BUILT HERITAGE RECORDING OF THE FOOTBRIDGE, FLINT RAILWAY STATION, MARKET SQUARE, FLINT, FLINTSHIRE, WALES CH6 5PG

PCA REPORT NO: R15698

DECEMBER 2023

PRE-CONSTRUCT ARCHAEOLOGY

Built Heritage Recording of the Footbridge, Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5PG

National Grid Reference: SJ 24562 73115

Local Planning Authority: Flintshire County Council

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Site Code: WFSF23

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DOCUMENT VERIFICATION

Site Name

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CH6 5PG

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1 NON-TECHNICAL SUMMARY

1.1.1 Pre-Construct Archaeology Limited was commissioned by AmcoGiffen on behalf of Network Rail to undertake Built Heritage Recording of the pedestrian footbridge at Flint Railway Station, Market Square, Flint, Flintshire, Wales. The work was required in connection with the replacement of the footbridge and with a modern 'access for all' (AfA) footbridge to enable unobstructed access between Platforms 1 and 2 at Flint Station. The footbridge, canopies, and platform buildings are considered curtilage listed with the Grade II listed station building (Cadw no. 581). The proposed removal of the 19th century footbridge led to a requirement for built heritage recording in order to fulfil a planning condition attached to Listed Building Consent (LBC/000423/23).

1.1.2 The built heritage recording was undertaken to Historic England Level 2 and included a laser scan of the footbridge to provide a 3D model of the structure, as well as a comprehensive photographic survey. This was supplemented by a programme of targeted documentary research intended to enable a better understanding of the structure and its history.

1.1.3 Archival research carried out at the North East Wales Archives (NEWA) at Hawarden and The National Archives (TNA) at Kew produced a useful range of 19th and early 20th century station plans and a series of engineering drawings of station footbridges built by the London & North Western Railway (LNWR), which operated the Chester and Holyhead line from 1859 to 1923.

1.1.4 Building upon earlier research which suggested that the bridge was built in July 1884, a search of historical local newspapers revealed that construction of the footbridge commenced during the week ending Friday, 9th May 1884 and was completed on Sunday 20th July 1884. Research also revealed that the railway company announced its intention to build the footbridge in March 1883 and that its present location was chosen in response to local objections.

1.1.5 Built heritage recording revealed that while certain structural elements of the footbridge conformed with standard LNWR patterns, it departed from these designs in several important respects. In contrast to the utilitarian character of standard LNWR footbridge designs, the example at Flint Station possessed several distinctive decorative features, which it shared with certain other overbridges on the Chester to Holyhead line.

2 CRYNODEB ANNHECHNEGOL

2.1.1 Cafodd Pre-Construct Archaeology Limited ei gomisiynu gan AmcoGiffen ar ran Network Rail i wneud Cofnod Treftadaeth Adeiledig o'r bont droed i gerddwyr yng Ngorsaf Drenau'r Fflint, Sgwâr y Farchnad, Y Fflint, Sir y Fflint, Cymru. Roedd y gwaith yn ofynnol mewn cysylltiad ag amnewidiad y bont droed gyda phont droed 'mynediad i bawb' fodern i alluogi mynediad dirwystr rhwng Platfformau 1 a 2 yng Ngorsaf y Fflint. Ystyrir y bont droed, y canopïau ac adeiladau'r platfform yn gwrtil sydd wedi ei restru ag adeilad rhestredig Graddfa II yr orsaf (Cadw rhif 581). O ganlyniad i ddymchweliad arfaethedig y bont droed o'r 19eg ganrif cafwyd gofyniad i wneud cofnod treftadaeth adeiledig er mwyn cyflawni amod cynllunio sy'n gysylltiedig â Chydsyniad Adeilad Rhestredig (LBC/000423/23).

2.1.2 Gwnaethpwyd y cofnod treftadaeth adeiledig i Lefel 2 Historic England ac roedd yn cynnwys sgan laser o'r bont droed ar gyfer darparu model 3D o'r strwythur, yn ogystal ag arolwg ffotograffig cynhwysfawr. Yn atodol i hyn roedd rhaglen o ymchwil ddogfennol wedi'i dargedu i alluogi gwell dealltwriaeth o'r bont a'i hanes.

2.1.3 Cynhyrchodd yr ymchwil archifol a wnaethpwyd yn Archifau Gogledd Ddwyrain Cymru (NEWA) ym Mhenarlâg a'r Archifau Cenedlaethol (TNA) yn Kew amrywiaeth ddefnyddiol o gynlluniau gorsafoedd o'r 19eg ganrif a'r 20fed ganrif cynnar a chyfres o luniadau peirianegol o bontydd troed gorsafoedd a adeiladwyd gan London & North Western Railway (LNWR), oedd yn gweithredu rheilffordd Caer a Chaergybi o 1859 hyd 1923.

2.1.4 Gan adeiladu ar ymchwil cynharach oedd yn awgrymu bod y bont wedi ei hadeiladu ym mis Gorffennaf 1884, datgelodd chwiliad o bapurau newydd lleol hanesyddol bod y gwaith o adeiladu'r bont droed wedi cychwyn yn ystod yr wythnos a ddaeth i ben ar Ddydd Gwener 9 Mai 1884, a chafodd ei gwblhau ar Ddydd Sul 20fed Gorffennaf 1884. Datgelodd y gwaith ymchwil hefyd bod y cwmni rheilffordd wedi cyhoeddi ei fwriad i adeiladu'r bont droed ym mis Mawrth 1883 a'u bod wedi dewis ei lleoliad presennol mewn ymateb i wrthwynebiadau lleol.

2.1.5 Datgelodd y cofnod treftadaeth adeiledig, er bod rhai o elfennau strwythurol penodol y bont droed yn cydymffurfio â phatrymau LNWR safonol, roedd yn wahanol i'r dyluniadau hyn mewn nifer o ffyrdd pwysig. Yn wahanol i gymeriad iwtalitaraidd dyluniadau pontydd troed LNWR safonol, roedd gan yr enghraifft yng Ngorsaf y Fflint nifer o nodweddion addurniadol amlwg, yr oedd yn eu rhannu â rhai o'r trosbontydd eraill ar y llinell o Gaer i Gaergybi.

3 INTRODUCTION

3.1 Background

3.1.1 Pre-Construct Archaeology Limited was commissioned by AmcoGiffen on behalf of Network Rail to undertake Built Heritage Recording of the pedestrian footbridge at Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5NW (**Figures 1** and **2**; **Plate 1**). The work is required in connection with the removal of the footbridge and its replacement with a modern 'access for all' (AfA) footbridge to enable unobstructed, obstacle free access between platforms 1 and 2 at Flint Station. The proposal has led to a requirement for built heritage recording in order to fulfil a planning condition attached to Listed Building Consent (LBC/000423/23).

3.1.2 The building recording was undertaken in accordance with a Written Scheme of Investigation (Garwood, 2023) which was agreed in advance of the work by Neil Bayliss, the Development Control Archaeologist at Clwyd-Powys Archaeological Trust. The recording of the footbridge was carried out broadly in accordance with that defined by Level 2 of Historic England 2016 *Understanding Historic Buildings: A guide to good recording practice*.

3.2 Site location and description

3.2.1 The footbridge is situated at Flint Station, a working railway station on the historical Chester and Holyhead line (**Figure 1**). The station supplies services to two main routes, including Manchester Piccadilly to Llandudno and Birmingham international to Cardiff Central. Services between Holyhead/Bangor and London Euston also use the station. The station has two through platforms (Platforms 1 and 2) and is managed by Transport for Wales.

3.2.2 The existing footbridge provides pedestrian access between Platforms 1 and 2 (**Figure 2**; **Plate 1**). At the time of writing, step-free access to Platform 1 could only be gained from Corporation Street, which is on the opposite side of the railway line from the station car park in Y Farchnad (**Figure 2**).

3.2.3 The footbridge is located a short distance to the south of the historical station building on Platform 2, which was built in the 1840s by the Chester & Holyhead Railway Company. The building was listed Grade II (Cadw no. 581) in 1990 for the following principal reasons:

- The first of Francis Thompson's 1840s station buildings out of Chester retaining most of its original character.
- Group value with engine shed.

3.2.4 The full listing description is supplied in **Appendix 2** to this report. Although neither the existing building on Platform 1 nor the station footbridge are mentioned in the listing description, it is considered that the footbridge, canopies, and platforms buildings are protected via curtilage listed status for the purpose of this application.

3.3 Planning background

3.3.1 Listed Building Consent has been granted by Flintshire County Council for the installation of an Access for All (AfA) footbridge and associated works at Flint Railway Station, Market Square, Flint, CH6 5NW, subject to a number of pre-commencement conditions. **Condition (5)** relates to heritage and reads:

Condition (5) No development shall take place until a programme of building recording and analysis, equivalent to an Historic England Level 2 building survey, has been secured and implemented, in accordance with a brief issued by the local planning authority and a written scheme of investigation which has been submitted and approved in writing by the local planning authority. The survey will be completed by a professional archaeological contractor. The programme of building analysis and recording must meet the standards laid down by the Chartered Institute for Archaeologists in their Standard and Guidance for the archaeological investigation

and recording of standing buildings or structures. A copy of the resulting report should be submitted to the Local Planning Authority and the Development Control Archaeologist, Clwyd-Powys Archaeological Trust (The Offices, Coed y Dinas, Welshpool, Powys, SY21 8RP Email: neil.bayliss@cpat.org.uk Tel: 01938 553670).

On approval by the Local Planning Authority, project data must be submitted and approved for inclusion in the Clwyd-Powys Archaeological Trust's Historic Environment Record [CPAT HER]. For any questions regarding this submission process, please contact the HER Team at her@cpat.org.uk. The full digital archive must also be submitted and approved for inclusion within the National Monuments Record, RCAHMW or the Archaeology Data Service, ADS.

REASON: To allow an adequate analytical record of the structure to be made, before demolition, to ensure that its origins, use, and development are understood and the key features, character and state of preservation are recorded in compliance with Policies PC2 and EN8 of the Flintshire Local Development Plan'.

4 PLANNING BACKGROUND

4.1 Introduction

4.1.1 National legislation and guidance relating to the protection of historic buildings and structures within planning regulations is defined by the provisions of the Town and Country Planning Act 1990. In addition, local planning authorities are responsible for the protection of the historic environment within the planning system and policies for the historic environment are included in relevant regional and local plans.

4.2 Legislation and Planning Guidance

4.2.1 Statutory protection for historically important buildings and structures is derived from the Planning (Listed and Conservation Areas) Act 1990. Guidance on the approach of the planning authorities to development and historic buildings, conservation areas, historic parks and gardens and other elements of the historic environment is provided by the National Planning Policy Framework (NPPF), which was revised in September 2023.

4.2.2 The requirement for archaeological work is in accordance with the NPPF paragraph 205. Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

4.3 Flintshire Local Development Plan 2015-2030

4.3.1 The Flintshire LDP was adopted by the Council on 24th January 2023 and covers the period 2015 to 2030. It forms part of the statutory development plan alongside Future Wales: The National Plan 2040. The remaining part of the statutory development plan will be the Strategic Development Plan (SDP) for North Wales, once prepared and adopted. The Council will use the LDP and Future Wales as the primary basis for making decisions on planning applications and development proposals.

4.3.2 The following policies are relevant to the project:

PC2: General Requirements for Development

All development should:

a. harmonise with or enhance the character, local distinctiveness and appearance of the site, existing building(s) and surrounding landscape/townscape;

b. not have a significant adverse impact on the safety and living conditions of nearby residents, other users of nearby land/property, or the community in general, through increased activity, disturbance, noise, dust, vibration, hazard, or the adverse effects of pollution;

c. take account of personal and community safety and security in its design and layout;

d. maximise sustainable travel choice by having safe and convenient access by foot, cycle, public transport and vehicles;

e. not have an unacceptable effect on the highway network or highway safety as a result of problems arising from traffic generation, inadequate and poorly located parking spaces, servicing and manoeuvring;

f. not result in or be susceptible to problems related to foul and surface water drainage, land stability, contamination, flooding, or pollution of light, air and water, either on or off site.

EN8: Built Historic Environment and Listed Buildings

The County's buildings and features of special architectural and historic importance, and their settings, will be preserved.

a. development proposals affecting listed buildings will be permitted only where:

i. the alteration and/or extension to a listed building or its curtilage ensures that the special architectural character or historic interest is preserved;

ii. the change of use of a listed building or its curtilage contributes towards the retention of a building or its sustainable re-use without having an adverse effect on its character, special interest or structural integrity;

iii. the total or substantial demolition of a listed building, is accompanied by the strongest justification and convincing evidence that the proposal is necessary and unavoidable.

b. development should preserve Scheduled Ancient Monuments and their settings and where appropriate the preservation of other archaeological remains, having regard to the intrinsic importance of the remains and the need for the proposed development.

c. development should protect and conserve historic landscapes, parks and gardens.

5 METHODOLOGY

5.1 Aims and objectives

5.1.1 The aim of the built heritage recording as set out in the Written Scheme of Investigation (Garwood, 2023) was to provide a record of the footbridge at Flint Station in its present condition, prior to the commencement of its demolition and replacement. This record was to be in accordance with an Historic England (2016) Level 2 survey and was to include a programme of laser scanning to produce accurate bridge plans and elevations. The aim was to provide a better understanding of the footbridge, to compile a lasting record, to analyse the results and to disseminate these results.

5.2 Documentary research

5.2.1 A programme of archival research was undertaken to build upon the historical background previously provided in the Heritage Impact Assessment and Access Statement (Network Rail 2023). The research was carried out to develop an understanding of the historical development of the footbridge and identify the reason(s) for and circumstances of its construction. Documentary research was carried out at the North East Wales Archives (NEWA) at Hawarden and at The National Archives (TNA), Kew. Research into Chester & Holyhead Railway (C&HR), London & North Western Railway (LNWR) and London, Midland & Scottish Railway (LMSR) documentation held at these archives was completed, along with the acquisition and collation of historical maps, archive plans and historical photographs. Additional online research using the British Newspaper Archive (BNA) was also carried out to supplement the archival research, and a range of published secondary sources was also consulted. The results of this research are presented in Chapter 5 of this report.

5.3 On-site recording

5.3.1 The on-site recording was carried out on Monday 23rd October 2023 by an historic building surveyor and digital heritage and visualisation specialist. The recording process involved a full laser scan of the footbridge and a comprehensive photographic survey.

5.4 Measured survey

5.4.1 The laser scan of the footbridge was undertaken using a FARO Focus laser scanner to provide a 3D model of the structure. Scaled AutoCAD elevations and a plan were produced from the resulting point cloud. These were used as a baseline survey to show the location and direction of the photographic plates (**Figures 18a** and **18b**).

5.5 Photographic survey

5.5.1 A photographic survey was undertaken to Historic England Level 2, as set out in Historic England (2016) *Understanding Historic Buildings: A Guide to Good Recording Practice*. High resolution digital photographs were taken of the elevations, structural detail, and fixtures or fittings. Plans of the bridge have been annotated to show the location and orientation of all photographs taken as part of the survey (**Figures 2** and **18a**). The photographic record was accompanied by a photographic register detailing (as a minimum) location and direction of shot. A photographic scale was used in photographs where it was considered practicable.

5.5.2 A total of 85 photographs was taken during the photographic survey. A representative selection of photographic plates is presented in this report to inform the interpretation and description of the footbridge **(Plates 2** to **24**). The remaining photographs were not chosen for reasons including duplication, lack of clarity etc.

5.6 Project archive

5.6.1 The project archive is currently held at the offices of at the offices of Pre-Construct Archaeology Limited in Barford, Warwickshire under the site code (WFSF23).

5.6.2 The archive conforms to guidelines described in *Management of Research Projects in the Historic Environment* (MoRPHE), Historic England 2015a, *'Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA, 2020b) and *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017* (NPAAW, 2017).

5.6.3 This digital report will be submitted to the applicant, Local Planning Authority and the Development Control Archaeologist at Clwyd-Powys Archaeological Trust (CPAT). On approval by the Local Planning Authority, the report will be submitted to the Clwyd-Powys Historic Environment Record [CPAT HER] via HEDDOS for approval. The full digital archive will also be sent to the National Monuments Record, RCAHMW.

5.7 Guidance

5.7.1 All works were undertaken in accordance with standards set out in:

- CIfA (2020) *Standard and guidance for the archaeological investigation and recording of standing buildings or structures* Chartered Institute for Archaeologists
- English Heritage (now Historic England) (2005) *The presentation of historic building survey in CAD*
- Historic England (2016) *Understanding Historic Buildings: A Guide to Good Recording Practice*

6 HISTORICAL BACKGROUND

6.1 Introduction: the Holyhead to Dublin mail service

6.1.1 Following the union of the Parliaments of Great Britain and Ireland in 1801, a debate arose regarding the best route for the postal connection across the Irish Sea. A postal service between the two nations began during the reign of Elizabeth I, when it became necessary to establish a regular connection between the Court and the Lord Lieutenant of Ireland (Baughan 1972: 11). The established route to Dublin was via Holyhead, where the packet station for the mail service to Ireland was based. In 1801, the civil engineer John Rennie and the hydrographer Joseph Huddart were asked by Parliament to report on the best ports and routes for the Irish mail service (ibid.: 15). They recommended that the service should continue to sail from Holyhead and suggested making improvements to the road, as well as rerouting coaches via Shrewsbury to avoid the North Wales coast road and the Conwy ferry crossing. The poor condition of the Holyhead road was a major obstacle to the efficient running of the service and in 1815 the engineer Thomas Telford was appointed to survey and improve it. Telford's improvements culminated in the completion of the Conwy and Menai Strait suspension bridges in 1822 and 1826 respectively. Although these works reinforced Holyhead's claim to primacy, the Menai Strait continued to present a formidable obstacle to any future rail connection. Various other locations were touted as potential crossing points to which railway lines could be built, including Porth Dinllaen (Porthdinllaen) on the Llŷn Peninsula, New Quay in Cardigan shire and St George's Bay (Reed 1996: 31). The proposed connection via Porth Dinllaen envisaged the construction of a 220-mile long railway from London via Oxford and Worcester, which would reach the coast via a new line through Montgomeryshire and Merionethshire (Baughan 1972: 23).

6.1.2 The completion in 1838 of the railway trunk line between Euston and Lancashire resulted in the transfer of the main London to Dublin mail service to Liverpool, reducing Holyhead to a subordinate role. In June 1841, Birkenhead replaced its neighbour as the main railhead for the Irish packet service. Despite these developments, proposals to build a rail connection to Holyhead along the north coast of Wales received a boost from a report published by Lieutenant Colonel Sir Frederick Smith and Professor Peter Barlow in 1840 and a parliamentary enquiry of 1842 into postal communications with Ireland, both of which found in favour of Holyhead over rival Welsh ports. The engineers Francis Giles and George Stephenson were commissioned by rival companies to investigate the best route for a coastal railway, although neither scheme came to anything. Stephenson had been appointed by the Chester & Crewe Railway, which was eager to develop the line but which was absorbed by the Grand Junction Railway (GJR) in 1840, before any further progress could be made.

6.2 The Chester & Holyhead Railway, 1843-1859

6.2.1 The Chester & Holyhead Railway company was established in London in 1843 to promote a rail connection between the two towns. It sought backing both from the Grand Junction and London & Birmingham (L&B) companies, which owned the existing lines to which the new scheme would be connected. Tensions between the two railway companies led to the Grand Junction to withdraw its financial support for the scheme in early 1844, leaving the London & Birmingham as the principal backer of the Chester & Holyhead Railway. The new company obtained the necessary Act of Parliament on 4th July 1844 and it had an authorised capital of £2.1 million in £50 shares. Provisions in the Act included construction of a station at Flint, one of fourteen originally envisaged (Baughan 1972: 46; 73).

6.2.2 By the summer of 1845, the contracts for the construction of most of the line had been let, except for those for the crossing of the Conwy estuary and the Menai Strait (Reed 1996: 51). The contract (No. 1: eight miles) for the section between Chester and Shotton was let to Edward Ladd Betts for £118,996, while the section between

Shotton and Rhyl (No. 2, which was 22 miles in length) was let to William Mackenzie for £202,000 (ibid.: 57). Robert Stephenson was appointed the engineer of the line, assisted by Alexander Ross, the original engineer for the Chester & Holyhead scheme. Ross was in turn assisted by Messrs Bennett and Lee, the latter of who was promoted to Resident Engineer of the line in November 1847 (TNA RAIL 113/16). Francis Thompson, who had designed the stations on the North Midland Railway, was appointed architect for the line (Baughan 1972: 73).

6.2.3 Thompson's designs for the station buildings embodied the fashionable Italianate character of the early Victorian period, featuring two-storey rectangular buildings with flanking pavilions that enclosed the platform canopies. Characteristic features of his designs included the stone framed windows, which were made from white Penmon stone hewn from quarries near Beaumaris. Most of the station buildings were constructed of brick in Flemish bond, surmounted by low-pitched hipped slate roofs.

6.2.4 Stephenson's proposed Menai crossing involved the use of an innovative tubular span, a concept which he also planned to use for the Conwy bridge. Known as the Britannia Bridge, the Menai crossing was authorised by the Chester and Holyhead Railway Completion Act, which received the Royal Assent on 30th June 1845.

6.2.5 Construction of the new line began on 1st May 1845 and by November there were some 5,000 men and 500 horses and drivers employed on the works. The section between Chester and Saltney Junction near Chester, where it met the North Wales Mineral Railway (later the Shrewsbury & Chester Railway), was completed in early November 1846. Progress on the building of the rest of the line was slow and beset by problems, including storm damage and accidents. On 24th May 1847, the Dee bridge near Chester collapsed while a train was crossing, with the loss of five lives. Although the bridge was replaced by a temporary structure within a couple of months, the resulting enquiry into the disaster led to the introduction of recommendations for the reinforcement of cast iron bridges.

6.2.6 The tubular spans of the Conwy bridge were installed in April 1848, following which the line between Saltney and Bangor opened to traffic on 1st May. Having completed the major section of the line, work progressed on the Anglesey section from Llanfair to Holyhead. Although the Britannia Bridge had yet to be completed, the line opened on 1st August 1848, the first span of the bridge opening to traffic in March 1850.

6.2.7 The deposited plans for the Chester & Holyhead Railway only indicate the route of the line through the town of Flint and do not show the location of the proposed railway station (**Figure 4**). The site that was eventually chosen for the station lay in the grid of streets to the south of the town's castle, between Castle Street to the northwest and Brick Kiln Lane to the southeast (**Figures 3** and **5**).[1] The latter streets crossed the line on the level, so gates were installed to stop traffic when trains were pulling into or out of the station. The gates were to be manned day and night, although it was decided not to build lodges at either location for the gatekeepers (TNA RAIL 113/16). In December 1847, a railway policeman from Chester was appointed to man the gates at both crossings. It was also decided to build a small goods shed at Flint to handle goods and raw materials brought to and from the town by rail.

6.2.8 The contract for the station building and small goods shed at Flint was awarded to Thomas Hughes on 9th June 1847 and was worth £4,101 (Baughan 1972: 76). Construction of the station building and goods shed at Flint was already underway by the end of the year. In late January 1848 it was reported that the station arrangements at Flint were "good, but require pushing. The Goods Warehouse at this and other stations may require some alteration should the traffic of the line require more than two wagons at a time in the shed" (TNA RAIL 113/16). By the middle of the following month, it was reported that the "office arrangements and Goods Shed [were]

[1] Brick Kiln Lane was subsequently closed and the roadway (later renamed Castle Road) was carried across the line by a new overbridge, known as the Brick Kiln Lane Bridge, or Bridge No. 42 (TNA RAIL 410/31)

in a forward state…sidings &c were advanced, the Station Yard and approaches also forward". Flint Station opened to passengers with the rest of the line to Bangor on 1st May 1848. The Llanfair to Holyhead section opened two months late on 1st August.

6.2.9 The earliest known plan of Flint railway station dates from 1853, five years after it was built (NEWA D/DM/1460/2/82). Reproduced here as **Figure 5**, the plan shows Thompson's station building standing on the platform on the southwest side of the railway line (Platform 2), with the small goods shed standing on the same side of the tracks to the south. A plan of the station dating to c.1900 shows the building in greater detail, indicating that the ground floor contained offices, a lamp room, a room for the porters and a ladies' waiting room (NEWA D/DM/1460/2/87). The first floor contained accommodation for the stationmaster.

6.2.10 The 1853 plan shows sidings on the northeast side of the railway line facing the stationmaster's house on the southwest side, suggesting that there was no room for a platform in this location. However, a probable platform/landing stage and an unidentified building are shown on the northeast side of the tracks a short distance to the south of a bank of wagon turntables, extending southeast from there to the Brick Kiln Lane crossing. Roskell Road (later renamed Corporation Street) lies to the northeast.

6.2.11 A set of sidings leading to a bank of wagon turntables is shown to the southeast of the station. The turntables connected goods sidings on the north side of the mainline with those to the south, presumably enabling goods wagons to be manoeuvred from both sets of sidings into the small goods warehouse.

6.2.12 In 1846, the Grand Junction, London & Birmingham and Manchester & Birmingham companies combined to form the London & North Western Railway (LNWR). At first, the Chester & Holyhead Railway retained its independence, deferring a proposal for amalgamation with its larger neighbour in 1852, however the company's finances remained precarious and it did not generate a profit until 1854 (Reed 1996: 72). A revised agreement with the LNWR was reached in July 1856, which provided for the Chester & Holyhead to be worked by the LNWR as part of its own system, in return for an agreed proportion of the receipts. Although many of its responsibilities had been taken over by the LNWR, the Board of the Chester & Holyhead remained independent and in 1858 it sought to raise capital to improve its fleet of mail ships by promoting a Bill to authorise the LNWR to guarantee an issue of Chester & Holyhead preference shares and to permit the two companies to amalgamate. However, the LNWR baulked at provisions in the Bill which would have allowed rival railways to use traffic facilities on the Chester & Holyhead line, prompting the company to refuse to enact the proposed legislation. In response to the LNWR's withdrawal of support for the Bill, the Board of the Chester & Holyhead announced that it would introduce a Bill in the forthcoming session that would give it running powers from Chester to Crewe and permit arrangements with a range of rival railway companies, effectively enabling LNWR's competitors. This move prompted the LNWR to concede to the amalgamation provisions of the earlier Bill, which came into effect from 1st January 1859.

6.3 Developments at Flint Station, 1860-c.1900

6.3.1 Historical maps suggest that relatively few changes took place at Flint Station between 1853 and the early 1870s, although a new goods shed was ordered for the station in 1860 and the down siding was extended c.1872 (Baughan 1972: 262; TNA RAIL 410/100 no. 28802). The First Edition Ordnance Survey map of 1871-4 indicates that the layout of platforms, station buildings and sidings was largely unchanged from the plan of 1853, although some minor alterations had been made to the arrangement of the sidings (**Figures 6a** and **6b**). By contrast, the Second Edition Ordnance Survey map of 1899 suggests that extensive changes had taken place at the station during the preceding quarter century (**Figure 7**). These included the removal of the sidings and wagon turntables on the north side of the mainline and their replacement by a platform and platform building (the waiting room on Platform 1), facing the stationmaster's house of 1847-8. The map also shows a new footbridge

a short distance to the southeast of the stationmaster's house, which crossed the railway tracks in the location of the present station footbridge.

6.3.2 Other changes include the addition of a signal box ('S.B') on the south side of the line beside the Castle Street level crossing, which stood in the location of a smaller structure shown on the 1853 plan. Signalling provision on the Chester and Holyhead line had been considerably improved since a series of accidents in the late 1860s with the introduction of the absolute block system from 1870 (Baughan 1972: 292-5). A new telegraphic circuit was set up between Chester and Holywell in 1877, which included an intermediate post at Flint (ibid.: 295). Further improvements were made to the signalling system in the mid/late 1880s, with the installation of new intermediate block telegraphic posts on the Chester and Holyhead line (TNA RAIL 410/118: 04/03/1886). It is not clear, however, from the minutes of the LNWR exactly when the new signal box at Flint was built (or enlarged) and it is not mentioned in the indexes of the railway company's Board or Special Committee between 1867 and 1910 (see below).

6.3.3 There were many other improvements carried out on the Chester and Holyhead line for safety reasons between the early 1860s and the early 1880s, including the substitution of road overbridges and footbridges for level crossings (Baughan 1972: 272-3). At Rhyl an overbridge was built concurrently with station improvements in 1863-4, at Mostyn an overbridge was built in 1865-6, at Prestatyn a footbridge was added in 1871; while at Bagillt, a road was diverted and a level crossing closed in 1871 and a footbridge added in 1875.

6.3.4 Greater detail of the reorganisation of Flint Station is revealed by a sequence of maps held by the North East Wales Archive, all of which appear to date to the first decade of the 20th century (NEWA D/DM/1460/2/87; D/DM/274/14; D/DM/1460/2/83). A fourth plan that ostensibly dates to the 19th century is also likely to have been drawn up around the same time as the others (NEWA D/RD/39). These plans are reproduced here as **Figures 8** to **11**. **Figure 8** confirms that the platform on the northeast side of the tracks (Platform 1) had been extended to the northwest, replacing the goods sidings and northernmost wagon turntables shown on the 1853 plan. The *c*.1900 plan indicates that the new building on Platform 1 contained a ladies' waiting room, a general waiting room, a waiting room for first class passengers and gentlemen's WC. The passenger footbridge that enabled passengers to change platforms without using the Castle Street level crossing is identified on the plan as Bridge No. 43.

6.3.5 The 1900s plans also show a second footbridge to the north of the station, which is shown standing immediately to the north of the Castle Street level crossing. The footbridge would have allowed pedestrians to cross the railway line when the crossing gates were closed to allow trains to pass through the station. This bridge is numbered 43a in **Figures 8** and **11**, suggesting that it was probably built later than its counterpart to the southeast.

6.4 The construction of the footbridges and waiting room at Flint Station, 1884-*c*.1898

6.4.1 A search was made of the records of the LNWR held by The National Archives (TNA) at Kew to identify the date of, and rationale for, the construction of the station footbridge and other post-1870 structures at Flint Station. Like other 19th British century railway companies, the LNWR produced an extensive documentary record of its activities. The most productive sources for ascertaining the dates of railway architecture and infrastructure of the period are the minute books that documented the decisions of the various Board Committees that authorised expenditure across the network. The LNWR Board of Directors, the Permanent Way, Traffic and Way & Works Committees all possessed powers to raise, consider and authorise expenditure upon infrastructural improvements. There was also a 'Special' Board committee, which reviewed and signed-off spending decisions made by these other committees.

6.4.2 Unlike competitors such as the Great Northern and Midland Railway Companies, which indexed each volume of minutes individually, the LNWR chose to index its committee minutes in separate volumes to the minute books themselves. Fortunately, the minutes of the Board and the Special Committee are indexed together, aiding the research process, though the latter is dependent upon the accuracy of the indexing. A review of the index books of the Board and Special Committee revealed several references to bridges, crossings and even a footbridge at Flint between 1867 and 1880, although none proved to be relevant (TNA RAIL 410/123, RAIL 410/124, RAIL 410/125, RAIL 410/126, RAIL 410/127). Similarly, the index books of the Board and Special Committee between 1885 and 1910 contained no references either to the footbridge or to its counterpart beside the Castle Street crossing (TNA RAIL 410/129, RAIL 410/130, RAIL 410/131).

6.4.3 Research undertaken for a Heritage Impact Assessment of the effects of installing an Access for All (AfA) footbridge at Flint Railway Station suggests that the existing footbridge was built in July 1884, possibly in response to a fatal accident that occurred at the station earlier that year (Network Rail 2023: 12). Unfortunately, the Board and Special Committee index volume for the period 1881-1885 is recorded in the catalogue of The National Archives as 'missing at transfer', presumed lost. In the absence of an index, the Special Committee volume covering 1884 and 1885 was consulted, although it too contained no reference to the footbridge (TNA RAIL 410/117). It was therefore decided to review the online British Newspaper Archive (BNA) and other sources to ascertain the timeline of the bridge's construction and, if possible, to understand why it was built when it was.

6.4.4 The earliest reference to the new footbridge appeared in the following report published in the Wrexham Advertiser of Friday 9th May 1884:

> FLINT
>
> NEW FOOTBRIDGE.- the erection of a footbridge at the station, has this week been commenced. The bridge adjoins the stationmaster's house on the Chester side on the down line, and will be a few yards distance from the New Waiting Rooms on the up line. (BNA Friday 09 May 1884: 6).

6.4.5 The next report to mention the new footbridge was previously identified by the Heritage Impact Assessment. Also published in the pages of the Wrexham Advertiser, the report of Saturday 26th July 1884 stated:

> FLINT
>
> THE NEW FOOTBRIDGE. The new passenger footbridge at the Flint Station, was erected on Sunday by a large number of the company's servants from Crewe. (BNA Saturday 26 July 1884: 6).

6.4.6 Construction of the footbridge therefore commenced during week ending Friday, 9th May 1884 and was completed on Sunday 20th July 1884. The newspaper reports also provide an indication of the date of the waiting room on Platform 1 and raises the possibility that the two structures formed part of the same works package. The design of the completed footbridge is similar, though not identical to standard footbridge types erected by the LNWR between the early 1880s and mid/late 1890s (TNA RAIL 410/1192; **Figures 17a** to **17c**; **Historical Plates 7** to **9**).

6.4.7 The Heritage Impact Assessment suggested that the new bridge may have been built in response to an accident that occurred at the station on 25th April 1884, when Dr J. Foulkes Jones of Bryntirion, Towyn, was struck by an express train (Network Rail 2023: ibid.). Dr Foulkes Jones subsequently died of his injuries at the Chester Infirmary on 12th May 1884 (BNA Wrexham Advertiser - Saturday 27 December 1884: 7). Given that the victim was still alive at the time that construction of the bridge began, it is highly unlikely that the accident had any bearing upon the decision by the LNWR to erect the footbridge.

6.4.8 The historical context of the footbridge is in fact explained in a newspaper report of Saturday 24th March 1883, which describes a meeting of Flint Town Council held to

respond to certain proposals made by the LNWR:

FLINT

Town Council.— A special meeting of the Council was held on Monday, Ald. R Muspratt (mayor) pre- siding, to consider the question as to the construction of a subway under, or of a footbridge over, the Chester and Holyhead line at Flint Station. Mr Wood, district superintendent, and Mr Smith, engineer, were present as representing the railway company. The London and North Western Railway Company proposed to erect a footbridge at a certain point over the railway, and to encroach on the public road in its construction; and the matter was discussed at the last meeting of the Council, when it was decided to write to the Company, asking that their engineer should attend Monday's meeting. As already stated, that gentleman, accompanied by Mr E. Wood, were present on Monday, and produced plans of the bridge proposed by the Company. In the course of a discussion which took place, several members expressed the opinion that the erection of a bridge as proposed would be an eyesore, and that it would be preferable that the present level crossing should also be kept open. Mr Wood, however, intimated that if the Company went to the expense of erecting a bridge, they could not allow the crossing to be used. Ultimately Mr J. Liebig Muspratt proposed, and Ald. Mawdesley seconded, a motion setting forth that the bridge, which is of duplex build, for passengers and the public, should be erected nearer the station than proposed, and on the Chester side of the signal-box. This was agreed to, and Mr Smith promised to lay amended plans before the directors of the company. (BNA Wrexham Advertiser - Saturday 24 March 1883: 8).

6.4.9 The report indicates that the LNWR proposed to erect the footbridge to the north of the signal box, at a location accessible both to users of the station and members of the public, presumably besides, or close to, the Castle Street level crossing. This evidence suggests that the company originally intended to build the bridge at or near the location of the second footbridge (No. 43a) shown on the 1900s plans (**Figures 8** to **11**) and the 1912 Ordnance Survey map (**Figure 12**). Having conceded the Town Council's objection to this location, the railway company appears to have agreed to build the bridge in its present location. The report also confirms that the Flint Station signal box was extant in 1883.

6.4.10 The LNWR continued to press for the closure of the Castle Street level crossing and its replacement by a second footbridge, presumably owing to the cost of operation and the disruption to rail services. In August 1889 the Special Committee resolved to seek powers in the forthcoming Parliamentary session to close the crossing at Flint, although the proposal was subsequently deferred by the Board (TNA RAIL 410/119 no. 3318; TNA RAIL 410/31 no. 9573;TNA RAIL 410/129). The crossing also appears to have been unpopular with the residents of Flint. The Wrexham Advertiser of Saturday 28th September 1895 published two letters from readers complaining of the "abominable nuisance" that the crossing caused to residents, who were reportedly obliged to wait at the gates for periods of up to a quarter of an hour for trains to pass. One suggested that the railway company should "close the present gates altogether and erect a footbridge, so that this could be used when the trains are signalled and the gates closed" (BNA Wrexham Advertiser Saturday 28 September 1895: 3).

6.4.11 The indexes of the minutes of the Board and Special Committee of the LNWR do not contain any references to the erection of a footbridge to the north of Flint Station during this period, although contemporary plans indicate that it had been added by c.1900 (**Figures 8** to **11**). Blueprints held by The National Archives suggest that the second footbridge was built to a design for a 'Standard Footbridge with Rolled Columns over Two Lines of Rails' (TNA RAIL 410/1192; **Historical Plate 7**). The blueprints of this model were stamped with the date 1896, perhaps suggesting that it was introduced around that time. During the late 1890s the LNWR obtained Parliamentary powers to widen the Chester and Holyhead line, although deposited plans suggest that this had no impact upon the track or platform layout at Flint (TNA RAIL 410/36; RAIL 410/2073).

6.5 Flint Station since 1900

6.5.1 Historical maps suggest that few alterations were made to the layout of Flint Station during the 20th century (**Figures 12** to **16**). Following the nationalisation of Britain's railways in 1948, several stations on the Chester and Holyhead line were closed. The Beeching report of 1963 recommended the closure of a further sixteen stations on the line, including Flint (Lloyd 2021: 172). In the event, only Flint, Llanfairfechan, Penmaenmawr and Prestatyn survived Beeching's axe during the closure programme of 1966. Although the station was saved, the remaining sidings to the south of the railway line were lifted between c.1963 and c.1967-72 (**Figures 15** and **16**). In the mid/late-1970s, any surviving structures associated with the former goods yard in the latter location were removed and Platform 2 was extended when the new station car park was formed (NEWA CC/AR/6/2). Presumably these developments took place around the same time that Y Farchnad was made accessible to vehicles.

6.5.2 The stationmaster's house on Platform 2 was listed Grade II on 18th July 1990 and amended 11th September 1995 (Appendix 2). Since then, the most significant changes have been made to the Grade II listed stationmaster's house, which was comprehensively refurbished by Network Rail in 2006 (Network Rail 2023: 9). The refurbishment included structural works, modernisation of the ticket office and waiting areas, as well as provision of a disabled toilet and new staff toilet facilities. Network Rail has recently gained listed building consent for the refurbishment of the station, including the buildings on Platform 1.

7 BUILDING DESCRIPTION

7.1 General

7.1.1 The footbridge at Flint Station is considered curtilage listed with the Grade II listed station building (stationmaster's house) of 1847/8 on Platform 2 (Network Rail 2023: 11). The bridge is a simple girder (truss beam) structure comprising a deck supported at either end by four cast iron columns supporting rigid cross girder 'boxes' **(Plate 2**; **Figures 18a** and **18b**). The bridge parapets are constructed of a lattice of cast iron members. Access to the deck is gained from the station platforms via two parallel staircases, each comprising two flights of steps separated by a landing, with decorated cast iron balusters (**Plate 3**).

7.1.2 The locations and directions of the photographic plates mentioned in the text below are shown on **Figures 2** and **18a**.

7.2 Superstructure

Bridge piers

7.2.1 The bridge deck is supported at both ends by piers/towers that comprise four slender cast iron columns, the bases of which are anchored into the platform (**Plates 4** and **5**). The column capitals support a rigid 'box' structure constructed of individual vertical members (iron stanchions) and horizontal members (cross girders) bolted together and reinforced with triangular gusset plates (**Plates 6**, **7** and **8**). The vertical members continue above the girder structure to form the framework of the parapet over the bridge piers (**Plates 4** to **7, 14** and **15**).

7.2.2 Brackets projecting from the inner faces of the piers support the bridge deck (**Plate 9**). Contemporary blueprints of the cross girders and brackets of the same designs as those seen on the footbridge are reproduced in **Historical Plate 7**. LNWR specifications state that these brackets were to be formed of cast steel (TNA RAIL 410/1192). On the north faces of the piers, the cast iron stringers of the two staircases are bolted into the stanchions of the piers, anchoring the staircases to the latter (**Plate 6** and **Historical Plate 7**).

Bridge deck

7.2.3 The deck is supported by two longitudinal rivetted cast iron or steel girders, reinforced by four sets of crossed diagonal braces constructed of flat iron bars (**Plate 10**). Additional reinforcement is provided by the three wind struts on each side, which provide lateral stability (**Plates 10, 13** and **16**). The arrangement of girders and braces is similar to that shown on contemporary LNWR engineering drawings of footbridges (**Figure 17c**; **Historical Plate 8**).

7.2.4 The deck itself is constructed of timber planking, which has been overlain with boards or plates of unknown material covered in asphalt for weatherproofing (**Plates 11** and **12**). A series of open brackets have been attached to the longitudinal girder on the south face of the bridge to carry modern electrical services across the railway tracks (**Plates 12** and **13**).

Bridge parapet

7.2.5 The parapet of the footbridge comprises a lattice of intersecting diagonal iron bars bolted to the flanges of stanchions attached to the top and bottom longitudinal members of the truss structure (**Plates 11** to **14**). There are seven stanchions spaced at regular intervals along the deck girders (**Figure 18b**; **Plates 11** to **13**). The vertical members of the bridge piers are surmounted with decorative cast iron finials (**Plates 4** to **7**, **13** to **15**).

7.2.6 The north and south elevations of the bridge each feature prominent cast iron wind struts, which are shown on contemporary engineering drawings of certain types of footbridges used by the LNWR (TNA RAIL 410/1192). In addition to their functional role, these elegantly curved elements provide a decorative touch which complements

the latticework of the parapets (**Plate 16**).

Staircases

7.2.7 The symmetrical staircases each comprise two flights of ten steps, separated by a broad central landing (**Plates 3**, **16** and **17**). Each flight is constructed of two ten-step cast iron or steel members (described as stringers in contemporary engineering drawings), which are bolted together to form the central landings. The joints and landings are supported by short cast iron columns (**Plates 18** and **19**). **Plate 20** is a detail view of the expansion joint where the stringers meet. A simple and unadorned timber enclosure with a cement rendered inner face occupies the void beneath the lower flight of the southwest staircase on Platform 2 (**Plates 3**, **16** and **19**). This structure is presumably used for storage.

7.2.8 The steps and landings are constructed of interlocking timber planks, covered in a modern bituminous (?) non-slip coating (**Plates 20** and **21**). Each step has modern metal protective nosing, which is reflective on the top and bottom steps of each flight (**Plates 23** and **24**). The cast (?) iron balusters of the staircase feature elegant intertwined elliptical and circular elements, the latter comprising wheel-like motifs reminiscent of railway locomotive or wagon wheels (**Plates 22** and **23**). The balusters support a simple cast iron (?) handrail, the profile of which is cast to resemble timber moulding (**Plates 21** to **23**). The newel posts at the foot of each staircase are cast iron columns, with simple collars and capitals reminiscent of turned timber (**Plate 23**).

7.2.9 To comply with modern safety standards, steel safety handrails have been retrofitted to both staircases, the stanchions of which are bolted to the treads of the steps (**Plates 21**, **23** and **24**).

Decorative scheme

7.2.10 The footbridge is painted in an attractive palette of colours, which is sympathetic both to its heritage and its setting. The scheme comprises a matt mid-green base, which is applied to the horizontal elements (stringers and handrails) of the staircases (**Plates 2**, **16** and **17**) and the deck parapet (top and bottom chords: **Plates 11** to **13**), the cross girders and brackets of the piers (**Plates 4** to **10**) and the vertical elements of the parapet and deck, i.e. the stanchions and wind struts (**Plates 4** to **7**, **11** to **16**). The same colour has been applied to the modern (but sympathetically finished) railings along the boundary of Platform 2 (**Plates 3**, **5**, **16** and **21**).

7.2.11 The latticework of the parapet and the decorated balusters of the staircases are painted in a matt white base (**Plates 2**, **5** to **7**, **11** to **17**, **21** to **24**). The columns of the piers are painted in a cream tone (**Plates 3** to **7**), which is streaked with rust in places. Column details, such as banding on the necks and capitals, are picked out in matt red (**Plates 3** to **9**). The same colour is used to emphasise detailing on the balusters (the wheel motifs) and the finials on the parapet stanchions (**Plates 13** to **15**, **21** to **23**). The same colour is used to pick out the finials of the railings along the boundary of Platform 2 (**Plates 3**, **5**, **16** and **21**).

8 DISCUSSION & CONCLUSIONS

8.1.1 Listed Building Consent was granted for the removal of the footbridge at Flint Railway Station subject to certain pre-commencement conditions, which included a programme of built heritage recording. The latter was undertaken to Historic England Level 2 and included a laser scan of the footbridge to provide a 3D model of the structure, as well as a comprehensive photographic survey (**Plates 2** to **24**). This was supplemented by a programme of targeted documentary research intended to enable a better understanding of the structure and its history.

8.1.2 Archival research carried out at NEWA revealed a rich resource of 19th and 20th century plans of Flint Station, which illustrate its development from the 1850s to the mid/late-1970s. Documentary research undertaken at The National Archives (TNA) at Kew was intended to build upon preliminary research undertaken for the Heritage Impact Assessment which suggested that the bridge was built in July 1884, possibly in response to a fatal accident that occurred at the station earlier that year. The outcome of the documentary research at Kew was somewhat mixed; while it produced an important set of late 19th century engineering drawings of LNWR footbridges, the historical loss of an index to the minutes of meetings of relevant Board committees for the period in question (1881-1885) meant that it was not possible to find documentary evidence relating to the footbridge. Investigation of the minute book of the Special Committee for 1884 found no references to Flint Station or the footbridge. It was therefore decided to conduct a thorough search of local newspapers for the period, which revealed that construction of the footbridge commenced during week ending Friday, 9th May 1884 and was completed on Sunday 20th July 1884. A newspaper report also suggests that the footbridge and the waiting room on Platform 1, hitherto undated, may have been associated.

8.1.3 The suggestion that the new footbridge was built because of an earlier accident was disproved by evidence that showed the LNWR had proposed to build the footbridge as early as March 1883, when it informed Flint Town Council that it intended to build the footbridge on the north side of the station, close to the Castle Street level crossing. In response to the Council's objections to the proposal, the railway company agreed to amend its plans and instead erect the bridge "on the Chester side of the signal-box", i.e. in the location where it was built the following year. It is possible that further investigation of LNWR corporate records from the early 1880s held by The National Archives may reveal more about the context of these proposals and about those of the waiting room on Platform 1. Research undertaken for this project also provided useful information about the railway footbridge to the north of Flint Station, which appears to have been built *c*.1895-99. The design of latter bridge is very similar to drawings of an LNWR 'Standard Footbridge with Rolled Columns over Two Lines of Rails' dating from *c*.1896 (TNA RAIL 410/1192).

8.1.4 Built heritage recording shed new light upon the engineering of the 1884 station footbridge. A 3D laser scan produced accurate measured drawings of the plan and elevations of the structure, which are reproduced here as **Figures 18a** and **18b**. Investigation of the structure revealed that certain elements, such as the cross girders (**Plates 6** to **8**), cast steel brackets (**Plate 9**), staircase springers (**Plates 3, 16** and **17**), the parapet latticework (**Plates 11** to **14**) and the structure of the bridge deck (**Plate 10**) conformed with standard LNWR patterns shown on contemporary technical drawings (**Historical Plates 7** to **9**).

8.1.5 The recording process also revealed significant differences between standard designs for a station footbridge costing £258, reproduced here as **Figures 17a** to **17c**, and the example at Flint Station. Whereas the piers of the standard design were fabricated from functional braced iron stanchions set in cement concrete (**Figure 17a**), the piers of the Flint Station footbridge were more complex structures that rested on elegant cast iron columns (**Plates 4** and **5**). The profile of the principal elevation of the deck and parapet of the Flint station footbridge also departed from the standard 'stepped' hipped design shown in **Figure 17b**, which afforded greater

clearance from smoke and steam from locomotives. Interestingly, the latter design was used at the Castle Street crossing footbridge of 1895-99. By contrast, the deck of the Flint Station footbridge comprised a simple horizontal beam of the same design as the example at Penmaenmawr Station, also on the Chester and Holyhead line (**Historical Plates 3** and **4**).

8.1.6 Whereas the standard footbridge designs reproduced as **Figures 17a** to **17c** were resolutely utilitarian structures, the example at Flint Station possessed several distinctive decorative features. These included cast iron balusters that feature a striking wheel motif, the elegant 'turned' cast iron newel posts and the simple yet prominent finials atop the stanchions on the piers (**Plates 4** to **7**, **13** to **15**). Similarly, the three elegant wind struts wrapped around the deck of the bridge represent a functional yet decorative touch, which complements the latticework of the parapets (**Plate 16**).

8.1.7 Built heritage recording revealed little evidence of significant rebuilding or alteration. The main structure was built in a single phase and apart from the possible replacement of individual components, appeared essentially intact. Various accretions to the structure were observed, including the simple enclosure beneath the bottom flight of the southwest staircase (**Plates 3**, **16** and **19**), presumably used for storage; the brackets attached to the south elevation of the bridge to carry services across the railway (**Plates 5**, **7**, **9** and **13**); the surfaces of the bridge deck and steps (**Plates 11**, **12** and **21**) and the steel safety handrails on the staircases (**Plates 21**, **23** and **24**). It is considered that the storage space beneath the southwest staircase was added in the second half of the 20th century, while the other developments presumably date to the 1990s and early 21st century.

8.1.8 The footbridge at Flint Railway Station is one of a group of pedestrian overbridges built to similar designs on the Chester and Holyhead line by the LNWR in the late 19th century. Other examples include station footbridges at Penmaenmawr, Deganwy, and Llanfairfechan (Network Rail 2023: 13; **Historical Plates 3** to **6**). The example at Penmaenmawr Station stands a short distance to the southwest of Francis Thompson's 1840s stationmaster's house, which like the example at Flint, is Grade II listed (Cadw no. 16520). It is assumed that the footbridge at Penmaenmawr Station is also curtilage listed, like the example at Flint.

8.1.9 Interestingly, the station footbridges at Llanfairfechan and Deganwy are built to a very similar (if not identical) design as that depicted by the blueprints of the LNWR 'Standard Footbridge with Rolled Columns over Two Lines of Rails' held by The National Archives (**Historical Plate 7**). This design is also similar to that of the 1890s footbridge to the north of Flint Station at the former Castle Street crossing. The simpler footbridges at Flint and Penmaenmawr Stations therefore appear to be outliers, presumably local variants of standard designs. It is considered that these structures are of some historical interest and of local significance.

9 ACKNOWLEDGEMENTS

9.1.1 Pre-Construct Archaeology Limited is grateful to AmcoGiffen for commissioning the project on behalf of Network Rail. Thanks are also given to the staff of the North East Wales Archives (NEWA) at Hawarden and The National Archives (TNA) at Kew for their kind assistance during the research process.

9.1.2 This project was managed for Pre-Construct Archaeology Limited by Charlotte Matthews. The on-site recording work, including the 3-D laser scan and site photography was carried out by Marcus Abbott. The documentary research was undertaken by Guy Thompson and Robin Weaver. This report was written by Guy Thompson and the figures were prepared by Hayley Baxter. Sian Jones translated the Non-Technical Summary into Welsh.

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11 APPENDIX 1: OASIS FORM

OASIS Summary for preconst1-521176

OASIS ID (UID)	preconst1-521176
Project Name	Descriptive Buildings Record (Level 2) at Footbridge, Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5PG
Sitename	Footbridge, Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5PG
Sitecode	WFSF23
Project Identifier(s)	Built Heritage Recording of the Footbridge, Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5PG
Activity type	Descriptive Buildings Record (Level 2)
Planning Id	LBC/000423/23
Reason For Investigation	Planning: Post determination
Organisation Responsible for work	Pre-Construct Archaeology Ltd
Project Dates	23-Oct-2023 - 23-Oct-2023
Location	Footbridge, Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5PG NGR : SJ 24490 73177 LL : 53.25021306194241, -3.133161167631132 12 Fig : 324490,373177
Administrative Areas	Country : Wales County/Local Authority : Flintshire Local Authority District : Flintshire Parish : Flint
Project Methodology	The on-site recording was carried out on Monday 23rd October 2023 by an historic building surveyor and digital heritage and visualisation specialist. The recording process involved a full laser scan of the footbridge and a comprehensive photographic survey. The laser scan of the footbridge was undertaken using a FARO Focus laser scanner to provide a 3D model of the structure. Scaled AutoCAD elevations and a plan were produced from the resulting point cloud. These were used as a baseline survey to show the location and direction of the photographic plates. A photographic survey was undertaken to Historic England Level 2, as set out in Historic England (2016) Understanding Historic Buildings: A Guide to Good Recording Practice. High resolution digital photographs were taken of the elevations, structural detail, and fixtures or fittings. The photographic record was accompanied by a photographic register detailing (as a minimum) location and direction of shot. A photographic scale was used in photographs where it was considered practicable.
Project Results	
Keywords	Railway Bridge - FISH Thesaurus of Monument Types Railway Bridge - FISH Thesaurus of Monument Types
Funder	Railway company Network Rail
HER	
Person Responsible for work	Charlotte Matthews
HER Identifiers	

12 APPENDIX 2: LISTING DESCRIPTION

Entry Name: Flint Railway Station

Listing Date: 18 July 1990

Last Amended: 11 September 1995

Grade: II

Source: Cadw

Source ID: 581

History

Built soon after 1845 when work commenced on the Chester and Holyhead Railway engineered by Robert Stephenson. Station and other buildings designed by Francis Thompson, architect for the line.

Exterior

Late classical, symmetrical design of 2 storeys with offices, staff and passenger facilities to ground floor, and station masters accommodation above. Five bay entrance facade of brick construction with Penmon stone dressings, all painted and rendered; outer wings flank entrance. Hipped slate roofs, tall brick stacks with heavy classical stone cornices, wide eaves; moulded cornice over ground floor. Widely spaced upper windows with heavy architraves, consoled cornices and sill brackets pushed under eaves; sashes (mainly) with original glazing bars including unusual pairing of centre bars. Armorial panel with ovoid cartouche and volutes to centre over plain canopy with ironwork brackets to entrance. Similar window treatment to ground floor, lugged margins, sunk panels to cornices and original sash glazing except to right hand wing. Low single window and slated extension with tall brick stack to left end.

Interior

5 window platform facade with similar detailing to entrance front. Original glazing and central canopy on brackets between low one-window wings to L and R.

Reasons for Listing

The first of Francis Thompson’s 1840s station buildings out of Chester retaining most of its original character.

Group value with engine shed.

13 APPENDIX 3: DATA MANAGEMENT PLAN

Data Management Plan

Section A: Project Information			
Site Code:	WFSF23	**Proposed Deposition Date:**	11/12/2023
Site Full Location	the Footbridge, Flint Railway Station, Market Square, Flint, Flintshire, Wales CH6 5PG		
OASIS ID:	preconst1-	**K-Code:**	K8621
Museum Acc. #	N/A	**NGR #**	SJ 24562 73115
Planning Ref #:	LBC/000423/23	**Planning Authority**	Flintshire County Council
DMP Written	1/12/2023	**Version:**	1.0
Project Manager/Primary Contact:	Charlotte Matthews 01962 857 335	**Project Type:**	HBR
Client:	AmcoGiffen	**Site Supervisor:**	Guy Thompson
Data Sharing Agreement in Place?	N/A		
Data Management Responsibility	Pre-Construct Archaeology Limited	**Who will take possession of the generated data at the end of the project**	HEDDOS/RCAHMW

Section B: Estimated Volume of Data			
File types generated as part of the project archive by PCA:			
Data Type	**Format**	**Estimated Volume (in MB or GB**	**Details/Comment**
Spreadsheets	Excel (.xlsx), .csv	**22MB**	
Database	Access (.accdb)	**N/A**	
Text/Documents	.pdf, Word (.docx)	**100MB**	
Images	.jpeg, DNG	**3.5GB**	
Graphics	.dwg,	**8.5MB**	
GIS/Survey/3D	.shp ..e57	**50GB**	
Will existing or external data be utilised?			YES
If yes, list type of data and source: OS Survey Data and DWG from client			
Data Type	**Format**	**Estimated Volume**	**Source**	**Details/Comment**
Images	.jpeg, .png, .DNG	N/A		
Graphics	.dwg,	100MB	**Client/OS**	

Text/Documents	.pdf, Word (.docx)	N/A		

Section C.: Data Acquisition, Processing, and Analysis

What methods and data standards will be undertaken?

Field data will be collected through digital and analogue means as set out within the project design. All data that will be collected will aim to work to best practice guidelines as outlined by CIFA, ADS, HEDDOS, and RCAHMW whenever possible and will be updated as the project progresses, or as guidance is modified.

What file naming/structure is in place and how will version control be maintained? Display example below.

Example file name: PCA_ECB6240_BRADLEY ROAD_EVAL_MH_rev1
Key: PCA (Organisational identifier) ECB6240 (site code) BRADLEY ROAD (Site name) EVAL (report type) MH (author identifier) rev1 (version control identifier)

The project archive will be stored in a project specific folder, with sub folders being utilised to further sub-classify data as appropriate (e.g. databases, photos, reports, etc.).

What Quality Assurances of the data are in place?

All digital instruments used to capture data on site and during post-ex (e.g. cameras, GPS/RTK units, etc.) will be appropriately calibrated and checked to be in full working order prior to fieldwork and subsequent analysis to ensure accurate data capture. Site records and data will be reviewed during project delivery to guarantee all digital data is both secure and correct.

Section D: Documentation and Metadata:

How can the data be read?

Data collected during the course of the project will include standard formats as listed within section B.

What documentation and metadata will be provided when the data is archived?

A catalogue of the digital archive and the supporting metadata will be provided to the digital repository

Section E: Ethics and Legal Compliance:

How can the identity of individuals be protected if required

Personal data will be removed from the digital archive prior to deposition, and permission to include personal data will be gained during the project if required.

Is the data GDPR 2018 compliant?

All digital archive data is compliant with GDPR as outlined within PCA's GDPR policy.

Who owns the data generated during the course of this project?

Copyright for all data generated or collected by the project team belongs to PCA. However, if external data is utilised, formal permission or licences will be obtained prior to use, and correct citation given during reporting and when archived. Any licences agreed with external parties will be included within the project archive.

Section F: Storage and Backup:
Is sufficient storage in place?
All project data will be held on a server based at our regional office. The server has sufficient space to hold all data generated during the project.
What backups are in place?
Project data will be stored on a companywide intranet and on servers located at our regional office.
What data security is in place?
All project data is restricted by permission-based access and multi factor authentication. The only exception to this is when external finds or data specialists are consulted, with only files pertinent to their role are shared directly.

Section G: Selection and Preservation:	
Which data will be selected for inclusion within the project archive?	
Selection of data that will be included within the project archive will be informed by the WSI, Project Brief, research aims, and specialist recommendations. All data selected for preservation will be logically named, identified, and structured, and will adhere to the formats listed in section B. Any deselected data will be deleted after deposition with the RCAHMW or relevant archival repository.	
What is the long-term preservation plan for the project dataset?	
The digital archive will be deposited with the RCAHMW and HEDDOS	
If this is a larger project, has the ADS been contacted regarding accession of the project dataset?	N/A
Has the Museum or depository been contacted regarding accession of the project dataset?	YES

Section H: Data Dissemination:
How will the dataset or parts of it be shared?
The final project report will be uploaded to the HER via HEDDOS and subsequently released onto ADS's report library. Additionally, the report will be published either through a full publication, or as a note in the regional archaeological journal. After deposition of the digital archive, the RCAHMW and relevant depository are able to share the data under licence.

Section I: Responsibilities:		
Who will manage the data?		
The project manager will be responsible for implementing the data management plan and its security.		
Roles and Responsibilities:		
Action	**Responsible Person(s)**	**Details/Comment**
Field Data	Field team	Including initial storage and backup
Data Analysis and Interpretation	Site Supervisor/Project Manager	
Data Archiving	Archives Officer	
Data Dissemination	Project Manager/Archives Officer	Archives officer will be responsible for uploading report onto OASIS/Relevant organisation.
GDPR Compliance	Project Manager/Archives Officer/ IT Specialist	
General Data backup	IT Specialist/Archives Officer	

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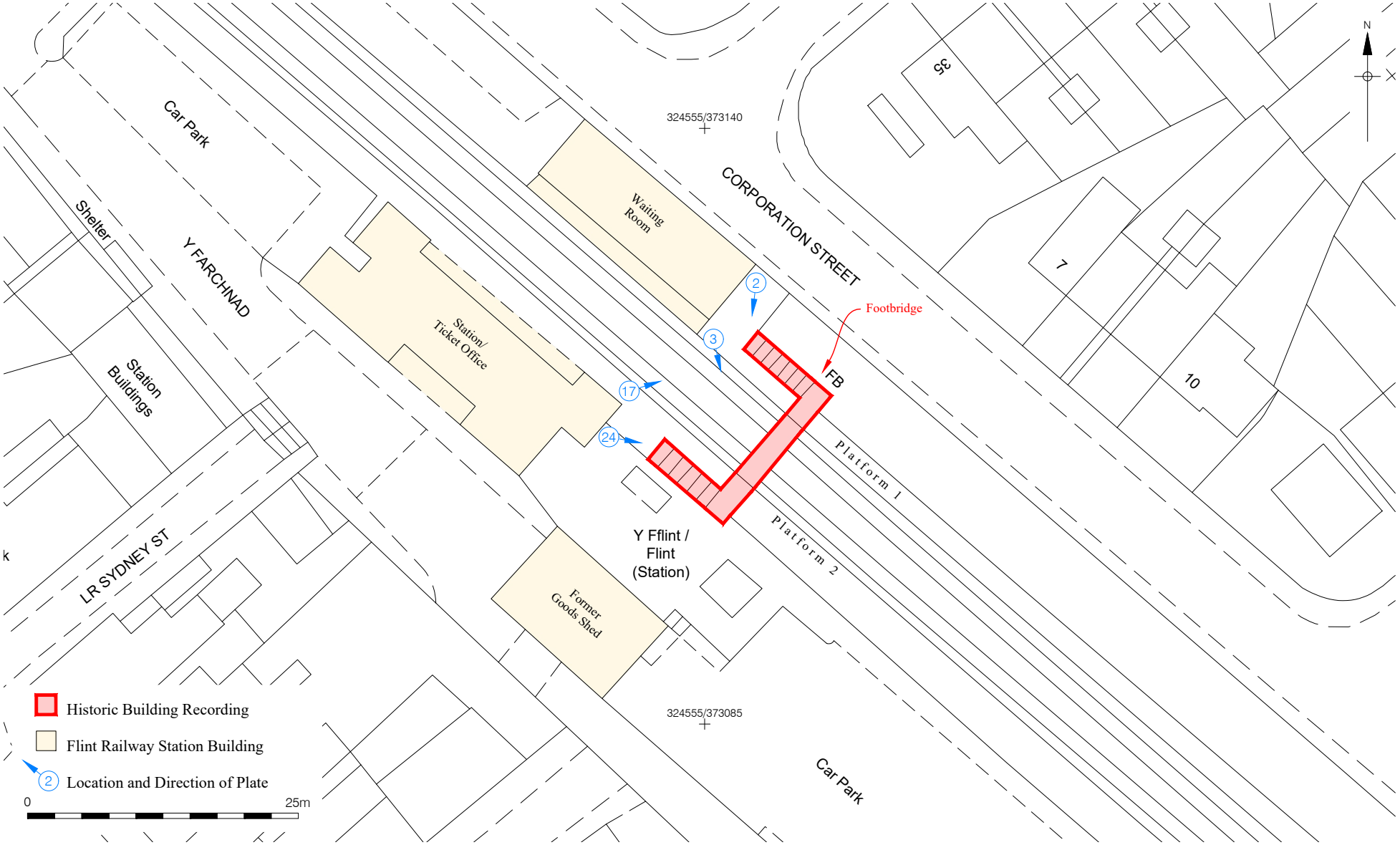
Figure 1
Site Location
1:2,000,000, 1:250,000, 1:12,500 at A4

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 02_Detailed Site Location.dwg



30/11/2023 MR/HB

Figure 2
Detailed Site Location
1:500 at A4

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 03_1840.dwg

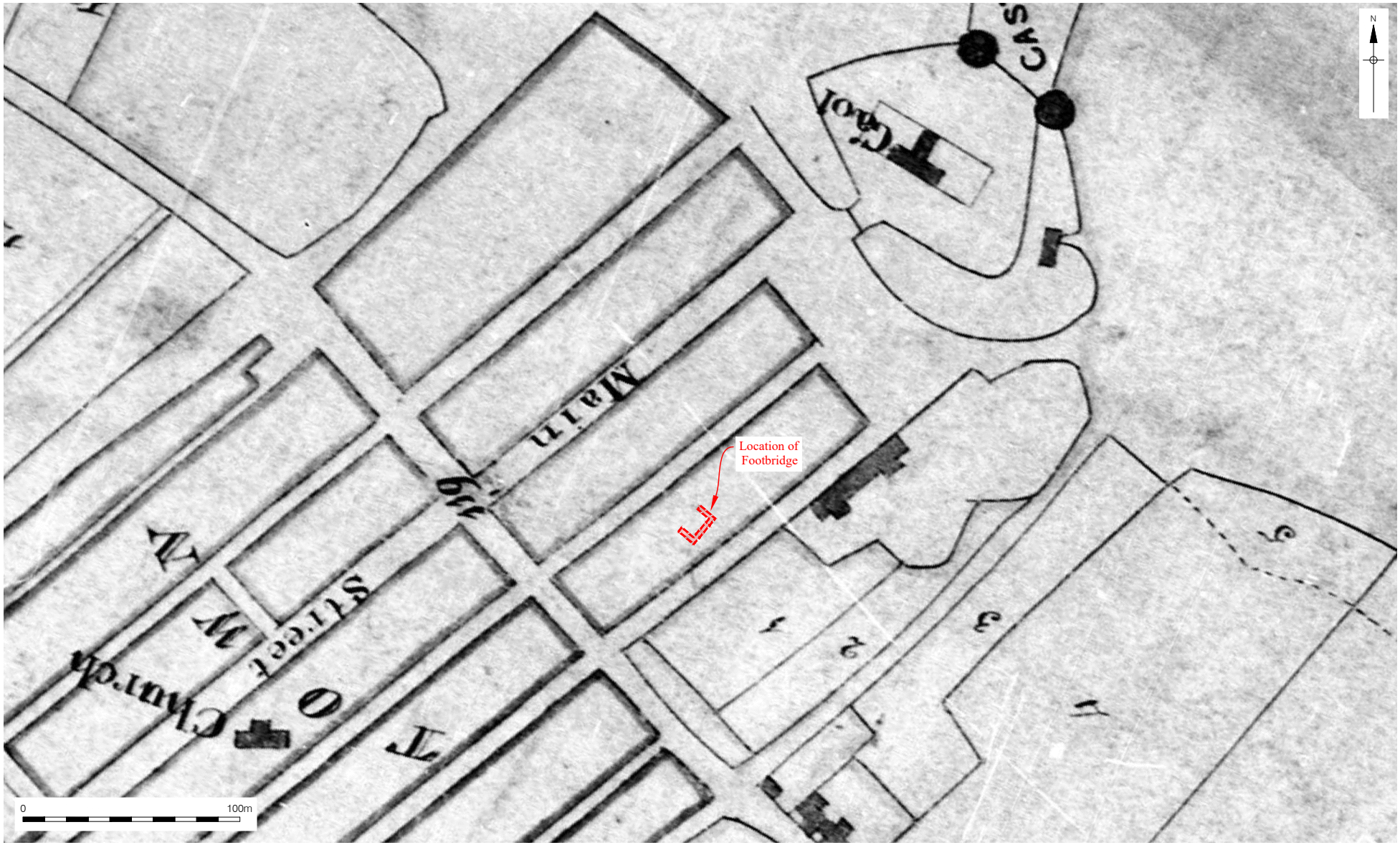


Figure 3
Tithe Map of Flint, 1840
1:2,500 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 04_1843.dwg

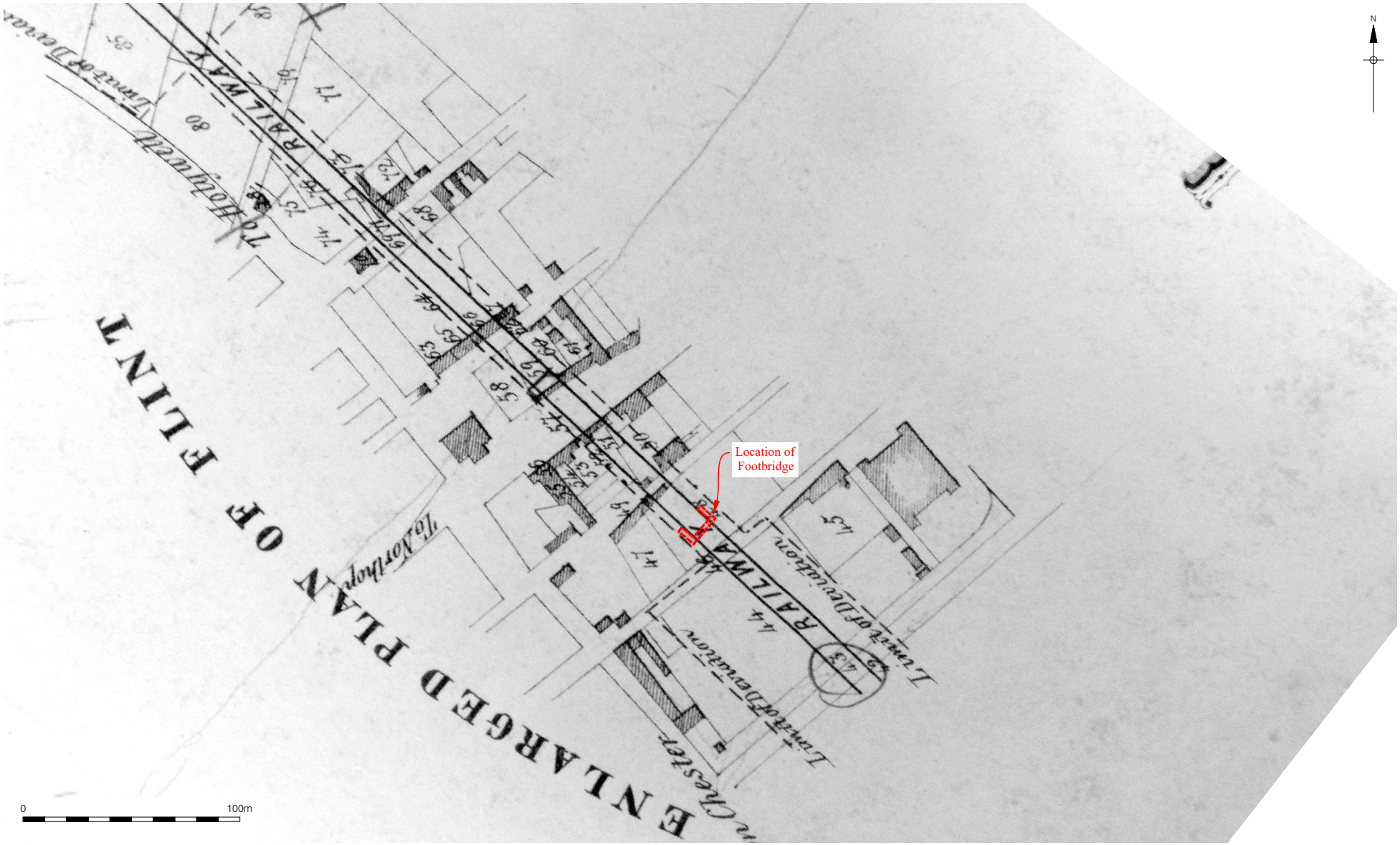


Figure 4
Deposited plan of the Chester & Holyhead Railway, 1843
© TNA (RAIL/1071/6)
1:2,500 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 05_1853.dwg

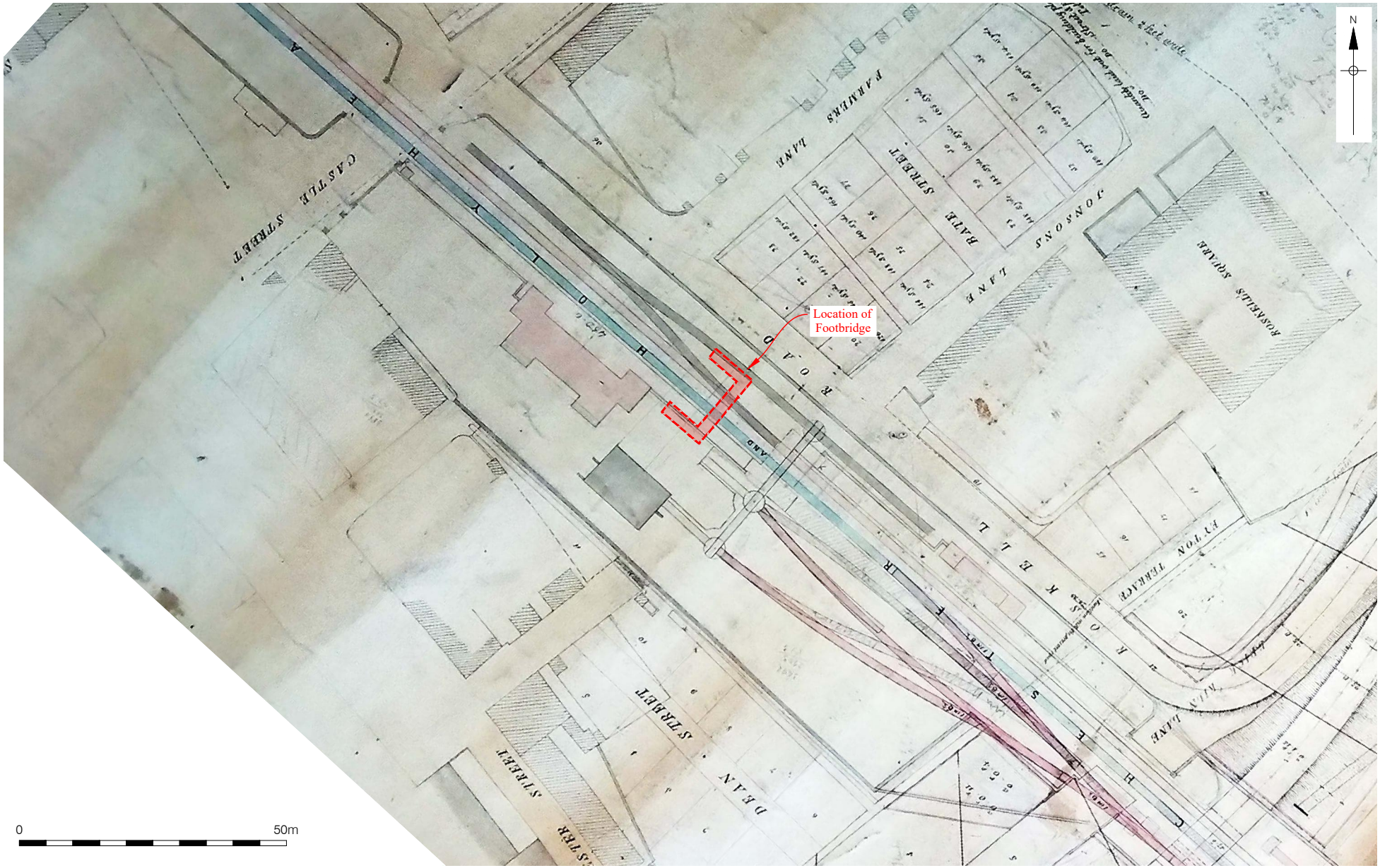


Figure 5
Plan of Flint Station, 1853
© NEWA (D/DM/1460/2/82)
1:1,000 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 06a_1871-72.dwg

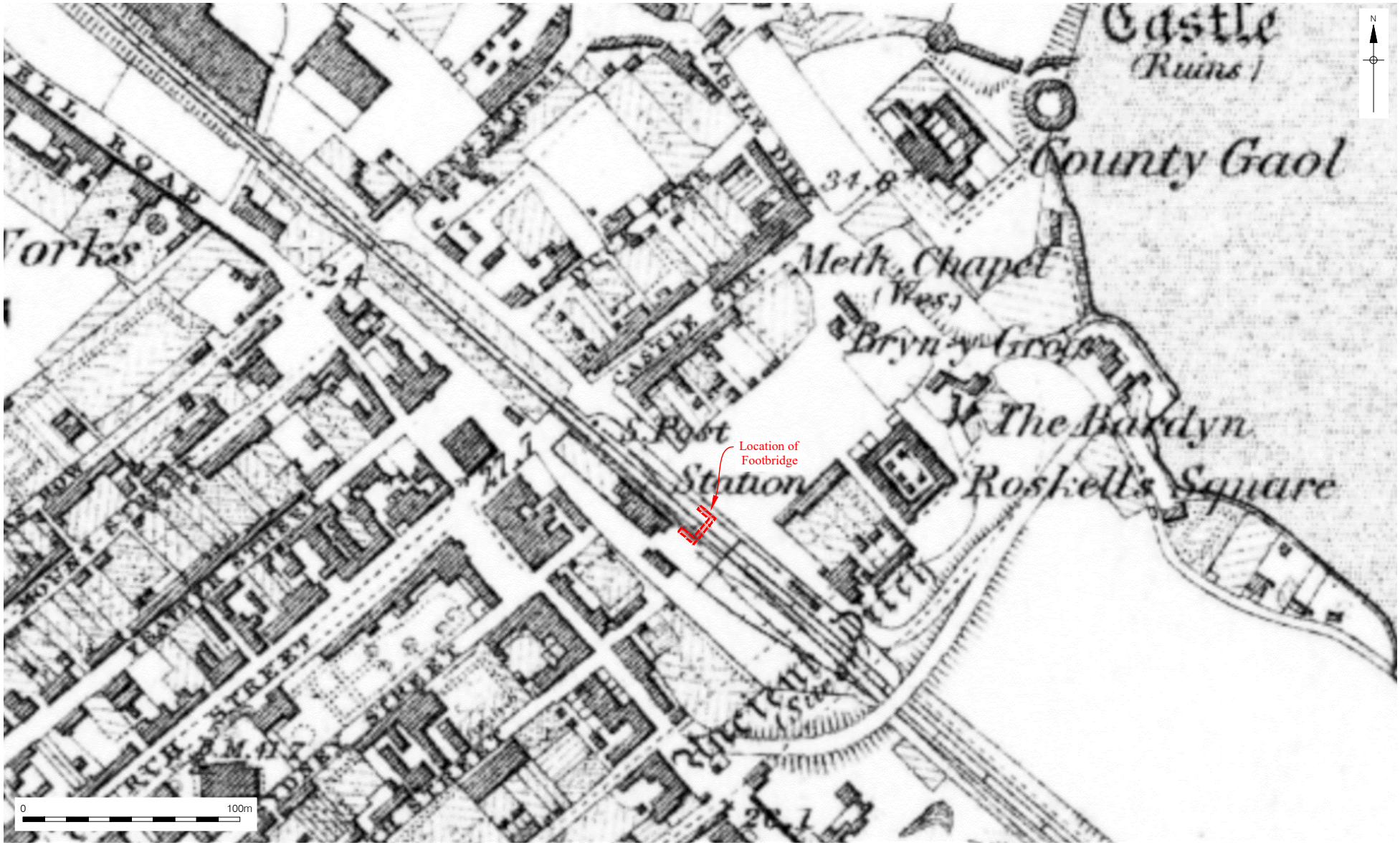


Figure 6a
Ordnance Survey (6 inch), Surveyed 1870 to 71: Published 1880
1:2,500 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 06b_1871-74.dwg

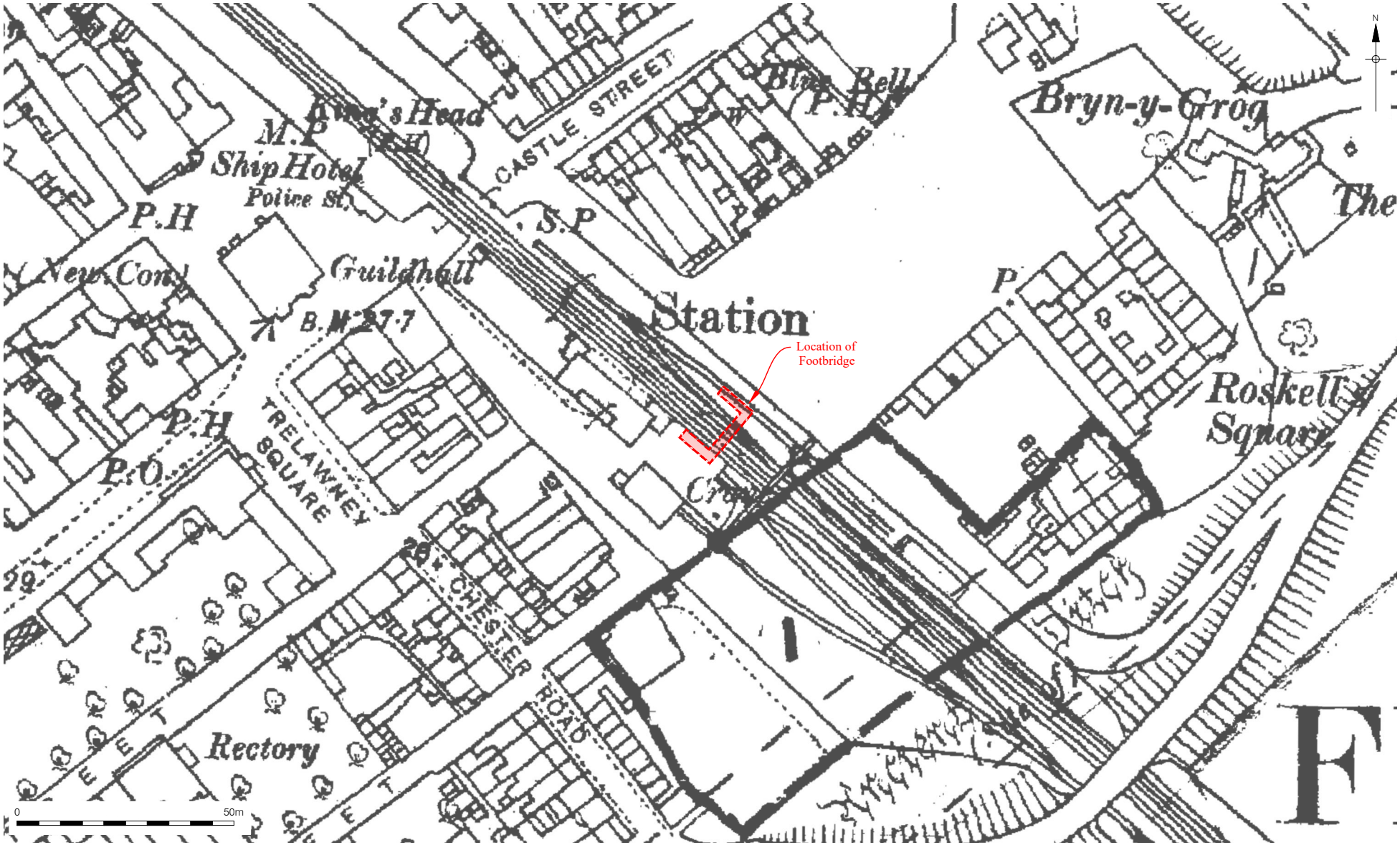


Figure 6b
Ordnance Survey (25 inch), 1871-74
1:1,250 at A4

30/11/2023 HB

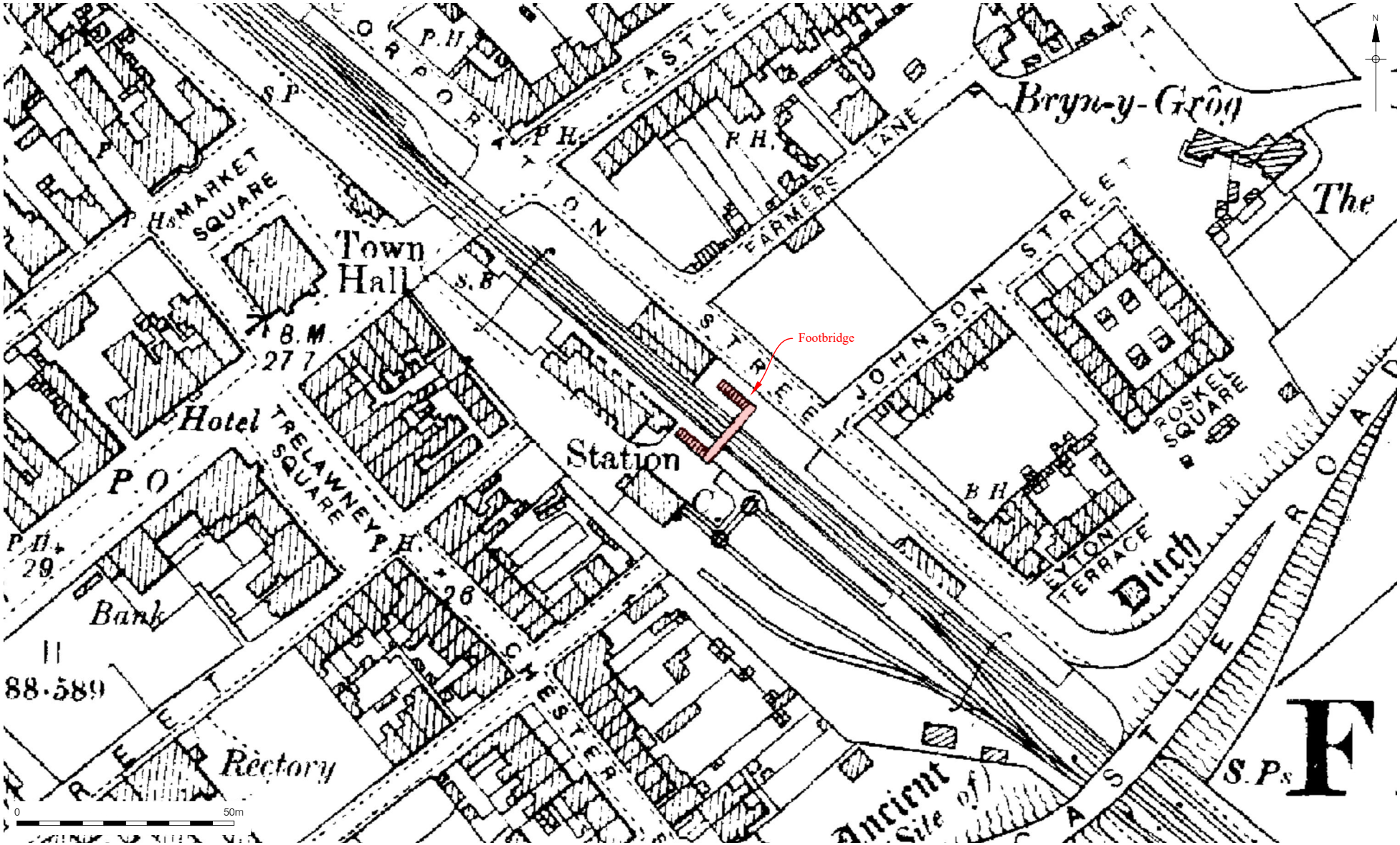


Figure 7
Ordnance Survey (25 inch), 1899
1:1,250 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 08_1900.dwg

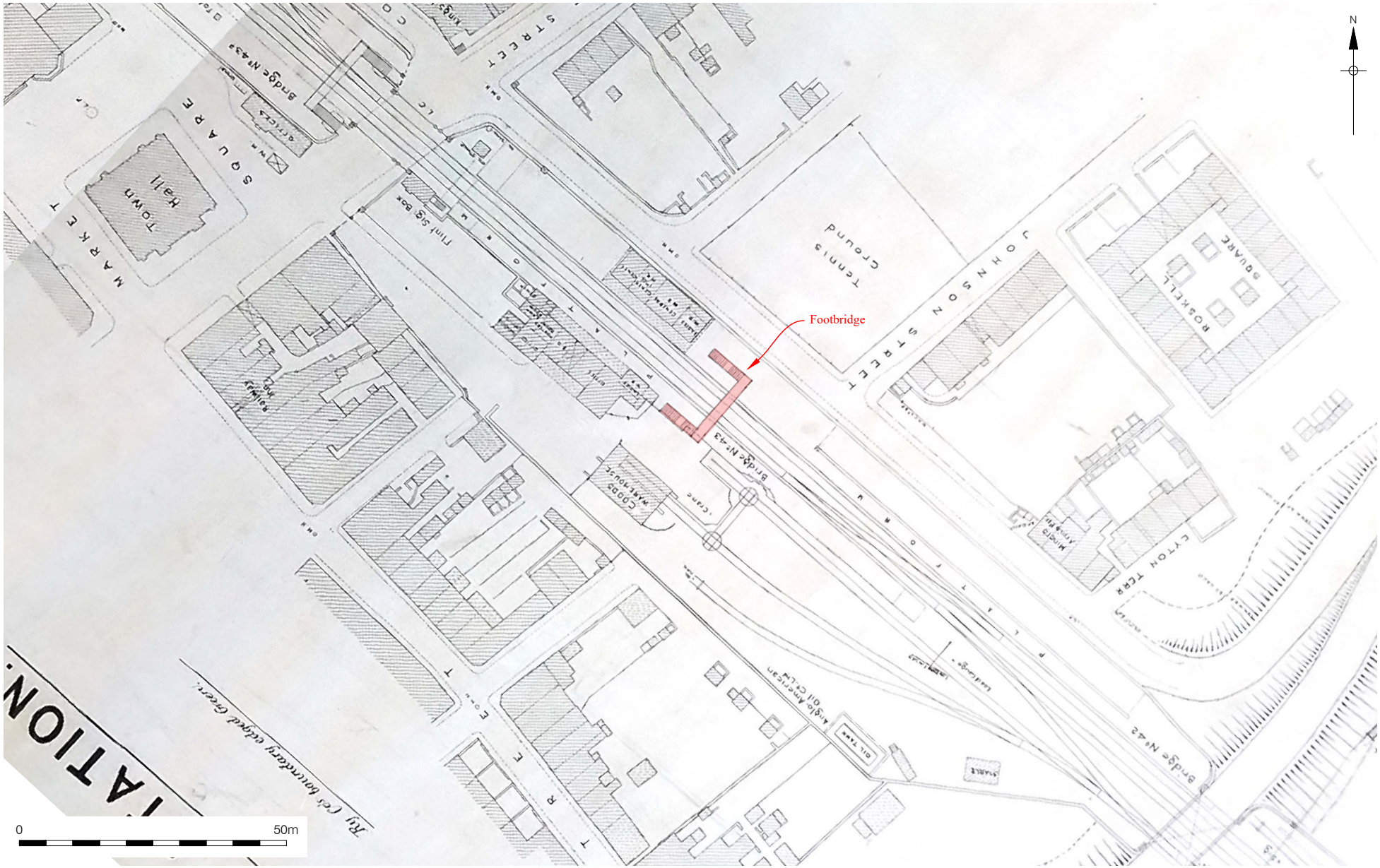


Figure 8
Plan of Flint Station, 1900
© NEWA (D/DM/1460/2/87)
1:1,000 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 09_1904.dwg

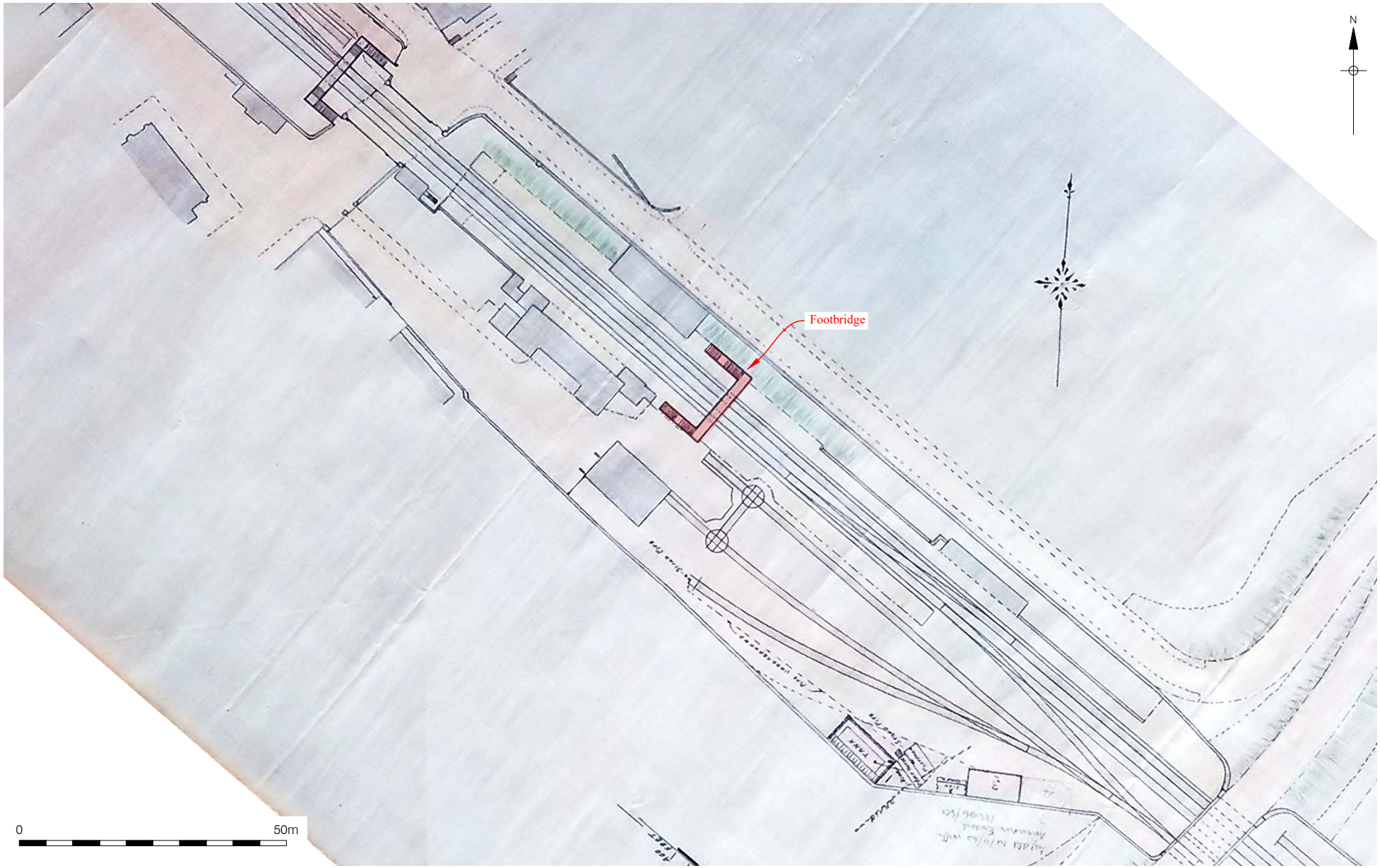


Figure 9
Plan of Flint Station, 1904
© NEWA (D/DM/274/14)
1:1,000 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 10_1905.dwg

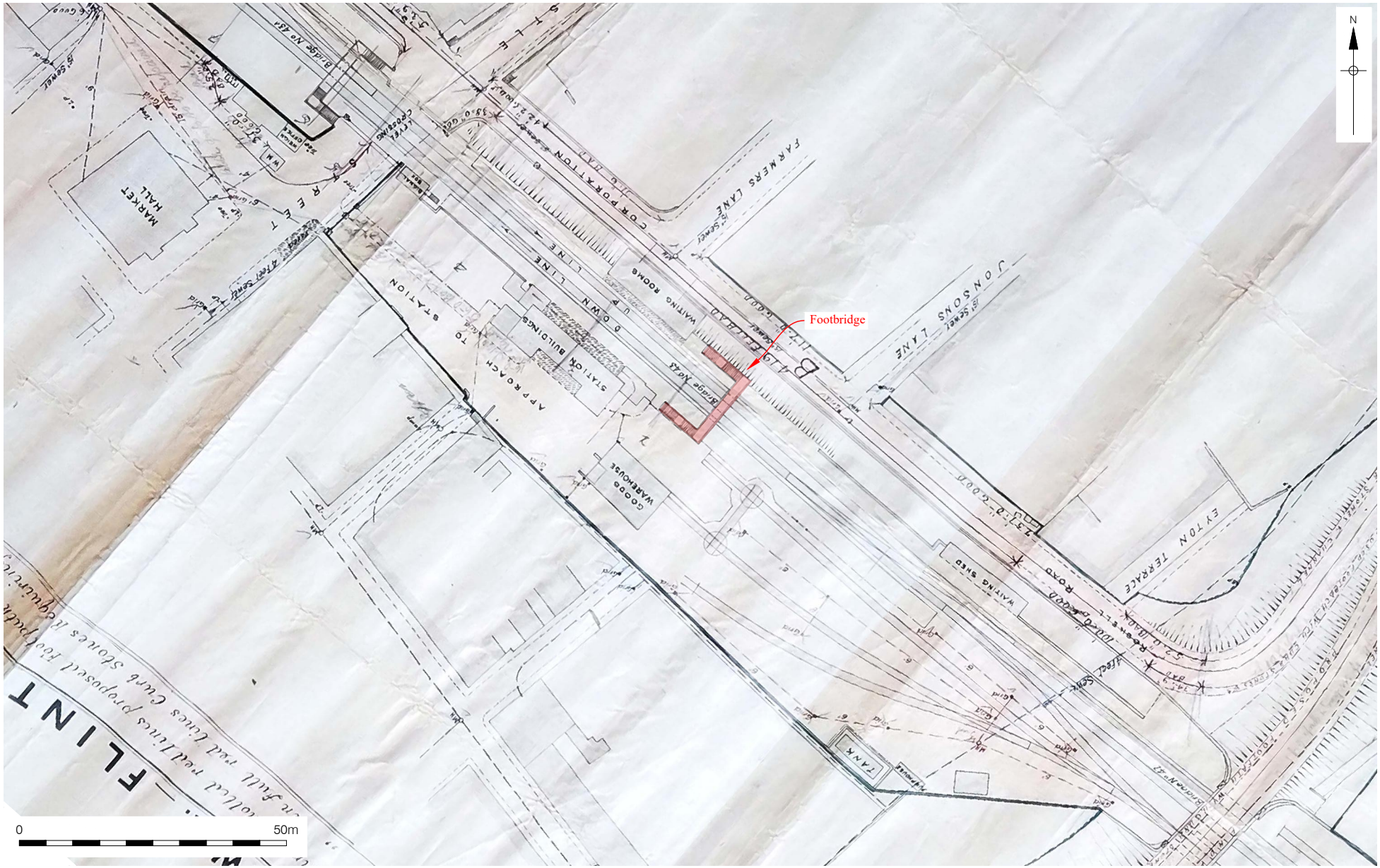


Figure 10
Plan of Flint Station, 1905
© NEWA (D/DM/1460/2/83)
1:1,000 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 11_1900-1911.dwg

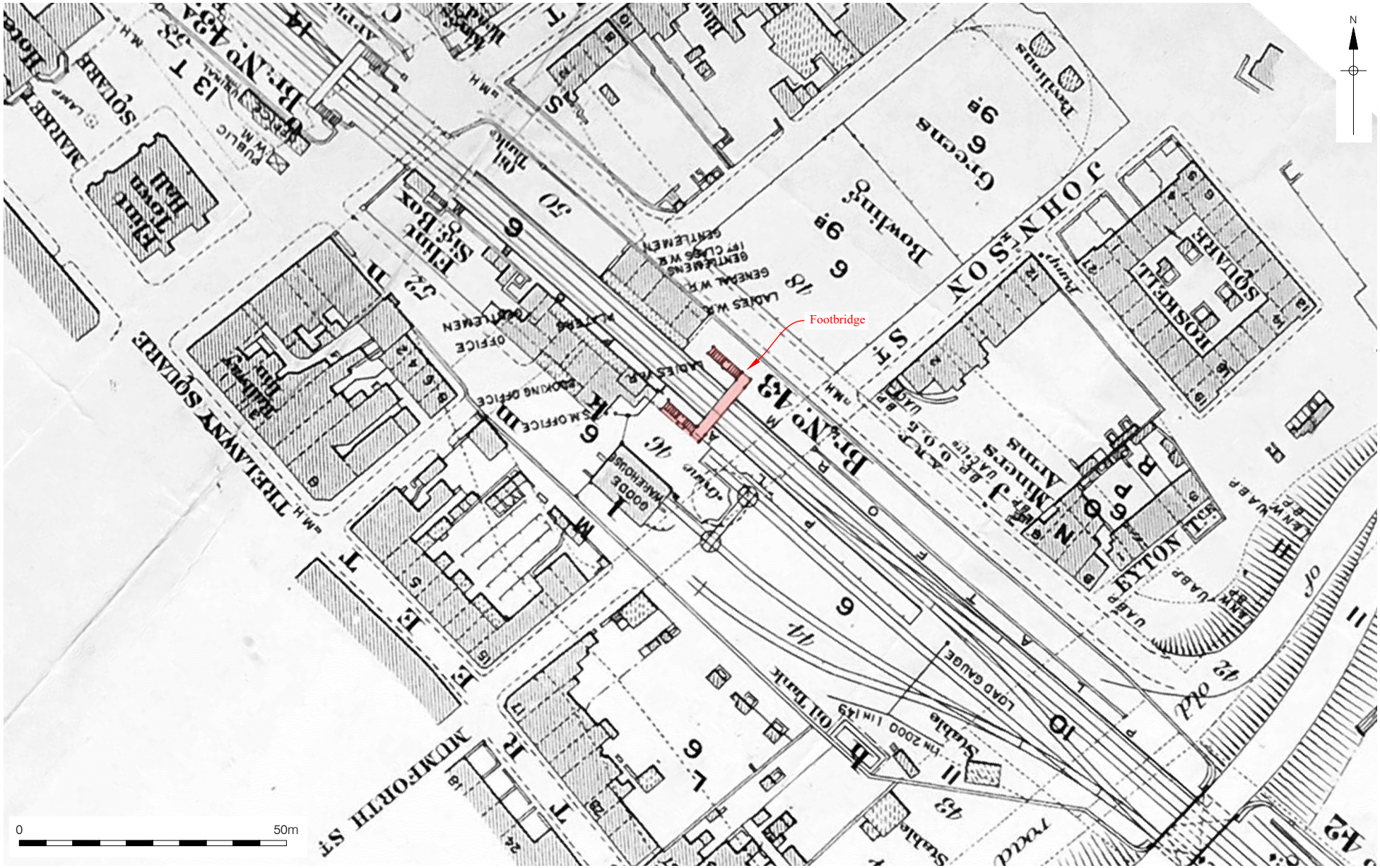


Figure 11
Plan of Flint Station, c.1900 (more likely c.1900-1910)
© NEWA (D/RD/39)
1:1,000 at A4

30/11/2023 HB

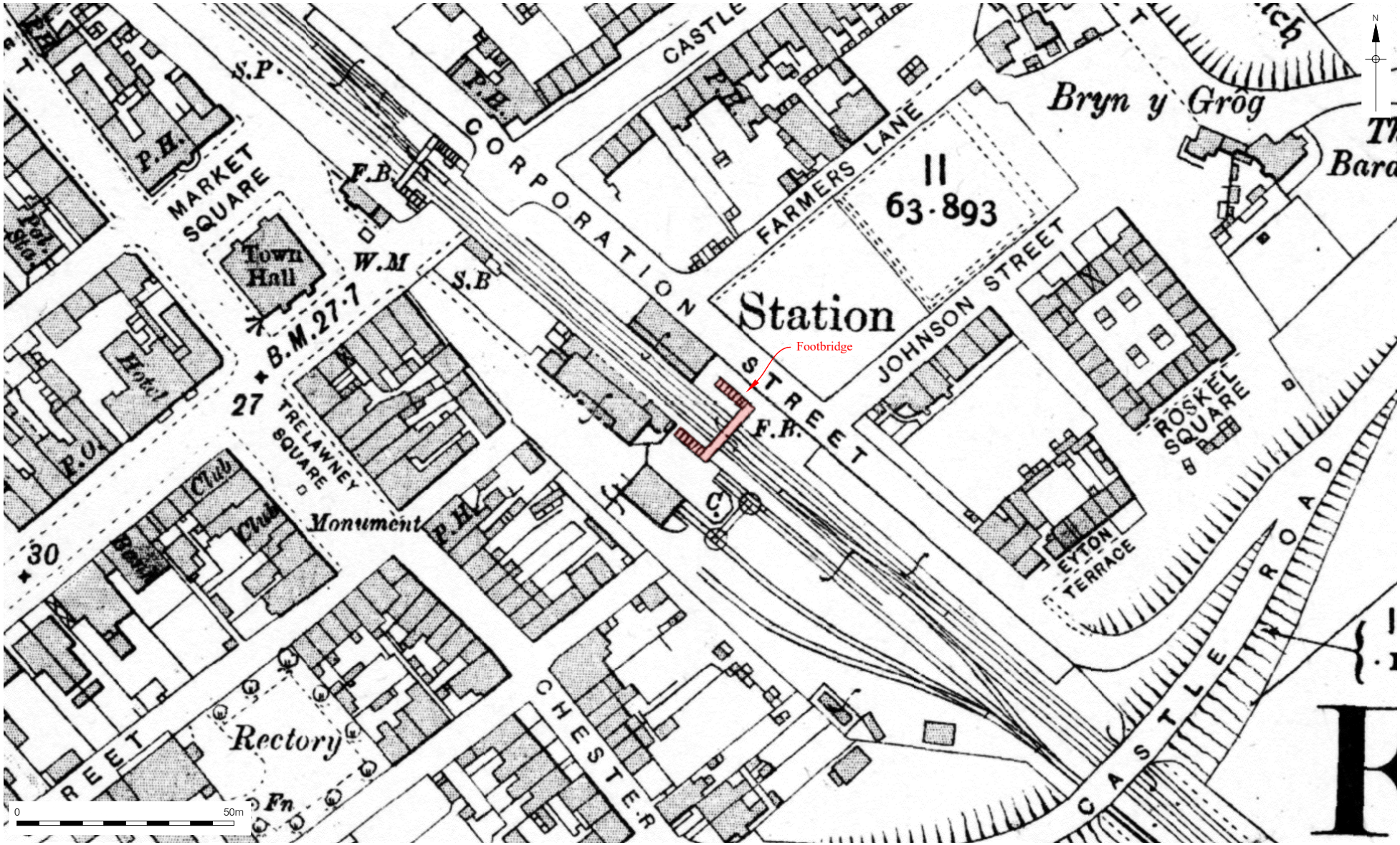


Figure 12
Ordnance Survey (25 inch), 1912
1:1,250 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 13_1948.dwg

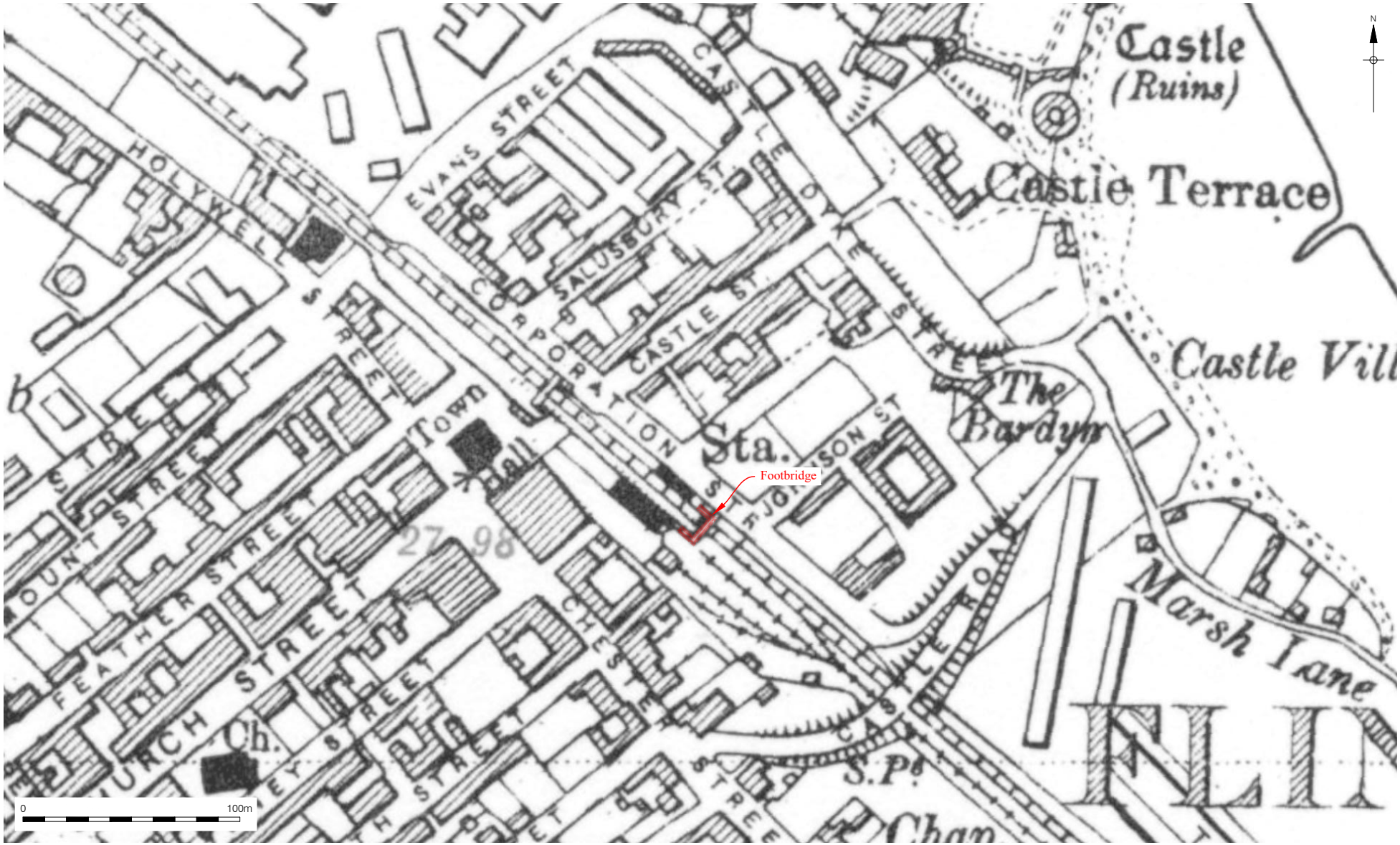


Figure 13
Ordnance Survey (6 inch), Revised 1938: Published c.1948
1:2,500 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 14_1954.dwg

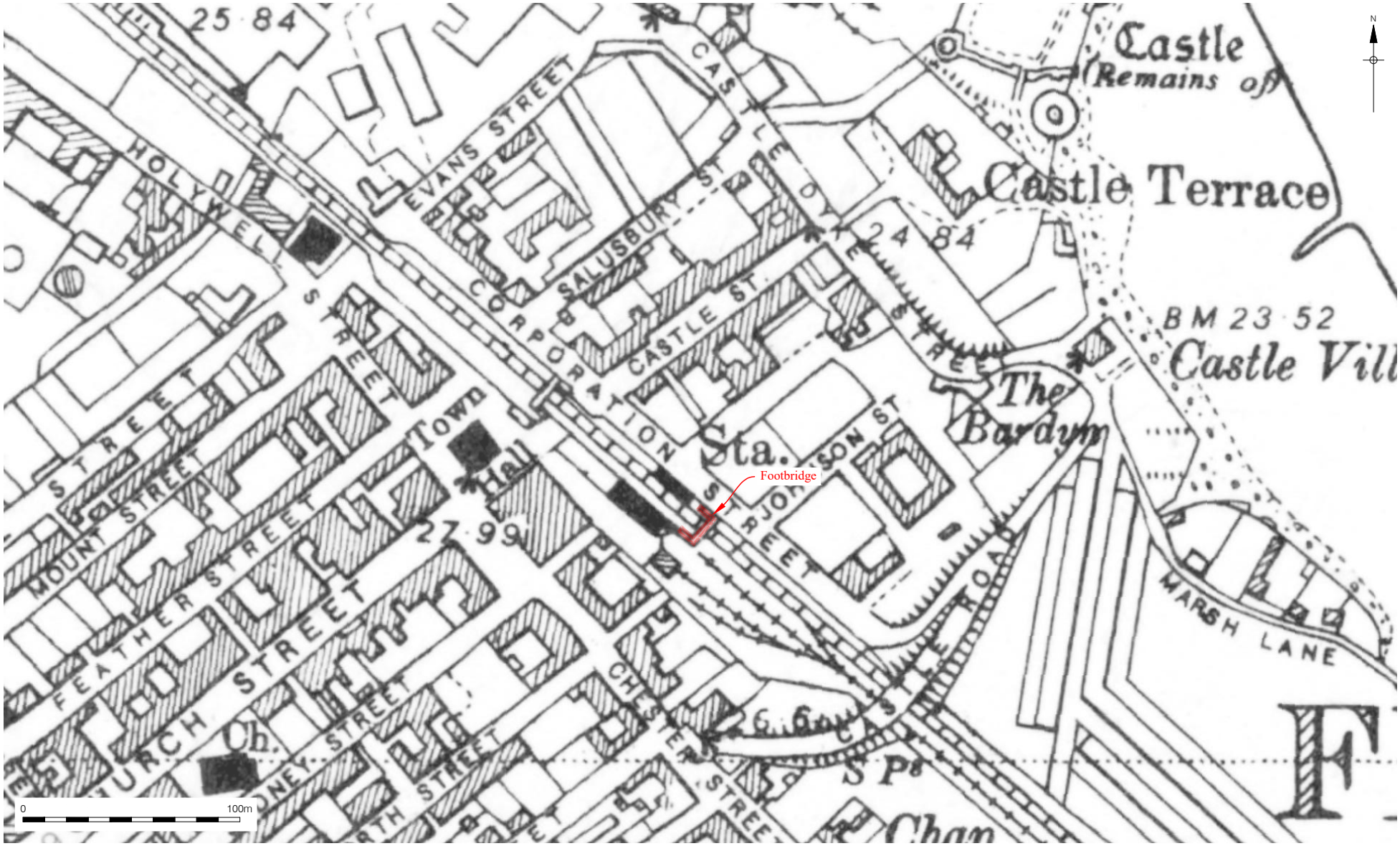


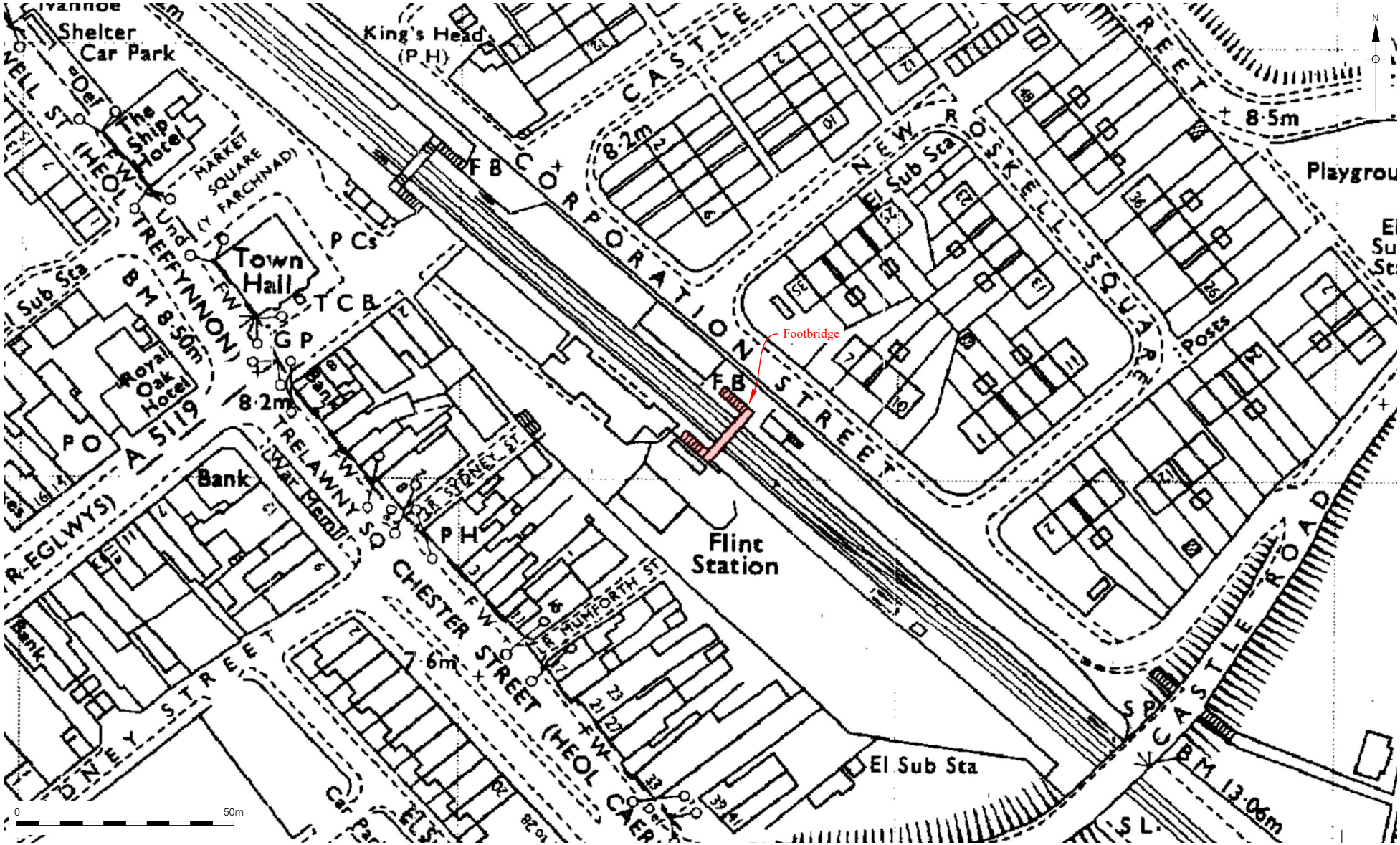
Figure 14
Ordnance Survey (6 inch), Revised 1938 to1948: Published 1954
1:2,500 at A4

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 15_1963.dwg

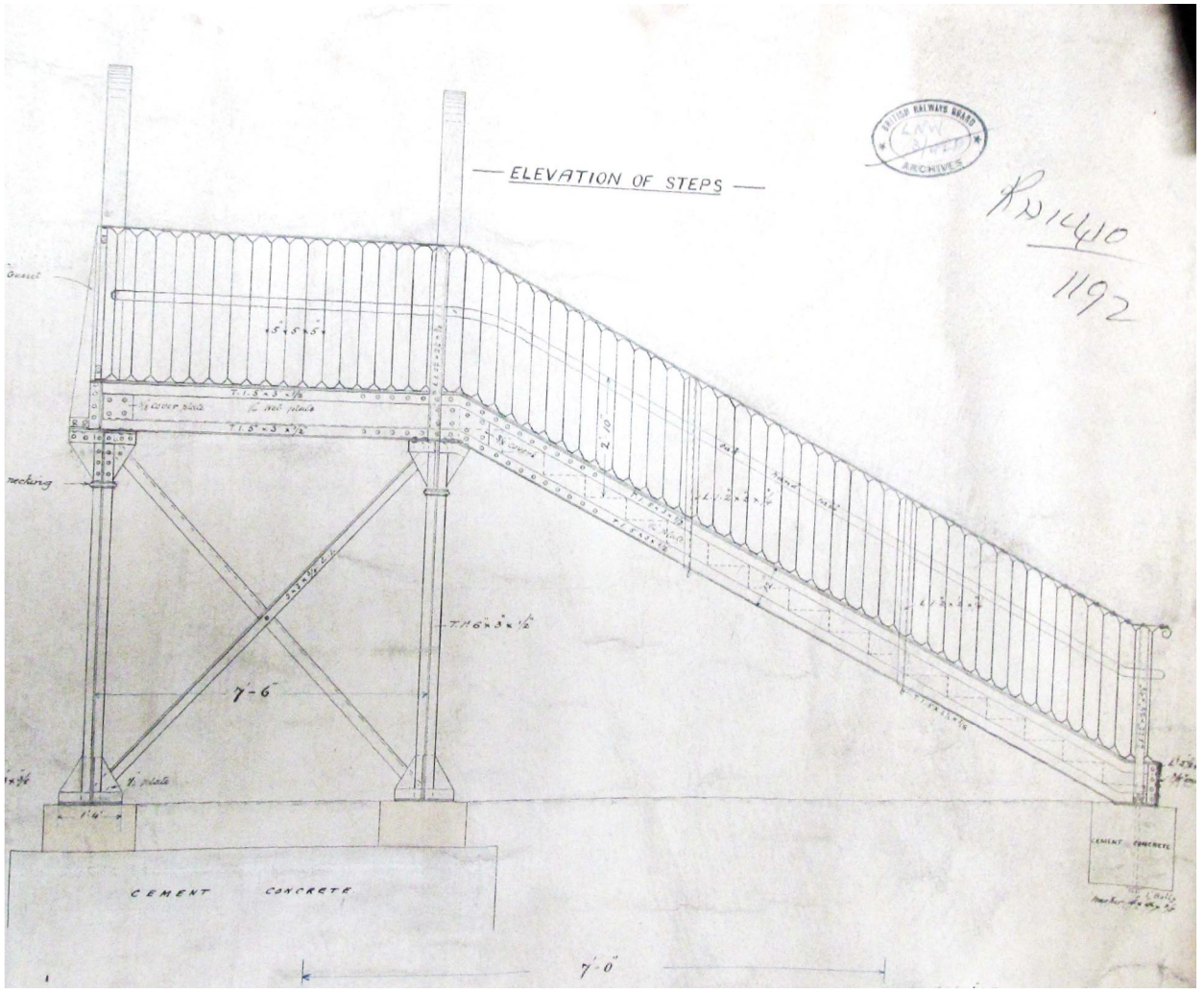
Figure 15
Ordnance Survey (6 inch), Revised Pre-1930 to 1962: Published 1963
1:2,500 at A4

30/11/2023 HB



30/11/2023 HB

Figure 16
Ordnance Survey (25 inch), 1967-72
1:1,250 at A4

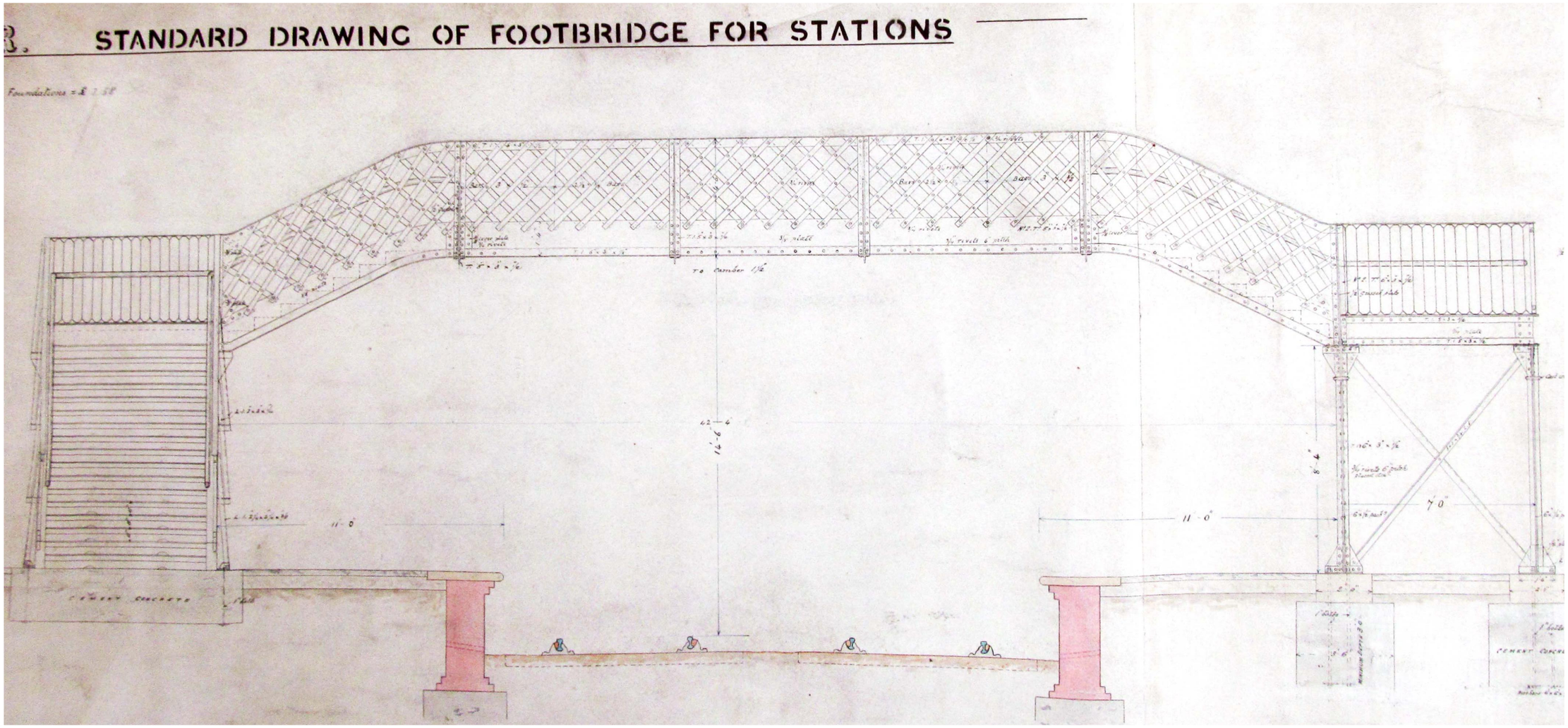


0 2 6 Feet
0 1 2 Metres

Figure 17a
LNWR Standard Drawing of Footbridge: elevation of steps, 1882-96
© TNA (RAIL 410/1192)
1:50 at A4

30/11/2023 HB

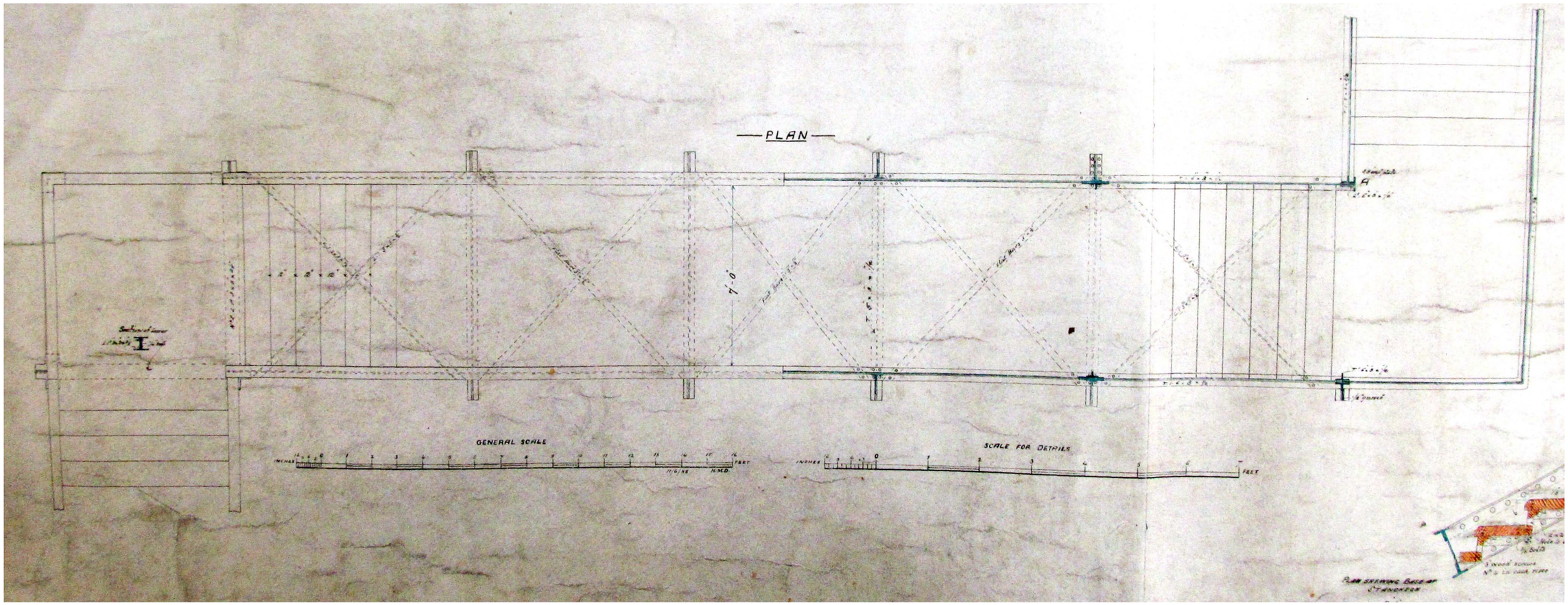
P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 17_plan and elevations 1882-96.dwg



0 2 6 Feet
0 1 2 Metres

Figure 17b
LNWR Standard Drawing of Footbridge: principal elevation, 1882-96
© TNA (RAIL 410/1192)
1:50 at A3

30/11/2023 HB

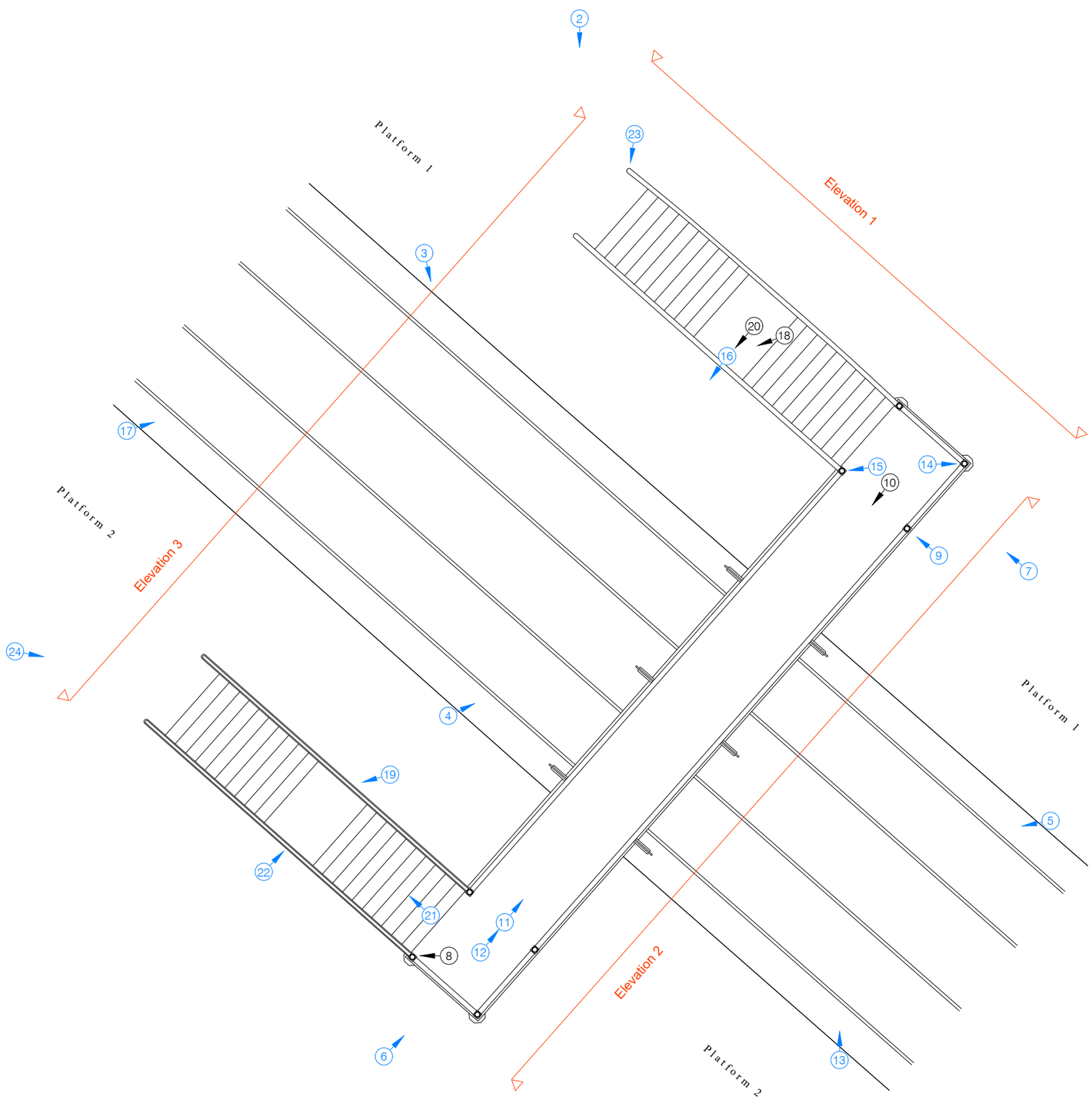


0 2 6 Feet
0 1 2 Metres

Figure 17c
LNWR Standard Drawing of Footbridge: plan, 1882-96
© TNA (RAIL 410/1192)
1:50 at A3

30/11/2023 HB

P:\PROJECT DATA\Out of London\Wales\Flint Railway Station Footbridge\CAD\HBR\Fig 18a & 18b_Survey plan and elevations.dwg



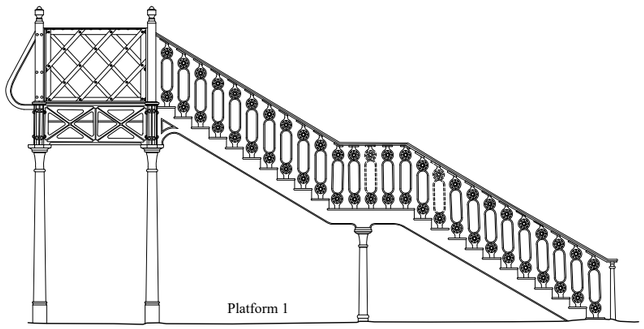
2 Location and Direction of Plate

8 Location and Direction of Plate (below footbridge)

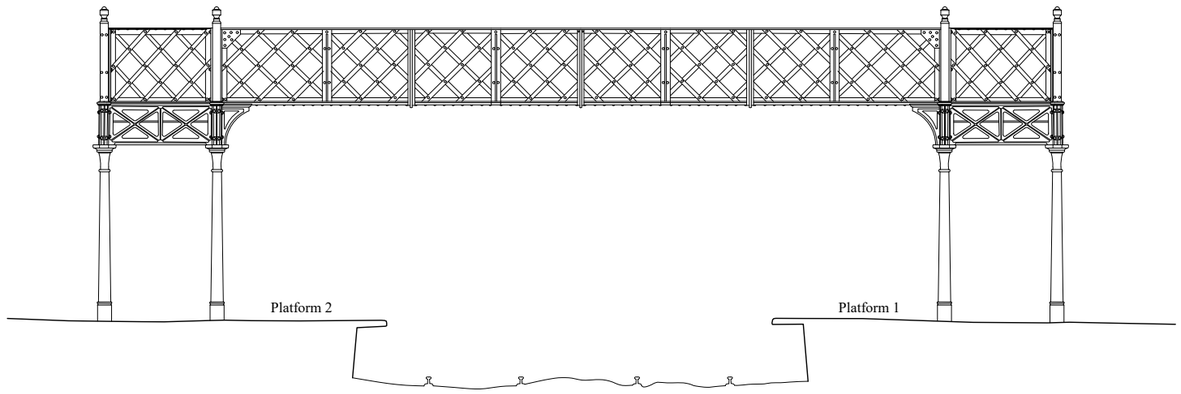
0 4 12 Feet
0 2 4 Metres

30/11/2023 MR/HB

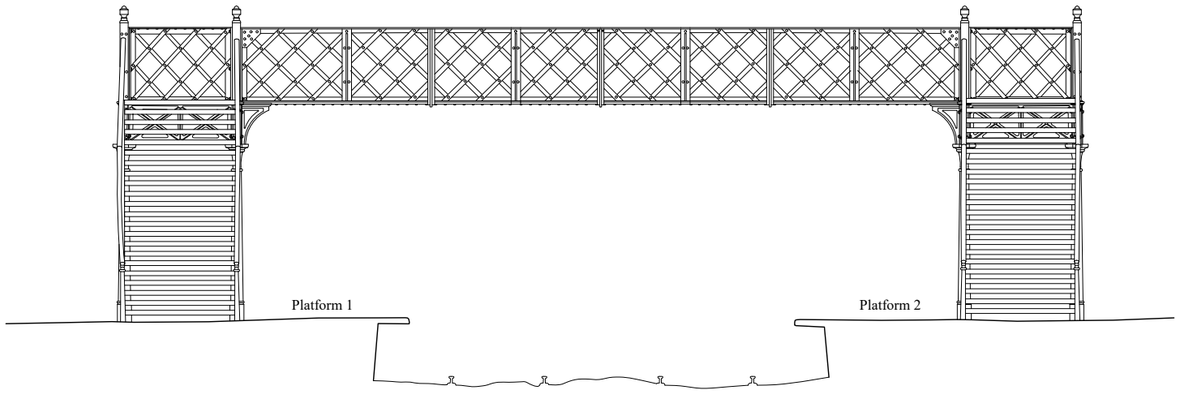
Figure 18a
Plan of Flint Station Footbridge, 2023
1:100 at A3



Elevation 1
Looking South West



Elevation 2
Looking North West



Elevation 3
Looking South East

0 4 12 Feet
0 2 4 Metres

30/11/2023 MR/HB

Figure 18b
Elevations of Flint Station Footbridge, 2023
1:100 at A3

HISTORICAL PLATES

Historical Plate 1: Flint Station in the 1970s, looking southeast towards the station buildings and footbridge. Platform 1 is on the left and Platform 2 is on the right (from Baughan 1972)

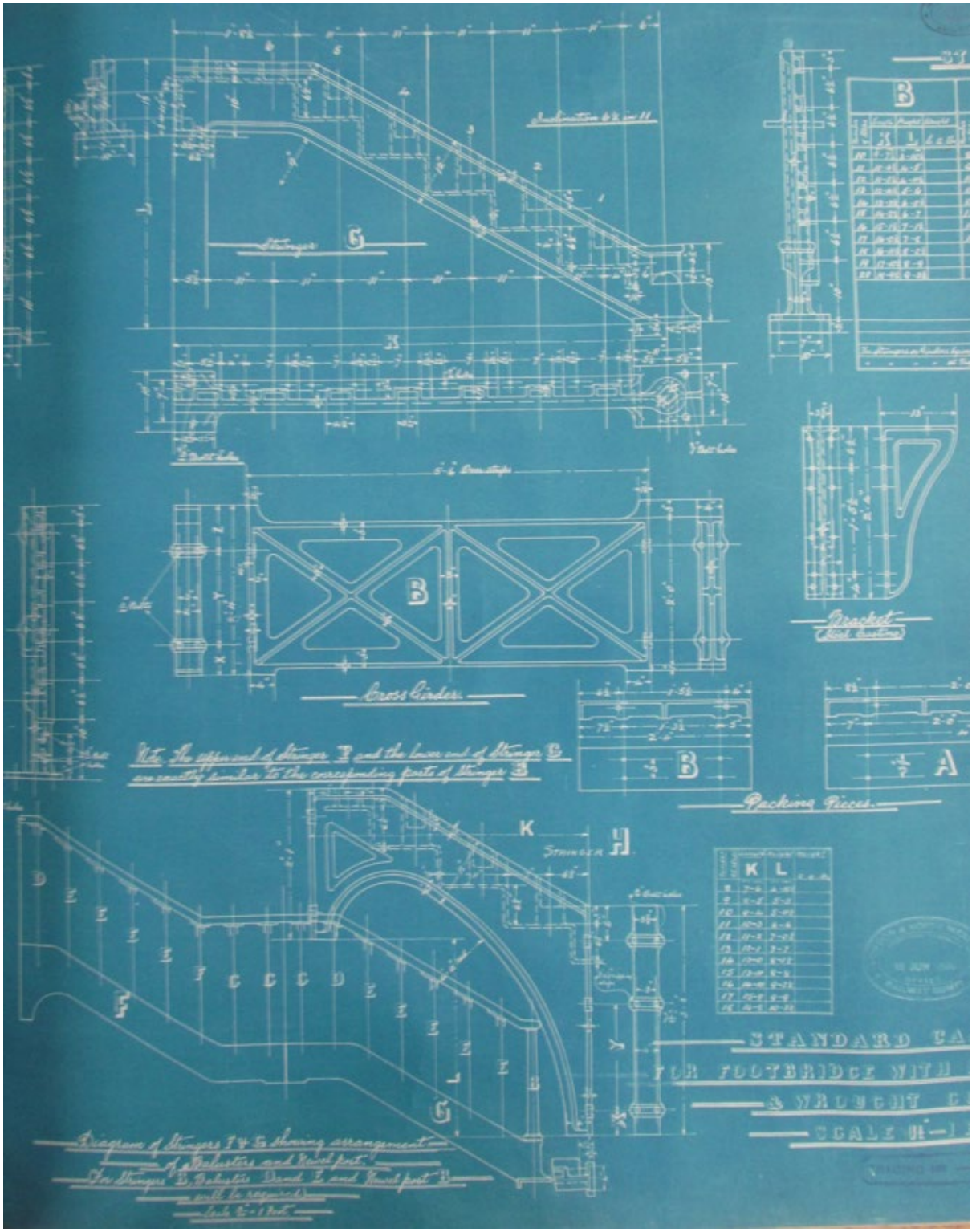
Historical Plate 2: Flint Station in 2019, looking northwest towards the footbridge. Platform 2 is on the left and Platform 1 is on the right (from Lloyd 2021)

Historical Plate 3: Penmaenmawr Station, looking west past the stationmaster's house towards the footbridge, 1970 (from Baughan 1972)

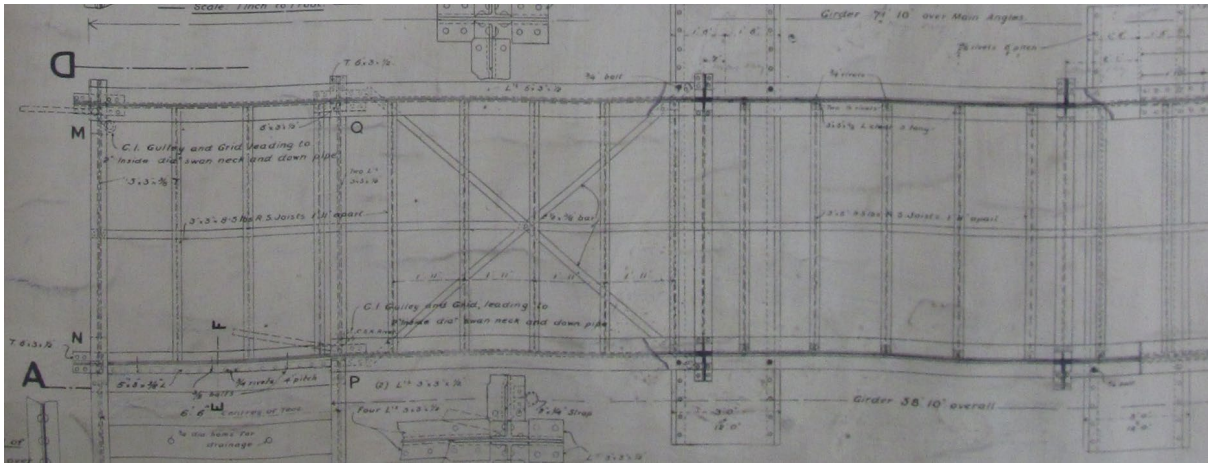
Historical Plate 4: Penmaenmawr Station footbridge, looking northwest from Station Road West, June 2023 © 2023 Google

Historical Plate 5: Llanfairfechan Station footbridge, looking southwest from West Shore, June 2011 © 2023 Google

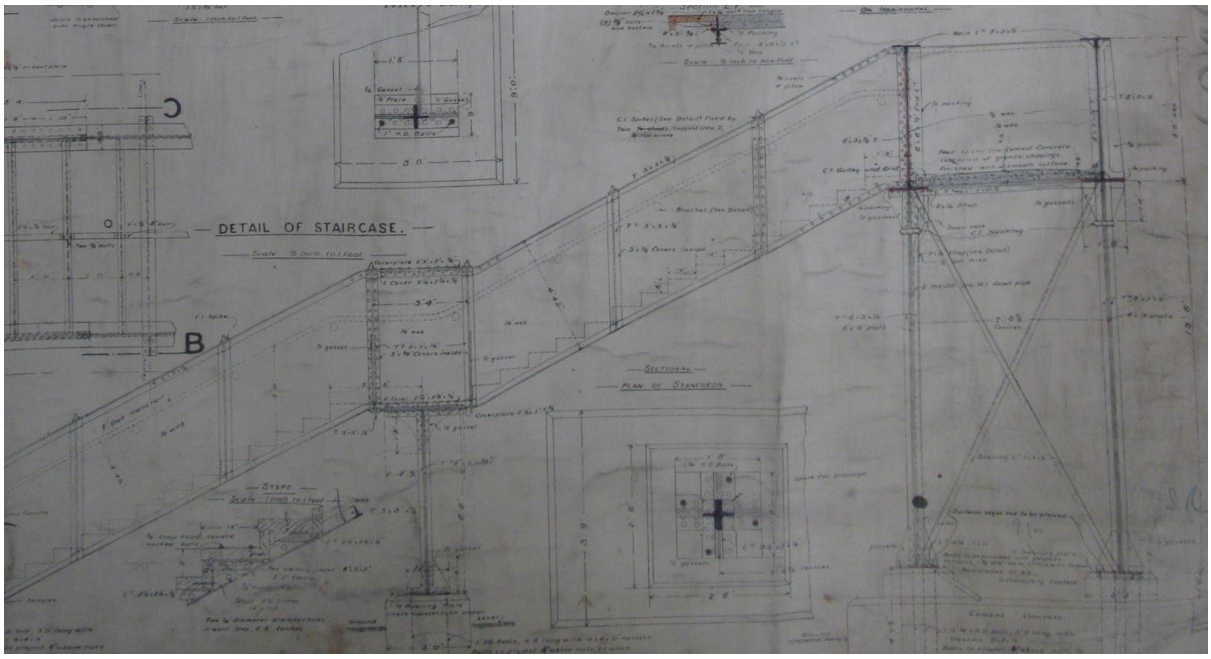
Historical Plate 6: Deganwy Station footbridge, view from Station Road, June 2023 © 2023 Google



Historical Plate 7: LNWR standard footbridge blueprint, showing details of stringer brackets for staircases (bottom); cross girder (centre); deck bracket (centre right) and section of stringer (top), c.1896 © TNA (RAIL 410/1192)



Historical Plate 8: Plan of bridge deck, showing diagonal bracing seen at Flint Station, n.d. © TNA (RAIL 410/1192)



Historical Plate 9: Elevation of typical LNWR footbridge staircase, n.d. © TNA (RAIL 410/1192)

PLATES

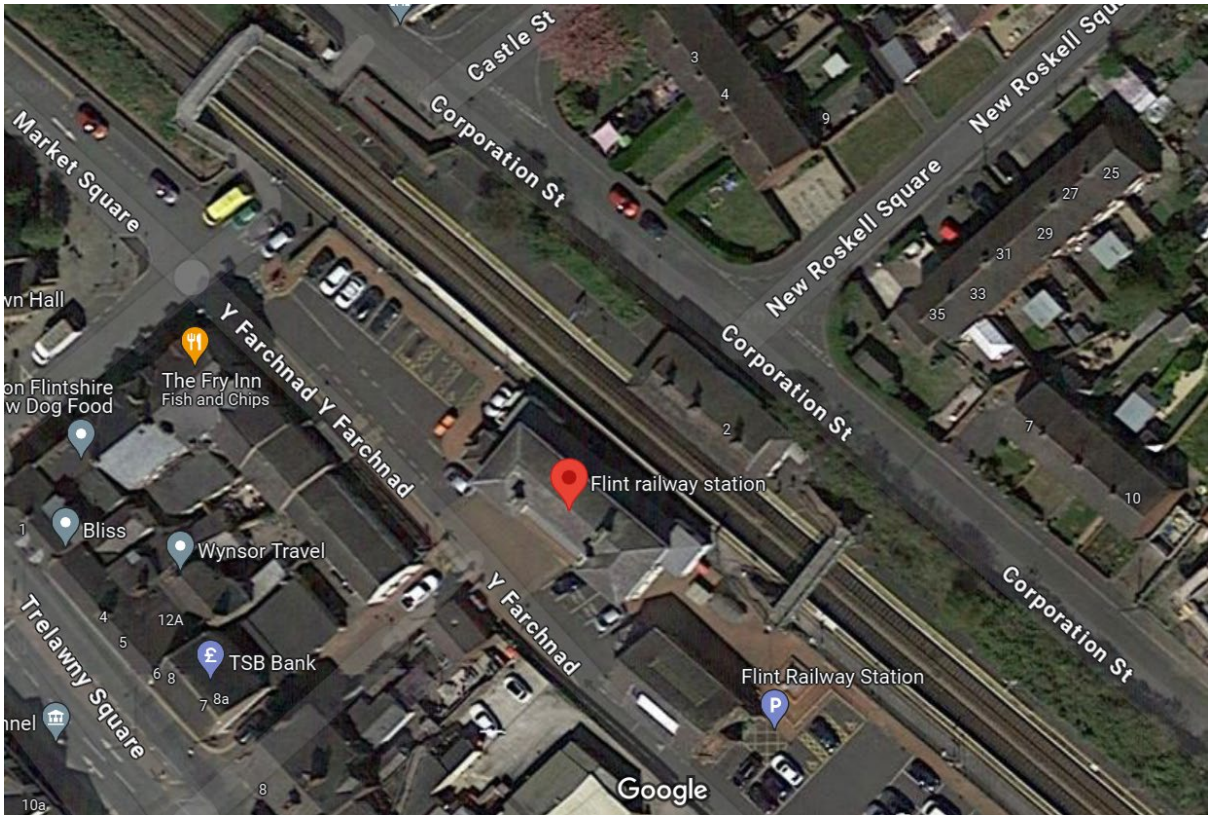


Plate 1: Aerial view of Flint Railway Station, 2023. Platform 1 is on the northeast side of the railway line, Platform 2 on the southwest. © Google 2023 Imagery: Bluesky, Infoterra Ltd & COWI A/S, Maxar Technologies

Plate 2: General view of the station footbridge, looking southwest from Platform 1

Plate 3: The southwest staircase, looking southwest from Platform 1. The former Goods Shed is in the background

Plate 4: The northeast bridge pier and columns, looking northeast from Platform 2

Plate 5: The southwest bridge pier and columns, looking southwest from Platform 1

Plate 6: The southwest bridge pier/tower (Platform 2), showing the cross girders atop the cast iron column capitals, looking northeast

Plate 7: The northeast bridge pier/tower (Platform 1), showing cross girders and bracket supporting the bridge deck. Looking northwest

Plate 8: Detail view of southwest bridge pier/tower (Platform 2), showing cross girders bolted into vertical iron stanchions

Plate 9: Detail of deck bracket on northeast bridge pier/tower (Platform 1), looking northwest

Plate 10: The underside of the bridge deck, showing longitudinal girders and diagonal braces, looking southwest from Platform 1

Plate 11: Top deck of the footbridge, looking northeast, showing modern surface

Plate 12: Another view of the deck, looking northeast, showing modern services carried along the south side of the footbridge

Plate 13: Detail view of south face of footbridge, showing wind strut (left) and attached brackets and pipes to carry services across the tracks, looking north from Platform 2

Plate 14: Decorative cast iron finial at the southeast corner of the parapet (Platform 1), looking southeast

Plate 15: Detail of decorative cast iron parapet finial, looking southwest

Plate 16: North elevation of footbridge, showing wind struts and southwest staircase (Platform 2), looking southwest

Plate 17: Northeast staircase (Platform 1), looking east from Platform 2

Plate 18: Cast iron column supporting the central landing of the northeast staircase (Platform 1), looking west

Plate 19: Cast iron column and enclosed void under southwest staircase (Platform 2), looking southwest

Plate 20: Expansion joint connecting upper and lower stringers on the northeast staircase (Platform 1), looking west

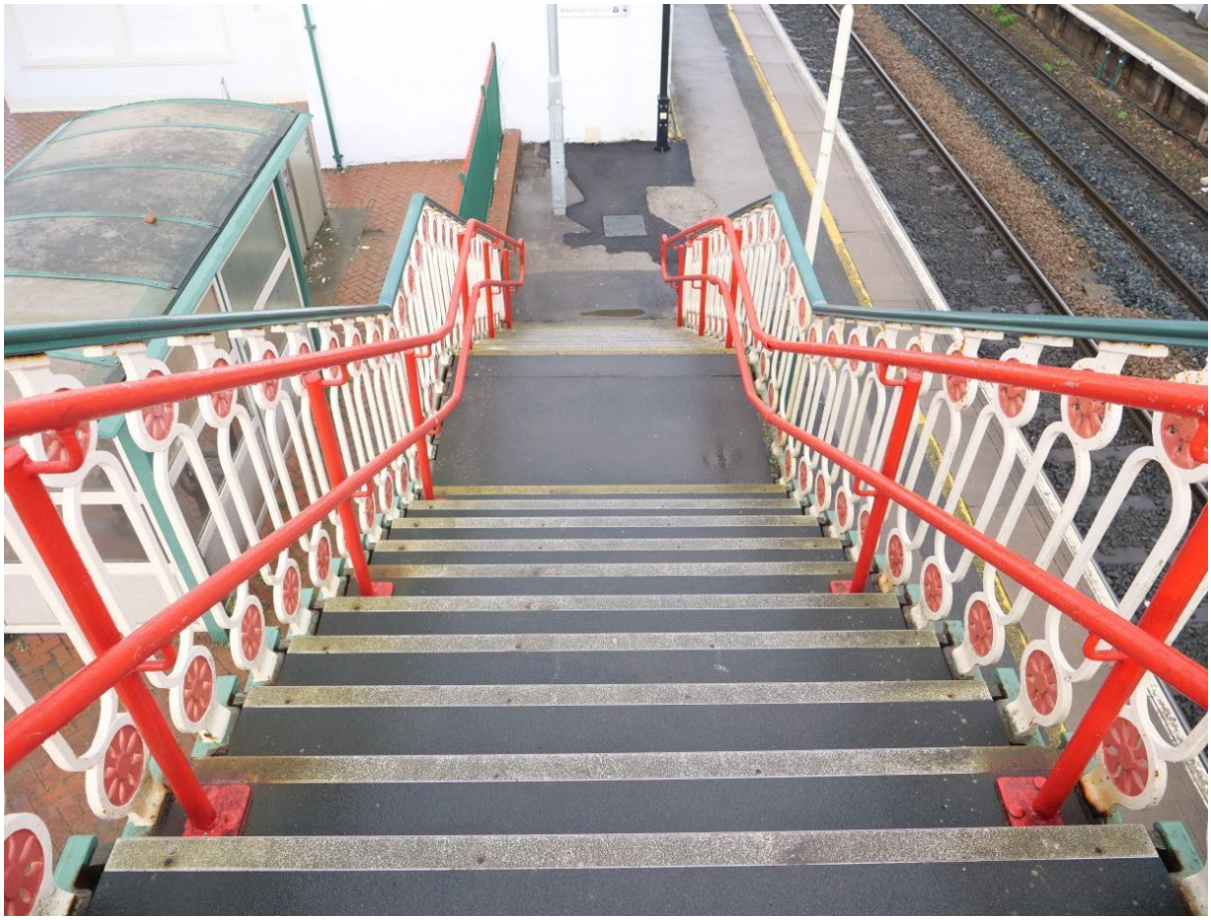


Plate 21: Steps and modern safety handrails on southwest staircase (Platform 2), looking northwest

Plate 22: Detail of decorated cast iron balusters on landing of southwest staircase (Platform 2), looking northeast

Plate 23: Cast iron newel post and balusters at foot of northeast staircase (Platform 1), looking south

Plate 24: View of southwest staircase (Platform 2), showing method of attachment of modern safety handrails to steps, looking southeast

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