# HIGHWAY CONSTRUCTION DETAILS (700 SERIES)

# VOLUME 2: CYCLEWAYS



QI 014 Issue 1 New: FEB 2021 COLLATED: FEB 2021 PRODUCED BY

ENGINEERING DESIGN SERVICES COMMUNITIES SHIRE HALL WARWICK CV34 4SP

# HIGHWAY CONSTRUCTION DETAILS (700 SERIES) VOLUME 2: CYCLEWAYS

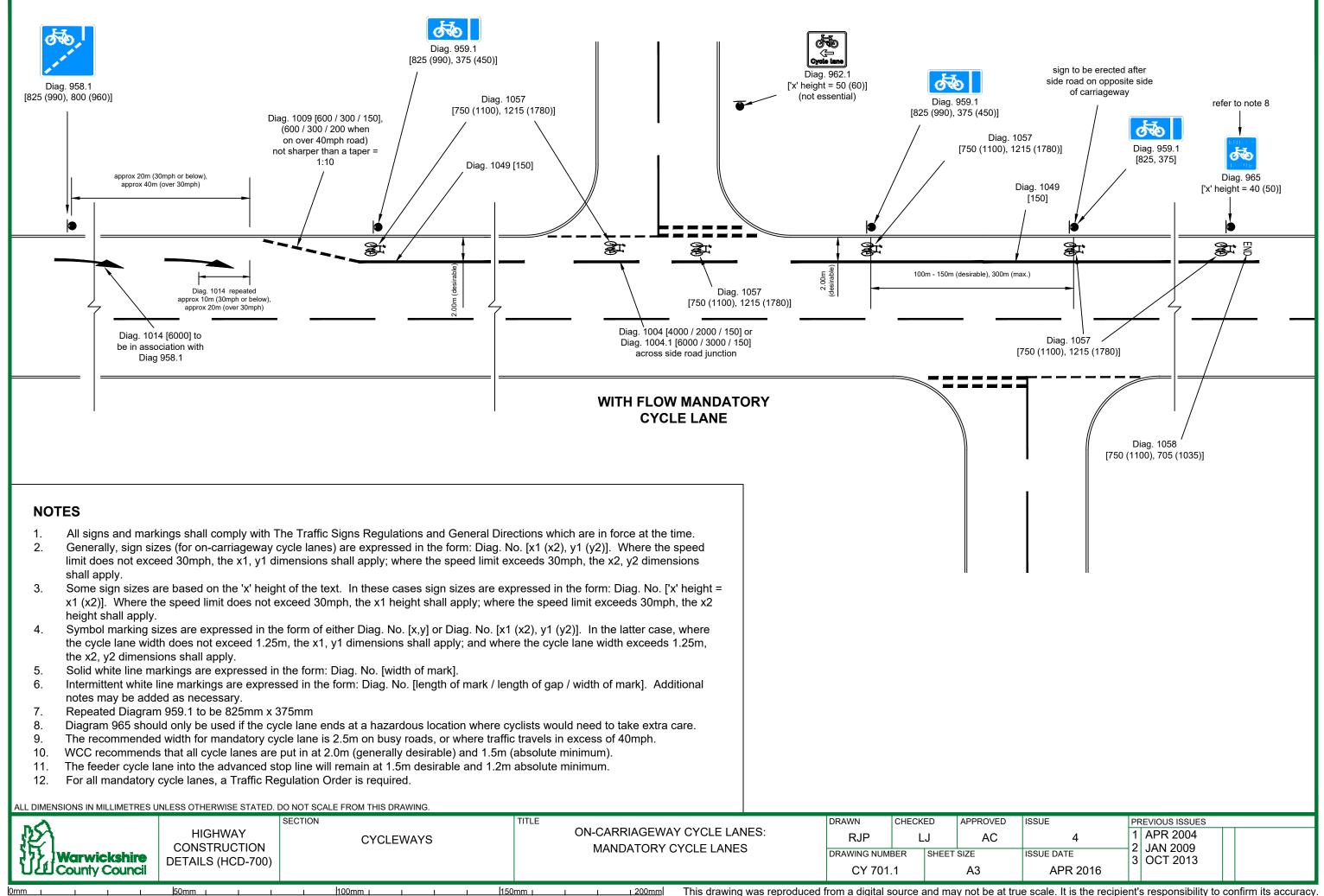
# CONTENTS

Number	Description	Issued
CY 701.1	ON-CARRIAGEWAY CYCLE LANES: MANDATORY CYCLE LANES	APRIL 2016
CY 701.2	ON-CARRIAGEWAY CYCLE LANES: CONTRA-FLOW	APRIL 2016
CY 701.3	ON-CARRIAGEWAY CYCLE LANES: ADVISORY LANES	APRIL 2016
CY 701.4	ON-CARRIAGEWAY CYCLE LANES: MANDATORY RIGHT TURN CYCLE LANES	APRIL 2016
CY 701.5	ON-CARRIAGEWAY CYCLE LANES: LEAVING THE CARRIAGEWAY	APRIL 2016
CY 701.6	ON-CARRIAGEWAY CYCLE LANES: JOINING THE CARRIAGEWAY	APRIL 2016
CY 701.7	ON-CARRIAGEWAY CYCLE LANES: PARALLEL CYCLE LANE JOINING THE CARRIAGEWAY	APRIL 2016
CY 701.8	OFF-CARRIAGEWAY CYCLE LANES: 'JUG HANDLE' APPROACH TO CROSSINGS	APRIL 2016
CY 701.9	HOW AN ADVISORY OR MANDATORY CYCLE ROUTE SHOULD END	APRIL 2016
CY 701.10	ON-CARRIAGEWAY CYCLE LANES: PEDESTRIAN REFUGES	APRIL 2016
CY 701.11	ON-CARRIAGEWAY CYCLE LANES: SPEED REDUCTION MEASURES	APRIL 2016
CY 701.12	ON-CARRIAGEWAY CYCLE LANES: BUS STOPS	APRIL 2016
CY 702.1	OFF-CARRIAGEWAY CYCLE LANES: UNSEGREGATED CYCLEWAY/FOOTWAY	APRIL 2016
CY 702.2	OFF-CARRIAGEWAY CYCLE LANES: SEGREGATED CYCLEWAY/FOOTWAY	APRIL 2016
CY 702.3 OFF-CARRIAGEWAY CYCLE LANES: SIDE ROAD CROSSINGS GENERAL ARRANGEMENT		APRIL 2016
CY 702.4	OFF-CARRIAGEWAY CYCLE LANES: SIDE ROAD CROSSINGS WITH A FLAT-TOP ROAD HUMP	APRIL 2016
CY 702.5	OFF-CARRIAGEWAY CYCLE LANES: SIDE ROAD CROSSINGS KERB & TACTILE PAVING DETAILS	APRIL 2016
CY 702.6	OFF-CARRIAGEWAY CYCLE LANES: BUS STOPS WITH SHELTERS	APRIL 2016
CY 702.7	OFF-CARRIAGEWAY CYCLE LANES: BUS STOPS WITHOUT SHELTERS	APRIL 2016
CY 702.8	CYCLE TRACKS (SHARED): WIDTHS	APRIL 2016
CY 702.9	CYCLE TRACKS (SEGREGATED): WIDTHS	APRIL 2016
CY 702.10	CYCLE TRACKS: ACCESS CONTROL	APRIL 2016
CY 703.1	ROAD CROSSING POINTS: PEDESTRIAN REFUGE	APRIL 2016
CY 703.2	ROAD CROSSING POINTS: TOUCAN CROSSINGS	APRIL 2016
CY 703.3	CYCLE TRACKS: VISIBILITY & STOPPING SIGHT DISTANCES AT JUNCTIONS	APRIL 2016
CY 703.4	ROAD CROSSING POINTS: CYCLE TRACK/CARRIAGEWAY CROSSING	APRIL 2016
CY 703.5	ROAD CROSSING POINTS: TOUCAN CROSSINGS WITH A CENTRAL REFUGE	APRIL 2016
CY 704.1	TRAFFIC SIGNALS: ADVANCE STOP LINES FOR MANDATORY CYCLE LANES	APRIL 2016
CY 704.4	TRAFFIC SIGNALS: ADVANCE STOP LINES FOR ADVISORY CYCLE LANES	APRIL 2016

Number	Description
CY 704.7	TRAFFIC SIGNALS: ADVANCE STOP LIN CARRIAGEWAY WIDTH IS LIMITED

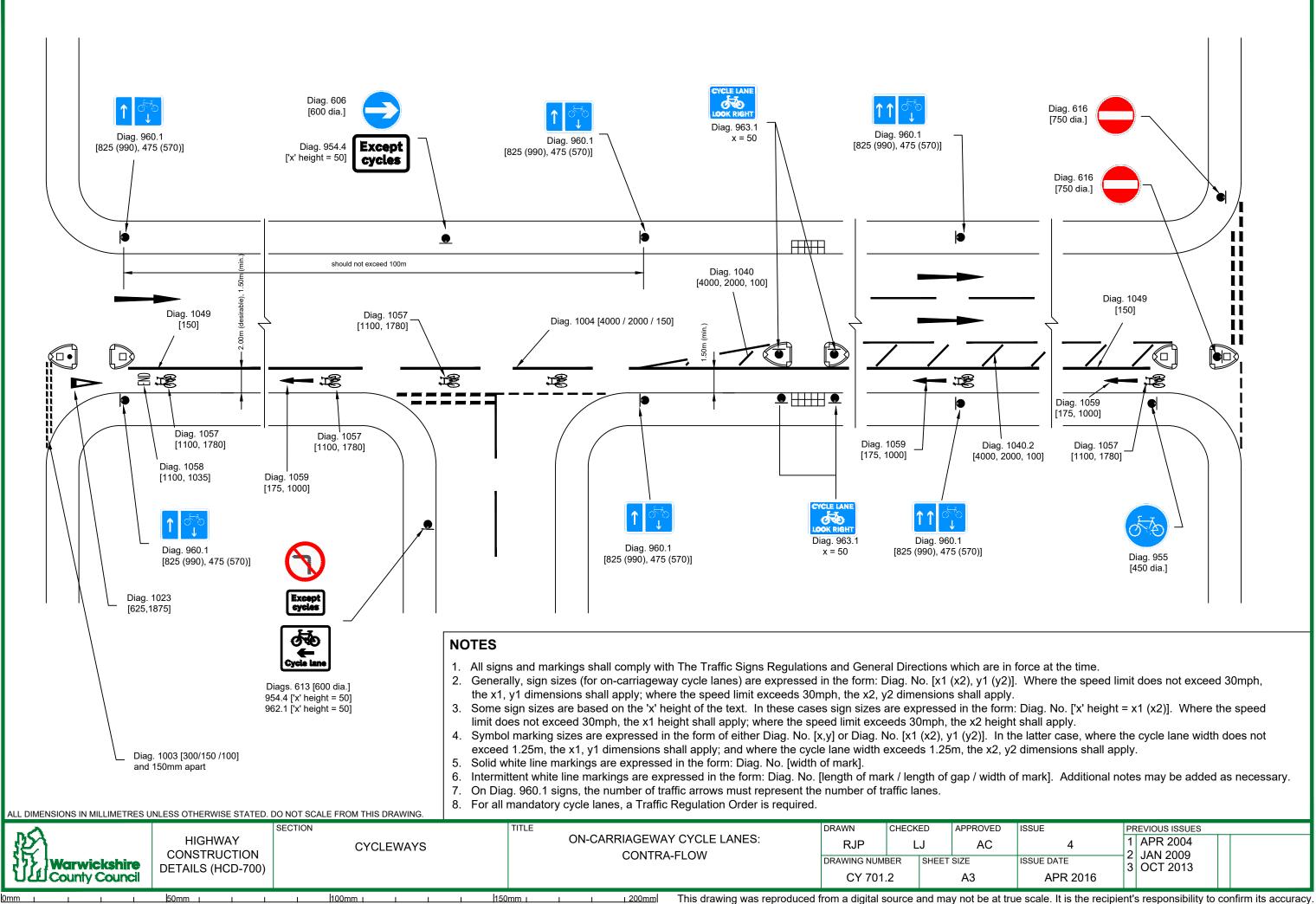
Т

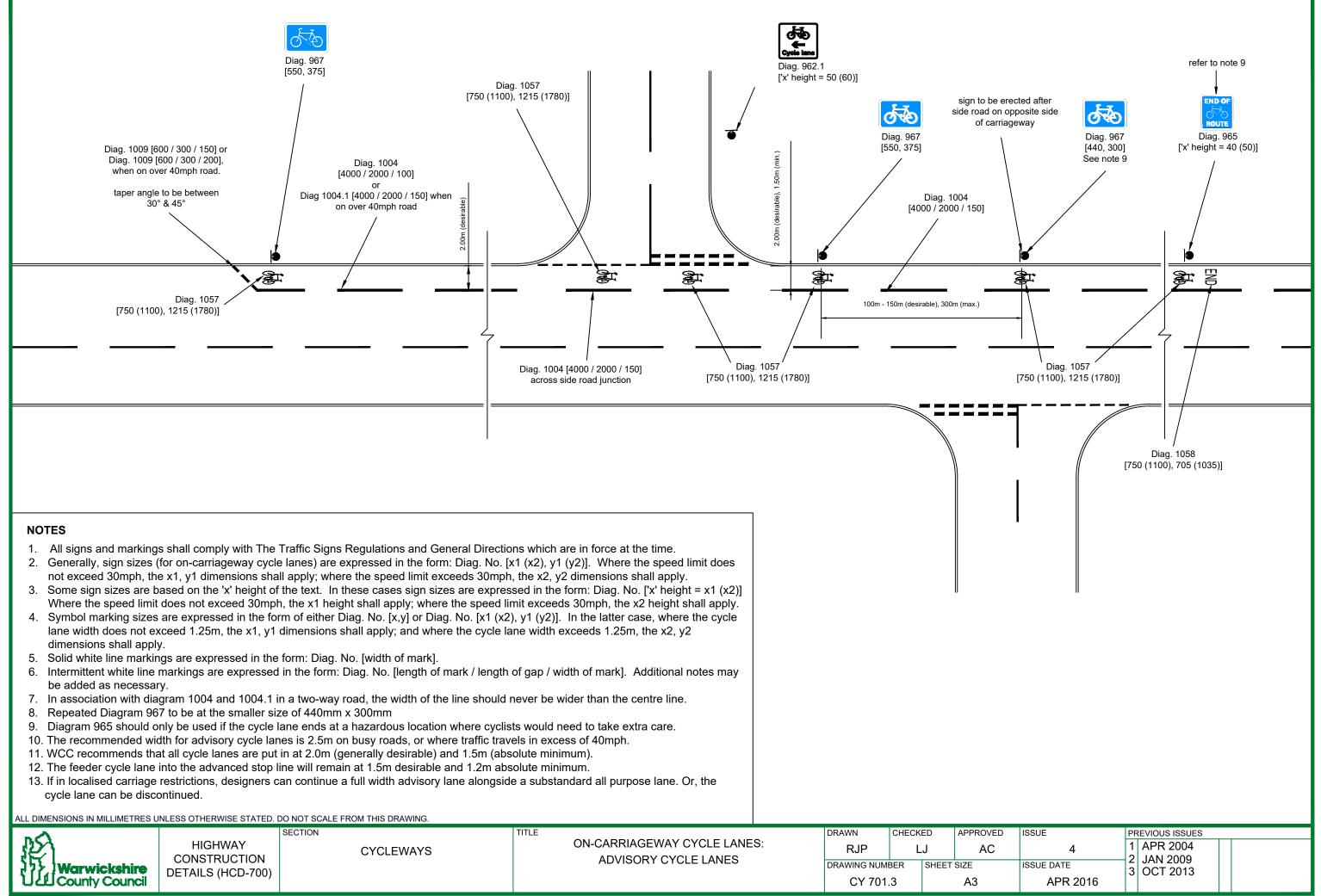
	Issued
IES WHEN	APRIL 2016



50mm ı

This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.



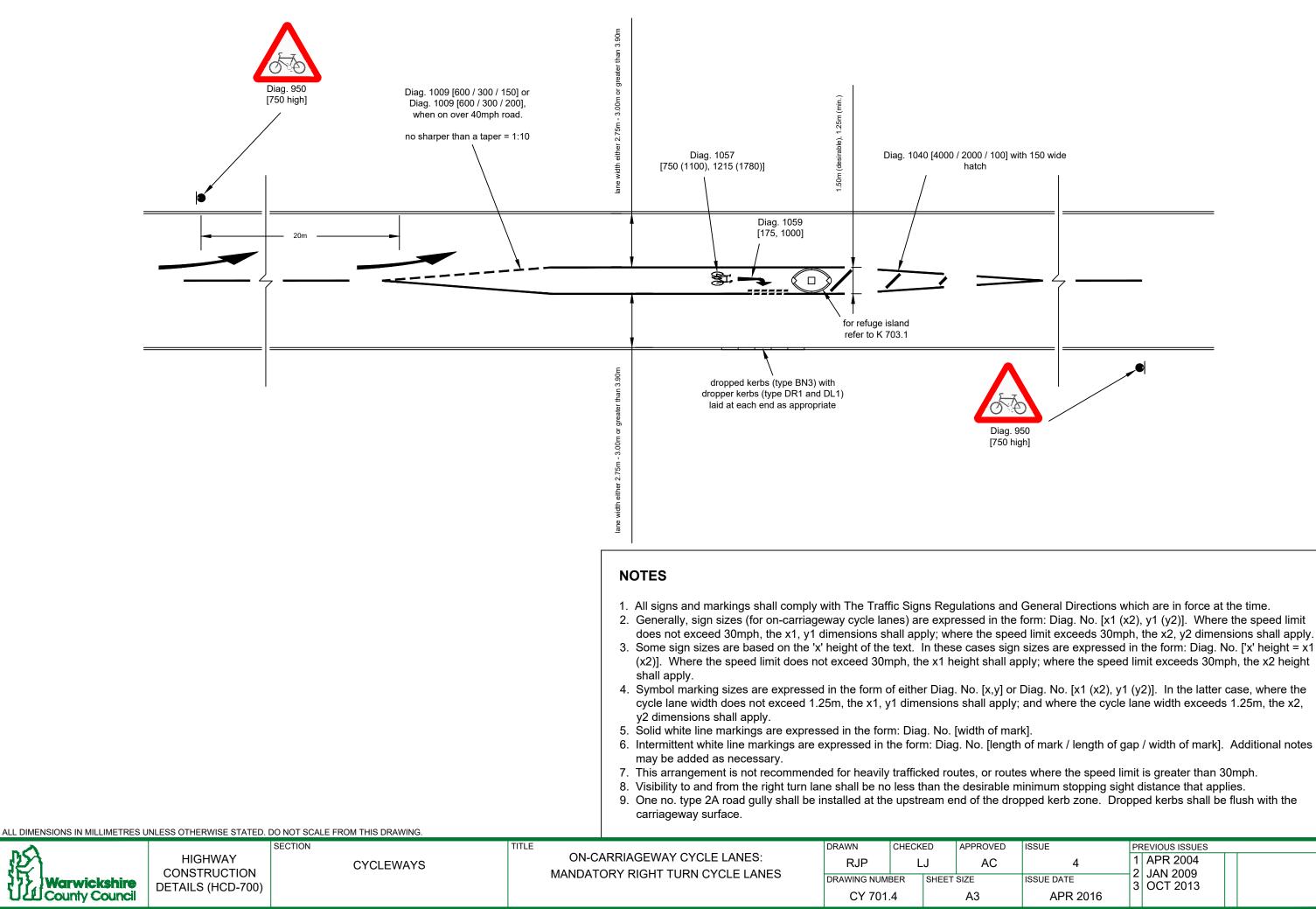


0mm

100mm 1

150mm

This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.

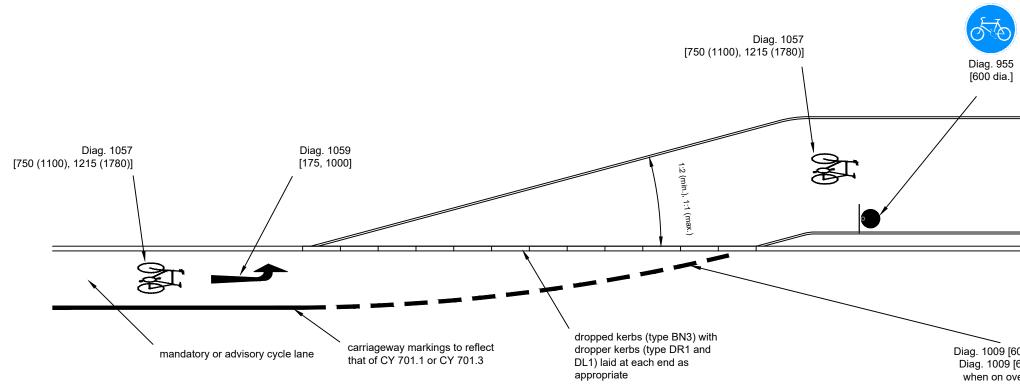


50mm

0mm

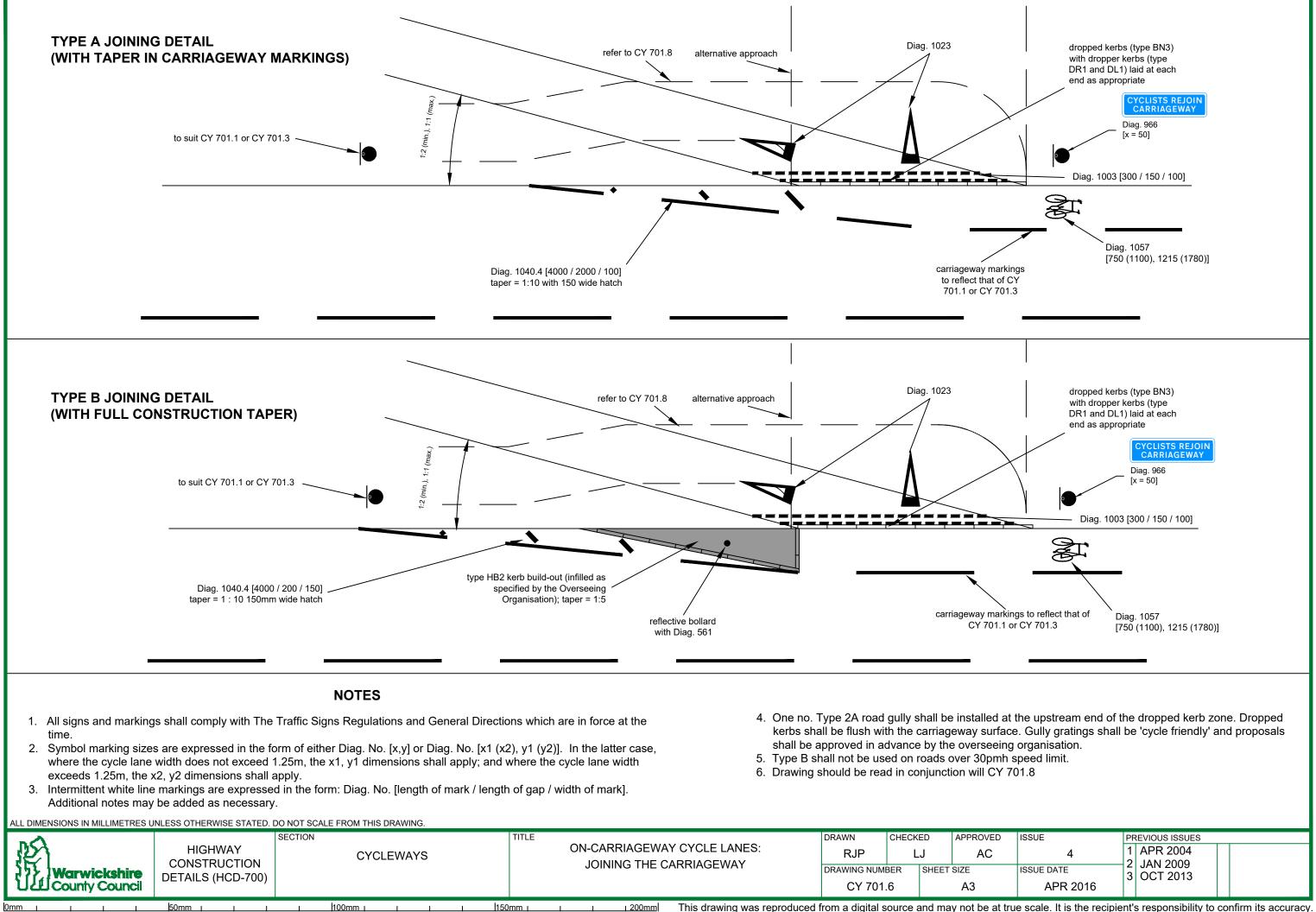
150mm

ISSUE		PREVIOUS ISSUES					
4	1	APR 2004 JAN 2009					
ISSUE DATE	2 3	OCT 2013					
APR 2016	Ŭ	2010					



ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. DO NOT SCALE FROM THIS DRAWING.	<ol> <li>All signs and markings shall comply with The Traffic Signs Regulations and General Directions which are in force at the time.</li> <li>Generally, sign sizes (for on-carriageway cycle lanes) are expressed in the form: Diag. No. [x1 (x2), y1 (y2)]. Where the speed limit does not exceed 30mph, the x1, y1 dimensions shall apply; where the speed limit exceeds 30mph, the x2, y2 dimensions shall apply.</li> <li>Some sign sizes are based on the 'x' height of the text. In these cases sign sizes are expressed in the form: Diag. No. [x' height = x1 (x2)]. Where the speed limit does not exceed 30mph, the x1 height shall apply; where the speed limit exceeds 30mph, the x2 height shall apply.</li> <li>Symbol marking sizes are expressed in the form of either Diag. No. [x,1] or Diag. No. [x1 (x2), y1 (y2)]. In the latter case, where the cycle lane width does not exceed 1.25m, the x1, y1 dimensions shall apply; and where the cycle lane width exceeds 1.25m, the x2, y2 dimensions shall apply.</li> <li>Solid white line markings are expressed in the form: Diag. No. [width of mark].</li> <li>Intermittent white line markings are expressed in the form: Diag. No. [length of mark / length of gap / width of mark]. Additional notes may be added as necessary.</li> <li>Where the cycle lane leaves the carriageway and joins a combined cycleway and footway, the signs and markings shown on CY 702.1, CY 702.2 or CY 702.3 (as appropriate) shall apply.</li> <li>One no. type 2A road gully shall be installed at the upstream end of the dropped kerb zone. Dropped kerbs shall be flush with the carriageway surface.</li> </ol>							
Warwickshire County Council HIGHWAY CONSTRUCTION DETAILS (HCD-700)	ON-CARRIAGEWAY CYCLE LANES: LEAVING THE CARRIAGEWAY	DRAWN CHECKED RJP LJ DRAWING NUMBER SH CY 701.5	APPROVED AC IEET SIZE A3	ISSUE 4 ISSUE DATE APR 2016	PREVIOUS ISSUES           1         APR 2004           2         JAN 2009           3         OCT 2013	_		

Diag. 1009 [600 / 300 / 150] or Diag. 1009 [600 / 300 / 200], when on over 40mph road.

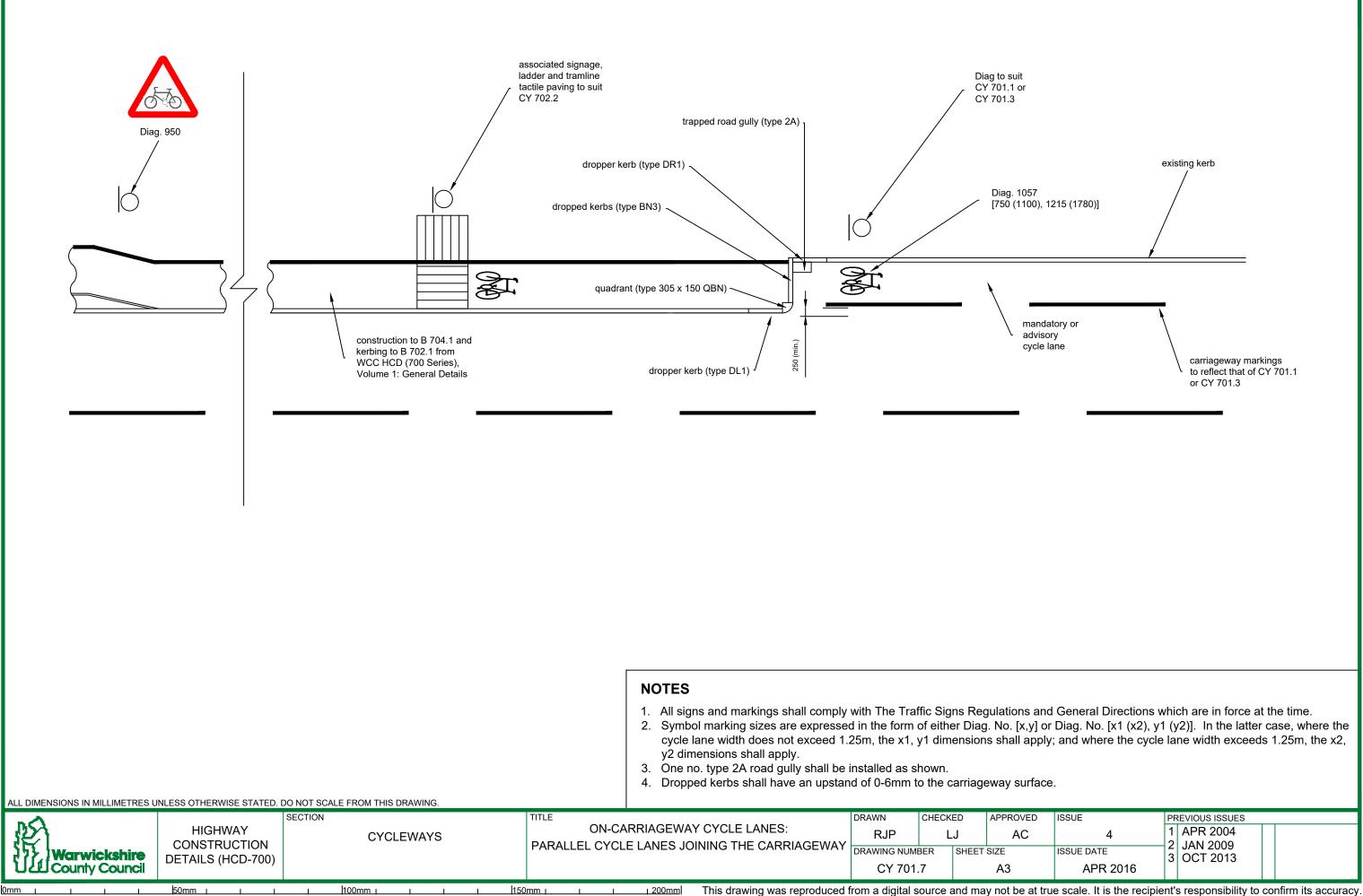


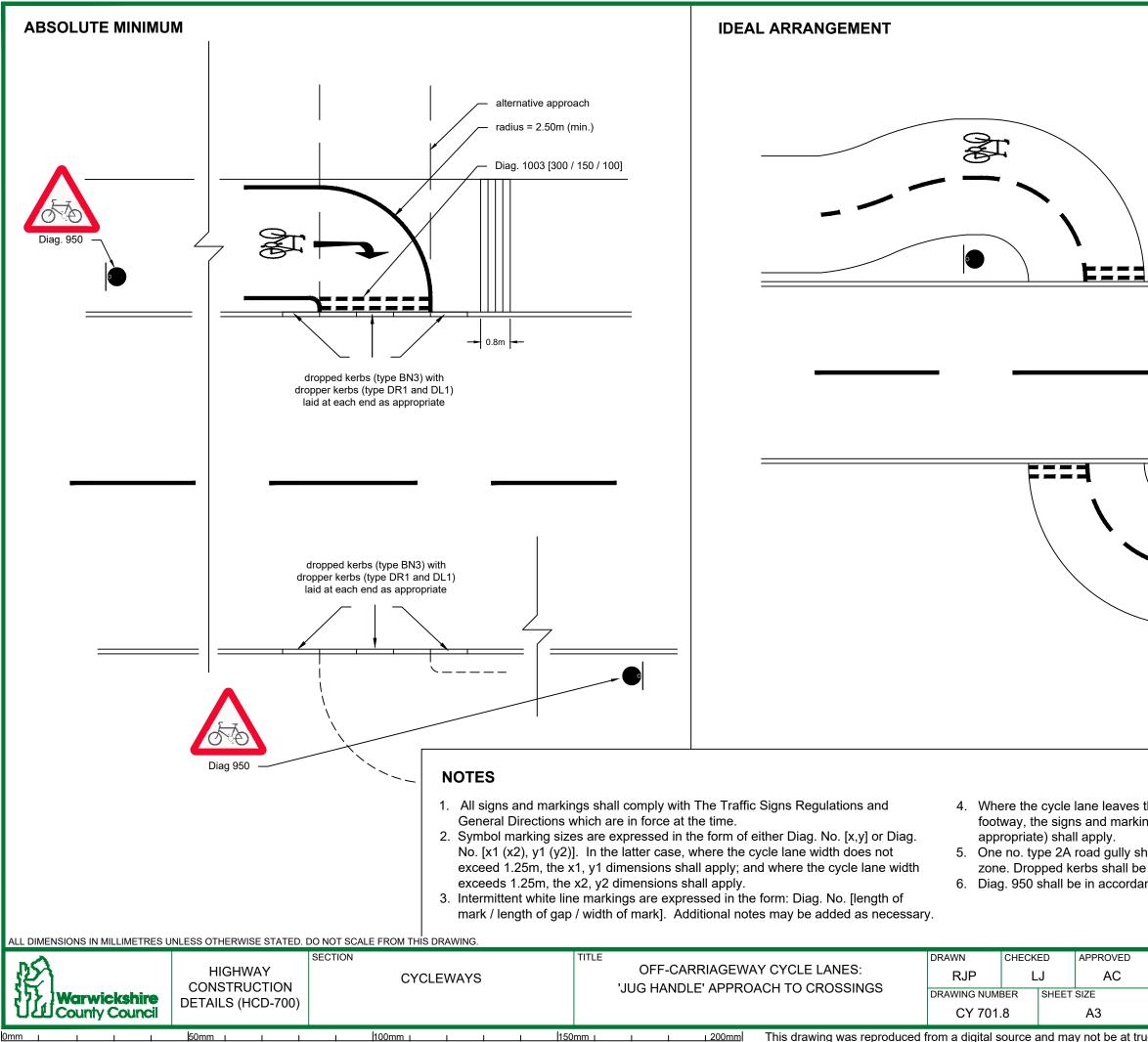
<u>200mm</u>

150mm

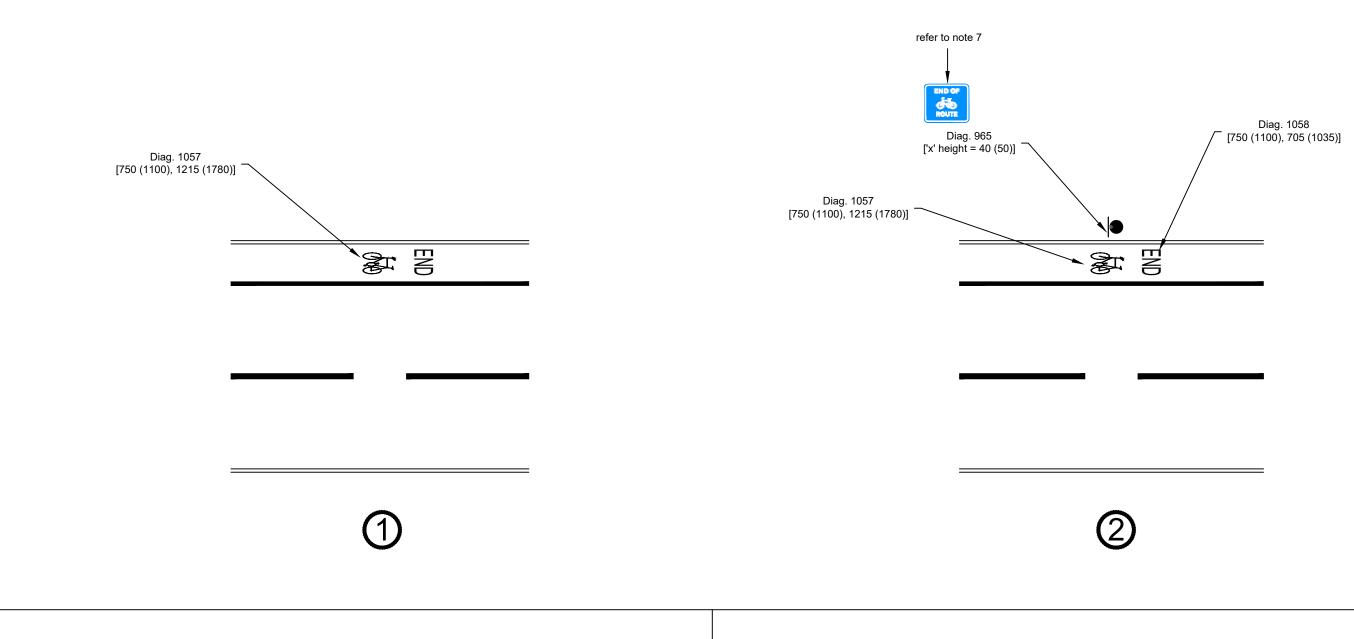
0mm

This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.





cycleway to be widened before 'jug handle' if required to achieve two lanes	
the carriageway and joins a combined cycleway and ings shown on CY 702.1 ,CY 702.2 or CY 702.3 (as	
shall be installed at the upstream end of the dropped k e flush with the carriageway surface. ance with The Traffic Signs Manual Chapter 4.	ərb
ISSUE     PREVIOUS ISSUES       4     1     APR 2004       2     JAN 2009       3     OCT 2013	



#### **HIERARCHY**

The END marking to diagram 1058 must always be used with the cycle symbol diagram 1057. Together, they can be used with or without the END OF ROUTE sign.

The hierarchy in order of increasing signing is therefore:

- 1. it ends with the cycle symbol to diagram 1057 and the END marking to diagram 1058;
- 2. it ends with diagram 1057 and diagram 1058, accompanied by the END OF ROUTE sign to diagram 965.

Note : the CYCLISTS DISMOUNT sign (diagram 966) should only be used if it is unsafe or impractical to continue riding.

SECTION

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. DO NOT SCALE FROM THIS DRAWING.



0mm

HIGHWAY
CONSTRUCTION
DETAILS (HCD-700)

50mm ı

**CYCLEWAYS** 

100mm

TITLE

DRAWN HOW AN ADVISORY OR MANDATORY RJP CYCLE ROUTE SHOULD END DRAWING NUMBER

NOTES
-------

- force at the time.
- exceeds 30mph, the x2, y2 dimensions shall apply.
- where the speed limit exceeds 30mph, the x2 height shall apply.
- the cycle lane width exceeds 1.25m, the x2, y2 dimensions shall apply.
- Solid white line markings are expressed in the form: Diag. No. [width of mark]. 5.
- 6. mark]. Additional notes may be added as necessary.
- 7. take extra care.
- 8. The Hierarchy can be applied to shared use facilities.

CY 701.9

CHECKED

LJ

SHEET SIZE

150mm	1	 <u>200mm</u>	This drawing was reproduced from a digital source and may not be at true scale. It is the

1. All signs and markings shall comply with The Traffic Signs Regulations and General Directions which are in

2. Generally, sign sizes (for on-carriageway cycle lanes) are expressed in the form: Diag. No. [x1 (x2), y1 (y2)]. Where the speed limit does not exceed 30mph, the x1, y1 dimensions shall apply; where the speed limit

3. Some sign sizes are based on the 'x' height of the text. In these cases sign sizes are expressed in the form: Diag. No. ['x' height = x1 (x2)]. Where the speed limit does not exceed 30mph, the x1 height shall apply;

4. Symbol marking sizes are expressed in the form of either Diag. No. [x,y] or Diag. No. [x1 (x2), y1 (y2)]. In the latter case, where the cycle lane width does not exceed 1.25m, the x1, y1 dimensions shall apply; and where

Intermittent white line markings are expressed in the form: Diag. No. [length of mark / length of gap / width of

Diagram 965 should only be used if the cycle lane ends at a hazardous location where cyclists would need to

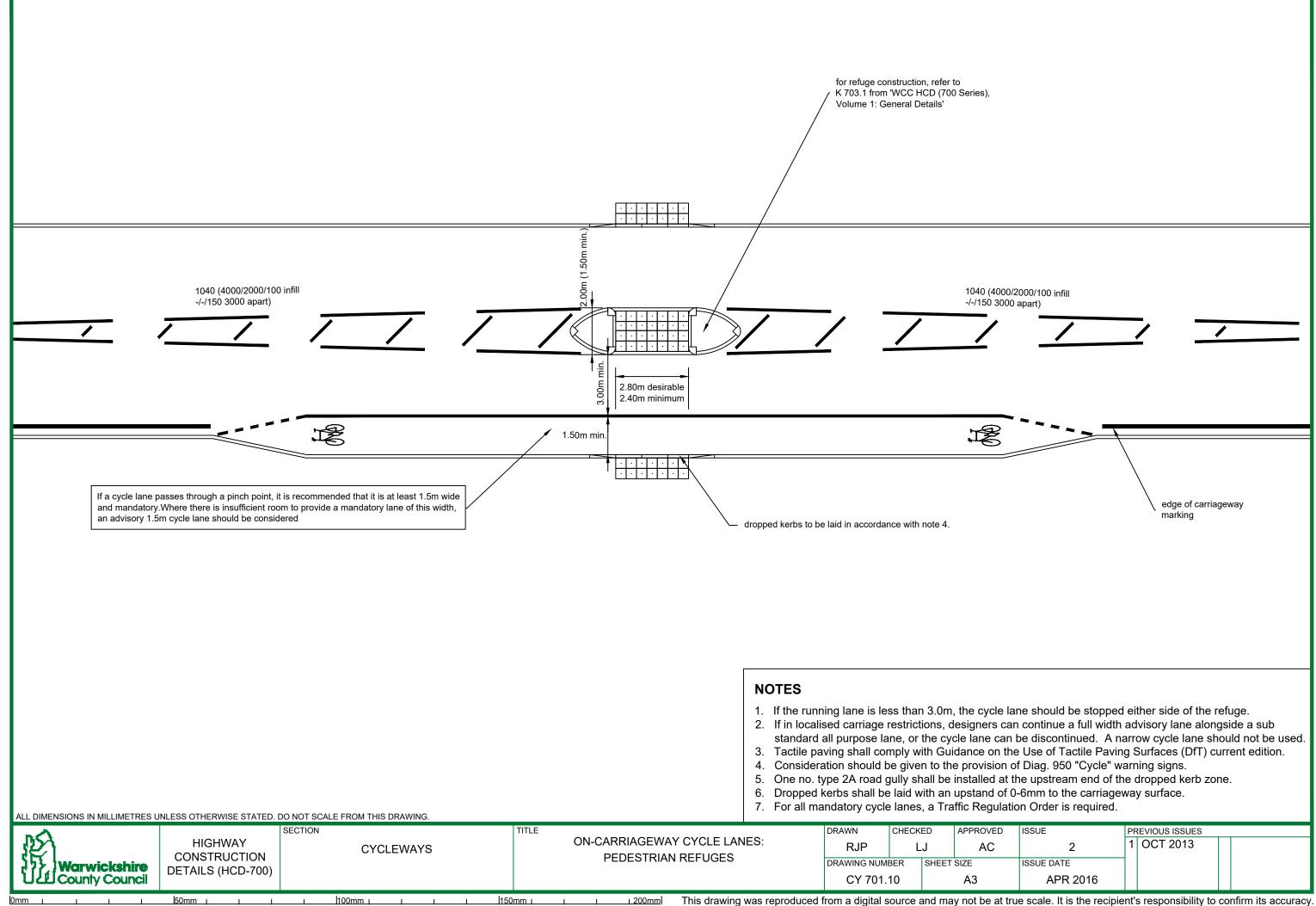
APPROVED

A3

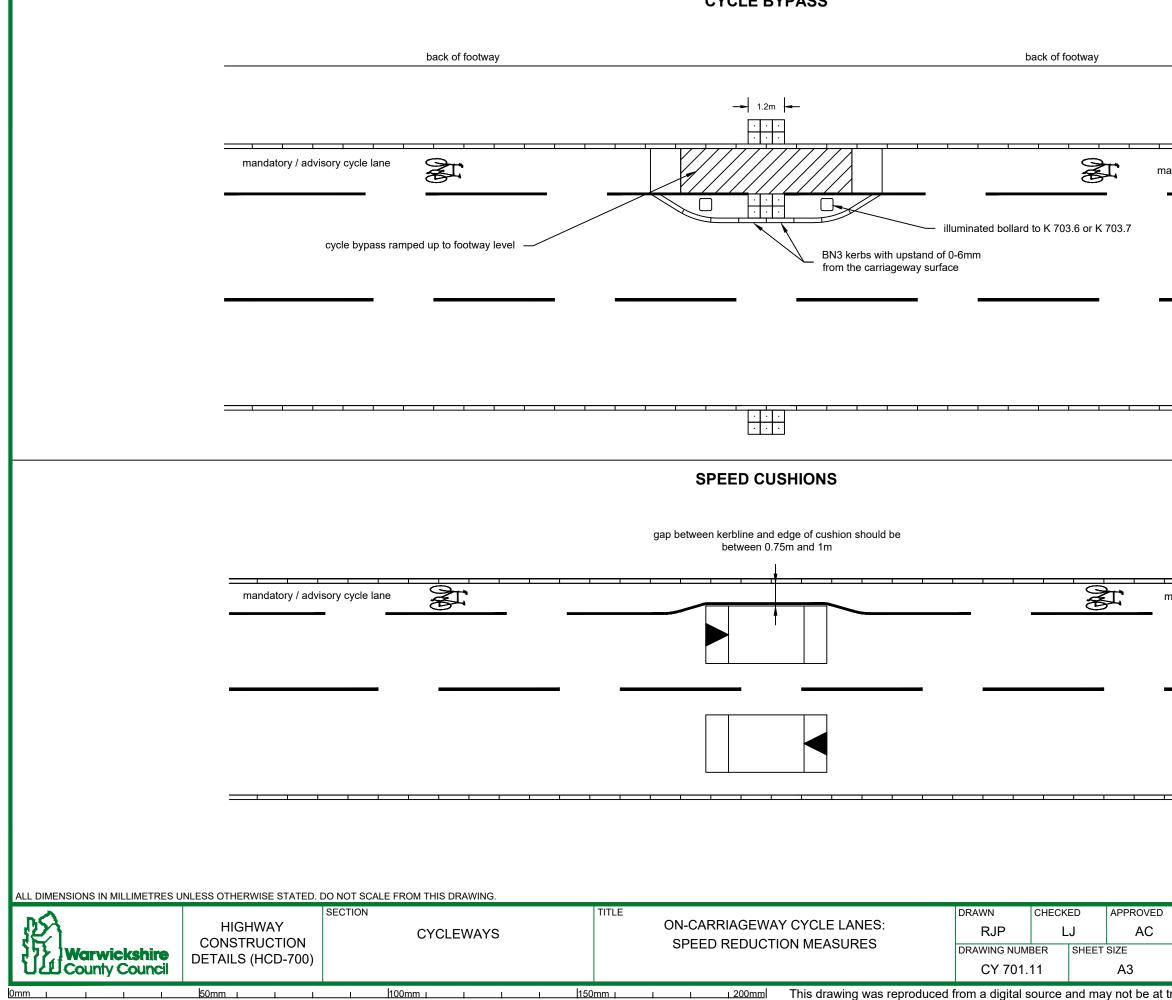
AC

ISSUE		PREVIOUS ISSUES				
2		OCT 2013				
ISSUE DATE						
APR 2016						

ne recipient's responsibility to confirm its accuracy.



#### **CYCLE BYPASS**

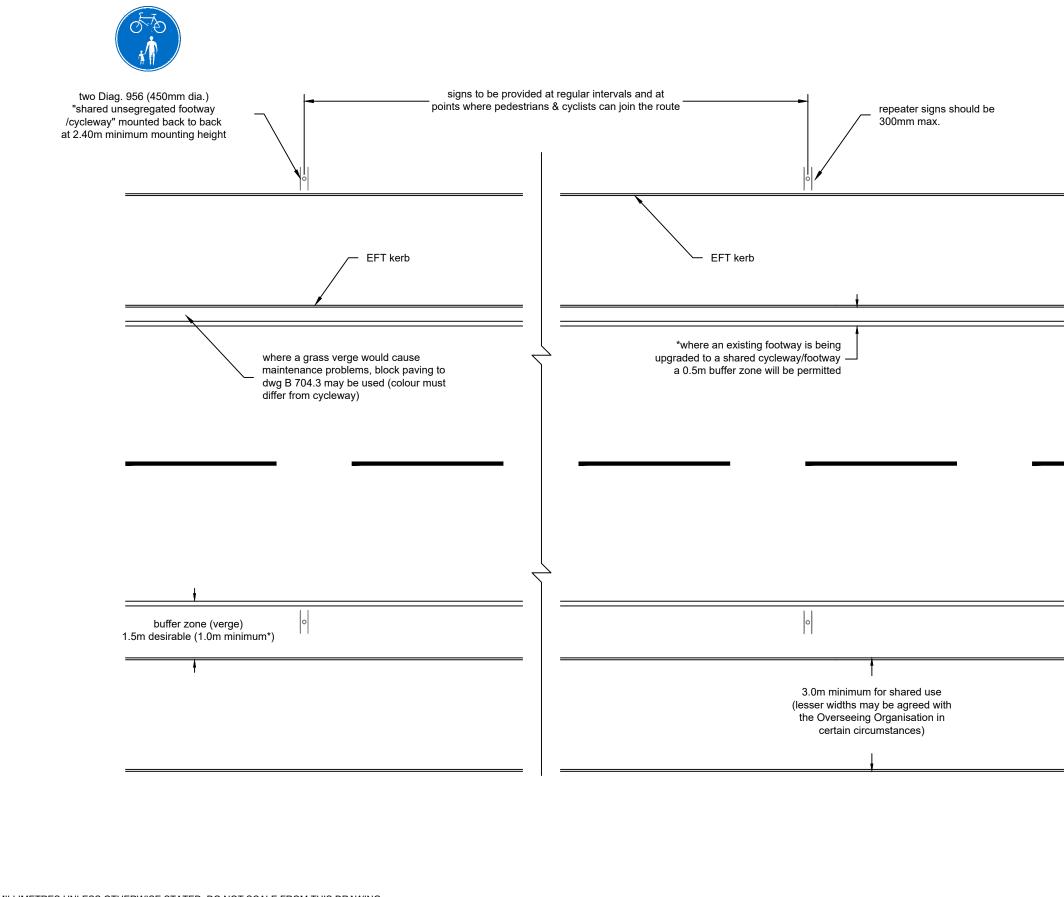


mandatory / advisory cycle lane

mandatory / advisory cycle lane

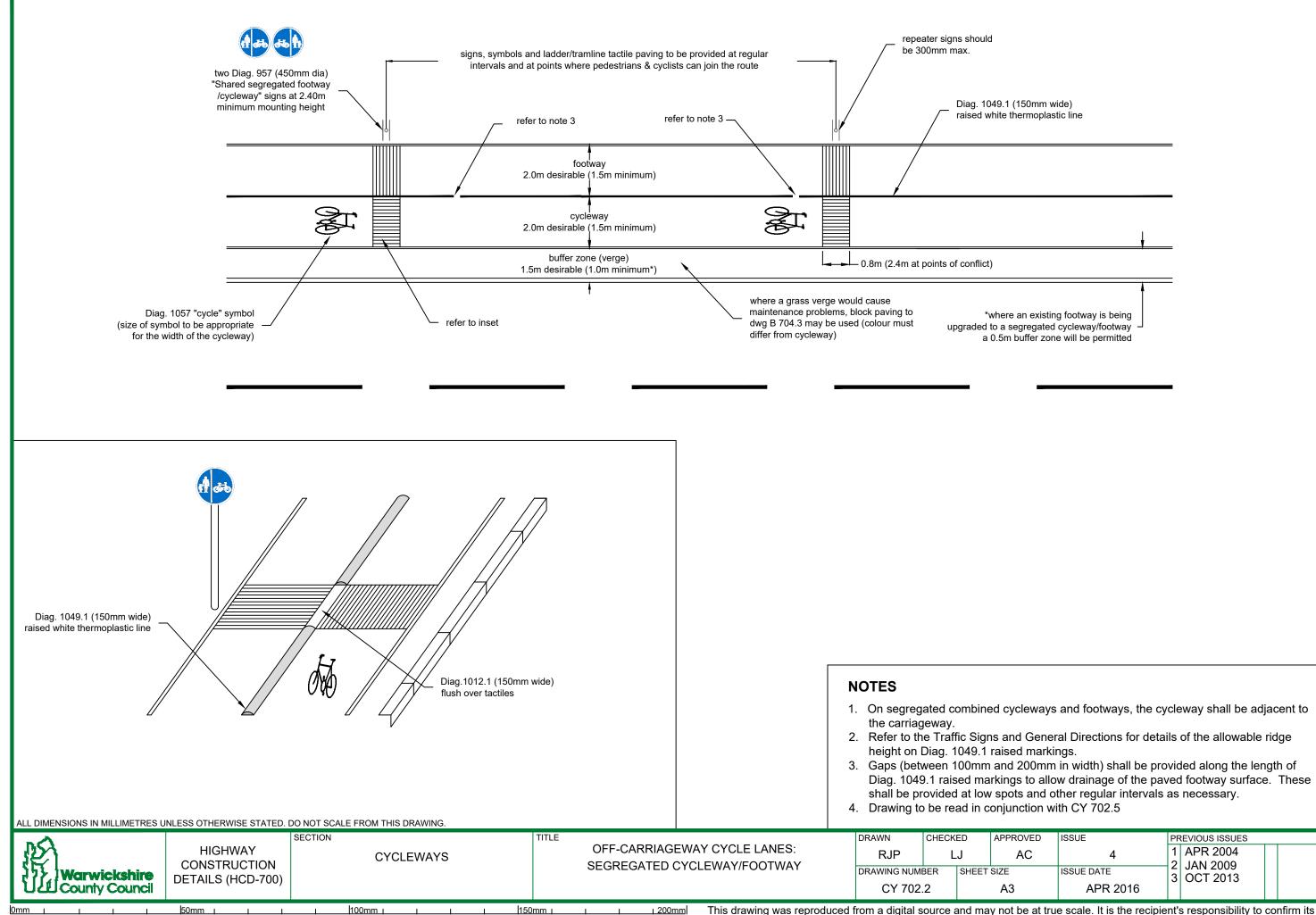
ISSUE		PREVIOUS ISSUES				
2		OCT 2013				
ISSUE DATE						
APR 2016						

	footway/cycleway	
buffer zone adjacent to the parking bays. This	s is to allow for car doors opening	
and should be between 0.5m and 1.0m.		
	JE	
	SIO SIO	
•	footway	
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. DO NOT SCALE FROM THIS DRAWING.		<ul> <li>NOTES</li> <li>1. When approaching parallel parking bays, the cycle lane should pass the bays at a 1:10 angle (similar to CY 701.6).</li> <li>2. A buffer zone of between 0.5m and 1.0m should be provided. However, on a contra-flow cycle lane, the buffer zone may be omitted.</li> </ul>
HIGHWAY CONSTRUCTION DETAILS (HCD-700) COUNTY COUNCIL	TITLE ON-CARRIAGEWAY CYCLE LANES: BUS STOPS	DRAWN     CHECKED     APPROVED     ISSUE     PREVIOUS ISSUES       RJP     LJ     AC     2     1     OCT 2013       DRAWING NUMBER     SHEET SIZE     ISSUE DATE     APR 2016     1     OCT 2013       CY 701.12     A3     APR 2016     1     OCT 2013     1

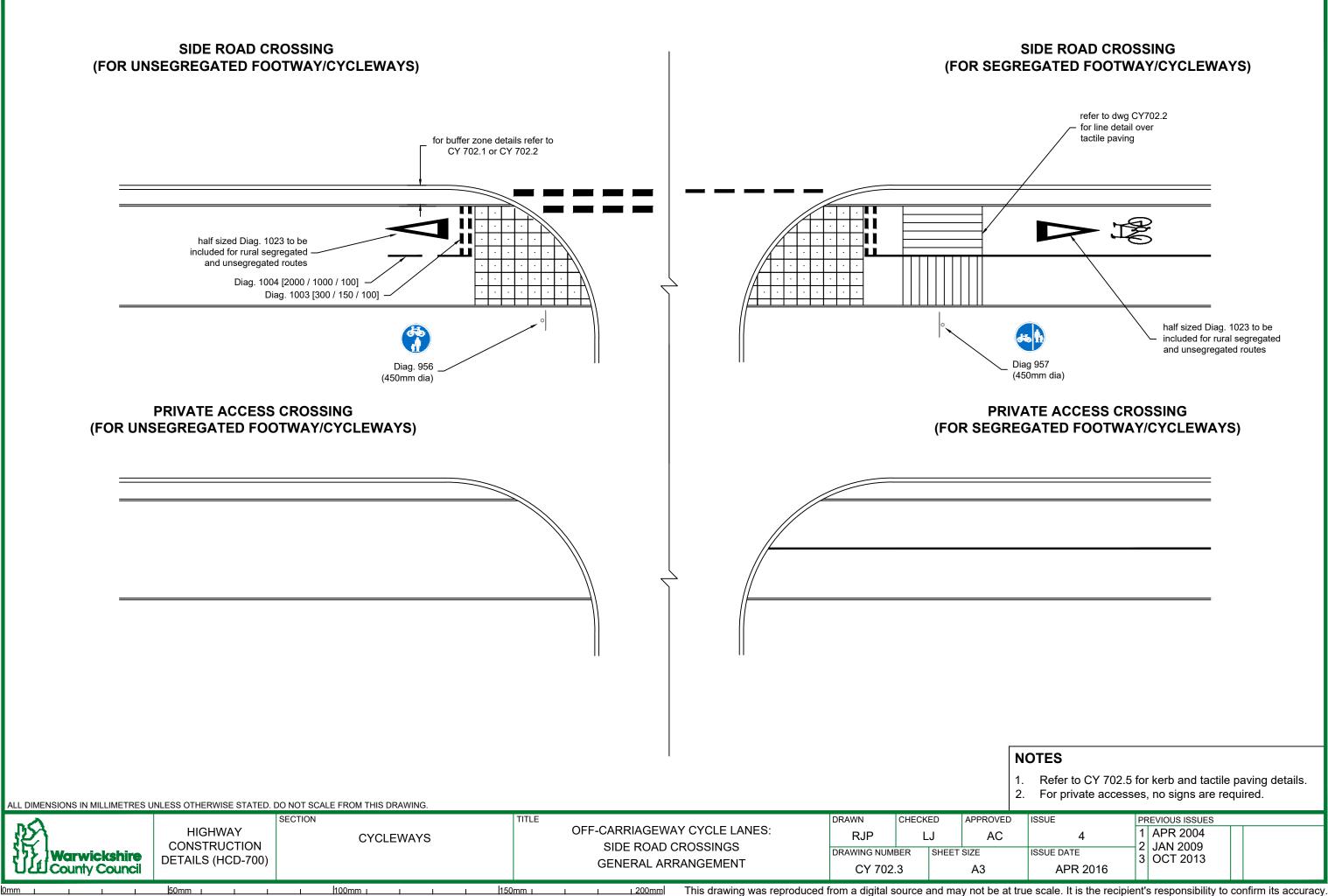


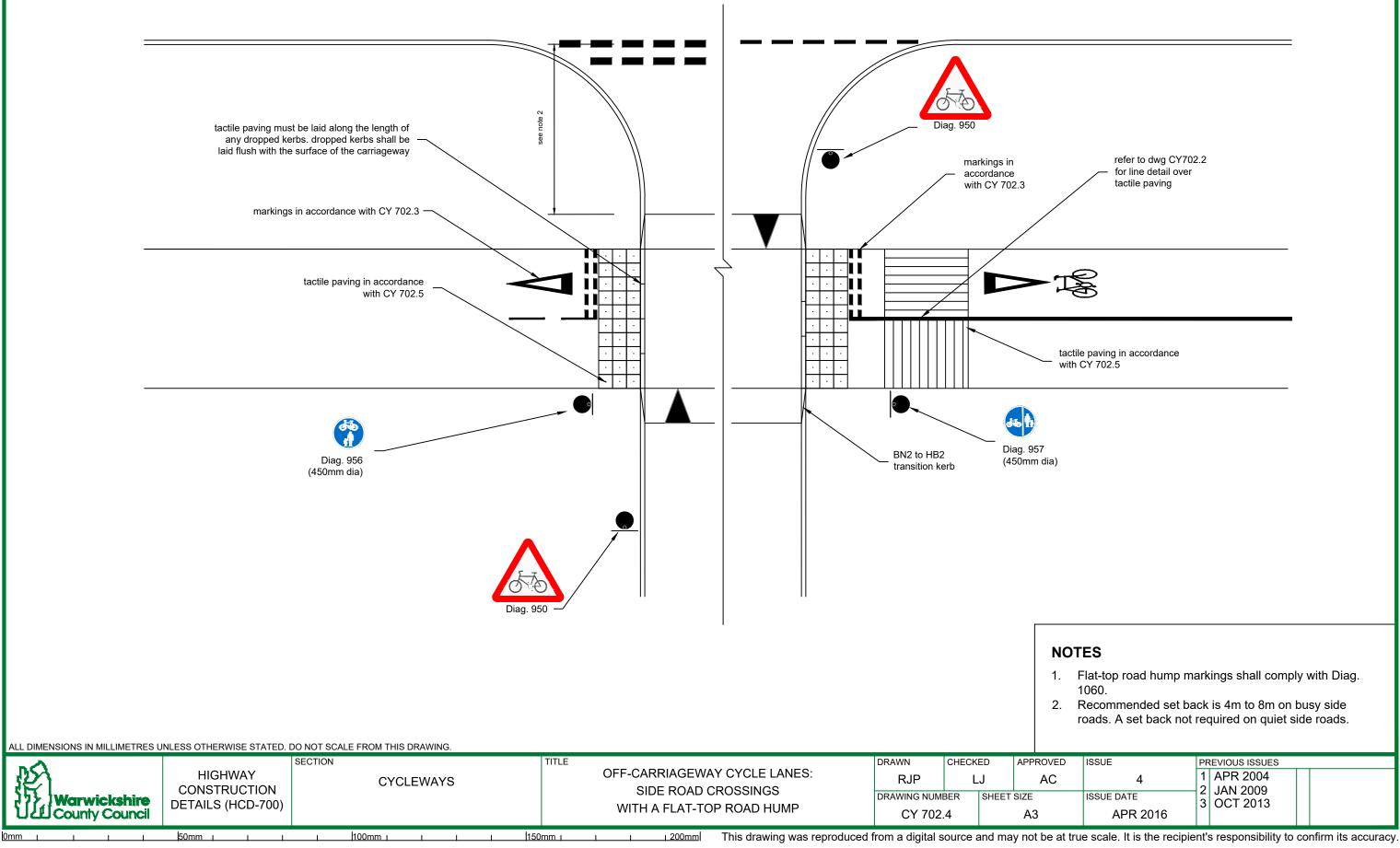
Ŕ	HIGHWAY CONSTRUCTION	SECTION CYCLEWAYS	TITLE	OFF-CARRIAGEWAY CYCLE LANES: UNSEGREGATED CYCLEWAY/FOOTWAY	DRAWN RJP	CHECKED LJ	APPROVED AC
Warwickshire	DETAILS (HCD-700)			UNSEGREGATED CTCLEWAT/FOOTWAT	DRAWING NUM CY 702		T SIZE A3
0mm ı ı ı	50mm ı ı ı	100mm 1 1 1	150mm 1	1 1 200mm This drawing was repro	oduced from a digital	source and m	ay not be at tru

ISSUE	PF	REVIOUS ISSUES	
4	1	APR 2004 JAN 2009	
ISSUE DATE	2	OCT 2013	
APR 2016	J	001 2010	



ISSUE	PF	REVIOUS ISSUES	
4	1	APR 2004 JAN 2009	
ISSUE DATE	2 3	OCT 2013	
APR 2016	J	001 2010	





refer to dwg CY702.2 for line detail over tactile paving

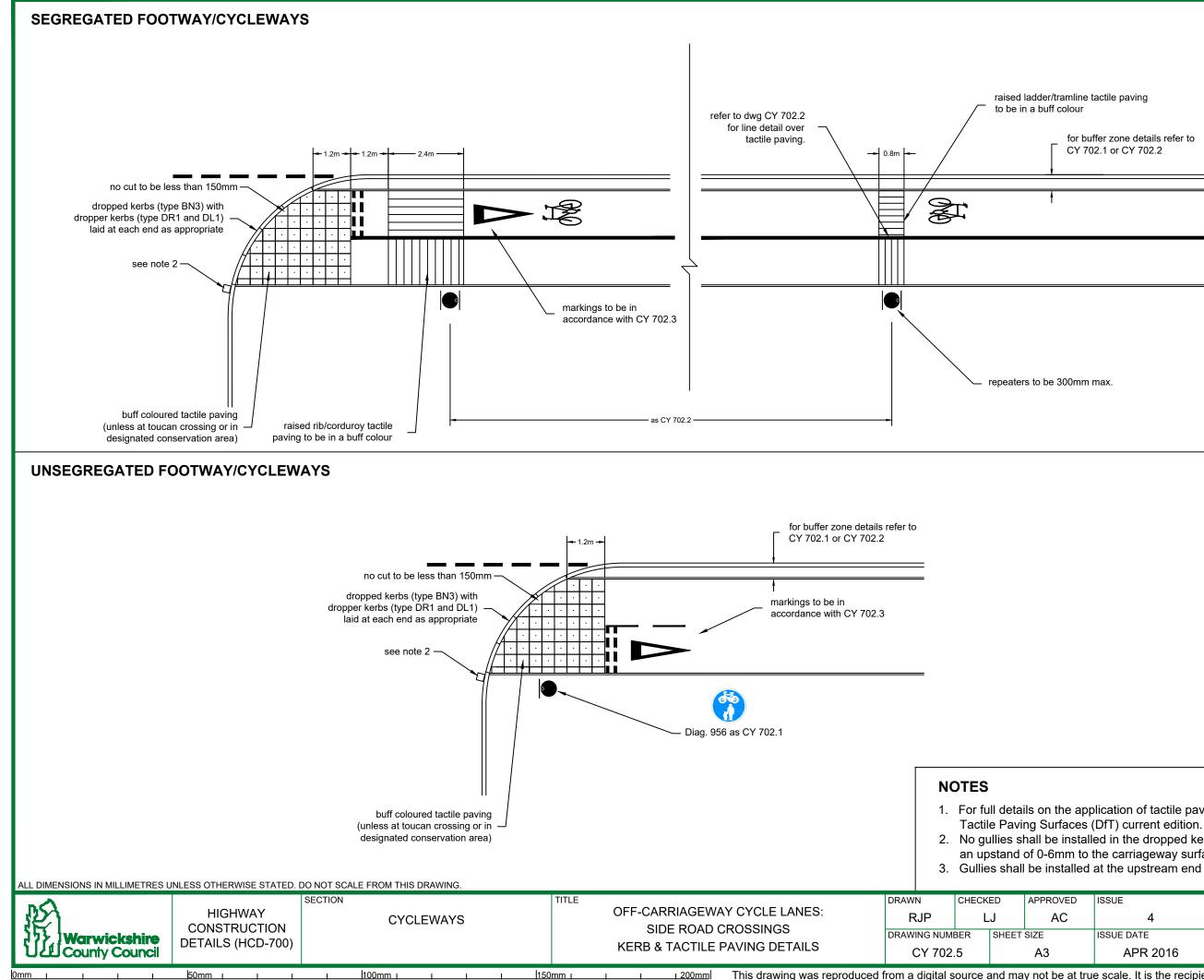


tactile paving in accordance with CY 702.5

# NOTES

- 1. Flat-top road hump markings shall comply with Diag. 1060.
- 2. Recommended set back is 4m to 8m on busy side roads. A set back not required on quiet side roads.

ISSUE	PF	REVIOUS ISSUES		
4	1	APR 2004 JAN 2009		
ISSUE DATE	2	2	OCT 2013	
APR 2016	5	001 2013		



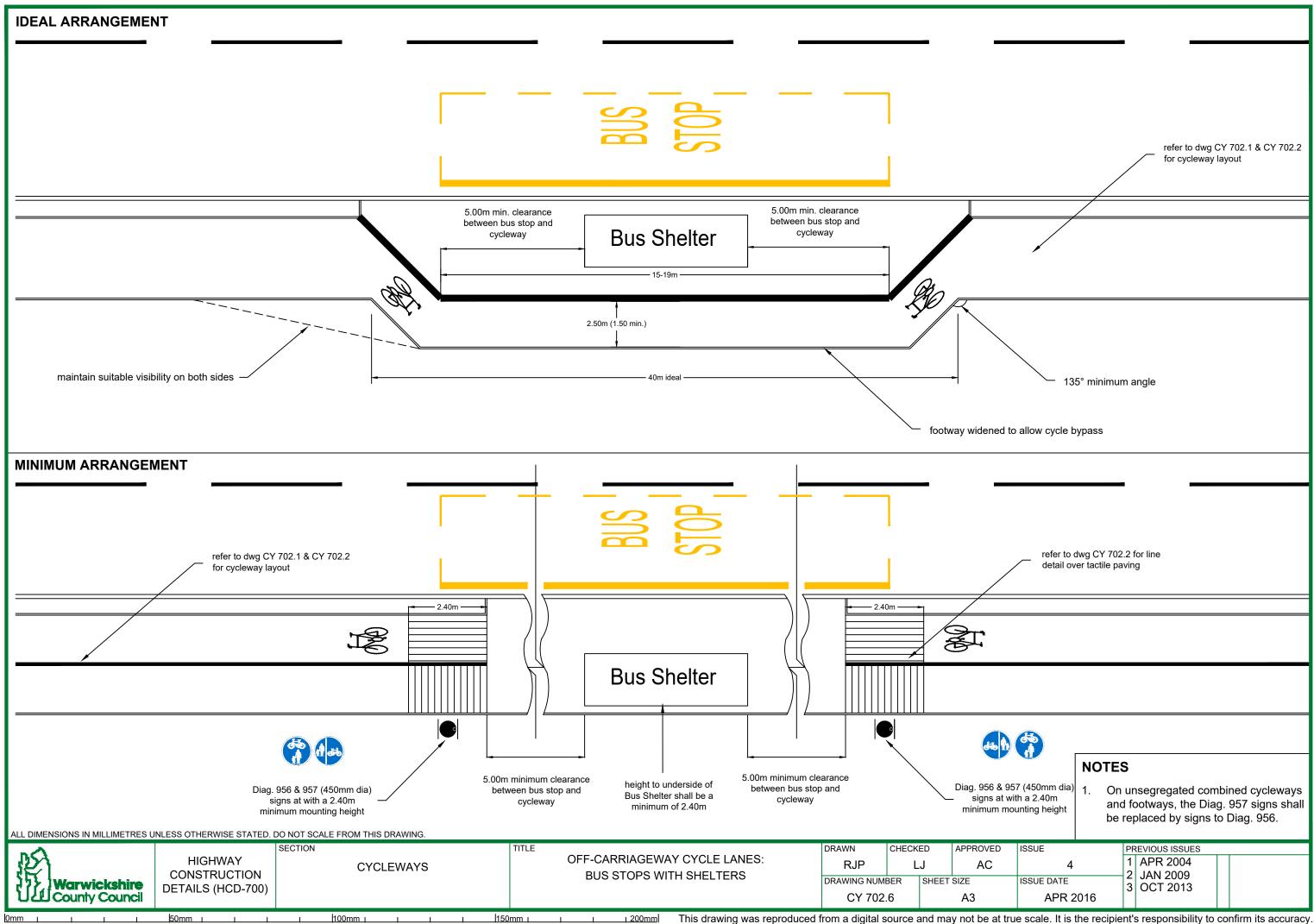
for buffer zone details refer to CY 702.1 or CY 702.2

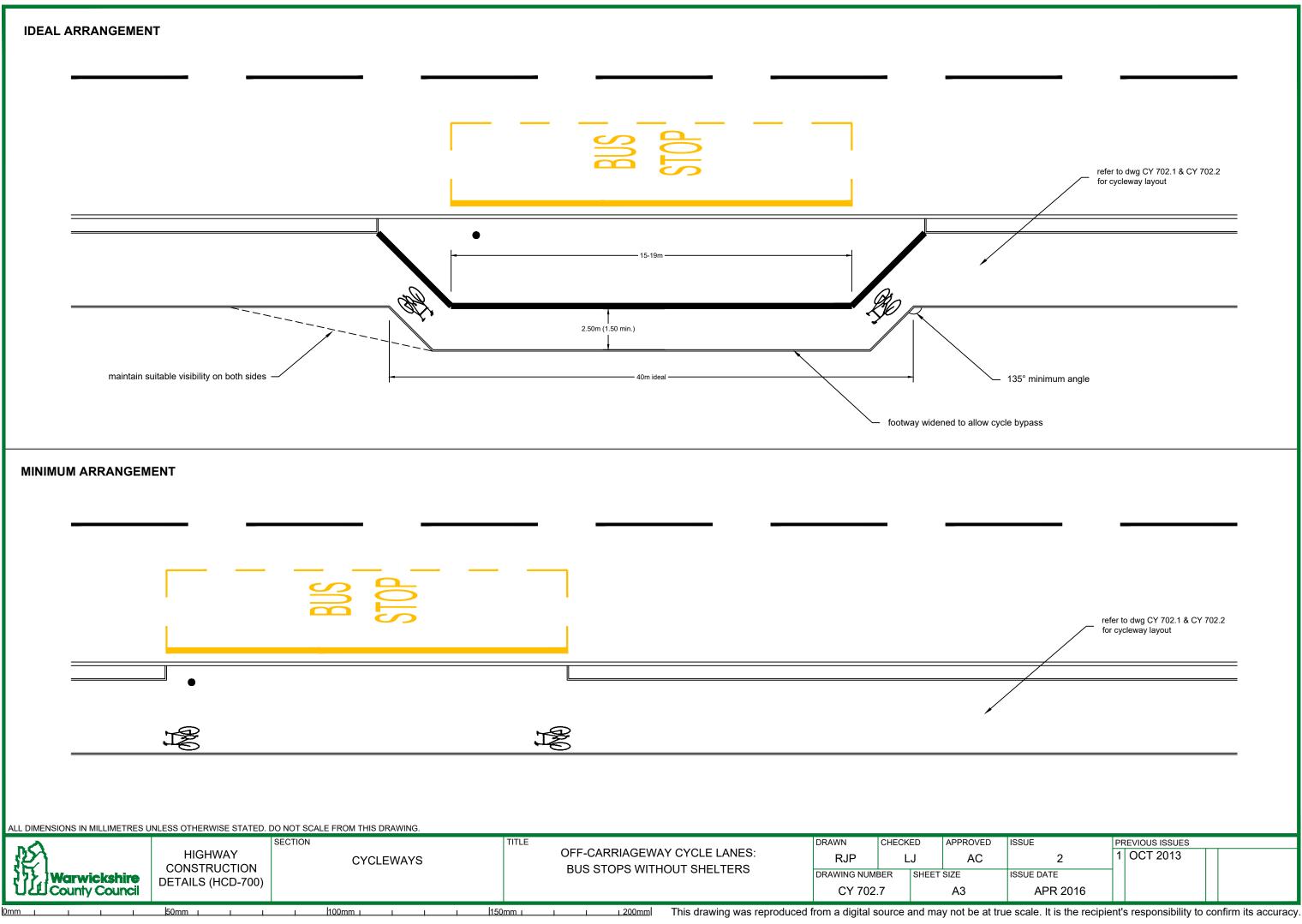
1. For full details on the application of tactile paving, refer to Guidance on the Use of

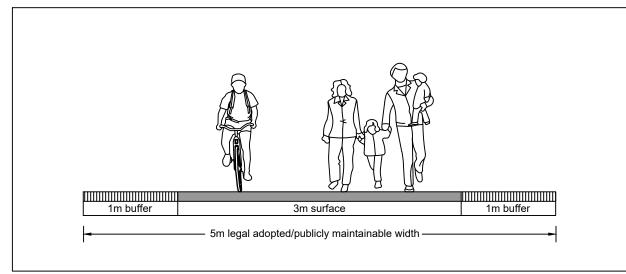
2. No gullies shall be installed in the dropped kerb zone. BN3 kerbs shall be laid with an upstand of 0-6mm to the carriageway surface.

3. Gullies shall be installed at the upstream end of the dropped kerb zone.

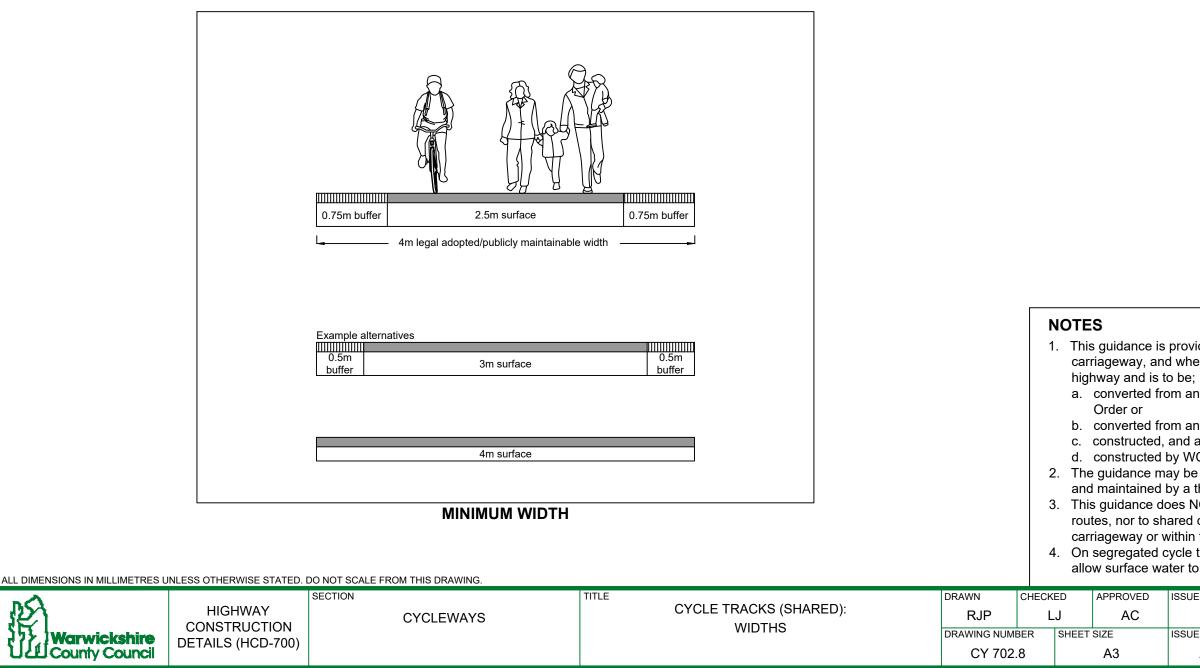
ISSUE	PF	REVIOUS ISSUES			
4	1 2	APR 2004 JAN 2009			
ISSUE DATE	2 3	OCT 2013			
APR 2016	5	00.2010			







**DESIRABLE WIDTH** 



150mm

50mm 1

0mm

100mm |

1 200mm This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.

1. This guidance is provided for routes which are seperate from the main carriageway, and where the route will be a publicly maintainable highway and is to be;

a. converted from an existing pedestrian route by a Cycle Track

b. converted from an existing pedestrian route, and adoptedc. constructed, and adopted by WCC or

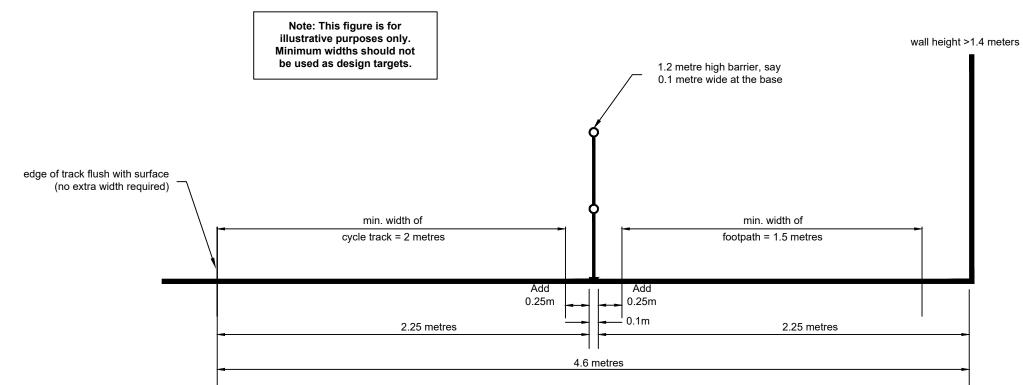
d. constructed by WCC, over land owned by WCC.

2. The guidance may be applied to routes which are to be constructed and maintained by a third party, where this is appropriate.

3. This guidance does NOT necessarily apply to on-carriageway cycle routes, nor to shared cycleways/footways immediately beside the carriageway or within the extent of a vehicular highway.

4. On segregated cycle tracks, the raised line should have gaps in it to allow surface water to drain away.

ISSUE	PREVIOUS ISSUES				
2	1	OCT 2013			
ISSUE DATE					
APR 2016					

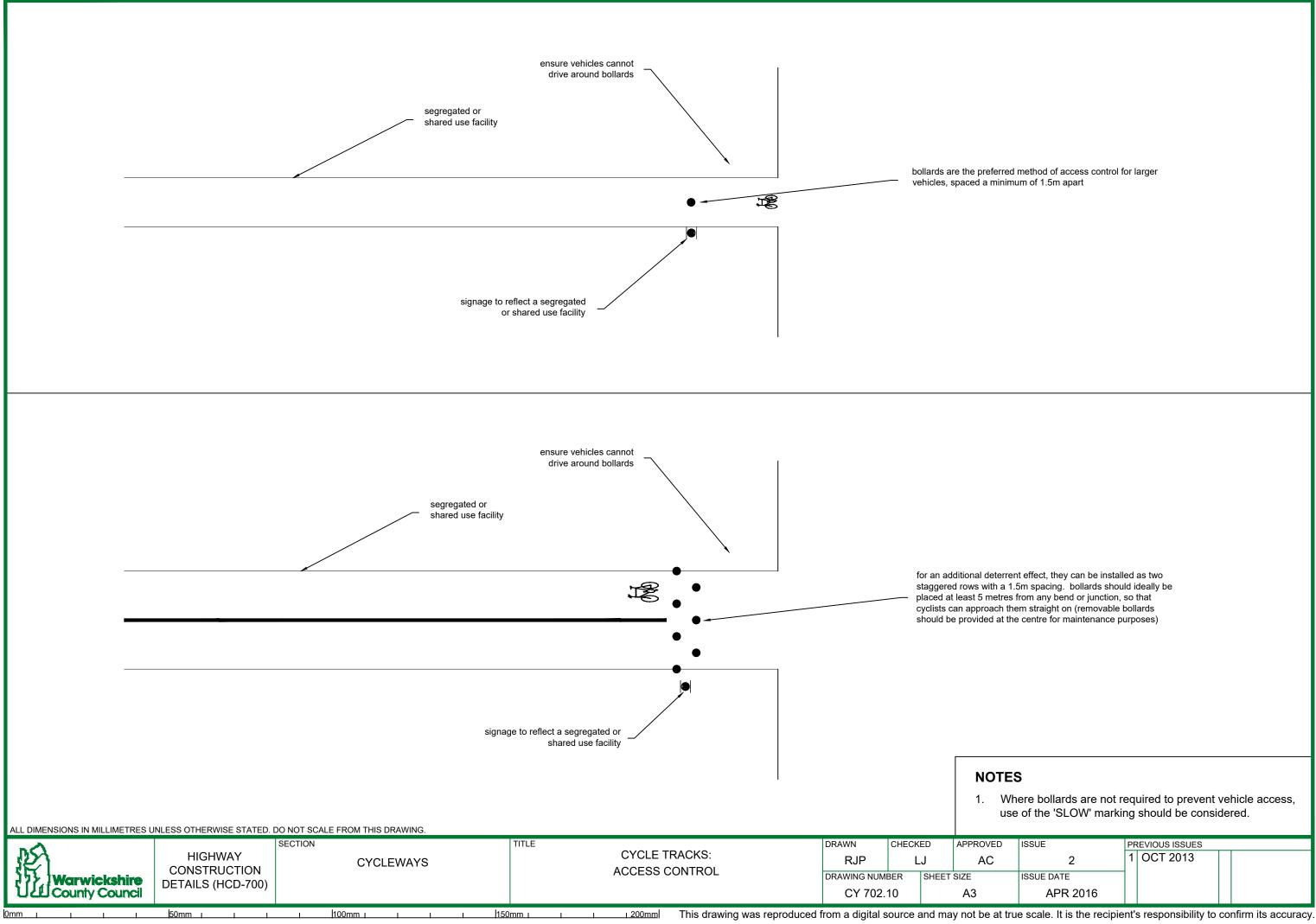


Type of edge constraint	Additional width required		
Flush or near flush surface	Nil		
Low upstand up to 150mm	Add 200mm		
Vertical features from 150mm to 1.39m	Add 250mm		
Vertical feature above 1.4m (eg. parapet)	Add 500mm		

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. DO NOT SCALE FROM THIS DRAWING.

	R	HIGHWAY CONSTRUCTION	SECTION	CYCLEWAYS TITLE CYCLE TRACKS (SEGREGATED): RJP		CHECKED LJ	APPROVED AC
	Warwickshire	DETAILS (HCD-700)		WIDTHS	DRAWING NUMB CY 702.9		A3
l	Dmm ı ı ı ı	50mm ı ı ı	100mm 1 1 1 1 15	Dmm This drawing was reproduced f	from a digital so	ource and ma	ay not be at tru

ISSUE		PREVIOUS ISSUES			
2	1	OCT 2013			
ISSUE DATE					
APR 2016					

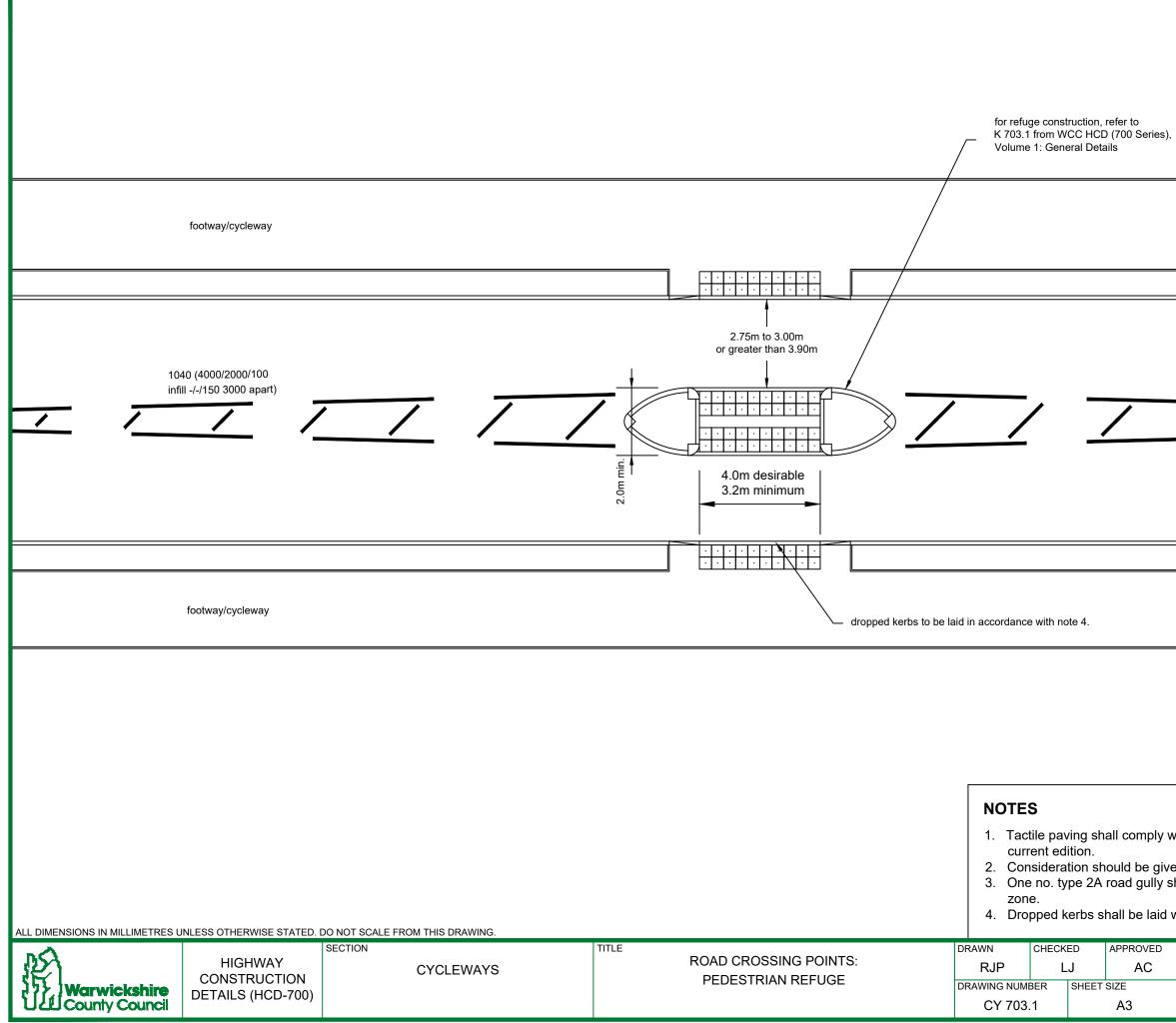


bollards are the preferred method of access control for larger

for an additional deterrent effect, they can be installed as two staggered rows with a 1.5m spacing. bollards should ideally be placed at least 5 metres from any bend or junction, so that cyclists can approach them straight on (removable bollards should be provided at the centre for maintenance purposes)

1. Where bollards are not required to prevent vehicle access, use of the 'SLOW' marking should be considered.

ISSUE	PREVIOUS ISSUES				
2	1	OCT 2013			
ISSUE DATE					
APR 2016					

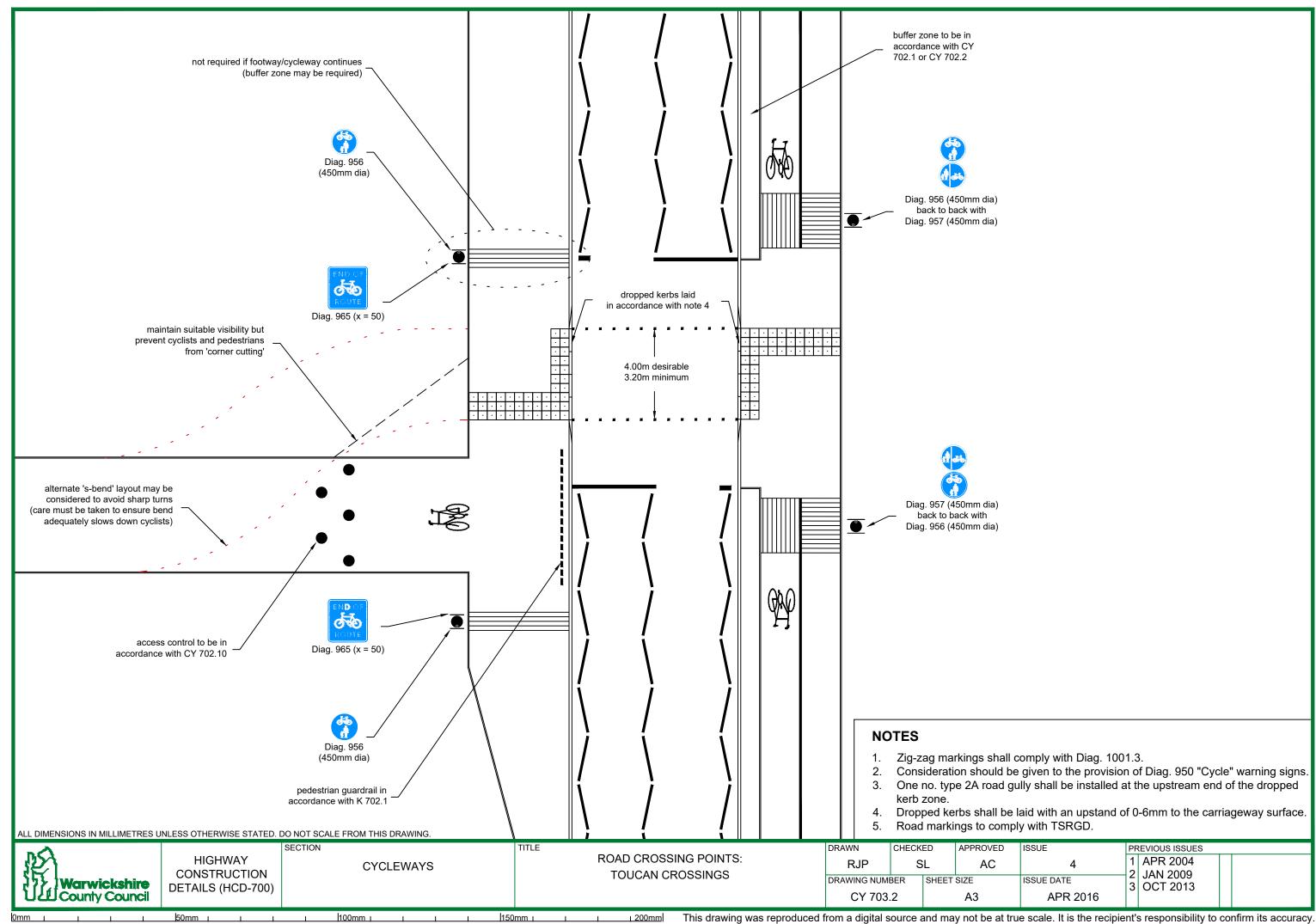


50mm |

0mm i

100mm

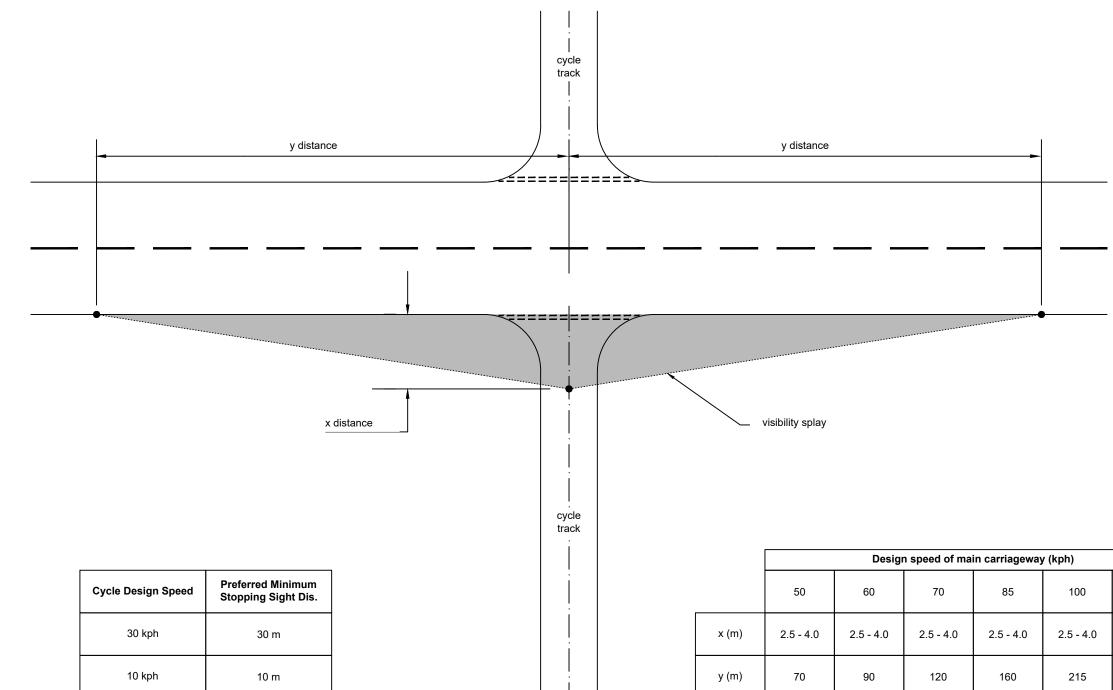
1040 (4000/2000/100 infill -/-/150 3000 apart)						
vith Guidance on the Use of Tactile Paving Surfaces (DfT) en to the provision of Diag. 950 "Cycle" warning signs. hall be installed at the upstream end of the dropped kerb						
with an upstand of 0-6mm to the carri	ageway surface.					
ISSUE         PREVIOUS ISSUE           4         1         APR 2004           2         JAN 2009           3         OCT 2010	S					



2. Consideration should be given to the provision of Diag. 950 "Cycle" warning signs. One no. type 2A road gully shall be installed at the upstream end of the dropped

Dropped kerbs shall be laid with an upstand of 0-6mm to the carriageway surface.

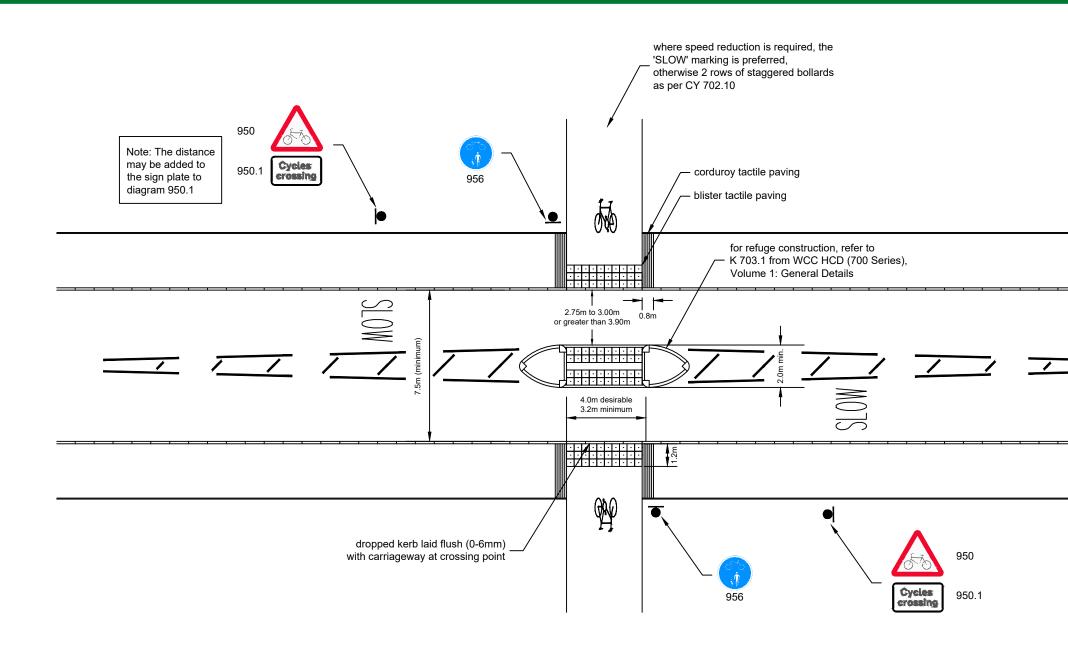
ISSUE	PF	REVIOUS ISSUES	SUES				
4	1	APR 2004 JAN 2009					
ISSUE DATE	$\frac{2}{3}$	3	OCT 2013				
APR 2016	Ũ	001 2010					



# SSD FOR OFF-CARRIAGEWAY CYCLE ROUTES

<u>~</u>		SECTION	TITLE	DRAWN	CHECKED	APPROVED	ISSUE	PREVIOUS ISSUES	
127	HIGHWAY	CYCLEWAYS		RJP	LJ	AC	2	1 OCT 2013	
Warwickshire	CONSTRUCTION DETAILS (HCD-700)		VISIBILITY & STOPPING SIGHT DISTANCES	DRAWING NUM	BER SHEET	SIZE	ISSUE DATE		
ULE County Council			AT JUNCTIONS	CY 703	.3	A3	APR 2016		

ageway (kph)								
5	100	120						
4.0	2.5 - 4.0	2.5 - 4.0						
0	215	295						



### **CROSSING TYPES**

TITLE

150mm

85th percentile speed	Traffic flow (two-way daily)	Type of crossing
< 50 mph	< 6,000	Cyclists give way to road traffic
< 50 mph	< 50 mph	Cyclists give way to road traffic plus central refuge - urban
< 60 mph	< 10,000	Cyclists give way to road traffic plus central refuge - rural
< 50 mph	> 8,000	Signal controlled, including Toucans
< 50 mph	> 8,000	Grade separated crossing - urban
< 60 mph	> 10,000	Grade separated crossing - rural

Note: this table is for guidance only - individually locations should be assessed on a case by case basis.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. DO NOT SCALE FROM THIS DRAWING.



HIGHWAY CONSTRUCTION DETAILS (HCD-700)

SECTION

1

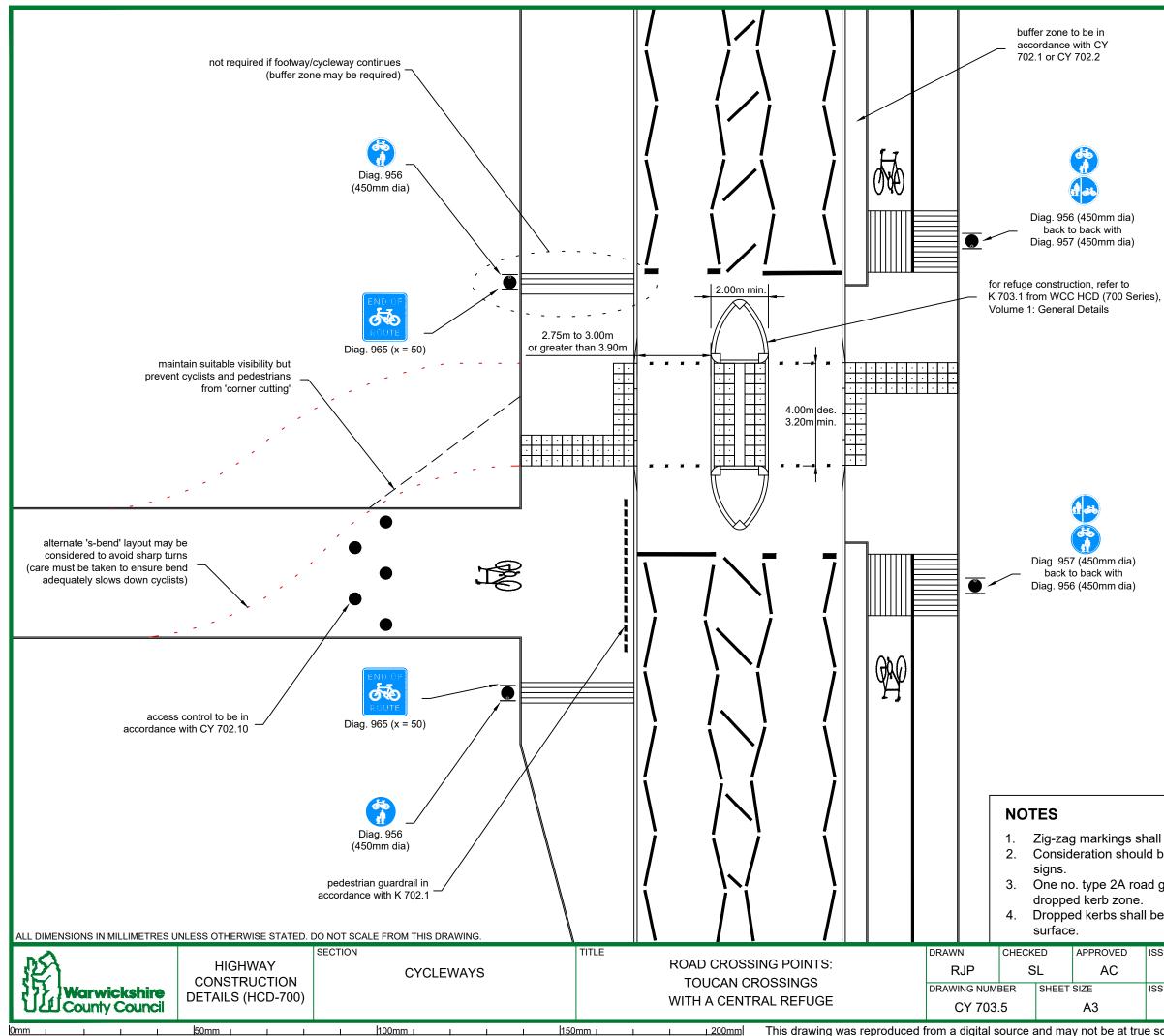
CYCLEWAYS

100mm I

ROAD CROSSING POINTS: CYCLE TRACK/CARRIAGEWAY CROSSING

DRAWN	CHECKED		APPROVED			
RJP	LJ		AC			
DRAWING NUMI	BER	SHEET	SIZE			
CY 703.	.4		A3			

ISSUE	PR	REVIOUS ISSUES	
2	1	OCT 2013	
ISSUE DATE			
APR 2016			

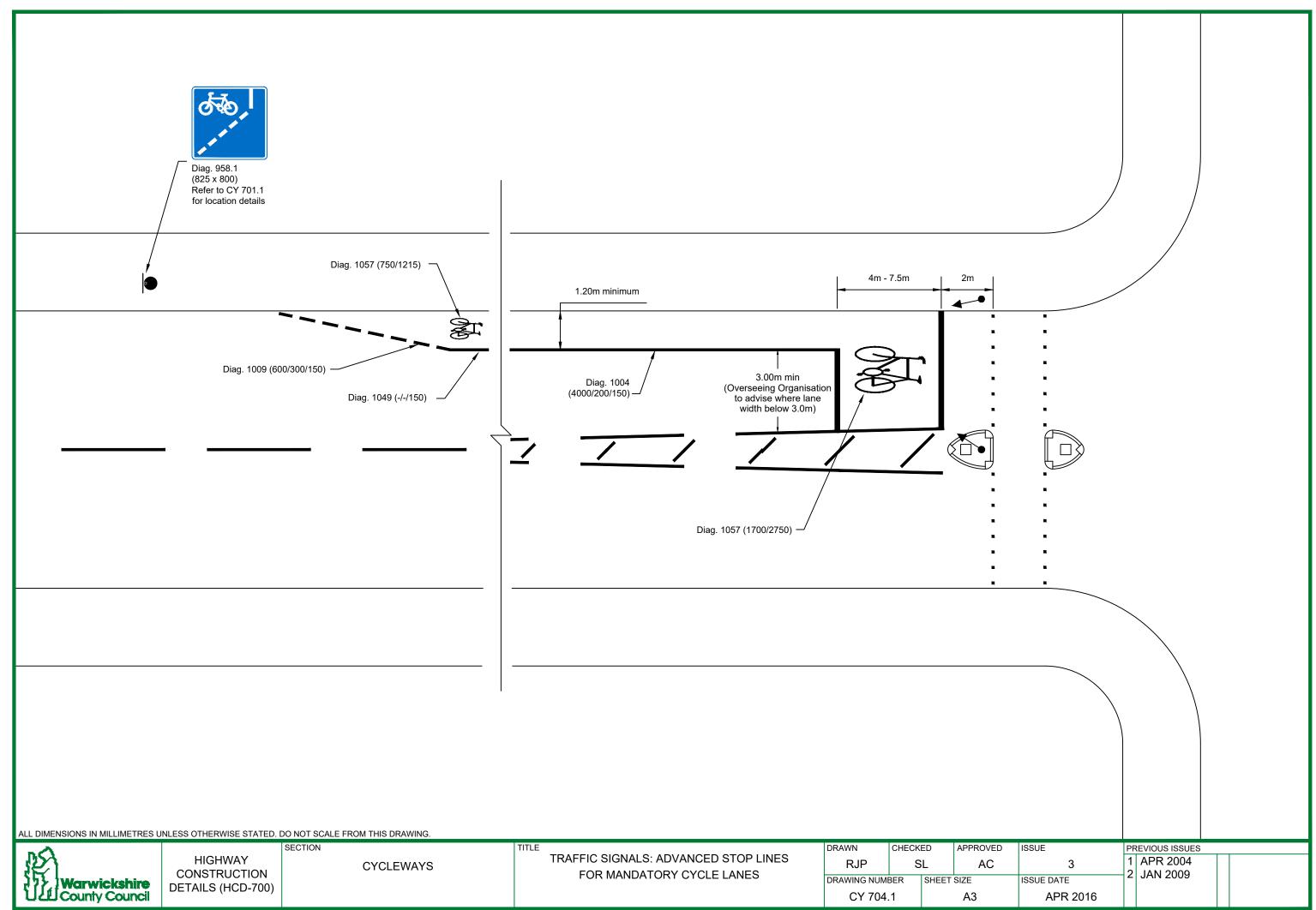


Zig-zag markings shall comply with Diag. 1001.3. Consideration should be given to the provision of Diag. 950 "Cycle" warning

One no. type 2A road gully shall be installed at the upstream end of the

Dropped kerbs shall be laid with an upstand of 0-6mm to the carriageway

ISSUE	PF	REVIOUS ISSUES			
4	1 2	APR 2004 JAN 2009			
ISSUE DATE	3	OCT 2013			
APR 2016		001 2013			



100mm I

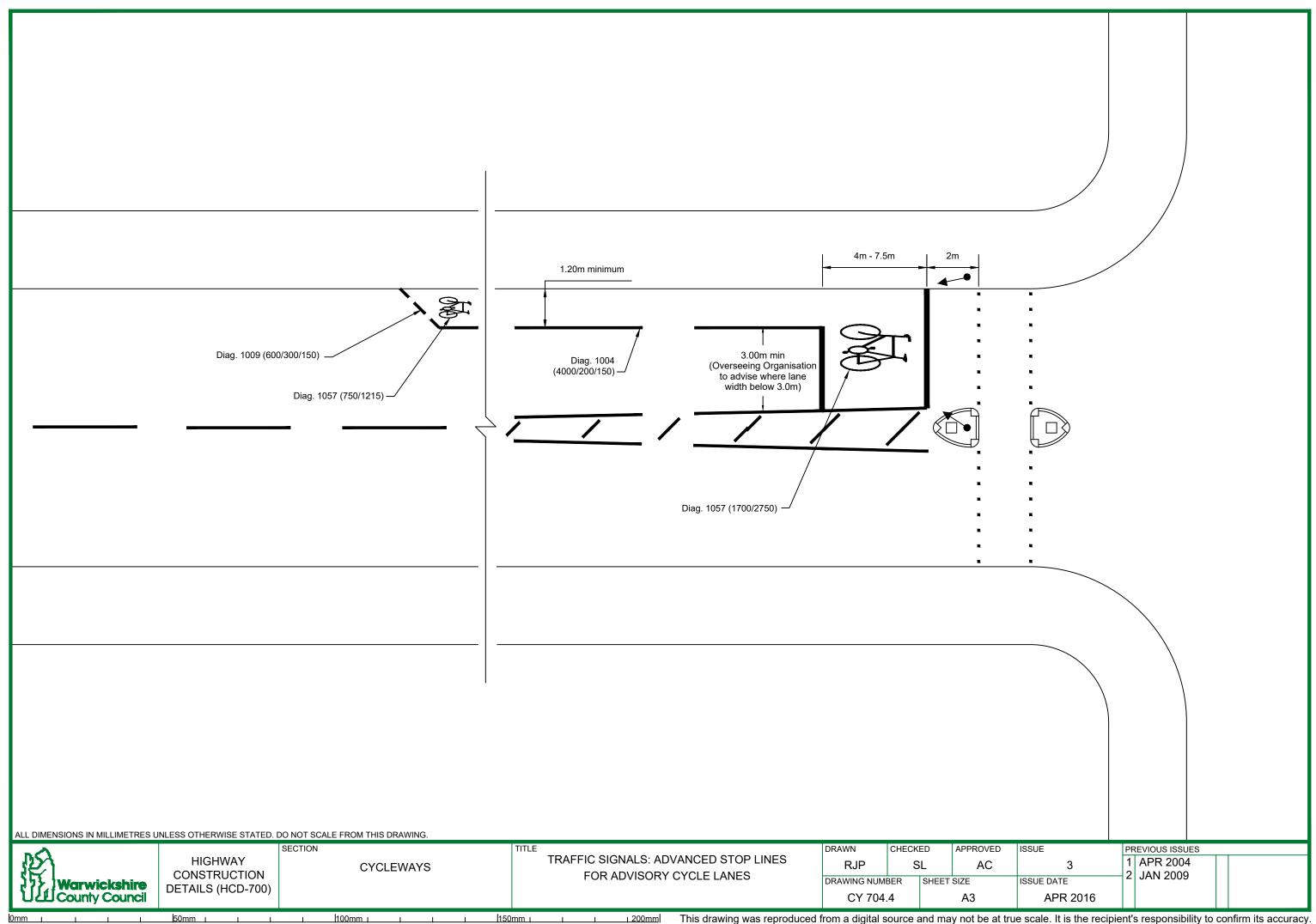
1

50mm

0mm i

150mm

This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.



0mm i

200mm

This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.

