

20047.D061
TECHNICAL NOTE

RIVER MEDLOCK DIVERSION CULVERT

**STUDENT ACCOMMODATION,
DEANSGATE SOUTH,
MANCHESTER**

DATE: MAY 2023

Background

The existing land at the junction between Deansgate South and Chester Road (Bridgwater Viaduct) is to be developed into a multi-storey, purpose-built, student accommodation building. Referenced as the “*development site*” within this report.

As part of the approved planning, the developer is required to investigate the position of the below ground River Medlock Diversion Culvert, with respect to the *development site* boundary to confirm the culvert or any easement do not encroach into the proposed *development site* boundary.

The exact wording of the planning condition, 12 C) is as follows;

“The River ‘Medlock Tunnel’ (which connects the River Medlock) runs within close proximity to the site, therefore site investigation works and correspondence with the Environment Agency shall be carried out to confirm that this culvert is not located within the site boundary and that the proposed building does not encroach into the culvert easement.]”

Easements

Prior to commencement of any investigation into the location of the culvert, the Environment Agency (EA) were contacted to confirm if there were any access/easement requirements to the tunnel.

On the 4th August 2018, the Environment Agency confirmed that they do not inspect the Culvert itself is not a main river. Email attached as [Appendix I](#) of this Technical Note. Therefore, it is confirmed that on the basis that the EA do not access/inspect the culvert there is no easement. This is further reinforced by way of the fact that neighbouring developments are built directly over the culvert (2-4 Chester Road, 388 Deansgate).

We were referred to Peel Holdings, to assist with confirming the position of the culvert is outside of the site boundary.

Culvert Location

In order to ascertain the location of the culvert in proximity to the development boundary, Shear Design contacted Peel Holdings.

A site visit was undertaken with a representative from Peel Holdings in attendance on Wednesday 3rd August 2022. The entrance point of the River Medlock into the Culvert was confirmed at Knotts Mill and the inspection chamber location was also confirmed at the side of the Castlefield Basin Canal.



Figure 1.0 – End of River Medlock at Knotts Mill (Where Culvert commences)



Figure 2 – inspection chamber location adjacent to Castlefield Basin Canal

STUDENT ACCOMMODATION, DEANSGATE SOUTH, MANCHESTER

Additionally, it was confirmed that there is an intermediate inspection chamber located within the recent Castle Wharf Development (2-4 Chester Road, developed by Renaker).

Renaker developed 2-4 Chester Road (development known as “Castle Wharf”), and as part of their development were required to access and inspect the Medlock Culvert prior to their development being built over the culverts alignment. Renaker have been contacted and have provided the coordinates of the intermediate inspection chamber that is confirmed to be within Arch number 2 of the Bridgwater Viaduct. This correspondence is included with [Appendix II](#) of this report.

In 2016, the site now known as “388 Deansgate” (neighbouring to the *development site*) was granted planning permission for the residential building that currently exists. The planning decision references that the Medlock Culvert passes below the site of 388 Deansgate. Drawing information is provided as part this planning application which confirms the culverts alignment below the site of 388 Deansgate.

Manchester City Council have provided historic Bridgwater Viaduct information. This information includes a historical map of the Medlock Culvert and confirms its alignment under Arch 2 of the Bridgwater Viaduct. The map shows a reasonably straight alignment of the tunnel from Arch 2 of the viaduct to the River Medlock at Knotts Mill, confirming its alignment below 388 Deansgate and not within the boundary of the Fusion *development site*. Please refer to information held within [Appendix III](#) of this report.

Proximity to the Development Site

With the information gathered, it is possible to demonstrate that the River Medlock diversion culvert does not encroach into the *development site*.

The closest location of the culvert to the *development site*, is likely to be where the culvert passes below Arch 2 of the Bridgwater Viaduct and this is estimated to be in excess of 10m.

A drawing compiling the information utilised to confirm the proximity of the Medlock Culvert to the *development site* is attached within [Appendix IV](#) of this report.

Therefore, it is concluded that the Medlock Diversion Culvert does not encroach into the *development site* boundary and there are no known easement/inspection requirements that also encroach or impact upon the proposed development.

APPENDIX I

ENVIRONMENT AGENCY CORRESPONDENCE



Thu 04/08/2022 15:56

GMMC Info Requests <InfoRequests.GMMC@environment-agency.gov.uk>

GMMC269040SPW Response 2 from the Environment Agency

To Tara Urding

You forwarded this message on 04/08/2022 16:09.



Hi Tara,

Thank you for your follow up email which was received on the 7th July. I apologise for the delay in our response.

Please see the below response from our Asset Performance team:

'Thank you for your email. We do not have any further information to add to this response. There aren't any inspections as this section isn't a main river, even though this takes the entire flow of the River Medlock. It may have been surveyed but this wasn't done by us. The tunnel can be accessed for inspection from the outfall at Potato Wharf. We would be happy to speak directly to the engineer'

If you would wish to speak to a member of our Asset Performance team simply reply to this email and I will assist with arranging this.

Many thanks,

Shannon

Shannon Worthington

Customer and Engagement Officer

Greater Manchester, Merseyside and Cheshire

Email: inforequests.gmmc@environment-agency.gov.uk

Environment Agency, Richard Fairclough House, Knutsford Road, Warrington, WA4 1HT

APPENDIX II

RENAKER CORRESPONDENCE



Thu 11/05/2023 10:17

Mike Hughes <MikeHughes@renaker.com>

Chester Road Manhole Access Chamber Archway 02

To Pete Mills



Hi Pete,

Please see attached DWG topo of under the arches.

Manhole co-ords

383289.292 E // 397469.394 N

Topo also shows the culvert inlet of the canal so can run a line from this to the MH for the line of the culvert.

Hope this helps, and good luck on the retirement – well deserved I'm sure, and no doubt you'll be busy with other ventures!

Kind regards,

Mike Hughes BEng IEng MICE | Project Engineer | Renaker

Head Office: 1st Floor, NQ Building, 47 Bengal Street, Ancoats, Manchester M4 6BB

Site Address: T1 VITA, Water Street, Manchester M3 4JQ

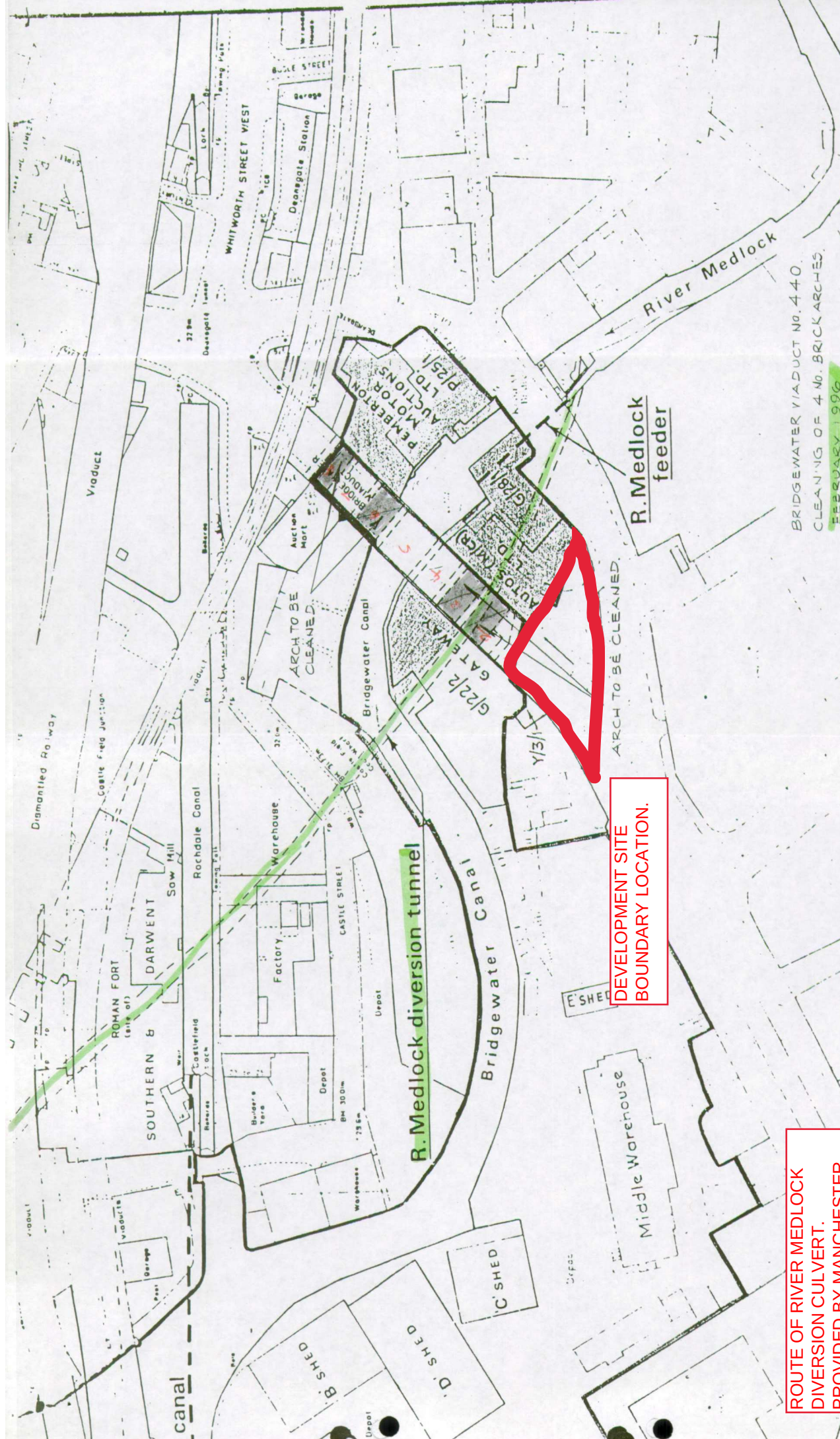
T: 0161 245 1150 M: 07557 669 470

RENAKER

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APPENDIX III

MANCHESTER CITY COUNCIL HISTORICAL BRIDGWATER VIADUCT INFORMATION



ROUTE OF RIVER MEDLOCK
DIVERSION CULVERT.
PROVIDED BY MANCHESTER
CITY COUNCIL.

DEVELOPMENT SITE
BOUNDARY LOCATION.

R. Medlock
feeder

BRIDGEWATER VIADUCT NO. 440.
CLEANING OF 4 NO. BRICK ARCHES.
FEBRUARY 1996.
A3/440/01.
LOCATION PLAN

*8 spans as seen by side white
during the JPR.*

20047.D061 – TECHNICAL NOTE (MAY 2023)

RIVER MEDLOCK DIVERSION CULVERT

STUDENT ACCOMMODATION, DEANS GATE SOUTH, MANCHESTER



APPENDIX IV

SHEAR DESIGN DRAWING



NOTES

- GENERAL**
- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS RELATE TO ORDNANCE DATUM UNLESS NOTED OTHERWISE.
 - 3. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
 - 4. ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
 - 5. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.
 - 6. THIS DRAWING IS COPYRIGHT © PROPERTY OF SHEAR DESIGN LIMITED.
 - 7. THIS DRAWING IS TO BE PRINTED IN COLOUR

KEY

- DEVELOPMENT RED LINE BOUNDARY
- EXISTING UNDERGROUND TUNNEL (MEDLOCK CULVERT)

REV	DATE	DESCRIPTION	BY	CHK
AMENDMENTS				
CLIENT:		FUSION MANCHESTER DEVCO LTD		
PROJECT:		DEANS GATE SOUTH MANCHESTER		
TITLE:		MEDLOCK CULVERT PROXIMITY		
 Consulting Civil and Structural Engineers 7 Ashtree Court - Woodsy Close - Cardiff Gate Business Park - Cardiff - CF23 8RW Tel: 029 2054 7000 - Fax: 029 2054 7001 - www.shear-design.com - enquiries@shear-design.com				
DRAWN:	AA	CHECKED:	BH	DATE: 15.05.23
SHEAR DESIGN REF:		DRAWING NUMBER:		SCALE: 1 : 500 @ A3
20047		20047 - SK 080		REVISION: - STATUS: I