

# M5 Junction 10 Improvements Scheme

## Environmental Masterplan – Part 1 TR010063 – APP 2.13

Regulation 5 (2) (o)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Volume 2

December 2023



Gloucestershire  
COUNTY COUNCIL

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**Infrastructure Planning  
Planning Act 2008**

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

**M5 Junction 10 Improvements Scheme  
Development Consent Order 202[X]**

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**Environmental Masterplan - Part 1**

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<b>Regulation Number:</b>	Regulation 5(2)(o)
<b>Planning Inspectorate Scheme Reference</b>	TR010063
<b>Application Document Reference</b>	TR010063 – APP 2.13
<b>Author:</b>	M5 Junction 10 Improvements Scheme Project Team

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 0	December 2023	DCO Application

# 1. Schedule of Plans included in this application document.

## 1.1. List of drawings in Part 1

<b>Document title</b>	<b>Document number</b>	<b>Version</b>
Environmental Key Plan Regulation 5(2)(j)	TR010063 – APP 2.13	C01
Environmental Master Plan Key	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 1 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 2 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 3 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 4 of 16	TR010063 – APP 2.13	C01
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Environmental Master Plan – Sheet 6 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 7 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 8 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 8 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 9 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 10 of 16	TR010063 – APP 2.13	C01

## 1.2. List of drawings in Part 1

<b>Document title</b>	<b>Document number</b>	<b>Version</b>
Environmental Master Plan – Sheet 11 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 12 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 13 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 14 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 15 of 16	TR010063 – APP 2.13	C01
Environmental Master Plan – Sheet 16 of 16	TR010063 – APP 2.13	C01
Proposed Indicative River Chelt Link Road River Cross-Sections	TR010063 – APP 2.13	C01





**NOTES:**

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.

**KEY:**

- SHEET USED AS PART OF THIS DRAWING SERIES.
- EXISTING ORDNANCE SURVEY DATA
- DEVELOPMENT CONSENT ORDER (DCO) BOUNDARY

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Description							
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
Description							
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Description							
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
Description							
REVISION 0							
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
A1	C01	AC	SS	CDC	BM	20/10/23	
Drawing Suitability						Status	
APPROVED - PUBLISHED						A1	
Project Title							
M5 Junction 10 Improvements Scheme							
Drawing Title							
ENVIRONMENTAL KEY PLAN							
Drawing Number							
GCCM5J10		ATK		ELS		ZZ	
				DR LL		000115	
Original Size	A1	Scale	AS SHOWN	Project Ref. No.	5197035	Sheet	1 of 1
						Rev	C01



# ENVIRONMENT MASTERPLAN KEY

## GENERAL

- EXTENT OF HIGHWAY WORKS
- MAINTENANCE BAY

## HIGHWAYS

- PROPOSED PUBLIC RIGHT OF WAY
- EXISTING PUBLIC RIGHT OF WAY
- EXISTING PUBLIC RIGHT OF WAY TO BE REMOVED
- PROPOSED REFLECTIVE NOISE BARRIER 2m HIGH
- PROPOSED ABSORPTIVE NOISE BARRIER 2m HIGH
- PROPOSED HIGHWAY FENCE LINE
- PROPOSED OTTER FENCE
- PROPOSED BADGER FENCE
- EXISTING FENCE LINE
- ORDER LIMITS
- PROPOSED LANE MARKINGS
- PROPOSED EARTHWORK SLOPE
- PROPOSED TRAFFIC SIGN AND SIGN POST
- PROPOSED GATE

## STRUCTURES

- PROPOSED OVERBRIDGE
- PROPOSED UNDERBRIDGE/CULVERT
- PROPOSED RETAINING WALL

## LIGHTING

- PROPOSED LIGHTING COLUMN & LUMINAIRE

## DRAINAGE

- PROPOSED POND WITH POND ACCESS TRACK
- PROPOSED DITCHES
- CULVERT

## ENVIRONMENTAL ELEMENTS:

### ECOLOGY PROTECTION MEASURES

- MAMMAL CROSSINGS (Tunnels)
- BAT HOP-OVER PLANTING
- COMPENSATORY BAT ROOST STRUCTURE

### LANDSCAPE KEY :

- RETAINED VEGETATION
- EXISTING DWELLING AND GARDEN - TO BE RETAINED
- EXISTING HEDGEROW - TO BE RETAINED
- EXISTING HEDGEROW - TO BE ENHANCED
- LE 1.2: GRASSLAND WITH BULBS
- LE 1.3: SPECIES RICH GRASSLAND
- LE 2.1: WOODLAND
- LE 2.2: WOODLAND EDGE
- LE 2.4: LINEAR BELTS OF SHRUBS AND TREES
- LE 2.5: SHRUBS WITH INTERMITTENT TREES
- LE 2.6: SHRUBS
- LE 2.8: SCRUB
- LE 3.1: AMENITY TREES AND SHRUB PLANTING
- LE 4.2: NATIVE SPECIES HEDGEROWS(Trimmed)
- LE 4.3: NATIVE SPECIES HEDGEROWS(Untrimmed)
- LE 4.4: NATIVE HEDGEROWS WITH TREES
- LE 5.1: INDIVIDUAL TREES
- LE 6.1: WATER BODIES & ASSOCIATED PLANTS
- LE 6.2: BANKS & DITCHES - SOWN WITH WET GRASSLAND
- LE 6.4: WET GRASSLAND WITH MARGINAL PLANTING
- LOWLAND MEADOWS - PRIORITY HABITAT
- ACCESS ROUTES

## NOTES:

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- PLANT SPECIES WILL BE PROPOSED AT DETAIL DESIGN. SPECIES ARE TO BE NATIVE AND/OR NON-INVASIVE AND SUITABLE FOR THE LOCATIONS. EVERGREEN/ SEMI-EVERGREEN SPECIES TO BE INCLUDED WHERE VISUAL SCREENING IS REQUIRED. NH AND GCC ARE TO BE CONSULTED ON THE FINAL DESIGN/SPECIES CHOICE TO ENSURE THAT THEIR DESIGN STANDARDS, H&S REQUIREMENTS AND MAINTENANCE CAPABILITIES ARE COMPLIED WITH WHERE POSSIBLE SPECIES RICH FLOWERING GRASSLAND IS TO BE USED ACROSS THE SCHEME. LOW GROWING OR THAT WHICH CAN BE CUT REGULARLY CAN BE PROPOSED TO VISIBILITY SPLAYS.
- FINAL OPTIONS FOR THE DESIGN OF THE NOISE BARRIERS SHOULD BE PRESENTED TO DIRECTLY AFFECTED PROPERTIES AND THE LPA TO ENSURE THE BARRIER IS ACCEPTABLE FOR NOISE AND VISUAL AMENITY. OPTIONS SHOULD INCLUDE PLANTING TO THE BARRIERS AND ALTERNATIVE FINISHES.

Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability						Status
APPROVED - PUBLISHED						A1
Project Title						
M5 Junction 10 Improvements Scheme						
Drawing Title						
ENVIRONMENTAL MASTER PLAN KEY						
Drawing Number						
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Original Size:	A1	Scale:	NTS	Project Ref. No.:	5197035	Sheet: 1 of 1 Rev: C01

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FOR CONTINUATION REFER TO INSET 1A

FOR CONTINUATION REFER TO SHEET 1

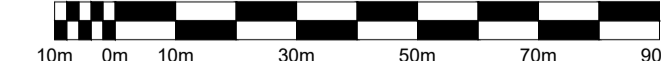
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22.1m

24.4m

24.1m

Scale 1:1250

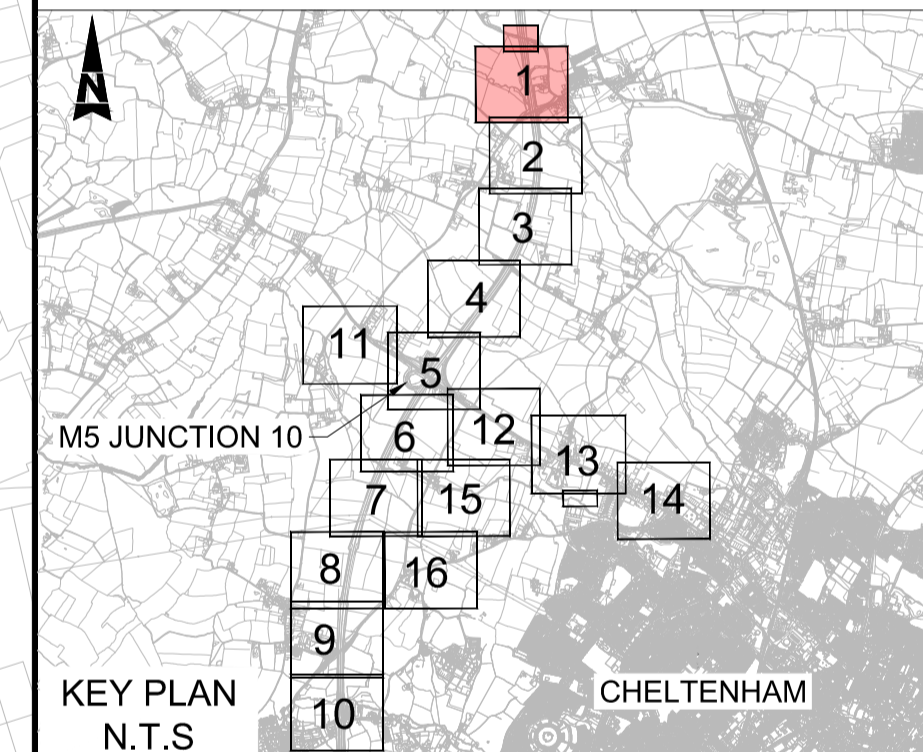


FOR CONTINUATION REFER TO SHEET 2

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NOTES:

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- BUS STOPS TO CONSIDER HAVING GREEN ROOFS.
- BADGER FENCE LINE WILL ALSO BE OTTER PROOF.
- SIGNAGE: SIGHT LINES HAVE BEEN TAKEN INTO CONSIDERATION WITHIN THE LANDSCAPE DESIGN PROPOSAL, TO BE RESOLVED FURTHER IN THE DETAIL DESIGN STAGE.
- ALLOWANCE HAS BEEN MADE FOR ARTIFICIAL BADGER SETTS WITHIN THE ORDER LIMITS TO REPLACE THOSE LOST. LOCATIONS ARE NOT SHOWN ON THIS PLAN DUE TO THE PERSECUTION FACED BY BADGERS, BUT ARE INCLUDED IN THE DRAFT BADGER LICENCE. ARTIFICIAL SETTS TO INCLUDE APPROPRIATE PLANTING.
- ALLOWANCE FOR PLACING OF BRASH PILES WITHIN DORMICE LICENCE AREA.
- BAT HOP OVERS TO COMPRISE TALL PLANTING (MIN 6M TALL. THIS MAY BE FENCING FOR INITIAL PERIOD WHILST VEGETATION ESTABLISHES)
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- ATTENUATION BASIN TO INCLUDE FEATURES TO ENHANCE BIODIVERSITY SUCH AS SUBMERGED AND MARGINAL PLANTING; VARIATIONS IN BED TOPOGRAPHY; SHALLOW BANK SLOPES TO CREATE DRAWDOWN ZONES; ISLAND FEATURES; AND MARGINAL SHELVES. ADDITIONAL SURROUNDING PLANTING SHOULD ALSO BE INCLUDED TO HELP EMBED THE POND INTO THE LANDSCAPE. USE OF GRASSCRETE OR SIMILAR TO MAINTENANCE TRACK WHERE APPROPRIATE/FEASIBLE.



Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

REVISION 0

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	AC	SS	CDC	BM	20/10/23

Drawing Suitability

APPROVED - PUBLISHED	A1
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Project Title

M5 Junction 10 Improvements Scheme

Drawing Title

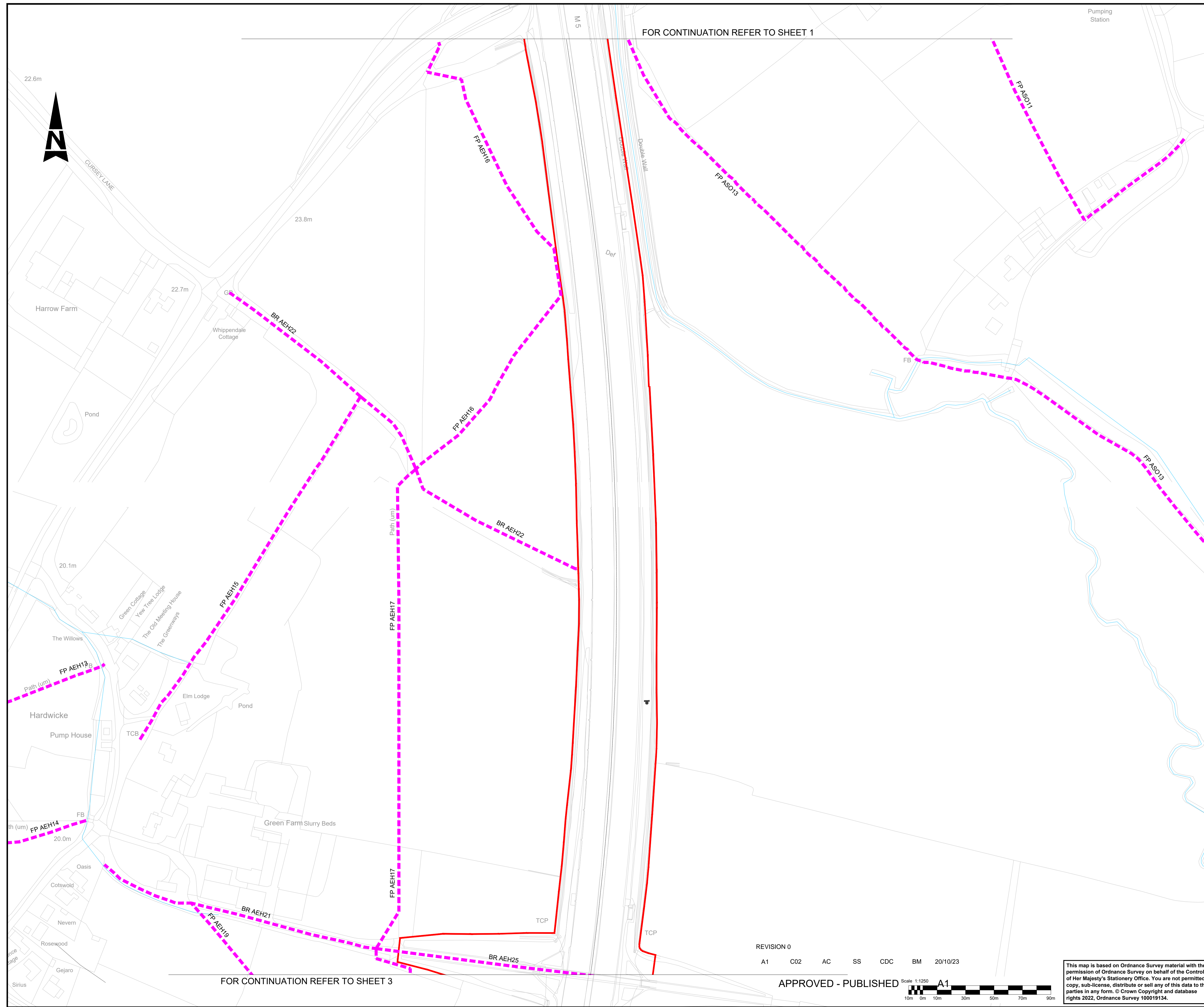
ENVIRONMENTAL MASTER PLAN SHEET 01 OF 16

Drawing Number

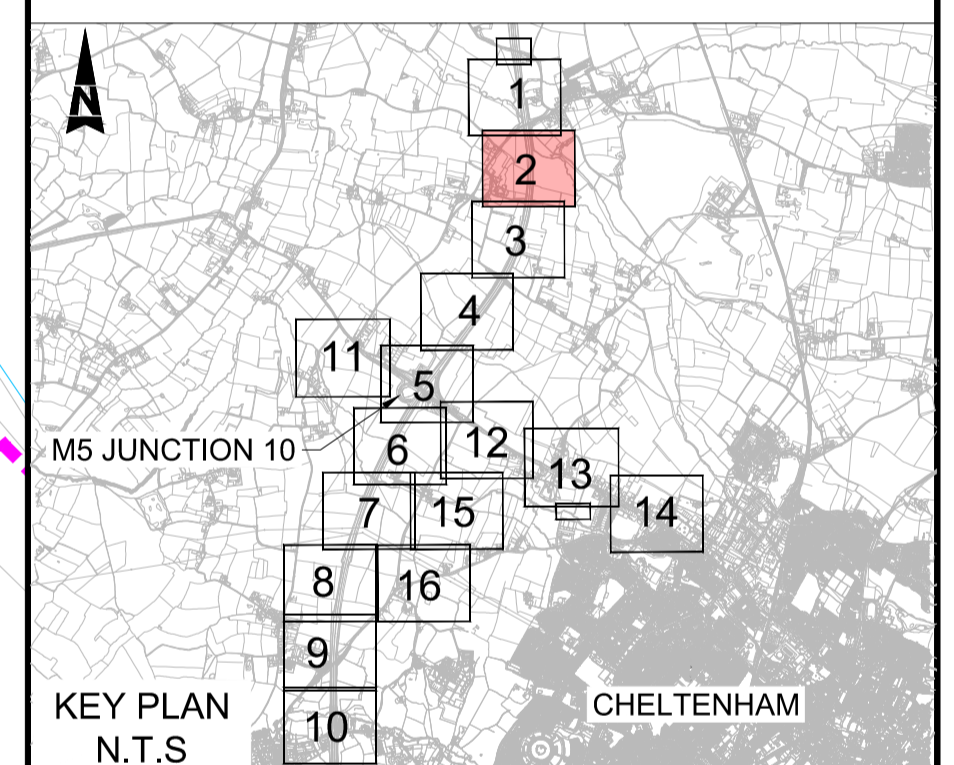
GCCM5J10 ATK ELS ZZ DR LL 000117

Original Size: A1 Scale: AS SHOWN Project Ref. No.: 5197035 Sheet: 1 of 16 Rev: C01





- NOTES:**
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
  - BUS STOPS TO CONSIDER HAVING GREEN ROOFS.
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability						Status
APPROVED - PUBLISHED						A1

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<b>Drawing Number</b>			
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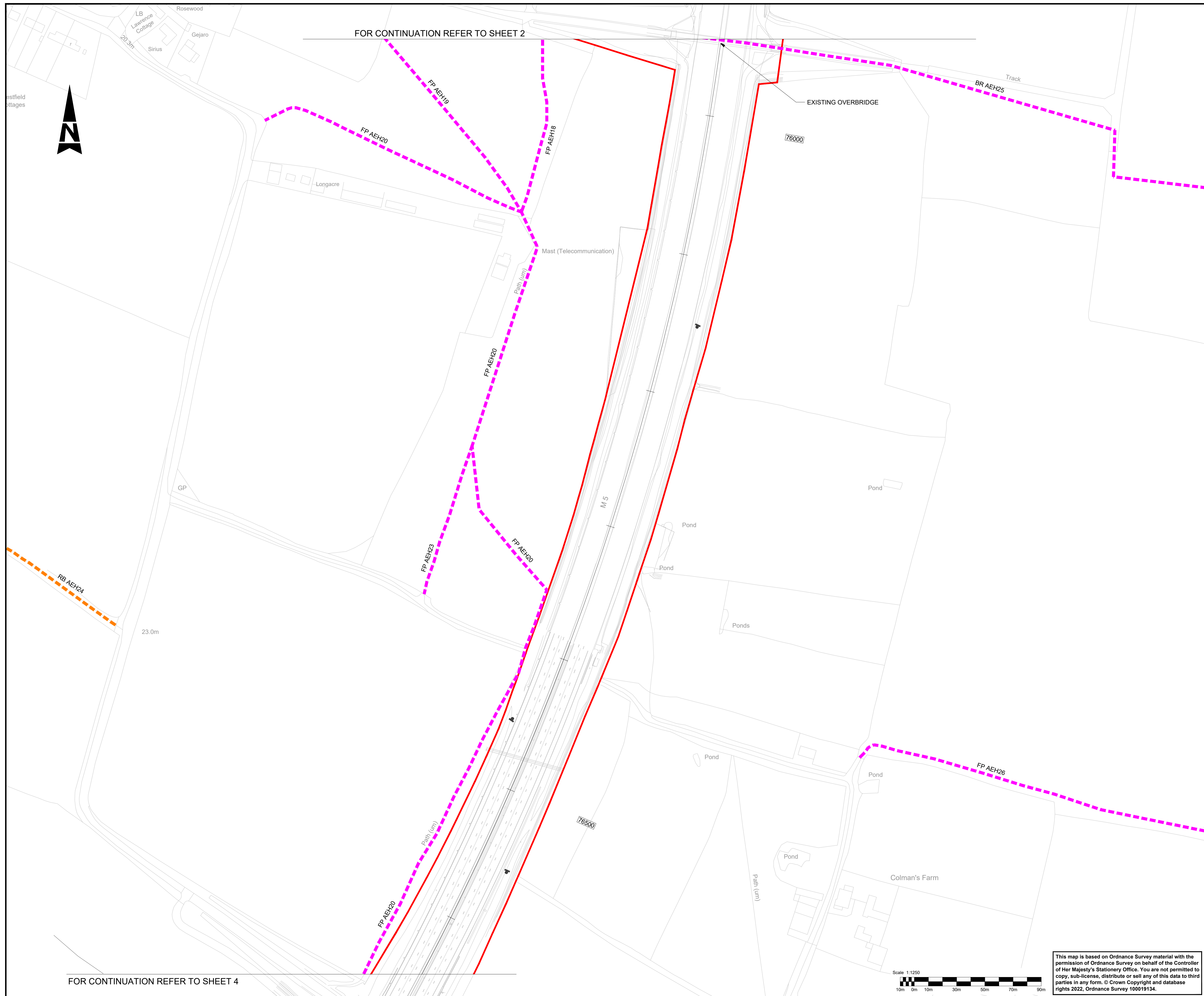
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APPROVED - PUBLISHED

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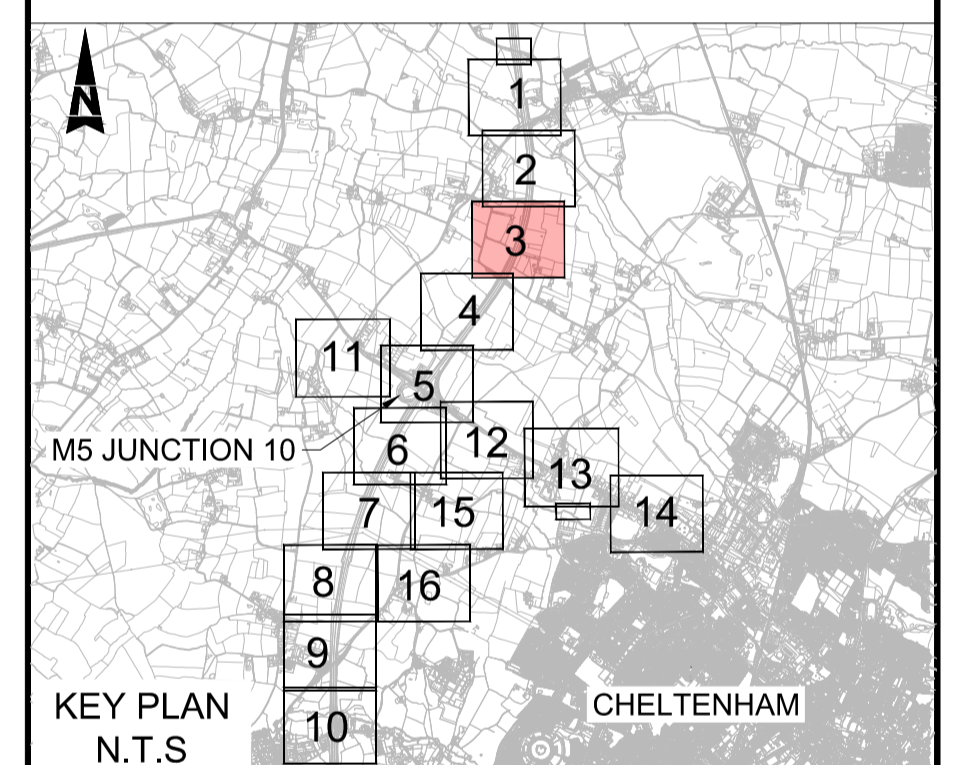




FOR CONTINUATION REFER TO SHEET 2

FOR CONTINUATION REFER TO SHEET 4

- NOTES:**
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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description							
Description							
REVISION 0	A1	C01	AC	SS	CDC	BM	20/10/23

Drawing Suitability: **APPROVED - PUBLISHED** Status: **A1**

Project Title: **M5 Junction 10 Improvements Scheme**

Drawing Title: **ENVIRONMENTAL MASTER PLAN SHEET 03 OF 16**

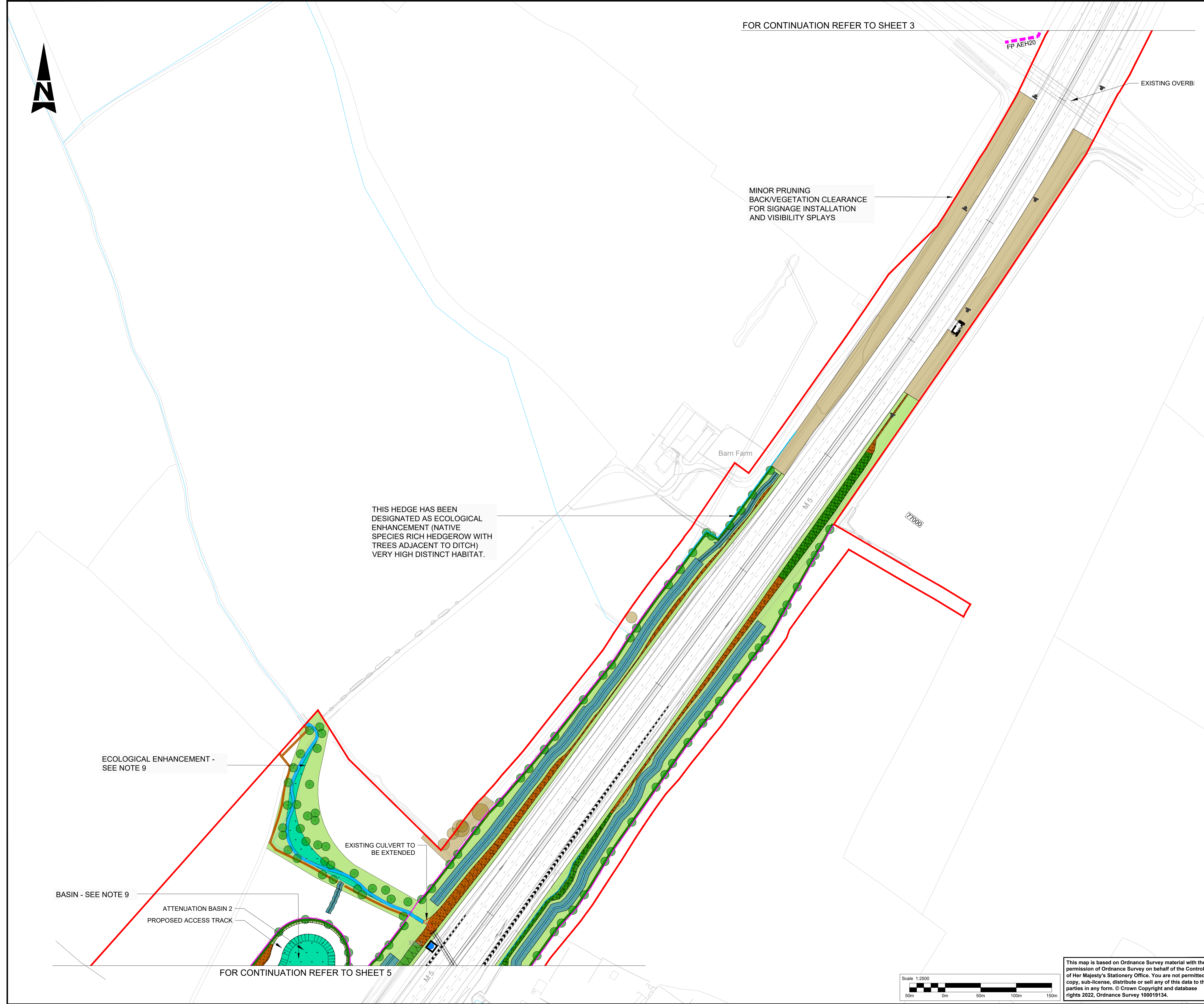
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FOR CONTINUATION REFER TO SHEET 3

FP AEH20

EXISTING OVERB...

MINOR PRUNING  
BACK/VEGETATION CLEARANCE  
FOR SIGNAGE INSTALLATION  
AND VISIBILITY SPLAYS

THIS HEDGE HAS BEEN  
DESIGNATED AS ECOLOGICAL  
ENHANCEMENT (NATIVE  
SPECIES RICH HEDGEROW WITH  
TREES ADJACENT TO DITCH)  
VERY HIGH DISTINCT HABITAT.

ECOLOGICAL ENHANCEMENT -  
SEE NOTE 9

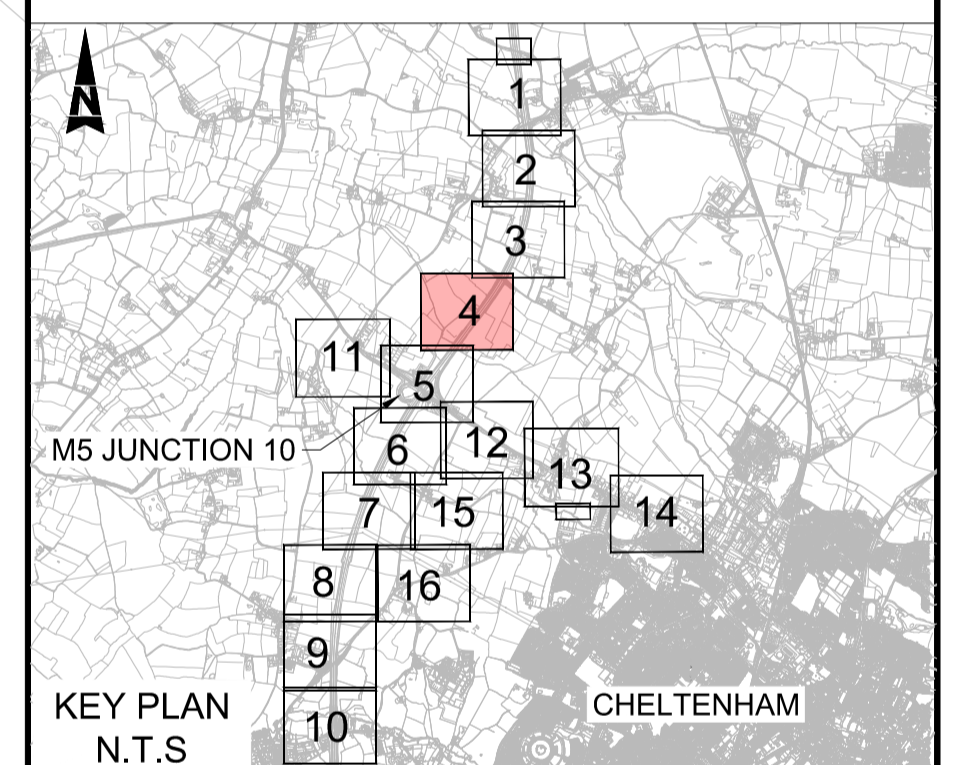
EXISTING CULVERT TO  
BE EXTENDED

BASIN - SEE NOTE 9

ATTENUATION BASIN 2  
PROPOSED ACCESS TRACK

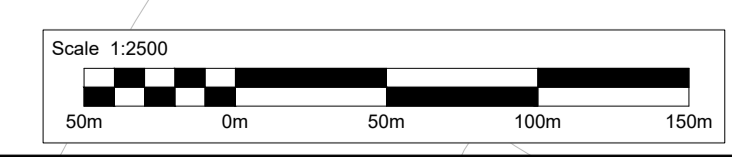
FOR CONTINUATION REFER TO SHEET 5

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Description						
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability						Status
APPROVED - PUBLISHED						A1

Project Title		
M5 Junction 10 Improvements Scheme		
Drawing Title		
ENVIRONMENTAL MASTER PLAN SHEET 04 OF 16		
Drawing Number		
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ZZ	DR	LL 000120
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Sheet: 4 of 16	Rev: C01	

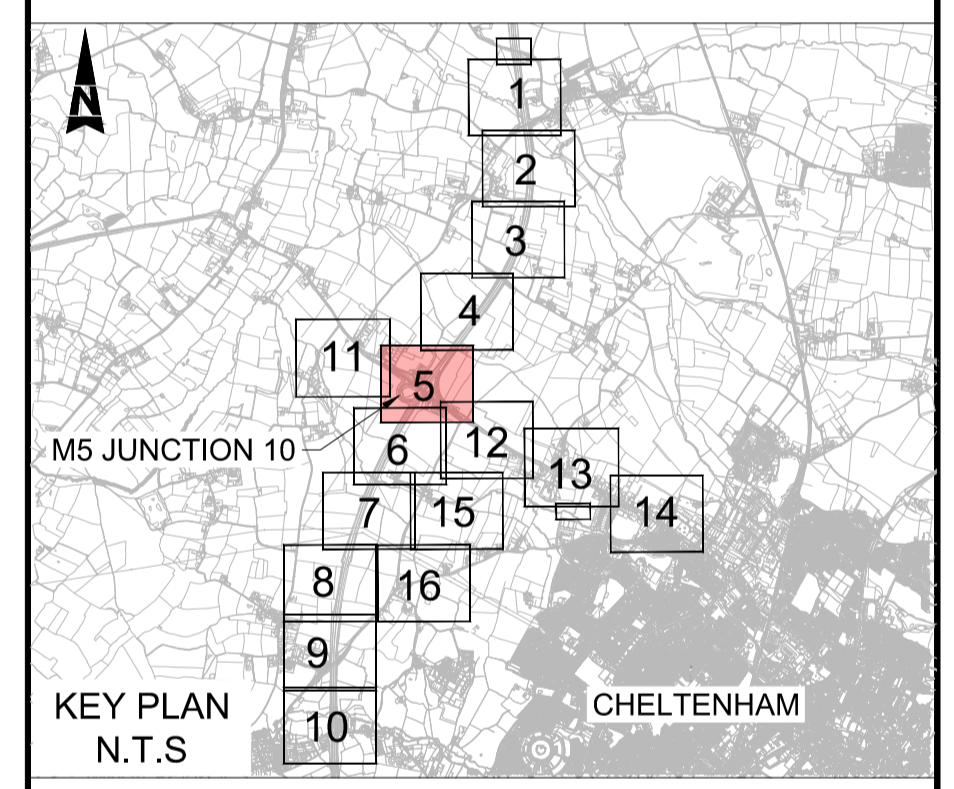


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REVISION 0							
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
A1	C01	AC	SS	CDC	BM	20/10/23	

Drawing Suitability: **APPROVED - PUBLISHED** Status: **A1**

Project Title: **M5 Junction 10 Improvements Scheme**

Drawing Title: **ENVIRONMENTAL MASTER PLAN SHEET 05 OF 16**

Drawing Number: **GCCM5J10 ATK ELS ZZ DR LL 000121**

Original Size: **A1** Scale: **AS SHOWN** Project Ref. No.: **5197035** Sheet: **5 of 16** Rev: **C01**

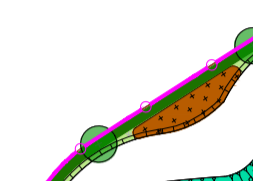




ETL

FOR CONTINUATION REFER TO SHEET 5

BASIN - SEE NOTE 9



Issues

EXCAVATED FLOOD STORAGE AREA

EVERGREEN SPECIES TO BE INCLUDED HERE

COMPENSATORY BAT ROOST STRUCTURE

ECOLOGICAL ENHANCEMENT - SEE NOTE 9



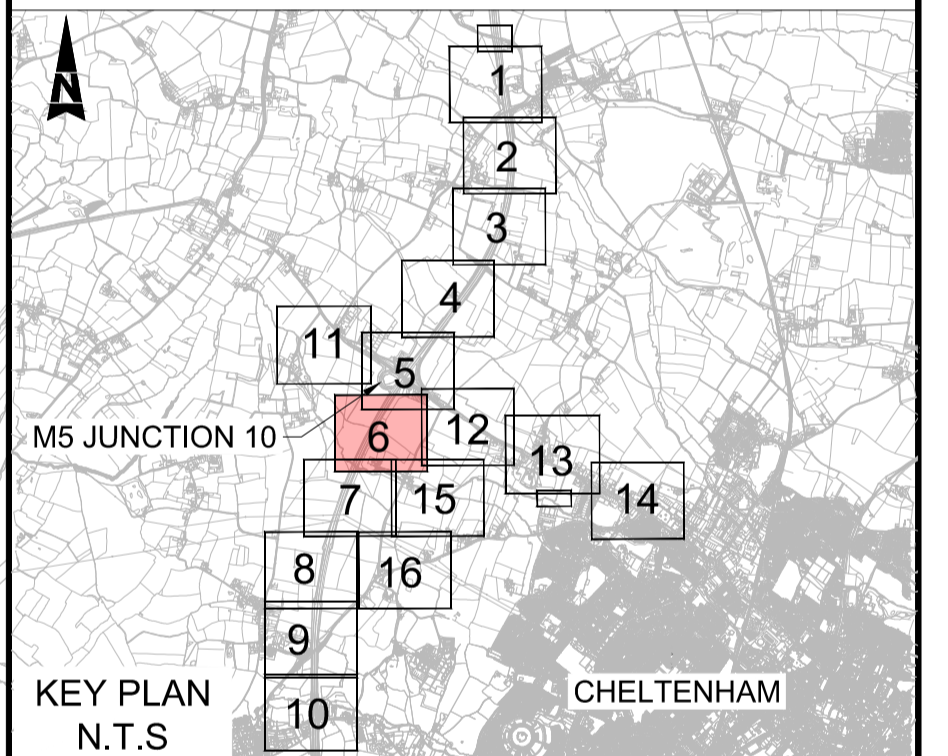
FOR CONTINUATION REFER TO SHEET 7

FOR CONTINUATION REFER TO SHEET 15

FOR CONTINUATION REFER TO SHEET 12

NOTES:

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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description							
Description							
Description							
Description							
REVISION 0	A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability	APPROVED - PUBLISHED						A1

Project Title  
M5 Junction 10 Improvements Scheme

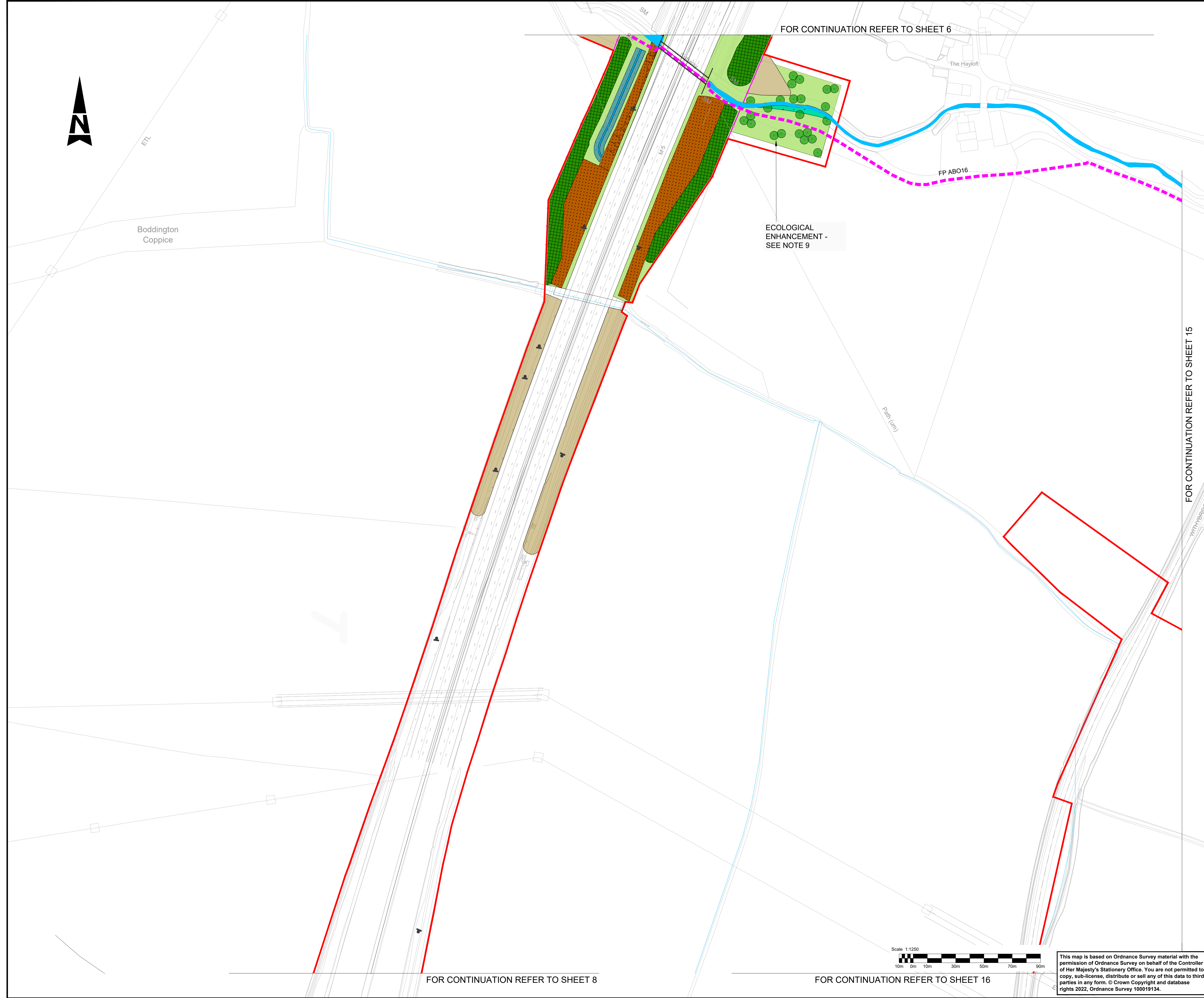
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ENVIRONMENTAL MASTER PLAN  
SHEET 06 OF 16

Drawing Number	GCCM5J10	ATK	ELS
	ZZ	DR	LL 000122
Original Size	A1	Scale	AS SHOWN
Project Ref. No.	5197035	Sheet	6 of 16
Rev	C01		



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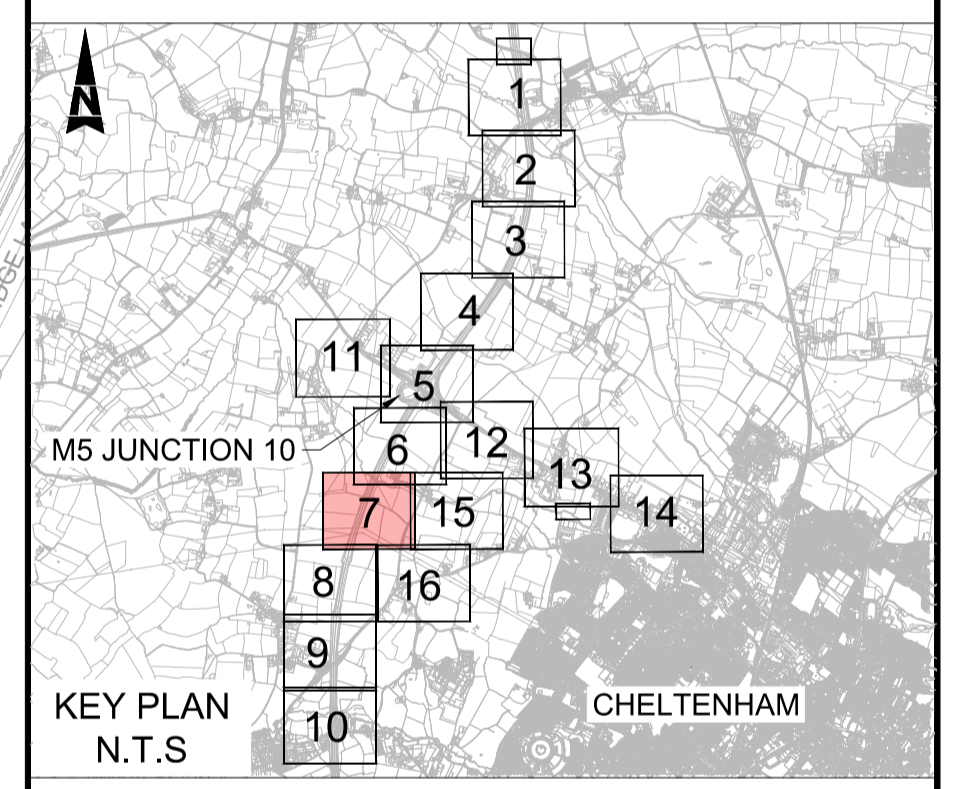


FOR CONTINUATION REFER TO SHEET 6

ECOLOGICAL ENHANCEMENT - SEE NOTE 9

- NOTES:**
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
  - BUS STOPS TO CONSIDER HAVING GREEN ROOFS.
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FOR CONTINUATION REFER TO SHEET 15



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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability						Status
APPROVED - PUBLISHED						A1
Project Title						
M5 Junction 10 Improvements Scheme						
Drawing Title						
ENVIRONMENTAL MASTER PLAN SHEET 07 OF 16						
Drawing Number						
GCCM5J10	ATK	ELS	ZZ	DR	LL	000123
Original Size	Scale	AS SHOWN	Project Ref. No.	Sheet	Rev	Rev
A1	AS SHOWN	AS SHOWN	5197035	7 of 16	C01	C01



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FOR CONTINUATION REFER TO SHEET 8

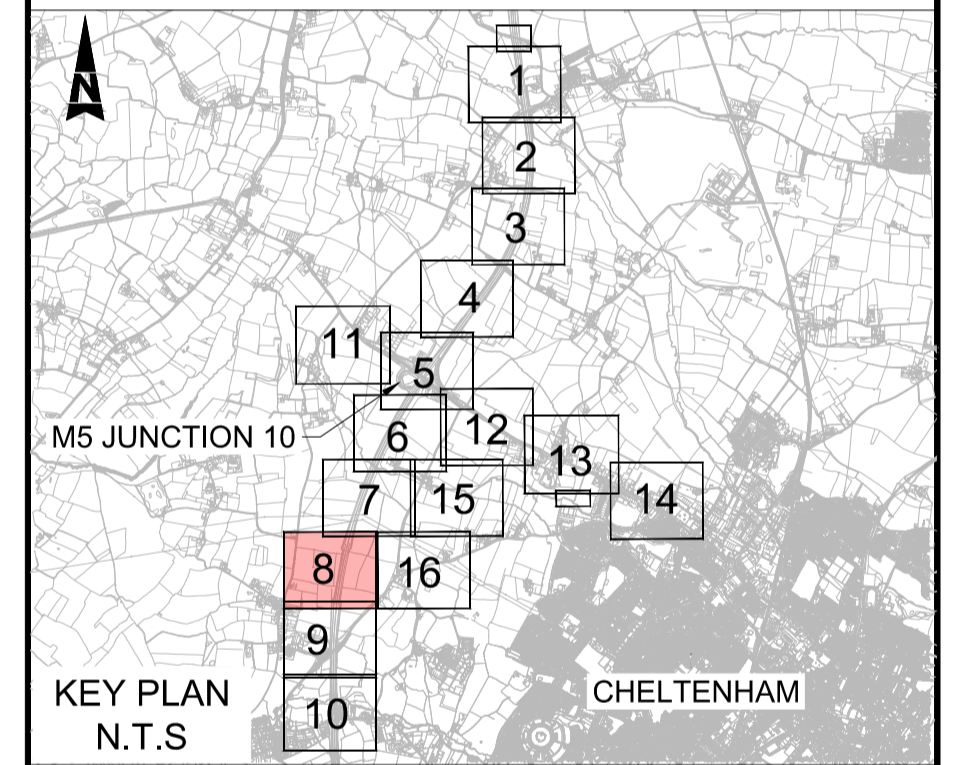
FOR CONTINUATION REFER TO SHEET 16



FOR CONTINUATION REFER TO SHEET 7



- NOTES:**
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
  2. BUS STOPS TO CONSIDER HAVING GREEN ROOFS.
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1.22m RH

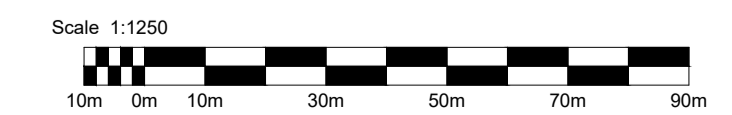
Def

1.22m RH

Def

1.22m RH  
B.163A

FOR CONTINUATION REFER TO SHEET 9



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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability						Status
APPROVED - PUBLISHED						A1

Project Title  
**M5 Junction 10 Improvements Scheme**

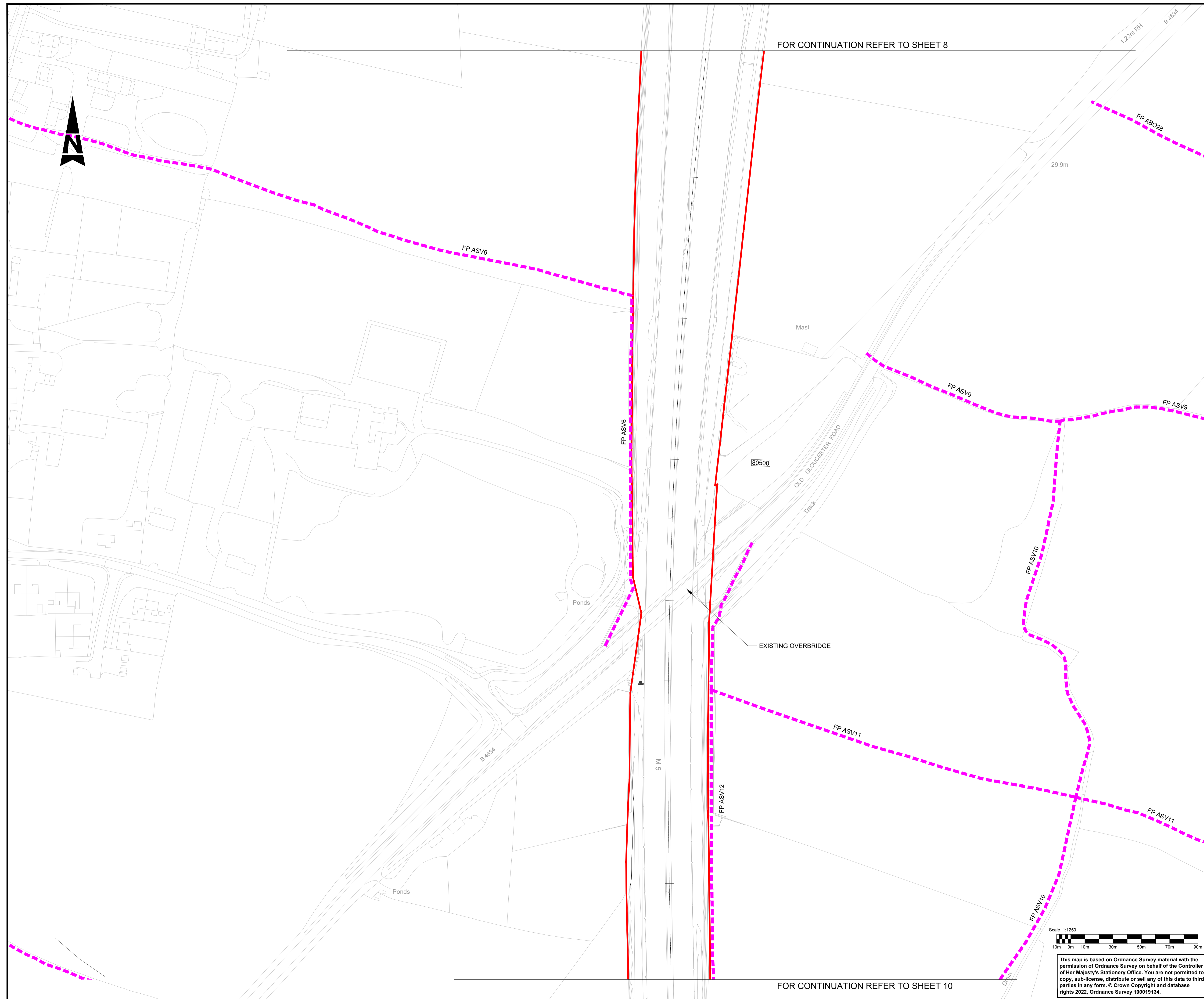
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**ENVIRONMENTAL MASTER PLAN  
SHEET 08 OF 16**

Drawing Number

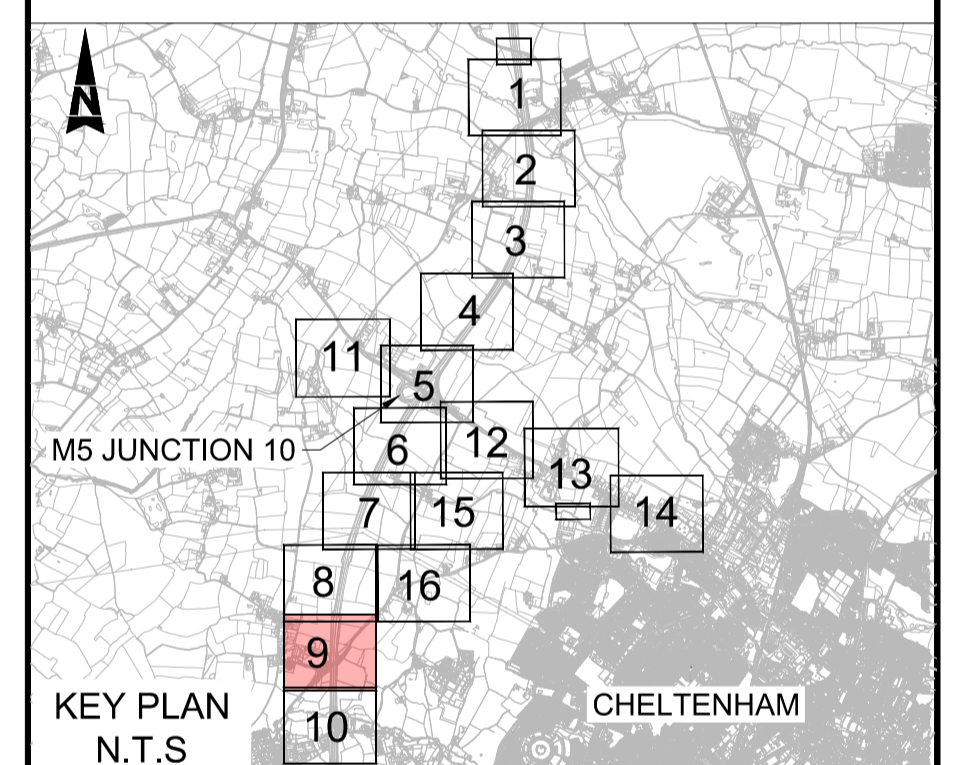
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ZZ            DR    LL    000124**

Original Size: **A1**    Scale: **AS SHOWN**    Project Ref. No.: **5197035**    Sheet: **8 of 16**    Rev: **C01**





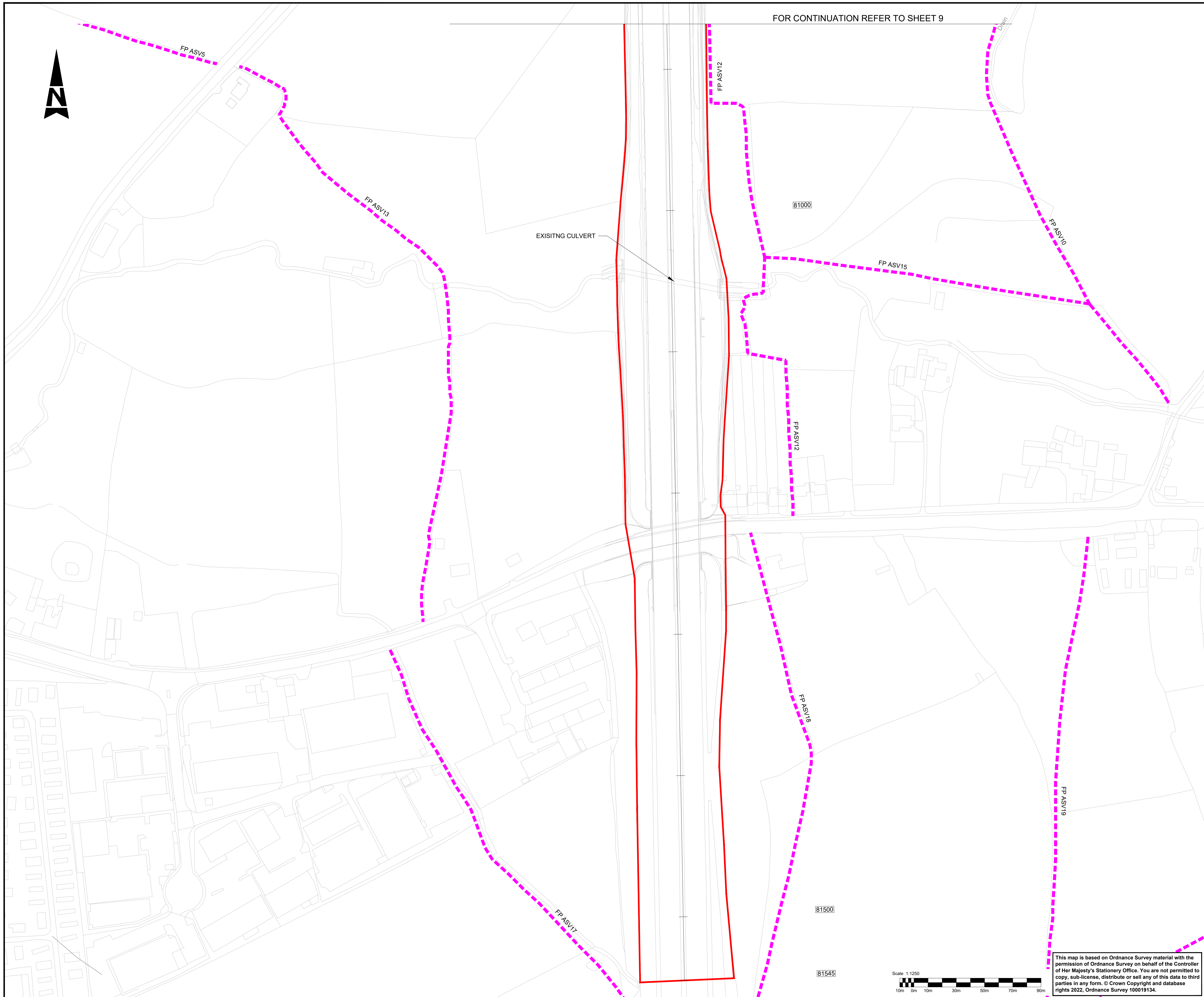
- NOTES:**
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
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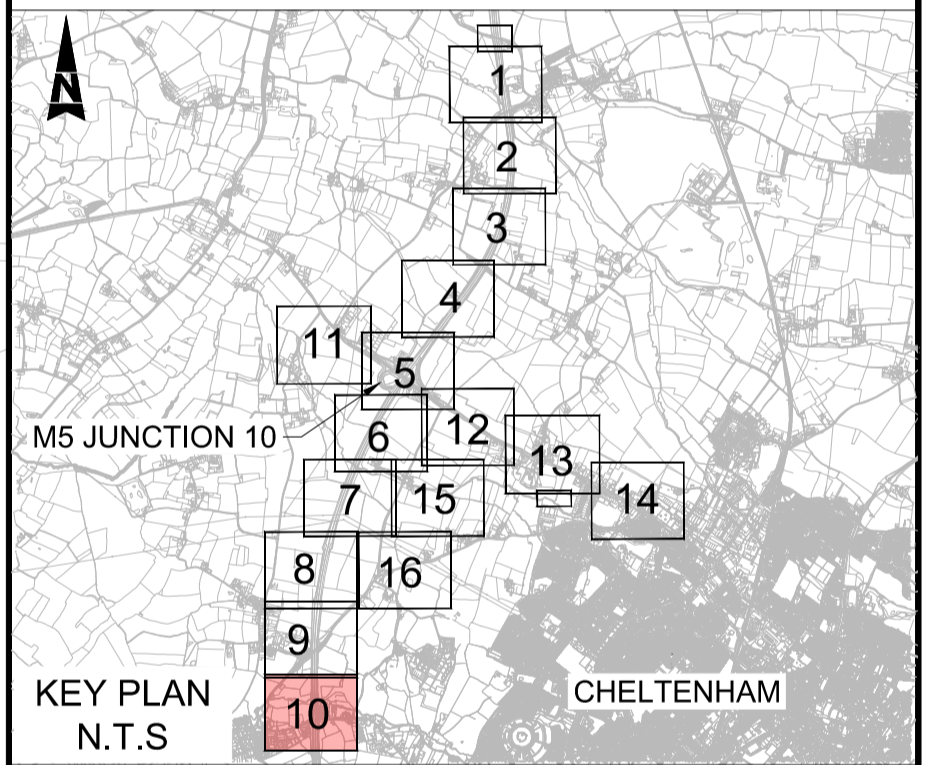
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Drawing Suitability						Status
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Project Title			
<b>M5 Junction 10 Improvements Scheme</b>			
Drawing Title			
<b>ENVIRONMENTAL MASTER PLAN SHEET 09 OF 16</b>			
Drawing Number			
GCCM5J10	ATK	ELS	
ZZ	DR	LL	000125
Original Size: <b>A1</b>	Scale: <b>AS SHOWN</b>	Project Ref. No.: <b>5197035</b>	Sheet: <b>9 of 16</b> Rev: <b>C01</b>





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REVISION 0	A1	C01	AC	SS	CDC	BM	20/10/23
Drawing Suitability	APPROVED - PUBLISHED						Status
Drawing Number							A1

Project Title  
**M5 Junction 10 Improvements Scheme**

Drawing Title  
**ENVIRONMENTAL MASTER PLAN SHEET 10 OF 16**

Drawing Number  
GCCM5J10    ATK    ELS  
ZZ                    DR    LL    000126

Original Size: **A1**    Scale: **AS SHOWN**    Project Ref. No.: **5197035**    Sheet: **10 of 16**    Rev: **C01**

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