

## Archaeological and Built Heritage Assessment

## Carrigtwohill URDF Initiative - Public Realm Infrastructure Bundle, Carrigtwohill, County Cork

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## 1. Introduction

John Cronin & Associates (JCA) have been commissioned by Atkins Ireland, on behalf of Cork County Council, to prepare an archaeological and built heritage assessment of Carrigtwohill Regeneration and Development Fund (URDF) Initiative Public Realm Infrastructure Bundle. This report draws on a constraints study prepared by John Cronin & Associates in April 2020 which encapsulated a large study area (discussed in the next section of this report). For the purposes of this assessment, two sub-areas were formulated to aid the assessment, namely:

- Carrigtwohill Village Centre (focusing on Main Street, Station Road and Wises Road)
- N25 Junction 3 (Cobh Cross)



Figure 1: Overview of the Carrigtwohill URDF Initiative Public Realm Infrastructure Bundle

The assessment presented in this report is based on the following scheme drawings:

- 5194601-HTR-DR-0020 to 0029 Rev A
- 5194601-HTR-DR-0030 to 0032 Rev A
- 5194601-HTR-DR-0040 to 0042 Rev B

The aims of the proposed infrastructure works included in the Carrigtwohill URDF Initiative Public Infrastructure Bundle are as follows:

- Improve connectivity within Carrigtwohill i.e. between town centre, residential developments, railway stop, schools, commercial premises, employment centres;
- Encourage sustainable modes of transport through provision of safe pedestrian and cyclist facilities and traffic calming measures;

- Provide a public realm upgrade to help unlock the potential of the town including better quality streets and public spaces and reduce car dominance in order to make Carrigtwohill a place where people want to spend time;
- Upgrade existing junctions to improve performance for traffic as well as catering for pedestrian/ cyclist demand;
- Co-ordinate proposals with other proposed infrastructure schemes in Carrigtwohill.

The three projects which comprise the Carrigtwohill URDF Initiative Public Realm Infrastructure Bundle are as follows:

#### 1. Main Street and Station Road Public Realm Works comprising of the following:

- a. Upgrade of Main Street and Station Road junction including footpath widening, road re-alignment and widening, re-surfacing, signalisation, provision of pedestrian crossings and removal of existing structures/buildings;
- b. Provision of three new public spaces as follows:
  - i. At junction of Station Road and Main Street;
  - ii. At and north of the Community Centre on Main Street;
  - iii. At and west of St. Mary's Church on Station Road.
- c. Public realm upgrade of Station Road from the junction with Main Street to the junction at Carrigtwohill Train Station including:
  - i. Road widening with footpaths / off-road cycle tracks on both sides of the road, raising of existing roads levels where required, and re-location of the existing Grotto;
  - ii. Removal of existing boundary walls, re-building of boundary walls, re-location of entrances and local realignment of the stream channel;
  - iii. Two number 'Biodiversity Areas';
  - iv. New street lighting, undergrounding of overhead lines, new underground services and drainage, and diversion of existing services where required;
  - v. Traffic calming measures including re-surfacing, road narrowing, tree planting and raised tables, signalised and unsignalised raised pedestrian crossings;
  - vi. Removal of on-street carparking and provision of a new car park (46 no. spaces);
  - vii. Upgrade of existing car park at Patrick Pearse Place;
  - viii.New shared use pedestrian and cyclist path between Station Road and recreation areas south of Main Street via Patrick Pearse Place and the existing Centra car park;
  - ix. New footpaths connecting the following housing developments:
    - Cluain Cairn and An Fána;
    - Cluain Cairn and Castle Close/Castle Avenue.
- d. Public realm upgrade of Main Street from the junction with Castlelake Avenue to the junction with Carrigane Road including:
  - i. Footpath widening on both sides of the road with varying surface treatments;
  - ii. Shared cycle/pedestrian path on north side of the road from junction with Castlelake Avenue to Bán Na Gréine;
  - iii. Removal of existing boundary walls, re-building of boundary walls, and re-location of entrances;
  - iv. Street lighting, undergrounding of overhead lines and diversion of existing services as required;
  - v. Traffic calming measures including re-surfacing, road narrowing, tree planting, raised tables, signalised and unsignalised raised pedestrian crossings;
  - vi. Re-location of on-street car parking to three new car parks (45 no. spaces);

- vii. New road running south from Main Street including underground services, and public lighting;
- viii. New school drop off area accessed from Carrigane Road and ambulant accessible parking.
- 2. Wises Road Junction Upgrades comprising of the following:
  - a. Upgrade of junction of Wises Road and Main Street including provision of traffic signals, pedestrian crossings, road re-alignment and footpath widening;
  - b. Upgrade of junction of Wises Road and Oakbrook Link Road/ IDA Industrial Estate Access Road including provision of traffic signals, road re-alignment and footpath widening.
- 3. **N25 Junction 3 (Cobh Cross) Additional Capacity Interim Measures** to include an increase in the size of the existing northern roundabout, widening and re-alignment of approach roads to the roundabout.

Background research for this report was undertaken by Tony Cummins BA MA, an archaeologist and cultural heritage specialist with over 25 years' postgraduate experience in the archaeological research and appraisal. The site inspection and assessment of impacts for this assessment was undertaken by John Cronin BA MRUP MUBC MIAI, an archaeological and built heritage specialist over 25 years' post-graduate experience.

(Please note that the settlement is occasionally referred to as "Carrigtohill"; for the purpose of this document the name of "Carrigtwohill" is used throughout.)

## 2. Context

#### **Historical Context**

The development of a settlement at Carrigtwohill area likely had its origins in the late 12th century when Barryscourt Castle was built in the lands to the south by Philip de Barry during the 1180s. Philip's grandson, David de Barry, was granted a charter in 1234 allowing him to hold a market in the 'Manor of Karrectochell' which suggests that the Barry's were developing the area as a manorial centre. While there are some historical records of Barryscourt Castle during the remainder of the medieval period, little is known of the development of the settlement at Carrigtwohill during this time other than occasional references in records, for instance it is mentioned in Papal Taxation registers in the early 14th century. In 1615 a church in Carrigtwohill is described as having a nave in repair while the chancel was ruinous (Power 1994) and in the mid-18th century it is described as 'a small village seated on an arm of the sea'(Smith 1750). William Wenman Seward (1797) records that the settlement contained over 100 houses by the end of the 18th century while Lewis (1837) writing a number of decades later describes the village as follows:

The village consists principally of one long irregular street and contains 98 small houses indifferently built. It is a constabulary station; and fairs are held on the 12th of March and May, Aug. 26th, Sept. 19th, and Nov. 8th, chiefly for horses, Cattle, pigs, and pedlery, and, from the central situation of the place, are in general well attended

The railway line at the north end of the village formed part of the Midleton to Youghal line developed in the mid-19th century by the Cork, Youghal & Queenstown Railway company. The section of this line between Midleton and Dunkettle was opened in 1859 and it had been extended to Carrigtwohill by 1862. This section of the line was closed to passengers in 1963, other than summer trains to Youghal, and it was subsequently closed to freight in 1988.

The detail on historical Ordnance Survey (OS) maps produced during the 19th and early 20th centuries show the existing core streetscape within the village had developed by the 1840s with the building stock comprising street-front buildings concentrated along the junction between Main Street and what is now referred to as Station Road. This core settlement pattern still survives as a mix of single and two-storey buildings within the village core and has been augmented by the development of modern housing and commercial estates within former green field locations set back from the streets and along the roadsides leading into the village centre. In general, there is little street furniture within the village and the pavements are of modern concrete construction. Also, as noted elsewhere in this report, the *County Cork Development Plan 2014* does not designate an Architectural Conservation Area around the village.

### Archaeological Heritage

The following section presents a summary of the legal and policy frameworks designed to protect the Irish archaeological resource and further information is available in the Framework and Principles for the Protection of the Archaeological Heritage published by the Department of Arts, Heritage, Gaeltacht and the Islands (1999). The administration of national policy in relation to archaeological heritage management is the responsibility of the National Monuments Service (NMS) which is currently based in the Department of Culture, Heritage and the Gaeltacht.

The locations of World Heritage Sites (Ireland) and the Tentative List of World Heritage Sites submitted by the Irish State to UNESCO were also reviewed and none are located in the vicinity of the proposed development.

The National Monuments Act of 1930, and its Amendments, are the primary means of ensuring the satisfactory protection of the archaeological resource. They include a number of provisions that are applied to secure the protection of archaeological monuments. These include the designations of nationally significant sites as National Monuments as well as the Register of Historic Monuments, the Record of Monuments and Places, the Sites and Monuments Record, and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

Section 2 of the National Monuments Act, 1930 defines a National Monument as 'a monument or the remains of a monument, the preservation of which is a matter of national importance'. The State may acquire or assume guardianship of National Monuments through agreement with landowners or under compulsory orders. The prior written consent of the Minister is required for any works at, or in proximity to, a National Monument in the ownership or guardianship of the State, the Minister or a local authority, or those which are subject to a Preservation Order. There are no National Monuments located within Carrigtohill or its environs. Barryscourt Castle (C0075-018003-) is located within farmland located 500m to the south of the Main Street and is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (P.O. no. 4/1974).

The National Monuments (Amendment) Act, 1994 made provision for the establishment of the Record of Monuments and Places (RMP) which comprises the known archaeological sites within the State. The RMP, which is based on the earlier Register of Historic Monuments (RHM) and Sites and Monuments Record (SMR), provides county-based lists of all recorded archaeological sites with accompanying maps. All RMP sites receive statutory protection under the National Monuments Act 1994 and the NMS must be given two months' notice in advance of any work proposed at their locations.

The Archaeological Survey of Ireland (ASI) lists seven recorded archaeological sites within the study area, and these include two examples now designated as "redundant records". Details on these recorded archaeological sites are provided in **Table 1**, which includes their published inventory descriptions, and they are mapped on **Figure 2**. Carrigtwohill is not listed as a historic settlement in the SMR/RMP and there is no designated Zone of Archaeological Potential around the village itself.

One of the recorded archaeological sites within the village area comprises a medieval shell midden (CO075-068----) which was discovered in the 1950s during the construction of a school on the western outskirts and was subject to an archaeological excavation (O'Kelly 1955). A number of licensed archaeological site investigations have also been undertaken within the village and its close environs during the past two decades and nothing of archaeological significance was uncovered within investigated properties adjacent to Main Street and Church Street (**Appendix 1**). Excavations within a green field area adjacent to the east side of the village were undertaken in 2006 in advance of a sewerage scheme and revealed sub-surface remains of

a prehistoric burnt spread with associated features and a medieval ditch which have been added to the SMR (CO076-124----).

SMR No.	Class	ITM E, N	Inventory Description
CO075-017001-	Graveyard	582143, 573197	On N side of Carrigtwohill village, rectangular graveyard (c. 60m N-S; c. 80m E-W) enclosed by stone wall. In centre, partially roofed remains of late medieval parish church of Carrigtwohill (C0075- 017002-); in NW corner C of I church (C0075- 017003-) built in 1905 (Coleman 1908, 8). Oldest burials on S side, earliest inscribed headstone noted dates from 1767, though Power (1918,196) records headstone dated 1723, whilst O Buachalla and Henchion (1965) noted '233 stones, all but a few being at least a century old', the oldest dated 1704; many headstones and fragments of headstones now lie in pile to W of church tower. Memorials to Cotter and Dobson families on W wall of church (see C0075-01702-). Still in use; recent extension to N.
C0075-017002-	Church	582152, 573199	In centre of graveyard (CO075-01701-), remains of nave and chancel of parish church of Carrigtwohill, with tower at SW corner. By 1615 nave in repair but chancel ruinous (Brady 1863, vol. 2, 91); chancel still a ruin but nave maintained as C of I church until new church built in NW corner of graveyard in 1905 (Coleman 1908, 8); nave still roofed and used as hall with recent flat-roofed extension on W side. Chancel interior (int. 13.6m E-W; 6m N-S) partially overgrown and used for burial with headstones dating to 1815. N and S walls ivy-clad; surviving portion of E wall inserted inside line of earlier wall. Inserted door ope in S wall; splayed window embrasures, missing lights, in N and S walls. Junction of nave and chancel now blank wall functioning as E gable of hall; according to Power (1918,196) 'chancel-arch was transformed into east window' of C of I church date of this transformation not known but probably took place before church reported 'in good repair' in 1694 (Brady ibid, 92-3). Roofed section of nave (16.5m E-W; int. 8m N-S) extends to E wall of tower but earlier nave extended at least to W wall of tower (a further 4.65m). N wall built on battered lower courses of older wall. Blocked window opes in N and S walls and door opes all of relatively recent appearance. Four-storey rectangular tower (6m N-S; 4.65m E-W) stood attached to W end of S wall of nave. It stands to full height but crenellations gone; bellcote added to top of N wall, bell still in position. Access to interior not gained. Lit by rectangular flat-headed lights; series of slit windows near NW corner suggest spiral stone

**Table 1**: Archaeological Inventory of Co. Cork Vol. 2 descriptions of recorded sites (Power 1994)

SMR No.	Class	ITM E, N	Inventory Description
			staircase in this position. Blocked arched opening at ground level in S wall and at 1st floor level in E wall appear later insertions. At ground floor level, on W face of tower, oval plaque erected in 1688 by Sir James Cotter (Coleman 1901-3a, 163-4; see photo Coleman 1908b, facing p.8), nearby recently vandalised aediculated memorial of Dobson family dated 1789 (Coleman 1917-20a, 268-9); both lived at Anngrove House (CO075-051). Tower appears late medieval in date, as presumably was this larger-than-usual parish church of Carrigtwohill, associated with nearby Barryscourt castle (CO075- 01801-), seat of the Barry family. Though named 'Abbey' on 1842 OS 6-inch map not listed in Gwynn and Hadcock (1988).
C0075-017003-	Church	582116, 573213	In the NW corner of a graveyard (CO075-017001-) is a C of I church built in 1905 (Coleman 1908, 8)
CO075-017004-	Redundant record	582155, 573196	Listed as an 'abbey' in the SMR (1988) and the RMP (1998) based on the fact that the words 'Abbey (in Ruins)' appear here on the 1842 OS 6-inch map. No such abbey is listed in Gwynn and Hadcock (1988) and the remains are those of a late medieval parish church and tower (C0075-017001-). The evidence is not sufficient to warrant accepting this as the location of an archaeological monument.
CO075-068	Midden	581854, 573006	Discovered during construction of 'new school' in field to S of road, at W end of Carrigtwohill. Excavated by O'Kelly (1955a, 28-32). Midden contained within pit (5m N-S; 2.25m E-W; max D 0.6m) cut into subsoil. Contained mainly oyster shells, few animal bones and fragments of glazed pottery dating to late 13th - early 14th century. Bottom of pit lined with small boulders and flags; further layers of flags found on shells; hearths found at different levels. Various hollows and undulations in surface of subsoil also contain some habitation refuse.
CO076-001	Kiln - lime	582520, 573644	In quarry, built against rock outcrop. Large structure (H 10m; Wth 12.45m) facing NW incorporating 3 kilns with three arched recesses all of similar dimensions (H 1.6m; Wth 1.4m; D 2m). Arch of each recess filled with masonry formerly supported by wooden lintel. Kilns are separated from each other by projecting wall 1.6m; joist holes indicate these supported cover in front of kilns. Top of kiln enclosed by wall with three window opes in front elevation, access to rear. Buttresses against E and W walls. Funnels (diam. 1.4m) all stone lined and beaker-shaped in section. Ope (Wth 1.85m) in S wall. Remains of ramp to S.

SMR No.	Class	ITM E, N	Inventory Description
C0076-003	Redundant record	582675, 573693	Limestone cave system explored by Coleman (1934, 76-78); 'old cave' section subsequently excavated (Coleman 1944, 228); wolf skull and 'recent domestic fauna' recovered.

The Midleton Electoral Area Local Area Plan (2015) does not outline any objectives in relation to the archaeological resource within the settlement. The Cork County Council Development Plan (2014) presents a number of policies and objectives in relation to the protection of the archaeological resource within the county and these include the following:

#### HE 3-1: Protection of Archaeological Sites

a) Safeguard sites and settings, features and objects of archaeological interest generally.

b) Secure the preservation (i.e. preservation in situ or in exceptional cases preservation by record) of all archaeological monuments including the Sites and Monuments Record (SMR) (see www.archeology.ie) and the Record or Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, as amended and of sites, features and objects of archaeological and historical interest generally.

#### HE 3-3: Zones of Archaeological Potential

Protect the Zones of Archaeological Potential (ZAPs) located within historic towns and other urban areas and around archaeological monuments generally. Any development within the ZAPs will need to take cognisance of the potential for subsurface archaeology and if archaeology is demonstrated to be present appropriate mitigation (such as preservation in situ/buffer zones) will be required.

12.3.16: Where archaeological materials are found appropriate mitigation measures shall be put in place. Preservation in situ should generally be the presumed option and only compelling reasons can justify preservation by record



Figure 2: Location of recorded archaeological sites

### **Built Heritage**

Protection of the Irish architectural heritage resource is provided for through a range of legal instruments that include the Heritage Act 1995, the Architectural Heritage (National Inventory) and National Monuments (Misc. Provisions) Act 1999, and the Planning and Development Act 2000. The Planning and Development Act 2000 requires all Planning Authorities to keep a 'Record of Protected Structures' (RPS) of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Since the introduction of this legislation, planning permission is required for any works to a protected structure that would affect its character. A protected structure also includes the land and other structures within its curtilage. While the term 'curtilage' is not defined by legislation, the Architectural Heritage Protection Guidelines for Local Authorities (Dept. Arts, Heritage and the Gaeltacht 2011), describes it as the parcel of land immediately associated with a structure and which is (or was) in use for the purposes of the structure. This may include associated roadside features such as gateways, boundary walls and railings. There are six Protected Structures within the study area (**Table 2** and **Figure 3**) and Barryscourt Castle to the south of the village is also listed (ref. PS 497).

In addition, local authorities must provide for the preservation of places, groups of structures and townscapes of architectural heritage significance through designation of Architectural Conservation Areas (ACAs). The County Cork Development Plan (2014) does not designate an ACA around Carrigtwohill village.

The National Inventory of Architectural Heritage (NIAH) was established under the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 to record architectural heritage structures within the State. While inclusion in the NIAH does not provide statutory protection to a structure it is intended to advise local authorities on compilation of their Record of Protected Structures. The NIAH lists nine 19th-century structures located within the study area, six of which are also listed in the RPS (**Table 2**). The published inventory descriptions of each example are provided below in **Table 3** and their locations are mapped on Figure 5.

RPS No.	NIAH	Name
PS 1316	20907554	Former Dispensary
PS 1315	20907555	Parochical House
PS 1317	-	Rockville House
PS 496	20907557	St. Mary's Roman Catholic Church
PS 854	-	Medieval Church of Ireland Tower (in ruins)
-	20907553	Wise's Bridge (road bridge over railway)
-	20907559	Tullagreen House
-	20907558	House (Station Road)
-	20907550	Barry's Bridge (Station Road)
-	20907551	Carrigtwohill Railway Station

Table 2: Designated Architectural Heritage Structures

RPS No.	NIAH	Name
-	20907552	Carrigtwohill Stationmaster's House

The Midleton Electoral Area Local Area Plan (2015) does not outline any objectives in relation to the architectural heritage resource within the settlement. The Cork County Council Development Plan (2014) outlines a number of objectives to ensure the protection of the architectural heritage resource within the county and these include the following:

HE 4-1: Record of Protected Structures

*d)* Ensure the protection of all structures (or parts of structures) contained in the Record of Protected Structures.

e) Protect the curtilage and attendant grounds of all structures

HE 4-2: Protection of Structures on the NIAH

Give regard to and consideration of all structures which are included in the NIAH for County Cork, which are not currently included in the Record of Protected Structures, in development management functions.

HE 4-3: Protection of Non- Structural Elements of Built Heritage

Protect important non-structural elements of the built heritage. These can include designed gardens/garden features, masonry walls, railings, follies, gates, bridges, and street furniture. The Council will promote awareness and best practice in relation to these elements.

Name	Description
Former Dispensary	Detached three-bay two-storey house and former dispensary, built c. 1880, having recessed entrance porch to front (east) elevation and two-storey lean-to extension to rear (west). Hipped slate roof with rendered chimneystacks and cast-iron rainwater goods. Rendered walls with render quoins. Square-headed window openings, tripartite to ground floor, and shouldered to first floor, with cut stone sills supported on render console brackets, and having moulded render surrounds, incorporating cornices to ground floor, and replacement timber sliding sash windows throughout. Entrance porch comprising rendered square-profile columns supporting cornice, having cut limestone steps and decorative tiled floor leading to square-headed door opening with timber panelled door with overlight and flanked by decorative sidelights with timber panelled risers. Outbuilding to rear (west) with pitched slate roof and rubble limestone walls and square-headed openings with red brick surrounds and timber fittings, having wrought-iron gate to site. Well-executed former dispensary retaining its character and form in detailing such as the decorative render window surrounds, porch
	Former

 Table 3: National Inventory of Architectural Heritage descriptions of structures within study area

NIAH	Name	Description
		and floor tiling. It forms part of the architectural heritage of the area, as well as part of the social history of the local community.
20907555	Parochial House	Detached three-bay two-storey presbytery, built c. 1880, with gabled breakfront to front (west) elevation and two-storey extensions to rear, comprising hipped-roofed return, gabled block and lean-to. Hipped slate roof with rendered chimneystacks. Render coping and high cross style finial to breakfront gable. Roughcast rendered walls with smooth render plinth and render trefoil motif to breakfront gable. Square-headed window openings with cut limestone sills to ground floor and render sill course to first floor, having one-over- one pane timber sliding sash windows. Segmental-headed door opening with rendered surround incorporating bracketed pediment with cross finial, overlight, cut limestone threshold and square- headed replacement timber panelled door. Outbuilding to south with pitched slate roof and roughcast rendered walls, arrow slit and square-headed openings, one having remains of timber sliding sash window, others having metal fittings. Rendered square-profile gate piers and wrought-iron double-leaf gates to south. Rendered boundary walls with rendered sweep walls., square-profile gate piers and cast-iron double-leaf gates.
		Imposing parochial house, employing religious decorative motifs. The survival of the well-executed timber sliding sash windows, render doorcase and high cross pinnacle reveal a coherent and proportionally balanced façade. Located to the north of the Roman Catholic church, it occupies a pleasant site in the landscape.
20907557	St. Mary's Church	Freestanding gable-fronted Roman Catholic church, built c. 1880, with lower side aisles, projecting gabled side entrance porches to north and south elevations and sacristy to east end of south elevation, hexagonal-plan extension to east end of north elevation, incorporating fabric of earlier church. Pitched slate roof with carved limestone bellcote to gable-front, cut limestone coping, terracotta ridge tiles and aluminium rainwater goods. Single-pitched slate roofs to side aisles. Pyramidal slate roof to sacristy. Pitched slate roofs to porches with terracotta ridge tiles, cut limestone coping and finials. Decorative cast-iron rainwater goods. Snecked red sandstone walls with tooled limestone quoins and yellow sandstone string courses. Rubble limestone plaque. Niche with carved yellow sandstone statue with gabled canopy above and limestone plaque below to gable- front. Carved yellow sandstone Holy water fonts to either side of entrance. Multifoil opening to gable-front with yellow sandstone surround and roll moulded hood moulding, having alternating limestone and red sandstone voussoirs and stained glass window. Pointed arch window openings with trefoil-headed stained glass windows to west elevation having yellow sandstone surrounds and alternating limestone and red sandstone voussoirs. Paired pointed arch window openings to nave elevations and west elevations of aisles, with chamfered sandstone surrounds, limestone and yellow sandstone voussoirs and trefoil-headed stained glass windows. Rose window to east gable-front with carved yellow sandstone reticulated tracery and chamfered surround, having stained glass windows.

NIAH	Name	Description
		Pointed arch door openings to gable-front and porches, having chamfered limestone surrounds and carved limestone roll moulded hood mouldings, those to porches having alternating limestone and red sandstone voussoirs, all having double-leaf timber battened doors with decorative wrought iron hinges. Carved marble reredos and altar, carved timber gallery and organ, stained glass windows, timber scissors truss roof and pointed arch arcade to interior. Sited back from road with dressed limestone boundary wall surmounted by carved limestone copings and cast-iron railings and with dressed limestone square-profile piers with carved limestone pedimented caps.
		Imposing, well-crafted late-nineteenth century Roman Catholic church of some distinction. This interesting site has remained in use for religious and secular purposes since medieval times: a medieval church and fifteenth century tower house are visible to the east. The church currently occupying the site incorporates materials from a previous structure, evidenced in the east gable wall where a rubble limestone wall and plaque suggest an early-nineteenth century date. The use of contrasting local red sandstone, yellow sandstone and grey limestone provides textural and chromatic variation and vibrancy to the overall composition. The similarities with Glounthaune Roman Catholic church are noteworthy since the latter Gothic Revival church was based on a design by George Ashlin, one of the foremost church builders in the country.
20907553	Wise's Bridge	Single-arch road bridge over railway tracks on Cork/Youghal line, built 1859, having coursed rock-faced rusticated limestone walls and copings to parapets. Segmental arch with rock-faced rusticated limestone voussoirs. Red brick construction visible to soffit. Flanking quadrant walls of rock-faced limestone construction to east and west elevations.
		Robust road bridge built in conjunction with the opening of the railway line through Carrigtwohill in 1859. It is a fine example of the quality of craftsmanship employed by the railway authority in the construction of their utilitarian structures throughout the latter half of the nineteenth century.
20907559	Tullagreen House	Detached five-bay two-storey over raised basement country house, built c. 1820, incorporating fabric of earlier dwelling and having single-bay breakfronts to north and south elevations, two-storey canted projection to east elevation and single-bay single-storey extension to west end of north elevation incorporating entrance. Skirt roof with overhanging eaves, render eaves course, rendered chimneystacks and cast-iron rainwater goods. Render cornice to canted bay. Rendered walls with render quoins. Recessed blind roundels having moulded render surrounds to north elevation of single-storey extension. Square-headed diminishing window openings with painted sills and two-over-two pane and one-over- one pane timber sliding sash windows. Round-headed windows to west elevation of single-storey extension having moulded render arcaded surrounds, cut stone sills and one-over-one pane timber sliding sash windows. Round-headed door opening to single-storey

NIAH	Name	Description
		extension with render doorcase comprising piers supporting moulded archivolt set in recess, having timber panelled door and overlight. Square-headed door opening to south elevation with timber panelled half-glazed double-leaf doors surmounted by overlight and approached by flight of rendered steps.
		Seat of the Martin family, and more recently of Major W.J. Green, this house reveals continuous settlement since the early nineteenth century. Its evolution is evident in the array of window openings retained including early tall narrow Georgian timber sliding sashes and later Victorian round-headed examples with decorative moulded surrounds. Located on an elevated site in the landscape Tullagreen house forms an important local landmark, part of the social and architectural history of the area.
20907558	House (Station Road)	Detached three-bay two-storey house, built c. 1830. Pitched slate roof with rendered chimneystacks and cast-iron rainwater goods. Rendered walls, rubble limestone construction partially exposed to north elevation. Square-headed window openings, those to ground floor wider than to first floor, having concrete sills and timber sliding sash windows in exposed sash boxes, one-over-one pane to first floor, two-over-two pane to ground floor. Square-headed door opening to ground floor with timber panelled door.
		Early nineteenth-century house retaining its original character and form. The position of the openings asymmetrically and away from the corners is a feature of the vernacular manner. The survival of timber sliding sash windows in exposed timber sash boxes, the latter an indication of an early date, increases its heritage value.
20907550	Barry's Bridge (Station Road)	Single-arch road bridge over railway tracks on Cork/Youghal line, built 1859, having coursed rock-faced rusticated limestone walls, copings and platband. Segmental arch with rock-faced rusticated limestone voussoirs. Red brick construction visible to soffit. Flanking quadrant walls of rock-faced limestone construction to east and west elevations.
		Robust road bridge built in conjunction with the opening of the railway line through Carrigtwohill in 1859. It is a fine example of the quality of craftsmanship employed by the railway authority in the construction of their utilitarian structures throughout the latter half of the nineteenth century.
20907551	Carrigtwohill Railway Station	Detached three-bay single-storey former railway station, built 1859, with flat-roofed extension to east elevation. Closed 1963. Pitched slate roof with red brick chimneystack and timber eaves. Red brick walls with rock-faced rusticated limestone quoins. Square-headed openings with render surrounds and remains of double-leaf timber doors, one having raised lettering.
		Though disused, this railway station is a fine example of the quality of craftsmanship employed by the railway authority in the construction of their utilitarian structures throughout the latter half of the nineteenth century. The use of red brick together with carved limestone quoins provides textural interest and chromatic variation.

NIAH	Name	Description
		"Ladies Waiting Room" is inscribed on one of the timber doors indicating the original layout and social usage of the station. It is one of a series of related railway structures including the railway bridge and station master's house, which together form a pleasing group in the landscape.
20907552	Carrigtwohill Stationmaste r's House	Detached L-plan two-bay two-storey former station master's house, built 1859, having lean-to extension to north-west elevation. Now in use as house. Intersecting hipped slate roofs with overhanging sheeted eaves having carved timber eaves brackets. Rendered chimneystack with decorative ceramic chimneypots. Roughcast rendered walls with smooth render eaves course. Square-headed window openings, paired to ground floor, having concrete sills and replacement uPVC windows. Square-headed door opening with replacement timber panelled door. Station master's house retaining its overall character and form in spite of refenestration and alterations. The eaves detailing incorporating paired timber brackets is indicative of the Tudor Revival style of architecture often employed by the railway companies. The optimistic spirit of enterprise and industry engulfed the latter half of the nineteenth century, the railway companies in particular built a large number of structures, many of these have now fallen into disuse and their survival is threatened.

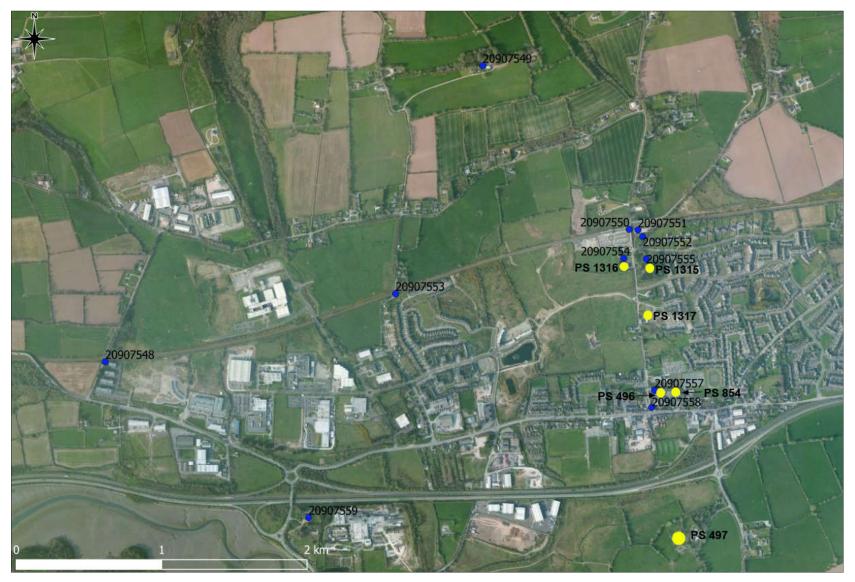


Figure 3: Location of designated architectural heritage structures

## 3. Overview of the sub-areas

For the purposes of this assessment, two sub-areas were formulated to aid the assessment of the eight projects which comprise the Carrigtwohill URDF Initiative Public Realm Infrastructure Bundle. These sub-areas consist of:

- Carrigtwohill Village Centre (focusing on Main Street and Station Road)
- N25 Junction 3 (Cobh Cross)

#### **Carrigtwohill Village Centre**

The existing settlement of Carrigtwohill comprises a core central area that is characterised primarily by 19th century street-front buildings with 20th century structures more prevalent in the outer margins of the settlement. It is noted that the core of the village has not been designated as an Architectural Conservation Area in the current County Development Plan (2014). A number of the structures listed by the NIAH within the area are associated with the 19th century railway and include two road bridges extending over the line. Both of these bridges remain in use along access routes into the village from the north. A number of the designated structures within the village and its environs comprise buildings set back from the roads, but many contain roadside features such as boundary walls and gateways that form part of their curtilage.

The core of the village has not been assigned a *Zone of Archaeological Potential* by the National Monuments Service and, while there has been a very limited number of archaeological investigations within the village centre, none have identified any trace of medieval structures or deposits. A similarly limited number of investigations have been carried out within green field areas around the village, but it is notable that these have still uncovered sub-surface archaeological sites dating to both the prehistoric and medieval periods, thereby demonstrating the archaeological potential of the area.

### N25 Junction 3 (Cobh Cross)

Measures proposed for additional capacity to the existing N25 Junction 3 (Cobh Cross) include an increase in the size of the existing roundabout on the northern side of the junction, re-alignment of approach roads, and other measures. The area was, historically and up to the construction of the N25, part of the former historic demesne of Tullagreen House. The Martins held the estate at Tullagreen in the nineteenth century. In the 1870s the estate amounted to 1,033 acres held by Robert Martin of Tullagreen. As a result of the construction of the N25 and the associated N25 Cobh Cross junction, the National Inventory of Architectural Heritage's Garden Survey noted that the former demesne (NIAH Ref. CO-81-W-806724) retains "Virtually no recognisable features".

Tullagreen House itself is not a protected structure but it is recorded by the National Inventory of Architectural Heritage (NIAH Ref. 20907559) as a building of "regional" importance. The NIAH describe the building as follows:

Detached five-bay two-storey over raised basement country house, built c. 1820, incorporating fabric of earlier dwelling and having single-bay breakfronts to north and south elevations, two-storey canted projection to east elevation and

single-bay single-storey extension to west end of north elevation incorporating entrance. Skirt roof with overhanging eaves, render eaves course, rendered chimneystacks and cast-iron rainwater goods. Render cornice to canted bay. Rendered walls with render quoins. Recessed blind roundels having moulded render surrounds to north elevation of single-storey extension. Square-headed diminishing window openings with painted sills and two-over-two pane and oneover-one pane timber sliding sash windows. Round-headed windows to west elevation of single-storey extension having moulded render arcaded surrounds, cut stone sills and one-over-one pane timber sliding sash windows. Round-headed door opening to single-storey extension with render doorcase comprising piers supporting moulded archivolt set in recess, having timber panelled door and overlight. Square-headed door opening to south elevation with timber panelled half-glazed double-leaf doors surmounted by overlight and approached by flight of rendered steps.

In appraising the significance of the building, the NIAH state the following:

Seat of the Martin family, and more recently of Major W.J. Green, this house reveals continuous settlement since the early nineteenth century. Its evolution is evident in the array of window openings retained including early tall narrow Georgian timber sliding sashes and later Victorian round-headed examples with decorative moulded surrounds. Located on an elevated site in the landscape Tullagreen house forms an important local landmark, part of the social and architectural history of the area.

The proposed measures for additional capacity to the existing N25 Junction 3 (Cobh Cross) are largely situated within what was the north-west portion of the former historic demesne. It is also noteworthy that Fota Island is located over 150 metres to the south-west of the sub-area and the core of the historic gardens (NIAH Ref. CO-80-W-791714) on the island are located over 1.65 kilometres to the south-west.

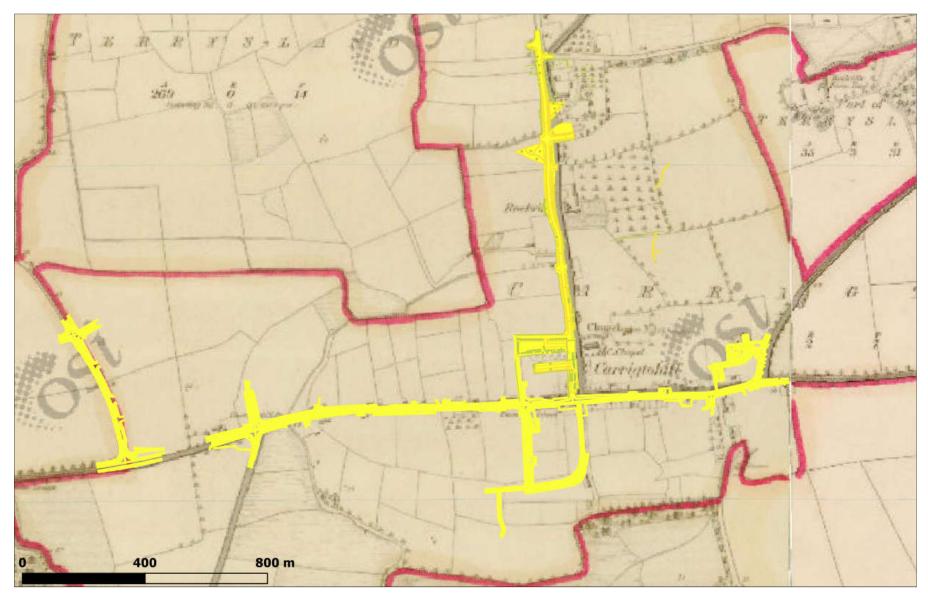


Figure 4: Superimposition of the proposed public realm works on the first-edition OS mapping for the Carrigtwohill Village Centre Sub-Area

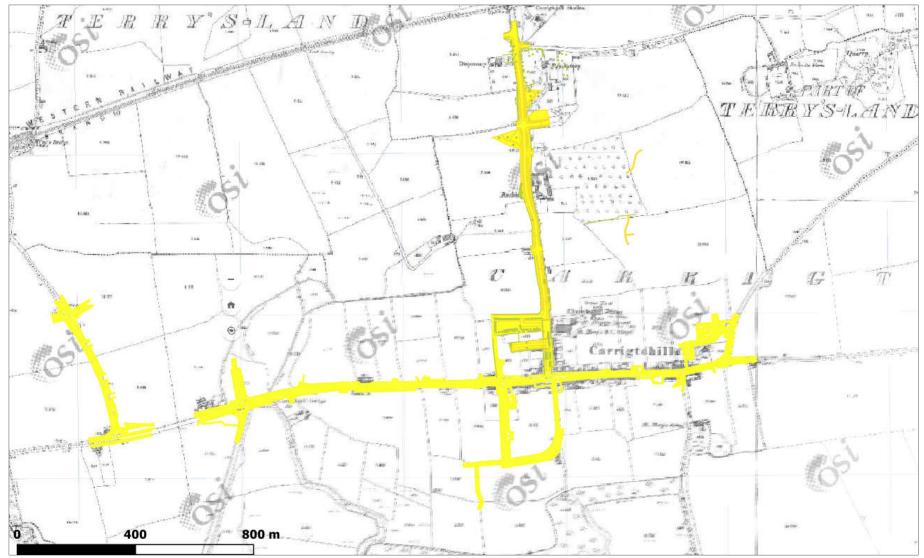


Figure 5: Superimposition of the proposed public realm works on the 25-inch OS mapping for the Carrigtwohill Village Centre Sub-Area

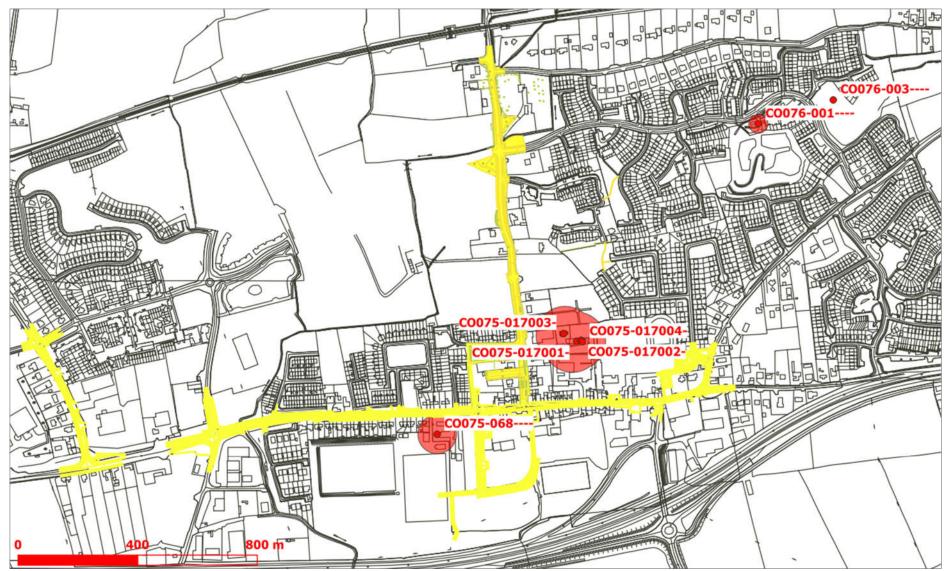


Figure 6: Recorded monuments within the vicinity of the proposed public realm works within the Carrigtwohill Village Centre Sub-Area

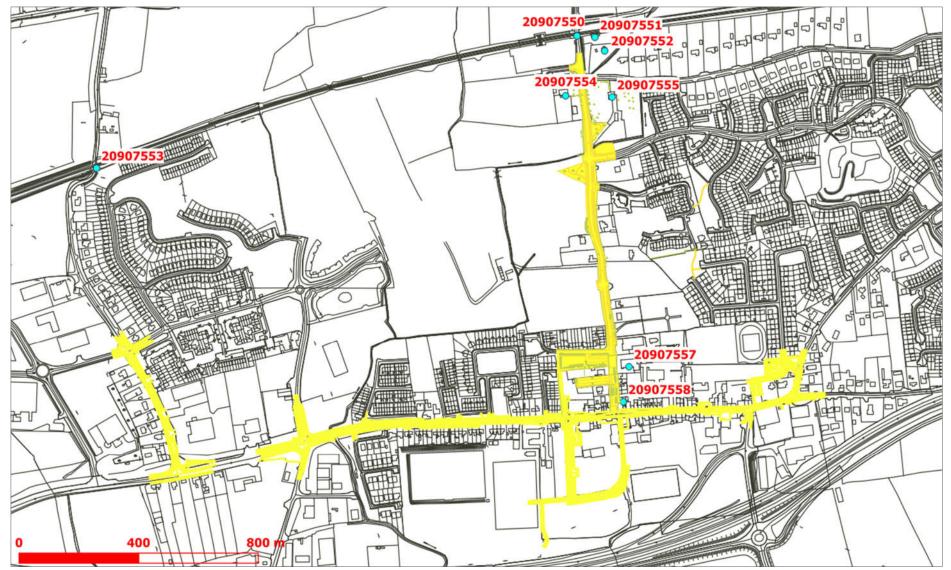


Figure 7: NIAH-recorded structures within the vicinity of the proposed public realm works within the Carrigtwohill Village Centre Sub-Area

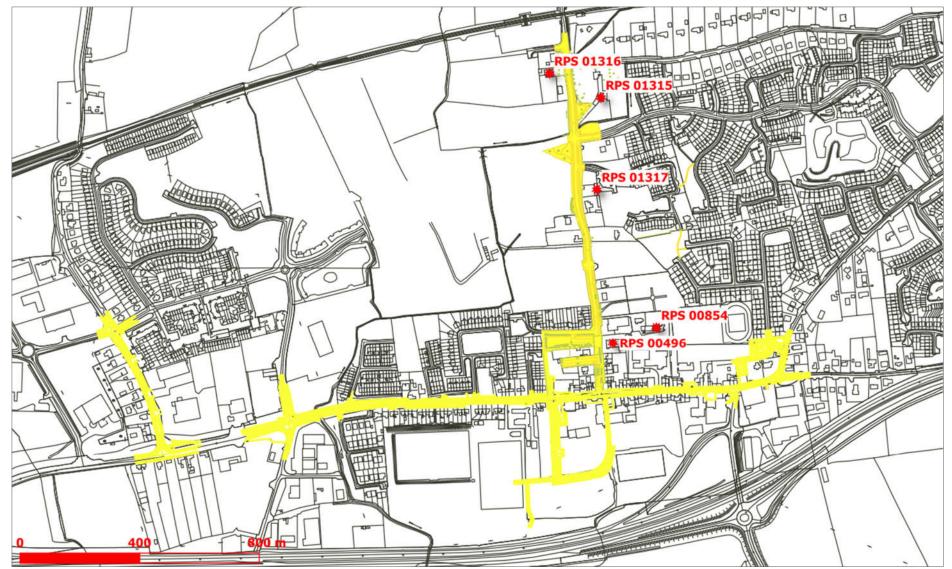


Figure 8: Protected Structures (RPS) within the vicinity of the proposed public realm works within the Carrigtwohill Village Centre Sub-Area

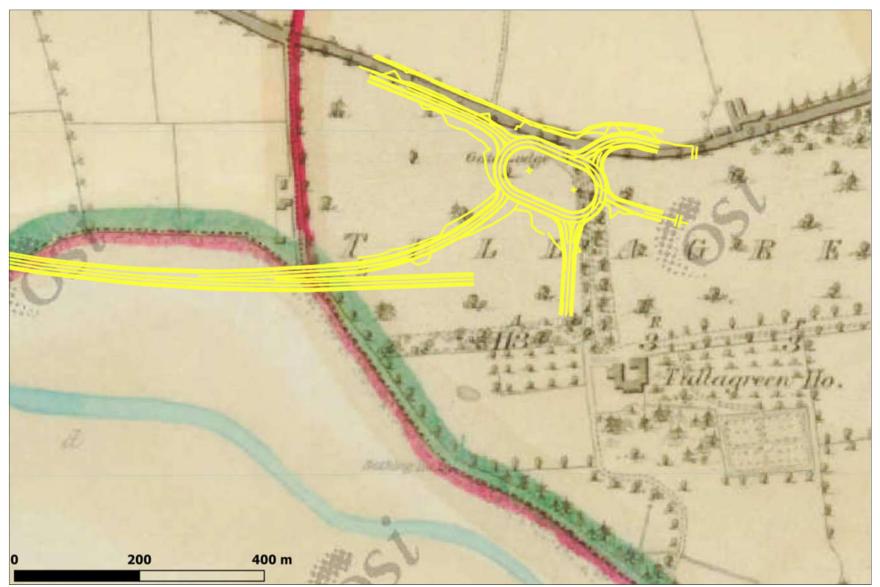


Figure 9: Superimposition of the proposed N25 Junction 3 (Cobh Cross) Measures on first-edition OS mapping for the associated sub-area

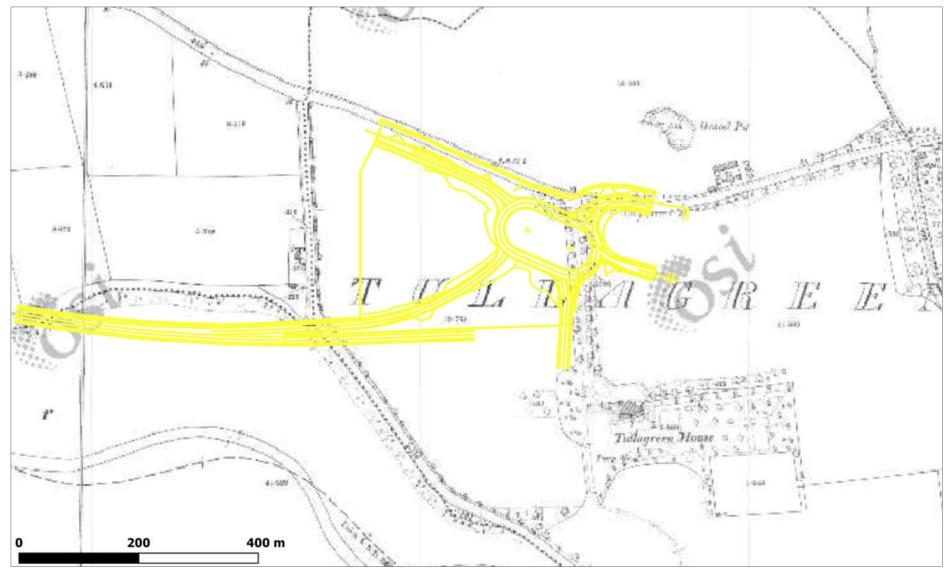


Figure 10: Superimposition of the proposed N25 Junction 3 (Cobh Cross) Measures on 25-inch OS mapping for the associated sub-area

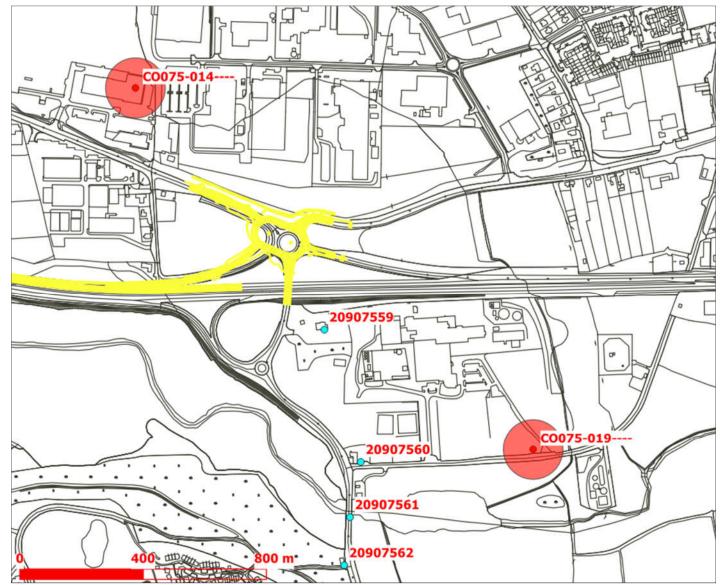


Figure 11: Recorded monuments and NIAH structures within the vicinity of the proposed N25 Junction 3 (Cobh Cross) Measures

## 4. Assessment of impact

### Main Street and Station Road Public Realm Works

Detailed proposals are proposed for upgrading and improving the public realm of Main Street and Station Road. The construction and operational impacts associated with each sub-element of the proposals have been considered and commentary is outlined in relation to each of the key development proposals, namely:

- Upgrade of Main Street and Station Road junction including footpath widening, road realignment, re-surfacing, signalisation, and provision of pedestrian crossings. The building on the northwest corner of the junction will be demolished to enable road widening.
- Provision of three new public spaces.
- Public realm upgrade of Station Road between the junction of Station Road and Main Street and the junction at Carrigtwohill Train Station.
- Public realm upgrade of Main Street between the junction of Main Street and Castlelake Avenue and Main Street and Carrigane Road.

# Upgrade of Main Street and Station Road junction including footpath widening, road re-alignment, re-surfacing, signalisation, and provision of pedestrian crossings.

From an archaeological and built heritage perspective, the planned works of principal interest includes:

• The building on the northwest corner of the junction will be demolished to enable road widening (see **Appendix 3**). The building is not a protected structure and is not identified as a building of significance by the NIAH. The three-bay, two-storey end-of-terrace building is a public house and appears to date to the nineteenth century. The removal of this building is considered a *moderate negative* impact. Though the demolition of the building will have a negative impact, the demolition should be considered in the context of the larger scheme which will give rise to improvements to the wider public realm.

#### Provision of three new public spaces.

- The provision of three new public spaces at (a)the junction of Station Road and Main Street, (b) At and north of the Community Centre on Main Street and (c) At and west of St. Mary's Church on Station Road
  - The creation of the public space at the junction of Station Road and Main Street will require the demolition of a detached one-and-a-half storey house that presents to the street. It appears to be of mid-nineteenth-century origin and is in derelict condition. The building is not protected and has not been identified as a building of interest by the NIAH. The removal of this building is considered a *slight negative* impact.
  - The creation of the public space at and north of the Community Centre on Main Street will require the removal and setting-back of the front boundary wall and gates of the Convent School situated on the northern side of Main Street. The wall is not of any heritage value.
  - The creation of a public space on Station Road to the west of St. Mary's Church will have a *moderate positive* impact on the setting of Saint Mary's Church (PS 00496).

#### Public realm upgrade of Station Road between the junction of Station Road and Main Street and Carrigtwohill Train Station

The proposed public realm upgrade of Station Road between the junction of Station Road • and Main Street and Carrigtwohill Train Station will not impact on any known or recorded archaeological sites or, indeed, any zones of notification associated with recorded monuments. The works in undeveloped/greenfield settings are minimal and hence the potential to encounter undisturbed archaeological features or deposits is *negligible*. The works have been designed in such a manner to ensure that the boundary walls of protected structures such as the Parochial House (PS 01315) and Rockville House (PS 01317) will be retained. However, it is anticipated that there may be need for localised repairs of such boundary walls on the completion of works. The boundary wall at the former dispensary (PS 01316) will need to be set back. The inspection of the existing boundary wall at this location confirmed that it is a later rebuild and is not an original feature. Therefore, the works have the potential to give rise to *temporary indirect impacts* on the setting of a number of protected structures. There will also be direct impacts on non-designated buildings or features of minor architectural/cultural heritage significance, including the re-location of the existing grotto on Station Road to a location at the back of the proposed footpath and removal of sections of stone masonry walling along Church Lane. These are considered to be *slight negative* impacts.

#### Public realm upgrade of Main Street between the junction of Main Street and Castlelake Avenue and Main Street and Carrigane Road

The proposed public realm upgrade of Main Street between the junction of Main Street and Castlelake Avenue and Main Street and Carrigane Road will not impact on any known or recorded archaeological sites or, indeed, any zones of notification associated with recorded monuments. Generally, the works are confined to previously disturbed/developed lands. However, the provision of a new road running south from Main Street to provide an alternative access route to sites to the south of the junction of Main Street and Station Road has the *potential to encounter previously unrecorded and* undisturbed archaeological features or deposits. The proposed public realm upgrades at this location will not give rise to any impacts on protected or designated built heritage resources.

### **Wises Road Junction Upgrades**

The proposed works comprise of (a) upgrade of junction of Wises Road and Main Street including provision of traffic signals, pedestrian crossings, road re-alignment and footpath widening and (b an upgrade of junction of Wises Road and Oakbrook Link Road/ IDA Industrial Estate Access Road including provision of traffic signals, road re-alignment and footpath widening. There will be **no direct or indirect impacts** on known, recorded or protected items, sites, or buildings of archaeological and/or built heritage significance. Given the developed natures of the subject area, there is a **little or no archaeological potential** in the areas affected by these junction upgrades.

### N25 Junction 3 (Cobh Cross) Additional Capacity Interim Measures

The proposed measures comprise an increase in the size of the existing roundabout on the northern side of the junction, re-alignment of approach roads, provision of a footpath across the

junction between Main Street and the R624 (Cobh Road) south of the junction and provision of pedestrian crossings on Main Street and the N25 Junction 3 eastbound on-ramp.

There will be **no direct or indirect impacts** on known, recorded or protected items, sites or buildings of archaeological and/or built heritage significance. The works will have no direct or indirect impact on the setting of Tullagreen House, which is not a protected structure, but which is recorded by the NIAH. The vehicular entrance to Tullagreen House from the R624 is modern and of no architectural heritage value.

Small portions of agricultural lands on the margins of the existing roundabout, the N25 Junction 3 Eastbound Off-Slip, Killahora Road and Carrigtwohill Main Street will accommodate the proposed measures/works. There is a *low to moderate potential for the discovery of previously unrecorded archaeological deposits* during the course of ground works in these greenfield areas.

## 5. Mitigation measures

### Archaeology

It is envisaged that much of the proposed works associated with the public realm scheme will not involve extensive deep excavation or significant ground disturbance. However, given the fact that localised elements of the project involve works in greenfield areas, it is considered prudent that a targeted programme of archaeological monitoring be undertaken (under licence from the National Monuments Service of the Department of Housing, Heritage, and the Gaeltacht).

Should archaeological features be identified during the monitoring programme, these should be cleaned, photographed, recorded in plan and all surface finds (artefacts) collected. Based on the levels of the proposed development and type and preservation of the archaeology uncovered, preservation of the archaeology *in situ* under protective geotextile may be an appropriate mitigation measure. Should *preservation in situ* not be a viable option, full archaeological excavation and recording would have to be agreed with and under licence from Department of Housing, Heritage and the Gaeltacht.

### **Built Heritage**

It is recommended that a suitably-qualified conservation architect be engaged at detailed design stage for the scheme. The conservation architect shall have proven experience in the supervision of works to historic masonry and in the specification and use of lime mortars. The conservation architect will advise on, review and certify conservation measures associated with the project works. The conservation architect shall supervise any repair or rebuilding works associated with boundaries to protected structures. During the works the conservation architect shall review sample work and will certify that any repairs accord to conservation best practice standards.

A number of buildings of nineteenth-century origin are proposed for demolition. It is recommended that individual Historic Building Records of these buildings be prepared by a suitably-qualified historic building consultant *prior to commencement of works*. The individual Historic Building Records should contain (a) historical and cartographic review, (b) written description, (c) annotated photographic record and (d) scaled plans and elevations of the structure.

Finally, the principal contractor will ensure that due care is taken in and around the boundary walls of the identified protected structures within each sub-area.

#### **General Guidance for Public Realm Treatments**

The following guidance should be considered and applied to the detailed design and construction stages of the public realm and historic public spaces in Carrigtwohill:

- Simplicity A simplistic and less visually impactful approach should be applied to the detailed design. The approach should limit the palette of materials used in the scheme with the objective of decluttering and simplifying the readability of the public realm.
- Hierarchy The detailed design should aim to recognise the character of Carrigtwohill as well as areas within Carrigtwohill in relation to the village centre. It should also recognise places of a significant character or function. Consideration should be given to the use of special materials to create the hierarchy.

- Local Materials Locally sourced materials should be considered for use in the public realm works to create a sense of time and place that is distinctive to Carrigtwohill and to capture the imagination.
- Local Identity The detailed design should aim to protect and enhance the form and quality of the townscape which define a sense of continuity and identity that make Carrigtwohill unique. Protecting and enhancing this quality is greatly beneficial to improving wellbeing and thus often to economic opportunity.
- Sense of Place Carrigtwohill has its own unique characteristics. During the detailed design stage, the potential for the use of locally available materials and particular ways of doing things which are defined by the location, local knowledge and skills should be investigated.
- Learn from Architecture The heights and widths of existing buildings in Carrigtwohill, as well as their layout which define the enclosed nature of the streets and places, should inform the detailed design.

## 6. Conclusions

Works associated with the Public Realm Infrastructure Bundle will not directly impact any recorded archaeological sites or protected structures. There is, however, potential to uncover sub-surface archaeological remains during ground works within greenfield areas. As such, a programme of licenced archaeological monitoring has been recommended for this portion of the works.

The works will require the demolition of a number of nineteenth-century road-side structures and removal of sections of historic masonry walls. A programme of pre-works architectural recording is proposed.

Finally, it is considered that Public Realm Infrastructure Bundle has the potential to greatly improve the built environment and town centre of Carrigtwohill. Overall, the proposals will have a positive impact on the townscape and streetscape character of the settlement.

## 7. References

Cork County Council 2014. Cork County Development Plan 2014-2021

Cork County Council 2014. Midleton Electoral Area Local Area Plan

- Department of Arts, Heritage and Gaeltacht 2011. *Architectural Heritage Protection: Guidelines* for Planning Authorities.
- Department of Arts, Heritage, Gaeltacht and the Islands 1999. *Framework and Principles for the Protection of Archaeological Heritage*.
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- O'Kelly, M.J. 1955. 'A shell midden in Carrigtwohill, Co. Cork', *Journal of the Cork Historical and Archaeological Society* **60**, 28-32.
- Power, D. 1994. Archaeological Inventory of Cork: Vol. 2 East and South Cork. The Stationary Office, Dublin.
- Seward, W.W. 1797. Topographia Hibernica: Or The Topography of Ireland, Antient and Modern. Giving a Complete View of the Civil and Ecclesiastical State of that Kingdom; with Its Antiquities, Natural Curiosities, Trade, Manufactures, Extent and Population

Smith, C. 1750. The Ancient and Present State of the County and City of Cork. 2 vols. Guy & Co. Ltd.

#### **Consulted online sources:**

http://maps.osi.ie/publicviewer/#V2,591271,743300,1,10

www.archaeology.ie

www.duchas.ie

www.excavations.ie

www.logainm.ie

www.heritagemaps.ie

http://www.carrigtwohillhistoricalsociety.com

## **Appendix 1: Relevant Excavation Database entries**

Location	Licence	Summary
Station Road, Carrigtwohill	15E0233	An assessment (with test trenching) took place of the site of a proposed Post-Primary school and an amalgamated National school at Carrigtwohill and Terrysland Townlands, Carrigtwohill, Co. Cork behalf of the Department of Education and Skills, Portlaoise Road, Tullamore, Co. Offaly.
		The testing is being carried out at a pre-planning stage as the site is located close to a medieval church and graveyard (CO075-001-2). A desktop survey highlighted the site as a suitable location for fulachtaí fia though none were specifically discovered. The site is flat and low-lying and would have been marshy and wet in the past though appears to have been reclaimed in modern times. The stream/river running north-south through the site forms the townland boundary between Terrysland and Carrigtwohill and aids in the drainage of the site. A farmyard and some old farm buildings and a derelict house occupy the south-east corner of the site.
		Between 27 and 29 May 2015 a total of forty-five test trenches with a combined total of 3,013 linear metres (6,026 sq. m) were excavated within the site. The trenches were excavated in all cases to natural deposits which varied across the site from grey to pale cream marl to a rusty orange/brown gravel boulder clay. The topsoil varied in depth from 0.2m to 0.5m but for the most part maintained an average 0.3m in thickness. A series of stone-filled drains were evident below the topsoil in all parts of the site indicating that significant drainage and land reclamation has taken place over the last two hundred years and is probably associated with the farm on the south-east corner of the site. Only two features of interest were exposed, two linear ditches measuring approximately 2m in width and aligned roughly east-west. Both ditches were filled with a brown clay containing post-medieval pottery and glass and are on the same alignment as two field boundaries marked on the 25 inch OS map and obviously formed part of the farm. Despite the potential for fulachtaí fia within the site, none were identified. No features of archaeological significance were exposed during the testing and the only finds recovered consisted of post-medieval pottery and glass from the topsoil.
		A circular stone-lined well which has been partly covered by a concrete cap is evident towards the south end of the site and is marked on the 25 inch OS map (c. 1929). Though not marked specifically on the first edition OS map (c. 1841), the stream leading from the well towards the river is marked and the well could have been in existence from before this date.
		In field 2, the gas pipeline had previously been stripped along the east and southern boundaries and prohibited testing in these areas. The topsoil stripping of the route for the pipeline was

Location	Licence	Summary
		monitored at the time and no features were exposed in this field. During the present testing a gravel path was exposed below the topsoil in Trenches 18 and 29. The path was aligned roughly east- west, measured 1.5m in width and had multiple inclusions of glass and modern pottery. It obviously represents an old path leading to the well or pump which is indicated on the 25 inch OS map (c. 1920). The path itself is not marked on any of the OS editions. No other features of archaeological significance were exposed in Field 2 and no finds other than the glass and modern pottery were recovered.
		The kiln and pit exposed in Field 1 are of archaeological significance and both will require full excavation prior to the construction phase. Despite stripping an area of topsoil around both the kiln and pit, no additional features were exposed.
Church Road, Carrigtwohill	17E0240	Four trenches were mechanically excavated across the proposed development site in advance of a proposed residential development. No features or finds of archaeological significance were revealed.
Main Street, Carrigtwohill	17E244	Archaeological monitoring was carried out during ground works for development of this site. No features or finds of archaeological significance were revealed.
Carrigane Road, Carrigtwohill	03E0265	Planning permission was granted for the development of 317 dwelling-houses at Carrigane Road, Carrigtwohill, Co. Cork, with a condition which required monitoring. The southern edge of the development site lies within the zone of archaeological potential for a linear earthwork. Topsoil was stripped by machine to a depth of 0.3m, as the houses are to be constructed on a platform foundation. No finds or features of archaeological significance were noted during monitoring.
Carrigtwohill, Cork	06E1141	Excavations were undertaken in 2007 during the construction of a new sewerage scheme in the environs of Carrigtwohill village. The remains of a burnt-stone and charcoal-rich soil spread were uncovered directly under the topsoil at depths of 0.35–0.7m below the modern surface and the site included a circular ditch, pits, a spread of burnt stone and a linear ditch. The circular ditch was stratigraphically the earliest recorded feature and lay under the spread of burnt stone. The ditch had an overall maximum diameter of 6.74m and an internal diameter of 5.1m. The ditch was widest on the east side, where it was 0.82m and narrowed to 0.42m, and was less well defined along the northern perimeter. The depth varied from 0.2m to 0.4m and the fill comprised heat-shattered stone, charcoal and clay. Hazel (Corylus avellana) charcoal from the fill returned a 14C determination of 891–803 cal bc; 2679633 (uba 8457). The ditch appeared to surround a central pit that was sub- oval in plan and the excavated measurements were 3.6m east-west by 1.75m by 0.4m deep. The fill was a mixture of heat-shattered stones, charcoal and clay and a lignite bracelet fragment was recovered from part of the basal fill. The burnt stone from mound material infilled the upper level of the pit.

Location	Licence	Summary				
		Five pits were excavated and all had fills of burnt stone. Two pits were conjoined. One large pit had an overall length of 8.5m (north- west/south-east) and a maximum width of 4.2m (east-west). The south-eastern end was shallow with a maximum depth of 0.4m and the north-west end was 0.7m deep. Six stakes were driven into the base of the pit and one oak post remained in situ. The stakes extended across a length of 1.5m, forming a W-shaped plan, and ranged in diameter from 0.1m to 0.2m. A 1.1m-wide channel drained into the eastern side of the pit and may have carried surface water into it. The channel was 0.25m deep with a rounded U-shaped base and extended eastwards for 7.3m. The mound comprised a spread of burnt stones and charcoal-rich clay which was irregular in plan, extending over an area measuring 18m east-west by 12m, and was up to 0.3m thick. The spread was thickest towards the south, adjacent to the modern road, and spread out more thinly to the north and east. The mound material had been cut through by a later ditch. The mound material varied in composition and included compact lenses of stone and mixed clay, charcoal and stone. Hazel ash (Fraxinus excelsior) charcoal from the mound material returned a 14C determination of 917-				
		841 cal bc; 2749633 (uba 8455). A medieval ditch traversed the site on an east-west axis and cut through the spread of burnt stones and charcoal. The ditch was 1.45m wide by 0.4m deep and the excavated length was 14m. The sides sloped to a rounded base and the ditch was infilled with material from the fulacht fiadh mound along the sides, where presumably mound material had slipped into the ditch once it was cut. A 0.25m-thick layer of stony sandy soil overlay the slippage and infilled the ditch. Alder (Alnus glutinosa) charcoal from the base of the ditch fill returned a 14C determination of cal ad 1033– 1152; 9426bp (uba 8456).				

## Appendix 2: Main Street/ Station Road Junction Upgrade – Technical Note

Report prepared by Atkins



## **Technical Note**

Project:	Carrigtwohill URDF Initiative						
Subject:	Main St./ Station Rd. Junction						
Author:	John O'Callaghan						
Date:	31/03/2021	Project No.:	5194601				
Atkins No.:	5194601DG0092						
Distribution:	Donald Cronin James Hickey Declan Whelton	Representing:	Cork County Council Cork County Council Cork County Council				

## Document history

Revision	Purpose description	Origin- ated	Checked	Reviewed	Author-ised	Date
Rev 0	Issued for review	JO'C	-	-	RAN	31.03.2021



## Introduction

As part of the Carrigtwohill URDF Initiative Public Realm preliminary design an upgrade of the Main Street and Station Road junction is proposed. The Cork County Council project brief for Carrigtwohill URDF Initiative states that this junction should be upgraded and signalised to a T-junction or crossroads 'signalised with full provision for pedestrian/cycle movements'. The brief also requires a public realm strategy for Carrigtwohill which should secure safe and pleasant movement 'particularly at/ around the Station Road/ Main Street junction'. Atkins have developed a preliminary design for a proposed junction upgrade. This technical note provides a summary of the proposed upgrade of Station Road at it's junction with Main Street.

## **Existing Junction Layout**

The existing junction of Main Street and Station Road is shown in Figure 1 and Figure 2 below.



Figure 1 - Junction of Station Road and Main Street (Google Street View)



Figure 2 - Junction of Station Road and Main Street



The junction is a priority T- junction. Traffic on Main Street has priority. Station Road is located on the north side of the junction. There are no right turn lanes for traffic turning from Main Street on to Station Road or from Station Road on to Main Street.

Station Road is very narrow (Total width approx. 5m) at its junction with Main Street. There are two buildings bounding Station Road on the eastern and western sides of the junction. These buildings are Jack Spratt's public house on the east and Guilders Bar on the west. Visibility for traffic entering the junction from Station Road was observed to be poor during a site visit. The Station Road carriageway is approximately 4m wide at the junction with a below standard width footpath on the west side of Station Road. During peak times a significant volume of pedestrian movements associated with a number of schools on Main Street has been observed. Vehicular congestion has also been observed at this junction in particular at school drop-off/ pick up times. During peak times pedestrians have been observed stepping on to the road to avoid other pedestrians at the junction. There are no formal pedestrian crossings or segregated cyclist facilities at this junction.

### **Proposed Cross Section at Junction**

The design of the proposed junction upgrade has been undertaken with reference to the Design Manual for Urban Roads and Streets (DMURS, 2019). DMURS notes that the standard carriageway width for low to moderate 'Link Streets' such as Station Road is 5.5 to 6.5 metres for low to moderate design speeds. Traffic modelling undertaken by Atkins found that signalisation of Station Road and Main Street was beneficial for the performance of the junction. The modelling found that signalisation using shuttle running would not provide sufficient capacity at the junction as it would increase the phasing time between green signals. A minimum road width of 6 metres is therefore required at this junction to meet the lane width requirements for a signalised junction. A road width of 6 metres was therefore proposed for the junction.

DMURS notes that 'in a retrofit situation increasing footpath widths should be a priority for designers'. DMURS notes that the width of footways should increase from 'Suburbs' to 'Neighbourhood' to 'Centres' with high activity. The minimum space for larger groups to pass comfortably in areas of high pedestrian activity is noted as 4m as shown in the extract from DMURS shown in Figure 3 below.

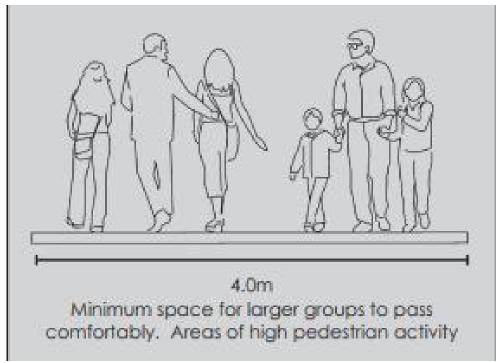


Figure 3 – Minimum footpath width for areas of high pedestrian activity (DMURS)

Given the volume of pedestrian traffic observed on the north side of this junction at peak times in this central location a minimum footway width of 4 metres is proposed for Station Road at its junction with Main Street.

## Accommodating the Proposed Cross Section

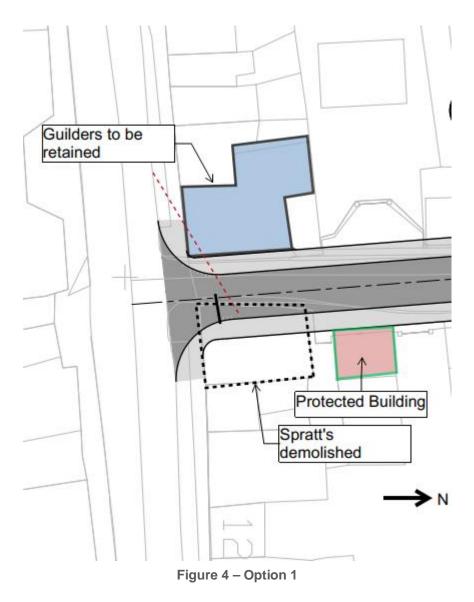
As noted above Station Road is very narrow at its junction with Main Street. It was therefore considered that one or both of the two buildings adjoining Station Road at the junction would need to be demolished. Option 1 involved the demolition of the building on the eastern side i.e. Jack Spratt's Public House. Option 2 involved the



demolition of the building on the western side i.e. Guilders Bar. Option 3 would have involved the demolition of both buildings.

#### Option 1 – Demolition of Jack Spratt's Bar

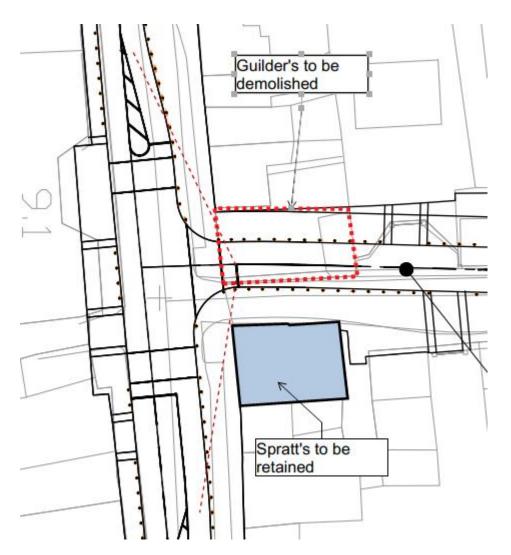
Option 1 is shown in Figure 4 below. It is noted that a protected building is located immediately north of Jack Spratt's Public House. Even with the demolition of Jack Spratt's the necessary retention of this protected building would limit the available width for the proposed upgrade of Station Road at this location to approximately 10.6 metres. Six metres of this would be for carriageway. This would limit the footpath width on both sides to 2.3 metres. This is not considered to be sufficient at this junction. In addition visibility of Main Street for vehicles waiting at the Stop line on Station Road would be somewhat limited by Guilder's Bar as shown by the dashed line in the figure below. This option results in the retention of 'dead space' behind Guilders Bar. This would need to be addressed in the public realm design.



#### Option 2 – Demolition of Guilder's Bar

Option 2 is shown in Figure 5 below. This option allows for the desired total width at the junction as per DMURS i.e. 4 metre footways at both sides and a 6 metre wide carriageway. Visibility of Main Street for vehicles waiting at the Stop line on Station Road is improved in comparison to Option 1. This option results in the retention of 'dead space' behind Spratt's. This would need to be addressed in the public realm design.





#### Option 3

The preferred option of John McLaughlin Architect's was for partial demolition of both pubs. This would allow for the building lines on both sides of the junction to align with the building/ back of footpath line north of the pubs. Atkins do not consider that this option is practical. Partial demolition of both pubs is likely to be far more costly than full demolition of one. It is unlikely to suit the internal layout of both buildings from a building use and structural point of view for them to be partially demolished.

### **Recommended Option**

Atkins recommended option to proceed to Preliminary Design is Option 2. This option provides a suitable crosssection for the upgrade of Station Road at its junction with Main Street. It also provides better visibility of Main Street for vehicular traffic at the Station Road stop line. The 'dead space' area behind Jack Spratt's Bar should be dealt with as part of the public realm proposals.