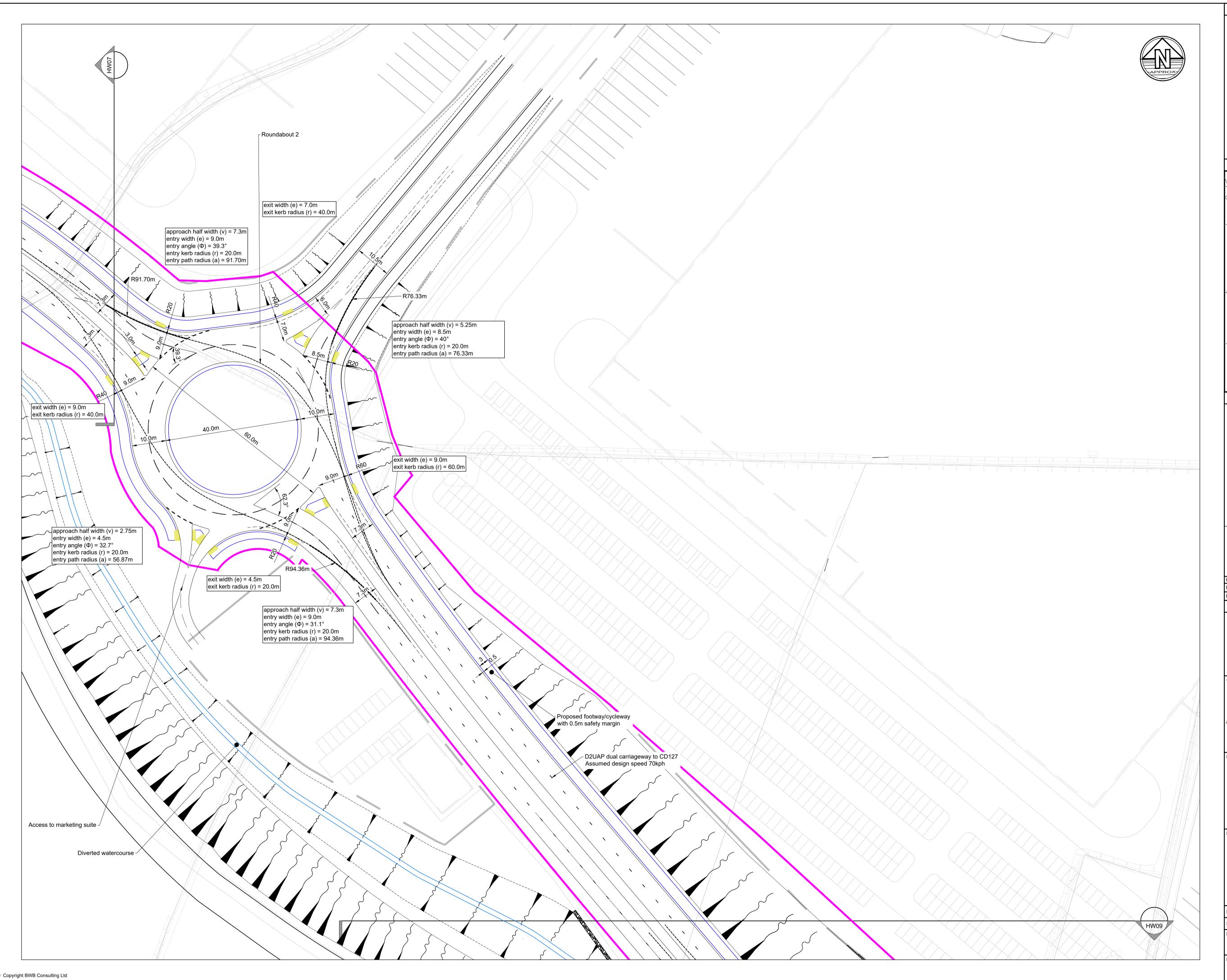
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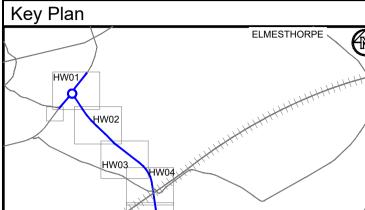
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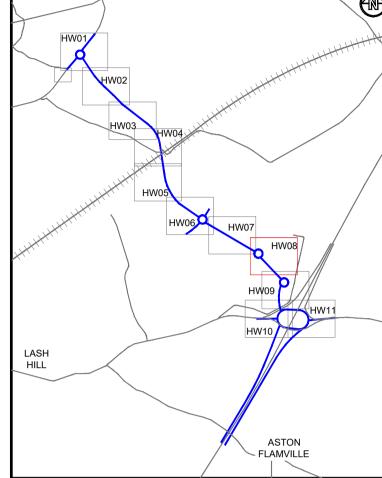


specifications

overseeing organisation.

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  - All works must be carried out to the requirements of the





# Legend

DCO Land boundary limit ——— Primary Signal Head Secondary Signal head ----- Noise fence

Earthwork extents Footway Type - Tactile paving in Red

Existing Highway Boundary

Footway Type - Tactile paving in Buff Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority

	Iss	sues &	Revisions		
	Rev	Date	Details of issue / revision	Drw	Re
	P01	10.11.23	Preliminary Issue	JM	SC
P02 07.12.23		07.12.23	Updated following LCC meeting	JM	SC

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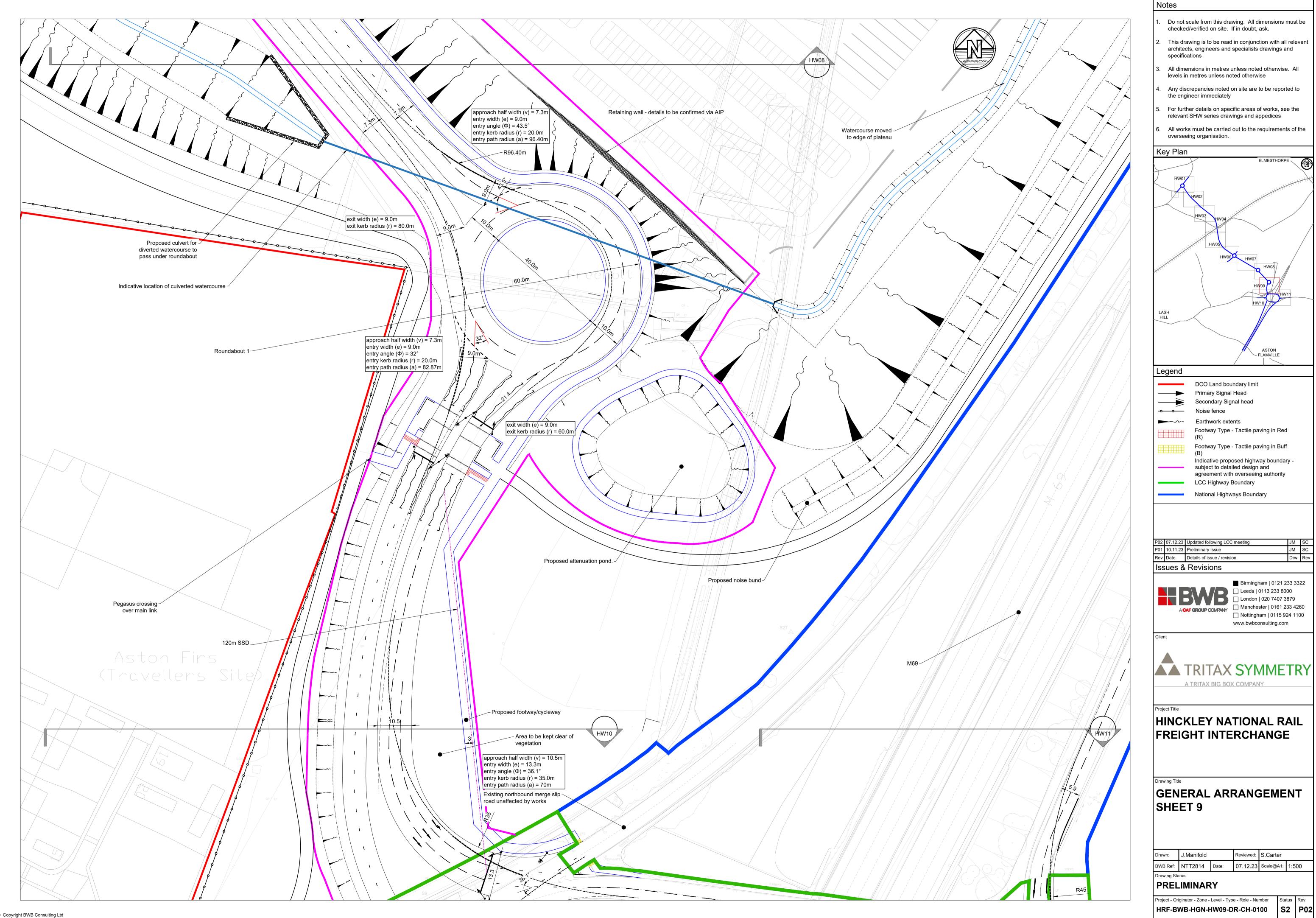
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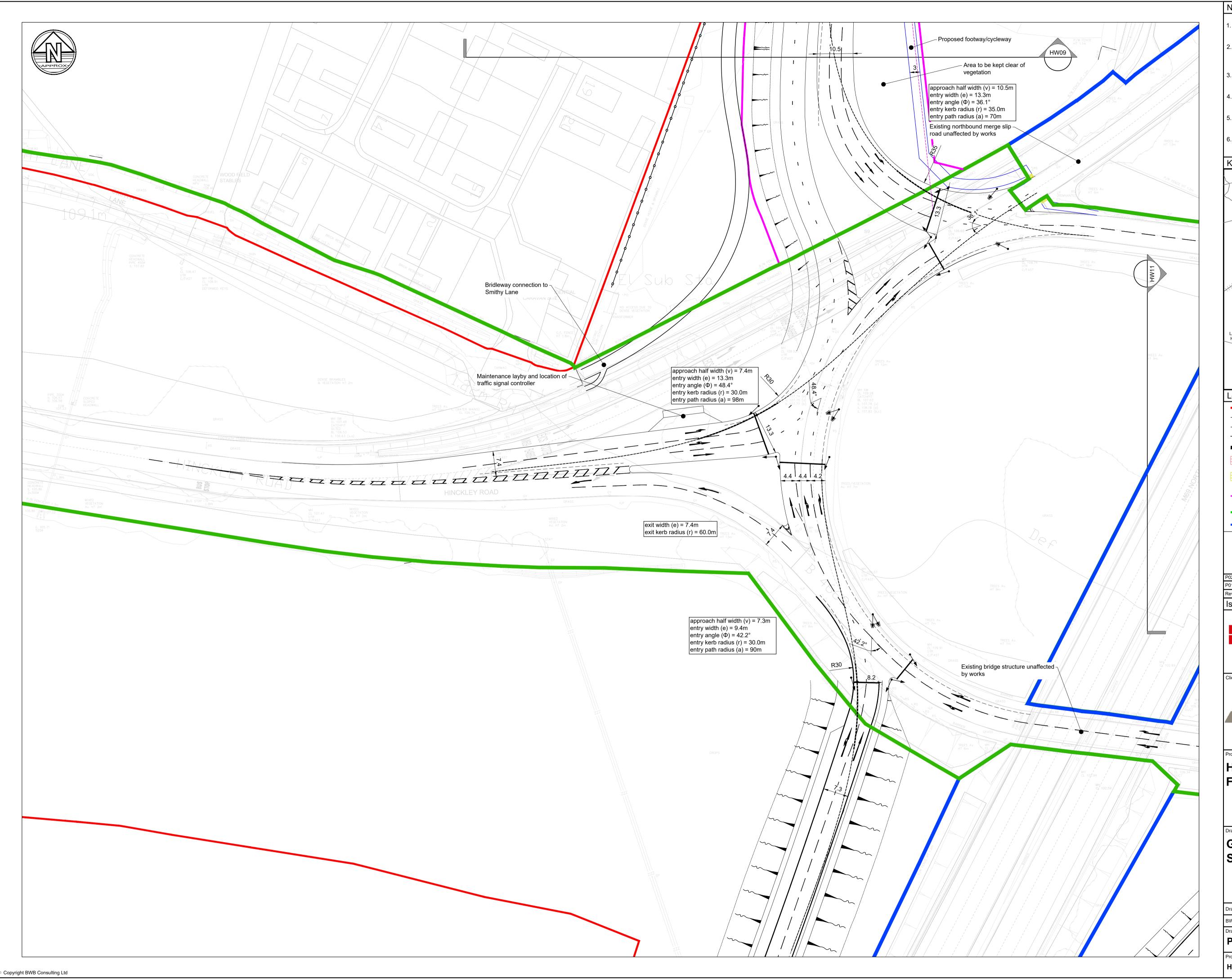
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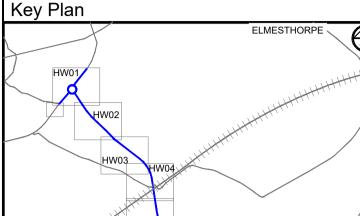
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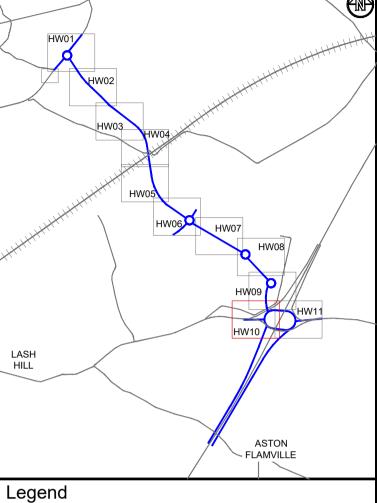
Project - Originator - Zone - Level - Type - Role - Number

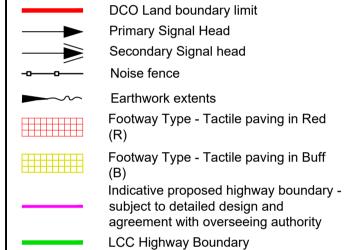


specifications

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- . All works must be carried out to the requirements of the overseeing organisation.







P02	07.12.23	Updated following LCC meeting	JM	SC		
P01	10.11.23	Preliminary Issue	JM	sc		
Rev	Date	Details of issue / revision	Drw	Rev		
Iss	Issues & Revisions					



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HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

GENERAL ARRANGEMENT SHEET 10

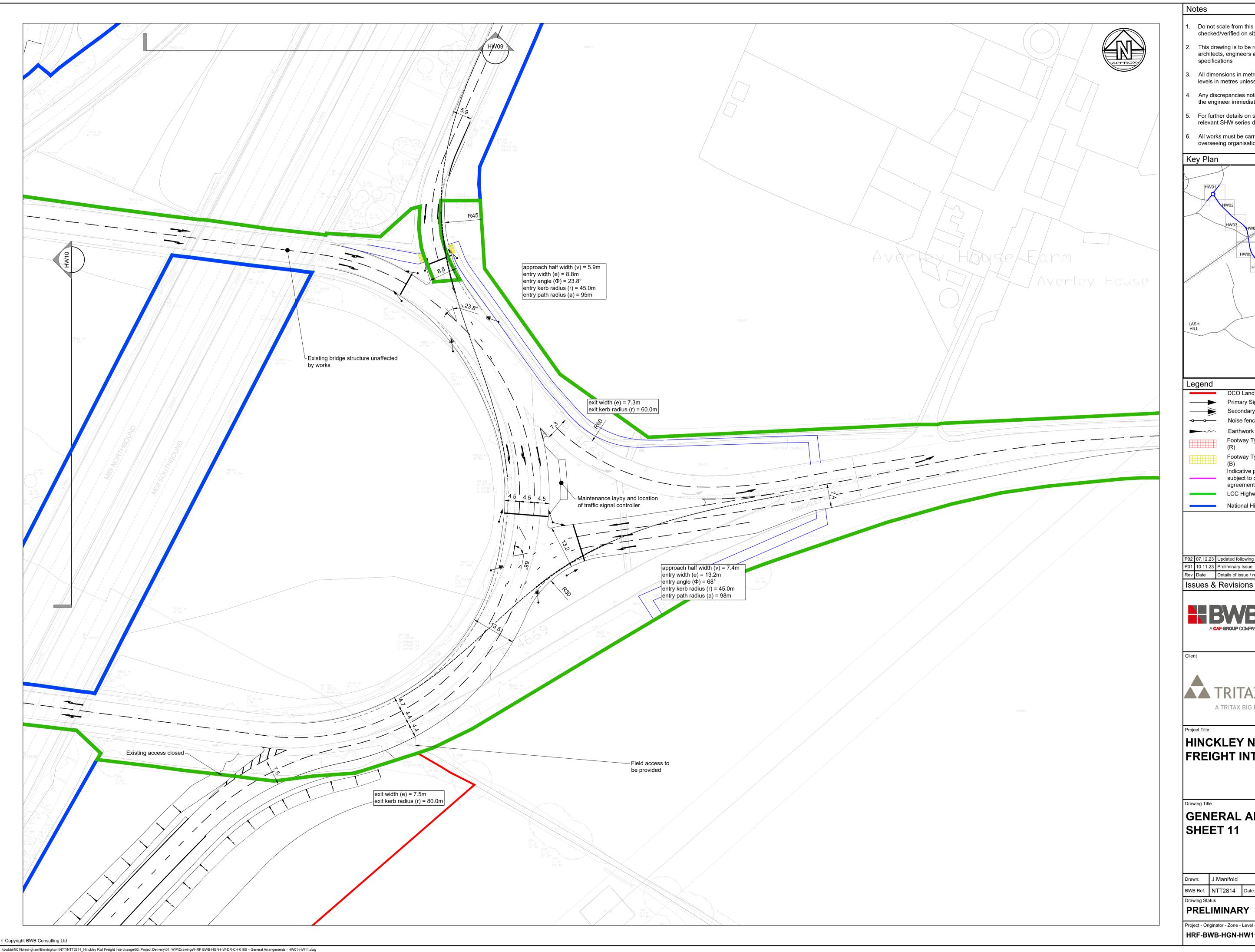
Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	07.12.23	Scale@A1:	1:500

#### Drawing Status PRELIMINARY

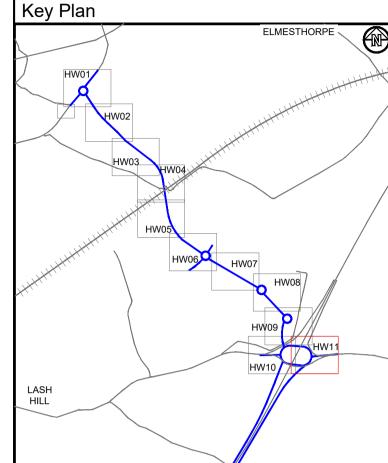
Project - Originator - Zone - Level - Type - Role - Number

HRF-BWB-HGN-HW10-DR-CH-0100 S2 P02

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DCO Land boundary limit ——— Primary Signal Head Secondary Signal head Noise fence Earthwork extents Footway Type - Tactile paving in Red Footway Type - Tactile paving in Buff

Indicative proposed highway boundary - subject to detailed design and agreement with overseeing authority LCC Highway Boundary National Highways Boundary

ASTON
FLAMVILLE

P02	P02 07.12.23 Updated following LCC meeting			
P01 10.11.23 Preliminary Issue		Preliminary Issue	JM	SC
Rev	Date	Details of issue / revision	Drw	Rev



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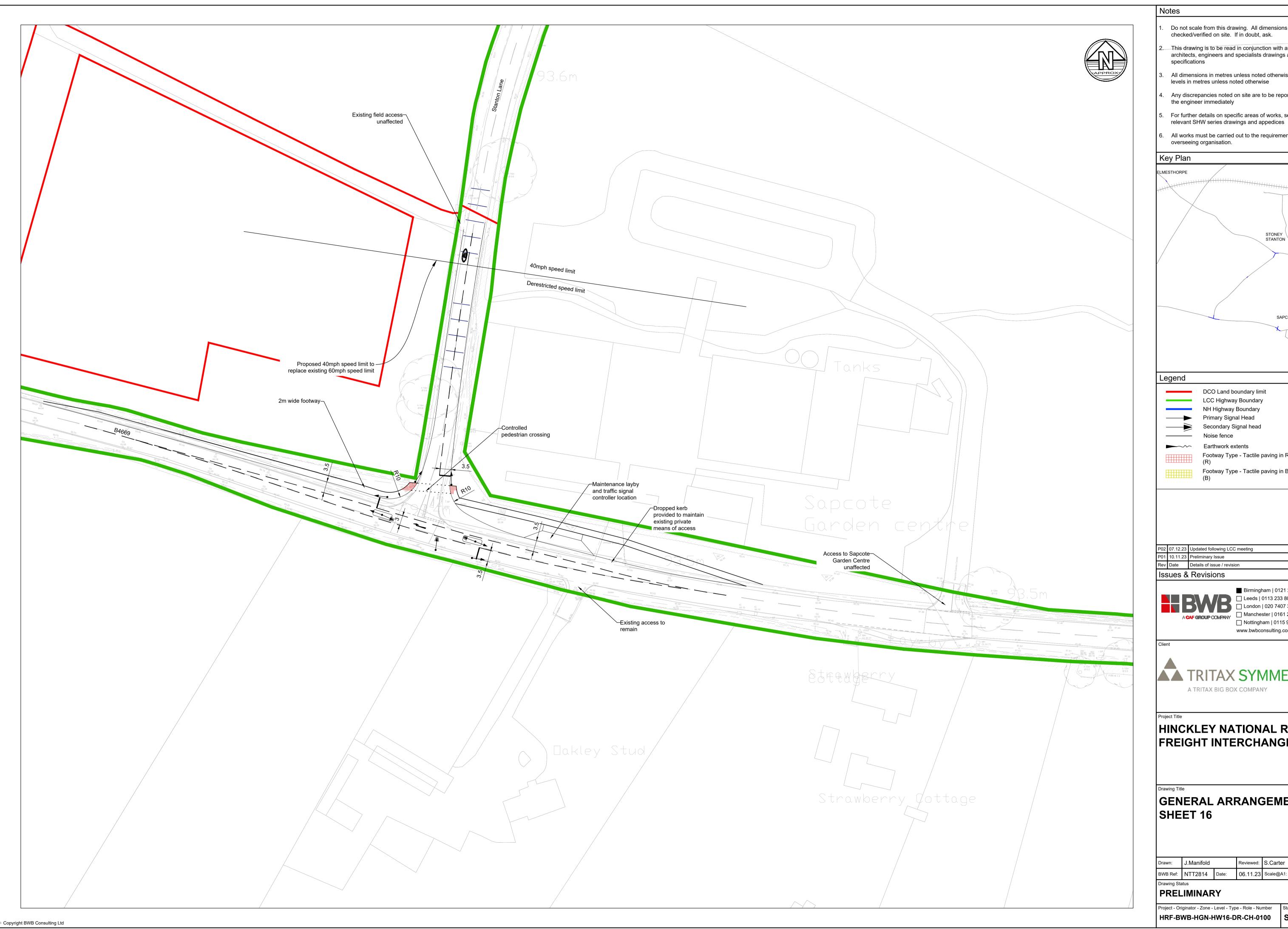
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

### GENERAL ARRANGEMENT SHEET 11

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BWB Ref:	NTT2814	Date:	07.12.23	Scale@A1:	1:500

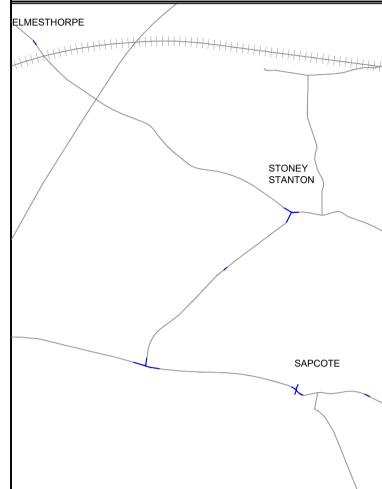
# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW11-DR-CH-0100 S2 P02



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- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and
- All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise
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- For further details on specific areas of works, see the
- . All works must be carried out to the requirements of the





#### Legend



Footway Type - Tactile paving in Buff

P02	07.12.23	Updated following LCC meeting		SC
P01	10.11.23	Preliminary Issue	JM	SC
Rev	Date	Details of issue / revision	Drw	Rev

### Issues & Revisions



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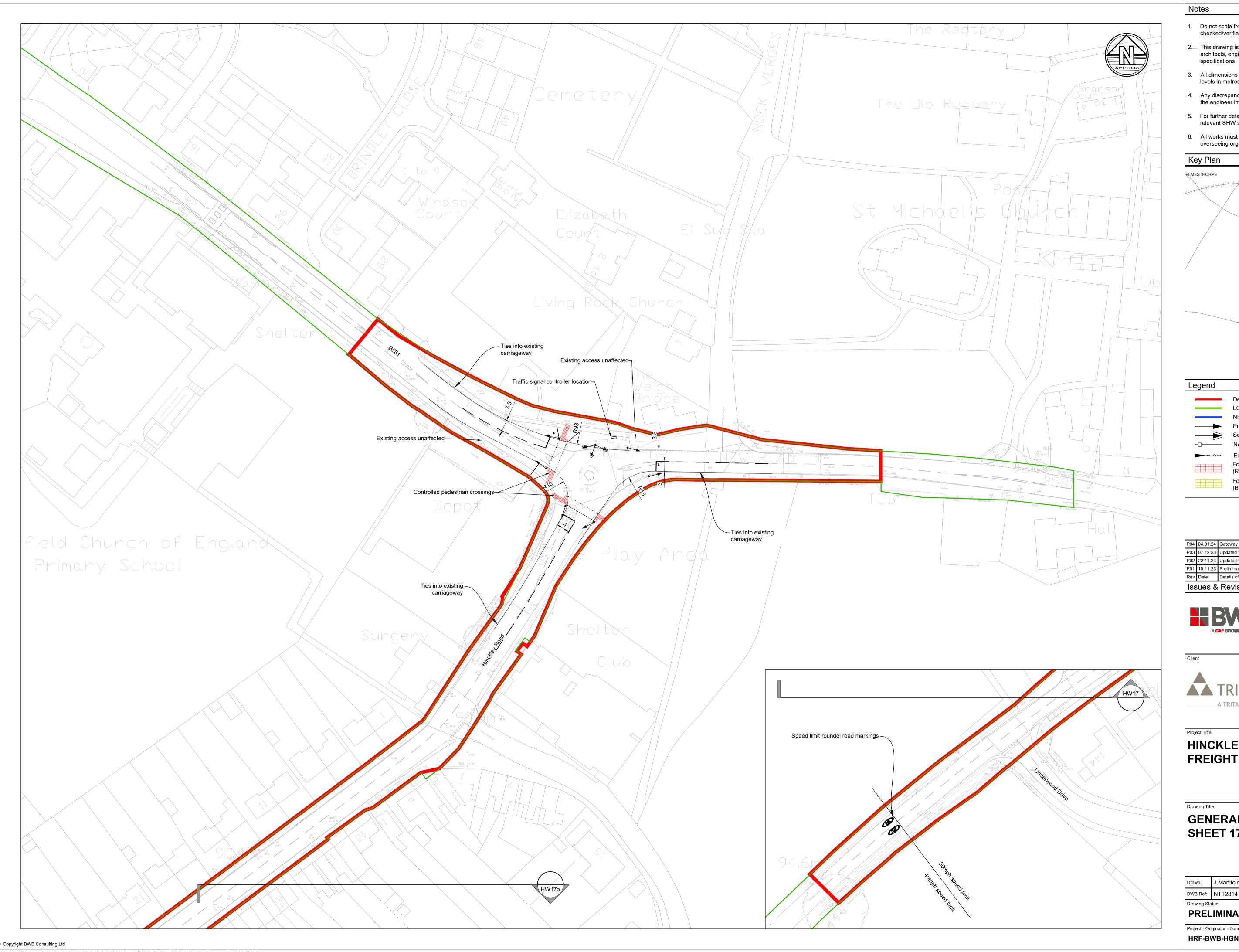
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

### GENERAL ARRANGEMENT SHEET 16

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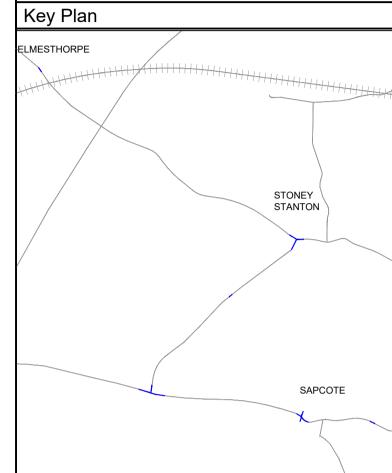
#### Drawing Status PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number



- Do not scale from this drawing. All dimensions must be checked/verified on site. If in doubt, ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and
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- For further details on specific areas of works, see the
- relevant SHW series drawings and appedices

All works must be carried out to the requirements of the overseeing organisation.



Legend

**Development Consent Order Limits** LCC Highway Boundary NH Highway Boundary ——— Primary Signal Head Secondary Signal head -□---- Noise fence

Earthwork extents Footway Type - Tactile paving in Red

Footway Type - Tactile paving in Buff

P04	04.01.24	Gateway Feature Removed	JM	sc
P03	07.12.23	odated following LCC meeting J		SC
P02	22.11.23	Updated to suit topo survey	JM	SC
P01	10.11.23	Preliminary Issue	JM	SC
Rev	Date	etails of issue / revision		Rev

Issues & Revisions



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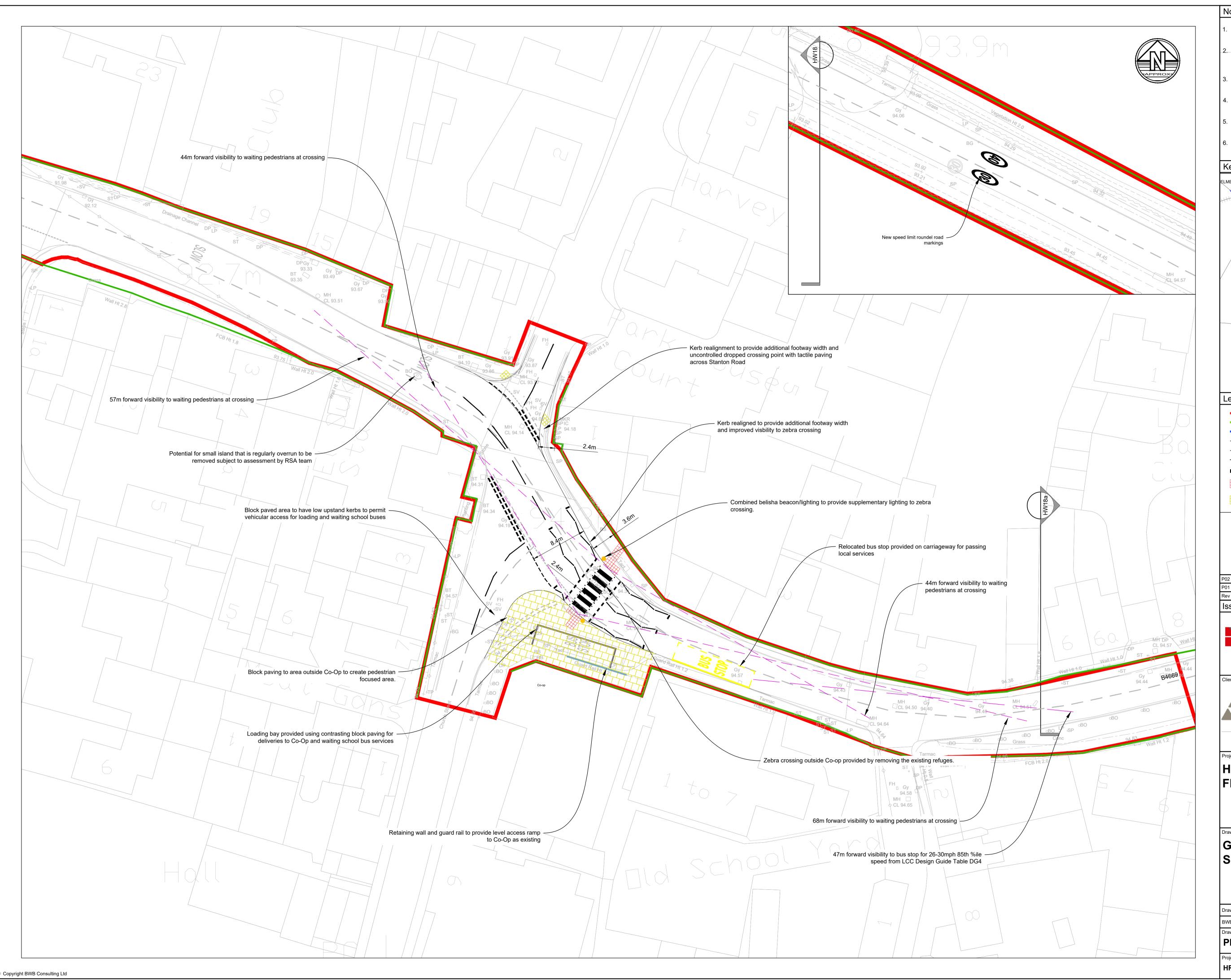
## HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

## GENERAL ARRANGEMENT SHEET 17

Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	06.11.23	Scale@A1:	1:500

# PRELIMINARY

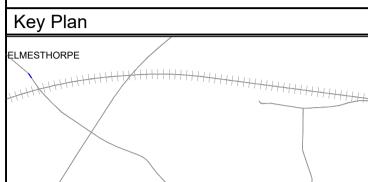
Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW17-DR-CH-0100 S2 P04

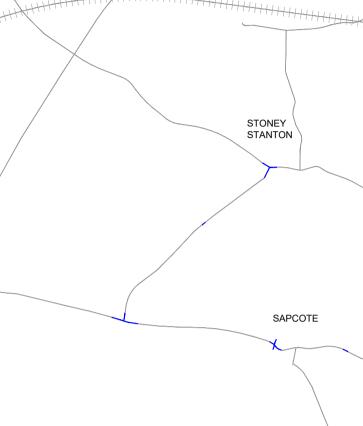


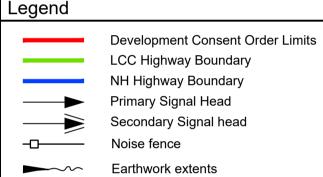
- Do not scale from this drawing. All dimensions must be
- checked/verified on site. If in doubt, ask. This drawing is to be read in conjunction with all relevant
- architects, engineers and specialists drawings and specifications
- levels in metres unless noted otherwise

All dimensions in metres unless noted otherwise. All

- Any discrepancies noted on site are to be reported to the engineer immediately
- For further details on specific areas of works, see the relevant SHW series drawings and appedices
- . All works must be carried out to the requirements of the overseeing organisation.









Footway Type - Tactile paving in Red

Footway Type - Tactile paving in Buff

P02	04.01.23	Amended to suit topo survey	JM	sc
P01	10.11.23	Preliminary Issue	JM	sc
Rev	Date	Details of issue / revision	Drw	Rev
Iss	ues &	& Revisions		



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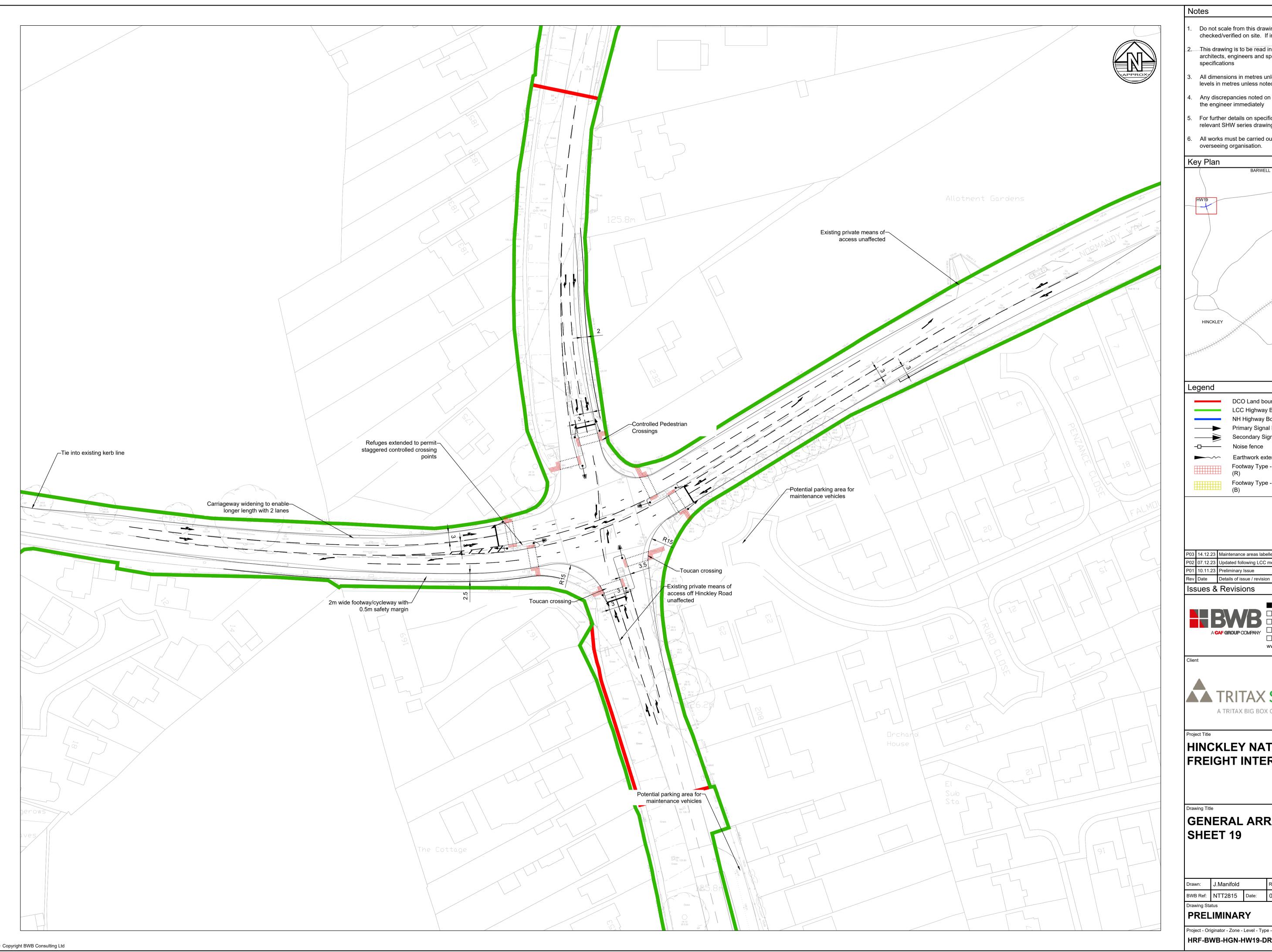
## HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

## GENERAL ARRANGEMENT SHEET 18

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BWB F	Ref:	NTT2814	Date:	06.11.23	Scale@A1:	1:250

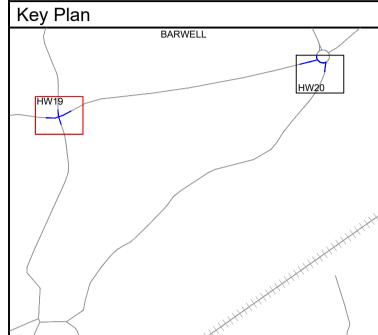
#### Drawing Status PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW18-DR-CH-0100 S2 P02



specifications

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  - Any discrepancies noted on site are to be reported to the engineer immediately
  - For further details on specific areas of works, see the relevant SHW series drawings and appedices
  - All works must be carried out to the requirements of the overseeing organisation.



#### Legend

HINCKLEY

DCO Land boundary limit LCC Highway Boundary NH Highway Boundary ——— Primary Signal Head Secondary Signal head -□---- Noise fence Earthwork extents Footway Type - Tactile paving in Red

JM SC

JM SC

JM SC

Drw Rev P03 14.12.23 Maintenance areas labelled P02 07.12.23 Updated following LCC meeting P01 10.11.23 Preliminary Issue

Footway Type - Tactile paving in Buff

#### Issues & Revisions



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### GENERAL ARRANGEMENT SHEET 19

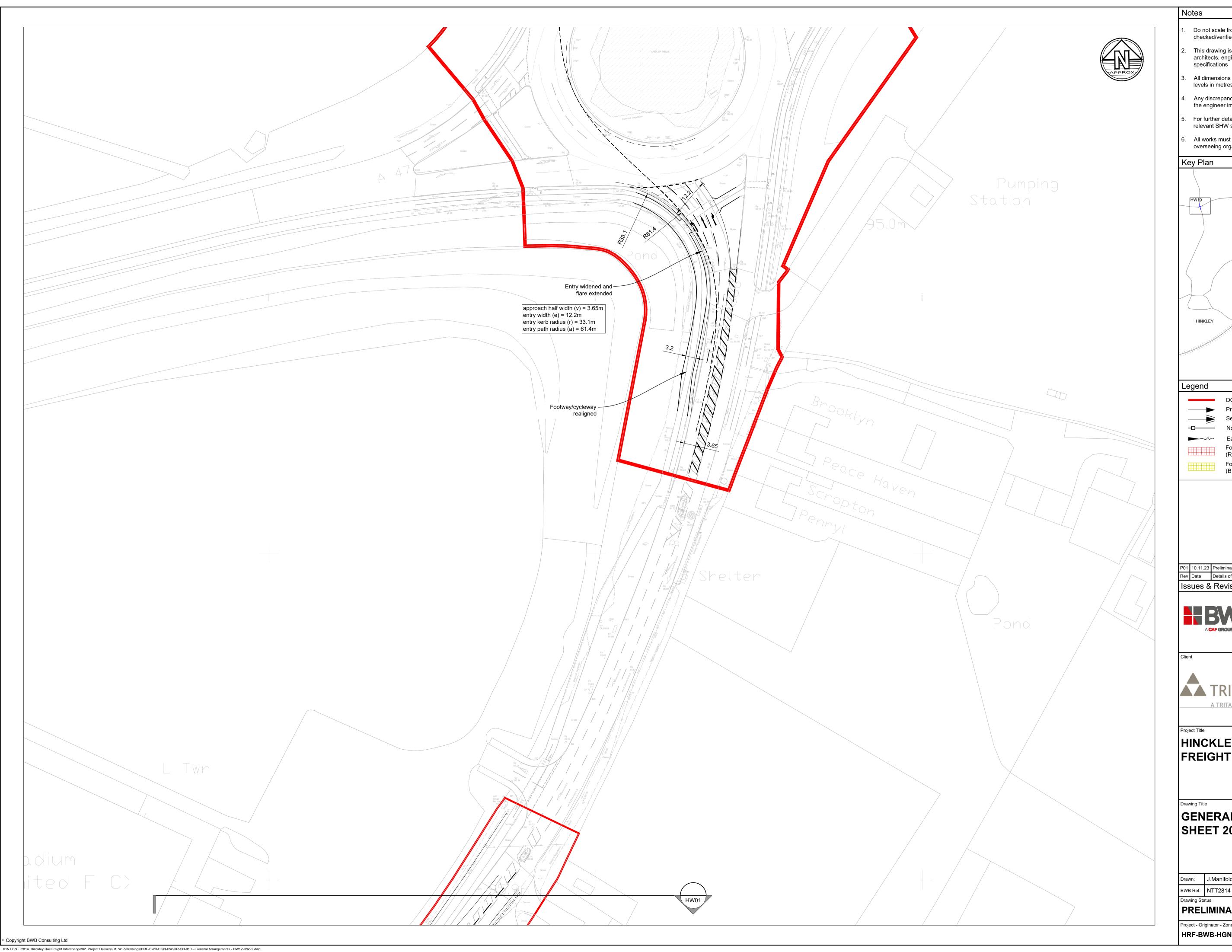
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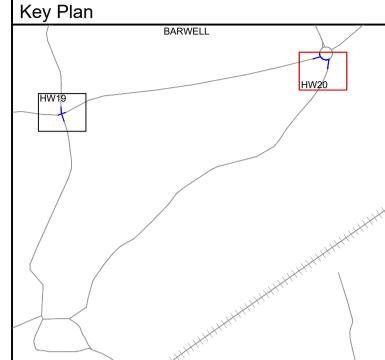
Project - Originator - Zone - Level - Type - Role - Number

HRF-BWB-HGN-HW19-DR-CH-0100 S2 P03

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- For further details on specific areas of works, see the relevant SHW series drawings and appedices
- 3. All works must be carried out to the requirements of the overseeing organisation.



DCO Land boundary limit ——— Primary Signal Head Secondary Signal head

Earthwork extents Footway Type - Tactile paving in Red

Footway Type - Tactile paving in Buff

P01 10.11.23 Preliminary Issue
Rev Date Details of issue / revision

### Issues & Revisions



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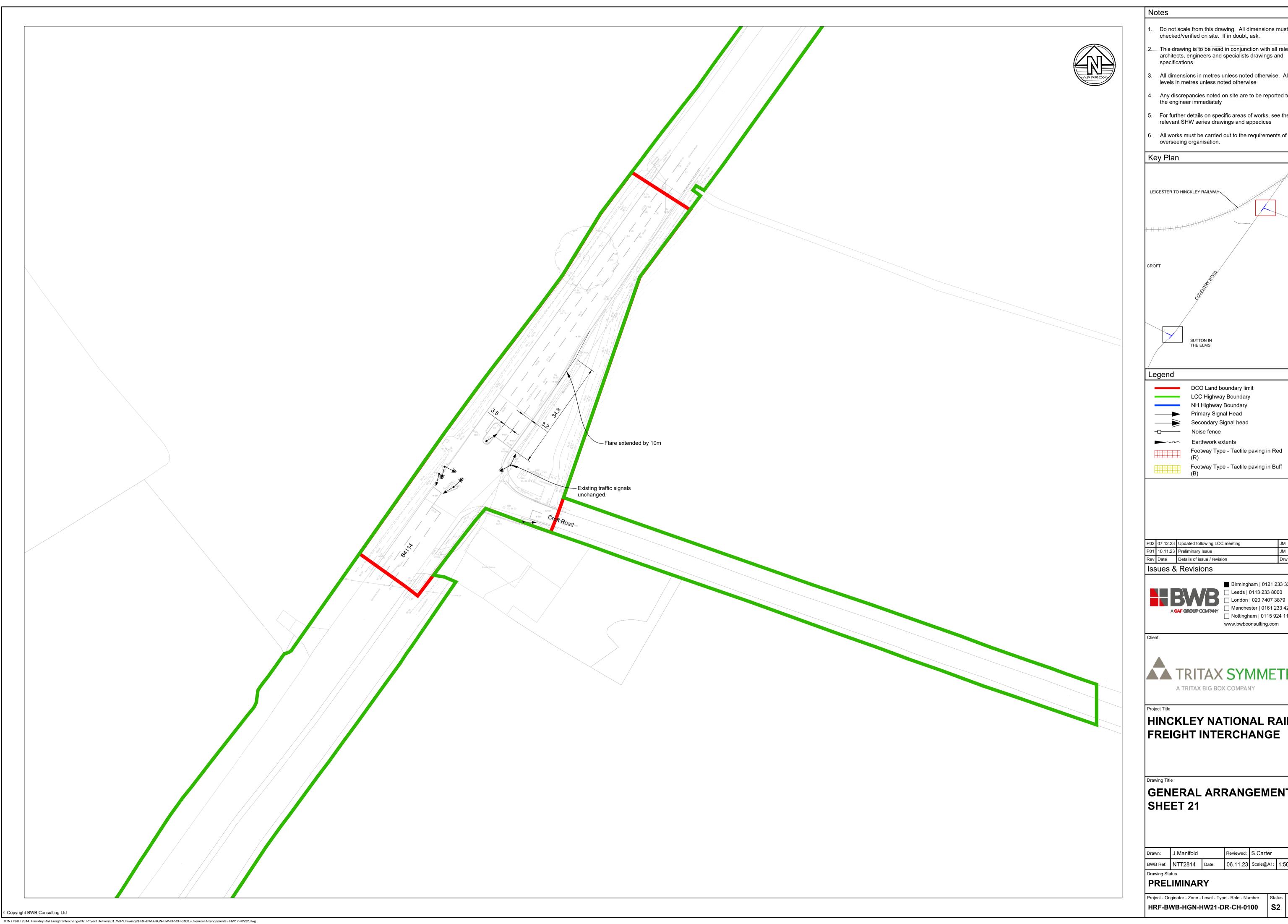
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

### GENERAL ARRANGEMENT SHEET 20

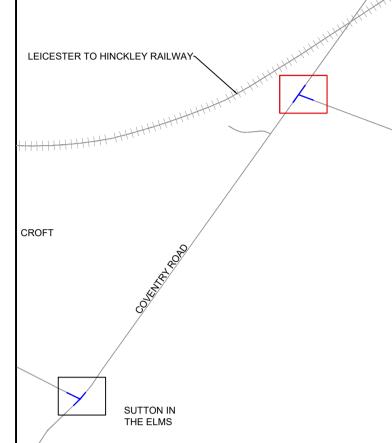
Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	06.11.23	Scale@A1:	1:500

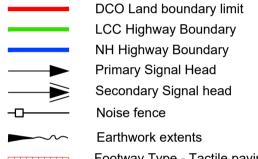
# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW20-DR-CH-0100 S2 P01



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  - Any discrepancies noted on site are to be reported to
- the engineer immediately For further details on specific areas of works, see the
- 6. All works must be carried out to the requirements of the





Footway Type - Tactile paving in Red Footway Type - Tactile paving in Buff

P02	07.12.23	Updated following LCC meeting	JM	sc
P01	10.11.23	Preliminary Issue	JM	sc

Issues & Revisions



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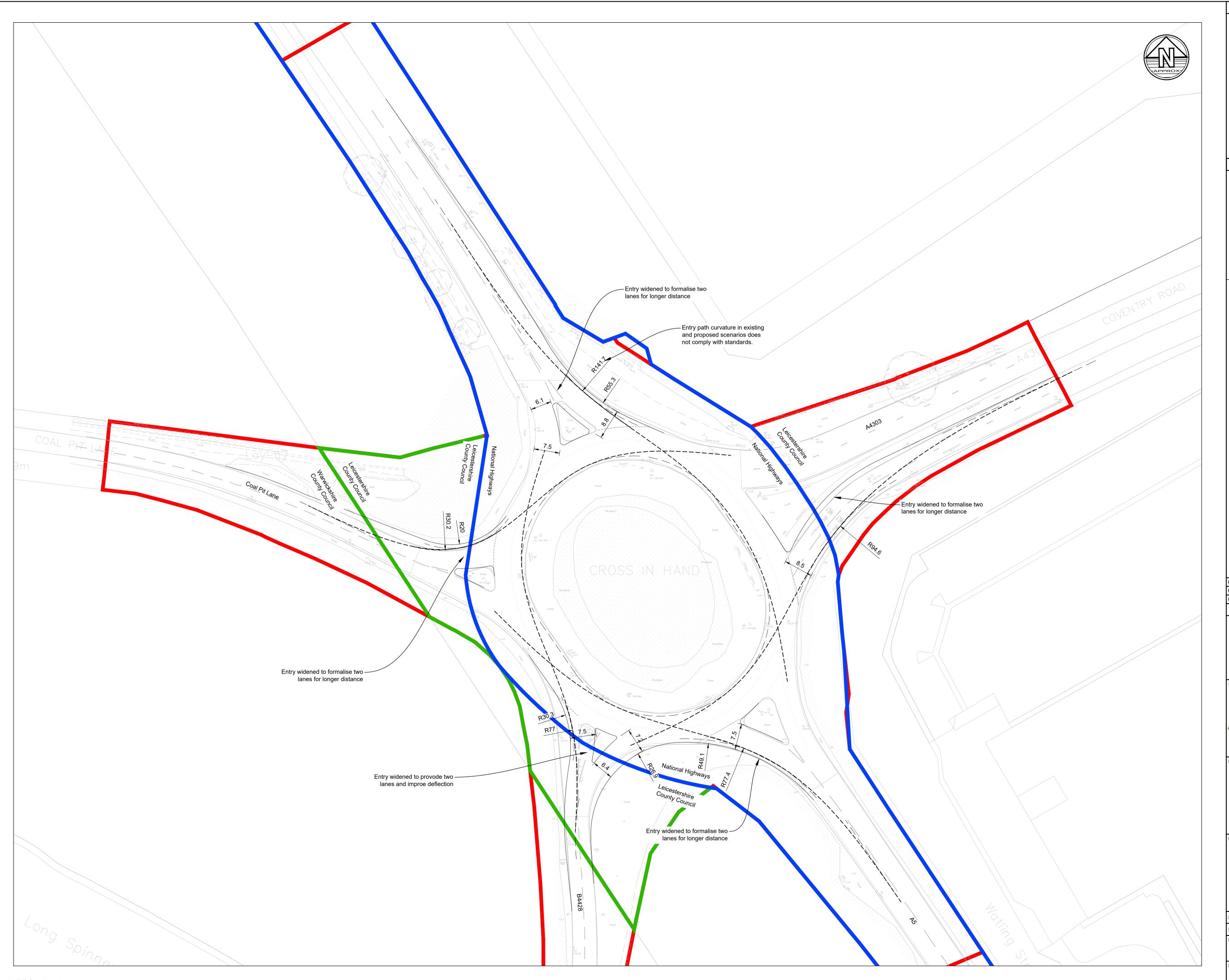
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

# GENERAL ARRANGEMENT SHEET 21

Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	06.11.23	Scale@A1:	1:500

# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW21-DR-CH-0100 S2 P02



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levels in metres unless noted otherwise

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- the engineer immediately
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#### Legend

DCO Land boundary limit
LCC Highway Boundary
NH Highway Boundary
Primary Signal Head
Secondary Signal head

Noise fence

Earthwork extents

Footway Type - Tactile paving in Red (R)

(R)

Footway Type - Tactile paving in Buff (B)

P02 07.12.23 Updated following LCC meeting JM SC
P01 10.11.23 Preliminary Issue JM SC
Rev Date Details of issue / revision Drw Rev
Issues & Revisions

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# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

Drawing Title

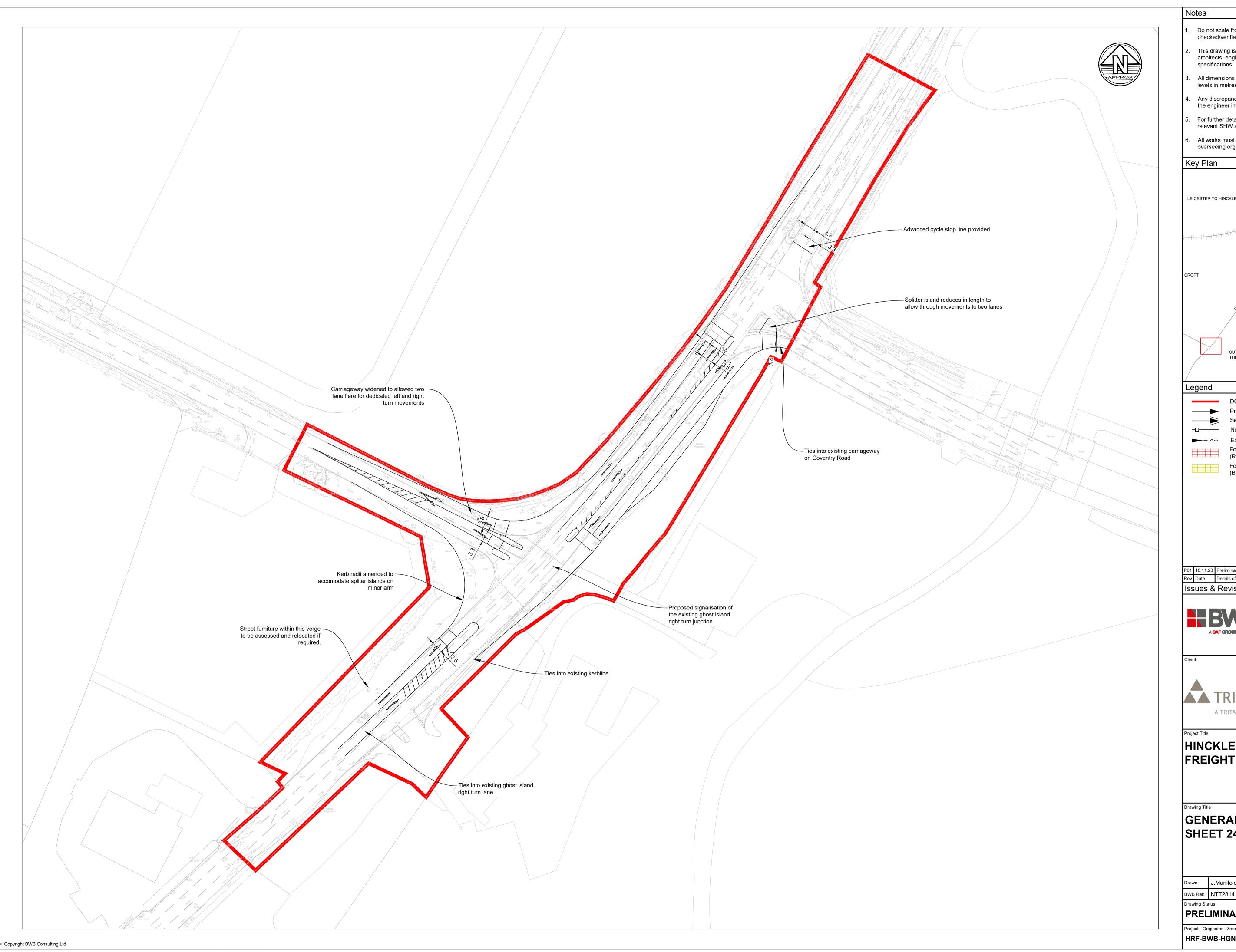
### GENERAL ARRANGEMENT SHEET 22

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# Drawing Status PRELIMINARY

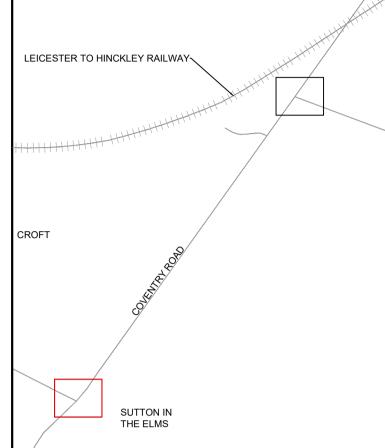
Project - Originator - Zone - Level - Type - Role - Number Status Rev
HRF-BWB-HGN-HW22-DR-CH-0100 S2 P02





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Key Plan



Legend

DCO Land boundary limit ——— Primary Signal Head Secondary Signal head

Earthwork extents Footway Type - Tactile paving in Red

Footway Type - Tactile paving in Buff

P01 10.11.23 Preliminary Issue
Rev Date Details of issue / revision

Issues & Revisions



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# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

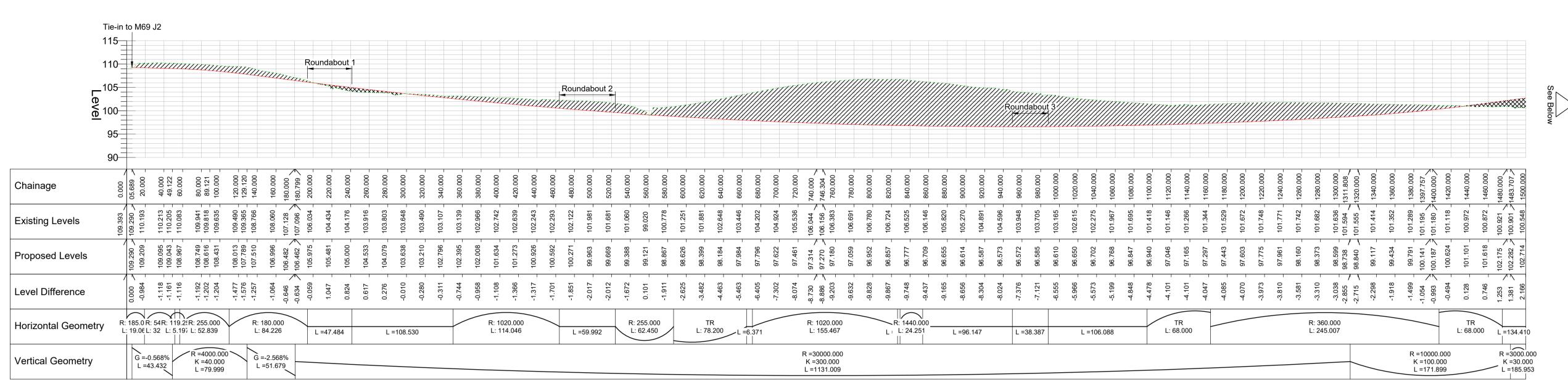
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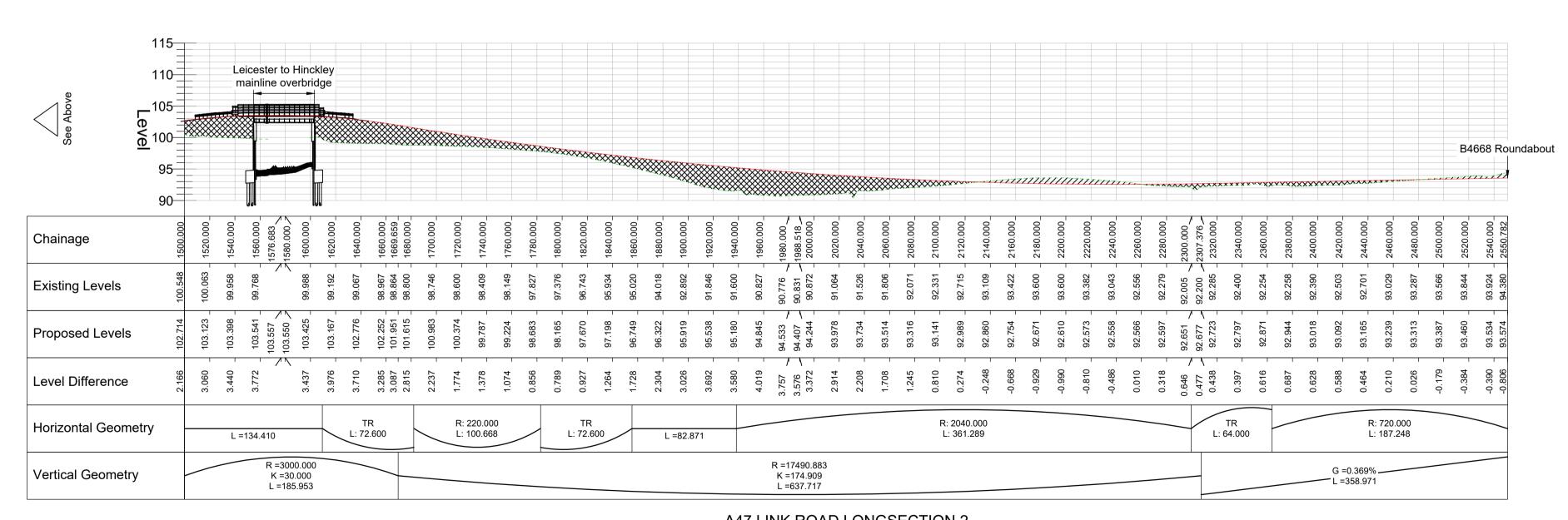
# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW24-DR-CH-0100 S2 P01

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A47 LINK ROAD LONGSECTION 1 SCALE: H 1:2500,V 1:500. DATUM: 90.000



A47 LINK ROAD LONGSECTION 2 SCALE: H 1:2500,V 1:500. DATUM: 90.000 Note

The purpose of the Highway Plans Long Sections is to illustrate the horizontal and vertical highway geometry of the proposed highway mitigation works in relation to the Hinckley National Rail Freight Interchange.

For location of the chainages refer to Document 2.4\_Highway Plans

Legend

Proposed ground level

Existing ground level

Area of cut

Area of fill

P02	04.01.23	Legend amended	DF	SC					
P01	30.11.22	Final Issue	DF	SC					
Rev	Date	Details of issue / revision	Drw	Ch'd					
Issu	Issues & Revisions								

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HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

HIGHWAY PLANS LONG SECTIONS SHEET 1 OF 2

Regulation:	5(2)	(o)	Document:	2.4	J
Drawn:	D.Fraser		Checked:	S.Carter	
BWB Ref:	NTH2814	Date:	30.11.22	Scale@A1:	1:2500

Project - Originator - Functional Breakdown - Spatial Breakdown - Form - Discipline - Number HRF-BWB-LSI-D1-DR-CH-00105

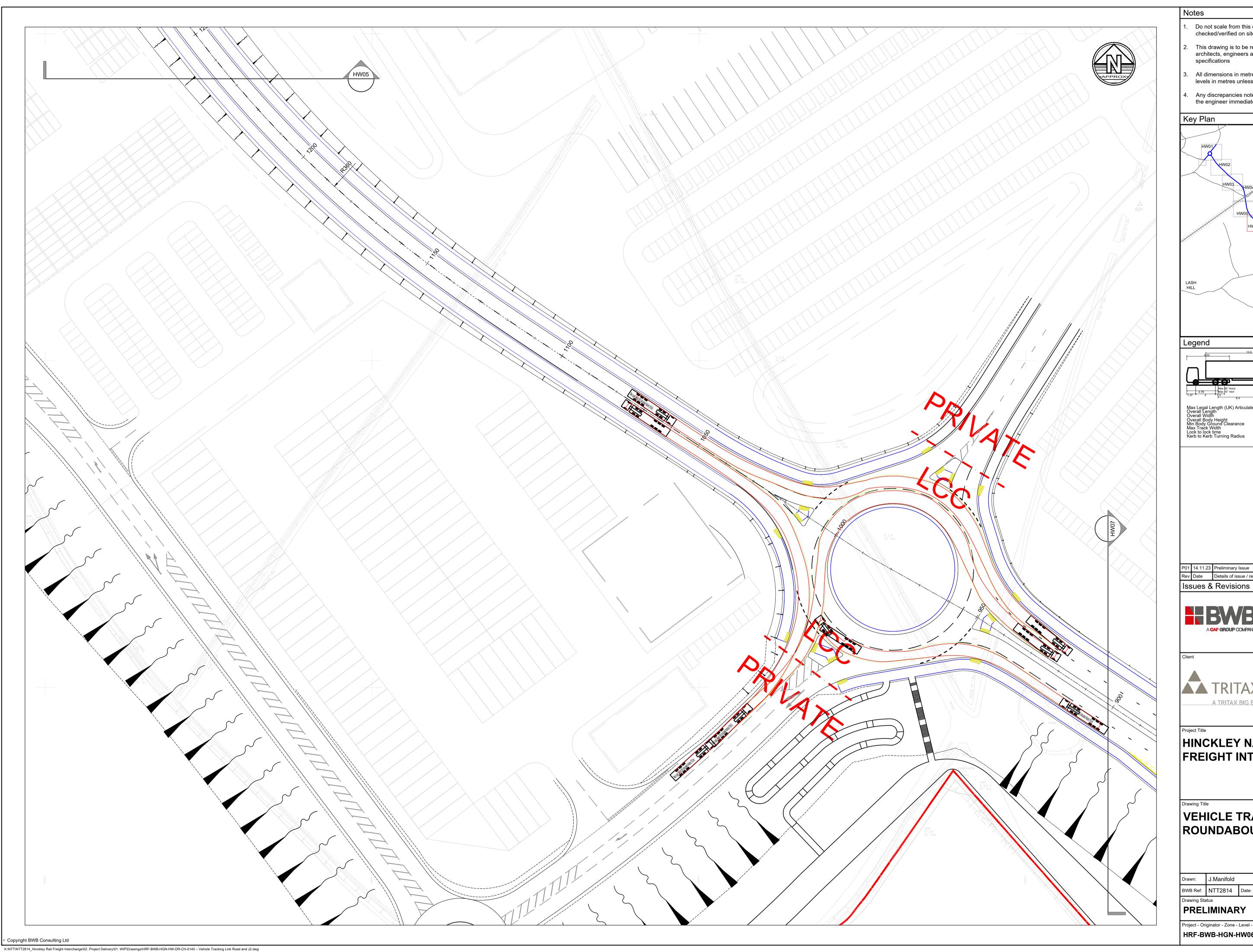
P02

S4 - FINAL

Hinckley National Rail Freight Interchange Geometric Design Strategy Record (GDSR) November 2023 HRF-BWB-HML-A47-RP-CH-00100

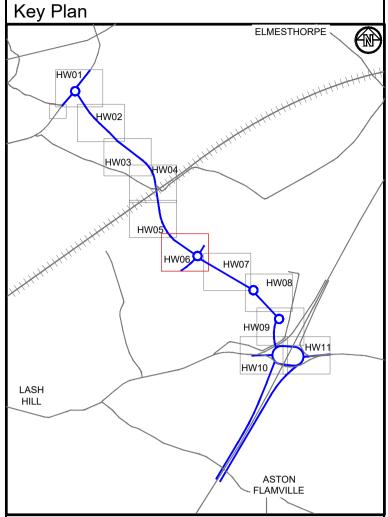


**APPENDIX B: Scheme Vehicle Tracking Drawings** 



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- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications
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- . Any discrepancies noted on site are to be reported to the engineer immediately



Legend 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

P01	14.11.23	Preliminary Issue	J١
Rev	Date	Details of issue / revision	Dr

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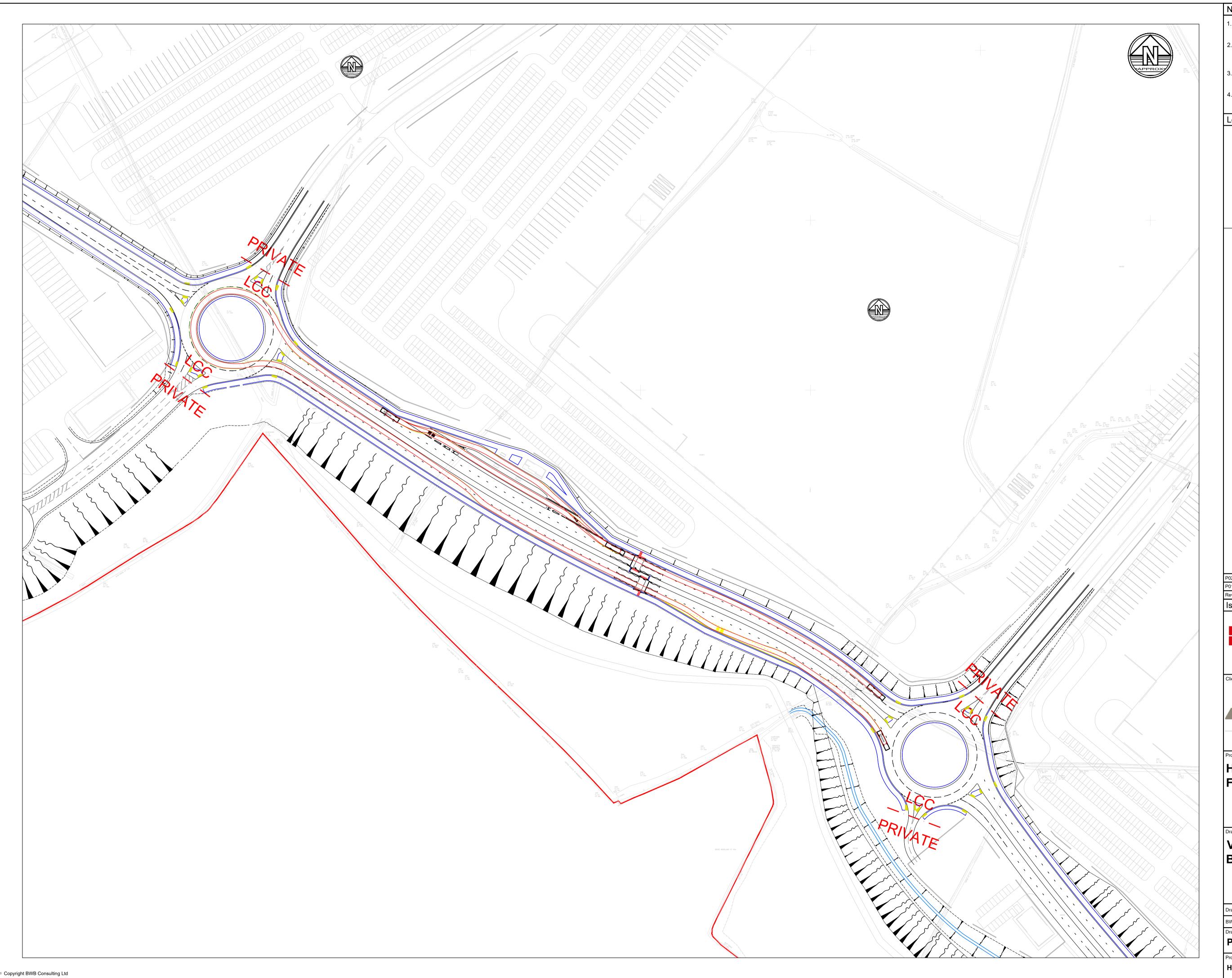
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

# VEHICLE TRACKING ROUNDABOUT 3

Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	10.11.23	Scale@A1:	1:500

# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW06-DR-CH-0115 S2 P01



specifications

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  - Any discrepancies noted on site are to be reported to the engineer immediately

Legend

 P02
 07.12.23
 Updated due to relocated bus laybys
 JM
 S0

 P01
 14.11.23
 Preliminary Issue
 JM
 S0

 Rev
 Date
 Details of issue / revision
 Drw
 Re

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□ Manchester | 0161 233 4260

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Client



Project Title

# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

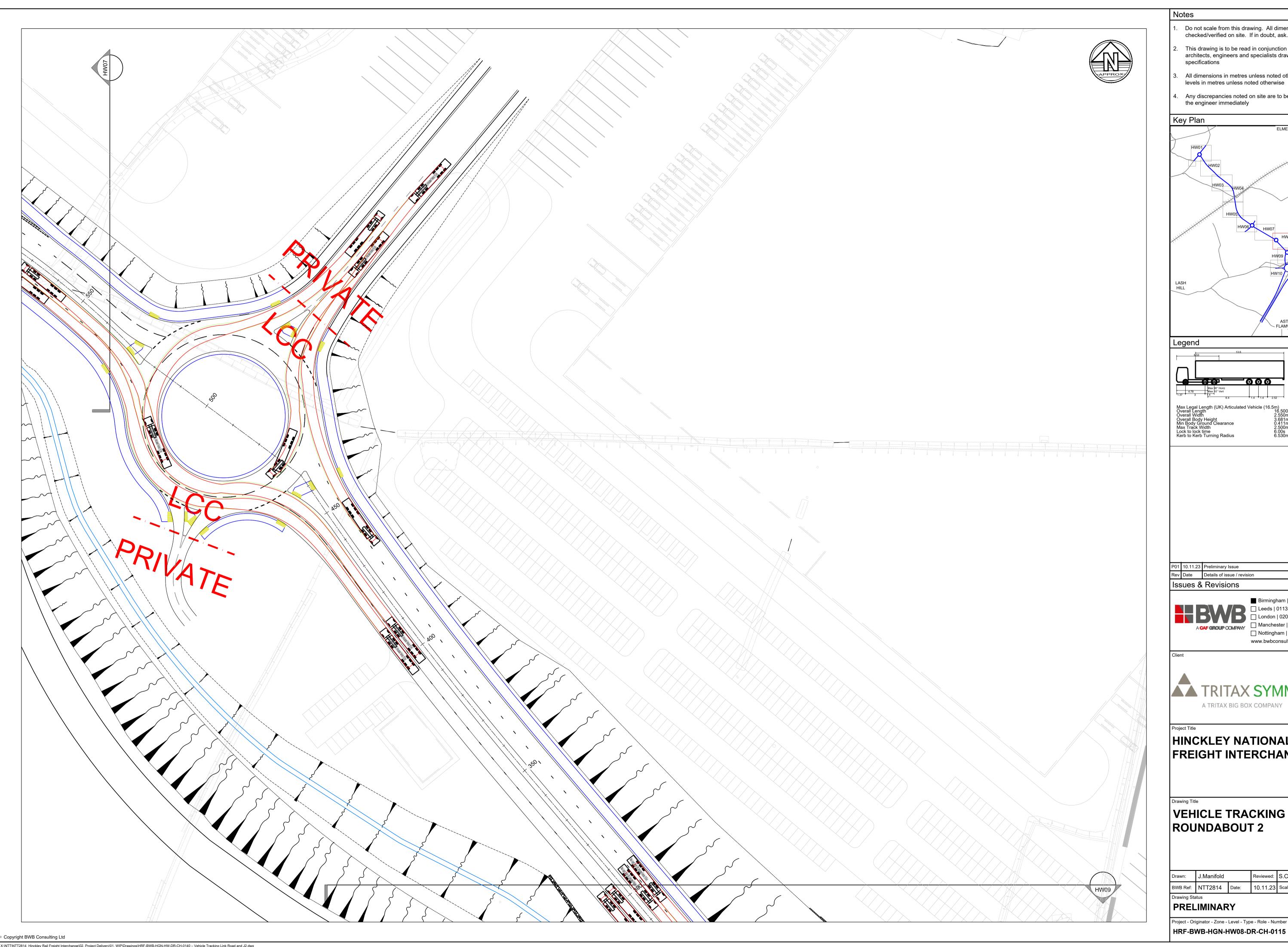
Drawing Title

# VEHICLE TRACKING BUS INTERCHANGE

Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	10.11.23	Scale@A1:	1:500

# Drawing Status PRELIMINARY

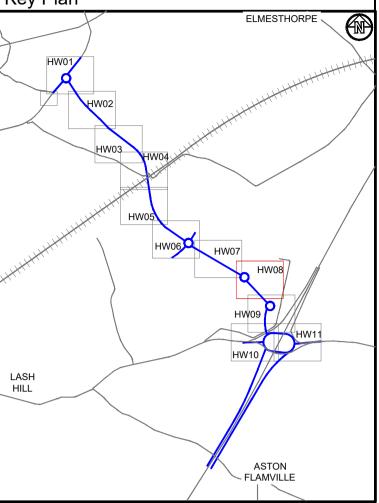
Project - Originator - Zone - Level - Type - Role - Number Status Rev
HRF-BWB-HGN-HW07-DR-CH-0115 S2 P02



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- . This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and
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  - Any discrepancies noted on site are to be reported to the engineer immediately

Key Plan



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

P01 10.11.23 Preliminary Issue
Rev Date Details of issue / revision

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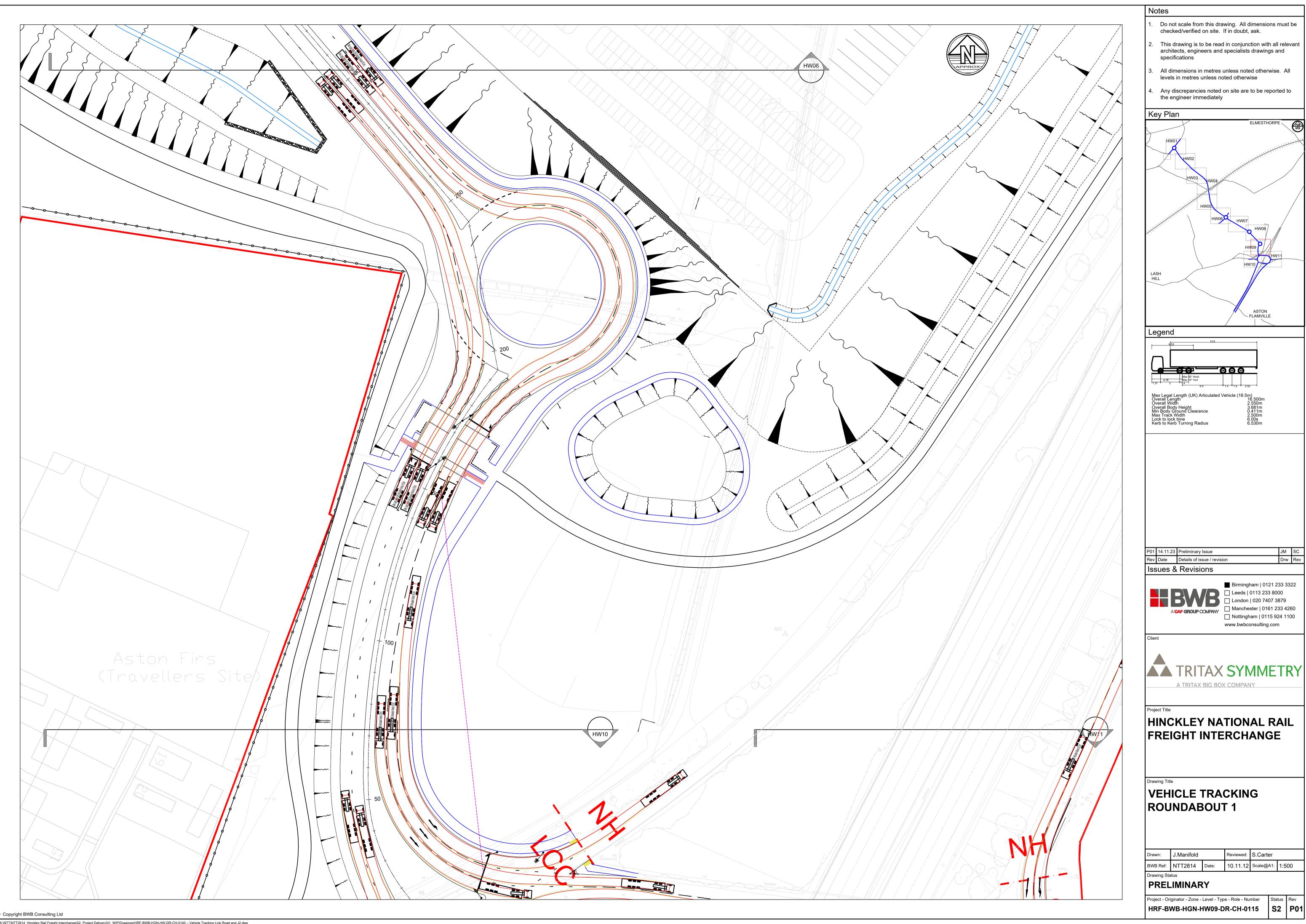
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

### VEHICLE TRACKING ROUNDABOUT 2

Drawn:	J.Manifold		Reviewed:	S.Carter	
BWB Ref:	NTT2814	Date:	10.11.23	Scale@A1:	1:500

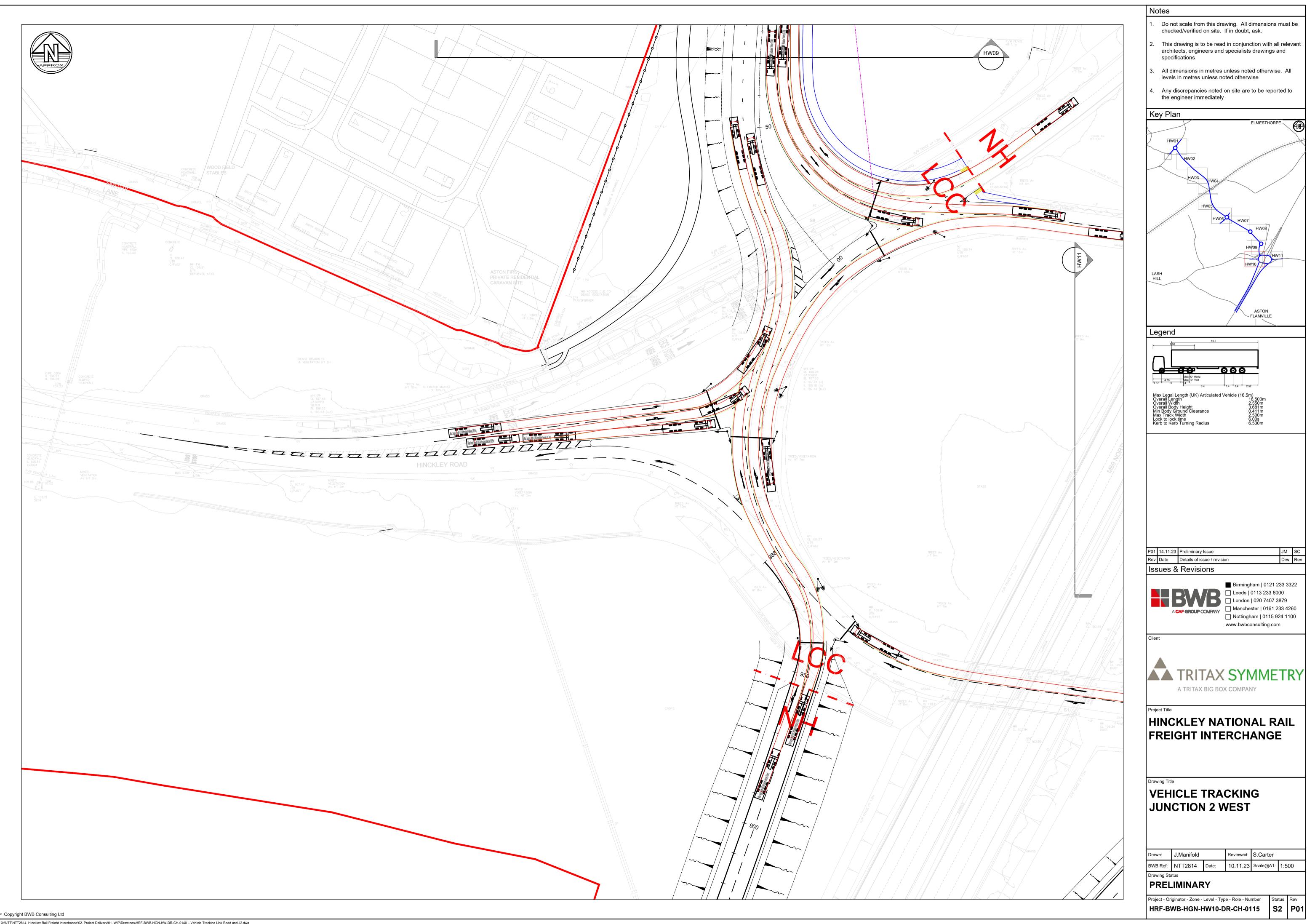
# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW08-DR-CH-0115 S2 P01

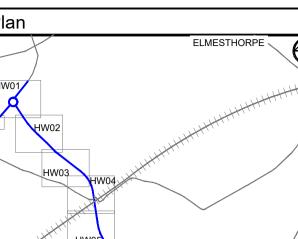


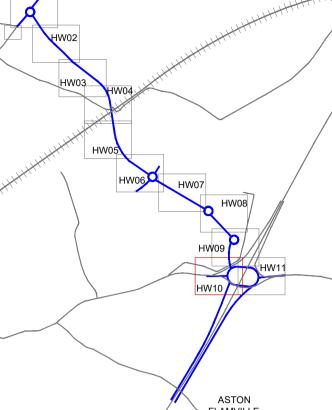
X:\NTT\NTT2814\_Hinckley Rail Freight Interchange\02. Project Delivery\01. WIP\Drawings\HRF-BWB-HGN-HW-DR-CH-0140 – Vehicle Tracking Link Road and J2.dwg

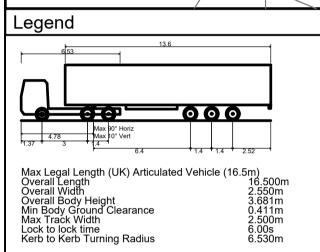
HRF-BWB-HGN-HW09-DR-CH-0115 S2 P01



- Do not scale from this drawing. All dimensions must be checked/verified on site. If in doubt, ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and
  - 3. All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise
  - Any discrepancies noted on site are to be reported to the engineer immediately







JM		
JIV	1	SC
Dr	w	Rev
	Dr	DIW



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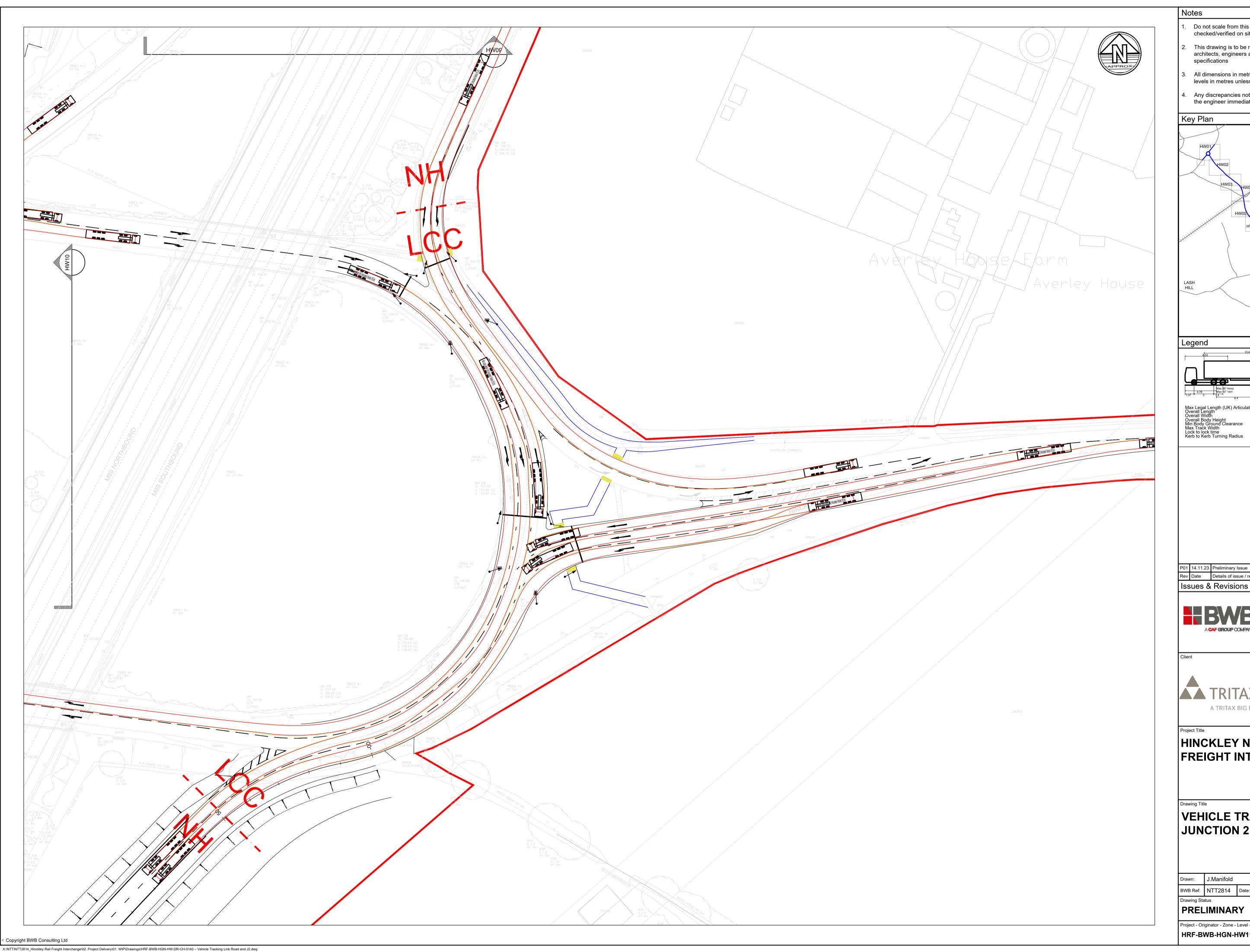


HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

VEHICLE TRACKING **JUNCTION 2 WEST** 

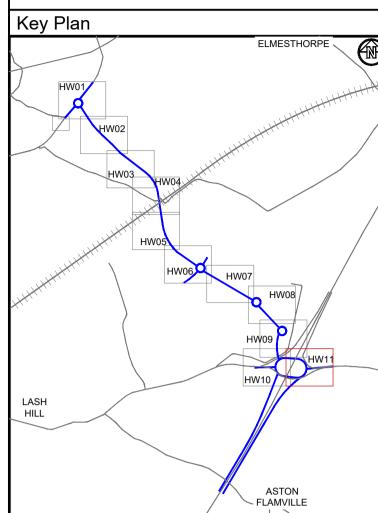
Drawn:	Drawn: J.Manifold		Reviewed: S.Carter		
BWB Ref:	NTT2814	Date:	10.11.23	Scale@A1:	1:500

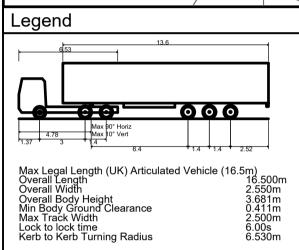
Project - Originator - Zone - Level - Type - Role - Number



Do not scale from this drawing. All dimensions must be checked/verified on site. If in doubt, ask.

- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and
- All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise
- . Any discrepancies noted on site are to be reported to the engineer immediately





L					
	P01	14.11.23	Preliminary Issue	JM	sc
	Rev	Date	Details of issue / revision	Drw	Rev

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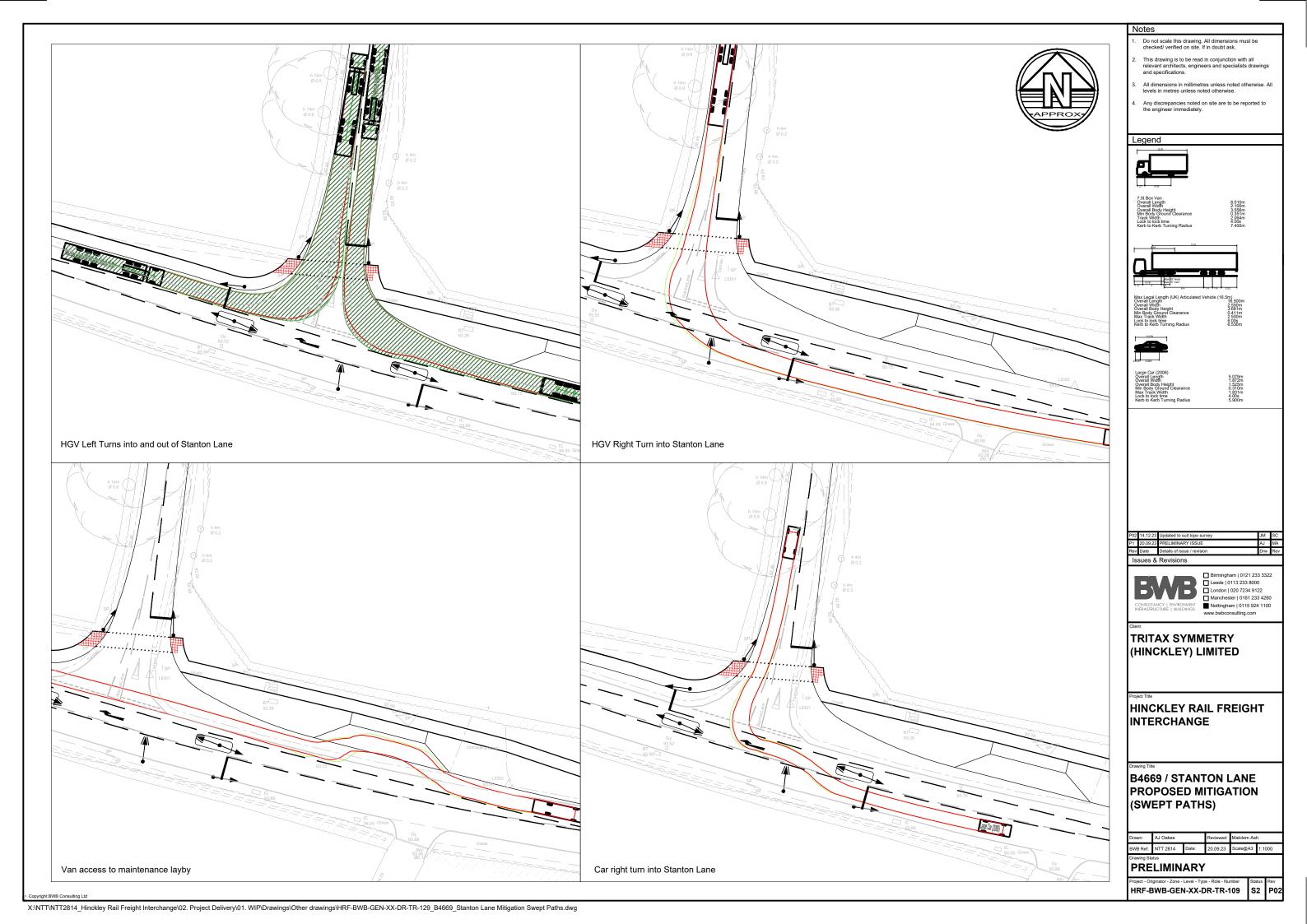
# HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

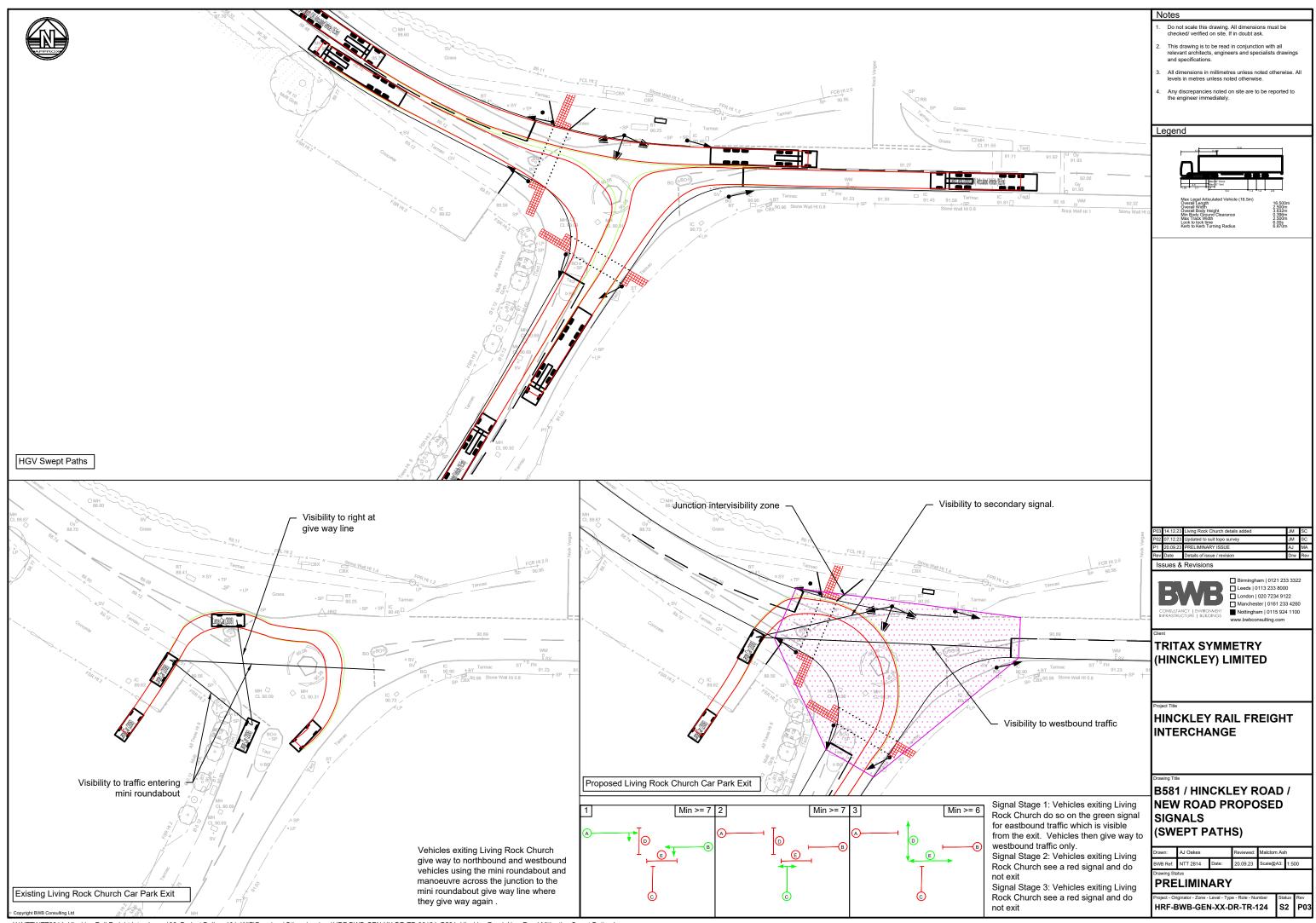
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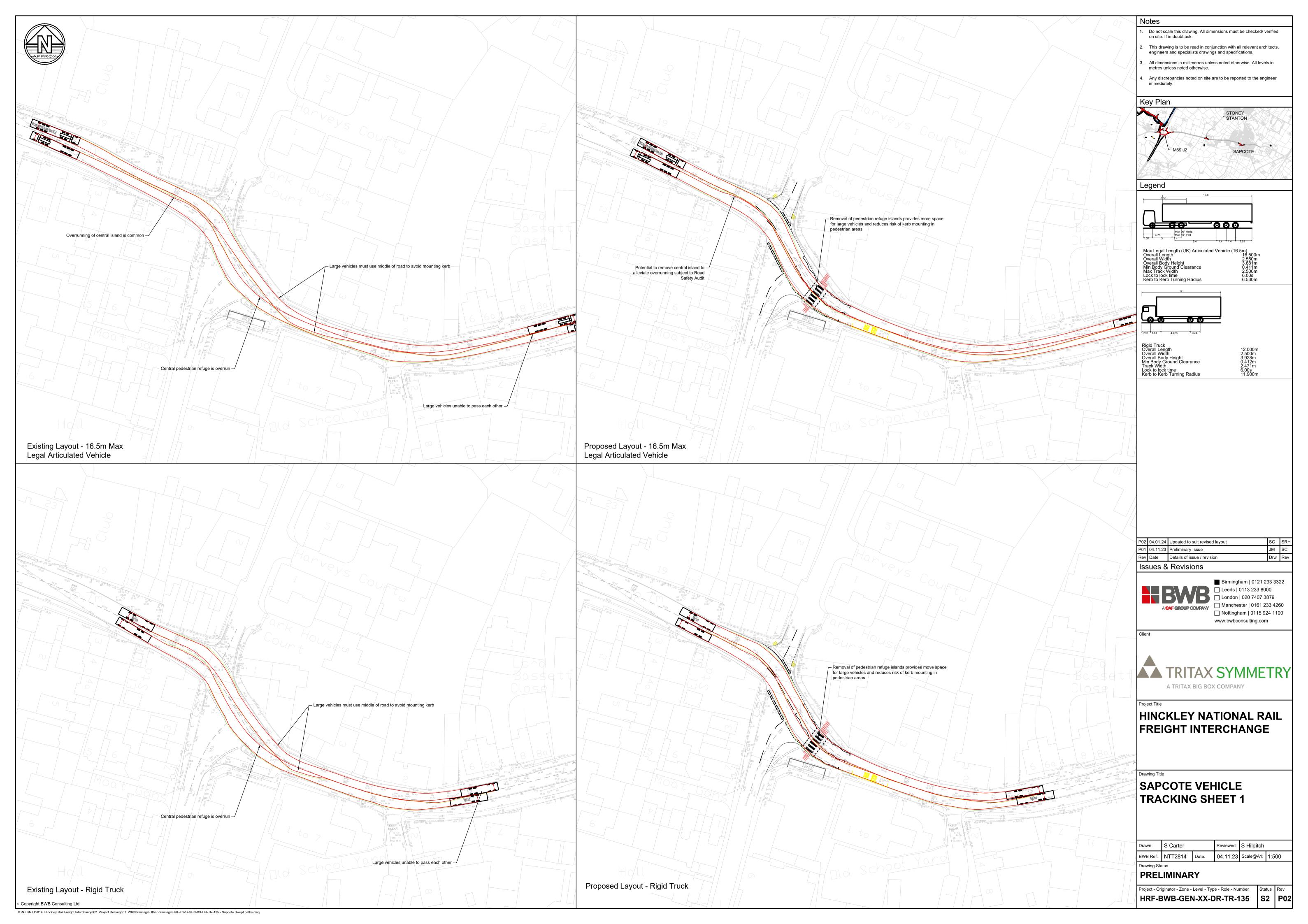
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BWB Ref:	NTT2814	Date:	10.11.23	Scale@A1:	1:500

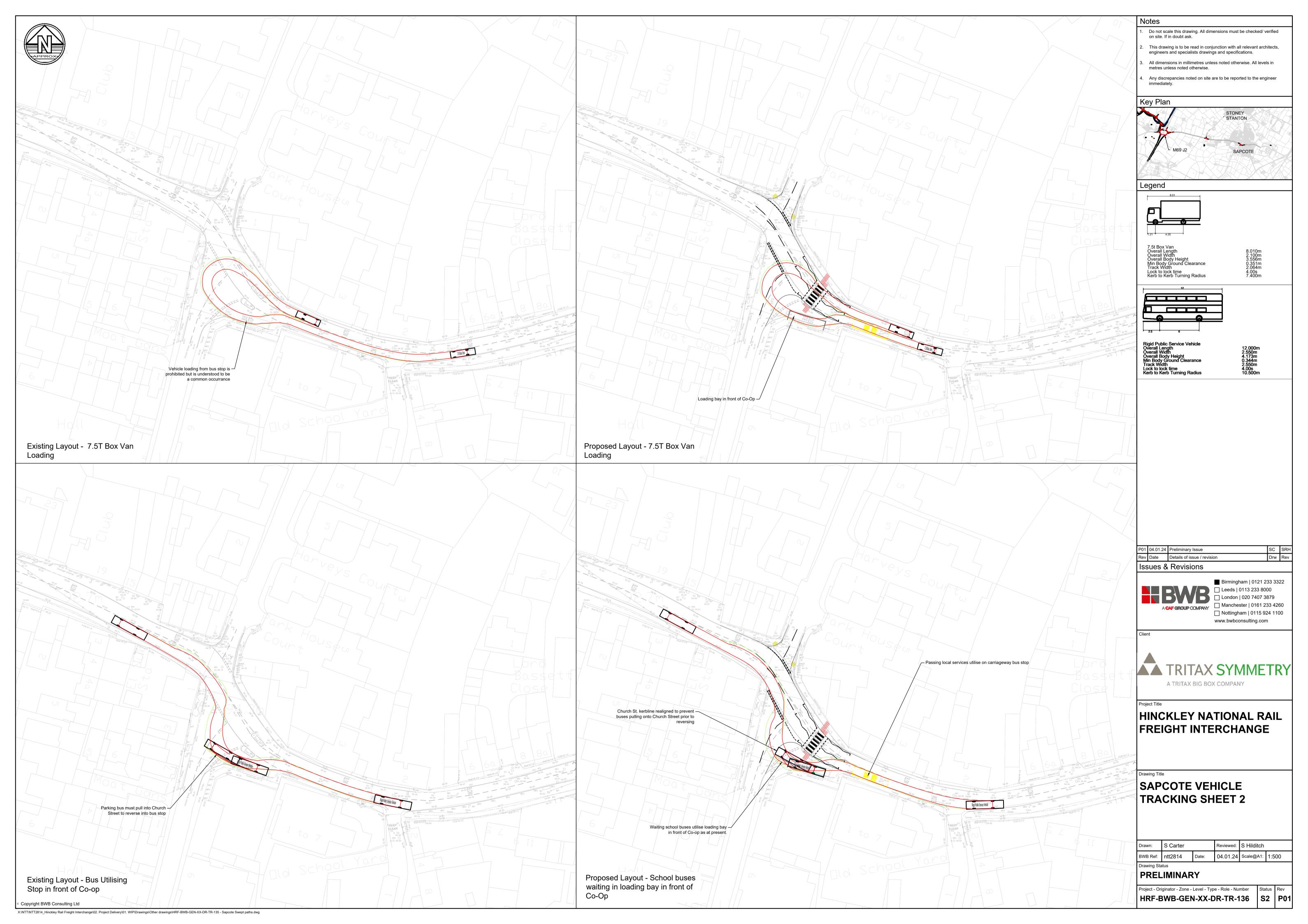
# PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-HGN-HW11-DR-CH-0115 S2 P01



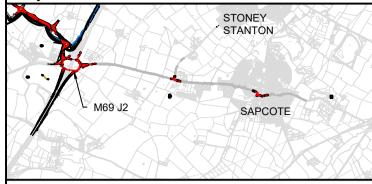


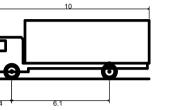






- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.





FTA Design 13/18 Tonne Rigid Vehicle (2016)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

P01 04.01.24 Preliminary Issue
Rev Date Details of issue / revision

Issues & Revisions



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# SAPCOTE VEHICLE TRACKING SHEET 3

Drawn:	S Carter		Reviewed:	S Hilditch		
BWB Ref:	ntt2814	Date:	04.01.24	Scale@A1:	1:500	

#### Drawing Status PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number HRF-BWB-GEN-XX-DR-TR-137 S2 P01

