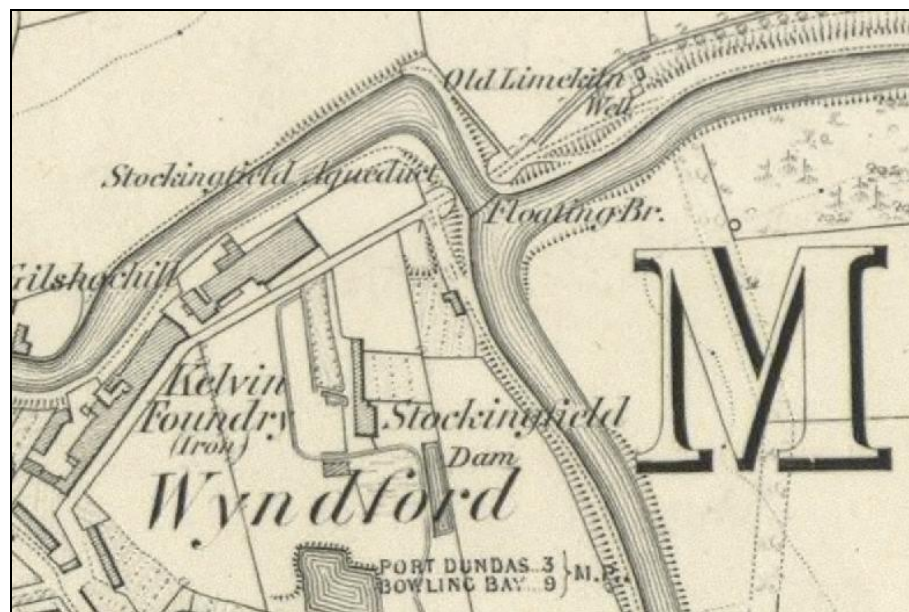


LKMK Landscape Architects

Forth and Clyde Canal Stockingfield Junction

Desk Based Assessment

Project Code: LKMK-SJ-2009-01



Kirkdale Archaeology
22 January 2009

Site The Stockingfield Junction on the Forth and Clyde Canal, NW of Glasgow

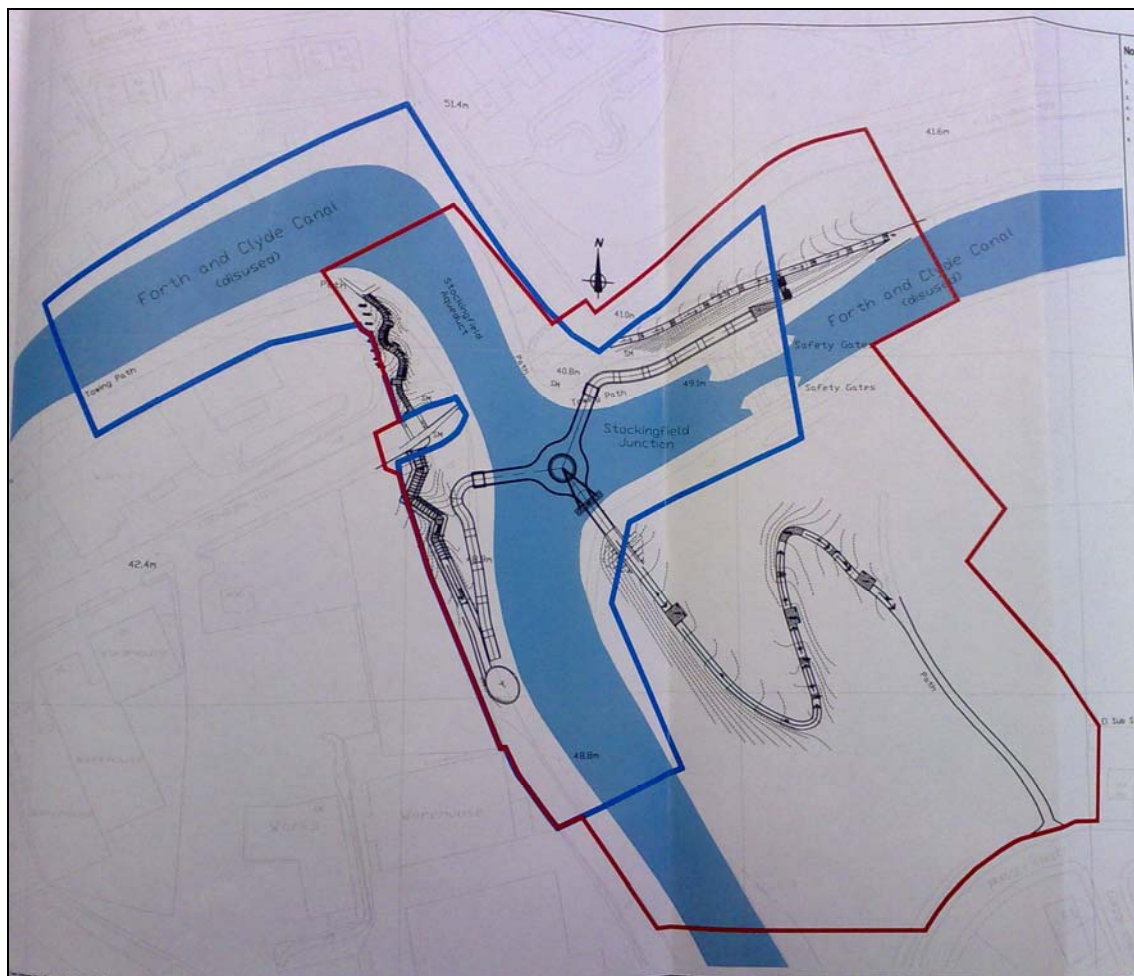
Project Description Desk Based Assessment ahead of proposals to build a Bridge, Ramps and Path at Stockingfield Junction.

Contents

| | | |
|-----|--|----|
| 1 | Introduction..... | 1 |
| 2 | General Historical Background | 2 |
| 3 | Cartographic Sources | 6 |
| 3.1 | “A Map of the Shire of Lanark” Charles Ross, 1773 (National Map Library of Scotland)..... | 6 |
| 3.2 | “Map of the Town of Glasgow and Country 7 Miles Around, Thomas Richardson, 1795 (National Map Library of Scotland) | 7 |
| 3.3 | “Lands of Ruchill” Peter Fleming, 1805 (British Waterways Map Archive, P177)..... | 8 |
| 3.4 | Untitled Map showing the Ruchill Estates by William Kyle, 1838 (British Waterways Map Archive, P177)..... | 9 |
| 3.5 | Ordnance Survey 1st Edition, Surveyed 1858 (National Map Library of Scotland)..... | 10 |
| 3.6 | Ordnance Survey, Post 1905, overwritten with various improvements and general works over the years (British Waterways Map Archive) | 11 |
| 3.7 | The 1942 Safety Gates | 12 |
| 4 | Royal Commission Photographs | 17 |
| 5 | Conclusion | 21 |

1 INTRODUCTION

Kirkdale Archaeology was invited by LKMK Landscape Architects to undertake a Desk Based Assessment to establish the archaeological potential of the area centred around the Stockingfield Junction on the Forth and Clyde Canal near Glasgow. The area is to be furnished with a three-part footbridge connecting the North, West and South Eastern portions of the junction. The bridge will bed at each angle and this will require excavation of the footprints at each site. Ramps will also be installed to the East of the North span and to the South of the West Span; in addition, a winding path will give access to the South Eastern span. The Forth and Clyde Canal is a Scheduled Ancient Monument along its entire length.



Detail of Proposed Bridge, Ramps and Path at Stockingfield Junction

2 GENERAL HISTORICAL BACKGROUND

Prior to the construction of the canal the area around Stockingfield was a rural landscape containing many villas of the Glasgow merchant class, their parklands being interspersed with agricultural land. The land was divided into Estates with Stockingfield being surrounded by Wyndford to the S, Burnhouse and Gairbraid to the SW and Tamshill and Ruchill to the E. Stockingfield's exclusion from some of the larger scale early maps is due to its diminutive stature – Stockingfield came to prominence due to its fortuitous location on the Forth and Clyde Canal.

There is no mention of prehistoric occupation in the area in the National Monuments Record of Scotland, however a fleeting glimpse of a prehistoric presence was given in 1876 when a stone axehead was discovered at the site of the nearby Maryhill Barracks (NMRS Number NS 56 NE 10). In the Roman Period, in the mid 2nd Century A.D, the area around Stockingfield sat within the Northernmost portion of the Roman Empire, defined just a few kilometres North by the Antonine Wall. This massive feat of engineering was built on the orders of Antoninus Pius in the 140's A.D and ran 60km from Old Kilpatrick in the West to Boness in the East, demarcating the very Northern limit of Roman rule. Beyond and to the North were the tribes of the Scots and Picts whose constant attacks had necessitated the building of the wall. Evidence of this Roman presence has been found nearby in artifactual form. A leather bag containing 200 silver Roman coins was found in 1911 at Possil Marsh (NMRS Number NS 56 NE 37) while a further coin, an *antoninianus* of Emperor Gordian III was found in Possil Park in 1974 (NMRS Number NS 56 NE 48). It is a tribute to Roman engineering and survey techniques that an almost identical line across Scotland was identified as the most appropriate route for the Forth and Clyde Canal over 1500 years later.

The Forth and Clyde Canal was constructed from the east. Kirkintilloch was reached in August 1773 and Stockingfield was reached in January 1775, but work stopped in July because of a shortage of money. The canal was filled with water to Stockingfield

on 10 November 1775 (J Cleland 1829 Annals of Glasgow. 337: 10 July in OSA, 125). Work restarted, but instead of heading west towards the Clyde, the canal swung southwards and headed towards Glasgow. In November 1777 the canal reached the Hamiltonhill Basin. Work stopped again, this time until 1784.

In June 1785 Robert Whitworth took over from John Smeaton as Chief Engineer and two years later work began on the huge Kelvin Aqueduct. Whitworth produced a report on the planned western end of the canal: *Report of Robert Whitworth, Esq; engineer; to the Company of Proprietors of the Forth and Clyde Navigation. Relative to the tract of the intended canal, from Stockingfield westward, ... With estimates of the expence of finishing the same, to Fluckhole - to Dalnotter - and to Bowling Bay. Referring to a plan and profile of the canal; with a survey of the river Clyde* 1785 NLS microfilm Mf.G.0347(06)

Great progress was now made and the canal headed for the western sea lock at Bowling on the Clyde. The last section of the canal's Glasgow branch, from Hamiltonhill to Port Dundas, was built in 1786-90.

This chronology is interesting because it shows that there was a fundamental change of the role and nature of Stockingfield in the 1770's and 1780's. In the definitive 'The Canals of Scotland by Lindsay, J, p.25, 1968' the author states- "By August 1773 the canal had been completed from the Forth to Kirkintilloch, where boats of 50 tons burden were arriving with cargoes from Bo'ness; in addition, the Townhead Reservoir had been filled, *and a basin had been laid out at Stockingfield, 2 miles north of Glasgow.*"

The canal was filled with water to Stockingfield in November 1775 and the Hamiltonhill Basin on the Glasgow branch wasn't reached until November 1777- this means the basin at Stockingfield formed the Western terminus of the canal for at least 2 years. Unfortunately the cartographic record for this period was not represented in the British Waterways map archive, however there is further mention of the basin in 'Report of Robert Whitworth, Engineer to the Company of Proprietors of the Forth

and Clyde Navigation, 2nd August 1785, Page 2' Mitchell Library Ref. 428225. This is found in a Volume called 'Forth and Clyde Navigation Reports, 1787'.

Whitworth is discussing the connection of Stockingfield to Bowling and he states-
"The point from which I judge it most proper for the proposed canal to take its departure from the present one, *is just in the short turn at the point of the hill, where the temporary wharf was.*"

This strongly suggests that the N branch of the Stockingfield junction (i.e the branch to Bowling) where the Stockingfield Aqueduct now stands was the location of the original W terminus and basin of the canal. Whitworth tells us that there was a wharf while Lindsay tells us that there was a basin. The basin was likely an indent (to allow turning) into the N portion of this original terminus with a wharfage on it's N bank. The construction of the Stockingfield Aqueduct in the 1780's would likely have removed all sign of this earliest phase in the junction's history.

The next phase can be dated to 1777 when the Hamiltonhill branch has been dug and is ready for filling – this would mean breaching the SW portion of the Stockingfield Terminus in order to connect the main canal and the Glasgow branch. This may be evident within the nature of the wall fabric where the two meet.

It seems likely that when the Hamiltonhill Basin opened, the terminus at Stockingfield must either have been closed or seriously downgraded, after all, the plan was always to extend the canal West to Bowling- this is perhaps why Whitworth when alluding to the Stockingfield terminus says "...where the temporary wharf *was.*" The third phase at Stockingfield relates to the Westward expansion where the Stockingfield Aqueduct obliterates all trace of the original wharf upon its construction c.1787-88.

In 1942 safety gates were constructed to the east of the Stockingfield Junction. Detailed plans of these exist in the National Archives of Scotland, dated 9 February 1942 (NAS RHP41531 Plan, elevation, sections and details and site plan of safety gates at Stockingfield Junction on Forth and Clyde Canal (London Midland and

Scottish Railway). The plans do not state the purpose of these gates but, given the date, they may have been to hold back water to prevent flooding in the event of the bombing of the aqueducts.

The areas to the N and SE of the junction have remained largely undeveloped over the years while the area to the SW has been host to much activity. These issues are best discussed in reference to the Cartographic evidence.

3 CARTOGRAPHIC SOURCES

3.1 "A Map of the Shire of Lanark" Charles Ross, 1773 (National Map Library of Scotland)



This is a puzzling map given its early date of 1773. It appears to show the canal crossing the River Kelvin and reaching as far as Jordanhill. This work wasn't started until the mid 1780's. What is perhaps noticeable is that the line of the canal is noticeably lighter on the left hand side of the road to Glasgow (almost shown as crossing over the canal). Perhaps this is inferring the *intention* of the canal to continue westward. This is unfortunate as the early date of the map could potentially have shown the shape of the original Stockingfield Junction. South of the canal is marked the manse of the Gairbraid Estate- this would have been the original manse of c.1688 which was replaced by a later mansion in 1789- when lands were sold from the Gairbraid Estate to accommodate the Kelvin Aqueduct. Gairbraid is marked here as 'Gardrad'. To the North of the canal is marked 'Graham's Dyke', a corruption of a name given to the Antonine Wall by early chroniclers such as John of Fordun-

'Gryme's Dyke'. The 'Gryme' in question is not clearly identified with a particular historical figure.

3.2 "Map of the Town of Glasgow and Country 7 Miles Around, Thomas Richardson, 1795 (National Map Library of Scotland)



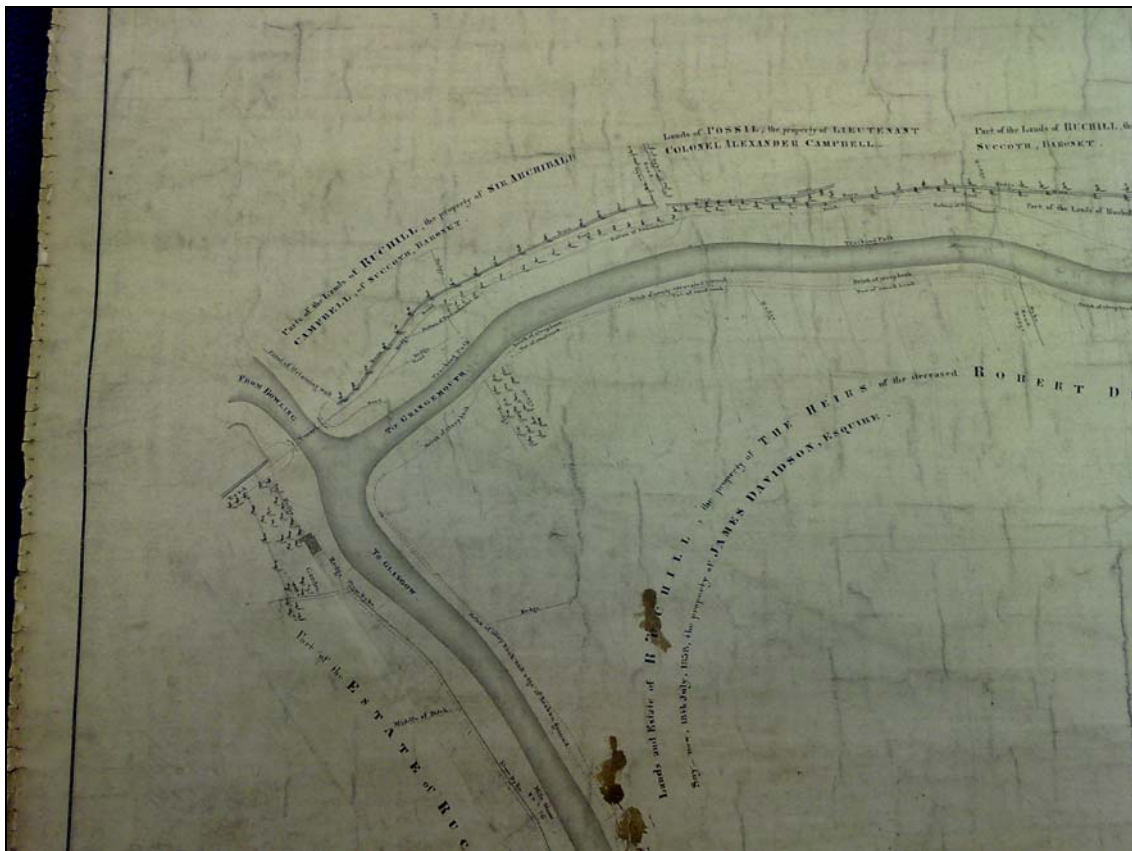
The canal five years after the completion of the route West to Bowling, Stockingfield is mentioned cartographically for the first time. Gardbrade (Gairbraid) House is shown as being the property of Robert Graham Esq while South of the Stockingfield junction is a 3-sided building marked as 'Chaple'. Possibly a Chapel. There is a distinctive L-shaped building above Stockingfield- this does not appear on the 1805 map but mysteriously seems to re-appear in 1838.

3.3 “Lands of Ruchill” Peter Fleming, 1805 (British Waterways Map Archive, P177)



An early detailed map showing land use around the Stockingfield Junction, here marked as 'Stockinfield'. The area is broken up into different plots, often accented with tree lined edges. At Stockingfield there are two joined rectangular buildings surrounded by what looks like a diverted burn, this terminates in marshy ground where it then feeds a reservoir (with a small canal arm to the W) for powering the mill at 'Wydford' or Wyndford. To the W of the canal is 'Tam's Hill' with 'Dave's Braes' immediately to the N. North of the junction the land is divided into a series of 'Parks'. This still shows the canal in its very early rural setting.

3.4 Untitled Map showing the Ruchill Estates by William Kyle, 1838 (British Waterways Map Archive, P177)



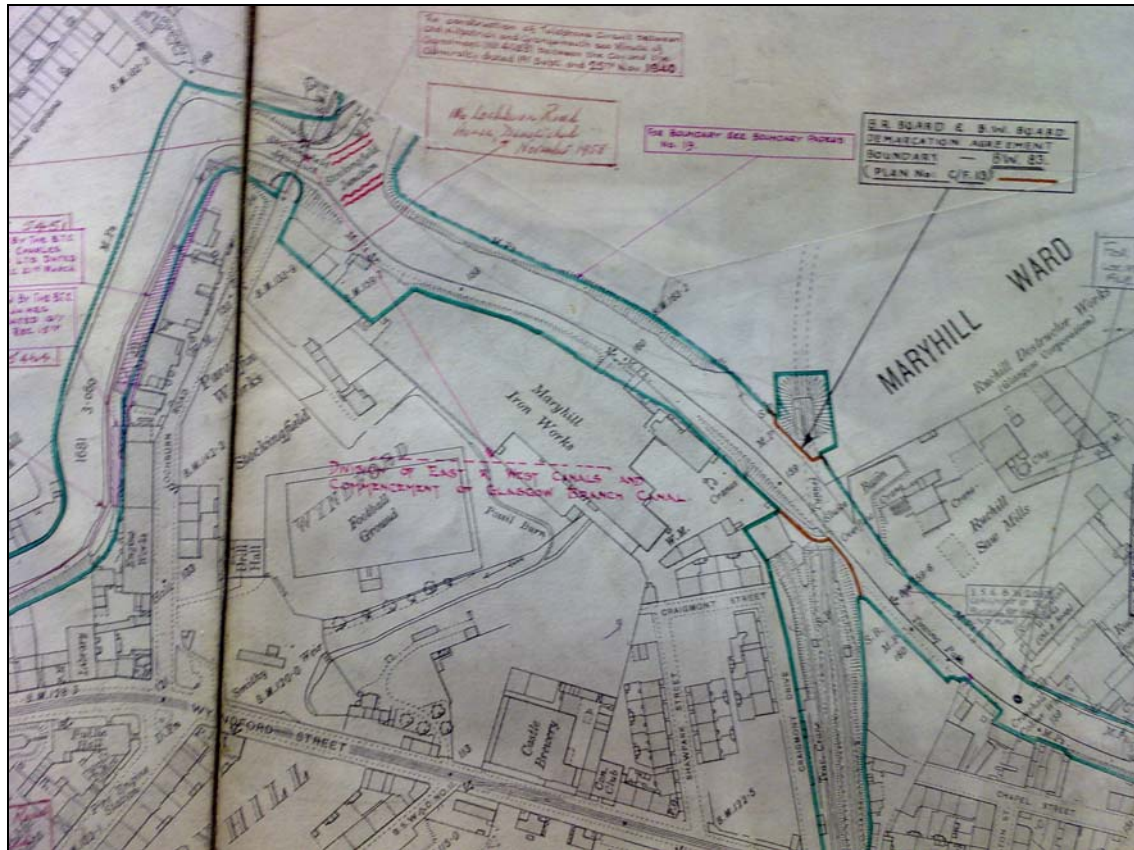
Centred mainly on the E and N portions, this land is more concerned with land division than detail, however a small building is shown which may potentially be at the S end of the ramp serving the W ramp.

3.5 Ordnance Survey 1st Edition, Surveyed 1858 (National Map Library of Scotland)



The building shown on the 1838 map is still present to the SW of the junction. There is a temporary Floating Bridge allowing access from the NE to Stockingfield. To the ENE of the junction is marked an 'Old Limekiln' and 'Well'. The bedding of the ramp serving the N span of the bridge may reveal these features. To the S of Stockingfield is a dam, with the Kelvin Foundry to the W.

3.6 Ordnance Survey, Post 1905, overwritten with various improvements and general works over the years (British Waterways Map Archive)

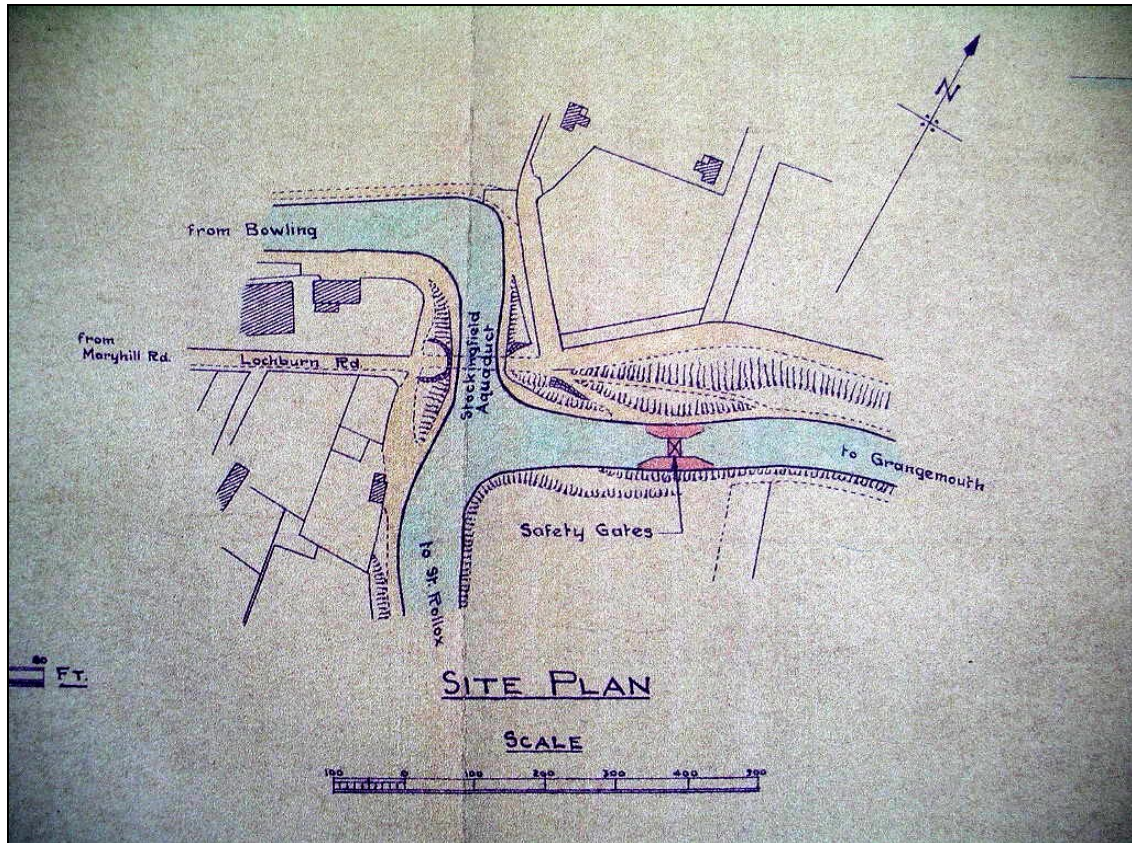


This map shows a lot of detail including Lochburn Park (home of Maryhill FC), the Maryhill Iron Works and the Castle Brewery. The building shown on the 1838 and 1858 maps is still present to the SW of the junction.

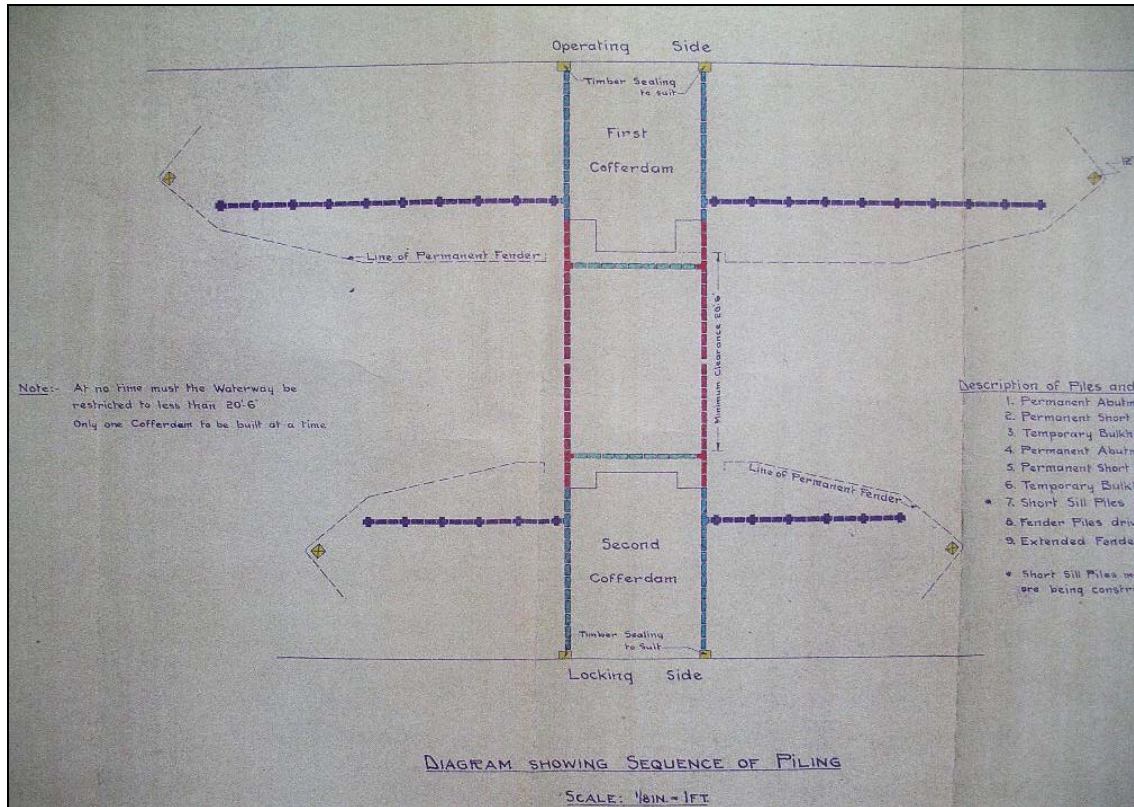
3.7 The 1942 Safety Gates

In 1942 safety gates were constructed to the east of the Stockingfield Junction.

Detailed plans for the general contract for these gates exist in the National Archives of Scotland, dated 9 February 1942 (NAS RHP41531 Plan, elevation, sections and details and site plan of safety gates at Stockingfield Junction on Forth and Clyde Canal (London Midland and Scottish Railway)).

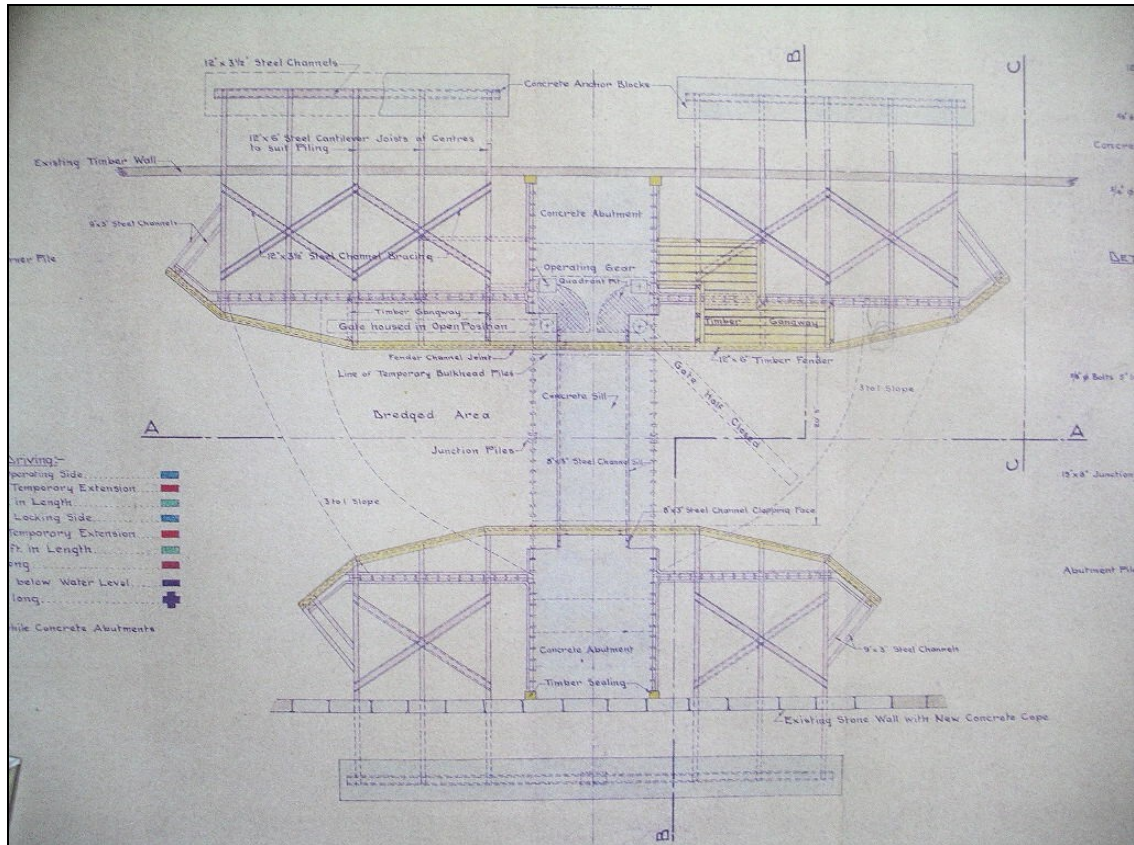


Detail of 1942 plan NAS RHP41531 showing location of safety gates



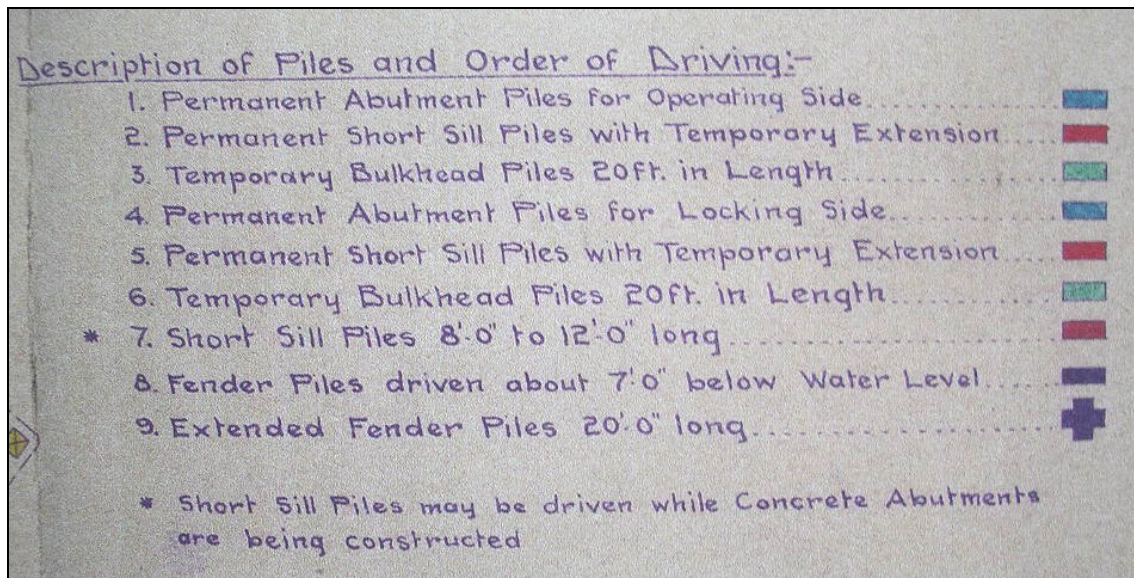
Detail of 1942 plan NAS RHP41531 showing sequence of piling for safety gates

Notes first and second coffer dams

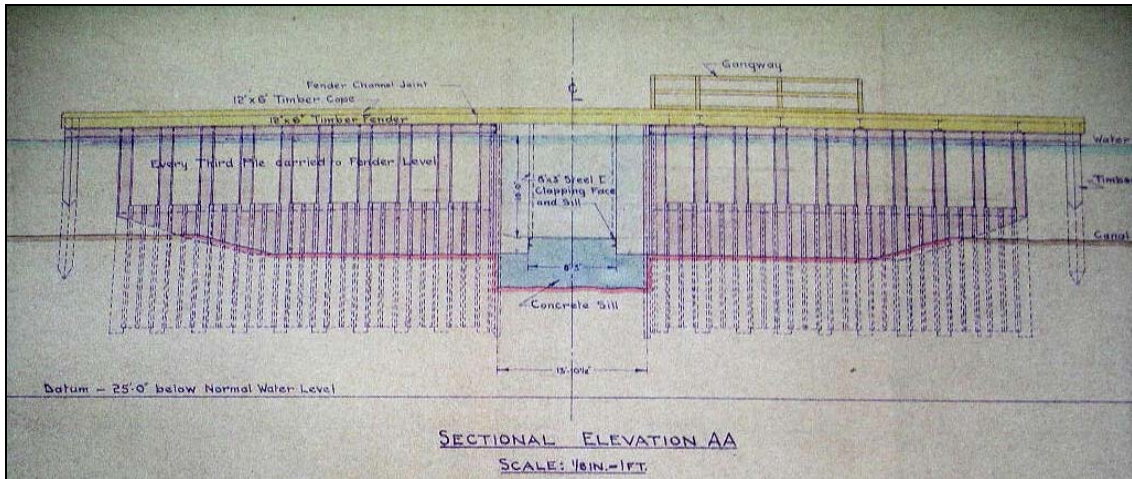


Detail of 1942 plan NAS RHP41531 showing plan of safety gates

Notes steel cantilever joists, steel channel bracing, concrete anchor blocks and concrete sill

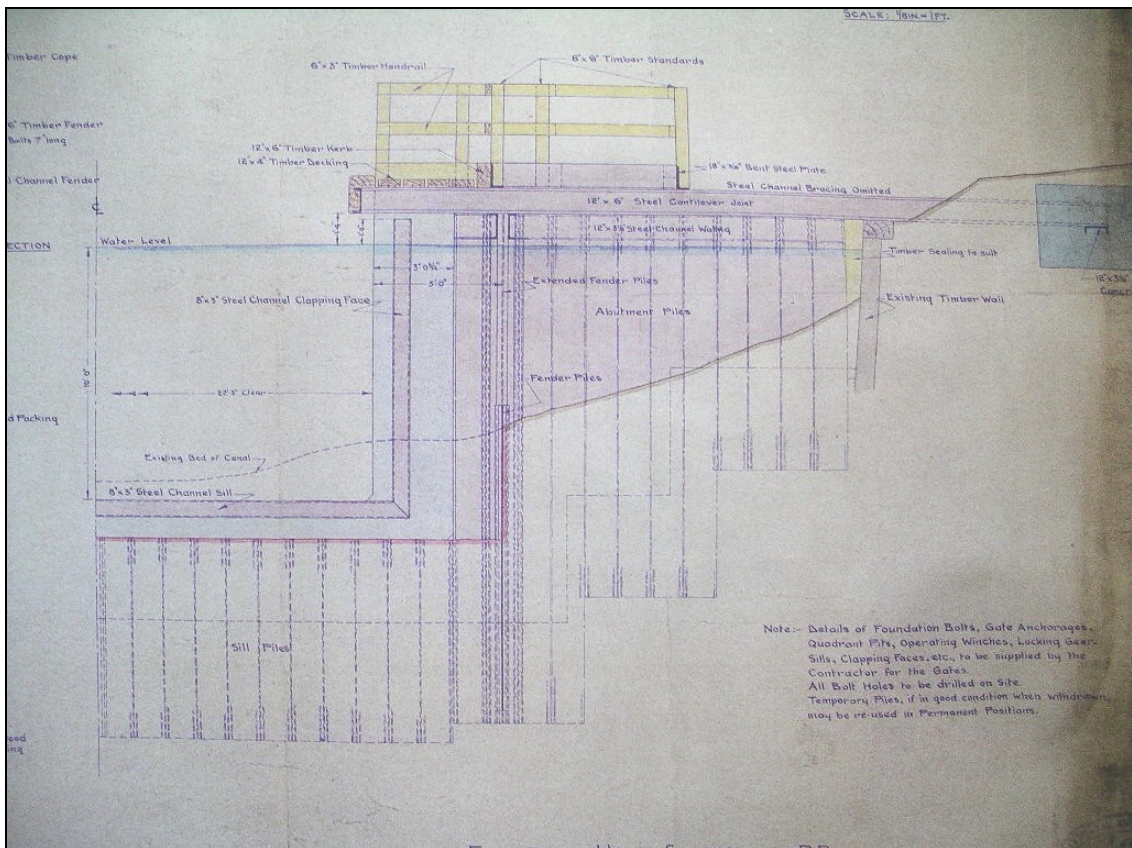


Data from 1942 plan NAS RHP41531 of safety gates



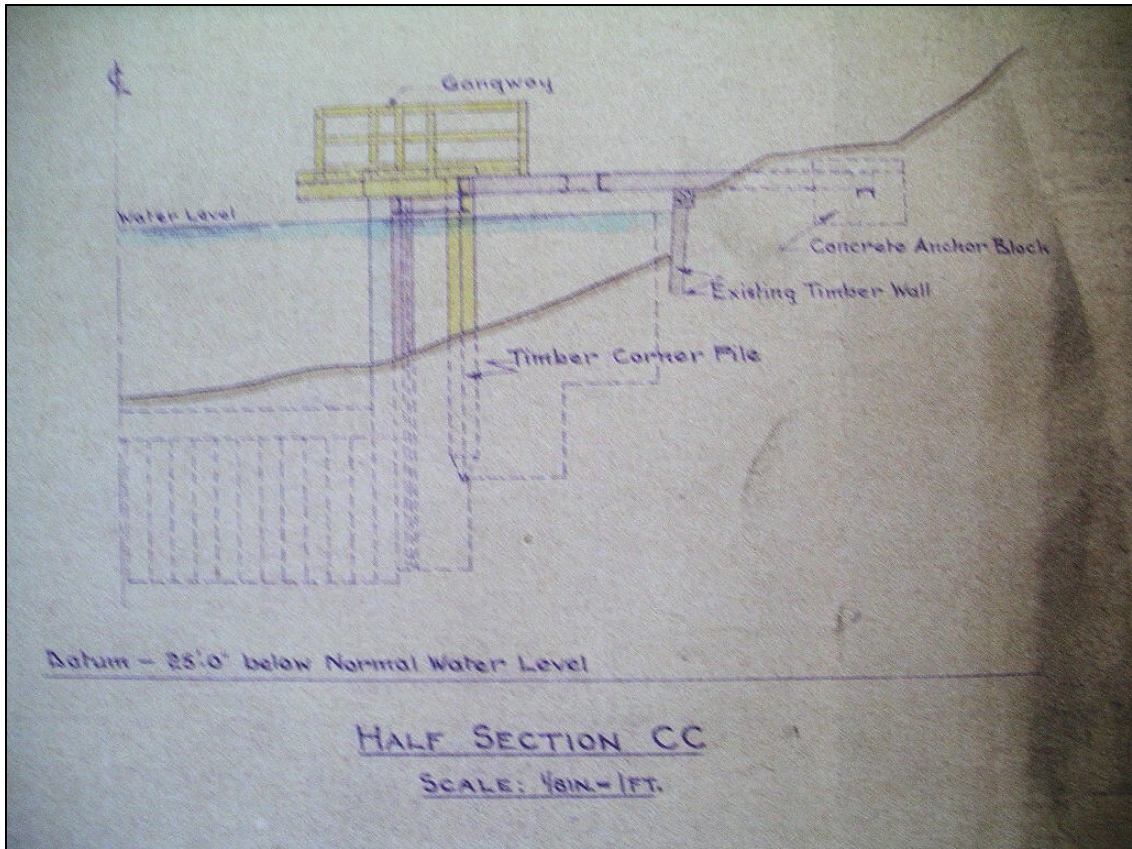
Sectional elevation of safety gates

Notes every third pile carried to fender level and concrete sill



Detail of 1942 plan NAS RHP41531 showing section of safety gates

Notes sill piles, fender piles, abutment piles. 8" x 3" steel channel clapping face and sill.



Detail of 1942 plan NAS RHP41531 showing section of safety gates

4 ROYAL COMMISSION PHOTOGRAPHS



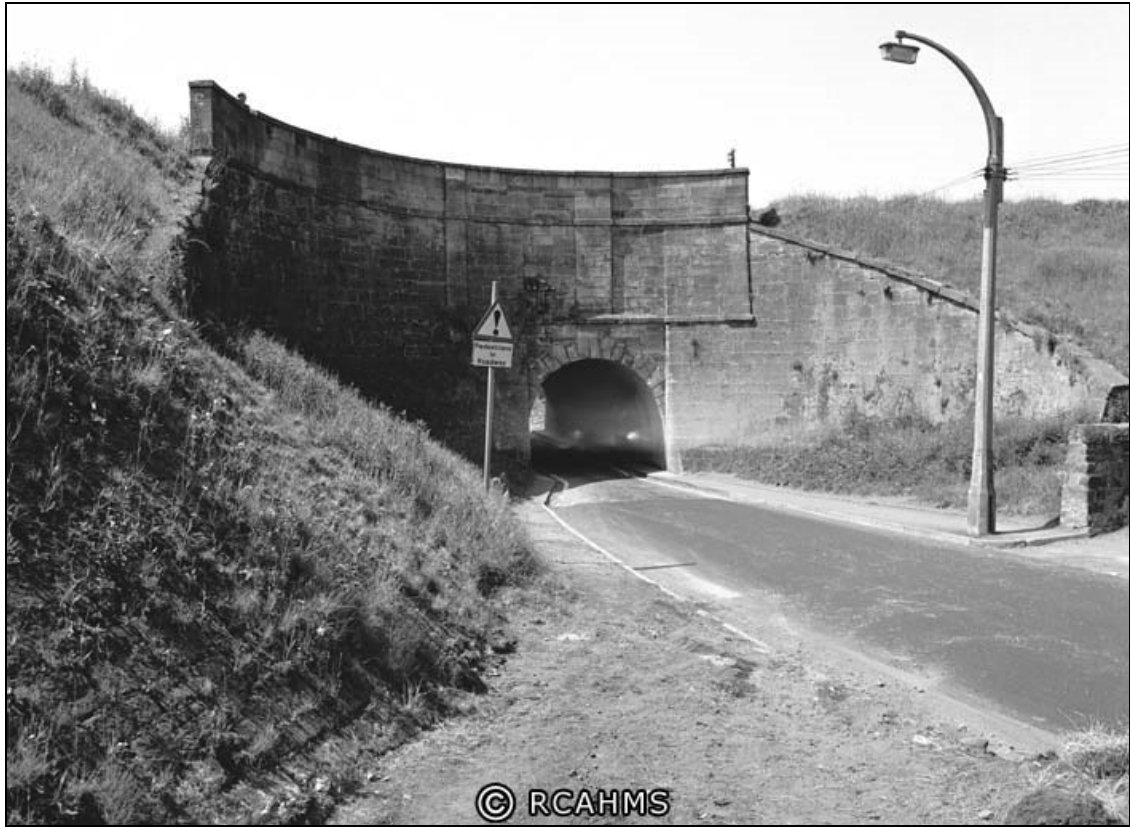
RCAHMS SC 511282

Glasgow, Forth and Clyde Canal, Stockingbridge Junction, Aqueduct
General View, 1977



RCAHMS SC602810

This shows the junction, looking from the Glasgow branch to the main line. The route to Grangemouth goes off to the right, and the extension to Bowling goes off to the left immediately beyond the quay wall, which may mark the 1775 terminus. 1977



RCAHMS SC 511283

Glasgow, Forth and Clyde Canal, Stockingfield Junction, Aqueduct
General View 1977



RCAHMS SC769250

View from SSW showing SW front mouth

5 CONCLUSION

It has been shown that there has been a considerable shift in land use throughout the development of the Stockingfield Junction. The areas to the N and SE have remained largely undeveloped while the area around Stockingfield to the SW has been developed and redeveloped throughout the past 200 years. Perhaps the most interesting aspect of this assessment was the tracing of the development of Stockingfield from a temporary wharfed basin to the central pivot in arguably the most important Scottish engineering project of the late 18th Century. It's impact must have been profound both visually and as a vehicle for commerce and opportunity. The industrialisation of the area in the mid-late 19th Century transformed the area again and the gradual recession in the fortunes of the canal until later in the 20th Century all means that there is a marked opportunity to comment on these developments via revelations which may be exposed during the building of the bridge which itself echoes the form of the junction and will itself become the latest phase in the development of the junction.