

## file note

**Subject:** River Tib  
**Project:** Rylands Building - Manchester  
**Reference:** RBM-WHL-XX-XX-FN-S-0052\_P01  
**Author:** EAJC  
**Reviewer:** NGRC

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### 1.0 Introduction

During the production of information during RIBA Stage 2 through to current day, IGE, Woolgar Hunter, and RWBHO have undertaken various archival searches and desktop studies to validate design constraints and existing site information. Part of this research included the search for information pertaining to the River Tib, which is believed to be culverted below Tib Street.

This File Note sets out the various information Woolgar Hunter and others have identified, which appears to validate the presence of River Tib being historically culverted with along the length of Tib Street i.e. outwith the footprint of the Rylands Building.

### 2.0 IGE Desktop Report

IGE's Phase 1 desktop report, produced in June 2020, identified the presence of the culverted River Tib within section 3.5.3 under 'Historical Surface Excavations'. This paragraph was echoed in IGE's Phase 2 report in March 2020.

#### 3.5.3 Historical Surface Excavations

**No historic surface excavations have been recorded on-site or in close proximity to the site, and, given the location of the site and the presence of a basement and sub-basement, the risk posed by unrecorded historical surface excavations is deemed low. However, it should be noted that the River Tib was culverted at an unknown depth along the eastern boundary of the site (beneath Tib Street) in the early 19<sup>th</sup> Century (c. 1820).**

Figure 2.1: Extract: IGE Phase 1 Desktop Report

### 3.0 Manchester Library Archive

Visits to the Manchester Library archive during 2019 did not highlight any River Tib information in relation to the Rylands building specifically, but subsequent visits identified the Tib Street Sewer replacement drawings that also include recorded information for the River Tib culvert albeit further along Tib Street than the Rylands building.

The Tib Street sewer replacement drawings, dated 1985, show the River Tib already culverted and running down Tib Street. However, the drawings stop at Hilton Street as this is the intersection where the sewer was diverted towards Oldham Street.

The record drawing contained within Appendix A Figure 3.1 shows the sewer replacement along Tib Street which also includes a dot-dash line for the 'Existing River Tib Culvert'.

Crucially, the culvert appears to be tight to the southern kerb of the intersection between Tib Street and Hilton Street, this conflicts with the Lead Local Flood Authority (LLFA) drawings which show the alignment of the river being out of Tib Street by this intersection.



An extract from the archive is shown in Figure 3.1, with the full document scan included in Appendix A. The document is dated December 1985.

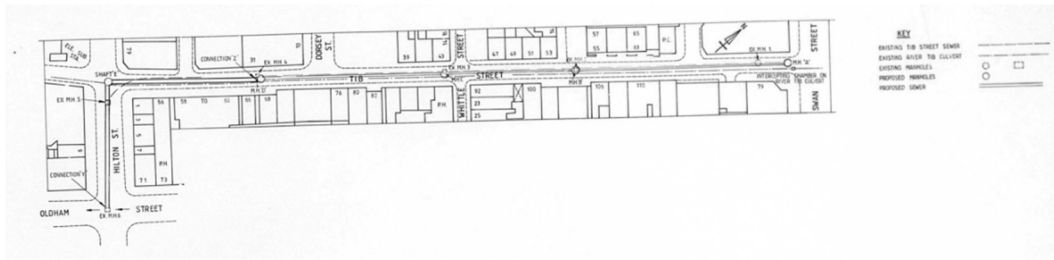


Figure 3.1: Extract: Manchester Library Archive

#### 4.0 Hidden Manchester

The Hidden Manchester map indicates the River Tib to run along Tib Street at the same intersection with Hilton Street, which is indicated in the diagram below.



Figure 4.1: Extract: Hidden Manchester

#### 5.0 Manchester City Council

The LLFA records appears to indicate the River Tib bisecting the northeast corner of the Rylands Building site and passing underneath the Transmission House development on Church Street, which is believed to have been piled.

This route of the River Tib within the LLFA records contradicts the information obtained from the various searches undertaken by the project team to date (set out above), which suggests that the LLFA maps may potentially be the original route of watercourse before it was culverted below Tib Street.



Figure 5.1: Extract: LLFA

The difference in paths of the River Tib is more clearly illustrated on the extract from the LLFA drawing over the city street map. This shows that the line of the River Tib runs parallel with Tib Street at a location where the 1985 record drawings clearly show the River being culverted along the length of Tib Street, see below.

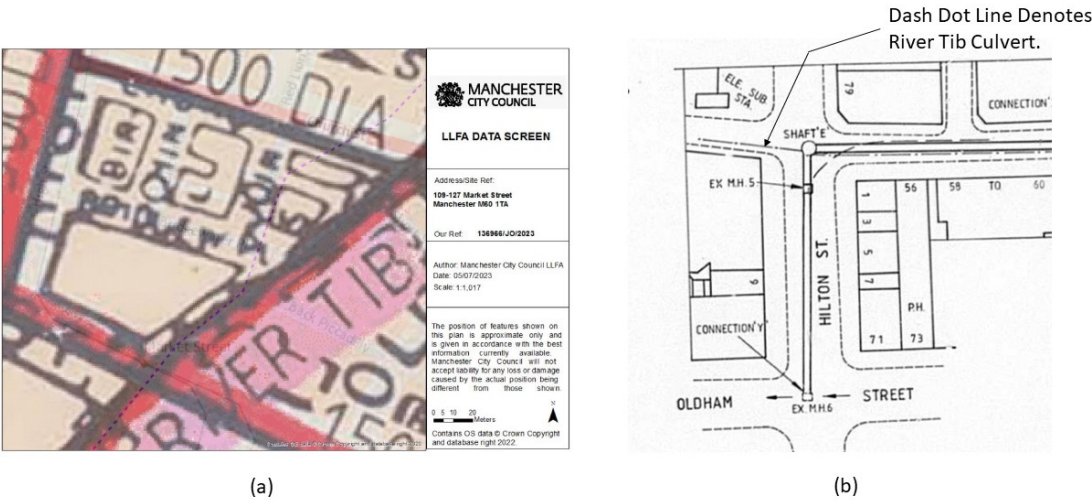


Figure 5.2: River Tib Hilton Street Intersection

## 6.0 Loadings on to the Culvert

The proposed redevelopment of the Rylands building do not alter the existing interfaces or interactions with the culverted River Tib along Tib Street.

However, it is anticipated that the contractor will place temporary hoardings, cabins, and potentially mobile cranes along Tib Street as part of the construction works.

With these potential loadings proposed for Tib Street and in conjunction with the desktop studies, RWBHO and Tier Consulting have undertaken a series of plate load tests along Tib Street to prove the adequacy of the strata to withstand the temporary pressures induced during construction activities. Refer to Tier Consulting's Temporary Works Ground Conditions report for further detailed information. This has been submitted to the council as part of the applications for erecting hoardings, potential site cabins, and temporary crane locations. This is in part in response to the collapse of the pavement on Tib Street near the corner of Debenhams.

## 7.0 Summary

Manchester City Council have raised two concerns relating to the River Tib. The first being the potential location of the river running beneath the Rylands Building which, based on the findings from the desktop studies, the collated information suggests that the original route of the River Tib may have cut through the Rylands Building site but has subsequently been culverted below Tib Street prior to December 1985. Records obtained by IGE as part of their desktop study report, submitted with the original planning application, would suggest that this culverting occurred during the early part of the 19<sup>th</sup> century.

The second concern raised by Manchester City Council is that the culvert running along Tib Street may not have the structural capacity to support plant along Tib Street during construction. RWBHO's temporary works designer's report, provided under separate cover to Manchester City Council, includes plate load testing of Tib Street, should assist in alleviating Manchester City Council's concern regarding the adequacy of the existing makeup to withstand the construction activity loads and has been formally submitted to the council for their approval by RWBHO.

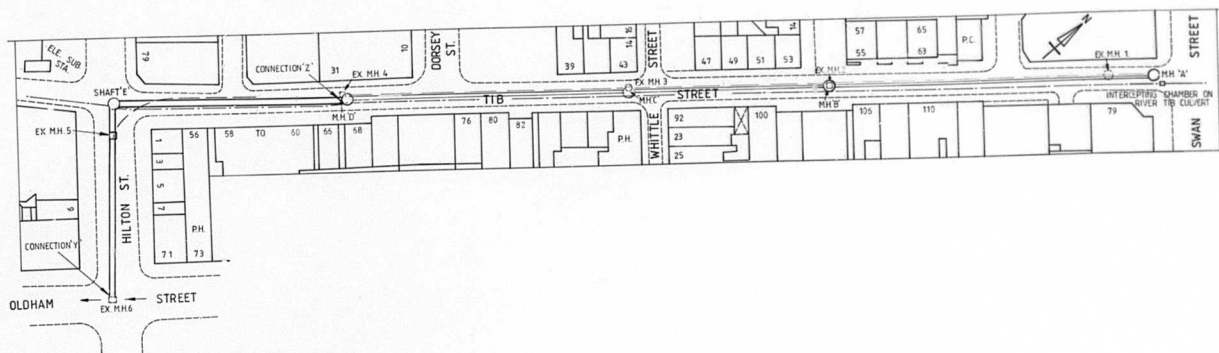
e<sub>nd</sub>

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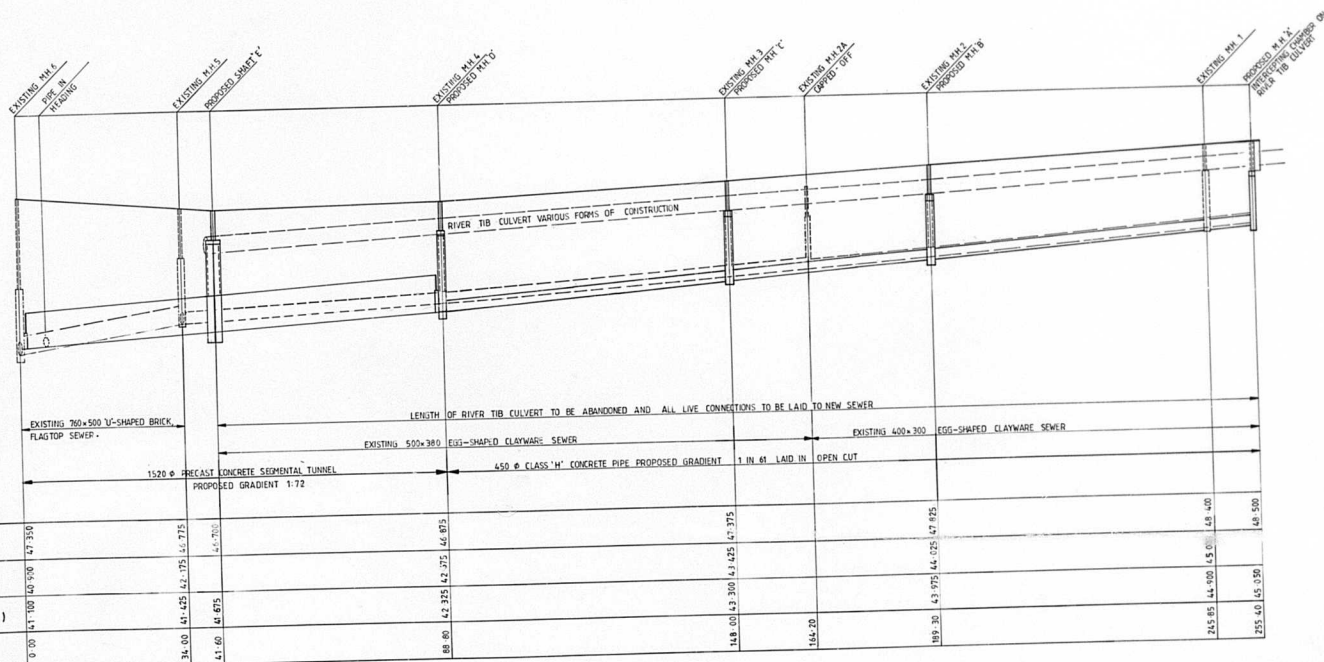
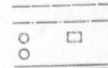
## Appendix A





KEY

EXISTING TIB STREET SEWER  
EXISTING RIVER TIB CULVERT  
EXISTING MANHOLES  
PROPOSED MANHOLES  
PROPOSED SEWER



NOTE:  
ALL LEVELS ARE BASED ON THE O.S.B.M. AT  
N° 2 WARWICK STREET VALUE 46.980m

|                                                                   |                                           |      |
|-------------------------------------------------------------------|-------------------------------------------|------|
| AMENDMENT No.                                                     | AMENDMENT                                 | DATE |
| <b>MANCHESTER</b><br>City Council                                 |                                           |      |
| CITY ENGINEER & SURVEYOR<br><b>SINCLAIR J. McLEOD</b> FICE, FIMT. |                                           |      |
| <b>TIB ST. SEWER REPLACEMENT</b>                                  |                                           |      |
| <b>PLAN &amp; LONGITUDINAL SECTIONS</b>                           |                                           |      |
| DATE TRACED: DECEMBER 1995.                                       | DATE ISSUED: _____                        |      |
| DRAWN BY: B.S.                                                    | CHECKED BY: _____                         |      |
| TRACED BY: D.G.                                                   | SCALE: 1:100 VERTICAL<br>1:500 HORIZONTAL |      |
| DRG. No. A1/7176 / 6 / 7                                          |                                           |      |



## Appendix B



**Application number:** 136966/JO/2023

**Proposal:** S19 application to amend conditions 2 (Drawing & Details), 3 (Materials), 5 (Intrusive Investigations), 6 (Repair Methodology) and 7 (Detail Drawings & Specifications) attached to application ref no 127882/LO/2020, relating to the repair, refurbishment, alteration of building.

**Location:** 109-127 Market Street, Manchester, M60 1TA

**LLFA Comments 05/07/2023**

**The following information has been considered:**

- **The email and attachments:**
  - o **From:** Angela Leckie <angela.leckie@manchester.gov.uk>  
**Sent:** 14 April 2023 10:10  
**To:** Flood Risk Management <floodriskmanagement@manchester.gov.uk>  
**Subject:** Query about below ground engineering works at Rylands Building Market Street - application ref no 127881/FO/2020
- **Decision Notice 127881/FO/2020 and 127882/LO/2020**
- LLFA discussions with Highways colleagues on a historic incident attributed to collapse of the River Tib culvert (Rob Byrne & Steven McNeill).

**We have the following comments:**

**The LLFA asset register and wider Highways records have indicated a risk that the River Tib culverted ordinary watercourse crosses the Site, or is in close proximity to the Site (running beneath Tib Street).**

Highways colleagues have confirmed an incident where heavy machinery conducting unauthorised works caused a collapse of the highway in Tib Street adjacent to Debenhams. This was specified as near the junction of Tib Street and Market Street. This collapse was attributed to the River Tib culvert being unable to withstand the loading of the machinery.

An extract of LLFA records has been provided in this response. Our records in this location have not been verified with modern survey. Formal records of the collapse incident have been requested from Highways & will be provided to the LPA if they are made accessible.

**We recommend the following for Planning Application 136966/JO/2023:**

- 1) On the basis of this proposed extension being already approved under 127881/FO/2020 and 127882/LO/2020, we suggest requiring the following information under **existing Condition 5 of 127882/LO/2020**:
  - **5a)** The proposed method statement shall be updated to include evidence of appropriate measures to protect the culvert's structural integrity during the proposed intrusive site investigations to inform the structural design. This shall include appropriate trial locations and the avoidance of loading by machinery. This should be supplied by an appropriately qualified structural engineer. This should also include evidence of investigations (as far as feasible) to determine if the culvert is located onsite or under the adjacent Tib Street.
  - **5d)** Evidence of appropriate embedded design in the proposed scheme in response to loading and foundation implications on the culvert asset, to protect both the building and the culvert. It should also provide appropriate provisions for the construction phase. This

should be in the form of an assessment supplied by an appropriately qualified structural engineer. It should include a residual risk assessment if the culvert could not be definitively located by investigations under 5a).

- 2) Regarding the proposed variation wording across many conditions under 136966/JO/2023, we note many proposed amendments to 'prior to the commencement of development'. Where any of these would create a risk of heavy machinery onsite, the LPA should first obtain assurances that this will be possible prior to the culvert investigations, to avoid the risk of another highway collapse near the Site.

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LLFA asset register extract showing indicative routes of the River Tib culverted ordinary watercourse. Our records in this location have not been verified with modern survey.



Cont. next page.



## LLFA DATA SCREEN

Address/Site Ref:

**109-127 Market Street  
Manchester M60 1TA**

Our Ref: **136966/JO/2023**

Author: Manchester City Council LLFA

Date: 05/07/2023

Scale: 1:1,017

The position of features shown on this plan is approximate only and is given in accordance with the best information currently available. Manchester City Council will not accept liability for any loss or damage caused by the actual position being different from those shown.

0 5 10 20  
Meters



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