An Archaeological Survey of the Town Lade PERTH

PE51

Alder Archaeology Ltd

AN ARCHAEOLOGICAL SURVEY OF THE TOWN LADE PERTH

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SUMMARY

Alder Archaeology Ltd was commissioned by Tulloch NET and PKHT to carry out an archaeological walkover survey and basic desk-based assessment of the Perth's historic lade to give an overview of its cultural heritage. The city lade runs for some 4.5 miles from a weir known as Low's Work on the River Almond by Huntingtower, through Tulloch estate and onwards to Perth city centre where it exits into the River Tay by the Old Tay Bridge. The entire non-culverted length of the lade was surveyed over four days between the 10th and 24th of May 2011. The recent winter flooding had caused damage to the weir at the intake on the River Almond and this meant that upper portions of the lade were dry during the survey. As well as recording the general conditions and alterations to the mills along the lade, the survey identified several new features including earthworks near Ruthvenfield and various clay pits of unknown date below Perth crematorium.

The site code for the project was PE51.

1 Introduction

1.1 Introduction

Tulloch NET in partnership with Perth and Kinross Heritage Trust commissioned Alder Archaeology Ltd to undertake a basic desk-based assessment and archaeological walkover survey along Perth's historic lade. The lade runs for 4.5 miles from a weir known as Low's Work near Huntingtower through Tulloch and around the city centre of Perth where it is culverted. In the city centre the lade diverges at Methven street, one route going down South Methven Street and exiting into the Tay at the end of Canal Street, the other heading down Mill Street and exiting into the Tay at Smeaton's 18th century bridge. The site code for the project was PE51.

1.2 Objectives

The main aim of this project was to provide a summary of archaeological and historical sites associated with the lade. A further aim was to try to obtain information about its construction and development. The results of this work are to be incorporated into the Perth and Kinross Historic Environment Record and will be used to inform the forthcoming management plan for the lade.

1.3 Scope and limitations of the project

Financial restrictions on the project meant that the desk based assessment had to be limited in its extent, particularly the number of sources consulted. This was necessary due to the complexity of the subject matter and the large number of site records associated with the lade, particularly in the centre of the historic burgh. Sources consulted included the National Monuments Record Database, Perth and Kinross' Historic Environmental Record, historical maps available online, information supplied by local historian Bill Grigg and information in the SUAT (Scottish Urban Archaeological Trust) archive, now held by Alder Archaeology.

The walkover comprised a rapid survey covering all non-culverted parts of the lade from Low's Work to the Lower City Mills. The branch of the lade known as the Balhousie Lade and the culverted lade through the city centre were not walked.

A small community survey was also carried out as part of this project involving students from Perth Grammar School. The results of this survey have been summarised in an appendix to this report.

1.4 Acknowledgements

Many thanks are given to Richard Higginbottom of Tulloch NET, local historian Bill Grigg and David Strachan and Sarah Winlow of Perth and Kinross Heritage trust for their help and support during the set up of this project. Alder would also like to thank Mary Lewis and Susan Maclaren of Perth Grammar School as well as students Megan Allen, Dillon Kennedy, Daniel Nairn and Daniel Nicholson, for their help with surveying.

2 Methodology and Approach

2.1 General

The project was carried out in four stages:

- A desk-based assessment and partial synthesis of historical data.
- A community survey with students from Perth Grammar School.
- The archaeological walkover survey of the lade starting at Low's Work and finishing in Perth city centre.
- Production of this report and the supplying of data to Perth and Kinross Heritage Trust who manage Perth and Kinross' Historic Environmental Record.

2.2 desk-based Assessment Strategy

The basic desk-based assessment was carried out by two different members staff between February and July 2011. The following sources of information were consulted:

- *Historic Scotland:* the Schedule was checked for any Scheduled Ancient Monuments or listed buildings along the lade.
- *The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS):* sites recorded in the National Monuments Record of Scotland (NMRS).
- *Perth and Kinross Historic Environment Record (HER).*
- *The Map Library of the National Library of Scotland:* historic maps available online.
- *British Geological Survey (bgs.ac.uk):* Online geological map viewer (1:50,000)
- *Old-maps.co.uk:* Historic OS maps available online.
- *Bill Grigg, local historian:* Information from his historic study of Perth's lade
- *SUAT (Scottish Urban Archaeological Trust) Archives (now held by Alder Archaeology Ltd)*

The DBA component of this project involved listing and summarising any archaeological and historical sites associated with the lade.

2.3 Walkover survey strategy

The walkover survey was carried out by a two person team over four days between the 10th and 24th of May 2011. The level of survey employed during the project enabled the following information to be gathered:

- The location of sites. This was marked on a digital OS map printed out at 1:2,000 or located using a handheld GPS.
- A brief description of each site.
- A brief interpretation of each site.
- Notes on the condition of each site.
- A photographic record.

3 Results of the desk-based assessment and survey

The results of the DBA and survey are given in Appendices 1 and 2 at the end of this report. Locations of sites and can be found on illustrations 2a-2e.

Sites located in the DBA were give numbers 01-52. The community survey was allocated numbers 101 – 199. The site walkover survey used the numbers 200-261.

4 Summary & Conclusion

In general the project has been successful and has led to the creation of a very full list of historical and archaeological sites associated with the lade. This is much more comprehensive than any previously available list of such sites, and also includes an up-to-date description of the condition and nature of surviving features. The project also led to the discovery of several new sites which warrant further research.

Surviving industrial sites along the lade

The project has revealed that there are few surviving industrial remains along the lade, considering the size and the number of the mills and factories that have been associated with the waterway. Shepherd's mill, Low's Work, Huntingtower Bleachfield, Tulloch Bleachworks and the City Mills are the best surviving of these industrial remains and should be considered key sites for a historical trail along the lade. Sites of lesser importance but of interest include the remains at Huntingtower Mill, the building at Wallace Works, Ruthvenfield Printworks, the various bridges and the railway remains.

Other Sites of Interest

Several sites were identified that were not associated with industry in particular. These include the barracks wall, the rifle range, the gasometer and building associated with Newtown House, the clay pits, the features S of Shepherd's Mill and the channel at Ruthvenfield near Huntingtower Castle. These features should be considered important as taken together they cover a variety of non-industrial historical themes and each of them has the potential to enhance a historical trail of the lade.

Dating parts of the lade

This was the most challenging aspect of the project and in essence, very little was resolved from the DBA or survey. This largely stems from the difficulty of dating the lade from banking and revetting walls alone. Discounting any brick and concrete walls associated with sites, there were essentially three types of lade edging noted: drystone revetting walls, wooden revetting and simple earth banks. Even though medieval drystone revetting has been discovered in the early defensive ditch around Perth, we can probably ascribe much that noted during the survey to the 18th or 19th centuries when drystone construction for non load-bearing walls was still commonplace. The wooden revetting on the other hand, seems to represent the last phase of repairs to the lade, in the early to mid 20th century. As both of the above probably represent repairs to the original lade channel edging, the precise dating of distinct sections of lade remains difficult. However, sections of channel with simple earth banks may be the least altered and arguably the earliest parts of the lade - though these no doubt, have been altered over time as the lade channel was periodically cleaned out.

4.1 Further Work

There are a variety of recommendations for further work following this project:

Site(s)	Recommendation
Low's Work (200)	The historic character of the Low's Work site means that professional archaeological supervision and mitigation should be implemented when repairing the flood damage to the current weir structure. This is recommended because excavation around or under this feature may reveal earlier (perhaps even Medieval) deposits and some of them may be waterlogged and have a high degree of preservation. It is also recommended that the use of large tracked vehicles to repair the structure is restricted or carefully designed in order to reduce the damage to the boulder surface.
Huntingtower Bleachfield (204) and Shepherd's Mill (223)	The waterwheels and buildings housing them at Huntingtower Bleachfield and at Shepherd's Mill are the most impressive of all the remains along the lade. A detailed building recording of these structures, possibly as part of a community survey, is recommended. This would be advantageous as the structures are in a ruinous state and are continually degrading. Also, a record would be important in advance of any (community based)? consolidation works that might take place in the future. A standing building survey would also create information for any future interpretative panels at the sites.
Tulloch Bleachworks (243, 245, 246, 247)	Tulloch Bleachworks is a key industrial site. The most important and impressive historical feature now remaining is the long block of factory buildings built by Pullars in the 19th century. As the buildings are the sole survivors from the factory, they have considerable significance for the cultural heritage of the lade and the social history of this part of Perth. Their lack of protected status is a concern. We recommend further historical research into these structures to identify if a community based recording project is worthwhile. Such research could also include inquiries into the possibility of getting this building listed, a worthwhile consideration bearing in mind that these buildings make up the largest brick-built Victorian factory complex still standing in Perth. Little further work is recommended for nearby sites identified in the survey, though the vegetation could be cleaned back at the outflow channel to enable a better view of the brick edging from the lade path.
Wallace Works (255)	Archival research into the surviving building at Wallace Works may reveal its original function and more about the working of this factory complex. The back wall of this building would also be an ideal location for an interpretative panel. The Wallace Works (latterly Don and Low textiles) survived as a major landmark on the Dunkeld Road until it was demolished in the 1990s.

Perth Barracks (257)	Further archival and documentary research may shed light on the function of the enclosure located next to the barracks behind the former powder magazine.
Boot of Balhousie (26, beside 253)	The culvert entrance was not seen during the survey but it may lie below the mud. We recommend visits to this site when the level in the lade is low, to check if the culvert entrance is occasionally revealed.
Huntingtower Mill (229)	This site, though largely redeveloped does contain partially intact mill buildings from at least two phases. The site may therefore benefit from some form of building recording, to gain further understanding of the different phases of the mill.
Shepherd's Mill Features (224)	We recommend that the various banks, mounds and channels in this band of woodland are surveyed as part of a community project. This should give a better understanding of the form, date and significance of the features.
Channel near Huntingtower Castle (236)	This feature should be should be walked and mapped to ascertain its likely date and function.
Clay Pits (238)	We recommend that these pits are surveyed as part of a community project to record their exact form, location and to see if they are associated with any other features. Through this survey it may be possible to gain a better idea of their date.
Gasometer (239) and Building (240)	These features could be cleaned back, consolidated and be interpreted as part of a historical lade walk. Such interpretation could include information about Newton House which was located where Perth Crematorium now stands. Further historical research is needed however to discover the precise function of the rectangular building.
Culverted parts of the lade	For health and safety reasons this project has been limited to the surveying the open sections of the lade. However, there will be features of historical interest along the culverted parts of the lade below the city centre of Perth. Investigations of these culverted parts could potentially reveal: • The intakes, outflows and foundations of now demolished mills which were once located along the lade in the City centre. • Phasing and the different techniques used in the construction of the culvert. • The nature of major divisions and junctions along the route. If access was granted, such investigations could be carried out using voluntary archaeologists associated with the Grampian Speleological Group who are experienced in underground investigations, and who are closely associated with the Scottish Cave Rescue Organisation.

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Note: References have been collected by the authors from a variety of sources using different conventions. For the present purpose these have not been harmonised.

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Detail of Perth from Mr Timothy Pont's map of part of lower Angus and of Perthshire east of the Tay (Pont 26), [ca 1583-96].

'Plan of Perth & adjacent places, with a projection of a Cittadel' by Brigadier Louis Petite, [c1716]. Reproduced by permission of the Trustees of the National Library of Scotland (NLS shelfmark: MS.1647 Z.03/01a).

'An Exact Plan of the Town and adjacent parts of Perth as it was fortified and possess'd by the Rebells in Scotland till they were driven thence by the Victorious Arms of King George', attributed to Captain William Horneck, 1716.

'Eye Draft of Perth' by Lieutenant Eyres, 1746.

Detail of Perth from William Roy's Military Survey, [1747-55].

'A Plan of the Town of Perth taken from an Actual Survey' by A Rutherford, 1774.

Part of 'A Plan of the Ancient Town of Perth & its Environs' by William Macfarlane, 1792.

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Appendix 1 Site Lists

1.1 Sites identified in desk-based assessment

No	*Name*	*Type of Monument*	*Period(s)*	*Local SMR Number*	*NMRS No*	*Easting*	*Northing*	
01	The Town Lade	Mill race / lade	Medieval to 19th century	MPK 3508	NO12SW 50	NO 0699 - 1203	2567 - 2381	

Summary: The town lade extends from the weir known as Low's Work on the River Almond through Huntingtowerfield, Ruthvenfield, Tulloch and eventually joins the River Tay in the centre of Perth. In the city centre the lade diverges at Methven street, one route going down South Methven Street and exiting into the Tay at the end of Canal Street, the other heading down Mill Street and exiting into the Tay at Smeaton's 18th century bridge.

The origins of the lade are unknown, but it was presumably in existence in 1244, when Alexander II (1214-49), the founder of the Blackfriars monastery in Perth, allowed the friars the right to a conduit, four inches square, from the stank or dam of his mill of Perth (*Perth Blackfriars*, 38). The Lade may have been in existence in the early 12th century, when David I (1124-53) granted the teind of his mills on the Almond to the monastery of Scone (*RRS*, i, no 243). Malcolm IV (1153-65) confirmed this grant and additionally granted to the abbey 10s yearly from the rent of his two mills of Perth, described as situated on the River Almond (*RRS*, i, no 250). 'Almond' here could mean the Lade which is fed from the River Almond and which was the water supply to power the mills.

There is little or no historical information about the relationship of the lade to the town's defensive ditch. There is some argument that the lade was constructed to bring water to the defensive ditch, but this seems unlikely as simply filling in the lade outside the city, would soon render the ditch waterless. Instead, it seems much more likely that the lade was constructed to bring in fresh water and power to the centre of Perth. Nevertheless, the outflows from the earliest mills in Perth powered by the lade would probably have ended up in the defensive ditch, as it provided a convenient method of draining excess water into the Tay. Excavations of the defensive ditch (see below) suggests it silted up in the 14th and 15th centuries, so we can probably infer that lade channel was altered or diverted slightly during the late medieval period.

Maps and plans by Captain William Horneck (1716), Petit (1716), Lieutenant Eyres (1746) and Rutherford (1774) show that by the 18th century the lade, though open to the air, essentially followed the same route as it does today. Between the late 18th and late 19th centuries, the lade gradually became culverted over. This started with the culverting of the E side of Canal Street by 1792 (Macfarlane) and by 1805 (Kirkwood and Sons) the whole of Canal Street and South Methven Street. By this time the northern route had also been enclosed for a short distance on either side of George Street. The section of lade along Mill Street was not culverted till the late 19th century with the construction of the Pullars Dyeworks building. Finally, extensions to the culverts were created in the 1870s with the construction of Tay street.

The culverted lade has been revealed on a number of occasions during excavations. The south route was exposed in 1986 when work by BT at 17 Canal Crescent / King Street showed the lade to lie 0.45 m below street level. The walls were found to be of drystone construction, 0.3 m thick and the roof mortared and barrel vaulted. In 1993 a 10m length of this route collapsed in Canal Street. This showed the culvert to be 2m wide and again barrel vaulted. Both these investigations found the S route of the lade to be dry. The N route of the lade was exposed during redevelopment of the Pullars site in 1999 but further discussion of the findings are beyond the scope of this report.

02	Town's Defences	Wall, ditch	Medieval to mid 18th century	MPK 3507	NO12SW 5	NO 12	24	
Summary: A ditch is recorded in the late 12th century, replaced by walls in the 13th century, which were strengthened in stone by Master Walter of Hereford on the orders of Edward I of England in 1304, with a ditch and peel ordered about 1306, and further work ordered in 1307. In 1313, after Perth's capture by Robert I, the walls and ditches were destroyed. When Edward Balliol captured Perth in 1332 he fortified the town with a palisade, but was soon forced to withdraw and his defences were destroyed. In 1335 Balliol, with the support of Edward III of England recaptured Perth and the defences were rebuilt, first in 'mud', then in stone. The stone wall survived until the 18th century when it was demolished as part of the improvements to the burgh. There is a supposed fragment of this wall still standing in Albert Close on the S side of the current route of the lade. Four archaeological excavations have revealed the defences: Marks and Spencer's in 1975-77, Boots in 1979-80, 29-30 South Methven Street in 1979-1980 and excavations at the Red Brig in 1991. The first two investigations showed that a wide ditch and a possible town wall lie much further south than the current N route of the lade (and city wall at Albert Close). The ditch found in the Boots excavation was in existence by the early 13th century and there was evidence that this ditch was revetted in stonework, possibly in the same period. This ditch seems to have begun to silt up after the mid 14th century and been deliberately infilled and levelled up by the early 15th century. To the N, the excavation of Pullars dyeworks in 1999, possibly revealed the N side of this ditch (see site 52 below). The sections of ditch uncovered in the Marks and Spencer's excavation seems to be contemporary with those at the Boots site. The wall found on the Mark's and Spencer's site, which included ashlar stones in its construction, could be that ordered by either Edward I or Edward III. It remains possible however, that these remains could be the earlier wall attributed to Edward I whilst the remains of a wall to the N at Red Brig, are those built by Edward III. The excavation at Red Brig in 1991 revealed clay bonded wall footings at water level which could have been the base of the later medieval city wall. A wooden sleeper beam found in water at this location was interpreted as a possible abutment of Red Brig across the Lade. The defensive ditch on the W of the city was revealed during excavations at 29-30 South Methven Street. Here the W side of a 5m deep ditch was discovered slightly to the W of the current lade culvert. The earliest deposits in the ditch were ascribed to the late 14th century, the second to the 15th century when the lade was also widened and possibly revetted on the W side with un-mortared stones. The last stage of infilling seemed to relate to the culverting of the lade to the E.								
03	Red Brig Port & Town Wall	Wall, gateway	Early 14th century to mid 18th century	MPK 6441	NO12SW 231	NO 1192	2373	
Summary: See Town's Defences (01)								
04	Castle Gable	Barley Mill	Early 18th to mid 19th century	MPK 15269	-	NO 11896	23745	
Summary: A barley mill is marked on Rutherford's map of 1774.								

05	Pullar's Dyeworks, 1 Mill St	Mill	19th century	MPK 8651	NO12SW 328	NO 1176	2377	
Summary: Pullar's Dyeworks was established in 1824, and closed in 1993. Between 1864-1896 extensive stone and brick-built dyeworks and dry cleaning establishment were sited over Perth Lade next to Mill Street. The site has now been redeveloped with the frontage of the Kinnoull and Mill Street buildings retained for Perth and Kinross Council offices.								
06	Public Baths, Murray St	Baths	19th century	MPK 10348	NO12SW 526	NO 1161	2374	
The following information was supplied by Bill Grigg: *Summary:* In 1846 public baths were built by subscription over the culverted lade along Mill Street [Murray Street].								
07	High Street, printed cotton factory	factory	18th-19th century	MPK 15252	-	NO 11567	23748	
Summary: No further information found during DBA								
08	23-29 South Methven Street	Lade, ditch	Medieval	MPK 3398	NO12SW 142	NO 1155	2368	
Summary: See Town's Defences (01).								
09	South Methven Street, excavation	Lade, ditch	Medieval	MPK 15217	-	NO 11535	23575	
Summary: As above								
10	Turret Brig Port	Gateway	Medieval	MPK 15276	-	NO 11550	23636	
Summary: No further information found during DBA								

11	South Port Bridge, excavation	Drain, bridge abuttment	Unknown	MPK 17802	-	NO 11553	23458	
Summary: Perth and Kinross HER information: A watching brief by SUAT Ltd uncovered a stone feature adjacent to the junction between King Street and Hospital Street, Perth. It comprised mortared stone slabs, 400mm visible height, at a depth of 660mm below the road surface. It is not clear whether the feature was a drain, or an abutment for the bridge which spanned the lade at the South Street Port. The bridge originally gave access to Hospital Street, which was formerly the main road to Edinburgh and to Stirling.								
12	Jacobite defences	Wall, ditch	Post-medieval	MPK 15242	-	NO 11684	23596	
Summary: Perth and Kinross HER information: The fortifications thrown up during the first Jacobite rising are marked on the 1715-1716 maps by Horneck and Petit.								
13	Spey Tower	Tower	Medieval	MPK 15245	-	NO 12016	23349	
Summary: Tower shown on Rutherford's map of 1774 opposite Spey Gate.								
14	Tay St, harbour	Harbour	Medieval	MPK 3401	NO12SW 145	NO 1206	2333	
Summary: Trial excavations Aug 1984 (sitecode 4A) after fire and demolition at the Tay Street, Baptist Church. Early harbour works seen in 3 machine trenches, 2.1 m - 2.8 m down, shown on early plans, Petit 1715, Rutherford 1774. Excavation Autumn and Winter 1987-88 (sitecode 7a). Post-medieval harbour of 1540 at mouth of Lade, modified between 1715 and 1774, infilled c 1801. Over 2 m make-up, clay, shingle. Natural not reached.								
15	Monks Tower	Tower	Medieval	MPK 10318	-	NO 1210	2334	
Summary: Tower shown on Rutherford's map of 1774 next to Tay Street harbour.								
16	Lower City Mills	Mill	19th century	MPK 3452	NO12SW 193	NO 11489	23707	
Summary: No further information found during DBA ***Relevant sites from walkover:* 260**								

17	Granary, 61 Mill St	Mill	18th century	MPK 15110	NO12SW 193/1	NO 11481	23750	
Summary: No further information found during DBA								
18	Upper City Mills; hotel	Mill	19th century	MPK12707	NO12SW 193.02	NO 11418	23732	
Summary: No further information found during DBA **Relevant sites from walkover: 259**								
19	St Paul's Foundry	Foundry	19th century	MPK 13486	-	NO 1140	2376	
Summary: No further information found during DBA								

20	17 St Catherine's Road North British Glass Works	Factory	19th century	MPK 9865	NO12SW 350	NO 1128	2385	

Summary: The following entries were retrieved from the NMRS:

Following proposals for the demolition of this factory, two photographic surveys were conducted by RCAHMS. The first was undertaken during, February 1998, the second being conducted during June of the same year.

A photographic and video record of Scotland's largest and foremost glassworks of the 19th/20th century was made during June 1998 prior to development of the site. The works was in operation from 1881 to 1995 (known as Monax Glass since 1992), and now covers a two acre site to the NE of St Catherines Road. A visit in April 1998 had shown the works, though out of use, to be fully upstanding and intact, still containing much of the working equipment, eg office equipment, furnaces, moulds, examples of glassware, cullet and glassmaking sand, packing materials, batch-makers urine samples, etc; many of these artefacts were later retrieved by Perth Museum. An archive record was made under the RCAHMS Threatened Buildings Survey prior to demolition. A full photographic and video record was made of the exterior of the buildings. Speller, K and Vaughan, M 1998.

The name of this works is (and always has been) the North British Glass Works. 'Monax' was a brand of glasss developed after 1914. The site was not intact on the date of RCAHMS photographic survey. Substantial parts, including a long glass loft in which glass tubes were manually 'run' had been demolished. The site may have been the most important laboratory/industrial glass producer, but there are several other, mainstream glass producers, and United Glass of Alloa is a major Scottish producer of bottle glass.
Information from RCAHMS (MKO) based on information gathered during survey and through discussion with the glassworks manager, 9 December 1999.

The proposed development area, approximately 29,000m2, is located at the junctions of St Catherine's Road and Barrack Street and is bounded to the E by Perth Police Headquarters and Caledonian Road. The area is split by the Town's Lade. The evaluation area comprises two levelled plots which until 1998 contained large industrial buildings.
Aside from the now-demolished industrial works on the site, the NMRS records the site of St Katherine's Chapel and Hospital, to the SW of St Catherine's Road. The Perth Burgh Survey notes that the remains of St Katherine's Chapel and Hospital still existed around the 19th century. Foundations, possibly associated with the chapel, were identified during building work in 1870.
Few features of anthropogenic origin were discovered during the evaluation in December 2000: these included land drains and the remains of substantial industrial buildings. The drains may indicate that an earlier phase of land use is still present beneath the construction disturbance and demolition debris of the industrial works, although any less substantial features previously present have been destroyed. Consequently, although the trial trenching did not reveal any traces of the medieval hospital and chapel of St Katherine, it is conceivable that associated remains survive in the untrenched areas. However, it is more likely that any trace of these buildings has long been removed. Cameron, K.

No remains were visible during the walkover, but there is a possibility that walkover site 258 may be related to the works.

21	Police station, Queens Barracks	Building	18th century	MPK 10216	-	NO 1140	2390	

Summary: No further information found during DBA

***Relevant sites from walkover:* 257**

22	St Catherine's Road, dyeworks	Factory	19th century	MPK 9800	NO12SW 345	NO 1118	2398	

Summary: No further information found during DBA

***Relevant sites from walkover:* 256**

23	Balhousie Works	Factory	1900	MPK 17943	-	NO 11289	24027	

Summary: Perth and Kinross HER information:

Site of Balhousie Works (Carpet Weaving); a mill situated on the Perth Lade to the NW of Perth city centre.

No remains were visible during the walkover

24	Dunkeld Road, Wallace Works / Tay Textiles Limited; Shields Textiles	Factory	19th century	MPK 8652	NO12SW 329	NO 1118	2416	

Summary: The following entry was retrieved from the NMRS:

Wallace Works, Dunkeld Road, built 1868 for John Shields and Co, Table linen manufacturers. A block of single-storey, snecked-rubble weaving sheds with a 27-bay frontage. This has a central pediment and round-headed wondows. Now a jute-weaving factory. Hume J R, 1977a.

[The building was latterly used by Don and Low textiles, but was demolished in the 1990s and redeveloped as a retail park.]

***Relevant sites from walkover:* 255**

25	Dunkeld Road, swimming	Baths	19th century	MPK 10400	NO12SW 565	NO 1113	2427	

The following information was supplied by Bill Grigg:

Summary: In 1988 conditional approval was given to build a swimming pool on Dunkeld Road taking water from the lade. This was connected to the mains after 1903 following problems with discolouration.

No remains were visible during the walkover

26	Boot of Balhousie	Junction	Medieval?	MPK 17942	-	NO 10869	24405	

Summary: Perth and Kinross HER information:

A request for the use of water from the Lade was made by the Laird of Balhousie. Folklore has it that the Laird asked the King for a bootful of water from the Lade and this was granted. Being apparently of crafty mind, the boot he used had no sole and he thus obtained a constant water supply. It is more likely that the 'boot' is derived from the words 'bowt' or 'boult' meaning a gap. Whichever explanation, the location where water was extracted from the Lade for the Balhousie mills has always been known as the Boot of Balhousie.

The following entries were retrieved from the NMRS:

Royal licence to build the Boot of Balhousie was granted to the Laird of Balhousie. The 'Boot', for conveying water to the mill, is a stonework, on the east bank on the aqueduct, in which is a hole of 32 inches circumference, with an iron ring at each end. S Cowan 1904.

The name applies to an aperture in a stone wall, in which is an iron ring about 1ft diameter through which water is allowed to run from Perth City's mill race to that of Balhousie Mill. Name Book 1860.

At NO 1087 2440, in the face of the revetment wall on the N side of the Town's lade, and at water level is a stone bearing the date 1766. This is no doubt over the aperture of the conduit known as the 'boot', although this could not be seen at times on investigation owing to the high water level. The part of the conduit shown exposed on the OS Map for about 40m NE of this point has now been covered over. The only other open section (but now dry) is that through the policies of Balhousie Mill and Mansion (Castle) as on the OS Map. Visited by OS (J L D) 16 December 1960.

Site not identified during survey.

27	Hillyland skating and curling pond, Tulloch	Curling pond	Late 19th century	MPK 17941	-	NO 10120	24879	

Summary: Perth and Kinross HER information:

The Hillyland Skating and Curling Pond is shown on the OS 2nd edition map but has been removed by the third. The artificially-created pond to the south of the Tulloch Bleach and Dye works was some 150m by 190m in size and would have used water from the Perth Lade.

Site not investigated during survey.

28	Tulloch Bleachworks	Factory	18th - 19th century	MPK 7922	NO12SW 65	NO 0999	2414	

Summary: The following entries were retrieved from the NMRS:

Tulloch Bleachfield was the first established in the Perth area c 1735. In the late 1770s, textile printing was introduced to Tulloch. This industry was to last until the mid 18th century when the Tulloch works reverted to a bleachfield. By the late 19th century the Tulloch bleachfield was closed, as the source of water was not as good as others in the area. The Tulloch works were purchased by John Pullar and Sons, dyers and dry cleaners who occupied the site in the 20th century.

Tulloch Bleachworks, late 19th century. A large block of single-storey brick north-light sheds dominated by a tall brick chimney. Now in multiple occupation. J R Hume 1977.

The following information was supplied by Bill Grigg:

The Tulloch bleachfield was the first to be established in 1735, initially with 14 acres of bleachfields, 6 acres of drying fields and water taken from the town lade. In about 1775 textile printing was introduced, initially for jobbing printing but later extended to general trade (MacKay, 2008, p14-5). Estimated business was about £80,000 pa and shipped from Perth mainly for the London market (OSA, 1791-9, p515). Printing stopped in the second quarter of the nineteenth century but about 250 people were still employed. Bleaching also stopped in 1882 with land and buildings being sold to John Pullar & Sons, dyers and cleaners (MacKay, 2008, p16). Pullars cleared the site and built a new factory for dry cleaning, the materials for which were difficult to store in their town centre premises (Harding, 1991, p68).

***Relevant sites from walkover:* 243, 245, 246, 247**

29	Ruthvenfield Print Works	Factory	18th - 19th century	MPK 17940	-	NO 08253	25335	

Summary: Perth and Kinross HER information:

Ruthvenfield Print Works was established in 1790 firstly as a bleachfield but quickly turned into a print works by 1792, employing between 1000 and 1200 workers. The plant was redesigned c the late 19th / early 20th century and moved to new site to the west (see below), with the former works landscaped to form a drive and parkland for Ruthvenfield House. Hume, J R, Haynes, N.

The following information was supplied by Bill Grigg:

Ruthvenfield was established as a bleachfield in around 1780 but suffered financial difficulties and was sold to a group of Perth businessmen who converted it to a printworks in 1792 (MacKay, 2008, p7). This company also suffered financial difficulties through speculating on the price of indigo, which then dropped in value by 50% (Penny, 1836, p254). It was bought by a Glasgow company in 1830 and produced 2,000,000 yards pa, for both home and foreign markets, about two thirds by block printing and the remainder by machine. The works employed 188 men, 67 women and 113 children, although this fluctuated according to demand (NSA, 1834-45, p1035). Subsequent investment in a new cylindrical press and other machinery reduced the workforce to less than half (Penny, 1836, p254). Printing stopped when the works changed ownership again in 1865 and, after a short period bleaching, the works continued as a beetling mill until closing in 1950s (MacKay, 2008, p76).

***Relevant sites from walkover:* 233, 234, 235**

30	Ruthvenfield Bleachworks	Factory	19th century	MPK 7919	NO02NE 119.00	NO 081	253	
Summary: See above ***Relevant sites from walkover:* 231, 232**								
31	Shepherds Mill, Ruthven	Mill	Late 18th century	MPK 8012	NO02SW 132.02	NO 0777	2556	
Summary: No further information found during DBA ***Relevant sites from walkover:* 223**								
32	Huntingtower Dog Graves	Graves	Unknown	MPK 2107	NO02SW 82	NO 0730	2568	
Summary: No further information found during DBA **Not seen during walkover**								
33	Huntingtower Mill	Mill	19th century	MPK 17939	-	NO 07500	25502	
Summary: Perth and Kinross HER information: Corn and barley mill on the Perth Lade, adjacent to Huntingtower Bleachworks. The mill became a beetling mill for the bleachworks in the late 19th / early 20th century. A small amount of information was collected on this site by the Perth Building Survey in the 1980s, and is now held in the NMRS under the catalogue number MS 304. ***Relevant sites from walkover:* 208, 228, 229**								

34	Huntingtower Bleachworks	Factory	18th century	MPK 5326	NO02NE 84/0,/1	NO 0721	2577	

Summary: The following information was supplied by Bill Grigg:

Huntingtower, opened in 1774, was the third public bleachfield on the town lade and extended to about 70 acres employing 100 people. Brown cloth was brought from Perth, Dundee, Dunfermline, Edinburgh and Glasgow and diapers from Darlington (OSA, 1791-9, p638). By the 1830s 40 acres were being used for bleaching and 1.5 million yards of cloth whitened per annum and 80-100 tons of linen yarn for a neighbouring power loom (NSA, 1834-45, p1034). It changed hands several times and in 1864 it was viewed as being "perhaps the most important bleachfield in the neighbourhood" with "the machinery driven by waterpower of 60,100 horses" and employing about 150 people (Warden, 1864, p530 in MacKay, 2008, p46).

During the nineteenth century chemicals and machinery were introduced so bleaching was no longer carried on outdoors and the bleachfields returned to agriculture. The works also no longer depended upon water power and a steam raising plant was installed at Huntingtower, which was used to generate electricity. Steam power and electric motors increasingly replaced waterpower for the bleaching and finishing processes (MacKay, 2008, p48). Huntingtower became the main site for bleaching, dealing with cotton from 1918 and rayon after 1930, and dyeing became increasingly important (MacKay, 2008, p53-6).

In the 1970s ownership of the bleachworks in the area again changed and only Huntingtower, together with Luncarty, remained open, but they bleached almost 50% of the white cotton sheeting processed in Britain. Huntingtower closed in 1982 followed by Luncarty in 1996 bringing the area's bleaching industry to an end (MacKay, 2008, p83-5).

The following entry was retrieved from the NMRS:

A large complex of 1- and 2-storey buildings. The main block (1866) is a 2-storey, 9-bay rubble structure with an ashlar clock tower surmounted by a bell. The other buildings are wood- and rubble-built, and there is a tall circular-section brick chimney. Near the gate are some 2-storey buildings, now out of use. J R Hume 1977.

Relevant sites from walkover: **203, 205, 204, 215, 216, 217**

35	Low's Work	Weir	Medieval - post-medieval	MPK 2063	NO02NE 4	NO 0699	2568	

Summary: The following entries were retrieved from the NMRS:

Both the weir and sluice are still in use and are known locally as 'Low's Work'. Visited by OS (JTT) 26 October 1965.

Low's Work Weir: Mediaeval, rebuilt 1622-4. Eighty yards long, unmortared boulder rubble with ashlar groins. Formed to divert water into the King's Lade through Perth. SDD/HBM, March 1967.

Low's Work: Medieval, rebuilt 1622-4. A low masonry weir on the river Almond, with a fairly modern wood and iron sluice controlling the flow of water to the Perth town lade, which also supplies Huntingtower Bleachworks. J R Hume 1977.

The Lowswark is the intake for the aqueduct supplying Perth with water. Its first mention is in 1494 as the 'Auld Wick [Weir?] called Lowswark'. The name seems to have applied to both weir and sluice. S Cowan 1904; T Pennant 1792.

A stone dyke or sluice across the River Almond diverts its waters into an aqueduct. This dyke is called Lowswark and is said to be of Roman origin. Both the Lowswark and the aqueduct seem to have been constructed for the purpose of supplying water to the fosse which surrounded Perth City Wall (NO12SW 5) and also for use by the city mills. S Cowan 1904

***Relevant sites from walkover:* 200**

36	Mill Street Mill	Mill	19th century	MPK 17945	-	NO 11883	23740	

Summary: Mill on Mill Street, replaced by the Pullars building in the late 19th century.

Remains not visible during walkover.

37	Railway Bridge	Railway Bridge	1850s	MPK 6724	-	See walkover	See walkover	

Summary: Perth and Kinross HER information:

The line from Perth (Almond Valley Junction) to Crieff was opened 1 January 1858 by the Perth, Almond Valley and Methven Railway and closed to regular passenger traffic 27 September 1937 and to goods traffic 25 January 1965. The line of this dismantled railway can be traced from Pow Bridge Cottages (NO 0502 2453), from where it runs East along a well-defined, but in parts heavily overgrown, cutting to about NO 0564 2454. From here to the edge of the map sheet (NO 0646 2499) the line takes the form of an embankment which follows the South side of the Pow Burn. At NO 0578 2461 the embankment is constructed of earth with hard rock ballast on the surface; it is 6m wide and stands about 2m high above the gravel terrace. Daniels and Dench, G and L, Thomas and Turnock, J and D.

***Relevant sites from walkover:* 221, 226**

38	Railway Bridge	Railway Bridge	1850s	MPK 6724	-	See walkover	See walkover	
Summary: See description above. ***Relevant sites from walkover:* 221, 226**								
39	Huntingtowerfield, 1-3 The stables	Printhouse and Chapel	Late 18th to 19th century	MPK 13576	NO02SW 191	NO 07290	25690	
Summary: Perth and Kinross HER information: The Stables - a residential dwelling - formerly the printhouse and chapel for Huntingtowerfield Bleach and Dye Works. **Site not investigated during walkover**								
40	Chapel	Chapel	Unknown	MPK 2072	NO02NE 48	NO 077	255	
Summary: See entry below. **Not found during survey**								
41	St Conwall's Well	Well	Medieval	MPK 2072	NO02NE 8	NO 077	255	
Summary: Perth and Kinross HER information: A spring beside the ruined chapel near the mill lade. It was much frequented even in post-Reformation days; on May 4 1618, 16 women were brought before the Perth Kirk Session for superstitiously visiting the well in the bank of Huntingtower, where they deposited pins and headlaces. Morris and Morris, R and F, Scott, H et el (eds.) **Not found during survey**								

42	Ruthven Farm	Archaeological Watching Brief	-	EPK 23	NO02NE 192	NO 088	252	
Summary: Perth and Kinross HER information: An archaeological watching brief was carried out in October 2002 on the machine-excavation of nine holes for the insertion of timber power line posts and the excavation of a narrow trench for an underground electrical cable. Three posts and the cable were situated adjacent to a cropmark enclosure (NO02NE 49), and crossed a pit alignment (NO02NE 75). No significant archaeological features or artefacts were encountered. (AOC3713)								
43	Ruthvenfield	Mill Lade	Unknown	MPK 15038	-	NO 08020	25337	
Summary: Perth and Kinross HER information: The first edition OS map shows a large ditch in the field S of Ruthven Farm marked 'Old Mill Lead'. **This channel was not found during the walkover and appears to have been filled in during the late 19th century.**								
44	Perth Mill	Oil Mill	Post-medieval	-	-	NO 11956	23741	
Summary: An oil mill is marked on Rutherford's map of 1774.								
45	Perth High Street Excavation (Marks and Spencer's) 1975-77.	Excavation, town defences	Medieval	-	-	NO 11897	23666	
Summary: See 02, Town's Defences.								
46	20-25 Mill Street / 137-141 High Street (Boots) 1979-80	Excavation	Medieval	EPK52	-	NO 1179	2373	
Summary: See 02, Town's Defences.								
47	17, Canal Street Crescent	Watching Brief	Late 18th to early 19th century	EPK411	-	NO 11567	23466	
Summary: See 01, The Town Lade.								

48	Canal Street	Watching Brief	Late 18th to early 19th century	EPK501	-	NO 11921	23360	
Summary: See 01, The Town Lade.								
49	Tay Street flood defences	Watching brief	19th century	-	-	NO 12084	23336	
Summary: In June 2000 a complex manhole structure (not illustrated) was found at the junction of Canal Street with Tay Street. It was located on the west side of Tay Street, to the south of the main door into Quaiside Court. The manhole was a large square corbelled brick-built chamber, measuring around 2 x 2 m, which provided access into a T-junction of two culverts, running diagonally across Tay Street towards the northeast and the southeast. The major (southeast) culvert connected to the main sewer, which ran in a north-south direction down Tay Street/Shore Road into Friarton Sewage Works. The chamber allowed access to operate a swing door to block off one or other of the culvert exits. The purpose and destination of the now closed NE branch was uncertain but it probably connected with the extension of the original lade, which runs down Canal Street and into the river. This extension dated from the completion of Tay Street in the 19th century.								
50	Canal Street	Junction	Unknown	-	-	NO 11646	23364	
Summary: Junction where a straight (and therefore possibly man made) water channel running between Spy Gardens and Hospital Gardens on Rutherford's 1774 map meets the lade at the corner of Canal Crescent. The channel was probably created to divert water from the lade to help fill the water channel which ran around Cromwell's Citadel in the South Inch. The channel may also relate to the mill marked at this junction on Petite's map (1716), site 51.								
51	Canal Street	Mill	Unknown	-	-	NO 11662	23363	
Summary: A mill is marked on the E side of the above junction (site 50) on Petite's map (1716).								
52	Pullars	Excavations	Medieval – 19th century	-	-	NO 3117	3237	
Summary: During the 1990s, Perth and Kinross Council proposed to redevelop the site of the former Pullars dyeing and dry-cleaning works for their new Council headquarters. In 1999 SUAT undertook excavations within the footprint of the old building fronting Mill street. The earliest feature encountered was a wide channel showing evidence of natural silting. It is thought that this channel may have been a natural depression modified to form part of the town's defensive ditch. Overlying deposits showed that this channel had been deliberatly filled in from the north in a later phase, possibly to narrow the ditch and make it more defensive. The excavation also revealed the later culverted lade, the N wall of which formed the S boundary of the excavated area.								

1.2 Sites identified during Walkover Survey

200	Low's Work	Weir	Medieval - post-medieval	MPK 2063	NO02NE 4	NO 0699	2568	

Walkover Description: Low's work is situated on the River Almond on a meander projecting S, to the N of Huntingtower Farm. The weir comprises two main components: a wall made from worked sandstone blocks and a well laid boulder surface on the downstream side of the wall. There are also the patchy remains of a laid cobbled surface on the upstream side of the wall. About a third of the monument (that closest to the N bank) was destroyed by flooding in 2011.

The weir wall comprises rectangular blocks of sandy-coloured unmortared sandstone. The uppermost course of the wall consists of a row regular blocks aligned NE-SW (along the river). On either side were sandstone kerbstones; a double row on the upstream side and a single row on the downstream side, both orientated NW-SE (across the river). Into one of the kerb stones on the upstream side an iron ring has been inserted. The uppermost sides of the blocks are smooth but other sides show a variety of treatments including tooled, pointed and boasted surfaces. Where the wall had been swept away it can be seen that the uppermost blocks of the wall are supported below on either side by rows of blocks orientated NW-SE. There are vertical slots in the gaps between every 3rd or 4th block along the uppermost row. Faint traces of a shallow c 10cm wide groove running along the full length of this row can also be seen, and on the upstream side of this groove there are various lead filled holes out of which cut of iron bars protrude.

The surface on the downward side of the wall is of similar construction to a well laid 18th or 19th century cobbled floor, though it has been created with large sub-rounded boulders (c 0.5 x 0.5m) and a gentle slope downstream (3-5 º). The boulders have been tightly packed together and are only loose where the weir has been damaged. Running through surface are boulders that have been laid with their longest sides together to form straight lines. These run in both directions forming a large grid pattern.

On the upstream side of the main weir wall are the remains of another laid boulder surface which descends relatively steeply to the SW (15-20º). This surface only survives in places, extending out beyond the wall to a

maximum of 1m. A great deal of this feature has been eroded by the flow of water diverted towards the laid sluice. To the SE of Low's Work against a revetting wall for the S bank of the River Almond is the large sluice that controlled water entering the lade. The sluice is constructed from a painted steel girder frame supporting a double rack and pinion which raised a large single paddle through the use of worm gears. Connected to the gears is a simple square shaft to receive a crank handle (kept separately to prevent unauthorised use). In front of the sluice is a steel girder platform to which is attached a large grille for catching debris. *Interpretation:* The function of this weir was to raise up the river level enabling water to be diverted into the lade. It is difficult to be sure of a date, but the regularity of the blocks for the central wall and clarity of the surface treatments for the blocks, are more suggestive of 19th century work, than 17th century. There were no circular saw marks on any of the blocks- a sign that the main wall was not built as late as the 20th century. The lack of mortar in the construction of the weir wall shows that the Low's Work was probably constructed as a single unit, the boulder surfaces effectively sandwiching the wall and preventing it from moving. The grid pattern in the lower boulder surface is possibly a clue to its construction. The laying out of boulders in a grid pattern first would have enabled the random boulders to be packed in as tightly as possible into the remaining squares. The lead filled holes along the top of the main wall are probably the remains of an iron grill to collect debris floating down the river. The shallow groove just to one side may have been caused by the turbulence associated with such a grille. We can imagine that the cleaning of such a grille was probably a regular chore for workers maintaining the nearby sluice. The sluice itself appears to date to the early 20th century. *Relevant site from DBA:* Low's Work (35)	

201	Lade Bridge at Low's Work	Bridge	19th century	MPK 2063	NO02NE 4	NO 07011	25660	

Walkover Description: A mortared rubble-built bridge next to the main lade sluice at Lowe's work. The bridge lies next to a footpath junction where the main path along the River Almond joins a path towards Huntingtower Bleachworks. The bridge has two arches, the smallest (c 0.5m tall) is closest to the River Almond and the largest (c 1.2m tall) is situated to the SE. The small arch crosses the lade at 90 degrees, but the larger crosses at an acute angle aligned NW-SE.

Interpretation: The lower arch was probably built first to provide a crossing point for the path/track running along the S side of the River Almond. This bridge would also have enabled easy maintenance of the lade sluice. The stonework of the low arch appears rather irregular and probably dates to the early 19th century. The larger arch is similar to many other bridges along the lade and its stonework suggests a mid to late 19th century date. The large arch seems to have been built to widen the bridge when what is now a footpath running SW towards Huntingtowerfield, became an important route possibly for factory traffic from the nearby Huntingtower Bleachworks mill.

Relevant site from DBA: Low's Work (34)

202	Girder bridge near Huntingtower Bleachworks	Bridge	20th century	-	-	NO 07041	25637	

Walkover Description: Two large steel girders and a pipe crossing the lade at a slight angle. The girders are set into brick walls constructed from colliery bricks. Wooden shuttering lies against the sides of the lade below and on either side of the brick walls. The shuttering is for two large concrete plinths (hardly visible) which have been set on either side of the lade to support the girders.

Interpretation: This was the crossing point for a light railway built in the early 20th century named 'mineral railway' on the OS map. The railway was associated with the nearby Huntingtower Bleachworks mill and would have been used to bring in materials for the bleaching process and export finished products. There was also a line running NW from the factory across the Almond to Pitcairnfield Bleachworks. An isolated concrete and brick pier from this line can still be seen in the River Almond a 200m to the NE of site 202. It is possible that this pier may be demolished by the council in the future as it seems to be causing erosion of the river bank.

Relevant site from DBA: Huntingtower Bleachworks (34)

203	Junction before Huntingtower Bleachworks	Junction	Unknown, probably 19th century	-	-	NO 07174	25697	

Walkover Description: The junction where the lade divides just to the W of Huntingtower Bleachworks mill. The entrance to the N channel is narrow (1.5m wide) and has become choked with random blocks of concrete and worked stone; some of these blocks are square.

Interpretation: This may have been the site of a sluice that has collapsed, though no evidence of machinery was seen.

Relevant site from DBA: Huntingtower Bleachworks (34)

204	Huntingtower Bleachworks Waterwheel Building	Mill	19th century	MPK 5326	NO02NE 84/0,/1	NO 07236	25702	

Walkover Description: The waterwheel building associated with Huntingtower Bleachworks mill. Site comprises a roofless stone-built rectangular building with three arched windows in each of the S, E and W walls. Stonework is of high quality, being constructed from squared sandstone blocks built to level beds. The N wall has been bricked up. W of the mill, the mill lade has been lined with rectangular cast iron panels stiffened with raised flanges, and there is a grille over the entrance to the wheel. A stone-lined overflow channel passes round the S side of the building descending down three steps. Slots for a sluice and winding gear cogs can be seen at the entrance to the overflow channel. A rounded steel bar attached to the cogs and running over the lade to the NW bank shows that the winding mechanism for the sluice was controlled from the factory side.

The waterwheel is in situ and is of three-bayed construction, made from bolted cast iron rims supporting wooden paddles, many still surviving. A small squared aperture in the SE wall provides access to the axel of the wheel, presumably to enable easy access for lubrication. At the front of the building, water exited from the waterwheel under a wide low arch. Slates found in the lade to the west of the building suggest the roof had once been slated.

Interpretation: The style of the building its stonework suggests a mid 19th century date and it is highly likely that the building is the same as that shown over the lade on the 1st edition OS map. The factory building to which the power from the waterwheel was transferred to the N would have been demolished when the site was redeveloped; the bricked up wall probably dates to this period. Such a large waterwheel could have provided a considerable amount of power for industrial processes in the mill during the 19th century.

Relevant site from DBA: Huntingtower Bleachworks (34)

205	Bleachers Way Bridge	Bridge	Late 19th or early 20th century	-	-	NO 07270	25679	

Walkover Description: A heavily re-built and recently re-pointed stone and concrete bridge made from re-used blocks of sandstone, possibly from the Huntingtower Bleachworks factory buildings. The lade runs through a tube made from corrugated iron.

Interpretation: There was in a bridge in this location by the late 19th century when a new access road was created for Huntingtower Bleachworks. The current structure however, seems to have been constructed very recently, presumably when the Huntingtower Bleachworks site was redeveloped. There may still be an earlier core behind the modern stonework.

Relevant site from DBA: Huntingtower Bleachworks (34)

206	Huntingtower Hotel Bridge 1	Bridge	19th century	-	-	NO 07351	25594	

Walkover Description: A well-built 19th century stone bridge constructed from well squared off blocks of sandstone. The upper half of the walls are finished with bull-faced blocks of stone and the lower with smoothed off blocks of sandstone.

Interpretation: The bridge was probably constructed in the early to mid 19th century; its style suggests it was built at the same time as the culvert exit at Huntingtower Bleachworks to the N. In the mid 19th century the bridge was part of the main access route to Huntingtower Bleachworks. However, by the late 19th century, a new road and bridge had been constructed to the NW meaning factory traffic no longer had to pass near the house that was later to become Huntingtower Hotel. In the 20th century this bridge became part of the formal driveway to the house.

Relevant site from DBA: Huntingtower Bleachworks (34)

207	Huntingtower Hotel Girder Bridges	Bridges	1901-32	-	-	NO 07404 and 07418	25559 and 25566	

Walkover Description: Two bridges constructed from steel girders and concrete which cross the E and W lade channels to the S of Huntingtower Hotel. The concrete has been set over corrugated iron which forms the arches between the girders. The W bridge appears to be constructed in two phases as there is a second set of girders on top of the first crossing the lade at a slight angle.

Interpretation: The E bridge lies on the site of an earlier bridge shown on the 1st edition OS map. This bridge provided access for house NW of Huntingtower Mill. The bridge was replaced in the early 20th century by the current structure. The bridges seem to have been built to create a new route for general traffic accessing the house which later became Huntingtower Hotel. In this phase the older access route to the house and estate buildings (including the wide bridge at site 209) seems to have become part of the estate gardens. In this phase the route crossing the bridges at sites 207 and 211 appears to have to have been retained as the formal driveway and approach to the house.

Relevant site from DBA: Huntingtower Bleachworks (34)

208	Huntingtower Mill Junction	Junction	19th century	-	-	NO 07417	25536	

Walkover Description: A major junction on the lade to the NW of Huntingtower Mill where the two routes of the lade running around Huntingtower Bleachworks join. The lade then splits again, one route running S towards Shepherd's Mill, the other running E towards Huntingtower Mill. At the entrance to the former channel there is a large double sluice which was raised by rack and pinion mechanisms. The sluice is fixed into slots cut into large pointed sandstone blocks on either side of the channel entrance. There are similar slots on the stonework at the entrance to the latter channel, though no signs of a sluice. Instead, a low wall constructed from concrete blocks forms a small weir in between the slots. To the S of the sluice is a small steel girder bridge over the S route of the lade. A stone next to the bridge is engraved 'Cobby Bridge' and on the reverse side there are two possible masons' marks.

Interpretation: The slots on the stonework by the entrance to the E channel are for another sluice which would have been similar in design to that of the S channel. The sluices controlled water flowing towards both Huntingtower Mill and Shepherd's Mill. The sluice controlling water to the S channel appears to have been installed earlier than that to the E, as it appears on the 1st edition OS map. Both sluices were in place by the late 19th century as they are shown on the 2nd edition OS map. The creation of a sluice for the Huntingtower Mill channel was probably needed after the lade was culverted under the mill in the late 19th century, as it would have enabled water to be shut off for inspections and cleaning to be carried out in the culvert. The weir at the location of the sluice was created in the late 20th century, presumably to raise the water level upstream. There was a footbridge on the site of Cobby Bridge by the late 19th century which would have been used for accessing the sluices at the junction. The current bridge, however has been widened for vehicular access in the late 20th century.

Relevant sites from DBA: Huntingtower Mill (33)

209	Huntingtower Hotel Bridge 2	Bridge	19th century	-	-	NO 07399	25628	

Walkover Description: A wide, low arched stone built bridge crossing the lade south of Huntingtower Hotel. The bridge wall has been reconstructed fairly recently with roughly squared off random rubble. The arch below is original and constructed from fairly irregular voussoir blocks (roughly pointed (pecked) and squared off) made of sandstone.

Interpretation: The bridge seems to date to the early to mid 19th century and would have provided access to the large house which later became Huntingtower Hotel. The width of the bridge suggests it was constructed for horse drawn traffic that would have been associated with the house and estate buildings to the E.

210	Huntingtower Hotel Water Feature 1	Water Feature	20th century	-	-	NO 07387	25650	

Walkover Description: A small stone built island situated in the middle lade in the grounds of Huntingtower Hotel. The revetting walls of the lade have been robbed nearby. There are electric cables in the centre of the island.

Interpretation: A water feature built from stonework robbed from the sides of the lade in the grounds of Huntingtower Hotel. The water feature would have been lit up at night.

211	Huntingtower Hotel Bridge 3	Bridge	19th and 20th century	-	-	NO 07373	25662	

Walkover Description: A bridge which crosses the lade close to the main entrance to Huntingtower Hotel. The bridge supports a tarmac covered driveway. The structure is constructed from steel girders and modern wood. The supporting walls of the bridge are constructed from large well squared blocks of sandstone.

Interpretation: This bridge was built for the main driveway to the house now run as Huntingtower Hotel. The bridge was first constructed in the late 19th century, a replacement for older bridges (possibly foot bridges) a little to the N and S. There is now no trace of these earlier bridges. The structure has clearly been modified over the course of the 20th century

Relevant site from DBA: Huntingtower Bleachworks (34)

212	Huntingtower Hotel Water Feature 2	Water Feature	20th century	-	-	NO 07364	25697	

Walkover Description: A small stone built island situated in the middle lade in the grounds of huntingtower Hotel. The revetting walls of the lade have been robbed nearby. There are electric cables in the centre of the island.

Interpretation: A water feature built from stonework robbed from the sides of the lade in the grounds of Huntingtower Hotel. The water feature would have been lit up at night.

213	Huntingtower Hotel Water Feature 3	Water Feature	20th century	-	-	NO 07346	25727	

Walkover Description: A small stone built island situated in the middle lade in the grounds of huntingtower Hotel. The revetting walls of the lade have been robbed nearby. There are electric cables in the centre of the island.

Interpretation: A water feature built from stonework robbed from the sides of the lade in the grounds of Huntingtower Hotel. The water feature would have been lit up at night.

214	Huntingtower Hotel Water Feature 4	Water Features	20th century	-	-	NO 07332	25739	

Walkover Description: Several water features extending along a c 25m length of lade in the gardens of Huntingtower Hotel. The drystone revetting wall on the NE side of the lade has been robbed. Features comprise a cascade, constrictions and an island. Some of the features have been cemented.

Interpretation: The NE revetting wall of the lade has been robbed to create a series of water features for the grounds of Huntingtower Hotel.

215	Huntingtower Bleachworks Culvert Exit	Culvert exit	19th century	MPK 5326	NO02NE 84/0,/1	NO 07273	25764	

Walkover Description: The exit of the culvert under the former Huntingtower Bleachworks industrial complex. A c 0.7m high arch constructed from well shaped, pointed (pecked) sandstone voussoirs. The arch wall is divided in half horizontally by a c 0.25m high ledge. Stonework below comprises small blocks of squared off sandstone which are smooth and built to level beds; hat above comprises large bull-faced blocks of sandstone built to level beds.

Interpretation: Exit of the culvert. Essentially this is one side of a bridge for the road running along the E side of Huntingtower Bleachworks that was been built against one side of the factory culvert. The bridge dates to the 19th century. The walls of the culvert presumably become straight sided on the other side of the bridge. The culvert itself was not investigated for obvious health and safety reasons.

Relevant site from DBA: Huntingtower Bleachworks (34)

216	Huntingtower Bleachworks Culvert Entrance	Culvert entrance	19th century	MPK 5326	NO02NE 84/0,/1	NO 07199	25744	

Walkover Description: Entrance to the culvert under the former Huntingtower Bleachworks industrial complex. On approach to the entrance, a fairly narrow horisontal slab of whinstone can be found across the floor of the lade. On the S bank, just to the E of this slab is a revetting wall c 0.7m tall constructed from 19th century bricks. On top of this wall at the W end is a rectangular block of worked stone which supports a cast iron feature (now broken). The level of the lade drops roughly 1.4m over a brick wall as it enters the culvert. The brick wall has been constructed in a gentle curve to resist the pressure of the water flow. Beyond this wall the N wall of the culvert is brick lined for a metre or so, but after this both walls of the culvert are stone built. The site of the factory buildings have been cleared away over the culvert to form the back yards for new housing. The roof of the culver however appears to be intact and is constructed from concrete reinforced with steel girders. A grille has been placed over the 0.5m high entrance to the culvert.

Interpretation: The lade appears to have been culverted over here since the 1st edition OS map (1860s). The current concrete roof though probably dates to the early to mid 20th century. Originally the lade here may have powered another waterwheel for the factory but if so the later alterations have erased any traces. The function of the iron feature on the S side of the lade is unclear, perhaps it marked one side of a structure for accessing a sluice or walkway over the culvert entrance. The N side of the lade at this point has unfortunately been altered during the redevelopment of the site.

Relevant site from DBA: Huntingtower Bleachworks (34)

217	Huntingtower Bleachworks Concrete Bridge	Bridge	Mid 20th century	MPK 5326	NO02NE 84/0,/1	NO 07180	25719	

Walkover Description: A heavily built concrete bridge with parts of the parapets surviving, constructed from colliery bricks.

Interpretation: The structure is clearly an industrial bridge built in the 20th century for Huntingtower Bleachworks. There are two bridges shown on this bend by the 1968 OS map: An early bridge (wide) first shown on the 1901 OS map and a later one (narrower) first shown on the 1968 map. It seems likely, given the extensive application of concrete, that we are looking at the latter bridge, probably built in the 1940s or 1950s. The bridge is clearly built to support heavy loads crossing the lade, presumably between the industrial buildings that were in existence on either side of the lade by this date.

Relevant site from DBA: Huntingtower Bleachworks (34)

218	Huntingtower Mill Revetting	Revetting	20th century	-	-	NO 07438	25496	

Walkover Description: A small section (c 0.8m long) of wooden post and plank revetting found just upstream of Mill House on the W side of the lade. The wood was badly degraded.

Interpretation: The revetting is similar to that found along the lower half of the lade from Tulloch onwards. However, this is the only known location of wooden revetting on this side of the A9; most revetting in this section is drystone. It is possible that extra strengthening of the lade bank was required here because the lade may have started to undermine the road on this bend. The wood is probably a 20th century repair.

Relevant site from DBA: Huntingtower Mill (33)

219	Mill Cottage Iron Pipe	Pipe	Early 20th or late 19th century	-	-	NO 07449	25481	

Walkover Description: A 0.25m diameter cast iron pipe running across the lade near Mill House.

Interpretation: The pipe was partly buried at either side, so it could not be determined if it was in situ. It is possible that it once held water destined for Huntingtower Mill nearby, however it is more likely that the pipe was removed from the mill and placed in the lade to act as a small weir to keep the water level higher further upstream. This interpretation is supported by the finding of two pins on the downward side of the pipe which are firmly embedded in the lade as if to stop the pipe moving downstream.

Relevant site from DBA: Huntingtower Mill (33)

220	Mill Cottage Bridge	Bridge	Early 20th or 19th century	-	-	NO 07475	25466	

Walkover Description: A bridge providing access to Mill House. The structure consists of 6 steel girders supporting railway sleepers. The revetting walls of the bridge are constructed from mortared stone rubble and brick.

Interpretation: On the 1st edition OS map (1860s) the bridge is shown supporting the only access road to Huntingtower Mill. However, by the 2nd (1901) and 3rd (1932) OS maps there were new ways of accessing the mill to the NW. This bridge appears to have been rebuilt in the late 19th or early 20th centuries. The original bridge shown on the 1860s map was probably constructed entirely from stone and arched.

Relevant site from DBA: Huntingtower Mill (33)

221	Mill Cottage Railway Bridge	Railway Bridge	1850s	-	-	NO 07592	25490	

Walkover Description: Two parallel, but offset squared rubble walls for a railway bridge. Along the tops of each wall are four slots for the beams of the bridge. These correspond to diagonal slots half way up each of the walls which presumably held steel bracing for the main bridge structure. There are vertical grooves at the ends of each wall.

Interpretation: Railway bridge for the main Crieff line. The grooves may have held barriers on either side to prevent access to the underside of the bridge.

Relevant site from DBA: Shepherds Mill (31)

222	Shepherds Mill Revetting	Stone revetting	19th century	-	-	NO 07714	25539	

Walkover Description: A short length of poorly mortared stone revetting on the N side of the lade upstream from Shepherd's mill. The wall is constructed from roughly pecked and squared sandstone blocks built approximately to level beds. The wall is c 4m long and 0.5m tall.

Interpretation: The function of this wall is unknown. There is no revetting on this side of the lade between here and Shepher's mill. The lack of any corresponding wall on the S bank suggests it was probably not part of a bridge.

Relevant site from DBA: Shepherds Mill (31)

223	Shepherds Mill	Mill	19th century	MPK 8012	NO02SW 132.02	NO 07758	25547	

Walkover Description: On the outside corner of a sharp bend on the road through Ruthvenfield are the ruined remains of Shepherd's mill which comprises two lade overflow channels, the ruined mill building, a waterwheel and a small building to the SW of the waterwheel. Very little of the main mill building survives, the structure having been redeveloped into yards and storage for the nearby Shepherd's mill cottages. The SW gable wall stands to more than 5m high and is constructed from blocks of sandstone, well squared with pointed (pecked) surfaces. The other walls have been demolished or survive as low footings only (the NW wall). The waterwheel is undershot and still in situ, located against the outside of the gable. It is of two bayed construction made from cast iron sections bolted together; the wooden paddles have since decayed or have been removed. The lade channel running below is lined with stone paving slabs which are placed to create a curving descent down to the base of the wheel. Water entering the wheel channel was controlled via a wooden sluice which could be raised via a rack and pinion mechanism.

After the wheel, the lade is culverted where it runs under the access drive for Shepherd's mill cottages. One side of the wheel's axle is connected centrally in the gable of the mill while the other rests on a c 1.5m high stone wall. SW of this wall is a building initially constructed from stone and later extended further SW in early 20th century brick. The NW, SW and SE walls of this building stand c 2.6m high and there is a doorway for access facing the road. The interior of this building contains a high pressure water pipe connected to a turbine and dynamo of early to mid 20th century date. W of this building is a partly buried chamber covered by upright stone slabs. Upstream of the waterwheel the lade is lined in cobbles with an ashlar revetting wall to the N. Two overflow channels extend northwards, that to the SE apparently open and that to the NW controlled by a double sluice. Both overflow channels extend northwards to join the N route of the lade close to the railway bridge (site 226). They each pass under low arched bridges at the back of the mill.

Interpretation: The main mill building appears to be 19th century in date and according to the OS map was used for grinding flour. The waterwheel axle must have driven a series of grindstones in the main mill building to the N. By the 2nd edition OS map (1901) the main mill building appears to have been largely demolished, though the wheel and gable wall were left intact. The original stone building to the SW of the gable was probably a roofed annex to house the waterwheel. In the 20th century this seems to have been extended in brick to the SW to house the hydroelectric equipment, possibly installed to power electric lighting in Shepherd's mill cottages

Relevant site from DBA: Shepherds Mill (31)

224	Shepherds Mill features	Channel, well, mound	unknown	-	-	NO 07702 07739	 25513 25515	

Walkover Description: Opposite Shepherd's mill in grassy field with large sycamore trees is an irregular depression, running SW-NE. The channel measures roughly 30m long, 10m wide, 1m deep and possibly splits in two at its NE end. There is evidence of possible banking on the NW side of the channel. E of the channel running all the way through the wood to the building marked 'garage' are various low mounds and banks which seem to be man made. These were too numerous and subtle to fully record as part of this survey Roughly 30m to the W of the channel is a possible man made roughly circular mound measuring c 16m by 14m and 0.5m high.

Interpretation: Unknown. Further work is required to identify the layout and date of the features. The features are not thought to be related to the chapel (40) and well (41) noted in the DBA as these were situated next to 'the bank of Huntingtower'- presumably the bank situated some distance away to the SE.

225	Ruthven Farm Bridge	Bridge	19th century	-	-	NO 07881	25487	

Walkover Description: A low arched road bridge over the lade S of Ruthven Farm. The bridge is heavily pointed with lime mortar and cement and is composed of random rubble (sandstone) with rather narrow voussoirs. The arch is 1m tall.

Interpretation: This bridge was probably constructed for Ruthven Farm. In style it seems different from many of the bridges along the lade, being constructed from much more random rubble. The bridge possibly dates to the late 18th century though the lack of any evidence for widening suggests an early 19th century date.

226	Shepherds Mill Railway Bridge	Railway Bridge	1850s	MPK 6724	-	NO 07762	25609	

Walkover Description: Two well preserved sections of wall marking the location of a railway bridge over the lade. The walls cross the lade at an angle and are composed from large well squared blocks of sandstone built to roughly level beds. In each wall are four sets of slots along the top edge. In the two central slots in either wall are sawn off girders, the remains of the main beams for the bridge. Running vertically up the four corners of the walls are smooth grooves in the stonework.

Interpretation: Railway bridge for the main Crieff line. The grooves may have held barriers on either side to prevent access to the underside of the bridge.

Relevant site from DBA: Railway Bridge (37)

227	Ladeside Cottage	Bridge	19th century	-	-	NO 07687	25612	

Walkover Description: Two short lengths of wall on either side of the lade near 'The Kennels'. The N wall stands c 1m high and is constructed from unmortared squared blocks of pink sandstone. The wall on the S bank is less well preserved, standing 0.5m high.

Interpretation: These walls mark the location of a late 19th century bridge first shown on the 2nd edition OS map. The bridge was presumably built to provide easy access to the isolated field to the S which lay in between the railway line and the lade. The bridge seems to have collapsed or been removed during the 1990s or 2000s.

228	Huntingtower Mill	Stones, fencepost	19th century	-	-	NO 07559	25500	

Walkover Description: Three features located on a bend in the lade just to the E of Huntingtower Mill: A 19th century iron tensioner post, a partially worked block of sandstone on the floor of the lade, and a rectangular block of worked sandstone on the N bank of the lade.

Interpretation: These features are of little significance, being examples of rubbish and debris which ended up in the lade at the back of the mill.

Relevant site from DBA: Huntingtower Mill (33)

229	Huntingtower Mill	Mill	19th century	-	-	NO 07498	25500	

Walkover Description: The fairly extensive but redeveloped remains of Huntingtower Mill. Only structures and features directly on either side of the lade channel were investigated during the walkover. On approach to the mill from the junction upstream (site 208) the walls of the lade are well revetted, standing 1m tall in places, composed of random unmortared roughly flat stones (sandstone).

The earliest building encountered at the mill was an isolated gable wall on the S bank just NW of where the lade becomes culverted. The gable is constructed from mortared irregular blocks of sandstone built to approximate level beds, with large pointed (pecked) cornerstones. Opposite this gable on the N bank, the revetting wall of the lade has been constructed from very large regular blocks of pointed (pecked) sandstone. Above this revetting is a stone building partly corbelled out over the lade. This building abutts a brick building to the E under which the lade is culverted. The stone building is constructed from well squared blocks of sandstone, of various sizes. There is a blocked doorway in the SW wall overlooking the lade and a blocked window in the NW wall. The brick building is constructed from late 19th or early 20th century bricks with a doorway housing a wooden door on the NE side. The doorway leads out onto a ledge on the NE side of the lade; below the ledge slots have been built into the revetting wall of the lade. Above the culvert entrances in the brick building is a window blocked with wood.

The lade splits in two as it enters the culverts, the brick wall above being held up by a central dividing brick wall and two horizontal steel girders. On approach to the S culvert a large iron grille is located on the S side of the lade. The roof of the S culvert is constructed from steel girders and corrugated iron (presumably with concrete above), but the passage has been blocked c 5m to the E. The N culvert on the other hand is free from obstacles, its roof constructed from steel girders with wooden planks in between. The N culvert exits down a concrete ramp where it joins the channel from the S culvert. The culvert exits are similar to the entrances (though the N one is smaller than the S) emerging below a 19th or early 20th century brick wall supported by girders. From this side the S culvert can be seen to be blocked c 1m in from the exit by a brick wall. The dwellinghouse abutting the N bank of the lade by the culvert exits is a converted 19th century mill building. The revetting walls for the lade to the E of the culverts are constructed from large squared off blocks of sandstone, mortared. At the end of this revetting at the far E of the mill complex is a modern footbridge supported on heavily rusted steel girders.

Interpretation: The isolated gable wall belonged to one of the mill buildings shown in this location of the 1st edition OS map but its exact function remains

unclear. The building is not shown, so had presumably been demolished by the 2nd edition OS map. The building probably dates to the first half of the 19th century. The other stone and brick buildings noted in the survey are first shown on the 2nd edition OS map and therefore seem to date to the late 19th century. The slots in the NE revetting wall would have been for a platform suspended over the lade, presumably for clearing debris off the grille. The two culverts are shown as open air channels on the 1st edition OS map; the S one with the grille at the top end presumably powered a waterwheel attached a building to the S. The neighbouring N channel seems to have acted as an overflow channel. When the large brick building was later built over the lade, it is unclear if the waterwheel was still in situ but enclosed, or whether it was dispensed with altogether.

Relevant site from DBA: Huntingtower Mill (33)

230	Ruthvenfield	Drain	Modern	-	-	NO 07877	25383

Walkover Description: A drain (N portion recently disturbed) running along the E side of the boundary S of the primary school at Ruthvenfield. Various manholes and concrete slabs were noted alongside the boundary.

Interpretation: The drain and boundary mark the rough location of a narrow water channel which branched off from the lade just N of the site of the current school on the 1st edition OS map. No real evidence of an open channel was found however.

231	Ruthvenfield Bleachworks	Factory	19th century	MPK 17940	-	NO 08134	25378	

Walkover Description: Remains of the western factory at Ruthvenfield. This factory operated as a bleaching works and later as a beetling mill. To the W of the new housing development at Ruthvenfield are two well built revetting walls constructed from large rectangular well-pointed (pecked) blocks of sandstone standing c 2m in height. These walls converge on approach to the former site of the factory causing the lade to pass through a 1.5m wide gap. On the W side of one of the walls is a fixing plate, presumably for a grille. About 8m W of this gap is a spread of boulders, brick pillars and squared blocks of stone (some with grooves) lying in the bottom of the lade channel. Beyond the converging walls, the lade runs along a newly built stone-lined channel created when the site was re-developed. This channel incorporates massive blocks of worked stone from the former factory buildings. The walls of this newly created channel do not line up with the bridge to the E (see photo below).

Interpretation: The narrowing walls appear to be the only upstanding remains of the mill and presumably marked the site of a grille to stop debris entering the waterwheel building. The water wheel and millwheel building were demolished when the site was recently redeveloped - information from the developer now residing in the new house to the N of the lade.

Relevant site from DBA: Ruthvenfield Bleachworks (30)

232	Ruthvenfield Bleachworks	Bridge	19th century	MPK 17940	-	NO 08166	25358

Walkover Description: A wide, low arched bridge just to the E of the site of the western factory at Ruthvenfield. The bridge is constructed from approximately squared off blocks of pointed (pecked) sandstone built to roughly level beds, with very regular pointed (pecked) voussoirs. The visible NW face of the bridge has been heavily repointed in cement. The SE side of the bridge has been buried during the redevelopment of the site and the lade culverted in a concrete tube for a short distance to the E.

Interpretation: The bridge appears on both the 1st and 2nd OS maps. Originally it provided access to the terraced houses to the N which were probably factory workers cottages. After the Ruthvenfield Print Works factory complex was abandoned in the late 19th century these cottages were demolished and the new western factory built just to the W. The bridge then served as the main crossing point on the lade for the new factory.

Relevant site from DBA: Ruthvenfield Bleachworks (30)

233	Ruthvenfield Print Works	Bridge	19th century	MPK 17940	-	NO 08240	25313

Walkover Description: A low arched road bridge crossing the lade on the main driveway to Ruthvenfield House. The bridge is of 19th century date and is constructed from fairly regular sandstone blocks built to roughly level beds.

Interpretation: The bridge appears on the 1st and 2nd OS map and would have acted, as it does today, as the main bridge over the lade along the driveway to Ruthvenfield House. However, in the mid to late 19th century the bridge also provided access to the Ruthvenfield Printworks factory.

Relevant site from DBA: Ruthvenfield Printworks *(29)*

234	Ruthvenfield Print Works	Junction	19th century	MPK 17940	-	NO 08332	25216	

Walkover Description: A junction where the lade changes direction from the SE to the E where there is a small drain outflow. Further to the NW along the SW bank are areas where the stone revetting is missing and there are further piped outflows.

Interpretation: This corner marks the location where the open ditch supplied with lade water dug around the large field S of Ruthven Farm (site 230) exited into the lade. The drain has since become culverted and now carries treated sewage from Tarry Row. Further north the intermittent nature of the stone revetting and piped outflows may mark the location of where a wide channel extending to the W joined the lade on the 1st edition OS map.

Relevant site from DBA: Ruthvenfield Printworks *(29)*

235	Ruthvenfield Print Works	Stone revetting	19th century	MPK 17940	-	NO 08396	25201	

Walkover Description: On the S side of the lade to the SE of the site of Huntingtower Printworks is a length of stone revetting, roughly 1m high. The revetting is constructed from regular sandstone slabs measuring c 0.7-1.2m long and 0.25-0.3m high. A vertical slot extending the full height of the wall has been cut into the slabs about half way along.

Interpretation: This feature is one side of a sluice system for Ruthvenfield Printworks. The sluice enabled water to back up along the lade forcing it to flow through a channel to the N though the factory buildings which presumably housed a waterwheel. This channel re-entered the main part of the lade just E of the sluice. The entire site of these original factory buildings including the N channel and presumably the N side of the sluice were completely redeveloped by the 2nd edition OS map when the factory was relocated to the W and became a bleachworks.

Relevant site from DBA: Ruthvenfield Printworks *(29)*

236	Ruthvenfield House	Channel	Unknown	MPK2084	NO02NE 59	NO 08538	25186	

Walkover Description: At the E end of the haugh to the N of Huntingtower Castle is a curving channel running down into the lade from the hillside to the S. The channel could not be measured due to the difficulty of crossing the lade at this location, but it was roughly 4m wide and 2m high.

Interpretation: This channel may be the remains of a water feature or track. The channel roughly lines up with a cropmark in the field to the N - a large plantation bank belonging to the designed landscape of Ruthvenfield House. It is possible that this feature (whether track or water channel) was created to draw the eye along the plantation.

Anther possible interpretation is that the channel is in some way connected with Huntingtower Castle, perhaps part of a track leading E from the castle.

237	Ruthvenfield House	Embankment	Unknown, possibly modern	-	-	NO 08607	25221	

Walkover Description: An embankment on one side of the lade (the NW) where it turns steeply to the NE near the A9 dual carriageway. The embankment is 1.2m tall and 8m wide in places with a gently rounded profile.

Interpretation: A moden machine made bank created when the lade was diverted during the construction of the A9 dual carriageway.

238	McDiamid Park Bank	Clay Pits	Unknown	-	-	NO (A) 08848 (B) 25362 (C) 08869 (D) 08871	 25417 25402 25417 25409	

Walkover Description: On the SW side of the lade on a steep bank below the crematorium. In relatively dense mixed woodland is a series of pits and scoops representing evidence of small scale quarrying / extraction. Four main pits were recorded as part of this survey

(A) The largest of the features is located quite high up the bank and comprises a large scooped out section of the bank measuring c 24m by c 17m. The floor of the feature is very wet and muddy and a spring emerges in the centre. The pit has been used for the dumping of modern rubbish and bricks.

(B) A scoop close to the lade where the it turns a slight corner. Feature measures c 7m by c 6m and is roughly 2m deep. A path runs over the top of the feature.

(C) A smallish pit (c 4m by c 5m, roughly 2m deep) close to feature B right on the bank of the lade. Water from the lade has filled the base of the feature in the past.

(D) A small pit to the NE of feature C, the path runs around the front of the feature. Pit measures c 4m by c 4m and roughly 2m deep.

Interpretation: The pits do not appear on any of the OS maps and therefore they could possibly date to the post-medieval period or earlier. There are no visible rock outcrops on the bank; instead the steep slope marks a change in softer geologies. A quick glance at the British Geological Survey 1:50,000 map shows that raised marine devensian deposits are exposed on the bank sandwiched between flandrian raised tidal deposits below and glaciofluvial gravels, sands and silts above. It seems likely therefore that the pits represent extraction of the devensian deposits, probably specifically for the clay component. Further research to find out the extent, date and type of material being extracted would be very interesting. The clay could have been extracted either for pottery production or for the lining of the lade channel.

239	McDiamid Park Bank	Gasometer	19th century	-	-	NO 08976	25502	

Walkover Description: Remains of a gasometer. Under the woodland leaf litter can be seen a roughly circular depression, flanked on three sides by large worked trapezoid stones with cut off iron pins rising vertically from each. On inspection the inside edge of the depression can be seen to lined in glazed white bricks. The circular depression measures c 3.5m in diameter.

Interpretation: This feature is the foundation for a gasometer marked on the 2nd edition OS map. The gas holding cylinder and iron frame of the structure has been removed, possibly for iron during WW2. The white tiled depression marks the location of the water tank under the gas cylinder which created the gas tight seal. This gasometer was presumably built by the owners of Newton House (which used to stand where the crematorium is now located) for a local private gas supply. The structure is of late 19th century date.

240	McDiamid Park Bank	Building	19th century	-	-	NO 08984	25492	

Walkover Description: At the foot of the bank behind the crematorium are the ruins of a rubble built rectangular building measuring 4.9m by 3.30m built into the bank. The building has been constructed from well squared blocks of sandstone and it survives best along the NE wall (three courses high). There is a doorway centrally in the NW wall but there is no definite sign of any other apertures or a chimney.

Interpretation: There are three buildings marked on early OS maps in this area, two rectangular buildings next to the gasometer (site 239) marked on the 2nd OS map and an earlier roughly square building marked on the 1st edition OS map. This building appears to be one of the later buildings associated with the gasometer, probably built in the late 19th century. The structure is possibly a little too small to have been used in the production of coal gas, but perhaps it was used as a coal or coke store.

241	Tulloch Footbridge	Bridge	19th century	-	-	NO 09057	25587	

Walkover Description: Underneath a modern wooden footbridge are stone built revetting walls for an earlier bridge. The walls are composed from mortared random rubble and measure c 4m long and 2m in high.

Interpretation: This bridge was more than twice the width of the current footbridge and was presumably used for cart traffic passing up the track from Newton House to the fields to the N. The bridge appears to have fallen into disrepair after 1970 (OS map evidence).

242	Tulloch Channel	Channel	unknown	-	-	NO 09526	25635	

Walkover Description: A 21m long channel running alongside the W bank of the lade close to where the Newton Burn joins at Tulloch. The channel slopes down gently from its SE end and reaches its maximum depth (c 1.5m) where it ends- about 10m from the bridge leading to Primrose Crescent. The channel is between 3m and 4m wide.

Interpretation: This channel does not appear on any of the OS maps up to 1989 and therefore it may be related to the development of the housing estate and cycle path to the NW. This development may have necessitated the levelling of land to the NW, causing new ground to be pushed almost against the lade bank. The channel thus may simply mark the original drop off of the land on the NW side of the lade bank that was not quite levelled off in preparation for the estate.

A slightly less likely interpretation is that the channel is the remains of a former water channel that exited into the lade which became blocked when the lade bank was improved.

243	Tulloch Bleachworks Weir	Weir	19th century	MPK 7922	-	NO 10080	25345	

Walkover Description: A brick and concrete weir crossing the lade at roughly 45 degrees. The structure essentially comprises three brick piers joined together by a brick wall on the upstream side (four courses wide, 3 long and 1 across). There is some concrete infilling between the piers on the downstream side. The E revetting wall of the lade downstream of the weir is a well made brick wall constructed from cream coloured bricks. The revetting wall to the W on the downstream side is brick and concrete built but has partly collapsed due to vegetation.

Interpretation: This weir marks a junction where the lade split in two, the W branch going on into the heart of Tulloch Bleachworks and the other running around the E side of the factory. There is no trace of the W channel due to the redevelopment of Tulloch Bleachworks; the E channel now forms the main course of the lade. The drop in water height over the weir suggests that the E channel was an overflow channel and was not used for powering mill machinery. This weir pre-dates the 1860s OS map, but the rather crude use of concrete suggests that its structure may have been partly been re-built in the late 19th or 20th centuries.

Relevant site from DBA: Tulloch Bleachworks (28)

244	Tulloch Bleachworks Stones	Possible crossing point	19th century	MPK 7922	-	NO 10095	25162	

Walkover Description: A rocky shallow area in the lade N of site 245. The feature is c 2m wide and composed mainly of angular stones c 0.20 x 0.10 x 0.05 m dia.

Interpretation: It was initially thought that this feature may have been a crossing point on the lade. However, a subsequent visit to this site the next day during higher water levels showed that this feature had become submerged.

Relevant site from DBA: Tulloch Bleachworks *(28)*

245	Tulloch Bleachworks Junction	Lade Junction	19th century	MPK 7922	-	NO 10098	25104	

Walkover Description: An area of red brick revetting (c 1.5m high) on the W side of the lade which curves steeply 90 degrees to the W. The bank S of the curve has been infilled and is covered with vegetation making inspection difficult. There is a brick revetting wall with rounded off sandstone kerbstones on the E side of the lade. To the S of the curved wall is a large girder and an iron water pipe crossing the lade at 90 degrees.

Interpretation: The curved wall marks the location of a lade channel which exited Tulloch Bleachworks. The channel is marked on 1st and 2nd edition OS maps and was one of the main outflows from the diversion of the lade through the heart of Tulloch Bleachworks (the diversion began at the weir to the N – site 243). There is now no trace of this diverted portion of the lade as the main part of Tulloch Bleachworks has been redeveloped. The water pipe is presumably associated with the works.

Relevant site from DBA: Tulloch Bleachworks *(28)*

246	Tulloch Bleachworks Platform	Platform	20th century	MPK 7922	-	NO 10149	25018	

Walkover Description: A rectangular concrete platform cantilevered out c 1m over the W bank of the lade on the E side of the remaining 19th century Tulloch Bleachworks buildings. The concrete platform is c 0.2m thick and is supported on 10 steel girders which run into the W bank. The original brickwork revetting for the bank (which is capped with rounded off sandstone kerbstones) has been raised up under the platform with later brickwork. The girders extend into this course of brickwork. At the SE corner of the structure is a steel upright post that has been cut off low down. The platform is located next to a rectangular brick structure which has been built in front of a doorway in W wall of the 19th century buildings.

Interpretation: This platform appears to be the foundation for a small and relatively light building associated with Tulloch Bleachworks. The brick structure to one side was probably a set of stairs leading down to the platform from the 19th century buildings. One of the mechanics in the garage now located inside the 19th century buildings remembers that that when he was a boy the platform was a canteen for the factory, constructed from corrugated iron. The 19th century buildings behind this were built by Pullars in the late 19th century; they were too large to survey as part of this project.

Relevant site from DBA: Tulloch Bleachworks *(28)*

247	Tulloch Bleachworks Bridge	Bridge	20th century	MPK 7922	-	NO 10173	24996	

Walkover Description: Bridge over the lade near the existing 19th century Tulloch Bleachworks buildings. The bridge is constructed from riveted steel girders and sheet steel with ornamental curved bracing to support the parapets. In plan the bridge is trapezoidal, being wider at the E side opposite the marshalling yard.

Interpretation: In design the bridge appears to be late 19th or early 20th century in date and was probably built for Pullars when they took over Tulloch Bleachworks. However, the bridge shown in this location on historic OS maps up till the 1950s has parallel sides. It is not untill the 1960s OS map that the bridge appears in its current form, being wider on the W side than the E. It is therefore likely that the bridge was altered and widened at one end in the 1950s or 1960s when the marshalling yards were created to the E.

Relevant site from DBA: Tulloch Bleachworks *(28)*

248	Tulloch/Letham Sluice	Sluice	Late 19th or early 20th century	-	-	NO 10559	24757	

Walkover Description: A rectangular concrete structure sticking up out of the lade with an iron grille and winding gear connected to a sluice. Structure measures 1.6m by 1m. A salt glazed sewer sized pipe descends steeply on the opposite side of the structure from the grille.

Interpretation: It is unclear where the water from this sluice was being diverted.

249	Tulloch/Letham Railway Bridge	Railway Bridge	19th century	-	-	NO 10583	24762	

Walkover Description: Railway bridge (Inverness line). A relatively high arched stone bridge built using regular bull-faced sandstone blocks. The bridge has been widened (doubled in width) to the W by a concrete structure, probably built in the 1950s or 1960s. The parapets of the 19th century bridge were partly reconstructed in concrete during this work.

Interpretation: The widening of the bridge coincides with the creation of the marshalling yards E of Tulloch in the 2nd half of the 20th century.

250	Perth City & County Small Bore Rifle Club	Shooting Range	20th century	-	-	NO 10647	24727	

Walkover Description: Perth City & County Small Bore Rifle Club. The site contains three main structures separated by lawns and young woodland:

1. An older target area, a c 5m high wall built in a semicircle, roughly constructed from 19th century bricks. Wall is buttressed to the N and has a bank on the target side. Wooden frames for targets are situated in front of the bank.

2. A more recently created target area, a c 4m high wall constructed from 1950s-1960s bricks. Wall is buttressed to the N and has a bank on the target side. Wooden frames for targets are situated in front of the bank.

3. A long narrow building constructed from 1950s-1960s bricks. A roofed target area.

Interpretation: Perth City & County Small Bore Rifle Club grounds. The club is still active.

251	Perth City & County Small Bore Rifle Club Bridge	Bridge	20th century	-	-	NO 10644	24772	

Walkover Description: Bridge over lade to the Perth City & County Small Bore Rifle Club. There are two phases to the bridge. Below the current structure are two girders resting on concrete plinths set into either side of the lade. These girders are joined together with re-used pieces of steel (possibly from nearby factories) which have been cut up and roughly welded to the girders to act as struts. The walkway of this structure has been removed. In the second phase this small bridge was effectively built over. Two steel girders more widely spaced than the first were set higher up the on the concrete plinths. These were braced together with small pieces of steel and 14 sheets of steel welded on top for the main walkway.

Interpretation: The earlier structure was only intended for very light traffic and pedestrians. Essentially this bridge is of very cheap design and probably reflects the early days of the club when it had only just acquired the land for the range. The larger structure probably dates to the 1930s or 1940s when the club had money to invest and more frequent and heavier vehicles were brought to the club.

252	Crieff Road Embankment	Tunnel	19th century	-	-	NO 10818	24450	

Walkover Description: Lade tunnel under the Crieff Road embankment. Entrances constructed largely from bull-faced blocks of sandstone. Internal tunnel walls constructed from bull-faced blocks of sandstone (2-3 courses high) with roughly pointed (pecked) flat blocks of sandstone for the roof of the tunnel.

Interpretation: Lade tunnel created in the mid 19th century for the Crieff Road embankment. The Crieff Road embankment was built to for the crossing of the nearby railway line.

253	Boot of Balhousie Bridge	Bridge	19th century	-	-	NO 10865	24398	

Walkover Description: An old road bridge just to the NW of Boot of Balhousie. The bridge is c 7m wide (NW-SE) with a very low arch made with tooled voussoirs. The original fabric of the bridge is sandstone rubble, but this has been repaired with brick and concrete, probably in the 20th century.

Interpretation: This bridge originally belonged to a road which ran from the lodge N of Wellshill cemetery across to the Crieff Road. It is clear from the 1st edition OS map that this route became effectively cut off by the creation of the Crieff Road embankment over the railway. We can therefore assume that little traffic past over this bridge after the creation of the embankment in the middle of the 19th century. However, the bridge was presumably still used after this date for crossing the lade to access the Boot of Balhousie sluice.

Relevant site from DBA: Boot of Balhousie *(26)*

254	Viewfield Place	Bridge	20th century	-	-	NO 10922	24371	

Walkover Description: A concrete and corrugated iron bridge near Viewfield Place. There is a pipe running across the lade next to the bridge on the SE side.

Interpretation: What appears to be a very cheaply made bridge providing access to an industrial area beside the railway line.

255	Wallace Works Building	Building	19th century	MPK 8652	NO12SW 329	NO 11174	24079	

Walkover Description: A rectangular two storey building on the NE side of the lade on the site of the former Wallace Works textile factory. The building is constructed from dressed sandstone built to roughly level beds. The building has one window in the SE wall, three windows and a doorway in the NE wall and two skylights in the slate roof. The ground floor windows and door in the NE wall have been blocked with stone and brick. There is a large modern entrance in the NE wall covered by plywood and the first floor window has been covered by metal louvers.

Interpretation: This building is shown on the 2nd edition OS map and was located at the back of the works on one side of an access route running down the back of the factory. It is possible that the building was used by people monitoring incoming materials and outgoing products at the factory. The building has since been used as a substation; hence the large entrance in the wall which was probably created when a transformer was installed.

Relevant site from DBA: Wallace Works (24)

256	St Catherine's Road	Bridge	19th or early 20th century	-	-	NO 11193	24039	

Walkover Description: Riveted steel girder road bridge crossing the lade near St Catherine's Retail Park.

Interpretation: Bridge built in the late 19th century for industrial traffic crossing lade near Wallace Works and St Catherine's Road Dyeworks. The bridge was later altered when St Catherine's retail park was developed.

Relevant site from DBA: St Catherine's Road, dyeworks (22)

257	Perth Barracks	Walls, marker stones	19th century	MPK10216	-	NO 1140	2390	

Walkover Description: A boundary wall to the SW and NW of Perth Police Station. The wall is random rubble (sandstone) and mortar built, measuring c 2.5m tall. In places it has been repaired in the 20th century. Two stones can be found in the wall carved with WD (No 4 on the SW side and No 5 on the NW side). Where the boundary wall turns 90 degrees there is a rubble built wall projecting towards the lade. This wall contains a blocked up doorway (brick and stone) and is constructed in a slightly different style to the boundary wall.

Interpretation: Part of the boundary wall that originally ran around Queens Barracks. The 'WD' stones are short for War Department. The numbers probably reflect the number marker stones around the circumference of the barracks. On the 1st edition OS map the projecting wall appears to be part of a small enclosure outside the barracks next to the Powder Magazine (the SE and SW walls are now demolished). The doorway presumably provided access to this enclosure. It is unclear if the enclosure was built for the barracks.

Relevant site from DBA: Police station, Queens Barracks (21)

258	Caledonian Road Structure	Structure	19th or early 20th century	-	-	NO 11340	23874

Walkover Description: On the NE side of the lade against the wall running behind Perth Police Station are two vertical steel girders joined together at the top by a horizontal steel rod. Girders measure c 4.2m in height, c 3m apart and are painted brownish-red. The girders have been built into a neat short length (c 3.4m) of brick wall which runs alongside the rubble wall running behind the police station. Steel plates have been riveted to the tops of each of the girders. There are four holes on each girder some c 3.2m up on the sides facing the lade.

Interpretation: This structure is possibly the remains of a gantry which crossed the lade to the Monax Glassworks. Upper plates may have supported beams which crossed over the lade. The holes in the girders may have been for bracing.

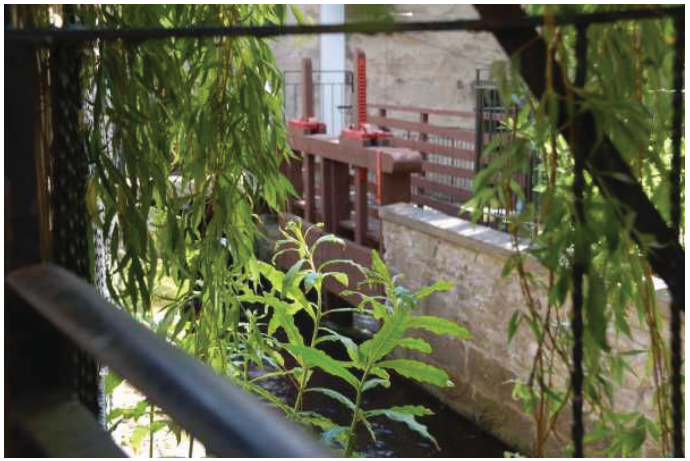
Relevant site from DBA: North British Glass Works (20)

259	Upper City Mills	Mill	19th century	MPK12707	NO12SW 193.02	NO 11418	23732

Walkover Description: A large 19th century stone built mill complex now housing a hotel. Access to this building was not obtained. Sluices appear modern and were probably replaced when the site was redeveloped in the 1980s.

Interpretation: Full investigation and interpretation of this mill is beyond the scope of this survey.

Relevant site from DBA: Upper City Mills (18)



260	Lower City Mills	Mill	19th century	MPK 3452	NO12SW 193	NO 11489	23707	

Walkover Description: A large 19th century mill building partly housing Perth tourist information centre. The building is random rubble built (sandstone). The lade splits in two just before it flows under the mill, the S route passing through a sluice and the N half passing through a grille. On the E side of the building the lade exits from the mill via three arches. Between the N and middle arches there is a low wall projecting E from the main wall of the mill. On the wall adjacent to the S arch is a wooden barrier to deflect water flowing out of the arch away from the S wall of the mill.

Interpretation: Mill was re-developed in the 1980s and it is possible that both the grille and the sluice are replacements. Water flowing in through the grille presumably drove a waterwheel whilst the sluice probably controlled access to the overflow. Full investigation and interpretation of this mill beyond the scope of this survey.

Relevant site from DBA: Lower City Mills (16)

261	Balhousie Lade Bridge	Bridge	1766-1772	-	-	NO 11973	23810	

Walkover Description: In front of property no 77 on Bridge Lane/George Street opposite Perth Museum and Art Gallery is a blocked up stone arch under which runs the culverted Balhousie lade. The stone arch is constructed from well shaped blocks of pinkish sandstone with a lip running along the top of the voissoirs. The arch has been blocked up with stone rubble and in the centre is a bricked up doorway. On the NE side is a sheet steel access panel.

Interpretation: A dry arch, part of Smeaton's Bridge (1766-1772). The arch would have been needed when the level of Bridge Lane/George Street was raised for the approach to the new bridge.

Relevant site from DBA: Lade Town Lade (1)

Appendix 2 Photographic Register

Folder: Mon10May11

Jpg	*View*	*Description*
DSC_0001-2	SE	View of the main weir wall, Low's work (200)
DSC_0003-4	SE	Close up of the stonework of the main weir wall, Low's work (200)
DSC_0007-8	SE	The groove along the stonework of the main weir wall, Low's work (200)
DSC_0008-9	SW	Area where the main weir wall has been washed away (SE end), Low's work. (200)
DSC_0010-11	SE	Area where the main cobbled area to the E of the weir wall has been washed away, Low's work (200)
DSC_0012-13	-	Shots of ducklings at Low's work (200)
DSC_0014-15	NE and E	Shot upstream from Low's work looking at the washed away section of the structure (200)
DSC_0016	NE	Area where the main weir wall has been washed away (SE end), Low's work (200)
DSC_0017	NW	Area where the main weir wall has been washed away (NW end), Low's work (200)
DSC_0018	SE	View of the main weir wall, Lowe's work (200)
DSC_0019	NW	Shot of iron ring in the SW kerbstones of the weir wall, Low's work (200)
DSC_0020	W	Shot of channel where water was diverted into the lade, Low's work (200)
DSC_0021	W	Shot of laid cobbled surface upstream of the main weir wall in the channel where water was diverted into the lade, Low's work (200)
DSC_0022-3	NW	View of cobbled surface (constructed from boulders) downstream from the main weir wall. Shot shows part of the grid pattern in the surface (200)
DSC_0024	W	Shot of an area close to the S bank of the River Almond where the cobbled surface downstream from the main weir wall has been washed away (200)
DSC_0025	W	Shot of Low's work from the bank (200)
DSC_0026	SW	Shot looking at parapet on the S bank of the River Almond on approach to Low's work (200)

DSC_0027-8	NW and N	View of Lowe's work
DSC_0029	NE	View of cobbled surface (constructed from boulders) downstream from the main weir wall. Shot shows part of the grid pattern in the surface (200)
DSC_0030	SE	Shot of grille in front of main sluice where water entered the lade (200)
DSC_0031-2	SE	Shot of grille and main sluice where water entered the lade (200)
DSC_0033	NW	Shot of kerbstones on SW side of the main weir wall, Low's work (200)
DSC_0034-5	SE	Shot of grille in front of main sluice where water entered the lade (200)
DSC_0036	NW	Shot of main sluice where water entered the lade (200)
DSC_0037-8	NW	Shot of inner bridge arch (201)
DSC_0039-42	NW, N, W	Shot of outer bridge arch (201)
DSC_0043	NE	The stonework revetting on the side of the lade next to site 201.
DSC_0044-7	SW	Site of girder bridge (202)
DSC_0048	NE	Wooden shuttering around one of the concrete plinths on one side of the girder bridge (202)
DSC_0049	NW	Site 202
DSC_0050	NE	Modern footbridge near site 203, the junction in the lade upstream from Huntingtower Bleachfield
DSC_0051	E	Looking down the S route of the lade from site 203, the junction in the lade upstream from Huntingtower Bleachfield
DSC_0052-3	NE	Looking at rubble and collapsed stonework where the N route of the lade splits of at the junction upstream from Huntingtower Bleachfield (203)
DSC_0054	E	Site 203
DSC_0055-8	E, W, N	Shots of area where rubble from the demolition of Huntingtower Bleachfield has been pushed down the N bank S route of the lade
DSC_0059	NE	View looking at iron-lined lade channel just before the wheelhouse at Huntingtower Bleachfield (204)
DSC_0060-1	NE	View looking at the wheelhouse at Huntingtower Bleachfield from the SW
DSC_0062	NE	View looking at iron-lined lade channel just before the wheelhouse at Huntingtower Bleachfield (204)
DSC_0063	NE	Shot looking up at the wheelhouse and grille at Huntingtower

		Bleachfield (204)
DSC_0064-5	NE	Shots of the 3-bayed waterwheel at Huntingtower Bleachfield (204)
DSC_0066	S	View looking at iron-lined lade channel just before the wheelhouse at Huntingtower Bleachfield (204)
DSC_0067	NW	Shot of aperture in wall for access to waterwheel axel (204)
DSC_0068-9	NE, SW	View of stone-lined overflow channel around the wheelhouse at Huntingtower Bleachfield (204)
DSC_0070-3	SW	Photo of the front of the wheelhouse building at Huntingtower Bleachfield (204)
DSC_0074-5	W	Shot of SE side of wheelhouse building through trees at Huntingtower Bleachfield (204)
DSC_0076-7	NE	Shot of converted mill building (The Clocktower) at Huntingtower Bleachfield
DSC_0078-9	SE	Shot of bridge where lade passes under Bleachers Way (205)
DSC_0080	NW	Shot of converted mill building (The Clocktower) at Huntingtower Bleachfield
DSC_0081	N	Shot of Bleachers Way
DSC_0082	NE	Shot of footbridge over lade just E of Bleachers Way
DSC_0083	SE	Photo of bridge where the main road to Huntingtower Hotel passes over the S route of the lade (206)
DSC_0084-5	SSE	Girder bridge, site 207
DSC_0086	S	Large sluice for S route of lade at junction near Huntingtower mill (208)
DSC_0087	E	Site of sluice for N route of lade at junction near Huntingtower mill (208)
DSC_0088-9	N, NE	General shots of junction Huntingtower mill (208)
DSC_0090-1	N	Remodelled revetting along N route of lade south of Huntingtower Hotel
DSC_0092	NE	Remains 19th century buildings which are shown on the 1st edition OS map along the N route of lade by 'The Stables' near Huntingtower Hotel.
DSC_0093	NW	Photo of bridge where the main road to Huntingtower Hotel passes over the N route of the lade (206)
DSC_0094	SW	Sewage outflow by site 206
DSC_0095-6	NW	19th century streetlamp by site 206

DSC_0097	SE	Gate by site 206
DSC_0098-99	NW	Garden feature created with stone from lade revetting (210)
DSC_0100	N	Datestone on Huntingtower Hotel
DSC_0101	N	Huntingtower Hotel
DSC_0102	NE	Concrete bridge to Huntingtower Hotel (211)
DSC_0103	NW	Shot of footbridges over the N route of the lade by Huntingtower Hotel
DSC_0104-6	SE, E	Garden feature created with stone from lade revetting (212)
DSC_0107	SW	Garden feature created with stone from lade revetting (213)
DSC_0108-11	NW, S, SE	Water features created with stone from revetting along the N route of the lade close to Huntingtower Hotel (214)
DSC_0112	SW	Log cabins in grounds of Huntingtower Hotel with Huntingtower Bleachfield mill in background
DSC_0113-4	SW	Exit of the culvert that ran under Huntingtower Bleachfield mill (N route of lade). The buildings above have been demolished and the site redeveloped (215)
DSC_0115	SW	Shot of re-developed site at Huntingtower Bleachfield mill
DSC_0116	NE	View of entrance to culvet along N route of lade under the former Huntingtower Bleachfield mill (216)
DSC_0117-8	SE	Brick revetting by site 216
DSC_0119	NE	Shot showing where the properties along Almond Grove back onto the N route of the lade by Huntingtower Bleachfield mill
DSC_0120	S	Concrete bridge, site 217

Folder: Tues11May11

Jpg	*View*	*Description*
DSC_0001-2	SW	Marks on stone marking 'Cobby Bridge' near site 208 (junction)
DSC_0003-4	NE	Stone marking 'Cobby Bridge' near site 208 (junction)
DSC_0005	S	Collapsed wooden revetting just south of the junction at site 208 (218). Poor quality of photo due to dark, wet weather condtions
DSC_0006	NW	Large cast iron waterpipe (219). S route of lade at Huntingtower
DSC_0007-9	W	Modern concrete revetting for lade by site 219
DSC_0010	SE	Bridge over S route of lade at Huntingtower (220)

DSC_0011-2	Various	Railway bridge (221)
DSC_0021	S	Carved stone with slot under Railway bridge (221)
DSC_0022	S	Railway bridge (221)
DSC_0023-4	NW, NE	Isolated stone revetting along S route of lade at Huntingtower (222)
DSC_0025	N	View looking through first overflow sluice at Shepherd's Mill (223)
DSC_0026	NE	View of first overflow sluice at Shepherd's Mill (223)
DSC_0027	NE	Shot looking at revetting wall of lade at steep corner before Shepherd's Mill (223)
DSC_0028	NE	View of first overflow sluice at Shepherd's Mill (223)
DSC_0029	NE	View of first overflow sluice at Shepherd's Mill (223)
DSC_0030	SE	Shot looking towards the main building at Shepherd's Mill (223)
DSC_0031	N	View of first overflow sluice at Shepherd's Mill (223)
DSC_0032-3	NE, E	Shot looking at ashlar at side of lade channel just past the first overflow sluice at Shepherd's Mill (223)
DSC_0034	SE	Floor of the lade channel just upstream from the main building at Shepherd's Mill (223)
DSC_0035-7	E, NE	Shot of second overflow channel next to the redeveloped mill building at Shepherd's Mill (223)
DSC_0038-40	SE	View of sluice which controlled water entering the wheelhouse
DSC_0041	Various	Shepherd's Mill (223). View looking at waterpipe which conveyed water to a hydroelectric generator. Shot taken in brick annex beside waterwheel
DSC_0042	S	Shepherd's Mill (223). Shot of Dynamo for hydroelectric power generation
DSC_0043-53	Various	Shepherd's Mill (223). Various shots taken in the in brick annex beside waterwheel
DSC_0054-5	E	The waterwheel at Shepherd's Mill (223)
DSC_0056	NW	Shepherd's Mill (223). Shot looking back at brick annex beside waterwheel and sluice which controlled water to the waterwheel
DSC_0057	E	The waterwheel at Shepherd's Mill (223)
DSC_0058	SW	Shot looking at the top of the second overflow channel next to the redeveloped mill building at Shepherd's Mill (223)
DSC_0059-63	E, NE	Shot looking at depression on the opposite site of the road from Shepherd's Mill (224)

DSC_0064-9	Various	Photos of mound to W of depression (224)
DSC_0070-72	NW	Shot of SE side of remaining buildings at Shepherd's Mill (223)
DSC_0073-4	NW, NE	Shot of outside of brick annex next to waterwheel at Shepherd's Mill (223)
DSC_0075-6	NE	Shot of occupied houses next to at Shepherd's Mill (223)
DSC_0077-80	W, NW	The redeveloped main mill building at Shepherd's Mill (223)
DSC_0080-1	NE	Small arched bridge over the E overflow channel N of Shepherd's Mill (223)
DSC_0082	W	Small arched bridge over the E overflow channel N of Shepherd's Mill (223)
DSC_0083	NE	Looking down the E overflow channel N of Shepherd's Mill (223)
DSC_0084	W	Small arched bridge over the W overflow channel N of Shepherd's Mill (223)
DSC_0085	SW	Looking down the W overflow channel N of Shepherd's Mill (223)
DSC_0086	NE	Small arched bridge over the W overflow channel N of Shepherd's Mill (223)
DSC_0087	SW	Looking up the W overflow channel N of Shepherd's Mill (223)
DSC_0088-9	W	The main road bridge over the lade by Ruthven Farm (225)
DSC_0090-1	E	The main road bridge over the lade by Ruthven Farm (225)
DSC_0092	W	Looking up the E overflow channel towards Shepherd's Mill (223), shot taken from N route of lade
DSC_0093-4	W	Looking at the occupied buildings next to Shepherd's Mill (223), shot taken from N route of lade
DSC_0095-100	Various	Photos of the Railway bridge (226) crossing the N route of the lade
DSC_0101	NW	Site of bridge (227), N footings
DSC_0102	S	Site of bridge (227), S footings
DSC_0103-4	E	Steel post tensioner (228) just downstream from Huntingtower Mill
DSC_0105	E	Steel post tensioner and stone (228) in N route of lade just downstream from Huntingtower Mill
DSC_0106-8	Various	Worked stone block on bank next to the post tensioner and stone (228), in N route of lade just downstream from Huntingtower Mill
DSC_0109	E	Photo looking downstream from culvert at Huntingtower mill (229) at girder bridge
DSC_0110-2	WNW	Shots of culverts which carried the lade water under Huntingtower

		mill (229)
DSC_0113	NE	Shot looking at re-developed building at Huntingtower mill (229) just N of the lade.
DSC_0114	NE	Shot at entrance to N culvert under Huntingtower mill (229)
DSC_0115	S	Shot inside N culvert under Huntingtower mill (229)
DSC_0116-8	SE	Photo of the mill building constructed over the entrances to the culverts which run under Huntingtower mill (229)
DSC_0119	NE	Shot of the stone-built mill building just N of the entrances to the culverts (229)
DSC_0120	SE	Photo of grille in front of the S culvert, Huntingtower mill (229)
DSC_0121	S	Investigating the S culvert, Huntingtower mill (229)
DSC_0122-3	W	Photo of grille in front of the S culvert, Huntingtower mill (229)
DSC_0124-5	NW	Slots in the lade stonework on the N side of the lade just before the entrances to the culverts (229)
DSC_0126-7	SW	A gable wall for a stone-built mill building. The building seems to pre-date the other mill buildings seen during the survey at Huntingtower mill (229)
DSC_0128-9	W, NW	The well constructed dry stonework revetting for the lade channel upsream from Huntingtower mill (229)
DSC_0130	NE	Stairs made in the revetting for the lade channel just upsream from Huntingtower mill (229)
DSC_0131	-	Worked stone blocks in lade channel at foot of stairs near Huntingtower mill (229)
DSC_0132-4	NW, N	Photo looking at concrete slabs over drain running SW along the boundary E of the primary school at Ruthvenfield. Drain runs on same alignment as open channel diverting water from lade shown on 1st edition OS map (230)
DSC_0135	N	Looking at recent disturbance to the above drain near the primary school (230)
DSC_0136-7	NW, NE	Access covers to the above drain further SW from the primary school

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Jpg	*View*	*Description*
DSC_0001-2	SE, NW	Shot along lade between the primary school and Ruthven Mill at Ruthvenfield
DSC_0003	SE	Area where stone revetting of the lade narrows on approach to

		Ruthven Mill (231)
DSC_0004-5	SE	Collapsed maisonry where stone revetting of the lade narrows on approach to Ruthven Mill (231)
DSC_0006-7	NW, SE	The mill lade as it passes through the site of Ruthven Mill (231). The walls in the photo were created when the site was re-developed
DSC_0008	SE	Shot of bridge where road crosses over lade at Ruthven Mill (232)
DSC_0009	NW	New revetting walls for lade upstream of the above bridge
DSC_0010	SE	Shot looking under the above bridge (232)
DSC_0011	N	The re-developed site of Ruthven Mill (232)
DSC_0012	NE	The road as it crosses over the bridge at Ruthven Mill (232)
DSC_0013	NE	View of the entrance to Ruthvenfield house
DSC_0014-5	NW	Shot of bridge crossing over lade (233) near Ruthvenfield house
DSC_0016	SE	Shot of bridge crossing over lade (233) near Ruthvenfield house
DSC_0017-20	W	Photo of ducks swimming in polluted part of the lade just downstream from site 233
DSC_0021-2	W	Photo looking at outflow of drain/sewer into the lade (234) at the corner S of Ruthvenfield House
DSC_0023-4	S	Shot of stone revetting with slot (235) to the SE of Ruthvenfield House
DSC_0025-6	S, SW	Photo looking at channel running down from hill to S into the lade (236)
DSC_0027-9	E	Shot looking at embanking on N side of lade near the A9 (237)
DSC_0030	E	Culvert under the A9
DSC_0031	W	The lade on the W side of the A9
DSC_0032-3	W	Culvert under the A9
DSC_0034	NE	Looking down the lade from the culvert under the A9
DSC_0035-6	W, N	Large clay pit (238 A) in bank E of A9
DSC_0037-8	N	Wooden revetting on W side of lade, just E of A9
DSC_0039-40	S	Clay pit (238 B) in bank E of A9
DSC_0041-2	NW	Clay pit (238 C) in bank E of A9
DSC_0043-4	SW	Clay pit (238 D) in bank E of A9
DSC_0045-50	N, E	Remains of gasometer near where the lade passes below the

		crematorium (239)
DSC_0051-55	SW, SE, NE, E	Remains of stone-built building near the gasometer (240)
DSC_0056	NW	Moped and supermarket trolley in lade near sites 239 and 240
DSC_0057-8	E	Modern footbridge near Mathews Drive
DSC_0059-61	N	Footings for old bridge (241) under modern footbridge near Mathews Drive
DSC_0062	W	General shot of footpath next to straight section of lade near Mathews Drive
DSC_0063-6	SW, SE, W, E	General shots of lade on straight section near Mathews Drive
DSC_0067	W	General shot of footpath next to straight section of lade near Mathews Drive
DSC_0068	SE	Shot of modern bridge near Mathews Drive
DSC_0069-70	-	Ducklings
DSC_0071	N	Photo looking at where the Newton Burn joins the lade
DSC_0072-3	N	Wooden revetting on the W side of the lade just downstream from where the Newton Burn joins
DSC_0074-5	NE	Shot of overgrown channel (242) near to the main road bridge to Primrose Crescent
DSC_0076	SW	View looking down into lade from the main road bridge to Primrose Crescent
DSC_0077	NE	The main road bridge to Primrose Crescent
DSC_0078	S	Modern footbridge near Sandeman Court
DSC_0079-81	W	The brick and concrete weir (243) N of Tulloch Bleachworks
DSC_0082-83	SE	Brick revetting wall of lade channel next to weir (243)
DSC_0084	NW	The brick and concrete weir (243) N of Tulloch Bleachworks
DSC_0085	E	Modern footbridge on old site of Tulloch Bleachworks
DSC_0086-8	NE, E	Site of demolished buildings on E side of lade at Tulloch Bleachworks
DSC_0089-91	W, S	Shallow rocky area in lade (244) near former site of Tulloch Bleachworks
DSC_0092	SE	Shot looking at site of demolished buildings on E side of lade at Tulloch Bleachworks

DSC_0093	W	Concrete revetting on W side of lade near site 245, Tulloch Bleachworks
DSC_0094-5	W	Exit of former lade channel (245) through Tulloch Bleachworks
DSC_0096-7	E, SE	Brick revetting wall on E side of lade opposite former lade channel (245)

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Jpg	*View*	*Description*
DSC_0001-2	W	Shot of wall on SW side of lade next to the weir N of Tulloch Bleachworks
DSC_0003	SW	Ducklings at site (244), water level now risen to cover the stones
DSC_0004-6	S	Brick and stone revetting wall on W side of lade close to site 246 and the remaining factory buildings, Tulloch Bleachworks
DSC_0007-9	S	Concrete platform above lade- site of canteen, Tulloch Bleachworks (246)
DSC_0010	S	Door for lighting in the remaining factory buildings, Tulloch Bleachworks
DSC_0011	NW	Concrete platform above lade - site of canteen, Tulloch Bleachworks (246)
DSC_0012	NW	Shot looking up lade at concrete platform above lade, Tulloch Bleachworks
DSC_0013	SW	Photo of remaining factory buildings at Tulloch Bleachworks next to bridge (247)
DSC_0014	W	General shot of lade next to above remaining factory buildings at Tulloch Bleachworks
DSC_0015-16	S	Steel bridge (247) at Tulloch Bleachworks
DSC_0017	W	Shot of steel bridge (247) and remaining factory buildings, Tulloch Bleachworks
DSC_0018-19	E, NE	Shot of steel bridge (247)
DSC_0020	W	Surviving complex of 19th century buildings at Tulloch Bleachworks
DSC_0021-22	NW, SE	View of lade downstream from Tulloch Bleachworks
DSC_0023	E	Shot of modern footbridge downstream from Tulloch Bleachworks
DSC_0024-5	E, SW	Brick footings for modern bridge which was either not built or was removed, downstream from Tulloch Bleachworks
DSC_0026	S	Photo of intake from lade with sluice (248) near the railway bridge

DSC_0027	W	Photo of modern concrete bridge near the railway bridge and site 248
DSC_0028	E	View of railway bridge over lade for the main Inverness line (249)
DSC_0029-32	E	Shot under railway bridge showing where the structure has been widened
DSC_0033-4	NW	Photo along railway line
DSC_0035-6	W	Photo looking back towards Tulloch Bleachworks
DSC_0037-8	W	Shot of footbridge over railway line
DSC_0039	NE	Lade path signs
DSC_0040-1	SW	View of railway bridge over lade for the main Inverness line (249)
DSC_0042	SW	Ducklings under the above bridge
DSC_0043	SW	View of railway bridge over lade for the main Inverness line (249)
DSC_0044	E	Shot looking at the back of the old rifle range target for the Perth City & County Small Bore Rifle Club (250)
DSC_0045	SE	Shot of billboard at the back of the old rifle range target for the Perth City & County Small Bore Rifle Club (250)
DSC_0046	NW	Front of the old rifle range target for the Perth City & County Small Bore Rifle Club (250)
DSC_0047-9	NE, N, NW	Shot of the mid 20th century rifle range target for the Perth City & County Small Bore Rifle Club (250)
DSC_0050-51	NW, N	Front of the old rifle range target for the Perth City & County Small Bore Rifle Club (250)
DSC_0052	W	Indoor range for the Perth City & County Small Bore Rifle Club (250)
DSC_0053	W	Danger sign, Perth City & County Small Bore Rifle Club (250)
DSC_0054	SW	Bridge and entrance gate for the Perth City & County Small Bore Rifle Club
DSC_0055	S	Bridge (251) for the Perth City & County Small Bore Rifle Club
DSC_0056-8	NW	Bridge (251) for the Perth City & County Small Bore Rifle Club, from the side
DSC_0059	SW	Investigating and recording the two phase construction of the bridge (251)
DSC_0060-1	S, SE	Shot looking at the N side of the lade tunnel under the Crieff Road embankment (252)
DSC_0062-4	N	Shot looking at the S side of the lade tunnel under the Crieff Road embankment (252)

DSC_0066-7	E	Shot looking at an the old road bridge over the lade by Boot of Balhousie (253)
DSC_0068	S	Photo of top of old road bridge over the lade by Boot of Balhousie (253)
DSC_0069-70	NE	Photo of location of Boot of Balhousie, nothing seen
DSC_0071	SE	Concrete bridge over the lade SE of Boot of Balhousie (254)
DSC_0072	S	Concrete bridge over the lade SE of Boot of Balhousie (254)
DSC_0073	NW	Pipe on SE side of concrete bridge over the lade SE of Boot of Balhousie (254)
DSC_0074	SW	The SW side of the lade near Ballatine Place - constructed from boulders
DSC_0075	NW	Looking up the late close to Ballantine Place
DSC_0076	N	19th century warehouse close to Ballantine Place
DSC_0077	SE	Wall close to the above warehouse
DSC_0078	SE	Looking down the lade close to Ballantine Place
DSC_0079	SE	Looking down the lade opposite St Catherine's retail park
DSC_0080	W	Modern stone-built revetting on the SW side of the lade by St Catherine's retail park
DSC_0081	SW	Stone-built building (255), originally part of the Wallace Linen Works
DSC_0082	NW	The retail park on the site of Wallace Linen Works
DSC_0083-4	SE	Highland House, built 1921
DSC_0085	NW	Steel bridge over lade (256) by St Catherine's retail park
DSC_0086	SW	Inspecting the lade by Highland House
DSC_0087	NW	Looking up the lade towards the bridge (256) to St Catherine's retail park
DSC_0088	SE	Looking down the lade towards Perth, near St Catherine's retail park
DSC_0089-90	SE	Corner of boundary wall around the former Perth Barracks (257). Shot taken from outside. Photo shows War Department stone.
DSC_0091-2	SE, NW	Bricked up doorway in stub wall coming off corner of boundary wall around the former Perth Barracks (257)
DSC_0093-4	NE	War Department stone No 4 in boundary wall around the former Perth Barracks (257)
DSC_0095	N	Girder structure (258) at the SE end of the boundary wall around the

		former Perth Barracks
DSC_0096	E	Girder structure (258) at the SE end of the boundary wall around the former Perth Barracks
DSC_0097	SE	The lade looking towards City Mills
DSC_0098	SE	Modern grille by Upper City Mills
DSC_0099	SE	Lamp post by Upper City Mills
DSC_0100	SE	Shot of modern sluice at Upper City Mills
DSC_0101	-	Shot of information board on wall of Lower City Mills
DSC_0102	W	Photo looking up lade at Lower City Mills from start of culvert under Perth city centre
DSC_0103	SW	Shot of Lower City Mills
DSC_0104-5	SE	Shot looking at wall around open part of lade between Lower and Upper City Mills
DSC_0106	S	Historic features between Lower and Upper City Mills, positioned as part of the 1980s redevelopment of the area
DSC_0107-8	E	Shot looking at the wall around open part of lade between Lower and Upper City Mills
DSC_0109	E	Photo looking at where the lade passes under Lower City Mills. Photo shows at the grille and waterwheel culvert behind. To the right is the overflow culvert and sluice
DSC_0110	W	Where the lade is exposed opposite Horse Cross
DSC_0111	N	Photo of arch over the Balhousie lade next to approach to Perth Bridge, opposite Museum
DSC_0112-14	SW	Photo of arch over the Balhousie lade next to approach to Perth Bridge, photo shows steel door for access to the Balhousie lade
DSC_0115-8	SW	Photo showing where both lades exit into the River Tay

Appendix 3 The Perth Lade Survey Community Project

David Bowler

An important part of the Perth Lade Survey was a community project linked to Perth Grammar School. This was one of a series of community projects developed by TullochNet, organised around the theme of the town lade, which runs through Tulloch for much of its length, and which supported many of the industries which led to the development of this suburb of Perth.

The survey team consisted of Richard Higginbottom of TullochNet, Catherine Smith and David Bowler of Alder Archaeology, Mary Lewis and Susan Maclaren, staff at Perth Grammar School, and Megan Allen, Dillon Kennedy, Daniel Nairn and Daniel Nicholson, students in the school.

The purpose of the project was to add to the information being gathered by the survey, to raise awareness of the lade as a community resource, and to develop the skills and experience of the students, building on what they had been taught during the year. This included the use of recording sheets, hand-held GPS units, basic photography, measuring and describing.

The community project survey took place on three stretches of the lade, on three consecutive Wednesday mornings, 9th, 16th and 23rd of March 2011, in advance of a more technical survey by Alder Archaeology. The features recorded were chosen partly to illustrate the history and importance of the lade, and partly for convenience of access and simplicity, to allow the students to practise basic recording skills. A list of the sites recorded is appended below, cross-referred to the technical survey where appropriate.

The project provided additional information and served as an advance reconnaisance for the technical survey. It was clear that the students found it a stimulating and stretching experience, and all the team found it a valuable and rewarding exercise.

N°	Name	Type	NGR NO	Image N°	Technical Survey N°
Wed 09th March 2011					
101		Railway buffers	10012 25652	76-8	
102		Stair down to Lade	09996 25629	80	
103		Timber plank revetment	99999 25627	003-4	
104		Cobble surface in Lade bed	99999 25625	0002	
105		Concrete block cable duct (railway)	10062 25551	81-2	
106		Concrete block cable duct (railway)	10067 25534	0005	
107		Concrete slab (railway)	10083 25490	0007	
108		Concrete slab (railway)	10079 25489	83-5	
109		Small stone weir	10097 25381	0008	243
110		Modern bridge	10076 25341	86-7	
111		Slab	10076 25341	88	
Wed 16th March 2011					
112		Pipe bridge	07361 25599	20-23	
113		Pipe bridge	07362 29600	189	
114	Low's Work	Sluice gates	07005 25653	190-1	
115	Low's Work	Stone revetment	07014 25642	29-32	
116	Low's Work	Stone arch bridge	07005 25655	192	201
117	Lows Work	Weir	07007 25647	24-7	200
Wed 23rd March 2011					
118	Shepherd's Mill	Water Mill	07763 25495	195-7 199-201	223
119	Shepherd's Mill	Sluice gates	07734 25537	37-8	223

N°	Name	Type	NGR NO	Image N°	Technical Survey N°
				198	
120	Shepherd's Mill	Stone bank revetment	07734 25537	33-6	222
121		Standing marker stone	07607 25468	201	
122		Cast iron fence post	07506 25435	39-40	
123		Marker stone	07515 25437	203-4	
124		Railway embankment	07498 25447	41 205	221
125		Embankment depression	07507 25645	206-10	221
126		Railway sleeper bridge	07475 25457	1	220
127	Cobby Bridge	Sluice gates	07395 25529	2 - 4	208
129		Stone arch bridge	07362 25593	211-12	206

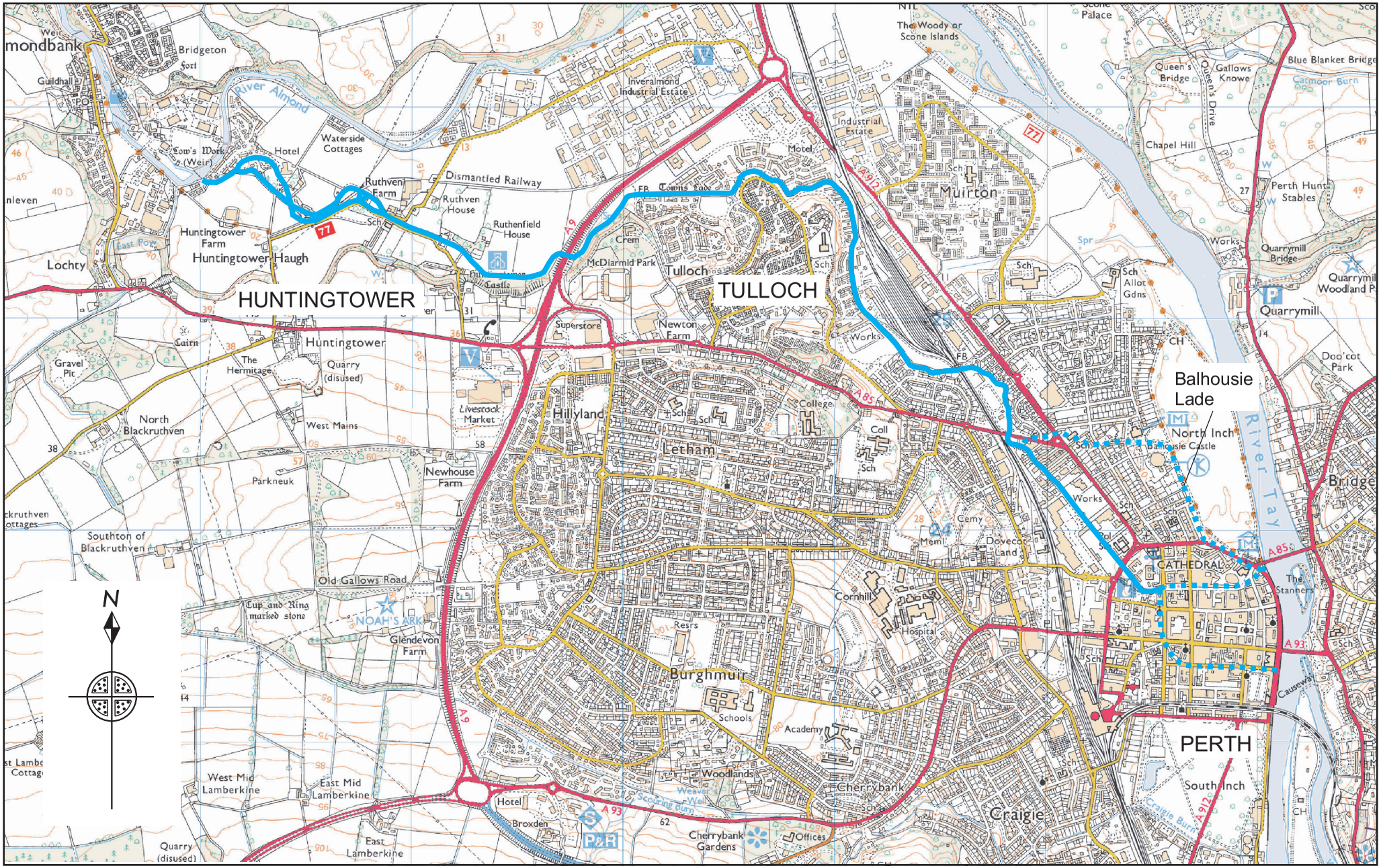
Appendix 4 Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Archaeological Survey of the Town Lade, Perth
PROJECT CODE:	PE51
PARISH:	Tibbermore, Perth
NAME OF CONTRIBUTOR(S):	Barton, T, Perry, D
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Walkover Survey, desk-based assessment
NMRS NO(S):	NO12SW50, NO12SW5, NO12SW231, NO12SW328, NO12SW526, NO12SW142, NO12SW145, NO12SW193, NO12SW193/1, NO12SW193.02, NO12SW350, NO12SW345, NO12SW329, NO12SW565, NO12SW65, NO02SW82, NO02NE84/0,/1, NO02NE4, NO02SW191, NO02NE48, NO02NE8, NO02NE92
SITE/MONUMENT TYPE(S):	Designed Landscape, Lade, Mill, Sluice, Pit, Bridge, Railway, embankment, culvert
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	Site centred on NO 09 25
START DATE (this season)	10-05-11
END DATE (this season)	24-05-11
PREVIOUS WORK (incl. *DES* ref.)	-
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Alder Archaeology Ltd was commissioned by Tulloch NET and PKHT to carry out an archaeological walkover survey and basic desk-based assessment of the Perth's historic lade to give an overview of its cultural heritage. The city lade runs for some 4.5 miles from a weir known as Low's Work on the River Almond by Huntingtower, through Tulloch estate and onwards to Perth city centre where it exits into the River Tay by the Old Tay Bridge. The entire non-culverted length of the lade was surveyed over four days between the 10th and 24th of May 2011. The recent winter flooding had caused damage to the weir at the intake on the River Almond and this meant that upper portions of the lade were dry during the survey. As well as recording the general conditions and alterations to the mills along the lade, the survey identified several new features including earthworks near Ruthvenfield and various clay pits of unknown date below Perth crematorium. The site code for the project was PE51.
PROPOSED FUTURE WORK:	None
SPONSOR OR FUNDING BODY:	Tulloch NET
CAPTIONS FOR ILLUSTRS	-

ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology, 55 South Methven Street, Perth PH1 5NX
ARCHIVE LOCATION (intended)	NMRS
EMAIL ADDRESS:	tbarton@alderarchaeology.co.uk

Illus 1

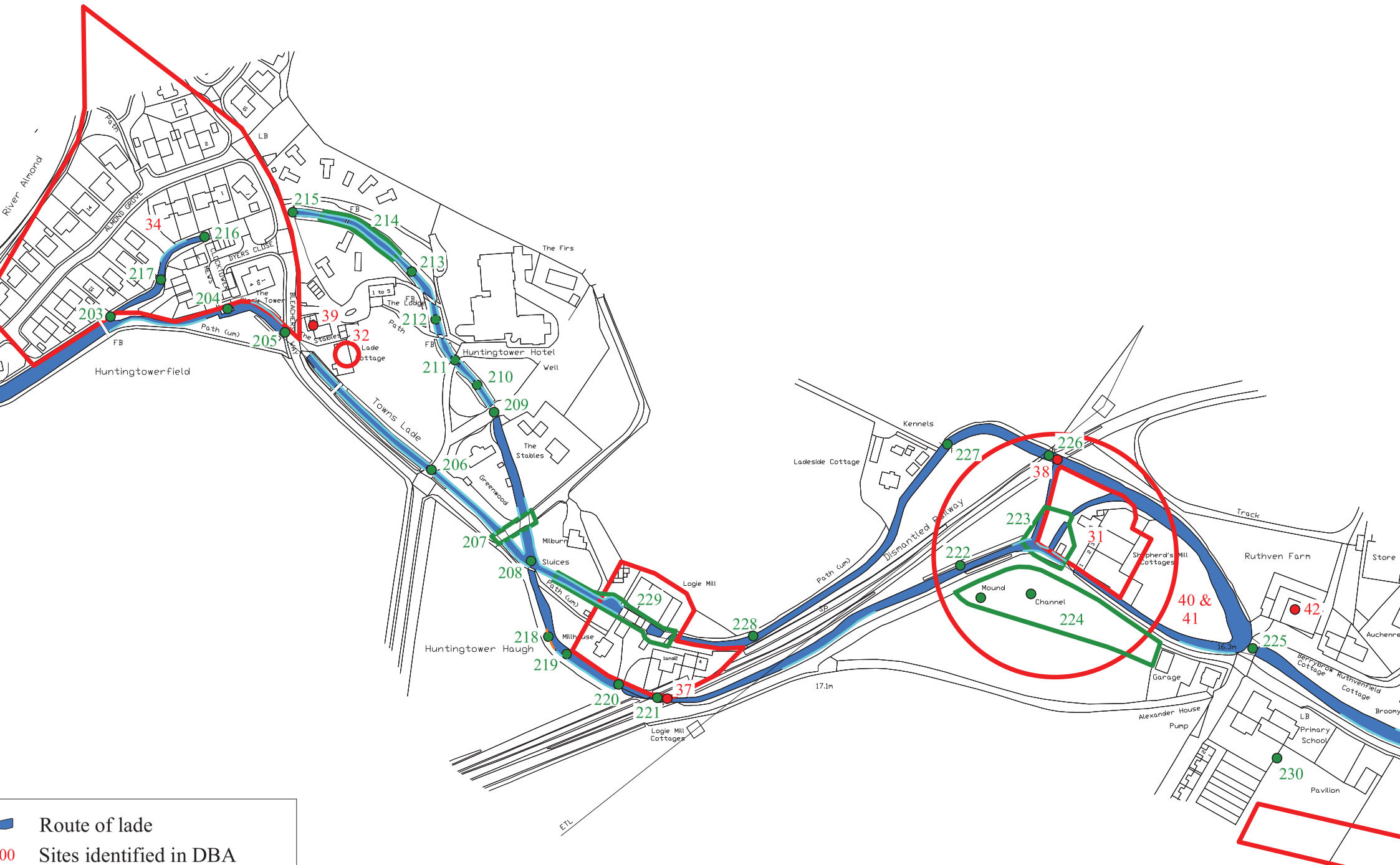
Route of the Lade



0 2.5km

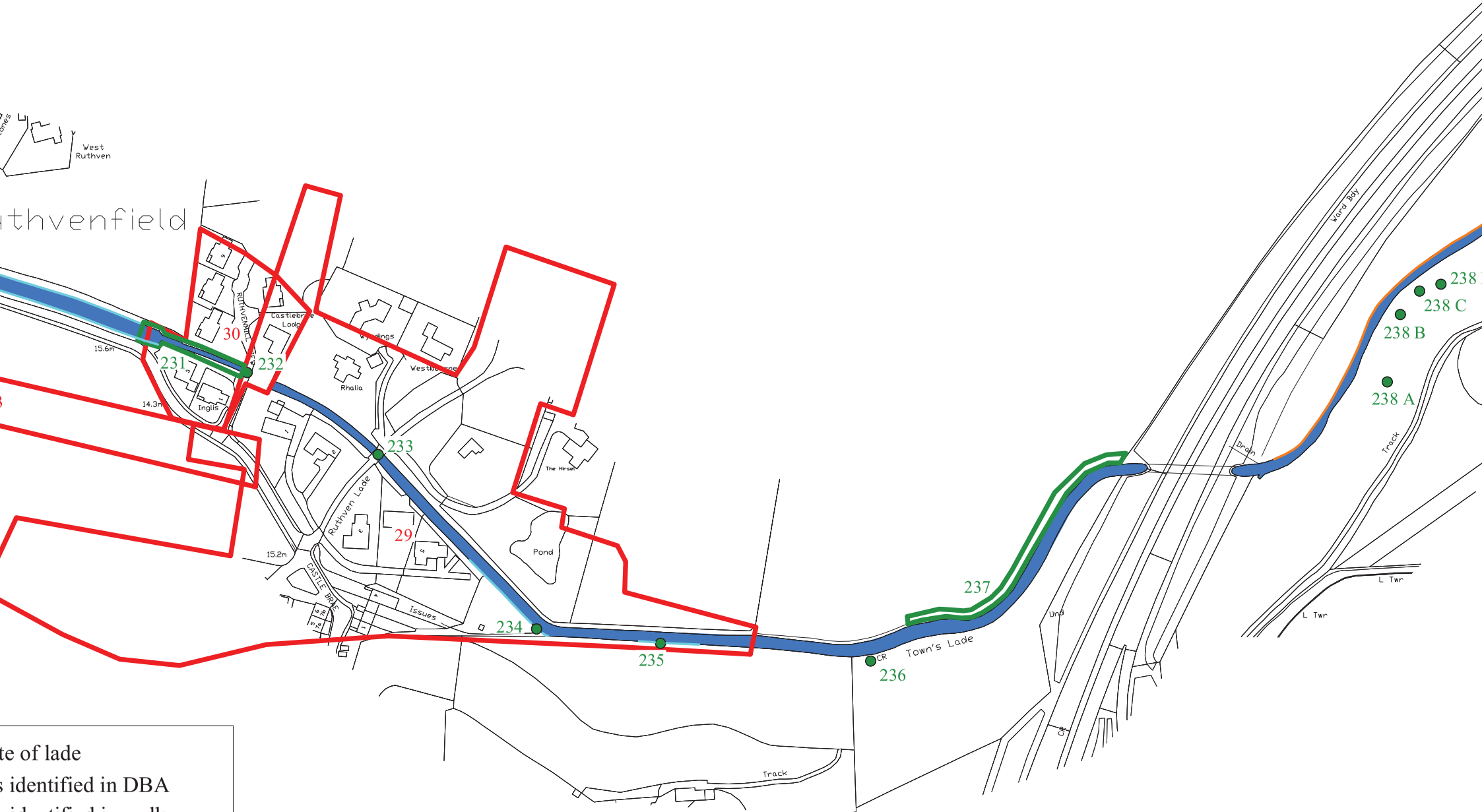
Open Lade

Culverted Lade



Route of lade

00 Sites identified in DBA



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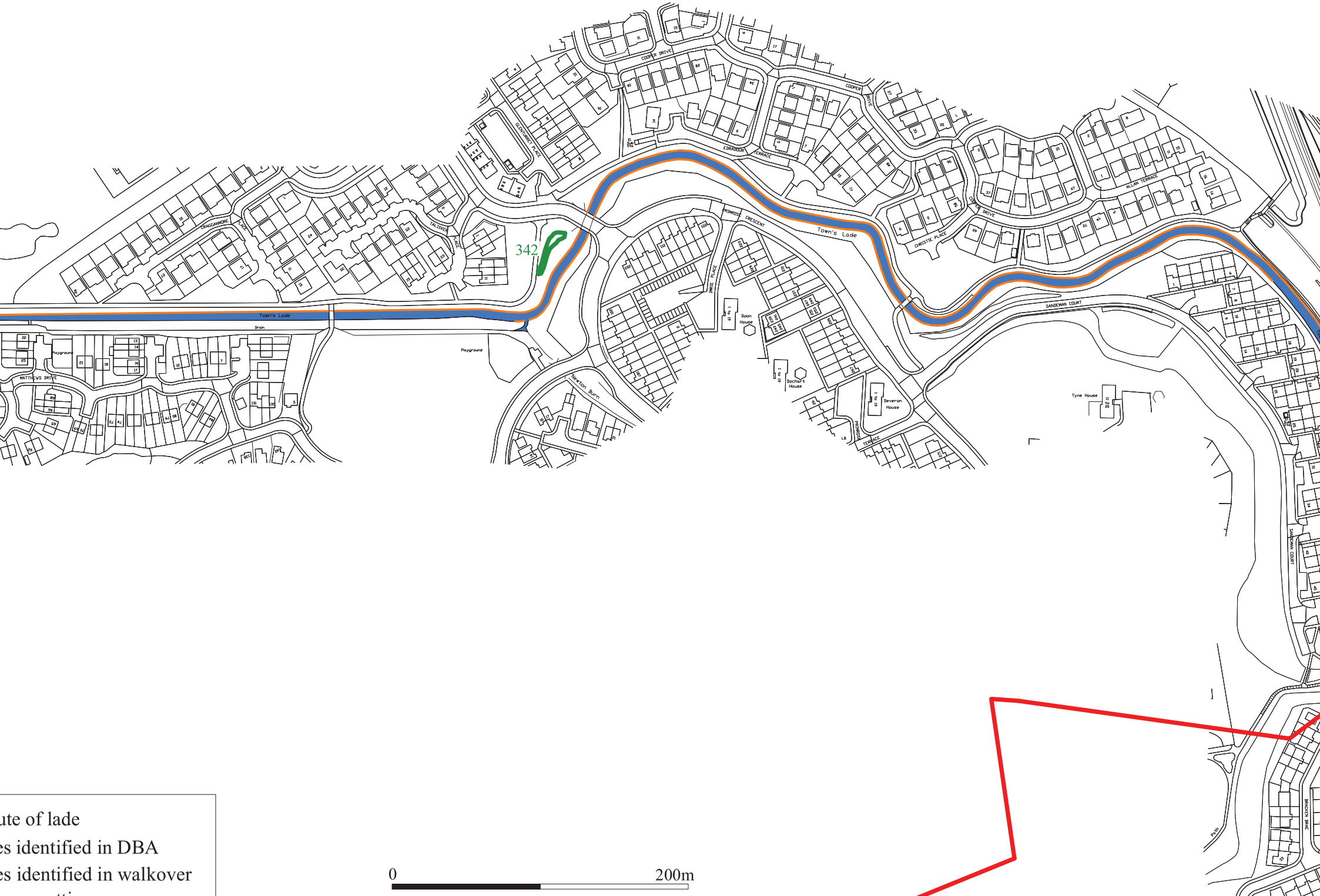
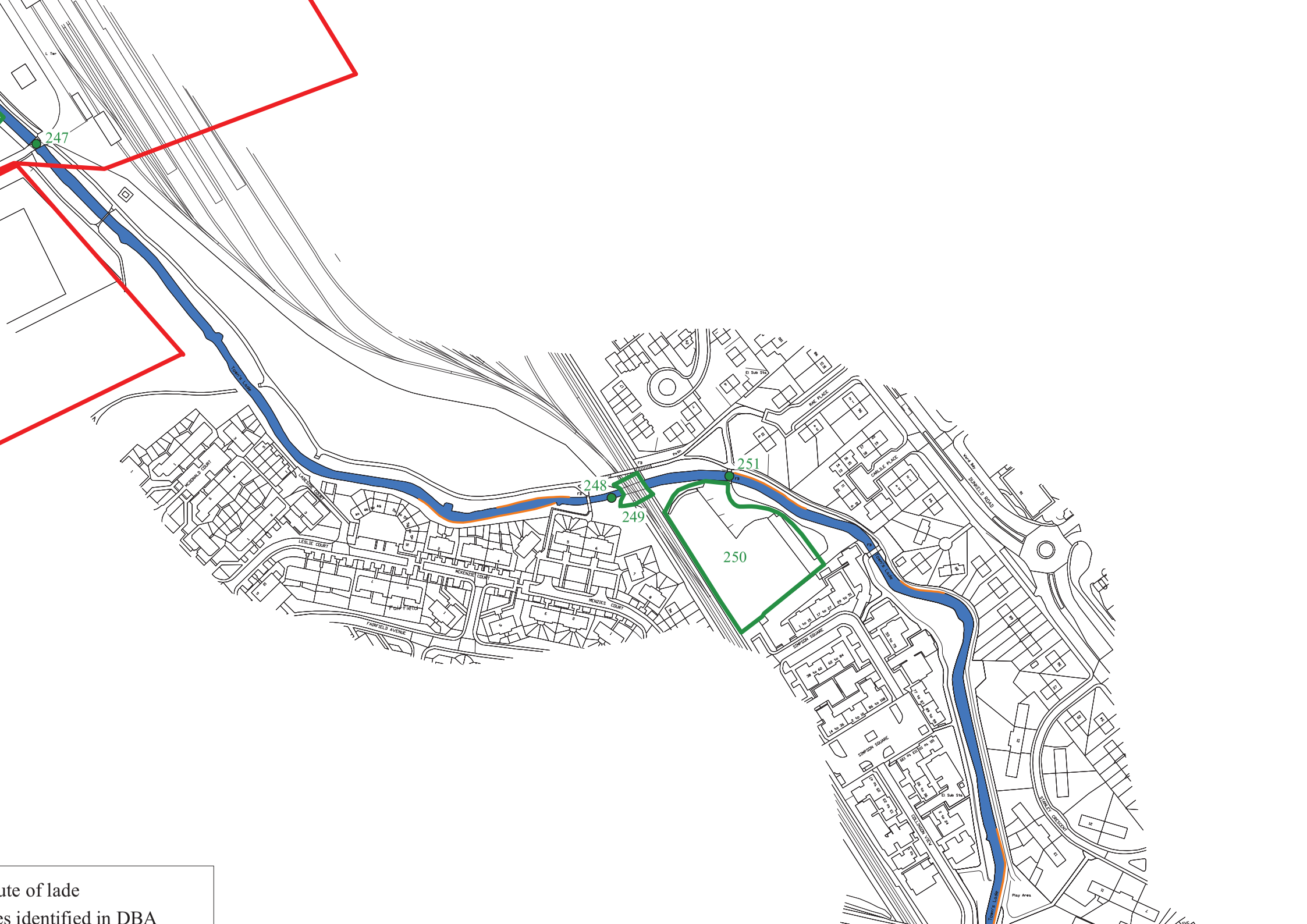


ute of lade
es identified in DBA
es identified in walkover



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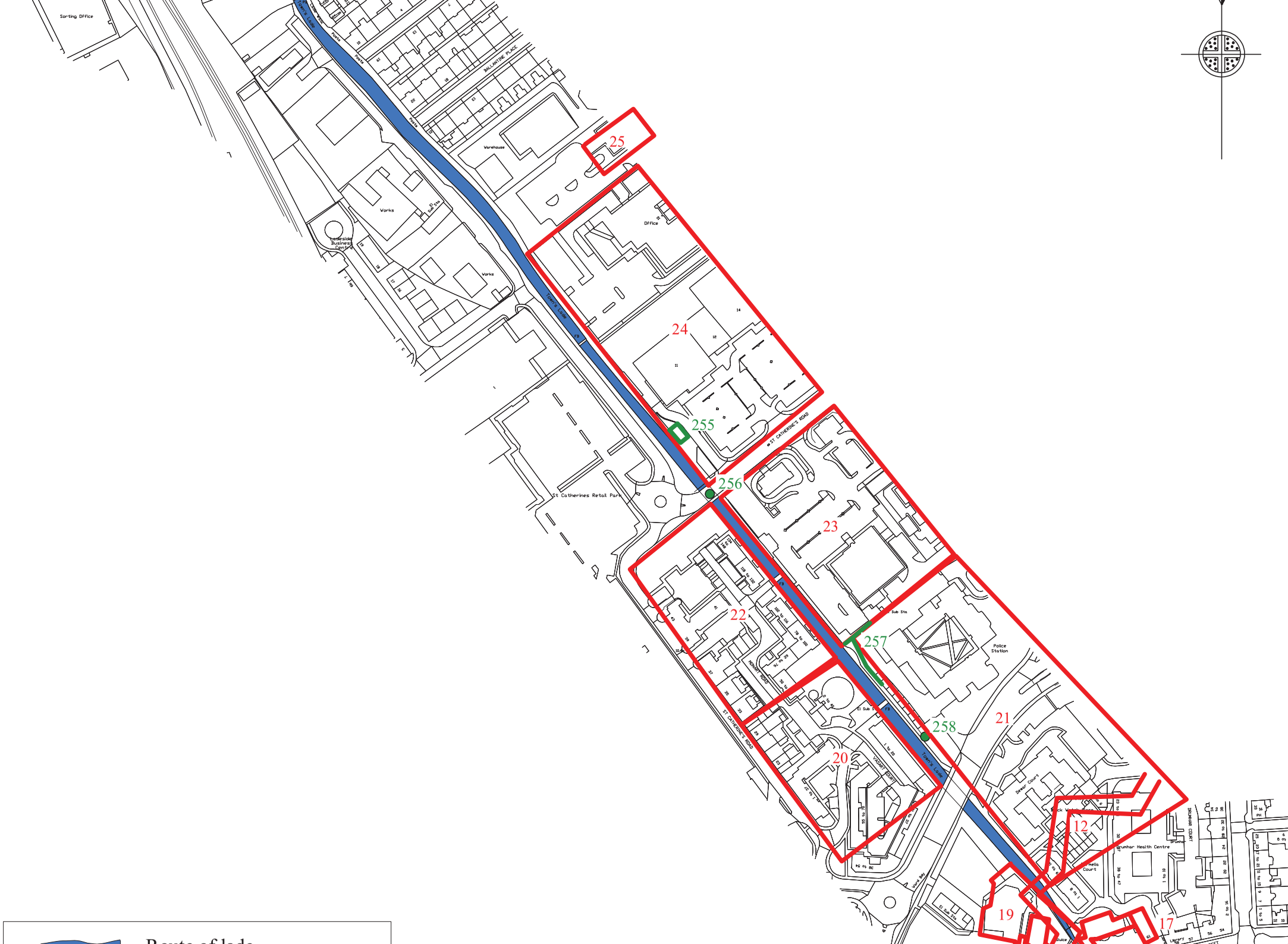
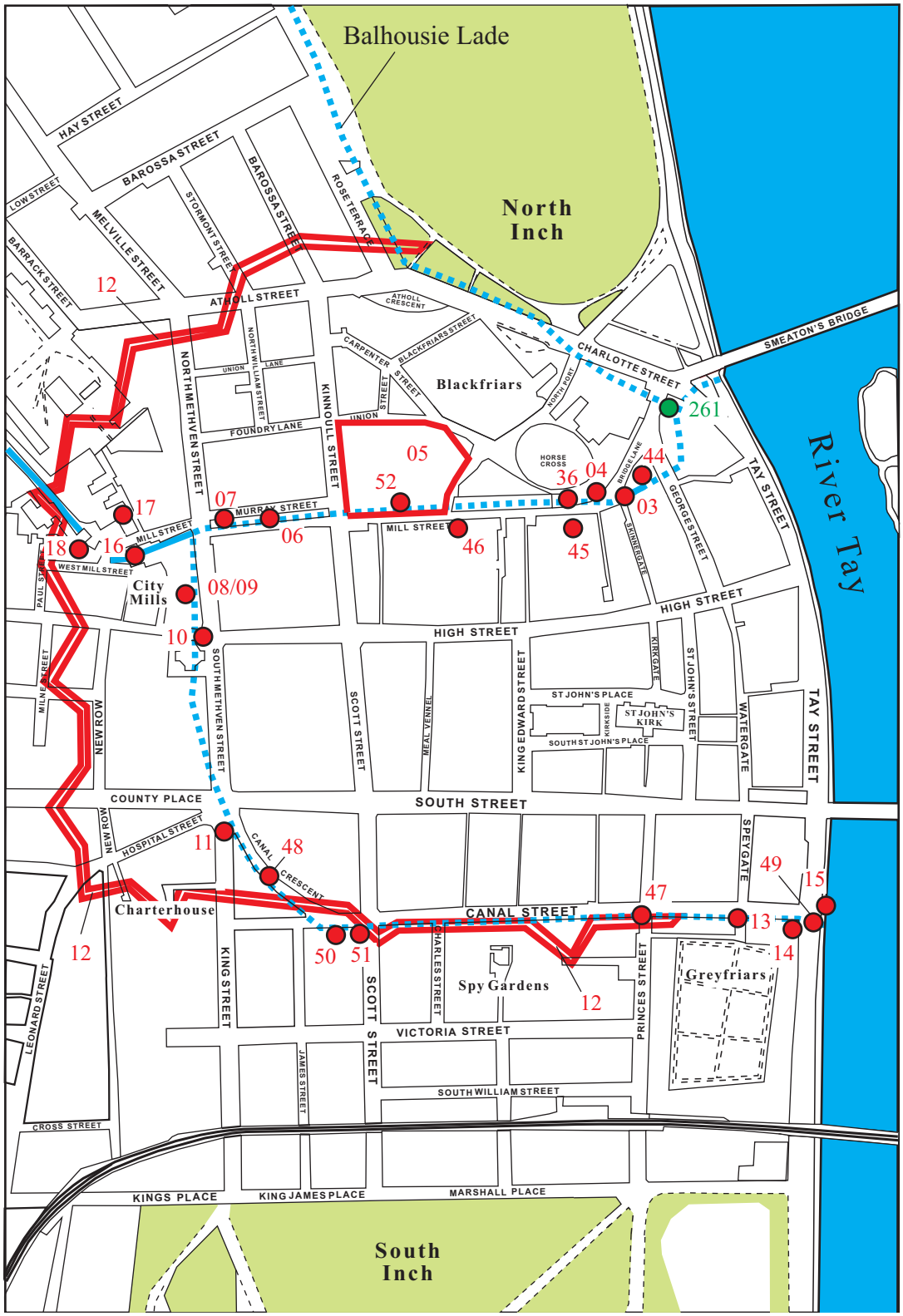


Route of lade

Illus 3 Sites located in the centre of Perth



Open lade

Culverted lade

Sites from DBA

Sites from walkover

0 250m