

The background is a vibrant yellow. It is decorated with several abstract geometric shapes in shades of blue, teal, and white. In the top right, there are overlapping circles and a teardrop shape. In the bottom left, there are elongated shapes with rounded ends and circular cutouts. On the right side, there are circular cutouts within larger shapes. The overall style is modern and clean.

Appendix A16.1

Historical Background

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Appendix A16.1: Historical Background

1.1 Introduction

The head of Dublin Bay in early historic times was characterised by a combination of raised beaches and alluvial deposits (Clarke H. B, 2002, 1) which hampered navigation and safe access to the river from the sea.

Over time to coastline was extended into the bay as a result of silting and land reclamation. Land reclamation began with the Anglo Normans expanding dramatically in the seventeenth century. By 1612 land reclamation as far as Ringsend was being envisaged (Clarke H. B, 2002, 10). This was followed by an ambitious scheme for the improvement of Dublin Port, following the reinstatement of the Irish Parliament in Dublin in 1666 and the Appointment of the Duke of Ormond as Viceroy, which fostered major reclamation and engineering works to the east of the city (Lennon, C. and Simms, A., 2008, 5). Further engineering works were undertaken in the early 18th century in order to deepen the port of Dublin (Lennon, C. and Simms, A., 2008, 6). Under the auspices of the Ballast Office, a state appointed agency established in 1707, the approaches to the port were dredged and extensive tracts of land were walled in on the north and south strands to form the north and south quays (Lennon, C. and Simms, A., 2008, 6). The Great South Wall and Poolbeg Lighthouse were also constructed at this time.

On the north bank, the wall was completed east of Bachelor's Walk by c. 1717 and the city, through the Ballast Office, planned to lay out the reclaimed area behind the wall in plots which became known as the North Lotts. Although little building took place at this point in time, the ground had been laid out and the quays largely built as far as East Wall Road. On the south bank of the River Liffey, a similar scheme of walling in, and land reclamation stimulated urbanization. De Gomme's map of 1673 indicates 'land taken from the sea' to the north of Lazy Hill (Pearse Street) but it contained no buildings and was still slob land (Lennon, C. and Simms, A., 2008, 6).

By 1700, William Mercer was granted permission to infill the slob land beyond Hawkins Street and Mercer's Dock which became George's Quay (Lennon, C. and Simms, A., 2008, 6). A continuous but un-walled stretch of strand between the holdings of Mercer and Rogerson was reclaimed by the Civic Authorities and Named City Quay (Lennon, C. and Simms, A., 2008, 6). Sir John Rogerson, developed a fee-farm estate of 133 acres of slob land between Lazy Hill and Ringsend, leased from the Corporation (Lennon, C. and Simms, A., 2008, 6).

By the 1720s, Sir John Rogerson had constructed a wall and a quay that stretched to the mouth of the River Dodder and had back-filled the strand with gravel, sand and stones. It was the largest and most significant privately funded development in the embankment of the River Liffey in Dublin. On the reclaimed area, a system of gridded streets was established, and the city planned the development of 51 plots that became known as the South Lotts. A new parish was established on City Quay and St Mark's Church was built in 1729 but remained unroofed until 1752 (Lennon, C. and Simms, A., 2008, 6).

Rocque's map of 1756 shows ships berthed at Customs House Quay and Sir John Rogerson's Quay. Passenger ferries operated from Ringsend and Poolbeg. The development of the port in Dublin under the Ballast Office enhanced the commercial importance of this part of the city (Lennon, C. and Simms, A., 2008, 6).

In the last decades of the 18th century the direction of development on the east side of the city was in part driven by the city's port and the need to facilitate shipping. The construction of the Custom House between 1781 and 1791 precipitated this development. This development included the construction of harbours and stores on the North Wall. While little residential development took place in the North Lotts, on the south side of the river, substantial areas were laid out as streets in the aftermath of the opening of the Grand Canal Dock in 1796. Scavenger's yards where waste was deposited were located on Sir John Rogerson's Quay (Goodbody, R., 2014, 1-3).

Prior to 1784, responsibility for lighting, paving and cleaning streets moved periodically between private contractors, parishes and commissioners. In 1784 these tasks were appointed by parliament to the Directors and Commissioners for paving, cleansing and lighting the streets of Dublin. The commission also provided water fountains. In 1786 the provision of lighting was extended to the North and South Circular Roads (Goodbody, R., 2014, 3).

From 1790, its duties also included making and repairing streets. The lighting of streets was by oil lamps, each individually refilled and lit until the early 1820s when the Dublin Coal Gas Light Company, the Hibernian Gas Light Company and the Dublin Oil Gas Company were established. The three companies were taken over by the United General Gas Company which concentrated its production on a site in Grand Canal Quay. The Alliance Gas Company was established in 1835 on Sir John Rogerson's Quay thus concentrating gas production in the docklands as it was close to the port and importation of coal (Goodbody, R., 2014, 3).

The barracks at Pigeon House Fort were erected in 1815. A windmill was present on North Wall but burnt down in 1810. Some of the more noxious industries were located on North and East Wall. These include two glass works, a vinegar works, and a vitriol works. Other heavy industries were located to Ringsend (Goodbody, R., 2014, 4-7).

Dublin's major problem as a trading centre had always been the inadequacy of the River Liffey as a port, due to a large sand bank at the mouth of the river that left a depth of less than a metre at low spring tides. As vessels became larger in the 19th century, this became a serious problem (Goodbody, R., 2014, 7).

The South Bull Wall was built between 1716 and 1795. In the 1790s a harbour was made at Pigeon House to provide a landing place for passengers without ships having to cross the bar. This served passengers and the mail service but was not suitable for freight (Goodbody, R., 2014, 7).

Despite the presence of the sand bar, the Ballast Office developed floating docks with copious storage buildings to the east of the Custom House in the early years of the 19th century. Together the docks and the two canals significantly improved port facilities though there were still only accessible at certain times and in favourable weather. Further development of the port was facilitated by the construction of the North Bull Wall which was completed c.1824. The docks were able to accommodate larger ships, including the Great Eastern (Goodbody, R., 2014, 7).

The improvement of the port required further integration of the transport system, particularly with the Canals and later the railways increased traffic through the port, with the north and south quays providing access. In 1790-92 it was decided to link the Grand Canal with the port. The construction of the canals connected Dublin Port with the River Shannon facilitated the transportation of bulk goods to and from the port. The introduction of paddle steamers in the 1820s reduced the utility of Grand Canal Dock as Paddle steamers were too wide to navigate the locks adjacent to Britain Quay. The Royal Canal was completed in 1796. the North Lotts were slower to develop than the South Lotts. The Canals remained important for the transportation of bulk goods such as turf and grain after the introduction of the railways from the 1830s onward however (Goodbody, R., 2014, 8).

1.1.1 The North Quays

From the 1670s Dublin Corporation promoted the development of quayside streetscapes (Sheridan. E, 2001, 87). Down-stream, an ambitious land reclamation scheme was initiated by the City Assembly in 1682 which envisaged the enclosure of an expansive area of marshland which lay between the River Liffey and the River Tolka (Casey 2005, 183). The area was therefore surveyed and subdivided into 152 lots, giving rise to the name the North Lotts. The North Lotts were bounded to the south by Customs House Quay and North Wall Quay, extending north to North Strand. The Lotts were awarded by lottery to members of the city assembly and selected officials (DeCourcy. J. W, 1996, 268).

In 1710 the Ballast Office committee of the City Assembly began river containment works along the north bank of the River Liffey using woven timber kishes filled with stone and backed with sand, gravel and mud which had been dug out of the riverbed. Custom House Quay was embanked by the Ballast Office from 1715 on. By 1717 the north bank of the River Liffey had been constructed eastwards along North Wall Quay up to the present Tom Clarke East Link Bridge (DeCourcy. J. W, 1996).

Development was slow however, and the area bound by the Royal Canal known as the North Lotts was not laid out in a grid plan until 1717 (Casey 2005, 183). The area was again divided into lots, this time 132 lots, each consisting of two plots, one being a strip of 0.4 acres facing North Wall Quay (DeCourcy. J. W, 1996, 269). These lots are depicted in a 1717 map by J Macklin. The grids were laid parallel to the quays and extended north to the River Tolka. The streets were named after their developers, Commons, Mayor and Guild (Casey 2005, 183). The City Assembly was to take responsibility for the lot holders rents which were to be supplemented by public monies

in order to construct the North Wall to see 'that a wall be built to keep out the sea and that the canal [a re-routing of the Tolka] be made and walled in' (DeCourcy. J. W, 1996, 269). In 1718 the North Wall was constructed. Brooking's map of 1728 indicates that North Wall Quay was complete. Rocque's map of 1760 also shows the Wall complete.

Many of the lease holders failed to develop their land and the lots were sold off so that by the mid-18th century Luke Gardiner was the principal property owner. Gardiner also owned land on the South Lotts, on the south side of the River Liffey (Casey 2005, 118). There was a campaign to move shipping downriver to the expanding eastern suburbs which were created as a result of land reclamation. In 1780 Lord Beresford, the First Commissioner of the Revenue obtained Royal Assent to proceed with the construction of a Custom House (Casey 2005, 141). The building was designed by James Gandon and was commenced on Custom House Quay in 1781. It was completed in 1791 (Bennet. D, 2005, 57).

It was not until after the construction of the Customs House that the quays to the east developed in earnest. Custom House Dock was built by John Rennie in 1796. In 1792, the Royal Canal was built, connecting with the River Liffey at North Wall Quay. George's Dock was also built by Rennie in 1821. Its inner Revenue Dock followed in 1824. Spencer Dock was built in 1873 as a terminus of the Midland and Great Western Railway to accommodate English coal ships (Casey 2005, 183).

The area developed with extensive warehousing in the 19th century, much of which was replaced in the regeneration of the docklands area which commenced in the 1980s. Of those that survive are the CHQ building, or Stack A built as a tobacco warehouse also built by John Rennie c.1820 (Casey 2005, 183-4). Beside it is a stone archway which was relocated here from Amiens Street in 1998 but was built in 1813 and the entrance to Customs House Quay.

West of the Scherzer bridges on George's Dock is the former West's Store built 1824. It was reduced to 2 storeys in the 1990s. The Scherzer bridges on George's Dock were built 1912 (Casey 2005, 183-4).

The redevelopment of the northern docklands commenced in the mid-1980s with the development of the Irish Financial Services Centre (IFSC) around George's Dock (Casey 2005, 184).

1.1.2 The South Quays

In the 17th century Lazy Hill (now Pearse Street) ran along the shore, which then bent sharply south, running in a diagonal to Irishtown, with Ringsend being a narrow sand spit projecting north into the bay. Reclamation and development of the quays between the City and Ringsend progressed during the 17th and early 18th century.

In 1712 Sir John Rogerson, the former Lord Mayor and MP leased 133 acres of slob land between Lazy Hill (Pearse Street) and Ringsend. By the 1720s Sir John Rogerson had constructed a wall and quay which extended to the mouth of the River Dodder at Ringsend. Hibernian Marine School was built on Sir John Rogerson's Quay in 1773 and has been attributed to Thomas Cooley and Thomas Ivory (Casey 2005, p 458). It was damaged in the 1870s and was later used as a factory. Buildings fronted on to the river and included merchant's houses. A stretch of strand between the holdings of Mercier and Sir John Rogerson was reclaimed by the Corporation and named City Quay (Casey 2005, 450).

The land within the quays continued to flood in the 18th century and was used for oyster beds. In 1757 an order was given for a new quay 40 ft (c. 12m) wide to run eastward from Aston Quay. By the 1770s, the quays presented quite a uniform appearance (Sheridan. E, 2001, 134). Grand Canal Dock and the associated locks on Britain Quay were completed in 1796 but proved unsuccessful commercially as ships continued to berth on the quays (Casey 2005, 456). A ruin of a toll house survives on Britain Quay.

The Wide Streets Commissioners were involved in removing projecting buildings from the quay sides to ensure that communication between the Castle, Viceregal Lodge in the Phoenix Park, the Barracks, the Royal Hospital and access to the High courts of Justice would be rendered commodious and safe.

By 1820 the present network of streets had been created to the south of the quays and east of Westland Row, but it remained largely undeveloped until warehousing was built in the 19th century (Casey 2005, p 456).

Sir John Rogerson's Quay contains a number of 19th century warehouse buildings and earlier houses. The gable of a red brick 19th century warehouse has been retained in a recent office development at number 2. Number 3 contained an early 20th century building constructed for Tedcastles. This was removed in recent times. Number 27 is the offices of the British and Irish Steam Packet company built in 1909 to the design of W.H Byrne (Casey 2005, p 458). The twin gabled former Tropical Fruit warehouse was built in 1890.

The South Docklands underwent large scale regeneration in the early 2000s under the Dublin Docklands Development Authority (Casey 2005, p 457).

1.1.3 Ringsend

Ringsend was built on an outlying gravel ridge as an outpost of Dublin. The name Ringsend (An Rinn, or point) arose from the tip of this ridge or spit which was formed by the easternmost channel of the River Dodder Delta at its confluence with the River Liffey. This spit was still present until the 18th century (DeCourcy. J. W, 1996, 325).

Ringsend was inhabited before 900. The grant of King John in 1192 describes the city liberties as extending from Donnybrook as far as the River Dodder and included Ringsend. In 1303 the lands of Thorncastle included Ringsend. Ringsend was then a fishing village. In 1622 Edward Gough and James Sedgeraw sponsored a scheme to build a better landing facility at Ringsend. Towards the end of the 16th century Ringsend superseded Dalkey as the deep-water port of Dublin. It was from here that Oliver Cromwell disembarked with an army in 1649. The census of 1659 recorded 59 English and 21 Irish in Ringsend and 23 English and 75 Irish in Irishtown. A bridge was built over the River Dodder c1640 (DeCourcy. J. W, 1996, 325).

In the 17th and 18th century Ringsend was a prosperous and busy village though it was prone to flooding. St Matthews Royal Chapel was built as a mariner's church in 1703-6 with a tower being added in 1713. In 1716, the Corporation noted that the ground on the south side of the channel below Ringsend is staked out in order to be piled and that one piling engine had been sent for from Holland. This was the beginning of the construction of the South Wall which was completed at the end of the 18th century, creating dry land to the east of the existing village in Ringsend. The Ballast Office established its builders' stores and workshops in Ringsend. Pigeon House harbour was then developed for packet ships in the 18th century (Brady and Simms 2001, 259, DeCourcy. J. W, 1996, 326).

In 1715, the Dublin City Assembly authorised the building of an embankment from Ringsend along the north aspect of the South Bull sand bank. The first piles of what was to become the South Bull Wall were driven that year, and major work commenced in 1717, with what was then known simply as '*The Piles*' completed in 1730 to 1731. Construction involved driving of oaken piles into the boulder clay of Dublin Bay, with these anchored by baskets of gravel, and woven wattles.

A stone wall linking '*The Piles*' to the quays, '*The Ballast Office Wall*', was completed in 1756, and the first '*Pigeon House*' at the shoreward end of the piles was built around 1760 as a residence for a caretaker. Over a period, a bank of sand and other debris, the '*White Bank*', developed adjacent to the wall about 800m seawards of the Pigeon House.

The driven-pile barrier was breached by storm action, after reported rotting and tidal stress, and in 1761, a stone pier was commenced, working from the Poolbeg Lighthouse completed in 1767 back to shore. The South Wall was constructed of the of massive Dalkey granite blocks and was completed in 1795. The final wall dimensions were 32 feet at the base, tapering to 28 feet at the top.

In the meantime, in 1791, the '*Pigeon House Harbour*' was proposed. By 1793, a gun battery, named the '*Half-Moon Battery*' for its shape, was built about 800m of the lighthouse. Also, around 1793, a hotel, the '*Pigeon House Hotel*' was opened.

Even after the building of Captain Bligh's South Wall, the port of Ringsend remained separated from Georgian Dublin by the River Dodder, safe traversal of which depended on knowledge of the tides.

As a result of the land reclamation around Ringsend the area became more urbanized but still separate from the city as road access remained difficult until the 19th century. Between 1796 and 1803 the River Dodder was formally

embanked past Ringsend, and the present Ringsend was built, thus connecting the city (DeCourcy. J. W, 1996, 327).

Towards the end of the 18th century, the village declined as the packet station declined. The village was described in 1818 as being wretched and consisting of a few ruinous houses (DeCourcy. J. W, 1996, 327). Ringsend and Irishtown were small and poor villages in the 19th Century (Prunty 2005, p 170). Inferior quality housing in both villages gave rise to severe overcrowding, sanitation problems and the outbreak of disease. Efforts were made in 1894 to improve the conditions of the working class in the area through the construction of 40 artisans' dwellings in Ringsend (Brady and Simms 2001, 268).

St Matthew's church was rebuilt in 1878 (Bennet. D, 2005, p212). The city developed a main drainage system in Ringsend in the 1870s. it was located in a small harbour on the South Wall. Ringsend Park was laid out by the Pembroke Estate (Brady and Simms 2001, 261). A tramway to Ringsend was opened at the beginning of the 20th century (Corcoran 2008). Social housing schemes were constructed in the Cambridge area of Ringsend in the 1980s. Irishtown and Ringsend are indicated on De Gomme's map of 1673

1.2 Cartographic Analysis

Analysis of historic mapping shows how the landscape has changed over time. The comparison of editions of historic maps can show how some landscape features have been created, altered, or removed. Sometimes features that appear on these early maps are found to be of potential historic, archaeological, or architectural significance during fieldwork. For this study, the following cartographic (pre-ordinance survey) sources were consulted and compared to modern and historical aerial and other photographs. The findings are outlined in the following sections.

1.2.1 Pre-Ordinance Survey Maps

The following pre-Ordinance Survey maps were consulted:

- John Speed's Map of the Province of Leinster (1610);
- William Petty's Down Survey maps of the County of Dublin (1655–56);
- Bernard de Gomme's the City and Suburbs of Dublin from Kilmainham to Ringsend (1673);
- Thomas Dineley's Map of Dublin (1681);
- Thomas Phillip's 'Exact survey of the City of Dublin and part of the Harbour (1685);
- Charles Brooking's 'Map of the City and Suburbs of Dublin (1728);
- John Rocque's Map of the City of Dublin (1756);
- John Rocque's 'An actual survey of the County of Dublin' (1760);
- John Rocque and Bernard Scale's Map of the City of Dublin (1773);
- Robert Pool and John Cash's A plan of Dublin (1780) Printed in Pool and Cash's Views of the most remarkable public buildings, monuments, and other edifices in the city of Dublin;
- Samuel Byron's 'A Plan of Dublin' (1782) printed for William Wilson in the gentleman's and citizen's almanack;
- William Faden's 'A Plan of the City of Dublin (1797);
- Thomas Campbell 'City of Dublin (1811);
- John Taylor's 'Map of the environs of Dublin, extending 10 to 14 miles from the Castle' (1816);
- William Duncan's 'Map of the County of Dublin' (1821);
- Cooke's 'Royal Map of Dublin,' (1822); and
- London Illustrated News, 'City of Dublin' (1846).

A review of the available cartographic sources begins with John Speed's 1610 Map of the Province of Leinster and its inset showing a more detailed map of the city of Dublin. The inset shows the old city extending as far as Trinity College on the south side and as far as the areas around Caple Street in the north. The east the River Liffey was a wider channel than exists today with few features indicated on its banks. The map of the Province of

Leinster shows the River Dodder and River Tolka as also having wide estuaries which converge at the mouth of the River Liffey. Ringsend is not shown.

The next map, William Petty's 1655-6 Down Survey Barony Map of the Newcastle shows the city of Dublin including Trinity College and Lazy Hill (Pearse Street) but few features to the east.

De Gomme's map of 1673 shows that the city had not expanded down the River Liffey beyond Lazy Hill (Pearse Street) at this point, but the channel is narrower and the area to the north-west of Trinity College is marked as having been taken from the sea, with some settlement, a wall and a road is marked on the north bank. The River Liffey itself is shown as a series of channels, mudflats, and islands. On the south bank the map shows Ringsend as being located on a narrow spit, with Vauban fortifications marked out. The smaller was located to the northwest of the village. A larger one is outlined but was never built. Dineley's map of 1681 similarly shows the River Liffey as a wide channel. Thomas Phillip's' map of 1685 is remarkably similar to De Gomme's.

Brooking's Map of 1728 indicates that considerable land reclamation had taken place on the north bank to the east of Marlborough Street, is indicated as having been reclaimed and walled in but 'yet overflowing by the tide'. The south quays are also evident as far as the River Dodder. George's Quay and the east end of Sir John Rogerson's Quay are named, and some development is shown in the form of blocks rather than individual buildings. Ringsend is indicated also and is clearly separated by the Dodder.

Custom House Quay is shown as 'part of the North Wall' on Rocque's map of 1756, but little development is shown. George's Quay and the east end of Sir John Rogerson's Quay are named, and individual buildings are shown. The 1773 revision of the 1756 map by Rocque and Scalé shows much the same information. Rocque's 1760 'Map of the County of Dublin' shows the North Lotts laid out and the various roads are named. No other development appears to have taken place, however. The south quays by contrast are shown as having been constructed as far as the River Dodder. The east end of Sir John Rogerson's Quay was then known as the Horse Road to Ringsend. Ringsend was connected by a bridge to the south and the Great South Wall was then constructed in part. Both Ringsend and Irishtown are named and shown as separate settlements. Thorncastle Street is shown but not named. Similarly, streets in Irishtown are clearly defined but not named. The area immediately south of South Wall remained marshland, however.

Pool and Cash's 1780 map indicates again that little development had taken place on the north quays, but City Quay is named, and the Hibernian Marine School is shown on Sir John Rogerson's Quay.

Samuel Byron's 1782 plan of Dublin shows Gandon's Custom House on the north quays. The quay to the east is simply named North Wall rather than Custom House Quay.

Faden's 1797 plan shows Custom House Dock, built by John Rennie the previous year, along with its outlet into the River Liffey and some development on Customs House Quay, then still named North Wall. The Royal Canal, along with a bridge and locks are shown on North Wall Quay, this section having been completed in 1792. On the south quays development is shown as having extended eastwards beyond the Marine School. The land to the east was simply named South Wall and was undeveloped at this point. The exception was Grand Canal Dock to the south which was then nearing completion. Although Britain Quay was not complete or is shown as irregular, the triple locks on Hanover Quay are indicated. A small portion of Ringsend is also shown. The settlement there was built up right up to the River Dodder and River Liffey.

Campbell's 1811 map of the City of Dublin indicated that considerable development had taken place along the north quays from Custom House Quay to just east of the Royal Canal and Wapping Street. A building front is marked on the quay to the east as far as East Wall. Similarly, further development had also taken place on the south quays, extending beyond Forbes Street which is named to the area around Blood Stoney Road, which was not then laid out. Some development is also shown on Britain Quay, the edge of which was still irregular. Ringsend and Irishtown are more clearly defined as separate settlements. Again, Bridge Street and Thorncastle Street are shown as is York Road, but they are not named. The area between Ringsend and the South Wall was then still a marshy shoreline.

Taylor's 1816 'Map of the Environs of Dublin' depicts both George's Dock and its inner Revenue Dock, both built by Rennie and completed in the early 1820s. To the east of the Royal Canal a windmill is marked. On the south quays further development is shown to the east of the Marine School. Both Ringsend and Irishtown had increased

in size and paths were located to the south of the South Wall and between the two settlements, indicating that the area to the east was still a shoreline, although shallow as the South Bull is also marked. The South Wall is shown as complete out to the Poolbeg Light House and Pigeon House Harbour, barracks and hotel are also shown.

T.S Roberts near contemporaneous (1817) watercolour is a view of the Customs House looking west up the River Liffey. Custom House Dock and the quay walls to Custom House Quay as well as a number of warehouse buildings fronting on to the Quay.

Duncan's map of 1821 is less detailed but appears to show further development on Customs House Quay and North Wall Quay. To the east of George's Dock, stores are indicated and the land between George's Dock and Commons Street (not then laid out) has been sub divided. To the east further development is shown between Guild Street and Castleforbes Street. The North Bull Wall to the east is indicated as 'New wall or breakwater.'

Some more development is shown on Sir John Rogerson's Quay between Cardiff Lane, which was laid out but not named, and Blood Stoney Road which had not yet been laid out. Cook's map of 1822 is slightly more detailed than Duncan's with Wapping Street named as is East Wall Road. The buildings to the east of Wapping Street are indicated as a lime works which there were excise stores and a floating dock to the west of the Royal Canal. To the east of George's Dock were timber stores and a timber yard. Custom House ('Royal') Dock is marked as Old Dock. Lime Street, Clarence Street and Forbes Street are indicated on the south quays.

The London Illustrated News published a birds-eye view of Dublin looking north in 1846. The three gable ends of Stack A on North Wall Quay are clearly evident as are George's Dock and Custom House ('Royal') Dock. To the west the Royal Canal is shown and fronting on to old dock were further warehouses. A large collection of buildings are indicated to the east and fronting on to North Wall Quay up as far as East Wall Road. They included warehouses, at least three chimneys and what is a large collection of terraced buildings. The railway is shown in the background. On the south quays further development is shown up as far as Forbes Street though the east end of Sir John Rogerson's Quay and Britain Quay are shown as largely undeveloped. Again, the buildings include warehouses, chimneys and terraced buildings fronting on to the quay.

1.2.2 Ordinance Survey Maps

The following Ordnance Survey maps were consulted:

- Ordnance survey Preliminary town plan, Sheet 23 showing North Wall (1836);
- The first edition 6-inch Ordnance Survey Map (1837-44);
- 1:1056 Ordnance Survey Map (surveyed 1838 and published 1847);
- The Griffith Primary Valuation Map (corresponding records dates to 1854);
- 1:1056 Ordnance Survey Map (1864);
- The 6-inch Ordnance Survey Map (1876);
- 1:1056 Ordnance Survey Map (1886-9);
- Goad Fire insurance maps 1893 maps 10-13;
- The 25-inch Ordnance Survey revision maps (surveyed 1907, published 1911); and
- The 6-inch Ordnance Survey Cassini map (surveyed 1944, published 1953. Ringsend published 1961).

The Irish Historic Town Atlas of Dublin. Volume III (Goodbody, R., 2014, map 22) published a preliminary survey of the North Wall and Customs House area which was prepared by the Ordnance Survey in 1836. This highly detailed plan indicates that the bridges at Custom House Dock (or Old Dock) and George's Dock were swivel bridges. Between Custom House Dock (or Old Dock) and George's Dock were sugar stores. To the south of Georges Dock, on North Wall Quay were further stores which are indicated as being under construction or not complete. Stack A or what is now known as the CHQ building is shown to the east of George's Dock and it is indicated that they were Tobacco Stores. A timber yard was located to the east on Commons Street. Lamps are also marked at regular intervals on North Wall Quay.

The first edition 6-inch Ordnance Survey Map was surveyed in 1837 and published in 1844. The first edition Ordnance Survey map of 1837-43 accurately depicts the subject area in the early to mid-19th Century.

A light house is shown on the corner of North Wall Quay and East Wall Road. Apart from the baths on East Wall Road there were few other buildings shown between East Wall Road and Castleforbes Road, then called Fish Street which gives clues to its usage at the time. Some division of the lots were shown, however. Between Fish Street and Wapping Street there was a vitriol works. Between Wapping Street and the Royal Canal was more built up as is the area between the Royal Canal and Commons Street and an excise store is marked. This was built in 1822 and attributed to George Papworth. The northern portion of it on Mayor Street survives and has been converted to a café (NIAH 50010008)

Between Commons Street and George's Dock were a timber yard, timber stores and a tobacco store in the CHQ building built c.1820, to designs of John Rennie and which also survives and has been converted to a Museum (NIAH 50010003). Between George's Dock and Old Dock were sugar stores.

On the south side City Quay is shown as more built up than the north quays. Sir John Rogerson's Quay was likewise more built up, particularly between Creighton Street and Lime Street. The buildings included numbers 4 and 5 Sir John Rogerson's Quay which were built c.1825. Further along, between Lime Street and Cardiff Lane, the only buildings named were the Marine School, and the area was not as densely built up though terraced buildings were located on the quay here also such as the Ferryman public house which was built c.1820. Between Cardiff Lane, and Forbes Street were the Alliance Gas Works. Between Forbes Street and Benson Street the area was much less developed, but the lots were sub divided and both a coast guard station and the Queen's Timber Yard are named. There are no structures shown on Britain Quay other than a collection of buildings around the lock keeper's house and the triple locks themselves.

In Ringsend, Thorncastle Street, Bridge Street, Fitzwilliam Street and Irishtown Road are shown but not named and the area has become more built up. Various industries are indicated including rope walks, lame and saltworks on the shore to the south of the Great South Wall. Bath Street in Irishtown is named and Strand Street, and Pembroke Street are shown but not named. Murphy's Baths was located in the area now occupied by Irishtown Park.

The 1:1056 Ordinance Survey map of 1847 shows very similar information but in far greater detail. For instance, the steps leading down from North Wall Quay down to the river are shown as is a wooden wharf located on the river front between Wapping Street and the Royal Canal. The sea lock on the Royal Canal is again named. Between Guild Street and Commons Street were The Royal Canal Offices, and Steam Packet stores. The Excise Stores which were named on the 1837 map are named the Queen's excise stores as is the timber yard to the west. There was also a Coast Guard Station. Tea stores were located in the southern portion of the CHQ building which tobacco was stored in the northern portion. Two cranes are indicated to the east while there were 10 to the west on George's Dock along with a weighing machine. One of the cranes survives in George's Dock. To the south a draw bridge is indicated where the dock meets the Liffey. There were also two weighing machines and four cranes on the west side of George's Dock next to two large sugar stores located between George's Dock and Old Dock. Another draw bridge is located at the mouth of Old Dock where it meets the River Liffey.

On the south quays, both sewerage outlets and steps down to the river are indicated on City Quay. The buildings between 1 and 48 City Quay are clearly terraced, some with basements and two breweries are marked, on off Moss Street and the other off Princes Street a school is indicated to the rear of 39 and 40 City Quay. Steps down to the river are also indicated on Sir John Rogerson's Quay. Though not as built up as City Quay, the buildings are terraced and numbered. A gas works is indicated at number 44. The Marine School was at number 50. The coast Guard station is indicated as being at number 74 and there was a Queens Timber Yard to the east on the corner of Benson Street. A Scavenging Depot is indicated as being located between Benson Street and Britain Quay. Ringsend is not shown.

The Griffith Primary Valuation Map (corresponding records dates to 1854) is an early revision of the 1847 OS map but provides more information on building uses.

The next revision was the 1:1056 Ordinance Survey Map of 1864 which shows that the north quays had become more built up. A landing station and two light houses, and a crane are shown on the corner of North Wall Quay and East Wall Road. Terraces of housing, named Florence Place are shown on East Wall Road and to the rear of some terraced buildings fronting on to North Wall Quay. A sawmills and fountain are indicated at the corner of Fish Street. Between Fish Street and Wapping Street were a tramway, an iron works, a chemical works, weighing machine and warehouses are shown on the quay itself. A River Liffey branch terminus has been built to the east

of the Royal Canal and various other railway tracks and sheds are shown between Wapping Street and the Canal. The draw bridges to the Royal Canal and George's Dock had been widened to two lanes each. Warehouses are shown on the quayside of North Wall Quay to the west of the Royal Canal. Street furniture such as a pillar letter box and signal post are also indicated. The area to the east of the Queens excise stores had become more built up while the street frontage to the Queens Timber Yard contained four spirit vaults. The CHQ building was subdivided further, the front portion still serving as a tea stores whilst the rear was divided into various general goods stores. No significant change is shown on Customs House Quay other than the widening of the bridge to Old Dock.

On City Quay the breweries that were present on the 1847 Map has been replaced with housing, a catholic Church and a corn kiln fronting on to Prince's Street. A schoolhouse is no longer indicated to the rear of number 40 though the building is still present. A harbour-master's office is indicated at number 47-48. To the east of the Marine School, Sir John Rogerson's Quay had become more built up. The gas works indicated on the 1847 map has been enlarged and is named the Alliance Gas Works on the 1864 map. A mariner's church was located to the south. The area to the east of Forbes Street has also become more built up and contained two chemical works, their chimneys and a lime works in addition to the Queen's timber yard. Two chemical works, their chimneys and a lime works were also located between Benson Street and Britain Quay. Cranes are shown on Sir John Rogerson's Quay, but no warehouses are evident on the quayside itself. There was also a weighing machine on Britain Quay.

Ringsend is shown on the 1864-1865 map and the streets are named including York Road and Pigeon House Road which already contained some housing including York Terrace. Various slips and boating clubs are shown on the east bank of the River Dodder along with a coast guard station at the corner of York Road. To the rear were a lime kiln, a ball alley, and a salt works. A rope walk, along what was the seafront was located in what is now Pembroke Cottages. Two bathing ponds are shown in the area now occupied by Ringsend Park while the area between Ringsend and Irishtown has become more built up with terraced housing.

The 1876 Ordnance Survey map indicates that North Wall Quay has been extended east and a light house erected at the end. There are a number of patent slips to East Wall Road. More warehouses are shown at the quayside at the east end of North Wall Quay between Fish Street and East Wall, whilst some of those between Fish Street and the Royal Canal has been enlarged and amalgamated such as the quayside warehouses at the railway terminus. A sawmill and a chemical and iron works are indicated between East Wall Road and Wapping Street. A railway terminus of the London and North-western Railway had been built to the east of the existing railway terminus on the Royal Canal. One rail track is marked Great Southern and Western Railway and terminated on North Wall Quay to the east of the sawmills. To the west of the Royal Canal the number of quayside warehouses has been reduced with only one being located on North Wall Quay at the City of Dublin Steam Packet Stores. To the rear of the City of Dublin Steam Packet Stores there was a cattle yard and an excise stores to the west. The CHQ building is indicated as a tobacco stores whilst George's Dock had become more built up, with another building shown on its west side and a quayside warehouse on Customs House Quay.

No significant changes are shown on City Quay, but a quayside warehouse is shown on Sir John Rogerson's Quay. The area between Windmill Lane and Lime Street had also become more built up. No significant changes are evident between Lime Street and Great Britain Quay other than that the various chemical works had become slightly more built up. The diving bell (NIAH Reg No 50020468) by Bindon Blood Stoney was used for dredging by Dublin Port and Docks Board from 1872. At Ringsend, a gun shed is marked on the South Wall Intake to the south of Pigeon House Road.

The Ordnance Survey Map of 1886-89 is more detailed than the 1876 OS map and street furniture such as lamp posts are indicated at regular intervals along the quay. The map indicates that a rail track ran along the east end of North Wall Quay Extension, to a building located to the west of the North Wall light house. The housing to Florence Place had been replaced by a goods store of the Great Southern and Western Railway, also known as the Point Depot. Cranes, rail tracks and turn tables were located on the quay to the front of the good store which also had gates to the front and weighing machines on either side of the building. The sawmill to the west also has rail tracks within its premises along with weighing machines and a chimney. A fountain was located outside the front gates. To the west of Fish Street there was a slate and tile yard and two cattle yards. On the quay itself the warehouse was a goods store with a wooden wharf and crane. An iron works was still present and has a chimney, but the chemical works is not having been replaced by a drinking trough, post and telegraph office and a hotel.

The quayside warehouse to the south of the London and North Western Railway terminus on North Wall Quay is indicated as a goods store and was connected to the terminus by rail tracks which ran along the quay between the quayside warehouse. A letterbox was located outside the terminus. These tracks were also connected to the Midland and Great Western Railway goods station and its outbuildings which were located on the east side of the Royal Canal. To the south was a large crane.

The bridge over the canal was a draw bridge. To the west of the Royal Canal was the Royal Canal Office. The Steam Packet Stores were also connected by rail track to the goods stores large quayside warehouse located on the quay front. Further goods stores were located to the west, and there was a fountain on North Wall Quay at the entrance to the goods stores. To the west of the Queen's excise stores there were a number of cattle yards, a sluice, a pillar letter box, and a weighing machine. The Queen's Timber Yard on Commons Street has been replaced by further cattle stores located to the rear of four timber stores and a police station. A drinking fountain is indicated at the corner of Commons Street. The warehouse to the quay front was a goods store. The CHQ building is again indicated as being both a tea store and a general goods store. The bridge over George's Dock is indicated as a swivel bridge as is the bridge to Old Dock. There was a quayside warehouse on Custom House Quay and a wharf, both located in front of the sugar stores to George's Dock.

Street lighting is shown as being located at regular intervals on the south quays along with cranes and wooden wharfs. Small outbuildings are indicated on City Quay. Various corn stores, corn kilns, coal sheds and coal yards were located between Prince's Street and Creighton Street on City Quay in addition to the harbour master's office and houses to the quay front. Coal yards are also indicated as being located between Creighton Street and Lime Street on Sir John Rogerson's Quay. The quayside warehouse shown on the 1876 map on the corner of Lime Street and Sir John Rogerson's Quay had been removed. The Marine School is still present but is not named as such and had a timber yard to the rear. A quayside warehouse was located between Lime Street and Cardiff's Lane. Rail tracks are shown on the quay frontage and were connected to the Alliance and Dublin Consumer's Gas Works, located between Cardiff's Lane and Forbes Street. The rail track also ran along Forbes Street to the Gas Works on Grand Canal Dock. To the east of Forbes Street were a sewerage pumping station, various stores, four chemical works and their chimneys in addition to terraced buildings on the quay front. There was also a lime kiln to Britain Quay. In Ringsend, the coast guard station buildings are shown but not marked as such. The boat clubs and slips on the River Dodder were still present but the west end of York Road had become more built up.

The Goad Fire insurance maps of 1893 included the buildings of Custom House Quay and North Wall Quay but not the south quays. Two transit sheds belonging to the Dublin Port and Docks Board were located on the eastern extension to North Wall Quay along with a Revenue Watch House. On East Wall Road there were rail tracks to the patent slip a harbour masters offices, a shelter and the Great Southern and Western Railway goods depot (The point depot, NIAH 50011169) with rail tracks connecting the depot with hydraulic and steam cranes on the quay. The depot was electrically lit. To the west was the Dublin and Cardiff Steamers coal yard which contained coal sheds, goods sheds and offices (NIAH 50011168). The wharfs were supported on piles. To the west were the Dublin and Morecambe Steamers (Laird Line) steam packet warehouse and cattle lairage. T & C Martin owned a large timber yard, timber stores, carpenter shop and saw mill on the corner of Fish Street and North Wall Quay. On the west side of Fish Street T & C Martin also owned a brick and tile yard at number 77-80 North Wall Quay which included further timber stores. Warehouse stores were located at 82 (NIAH 50011167) while there was a public house located at number 81 North Wall Quay (Valence & McGrath – NIAH 50011166). The Laird Line Warehouse was located at 73-75 (NIAH 50011165). The Dublin and Glasgow Steam Packet Company warehouse was located at number 71-71 North Wall Quay. The quayside warehouse located to the south of their offices was also owned by the Dublin and Glasgow Steam Packet Company and functioned as transit sheds. Stables and stable fodder were located at number 70 North Wall Quay. Robert Brown and Sons brick and tile yard located at 69 North Wall Quay. Ross and Walpole's North Wall Foundry and Iron works was located at number 65-68 North Wall Quay and contained various workshops, stores and offices including foundry and smithy. A fire brigade station was located beside the iron works on Wapping Street. On the west side of Wapping Street was a cask yard, cask stores and coopers. A post office was located at number 64 while there was a sailor's reading room at 63 North Wall Quay. The North-western Hotel (NIAH 50010014) was located at 58-59 North Wall Quay, beside and connected to the North-western Railway Passenger Station at 51-55 North Wall Quay (NIAH 50010012 & 50010013)

The station was connected by a number of sub ways to the company's transit sheds located in the quayside warehouse directly to the south. To the west at 49-50 North Wall Quay the London and North Western Railway had a warehouse with W & A Gilbey's Excise and Bonded store located to the rear. Number 47 North Wall Quay

was a public house and 46 a grocers. The Royal Bank was located at 45 North Wall Quay. The London and North-western Railway had further stores to the rear of the bank. All of the London and North-western Railway's buildings were connected by rail track which ran north from North Wall Quay. To the west, on the Royal Canal was the goods depot of the Midland and Great Western Railway which was also connected by rail track to the quayside warehouses and cranes on North Wall Quay. The bridge over the sea lock is indicated as a draw bridge, on the far side of the lock, on Guild Street were offices, a restaurant and Public House at number 36 North Wall Quay. Rail tracks ran down Guild Street to the City of Dublin Steam Packet Company's transit sheds located in a large quayside warehouse on North Wall Quay. Numbers 21-30 housed the Dublin Distillers Bonded stores and the City of Dublin Steam Packet Company stores. Dublin Distillers Bonded stores were also located at number 15-16 and 17-19 North Wall Quay. 13 was vacant and 14 in use as offices. The Queens excise stores was located at number 12 and had vaults within the quay. Public houses were located at 1, 2, 8, 10 and 11 North Wall Quay. To the rear was the Midland Railway's cattle yard. A hotel was located at number 4 and the British and Irish Steam Packet Company had offices at number 3 North Wall Quay.

On Custom House Quay was Stack T, the bonded vaults and warehouses of the Dublin and Liverpool streamers and the Isle of Man steamers. To the rear there were cattle, timber and tile yards. The quayside warehouse consisted of transit sheds. Stack A, now the CHQ building, contained grain and flour and wine and spirit vaults and store. The quays themselves are indicated as stone paved and the swing bridge to George's Dock was paved with wood. To the west of George's Dock, Stack B and Stack C contained sugar and flour stores, spirit and tobacco stores respectively there was a transit shed directly on the quay side in George's Dock and in the quayside warehouse to Custom House Quay. The south quays were not included in the Goad survey.

The 25-inch Ordnance Survey revision map published 1911 shows a rail track running town the North Wall Quay extension to the revenue watch house. The number of transit sheds had increased from two to five. The rail tracks were connected to these on East Wall Road and Great Southern and Western Railway Depot (Point Depot) on North Wall Quay. The number of sheds and offices on the quay front to the west of the depot had increased from two to three which were also connected to the railway. No other significant changes were noted between the Depot and Fish Street. The 1911 map shows an electricity substation on Fish Street which is still present NIAH 50011185. The area between Fish Street and Wapping Street became slightly more built up with more warehouses been added between 1893 and 1911. Gates railings and walls (NIAH 50010015) to the North-western Hotel are indicated on the 1911 Map. The North Wall Railway station had been slightly enlarged to the rear and some infill development had occurred between the station and Gilbey's excise stores to the west. A draw bridge is still shown at the seal lock on the Royal Canal this bridge preceded the present Scherzer bridges. The area between the Royal Canal and Commons Street had also become more built up and the OS map indicates more clearly than the Goad map that most of the City of Dublin Steam Packet Company sheds on Guild Street and North Wall Quay were connected by rail track. No significant changes took place on Custom House Quay between 1893 and 1911. A swivel bridge and winches are indicated at the Sea Lock to George's Dock on the 1911 map. These were later replaced by the present Scherzer bridge.

On the south quays no significant changes were noted other than the removal of a small building to the front of the church and the replacement of the corn kilns with coal stores which were connected by rail track to the quayside. The Corporation has a yard off Banfield Lane and Gloucester Street which also had rail tracks. The rear of the buildings to City Quay had also become more built up.

Sir John Rogerson's Quay had also become more built up, new buildings including a warehouse at number 2 (NIAH 50020470,) built 1913 and number 3 (50020471) built circa 1900, and both for Tedcastles. Number 3 has since been demolished. New buildings also included a goods shed on the corner of Windmill Lane.

The buildings between Windmill Lane and Lime Street have been replaced by a large coal shed connected by rail track to the quay. The exceptions were the terraced buildings to the quay front which included Columbia Mills (50020474), a post office and a sailor's home. Two quayside warehouses have also been built on the quay (50020466 & 50020467). Between Lime Street and Cardiff Lane had also become more built up. New buildings included the British and Irish Steam Packet Company Offices (50020477) which were designed by W.H. Byrne & Sons in 1909 and the Tropical Fruit Company Warehouse (50020478) built c.1890. The Marine School was still visible. Between Cardiff Lane and Forbes Street the rail tracks linking the gas works to the quay had been extended along the quay. The chemical works located between Forbes Street and Benson Street had also been enlarged and a quayside warehouse and rail tracks built on the quay in front of the chemical works. A coal depot

within the chemical works was connected by rail track to the quay. The chemical works between Benson Street and Britain Quay had also been enlarged. Mooring posts were also indicated on Britain Quay

There was a ferry service from Britain Quay to a pier at the west end of York Road in Ringsend. In Ringsend, in addition to the boat clubs there was also a bottle works on the east bank of the River Dodder. Pembroke Cottages and Technical School had been constructed on Cambridge Road. Further housing had been built on York Road as had the Dublin Corporation Main Drainage Pumping Station to the South Wall had been built creating the South Wall Intake though no further land reclamation had taken place. The intake later formed part of Ringsend Park. The wall was located to the northwest of Irishtown Stadium.

The 6-inch Ordnance Survey Cassini map published 1953 shows further warehouses on the North Wall Quay extension. The Railway Depot at the Corner of East Wall Road was still in use as a goods depot. The area between the depot and Fish Street which had been renamed Castleforbes Street had become more built up as had the area between Castleforbes Street and North Wall Train Station. The post office and bank were still in use, but the hotel was not indicated as such. The train station has been converted to a goods station. The quayside warehouses on North Wall Quay were extended and increased in number with another added on the corner of Castleforbes Street and North Wall Quay. The bridge to the Royal Canal sea lock is shown and is the present Scherzer as is the one to George's Dock. Between Guild Street and Commons Street had also become more built up as goods sheds were enlarged or increased in number. The rail tracks which were present on the 1880s OS map had also been removed. The goods sheds between Commons Street and George's Dock on Customs House Quay were also enlarged. Old Dock had been infilled. No significant changes are evident on city quay on the 1953 OS map except that the east end appears less densely developed and the rail tracks to the quay had been lengthened.

The coal shed located between Windmill Lane and Lime Street was replaced with a Dublin United Tramways Company (D.U.T.C) Garage. The timber Yard between Lime Street and Cardiff Lane was replaced with a goods shed. The Marine School was still present but not named and the area to the east was less densely developed. The gas works between Cardiff Lane and Forbes Street but a large tank / gasometer on the corner of Cardiff Lane had replaced some of the buildings to the quay front while others at the corner of Forbes Street had also been replaced. The chemical works buildings on the corner of Forbes Street had also been removed while others on the corner of Benson Street had been built. The quayside warehouse in front of the chemical works had also been removed though the rail tracks were still present. The chemical works between Benson Street and Britain Quay was also enlarged and a warehouse built on Britain Quay itself. The 6-inch Ordnance Survey Cassini map of Ringsend was published 1961 and indicates that the technical school on York Road had been enlarged and further housing had also been built to the south of York Road on what had been the intake. The intake had been infilled to create Ringsend Park. The area to the east of the park was still part of Sandymount Strand.

1.2.2.1 Aerial Photography

The usefulness of aerial photography is that it allows for a different perspective, 'the distant view.' It is also a useful aid in pinpointing existing features and can assist in ascertaining their extent and degree of preservation.

A review of available aerial photographs included photographs from the Military Archive which were taken by the Aer Corps and those taken by the Ordnance Survey from 1995 to more recent satellite imagery (Ordnance Survey of Ireland 2018).

The Ordnance Survey aerial photograph from 1995 shows the north quays prior to the regeneration of the 1990s and early 2000s. The railway depot on east wall road had been converted to a theatre c.1988. The buildings to the west of it largely consisted of warehouses though large vacant sites were present to the west of Guild Street. Quayside warehouses were still evident on North Wall and Customs House Quay. The IFSC had been built to the west of George's Dock on what had been Old Dock and a collection of sugar stores.

On the south quays social housing had been built on City Quay. The area to the east of Creighton Street largely consisted of warehouses with large vacant lots at the former gas works on Sir John Rogerson's and Britain Quay. Much of the Marine School had been removed. In Ringsend and Irishtown, land to the east of Ringsend Park had been reclaimed and the Glass Bottle site located on it. The Herbert Simms apartment blocks on Thorncastle street are shown. Sean Moore Road had also been laid and the park itself enlarged with a large Local Authority Housing

scheme located between the two. At the Tom Clarke East Link Bridge had also been constructed, linking York Road and North Wall Quay.

The Ordnance Survey aerial photograph from 2000 indicates that the warehouse to the east of the Royal Canal / Spencer Dock had been demolished while the area to the west of Commons Street had been redeveloped. Many of the quayside warehouses had also been removed. The area around George's Dock had also been transformed and a stone arch relocated there from Amiens Street. Some redevelopment was evident on City Quay and Lime Street. The area to the east still contained a warehouses and vacant sites.

1.2.3 Public Lighting

Public lighting first appeared in Ireland in the 17th century (DELG 2002). In 1616, the Candlelight Law was passed in Dublin, compelling *'every fifth house to display light within prescribed hours of night for the guidance of street users'* (O'Connell 1975). These were initially privately-operated candle-based torches that were later replaced with oil based or flambeaux (Dublin Civic Trust 2004, O'Connell 1975). It was not until 1697 that publicly operated public lighting was undertaken by contract in parts of Dublin (Dublin Civic Trust 2004, O'Connell 1975). A contractor by the name of Michael Cole was appointed to place lights on both sides of the thoroughfares eight houses apart and on side streets six houses apart. They burned on oil from six to midnight at the cost of three shillings per year to each householder (Dublin Civic Trust 2004, O'Connell 1975).

In the early years of the 18th century, it is recorded that the public lamps were supplied with oil made from Irish rapeseed (Cornwall 2020b). In 1816 oil lamps consisted of a small tin vessel half filled with oil consisting of fluid fish blubber into which was suspended a wick of twisted cotton. The wicks were trimmed, and the lamps filled and lit by lamplighters who were selected by the Parochial Vestries (O'Connell 1975). The lamps themselves were hung on wall brackets which had to be accessed by ladder (O'Connell 1975).

Following the introduction of gas lamps in 1825, gas lamps started to take over from oil and this form of lighting was still in use up to 1957 (O'Connell 1975, Dublin Civic Trust 2004, DELG 2002). The early gas lamps had a free burning flame in a lantern (Dublin Civic Trust 2004, O'Connell 1975). The major gas companies were located in the Dublin Docklands. These amalgamated in 1866 to become the Alliance and Consumer's Gas Company. They lit the city as far as Kilmainham, Fairview and Rathmines (Dublin Civic Trust 2004, O'Connell 1975).

In 1887 the gas mantle was introduced (Dublin Civic Trust 2004). Public lighting was still confined between the canals with the addition of the townships of Rathmines, Ballsbridge, Glasnevin, and Drumcondra (Dublin Civic Trust 2004). In the 1890s open flame gas lamps were superseded by silk-web incandescent gas light (O'Connell 1975).

Early antique pillars are beautifully proportioned and have mostly a rounded fluted base, leaf mouldings and a crossbar to support a ladder for the gas lighter when illuminating the shorter standard, 4.5m in height (Dublin Civic Trust 2004, DELG 2002). At the peak of this service the Corporation employed 25 lamplighters to light and quench 3,750 lamps (Dublin Civic Trust 2004). Some surviving examples survive in Ringsend Park.

When electricity superseded gas, the standard increased in height as high as 9m (Dublin Civic Trust 2004). Electric light was first introduced in 1890 and was in operation for the tercentenary of the founding of Trinity College in 1892 (O'Connell 1975). The change allowed an increase in height of the standard to nine meters. Early standards were large cast iron columns supporting an electric lamp at the top. The initial scheme consisted of 80 nine meter 'swan neck' lamp standards and covered most of the city from Sackville (now O'Connell) Street to Grafton Street and Mary Street to Parliament Street. These were made in Britain (O'Connell 1975).

The opening of the Pigeon House Generation Station in 1903 extended public electric lighting to almost all major streets in the City Centre (O'Connell 1975, DELG 2002). The large Scotch Standards with straight stem-heads and semi-circular overhangs were part of this scheme (O'Connell 1975, Dublin Civic Trust 2004). The Rathmines and Pembroke Urban District Councils also undertook their own public lighting schemes (O'Connell 1975).

Street lighting contributes to public safety and the style and design of lamp standards contribute to the overall appearance of the streetscape (Dublin Civic Trust 2004). Many surviving light standards display a high level of artistry and craftsmanship and complement historic streetscapes. Many lamp standards have been replaced by replicas and replicas have also been installed along streetscapes in the City Centre including along North Wall

Quay and Custom House Quay (CBC0016LP001). Between 1920-40 Dublin Corporation reproduced many of the gaslight design standards to a greater height and positioned them on the secondary streets (Dublin Civic Trust 2004). While these are not as significant in architectural heritage terms, they still contribute positively to the historic streetscapes which they are located in and have often been installed by Local Authorities as part of improvements to the public realm. Others are adapted tram standards such as those associated with Nelson's Pillar to Kingstown Tramway (Cornwall 2020b). These are pear based with an acanthus leaf frieze. Others including two on the Kimmage Road Lower are adapted sewer vent pipes such as those produced by the South Dublin Rural and District Council between 1909 and 1912. The purpose of sewer vents was to release noxious fumes to the environment. These also have bulbous bases decorated with modillions and typically have the letters S.D.R.D.C (South Dublin Rural and District Council) and the date at the base with the manufacturers plate on the reverse side.

1.2.4 Paving and Surface Treatments

Historic paving includes stone paving, stone steps, cobbles or setts and kerbs. In medieval Ireland, the use of stone to pave streets and trackways became more common. Sections of cobbled paving have been found in archaeological excavations in Dublin (DAHG 2015). A section of medieval cobbled pavement, uncovered in archaeological excavations at the medieval St Audoen's Church in High Street, Dublin can be viewed within the Office of Public Work's Visitor Centre now located in the former Guild Chapel of St Anne (DAHG 2015).

Early cobbles survive in Front Square, Trinity College Dublin, including rounded limestone clasts interspersed with white quartz, granite and other igneous rocks including andesite and diorite (DAHG 2015). Unlike setts, cobbles are not dressed but are rounded as found (DAHG 2015). Randomly laid cobbles can be seen on footpaths and carriageways in early photographs of the main urban centres in Ireland (DAHG 2015).

The majority of historic paving found in Ireland today dates from the eighteenth century onwards (O'Connell 1975, DAHG 2015). In 1717 an Act entitled '*For the better amendment of the pavement, and more effectually cleansing of the streets of the city of Dublin and removing encroachments and nuisances that are or shall be erected therein, etc.*', was passed (DAHG 2015). Under the Act, the Lord Mayor, Sherriff and two Aldermen, were authorised 'to direct the levelling, new paving, raising and mending of the pavements' and empowered to charge the chief tenants inhabiting houses and owners of waste ground with the price of carrying out this work before their houses and grounds' (DAHG 2015). Under the Act of 1719, the Lord Mayor and one Sheriff within the City and every Alderman were appointed '*to regulate the pavements*' (DAHG 2015, 6 Geo. I. c. 15). Further legislation passed in 1729 charged the Church Wardens and the Directors of the Watch '*to examine and return all defects in the paving and cleansing, and the Lord Mayor was required to execute the trust imposed on him according to such returns.*' (DAHG 2015).

The Board of Commissioners for Paving the Streets of Dublin, or the Dublin Paving Board, was set up by an Act of Parliament in 1774 '*for paving the streets, quays, bridges, squares, yards, courts and alleys within the city and county of the city of Dublin, etc.*' because of the poor quality or lack of pavements and because such public areas were not properly '*pitched, paved or regulated for the free intercourse of the inhabitants*' (DAHG 2015, Dublin Civic Trust 2004, DELG 2002). It was funded by a Watch Tax which was extended to include a Pavement Tax of a shilling in the pound of the yearly rent (DAHG 2015). The five city divisions entered into contract with the various paviours, stone-cutters, masons and gravel suppliers for work within their groups of parishes, while the specifications were provided by Mr Thomas Owen, Surveyor to the Board (DAHG 2015). Each committee reported on the state of the pavements in its division and proposed the streets most in need of paving (DAHG 2015). The remit of the Paving Board extended beyond paving the city streets. An early meeting in 1774 resolved, that '*all signs, sign irons, posts whether of wood or stone, spur stones, landing stones, boards, bulks, show-glasses, show-boards, sett-out windows, and pent-houses, in this city and other places mentioned in the Act for the Paving the Streets etc. shall be immediately removed*' (DAHG 2015). In addition, '*all steps, and doors, opening or leading from the foot ways or carriageways into vaults, cellars or other places be immediately removed, filled up, or altered*' (DAHG 2015). The Corporation for Paving specified the materials required as follows (DAHG 2015):

'Flags of the best hard mountain stone, at least four inches thick at the edge, free from yellow soft grit (those at the top of the quarry by no means to be used) chizzel'd flat in the surface, & squared on the four edges, all other flags, at least two inches & one half thick on the edges, not chipped or spaul'd off as they are generally on the under edge, but squared and made very flat on top;

Curb [kerb] of the best mountain stone, squared at the ends, the outer face, the surface and the inner edge, to be full nine inches deep on the outer face and edge, & one foot on the Top or Surface, free from Yellow Grit;

The curb-stones of the foot-way be of mountain stone of twelve inches broad, nine inches deep, with a bed of not less than six inches, & four inches thick at the tail squared through;

Sound pebbles [i.e. cobbles, paving stones] or paving stones free from Shakes or Splinters, which will bear hand trimming not less than four inches over each way;

The best screened Gravel free from Loam;

Bullock stones or any other hard Granite, of nine inches deep, dressed on the Top and Side, & made wedge fashion, the bottom to be four-fifths of the top;

That the grates be made of Iron Bars, not less than one inch square at the least, the bars to be no more than one inch asunder.'

In addition to 'the best hard mountain stone', the Board, following several representations also authorised the use of Arklow stone 'of quality allowed by Judges to be superior to the Scotch paving stones used in London.' Square-paving, by some called Scotch-paving were of blue whynn or Scotch granite; a hard material, usually of a bluish or reddish colour, with which the London road-pavements were paved formed (Herbert 1836). It is likely that the Arklow stone referred to was diorite (DAHG 2015).

Limestone kerbs were also used, as a contract dated 7th October 1774 stipulated the furnishing of:

'limestone curbing stone...punched on the face & rough squared in the edges & ends, with a punch or hammer, the stones not less than nine inches thick at the thinnest place, and from two to five feet long, & twelve inches broad, no stones to be taken but what has their full corners: and also as many other stones as they want, of twelve inches over and nine inches thick squared & edged as above; all at the rate of seven pence per foot, superficial measure, face only to be measured & not edges' (DAHG 2015).

Another contract suggests that Dublin calp was sometimes used for kerbing, 'for laying black stone curbings from twelve to sixteen inches broad' (DAHG 2015).

In addition to the works of the paving board, private developers stipulated the use of granite paving. Leases pertaining to the construction of the Georgian terraces such as Merrion Square stipulated that a fine quality of paving was to be laid to the front of each building as part of its overall development (DAHG 2015). Coal hole covers can be found in these Georgian areas. Coal hole covers, or the cast iron covers to delivery chutes above subterranean coal cellars, usually located under the path and road in front of the houses to Georgian Terraces. Original cast iron Georgian coal hole covers were cast between 1760 and 1830 and were set into a granite surround (O'Connell 1075).

Most of Dublin's streets which had been previously covered with earth, rubble and round cobbles were covered with stone setts by the beginning of the 19th century (O'Connell 1975). As early as 1838, The Penny Cyclopaedia of the Society for the Diffusion of Useful Knowledge reported that:

'The streets [of Dublin] in general are Macadamized, the footpaths for the most part flagged, and the curb-stones and crossings of cut granite. The city has been well lighted since 1825 with gas' (DAHG 2015).

In 1841, following the Municipal Corporation Reform (Ireland) Act, the old City Assembly of Dublin was replaced by a more representative City Council and, in 1849, the Council took over the duties of the Wide Street Commissioners and the Paving Board under the Dublin Improvement Act (DAHG 2015).

In 1870, the Council was asked to consider a 'Proposal for a system of tramways for the City of Dublin and Suburbs.' (DAHG 2015). Seven tramways were subsequently laid in the major thoroughfares of Dublin, and stone setts were the favoured form of street surface associated with them (DAHG 2015). The tram company appears to have paid the Council for repair to streets following track laying (DAHG 2015).

Setts or square block cobbles developed from cobbles between the 16th and 19th centuries (O'Connell 1975). The type which survives today in cities and towns across the country appears to date from the mid to late nineteenth century (DAHG 2015). A source of diorite of a dark green hue was the quarry owned by Charles Stewart Parnell

on his estate at Avondale, County Wicklow from 1884 until his death in 1891, after which the business went into decline (DAHG 2015). Many setts are understood to have been of imported Welsh and Scottish stone (DAHG 2015). It is possible that granite setts of reddish colour which can be seen in many places were such imports. Paving setts were also recorded being made from diorite at Arklow in 1911 (DAHG 2015). Tar grouting of setts was already common practice in the late-nineteenth century (DAHG 2015).

Asphalt as a surfacing material began to be introduced in the late-nineteenth century as a watertight and economical alternative for surfacing of footpaths (DAHG 2015). In 1880, the Council received a report on asphaltting of footpaths (DAHG 2015). Macadamising was also a widespread surfacing method, primarily for carriageways, but possibly also for footpaths. As distinct from later tar-bound macadam, the use of water-bound macadam was pioneered around 1820 by Scotsman John Loudon McAdam (DAHG 2015). Consisting of two-inch broken stones in a single layer six to ten inches (150-250mm) deep and compacted either by the road traffic itself or by a cast iron roller, this method required a great deal of manual labour, but resulted in a strong and free-draining pavement, and remained the widespread method used until the advent of motor traffic. Contracts in 1881 mention both flagging and macadamising (DAHG 2015). The Paving Committee report of 1915, refers to the practice of spraying tar on the surface of macadamised roads to create tar-bound macadam (DAHG 2015). The 1915 report contains an assessment of the practicality of flagged pavements and shows that the introduction of concrete flags and of poured in-situ concrete had begun by 1915 (DAHG 2015).

Concrete paving began to be used for pavements from the early part of the twentieth century (DAHG 2015). Until the late 1980s, historic granite footpaths were routinely replaced with concrete paving (DAHG 2015). In these repaving schemes, historic paving was often re-laid or left untouched outside pubs, where delivery of beer kegs demanded a more robust material (DAHG 2015). As motor traffic became widespread, asphalt or tarmac and also poured concrete became the norm and many setted surfaces were dug up and replaced or were simply covered over (DAHG 2015). Stone pavements and setts have been replaced, not only by asphalt, concrete paving and coloured brick, which is visually incompatible with our traditional streetscapes (DELG 2002).

The restoration of setted carriageways was a key feature of the successful revitalisation of the Temple Bar area of Dublin in the 1990s and these are now perceived by residents and visitors alike as an essential element of the heritage of the city (DAHG 2015). However, many of these setts were moved to the area from other parts of the city, a practice which would not be considered appropriate today, particularly if the location of the setts is original (DAHG 2015). Likewise, the granite pavements which survive to a degree throughout the Georgian areas of Dublin are now identified as a characteristic feature of the city and their role as an essential component of the iconic eighteenth-century architectural ensembles (DAHG 2015).

The background is a vibrant yellow. It is decorated with several abstract geometric shapes in shades of blue, teal, and white. These include circles, semi-circles, and rounded rectangular shapes, some of which are partially cut off by the edges of the page. The shapes are arranged in a dynamic, non-repeating pattern.

Appendix A16.2
Inventory of Architectural
Heritage Sites


Appendix A16.2: Inventory of Architectural Heritage Sites

The following is an inventory of architectural heritage sites identified during the course of this assessment, with the entries arranged from City Centre outwards, starting on the north quays, then working from the City Centre out on the south side, as they occur along the Proposed Scheme.


The locations of the BTH sites are represented on the accompanying mapping (Figure 16.1 in Volume 3 of this EIAR) and labelled using the Proposed Scheme name (CBC16) followed by the AH identification number (e.g., BTH2 is shown as CBC0016BTH002).


1.1 Protected Structures


Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge


Identification No.	DCC RPS 8829
	NIAH 50060556
Legal Status	A Protected Structure
Location	Custom House Quay, Dublin 1
Date of Construction	c.1790
Original Use	Quay/ wharf
Description	Stone quay, built c.1800 in two sections between Sean O'Casey Bridge and East Link Bridge, modern landscaped paving scheme
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 896
Additional Identifiers	NIAH 50010001
Legal Status	A Protected Structure
Location	Custom House Docks Scherzer bridges, Custom House Quay, Dublin 1
Date of Construction	c.1911-12
Original Use	Bridge
Description	Pair of wrought iron Scherzer rolling lift bascule bridges, erected c.1935, modelled on bridges of 1911-12 on North Wall Quay, and carrying east and west carriageways over Royal Canal as it meets Liffey. Constructed of riveted wrought-iron with box-like structures crossing carriageways rising from curved sections with corresponding tread plates to carriageway - including adjoining stone walls The Scherzer's have been permanently clamped shut since 2001, and George's Dock is now dry. Although in good condition, the pair is incomplete and no longer capable of operation (Hamond et al, 2021).
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	

Identification No.	DCC RPS 3173
Other identifiers	NIAH 50010131, DCIHR 1811154
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	Custom House Quay, George's Dock
Date of Construction	c.1820
Original Use	Limestone ashlar dock walls with granite copings, granite and cast-iron bollards, steps, lock gates, cast-iron mooring rings, ladders and winches
Description	George's Dock, Custom House Quay, Dublin 1
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Historical, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 2094
Additional Identifiers	NIAH 50010003
Legal Status	A Protected Structure
Location	Custom House Docks, Custom House Quay, George's Dock, Dublin 1 CHQ - Stack A (whole), stack C (vaults) warehouse
Date of Construction	c.1820
Original Use	Store/warehouse
Description	Detached quadripartite single-storey iron and masonry former warehouse over vaulted basement, built c.1820, to designs of John Rennie. Rectangular on plan on north-south axis with four glazed gables facing south onto Custom House Quay and multiple-bay brick side elevation fronting onto George's Dock to west. Extensively renovated and converted for commercial use by Michael Collins Associates in 2005.
Significance Rating	National (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	High
Photographs	


Identification No.	DU018-020564
Additional Identifiers	DCC RPS 5835, NIAH 50010011
Legal Status	A recorded monument, A Protected Structure
Location	North Wall Quay
Date of Construction	c.1800
Original Use	Quay/wharf
Description	Granite ashlar quay walls, stone setts, mooring hooks, ladders, handrails and steps. Coursed squared granite ashlar quay walls with granite coping, flush to embankment with bull-nosed edges. Several paired iron mooring hooks set into coping and three shallow recesses containing iron ladders. Mixed cobbled, granite, sandstone and resin-bonded gravel marking modern landscaped paving scheme. Remains of old railway tracks remain embedded within paving scheme to eastern section. Steps and ramps with granite nosed boundary stones to roadside. Bounded by modern steel railings.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Historical, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 912
Additional Identifiers	NIAH 50010009
Legal Status	A Protected Structure
Location	Royal Canal Scherzer bridges, North Wall Quay, Dublin 1
Date of Construction	c.1935
Original Use	Bridge
Description	Pair of wrought iron Scherzer rolling lift bascule bridges, erected 1911-12, carrying east and west carriageways of street over channel connecting George's Dock to Liffey. The bridges survive in a reasonably complete state. Although still capable of operation to facilitate boat access to the sea lock at this end of the canal, their spans have been temporarily clamped shut and they are now rarely, if ever, opened (Hamond et al, 2021).
Significance Rating	Regional (NIAH), National (Hamond, et al 2021)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 5836
Additional Identifiers	NIAH 50010012
Legal Status	A Protected Structure
Location	CIE Goods Depot (Railway Station), 48-57 North Wall Quay, Dublin 1
Date of Construction	c.1900
Original Use	Railway station
Description	Detached symmetrical thirteen-bay two-storey brick and stone former North Wall Railway Station, built c.1900, with central three-bay block flanked by matching taller five bay wings and single-storey curved wing to east (under construction) - including curved wall and chimneys
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Historical, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 5837
Additional Identifiers	NIAH 50010013


Legal Status	A Protected Structure
Location	Store / Warehouse, North Wall Quay
Date of Construction	c.1850
Original Use	Store/warehouse
Description	Attached eleven-bay three-storey stone former warehouse, built c.1850, with central pedimented loading bay (under construction) - including hexagonal lantern
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photograph	


Identification No.	DCC RPS 5838
Additional Identifiers	NIAH 50010014
Legal Status	A Protected Structure
Location	58-59 North Wall Quay CIE Offices (British Rail Hotel)
Date of Construction	c.1885
Original Use	Hotel
Description	Detached eight-bay four-storey red brick and terracotta former hotel, built c.1885, on U-plan with three-storey seven-bay rear wings retained from earlier hotel, built c.1860. Front elevation defined by three distinct elevations with central entrance porch, advanced west section and octagonal domed turret.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Historical, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 5840
Additional Identifiers	NIAH 50011165
Legal Status	A Protected Structure
Location	Richford Motors, 73 North Wall Quay
Date of Construction	1862
Original Use	Showrooms / warehouses (vacant)
Description	Detached multiple-bay three-storey brick commercial building, built 1862, with central pediment and limestone detailing – façade only
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 5841
Additional Identifiers	NIAH 50011166
Legal Status	A Protected Structure
Location	81 North Wall Quay
Date of Construction	c.1880
Original Use	House (public house)
Description	Attached two-bay three-storey house over concealed basement, built c.1880, with pub shopfront inserted to ground floor.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Social
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 5842
Additional Identifiers	NIAH 50011167
Legal Status	A Protected Structure
Location	82 North Wall Quay
Date of Construction	c.1900
Original Use	Warehouse
Description	Building – warehouse: Attached gable-fronted three-storey warehouse, built c.1900, having three-bay front and eight-bay east side elevation (under construction).
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 5843
Additional Identifiers	NIAH 50011169
Legal Status	A Protected Structure
Location	3 Arena, North Wall Quay
Date of Construction	C.1878
Original Use	Train shed
Description	Detached sixteen-bay two-storey former train depot, dated 1878, with sixteen-bay east side elevation and triple-gabled rear elevation – limestone arcades to the ground floor with brick over, and limestone trims fronting the river and rubble walling with brick trims to the north and east. Limestone piers and modern railings to the front. Guted and extended above roof and to west c.2008
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Cultural, Historical, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DU018-020458
Additional Identifiers	DCC RPS 8841, NIAH 50020257
Legal Status	A recorded monument and Protected Structure
Location	George's Quay, Dublin 2
Date of Construction	c.1810
Original Use	Harbour/ dock/ port
Description	Dressed ashlar granite quays, constructed c.1810, having concrete coping, recent steel rails, parapet wall with carved granite coping and masonry quay steps adjacent to Loop line Bridge. Cast-iron ladders rebated into quay walls.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Social, Technical
Sensitivity	Medium
Photographs	

Identification No.	DU018-020479
Additional Identifiers	DCC RPS 8825, NIAH 50020258
Legal Status	A recorded monument and Protected Structure
Location	City Quay
Date of Construction	c.1810
Original Use	Quay/wharf
Description	Dressed ashlar granite quays, constructed c.1810, having cut granite coping, recent steel railing, cast-iron mooring hooks, granite quay steps and attached cast-iron ladders.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 1853
Additional Identifiers	NIAH 50020337
Legal Status	A Protected Structure
Location	9 City Quay
Date of Construction	1914
Original Use	Presbytery, Parochial/ curate's house
Description	Attached three-bay three-storey presbytery, built 1914, having full-height canted bay to east elevation and single-storey extension to rear.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	

Identification No.	DCC RPS 1854
Additional Identifiers	NIAH 50020338
Legal Status	Protected Structure
Location	Church of the Immaculate Heart of Mary, 10-12 City Quay, Dublin 2
Date of Construction	c.1863
Original Use	Church, gates/ railings/ walls
Description	St. Mary's Church, belfry, and boundary walls and railings: Freestanding gable-fronted double-height Roman Catholic church, built 1863, comprising ten-bay nave with square-plan three-stage bell tower to west of entrance front (north) elevation - gate screen to north comprising decorative wrought-iron double-leaf gate flanked by square-profile pedimented piers with wrought-iron cross finials, flanked by matching railings on carved limestone plinth wall.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Artistic, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 1855-6
Legal Status	Protected Structures
Location	21-22 City Quay, Dublin 2
Date of Construction	c.1880
Original Use	Wall
Description	Stone façade: Fragment of rusticated cut granite façades, segmented carriageways flanked with tall arched doors, retained to the ground floor of the tall, modern development behind.
Significance Rating	Regional
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	


Identification No.	DU018-020201
Additional Identifiers	DCC RPS 7542, NIAH 50020465
Legal Status	A Protected Structure
Location	Sir John Rogerson's Quay, Dublin 2
Date of Construction	c.1870
Original Use	Quay/ wharf
Description	Quay: Granite ashlar quay walls, stone setts, mooring rings, steps, bollards, lamp standards and machinery. Ashlar granite quay wall, erected c.1870, with ashlar granite coping. Cast-iron mooring hooks and mooring rings. Timber fenders to north of B. J. Marine building. Granite steps with cast-iron railings. Stone setts and inset cast-iron rails to campshire.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Social, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 7543
Additional Identifiers	NIAH 50020470
Legal Status	A Protected Structure
Location	2 Sir John Rogerson's Quay, Dublin 2
Date of Construction	c. 1913-14
Original Use	Store/ warehouse
Description	Building – warehouse, façade only Attached gable-fronted three-bay two-storey former warehouse, built 1913-14
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Historical, Social
Sensitivity	Medium
Photographs	

Identification No.	DCC RPS 7544-5
Additional Identifiers	NIAH 50020472, NIAH 50020473
Legal Status	Protected Structures
Location	4-5 Sir John Rogerson's Quay, Dublin 2, (Catholic Seamen's Institute)
Date of Construction	c.1825
Original Use	Houses
Description	Terraced two-bay four-storey former houses, built c.1825
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Social
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 7546
Additional Identifiers	NIAH 50020474
Legal Status	Protected Structures
Location	14-15 Sir John Rogerson's Quay, Dublin 2
Date of Construction	c. 1890
Original Use	Mill (water)
Description	Columbia Mills (offices) Attached gable-fronted five-bay three-storey former mill, built c.1890, now in use as offices.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Cultural, Social
Sensitivity	Medium
Photographs	 <p>A photograph of the Columbia Mills building, a three-story structure with a light blue facade and a gabled roof. The words 'COLUMBIA MILLS' are visible in large orange letters on the upper part of the building. To the left is a modern glass-fronted building, and to the right is a red brick building. The street in front is paved and has a few parked cars.</p>

Identification No.	DCC RPS 7547
Additional Identifiers	NIAH 50020477
Legal Status	Protected Structures
Location	20-24 Sir John Rogerson's Quay, Dublin 2
Date of Construction	c. 1905
Original Use	Offices
Description	Former B&I Steam packet Company office building with associated walls, gates and railings
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Historical, Social
Sensitivity	Medium
Photographs	 <p>A photograph of a three-story red brick building with a classical architectural style. It features arched windows on the ground floor and rectangular windows above. The building is situated on a street with a sidewalk and a street lamp in front. A metal railing is visible in the foreground.</p>


Identification No.	DCC RPS 7548
Additional Identifiers	NIAH 50020478
Legal Status	Protected Structures
Location	30-32 Sir John Rogerson's Quay
Date of Construction	c. 1890
Original Use	Store/warehouse
Description	Tropical Fruit Co.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Historical, Social
Sensitivity	Medium
Photographs	

Identification No.	DCC RPS 7549-50
Additional Identifiers	NIAH 50020479
Legal Status	Protected Structures
Location	35-36 Sir John Rogerson's Quay, Dublin 2
Date of Construction	c.1820
Original Use	House
Description	The Ferryman, Georgian-style commercial/residential premises
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	


Identification No.	DCC RPS 7542
Additional Identifiers	NIAH 50020468
Legal Status	A Protected Structure
Location	Sir John Rogerson's Quay, Dublin 2
Date of Construction	c.1870
Original Use	Machinery: Diving Bell
Description	Cast-iron and riveted plate-iron diving bell, fabricated c.1870, with chamber 23 feet square by 6.5 feet high, accessed by vertical shaft with iron rungs, incorporating air lock. Located to quay side of Sir John Rogerson's Quay, mounted on modern display structure.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Historical, Scientific, Social, Technical
Sensitivity	Medium
Photographs	

Identification No.	DCC RPS 8808
	CBC0016BTH039
Legal Status	Protected structure and included in the NIAH Building Survey description of Sir John Rogerson's Quay (DU018-020201), which is a Recorded Monument and a Protected Structure
Location	Britain Quay
Date of Construction	c.1870
Original Use	Quay wall
Description	Quay: Granite ashlar quay walls, erected c.1870, with ashlar granite coping.
Significance Rating	Regional
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	

Section: Tom Clarke East Link Bridge to Sean Moore Road

Identification No.	DCC RPS 7376
Legal Status	A Protected Structure
Location	103 Ringsend Park, Dublin 4
Date of Construction	c.1930
Original Use	Fountain
Description	Marble fountain, recessed into a brick garden wall at the junction of Ringsend Park and Cambridge Road, with decorative granite capping.
Significance Rating	Regional
Categories of Special Interest	Architectural, Artistic, Social
Sensitivity	Medium
Photographs	

Identification No.	DU018-066
Additional Identifiers	DCC RPS 6797
Legal Status	A recorded Monument, a Protected Structure
Location	Sea Wall, Pigeon House Road, Dublin 4
Date of Construction	c.1795
Original Use	Sea Wall
Description	Sea wall constructed of granite and limestone blocks
Significance Rating	Regional
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	

Identification No.	DCC RPS 6782
Legal Status	Protected Structure
Location	70 Pigeon House Road, Dublin 4
Date of Construction	c.1860
Original Use	House
Description	Detached brick-built former coast guard station, gable fronted with attached tower to the west. Granite capped brick boundary walls
Significance Rating	Regional
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

1.2 Conservation Areas

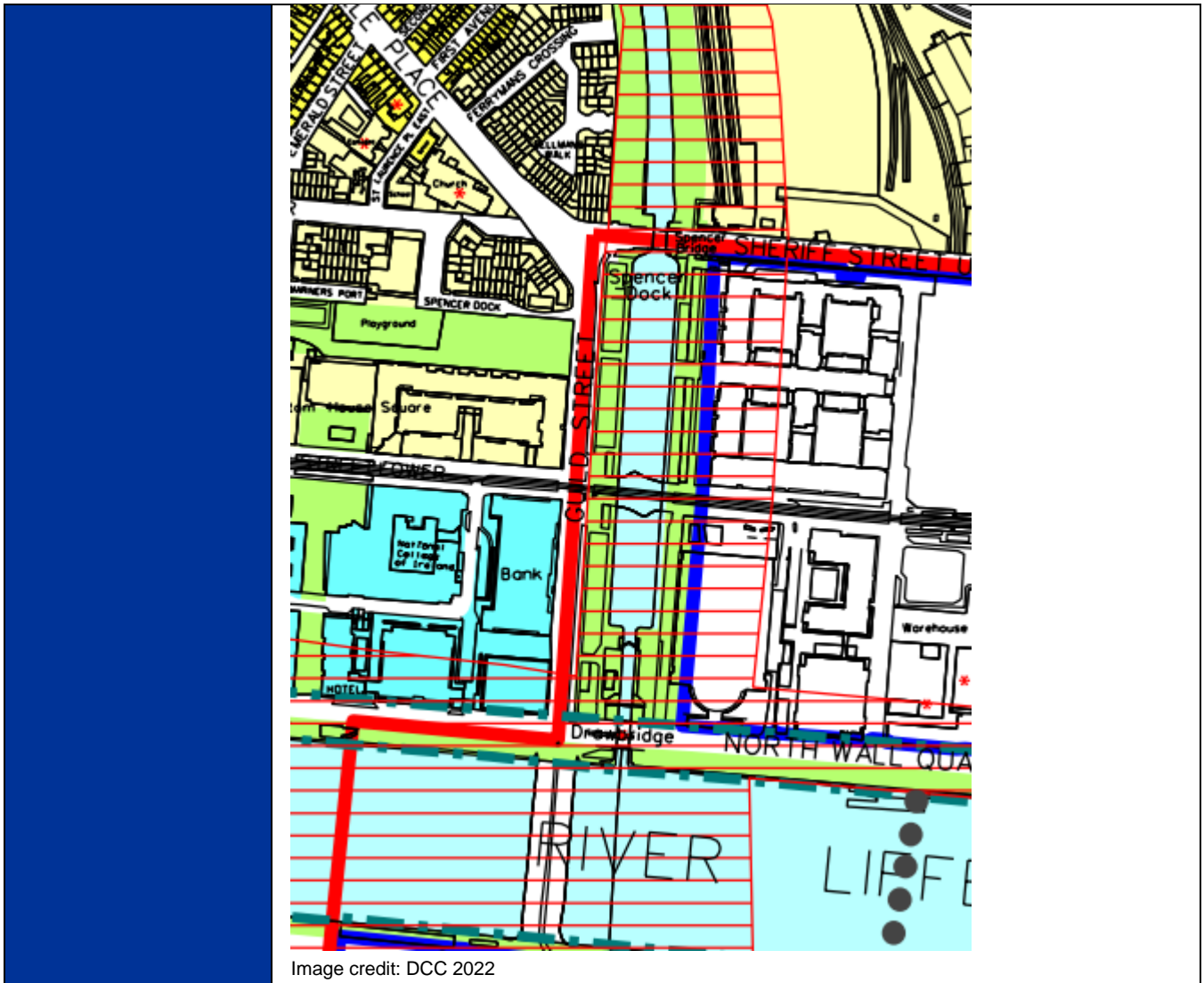
Liffey Quays Conservation Area

Identification	Liffey Quays Conservation Area (CA)
Legal Status	Protected under Policy BHA9 of the Dublin City Development Plan (DCC 2022). It is indicated as an area hatched in red.
Location	The Liffey Quays
Description	<p>The CA follows the Liffey Quays along the north and south of the river. It overlaps with the study area along Custom House Quay, North Wall Quay, George's Quay, City Quay, Sir John Rogerson's Quay and Britain Quay. At the west end of the study area, the Conservation Area is extended to include the CHQ, George's Dock and the Custom House. The Conservation Area is characterized by historic and industrial Docklands, fronting gridded streets or Lotts behind, and historically supported by canal and rail links. The building stock includes significant eighteenth-century institutional and industrial set piece buildings, with commercial and residential terraces juxtaposed against nineteenth century warehousing, low-rise twentieth-century housing and modern office buildings.</p> <p>Twenty-four of the protected structures listed in Table 16.7 are also located in the Conservation Area with an additional ten NIAH structures or groups of structures (Table 16.9), three features of industrial heritage interest (Table 16.10), one other building of built heritage interest (Table 16.11), two groups of lamp posts (Table 16.12), two statues (Table 16.13) and six areas of paving or surface treatments (Table 16.14) of architectural heritage significance identified which fall within both the study area and the Conservation Area.</p>
Significance Rating	Regional
Categories of Special Interest	Architectural, Archaeological, Historic, Technical, Social
Sensitivity	Medium sensitivity
Sources	DCC 2022, NMS 2020, NIAH 2020a, NIAH 2020b, Speed 1610, Rocque 1756, Rocque 1760, Taylor 1816, Duncan 1821, OSI 1844, OSI 1847, OSI 1864, OSI 1889, OSI 1911, OSI 1953, O'Connell 1975, Ferguson 2009, Field Survey
Image	



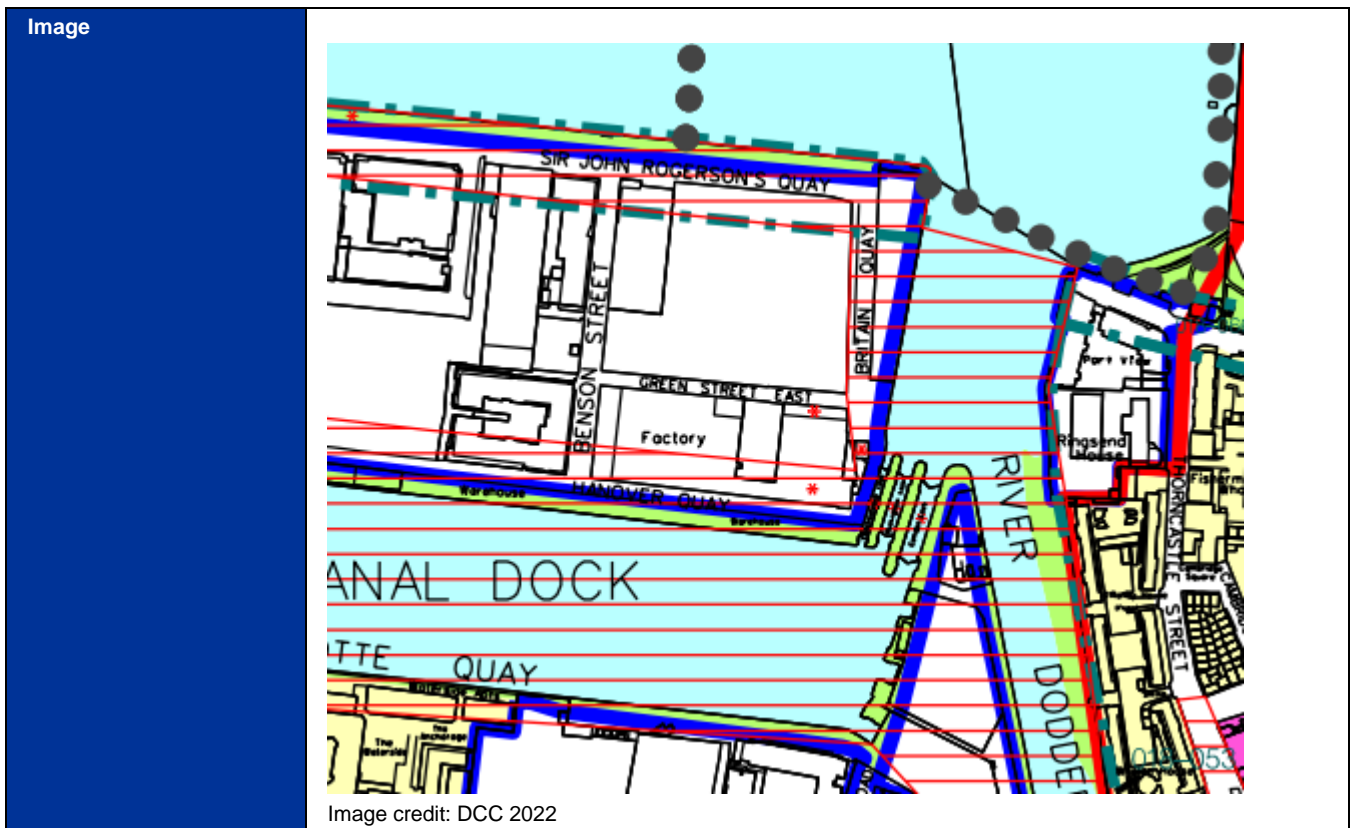
Royal Canal Conservation Area

Identification	Royal Canal Conservation Area
Legal Status	Protected under Policy BHA9 of the Dublin City Development Plan (DCC 2022). It is indicated as an area hatched in red.
Location	The course of the Royal Canal
Description	The Royal Canal Conservation Area follows the course of the Royal Canal, its tow paths and associated walks. It intersects with the study area, and with the Liffey Quays Conservation Area, at the Sea Lock at the junction of Guild Street and North Wall Quay (including the Convention Centre). One Protected Structure (Scherzer Bridges DCC RPS 912 of Medium sensitivity) and one industrial heritage site (Royal Canal Sea Lock CBC0016BTH007 of Medium sensitivity) were identified which fall within both the study area and the Royal Canal Conservation Area. The Conservation Area terminates at North Wall Quay (DU018-020564) which is of Medium sensitivity and is included in the RMP, RPS and NIAH, where the Samuel Beckett Bridge (NIAH 50010010, of Low sensitivity) crosses the Liffey.
Significance Rating	Regional
Categories of Special Interest	Architectural, Archaeological, Historic, Technical
Sensitivity	Medium sensitivity
Sources	DCC 2022, NMS 2020, NIAH 2020a, NIAH 2020b, Speed 1610, Rocque 1756, Rocque 1760, Taylor 1816, Duncan 1821, OSI 1844, OSI 1847, OSI 1864, OSI 1889, OSI 1911, OSI 1953, O'Connell 1975, Ferguson 2009, Field Survey
Image	



Dodder Valley and Grand Canal Conservation Area

Identification	Dodder Valley and Grand Canal Conservation Areas
Legal Status	Protected under Policy BHA9 of the Dublin City Development Plan (DCC 2022). It is indicated as an area hatched in red.
Location	The River Dodder and Grand Canal
Description	<p>The Conservation Areas follow the course of the Dodder River and the Grand Canal, converging at Grand Canal Basin and meeting the Liffey Quays Conservation Area between Britain Quay and Ringsend.</p> <p>One feature of Industrial Heritage Interest which is included in DCIHR was identified which lies within the study area and the Conservation Area. This is a boat slip on York Road (CBC0016BTH015). It is of Medium sensitivity. Two further features of built heritage interest were identified. These are quay walls on York Road (CBC0016BTH038) and Britain Quay (DCC RPS 8808). These are quay walls on York Road are not protected or included in any identified existing inventories but is of architectural and technical interest. They are Medium sensitivity structures.</p>
Significance Rating	Regional
Categories of Special Interest	Architectural, Archaeological, Historic, Technical
Sensitivity	Medium sensitivity
Sources	DCC 2022, NMS 2020, NIAH 2020a, NIAH 2020b, Speed 1610, Rocque 1756, Rocque 1760, Taylor 1816, Duncan 1821, OSI 1844, OSI 1847, OSI 1864, OSI 1889, OSI 1911, OSI 1953, O'Connell 1975, Ferguson 2009, Field Survey





1.3 National Inventory of Architectural Heritage Structures

Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge


Identification No.	NIAH 50010002
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	Custom House Quay
Date of Construction	1997
Original Use	Monument
Description	Famine memorial, group of bronze statues by Rowan Gillespie, erected 1997
Significance Rating	Regional (NIAH)
Categories of Special Interest	Artistic, Historical, Social
Sensitivity	Medium




Identification No.	NIAH 50010005,
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	Custom House Quay, George's Dock
Date of Construction	c.1821
Original Use	Harbour/ dock/ port
Description	Rectangular stone wet dock, built 1821, to designs of John Rennie with lock opening into Inner Dock to north and further lock connecting to Liffey to south. Built of squared coursed limestone ashlar walls, slightly battered with large, squared granite coping. Curved walls to entrances of both locks with several granite bollards and cast-iron mooring ties located to perimeter. Now used for public events with modern steel deck structure to centre, two geysers and stainless steel railing encircling entire dock.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Historical, Technical
Sensitivity	Medium
Photographs	


Identification No.	NIAH 50010006
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	Custom House Quay, George's Dock
Date of Construction	c.1830
Original Use	Harbour/ dock/ port
Description	Pair of cast and wrought iron winches erected c.1830 to either side of south lock to George's Dock.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Historical, Technical
Sensitivity	Medium
Photographs	


Identification No.	NIAH 50011219
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Legal Status	Not protected but recognized through inclusion on the NIAH
Location	Custom House Quay, George's Dock
Date of Construction	1813
Original Use	Gates/ railings/ walls
Description	Freestanding limestone triumphal arch, built 1813, transplanted to Custom House Quay from Amiens Street in 1998
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Technical
Sensitivity	Medium
Photographs	


Identification No.	NIAH 50010010
Legal Status	Not protected but recognised through inclusion on the NIAH
Location	Samuel Beckett Bridge
Date of Construction	c.2009
Original Use	Bridge
Description	Bridge - designed by Santiago Calatrava and erected c.2009
Significance Rating	Record-only (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Low
Photographs	



Identification No.	NIAH 50011185
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	Castleforbes Road, North Wall Quay, Dublin 1
Date of Construction	c.1900
Original Use	Electricity (ESB) Substation

Description	Two detached single-storey electricity substations built c.1900, northern being six-bay and southern two-bay. Symmetrical painted rendered front elevation surmounted by deep moulded cornice having central breakfront and channel rusticated piers to either end. Front area enclosed by decorative cast-iron railings and cast-iron piers set on painted granite ashlar plinth wall with matching iron gates to either end having decorative cast-iron panels.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	

Identification No.	NIAH 50011168
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	94 North Wall Quay, Dublin 1
Date of Construction	c.1880
Original Use	Industrial Building
Description	Industrial Building - now demolished
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Artistic, Technical
Sensitivity	Negligible (the building was demolished subsequent to the NIAH assessment)
Photographs	

Identification No.	NIAH 50020471
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	3 Sir John Rogerson's Quay, Dublin 2
Date of Construction	c.1900
Original Use	Office
Description	Building – Tedcastle Line Offices (now demolished)
Significance Rating	Regional (NIAH)
Categories of Special	Architectural, Artistic, Social

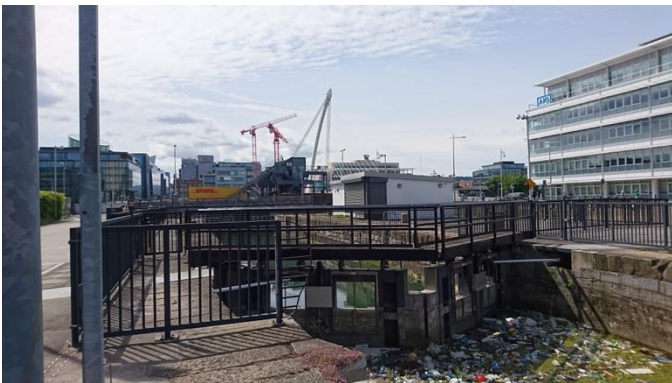
Interest	
Sensitivity	Negligible (the building was demolished subsequent to the NIAH assessment)
Photographs	


Identification No.	NIAH 50020466-7
Legal Status	Not protected but recognized through inclusion on the NIAH
Location	81 Sir John Rogerson's Quay, Dublin 2
Date of Construction	c.1880
Original Use	Stores/ Warehouses (B.J. Marine)
Description	Detached five-bay double-height former warehouse, built c.1880, recently refurbished
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Social
Sensitivity	Medium
Photographs	 

1.4 Industrial Heritage Sites


Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge

Identification No.	CBC0016BTH007
Legal Status	Not protected but recognized through inclusion on the DCIHR 18_12_062

Location	Royal Canal, Guild Street, North Wall Quay
Date of Construction	c.1790
Original Use	Sea Lock
Description	Sea lock built c.1790, at River Liffey end of Royal Canal, now with only chamber walls surviving comprising squared coursed limestone walls forming channel into the former Spencer Dock. The well-executed ashlar walls are symptomatic of the high-quality workmanship of the Royal Canal. Despite having lost many of its original features this lock is significant within the industrial heritage of Dublin as part of the group of structures comprising the Royal Canal (DCIHR, 2008).
Significance Rating	Regional
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	


Identification No.	CBC0016BTH015
Legal Status	Not protected but recognized through inclusion on the DCIHR 18_12_118
Location	York Road, Ringsend
Date of Construction	c.1920
Original Use	Boat Slip
Description	Concrete boat slip with iron posts and railings and concrete mooring blocks. Cast iron lamppost to northwest corner. Limestone masonry quay wall borders to east. This early twentieth-century boat slip retains original railings etc. and is an important surviving example of maritime construction within an area which has been largely redeveloped (DCIHR, 2007).
Significance Rating	Local
Categories of Special Interest	Artistic, Historical, Social
Sensitivity	Low
Photographs	


Section: Tom Clarke East Link Bridge to Sean Moore Road

Identification No.	CBC0016BTH035
Legal Status	Not protected but recognized through inclusion on the DCIHR 18_12_151
Location	Syphon House, Pigeon House Road / Cambridge Avenue
Date of Construction	c.1900
Original Use	Syphon House (vacant/ derelict)
Description	<p>Detached two-bay single-storey masonry syphon house built as part of the Rathmines and Pembroke Main Drainage Scheme. Now disused. Pitched slate roof with air vent and cast-iron rainwater goods on timber eaves board. Squared roughly coursed rock-faced granite walls with rock-faced limestone quoins. Segmental-headed window openings with block-and-start limestone surrounds and granite sills; now blocked. Square-headed door opening with granite lintel and threshold and block-and-start limestone reveals.</p> <p>This striking building is one of a group of structures built which was completed in 1881 and was the first main sewage system in Dublin. Situated at the end of a long embankment, the construction of which had a major impact on the geography of Ringsend, this structure exhibits an attractive design which belies its functional role. The use of varied stone displaying a mixture of finishes and also skilfully executed, enhances its symmetrical design (DCIHR 2007).</p>
Significance Rating	Regional
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	


1.5 Other Structures of Architectural Heritage Significance


Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge

Identification No.	CBC0016BTH013
Legal Status	Not protected or included on any existing inventories, note: a brewery site is noted on DCIHR 18_11_192
Location	1 - 4 City Quay, Dublin 2
Date of Construction	c.1910
Original Use	Commercial Buildings
Description	Six-bay three-storey corner building built c.1910
Significance Rating	Local
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	


Identification No.	CBC0016BTH038
Legal Status	Not protected or included in any existing inventories
Location	York Road, Ringsend
Date of Construction	c.1790
Original Use	Quay
Description	Cut granite quay walls, erected c.1790 with ashlar granite coping
Significance Rating	Regional
Categories of Special Interest	Architectural, Technical
Sensitivity	Medium
Photographs	

Section: Tom Clarke East Link Bridge to Sean Moore Road


Identification No.	CBC0016BTH016
Legal Status	Not protected or included on any existing inventories
Location	Pembroke Cottages, Dublin 4
Date of Construction	c.1890
Original Use	Houses
Description	52 three-bay brick-built cottages c.1890, some with recessed arched entrance,
Significance Rating	Regional (The individual cottages have generally been altered and of local interest only, but the terraces are of historic interest and make a positive contribution to the streetscape which is of regional importance).
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH017
Legal Status	Not protected or included on any existing inventories
Location	Mission Hall, Dublin 4
Date of Construction	c.1895
Original Use	Community Hall
Description	Hall built c.1895 with associated gates and railings
Significance Rating	Local
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural, Social
Sensitivity	Low
Photographs	

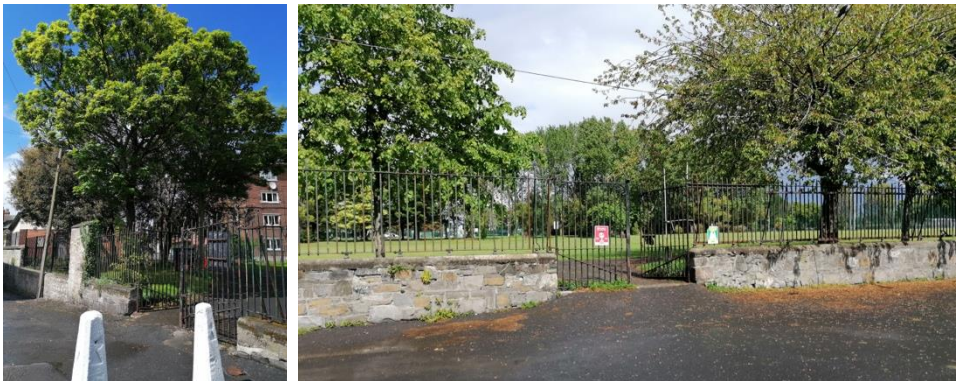
Identification No.	CBC0016BTH018
Legal Status	Not protected or included on any existing inventories
Location	12 York Road, Dublin 4 (York Terrace)
Date of Construction	c.1860
Original Use	Houses
Description	Houses built c.1860 now joined and in use as commercial / offices
Significance Rating	Local
Historical Map References	1886 OS Map City of Dublin, 1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	


Identification No.	CBC0016BTH019
Legal Status	Not protected or included on any existing inventories
Location	1-44 Pigeon House Road and 45-103 Ringsend Park, Dublin 4
Date of Construction	c.1900
Original Use	Houses
Description	Back-to-back terraces of three-bay brick-built cottages
Significance Rating	Regional (The individual cottages have generally been altered and of local interest only, but the terraces are of historic interest and make a positive contribution to the streetscape which is of regional importance).
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	


Identification No.	CBC0016BTH020
Legal Status	Not protected or included on any existing inventories
Location	Bayview Terrace, 46-51 Pigeon House Road, Dublin 4
Date of Construction	c.1870
Original Use	Houses
Description	Terraces of two bay, two storey brick-built houses (some now rendered) with front gardens. Most of the original boundary treatments have been lost.
Significance Rating	Local
Historical Map References	1886 OS Map City of Dublin, 1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	


Identification No.	CBC0016BTH036
Legal Status	Not protected or included on any existing inventories
Location	1-10 Cambridge Avenue, Pigeon House Road, Dublin 4
Date of Construction	c.1900
Original Use	Houses
Description	Two storey two bay houses, brick built with granite detailing
Significance Rating	Local
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	


Identification No.	CBC0016BTH037
Legal Status	Not protected or included on any existing inventories
Location	62, 63 Pigeon House Road, Dublin 4
Date of Construction	c.1900
Original Use	Houses
Description	Two-storey two-bay houses, (much altered), with rubble boundary walls
Significance Rating	Local
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	

Identification No.	CBC0016BTH025
Legal Status	Not protected or included on any existing inventories
Location	Ringsend Park, Dublin 4
Date of Construction	c.1905
Original Use	Park
Description	Park developed subsequent to nearby artisan dwellings and technical schools on reclaimed land - railed in c.1905 comprising a number of different areas given over to sporting activities.
Significance Rating	Regional
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	


Identification No.	CBC0016BTH021
Legal Status	Not protected or included on any existing inventories
Location	St Patrick's Villas, Dublin 4
Date of Construction	c.1920
Original Use	Houses
Description	Terrace of two-bay two-storey brick-built houses c.1920
Significance Rating	Local
Historical Map References	Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	


Identification No.	CBC0016BTH022
Legal Status	Not protected or included on any existing inventories
Location	St Brendan's Cottages
Date of Construction	c.1890
Original Use	Houses
Description	Terrace of single-storey two-bay brick-built cottages
Significance Rating	Regional
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH023
Legal Status	Not protected or included on any existing inventories
Location	St Brendan's Terrace Dublin 4
Date of Construction	c.1900
Original Use	Houses
Description	Terrace of one-bay two-storey brick-built houses built c.1900
Significance Rating	Regional
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH024
Legal Status	Not protected or included on any existing inventories
Location	1-4 Strasburg Terrace, Dublin 4
Date of Construction	c.1860
Original Use	Houses
Description	Terrace of two-bay one storey over basement brick-built cottages c.1860 with associated walls, railings and gates
Significance Rating	Regional
Historical Map References	1886 OS Map City of Dublin, 1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH026
Legal Status	Not protected or included on any existing inventories
Location	Chapel Avenue (numbers 2,4,5,6,7,8,9 and 11), Dublin 4
Date of Construction	c.1900
Original Use	Houses
Description	Terrace of two-bay two storey houses c.1900
Significance Rating	Local
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	


Identification No.	CBC0016BTH027
Legal Status	Not protected or included on any existing inventories
Location	1-2 Seaview, Pembroke Street, Dublin 4
Date of Construction	c.1880
Original Use	Houses
Description	Pair of two-storey houses rendered with canted bay windows to the ground floors
Significance Rating	Regional
Historical Map References	1886 OS Map City of Dublin, 1907 OS map, Cassini Map
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	


Identification No.	CBC0016BTH028
Legal Status	Not protected or included on any existing inventories
Location	1-10 Bayview, Pembroke Street, Dublin 4
Date of Construction	c.1890
Original Use	Houses
Description	Terrace of two-bay two storey houses c.1890 with associated walls, railings and gates
Significance Rating	Local
Historical Map References	1907 OS map, Cassini Map
Categories of Special Interest	Architectural, Artistic
Sensitivity	Low
Photographs	

1.6 Street Furniture

1.6.1 Lamp Posts


Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge


Identification No.	CBC0016LP001
Legal Status	Not protected or included in any existing inventories
Location	North Wall Quay, Custom House Quay, Dublin 1
Date of Construction	c.1950
Description	31 no. straight stem Scotch standards, with shamrock motif along North Wall Quay
Significance Rating	Regional
Categories of Special Interest	Artistic, Technical
Sensitivity	Medium
Photographs	


Identification No.	CBC0016LP003
Legal Status	Not protected or included in any existing inventories
Location	Talbot Memorial Bridge
Date of Construction	c.1890
Description	2 no. antique light standard bases, heads have been replaced
Significance Rating	Local
Categories of Special Interest	Artistic, Technical
Sensitivity	Low
Photographs	

1.6.2 Statuary and Miscellaneous Street Furniture

Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge

Identification No.	CBC0016BTH012
Legal Status	Not protected or included in any existing inventories
Location	Talbot Memorial Bridge, Dublin 2
Date of Construction	1988
Description	Free standing limestone statue erected 1988, on a concrete base with bronze plaque: Matt Talbot by James Power
Significance Rating	Regional
Categories of Special Interest	Artistic, Historical, Social
Sensitivity	Medium
Photographs	


Identification No.	CBC0016BTH014
Legal Status	Not protected or included in any existing inventories
Location	City Quay, Dublin 2
Date of Construction	1999
Description	Statue: The Linesman by Donny MacManus, erected c.1999
Significance Rating	Regional
Categories of Special Interest	Artistic, Social
Sensitivity	Medium
Photographs	


Identification No.	CBC0016BTH040
Legal Status	Not protected or included in any existing inventories
Location	Thorncastle Street, Dublin 4
Date of Construction	1909
Description	Cast Iron Vent Pipe, erected 1909, similar to the type erected by South Dublin Rural District Council.
Significance Rating	Regional
Categories of Special Interest	Artistic, Technical
Sensitivity	Medium
Photographs	


1.6.3 Paving and Surface Treatments


Section: Talbot Memorial Bridge to Tom Clarke East Link Bridge


Identification No.	CBC0016BTH031
Additional identifiers	NIAH 50060555
Legal Status	Not protected but recognized through inclusion in the NIAH


Location	Custom House Quay, Dublin 2
Description	Ashlar granite blocks with saddle-back finish, ramped in places lining the quays with mixed cobbled, granite, sandstone and resin-bonded gravel.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

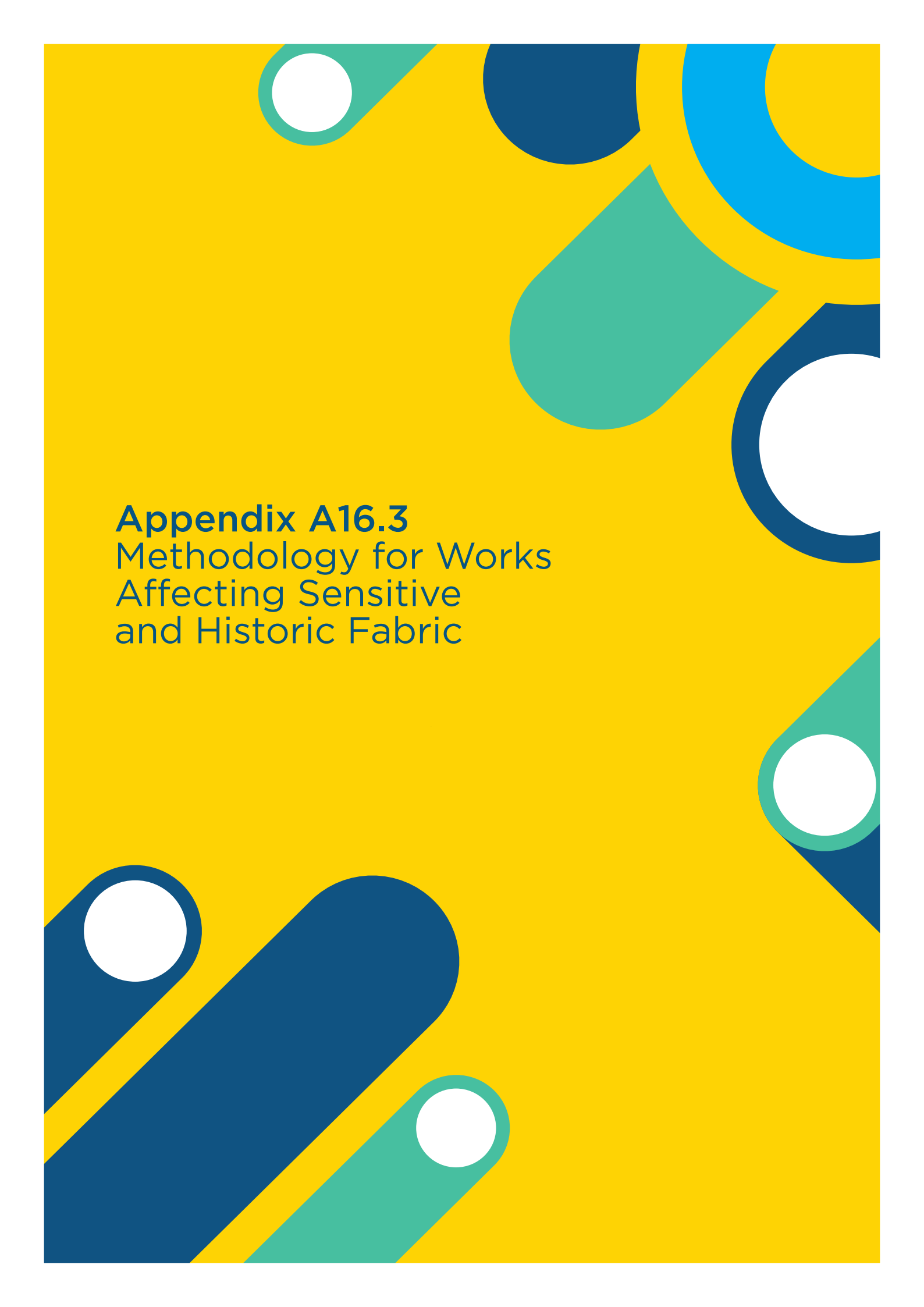
Identification No.	CBC0016BTH030
Additional identifiers	DCC RPS 912, NIAH 50010009
Legal Status	The Scherzer bridges are protected structures
Location	North Wall Quay, Dublin 1
Description	Narrow granite kerbs at the base of the Scherzer Bridges
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH029
Additional identifiers	DU018-020564, DCC RPS 5835, NIAH 50010011
Legal Status	A recorded monument and a protected structure
Location	North Wall Quay, Dublin 1
Description	Recently refurbished quayside (c.1800) comprising mixed cobbled, granite, sandstone and resin-bonded gravel marking modern landscaped paving scheme. Remains of old rail tracks remain embedded within paving scheme to eastern section. Steps and ramps with granite nosed boundary stones to roadside. Bounded by modern steel railings.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural, Archaeological, Technical
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH032
Additional identifiers	DU018-020479, NIAH 50020258
Legal Status	A recorded monument
Location	City Quay, Dublin 2
Description	Dressed ashlar granite quays, constructed (c.1810), having cut granite coping, recent steel railing, cast-iron mooring hooks, granite quay steps and attached cast-iron ladders (NIAH, 2015).
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH033
Additional identifiers	DU018-020201, DCC RPS 7542, NIAH 50020465
Legal Status	A recorded monument and a protected structure
Location	Sir John Rogerson's Quay, Dublin 2
Description	Ashlar granite quay wall, erected (c.1870), with ashlar granite coping. Cast-iron mooring hooks and mooring rings. Timber fenders to north of B. J. Marine building. Granite steps with cast-iron railings. Stone setts and inset cast-iron rails to campshire. Raised in height to east and west of Samuel Beckett Bridge as part of recent works.
Significance Rating	Regional (NIAH)
Categories of Special Interest	Architectural
Sensitivity	Medium
Photographs	

Identification No.	CBC0016BTH034
Additional identifiers	DCC RPS 7548, NIAH 50020478
Legal Status	Located on the pavement at the front of a protected structure. They are a mix of modern cobbles and recycled old cobbles, laid as part of the Beckett Bridge project. There are some recycled old cobbles along the road edge. Although the patina of age has been lost, the cobbles surface contributes to the character of the quays
Location	30-32 Sir John Rogerson's Quay, Dublin 2
Description	Setts in front of the Tropical Fruit Co.
Significance Rating	Local
Categories of Special Interest	Architectural
Sensitivity	Low
Photographs	

The background is a vibrant yellow. It is decorated with several abstract geometric shapes in shades of blue, teal, and white. These include circles, semi-circles, and rounded rectangular shapes, some of which are layered or overlapping. The shapes are scattered across the page, with a notable concentration in the top right and bottom left corners.

Appendix A16.3
Methodology for Works
Affecting Sensitive
and Historic Fabric

Appendix A16.3: Methodology for Works Affecting Sensitive and Historic Fabric

1.1 Introduction

Buildings or structures of Architectural interest, be they recorded monuments, protected structures, buildings in architectural conservation areas or conservation areas, buildings which are recognized through inclusion in the NIAH or DCIHR, or unprotected structures of built-heritage interest, are a unique and irreplaceable resource which often demonstrates a high level of craftsmanship. They may be of architectural, historic, archaeological, artistic, cultural, scientific, social or technical interest.

Boundary treatments, including boundary walls, railings and planting which define the boundaries of protected and other historic structures, can make an important contribution to the quality and character of the building and the surrounding streetscape or landscape (DAHG 2011, 13.4.1). Boundary walls, railings, gates and gardens can also contribute to the character of other protected and unprotected historic structures in the same area or street (DAHG 2011, 13.3.2 e).

Everyday features such as paving and street furniture, not only enhance the setting of historic buildings but are heritage assets in their own right (DAHG 2015). Consequently, proposed works must respect the setting of architectural heritage buildings, street furniture, surface treatments and the character of the street or area (DELG 2002).

Road works including road widening and other large-scale infrastructural developments adjacent or within architectural conservation areas, areas with an historic or architectural character, or within the setting of protected structures have the potential to impact on the architectural heritage and character of the areas in question (DAHG 2011, 3.11). Any alteration of the historic built environment must be carefully considered to maintain the visual and historic integrity of the local area, whether it is an urban, suburban or rural locality (Trinity Haus 2012).

1.1.1 General Principles of Conservation

Where conservation works to features are required as a result of the construction of the Proposed Scheme it will be carried out by the Contractor in accordance with the principles of the Venice and Burra Charters produced by ICOMOS Australia in 1979 and amended in 1981, 1988, 1999 and 2013. The Contractor will also adhere to the conservation principles set out in the Department of the Environment, Heritage and Local Government's Protection Guidelines for Planning Authorities (2011) and the Departments advice series publications on various elements. Conservation work will be based on an understanding of the historic built environment and its development to date as described in Appendix A16.1 (Historical Background), and with respect the features identified and described in Appendix A16.2 (Inventory of Architectural Heritage Sites).

Conservation Principles and the principle of 'minimal intervention', have informed the design of the Proposed Scheme as follows:

- *Intervention should be avoided where possible.* (DCC 2014, DAHG 2011, 14.4.7).
A range of alternative engineering and design solutions have been considered during the design of the Proposed Scheme to avoid or mitigate works that will detract from the special character of, or cause damage to, elements that contribute to the character of architectural conservation areas, areas of historic or architectural character or the setting of protected structures (DCC 2014). The design and location of any proposed traffic-calming measures such as ramps, bollards or traffic islands has also been considered in this regard;
- *All features and materials of importance to maintain the character of the historic built environment should be retained including features of all ages.* (DCC 2014, DELG 2002).
Architectural heritage features such as buildings, boundary treatments, working quays, stone setts, cobbles, paving and other heritage artefacts such as street furniture have been retained in situ where possible in the design of the Proposed Scheme;
- *Where intervention is required, the proposed changes should be kept to a minimum* (DAHG 2015).

The philosophy of doing 'as little as possible and as much as necessary' applies. Any necessary intervention to an architectural heritage feature will be reversible where possible, both in the materials used and methods employed;

- *Where possible repairs should be carried out rather than replacing materials* (DELG 2002).
Repairs will be carried out without an attempt to disguise, or artificial ageing and new repairs should be discernible without detracting from the structure; and
- *Unsatisfactory alterations that disfigure earlier work of greater merit should be reversed, where feasible. Where new work is required, processes that are reversible should be used* (DAHG 2011);
All efforts will be taken to ensure that necessary new work on historic structures looks appropriate and is in keeping with the fabric, materials and style of the original work.

1.1.2 Consultation

The guidelines recommend that consultation with the planning authority and relevant stakeholders should be carried out in advance of proposed road works to ensure that agreement is reached in the approach architectural heritage features including buildings, protected structures located in architectural conservation areas. This is particularly the case with regard to street furniture and historic surface treatments and works to the public realm since local authorities are responsible for the public realm (DAHG 2015, DELG 2002). Consultation has been carried out with both Dublin City Council and with the Development Applications Unit of the Department of Culture, Heritage and the Gaeltacht.

1.1.3 Survey

Architectural heritage buildings, bridges and other structures, boundary treatments and elements of existing street furniture and paving including historic kerbing, post-boxes, lamp posts, railings, bollards etc. have been identified, with a view to retaining sensitive fabric where possible (DCC 2014).

A comprehensive inventory of architectural heritage buildings, their boundary treatments and street furniture has been compiled and is provided in Appendix A16.2 (Inventory of Architectural Heritage Sites).

Features to be removed or relocated include the Scherzer Bridges, items of street furniture including lamp posts, statuary and paving. Alterations are also proposed to the quay walls. For these items, specific surveys will be necessary to record the features prior to the commencement of the construction works. The survey requirements are outlined in the relevant sections of this methodology.

1.2 Architectural Heritage Buildings and Structures

The majority of architectural heritage buildings including recorded monuments, protected structures, buildings within architectural conservation areas, and other buildings or structures which are not protected but which are of architectural heritage interest, and which are located along the proposed scheme will not be directly impacted by the proposed scheme.

There are a few exceptions, however. These include the quay walls, the Scherzer Bridges, some heritage lamp-posts, and areas of ground surface treatments.

1.2.1 Protection During Works

Some architectural heritage features will require protection during the course of works, where there is potential for damage of sensitive fabric during the course of works proposed in close proximity to them. These include bridges, canals and quay walls.

Historic or sensitive fabric will be recorded in position prior to the commencement of construction works, protected and monitored for the duration. Appropriate protections will be determined depending on the nature of the fabric and the construction activities. Protective measures will include cordoning off as appropriate and/or the provision of protective wrapping or temporary hoardings or boxing off. More specific protections are outlined in the relevant sections of this methodology.

1.3 Scherzer Bridges

The Scherzer Bridges spanning the George's Dock (DCC RPS 896) will be relocated and a new fixed four-lane road bridge will be constructed between them. The Scherzer Bridges will be moved apart and turned 180 degrees.

The Scherzer Bridges (DCC RPS 912) spanning the Royal Canal at Guild Street will also be moved apart, and a new fixed four-lane road bridge will be constructed between them. The new and relocated bridges will be raised approx. 1m above the existing road level, to allow for unimpeded navigation of the canal below, particularly in regard to sea-level rise, and ground levels will be altered along the quays on approach. The structures will be restored to working order in their new positions where they will accommodate pedestrians and cyclists crossing the canal. A pair of now-defunct lock-gate winches and a section of rubble walling on approach to the inner bridge will also be repositioned.

An appraisal of the Scherzer Bridges was carried out by the BusConnects Infrastructure Team which concluded by recommending the following:

- Both sets of Scherzer Bridges, together with any affected kerbs, winches, and historic masonry should be recorded in detail in both photographic form and on drawings;
- A condition assessment should be carried out;
- The component parts of each Scherzer Bridge should be labelled prior to disassembly;
- The Scherzer Bridges should be carefully dismantled, and the adjoining quay walls protected during the course of works;
- The component parts of the Scherzer Bridges, affected kerbs and winches are to be transported to a secure location;
- Repairs to the iron work should be carried out as necessary while in storage; and
- The Scherzer Bridges and winches are to be reassembled as per the survey in the proposed locations

1.4 Quay and Lock Side Walls

A pedestrian boardwalk will be added to Custom House Quay (DCC RPD 8829) between Sean O'Casey Bridge and just east of Commons Street, requiring minor alteration of the capping stones, fixing of steel plates onto the face of the quay wall and piling into the riverbed. Mitigation is recording the existing masonry in position prior to the works (at low tide) and protection of the surrounding fabric for the duration. The width and height of the wall and drawings and sections prepared. Where coursing is evident the height of the courses and spacing between the joints is to be recorded in detail. Protective measures will include cordoning off as appropriate and / or the provision of protective wrapping or temporary hoardings or boxing off.

Similarly, at Excise Walk on North Wall Quay (DU018-020564), a short boardwalk will also be added requiring minor alteration of the capping stones, and fixing steel plates onto the face of the quay wall. Mitigation is recording the existing masonry in position prior to the works (at low tide) and protection of the surrounding fabric for the duration. The width and height of the wall and drawings and sections prepared. Where coursing is evident the height of the courses and spacing between the joints is to be recorded in detail. Protective measures will include cordoning off as appropriate and / or the provision of protective wrapping or temporary hoardings or boxing off.

The quay wall on Britain Quay (DCC RPS 8808) will be altered to accommodate the DPTOB over the mouth of the River Dodder. Mitigation has been embedded in the design through the proposal to raise the deck of the bridge, minimizing the disruption required to the historic fabric. However, a short section of the quay wall (approximately 19m) will be removed to accommodate the bridge structure. Mitigation is recording the existing masonry in position prior to the works (at low tide) and protection of the surrounding fabric for the duration. The width and height of the wall and drawings and sections prepared. Where coursing is evident the height of the courses and spacing between the joints is to be recorded in detail and the masonry labelled. A sample of the mortar is to be taken. The wall is then to be taken down and the rubble stored in a secure location for reuse. The affected masonry shall be salvaged for within the proposed landscaping design if possible or returned to the Local Authority. Surrounding historic or sensitive fabric will be protected and monitored for the duration. Protective measures will include cordoning off as appropriate and / or the provision of protective wrapping or temporary hoardings or boxing off. Consolidation or repair of surrounding masonry shall be carried out.

The quay wall on York Road (CBC0016BTH038), where the construction of the DPTOB also includes land reclamation to the north of the existing quay wall, including the construction of retaining structures in front of the existing walls which will obscure them from view. The historic fabric will be retained in position. Mitigation includes recording the existing masonry in position prior to the works (at low tide) and protection of the fabric for the duration of the construction works. Where coursing is evident the height of the courses and spacing between the joints is to be recorded in detail. Surrounding historic or sensitive fabric will be protected and monitored for the duration. Protective measures will include cordoning off as appropriate and/or the provision of protective wrapping or temporary hoardings or boxing off.

The side walls to the sea lock at the Royal Canal, North Wall Quay (CBC0016BTH007) will be repaired where they were previously altered to accommodate the Scherzer Bridges. Mitigation includes recording the existing masonry in position prior to the works (at low tide) and protection of the surrounding fabric for the duration. Appropriate drawings including the width and height of the walls as well as sections should be prepared. Where coursing is evident the height of the courses and spacing between the joints is to be recorded in detail and the masonry labelled. A sample of the mortar is to be taken. Where new masonry is required, salvaged masonry removed from elsewhere on the quay walls will be used in the consolidation works. Consolidation or repair of surrounding masonry shall be carried out. Surrounding historic or sensitive fabric will be protected and monitored for the duration. Protective measures will include cordoning off as appropriate and/or the provision of protective wrapping or temporary hoardings or boxing off.

1.5 The Sea Wall

A short section of the sea wall (DU018-066) constructed of granite and limestone blocks at the existing St Patrick's Rowing Club House, will be removed to accommodate the tying in of existing and proposed cycle and foot paths over the DPTOB as well as the existing Tom Clarke East Link Bridge.

Mitigation is recording the existing masonry in position prior to the works. Appropriate drawings including the width and height of the walls as well as sections should be prepared. Where coursing is evident the height of the courses and spacing between the joints is to be recorded in detail. A sample of the mortar is to be taken. The wall is then to be taken down and the rubble stored in a secure location for reuse. Surrounding fabric will be protected for the duration. Historic or sensitive fabric will be protected and monitored for the duration. Protective measures will include cordoning off as appropriate and/or the provision of protective wrapping or temporary hoardings or boxing off.

A lime mortar based on the samples taken is to be prepared. The affected masonry should be salvaged for re-use in consolidating the retained sea wall. Consolidation or repair of surrounding masonry shall be carried out.

1.6 Historic Paving and Surface Treatments

Historic paving or hard landscaping makes a significant contribution to the character of both protected and unprotected architectural heritage buildings and historic streetscapes and Architectural Conservation Areas and is a fundamental part of the identity of Dublin, particularly the City Centre (DAHG 2011, 13.4.15, DCC 2012).

The measures to be implemented when historic paving and surface treatments are being impacted are described in the following sections. In general, where alterations to, or re-laying sensitive ground surfaces is required, the disturbance of fabric shall be kept to the minimum required and shall re-instate or re-use historic material in its original location where possible. Any modern alterations or additions shall be visually identifiable and reversible. Historic slabs shall not be cut into smaller sizes nor shall edges be trimmed with power tools.

The contractor shall refer to *Paving, The Conservation of Historic Ground Surfaces* published by the Department of Arts Heritage and The Gaeltacht (DAHG 2015).

1.6.1 General

1.6.1.1 Survey

The identified historic ground surface treatments are detailed in Section A16.2 (Inventory of Architectural Heritage Sites).

Where they are to be retained in situ, they will be recorded photographically prior to the commencement of the construction works. The dimensions of the stones will be recorded, noting in particular their proportions, the material, detail and rhythm of the bonding pattern.

Where the lifting of historic paving and kerbs is required, the slabs or kerbs shall be numbered with a weather-resistant removable water-soluble marking and the numbering recorded on survey drawings or photographs to allow for the correct reinstatement of the paving in the same location or on the new alignment in the vicinity. The level of recording shall suit the extent of intended alterations.

Where historic paving slabs or kerbstones have been previously re-laid it is likely that the layout is not historic. The existence and location of previous alterations shall be recorded where the coherence and integrity of the original bonding pattern was lost or disturbed in earlier poorly conceived interventions. The record shall make a distinction between historic paving and later modifications.

Records shall be filed in a systematic way for reference and archival purposes.

1.6.1.2 Protection During Works

There is potential for damage of granite pavements and kerb stones during the Construction Phase. For example, care needs to be taken when construction materials are being delivered so that HGVs avoid mounting stone kerbs and pavement slabs as this could result in cracking.

Temporary bollards, or other deterrents, protective covers, wrappings, or padding shall be used as appropriate, to prevent damage to kerbs. The design of the protective measures shall take account of the extent, condition and sensitivity of the existing, and the nature of the proposed construction works.

1.6.1.3 Removal or lifting of historic paving

The lifting and removal of historic paving is a highly skilled operation which shall only be carried out by an experienced practitioner such as trained and skilled masons (DELG 2002). Double-handling of historic elements shall be avoided wherever possible to protect the historic kerbs or slabs as well as ensuring the practitioners employed in the lifting of historic paving.

Where lifting of historic kerbs or paving is required, the greatest care shall be taken not to chip corners or break lumps off the stones (DELG 2002). Power tools shall not be used because of the potential damage that they can cause. The use of powerful air compressor tools can cause great damage and shall be avoided (DELG 2002). Great care shall be taken in removing any cement pointing around stone slabs to avoid damaging the arises of the stones. Where stones are not required, they shall be carefully removed, and returned to the Local Authority for salvage. On no account will historic paving stones be dumped.

1.6.1.4 Cleaning

Prior to storage, paving elements which have been lifted shall be cleaned of all bedding and jointing materials and any other materials adhering to them. The latter may include paint from road markings or graffiti, chewing gum and other deposits.

1.6.1.5 Storage

Granite paving and kerbs will be removed to safe storage ahead of repair and reinstatement in the new position. Where space can be accommodated safely on site and where there are no security issues, it is preferable that paving materials be stored on site.

Historic slabs, setts, cobbles and kerbstones shall be laid on pallets and evenly supported to prevent breakage. Large granite slabs can be very brittle, and it may not be possible to stack them.

Where transport off-site is necessary, slabs shall be placed evenly on pallets, covered and taken directly to the relevant depot. The storage facility shall provide clean, dry conditions, free of contamination. The stones shall be stored clear of the ground. An inventory system shall be used to record the locations from which all stones were taken. Storage shall be organised to ensure that paving is returned to its original location.

1.6.1.6 Repair

Cracked or broken slabs or kerbs shall be reused where possible. Slabs with clean breaks shall be fitted together in their original form. Where edges are badly damaged, redressing by a skilled mason may be considered appropriate in order to enable reuse of a kerb or flagstone.

Where historic paving slabs or kerbstones have been previously re-laid it is possible that slab edges have been damaged by repeated lifting and repointing, or by earlier use of cutting tools. In such cases slabs may require redressing by a skilled mason.

Where worn or damaged stone paving or steps have been identified, where necessary and if the surface poses a danger, the existing stone shall be redressed by a skilled mason or indented or grafted with matching stone (DAHG 2011, 13.4.17).

1.6.1.7 Removal or lifting of embedded rails

The removal of embedded tram rails (CBC0017BTH029) at the east end of North Wall Quay (DU018-020564), and on the east end of Sir John Rogerson's Quay (CBC0016BTH033 and DU018-020201) is proposed in regard to the Proposed Scheme.

Mitigation is recording the fabric in position prior to its careful removal. During the works, the construction technique should be recorded. Photos are to be taken of any features of interest uncovered as more information may come to light during the progress of the works. The various elements are to be labelled to assist their storage and reassembly. The rails and any historic paving stones will be returned to the Local Authority for possible reuse on the quays or elsewhere.

1.6.1.8 Reinstatement or Relaying of Historic Paving

Where historic paving is intact and lifting is required, paving slabs and kerb stones shall be reinstated in their exact location and laying arrangement in as far as possible, following the historic layout, bonding pattern and junction details, and maintaining the same joint width and pointing detail. Re-laid surfaces shall fall away from adjoining buildings to ensure that the walls and foundations do not become saturated by water.

Where historic paving slabs or kerb stones have been previously re-laid it is likely that the layout is not historic reinstatement presents an opportunity to rectify previous insensitive or incongruous alterations. In such cases better layouts may be devised to ensure the paving follows traditional patterns. Reinstatement of incongruous, modified layouts shall be avoided.

Joints shall be visually subservient to the paving slabs. Traditionally, joints in pavements were open and filled with fine sand so ideally, fine sand-filled joints shall be used. The sand shall be a sharp aggregate of a colour and character appropriate to the colour of the stone, brushed into the joints and thoroughly compacted. Joints shall be topped up in early life as the aggregate 'shakes down' and stiffens. Recessed joints allow the edges of the slabs to be seen and this is aesthetically the best detail.

Historic flagstones often have irregular edges and eroded arises caused by earlier pointing and in some cases, joints may be considered too wide to be left unpointed. When pointing, it is important to select a sacrificial jointing material, that is, one which is weaker than the host stone and which will absorb any thermal and structural movement, thereby preventing damage to the historic flagstones. In locations where the joints are too wide or the arises are damaged joints may be pointed with a naturally hydraulic lime mortar, which will withstand movement, and will have a lighter colour more suited to granite and limestone paving. A suitable mix would consist of one part naturally hydraulic lime to two parts sharp/crushed sand of suitable colour, graded from 3mm down to dust. Traditional methodologies shall be followed in this work to ensure effective curing of the mortar.

Where an area of paving cannot be cordoned off long enough to allow lime mortar to set properly, a natural cement may be added to the mix to accelerate the setting time. This also strengthens the jointing material to better resist the wearing effect of motorised cleaning machines used in some urban areas.

Artificial cements, such as Portland cement, shall not be used in joints. Good quality sharp sand shall be used in lime-based mortars. Aggregate shall be exposed by beating the finished joint with the stiff bristles of a brush.

Where pavements have previously been pointed, the arises of the flagstones may have become rounded or damaged, and a flush-pointed joint would be very wide at the surface. Broken corners and edges cause further localised widening in the joints. The joint shall be recessed where it is relatively narrow and does not result in a trip hazard. Wider joints shall be flush jointed. If flush joints are chosen, the colour and texture of the material shall be carefully selected as the impact of the wider flush joint on the overall pavement is much greater.

1.6.1.9 Replacement paving

In repairing damaged pavements, new stone may be required where broken slabs cannot be reused. A source of stone which is a good match for the historic flagstones shall be found. For smaller repairs, a matching native granite may be available in limited quantities and shall be obtained instead of imported granite.

New stone paving will also be needed where footpaths are being widened or reconfigured. Widening or other reconfiguring of footpaths shall respect the historic original layout where possible. Re-laying historic material in modern layouts shall be avoided. Widened footpaths will be contemporary additions which are sympathetic to the adjoining retained historic paving, conserving its key characteristics including existing falls and drainage arrangements.

New paving materials shall preferably be of natural materials, sourced locally and appropriate in scale and colour to the street (DAHG 2011, 14.4.6).

Historic bond pattern of flagstones shall be followed, and slabs of uniform size avoided. It is essential to look at adjacent paving to achieve an understanding of the detail and pattern of the original. New stone kerbs shall be varied in length so that they measure sometimes more, sometimes less than a metre. Machine-cut kerb stones tend to be too regular and are more pleasing to the eye when the length is varied. It also helps visually and gives a more effective finish (DELG 2002). Kerbs for curves, which do not exceed 12 metre radius, shall themselves be curved to suit the particular situation (DELG 2002).

Where new stones are to be integrated into historic paving, the historic slabs shall take precedence over the new inserts, and new material shall be cut rather than the old. Existing tramlines and historic setts will be integrated into the proposed paving design where possible. Where strong, cement-based materials are used to point or bed new work this shall not be allowed to come in contact with historic paving stones.

1.6.2 Cobbles and Stone Sets

One of the earliest means of paving a surface for vehicular traffic was the use of rounded stones gathered from beaches or riverbeds. These undressed stones, or cobbles, are often egg-shaped and naturally occurring (DAHG 2015).

Cobblestones were set, pointed end downwards in sand or directly onto earth, and were packed tightly together or bound with mortar. They were generally laid at right angles to buildings to ensure that surface water drained away from the base of a wall to avoid saturation.

Setts are squared or worked blocks of hard stone laid on edge in regular patterns to provide a surface of higher loadbearing capacity than cobblestones (DELG 2002, DAHG 2015). Setts were often made from whinstone - harder igneous rocks which were more suitable for this purpose, commonly of dark stone such as basalt, dolerite or andesite (DAHG 2015). Setts vary in size depending on the source of the material (DAHG 2015). Diorite examples can be approximately 95mm x 165mm to 235mm on the visible face, and 150mm in depth; while granite setts of reddish colour can measure approximately 80-90mm x 150-180mm. Setts were split rather than cut and the rough vertical faces laid in contact to each other, causing a tight surface joint of approximately 15mm.

1.6.2.1 Survey

The methodology for the survey of cobble or sett surfaces should follow the methodology above for recording paving. In areas where a group of setts have been evenly worn over time, it may be necessary to record and

number the setts with removable markings, so they can be re-laid in correct order to reinstate the patina. The type of stone used in cobbles or setted surfaces shall be documented to avoid incorrect mixing of materials in reinstatement work. The gratings or other covers shall be documented, including their positions and the arrangement of paving stones around these elements. The location of previous alterations shall also be recorded where the coherence and integrity of the original bonding pattern was lost or disturbed in earlier poorly conceived interventions.

1.6.2.2 Reinstatement of Cobbles and Setts

Historic cobbles and setts will be retained in situ where possible. Where the relocation reinstatement of sets or cobbles is necessary, they will be reinstated the same location but on the new alignment. The historic layout, bonding pattern and junction details of the retained cobbles or setts or the previously recorded cobbles or setts shall be followed where surfaces are to be re-laid, maintaining the same joint width and pointing detail. The setts returned to their original positions using a cord to ensure correct levels and alignment. Large areas of sett surfaces shall not be re-laid to achieve visual consistency if this would mean losing an authentic worn or undulating surface.

Where new sets or cobbles are needed in reinstated areas of cobbled or setted paving, they shall be of the same or similar stone and dimensions to be laid in stretcher bond in the traditional manner.

The sub-base shall be renewed with suitable sharp graded sand to the correct level and compacted. The sub-base is to be approved by the structural engineer and will depend on the foundation design and shall allow the paved surface to retain its historic appearance while avoiding future damage

Contact between the setts is structurally important in traditionally laid pavements as the matrix of stones acts in compression to form a structural unit. If not locked together in a bonded pattern with surface contact to other setts, individual stones can come loose and cause the surface to unravel.

For reinstated setted surfaces, flexible construction with tight joints filled with fine sand is the preferred option from the points of view of conservation and visual appearance. The joints shall be filled by pouring in fine sharp sand and the setts individually compacted using a heavy paving rammer of approximately 2.5 kilogrammes. The sand shall be brushed into the joints and thoroughly compacted. Joints shall be topped up in early life as the aggregate 'shakes down' and stiffens.

Ensure that any re-laid surfaces fall away from a building to make sure that the walls and foundations do not become saturated by water. The contractor shall refer to *Paving, The Conservation of Historic Ground Surfaces* published by the Department of Arts Heritage and The Gaeltacht (DAHG 2015) when relaying historic cobbles and stone sets.

1.6.3 Grates, Pavement Lights, Coal Holes and Other Iron Fixtures

Pavement lights are usually glazed cast iron grids, often bordered by granite paving slabs and located to the front of commercial premises (DELG 2002). They provided light to the cellars or basements below. Those in front of commercial premises contained an iron grate or hatch so that beet or other supplies could be delivered into the basement below. The paving stones adjacent to cellar openings of pubs are vulnerable to damage by heavy lorries or by loaded beer barrels hitting the pavement when deliveries are made and in consequence may be cracked whilst the lights themselves are often missing glass (DELG 2002).

Coal holes are to be found in the pavement to the front of 18th and 19th century terraced buildings, both commercial and residential. Coal was delivered through coal holes into a cellar below the pavement which served as a fuel store for the household. Though many have been replaced with standard concrete or steel covers, surviving coalhole covers are quite varied in design and individual in character, and the craft of the iron founder complemented that of the stone cutter, creating interest and adding to the general quality of the streetscape (DELG 2002). In many cases the dressed granite paving slabs into which coalhole covers were inserted remain (DELG 2002).

Surviving tramlines and rails, mooring rings or mooring hooks were identified along North Wall Quay, Custom House Quay and Sir John Rogerson's Quay along with cast and wrought iron winches erected c.1830 to either

side of south lock to George's Dock. Pavement lights were identified in front of 81 North Wall Quay and 14 City Quay.

Particular care shall be taken to ensure the protection of these items of historic iron street furniture and paving during the course of works to prevent accidental damage (DAHG 2011, 14.4.4). These elements shall be sheltered from damage for the duration of the site works either through the use of protective covers, wrappings, or padding, through cordoning off or boxing off.

Where removal is required, pavement lights, grates, coal holes and their stone surrounds shall be recorded in position as should surviving tram lines, associated sets, winches and moor rings. As with historic stone kerbs, paving and sets, they shall only be lifted by an experienced contractor and will be removed to safe storage ahead of repair and reinstatement in the new position or new alignment within the same street (DAHG 2011). An inventory of all stored items shall be kept including details of the original location of the feature

The edges of cellar openings shall be protected and repaired when necessary. Sometimes there may be only partial survival of the stones that originally framed the perimeter of a pavement basement light or cellar access hatch. Repairs to pavement lights shall be carried out as necessary. Where repaving is proposed, the opportunity shall be taken to restore the complete perimeter in stone in order to re-establish the meaning and coherence of the surviving elements. Missing glasses shall be replaced. Ironwork shall be cleaned only where necessary.

1.7 Statues and Other Street Furniture

Where they are to be retained in situ, the identified items of street furniture shall be recorded in position and protected for the duration of the works through the use of protective covers, wrappings, or padding, through cordoning off or boxing off as recommended by the Department's Guidelines (DAHG 2011, 14.4.4). In situ cleaning, repairs and painting may be carried out if necessary.

Where removal or relocation is required, items of statuary or street furniture shall be recorded in further detail, particularly sculptures which often have a supporting plinth or are composed of multiple component parts. It will be necessary to record these in detail and to number of labels the individual component parts prior to dismantling or taking down to ensure the accurate reinstatement of the statue or item of street furniture later on. Detailed inspections are to include pre-work surveys including laser scanning and detailed examinations of the condition of the bronze and stone statues and surrounding stone plinths by a team of specialists in conservation, historic stonework and bronze as appropriate.

The statues, sculptures, etc. shall be reinstated in the designated position following conservation and repair works.

1.8 Lamp posts

The identified historic lamp posts are detailed in Appendix A16.2 (Inventory of Architectural Heritage Sites).

The Proposed Scheme engineers have made every effort to retain heritage lamp posts and lamp standards in situ. In most cases, they will not be directly affected by the Proposed Scheme.

Where they are to be retained in situ, protection during works will be necessary. The use of protective covers, wrappings, or padding, through cordoning off or boxing off as recommended by the Department's Guidelines (DAHG 2011, 14.4.4). In situ cleaning, repairs and painting will be carried out as necessary.

Where removal or relocation is required, the lamp posts and/or their component parts will be recorded and labelled before dismantling and removal takes place. The lamp posts are to be carefully removed by an experienced contractor. Lamp posts are often embedded in concrete and shall be wrapped in protective coverings before the concrete foundations are drilled. Harnesses will then be secured around the lamp post so that they can be winched out of position and removed to safe storage.

The lamp posts will be stored securely on site or in the Construction Compound. A programme of cleaning, removal of rust and repainting will be carried out while in storage. Where paint-stripping of historic ironwork is proposed, and where there is likely to be evidence of original or interesting subsequent paint history, a small area

of ironwork could be left unstripped or a proper paint analysis carried out before the work takes place (DAHG 2011,13.4.7). The method of paint-stripping shall be appropriate for cast ironwork (DAHG 2011,13.4.7).

The repair and replacement of some of the lost and damaged decorative cast iron elements to the lamp posts will be carried as necessary. Where the repair of historic ironwork is proposed, as much of the existing material as possible is to be retained rather than renewed (DAHG 2011, 13.4.6).

Lamp posts will be repaired and repositioned within the vicinity of its existing position, re-using all of the significant historic fabric and reinstating the fabric and function.

Where it is not possible to repair and reinstate the removed lamp posts, e.g. where the bases are in poor condition and not possible to salvage, the lamps will be replaced with replica historic lamps matching the existing material and detail of the historic lamps that they replace. Though this will constitute a loss of fabric, it is in line with the approach that has been taken by Local Authorities previously.

1.9 References

- Archiseek (2020a) Architecture and Buildings of Co. Dublin [Online]. Available from <https://archiseek.com/category/buildings/ireland-buildings/leinster/dublin-buildings/>
- Archiseek (2020b) Dublin Street Lighting [Online]. Available from <https://archiseek.com/discussion/topic/dublin-street-lighting/>
- Ball, F.E. (1903), A history of County Dublin, Volume 2: Donnybrook, Booterstown, St. Bartholomew, St. Mark, Taney, St. Peter, and Rathfarnham. Printed at the University Press for the Royal Society of Antiquaries of Ireland, Dublin.
- Bence-Jones, M. (1988), A guide to Irish country houses, Rev. edn, Constable, London.
- Bennett, D. (2005). The Encyclopaedia of Dublin, Revised and expand edition, Gill & Macmillan, Dublin.
- Bielenberg A (1998) "Entrepreneurship, Power and Public Opinion in Ireland; The Career of William Martin Murphy", in *Chronicon* 2, no. 6: 1–35, Cork, Ireland,
- Brady, J. and Simms, A. (eds) 2001 Dublin through space and time (c. 900-1900). Dublin.
- Broadsheet (2019) Milestones [Online]. Available from broadsheet.ie/2019/04/01/milestones/
- Brooking, C. (1728). Map of the City and Suburbs of Dublin. Reproduced in Dublin Part 2, 1610 to 1756 (Irish Historic Towns Atlas, no. 19), 2008, Dublin, Royal Irish Academy. Map number 12
- Byron, S. (1782) 'A Plan of Dublin' printed for William Wilson in the gentleman's and citizen's almanack
Campbel. T (1811) 'City of Dublin
- Carrig Conservation Ltd & McMahon, M. (2011) Dublin Historic Industry Database, Geological Survey of Ireland
- Casey, C. (2005). Dublin: The City Within the Grand and Royal Canals and the Circular Road, with the Phoenix Park, Pevsner Architectural Guides: Buildings of Ireland Vol. 3. Yale University Press.
- Cassidy, L. (2020a) Built Dublin [Online]. Available from builtdublin.com
- Cassidy, L. (2020b) Shamrock lamp post, Cambridge Road, Rathmines, Dublin 6 [Online]. Available from <http://builtdublin.com/shamrock-lamp-post-cambridge-road-rathmines-dublin-6/>
- Cassidy, L. (2020c) Lamp post, College Street, Dublin 2 [Online]. Available from builtdublin.com/lamp-post-college-street-dublin-2/
- Church of Ireland (2020) Representative Church Body Library [Online]. Available online <https://www.ireland.anglican.org/about/rcb-library/catalogues>
- Clarke, H. B. (2002). Dublin: Part I, to 1610, Irish Historic Town Atlas , No. 11. Royal Irish Academy.
- Cooke, J. (1822). Cooke's royal map of Dublin. Reproduced in Dublin Part 3, 1756 to 1847 (Irish Historic Town Atlas, no. 26), 2014, Dublin, Royal Irish Academy. Map number 20 [Online]. Available from oldmapsonline.org/map/ntm/33920
- Corcoran, M. (2005) 'Our Good Health: A History of Dublin's Waste and Drainage' p.11-1, Dublin City Council and Four Courts Press
- Corcoran, M. (2008). Through streets broad and narrow: A history of Dublin trams. Ian Allen
- Cornwall, S. (2020a) Public Lighting Installations [Online]. Available from simoncornwell.com/lighting/install/index.htm

Cornwall, S. (2020b) Public Lighting Installations: The Dublin Collection [Online]. Available from simoncornwell.com/lighting/install/dublin1/index.htm

Dean, J.A.K. (2016). The Gate Lodges of Leinster: a gazetteer. Wordwell

De Courcy, J. W. 1996 The Liffey in Dublin. Dublin

De Gomme. B (1673) City and Suburbs of Dublin from Kilmainham to Ringsend

Department of Defence and Irish Defence Forces (2020) Military Archives Maps, Plans & Drawings, image database and Air Corps Aerial Photographic collections [Online]. Available from mpdsearch.militaryarchives.ie

Dineley. T.(1681) Map of Dublin

Dublin City Council (DCC) (2009b) Historic Street Surfaces Study

DCC (2019). 'How many miles to', Dublin City Council Libraries and Archives blog entry on Milestones [Online]. Available from dublincity.ie/story/how-many-miles

DCC (2020) Dublin City Archives Collections [Online]. Available from dublincity.ie/main-menu-services-recreation-culture-dublin-city-public-libraries-and-archive-heritage-and-histo-39

DCC (2003 to 2009) Dublin City Industrial Heritage Record. Dublin City Council. [Online]. Available online from heritagemaps.ie/WebApps/DublinCountyHeritage/index.html

Dublin Civic Trust (2004) Inventory of Historic Street Paving and Furniture. Dublin Civic Trust.

Dublin Inquirer (2020) Some of the Milestones in the Dublin Area [Online]. Available from [google.com/maps/d/u/0/viewer?mid=1rYxTdw4QIY_65EhMGTZVYXGJkeDDi3M4&ll=53.33572294843232%2C-6.302291666666637&z=11](https://www.google.com/maps/d/u/0/viewer?mid=1rYxTdw4QIY_65EhMGTZVYXGJkeDDi3M4&ll=53.33572294843232%2C-6.302291666666637&z=11)

Dublin Port Company (2020) Dublin Port Archives [Online]. Available from <https://dublinportarchive.com>

Dublin Public Libraries (2020a) Coalhole Covers [Online]. Available from <http://www.askaboutireland.ie/reading-room/history-heritage/architecture/historic-architectural-fe/coalhole-covers/>

Dublin Public Libraries (2020b) Sewer Vents [Online]. Available from <http://www.askaboutireland.ie/reading-room/history-heritage/architecture/historic-architectural-fe/sewer-vents/>

Dúchas, the Heritage Service (1998) Record of Monuments and Places manuals and maps for County Dublin. Archaeological Survey of Ireland.

Duncan, W. (1821). 'Map of the County of Dublin' [Online]. Available from sdblincoco.maps.arcgis.com/apps/webappviewer/index.html?id=e0c5595b033341dea7661e248d2e9ee9//

Faden, W (1797) A Plan of the City of Dublin

Ferguson, S. (2009). The Irish Post Box: Silent servant and Symbol of the State. An Post

Fiontar, Dublin City University, and Department of Culture, Heritage and the Gaeltacht (2020) Placenames Database of Ireland created by [Online]. Available from logainm.ie/en/

Goodbody, R. (2014). Dublin, part III, 1756 to 1847 Irish Historic Town Atlas, No. 26. Royal Irish Academy

Google (2020) Google aerial and Street View mapping [Online]. Available from <https://www.google.ie/maps/@53.3058879,-6.206626,14z?hl=en-GB>

Henderson, A. Q (2020) History, Art & Architecture, Dublin & abroad [Online]. Available from arranqhenderson.com

Herbert. L, (1836) The Engineer's and Mechanic's Encyclopaedia

Irish Architectural Archive (IAA) (2020a) Dictionary of Irish Architects [Online]. Available from www.dia.ie

IAA (2020b) The Irish Architectural Archive Catalogue Architects [Online]. Available from <http://iarc.cloudapp.net>

Irish Railway Record Society (IRRS)(2020) The Archives of the Irish Railway Record Society Archive [Online]. Available online from <http://irishrailarchives.ie/archives/>

Joyce, P.W., 1913. Irish Names of Places.

Joyce, W. S. 1920 The neighbourhood of Dublin. Dublin.

Keogh, D (1998). Jews in Twentieth-century Ireland.

Lennon, C., & Simms, A. (2008). Dublin part II, 1610 to 1756, Irish Historic Town Atlas, No. 19. Royal Irish Academy

London Illustrated News, (1846) 'City of Dublin'

M'Cready, C.T. (1892), Dublin street names: dated and explained, Carraig Books, Blackrock, Co. Dublin 1987

Maguire, J. (2018). Brushing Up: Road Signs from a Horse-Drawn Era, Dublin InQuirer, 30th May 2018 [Online]. Available from dublininquirer.com/2018/05/30/brushing-up-road-signs-from-a-horse-drawn-era

McCormack, J. (2000), A Story of Dublin, Mentor Books

Mulvaney, A. (2019) Double Take: The redundant Dublin plaques that once held a very important role, The Journal [Online]. Available from thejournal.ie/gpo-milestone-markers-4460111-Jan2019/

Neylon, L. (2020) As Dublin's Historic Street Lamps Disappear, Some Worry the City Is Losing Its Character, Dublin InQuirer 1st July 2020 [Online]. Available from <https://dublininquirer.com/2020/07/01/as-dublin-s-historic-street-lamps-disappear-some-worry-the-city-is-losing-its-character>

National Archives of Ireland (2020) National Archives of Ireland Catalogue [Online]. Available online <https://www.nationalarchives.ie>

National Inventory of Architectural Heritage (NIAH) (2020a) Built Heritage Survey, Department of Culture Heritage and the Gaeltacht [Online]. Available online from webgis.archaeology.ie/historicenvironment/

NIAH (2020b) Garden Survey, Department of Culture Heritage and the Gaeltacht [Online]. Available online from buildingsofireland.ie/buildings-search/

NIAH (2020c) Garden Survey Resources, Department of Culture Heritage and the Gaeltacht [Online]. Available from buildingsofireland.ie/resources/

National Library of Ireland (NLI 2020) National Library of Ireland Online Catalogue [Online]. Available online from <http://catalogue.nli.ie>

National Monuments Service (NMS) (2009) National Monuments in State Care: Ownership & Guardianship for County Dublin, 4th March 2009, National Monuments Service, Department of Environment, Heritage and Local Government.

NMS (2019) Preservation Orders June 2019, National Monuments Service, Department of Culture Heritage and the Gaeltacht

NMS (2020). Archaeological Survey of Ireland Sites and Monuments Record Database [Online]. Available online from webgis.archaeology.ie/historicenvironment/

NMS (2020b) National Monuments Archive Unit, *National Monuments Service, Department of Housing, Local Government and Heritage, Custom House Dublin*

O'Connell, D. (1975). *The Antique Pavement: an illustrated guide to Dublin's Street Furniture*. An Taisce

O'Mahony, E. (2015) 'Religious and secular places: understanding the changing geographies of religion in Ireland', thesis submitted in fulfilment of the requirements of the Ph.D. degree, Department of Geography, Faculty of Social Sciences, National University of Ireland Maynooth

O'Maitiú, S. (2003) *Dublin's suburban towns, 1834-1930: governing Clontarf, Drumcondra, Dalkey, Killiney, Kilmainham, Pembroke, Kingstown, Blackrock, Rathmines and Rathgar*, Four Courts Press, Dublin.

Open Street Map Ireland (2020) Irish Townlands [Online]. Available from www.townlands.ie

Ordnance Survey Ireland (OSI) (1843-1844) The first edition 6 inch (1:10,560) Ordnance Survey Map of Dublin, published between 1843 and 1844 [Online]. Available from map.geohive.ie/mapviewer.html

OSI (1847) The Ordnance Survey 1:1056 Map of City of Dublin, published 1847 [Online]. Available from <https://digital.ucd.ie/maps/explorer/>

OSI (1864 - 1890) The Ordnance Survey second edition 1:1056 maps of the of Co. Dublin, published between 1860s - 1890s [Online]. Available from <https://digital.ucd.ie/maps/explorer/>

OSI (1909- 1911) The Ordnance Survey third edition 25-inch (1:2,500) maps of Co. Dublin published between 1909 and 1911 [Online]. Available from map.geohive.ie/mapviewer.html

OSI (1940-1961) The Ordnance Survey fourth edition 6 inch (1:10,560) maps of Co. Dublin published between 1940 and 1961 [Online]. Available from map.geohive.ie/mapviewer.html

OSI (2020a). Historical maps and aerial imagery [Online]. Available from map.geohive.ie/mapviewer.html

OSI (2020b). National Townland and Historical Map Viewer [Online]. Available from geohive.maps.arcgis.com/apps/webappviewer/index.html?id=9def898f708b47f19a8d8b7088a100c4

Pavía, S., & Bolton, J. (2000). *Stone, brick and mortar: historical use, decay and conservation of building materials in Ireland*.

Pearse Street Library: Dublin City Paving Board: Minute Books, vol. 1. PB/Mins/1. 6 June 1774- 26 Jan 1776, pp42-4, 2nd August 1774.

Pearse Street Library: Dublin City Paving Board: Minute Books, vol. 1. PB/Mins/1. 6 June 1774- 26 Jan 1776, p19, 15th July 1774.

Pearse Street Library: Dublin City Paving Board: Minute Books, vol. 2. PB/Mins/1. 2 Feb 1776 – 20 December 1776, p196.

Peel, L. (2020) *Dublin's Coal Holes and Coal Cellars*, September 27, 2020 [Online]. Available from <https://lornapeel.com/2020/09/27/coal/>

Pegum, M. (2020). Irish War Memorials [Online]. Available from www.irishwarmemorials.ie

Permanent Delegation of Ireland to the OECD and UNESCO (2010) UNESCO World Heritage Site Tentative List: The Historic City of Dublin [Online]. Available from <https://whc.unesco.org/en/tentativelists/5523/>

Petty, W. (1655–56) Down Survey County Barony and Parish maps of the County of Dublin [Online]. Available from <http://downsurvey.tcd.ie/down-survey-maps.php>

Phillips, T (1685) 'Exact survey of the City of Dublin and part of the Harbour

Pool, R, and Cash, J (1780) *A plan of Dublin*, Printed in Pool and Cash's Views of the most remarkable public buildings, monuments, and other edifices in the city of Dublin.

Prunty, J. 2005. *Maps and mapmaking in Irish Local History*. Irish Academic Press, Dublin.

Roberts T.S (1817) watercolour of the Customs House

Rocque, J. (1756). An exact survey of the city and suburbs of Dublin. Reproduced on a single sheet in Dublin Part 2, 1610 to 1756 (Irish Historic Towns Atlas, no. 19), 2008, Dublin, Royal Irish Academy. Map number 16 [Online]. Available from heritagemaps.ie/WebApps/DublinCountyHeritage/index.html

Rocque, J. (1760). 'An actual survey of the County of Dublin' [Online]. Available from <http://sdublincoco.maps.arcgis.com/apps/webappviewer/index.html?id=e0c5595b033341dea7661e248d2e9ee9/>

Rocque, J. and Scalé, B (1773). An Accurate Survey of the City and Suburbs of Dublin / by Mr. Rocque with Additions, and Improvements by Mr Bernard Scalé [Online]. Available from gallica.bnf.fr/ark:/12148/btv1b53119647z.r=rocque%20dublin

Sheridan, E. 2001 'Designing the capital city, Dublin c. 1660-1810'. In Brady, J. and Simms, A. (eds) Dublin through space and time (c.900-1900). Dublin.

South Dublin County Council (SDCC) (2020a) South Dublin Historical Mapping: Mapping South Dublin County in Time [Online]. Available from sdublincoco.maps.arcgis.com/apps/webappviewer/index.html?id=e0c5595b033341dea7661e248d2e9ee9/

SDCC (2020b) Source digital archive of local studies material relating to South Dublin County, [Online]. Available from <http://source.southdublinlibraries.ie>

Speed, J. (1610) Map of the Province of Leinster.

Stiff, N. (2020). Dublin Street Lamps [Online]. Available from normanstiff.com/streetgaslamps.html

Taylor, G. and Skinner, A. (1777). Maps of the Roads of Ireland, surveyed 1777 [Online]. Available from swilson.info/tands1777.php

Taylor, J. (1816). 'Map of the environs of Dublin, extending 10 to 14 miles from the Castle'. [Online]. Available from digitalarchive.mcmaster.ca/islandora/object/macrepo%3A81283

Trinity College Dublin (2020) Digital Collections, The Library of Trinity College Dublin [Online]. Available from digitalcollections.tcd.ie/?locale=en

Trinity Haus (2012) Shared Space, Shared Surfaces and Home Zones from a Universal Design Approach for the Urban Environment in Ireland: Key Findings & Recommendations.

University College Dublin (UCD) (2020). OSI 19th century historical maps [Online]. Available online from digital.ucd.ie/maps.

Valuation Office (2020) Archives and Genealogy section of the Valuation Office[Online]. Available online from <https://www.valoff.ie/en/archive-research/>

Wilson, S. (2020) Milestones and Boundary Markers, South Co. Dublin [Online]. Available from swilson.info/omaps/mstones.php

Relevant Guidelines, Policy and Legislation

Council of Europe (1985). Convention for the Protection of the Architectural Heritage of Europe (ratified by Ireland 1997), 'Granada Convention'.

Council of Europe (1992). European Convention on the Protection of the Archaeological Heritage (ratified by Ireland 1992), 'Valetta Convention'.

Council, of Europe. (2000). European landscape convention. US/ICOMOS Scientific Journal, 2, 88-92.

Council of Europe (2005). Framework Convention on the Value of Cultural Heritage for Society, 'Faro Convention'.

Department of Arts Heritage the Gaeltacht (DAHG) (2011) Architectural Heritage Protection: Guidelines for Planning Authorities.

DAHG (2011b) Access: Improving the accessibility of historic buildings and places.

DAHG (2012) Shaping the Future – Case Studies in. Adaptation and Reuse in Historic Urban Environments.

DAHG (2015) Paving; The Conservation of Historic Ground Surfaces

Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) (1999). Framework and Principles for the Protection of the Archaeological Heritage.

Department of the Environment, Heritage and Local Government (DEHLG) (2002) Conservation Guidelines PL. 9: Paving and Street Furniture

DEHLG (2007) Maintenance: A Guide to the Care of Older Buildings

DEHLG (2009a) Bricks: A Guide to the Repair of Historic Brickwork

DEHLG (2009b) Iron: the Repair of Wrought and Cast Ironwork

Department of Housing Planning and Local Government (2018a) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

DHPLG (2018b) Circular Letter: PL 05/2018 Transposition into Planning Law of Directive 2014/52/EU

DHPLG (2018c) Project Ireland 2040: The National Planning Framework.

Department of Transport, Tourism and Sport (DTTAS) (2019) The Design Manual for Urban Roads and Streets.

Department for Transport UK (2007) "Manual for Streets"

Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment

Directive 2011/92/EU of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment

Directive 2014/52/EU of 16 April 2014 on the assessment of the effects of certain public and private projects on the environment

Dublin City Council (DCC) (2009) Historic Street Surfaces Study

DCC (2012) 'Your City Your Space: Dublin City Public Realm Strategy'

DCC (2014) Public Realm Masterplan for the North Lotts & Grand Canal Dock SDZ

DCC (2015) Luas cross city heritage works Information Newsletter.

DCC (2016) The Heart of Dublin: City Centre Public Realm Masterplan, June 2016

DCC (2022) The Dublin City Development Plan 2022 – 2028, Dublin City Council

Eastern and Midlands Regional Assembly (EMRA) (2019) Regional Spatial and Economic Strategy (RSES) 2019-2031 (EMRA 2019)

EPA (2022) Guidelines on the information to be contained in Environmental Impact Assessment Reports. May 2022.

European Commission (1990). Green Paper on the Urban Environment (Vol. 12902). Office for Official Publications of the Commission of the European Communities.

European Commission (2017) Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impacts Assessment Report

European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. 296 of 2018)

Heritage Act, 1995, (as amended)

Historic England (2017). The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning No. 3 (Second Edition). Historic England.

Historic England (2018) Streets for All; Advice for Highway and Public Realm Works in Historic Places'.

International Council of Monuments and Sites (ICOMOS) (1981) Historic Gardens-The Florence Charter, 1981

ICOMOS (1999b) International Cultural Tourism Charter, Managing Tourism at Places of Heritage Significance.

ICOMOS (1999a) Charter on the Built Vernacular Heritage

ICOMOS (2005) Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas.

ICOMOS (2008) Charter on Cultural Routes.

ICOMOS (2011) The Valetta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas

ICOMOS (2017a) Salalah guidelines for the management of public archaeological sites, 2017

ICOMOS (2017b) Document on Historic Urban Public Parks.

ICOMOS, Australia (1990). The ICOMOS Charter for the Protection and Management of the Archaeological Heritage

ICOMOS, Australia (2008). The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites (also known as the 'Ename Charter') International Journal of Cultural Property, 15, 377-383.

ICOMOS, United States (1987) Charters for The Conservation of Historic Towns and Urban Areas, Washington Charter– 1987

ICOMOS and the International Committee for the Conservation of the Industrial Heritage (TICCIH) (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes (also known as the Dublin Principles)

Local Government (Planning and Development) Act 2000 (as amended)

McLoughlin, R. (2017). Paving: the conservation of historic ground surfaces. Department of Arts Heritage the Gaeltacht advice series, The Stationery Office.

National Inventory of Architectural Heritage (NIAH) (2017) NIAH Handbook, September 2017, Department of Culture Heritage and the Gaeltacht.

National Monuments Acts 1930 to 2014

National Roads Authority (NRA) (2005a) Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes

NRA (2005b) Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes

National Transport Authority (2020) Proposed Approach to Environmental Assessment

Planning and Development Act Regulations 2001 (as amended);