# Archaeological and Industrial Heritage Impact Assessment, Ballinacurra Mill LRD, Ballinacurra, Midleton, Co. Cork

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| **Applicant:** | Ballinacurra Project Limited Partnership |
| **Planning Authority:** | Cork County Council |
| **Issue Date:** | December 2025 |
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shanarc archaeology

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| **Copies of this report have been presented to:** | The applicant, Ballinacurra Project Limited Partnership. |
| **Please Note:** | The International and European conventions on the protection of cultural heritage ratified in Ireland have been taken into consideration for the purposes of this report. The National Monuments Acts 1930-2014, the Heritage Act 1995, Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999, The Planning and Development Act 2000 (as amended), and guidelines issued by the statutory bodies have been consulted in the assembly of this report.<br><br>All of the recommendations made within this assessment are based on design plans and information provided by the client at the time of writing. Should any alterations be made to design plans or development proposals, further assessment may be necessary.<br><br>Recommendations are subject to approval by the National Monuments Service at the Department of Housing, Local Government and Heritage, and by the National Museum of Ireland. |
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| **Acknowledgements** | Shanarc Archaeology acknowledges the information supplied by the client; information gathered from the SMR, RMP and The Archive Unit within the National Monuments Service (NMS); and information from the Topographical Files supplied by staff at the National Museum of Ireland (NMI). |
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# Contents

## Figures

## Plates



## Tables

# Non-Technical Summary

This report presents the findings of an Archaeological and Industrial Heritage Impact Assessment (AIHIA) prepared by Shanarc Archaeology Ltd., with industrial heritage input provided by industrial archaeology specialist and senior lecturer at the Department of Archaeology, University College Cork, Dr. Colin Rynne.

The AIHIA has been prepared to accompany an application for planning in relation to a proposed Large Scale Residential Development (LRD) at Ballinacurra, Midleton, Co. Cork, situated at Upper Road/Rose Lane.

The Ballinacurra Mill LRD contains two archaeological monuments subject to statutory protection, a Country House CO076-044----, known as Rose Hill House, and a Maltings complex CO076-075----, commonly known as Bennett's Maltings. Rose Hill House and the Maltings complex are also subject to statutory protection as protected structures, RPS ref. 520 and RPS ref. 523 respectively. A second historic residence, Eastville House, also part of the Ballinacurra Mill LRD, is included in the National Inventory of Architectural Heritage (NIAH), Ref. 20907636.

The purpose of the AIHIA is to assess the impact of site development on Rose Hill House CO076-044---- and Bennett's Maltings CO076-075----, the latter being an industrial archaeology monument, and on potential below ground archaeological remains associated with these monuments or earlier past uses of the site. The report provides recommendations on measures to mitigate the identified impacts.

The AIHIA assessment methodology is based on an analysis of available archaeological, architectural, cartographic, documentary, photographic and archival sources, and on a site inspection. A preliminary level-three industrial archaeological inventory of the main buildings and associated features of Bennett's Maltings CO076-075---- has been undertaken by specialist Dr. Colin Rynne, based on a combination of drone survey and limited building access due to the fire damaged nature of the Maltings complex. Access to the interior of buildings that would allow for a complete industrial archaeological inventory at this stage was ruled out on safety grounds.

The findings of the AIHIA indicate that the proposed Ballinacurra Mill LRD is situated in part of Ballinacurra that is 18th century in origin, to the east of the medieval era settlement that focussed on the confluence of a stream with the Owennacurra River and Ballynacurra

River estuary. Rose Hill House CO076-044---- is mid-18th century in origin. Eastville House, and possibly the stone walls fronting Upper Road/Rose Lane and forming rear property boundaries on the street, are later 18th century in date. A corn store may also have existed in the late 18th century in the north-east corner of the Ballinacurra Mill LRD, at Carney's Cross.

Rose Hill House CO076-044---- sits in a reduced or modified original setting or curtilage, with the surviving setting of the house relating to its late 19th century layout. Existing overgrown walls to the rear and south-west corner of the grounds, which are to be removed under the Ballinacurra Mill LRD proposal, match the arrangement of walls recorded on the 25-inch (1899) Ordnance Survey map. The Ballinacurra Mill LRD will result in the house being fully incorporated into a residential and commercial setting. Any archaeological material at the house will relate to its development from the mid-18th century.

While there is evidence of a corn store at Upper Road/Rose Lane by the late 18th century, the development and evolution of Bennett's Maltings CO076-075---- is largely a process of the 19th and 20th centuries. Cartographic evidence shows that 19th century buildings at the site have been modified or replaced over time, and subsurface archaeological remains pre-dating the current arrangement of buildings (of 18th-19th century date) may exist at the site. The Maltings complex also sits in a reduced or modified setting, which, originally sited on the edge of Ballinacurra village, backed by fields used as experimental plots, is now surrounded by houses on three sides. The Ballinacurra Mill LRD will result in the Maltings complex being fully incorporated into a residential and commercial setting.

The Ballinacurra Mill LRD proposes to partially retain and partially demolish structures forming part of Bennett's Maltings CO076-075----, adapting retained structures for residential, commercial and office use. The proposal involves the removal of **1.** a 19th century building abutting the front of the Smarts Store used as the main office for J. H. Bennett & Company Ltd., **2.** a part of the Old Maltings or No. 3 Malt House, **3**. a 1900 malt store to the rear of the 1900 maltings, **4.** a rear machine shop of an early 20th century Cereal Testing Station and **5.** a 1960s mass concrete grain storage silo (see Figure 16 of main report). The internationally significant Cereal Testing Station is being retained as part of the proposed LRD.

The preliminary industrial archaeological survey by Dr. Colin Rynne has identified that the maltings was the last floor malting (i.e. the last of its type) to operate in Ireland, and that **1.** industrial heritage equipment and machinery is present at the Maltings complex, such as

large-sized water cisterns, steeping cisterns, a worm conveyor, roof structural timbers and a line shaft pulley in the Old Maltings or No. 3 Malt House, **2.** the maltings section of the surviving complex, including the Old Maltings or No. 3 Malt House, and its historical associations are of national significance, and **3**. the early 20th century Cereal Testing Station is of international significance in terms of the development of agricultural science, and its contribution to the development of the world brewing industry i.e. creation of the barley hybrid Spratt-Archer that became one of the most widely grown malting barleys world-wide. The Ballinacurra Mill LRD proposal, by removing parts of the Old Maltings or No. 3 Malt House, directly impacts structural remains identified as being of national significance from a historical and scientific perspective.

To mitigate identified impacts, it has been recommended that all the buildings forming part of the Maltings complex be retained, except for the 1960s mass concrete grain storage silo. Proposals for the removal of structures shall be discussed and agreed in consultation with the National Monuments Service, Department of Housing, Local Government and Heritage and the Planning Authority, along with an agreed method for preservation by record.

Dr. Colin Rynne provides an archaeological methodology for site clearance and on-going industrial archaeology recording in the AIHIA (Appendix 1, **Phase 2**, pp. 9-10). Specific recommendations on the retention of industrial heritage fabric, equipment or features and their potential integration into the proposed scheme shall be made by an industrial archaeology specialist on the completion of the Phase 2 archaeological survey at the Maltings, in line with the outlined methodology. It is recommended that the completion of a full archaeological survey at the Maltings be carried out during site clearance undertaken specifically for this purpose, well in advance of general preparatory or construction work on the buildings, and that the survey's recommendations are submitted for consultation and agreement with the National Monuments Service and the Local Authority. The methodology provides for the recording of buildings once cleared using laser scanning and photogrammetry, including of any buildings not retained in the proposed LRD. Secure on-site storage shall also be required to facilitate recording, potential conservation treatment and protection prior to reinstallation *in situ* or display within the completed development.

Locations where heritage equipment can be preserved internally and externally in the proposed scheme will be submitted as part of the planning application (Refer to Drawing

01.02 Proposed Landscaping Plan and Drawing 03.01 Mill Building-Ground Floor Plan-Proposed). A phased approach, during construction, to the completion of the Phase 2 industrial archaeological survey is proposed in the *Architectural Design Statement & Housing Quality Assessment* document submitted as part of the planning application (Refer to Figure 7.1). A phased approach shall be agreed in consultation with the National Monuments Service, Department of Housing, Local Government and Heritage and the Planning Authority. No work on the Maltings buildings, including demolition or making buildings secure, shall be carried out in the absence of supervision by an industrial archaeology specialist.

It is not predicted that archaeological material pre-dating the 18th century is present at the proposed Ballinacurra Mill LRD. To address impacts on potential sub-surface archaeological remains, suitable areas for archaeological testing have been identified and listed in the mitigation recommendations section of the AIHIA. At Rose Hill House, pre-development vegetation clearance is recommended to facilitate **1**. a thorough inspection of the grounds, **2.** the recording of surviving elements of the house's former layout, and **3.** pre-development archaeological testing.

It is also recommended that groundworks at the proposed Ballinacurra Mill LRD be monitored under licence by a suitably qualified archaeologist. Archaeological monitoring will facilitate the recording of potential sub-surface structural features and other deposits of archaeological interest that may be exposed during construction, associated with recorded monuments CO076-044---- and CO076-075----, as well as with the evolution of the wider site, especially the initial development along the street frontage on Upper Road/Rose Lane.

# 1. Introduction

Shanarc Archaeology Ltd. has been commissioned by David Mulcahy Planning Consultants Ltd., acting on behalf of the applicant, Ballinacurra Project Limited Partnership, to prepare an Archaeological and Industrial Heritage Impact Assessment (AIHIA) relating to a proposed Large Scale Residential Development (LRD) at Ballinacurra, Midleton, Co. Cork, hereafter referred to as Ballinacurra Mill LRD (Figure 1).

The Ballinacurra Mill LRD is partly located on the site of the former Village Maltings of J. H. Bennett & Company Ltd., in a wider site that has historically been used for both residential and industrial purposes, reflecting the post-medieval nature of development at the settlement at Ballinacurra. Residential usage at the site dates from the mid-18th century, and industrial usage commenced in the late-18th century, and as such, the proposed development site has recorded archaeological and architectural heritage value.

The Ballinacurra Mill LRD contains two archaeological monuments, a Country House CO076-044---, known as Rose Hill House, and a Maltings complex CO076-075----, commonly known as Bennett's Maltings, the industrial archaeological heritage of which dominates the site. Rose Hill House is also a protected structure, RPS ref. 520, as is the Maltings complex, RPS ref. 523. An additional historic residence, Eastville House, also forming part of the site, is included in the National Inventory of Architectural Heritage (NIAH), Ref. 20907636.

While there will be some overlap in sources consulted and research undertaken with other consultants involved in this application, the architectural and built heritage value of the proposed development site, including vernacular elements of the built heritage, is outside the scope of this report. Fourem Architects will address architectural and built heritage values across the site, including protected structure status.

Pre-application meetings with Cork County Council, including the Heritage Unit, recommended that an Archaeological and Industrial Heritage Impact Assessment (AIHIA) be prepared and submitted as part of a planning application, and this is the focus of this report. The Heritage Unit is particularly interested in the industrial archaeological structures on site, and in the survival of associated industrial equipment, the detail of which will facilitate an assessment of the impacts of site development on same. In this regard, industrial archaeology specialist and senior lecturer at the Department of Archaeology, University College Cork, Dr. Colin Rynne, has undertaken the industrial archaeological

component of this report, with input from Ursula O'Mahony and support by Florence M. Hurley. A report on a preliminary industrial archaeological survey of CO076-075--- Maltings complex is attached in full as an appendix (Appendix 1).

The purpose of this AIHIA report is therefore to **1**. address the archaeological potential of the Ballinacurra Mill LRD - namely by evaluating the nature and extent of above ground archaeological remains, as well as potential below ground remains associated with the known historic residential and industrial use of the site, along with any earlier archaeological remains associated with unknown past uses of the site; **2**. to assess the impact of site development on such archaeological assets; and **3.** to provide mitigation recommendations to address impacts on archaeological assets.

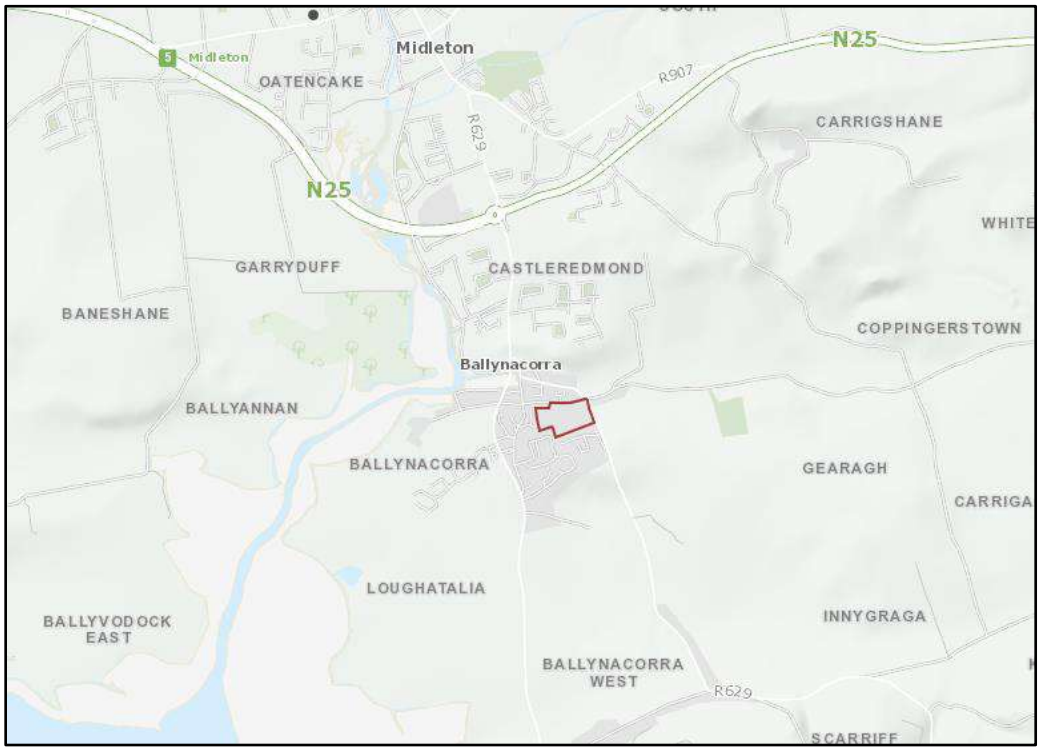


**Figure 1 Location of Ballinacurra Mill LRD (*outlined in red*) in wider Ballinacurra and Midleton context (Tailte Eireann Surveying Licence No. CYAL50457681).**

## 1.1 Site Location

The proposed Ballinacurra Mill LRD (3.63 hectares) is located in Ballinacurra (also known as Ballynacorra), a small harbour village to the south of Midleton, Co. Cork (Figure 1). Ballinacurra is situated at the north-eastern angle of Cork Harbour, on the eastern bank of the Owennacurra River and Ballynacorra River Estuary. The Owennacurra River flows from north to south through Midleton, meeting the Ballynacorra River and continuing south past

Ballinacurra, with the village of Ballinacurra formerly serving as the port for Midleton. Located to the south of the N25, Ballinacurra has been incorporated into the Midleton town boundary, extending the town southwards, with Ballinacurra now forming a suburb of Midleton.

The proposed Ballinacurra Mill LRD is situated to the south-east side of Ballinacurra, to the east of Main Street and Upper Main Street, a principal north-south thoroughfare through the village, and to the south side of Upper Road, now partly referred to as Rose Lane (Figure 2). The traditional quays at the village, and likely the earliest settlement at Ballinacurra, lay to the west of Main Street and Upper Main Street, the modern R630 being aligned on the former quays. A smaller tributary of Ballynacorra River, flowing from east to west, also discharges into the Owennacurra River and Ballynacorra River Estuary at Ballinacurra, passing close to the north-east corner of the Ballinacurra Mill LRD, at Carney's Cross (or Kearney's Cross). This tributary stream once served to delineate the northern extent of the village at Ballinacurra, and it also partly forms the townland between Castleredmond, to the north, and Ballynacorra East and Ballynacorra West townlands to the south. The Ballinacurra Mill LRD is wholly located in Ballynacorra West townland, forming part of the modern Barony of Imokilly and Civil Parish of Midleton (www.logainm.ie).


**Figure 2 Location of Ballinacurra Mill LRD (*outlined in red*) in local Ballinacurra context (Tailte Eireann Surveying Licence No. CYAL50457681).**

## 1.2 Site Description

The proposed development site is an amalgam of residential and industrial structures, combining street frontage to the south side of Upper Road/Rose Lane and road frontage on the R629 to the east, frontages that are aligned (predominantly on Upper Road/ Rose Lane) with residential premises of mixed date, and with Upper Road/Rose Lane dominated by street frontage structures forming part of Bennett's Maltings. The street frontage includes the 18th century Eastville House (unoccupied), to the immediate west side of the Maltings.

The Maltings complex comprises a large brownfield site extending southwards from Upper Road, with the west side of the site also encompassing the 18th century Rose Hill House (unoccupied). The latter is associated with heavily vegetated greenfield, the remains of formerly landscaped grounds around the house. The Maltings buildings themselves are partially damaged, having suffered from fires at the property.

The former Maltings complex is identified as a regeneration area in the Cork County Development Plan 2022-2028, Volume 4 (pg. 215), and the Plan acknowledges that the complex contains archaeological sites, namely industrial archaeology associated with the Maltings buildings (CO076-075----) and domestic archaeology associated with Rose Hill House (CO076-044----).

## 1.3 Proposed Development

The proposed Ballinacurra Mill LRD (Figure 3) is a large-scale residential development of 128 residential units (103 no. dwelling houses and 25 no. apartments), a creche, commercial units (including a café, retail, office and medical centre) and associated site works, including demolition of existing structures at the Maltings complex. Of the proposed dwelling houses, 11 will be provided in existing historic buildings retained as part of the proposal - in Rose Hill House (1 no. dwelling), in Rose Hill House outbuildings (1 no. dwelling), in Eastville House (2 no. dwellings) and in part of the Maltings complex (7 no. dwellings). Retained Maltings buildings will also be adapted for 25 no. apartments and commercial use.

Associated site works include the provision of roads, footpaths, public and communal open space, private space, 214 car park spaces, 114 cycle spaces, EV changing spaces, drainage infrastructure, 2 no. access points (off Rose Lane and off R629), landscaping and

boundary treatments. It is also proposed to carry out new car parking arrangements along part of Rose Lane measuring 0.057hectares (bringing the gross site area to 3.687 hectares).


**Figure 3 Proposed Ballinacurra Mill LRD site plan (Source: Fourem Architects).**

# 2. Assessment Methodology

This Archaeological and Industrial Heritage Impact Assessment report is based on a desk-top study of relevant archaeological and cultural heritage sources, including archival records, supported by an on-site inspection and by a pre-development survey of accessible industrial archaeological structures comprising Bennett's Maltings, providing for a level-three industrial archaeological inventory. The assessment is guided by relevant legislation, standards and guidelines in respect of archaeology and cultural heritage, as follows.

## 2.1 Legislative Protection for Archaeological, Architectural and Cultural Heritage

Ireland has ratified and/or is guided by several international and European conventions, charters and directives on the protection of cultural heritage, principally:

- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter) 1964;
- UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (The World Heritage Convention) 1972;
- European Convention for the Protection of the Architectural Heritage of Europe (Granada Convention) 1985;
- European Convention on the Protection of the Archaeological Heritage (Valetta Convention) 1992;
- Principals for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes (The Dublin Principals) 2011; and
- European Council Directive on Environmental Impact Assessment (85/337/EEC) (as amended).

National legislation protecting archaeology and cultural heritage sites comprises:

- National Monuments Acts 1930 to 2014;
- Heritage Act 1995;
- Cultural Institutions Act 1997;
- Planning and Development Act 2000 (as amended) and Planning and Development Regulations 2001 (as amended); and
- Historic and Archaeological Heritage and Miscellaneous Act 2023 (enacted and partially commenced at date of writing, October 2025).

The following standards and guidelines were also consulted as part of this assessment:

- Frameworks and Principles for the Protection of the Archaeological Heritage (1999), Department of Arts, Heritage, Gaeltacht & the Islands;
- Policy and Guidelines on Archaeological Excavation (1999), Department of Arts, Heritage, Gaeltacht & the Islands;

- Archaeology & Development: Guidelines for Good Practice for Developers (2000), The Heritage Council;
- Architectural Heritage Protection Guidelines for Planning Authorities (2011), Department of Arts, Heritage, Gaeltacht & the Islands; and
- Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects (2024), Transport Infrastructure Ireland.

## 2.2 Desktop Study

The following were the principal desk-based sources consulted:

### National Monuments

Under the National Monuments Acts 1930-2014, archaeological sites in the ownership or guardianship of the State or a Local Authority and sites under Preservation Orders are designated as National Monuments. Such sites are offered the highest level of protection under Irish legislation, as the preservation of such sites is considered of national importance.

### Record of Monuments & Places and Sites and Monuments Record

The Record of Monuments and Places (RMP) was established under Section 12 of the 1994 National Monuments (Amendment) Act. The statutory RMP is a list of archaeological monuments known to the National Monuments Service (NMS). The RMP is based on the Sites and Monuments Record (SMR) files housed at the National Monuments Service, with new sites identified being added to the SMR and then scheduled for inclusion in the statutory RMP. RMP sites are accorded statutory protection as recorded monuments under the National Monuments Acts 1930-2014.

### Topographical Files of the National Museum of Ireland

The topographical files of the National Museum of Ireland (NMI) are the national archive of all known antiquities recorded by the NMI. These files relate primarily to artefacts but also include references to monuments and contain a unique archive of records of previous excavations. The find-spots of artefacts can be an important indication of the archaeological potential of an area. Any archaeological object found without a known owner at the time it was found is protected under National Monument's legislation and is deemed to be in the ownership of the State.

## Excavations Bulletin and Excavations Database

The Excavations Bulletin is both a published annual directory and an on-line database that provides summary accounts of archaeological excavations and investigations carried out in Ireland – north and south – from 1969 to the present. The on-line database has been compiled from the published Excavations Bulletins from the years 1970-2010, with additional online-only material from 2011 onwards. The database gives access to summary descriptions of archaeological excavation and investigation reports and is updated on a constant basis.

## Archaeological Inventory of County Cork

The Archaeological Inventory of County Cork, produced in five volumes, was compiled as part of a nationwide inventory series undertaken by the Archaeological Survey of Ireland. The Cork Harbour area is covered in Volume 2, East and South Cork, which was published in 1994. The production of the inventories forms part of the Archaeological Survey of Irelands purpose, which is to compile an inventory of all archaeological monuments in the State, to ensure the protection of archaeological remains.

## Cork County Development Plan 2022-2028

Each City and County Development Plan is compiled in accordance with the requirements of the Planning and Development Act 2000 (as amended) and contains lists of national monuments, registered historic monuments, recorded monuments, archaeological landscapes, and archaeological sites subject to preservation orders.

The Cork County Development Plan 2022-2028 sets out Cork County Council's vision and strategy for the proper planning and sustainable management of the County's heritage. Built and Cultural Heritage are addressed in Volume 1, Chapter 16, with Archaeological Heritage addressed in Section 16.2.

As stated in Volume 1 of the Plan (pg. 357), "*the qualities of archaeological or architectural interest are not mutually exclusive and certain structures can have both qualities. Some of the items listed in the Record of Monuments and Places are also Protected Structures and are within the remit of protection under the provisions of the National Monuments Acts 1930-2004*."

Objective HE 16-2 outlines the Council aim to:

> "*Secure the preservation (i.e. preservation in situ or in exceptional cases preservation by record) of all archaeological monuments and their setting included in the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP) and of sites, features and objects of archaeological and historical interest generally*."

The Plan addresses Zones of Archaeological Potential associated with archaeological monuments (Section 16.2.12, pg. 359), stating that "*evident physical remains of an archaeological monument are not necessarily the full extent of the original monument. Further archaeological remains often remain buried in the ground in its vicinity. This is the Zone of Archaeological Potential (ZAP) of the monument*."

Objective HE 16-5 outlines the Council aim to:

> "*Protect the Zones of Archaeological Potential (ZAPs) located within historic towns, urban areas and around archaeological monuments generally. Any development within the ZAPs will need to take cognisance of the upstanding and potential for subsurface archaeology, through appropriate archaeological assessment*."

Industrial and post medieval archaeology is addressed in Section 16.2.16 (pg. 359), the Plan acknowledging that "*important elements of our archaeological heritage are the later remains of structures and features associated with industrial, agricultural, cultural, military, docks and harbours, religious, and social activities. These industrial and post-medieval items of built heritage include penal chapels, limekilns, houses, mass rocks, walls and boundaries, street furniture, stepping stones, mills, bridges, railway features and famine burial grounds. They can make a valuable contribution to the local historic landscape, our cultural heritage assets and have potential to add to our understanding of the past.*"

Objective HE 16-6 outlines the Council aim to:

> "*Protect and preserve industrial and post-medieval archaeology and long-term management of heritage features such as mills, limekilns, forges, bridges, piers and harbours, water-related engineering works and buildings, penal chapels, dwellings, walls and boundaries, farm buildings, estate features, military and coastal installations. There is a general presumption for retention of these structures and features. Proposals for appropriate redevelopment including conversion should be*

*subject to an appropriate assessment and record by a suitably qualified specialist's.*"

The Council has specific objectives regarding archaeology and large scale development, as well as on the management of monuments within development sites.

Objective HE 16-9 outlines the Council aim that:

"*All large scale planning applications (i.e. development of lands on 0.5 ha or more in area or 1km or more in length) and Infrastructure schemes and proposed roadworks are subjected to an archaeological assessment as part of the planning application process which should comply with the Department of Arts, Heritage and the Gaeltacht's codes of practice. It is recommended that the assessment is carried out following pre planning consultation with the County Archaeologist, by an appropriately experienced archaeologist to guide the design and layout of the proposed scheme/development, safeguarding the archaeological heritage in line with Development Management Guidelines.*"

Objective HE 16-10 outlines the Council aim that:

"Where archaeological sites are accommodated within a development it shall be appropriately conservation/ protection with provision for a suitable buffer zone and long-term management plan put in place all to be agreed in advance with the County Archaeologist."

Objective HE 16-13 outlines the Council aim:

"*To protect and preserve previously unrecorded archaeological sites within County Cork as part of any development proposals. The Council will require preservation in situ to protect archaeological monuments discovered. Preservation by record will only be considered in exceptional circumstances.*"

## National Inventory of Architectural Heritage

The National Inventory of Architectural Heritage (NIAH) is an ongoing survey within the Department of Housing, Local Government and Heritage. The work of the NIAH involves identifying and recording the architectural heritage of Ireland, from AD1700 to the present day and includes country houses, churches, mills, bridges and other structures of note. As well as a survey of buildings and structures, the NIAH has also carried out a survey of historic

gardens and designed landscapes. The objective of the latter is to better understand the extent of each county's historic gardens and designed landscapes. The Garden Survey does not as yet outline the heritage importance of the recorded gardens or designed landscapes. A representative sample of the post-1700 architectural heritage in East Cork was published in 2009.

### Cartographic Sources

Information gathered from cartographic sources is fundamental to the identification of archaeological and architectural heritage sites, including cultural landscapes e.g. demesne landscapes, which, based on the level of landscape change, are now often identified from cartographic records alone. The earliest Ordnance Survey maps date to the late 1830s and early 1840s, but much change has occurred in the use and treatment of the landscape in the intervening years, particularly during the second half of the 20th century, making these a valuable resource in tracing the development of a study area.

### Toponomy Sources

A townland name may preserve information relating to its archaeology, history, folklore, ownership, topography or land use. Most placenames were anglicised by the Ordnance Survey, which began in the 1830's. Despite some inaccuracies in translation, the Gaelic, Viking, Anglo-Norman and English origins of placenames are generally recognisable. The Placenames Database of Ireland website (www.logainm.ie) hosts online bi-lingual placename research and archival records for townlands.

### Documentary Sources

Documentary sources are a valuable means of completing the written archaeological, architectural and cultural heritage record of an area, and of gaining insight into the history of the receiving environment. A list of all consulted documentary sources is provided in bibliographic form.

## 2.3 On-Site Inspection

On-site inspection offers the opportunity to examine a study area in light of desk-based research and evidence. Inspection is essential in determining the nature and extent of any surviving above-ground evidence, and in predicting the potential effects of a proposal on

potential below-ground remains. A site inspection was conducted at the proposed development site by Marion Sutton, Shanarc Archaeology, on 16 May 2024.

## 2.4 Industrial Archaeological Survey

A preliminary industrial archaeological survey of the Maltings complex CO076-075---- was carried out by Dr. Colin Rynne, industrial archaeology specialist and senior lecturer at the Department of Archaeology, University College Cork. The survey is a level-three industrial archaeological inventory of the main buildings and associated features at the Maltings complex and is treated as the first phase (**Phase 1**) of the level-three survey and inventory requirements. A report on the results of the Phase 1 survey is attached in full as Appendix 1, containing details of the principal sources consulted and a methodology for on-going archaeological recording, the required second phase (**Phase 2**) of the level-three survey and inventory. The report is preliminary in consequence of the fire damaged nature of a number of the buildings at the Maltings and is based on a combination of drone survey and limited building access.

# 3. Receiving Environment

## 3.1 Toponomy

The placename Ballynacorra is anglicised from *Baile na Cora*, containing the root words *baile,* meaning townland, town or homestead, and *cora* (*coraidh, corrann*), meaning weir, stone fence or ford, the placename meaning the town or homestead of the weir (Flanagan and Flanagan 2002). Nearby Midleton, in Irish *Mainistir na Corrann*, also reflects the riverine location of the settlements at Ballinacurra and Midleton, meaning monastery of the weir or ford (logainm.ie). The *cora* root word is also carried into the name of the Owennacurra River, in Irish *Abhainn na Cora*, river of the weir (Flanagan and Flanagan 2002).

## 3.2 Archaeological and Historical Background

The scale, nature and resource availability of Cork harbour will have ensured the area was a focus of human activity early in prehistory, as evidenced by the records of early prehistoric activity at locations around the harbour. While there are no Mesolithic (*c.* 7000-4000 BC) flint scatters and shell middens currently recorded along the Owennacurra and Ballynacorra Rivers, such sites are found throughout the harbour, with middens found along the shoreline from the mouth of the Owennacurra River and Ballynacorra River estuary. Middens are described as a refuse heap, which can survive as a layer or a spread, and can range in date from early prehistory (*c.* 8000 BC) up to the medieval period (5th-16th centuries AD). On the north side of the estuary, at Ballyvodock East, there is record of a scatter of numerous oyster shells on a gravel spit (CO076-068----); roughly opposite, on the south side of the estuary, at Rathcoursey East, another midden comprising oyster shell was recorded on a cliff top (CO076-040----). Both middens are within 3km of Ballinacurra.

There is similarly little evidence of Neolithic era (*c.* 4000-2400 BC) settlement and activity around the Owennacurra and Ballynacorra Rivers and estuary. The Neolithic era saw the adoption of farming in Ireland, and resulting from a more stationary lifestyle, the first use of substantial wooden houses and pottery. Burial tradition was centered on communal tombs, the megalithic tombs. The nearest megalithic monuments are located over 4km to the south of Ballinacurra, with examples in Rostellan (CO088-010), situated just below high tide level on the south shoreline of Poulnalibe Creek, and in Castlemary (CO088-015----), situated on level ground overlooked to the south by a steep limestone cliff.

In terms of prehistoric era settlement and activity, there is much more extensive evidence dating to the Bronze Age (*c.* 2400-500 BC), an era characterised by the introduction of metalworking technology, new pottery styles and wooden houses of circular plan, as well as a change in monument types; the main burial rite was cremation. *Fulachtaí fia*, such as an example in Castleredmond (CO076-064----), situated approximately 565m to the north-east of the proposed development site, are quintessentially Bronze Age in date. These monuments are described as horseshoe- or oval-shaped mounds formed from fire-cracked stone and charcoal-enriched soil discarded around a sunken water trough or pit, which was used to heat water. Troughs or pits were excavated near or adjacent to a water supply, or in naturally wet areas where the trough or pit would naturally fill with water. Though originally thought to be solely used for cooking, modern excavation and research has shown that the steam and hot water produced in *fulachtaí fia* could have had many

uses from textile production to brewing and boat building. The Castleredmond example is sited on low-lying ground to the north side of the east-west oriented stream that runs through Ballinacurra.

A short distance further east along the stream, an isolated burial (CO076-052----), comprising a stone-lined cist containing inhumed remains, was found during gravel quarrying in Coppingerstown; quarrying occurred on a gravel ridge overlooking wet land to the south side of the stream. The burial is undated and may date to any period from prehistory onwards. Gearagh townland, to the east side of Ballynacorra East, contains a standing stone (CO076-050----) of sub-rectangular, irregular shape (H 3.4m; 1.5m x 0.7m), which is situated in flat, agricultural ground. Such monuments were deliberately set upright in the ground to function as prehistoric burial markers, commemorative monuments, indicators of routeways or boundaries, and generally date from the Bronze and Iron Ages (c. 2400 BC - AD 500) (some can be associated with early medieval ecclesiastical and burial contexts (c. 5th-12th centuries)). Development led archaeological investigations are increasingly adding to the Bronze Age settlement evidence of the Midleton and Ballinacurra area (Section 3.6 below).

Settlement continued from prehistory into the early medieval period (5th-12th century), the period which saw the adoption of Christianity in Ireland. Secular settlement or homesteads during this era is represented by the ringfort, alternatively referred to as '*rath*' '*lios*' or '*dún*' - to indicate an earthen bank and exterior ditch enclosing a central area - or '*cashel*' to indicate a stone-walled enclosure. Usually circular or sub-circular, the smaller, 'univallate' examples were homesteads for lower ranks of society, while larger bi- or tri-vallate examples were used by lords or wealthy landowners. Many of these homesteads are now ploughed out, with no visible surface trace, and it is likely that a number of the monuments recorded as enclosures around Ballinacurra originated as ringforts, such as two enclosures in Loughatalia (CO076-137----, CO076-142----), on the south side of the expanded village, which are visible only as cropmarks in tillage fields. The example to the south end of Ballynacorra East townland (CO076-141----), which is similarly ploughed out and identified from a cropmark, is of smaller diameter (c. 15m), and may be prehistoric in origin. Established ringfort examples include the ringfort-cashel that formerly stood at Carrigshane (CO076-066----), approximately 1.3km to the north-east of the proposed development site, and three upstanding ringforts-raths in Inntgraga (CO076-054001-, CO076-054002- and CO076-055----), approximately 1.6km to the south-east.

The presence of early medieval inhabitants around Ballinacurra is reinforced by the incidence of souterrains, a monument type mostly built in the early medieval period by ringfort inhabitants (c. 500 – 1000 AD). Souterrains are underground structures of one or more chambers linked by narrow passageways, constructed of drystone-walling with lintelled or corbelled roofing, used as a defensive feature and/or for storage. An example in Ballynacorra East (CO076-046----), approximately 325m to the south-east of the proposed development site, was uncovered in 1986, on an E-facing slope, when the roof of its stone-built chamber (length c. 4.7m; width 0.6m) collapsed. A second example is recorded in the adjacent townland of Gearagh, further to the east (CO076-102----), where an entrance to a stone-lined 'tunnel' was exposed in 1991 during ploughing. Development led archaeological investigations have also added to the early medieval settlement evidence of the Midleton and Ballinacurra area (Section 3.6 below).

The arrival of the Anglo-Normans into Ireland following 1169 resulted in much change in the social structure of the country and in the nature of monuments on the landscape. The mid-12th century to 1550 was the period of castle building in Ireland, from early motte-and-bailey castles of timber construction, to great Anglo-Norman stone castles and later tower houses. This was also the period during which the waterfront at Ballinacurra and its suitability for quays and as a port was recognised, and during which Ballinacurra became a focus of settlement. A mound (CO076-042001-) in the grounds of Ballynacorra House, overlooking the river to the west end of Ballinacurra, could be the remains of a motte referred to in the 12th century as the castle of Del Cora. Castle Cor or Castranacore have also been used as names for the settlement at Ballinacurra, the motte possibly having been established by the des Autres (https://midletonwith1d.wordpress.com). Motte castles were constructed by the Anglo-Normans in the late 12th and early 13th century AD, formed by creating an artificial, steep-sided earthen mound, on which was set the principal wooden tower of a castle. The origin of Midleton is dated to a similar period, when in 1180 AD the east bank of the Owennacurra River was selected for the establishment of a Cistercian monastery (CO076-063003-), known as the Cistercian abbey of Chore or St. Mary of Chore (Gwynn & Hadcock 1988).

The waterfront at the west end of Ballinacurra remained a focus of medieval settlement and was the site of the medieval parish church of Ballynacorra (CO076-042003-), which was in ruins by 1615 and replaced in c. 1690 with a united Church of Ireland parish church built at Midleton. In fact, a parish church may have pre-dated the arrival of the Anglo-Normans here, as it was dedicated to St Colman of Cloyne, also suggesting links with the

important early monastic foundation at Cloyne (https://midletonwith1d.wordpress.com). The early monastic foundation at Cloyne later became the location of a medieval cathedral, and Ballinacurra may have served as a port for Cloyne, as well as for Midleton. A medieval village near the parish church at Ballinacurra, possibly around the site of the later Ballynacorra House (CO076-043----), may well have been relocated eastwards nearer to, or at the location of the present village. Late medieval documents also suggest that by 1301 there was a watermill in the town, possibly at the confluence of the east-west oriented stream with the Owennacurra Estuary.

Ballinacurra's suitability as a port for its fertile hinterland facilitated the trade of grain with Cork and elsewhere, a trade that continued into the post-medieval and modern times. Bailich, also on the east bank of the Ballynacorra River between Midleton and Ballinacurra, had its own quays, described by Samual Lewis in his *A Topographical Dictionary of* Ireland (1837) as having extensive store-houses where coal, timber, iron, slate and other heavy goods are landed and warehoused. Situated south of Castle Redmond (CO076-024---), a possible 15th century tower house in Castleredmond townland, an early 19th century warehouse (CO076-111----) survives to represent the former trade from the Bailich quays. Lewis describes both Bailich and the port of Ballinacurra as having very spacious stores for grain, and large quantities of wheat and oats are shipped annually to Liverpool and Bristol. Anderson and Lapp, Cork merchants, are credited with building the quays and grain stones at the waterfront at Ballinacurra. Later, Ballinacurra became a focus for distilling and malting, and three maltings are recorded at the settlement, CO076-074---- in Castleredmond and CO076-080---- and CO076-075----, both in Ballynacorra West. See Appendix 1 for a detailed history on the maltings industry at Ballinacurra.

The hinterland of Ballinacurra also became "embellished with handsome seats" (Lewis 1837) or houses, and Lewis mentions Charleston to the north side of the quays at Ballinacurra, as well as Ballynacorra Lodge on the south side of the waterfront as principal seats. Only Ballynacorra House (CO076-043---) and Rose Hill (CO076-044----) are recorded in the Archaeological Survey at Ballinacurra. Both are dated to the 18th century, although Ballynacorra House, at the site of the initial medieval focus of the settlement, is likely to be a modified 17th century house that may well have originated as a late medieval tower house. The port at Ballinacurra was finally closed in the 1960s, entering centuries of internation trade from the settlement (https://midletonwith1d.wordpress.com).

## 3.3 Cartographic Analysis

The following historic maps were consulted, of which relevant extracts are presented below. The maps record settlement evidence and cultural landscape change principally from the medieval period onwards.

- Map of the Barony of Imokilly in the County of Cork, 1560-1620 (Figure 4);
- Down Survey map of County Cork,1656-58 (Figure 5);
- Down Survey map of the Barony of Imokilly, 1656-58 (Figure 6);
- Down Survey parish map of Ballinecorra, Garranekinefeaky, Ahadda and Titeskin (Figure 7);
- Taylor & Skinner's Map of the Roads of Ireland, 1777 (Figure 8);
- Grand Jury map of Co. Cork, 1811 (Figure 9);
- First edition Ordnance Survey 6" map, surveyed 1840 (Figure 10);
- Griffith's Valuation, published between 1847 and 1864 (Figure 11);
- Ordnance Survey 25" map, surveyed 1897 (Figure 12); and
- Ordnance Survey 6" map, published 1933 (Figure 13).

### Map of the Barony of Imokilly in the County of Cork, 1560-1620

A mid-16th century to early 17th century map of the Barony of Imokilly, held by Trinity College Dublin, was collected by George Carew, Lord President of Munster at the beginning of the 17th century; the map was presented to the Library of Trinity College Dublin in the late 1700s. The maps creator is unattributed. The map records the names of principal freeholders of the period, as well as principal settlements and castles (Figure 4). At the confluence of the 'Chor River' with 'Cork Haven' (harbour), a sizable medieval settlement is present at 'Ballynichorry', with 'Castle Redmond' sited a short distance upriver, and with 'Chore Abbey', marking the present town of Midleton, situated between two un-named water courses (the Owennacurra River and Dungourney River). The sizable settlement at 'Ballynichorry' is shown wholly to the south side of a westward flowing watercourse, which served to delineate the northern boundary of the medieval settlement.


**Figure 4 Extract from a map of the barony of Imokilly dated to approximately 1560-1620, showing the location of Ballinacurra (*red outline*) (Source: https://digitalcollections.tcd.ie).**

## Down Survey Maps, 1656-58

The Down Survey is a mapped survey carried out during the period 1656 - 1658 under the direction of Sir William Petty that recorded land confiscated from Irish Catholics following the Cromwellian war in Ireland (1649-1653). The Survey recorded townland boundaries and their areas with precision throughout Ireland. The resultant maps contain other detail, such as on roads, rivers, towns, churches, castles, houses and fortifications, as well as topographic and land use detail.

The Down Survey County map for Cork (Figure 5) also records medieval settlement at Ballynacurra, annotated as 'B;necorra', with the settlement represented by a single tower-house type structure. Ballinacurra is situated in the barony of Imokilly and present civil parish of Midleton, but formerly formed part of the parish of Ballinacorra that was later divided in two. The settlement is situated on a barony boundary, with 'Balllynecorra' or 'Ballinecore' parish part shown on the Down Survey Barrimore Barony map and on the Imokilly Barony map (Figure 6).


**Figure 5 Extract from the Down Survey County map of Cork, 1656-58, recording settlement at Ballinacurra (*marked red*) (Source: downsurvey.tcd.ie).**

The parish map of 'Ballinecorra, Garranekinefeaky, Ahadda and Titeskin' records a confiscated land area of just over 666 acres in 'Ballinecorra' parish, comprising arable and pasture land (Figure 7). The accompanying written description (terrier) of the parish records a single proprietor, Edmund Fitzgerald of Ballymalloe. Lands to the immediate north remained unfortified, part of Castleredmond, also in 'Ballinecore' parish. A landowner search identifies that the present townland of Ballynacorra West, containing the proposed development site, was held by Ellin Fitzgerald (Catholic) in 1641, but by 1670 the land had been transferred to Sir John Broderick (Protestant); the townland comprised 101 plantation acres. To the west, Ballynacorra townland comprised 190 plantation acres, held by the Catholic widow of Gerrald of Rosstillane in 1641, which was similarly transferred to Sir John Broderick by 1670. To the east, Ballynacorra East, comprising 72 plantation acres, was held by 'Edmund Fitzgerrald of Ballymaloe' in 1641, and by Sir John Broderick in 1670.

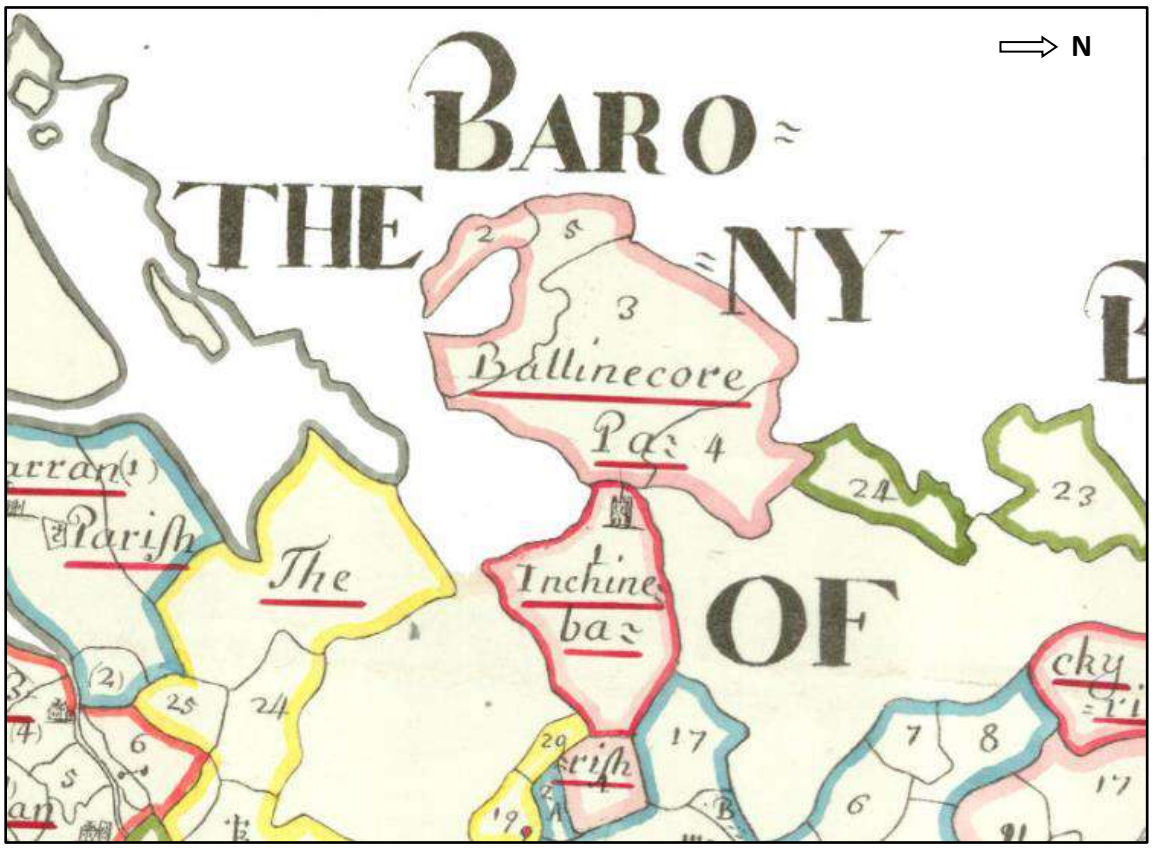


Figure 6 Extract from the Down Survey Barony of Imokilly map, 1656-58 (Source: downsurvey.tcd.ie).

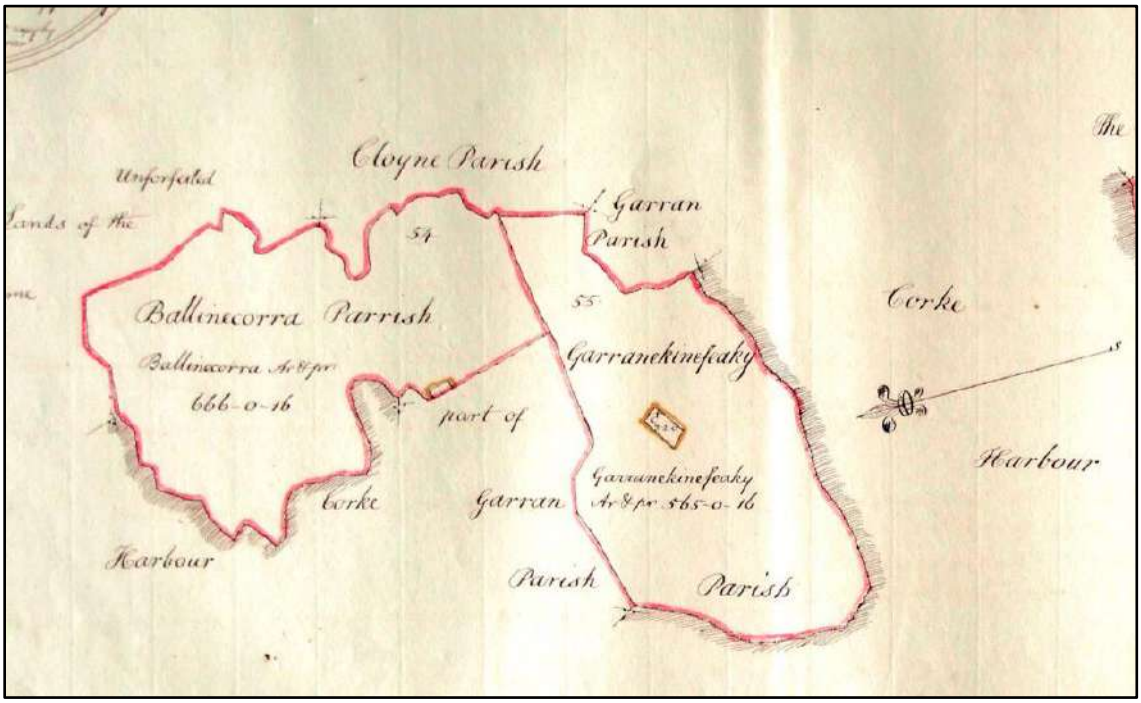


Figure 7 Extract from the Down Survey parish map of Ballinecorra, Garranekinefeaky, Ahadda and Titeskin, 1656-58 (Source: downsurvey.tcd.ie).

**Taylor and Skinners Maps of the Roads of Ireland, 1777**

George Taylor and Andrew Skinner undertook their survey of the Roads of Ireland, commissioned by the House of Commons (Ireland), in 1777, and produced a volume of these maps, depicting towns and villages, country seats and other structures en route in 1778. Taylor and Skinner's Map 126 of the route from Dublin to Midleton, Cloyne and Castle Martyr (Figure 8) does not name Ballinacurra, but records the main roadways heading into the settlement, which intersect at present Carney's Cross and include the alignment of Upper Road/Rose Lane. The road is not shown aligned with buildings, but settlement is represented by two large houses or seats; an un-named house between the river/harbour and the Rostellan Road is identified as the seat of Dr Richard Barclay. A second house to the east of the Rostellan Road is named 'Ramhill', the home of Foilard Esquire; this may represent Rose Hill House, which is understood to have been constructed prior to the date of the map. The map also records the larger settlement at Midleton that existed at this time.

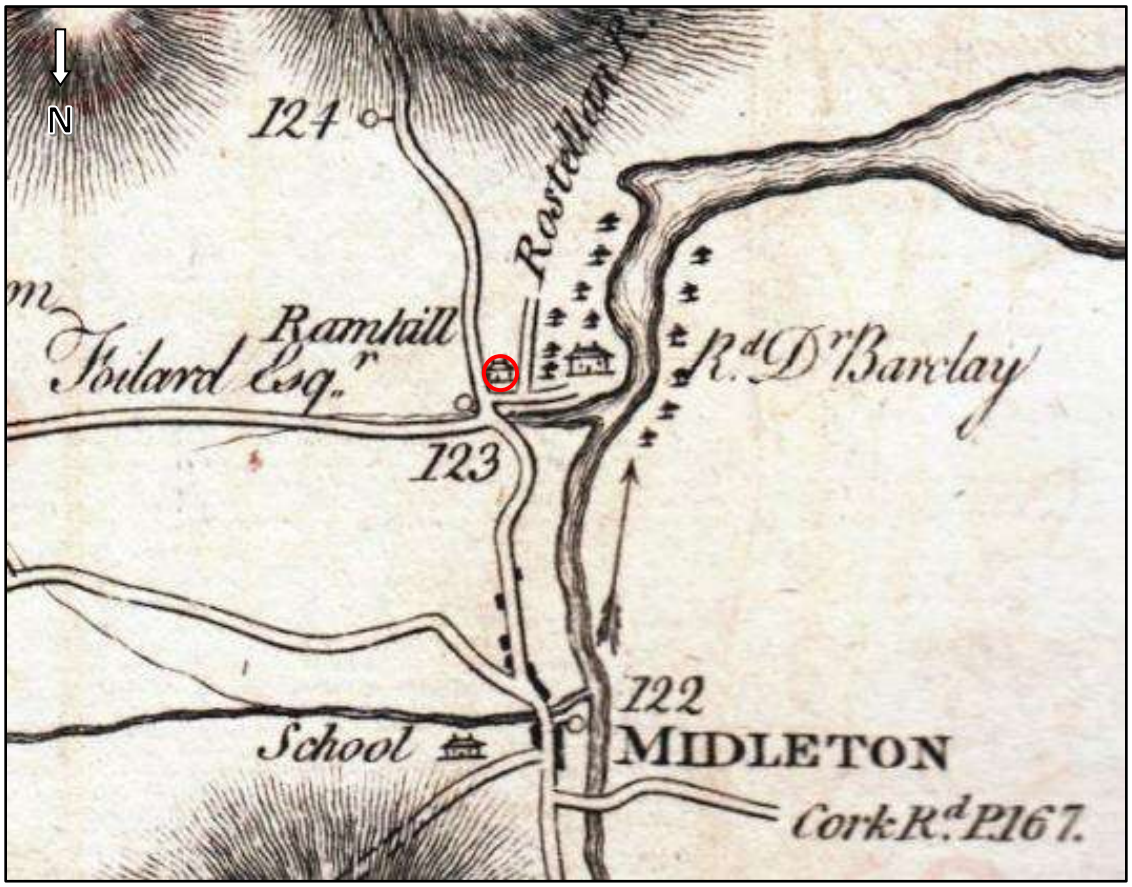


**Figure 8 Extract from Taylor & Skinners Map 126, 1777, with approximate location of proposed Ballinacurra Mill LRD (*circled red*) (Source: www.swilson.info).**

**The County of Cork Grand Jury Map, 1811**

'The County of Cork, surveyed by the order of the Grand Jury of the County by Neville Bath, comprises six sheets, published with additions by Edwards and Savage, Booksellers and Stationers, in Cork on 20th February 1811 (Figure 9). By the early 19th century, 'Middleton' was a sizable settlement, and as with the earlier may by Taylor and Skinner, the focus is on the road network in existence at this time; the road network includes the alignment of present Upper Road/Rose Lane (shown aligned NW-SE) and the present R629 (aligned N-S), intersecting at Carney's Cross.


**Figure 9 Extract from the Grand Jury map of Co. Cork, 1811, with approximate location of proposed Ballinacurra Mill LRD (*circled red*) (Source: https://digitalcollections.tcd.ie/).**

No village or built-up streets are shown at Ballinacurra, settlement again being represented by large country houses, one being 'Ballinacurra' House, sited close to the estuary. A second house is annotated as 'Loughatala', to the south of the former. A third house, to the east side of the Rostellan Road, is not named; set within wooded surrounds, the house is shown somewhat south of Ballinacurra village. A 'Stores' also existed in Castleredmond,

to the north side of a stream at its confluence with the Owennacurra River and Ballynacorra River Estuary.

Interestingly, a stone, annotated as the 'Ballinacurra Stone,' is recorded close to the south-east boundary of present day Ballynacorra East townland. This stone does not appear on later historical maps, or in the Sites and Monuments Record or Record of Monuments and Places, and its function or purpose has not been established.

## Ordnance Survey Maps and Griffith's Valuation

The first ever large-scale survey of Ireland was undertaken by the Ordnance Survey between 1829 and 1842, producing highly accurate maps at different scales. The first edition Ordnance Survey 6-inch map (Sheet CK076), surveyed in 1840 and published in 1845 (Figure 10), is the first map to record the proposed development site in detail. The map records the village of 'Ballynacorra' laid out on a cross plan, with the east-west axis clearly aligned on 'Ballynacorra Ho.', which is situated to the western edge of the village overlooking the estuary, and is clearly closely connected with the wider village.


**Figure 10 Extract from the first edition Ordnance Survey 6" map, published 1845, with approximate outline of the proposed Ballinacurra Mill LRD (*in red*) (Tailte Eireann Surveying Licence No. CYAL50457681).**

The proposed Ballinacurra Mill LRD is situated between the two principal roads leading southwards from the village, the roads to Rostellan and to Cloyne, and is dominated by Rose Hill House, which is situated in its own landscaped grounds. The house is accessed from Upper Road, the access being partly delineated by walls - closest to the street frontage - and partly by deciduous trees. The house, along with its attached outbuildings, presents as rectangular in plan, possibly containing a well, with abutting garden or yard spaces to the west side enclosed with what are likely to be stone walls. These spaces are backed by a long, formal garden, which extends from the back of the house to the Rostellan Road. This garden appears to be approached from its north-east corner (north-west rear of the house), where there is a clearly delineated space with good deciduous tree cover (north side of the house); this space may also be enclosed with walls.

Elsewhere in the proposed development site, Eastville House, which sites on the Upper Road street frontage, is T-shape in plan, and is associated with a stone-walled enclosed rectangular space to its west side, with an outbuilding to its rear, south-east side, fronted by a possible well. A stone wall (oriented E-W) appears to define the rear limit of the majority of buildings that fronted the street at this time (with a break only at the entrance to Rose Hill House), showing a regularity to the depth of properties and possibly an element of planning; sections of this wall remain at the proposed development site. The wall delineated the rear of the initial buildings at the Maltings complex, to the east side of Eastville House, which ran eastwards to the Cloyne Road, at Carney's Cross. The buildings fronting the street include a large corner building at Carney's Cross that appears to be annotated as a 'Store'. To the rear of the 'Store', an enclosed rectangular space contains a small structure or house in its south-east corner; it's southern stone boundary wall is slightly off-line with the rear property boundary wall delineating the original Maltings. Walls or hedgerow boundaries delineate the landscaped fields extending eastwards from Rose Hill House.

Griffith's Valuation, which is the first full-scale valuation of property in Ireland, was overseen by Richard Griffith and published between 1847 and 1864, in a similar time period to the first edition Ordnance Survey maps (Figure 11). At the time of the Valuation, Rose Hill was owned by William Longfield, who leased the property to John Barry. The property is described as comprising a house, offices, gate-house and lands, measured as 21 acres, 2 roods and 29 perches. What is now Upper Road appears to be recorded in the Valuation as East Road, and William Longfield also leased a house, offices, corn and coal stones, yards and garden to Robert Barry on this street. These structures were next to an

unoccupied corn store and yard in the ownership of John Courtney. This unoccupied store could be that at Carney's Cross, annotated on the first edition Ordnance Survey 6-inch map. The Valuation map also records a clear property distinction (narrow red line on map) between the village properties fronting the street and the property held at, and around Rose Hill House; this property boundary is represented by a stone wall that still partly survives at the proposed development site.

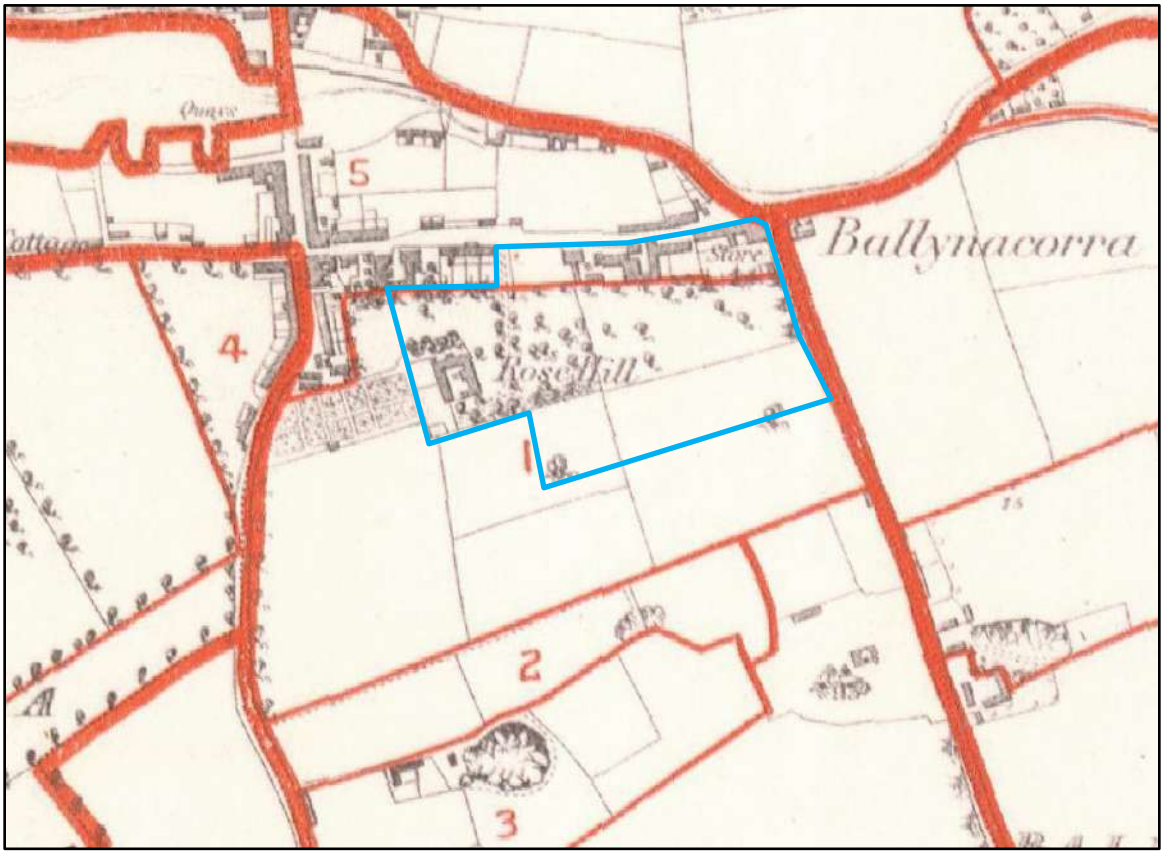


**Figure 11 Extract from Griffith's Valuation, published between 1847 and 1864, with approximate outline of the proposed Ballinacurra Mill LRD (*in blue*) (Source: https://griffiths.askaboutireland.ie).**

The revised 25-inch Ordnance Survey map (Sheets CK076-07 and CK076-11), surveyed in 1897 and published in 1899 (Figure 12), records the proposed development site in even greater detail. At Rose Hill House, the layout of the entrance avenue, the forecourt of the house, and paths laid out through the associated garden are clearly recorded. Notably, the map doesn't record as many trees in the surrounds of the house, and the grounds around the house have been altered, to its north, west and south sides.

The access layout included a path or internal track that ran on the south side of the house and rear garden, extending to the Rostellan Road, where there is a possible gate lodge; walls and 19th century structures are indicated to the south side of this track. There was

also a set-down area to the back of the house and outbuildings, with an additional 19th century building sited in the north-west corner of the rear space. The boundary to the immediate north side of the house has been modified, a wall or other boundary form clearly delineating or separating the house and grounds from a field to its north side. Abutting the south gable of the house there is an attached structure that is not shown on the first edition Ordnance Survey map.

Eastville house, fronting the street, is now named, and its layout is similar to that shown on the first edition 6-inch map, and its boundary with the adjacent building to the east is clearly shown, confirming the outbuilding to the south-east of the house as being associated with the house. The street frontage between Eastville House and Carney's Cross is also similar to that shown on the first edition map, although to the centre of the street frontage there has been redevelopment of the maltings, with the removal of some structures and additions to, or the replacement of other structures resulting in a large central rectangular building. To the rear of these, the removal of a field boundary has resulted in the creation of a larger field, the removal of field boundaries and trees possibly indicating the severance of land from Rose Hill House.

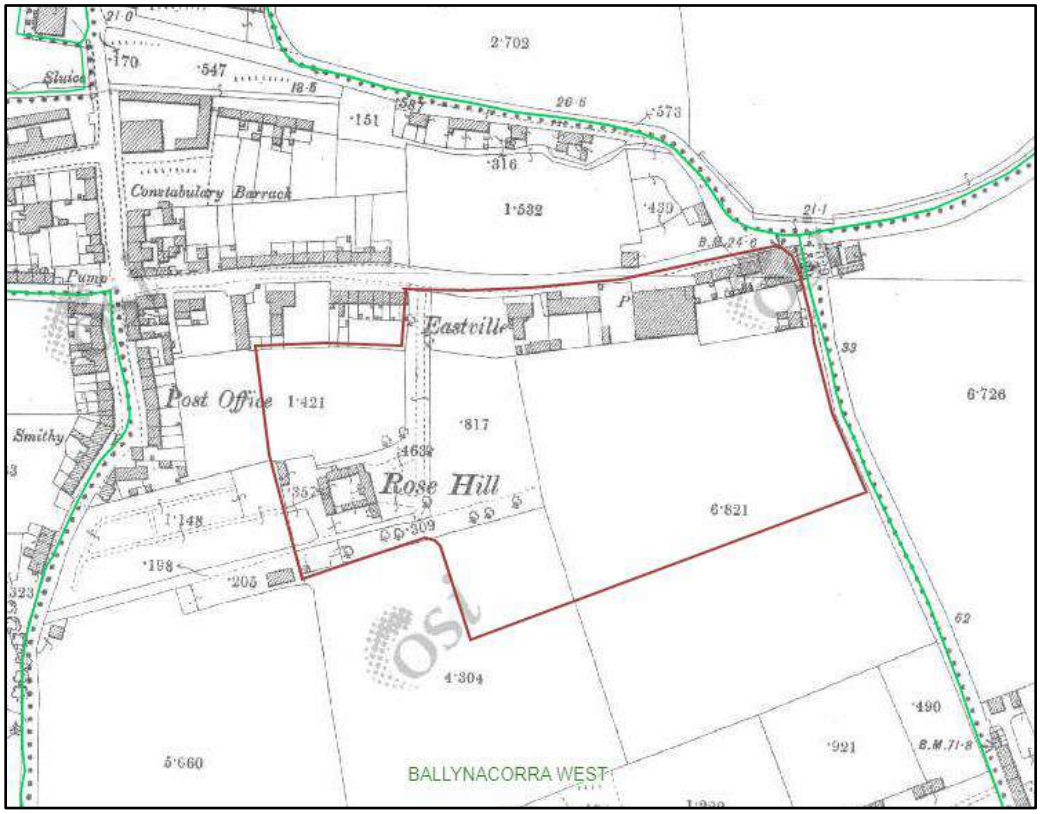


**Figure 12 Extract from the Ordnance Survey 25" map, published 1899, with approximate outline of the proposed Ballinacurra Mill LRD (*in red*) (Tailte Eireann Surveying Licence No. CYAL50457681).**

What appears to be steps from the R629, accessing the rear of a large square structure on Carney's Cross, would support the structures use as a former 'Stores'; the steps are located at a possible set down area, on a widened section to the west side of the R629.

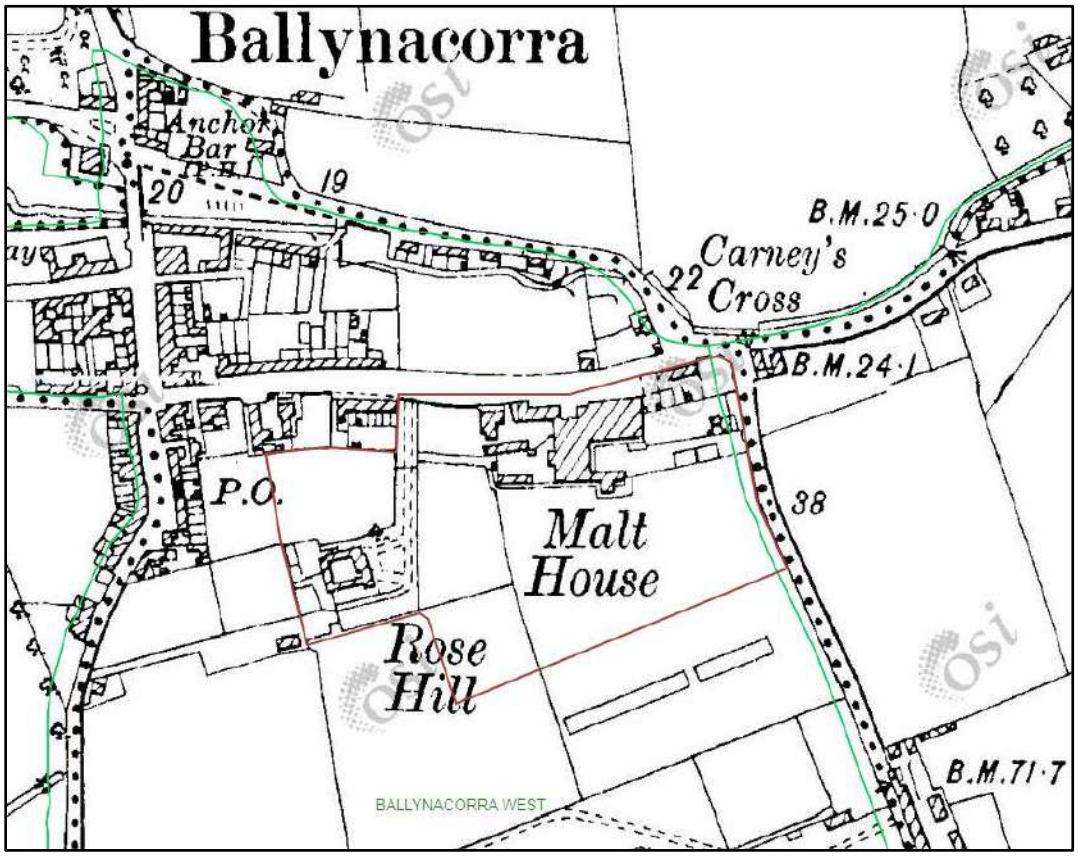


**Figure 13 Extract from Ordnance Survey 6" map, published 1933, with approximate outline of the proposed Ballinacurra Mill LRD (*in red*) (Tailte Eireann Surveying Licence No. CYAL50457681).**

The 20th century 6-inch Ordnance Survey map, published in 1933 (Figure 13), is the first map to annotate the industrial structures at the proposed development site as 'Matl House', recording a further phase of development at the maltings complex. Access to the rear of the complex now appears to be provided, off the entrance avenue to Rose Hill House, and enters a small yard at the back of Eastville House, the yard bordered by a linear building range to the north and south sides. The rear of Eastville House has been extended (to its west side). There is little change to Rose Hill House, though its once formal garden is now sub-divided, possibly no longer in use as a garden, and a rear structure, to the north-west corner of the outbuildings may now be roofless. The former stores at Carney's Cross – the name of the Cross being first annotated on this map – has been removed, while the enclosed rectangular space with small house in its south-east corner also remains unaltered.

## 3.4 National Monuments

There are no recorded national monuments at Ballinacurra.

## 3.5 Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP)

The Ballinacurra Mill LRD contains two recorded monuments, CO076-044----, Country House (Rose Hill House) and CO076-075----, Maltings (Bennett's Maltings), recorded both in the Sites and Monuments Record (SMR) and in the statutory Record of Monuments and Places (RMP). These monuments are listed below in Table 1, and their locations relative to the development site boundary is shown on Figure 14.

Only CO076-044----, Country House is associated with a "Zone of Notification" (shaded pink on Figure 14), which indicates the monument is scheduled for inclusion in the next revision of the statutory RMP. The zone of notification does not define the exact extent of a monument, but rather is intended to identify a monument for the purposes of notification under Section 12 of the National Monuments Act 1930 (as amended).

CO076-044----, Country House (Rose Hill House) is described in the Archaeological Inventory of County Cork (1994) as a:

> *"Two-storey 18th-century house built over basement only visible at rear. According to local information, built as Dower House for Castlemary House (CO088-016001-). Gable-ended with cut limestone chimneys on gables. Entrance front (E) of 5 bays; low two storey hipped wing on N side. Central door with rectangular fanlight; surrounded by Doric limestone pilasters supporting a cornice. Sash windows with original glazing bars; limestone surrounds. Other cut limestone details are band course between ground and 1st floor and quoins. Gabled 3-storey projection at rear with other more recent additions."*

When the house was being surveyed by the Cork Archaeological Survey in 1984 it remained occupied and was described as being in good condition. At this time the house was associated with the adjacent Maltings, being in the same ownership as the Maltings (CO076-044---- SMR File).

CO076-075----, Maltings (Bennett's Maltings) is described in the Archaeological Inventory of County Cork (1994) as:

"*Indicated in Ballynacorra as 'Store' on 1842 OS 6-inch map; as 'Malt House' on 1933 map; still functions as maltings. Ground plan altered since 1842 OS 6-inch map, many of present stone-built structures date to 19th/early 20th century. Main block is a late 19th century 'drying store' (long axis N-S) of 5 storeys, double-gable-ended; brick- and cement-dressed windows; steel steeps housed on E side. Hoist in N gable on W side; E side obscured behind tall modern elevator structure. Kiln (long axis E-W) attached to S with lean-to addition to S. According to local information, now fired by anthracite, with steel kiln tiles. Projecting to E of drying/steep house is 12-bay, 3-storey double-gable-ended structure, brick detail around opes; attached to N is 3-storey structure with low kiln at W end which, according to local information, has a ceramic tiled floor. Attached to NW corner of drying house is 4-storey, 7-bay gable-ended structure known as the 'seed store' which has a low gabled projection to N. Recent buildings and silos to W and S. Buildings on E side of complex are still used for Government experimental trials set up in early 1800s. Two other maltings (076-080---; 076-074---) to W.*"

**Table 1 Archaeological monuments within a 1km radius of the proposed Ballinacurra Mill LRD.**

| SMR/RMP No. | Class | Townland | ITM Grid Reference (E,N) | Proximity (m) |
|---|---|---|---|---|
| CO076-024---- | Castle - unclassified | Castleredmond | 588033, 572457 | 990m |
| CO076-042001- | Mound | Ballynacorra | 588018, 571747 | 653m |
| CO076-042002- | Graveyard | Ballynacorra | 588065, 571749 | 600m |
| CO076-042003- | Church | Ballynacorra | 588051, 571765 | 607m |
| CO076-043---- | Country house | Ballynacorra | 588056, 571657 | 600m |
| CO076-044---- | Country house | Ballynacorra West | 588711, 571654 | 0m |
| CO076-045---- | Kiln - lime | Ballynacorra West | 588720, 571384 | 200m |
| CO076-046---- | Souterrain | Ballynacorra East | 589254, 571516 | 325m |
| CO076-050---- | Standing stone | Gearagh (Imokilly By.) | 589709, 571316 | 820m |
| CO076-064---- | *Fulacht fia* | Castleredmond | 589466, 571916 | 570m |
| CO076-074---- | Maltings | Castleredmond | 588321, 571911 | 528m |
| CO076-075---- | Maltings | Ballynacorra West | 588849, 571728 | 0m |
| CO076-080---- | Maltings | Ballynacorra West | 588305, 571798 | 350m |
| CO076-111---- | Warehouse | Castleredmond | 588230, 572231 | 690m |

| SMR/RMP No. | Class | Townland | ITM Grid Reference (E,N) | Proximity (m) |
|---|---|---|---|---|
| CO076-137---- | Enclosure | Loughatalia | 588262, 571153 | 650m |
| CO076-139---- | Designed landscape - tree-ring | Ballynacorra | 587816, 571332 | 975m |
| CO076-140---- | Designed landscape - tree-ring | Ballynacorra | 587789, 571277 | 1,000m |
| CO076-141---- | Enclosure | Ballynacorra East | 589633, 570969 | 950m |
| CO076-142---- | Enclosure | Loughatalia | 588518, 571136 | 505m |


**Figure 14 Distribution map of sites listed in the Record of Monuments and Places (*red dots*) and Zone of Archaeological Notification (*shaded pink*) relative to the proposed Ballinacurra Mill LRD (*in red*) (Tailte Eireann Surveying Licence No. CYAL50457681).**

An additional 17 SMR sites are recorded within a 1km radius of the proposed development site, ranging in date from the Bronze Age (c. 2400-500 BC), through the early medieval period (5th to 12th century), the late medieval period (c. 1400 to the 16th century) and into the post-medieval (post 1600) periods. These monuments are listed in Table 1, and their locations relative to the development site boundary is shown on Figure 15.

SMR sites include a complex of monuments in Ballynacorra townland overlooking the Owennacurra River/Ballynacorra River Estuary, relating to the original focal point of

settlement at Ballinacurra that commenced in the high medieval period. This complex includes the remains of a possible motte (CO076-042001-), the multi-period Ballynacorra House (CO076-043----), and the medieval parish church (CO076-042003-) and graveyard (CO076-042002-) at Ballynacorra. Prior to this period, during prehistory and into the early medieval period, settlement in the vicinity of Ballinacurra would have been dispersed and wholly rural in nature.

In addition to CO076-044----, Country House and CO076-075----, Maltings, there are a number of additional post-medieval SMR sites, either classified as post medieval (rural), such as country houses, or classified as post medieval (industrial), including two additional maltings (CO076-074---- and CO076-080----), a warehouse (CO076-111----) and a lime kiln (CO076-045----). The country house and its demesne was a dominant feature of the countryside throughout the 18th and 19th centuries, and two SMR sites (CO076-139---- and CO076-140----) in Ballynacorra townland, described as designed landscape – tree rings, formed part of the demesne at Ballynacorra House.

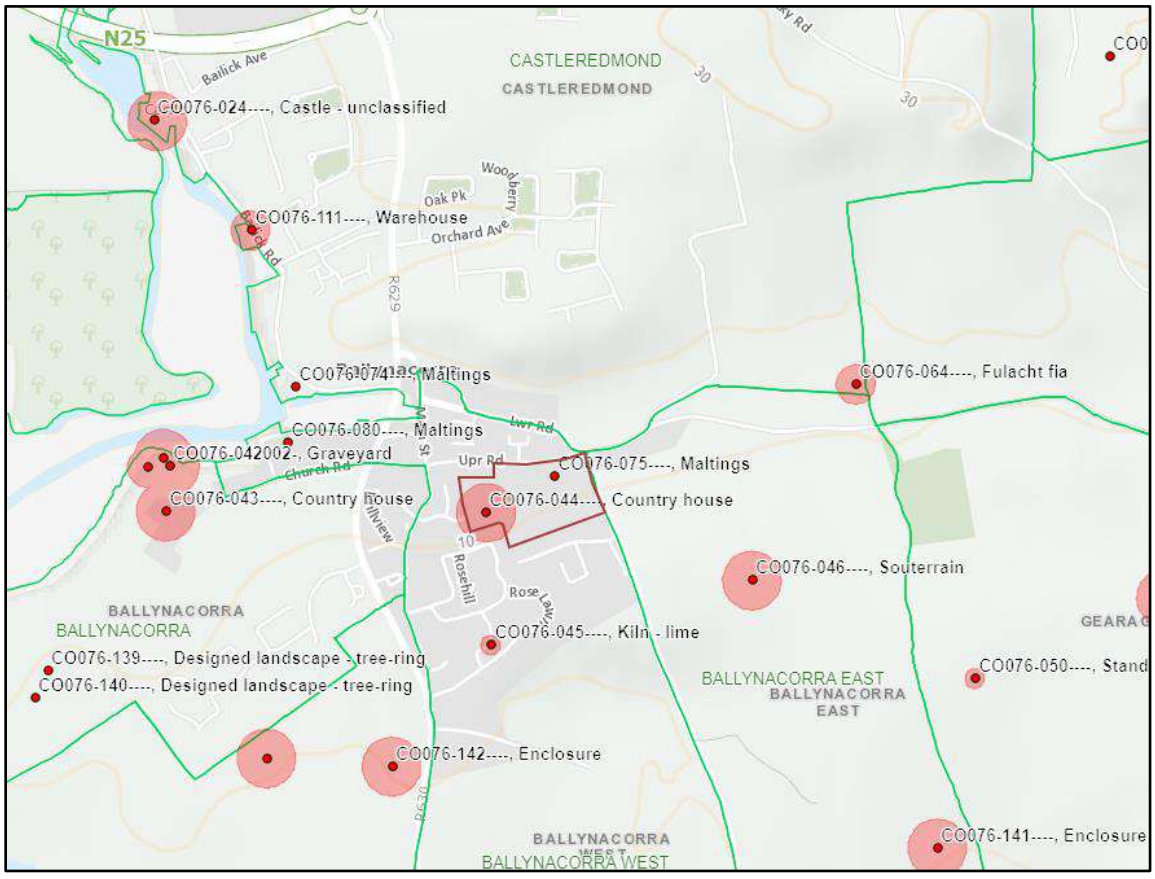


**Figure 15 Distribution map of sites listed in the Record of Monuments and Places (*red dots*) and Zones of Archaeological Notification (*shaded pink*) within 1km of the proposed Ballinacurra Mill LRD (*in red*) (Tailte Eireann Surveying Licence No. CYAL50457681).**

## 3.6 Previous Archaeological Investigations

There is no record of previous archaeological investigation having been carried out at the proposed Ballinacurra Mill LRD.

Within the wider settlement at Ballynacorra, Sheila Lane & Associates prepared a desk-based archaeological assessment in connection with a residential development on the north side of Upper Road – known as Rose Lane – directly opposite the proposed Ballinacurra Mill LRD (Lane 2003). The assessment was prepared in 2003, under planning grant S/01/5593, where archaeological monitoring of groundworks was made a condition of planning. On inspection, archaeologists found that construction had commenced prior to monitoring; open foundation trenches were examined, with no evidence for archaeological remains identified.

In proximity of Ballynacorra, prior investigations have included archaeological monitoring on the alignment of the East Cork Gas Pipeline, undertaken on behalf of Bord Gais Eireann. Monitoring of topsoil stripping along the pipeline route by Archaeological Consultancy Services Ltd., which was aligned through Ballynacorra East and Ballynacorra West townlands, between March and April 2008, revealed two adjacent sites. Ballynacorra West 1 and Ballynacorra West 2 were both spreads of burnt mound material, uncovered just outside the southern boundary of Ballynacorra West townland (in Bawnard East townland). Ballynacorra West 1 was excavated under licence no. 08E0295 (Excavation Bulletin No. 2008:170) and radiocarbon analysis revealed the remains dated to the Late Bronze Age. The large size of the spread suggests that this site was likely used for long periods of time (O'Neill 2008, 6). Ballynacorra West 2 was excavated under licence no. 08E0296 (Excavation Bulletin No. 2008:171) and radiocarbon analysis revealed the remains dated to the Early Bronze Age. This prehistoric era landuse activity was situated within 500m of the estuary shoreline, approximately 1.3km to the south of the proposed development site.

Archaeological test excavation and monitoring of topsoil stripping was also undertaken on behalf of Bord Gais Eireann on the alignment of the BGE Curraleigh West (Co. Tipperary) to Midleton (Co. Cork) gas pipeline by Margaret Gowen and Co. Ltd. in 2009. Test excavation was initially carried out under licence no. 09E0091, followed by monitoring under licence no. 09E0059 (Excavation Bulletin No. 2009:108), during which thirty-nine sites were identified and excavated, including two sites in Ballynacorra East, Site 39.4, relating to settlement activity – focussed on a post-built circular structure - and a cremation pit and

Site 39.5 (c. 135m to the west of Site 39.4 ), described as pits. Sited to the south end of the townland, approximately 950m to the south-east of the proposed development site, the sites, also Bronze Age in date, were uncovered less than 1km (to the north-east) from the Bronze Age remains known as Ballynacorra West 1 and Ballynacorra West 2 excavated under licence nos. 08E0295 and 08E0296. Across the Scheme, the majority of sites exposed were Bronze Age in date, with further Bronze Age activity recorded in Gearagh and Innygraga townlands to the east and south-east respectively of Ballynacorra (from c. 1.6-2km of the proposed development site). Early medieval period settlement was also recorded in both Gearagh and Innygraga (Excavation Bulletin No. 2009:151) townlands, the settlement site at Innygraga including a souterrain and an inhumed burial (excavated under licence no. 09E0278).

In Castleredmond townland, approximately 570m to the north-east of the proposed development site, there is a record relating to the discovery of a *fulacht fia* (Excavation Bulletin No. 1980-84:0049), which was partially excavated in 1982 (recorded as RMP CO076-064----). To the south-west of Castleredmond townland, above the confluence of the Owennacurra River/Ballynacorra River with the east-west oriented stream through the Ballinacurra settlement, a multi-period settlement was identified more recently during monitoring of a residential development under licence no. 21E0326 (Excavation Bulletin No. 2023:471). In fields around Charleston House, approximately 450m to the north-west of the proposed development site, topsoil stripping exposed cremation or burial deposits with nearby evidence for unrelated slag-pit furnaces. The furnaces have a broad date range, from the Iron Age to the Hiberno-Scandinavian period.

## 3.7 Topographical Files of the National Museum of Ireland

There are no records in the Topographical Files of the National Museum of Ireland (NMI) of archaeological find spots provenanced to the townlands of Ballynacorra, Ballynacorra East and Ballynacorra West, or to the townland of Castleredmond, to the north of Ballinacurra. The Topographical Files database was searched by NMI Museum staff on 16 May 2024.

## 3.8 On-Site Inspection

A site inspection at the proposed Ballinacurra Mill LRD was carried out on 16 May 2024. The proposed development site is largely a brownfield site, dominated by 19th and 20th

century structures associated with the former Bennett's Maltings. Structures forming part of Bennett's Maltings, fronting Upper Road/Rose Lane, sit in an otherwise residential street, with unoccupied residences to either side of the Maltings (**Plate 1**).

Eighteenth century Eastville House to the west of the Maltings still retains an associated rectangular enclosed space, a probable garden, with surviving stone wall boundaries to the street frontage (2.2m high) and to the rear (**Plate 2**). Associated outbuildings, in an ruinous stage also survive to the rear, along with the remains of a rear stone property boundary wall (**Plates 3 and 4**).

To the east of the Maltings, Upper Road/Rose Lane is fronted by two residential premises and associated structures of mixed date (**Plate 5**), on part of the street frontage that in the 19th century contained four residences; a 2-storey residence at the end of the street abuts an empty plot that in the 19th century appeared to contain a 'Stores'. The structures at the east end of Upper Road/Rose Lane are backed by an overgrown rectangular plot with a ruinous house in its south-east corner, which fronted the R629 (**Plate 6**). A stone property boundary wall survives on the south side of the rectangular plot (**Plate 7**), the plot notably sitting at a higher level to the residential structures at street level. The ground here was rough underfoot, and visible gravels on the surface suggest ground disturbance has occurred within the plot.

The surviving curtilage at Rose Hill House characterises the western section of the proposed development site, and surviving elements includes part of the entrance alignment from Upper Road/Rose Lane (**Plate 8**). The east side of the entrance alignment in particular was modified as part of the Maltings development to facilitate rear access to the complex. The House is nestled in an overgrown garden, in the shade of mature trees, and remains of a gravel forecourt is evident to the front (**Plate 9**). The land to the north of the house, formerly part of its grounds, being clearly delineated as a separate field by the late 19th century, sits at a slightly higher level to the house, and was heavily overgrown at the time of the inspection. A narrow area of ground between the house and field appears to be terraced, stepped down toward the west (rear) of the house, into a heavily overgrown space to the rear of the house's outbuildings (**Plate 10**). This space sits lower than the house (the ground at the house generally gently slopes down from east to west), and contains surviving and heavily vegetated stone walls across the southern half (**Plate 11**), laid out in an arrangement recorded on the late 19th century 25-inch Ordnance Survey map (Figure 12). Other features of the former garden noted were two ivy-covered pillars (one upstanding,

one on the ground) to the north side of the house (**Plate 12**), likely part of a former boundary feature or opening (Plate 10). There is also evidence of former garden plants amongst wild plants and revegetating scrub across the site.

Both the larger Maltings complex site and the current grounds at Rose Hill House sit at a much lower level than the land bordering the proposed Ballinacurra Mill LRD to the south. Here, existing residential estates overlook the proposed development site, and while the natural ground level would have risen from north (at the street frontage) to south, it is evident that the development of the Maltings complex over time has reduced and levelled the original ground surface to create present levels across the site (**Plate 13**). The modern ground surface is variable across the site, comprising gravel, concrete pad or tar-and-chip. Near the vehicle entrance, to the north-west of the Maltings complex, tar-and-chip may overlay possible stone flags (**Plate 14**).

## Site Inspection Plates

**Plate 1 Upper Road/Rose Lane frontage looking westward from Carney's Cross (Shanarc Archaeology 16.05.2024).**

**Plate 2 Eastville House (to left of image) and stone wall to street frontage enclosing an adjacent rectangular plot (Shanarc Archaeology 16.05.2024).**

**Plate 3 Stone wall delineating rear of Eastville House representing former property boundary (Shanarc Archaeology 16.05.2024).**

**Plate 4 Rear east façade of Eastville House and former yard with ruined outbuilding to left of image (Shanarc Archaeology 16.05.2024).**

**Plate 5 Upper Road/Rose Lane frontage to east of Maltings; view west to Carney's Cross (Shanarc Archaeology 16.05.2024).**

**Plate 6 South facing gable of ruinous house fronting the R629 (Shanarc Archaeology 16.05.2024).**

**Plate 7 Heavily vegetation covered stone property boundary wall (to right of image) on south side of rectangular plot containing ruinous house; view to east toward ruinous house (Shanarc Archaeology 16.05.2024).**

**Plate 8 Blocked entrance on former alignment of Rose Hill House entrance; view south off Upper Road/Rose Lane (Shanarc Archaeology 16.05.2024).**

**Plate 9 Rose Hill House in current setting; view west (Shanarc Archaeology 16.05.2024).**

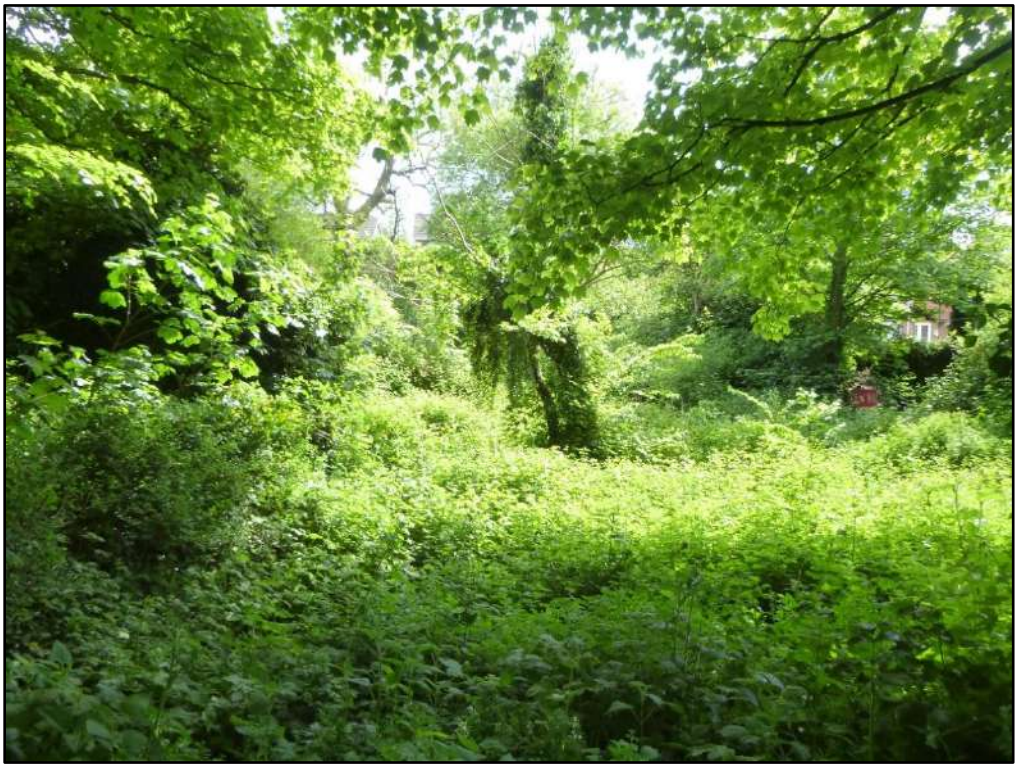

**Plate 10 Lower and heavily overgrown space to rear of Rose Hill House outbuildings (Shanarc Archaeology 16.05.2024).**

**Plate 11 Overgrown walls across southern half of space to rear of Rose Hill House outbuildings (Shanarc Archaeology 16.05.2024).**

**Plate 12 Ivy-covered pillar on north side of Rose Hill House (Shanarc Archaeology 16.05.2024).**

**Plate 13 Overview of Maltings complex from higher ground at south-east corner of proposed development site (Shanarc Archaeology 16.05.2024).**

**Plate 14 Modern surface at vehicle entry to Maltings complex overlying possible flagstones (Shanarc Archaeology 16.05.2024).**

# 4. Impact Statement and Mitigation Recommendations

## 4.1 Discussion

The Owennacurra and Ballynacurra Rivers and related estuary at the north-east angle of Cork Harbour will have influenced early rural settlement in the area, and the high medieval development of the original settlement at Ballinacurra. Rivers have been resourced by humans since earliest times, serving as routeways, crossing or fording points and as a food source, and placename evidence indicates a clear connection with early weirs or fords.

The earliest recorded evidence for settlement related activity in the vicinity of Ballinacurra dates to the Bronze Age, which comprises evidence focussed along the stream bank that is oriented east-west through the village; the evidence includes a *fulacht fia* (CO076-064----), recorded approximately 570m to the north-east of the proposed Ballinacurra Mill LRD. There is evidence for continued dispersed rural settlement in the hinterland of Ballinacurra

in the early medieval period, the nearest monument of this period being souterrain CO076-046----, recorded approximately 325m to the south-east of the Ballinacurra Mill LRD.

The high medieval era settlement, the forerunner of the post-medieval village at Ballinacurra, was focussed to the west of the proposed Ballinacurra Mill LRD, overlooking the Owennacurra River and Ballynacurra River estuary, focussed to the grounds around Ballynacorra House (CO076-043----). High and late medieval era settlement may also have been focussed east of the house, towards the confluence of the east-west oriented stream with the estuary. There is no known medieval evidence to the east of Main Street and Upper Main Street, and the evidence points to Upper Road/Rose Lane being essentially 18th century in origin.

Rose Hill House CO076-044---- is understood to be mid-18th century in origin, set back off Upper Road/Rose Lane. Later 18th century street frontage development is evidenced by Eastville House, and possibly by stone boundary walls fronting both Upper Road/Rose Lane and forming the rear boundary of the properties aligned along the street. The uniform depths to the properties fronting the south side of Upper Road/Rose Lane suggests a possible element of urban planning along the street, and the remains of stone walls forming original street frontage and rear boundaries are present at the proposed development site. A corn store may also have been present on Upper Road/Rose Lane by the late 18th century.

The development and evolution of Bennett's Maltings CO076-075---- is largely a process of the 19th and 20th centuries, which has seen the layout of the complex alter over its long history. The development of the Maltings complex is outlined in detail in Appendix 1. An analysis of historic Ordnance Survey maps shows that 19th century buildings were modified or replaced, and that the large 1900 Maltings building in particular was built on an earlier arrangement of structures recorded on the first edition Ordnance Survey map. The maps also suggest that the north-east corner of the proposed development site, at Carney's Cross, currently comprising an empty plot, may once have held a corn store.

The setting of Bennett's Maltings CO076-075---- is shown on an image, Fig. 81 (pg. 88), in the preliminary industrial archaeological survey report (Appendix 1). While modern in date, the image clearly shows the Maltings in a more rural setting, on the edge of Ballinacurra village, with the land naturally rising up to the south from the street frontage. The original development of the street frontage, along with the rear expansion of the Maltings, was benched into this gently rising slope. Since the photo was taken (mid-1970s), additional

excavations to the rear of the Maltings have further altered original ground levels, and the phased nature of development onto naturally sloping ground at the site is likely to have removed any potential evidence of earlier archaeological activity. The early 2000s development of a large-scale residential estate on higher ground overlooking the Maltings from the south, as well the development of the 'Rose Lane' housing estate across the street to the north have altered the Maltings once more rural setting, the site being encompassed into the expanding village.

Rose Hill House CO076-044---- also sits in a reduced setting, its former curtilage westwards to the Rostellan Road also developed for housing in the early 2000s. The surviving setting of the house generally retains its late 19th century layout, with surviving overgrown walls to the rear and south-west corner of the grounds matching the arrangement of walls recorded on the revised 25-inch Ordnance Survey map (published 1899; Figure 12). The original development of the house also appears to have been benched into naturally rising ground, and the house and remaining setting is also overlooked from the south by large scale residential development. Any archaeological material at Rose Hill House is therefore likely to relate only to its development from the mid-18th century.

The Bennett's Maltings has suffered damage from vandalism and fire since it ceased operation in 2007, including from a significant fire in 2017. Interior access to buildings was not possible on safety grounds during the preliminary level-three industrial archaeological inventory conducted by specialist Dr. Colin Rynne. The use of supporting drone footage has nonetheless helped to confirm the survival of some industrial heritage equipment such as large-sized water cisterns, steeping cisterns and a worm conveyor above second floor level in the 'Old Maltings' building (labelled Block 3 throughout the preliminary industrial archaeological survey report (Appendix 1)); this building also contains roof structural timbers and a line shaft pulley. Little other industrial equipment has been identified at the site, outside the 1960s grain silo complex (labelled Block 7 throughout the preliminary industrial archaeological survey report), with no equipment identified to date at the internationally significant Cereal Testing Station (labelled Block 6 throughout the preliminary industrial archaeological survey report). The Cereal Testing Station is being retained as part of the proposed development, less an attached rear 3-storey machine shop. It is possible that portable objects or equipment survive in the lesser damaged portion of the building.

## 4.2 Impacts

The proposed Ballinacurra Mill LRD contains two recorded monuments, CO076-044----, Country House (Rose Hill House) and CO076-075----, Maltings (Bennett's Maltings), both of which sit in modified or reduced original settings. Once positioned in a rural setting on the edge of Ballinacurra village, the recorded monuments are currently bordered by residential development on three sides. The proposed Ballinacurra Mill LRD will further incorporate the monuments into a residential and commercial setting.

The Ballinacurra Mill LRD proposes to retain Rose Hill House CO076-044---- and its outbuildings, maintaining green, public space to the front (east) and north sides of the house, and adapting the house and associated outbuildings as two dwellings. It is proposed to remove a late 19th century corridor extension to the rear (west) side of the house, and a small stone structure attached to the north side of the outbuildings. The 19th century arrangement of walls in the immediate surrounds of the house, recorded on the revised 25-inch Ordnance Survey map (Figure 12), will also be removed. There is no indication that potential archaeological remains pre-dating the house exist at the site, as the sites development appears to have modified original ground levels. The ground to the north side of the house, extending to the rear of properties fronting Upper Road, may be the least modified area of the former grounds at Rose Hill House.

The Ballinacurra Mill LRD proposes to partially retain and partially demolish structures forming part of Maltings complex CO076-075----, adapting retained structures for residential, commercial and office use. The proposal involves the removal of **1.** a 19th century building abutting the front of the Smarts Store used as the main office for J. H. Bennett & Company Ltd., **2.** part of the Old Maltings or No. 3 Malt House, **3**. a 1900 malt store to the rear of the 1900 maltings, **4.** a rear machine shop of an early 20th century Cereal Testing Station and **5.** a 1960s mass concrete grain storage silo (Figure 16[1]).

[1] Figure 16 is based on a 1973 site survey undertaken for J. H. Bennett & Co. Ltd. by Chillingworth Levie McCarthy, and has been used throughout the preliminary industrial archaeological survey report (Appendix 1). This plan will be subject to revision and correction as required following a more detailed industrial archaeology survey of all buildings proposed as Phase 2 of the level-three industrial archaeological inventory.

Please note an inconsistency in the relationship between the Smarts Store and the abutting dwelling on the 1973 plan with up-to-date site surveys; refer to *Ballinacurra Mill Survey Drawings 00.02-00.12, including Mill Building Ground Floor Plan Existing May 2024.* The latter confirms the former dwelling, used as the main office for J. H. Bennett & Company Ltd., as abutting the front of the Smarts Store only i.e. the dwelling is incorrectly shown on the 1973 plan as incorporating part of the footprint of the Smarts Store at its west end.

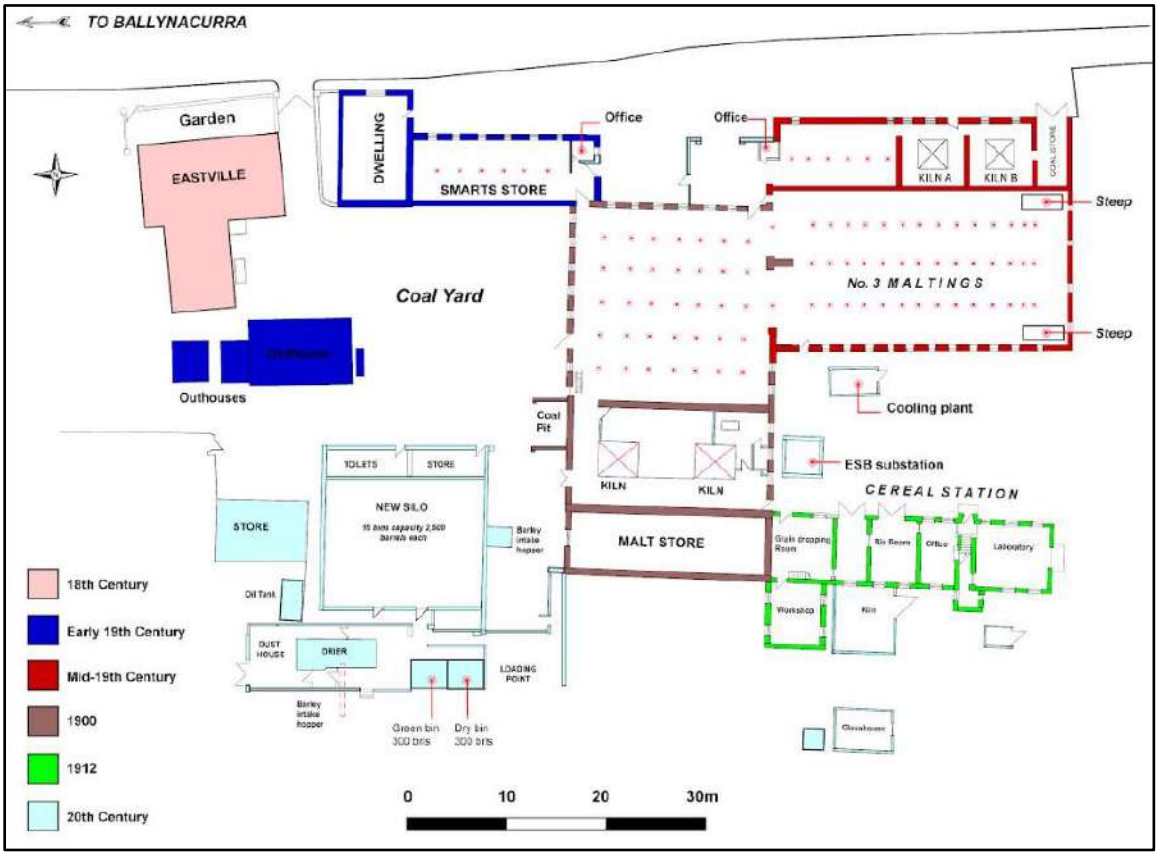


**Figure 16 The buildings comprising Bennett's Maltings showing principal phases (adapted by Colin Rynne, based on a 1973 site survey).**

The preliminary industrial archaeological survey of the Maltings complex, presented in full in Appendix 1, has established that the maltings was the last floor malting (i.e. the last of its type) to operate in Ireland, and that the maltings section of the surviving complex, including the Old Maltings or No. 3 Malt House, and its historical associations are of national significance. The preliminary industrial archaeological survey has also established that the Cereal Testing Station is of international significance in terms of the development of agricultural science, and in terms of its contribution to the development of the world brewing industry. The creation of the barley hybrid Spratt-Archer at the Cereal Testing Station in 1908 ranks as one of the most important developments in the history of brewing science. By the 1940s the barley hybrid became one of the most widely grown malting barleys world-wide. In the early 1950s, the station developed the next generation of malting barleys *Beorna* and *Emma,* the latter still widely grown in the UK and Ireland. No other Cereal Testing Station of its type, either private or government controlled, has exerted the same impact on the world brewing industry. The current proposal directly impacts structures identified as being of national and international significance from a historical and scientific perspective.

The preliminary industrial archaeological survey has also established that some industrial heritage equipment and machinery is present at the Maltings complex. The current proposal therefore has the potential to directly impact industrial heritage fabric or equipment of special technical value. However, in the absence of full building access as part of managed site clearance and the completion of a full archaeological survey, having the ability to inspect the condition of surviving equipment close up, the description of the Maltings and the inventory of surviving equipment and machinery as detailed by Dr. Colin Rynne (Appendix 1) remains preliminary. Recommendations for retention of surviving heritage fabric and equipment either *in-situ* or elsewhere in the complex will be made by an industrial archaeology specialist during the recommended second phase (**Phase 2**) of the level-three industrial archaeological survey and inventory of the complex.

Groundworks across the Ballinacurra Mill LRD will impact the setting or grounds of CO076-044----, Country House (Rose Hill House) and CO076-075----, Maltings complex, potentially exposing sub-surface archaeological evidence associated with the 18th century house, or the remains of 19th century maltings structures pre-dating the current Maltings arrangement. Potential sub-surface remains of a possible former corn store on a vacant plot at Carney's Cross may also be subject to impact.

## 4.3 Mitigation Recommendations

Archaeological and cultural heritage is a non-renewable resource and calls for careful management and treatment. Mitigation measures are necessary where archaeological monuments or other cultural heritage item exists to comply with national policy guidelines and statutory provisions for the protection of archaeological and cultural heritage, including the National Monuments Acts 1930-2014 and the Planning and Development Act 2000 (as amended).

Recorded monuments CO076-044----, Country House (Rose Hill House) and CO076-075----, Maltings are subject to protection under the National Monuments Acts 1930-2014 and the Planning and Development Act 2000 (as amended). In line with legislation, principals for the protection of archaeological heritage, and Cork County Development Plan objectives (Objective HE 16-2) to secure the preservation *in situ* of archaeological monuments in their setting, it is recommended that all of the buildings forming part of the Maltings complex be retained, with the exception of the 1960s mass concrete grain storage silo. Proposals for the removal of structures forming part of the complex shall be agreed in consultation

with the National Monuments Service, Department of Housing, Local Government and Heritage and the Planning Authority, along with an agreed method for preservation by record.

An archaeological methodology for site clearance and on-going industrial archaeology recording, required as part of the second phase (**Phase 2**) of the level-three industrial archaeological survey and inventory is presented by Dr. Colin Rynne in the accompanying preliminary (**Phase 1**) industrial archaeological survey (Appendix 1, pp. 9-10). Specific recommendations on the retention of industrial heritage fabric, equipment or features and their potential integration into the proposed scheme shall be made by an industrial archaeology specialist on the completion of the Phase 2 archaeological survey at the Maltings, as detailed by Dr. Colin Rynne. It is recommended that the completion of a full archaeological survey at the Maltings be carried out during controlled site clearance undertaken specifically for this purpose, well in advance of general preparatory or construction work on the buildings, and that the survey's recommendations are submitted for consultation and agreement with the National Monuments Service and the Local Authority. The methodology provides for the recording of buildings once cleared using laser scanning and photogrammetry, including of any buildings not retained in the proposed LRD. Secure on-site storage shall also be required to facilitate recording, potential conservation treatment and protection prior to reinstallation *in situ* or display within the completed development.

Locations where heritage equipment can be preserved internally and externally in the proposed scheme will be submitted as part of the planning application (Refer to Drawing 01.02 *Proposed Landscaping Plan* and Drawing 03.01 *Mill Building-Ground Floor Plan-Proposed*). A phased approach, during construction, to the completion of the Phase 2 level-three industrial archaeological survey and inventory is proposed in the *Architectural Design Statement & Housing Quality Assessment* document submitted as part of the planning application (Refer to Figure 7.1). A phased approach shall be agreed in consultation with the National Monuments Service, Department of Housing, Local Government and Heritage and the Planning Authority. No work on the Maltings buildings, including demolition or making buildings secure, shall be carried out in the absence of supervision by an industrial archaeology specialist.

As per the *Framework and Principals for the Protection of the Archaeological Heritage* (1999) archaeological assessment can involve archaeological test excavation to establish

the nature and extent of sub surface archaeological deposits and features. It is not predicted that archaeological material pre-dating the 18th century is present at the proposed Ballinacurra Mill LRD, and testing across much of the open parts of the site, where original ground levels have been reduced, is not warranted. Suitable areas for testing is greenfield around, and to the north of Rose Hill House, in the yard to the rear and the garden to the west of Eastville House, in a vacant corner plot at Carney's Cross and in an rectangular plot to the east of the Maltings, which has retained the same layout as that shown on the first edition Ordnance Survey map (Figure 10).

Given the current overgrown nature of the grounds around Rose Hill House, pre-development vegetation clearance is recommended. This is to facilitate a thorough inspection of the grounds, and to facilitate the recording of surviving elements of the house's former layout. It would also facilitate pre-development archaeological test excavation.

In general, it is recommended that groundworks at the proposed Ballinacurra Mill LRD be monitored under licence by a suitably qualified archaeologist. Archaeological monitoring will facilitate the recording of potential sub-surface structural features and other deposits of archaeological interest that may be exposed during construction, associated with recorded monuments CO076-044----, Country House (Rose Hill House) and CO076-075----, Maltings, as well as with the evolution of the wider site, particularly with initial development along the street frontage on Upper Road/Rose Lane.

The developer shall facilitate the archaeologist in fully assessing and recording such features, including the archaeological excavation of such features, and/or any potential redesign to allow for preservation *in-situ*. In accordance with archaeological legislation and Cork County Council policy, there will be presumption in favour of 'preservation *in situ*' of archaeological remains where possible during construction. Sufficient time should be allowed in the construction programme to facilitate required archaeological resolution, and specifically for consultation with the National Monuments Service in respect of appropriate mitigation (preservation *in-situ* or excavation). Where preservation *in-situ* is not possible, full or part removal of archaeological features or deposits will be required by way of archaeological excavation.

**PLEASE NOTE: Recommendations are subject to review and approval by the National Monuments Service of the Department of Housing, Local Government and Heritage, and by the National Museum of Ireland.**

# 5. Bibliography

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# Appendix 1 Preliminary Industrial Archaeological Survey

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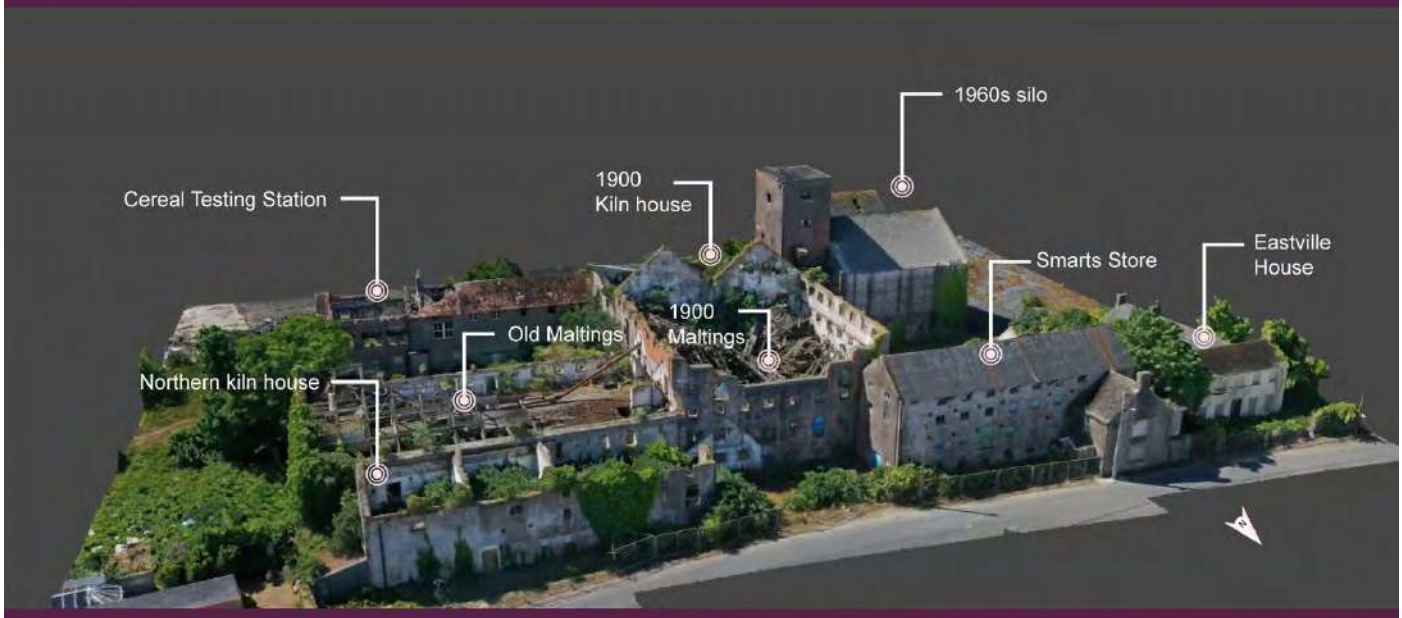


# A Preliminary Industrial Archaeological Survey of the Kearney's Cross/Village Maltings of J. H. Bennett & Company Ltd, Ballinacurra West, Midleton, Co. Cork

Colin Rynne, Ursula O'Mahony and Florence M. Hurley

# A PRELIMINARY INDUSTRIAL ARCHAEOLOGICAL SURVEY OF THE KEARNEY'S CROSS/VILLAGE MALTINGS OF J. H. BENNETT & COMPANY LTD, BALLINACURRA WEST, MIDLETON CO. CORK

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**For**

**Shanarc Archaeology**

**July 2024**

CONTENTS

LIST OF ILLUSTRATIONS

## (1) Introduction

The following survey is a level-three industrial archaeological inventory of the main buildings and other features impacted upon by the proposed development within the former maltings complex.

The principal aims and objectives of this survey are:

- to quantify the extent of the surviving buildings as an industrial archaeological entity;
- to record all surviving features of archaeological, techno-historical and architectural significance, and to identify all surviving features associated with them;
- to record these to level three inventory standard, prior to their conservation and adaptive reuse;
- and lastly to prepare a detailed inventory of the surviving industrial plant and machinery.
- A level three inventory is the highest level of archaeological survey currently recognised in the state, and is the minimum specification required for most national and internationally significant archaeological sites. In its essentials, such a survey involves a detailed analysis of all the available historical documents relating to the site, in order to establish, both chronologically and spatially, its physical development. This is then followed by a detailed archaeological survey of all the surviving machinery and buildings extant on the site, and also at other locations (e.g. associated installations or museums).

The principal sources consulted were as follows:

- The Cork County Development Plan, 2022-2028, Vol. 2, (Record of Protected Structures)
- The National Inventory of Architectural Heritage (NIAH)
- Record of Monuments and Places (RMP)
- Sites and Monuments Record
- Primary maps (mostly OS)

- Historic photographic collections
- Primary written sources: The Cork City and County archives holds a wide range of documents plans and photographs relating to the malting firm of J. H. Bennett & Co. Ltd, CCA/B609, covering the period 1806-2006, which was extensively used for this survey.
- Ms Ursula O'Mahony, former administrator at J. H. Bennett & Co. Ltd, in the period 1978-2008, kindly facilitated access to her own personal archive of the history, development and day-to-day operations of the entire malting operations of the company in its three Ballinacurra malthouses. Ms O'Mahony was retained as an historical consultant for the duration of the survey.
- Online historic newspaper archives
- Secondary sources (e.g. archaeological and architectural journals).

Given the current problematic and dangerous access to the malting complex, it is proposed that the archaeological survey/evaluation of the site be conducted in two phases.

**Phase 1:** The completion of a detailed historical analysis of the site, using all available sources, in conjunction with as much fieldwork as existing conditions will allow. It is envisaged that most of the fieldwork will, during this phase, involve aerial surveys of the complex using a drone. As part of the historical survey former employees of the maltings will be interviewed and any surviving relevant documentation/photographs and so forth in their possession will be copied. By compiling all the above information, it should be possible to elucidate the processes formerly involved in the site's operation and also, perhaps, a preliminary phasing of the surviving structures. The results of the Phase 1 survey are presented below.

**Phase 2: Site clearance**

At present access to most of the individual buildings on the site is severely restricted on safety grounds. Indeed, a full archaeological assessment of the complex cannot be undertaken until such time as destruction debris from the fire are removed from each of the main buildings. These debris should be carefully removed by a

specialist demolition company with experience of dismantling machinery, under archaeological supervision. Drone surveys conducted during the course of the Phase 1 survey reveal the existence of line shafting and pulleys, water cisterns for the malting steeps and the steeps themselves. However, other transmission components and original plant are like to be covered by collapsed roofing debris.

The suggested methodology for the necessary site clearance and archaeological recording is as follows:

(i) The supervised removal of fire related destruction debris. Surviving items of machinery and transmission shafting to be labelled and recorded in situ, and then carefully removed to a covered area for further recording and secure storage, prior to either reinstallation in situ or for possible future display within the completed development.

(ii) Some items may require to be dismantled to facilitate storage, a process which requires detailed recording. Others, which may be hanging from walls in a precarious condition, will also have to be dismantled, prior to either reinstallation or short-term storage.

(iii) It should be borne in mind that some of the important, original components of either wood or metal, may require remedial conservation, and so provision for this should be arranged either on site or with a qualified conservator, notified in advance

(iv) Once individual buildings or rooms within building have been cleared, recording by laser scanning and photogrammetry can then take place.

(v) Only on completion of (i)-(iv) can a detailed industrial archaeological inventory of the site be completed.

## (2) Protected Status

The Village Maltings is Recorded Monument in the Archaeological Survey of Ireland (CO 076-075) and Protected Structure (00523) in the County Cork Record of Protected Structures (fig. 1).[1]

[1] Power, Denis 1994, 234; *County Cork Development Plan* 2022-2028, 25, 'Industrial Buildings, Maltings'.


**Fig. 1 Location Map.**

## (3) The Historical and landscape context

### (3. 1) The development of the port of Ballinacurra

The greater Cork harbour area both in terms of agricultural and industrial growth was to benefit substantially from the expansion of the North Atlantic provision trade. In its essentials, this involved the provisioning of both merchant and Royal Navy ships which arrived in convoy in Cork harbour, which then proceeded to make the Atlantic voyage to the burgeoning British colonies in Maryland and Virginia, and later, in the Caribbean.[2] A direct offshoot of this was the rise of the Cork city brewing industry, which boasted, as late as 1833, the largest brewery on the island, Beamish and Crawford. At the same time, the firm of Arthur Guinness and Co., at St James' Gate in Dublin was rapidly expanding. Both the Cork and Dublin brewing industries required increasing amounts of malted barley -the principal constituent of all beers- and up to around 1816 Guinness sourced most of its supplies from England (see below). But after date it began to acquire more of its malt from Ireland. Ballinacurra, as we shall see, was to become one its main sources from at least the 1820s onwards up to the closure of the Kearney's Cross ('Village' or No. 3 Maltings) in 2008.

The principal actor in the establishment of the Ballinacurra malting industry was George Broderick, 4th Viscount Midleton (1754-1836) who, in a memorandum of agreement made on 7th October 1788, leased to John Anderson and John Lapp jnr, merchants of Cork, 'for 999 years part of the strand of Castleredmond [on the north bank of the harbour] containing 200ft square beginning at the store then building by the said Anderson and Lapp in which lease all buildings then erected for the convenience of the said store were to be included'.[3] In an assignment dated

[2] Rynne 1999,11-18.

[3] CCA, B609, Lease 7th October 1788, copy in personal archive of Ursula O'Mahony (hereinafter OA), see also Brunicardi, 1987, 16, Bielenberg 1991, 45, and O'Mahony 2018, 8. There is also a detailed account of these early transactions in a MSS account by Ewan West, probably based on information from Dorothy West, who managed the firm of J.H. Bennett & Co. from 1935-1969 (OA, see below).

**Fig. 2 The quayside of Ballincurra in 1896. The building in the background is the Charleston or No. 2 Maltings, (see also Fig. 1 and Fig. 3 below), O'Mahony Archive.**

24th August, 1791, the interest of John Lapp junior, who had recently died, was transferred by John Lapp Snr to John Anderson for a sum of £300.[4] In April 1792 Lord Midleton became directly involved in the development of Ballinacurra harbour when he lent Anderson the then enormous sum of £1,000 'as an encouragement and assistance to the said John Anderson in erecting and building houses, stores, wharfs and quays'. This later became known as the Charleston or No. 2 Maltings (fig. 2). Initially Anderson paid a rent of £58 and later £78 but was quickly able to pay off most of Lord Midleton's loan with a lump sum of £800. Thereafter his annual rent was reduced to £10. In the years 1792-1799, Anderson invested a further £1,000 'in erecting and buildings houses and stores and other valuable and useful improvements.' However, once he had fulfilled his financial commitment to Lord Midleton, he sold on his interest in the enterprise, in May 1799, to syndicate of Cork

[4] Ewan West MSS.

merchants, Samuel McCall, the younger, of the adjacent Charleston property, William Leycester and John Cotter for £2,160, 14s, 6d.[5]

The precise chronology of the other two Ballinacurra maltings, which were to form part of the Bennett family malting operations is, unfortunately, more obscure (see below). However, the lands on which the Kearney's Cross or Village maltings (No. 3 Maltings, figs. 5 and 6) were established may have been acquired by the Bennett's predecessors early in the 1780s. Indeed, Dorothy West, the last Bennett family member to run the maltings operations (see below), refers to a fee farm grant, dated 10th April 1781, in which Richard Longfield of Castlemary, Co. Cork leased to the Rev. John Lawless of Rosehill 'that part of the lands of Knocknerahy called Rosehill containing 39 statute acres.'[6] By 1792, it appears that corn stores and a dwelling (Rosehill?) had been developed on this site, as these were advertised for leasing in the Cork press, by Robert Powell of Ballinacurra.[7] In 1828, the owner of the site, who at this stage in its development resided in Dublin, was prepared to let:

> the dwelling house, corn and other stores and coal and culm yards, with the out offices and premises together also, with almost 14 acres, part of the lands of Rosehill, situate at Ballinacurra. On these premises a large sum of money has been expended, and they are the most extensive and admirably adapted for trade …. [if the tenant wishes] he can also have a large store on the quay of Ballinacurra.[8]

From the foregoing it is clear, that by 1828 what was to become the Kearney's Cross maltings was a separate enterprise from that run by the syndicate at Charleston. Furthermore, 'the 'large store on the quay of Ballinacurra' would appear to refer to what was later to become the Ballinacurra or No. 1 Maltings (fig. 4).

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[5] Ewan West MSS, OA, Letter sent to D.R. Tristam from Dorothy West, 18/7/1960, OA; West 2006, 31; O'Mahony 2018, 9,

[6] Ewan West MSS, OA.

[7] *Cork Evening Post*, 6/8/1792; *Cork Gazette* 22/8/1792.

[8] *Cork Constitution*, 18/12/1828; *Southern Reporter and Commercial Courier*, 27/12/1828.

**Fig. 3 The Charleston or No. 3 Maltings in 1951, south-facing elevation, (O'Mahony Archive).**

**Fig. 4 The Ballinacurra or No. 1 Maltings in 1951, north-facing elevation, (O'Mahony Archive).**


**Fig. 5 The Ballinacurra malting complexes in 1933.**


**Fig. 6 Aerial view of the Village Maltings and its environs, looking west, showing the adjacent maltings complexes near Ballinacurra.**

The late eighteenth-century development of the East Ferry passage harbour, near the Great Island or Cobh in Cork harbour, led to the growth of the adjacent Ballynacurra village. The outport of Ballynacurra is one and a half miles from Midleton, and c. 12 miles from Cork city, and according to at least two nineteenth-century city and county directories for Cork, could accommodate ships of 300 tons burden. In 1837 Samuel Lewis noted that it was 'well situated for trade: and several large grain stores and malthouses have been built, and some excellent quays have been constructed …. A considerable trade is carried on in the exportation of grain which is chiefly sent to Liverpool, Bristol; and London; and the importation of coal, timber, iron, slate and other heavy goods'.[9] The late eighteenth-century development of the natural harbour basin of the Owenacurra River, with the small towns of Midleton to the north and the village of Ballinacurra to the south, was to unlock the agricultural potential of the rich grain country to the east of Cork harbour. As shall be seen, this was to lead to the opening of both national and international markets, under the auspices of Guinness, for malt produced in the Ballinacurra maltings. The Cork region was one of the principal malt producing regions of Ireland for the greater part of the nineteenth century. Some 18% of the entire national output of malt was produced in Cork malthouses in 1829, almost four times that produced in Dublin.[10] In 1822 there were 21 malthouses in the city of Cork alone, of which Beamish and Crawford controlled six, whose output accounted for some 74% of the malt duty paid in the city.[11]

The expansion of the railway network enabled Cork brewers and distillers to acquire malt from other Munster counties. Thus, while the acreage under barley in county Cork declined after 1851, the quantity of malt used by Cork breweries increased fourfold in the period 1844-1898.[12] Well into the twentieth century, the port of Ballinacurra operated a fleet of small lighters or sailing ships in which sand and gravel from the Ramhill or Knocknerahy pits (part owned by the Bennett family), to Cork, returning with cargoes for Midleton and its environs.[13]

[9] Lewis, *Topographical Dictionary* (vol. l, 238).
[10] Bielenberg 1991, 67.
[11] Bielenberg Ibid. 45
[12] Ó Gráda 1994, 304; Rynne 1999, 40.
[13] Ewan West MSS, OA.

**(3. 2) The Ballinacurra malting industry, c. 1824-1900**

The Charleston maltings, as originally established by Anderson and Lapp (see above), was run by McCall, Leycester and Cotter from 1799 to 1824 (fig.7). Samuel McCall was selling malt from Charleston to Beamish and Crawford of Cork as early as 1806.[14] In 1824, McCall sold his interest to a relative, Thomas McCall, and the latter and the two original partners, Leycester and Cotter, now traded under the name McCall and Co.[15] McCall established himself in the residence, which been constructed around 1792, to house the then manager of the maltings.[16] One of the earliest recorded customers for McCall and Co. Was St Dominick's Distillery, at Crosses Green. Cork, owned by Thomas Walker, who they continued to supply as late as 1839.[17]

At the turn of the nineteenth century, the main supply of malt for Guinness was sourced in England. Yet they also bought large quantities of English barley, most of which was malted in Ireland at Athy, Co. Kildare, Dungarvan. Co. Waterford and at Charleston.[18] McCall and Co. may have been supplying the Guinness brewery at St James' Gate as early as 1802.[19] This was certainly the case by 1825, as the earliest surviving ledgers of the firm indicate that large quantities of malt were by now being sold to Guinness.[20] By 1827, Ballinacurra malt was being shipped, for the first time, to Dublin in Severn steamers rather than by sailing ship.[21] However, in February of 1828 circumstances rapidly changed when the increasing cost of malt led Guinness to temporarily discontinue supplies from McCall and Co and to enter into a contract with Lanes's Southgate Brewery in Cork, to produce some 4,500 barrels of malt from English barley at a commission of 3 shillings a barrel.[22] Indeed, it was not until around 1836 that McCall and Co. was to receive a long-term commission to supply St James' Gate.[23] Thereafter, with a hiatus in the mid-1880s, the Ballinacurra maltings operated as a sales/commission maltster to Guinness.[24]

[14] Ó Drisceoil and Ó Drisceoil 2015, 56.
[15] Letter sent to D.R. Tristam from Dorothy West, 18/7/1960; West 2006, 31
[16] West 2006, 31.
[17] Letter sent to D.R. Tristam from Dorothy West, 18/7/1960, OA; Rynne 1999, 69; West 2006, 32.
[18] Lynch and Vaizy 1960, 129.
[19] O'Mahony 2018, 11.
[20] West 2006, 31.
[21] West ibid. 38.
[22] Rynne 1999, 48; Letter sent to D.R. Tristam from Dorothy West, 18/7/1960, OA; O'Mahony 2018, 12.
[23] West ibid. 32.
[24] Gourvish and Wilson 1994; Gibney and Quinn 2018(a), 36.

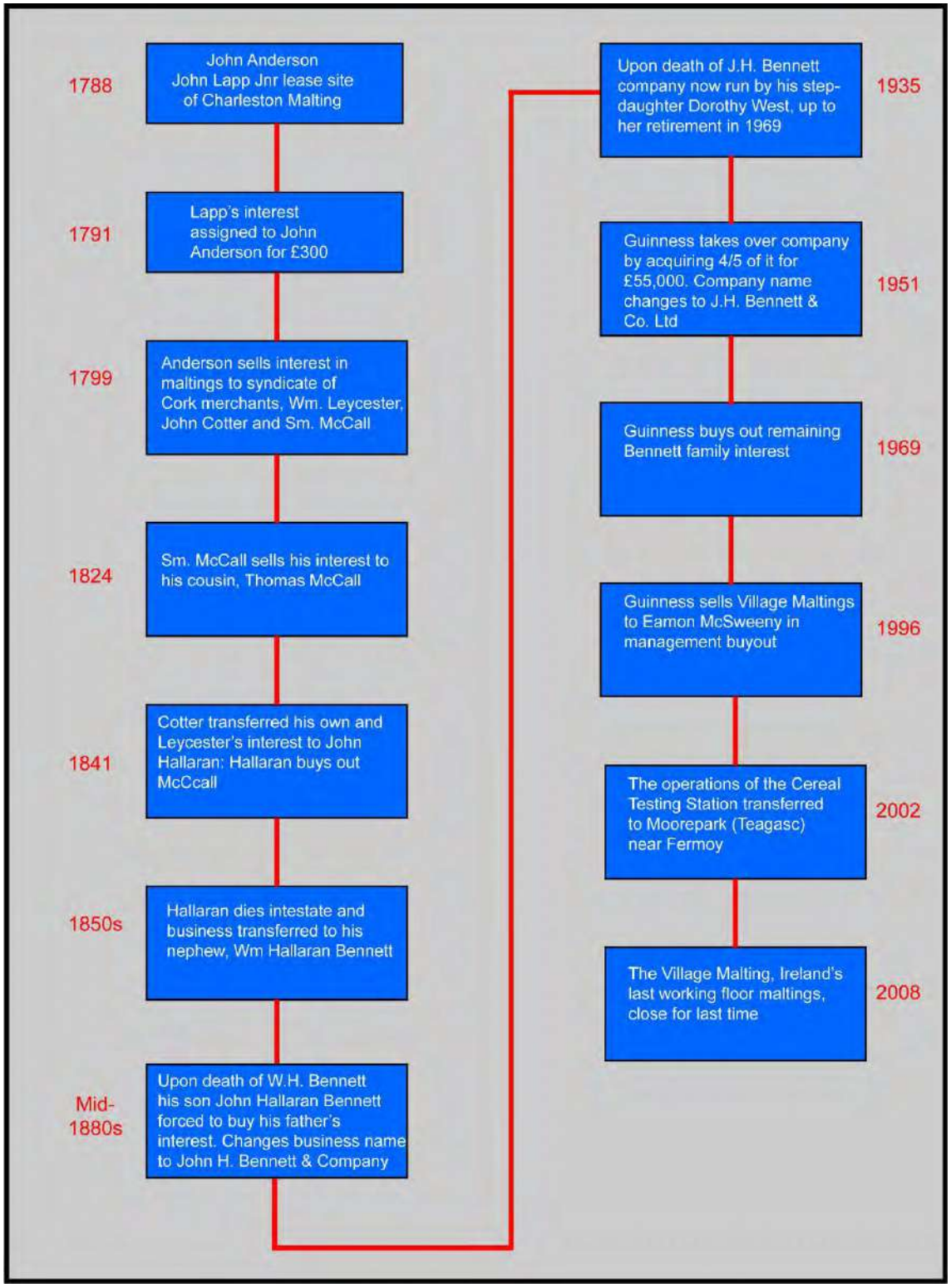


**Fig. 7 Summary of the development of the ownership of the Ballinacurra maltings, 1788-2008.**

In practical terms, this meant that Guinness could now exert considerable control over not only the price of malt supplied by McCall and Co. but also the type of barley seed they provided to their farmer/suppliers, and also, the manner in which the barley was transformed into malt. On the plus side, Guinness provided the capital to purchase the barley while also paying the cost of shipping the malt to Dublin. Guinness, in turn, was saved the burden of dealing with large numbers of barley-growing farmers, whose grain was manufactured into malt for Guinness, for a commission, by McCall and Co. and its successors.[25]

Thomas McCall went on to transfer his interest in the malting enterprise to John Hallaran in 1841 (fig.7), with Hallaran eventually buying out McCall. According to Trevor West, John Hallaran (fig. 8) built the Ballinacurra (No. 1) maltings in 1841 but, as we have seen, this was clearly in existence in 1828.[26] Hallaran never married and died without an heir in 1870, and the ownership of business was transferred to his nephew, William Hallaran Bennett (1831-1885).[27] Even during W. H. Bennett's less than assured stewardship, Ballinacurra malt was now shipped to Dublin, Bristol and Liverpool, generally in smaller vessels of 200 tons burthen. There remained, however, a continuing problem with the Cork Harbour Board, who were responsible for dredging the channel. In a letter to the editor of the *Cork Examiner* of 1843 a correspondent who styled themselves as 'A Friend to Justice' complained that the while the Board had built a new quay at Ballinacurra 'it is so inconveniently placed, that it is quite valueless …. It is only used for ballasting vessels, and by the Distillers [i.e. Midleton Distillery] … the dredging machine was sent down to Ballinacurra last summer, and our river was almost rendered unnavigable.'[28] In 1861, the Cork and Youghal Railway arrived at Midleton, providing a new outlet for the transportation of both barley and malt, although shipping was still used to transport malt to Dublin well into the twentieth century. Poor management under W. H. Bennett led to the temporary loss of the Guinness commission in 1884, after Guinness complained about the quality of the malt supplied by him.[29]

When W. H. Bennett died in 1885, he did so intestate, despite making a will but, by failing to make his son John Hallaran Bennett (fig. 9) a partner, his estate was taken over by the Court of Chancery.[30] J. H. Bennett was able, with the support of Guinness, both to buy

[25] Gibney and Quinn 2018(b), 66.
[26] West ibid 38.
[27] West op. cit.
[28] *Cork Examiner*, 22/2/1843.
[29] West ibid. 39-41.
[30] O'Mahony 2018, 16.

the business back from the Court and to buy out his relatives.[31] He had, however, inherited a business in decline, but by developing a close relationship with W. P. Geoghan of Guinness he was able to restore its fortunes within a relatively short period of time. In July 1885 he was able to regain the commission with St James' Gate and agreed to supply them with between 13,000 and 16,000 barrels of malt over the years 1885-86.[32]

**Fig. 8 John Hallaran; (source, West 2006, 36).**

[31] O'Mahony op. cit, West ibid. 41.
[32] West ibid. 50.

**Fig. 9 John Hallaran Bennett, (source, West 2006, 6).**

J. H. Bennett's stewardship of the three Ballinacurra malthouses was to gain considerably from his excellent management skills and general business acumen. Yet he was also fortunate to be in charge when his benefactor, Arthur Guinness & Co., was transforming into the world's largest brewery. By 1878 the St James' Gate brewery was already consuming some 222,000 quarters of malt (1 barrel = ½ quarter), which increased to 350,000 quarters in the late 1880s, doubling to 750,000 quarters by 1914.[33] In the 1880s Guinness dominated the Irish barley and malt market to the extent of consuming 1/3 of the Irish barley crop, which amounted to almost half of its manufacturing requirements. It also established ten

[33] Gourvish and Wilson 1994, 191, Clark 1998, 59.

commission agents throughout Ireland, three in Dublin, and seven in counties Cork and Wexford, while continuing to source malt in England.[34]

J. H. Bennett was a moderniser and, under Guinness' auspices, and with improved finances from the late 1880s onwards, he was able to both expand his business and innovate. In 1897, he was already supplying over 30,000 barrels of malt to St James' Gate. In a letter of 24 April 1899 Bennett outlined his plans to extend the Village Maltings (No. 3 Maltings, see below) to Montgomery Ferguson, Guinness' principal malt buyer. For these works J. H. Bennett was able to borrow £5,400.[35] Other improvements were undertaken in the Charleston (No. 2 Maltings) which included new cast iron supporting columns for by Ross & Walpole of the North Wall Ironworks, Dublin in 1897, and further additions (including a steel roof) by Roby Engineers of Bury St Edmunds.[36]

**(3.3) The Ballinacurra malting industry, c. 1900-1935**

In the years 1899-1900 J.H. Bennett significantly expanded malting operations at the Kearney's Cross/Village Maltings, through the addition of five-storey malting floor block and two large malt kilns (see below). He also began experiments, in the early years of the twentieth century, to improve the quality of Irish malting barley, which was to lead to the establishment of an internationally important Cereal Testing Station attached to the Village Maltings (see below). For the most part, his 50-year (1885-1935) tenure had been a success. He had successfully forged a profitable and largely amicable relationship with Guinness (his only customer). But as the business entered the twentieth century it faced a whole set of new problems and challenges. The first of these was succession. His only son, Lieutenant John William Bennett (1890-1915) was killed in action on 13th October 1915 in France, while serving with the Royal Munster Fusiliers. The post-WW1 years were also difficult as demand for the Ballinacurra product declined.

During the 1920s and 1930s Bennett had an average annual income of around €670,000 in today's money, with average profits equivalent to €165,000, malting around

[34] Lynch and Vaizy 1960, 24; Clark ibid. 60.
[35] West ibid. 55.
[36] CCC, B609/6/B/6; B609/8/B/7.

20,000 to 28,000 barrels of barley per year. However, over the same period their net profit declined.[37] Three factors would appear to explain this:

- The Anglo-Irish trade war of 1934-8.
- The decline in barley acreage in the greater east Cork area; and
- Bennett was unable to source all his barley locally, whereas his competitors, such as Minch Norton in the Irish midlands could. As the price of malt was fixed by Guinness under their commission agreement, the extra cost involved squeezed their profit margins.[38]

All told, by 1920s and 1930s standards, J. H. Bennett and Co. remained a relatively small operation. In essence, Bennett, given the economic dominance of Guinness, was always going to be a price-taker. In the period 1885-1928, Bennett had operated as a sole trader, but from 4th April 1928, the firm became incorporated as J. H. Bennett & Co. Ltd. Bennett and his wife Esther were the first directors of the new company, with Bennett controlling 9,685 of the shares, the balance retained with his wife.[39]

**(3.4) The Ballinacurra malting industry, from 1935 to closure in 2008**

When J. H. Bennett died in 1935 the business was taken over and managed by his stepdaughter, Dorothy West (née McNeill), who had been acting as his private secretary since 1928. Dorothy in addition to being Oxford-educated was an exceptionally capable manager, who had taken a fully active role in the malting business, even inspecting samples for moisture content.[40] From 1935 up to her retirement in 1969, Dorothy West was the only woman in Europe managing a large malting concern.[41] However, by the end of the 1940s, there was little money available to finance future modernisation, such as the pressing need for a mechanical loader to load Ballinacurra malt onto ships, and by this means replacing the back-breaking work of manual loading by men with sacks on their backs. Nonetheless, Guinness came to the rescue, first by securing new markets for Bennetts as, in 1950, Ballinacurra malt was shipped to the newly created Guinness brewery at Long Island, New York. In 1951 they intervened directly by acquiring a

[37] Gibney and Quinn 2018a, 37.
[38] Op. cit.
[39] Gibney and Quinn 2018b, 72.
[40] Dorothy was well known for being able to text for moisture using her thumb.
[41] West ibid.132; O'Mahony 2018, 26.

majority four fifths shareholding in J. H. Bennett and Co. Ltd for £55,000.[42] Guinness set about investing in the modernisation of the malting operations at Ballinacurra (see below) and could now directly appoint their own managers. The Charleston maltings (No. 2 Maltings) were now leased by Guinness, but the Village and Ballinacurra maltings were now in their possession. In 1949 Guinness introduced a new barley contract system, under which yearly negotiations took place between the brewery and the National Grain Committee of the Irish Farmers Association. Both parties agreed the extent of malting barley premiums, which were to exceed the harvest price of feeding barley.[43] The 1960s witnessed some new successes for Ballinacurra maltings with regard to international markets. The Dutch motor ship *Cascade* sailed from Ballinacurra in March 1961 with 150 tons of malt made with east Cork barley for use by Dutch brewers.[44] The port of Ballinacurra was officially closed in 1962 or, more properly, dredging of the channel was discontinued. However, in 1966 300 tons of malt processed from east Cork and west Waterford barley, by Bennetts was shipped to a Scottish distillery.[45]

Guinness decided to end floor malting at Ballinacurra after the 1968 harvest, but evidently relented, the Village Maltings becoming the last of its type in Ireland in 2008. The brewery finally bought out the remaining Bennett family interest in 1969 for £30,000, which included a pension of £1,200 for Dorothy West. In the wake of the takeover, additional machinery was installed, while at the same time the number of staff involved in operations was significantly reduced.[46] Floor malting was a labour-intensive process, and in consequence labour costs accounted for up to 85% of Bennetts annual outlay.[47] Employment was also seasonal, with upwards of 100 people being employed during the harvest period in the nineteenth and early twentieth centuries. The firm also at one time employed ‘crow boys’ who, in 1900, were paid 5s per week to frighten crows, with wooden clappers supplied by Bennetts, from the barley fields. There was also ‘pillow women’ who were employed to repair the bedding provided for the maltsters who lived on site during the flooring season.[48] As late as 1980 the Village Maltings, the

[42] West ibid. 136.
[43] Atherton 1984, 126.
[44] *Cork Examiner*, 6/3/1961.
[45] *Evening Herald*, 19/1/1966, see also *Cork Examiner*, 5/5/1965.
[46] West ibid. 143, O’Mahony ibid. 26-7.
[47] Gibney and Quinn 2018b, 75.
[48] Henchion 2009, 178.

sole surviving, working maltings still employed up to 30 people.[49] At the time of its closure, a mere handful of people were employed at Kearney's Cross.

Ireland's four main malt producing firms, including J. H. Bennett, who had worked on commission for Guinness, amalgamated in 1973 as Irish Malt Products (which later became Irish Malt Exports). A modern malt plant was built at Athy, Co. Kildare, which originally had the capacity to manufacture up to 50,000 tonnes of malt over an 8-day period, with Bennetts deriving some 8% of profits. In 1996 Eamon McSweeny completed a management buyout of the Village Maltings, who continued floor malting until 2008, although in the meantime most of the malt manufactured in Ireland was produced in modern plants now owned by Greencore at Banagher, Athy and at the Malting Co. of Ireland near Ballincollig, Co. Cork.[50] In 1997 the Ballinacurra (No. 1 Maltings, see figs 4, 5 and 6) was demolished, and the site developed as apartments.

**(3.5) The Ballinacurra Cereal Testing Station, 1901-2002**

The abolition of the malt tax by Gladstone's administration in 1880 had far reaching consequences for the expansion and development of the British and Irish brewing industries, one of the most important developments, indeed, of what became known as the 'Free Mash Tun', was a renewed interest in developing new varieties of barley for malting. Prior to 1880, the two-row hulled *Chevalier* type, developed by the Rev. E. Chevalier, rector of Stoneham, Surrey, was almost universally used throughout Britian and Ireland.[51] McCall and Co. (see above) were already planting this variety by 1836, with good results, and informed Guinness that they would use it exclusively in the future.[52] Research into barley improvements in Britain and Ireland began to accelerate in the 1890s, the first real breakthrough coming with *Standwell*, the first hybrid barley developed by Garstons of Warrington. E. S. Beaven and Herbert Hunter effectively pioneered this area of research and were closely associated with Guinness.[53]

[49] *Cork Examiner*, 29/11/1980. In the 1890s J. H. Bennett had employed a staff of around 50, see West ibid. 71.
[50] West ibid. 147, O'Mahony ibid. 27.
[51] Clark 1998, 67.
[52] West ibid. 32.
[53] Clark ibid. 70-1.

J. H. Bennett had already initiated experiments, in the 1890s, to improve the quality of his malting barley, by planting different varieties on his adjacent Ramhill farm, and comparing harvest yields. He had also prepared a report on the progress of the barley crop in the Midleton area between 1888 and 1889.[54] In the late 1890s, and before the creation of Department of Agriculture and Technical Instruction for Ireland (DATI) in 1900, the Irish Agricultural Organisation Society (IAOS, established in 1892), created experimental barley plots throughout the country, which were supervised by H. C. Sheringham an IAOS official from the Norfolk barley country.[55] These experiments proved to be highly successful, and the initiative was expanded after the appointment of J. R. Campbell by DATI. Campbell set up a research station at Ballinacurra on land rented from J. H. Bennett and under the auspices of Guinness, in 1901, where Sheringham began experiments.[56] In 1904 the Dublin administration also became directly involved in cereal and plant breeding, by setting up a testing scheme, using staff employed by the Department of Agriculture and Technical Instruction, based at Albert College, Glasnevin, Dublin. This work was later transferred to newly created Cereal Testing Stations at Backwater, Co. Kildare and Ballinacurra.[57]

Within a very short period, the work of the Ballinacurra station was to achieve international acclaim. In 1908 Herbert Hunter successfully hybridised the barley varieties Spratt and Archer to create Spratt-Archer 37/6, a variety of spring barley (*Hordeum vulgare*). Then, after a series of successful experiments using local Cork growers, Spratt-Archer was eventually released in for general cultivation in 1930. In its day, this went on to become the leading form of barley employed by maltsters in Ireland, Britain, Scandinavia, North America and New Zealand.[58] This new hybrid had a 10% better yield, superior lodging resistance and better brewing qualities than the original Archer variety. Indeed, Spratt-Archer and a further hybrid developed by Guinness called *Plumage*, accounted for about 80% of the spring barley sown for malting in Ireland and Britain up to the 1940s.[59] In 1912, DATI established a permanent Cereal Testing Station at Ballinacurra (see below), which was staffed by departmental officials.

[54] West ibid. 56.
[55] West 1986, 62.
[56] Hunter 1952, 58-9; Davies 1971, 77ff; West 1986, op.cit; West 2006, 59.
[57] Burke, Spink and Hackett 2011, 116.
[58] Burke, Spink and Hackett op.cit.; Clark 1998, 71; West 2006, 59.
[59] Davies 1971, 80.

The prominence of Spratt-Archer, indeed, continued up to 1954, when another hybrid created at Ballinacurra, *Beorna* (a compound of the Irish words for beer and barley) came into widespread use in Ireland where it continues to be the main barley used for malting. The Ballinacurra station went on to create important hybrid malting barleys, such as *Hunter* (1960, named after Herbert Hunter) and *Emma* (1970, named after Tom O'Sullivan's (the longest serving manager of the station) granddaughter. These were followed by feed varieties of barley, called *Bamba* and *Nessa*, along with a variety of wheat named *Quern*. The entire testing process could take up to 12 years. The international standing of the station was underlined by its participation in the European international malting barley variety trials. These latter were organised on an annual basis by the Barley Committee of the European Brewing Convention. On 31st December 2002, cereal testing work at Ballinacurra, ended, its responsibilities being transferred to the government agricultural research centre at Moorepark near Fermoy, Co. Cork.[60]

**(4) The malting process**

Malted barley is the principal ingredient of both beer and whiskey. The type of barley employed has a profound influence on the manufacture of beer, its basic character, including its shelf life, the retention of a head, the persistence of foam on the glass and its clarity (or absence of beer haze).[61] To both the brewer and the distiller, its price was the single most important factor in their production costs: for the brewer, however, 80% of the cost of production was the raw material itself.[62] The process by which it is manufactured essentially involves a partial germination of barley grains to encourage enzymes in the grain to convert some of their starch into sugar. The degree to which this germination was allowed to proceed was carefully controlled and was arrested at a critical point in order to conserve the amount of saccharine in the sprouting grain. At the brewery and the distillery, the sugar was then chemically transformed into alcohol in the fermentation process. In the traditional floor

[60] This paragraph is based on a written account by Tom O'Sullivan, the former superintendent of the Cereal Testing Station, when he was aged 90 in 2001, in the possession of Ms. Ursula O'Mahony. In 1941, as then assistant to H. Hume, the Superintendent at Ballinacurra, Tom was responsible for creating the hybrid which became known as *Beorna* (see West 2006, 68). For most of his tenure at Ballinacurra, Tom and his family were tenants of Rosehill House. The Cork City and County Archives contains a large amount of material relating to the Cereal station (B609/7/D/3), including details of experiments conducted between 1904-28 (B609/7/D/4) and barley experiments in the years c. 1901-15 (B609/7/D/3).
[61] Tom O'Sullivan MSS, 2001.
[62] Lynch and Vaizy 1960, 128.

maltings, four basic processes were involved in the manufacture of malted barley - *steeping*, *couching*, *flooring* and *kiln-drying*.

In the early years of the three Ballinacurra malthouses, before the introduction of the steam thresher, barley was left to stand and mature after harvesting to encourage it to sweat and give off excess moisture. The widespread use of steam threshers in the second half of the nineteenth century, however, meant that natural maturation process was no longer undertaken. The high grain moisture typical of all Irish grain crops at harvest time- usually in the range of 20-23% - generally required that it receive a preliminary kiln-drying of the grain, at a steady temperature of around 49°C, over a 12-24 hour period, before the malting process could proceed.[63] The kiln-dried barley was then immersed in a concrete (and later cast iron) cistern called a *steep*, in which it was thoroughly soaked under controlled conditions (fig.10). In the steep seeds and other extraneous matter tended to float to the surface where they could be skimmed off, while the heavier cereal grains sank to the bottom (fig. 11). In most instances the swollen barley was then *couched* in a wooden-framed receptacle called a *couch* or *couch frame*, the size and construction of which was controlled by excise regulations, in which it was heaped to absorb some heat to help encourage germination when it was spread on the malting floors to grow. It was allowed to lie here for about 24 hours, and the swollen grains were then removed to one of the floors in the malthouse, to be spread in layers of about 12 inches thick.[64] However, in the Village maltings the malt from the steep appears to have been simply heaped on the floor immediately beneath the steeps' outlets (fig. 13).

63 Callan MacArdle and Callan 1902; Atherton 1984, 120-1.
64 Patrick 1996, 182.

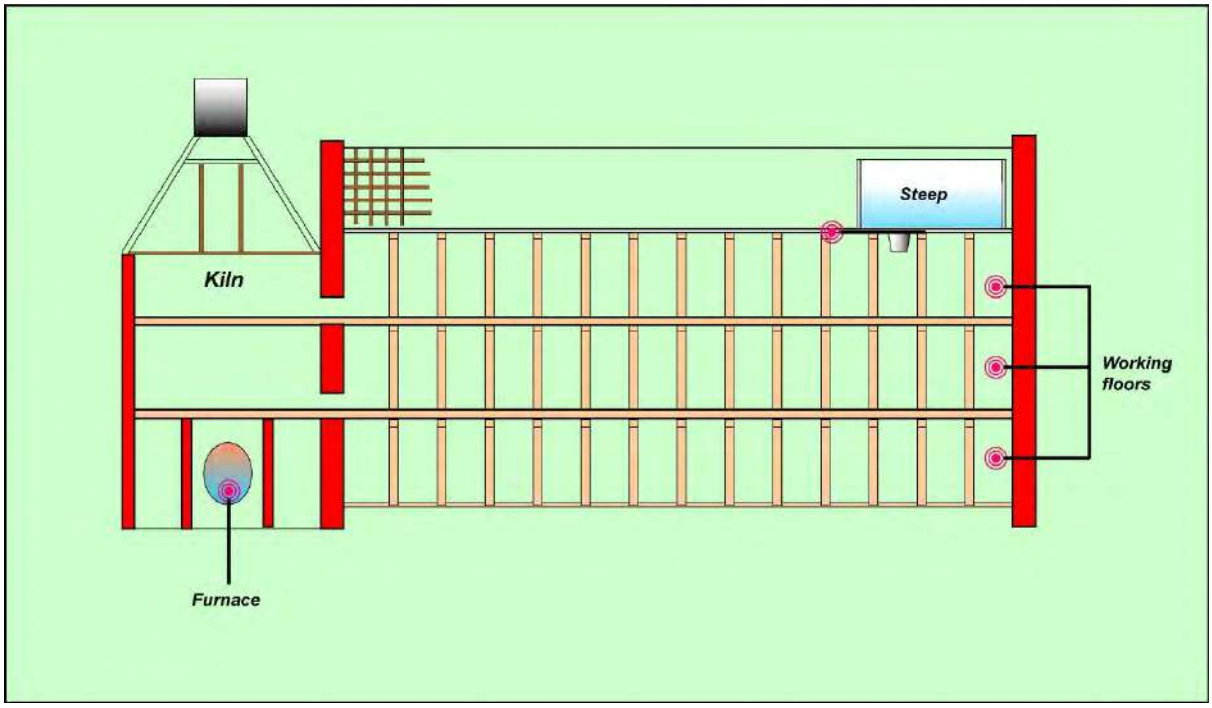


**Fig. 10 Schematic cross-section of Village floor maltings, Ballinacurra, showing position of steeps, working floors and kiln.**

In the traditional flooring process, as practiced at Ballinacurra, the maltster had little control over the weather and was largely weather dependent, taking up to 10 days in some instances in Ireland and elsewhere, during which germination was encouraged, with the maltster turning the sprouting grains (now termed *green malt*) regularly with a large wooden shovel, in order to regulate the temperature and to prevent the shoots from becoming entangled.[65] A temperature of around 10°C was needed, and in addition to turning the grain and varying its depth on the floor, the maltster also had skilfully adjusted the amount of air allowed in from the windows.[66] He then determined at which point germination should be arrested. The grain was removed to a kiln (figs. 10 and 16) where the introduction of strong heat, over a period of up to three days, reduced its moisture content to a level compatible with safe storage (c. 4%) and prevented further germination taking place.[67]

65 Pearson 1999, 15.
66 Clark 1998, 8.
67 Atherton 1984, 119.

**Fig. 11 Barley immersed in steep in Village Maltings, photograph by Kevin Dwyer, 1994.**

**Fig. 12 Barley being released from steep, after water is drained off, in Village Maltings, photograph by Kevin Dwyer, 1994.**

**Fig. 13 Barley heaped on floor below steep, in 'Old Maltings' building, in 2001. Water was allowed to run before barley was spreads on the malting floor. Photo: Ursula O'Mahony.**

**Fig. 14 Michael Walsh turns germinating barley with shovel in the 1900 extension to the Village Maltings, in April 2001. Photo: Ursula O'Mahony.**

**Fig. 15 William Ahern, using a 'plough' in the 1900 extension to the Village Maltings, in April 2001. Photo: Ursula O'Mahony.**

In the 2000s, the final years of operation at the Kearney's Cross/Village Maltings, J. H. Bennett & Co. Ltd could purchase as much as 20,000 tonnes of barley at harvest time, of which they would process some 3,000 tonnes and dispatch the balance to the Minch Norton Maltings at Athy Co. Kildare, which is still in operation, employing modern malting technology, to manufacture malt for Guinness. At Kearney's Cross, 30 tonnes of dried barley, at a time, were poured into to two large steel steeping vessels located at the eastern end of the main flooring building. This was then filled with water and the barley allowed to steep for up to three days (figs 11 and 12), after which the water was drained off. The soaked barley was then spread on the floors where it was encouraged to germinate by being regularly ploughed and manually turned with a large shovel (fig. 14) for at least five days. Upon satisfactory completion of the flooring process the barley was then conveyed to the kilns at the southern end of the 1900 maltings (figs. 16 and 17), Heat generated by Suxé anthracite furnaces on the ground floor of the kiln house (fig. 18) permeated upwards through a perforated mesh /steel tile floor, upon which the barley was laid to arrest germination. Up to the closure of the Village Maltings, the completed malt would then be transported to St James's Gate by truck.[68] As has been seen, from 1951 onwards Guinness

[68] Pers. Comm. Ursula O'Mahony.

were majority shareholders in J. H. Bennett & Co. Ltd and became actively involved in their day-to-day operations. Fig. 19, compiled in 1961 for the Village Maltings, illustrates how Guinness would prefer their malting operations to be conducted.

**Fig. 16 Green malt being cured in the Village Maltings kiln in 2001. Photo: Ursula O'Mahony.**

**Fig. 17 Steam exiting louvred vents of Village Maltings kiln, 5th December 1994. Photo: Kevin Dwyer.**

**Fig. 18 Suxé anthracite furnace in operation in the Kiln house of the Village Maltings in 2001. Photo: Ursula O'Mahony.**

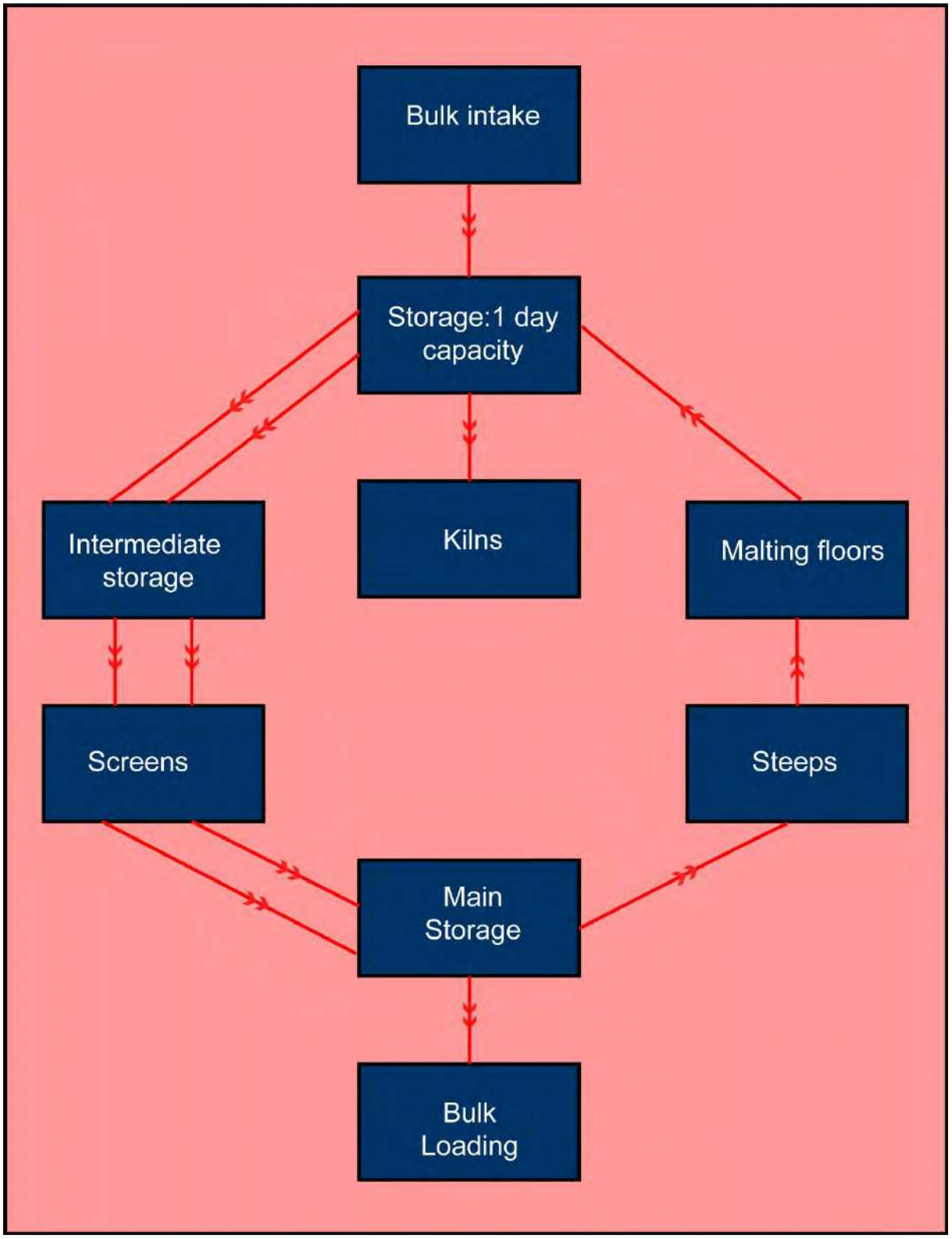


**Fig. 19 Schematic diagram of ideal malting process, by Denis O'Leary, Structural Engineer, April 1961; CCC, B609/6/B/21.**

In Ireland maltings were commonly associated with breweries and distilleries, but they were also stand-alone concerns. The maltings complex normally consisted of a multi-storey block, with closely spaced rows of small windows with wooden shutters and are usually flanked at one end by a kiln. Rectangular kilns were also relatively common in Ireland, where a ridge ventilator replaced the cap of the pyramidal kiln, as at Ballynacurra. Inside the kiln, the lower section would be equipped with a cast-iron furnace grate, which would be stoked with anthracite and occasionally with turf. The heat generated by the kiln would be fed into brick arched vault, which directed it upwards to the kiln floor. The floor itself could be formed by either a series of regularly spaced cast iron bars, laid across the rim of the kiln head and flanged to receive perforated ceramic (*Worcester*) tiles, or by a series of perforated metal plates. In either case the perforations were small enough to retain individual grains but large and plentiful enough to admit heat evenly through the kiln floor. The periodic and tedious task of cleaning out grain which had lodged in these perforations was allotted to small boys.

Internally the maltings could accommodate from two to six wooden floors, with compressed floor-to-ceiling heights, which were supported mid-way either by wooden stanchions or cast-iron columns. Large cast iron tie-plates, to which wrought iron tensioning rods would be attached (in order to counteract the internal stresses created by the weight of the grain on the individual floors) will also be in evidence on the external elevations of the maltings. Tie plates, indeed, are also found on kilns as at Ballynacurra (see below).

One of the greatest difficulties associated with the traditional floor maltings was the amount of space needed for growing malt, and that additional flooring capacity came at a cost whenever it became necessary to expand operations. But there were also other problems. Controlling the environment of the malting floor was extremely difficult, which increased the danger that overheating could damage or even destroy the malt. Moreover, when the malt lay in the couch frame how exactly did one provide proper ventilation to ensure that sufficient oxygen was present to encourage the growing process? The first attempts to move away from the flooring process were made in the second half of the nineteenth century, in a series of patents which proposed mechanical means to control the environment of the malt. A number of patents were secured in the 1850s and 1860s in Europe and the USA, but the first practical system of what became known as *pneumatic* maltings was developed by Galland in France and was patented in the United Kingdom by H. B. Barlow in 1874. In Galland's pneumatic process the barley was first steeped in a sheet iron vessel with a perforated bottom, which retained the barley once the water had been drained off. A ventilator fan immediately beneath the false bottom then created a partial vacuum, which drew down air that had been chilled in a

special cooling tower through the germinating barley. By these means it was now possible to exercise considerable control over the environment of the growing malt, but while Galland attempted to put his ideas into practice at Maréville in France in 1873, it appears not to have been successful. Despite its obvious potential Galland's system was ignored by European maltsters, and it was left to two county Tipperary brewers, Arthur Perry and Robinson Gale Perry, to successfully put it into practice.[69] The Perry brothers had already considered the problem themselves and had secured patents in malting and kiln-drying: clearly Galland's system appeared to answer most of their existing problems. In 1876 they converted a flour mill on the Brosna River, about three miles north of Roscrea, county Tipperary, which provided plenty of clear water for their air-cooling tower. Extreme air cooling was never required at Perry's pneumatic maltings as the Irish climate seldom created extreme weather conditions. In modern maltings the pneumatic process is widely employed, largely using a drum, in which the malt is turned mechanically.[70]

[69] Corran 1975, 253-6.
[70] Patrick 2023, 108-14.

**(6) The physical development of the Kearney's Cross/Village Maltings of J. H. Bennett and Co. Ltd.**

Thus far we have established that the corn stores and a dwelling probably Rose Hill House, were in existence on the Village Maltings site by at least 1792, when they were being leased by Robert Powell (see above). These were let out again in 1828, where the description of the premises leaves little doubt that extensive corn, coal and culm yards had already been developed there by this date (see above).[71] The extent of the undertaking is clearly shown on the OS 1st edition 6 survey of 1842 (figs. 20 and 21), which depicts an extensive range of buildings, stretching from Kearney's Cross at the east to Eastville House at the west. However, the only identifiable structures are the Smarts and Eastville House: the other buildings had been removed by 1897 (fig. 20). The three-storey block at the east which contained the steeps (fig. 20) of No.3 Maltings, therefore, must date to the period after 1842. The Valuation Surveyor's notebook for Quay Road Ballinacurra, dated 18th December 1849, records that John Hallaran owned:

> '[A] Malting house with three stories, malt kiln, malt store [also three houses]. Mr Hallaran built the last two items and improved the concern generally – is a very extensive maltster [and] sends all his malt to Guinness, Dublin- Has an equally extensive concern opposite, in the townland of Castleredmond [i.e. Charleston], both employed 7 months in the year, on an average -the commission for Guinness malt is worth £1500. The Quay at No 111 concern is rented separately. £2 a year, and too high. Mr. Hallaran is a very good employer. Benevolent and very popular.'

The entire complex and its appurtenances was provided with a rateable valuation of £115.

[71] *Cork Constitution*, 18/12/1828; *Southern Reporter and Commercial Courier*, 27/12/1828.

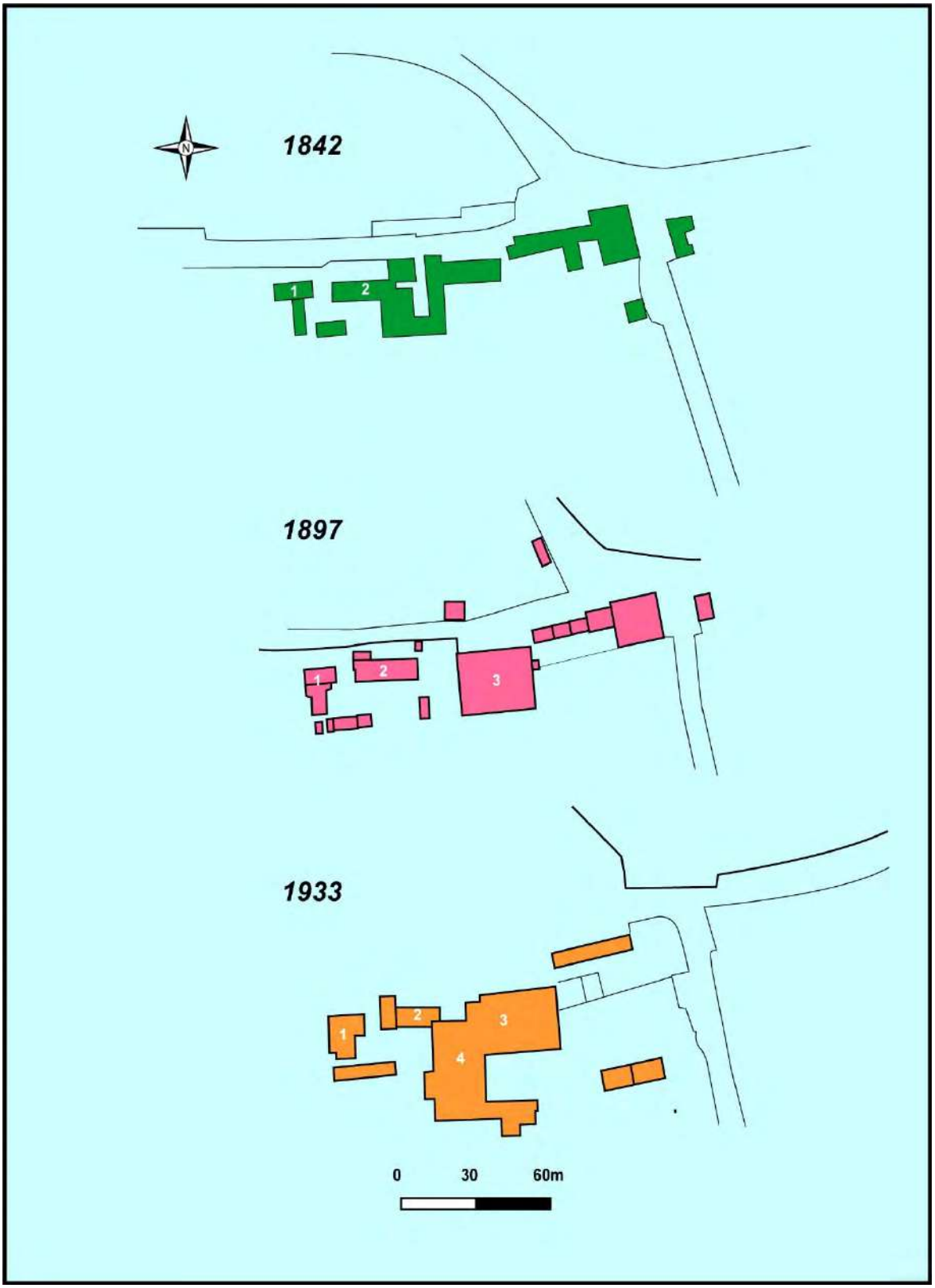


**Fig. 20 The physical development of the Village Maltings complex as shown on OS maps 1842-1933. 1. Eastville House, 2. Smarts Store, The 'Old Maltings', 4. The 1900 malthouse.**

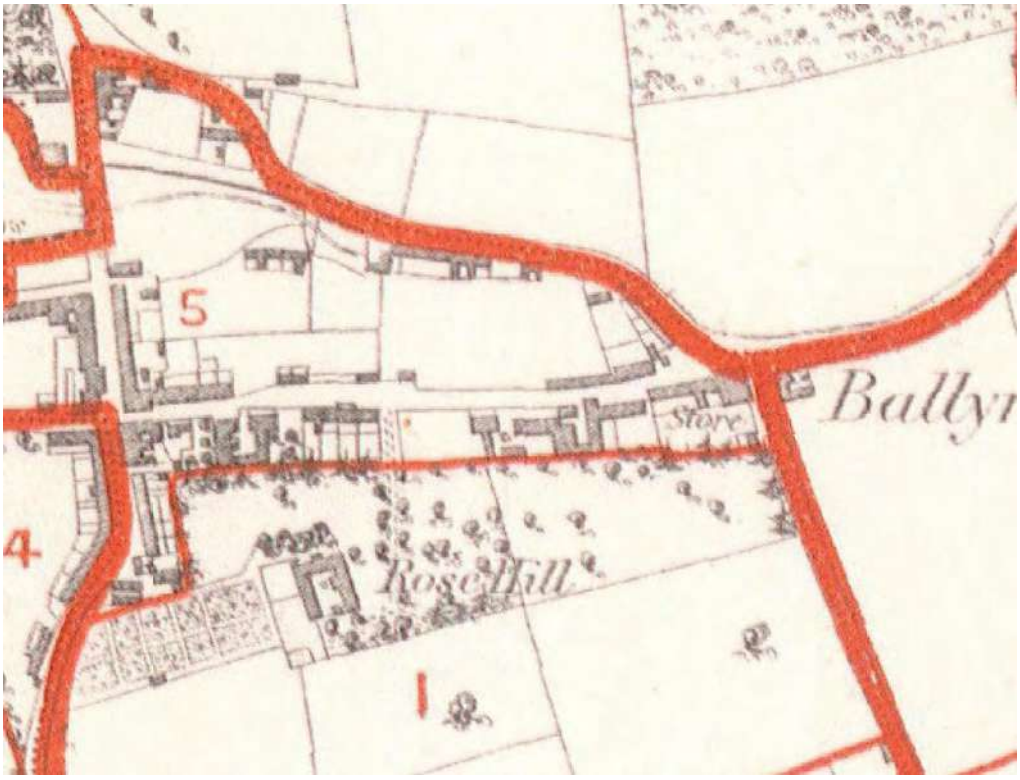


**Fig. 21 Valuation Office map of maltings of 1849.**

Nevertheless, none of the three Ballinacurra/Charleston malthouses are identified as such as on the 1842 6 in OS survey for the area. A listing of the properties owned by the company, dated 13th November 1854, refers to 'Part of the lands of Knocknerahy called Rosehill', which included:

(1) Village Malthouse, two yards, outhouses and sheds,

(2) The Granary buildings,

(3) One workman's house, yard and garden,

(4) Eastville House, yard and garden,

(5) Rosehill House, yard, garden and grounds,

(6) The Village House, garden and yard

(7) The Wigmore Store [a grain warehouse to the west of the Village Maltings now converted into apartments].[72]

[72] O'Mahony 2018, 17.

The ‘Malting house with three stories’, referred to in the Valuation House Book of 1849, seems likely to be the surviving three story malthouse at the east, with the ‘M’-shaped roof profile (see below).

On present evidence the development of the Kearney’s Cross/Village Maltings may be divided into six main phases;

(1) Phase 1, c. 1792-1842: Establishment of grain stores, coal and culm stores along with malting operations on the site
(2) Phase 2, c.1842-1899: Extensive modification and removal of structures depicted on 1842 6in OS. Construction of 3-storey maltings at east of site, with associated double kilns, post-1842.
(3) Phase 3, 1900-1912: Addition of 5-storey maltings, two kilns and malt store in 1900. Erection of Cereal Testing Station in 1912, by DATI and Guinness.
(4) Phase 4, 1912 mid-1960s: Installation of new grain handling equipment in main malting buildings, construction of bucket elevator tower at southern elevation of 1900 maltings extension.
(5) Phase 5, Mid-1960s-mid-1970s: Construction of concrete silo at south of main complex, with 4 bins with capacity of 2,500 barrels of barley, and new drying plant. Six new circular steel silos and drying plant installed in mid-1970s.
(6) Phase 6, Mid-1970s-2008: Further large grain silo added at south of site in 1989. Ballinacurra (No. 1 Maltings) and Charleston (No. 2 Maltings) closed in early 1980s. Cereal Testing station closes in 2002, with responsibilities transferred to Moorepark. Village Malting remains last operating floor maltings in Ireland up to closure in 2008

## (7) The surviving buildings

The extent of the Village Maltings is shown in figs, 22-25. Fig 22 is a composite of two surveys undertaken for J. H. Bennett & Co. Ltd in 1973 and 1978, the first dated 18th May 1973, by Chillingworth Levie McCarthy, of 41-42 Grand Parade, Cork the second, dated 12th December 1978, is signed but unattributed to any firm of engineers or architects.[73] It is, however, a very close copy of the 1973 survey, which has clearly used to show the position of the new silos and drying plant at the south. Fig. 23 is based on the 1973 survey, with some additions (such as the steeps) which are shown on the 1978 survey.

The principal factors for location for the three Ballinacurra maltings were clearly access to barley growing country and a quay frontage facilitating access to the sea. Initially the Village Maltings could benefit from both but as it expanded southwards, from the roadside, it did so up a relatively steep slope, although this was not recommended in the late nineteenth and early-twentieth-century technical literature on malting.[74] The original kilns (A and B, figs. 23 and 24) were immediately adjacent to the roadside, for the convenient unloading of coal, but the later kilns of 1900 were built into the hillside. By this period, however, with the technical improvement in kiln furnaces, this is unlikely to have presented much of a problem.

[73]CCC, B609/6/A/2.

[74] See, for example, Lancaster, *Practical floor malting* (1908), 1, ‘Sharply rising ground or high buildings in close proximity to the kilns are likely to cause down-draught, and should therefore be avoided’.

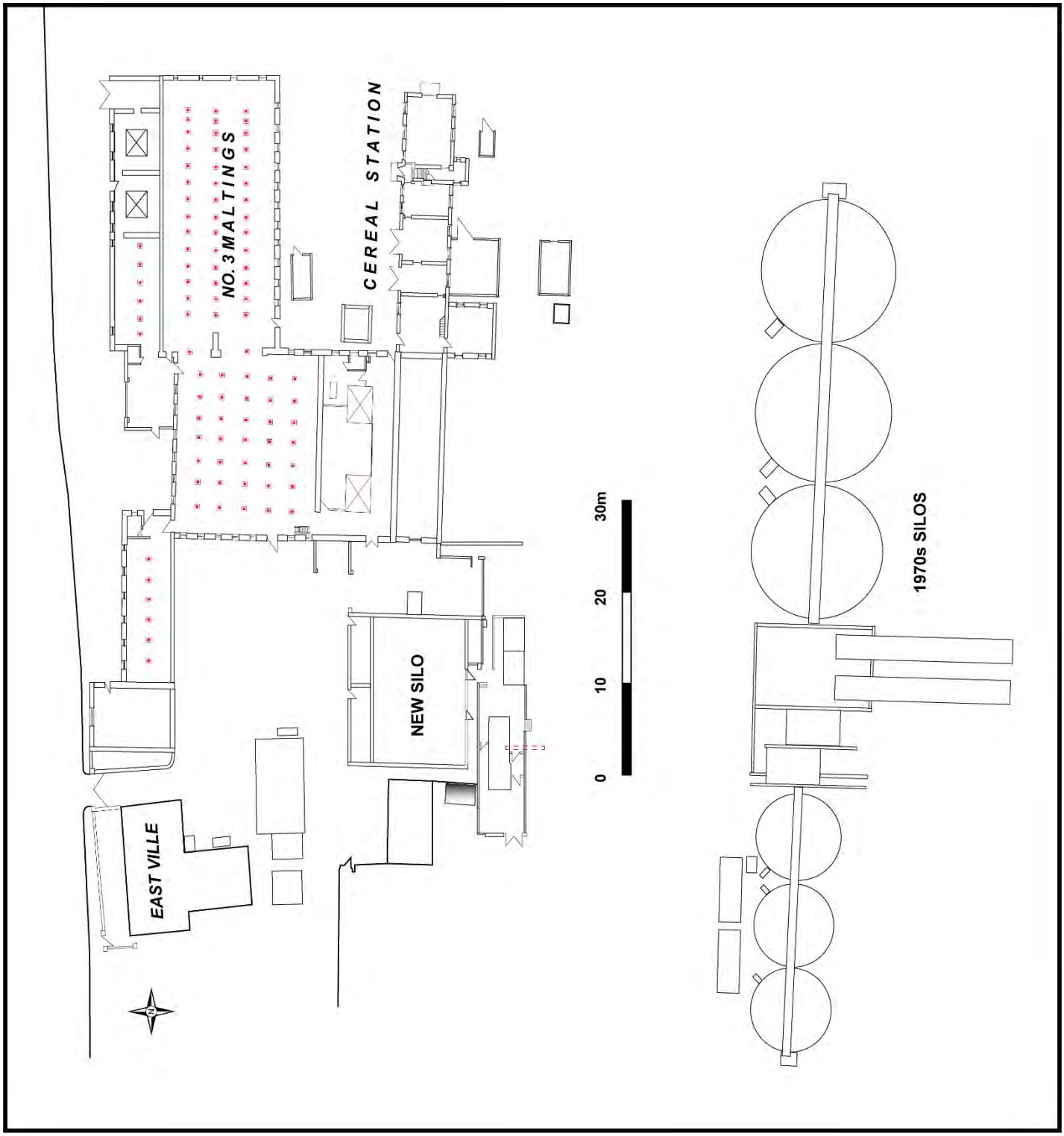


**Fig. 22 The physical extent of the Kearney's Cross/Village Maltings of J. H. Bennett and Co. Ltd, composite map based on site surveys of 1973 and 1978; CCC, B60/6/A/2.**

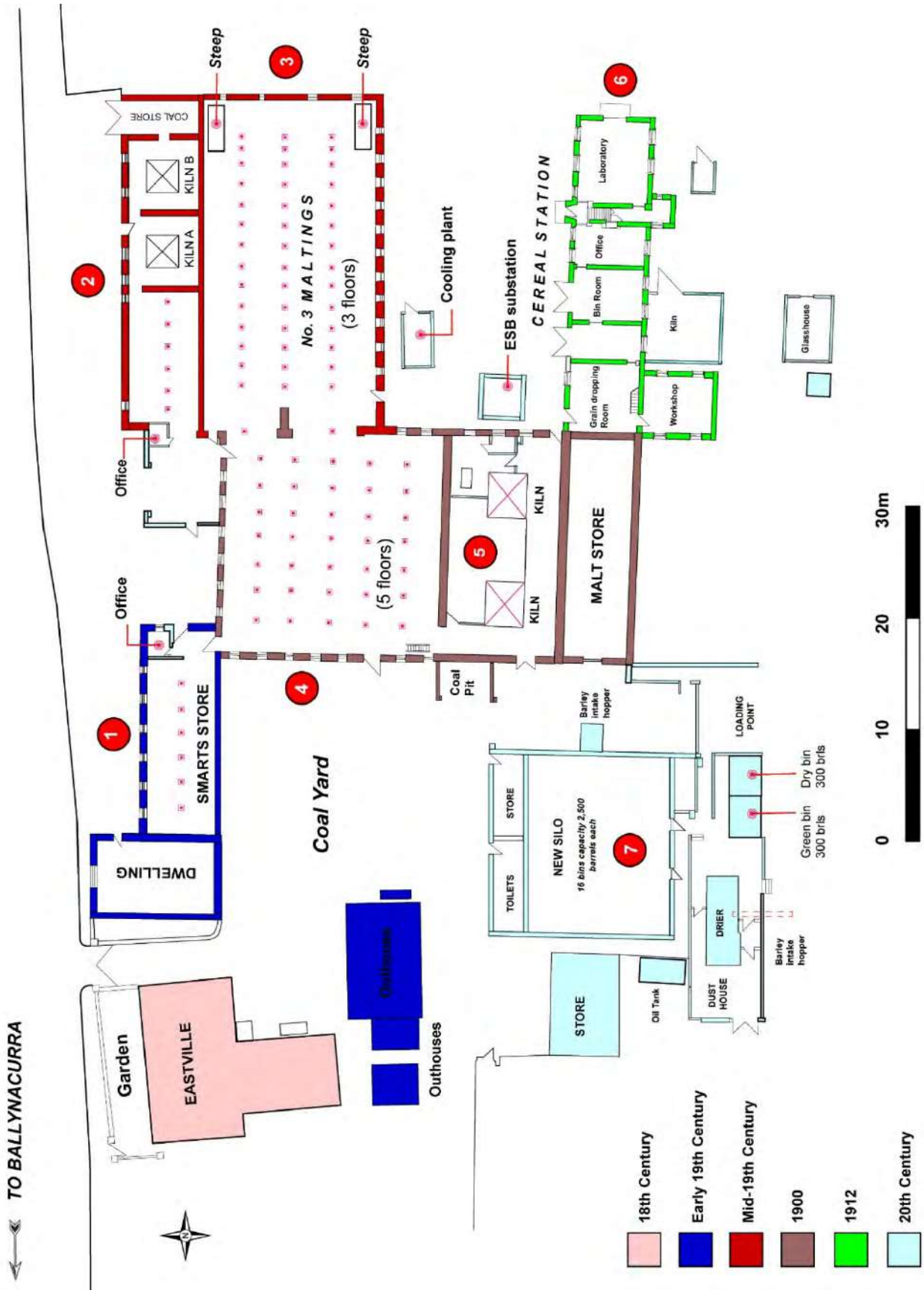


**Fig. 23 The buildings of the Kearney's Cross/Village Maltings of J. H. Bennett and Co. Ltd, showing principal phases; map based on site survey of 1973; CCC, B60/6/A/2.**


**Fig. 24 Aerial view of surviving buildings in the Village Maltings complex.**

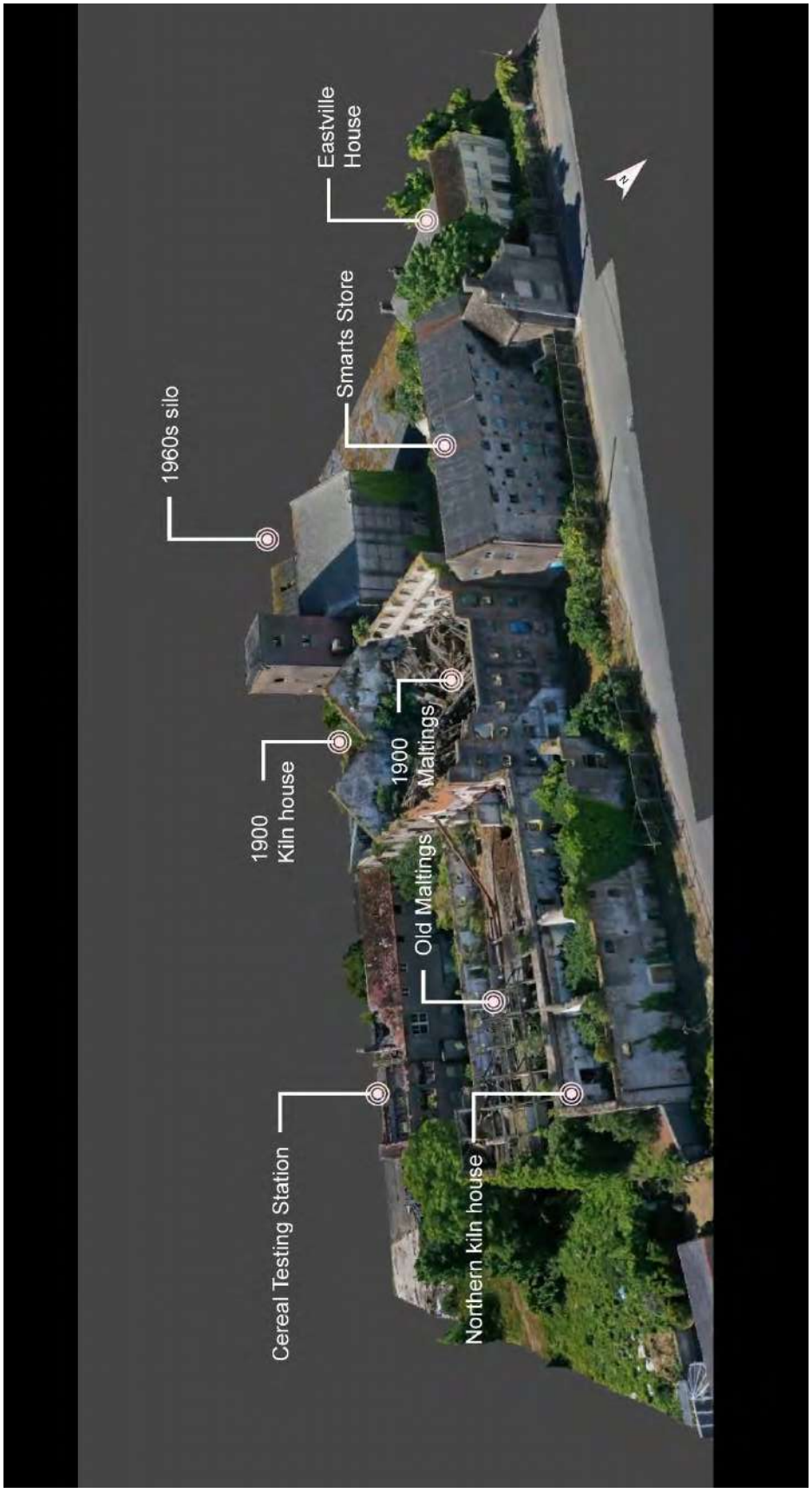


**Fig. 25 3D model of surviving complex, showing main buildings.**

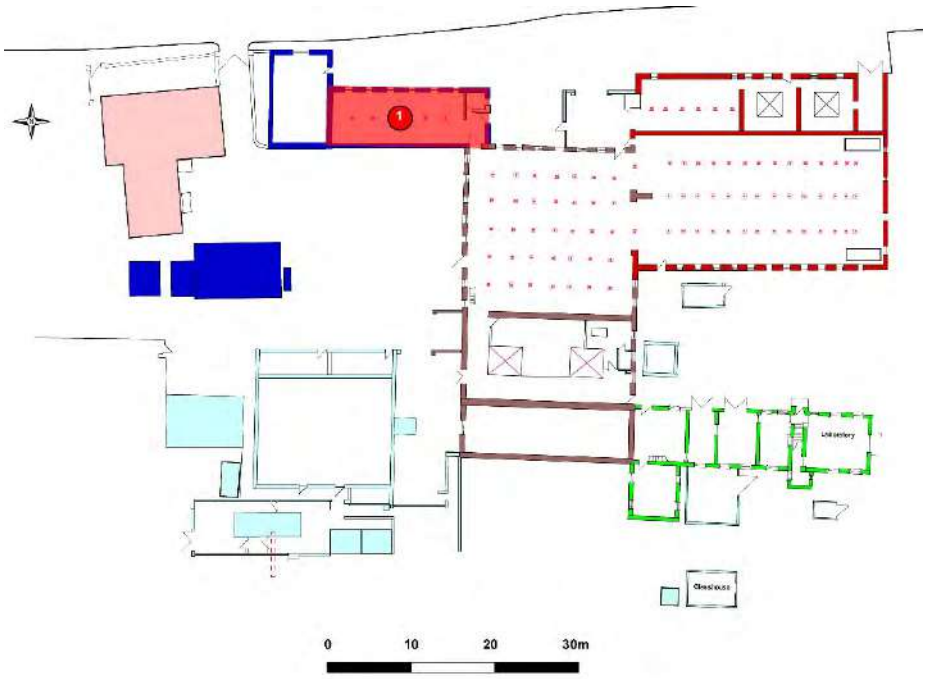


**Fig. 26 Location of Block 1, the Smarts Store.**

### (7. 1) The Smarts Store

Known colloquially as the ‘Smarts’ store, this is oldest surviving building on the site and is shown on the 1st Edition of the 6-inch OS, published in 1842 (2 in fig. 20 above). In a photograph of 1900, it also referred to as the ‘Old Barley Store’, (fig. 27). This is also the only building to which reasonable access (except for the loft) was possible during archaeological survey work undertaken in June of 2024. The Smart store is a four-storey (three-storey and loft), eight-bay structure, constructed with limestone rubble, and measures 24.45m (east-west) and 6.45m (north-south) internally (fig. 23). Externally it is has been rendered with concrete on three sides, except for the north-facing elevation (i.e. that facing the road), This latter elevation, as a photograph of 1900 clearly shows (fig. 28), has changed very little since that period. However, the east-facing elevational was unrendered as late as the 1950s (fig. 29, compare with fig. 30). There is a prominent stress-facture at the north-east corner of the building, which also displays semi-stressed quoins.

**Fig. 27 'West Side, Old Barley Store to Left', from photographic album of 1900, *Maltings of Ballinacurra. Views of the New Buildings* (CCC, B609/8/8/7).**

**Fig. 28 'General view of front. New Building in Centre', from photographic album of 1900, *Maltings of Ballinacurra. Views of the New Buildings* (CCC, B609/8/8/7). The Smarts Store is the second building from the right.**

**Fig. 29 General view of front of Village Maltings, taken in 1951, looking west (O'Mahony Archive).**

**Fig. 30 Smarts Store, north-facing elevation, June 2024.**

The original windows are best preserved on the north-facing elevation, with two surviving on the west gable (fig. 30). Those on the south-facing elevation have been completed blocked up, although on the 1900 photograph (fig. 28) only the upper, loft windows are shown. The windows have segmental brick arches with stepped quoins, wooden frames with centrally opening wooden shutters. Internally, the shutters are kept in place by a simple wooden wedge inserted through an iron staple, driven into one side of the shutter. Clamp-fired, presumably, local brick has been used throughout. The only other structure within the complex in which the use of such brick is in evidence is the northern kiln house buildings (see below). There is also a centrally positioned wooden loading door with brick dressing similar to those on the windows. The roof is finished with corrugated iron sheets, which are shown on the 1900 photograph (fig. 28), with cast iron rainwater goods and drainpipes. On the north elevation, at second and third floor level there a series of six, decorative 'tiller wheel' tie plates, again shown on the 1900 photograph. These secured steel tensioning rods which would have extended across the width of the building, into similar tie plates on the exterior face of the opposite wall. These are in evidence on the south-facing elevation, where they are equipped with tightening bolts. However, the tie plates appear to have been unable to prevent a bulge in the southeast corner of the rear wall, where an improvised buttress, with machine brick coping, was added at a later date (figs. 31 and 32).

Present day access to the interior of the Smarts Store is via modern doorway 2.87m wide, with a sliding one-piece, steel panel door (fig. 31). The lower three floors have been removed, although the building continued to function as a store for seed barley, which was distributed by Bennetts to east Cork barley farmers, right up to malting's final harvest of 2006. Approximately one third of the original wooden floor survives at the eastern end of the building, the rest being replaced with the current concrete floor. Most of the original floor joist sockets have been filled in, but in a few instances on the north and south walls, some stone corbels survive in situ (fig. 33). The loft floor (4th floor) survives relatively intact. The main north-south joists are axe-dressed as are the intermediate joists (fig.34), while square-sectioned wooden cantilevers provided support for the beams jointed into the south wall. These were coach bolted to the underside of the main beam, and a number display assembly marks (fig. 35). A number of the main beams were also spliced at a later date.

**Fig. 31 Smarts Store: South-facing elevation.**

**Fig. 32 Buttress at south-east corner of Smarts Store.**

**Fig. 33 Joist socket and stone corbel, north wall of Smart Store.**

**Fig. 34 Axe-dressed beams supporting loft floor, Smarts Store.**

**Fig. 35 Assembly marks (‘V’ and ‘X’) on cantilevered beam supporting loft floor in Smarts Store.**

**Fig. 36 Interior view of Smart Store, looking east; showing arrangement of timber stanchions for first and second floors, with step ladders, at north-east corner, providing access to upper floors.**

The surviving loft access at the eastern end of the building provides a good idea of how the original floors were arranged. The principal vertical compression members are squared wooden stanchions, with stop chamfers on each corner, which are surmounted by a wooden impost (chamfered on its lower face), upon which the lower face of the beam rests (fig. 36). However, the rim joists and bridging pieces of the surviving floor decks are of recent construction.

At the western end of the store is a former dwelling, which was used as the main office for J. H. Bennett and Co. Ltd, when the Charleston Maltings closed in the early 1990s, and continued to fulfil that function until the malting closed in 2008. Its gable and chimney face onto the main road, and it has a toilet block added to its rear. Access was not possible to the structure during the survey (fig. 37).

**Fig. 37 Former office of J. H. Bennett and Co. Ltd, at western end of Smarts Store.**

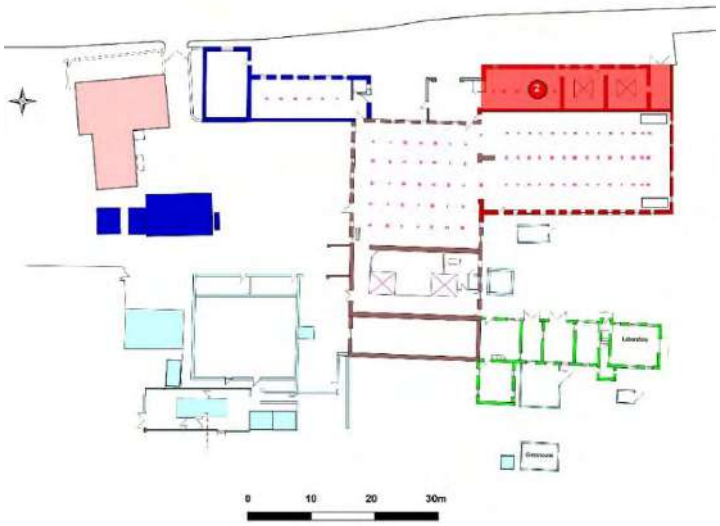


**Fig. 38 Location of Block 2, the Northern Kiln House**

### (7. 2) The Northern Kiln House

The Northern kiln house (fig. 38) has experienced the most rapid deterioration since the fire of 2017. Access was not possible during the survey and examination could only be conducted from the exterior and by drone photography. In 1900 it is shown with tall ventilator shafts (fig. 28 above) which were still in place as late as the 1940s (fig. 39) but were replaced by squat louvred vents by the 1950s, which remained in situ up to at least 2011 (fig. 40). The buildings housing Kiln B was left unrendered, while the other two thirds of the north-facing elevation were rendered (fig. 41). This was the case as far back as 1900 (fig. 28 above). Each of the kiln buildings has a camber-arched brick window, with stepped quoins, at first floor level, with wooden window frames. The brick employed in all the windows and loading doors is clamp fired, as are the stepped quoins at the northeast corner of the building. One of the kilns survived in situ as late as 2008 and had a central brick furnace with a metal grate, the heat being directed upwards by a wooden hood.[75] There were also access doors at the south to the 'Old Maltings' building (fig. 42). Both kilns A and B are of the 'flat-headed' type and around the same size and similar in design to those employed in contemporary water-powered flour mills throughout Ireland. Although shown as intact on the 1973 survey, both appear to have been out of use by the 1970s. These would have employed perforated ceramic ('Worcester') tiles and a large number of these were

[75] Mss Report by Jack Coughlan & Associates, June 2008.

discovered elsewhere on the site stored in the former dryer shed associated with the 1960s silos (fig. 43).

**Fig. 39 The Village Maltings, c. 1940, looking east. The Northern Kiln house is on the extreme left. Kilns A and B are shown with shaft ventilators.**

**Fig. 40 The Northern Kiln house in 2011, north-facing elevation. Source: Google Earth.**

**Fig. 41 The Northern Kiln house in 2024.**


**Fig. 42 The Northern Kiln, aerial view, 2024: note access doors at south to 'Old Maltings building'.**

**Fig. 43 Perforated ceramic (‘Worcester’) kiln tiles, stored in former drying shed of the 1960s silo.**

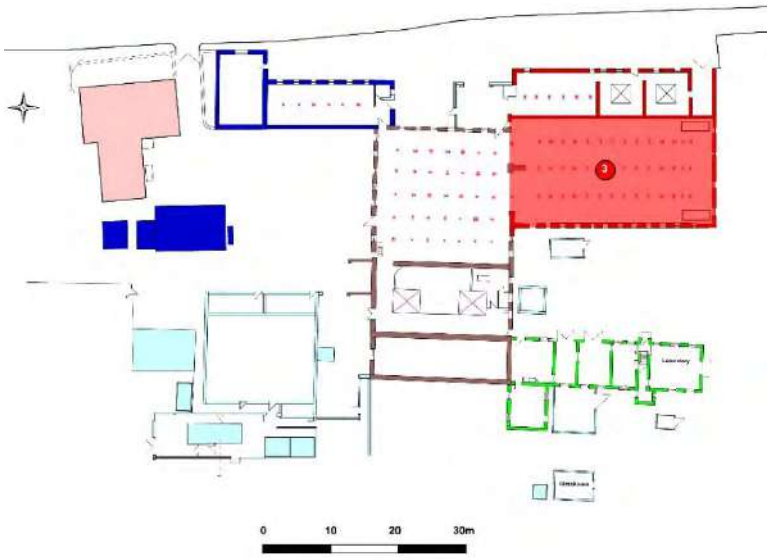


**Fig. 44 Location of Block 3, the 'Old Maltings'**

**(7. 3) The 'Old Maltings' Building**

The 'Old Malting building is integral with the northern kiln house, and both appear to be contemporary (fig. 44). We were unable to gain access to this building on safety grounds, and only the east gable and south-facing elevations (both very overgrown) were accessible during the survey. This a three-storey, gabled, 12 bay-structure, with an 'M' profile roof, rendered externally in concrete on all visible elevations. Its full extent is shown in a photograph of 1900, where its relationship to the new maltings is clearly shown (fig. 45), while the shaft ventilators of the northern kiln house can be seen on the left of the picture, just above the ridge of the roof.

The windows have segmental brick arches, most of which are obscured by concrete render, but those which have been exposed have machine brick voussoirs. The windows have wooden frames, with central, inward-opening wooden shutters with square vents (figs. 46 and 47). Each window also has as wooden lintel. The exposed eaves also exhibit slab coping stones on top of the walls. The drone survey also revealed that large sections of the second floor have survived (fig. 48) and the steeps, at the eastern end of the building along with their water cisterns survive in situ. Sections of a worm conveyor also survive (fig. 48). The queen post truss sections are supported, centrally on cast iron columns and a loft space was created by laying floor planks on the tie beams. The trusses are badly fire-damaged and what survives of the original roof members are currently in a precarious condition (fig. 48)

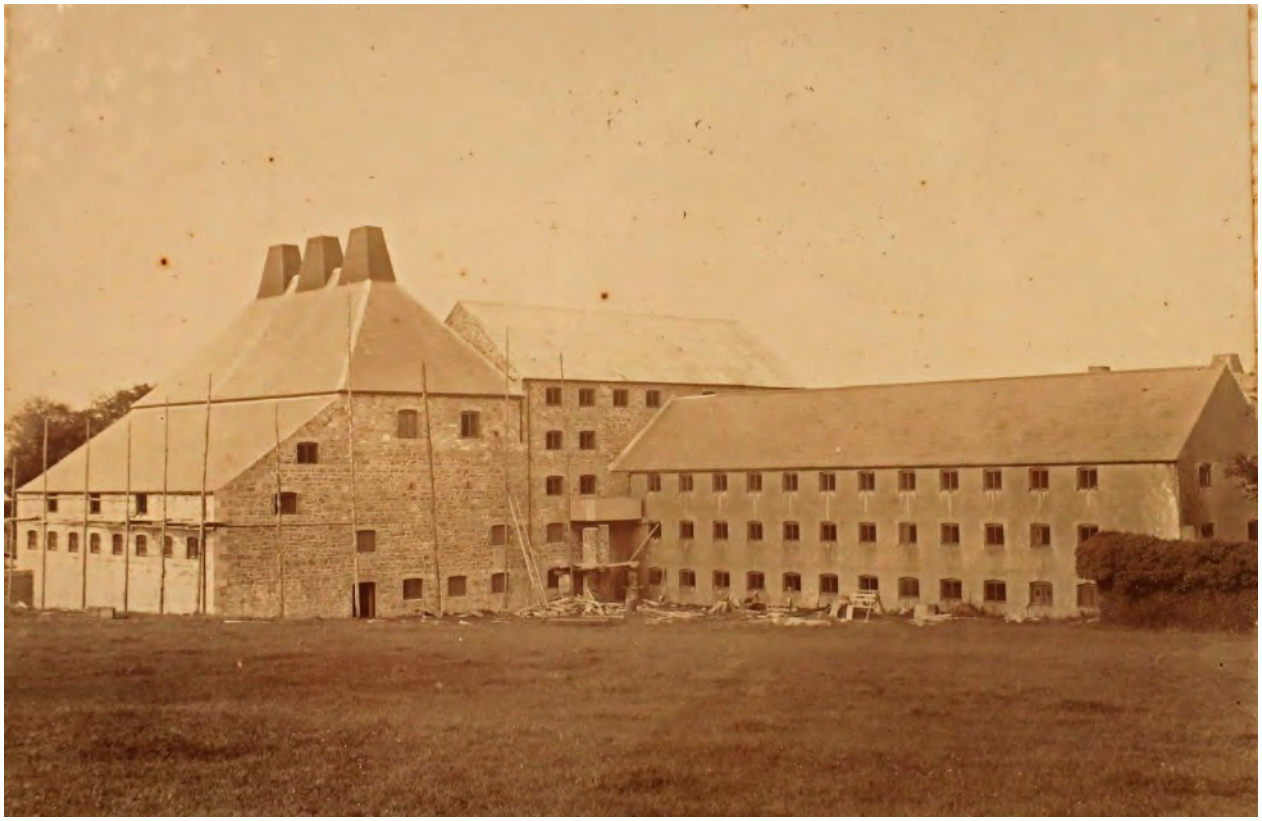

**Fig. 45 'East side, Old Maltings to right', from photographic album of 1900, *Maltings of Ballinacurra. Views of the New Buildings* (CCC, B609/8/8/7).**

**Fig. 46 South-facing elevation of the 'Old Maltings', 2011 (O'Mahony Archive).**

**Fig. 47 South-facing elevation of the ‘Old Maltings’, 2024.**

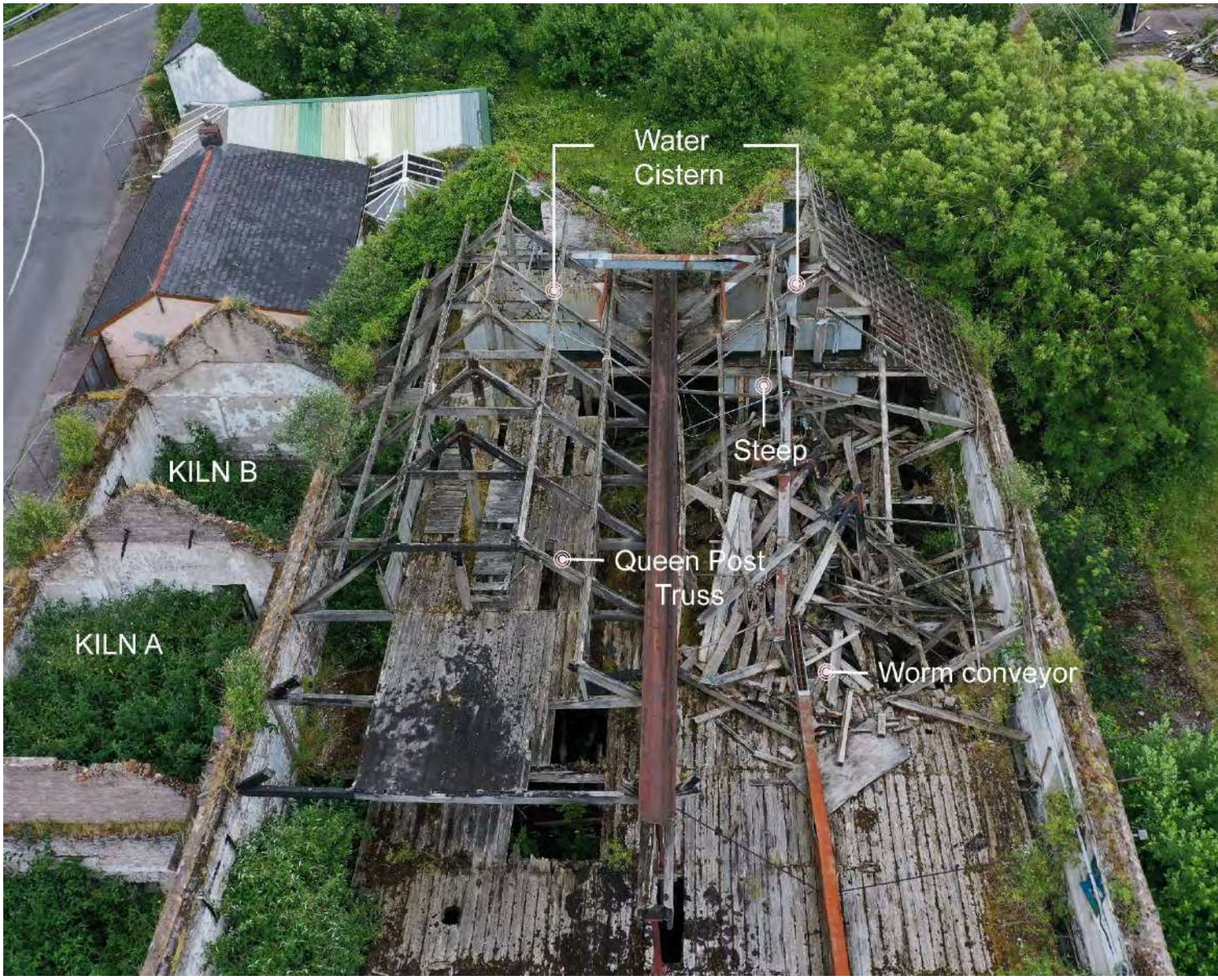


**Fig. 48 Aerial view of 'Old Maltings', showing current condition (June 2024) and surviving machinery and plant.**

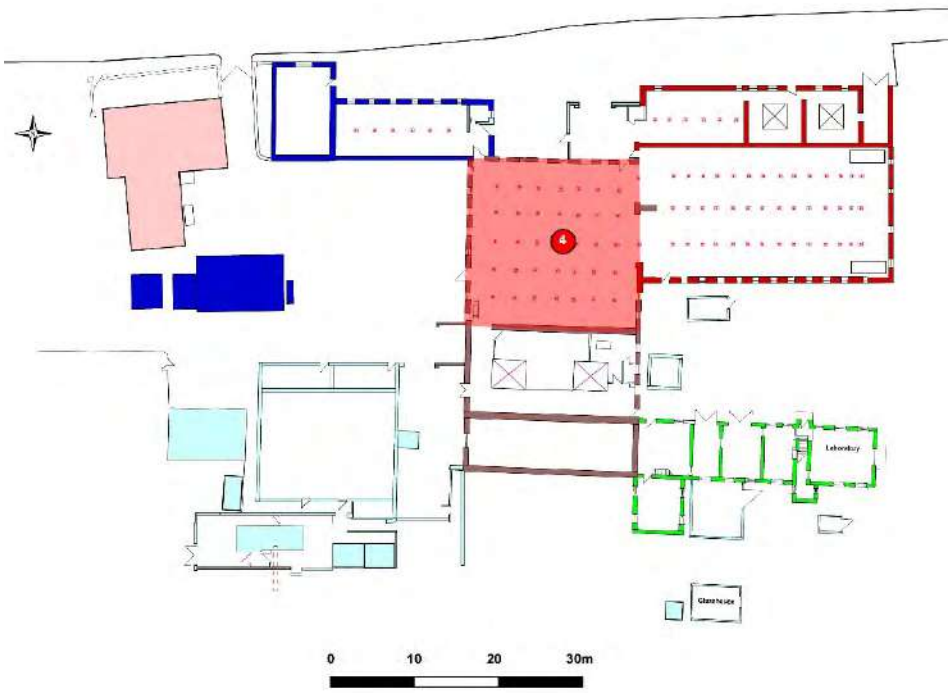


**Fig. 49 Location of Block 4, the 1900s Malthouse**

### (7. 4) The 1900 Maltings

With the construction of the new Maltings in 1899-1900, J.H. Bennett effectively doubled the productive capacity of the Village Maltings, with greatly increased flooring space over five stories, and through the provision of two large, modern kilns (fig. 49). The main section of the new malting complex is a five -storey, seven-bay, double gabled structure, completed in 1900 (fig. 50). It is s constructed with irregular limestone blocks brought to courses, although machine brick is used extensively in the upper storey, particularly on the gables and on east wall at the juncture with the ridge line of the 'Old Maltings'. The gables on the north-facing elevation were removed immediately after the catastrophic fire of 2017. The windows and doorways on all the exposed elevations have segmental brick arches and stepped brick quoins, although many of the window arches have later been rendered over with concrete, perhaps as an additional form of fireproofing. On the north-facing elevation there were originally two pairs of loading doors on each gable, at third and fourth storey level, with off centre sack hoist openings immediately above them, near the apex of each gable (figs. 51 and 52), The ground floor doorway on the eastern gable on the north-facing elevation has datestone (1900) on its archway (fig, 53). There are also the remains of a line shaft with a pully wheel extending

outwards from Old Maltings building (fig. 54) which was probably formed part of the machinery of the elevator tower, which was located immediately in front the east gable of the new maltings building (see fig. 29. above)

The west-facing elevation of the 1900s maltings is reasonably preserved (figs. 55-57) and is the only one to which reasonable access was possible during the survey. The main windows have wooden frames with inward opening wooden shutters, many with square ventilation openings. There are two loading doors at ground and first floor level, as this elevation had full vehicular access to the coal yard (fig. 55).

Although access to the interior had to ruled out on safety grounds, drone footage revealed that the original roof truss consisted of lattice steel sections, which had subsequently collapsed inwards after the 2017 fire. The internal arrangement of the malting floors is shown in a photograph of 1900 (fig. 58), and it was also possible to photograph the surviving floor members through a first-floor window, which confirms that these arrangements continued unchanged into the 2000s. As in the Old Maltings, the main beams are supported on vertical wooden stanchions, set on squared, cut limestone padstones (fig. 60, compare, also, figs. 58 and 59). The upper ends of the stanchions are surmounted by wooden imposts, up on which lower face of the beam above rests (fig. 58). This vernacular approach to the design of compression members would not be out of place in an early eighteenth-century barn or grain store, with no evident attempt to introduce any means of fireproofing. At the same time, Bennett was making full use of modern means of moving large amounts of grain and finished malt through the complex, by means of worm conveyors and bucket elevators.

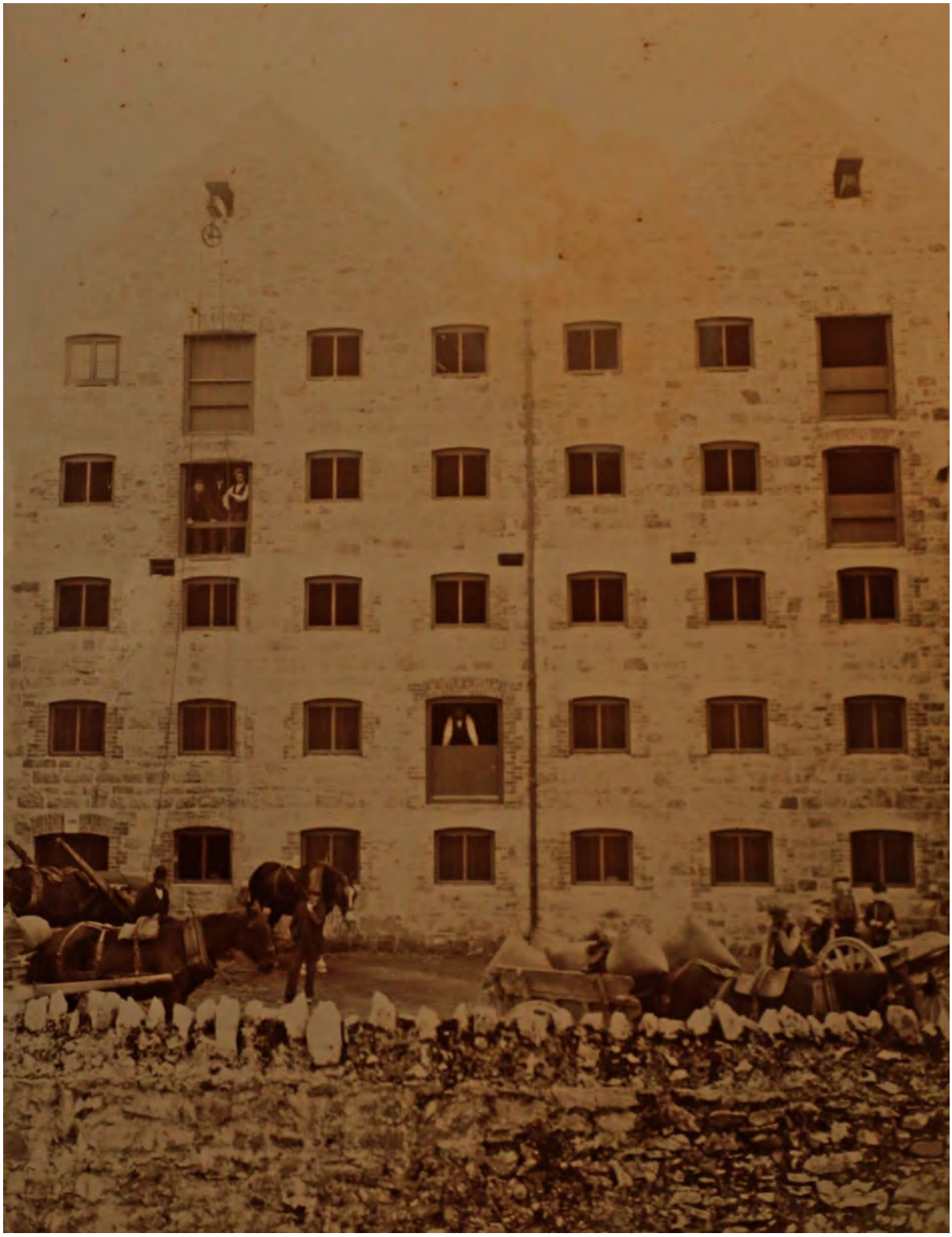

**Fig. 50 'New Portion of Front', from photographic album of 1900, *Maltings of Ballinacurra. Views of the New Buildings* (CCC, B609/8/8/7).**

**Fig. 51 Aerial view of 1900 maltings building. Note extensive use of machine brick in upper storey and on the apex of the gables.**

**Fig. 52 Surviving portion of north-facing elevation of 1900s maltings, showing use of brick in upper storey.**


**Fig. 53 Datestone ‘1900’, on arch of ground floor doorway, north-east gable of 1900s maltings.**

**Fig. 54 Line shaft with pulley wheel extending out from Old Maltings building.**

**Fig. 55 West-facing elevation of 1900s maltings in 2011.**

**Fig. 56 West-facing elevation of 1900s maltings in 2024.**


**Fig. 57 Photogrammetric model of west-facing elevation of 1900s maltings.**

**Fig. 58 'Interior Looking East', from photographic album of 1900, *Maltings of Ballinacurra. Views of the New Buildings* (CCC, B609/8/8/7).**

**Fig. 59 The surviving floor members in 1900s maltings in 2024, looking east.**

**Fig. 60 Cut limestone padstone, supporting wooden stanchion at first-floor level in 1900s malthouse.**

Since the 1880s J. H. Bennett, using the resources of Guinness, had been updating his malting operations, installing cast iron steeps and new screening machinery for barley brought into his malthouses. As we have seen he even borrowed £5,400 to extend the Village Maltings in the late 1890s.[76] In 1904, as part of this programme of expansion and modernisation a 16 BHP Hornsby-Akroyd oil engine was installed in the Village Maltings by R. Hornsby & Sons Ltd, Grantham, England (figs. 61 and 62 ).[77] This is the only recorded example to have been used in an Irish maltings. In all likelihood, this became the main source of motive power for the Village Maltings' machinery and plant. The Hornsby-Akroyd, four stroke oil engine was introduced in 1892 and came to enjoy enormous success internationally. The engine's simple yet efficient design was such that it did not require a full-time skilled attendant. Not only did it not need an electrical ignition system (like most internal combustion engines) it was also less sensitive to fuel variations. It was the first oil engine to use a pressurised fuel injection system and was also the first 'hot bulb' engine, where combustion occurred in separate combustion chamber, the 'vaporiser' or 'hot bulb'.[78] Its original location is uncertain.[79]

[76] West 2006, 55.
[77] CCC, B609/6/B/19.
[78] Cummins Jr 2021, 311-14.
[79] In all likelihood, it would have been positioned on the ground floor of the 1900 maltings.

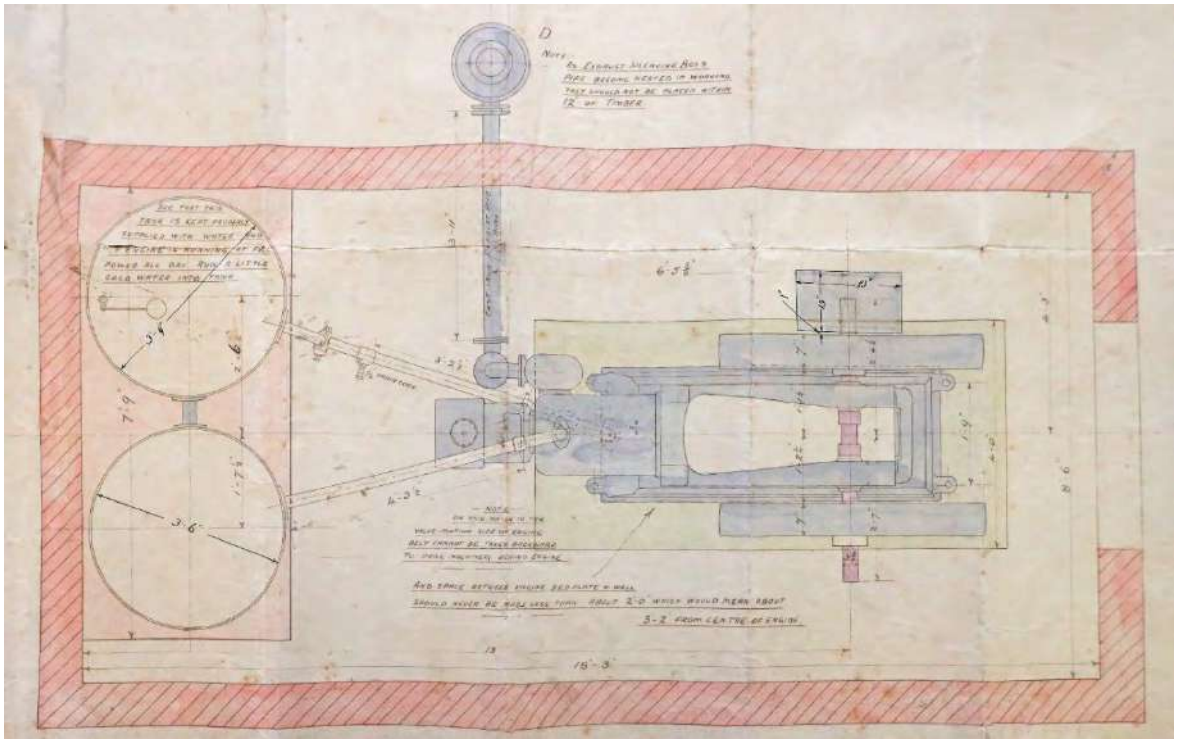

**Fig. 61 16BHP Hornsby-Akroyd Oil engine installed in Village Maltings in 1904, by R. Hornsby & Sons, Grantham, England, plan view: scale 1in to 1ft, (CCC, B609/6/B/19).**

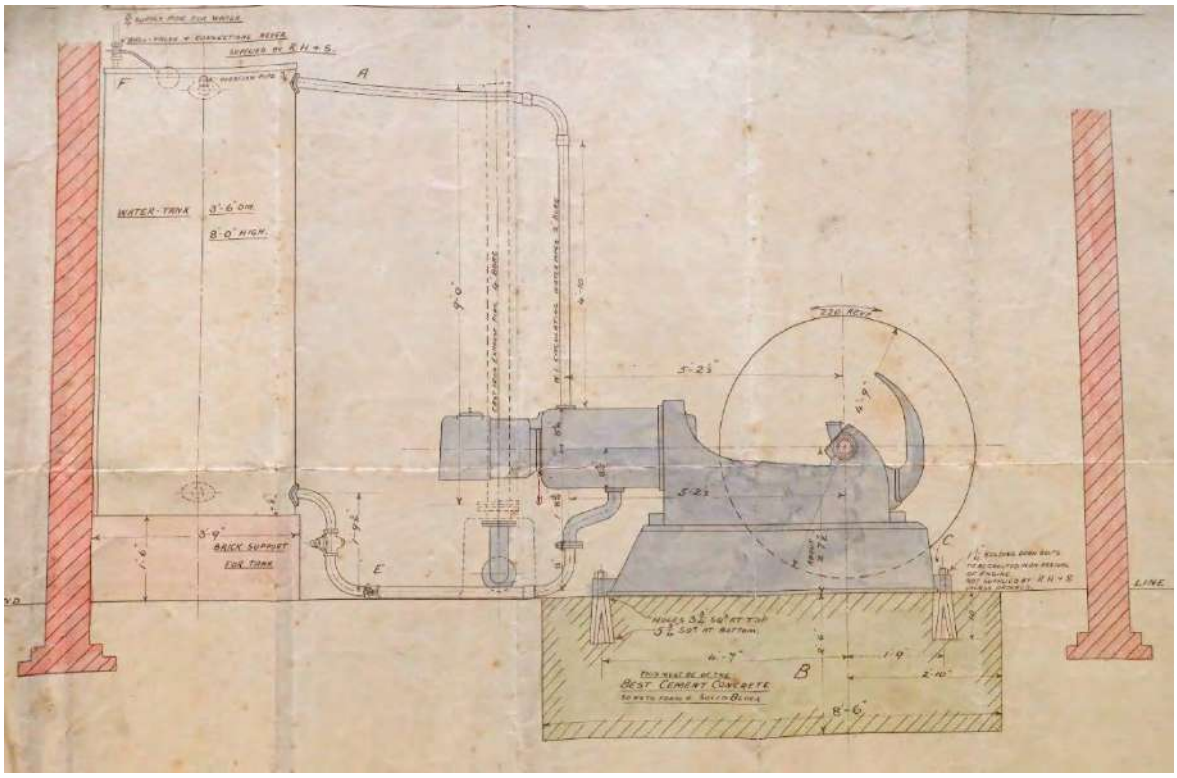


**Fig. 62 16BHP Hornsby-Akroyd Oil engine installed in Village Maltings in 1904, by R. Hornsby & Sons, Grantham, England, elevation: scale 1in to 1ft, (CCC, B609/6/B/19).**

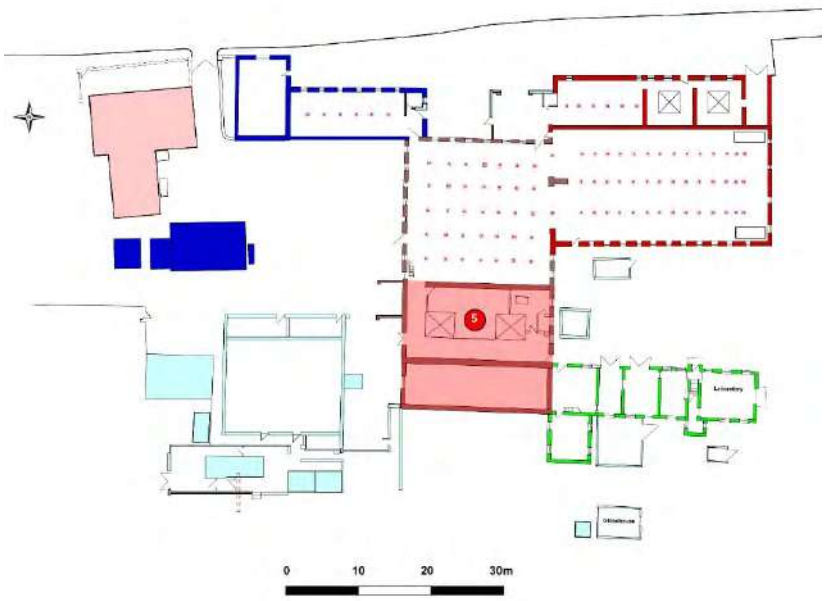


**Fig. 63 Location of Block 5, the 1900s kiln house and malt store**

**(7. 5) The 1900 Kiln House and Malt Store**

As originally constructed the kiln block was a 3-storey rectangular structure (fig. 63), with a steep hipped roof, with three large, open shaft vents positioned along the ridge line (fig. 64). The malt store was essentially a lean-to structure at the south of the kiln house whose roof pitch extended upwards to the eaves of the kiln (figs. 64 and 65). The kiln house was provided with segmental-arched brick windows, with stepped brick quoins at first floor and third floor level and access doors on the east and west elevations (figs. 65 and 66). The door on the western side of the kiln house was used to charge the kiln furnaces with anthracite, which workmen wheel-barrowed in from the coal yard at the south.[80] The open shaft vents on both the north and southern kiln houses were still in position around 1940 (see fig.

39 above). However, these were replaced with louvred vents sometime in the 1960s, probably when the Suxé anthracite furnaces when installed (see fig. 18 above). This type of furnace was more fuel efficient, and self-loading types were used in English maltings.[81] They also required less draught, hence the likely change over to smaller, louvred kiln vents. The upper storey of the kiln house on both of the main elevations, were later provided with tie plates (figs.66 and 68): these are not shown on the photographs of 1900.

[80] Pers. Comm. Ursula O'Mahony.
[81] Patrick 2023, 143.

**Fig. 64 Kiln Block, west elevation:** ***Maltings of Ballinacurra. Views of the New Buildings*** **(CCC, B609/8/8/7).**

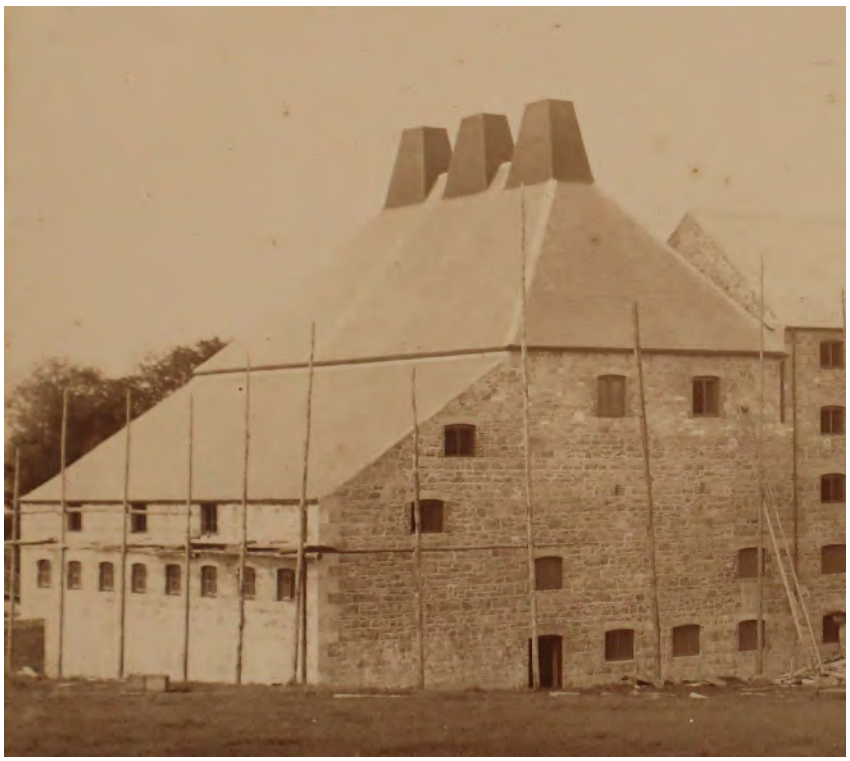

**Fig. 65 Kiln Block, east elevation:** ***Maltings of Ballinacurra. Views of the New Buildings*** **(CCC, B609/8/8/7).**

**Fig. 66 Kiln house, east-facing elevation in 2011.**

**Fig. 67 Kiln house, access door for charging kiln with anthracite (right), from coal yard at west of kiln house.**

**Fig. 68 Kiln house, east-facing elevation, showing tie plates.**

**Fig. 69 Kiln house, west-facing elevation, 3rd floor level, cast iron bracket for journal bearing.**

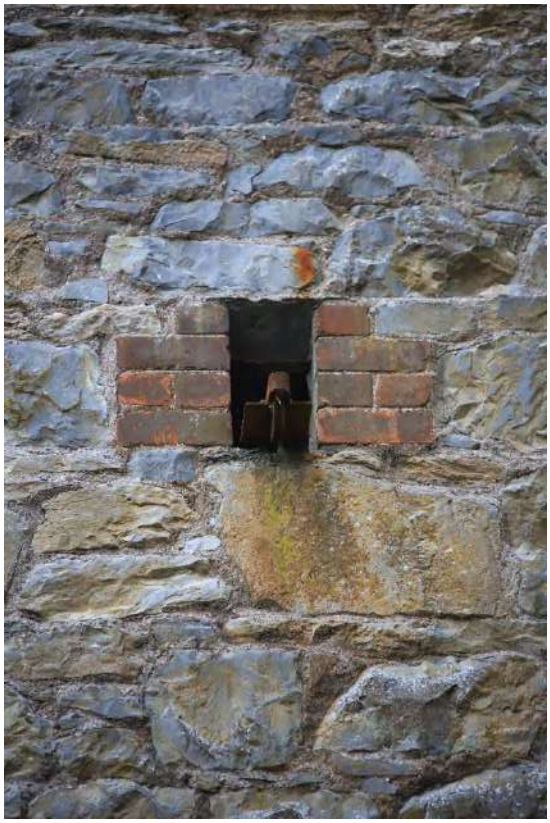

**Fig. 70 Kiln house, west-facing elevation, 3rd floor level, cast iron bracket for journal bearing.**

Two further interesting features are in evidence on the west-facing elevation of the kiln house. At third floor level a cast-iron bracket for a journal bearing has been inserted, its surround provided with stepped brick dressings (fig. 69). Although access to the kiln as not possible, it seems likely that this accommodated a line shaft for some form of internal lifting mechanism. The second feature, a rectangular opening with a stepped brick dressing, with part of what appears to be a lever mechanism retained in situ (fig. 70). Similar devices were sued in the boiler houses of steam engines to regulate flue dampers, which controlled the exit of exhaust fumes from the boiler furnace.

The internal kiln floor is supported by RSJs with steel joists laid transversely (north-south), with concrete poured on top of these (fig. 71). The flues directing heat from the furnace on the ground floor is directed upwards through rectangular brick flues (fig. 72). At first floor level the area around the flues is floored with wooden boards (fig. 72). All the internal walls are rendered with concrete.

**Fig. 71 Internal view of kiln house, showing supporting beams and brick flue (centre) leading from furnace to kiln floor.**

**Fig. 72 Kiln house, looking eastwards, showing brick flues directing heat upwards from furnace on ground floor to kiln floor above.**

The malt store, to the south of the kiln store, is shown with eight windows at first floor level along with stepped windows on the east and west elevations on the 1900 photographs (see above, figs. 64 and 65, fig. 73 for present condition). These have now been blocked up and rendered over with concrete on the south-facing elevation (fig. 74). The original internal floor arrangements are obscured by later concrete render, while the floor has been modified to slope downwards. The roof is comprised of light half trusses with thin purlins and battens, with brick coping at the eaves (fig. 74)

**Fig. 73 South-facing elevation of malt store, shown here on the left**

**Fig. 74 Internal view of malt store, looking east, showing sloping floor and roof trusses.**

**(7. 6) The Cereal Testing Station, 1912-2002**

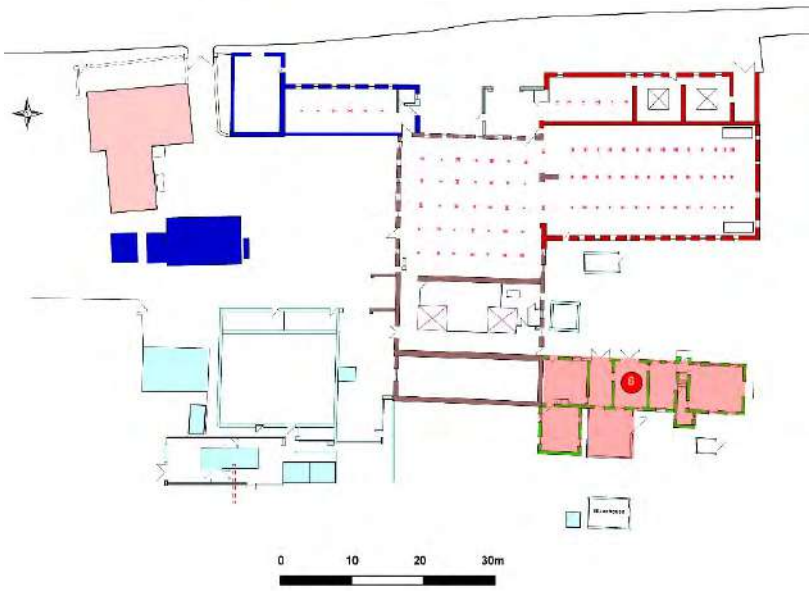


**Fig. 75 Location of Block 6, the Cereal Testing Station.**

Despite its international reputation and its world-beating contribution to the development of seed barleys for malting and other cereals, the Ballinacurra Cereal Testing Station (fig. 75), is a quite modest, gabled structure. Constructed in 1912, perhaps on the site of an earlier, extemporised laboratory, it abuts the 1900 kiln house (fig. 76). On the ground floor of the north-facing elevation there are two segmental arched windows with 2over 2 sash windows. Mid way along this elevation there is a half wooden door. For the most part, however, the essential window details are currently obscured by security panels. There is a loft space at the western end of the building with smaller window lights (four on each elevation). The main entrance door, on the north-facing elevation, has a flat-topped, concrete porch. All exterior walls are finished with a concrete render (fig. 77), which appears to be original. The datestone (‘1912’) survives under one of the main windows on the north-facing elevation (fig. 78).

The 3-storey machine shop, with its flat, felt roof, and which has paired windows on each floor, survives at the western end of the main building. The kiln building has since been demolished. Sometime early in the twentieth century a new laboratory was added at the eastern end of the building, complete with sack hoist and projecting awning or *lucamb*,

protecting it from the weather (fig.79). The interior of the laboratory extension was supported, laterally by RSJs, which explains why it is still standing in the wake of the 2017 fire (fig. 80).

**Fig. 76 The Cereal Testing Station, south-facing elevation.**

**Fig. 77 The Cereal Testing Station, north-facing elevation.**


**Fig. 78 Cereal Testing Station, datestone of 1912.**

**Fig. 79 Awning or *lucamb*, protecting sack hoist operations from the elements.**

**Fig. 80 Interior of laboratory extension, showing RSJs, supporting upper storey, and extent of fire damage.**

The kiln for drying grain samples at the south, was powered by electricity when the Cereal Testing Station closed in 2002. The ground floor accommodated a rough lab, an office and barely screens for incoming barley samples, while the upstairs housed a laboratory and a room for weighing samples. The bags of barley were lifted into the station by and electric sack hoist on the eastern gable (see fig. 79 above). The glasshouse, to the south of the cereal testing station, was used to grow batches of experimental barley. To this extensive experimental plots of barley, which date back to J.H. Bennett's stewardship were grown in the fields to the south of the Village Maltings (fig. 81).[82]

**Fig. 81 Aerial view of Village Maltings in mid-1970s, showing experimental barley plots to south.**

[82] Pers. Comm. Ursula O'Mahony.

**(7. 7) The 1960s grain silo**

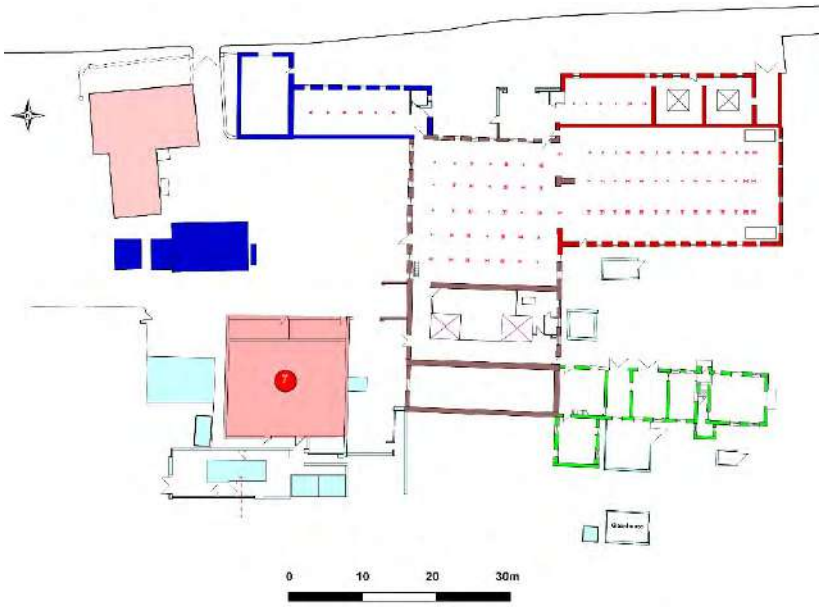


**Fig. 82 Location of Block 7, the 1960s grain silo.**

The massive influx of barley at harvest time had always created storage problems for the Village Maltings, which often forced to seek out storage facilities are far east as Ballymaloe. This problem began reach a peak in the 1960s, with the increased use of combine harvesters. As a result, Bennetts now had to contend with processing a much a larger intake of barley over a shorter time frame.[83] To this end, a new mass concrete storage silo, with its own drying facility was constructed sometime in the 1960s to the southeast of the maltings complex (fig. 82). The new silo complex was equipped with 16 barley bins, each with a capacity of 2,500 barrels (see fig. 23 above). The facility was also equipped with two intake hoppers, a drier and a dust house.

A 4-storey mass concrete elevator tower dominates this complex at the east (figs. 83 and 84), which was later connected by a conveyor to the steel silos constructed to the south in the mid-1970s. The tower is supported on four concrete pillars. On its east facing elevation there are two openings for ventilator fans which probably handled the exhaust from vortex dust extractors installed in the tower, where bucket elevator or worm conveyors would have

[83] West 2006, 141

created large amounts of dust. The lower section of the tower has a concrete canopy with a rolling shutter for vehicular access. At the base of the tower there are two concrete hoppers which would have discharged grain into waiting lorries.

The main silo building is relatively small and even for its time would have had a limited capacity relative to those erected at roller mills or port quaysides. Its design is also curious in that it has gabled, slated roof. Indeed, most silos from the 1930s onwards would have had flat roofs with parapets, to facilitate the installation and maintenance of dust extraction machinery. Access to the upper sections of the silo was via a stairwell at the south-east corner, with a steel staircase with guide rails. Underneath the canopy of the elevator/hopper tower and adjacent to the east wall of the silo there are two, vertical bucket elevator casings, flanked on the right by what appear to be suction tubes for grain intake (fig. 85). On either side of the elevator casings, are two roughly fashioned openings, which were clearly cut into the silo wall at a later stage (fig. 86). Crudely cut notches in the silo wall accommodate two opposing crank handle wheels, which were used to regulate a hopper feed to a worm conveyor encased in a steel pipe. A unit driven electric motor, positioned on top of the conveyor pipe drove a chain drive positioned on the right-hand side of the pipe (fig. 87). A second conveyor pipe underneath that already described, and at right angles to it, connected to the second wall opening with crank handle wheels to the south. By this means, grain could be conveyed from base of the storage bins in the silo to the external bucket elevators.[84]

The store building at the south of, and abutting the silo, houses two, large steel hoppers, whose manual release valves remain in situ. This entire gabled structure, with an awning at the south is supported on four vertical RSJs, the outer walls formed by corrugated asbestos sheeting. The west-facing elevation has a name plate -BUTLERS LEA ROAD PORTARLINTON. Butlers engineering firm was established in 1967, so this building must date to the 1960s or perhaps later.

[84] A not dissimilar system was recorded by two of the authors (CR and FH) in a 1950s silo complex for Flahavan's Mills at Kilmacthomas, Co. Waterford in 2020.

**Fig. 83 1960s grain silo complex, north-facing elevation, showing elevator/hopper tower (left) and main silo (right).**

**Fig. 84 1960s grain silo complex, south-facing elevation, showing elevator/hopper tower (right) and dryer house (left).**

**Fig. 85 Bucket elevator casing (left) and suction pipe (left), adjacent to eat wall of silo.**

**Fig. 86 Opening in south wall of grain silo for hopper regulator, shown here as crank-handled driving wheels.**

**Fig. 87 Interior of opening in south wall of grain silo for hopper regulator, showing unit driven electric motor, with chain drive (in metal casing) on the right.**

**(8) Grain handling and storage at the Village Maltings, mid-1970s-2008.**

During harvest time, large amounts of barley were delivered to the three Ballinacurra maltings, originally in horse and cart and later by tractor and trailer and truck (figs. 88-91). Despite the construction of the new concrete silo in the 1960s, the storage of grain continued to present a major problem at harvest time at the Village Maltings. And so, Guinness who were effectively running Bennett &Co. Ltd., from 1969 (see above), installed a series of six steel silos to rear of the Village Maltings in 1974, designed by the Dublin firm of Sexton & Co. Ltd (fig. 92).[85] The three smaller silos, had a collective volume of 1,890 tons, while the three larger examples could hold 6,000 tons, a total storage capacity of 7,890 tons. A further silo was added to the west in 1989 (fig. 93). Nonetheless, as fig 95 demonstrates this remained a problem up to the closure of the complex in 2008.

**Fig. 88 Barley delivery to Charleston Maltings, 12 September 1896, O'Mahony Archive.**

[85] CCC, 609/6/8/29; Plan by Sexton & Co. Ltd, Consultants-Milling and Grain Handling Engineers, 55 Eccles Street, Dublin 7. Plan and elevation date 14th June 1974.

**Fig. 89 Carts deliver barley to Charleston Malting in the 1930s, O'Mahony Archive.**

**Fig. 90 Tractors carrying barley to the Village Maltings, on the road outside, 30th August 1987. Photo Ursula O'Mahony.**

**Fig. 91 Tractors at Village Maltings weighbridge, 30th August 1987. All loads were *tared*, i.e weighed going in with load and without load on way out. Photo: Ursula O'Mahony.**

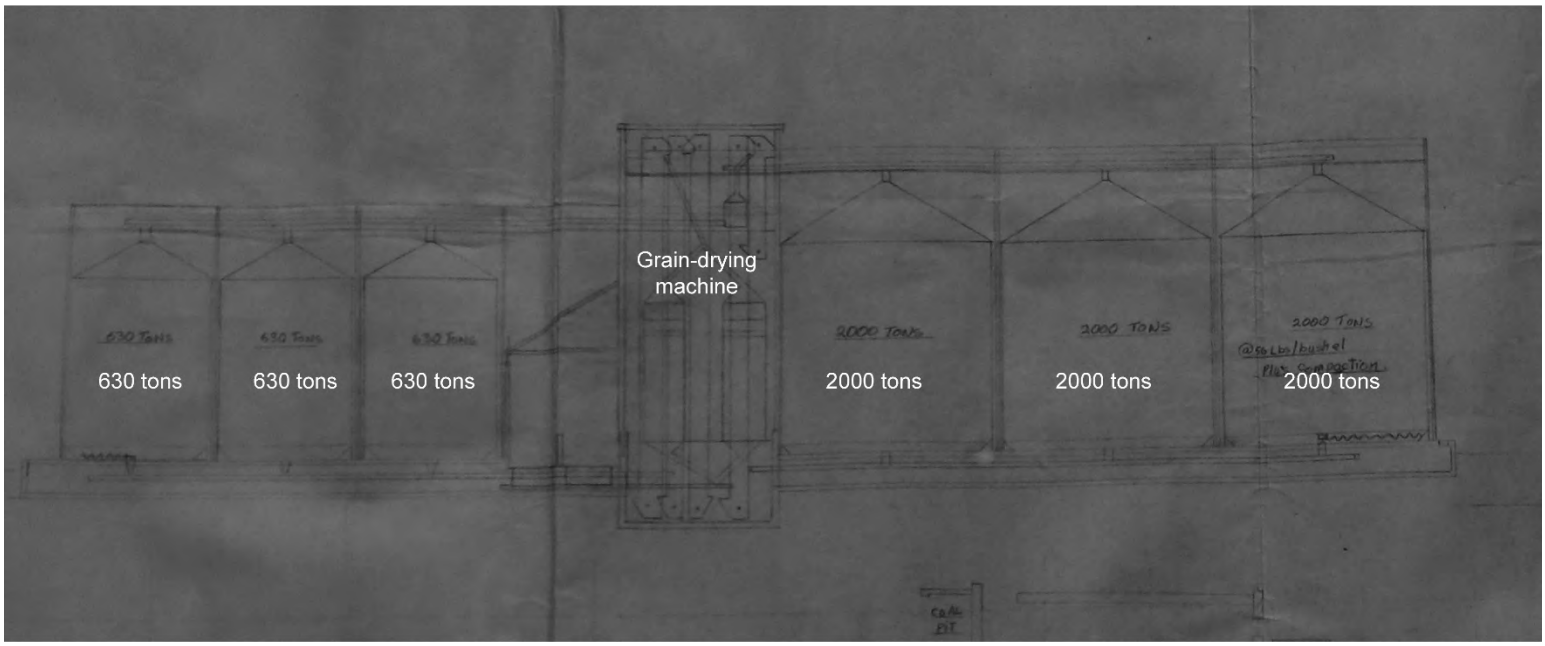


**Fig. 92 Elevation of new grain silos at the Village Maltings, dated 14th January 1974, CCC, 609/6/8/29.**

**Fig. 93 The 1ast silo to be erected at the Village Maltings in 1989. Photo: Ursula O'Mahony.**

**Fig. 94 The 1974 grain silos, with barley mounded around them, in August 1990. The tall rectangular building in the centre is the grain-drying machine. Photo: Ursula O'Mahony.**

**(8) Statement of significance**

The Village Maltings, in the townland of Ballynacurra West, operated as a floor malting from perhaps the end of eighteenth century to 2007. It was the last maltings of its type to work in Ireland. The surviving business archive for J. H. Bennett and Co. Ltd, and its predecessors, is the most extensive for any floor maltings operation in business in Ireland or Britain during the period 1788-2007. In terms of its overall historical importance, the Bennett archive is on the same par with those of Guinness at St James' Gate and Beamish and Crawford of South Main Street, Cork, the latter brewery closing only two years after the Village Maltings. The maltings section of the surviving complex and its historical associations are, therefore, of national significance.

However, the Cereal Testing Station, which successfully hybridised the barley varieties Spratt and Archer, in 1908, to create the Spratt-Archer 37/6, is of international significance, in terms of the development of agricultural science, and in its contribution to the development of the world brewing industry. Spratt-Archer, as has been, which was eventually released for general cultivation in 1930, remained the dominant variety of two-row hulled malting barley up to 1954, when another hybrid *Beorna* was created at Ballinacurra.

| | |
|---|---|
| Block 1 | National significance |
| Block 2 | National significance |
| Block 3 | National significance |
| Block 4 | National significance |
| Block 5 | National significance |
| Block 6 | International |
| Block 7 | Local significance |

**Fig. 95 Summary of significance of surviving structures in the Village Maltings complex.**

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