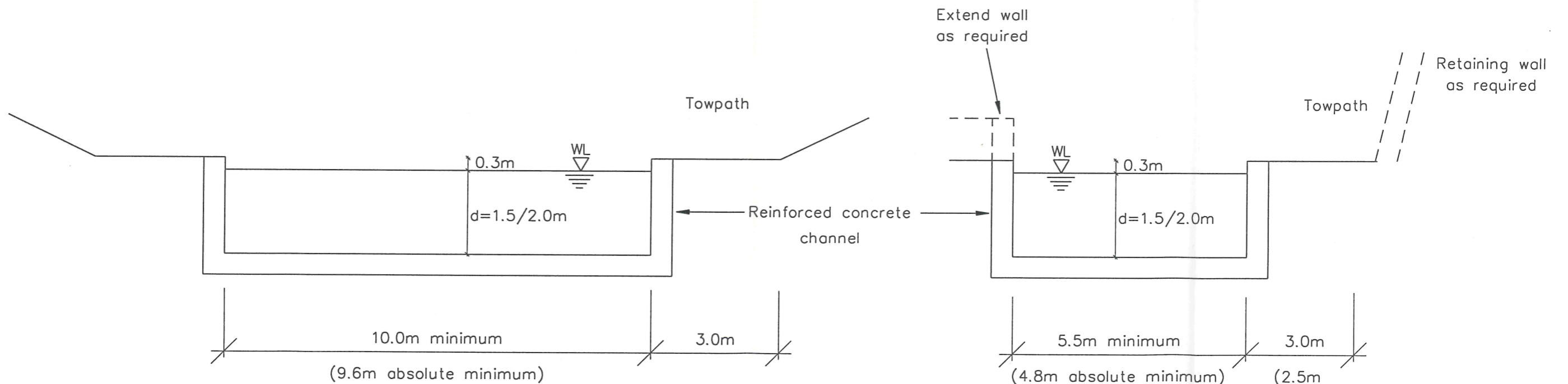


WHERE CANAL CORRIDOR IS NOT RESTRICTED IN WIDTH



ALLOWS TWO-WAY WORKING OF BROAD BEAMED BOATS.

ALLOWS ONE-WAY WORKING OF BROAD BEAMED BOATS.

WHERE CORRIDOR WIDTH IS RESTRICTED

- Notes
1. Separation of pedestrians, cyclists and horseriders where canal corridor width allows.
  2. Wall detail repeated where towpath/moorings required on both sides.
  3. Minimum water depth to be 1.5m above Sankey Bridges and 2.0m below.
  4. Impermeable lining to be provided to canal where new channel is excavated or where leakage is likely to be high.

**WS Atkins – North West** ©  
 a division of WS Atkins Consultants Limited  
 WS Atkins House  
 Birchwood Boulevard  
 Birchwood, Warrington WA3 7WA  
 Tel. (01925) 828987  
 Fax. (01925) 828153



Project **ST. HELENS CANAL RESTORATION**  
 Title **TYPICAL WATERWAY SECTIONS AND DIMENSIONS**

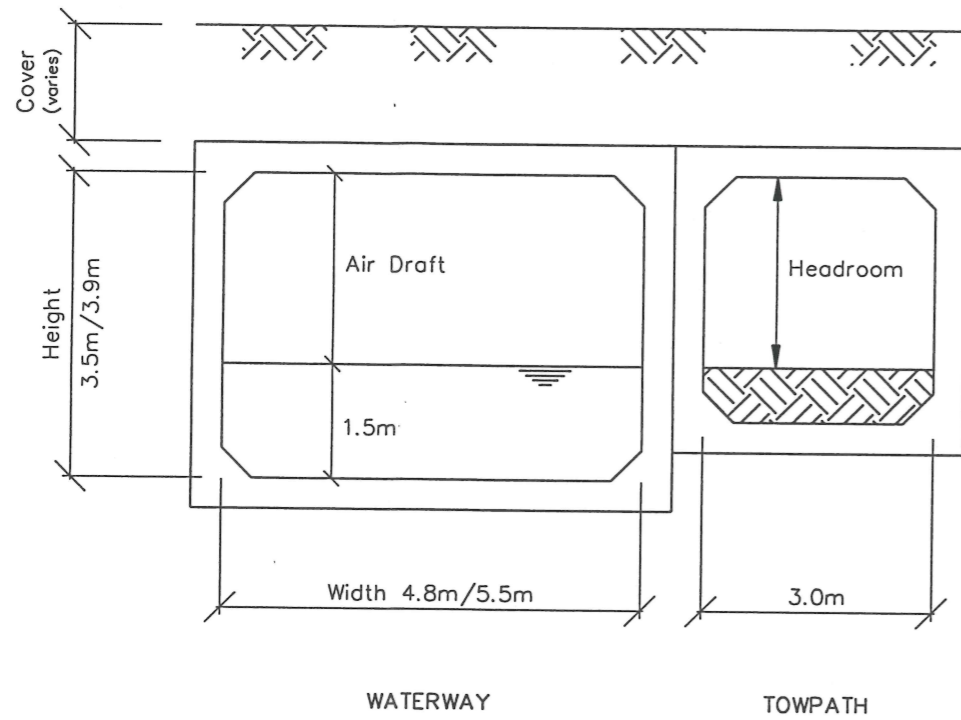
Scale	Drawn	Checked	Authorised
1:100	DTH	JMH	
	Date 10.5.96	Date 5.96	Date

Drawing Number **AY2311 / 120 / 850 / 021** Rev

**A3**

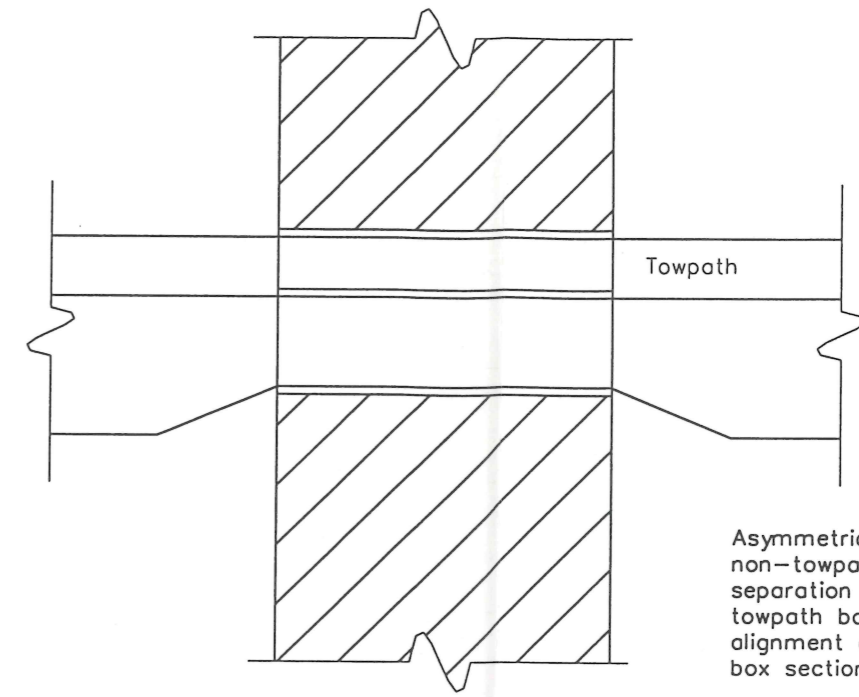
Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Job Dept Sub Unique No.



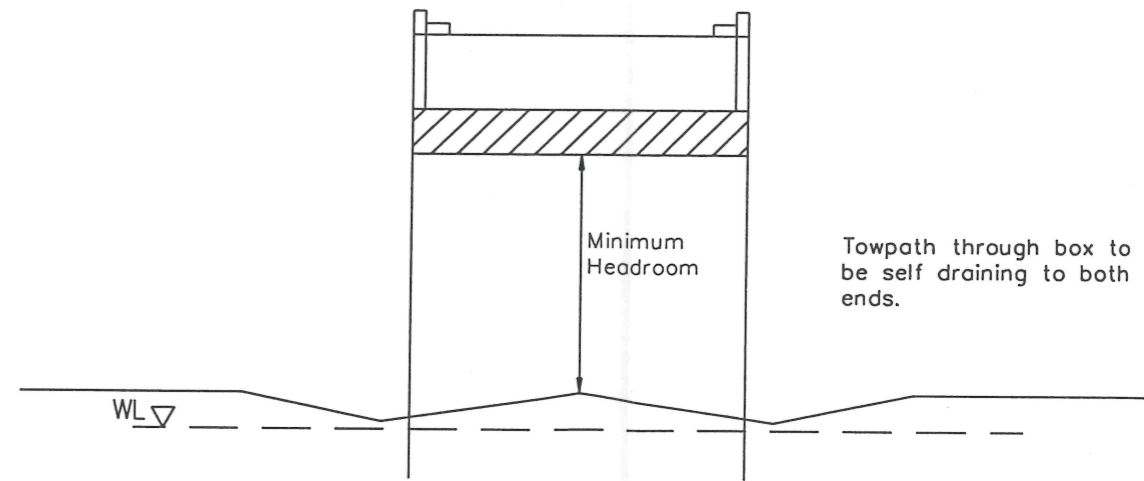
TYPICAL TWIN-BOX CROSSING OF A MAIN ROAD

Where depth of cover restricted	AIR DRAFT	MINIMUM HEADROOM
Above Penkford Bridge	2.0m	1.9m
Below Penkford Bridge	2.4m	2.3m
	Width increased from 4.8m to 5.5m where length of crossing exceeds 22m to provide emergency access route.	



PLAN ON ROAD CROSSING

Asymmetric narrowing on non-towpath side or separation of waterway and towpath boxes to allow straight alignment of towpath through box section.



SECTION ALONG TOWPATH

AutoCAD File Ref. E:\Y2311\030\022.DWG

Notes

**WS Atkins – North West** ©

a division of WS Atkins Consultants Limited  
 WS Atkins House  
 Birchwood Boulevard  
 Birchwood, Warrington WA3 7WA  
 Tel. (01925) 828987  
 Fax. (01925) 828153



Project  
**ST. HELENS CANAL RESTORATION**

Title  
**DETAILS OF TYPICAL BOX CULVERT BRIDGE**

Scale N.T.S.	Drawn DTH	Checked JMH	Authorised
	Date 2.96	Date 2.96	Date

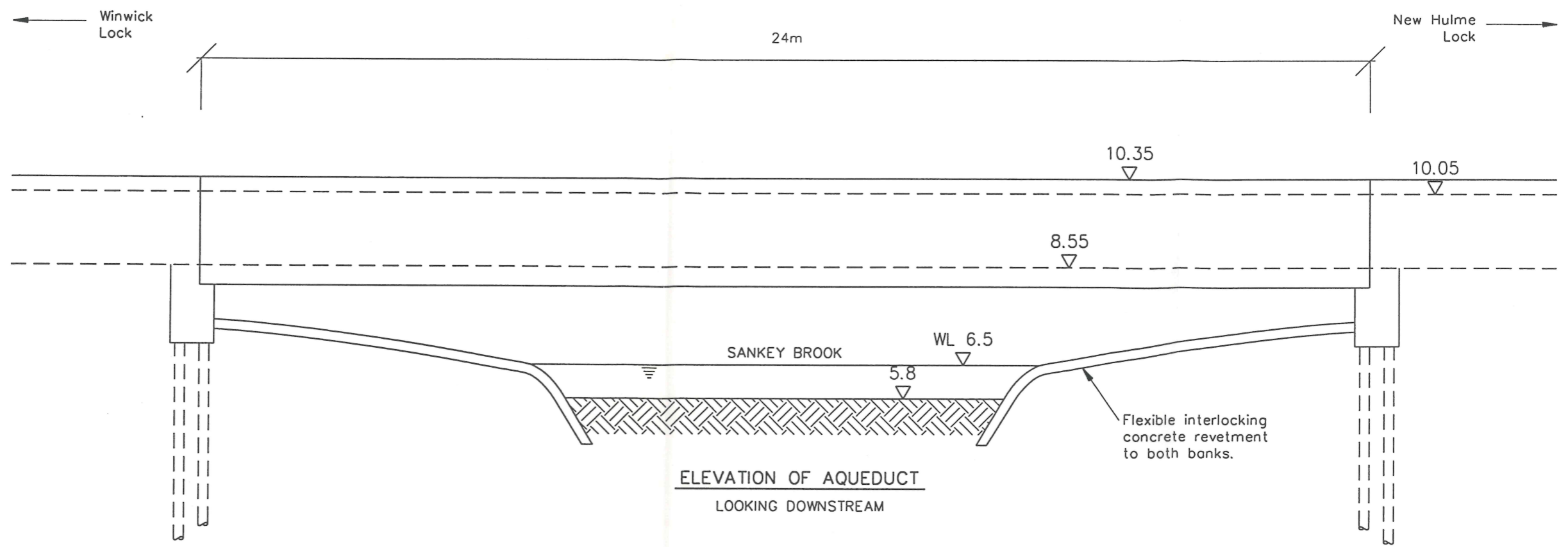
Drawing Number  
**AY2311/120/850/022**

Rev

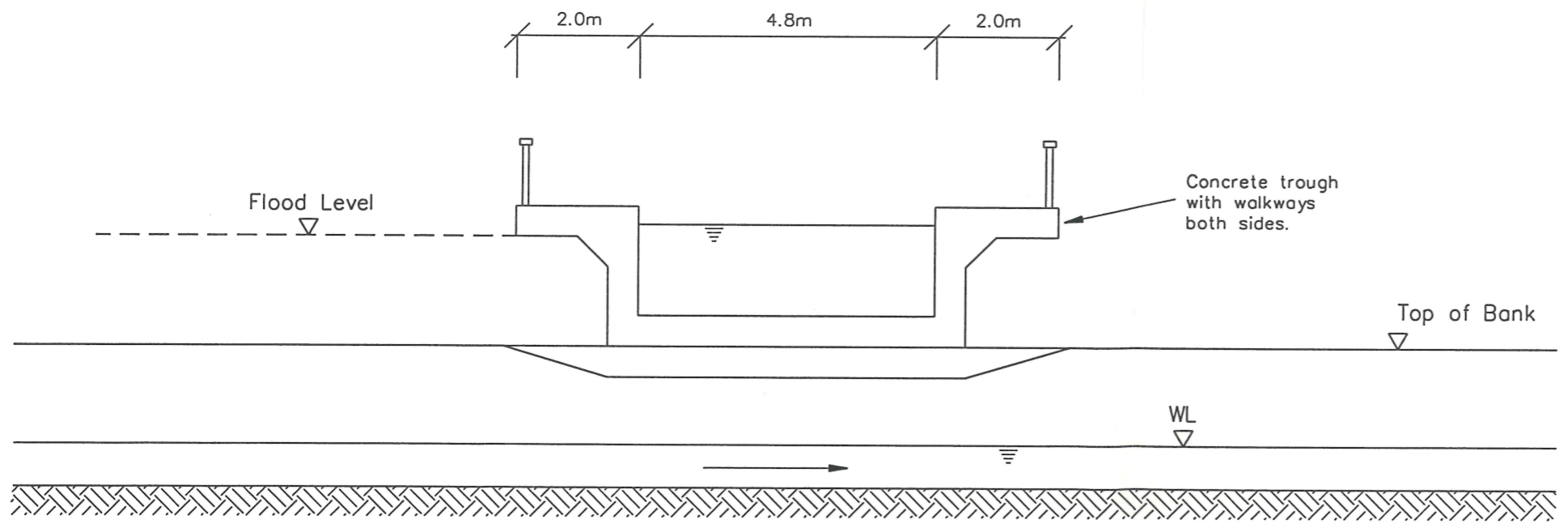
A3

Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Job Dept Sub Unique No.




**ELEVATION OF AQUEDUCT**  
LOOKING DOWNSTREAM



**CROSS SECTION**

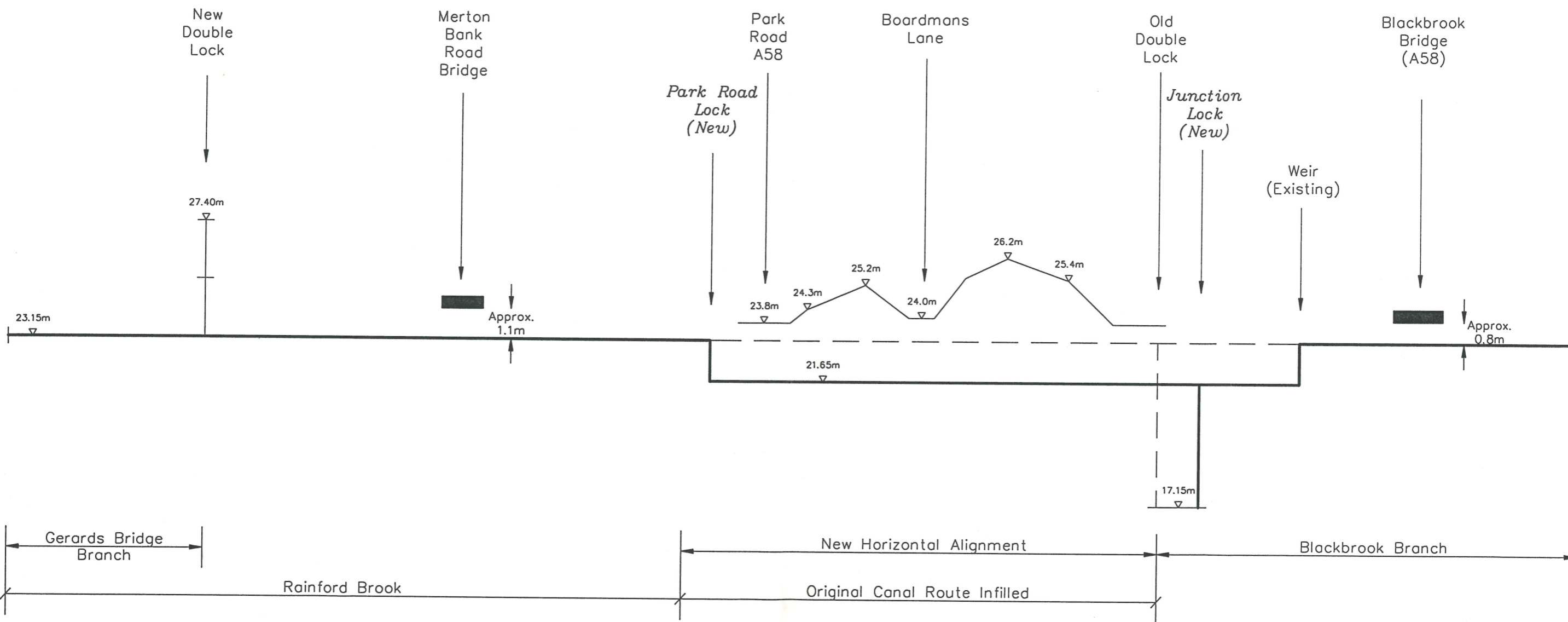
AutoCAD File Ref. E:\Y2311\030\023.DWG

Notes

<b>WS Atkins – North West</b> <small>a division of WS Atkins Consultants Limited</small> WS Atkins House Birchwood Boulevard Birchwood, Warrington WA3 7WA Tel. (01925) 828987 Fax. (01925) 828153				Project <b>ST. HELENS CANAL RESTORATION</b>	
				Title <b>HULME AQUEDUCT OVER SANKEY BROOK</b>	
		Scale 1:100		Drawn DTH Date 2.96	
				Checked JMH Date 2.96	
				Authorised Date	
				Drawing Number <b>AY2311 / 120 / 850 / 023</b>	
				Rev	
Purpose of issue		Auth		Date	
Rev		Description		By	
Date		Chk'd		Auth	
Job		Dept		Sub	
Unique No.					

A3





**VERTICAL ALIGNMENT OF CANAL**

HORIZONTAL SCALE N.T.S.  
VERTICAL SCALE 1:150

Notes

m Proposed Pound Level  
 ( m ) Original Ground Level

Ground Levels are Approximate  
Levels are in metres to Ordnance Datum.

**WS Atkins – North West** ©

a division of WS Atkins Consultants Limited  
 WS Atkins House  
 Birchwood Boulevard Tel. (01925) 828987  
 Birchwood, Warrington WA3 7WA Fax. (01925) 828153



Project **ST. HELENS CANAL RESTORATION**

Title **NEW DOUBLE LOCK TO BLACKBROOK**

Scale AS SHOWN	Drawn DTH	Checked JMH	Authorised
	Date 10.5.96	Date 5.96	Date

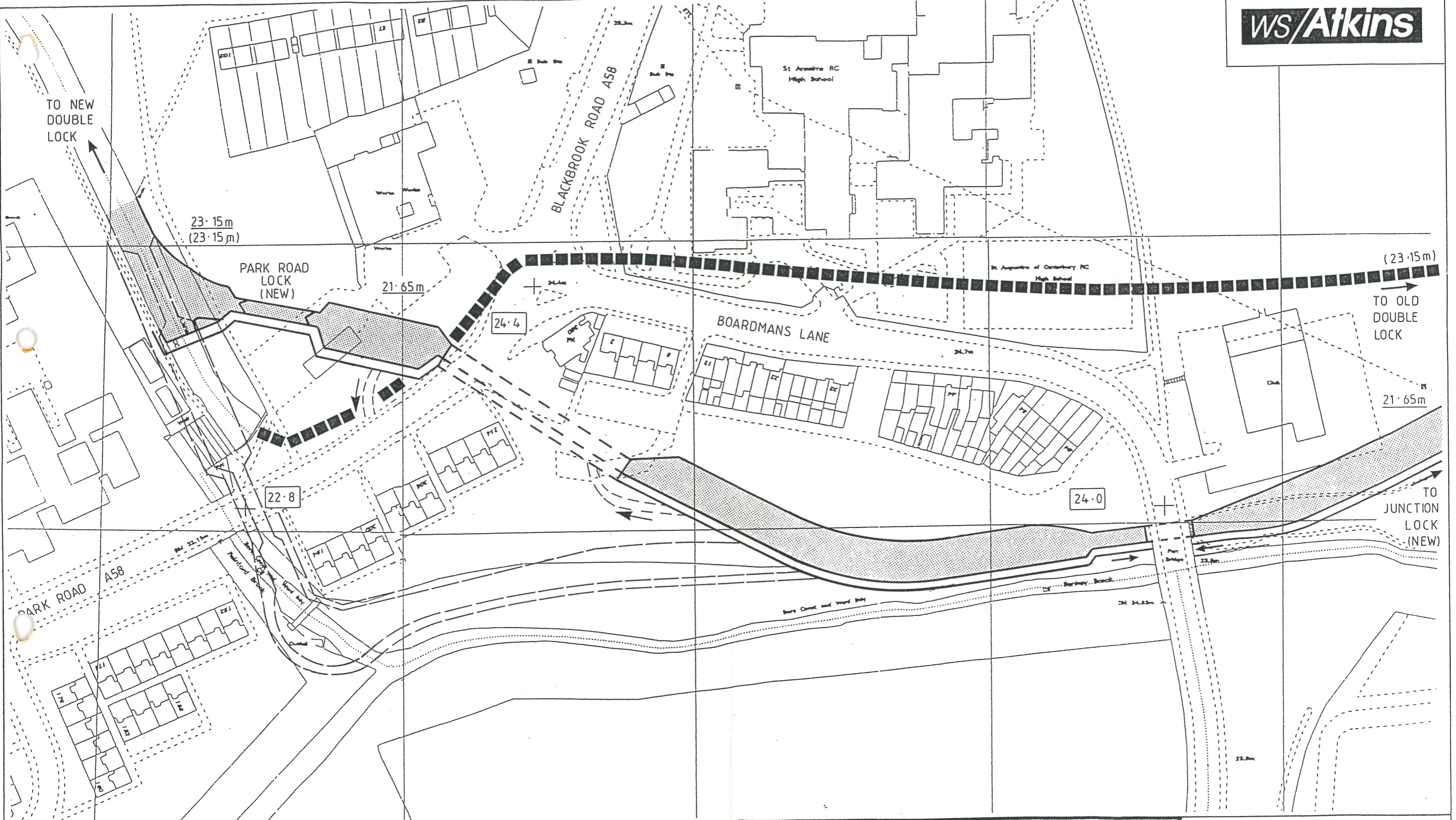
Drawing Number **AY2311 / 120 / 850 / 024**

**A3**

Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Job Dept Sub Unique No.



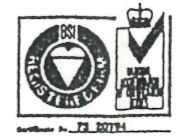


**HORIZONTAL ALIGNMENT**  
 ——— PROPOSED ROUTE  
 ——— ALTERNATIVE ROUTE  
 ■■■■■ ORIGINAL ROUTE

**POUND LEVELS**  
 12.2 m PROPOSED  
 (12.2 m) ORIGINAL  
 24.0 GROUND LEVELS APPROX  
 LEVELS ARE IN METRES TO ORDNANCE DATUM

**A3**

**WS Atkins – North West**  
 Consulting Engineers  
 W/S Atkins House  
 Birchwood Boulevard, Birchwood, Warrington WA3 7WA  
 Tel (0925)828987 Fax (0925)828153



Project  
**ST. HELENS CANAL RESTORATION**

Title  
**PARK ROAD/BOARDMANS LANE**

Scale 1:1250  
 Drawn MS Ch'ked [Signature] Auth [Signature]  
 Date 05.96 Date 5/96 Date

Drawing Number  
**AY2311/120/850/025**

Purpose of issue	Auth	Date	Rev	Description	By	Date	Chkd	Auth

Job Dep: Sub Unique No