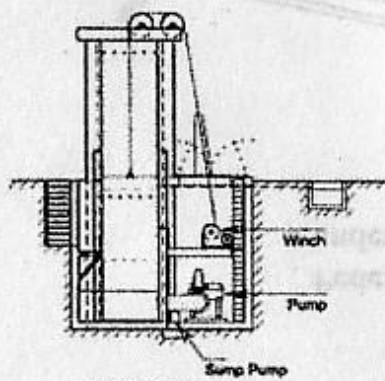
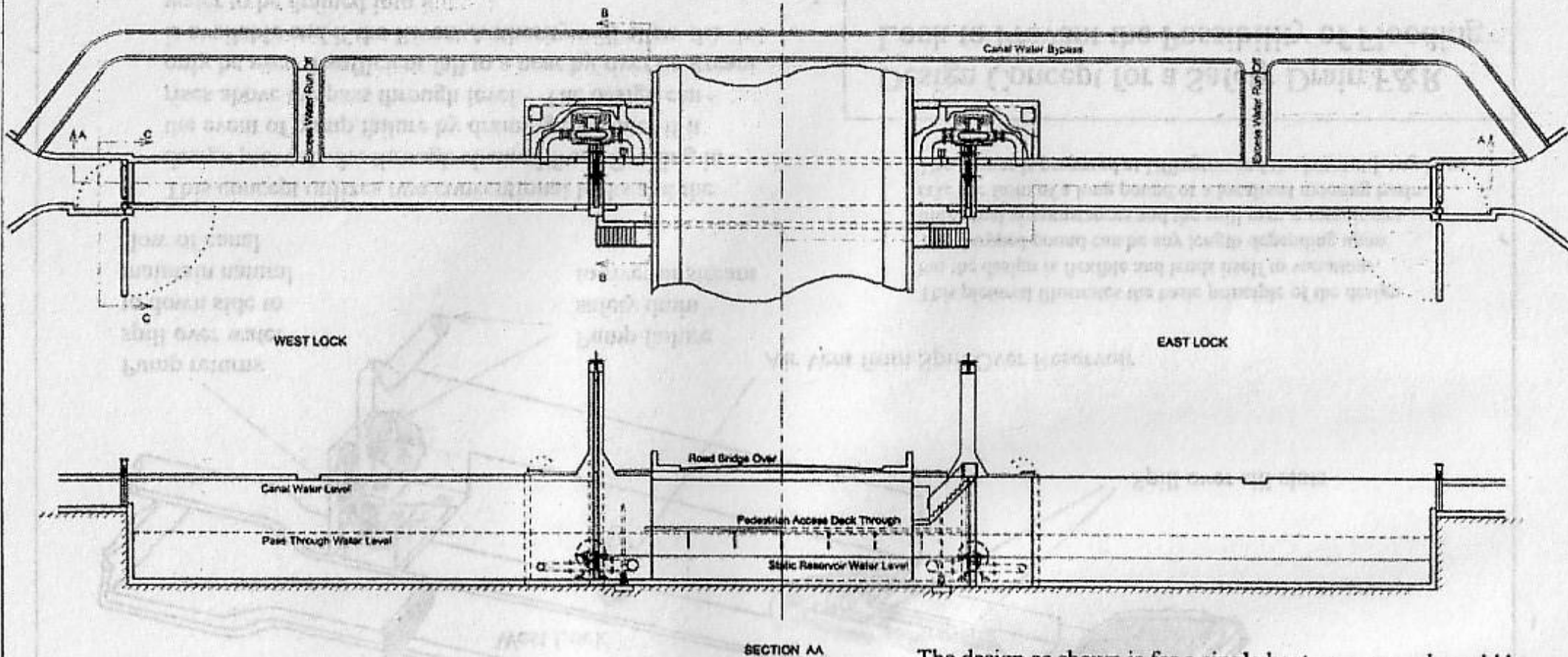
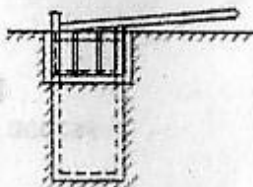


# DESIGN CONCEPT



SECTION BB

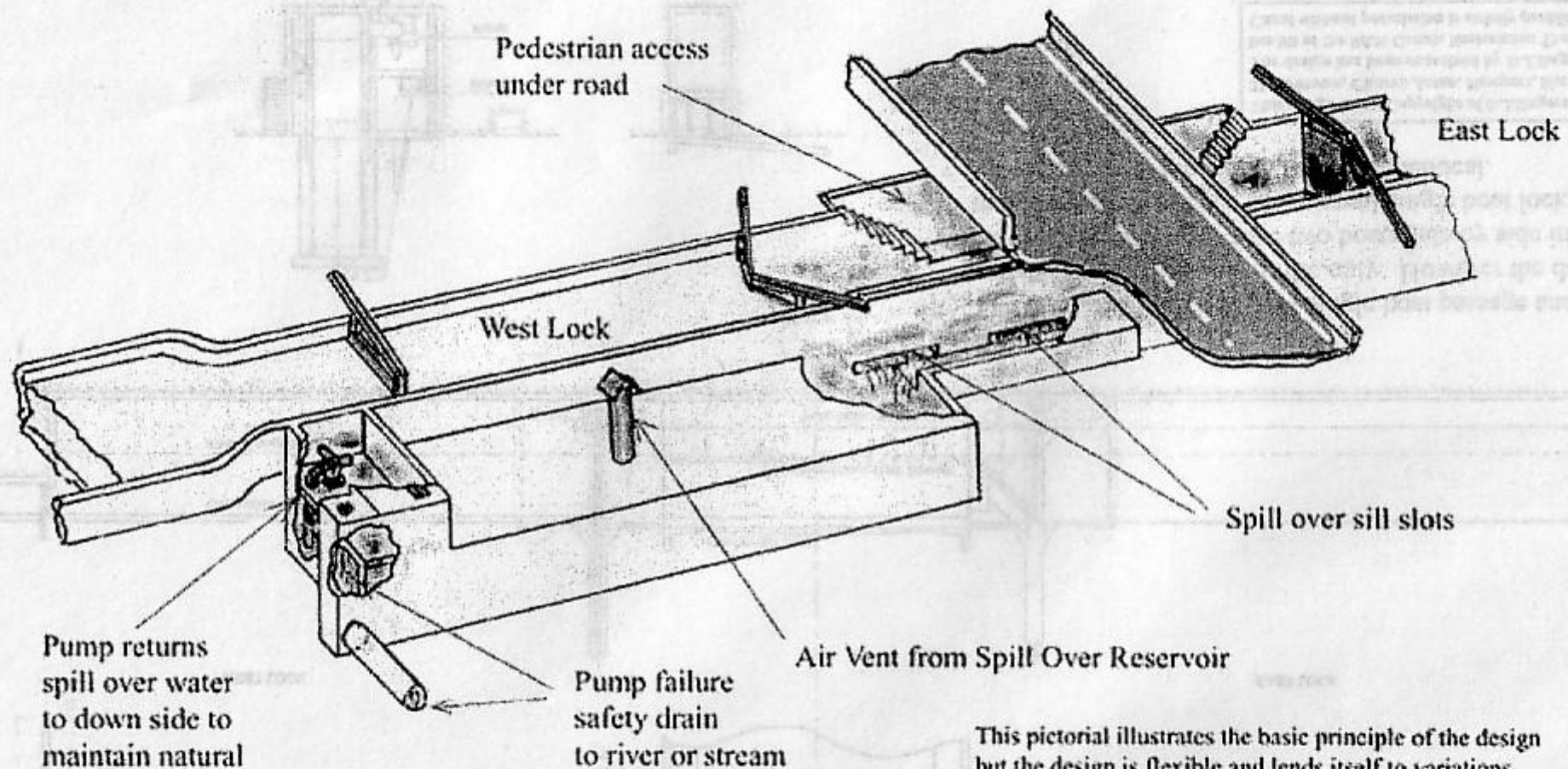


SECTION CC

The design as shown is for a single boat passage and would be suitable for low volume traffic only. However the design can readily be modified to take two boats side by side in order to match the passage time of a normal single boat lock. The operational sequence would be identical.

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TITLE				
CANAL RESTORATION - DESIGN CONCEPT for FALL & RISE LOCK to PASS UNDER ROAD at NEAR WATER LEVEL				
SCALE	DATE	DRAWN BY	DRG. No.	SHEET No.
1 : 304.8 1 mm = 1 ft	17/11/2001	D.J.Rogers	F&R Lock - 001	1 of 11



Pump returns spill over water to down side to maintain natural flow of canal

Pump failure safety drain to river or stream

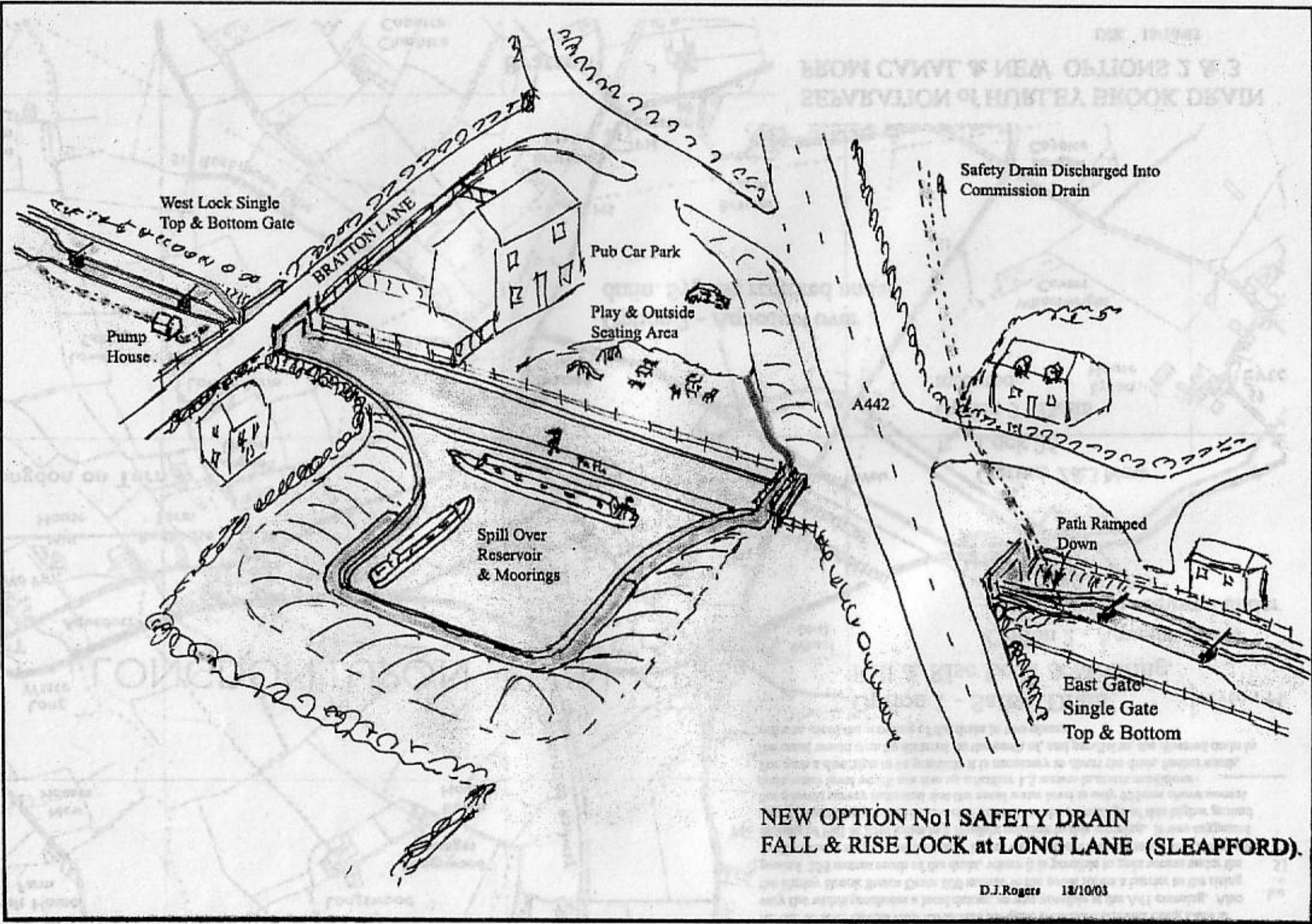
Air Vent from Spill Over Reservoir

This pictorial illustrates the basic principle of the design but the design is flexible and lends itself to variations. The dropped pound can be any length depending upon individual circumstances and the spill over reservoir can take the form of a long pound or a localised mooring basin. The former is proposed at Uffington and the latter at Long Lane.

This concept utilizes two conventional locks and the design prevents the through channel from flooding in the event of pump failure by draining off water if it rises above the pass through level. The design can only be used if sufficient fall to a near by river or stream is available and if the Rivers Authority will allow the water to be drained into it.

**Design Concept for a Safety Drain F&R Lock to Prevent the Possibility of Flooding**





West Lock Single  
Top & Bottom Gate

Pump  
House

BRATTON LANE

Pub Car Park

Play & Outside  
Seating Area

Spill Over  
Reservoir  
& Moorings

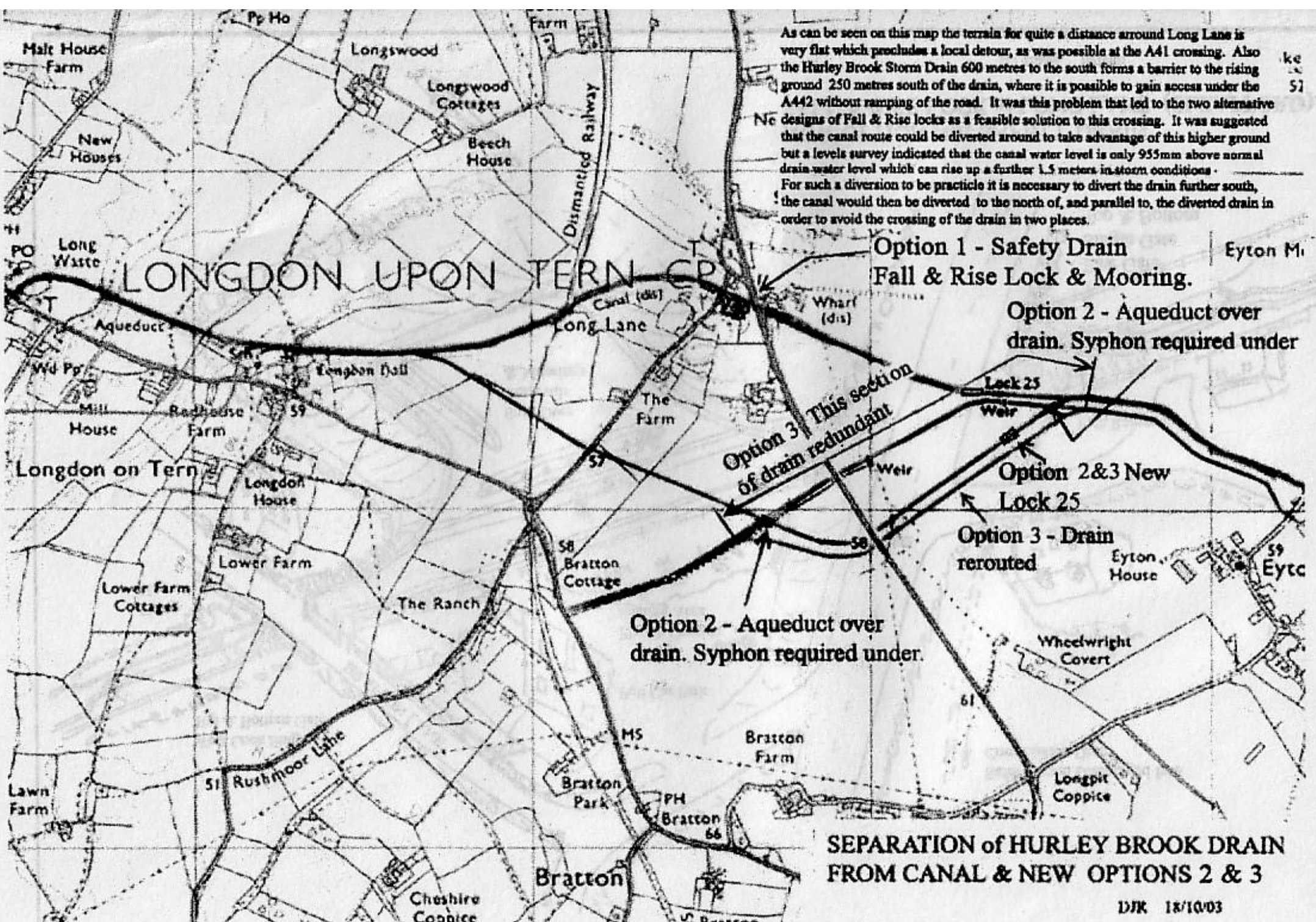
A442

Safety Drain Discharged Into  
Commission Drain

Path Ramped  
Down

East Gate  
Single Gate  
Top & Bottom

**NEW OPTION No1 SAFETY DRAIN  
FALL & RISE LOCK at LONG LANE (SLEAPFORD).**



As can be seen on this map the terrain for quite a distance around Long Lane is very flat which precludes a local detour, as was possible at the A41 crossing. Also the Hurley Brook Storm Drain 600 metres to the south forms a barrier to the rising ground 250 metres south of the drain, where it is possible to gain access under the A442 without ramping of the road. It was this problem that led to the two alternative designs of Fall & Rise locks as a feasible solution to this crossing. It was suggested that the canal route could be diverted around to take advantage of this higher ground but a levels survey indicated that the canal water level is only 955mm above normal drain water level which can rise up a further 1.5 metres in storm conditions. For such a diversion to be practicable it is necessary to divert the drain further south, the canal would then be diverted to the north of, and parallel to, the diverted drain in order to avoid the crossing of the drain in two places.

**Option 1 - Safety Drain  
Fall & Rise Lock & Mooring.**

**Option 2 - Aqueduct over  
drain. Syphon required under**

**Option 3 - This section  
of drain redundant**

**Option 2&3 New  
Lock 25**

**Option 3 - Drain  
rerouted**

**Option 2 - Aqueduct over  
drain. Syphon required under.**

**SEPARATION of HURLEY BROOK DRAIN  
FROM CANAL & NEW OPTIONS 2 & 3**