

Garston Street Culvert Shepton Mallet, Somerset

Historic Structure Record



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Summary

Wessex Archaeology (WA) was commissioned by AtkinsRéalis Ltd to produce a historic structure record of a culvert at Garston Street, Shepton Mallet which runs from an inlet at National Grid Reference (NGR) 362195, 143710 along the south side of Garston Street, under the street and Leg Square, where it briefly splits in two, and along the north side of Lower Lane to an outlet located at NGR 362030, 143764 beside Bridge Cottage (16 Lower Lane).

The historic culvert is currently damaged and a 55 m long section extending downstream from the Garston Street inlet is proposed for lining. In advance of the works, the Senior Archaeologist at the Environment Agency recommended a historic structure record was made as future opportunities to record it will be lost. The record is in line with Level 2 as described in Historic England's guidance *Understanding Historic Buildings: a guide to good recording practice* (2016).

Due to health and safety considerations, no archaeological fieldwork was undertaken for this project, the record is compiled from existing information supplied by the Client in the form of metric survey data, CCTV video and photographs, as well as historic maps and a previous report of archaeological investigations in Garston Street related to flood alleviation works to the culvert in 2010 (AC Archaeology 2011; Somerset HER Event Record 28359).

The River Sheppey is culverted for most of its length through Shepton Mallet and the recorded culvert is one of several such structures that carry the river through the town. It is a multi-phase, predominantly stone arch structure built of mortared limestone blocks or stone rubble, although the central section where it crosses under Garston Street and behind buildings 4-6 Leg Square has a brick soffit and there are several episodes of concrete and steel alterations and repairs evident.

The culvert may have originated in the 18th century or early 19th century when this part of the town developed an industrial focus. The part of the culvert with a brick soffit may have once been open and subsequently enclosed as the brickwork is characteristic of the late 19th century or early 20th century, whereas the masonry walls appear older. Straight joints and changes in the size, shape, materials and character of the structure suggest that the culvert was gradually enclosed and extended further west, probably over the course of the 20th century. Based on their appearance, the concrete-lined walls and steel soffit repairs in the southern channel at the eastern end of the culvert may have been carried out in the mid-20th century and where the culvert passes under Garston Street a small area has been lined or rebuilt in concrete, probably in the late 20th century. Most recently in 2010, the eastern end of the culvert was modified as part of flood alleviation works when a second (northern) channel from the inlet was built to bypass the historic (southern) one, and part of the historic structure was enlarged to form a junction (i.e., distribution) chamber.

Also of interest are the four relatively large lateral culvert channels or leats that join the main one from the south. One of the channels, which has been backfilled, is a drain from the mill leat associated with the Old Flour Mill Leg Square (town mill HER no. 11078), and it is possible that a second channel is also related to the mill based on its position and alignment. A third channel empties into the bifurcation left behind 5 Leg Square although it is not clear whether it is related to this property. The fourth channel is larger than the others and runs under 4 Leg Square and is assumed to continue further south beneath the Square.



Acknowledgements

This project was commissioned by AtkinsRéalis and Wessex Archaeology is grateful to Jasmin Folland in this regard as well as for facilitating access to survey data from Glanville Geospatial Services to inform and illustrate the report. Thanks are also due to Chris Webster, Somerset and BaNES Historic Environment Records Manager, for providing a copy of the previous report on the 2010 archaeological investigations at Garston Street.

Garston Street Culvert, Shepton Mallet, Somerset

Historic Structure Record

1 INTRODUCTION

1.1 **Project background and brief**

- 1.1.1 Wessex Archaeology (WA) was commissioned by AtkinsRéalis (hereafter 'the Client') to produce a historic structure record of the culvert at Garston Street in Shepton Mallet, Somerset (Figure 1). The historic culvert is currently damaged, and a 55 m long section is proposed for lining.
- 1.1.2 In advance of the works, Greg Chuter, Senior Archaeologist at the Environment Agency (SAEA) recommended a historic structure record was made of the culvert as future opportunities to record it will be lost.
- 1.1.3 The SAEA provided the following project brief for the works:
 - Produce a written record with full plans and images to form a legacy record of the historic culvert at Garston Street proposed for lining, as future opportunities to record it will be lost.
 - The report will need to be in line with Historic England's guidance Understanding Historic Buildings: a guide to good recording practice at Survey Level 2 ([Historic England 2016,] page 29)
 - The archaeological contractor shall draw on existing survey data supplied by the Environment Agency, as well as historic maps and the previous archaeological report on the works in Garston Street HER Event Record 28359 – (Report: Corney, M, Cottam, S, Cox, P and Worrall, S. Archaeological Investigations at Lower Lane and Garston Street, Shepton Mallet, Somerset. AC Archaeology report No: ACW279/280/1/0 (2011).)
 - Once approved, upload a copy of the report to the Archaeological Data Service and the Somerset Historic Environment Record

1.2 Site location and description

- 1.2.1 Shepton Mallet is a market town in Somerset located approximately 8 km east of Wells.
- 1.2.2 The culvert recorded at Garston Street carries the River Sheppey underground. The culvert recorded for this project measures approximately 208 m in length, although there are other culverted parts of the river further up- and downstream. The recorded culvert extends from an inlet at National Grid Reference (NGR) 362195, 143710 via two channels (the northern one of which is modern) along the south side of Garston Street. The historic southern channel is the 55 m long section of the culvert to be lined. The two channels join together before the culvert crosses under the street and continues behind buildings 4-6 Leg Square, where it splits in two for a short distance, and along the north side of Lower Lane to an outlet located at OS NGR 362030, 143764. In addition, four smaller lateral culvert channels or



leats (one of which is backfilled) join the main culvert from the south, and there are numerous minor connections (pipes etc.) on both sides and in the soffit (**Figure 1**).

1.2.3 The culvert was surveyed by Glanville Geospatial Services in 2023 involving laser scanning and CCTV imaging, and this existing survey data was supplied by the Environment Agency to inform and illustrate this report. However, Glanville were unable to access some areas of the culvert due to restricted space (i.e., in the modern culvert) so the extent of some parts of the structure have been assumed.

2 METHODOLOGY

2.1 Methodology

- 2.1.1 As per the project brief, this historic structure record was based on the requirements of a Level 2 (descriptive) record as outlined in *Historic England's guidance Understanding Historic Buildings: a guide to good recording practice.*
- 2.1.2 This archaeological structure recording project was an entirely desk-based exercise using existing survey data, imagery and documentary sources. No archaeological fieldwork was undertaken by Wessex Archaeology for this project.
- 2.1.3 The record presented in this report was informed and illustrated by:
 - Existing survey data supplied by the Environment Agency
 - CAD drawing by Glanville Geospatial Services, 2023 which includes
 - Topographic Survey
 - Subsurface Asset Mapping
 - Culvert Survey (2 sheets)
 - CCTV Survey (2 sheets)
 - CCTV survey results by Glanville Geospatial Services (2023) including video, photographic stills, chainage tracker and defects reports
 - Documentary and cartographic research
 - Historic maps
 - AC Archaeology report Corney et al. 2011 Archaeological Investigations at Lower Lane and Garston Street, Shepton Mallet, Somerset
 - Mendip District Council n.d. Conservation Area Character Appraisal and Management Proposals: Shepton Mallet

3 ARCHIVE STORAGE AND CURATION

3.1 **Preparation and deposition of the archive**

3.1.1 This project has relied on third-party data and secondary sources, rather than new data collection. As a result, the only item generated by the project to be archived is the report itself.



3.1.2 As per the project brief, digital copies of this report will be deposited with the Somerset Historic Environment Record and the Archaeology Data Service (ADS), which is a Trusted Digital Repository, to ensure the long-term curation and public availability of the archaeological record. The digital file(s) will be prepared following ADS guidelines (ADS 2013 and online guidance).

3.2 Security copy

3.2.1 In line with current best practice (e.g., Brown 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

4 COPYRIGHT

4.1 Archive and report copyright

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- 4.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research, or development control within the planning process.

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5 HISTORIC DEVELOPMENT

- 5.1.1 Shepton Mallet lies on the southern margins of the Mendip Hills on either bank of the River Sheppey as it flows westward from the Mendips.
- 5.1.2 Previous archaeological investigations indicate that the valley has been the site of human activity since at least the Neolithic period and a large Romano-British settlement (Scheduled Monument no. 22803), dating between the 1st and 4th centuries AD has been discovered on the south east margins of Shepton Mallet, flanking the Fosse Way the main Roman road into the South-West (Mendip District Council n.d., 12).
- 5.1.3 An 8th century charter granted the land in which Shepton now lies (part of the Pilton estates) to the Abbey of St Mary, Glastonbury. Shepton Mallet is recorded as *Sceaptun* (the sheep farm), in the Domesday Survey, held from the St Mary's Abbey by the Courcelles family (Ibid., 12).

- 5.1.4 In the medieval period, Shepton was one of a number of small settlements along the Sheppey valley. It appears to have been deliberately developed as a commercial venture, either by Glastonbury Abbey or by the Mallet family (who held the manor from the Abbey by the 14th century). Shepton developed as a successful textile production centre based on the woollen industry (Ibid., 12-13). In the 17th and 18th centuries, the town expanded eastward along the river, to where the mills were located (Ibid., 13). The Lower Lane and Garston Street suburbs stretched eastward along the river and in the post-medieval period was a highly industrialised suburb and a mixture of clothiers' houses, weavers' cottages, mills, osier beds and watercourses (Gathercole 2003, 17). The original cloth-making industry went into decline during the early 19th century but other industries, such as silk manufacture, brewing and cheese making, grew to replace it (Mendip District Council n.d., 13; Corney et. al. 2011, 4).
- 5.1.5 The recorded culvert, which carries the River Sheppey, lies on the northwestern edge of the medieval core of the town.
- 5.1.6 William Sampson's 1790 Duchy of Cornwall map (not reproduced) shows Garston Street, Leg Square and Lower Lane all existed by this time, apparently surrounded by orchards. The map does not depict any buildings at Lower Lane or Garston Street and the latter appears to tail off just beyond Quarr.
- 5.1.7 Over the next 50 years, Shepton Mallet rapidly developed an industrial focus around Leg Square as shown on the 1841 Tithe Map (**Figure 2A**). At Garston Street, which by that time extended beyond Quarr, the map depicts a line of buildings along the southern side of the street, with a separate building in the area of modern garages. At Lower Lane, the river Sheppey was then partly enclosed in an open culvert and a line of buildings is shown which includes a mill that is thought to have originated in the 18th century but was demolished after 1990 (Corney et. al. 2011, 4).
- 5.1.8 The Ordnance Survey 1:500 scale town plan of 1886 (not reproduced) depicts the former mill on Lower Lane labelled as an Iron Works comprising two buildings with a leat and sluices. The map shows a row of properties along the south side of Garston Street with the River Sheppey here fully enclosed in a culvert by that time. The 1888 1:2,500 scale Ordnance Survey (OS) map presents a similar, but less detailed, layout (**Figure 2B**).
- 5.1.9 The 1903 1:2,500 scale OS map (Figure 2C) show no obvious changes to the line of the River Sheppey in this area, the course of the river to the north of 4-6 Lower Lane continues to be depicted, suggesting this part remained open, although as the map is monochrome it is difficult to be certain. By 1930, the area to the north of 4-6 Lower Lane appears wider (OS map Figure 2D). Either the river had been widened by this date or, alternatively, it may have been culverted and the map lines represent a larger enclosure built over the site of river. Certainly, this western end of the recorded culvert displays evidence of multiple phases of construction indicating it was extended several times since initial construction.
- 5.1.10 Little is known about the development of the culvert in the mid-late 20th century and information is sparse beyond what can be understood from its physical appearance (described in section 4). In addition to the multiple phases of enclosure and extension to the west, the historic stone culvert has been subject to multiple episodes of repair and modification to the structure in brick, concrete and steel, most recently in 2010. The corrugated concrete sheet walls and badly corroded corrugated metal soffit towards the eastern end of the structure may date from the mid-20th century based on their character and condition.

5.1.11 In 2010, the Environment Agency carried out works associated with a flood alleviation scheme at Lower Lane and Garston Street. Archaeological investigations, consisting of a strip map and sample excavation, and watching brief, were undertaken by AC Archaeology in relation to this work (Corney et. al. 2011). At Lower Lane, the existing buried culvert was widened and deepened, while in Garston Street a new buried culvert was constructed to bypass the existing one. The new culvert is the northern one connected to the inlet. This work also involved the removal of part of the historic culvert's stone arch roof and enlargement at this point to form a junction with the new culvert. The roof was replaced by a flat roof constructed of corrugated steel. The previous archaeological investigations in Lower Lane took place adjacent to the woollen mill mentioned above, which is beyond the extent of the culvert as recorded here.

6 STRUCTURE DESCRIPTION

6.1 The Culvert at Garston Street, Leg Square and Lower Lane

- 6.1.1 The recorded culvert can be divided into sections but is a predominantly mortared limestone arched structure with various phases of stone and brick construction, as well as phases of repair and modification in brick, concrete and steel including a modern concrete channel added in 2010.
- 6.1.2 Starting at the eastern end, the recorded culvert runs from an inlet at NGR 362195, 143710 via two narrow channels along the south side of Garston Street. The northern channel is a modern bypass constructed in 2010. The two channels and a backfilled drain from a mill leat connect into a junction (i.e., distribution) chamber centred on OS NGR 362131, 143726 which was enlarged from the historic culvert as part of the 2010 works. From here the main channel continues westwards, crossing under Garston Street and along the north side of Leg Square and Lower Lane behind buildings 4-6 Leg Square (where the culvert splits in two for a short distance) and along the north side of Lower Lane to an outlet located at NGR 362030, 143764 to the south of Bridge Cottage (16 Lower Lane).
- 6.1.3 In addition to the backfilled drain from the mill leat already mentioned, there are three other stone culverts which join the main channel from the south as well as multiple minor connections on both sides and from above, and irregularly spaced inspection hatches/possible manhole covers.
- 6.1.4 Starting at the inlet, the historic southern channel measures c. 55 m in length to the junction, and it is this section of the culvert to be lined. The westernmost 23 m were inaccessible due to restricted space, although the metric survey indicates there is a stone masonry arch 11.38 m long by 1.630 m wide x 0.97 m high, which then narrows to 1.25 m wide and between 0.90 and 1.02 m high. The majority of this narrow section has been modified with a corrugated concrete lining to the walls and a flat corrugated steel soffit but there is a short 1.9 m long section where the earlier stone arch remains (**Photograph 1**).
- 6.1.5 The rest of the historic southern channel varies between 0.90 and 1.10 m wide and 0.80 1.34 m high. The majority comprises a stone arch but some of the stonework has been lost because of scouring along the base of the walls. Towards the west end of the southern channel (close to the junction) there is another 3.9 m long area of modification, where the culvert walls are lined in concrete and the roof has been replaced by a corrugated steel soffit (damaged). To the west of this concrete and steel section, the culvert increases in height to 1.55 m with a flat soffit of concrete. The southern channel terminates in a stone arch where it meets the junction (**Photographs 2-7**).

- 6.1.6 The junction chamber (also known as the distribution chamber) is an irregular plan space 8.14 m long, between 2.9 and 5.7 m wide and 1.31 m high. This chamber was formed when the historic culvert was enlarged to the north in 2010 to connect with the new northern channel from the Garston Street inlet. The walls forming the southern part of the chamber are mortared limestone block construction as this was part of the historic culvert, while walls that form the north side are a mix of concrete block and concrete construction. The former stone arched roof over the historic culvert was removed as part of the 2010 works, and the entire chamber has been reroofed with a corrugated steel soffit. The extrados of the previous stone arched roof was roughly finished, but inspection of the interior revealed a more neatly faced intrados (AC Archaeology 2011, 18). The bed of the culvert within the junction chamber has been replaced in concrete and this material continues westwards 7.6 m along the culvert (**Photographs 8-9**).
- 6.1.7 The modern northern channel from the inlet was built in 2010 to bypass the historic one. It was not covered by the laser scan or CCTV survey and its route presented on the plan is assumed rather than accurately surveyed. The channel runs north-east from the inlet for approximately 13 m before turning west. It measures approximately 63 m in total and is 1.5 m wide throughout. The west end of the channel (at the junction chamber) consists of a rectangular profile concrete frame (**Photograph 10**).
- 6.1.8 On the south side of the junction chamber is a smaller channel, or leat. This is the drain from the former high level leat that powered a wheel associated with the Old Flour Mill, Leg Square (also known as Old Mill House/formerly The Bake House) immediately to the south (AC Archaeology 2011, 18). The Old Flour Mill is identified in the Somerset HER as the town mill built in 1760 or earlier, burnt down in 1850s and rebuilt. It was a cloth mill until 1810, a silk mill in the 1830s and 1840s, and a flour mill and bakery from the 1850s to 1890s (HER no. 11078). The drain from the mill leat has been largely backfilled with only 5.10 m length remaining open. It is a mortared limestone block arched channel but the opening into the junction chamber has been modified by the insertion of a concrete frame as part of the 2010 works. The stone arch survives further south (**Photograph 11**). A photograph of this part of the culvert with its roof removed and the drain from the mill leat in view is presented in the AC Archaeology report (2011, 18; not reproduced).
- 6.1.9 To the west of the junction chamber, the culvert continues as a stone arched channel built of mortared limestone blocks (Photograph 12). The concrete floor within the junction chamber continues for 7.6 m before changing to a natural bed. The culvert kinks as it crosses under the street. At 24.3 m chainage, where the culvert starts to cross under the street, there is a change in the soffit material from squared limestone blocks to rubble stone, with a slight drop in the arch and a brick repair on the north side (Photograph 13). At 29 m chainage, a small area of the culvert has been lined or rebuilt in smooth concrete with a shuttered concrete soffit. Here another stone arched culvert joins the main one from the south, although the opening between the two is also formed of concrete (Photographs 14-15). This other culvert runs south-east towards the Old Flour Mill (town mill HER no. 11078) and may be a former leat associated with this property similar to the one connected to the junction chamber. After the short concrete section, the main culvert changes back to a low limestone block arch construction (3.14 m wide by .086 m high) and a metal pipe cuts through the channel. After passing under the street, the culvert returns to its former alignment and runs behind buildings 4-6 Leg Square. The soffit changes to shallow arched brick at this point (Photograph 16).
- 6.1.10 Behind buildings 5 and 6 Leg Square the culvert splits in two for a distance of 5.66 m. The bifurcation right (northern channel) is the larger of the two and the brick soffit continues through it. It measures 1.4 m in width compared to the stone-built bifurcation left, which is



only 0.8 m wide and features worn stone walls and soffit. Towards the western end of the bifurcation left it is joined by a small incomer stone channel from the south (**Photographs 17-20**).

- 6.1.11 After the bifurcation, the culvert continues with limestone walls and a shallow arched brick soffit. Between the bifurcation and the outlet, the culvert varies slightly in dimensions ranging from 2.48 to 3.13 m wide and 1.04 to 1.69 m high. There are two drops in the floor level around the 60-63.5 m chainage mark, 6-9 m west of the bifurcation. Further west, at 68 m chainage, the main culvert is joined on the south side by a lateral stone channel at least 5 m long and assumed to extend much further (**Photographs 21-24**).
- 6.1.12 In line with the boundary wall for 4 Leg Square (70 m chainage), the culvert soffit changes from a brick to a lower stone arch (**Photograph 25**). Straight joints accompanied by at least five changes in culvert size, arch profile and character over a distance of 45 m clearly demonstrate that the western end of the recorded culvert was constructed in multiple phases as it has been extended several times, probably over the course of the 20th century.
- 6.1.13 Proceeding west from 4 Leg Square, the low stone arch continues for 15.5 m at which point the culvert narrows to 2.48 m wide; there is a possible manhole cover overhead at this point (**Photograph 26**). This narrower section continues for 7.10 m (to 93.5 chainage) where the channel widens again to 2.82 m, there is another straight joint, and the line of the stone arch changes again (**Photograph 27**). This wider section continues for 11.7 m and contains another drop structure to deepen the culvert. A concrete plinth extends along the south side of this part of the culvert and the masonry forms a narrow shelf or ledge along the north side. At 106 m chainage the concrete plinth terminates as the culvert widens again but the stone ledge continues (**Photographs 28-29**). At 113 m chainage, there is another straight joint and change in size and direction as the culvert turns to flow into the outlet to the south of Bridge Cottage 16 Lower Lane. This end of the culvert is cut through by multiple metal pipes and cables and terminates in a two-course limestone arch (**Photographs 30-32**). The river Sheppey continues westwards along Lower Lane in an open channel (**Photograph 33**) heading towards the former site of the Lower Lane mill building and factory investigated by AC Archaeology (in 2011).

7 DISCUSSION

- 7.1.1 The River Sheppey is rarely seen above ground in Shepton Mallet as it is canalised and culverted for most of its length, carried through structures such as the one recorded at Garston Street. The recorded culvert is approximately 208 m orientated east-west and extends from an inlet on the south side of Garston Street, crossing under the street and behind buildings 4-6 Leg Square where it splits in two for a short distance, along the north side of Lower Lane to an outlet in front of (south of) Bridge Cottage, 16 Lower Lane.
- 7.1.2 The recorded culvert was found to be predominantly an arched stone structure built of mortared limestone blocks or stone rubble, although some parts have a brick soffit and there are several episodes of alterations and modern repairs in concrete and steel.
- 7.1.3 The culvert may have originated in the 18th century or perhaps the early 19th century when this part of the town rapidly developed an industrial focus. However, straight joints and changes in the size, shape, materials and character of the structure indicate that it was built in multiple phases and suggest that the culvert was gradually enclosed and extended further west, probably over the course of the 20th century. The parts of the culvert with a shallow arched brick soffit may have originally been open and been subsequently enclosed, the character of the brickwork suggests a late 19th or early 20th century date, whereas the



masonry walls are probably older. The concrete-lined walls and steel soffit repairs in the southern channel at the eastern end of the recorded culvert may have been carried out in the mid-20th century based on their appearance and where the culvert passes under the street a small area has been lined or rebuilt in concrete, probably in the late 20th century. Furthermore, the eastern end of the culvert was recently modified in 2010 as part of flood alleviation works when a second channel from the inlet was built to bypass the historic one, and part of the historic culvert was enlarged to form a junction chamber (works monitored by AC Archaeology). The modern concrete and corrugated steel materials contrast with the historic stone structure. As recorded in 2023, the historic southern channel appears to be in poor condition with the walls extensively undercut by scouring, damaged masonry and the metal soffit repairs are heavily corroded, hence the urgent need for the proposed lining.

- 7.1.4 In addition to the main culvert there are four relatively large lateral culvert channels or leats that join the main one from the south. One of the channels is a backfilled drain of a mill leat associated with the Old Flour Mill, Leg Square (town mill HER no. 11078). A second channel, which joins the main one under Garston Street, may also be associated with this mill based on its position and alignment. A third channel empties into the bifurcation left behind 5 Leg Square although it is not clear whether it is related to this property. The fourth channel is larger than the others and runs under 4 Leg Square and it is assumed to continue further under the Square.
- 7.1.5 The numerous minor connections in the walls and soffits are of varying date and include historic drains and (possible) covers featuring stone surrounds, as well as metal, ceramic or concrete pipes that have been cut into (or in some cases pass through) the culvert.
- 7.1.6 This report provides a record of the culvert before a 55 m long section (the historic southern channel from the Garston Street inlet to the junction chamber) is lined, after which the opportunity to record it will be lost. Copies of the report will be deposited in the Somerset Historic Environment Record and with the Archaeology Data Service to ensure the record is publicly available for future research and interest.



REFERENCES

Bibliography

- ADS 2013. Caring for Digital Data in Archaeology: a guide to good practice. Archaeology Data Service & Digital Antiquity Guides to Good Practice.
- Brown, D. H. 2011. Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (revised edition). Archaeological Archives Forum.
- Corney, M, Cottam, S, Cox, P and Worrall, S. 2011. *Archaeological Investigations at Lower Lane and Garston Street, Shepton Mallet, Somerset.* AC Archaeology report No: ACW279/280/1/0
- Gathercole, C. 2003. *An archaeological assessment of Shepton Mallet*. English Heritage Extensive Urban Survey.
- Historic England 2016. *Understanding Historic Buildings: A guide to good recording practice*. Historic England Advice and Guidance HEAG099.

Internet sources

Somerset Historic Environment Record <u>https://www.somersetheritage.org.uk/</u> (accessed 16 Oct 2023)

Documentary and cartographic sources

CAD drawing 00950_0.dwg	by Glanville Geospatial Services
Contains:	Dated:
Topographic Survey	20/04/2023
Subsurface Asset Mapping	April 2023
Culvert Survey (2 sheets)	April 2023
CCTV Survey (2 sheets)	April 2023





A: 1841 Tithe Map





C: 1903 OS Map



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Map A from Know Your Place: Somerset. Maps B-D = Reproduced from the 1888, 1903 and 1930 Ordnance Survey maps. Scale: Not to scale	
Approximate location of recorded culvert Date: 27/10/2023	





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Key to Symbols and Line-types

Known Culvert Extent

OSD

- Assumed Culvert Extent

 Culvert Soffit Detail
 - Culvert Defects

Outside Diameter

Photograph Viewpoints

+	Key to Symbols and Line-types
	Known Culvert ExtentSelectionCulvert Soffit DetailCulvert Soffit DetailCulvert DefectsOSDOutside Diameter12Photograph Viewpoints
BRICK REPAIR TO SOFFIT	
- CH. 24.0m - Ch. 22.0	

INVERT CHAN

5 m	Contains survey data repr This material is for a histo This material is for client r	roduced from 00950_0.dwg (Gla rical record, Do not use for com report only © Wessex Archaeolo	anville Geospatial Services struction purposes. ogy. No unauthorised reprc	, 2023), provided by the Client. duction.	
	Date: 24/10/2023	Created by: GF	Revision: 0	Scale: 1:100 at A0	
	Figure 4: Culvert at	Garston Street, Shepto	n Mallet (Sheet 2 of	2)	

Photograph 1: Inaccessible concrete lined and re-roofed part of the southern channel from the inlet

Photograph 2: Intact stone arched part of the southern channel from the inlet

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graphs from CCTV survey by Glanville Geospatial Services (2023), supplied by the Client.	Date: 25/10/2023	Revision: 0	

Photograph 3: Example of the scouring which has undercut the southern channel at the east end of the recorded culvert

Photograph 4: Rough-coursed stone arch along the southern channel from the inlet

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Photograph 5: Another concrete-lined and metal-roofed section towards the western end of the southern channel from the inlet

Photograph 6: The concrete soffit at the eastern end of the southern channel

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Photograph 7: The opening of the southern channel into the junction chamber

Photograph 8: The junction chamber viewed from the east

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Photograph 9: The north side of the junction chamber, built in 2010.

Photograph 10: The east end of the modern channel from the inlet, built in 2010.

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Photograph 11: The drain from the mill leat on the south side of the junction chamber

Photograph 12: View looking west along the culvert from the junction chamber (8m chainage)

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Photograph 13: A change in soffit material from limestone ashlar blocks to stone rubble and drop in the arch as the culvert crosses under the street (24.5m chainage)

Photograph 14: A concrete section of the culvert under the street carriageway, with a smaller stone culvert joining from the south (left) (29.5m chainage)

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Photograph 15: The stone arch culvert which may be a leat associated with the Old Flour Mill, Leg Square (town mill, HER no. 11078; 29m chainage)

Photograph 16: A view looking west towards the bifurcation showing that the soffit has changed to brick (40.5m chainage)

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Photograph 17: The stone wall which divides the culvert into bifurcation left and bifurcation right (c. 47m chainage)

Photograph 18: Bifurcation right (48m chainage)

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Photograph 19: Bifurcation left (49m chainage)

Photograph 20: The west end of bifurcation left with a lateral connecting channel or leat on the left (52m chainage)

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Photograph 21: The culvert to the west of the bifurcation (55m chainage)

Photograph 22: A pair of drop structures lower the floor level (c.59m chainage)

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Photograph 23: Photograph showing the change from a brick soffit to a lower stone arch, plus a lateral channel or leat on the left (c.67m chainage)

Photograph 24: The lateral channel that runs south under 4 Leg Square and presumably further under the Square (67m chainage)

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Photograph 25: A pipe crossing through the culvert (c. 78m chainage)

Photograph 26: The narrow part of culvert towards its western end (86-93m chainage). Note the multiple variations in the size and shape of the arch. A possible manhole cover is visible top right.

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Photograph 27: Another change to the size and shape of the culvert (from 93m chainage)

Photograph 28: Another drop structure (97m chainage) and the concrete plinth built along the south wall of this part of the culvert

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Photograph 29: The western end of the concrete plinth as the culvert widens again (106m chainage)

Photograph 30: The western end of the culvert partially blocked by pipes and cables (113m chainage)

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Photograph 31: The western end of the culvert partially blocked by pipes and cables (113-118m chainage)

Photograph 32: The arch at the western end of the culvert (118m chainage)

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Photograph 33: At the outlet looking west along the river Sheppey. Bridge Cottage 16 Lower Lane is on the right.

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