



Farrimond MacManus Ltd

ARCHAEOLOGY • SURVEY • GIS

Archaeological Impact Assessment

for proposed development

at

Fort Dunree, Dunree

Buncrana,

Co Donegal

commissioned by

Keys and Monaghan Architects

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*Archaeological Impact Assessment
for a proposed development of
Fort Dunree, Dunree
Buncrana, Co Donegal¹*

Summary

The following cultural heritage impact assessment was carried out by FarrimondMacManus Ltd having been commissioned by Keys and Monaghan Architects in relation to proposed development of Fort Dunree, Dunree, Buncrana, Co Donegal.

A desk-based study has confirmed that the proposed development site is located within a wider archaeological landscape, with several known archaeological sites and recorded structures recorded within a 2km radius of the development.

An assessment of the impact which the proposed scheme may have on any archaeological remains which may survive within the boundaries of the scheme has been carried out and a mitigation strategy aimed at minimising any potential adverse archaeological impact the proposed development may have is therefore proposed.

- It is recommended that pre-development test trenching is carried out within the area of the proposed access road widening new car park area and treatment plant are the most significant areas of proposed ground works in order to identify any potential sub-surface archaeological remains which may prove to survive and to allow for their appropriate treatment, i.e. excavation and recording as a means of mitigating the impact of development.*
- It is recommended that archaeological supervision of all other ground works (i.e. construction of new walkways, paths, foundations, services etc) which extend beyond the depth of topsoil / modern formation level is carried out during construction phase works as a means of mitigating potential impacts of these invasive ground works upon any surviving sub-surface archaeological remains.*

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4.11.1 Introduction

4.11.1.1 This Archaeological Impact Assessment was prepared during July 2023 by FarrimondMacManus Ltd, having been commissioned by Keys and Monaghan Architects, in support of a planning application for a proposed development of Fort Dunree, Dunree, Buncrana, Co Donegal.

4.11.2 **Legal and Statutory Policies Relating to the Protection of Cultural Heritage**

The legal framework which provides for the protection of the archaeological and cultural heritage resource in Ireland consists of various national and international laws and policies. The National Monuments Acts 1930 – 2004 is central to this framework and provides for the protection of a number of categories of monuments;

- National monuments in the ownership or guardianship of the Minister or a local authority or national monuments which are subject to a preservation order.
- Historic monuments or archaeological areas recorded in the Register of Historic Monuments.
- Monuments or places recorded in the Record of Monuments and Places

The provisions of the National Monuments Acts were supplemented by the 1992 “European Convention on the Protection of the Archaeological Heritage” (commonly known as the ‘Valletta Convention’) which was ratified by Ireland in 1997. The aim of the Convention is to ‘protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study’ (Article 1). The Convention provides the basic framework for policy on the protection of the archaeological heritage. The obligations on the State under the Convention include, but are not limited to:

- Providing for statutory protection measures, including the maintenance of an inventory of the archaeological heritage and the designation of protected monuments and areas.
- the authorisation and supervision of excavations and other archaeological activities;
- providing measures for the physical protection of the archaeological heritage, including (as necessary) acquisition or protection by other means by public authorities of areas intended to constitute archaeological reserves, conservation and maintenance of the archaeological heritage (preferably in-situ), and the provision of appropriate storage places for archaeological remains removed from their original locations.
- providing for consultation between archaeologists and planners in relation to the drawing up of development plans and development schemes so as to ensure that full consideration is given to archaeological requirements;

The National Monuments Service of the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media keeps a record of all known monuments and sites (the Record of Monuments and Places (RMP)). The term 'monument' was redefined by the National Monuments (Amendment) Act of 1987 as:

“any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections, any cave, stone or other natural product... that has been artificially carved, sculptured or worked upon... any, or any part of any, prehistoric or ancient tomb, grave or burial deposit, or ritual, industrial or habitation site, any place comprising the remains or traces of any such building, structure or erection...”

but excluding

“any building or part of any building, that is habitually used for ecclesiastical purposes”.

Section 1 of the 1987 Act provides that the term “historic monument” “includes a prehistoric monument and any monument associated with the commercial, cultural, economic, industrial, military, religious or social history of the place where it is situated or of the country and also includes all monuments in existence before 1700 A.D. or such later date as the Minister may

appoint by regulations”.

Under the Planning and Development Act 2000 (as amended) and associated Regulations, a planning authority must refer all planning applications, which might affect or be unduly close to any archaeological site, monument or feature, to the Minister for the Environment, Heritage and Local Government.

The owner or occupier of a property, or any other person proposes to carry out, or to cause, or to permit the carrying out of any work at or in relation to a Recorded Monument, they are required under Section 12 (3) of the 1994 Act to give notice in writing to the Minister two months before commencing that work. This time will allow the National Monuments Service to advise on how the work may proceed in tandem with the protection of the monuments in question.

While the owner or occupier or any persons proposing to carry out work at or in relation to a recorded monument is required under the National Monuments Act to give notice in writing to the Minister, it is the practice of DOEHLG to accept referrals from planning authorities as fulfilling the notification requirements.

The Planning and Development Act 2000 (as amended) recognises that proper planning and sustainable development includes objectives for the protection of the archaeological heritage. Development plans may include such objectives and conditions relating to archaeology may be attached to individual planning permissions.

4.11.3 Architectural and Built Heritage

The protection of the architectural and built heritage resource in Ireland is provided for in the Heritage Act 1995, the National Monuments (Misc. Provisions) Act 1999 and the Local Government (Planning and Development) Act 2000. Under the terms of the various elements of legislation a "Record of Protected Structures" (RPS) was compiled and produced within the County Donegal Development Plan 2018 - 2024.

4.11.4 Methodology

The following archaeological impact assessment is based upon an extensive desk-based assessment carried out on information held by the National Monuments Service as the Archaeological Survey Database along with relevant historical documentary research. Available historical mapping was consulted and all sites and monuments and listed buildings within the vicinity of the proposed development area (PDA) were noted. An examination of the current site conditions was carried out to verify the results of the desk based study and to identify any potentially un-recorded cultural heritage remains which may prove to survive.

4.11.5 Aims and Objectives

The aims of the Archaeological Impact Assessment can be viewed in the context of reference to the relevant National Monuments legislation in conjunction with County Donegal Development Plan 2018 – 2024 with specific reference to the following Planning Policies and Objectives;

- Archaeological Heritage Policies AH-P-1 – 8 and Objectives AH-O-1
- Built Heritage Policies BH-P-1 – 18 and Objectives BH-O-1 – 5

In the first instance the desk-based study and the examination of the current site conditions aims to identify any recorded archaeological remains which may exist within the boundaries of the proposed scheme, while the desk-based assessment is also aimed at analysing the wider archaeological landscape in order to assess the likely potential for any previously unrecorded archaeological remains existing within the boundaries of the proposed development area (PDA). The second aim of the archaeological desk-based assessment is to develop a series of proposed mitigation measures in order to allow for the

preservation (either *in situ* or by record) of any potential archaeological remains which may survive in line with relevant heritage planning guidelines.

4.11.6 Site Location

The proposed development area at Fort Dunree is located along the shore of Lough Swilly, approximately 11km north of Buncrana, on the Inishowen Peninsula in Co Donegal (figs. 1 & 2). The site is approximately 67 acres in size with many of the buildings and structures relating to the use of the site as a military fort located near the western shore of the PDA with a military coastal battery located on Dunree Hill near the centre of the PDA. The remainder of the site is undeveloped coastal land.

4.11.7 Proposed Development

The details of the proposed development of Fort Dunree is to include the following (fig. 3);

- Widening of the existing access road into the site and construction of a new 110 space car park with facilities of bus/coach, EV charging and cycle parking
- Construction of a new access road (160m) connecting the Welcome Buildings and High Fort
- Removal of existing car park to be replaced with soft landscaping
- Construction of a new treatment plant including all infrastructure
- Construction of new walkway at the Lower fort
- Construction of a new viewing building at the High Fort and refurbishment of the High Fort
- Restoration of the High Guns
- Upgrade of 4nr Watchtowers
- Repairs and upgrades to the Lighthouse and construction of a new Lighthouse Walkway
- Ancillary works consisting of general repairs to existing infrastructure.

4.11.8 Geological and Topographic Setting

The proposed development area is located along the shoreline of Lough Swilly within the Buncrana Landscape Character Area (LCA) on the west of the Inishowen Peninsula. The landscape is characterised by undulating, fertile agricultural landscape with underlying schist geology, framed by uplands to the north, east and south and Lough Swilly to the west which is one of only three glacial fjords in Ireland.

Dunree Head, at the northern extent of the LCA, is an elevated quartzite promontory housing a lighthouse and disused military barracks (formerly a Napoleonic fort). The lands undulate towards the shore between Dunree and Buncrana and consist of generally medium to large agricultural fields bound for the most part by lush native hedgerow interspersed with clumps of trees and isolated deciduous trees. The higher Schist Mountains of Luddan Hill and Mouldy Hill define the southern boundary of the LCA and contain a large working quarry and some coniferous forestry plantation on the lower northern and eastern slopes. The coastline has a low rocky edge along the northern section of the LCA with a softer sandy shoreline towards the south from Lady's Bay along Buncrana Beach towards the Blue Flag beach at Lisfannon.

4.11.8.1 Solid & Drift Geology

Geological mapping and soil mapping for the immediate area of the PDA indicates that the underlying bed rock consists of Slieve Tooley Quartzite Formation, which is a white quartzite with pebble beds and the natural drift consists of Precambrian Quartzites, Gneisses and Schists. The soil mapping describes the PDA are located within an area of moors and heaths.



Figure 1: Proposed development at Dunree Fort, Co. Donegal: General Site Location



Figure 2: Proposed development at Dunree Fort, Co Donegal: Detailed site location

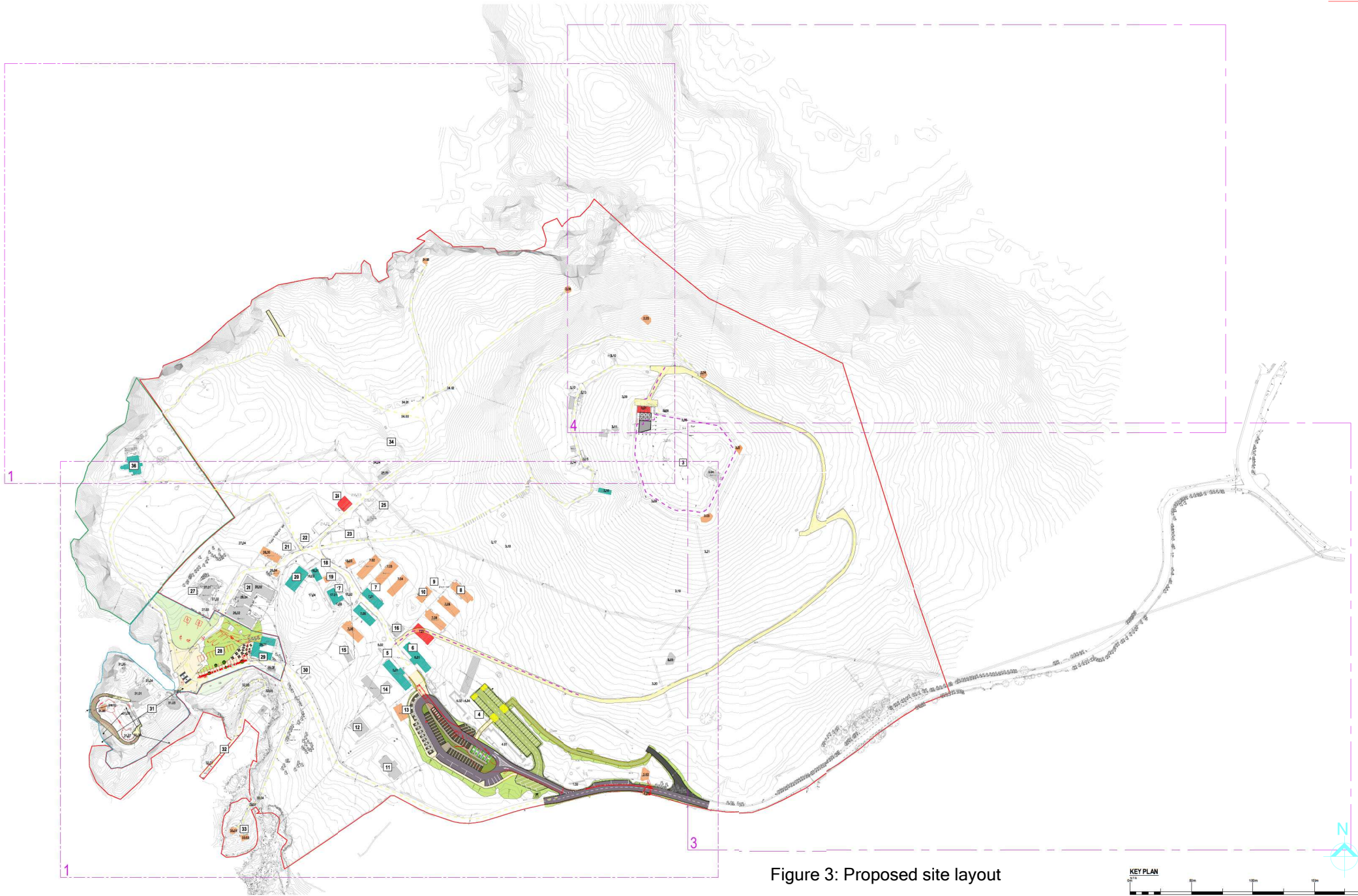
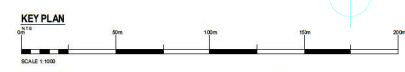


Figure 3: Proposed site layout



4.11.9 The Archaeology of the Wider Area

The following background is a brief summary of the archaeology and history of the general area of the development, which is designed to put the results of the investigations into their archaeological and historical context.

4.11.9.1 Mesolithic (7,500 – 4,500 BC)

The earliest evidence of human activity in Ireland comes from the Mesolithic Period, for which evidence begins around 7,500 BC. The people were hunters and gatherers, living by catching wild animals, birds and fish and collecting wild fruit, nuts and shellfish. They exploited local outcrops of flint and chert to manufacture characteristic microliths (to form composite implements), Larnian blades and butt-trimmed (Bann flake) tools. Mesolithic encampment sites are known around the lake shores of Co Cavan.

4.11.9.2 Neolithic (4,500 – 2,500 BC)

The Neolithic Period began around 4,500 BC with the arrival of farming. The introduction of a settled agricultural regime allowed some industrial specialisation (flint mining, polished stone axe production), the establishment of long-lasting settlements and the erection of megalithic tombs. Pottery was produced for the first time and exploitation of the flint resource continued for the manufacture of tools. Substantial houses and settlements were constructed and, with many such sites have been discovered in the last 10 years. Megalithic tombs, built of large stones, are some of the most prominent funerary sites in the landscape, many of which were used as burial monuments to inter the remains of the dead.

4.11.9.3 Bronze Age (2,500 – 500BC)

The beginning of the Bronze Age, around 2,500 BC, was marked by the appearance of new types of pottery (Beakers, Food Vessels and Urns) and by the introduction of metallurgy (working with gold and bronze). Although wedge tombs date from this period, new burial practices in the form of single inhumations and cremations (often in cists and pits) and earthen barrows largely replaced the megalithic tomb tradition. Stone circles are probably the best-known monuments of the Bronze Age. Standing stones are sometimes assigned a Bronze Age date and may mark burials of the period. Settlement sites of the Bronze Age are being revealed at a dramatic rate in recent years; the houses are generally circular and leave no visible traces on the surface. Many artificial islands, or crannogs, also date to this period; composed of brushwood, timbers and stone, they are found in small lakes and areas of drained and reclaimed land. The most numerous monuments of the period, however, are fulachta fiadh, or burnt mounds, composed of charcoal, ash and fire-cracked stones; thought to be cooking places, they often have hearths, troughs and wood-lined pits associated with them. The majority of these sites have no upstanding remains and are usually revealed at the topsoil-stripping stage of archaeological investigations.

4.11.9.4 Iron Age (500BC – AD500)

Evidence of human activity and settlement in the Iron Age is surprisingly sparse, though more sites are gradually being discovered as part of development led archaeological works. Important Iron Age sites include the Black Pigs Dyke a considerable earthwork which stretches through Counties Leitrim, Longford, Monaghan, Cavan, Fermanagh and Down. As the name indicates, it was during this period that the manufacture and use of iron and steel tools, weapons and other artefacts first took place, though the tradition of pottery production apparently disappeared.

4.11.9.5 Early Christian / Early Medieval (550AD – 1177AD)

The term 'Early Christian' is used to refer to the period from about 500 to the Anglo- Norman invasion of east Ireland in 1169, though

it is being increasingly referred to as the Early Medieval period. Monuments from this period are the most numerous in the landscape, with tens of thousands in the whole of Ireland. These include defended settlements including raths, cashels, crannogs, unenclosed settlements, ecclesiastical sites and souterrains. The most plentiful of these are raths, which were farmsteads enclosed by banks and ditches. Many of the destroyed sites listed as enclosures in the SMR are probably the remains of raths disturbed by agricultural improvement schemes. Rathes are generally circular or oval but vary in size and in the number of enclosing banks and ditches. Cashels are enclosures in rocky upland areas, of similar date and function as raths but with stone-built walls instead of banks and ditches.

Associated with such sites are souterrains, underground structures most commonly made by digging open trenches, lining them with boulders to form dry-stone walls, and then roofing them with large stone lintels before covering with soil. Due to the removal of associated upstanding remains, many souterrains are found with no obvious accompanying settlement; these are difficult to anticipate prior to their exposure.

As is clear from the name, this period saw the introduction of Christianity, and subsequently literacy into Ireland and, therefore, the start of the historic period. There are several hundred ecclesiastical sites of the period within Ireland, varying greatly in size and state of preservation. Some are occupied by modern churches, some are still used for burial, some have been completely destroyed.

4.11.9.6 Medieval (1177AD – 1603AD)

The Medieval period in Ireland began with the Anglo-Norman invasion in 1169-70, and while the main focus of Anglo-Norman incursions were in east Ulster where Antrim and Down were quickly subdued and settled, the south Ulster borderlands were very much an "in between" place. In the early 13th century, there was an attempt to colonise parts of Cavan and Leitrim although the sporadic campaigns petered. Although. Where settlement did occur, the Anglo-Normans introduced new types of structures, prominent among which were mottes (flat-topped earthen mounds), stone castles and further monastic foundations.

4.11.9.7 Post Medieval (1603AD – 1750AD)

The Post-Medieval period was dominated by the Plantation of Ulster. After the Flight of the Earls in 1607, large tracts of Counties Antrim, Down, Londonderry and Cavan were granted by the Crown to English and Scottish settlers in 'Proportions' of land of 1,000, 1,500 or 2,000 acres, on condition that the holders were able to build strong houses and enclosures. These in turn acted as the nucleus for the growth of towns.

4.11.10 **The History of Fort Dunree**

The fort was originally built as part of a series of fortifications defending Lough Swilly during the Napoleonic Wars (1803 – 1815) and is located opposite Knockalla Fort on the other side of the lough. The fort was neglected after the peace of 1815 until 1874 when it was armed with seven 24 Pounder guns. It was remodelled in 1895 to have 2 x 4.7-inch (120 mm) QF guns below, and later 12 pounder (5 kg) QF and 2 x 6-inch (152 mm) guns in an upper land battery. The top of a hill overlooking the site was walled in to form a redoubt.

Both of the 6-inch guns were operational during the First World War and guarded Admiral Lord Jellicoe's fleet which was anchored in the surrounding area before their engagement with the German navy in the Battle of Jutland.

On 6 December 1921, the Anglo-Irish Treaty was concluded which provided for the establishment of the Irish Free State which happened on 6 December 1922. The Treaty included provisions by which the British would retain sovereignty over three strategically important ports known as the Treaty ports. Accordingly, even after the establishment of the Irish Free State, the Royal Navy continued to maintain its presence at Fort Dunree.

- 4.11.10.1 Fort Dunree remained under British sovereignty until 3 October 1938 when, pursuant to the Anglo-Irish Trade Agreement of 25 April 1938, the territory was ceded to Ireland. The guns at the Fort were manned by the Irish Army until decommissioned following the Second World War. Fort Dunree was used by the Irish Army for training until 1990.

4.11.11 Desk Based Study

4.11.11.1 Sites and Monuments Record

The desk-based assessment identified the proposed development as being located within an established archaeological landscape, with 13 archaeological sites and monuments (SMR) recorded within a 2km study area around the proposed development area (PDA (fig. 4; Table 1)). The archaeological sites range in date from the Prehistoric period to the Medieval period with the majority of the sites dating to the Prehistoric period.

There are eight Prehistoric sites located within the study area highlighting the Prehistoric occupation of the wider landscape. Two cists (DG018-005, DG018-013) are located 0.67km north east and 0.4km east of the PDA boundary respectively. Cist DG018-005 measuring 2m long by 0.5m wide, was uncovered protruding from the sand and consisted of seven stones with two potential capstones found lying nearby with second cist noted a few metres to the north. Although the cist was filled with sand, previously fragments of bone have been found at the site. Cist DG018-013 is of similar size to DG018-005 and contained cremated bone with three fist-sized white stones.

SMR No.	Site Type	General Period	Townland
DG018-005	Cist	Prehistoric	Lederg
DG018-006	Burial mound	Prehistoric	Lederg
DG018-007	Midden	Prehistoric	Dunree
DG018-008	Burial ground	Medieval	Dunree
DG018-009	Ringfort - cashel	Early Medieval	An Tóin Dubh (Tc Díseart Eignigh)
DG018-010	Megalithic tomb - wedge tomb	Prehistoric	Sharagore, An Tóin Dubh (Tc Allt Na Péiste)
DG018-011	Megalithic tomb - unclassified	Prehistoric	Sharagore
DG018-013	Cist	Prehistoric	Dunree
DG018-014	Ringfort - unclassified	Early Medieval	Muineagh (Desertegny Ed)
DG018-015	Standing stone	Prehistoric	Muineagh (Desertegny Ed)
DG018-016	Ringfort - rath	Early Medieval	Sharagore
DG018-021	Castle - unclassified	Medieval	Muineagh (Desertegny Ed)
DG018-022	Promontory fort - coastal	Prehistoric	Glebe (Desertegny Ed)

Table 1: List of recorded SMR sites within a 2km radius of the proposed development

Brass pins and slag have been found at the location of a Midden (DG018-007) located 0.15km east of the PDA boundary. A Standing Stone (DG018-015) located 0.8km south east of the PDA boundary stands 3.08m high by 1.13m wide and 0.38m

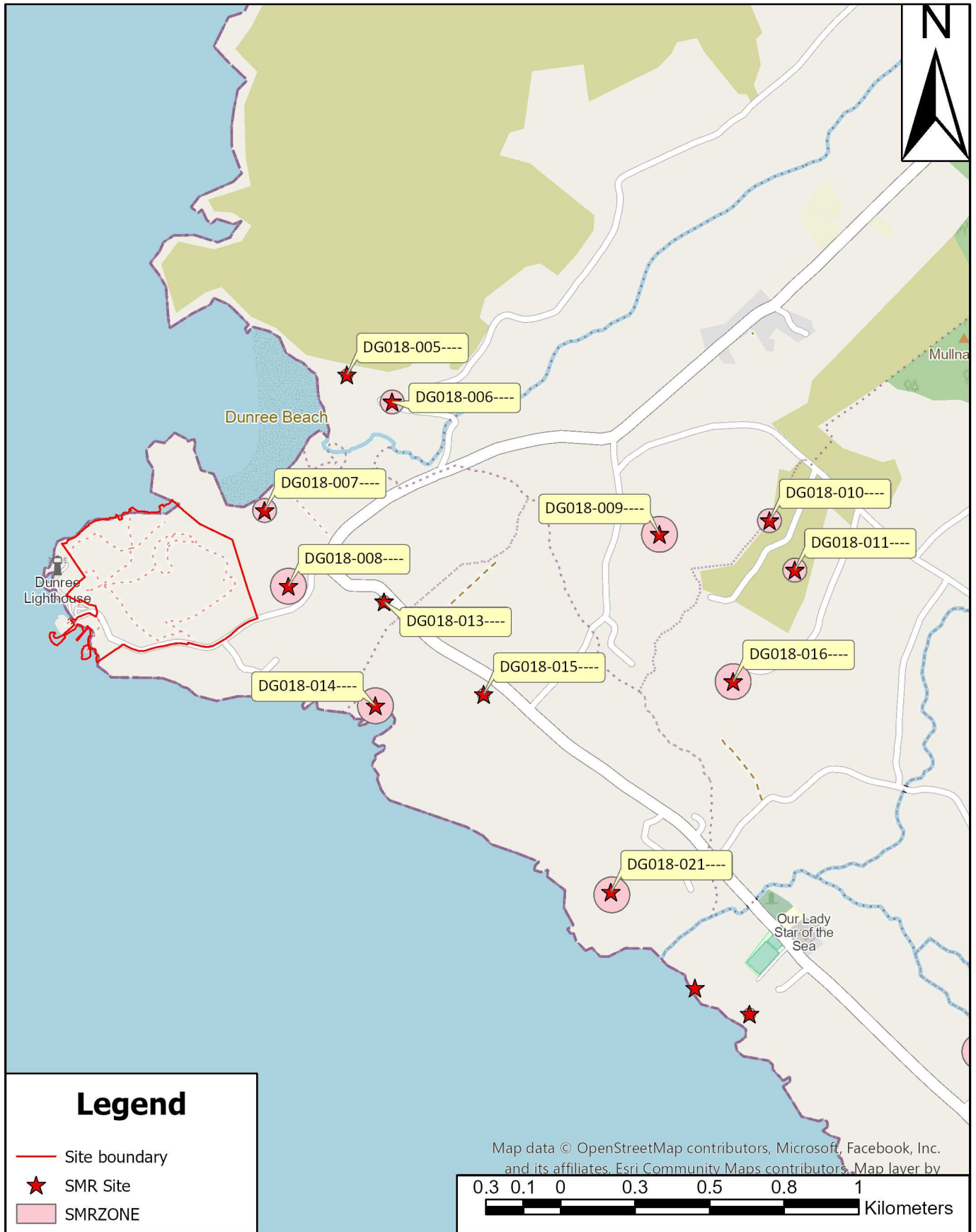


Figure 4: Location of SMR sites and associated SMR Zones within 2km of the proposed development

thick overlooking Lough Swilly. A coastal Promontory Fort (DG018-022) is located 1.9km south east of the PDA boundary along the coastline of Lough Swilly and is no longer accessible from the mainland due to a large chasm.

Two Megalithic tombs, one is a wedge tomb (DG018-010) and the other an unclassified tomb (DG018-011) are located 1.5km to the east of the PDA boundary. The structure of the wedge tomb consists of an unroofed gallery at least 4m long aligned SW-NE and flanked at either side by the remains of outer-walling. The OS Revision Name Book² records small loose stones were scattered around the structure and apparently human remains were uncovered below the surface when the stones were being removed. The remains were left in place and covered over. The unclassified tomb consists of two large stone slabs which have remained in the same position since at least 1850³ and whilst their origin is uncertain, there is no indication that they previously formed part of an artificial structure.

A Prehistoric burial mound (DG018-006) was located 0.55km north east of the PDA boundary containing a minimum of four inhumations in cists as well as a decorated pot which does not survive.

There are three Early Medieval sites identified within the study area and includes one cashel ringfort (DG018-009) 1.09km to the east of the PDA boundary, one rath ringfort (DG018-016) approximately 1.37km to the south east of the PDA boundary and one unclassified ringfort (DG018-014) 0.49km south east of the PDA boundary. There are no visible remains of the cashel ringfort which was depicted on the 1st Edition map. The rath ringfort is a subcircular shaped monument with a low earthen bank and on the north east side there is evidence of an outer bank but no accompanying fosse. There are no visible remains of the unclassified ringfort which was depicted on the 1st Edition map.

Two of the sites date to the Medieval period and includes one burial mound (DG018-008) located 0.13km east of the PDA boundary and one unclassified castle (DG018-021) located 1.5km south east of the PDA boundary. The burial ground is a slightly raised area thought to be the site of Cill Ard graveyard, part of a Medieval Monastery thought to have been attacked by Vikings, now buried under the shifting sand. There are no visible remains of the unclassified castle, known as the site of Castleross, which was demolished 150 years ago with foundations still visible in 1939⁴.

Although none of the aforementioned sites are located within the boundaries of the PDA, a Prehistoric Midden (DG018-007) and a Medieval burial mound (DG018-008) are located less than 150m north east and east of the boundary of the PDA.

4.11.11.2 Recorded Structures

There are 15 recorded structures recorded on the National Inventory of Architectural Heritage (NIAH) within a 2km study area (fig. 5; Table 2). The recorded structures are of regional importance and value with two of the structures, Fort Dunree (40901813) and Star of the Sea Catholic Church (40901812), listed on the Donegal Record of Protected Structures (RPS).

Fort Dunree (40901813) is located within the boundaries of the proposed development area and is described as a rubble stone walled hip roofed rectangular building, now used as a museum, set inside a Napoleonic battery fort which was built c.1810. The fort area contains a further six Recorded Structures, also located within the boundaries of the PDA, including the barracks (40901824), a pill box & watch tower (40901825), a battery (40901826), a guard house (40901827), a barracks hospital (40901828) and an officer's house (40901831).

A further two Recorded Structures are located within the boundaries of the PDA and includes Dunree Lighthouse (40901829) and the lighthouse keepers house (40901830).

² OS Revision Name Book, Sheet 18 (1847- 1859), 11 - 12

³ *Ibid.*

⁴ Davies, O. and Swan, H. P. (1939) 'The Castle of Inishowen', Ulster Journal of Archaeology, Series III, Vol 2

Six Recorded Structures are located within 2km of the boundaries of the PDA and include the Star of the Sea Catholic Church (40901812) which is described on the Donegal Record of Protected Structures (RPS) as a detached six bay single storey Catholic Church built in 1964 with an internal gallery, apsidal alter end, a projecting sacristy, entrance porches and open bell tower as well as four houses (40901817, 40901818, 40901819, 40901820) in the townlands of Milltown, Tonduff and Muineagh Lower respectively and the building used for St. Patrick's Girls National School (40901821).

Reg No.	Construction Date	Location	Value	Original Use	Current Use
40901812	1960 - 1965	Star of the Sea Catholic Church	Regional	Church / Chapel	Church / Chapel
40901813	1805 - 1815	Dunree Fort	Regional	Battery	Museum / Gallery
40901817	1850 - 1900	Milltown	Regional	House	Unknown
40901818	1830 - 1870	Tonduff	Regional	House	House
40901819	1830 - 1870	Muineagh Lower	Regional	House	House
40901820	1840 - 1880	Muineagh Lower	Regional	House	House
40901821	1890 - 1900	St. Patrick's Girls National School	Regional	School	Unknown
40901824	1900 - 1940	Dunree Fort	Regional	Barracks	Heritage Centre / Interpretative Centre
40901825	1900 - 1940	Dunree Fort	Regional	Pill Box; Watch Tower	Unused
40901826	1890 - 1910	Dunree Fort	Regional	Battery	Museum / Gallery
40901827	1900 - 1940	Dunree Fort	Regional	Guard House	Unused
40901828	1870 - 1920	Dunree Fort	Regional	Barracks; Hospital / Infirmary; Latrine	Museum / Gallery; Shop / Retail Outlet
40901829	1870 - 1880	Dunree Lighthouse	Regional	Lighthouse	Lighthouse
40901830	1870 - 1880	Dunree Lighthouse	Regional	Lighthouse Keeper's House	House
40901831	1900 - 1930	Dunree Fort	Regional	Officer's House	Unused and Derelict

Table 2: List of buildings listed on NIAH register within 2km of the proposed development area

Nine of the aforementioned Recorded Structures, relating to Fort Dunree and Dunree Lighthouse are located within the boundaries of the PDA with Fort Dunree included on the Donegal Record of Protected Structures (RPS).

4.11.11.3 National Museum of Ireland Finds Database

The National Museum of Ireland: Finds Database (2010)⁵ was consulted to establish whether any archaeological artefacts have been discovered within the PDA and the study area giving further indication of the archaeological potential of the area.

No artefacts are listed from within the boundaries of the PDA or the 2km study area.

⁵ <https://heritagemaps.ie/>



Figure 5: Location of National Inventory of Architectural Heritage (NIAH) sites within 2km of the Proposed Development

4.11.11.4 Historic Maps

Historic maps⁶ of the PDA were consulted in order to examine the development of the area within the PDA and its immediate surroundings.

A map of the county of Donegal drawn from a survey by William McCrea in 1796 (fig. 6a) shows the area named Dunree as located in a rural coastal area along the shoreline of Lough Swilly. A road runs along the coastline from south east to north west towards Dunree but there does not appear to be any settlements or barracks recorded within the area of the PDA.

The Daniel Lizars Map of Ireland in 1831 (fig. 6a) depicts 'Dunree Fort' as located in a rural landscape along the shoreline of Lough Swilly.

The First Edition OS 6" map (1836) (fig.6b) shows the PDA as located within a rural coastal landscape with few isolated farmsteads. A road runs through the landscape and along the southern boundary of the PDA into the area labelled 'Ordnance Ground' with the buildings relating to the fort constructed on a small outcrop from the mainland. Four stones are labelled on the map indicating the four corners of the land included in the Ordnance Ground. Some field boundaries are illustrated on the map as well as the summit of Dunree Hill.

The Griffith's Valuation map (1857) (fig. 6b) shows a more detailed field boundary layout than the previous map with a farmstead constructed to the south of the PDA and a building constructed to the east of the east site boundary on the slopes of Dunree Hill. Within the boundaries of the PDA, a farmstead has been constructed along the southern site boundary and additional buildings have been constructed within the Ordnance Ground and Dunree Fort. A defensive wall also appears to have been constructed around the fort. The four stones at the four corners of the Ordnance Ground are labelled as 'Ordnance Stones'.

On the Last Edition OS 6" map (1905) (fig.6c), the PDA is shown as a rural coastline landscape with no descriptions, labels or symbols on the map to indicate the presence of a military fort at Dunree Head. The buildings located within the Ordnance Ground are depicted but the location of the fort is blank. It is possible that this is a security measure as modern maps do not show the internal layout of military bases. A lighthouse has been constructed along the shoreline to the north of the Ordnance Ground and named Dunree Head Lighthouse. To the south of the PDA, there are additional buildings located in the farmstead. A 1932 plan of Fort Dunree (fig. 6d) from the Defence Forces Ireland Military Archives⁷ (RefNo. IE/MA/MPD/ad134216-010) illustrates the internal layout of the fort with the locations of the different buildings including the various living accommodation, a church, the barrack rooms, the drill shed and the recreation rooms as well as topographical information such as drains, manholes, pipes, fire hydrants, boundary stones and the weights of ceilings.

A map of the Dunree Rifle Range (1920's – 1930's) (fig. 6e) from the Defence Forces Ireland Military Archives⁸ (RefNo. IE/MA/MPD/ad134152-006) shows that the proposed development area is located within a rural landscape with some of the buildings located within the Ordnance Ground depicted and Dunree Head Lighthouse to the north of the Ordnance Ground. The map also shows that the land included within the proposed development area boundaries but outside of the fort and the Ordnance Ground has remained undeveloped. The Dunree Rifle Range is located to the east of Dunree Hill, running north to south with the 600-yard line crossing the PDA boundary near the crossroads leading to the entrance of the Fort Dunree.

The examination of the historic maps highlighted the locations of the various buildings located within the fort and the Ordnance Ground and that the remaining ground has remained undeveloped. No previously unknown or new potential archaeological sites or features were identified during the inspection of the historic maps.

⁶ <https://heritagemaps.ie/>

⁷ <https://www.militaryarchives.ie/en/home/>

⁸ <https://www.militaryarchives.ie/en/home/>



William McCrea Map of Donegal (1796)



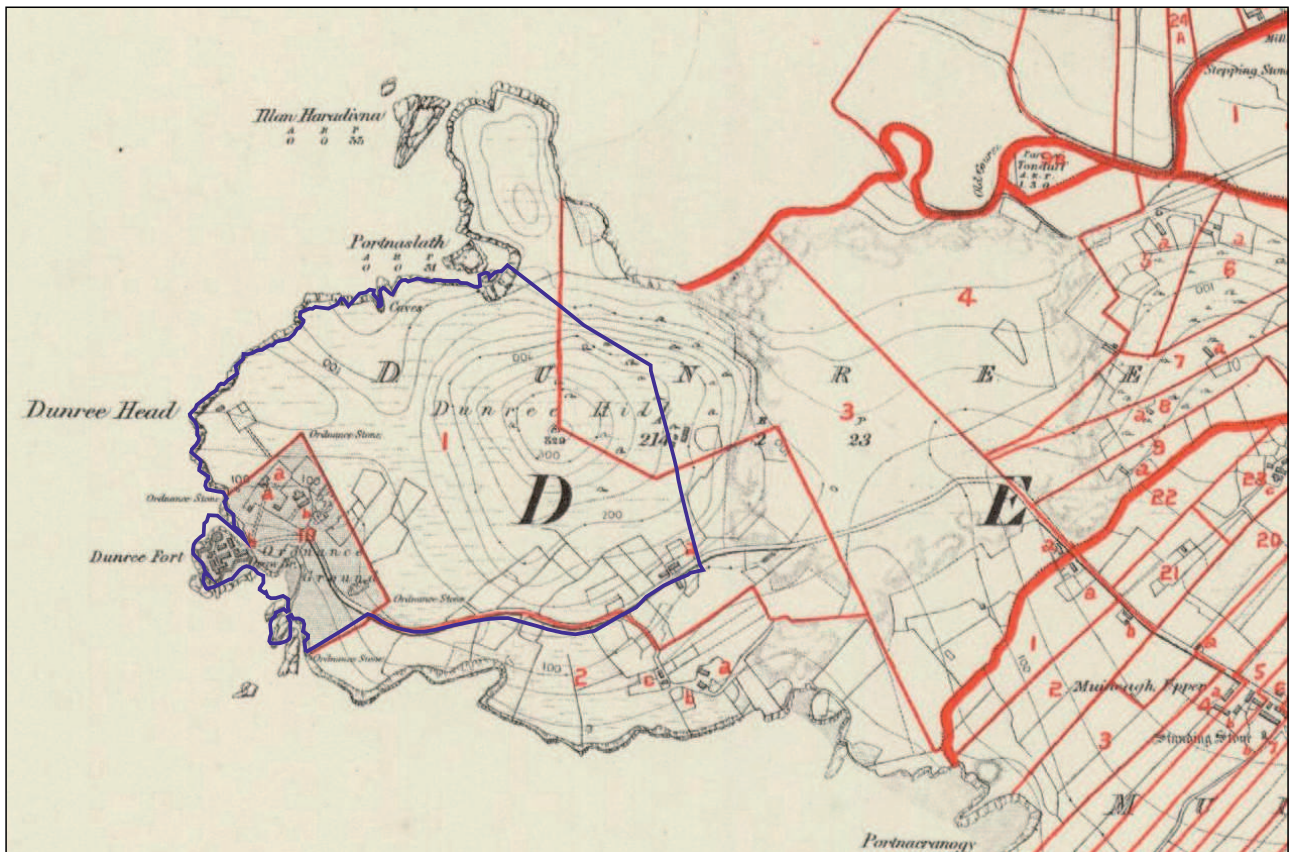
Daniel Lizars Map of Ireland (1831)

□ Location of PDA

Figure 6a: Historic Maps of the Proposed Development Area



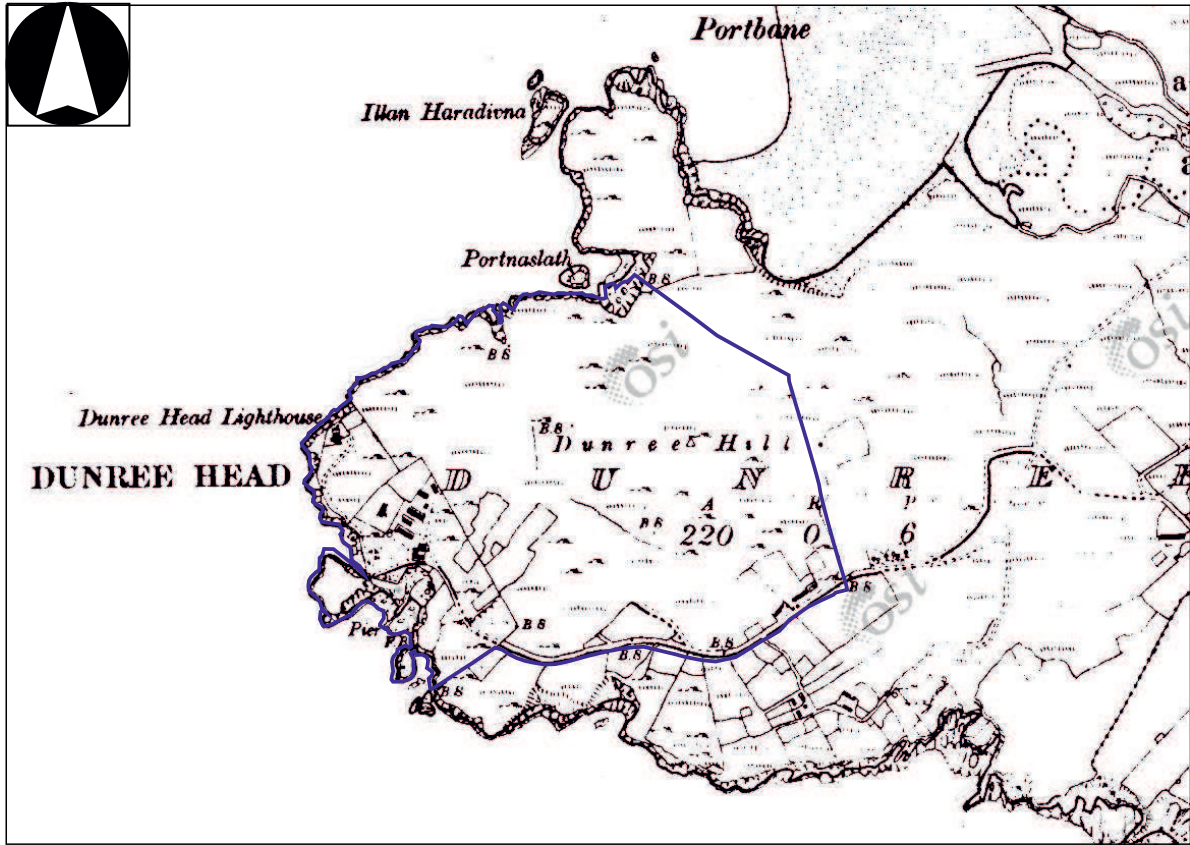
First Edition OS 6" map (1836)



Griffith's Valuation Map (1857)



Figure 6b: Historic Maps of the Proposed Development Area



Last Edition OS 6" map (1905)

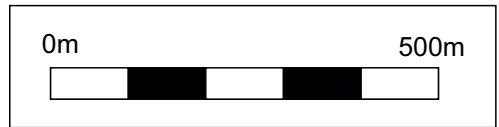


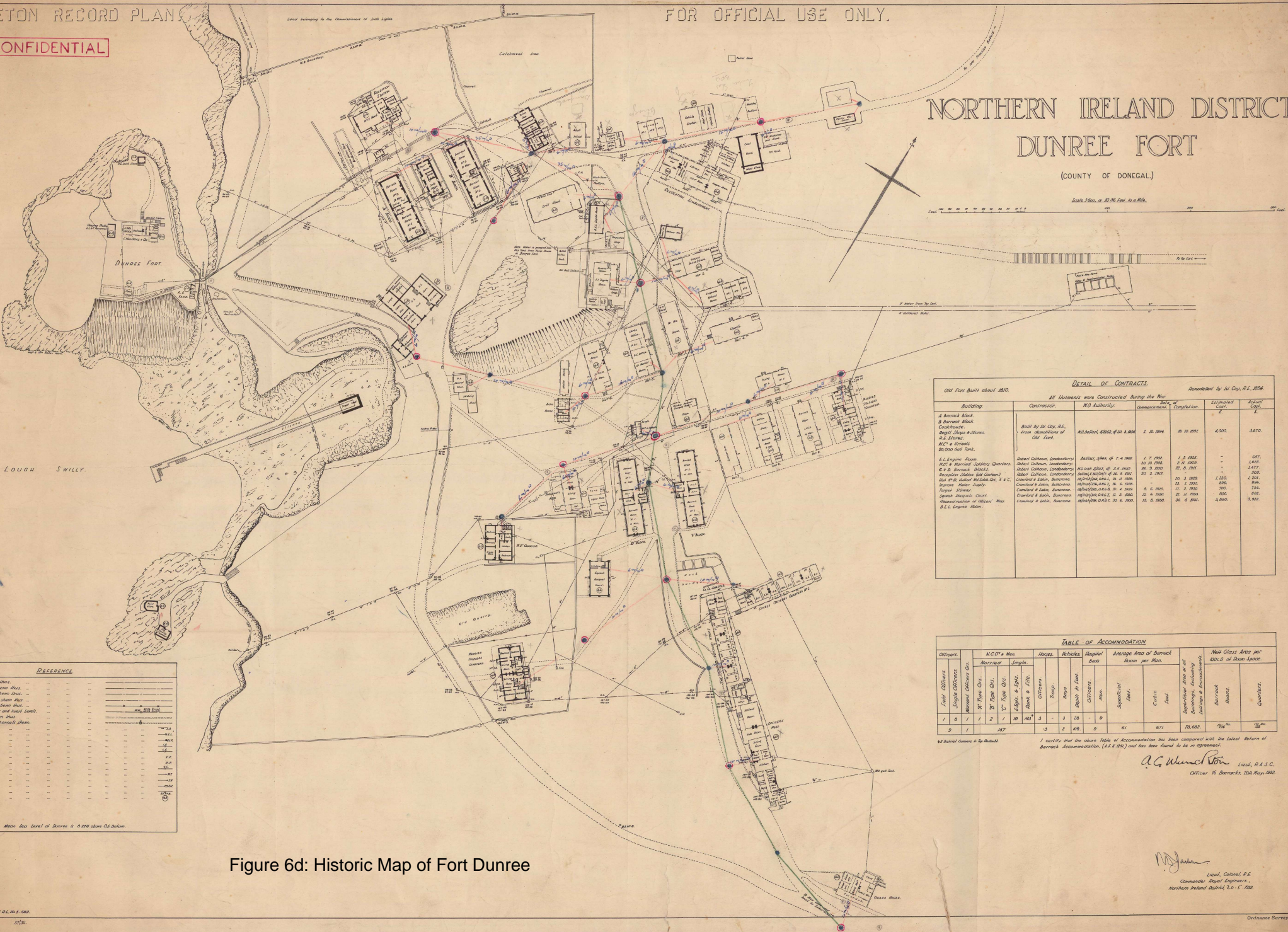
Figure 6c: Historic Maps of the Proposed Development Area

CONFIDENTIAL

NORTHERN IRELAND DISTRICT DUNREE FORT

(COUNTY OF DONEGAL)

Scale 1/5000 or 10.56 Feet to an Inch.



DETAIL OF CONTRACTS

Old Fort Built about 1850. All Buildings were Constructed During the War. Remodelled by Lt Col. R.E. 1894.

Building.	Contractor.	R.O. Authority.	Date of Commencement.	Date of Completion.	Estimated Cost.	Actual Cost.
A Barrack Block. B Barrack Block. Cookhouse. Regimental Mess & Store. R.E. Store. W.C. & Urinals. 20,000 Gall Tank.	Built by Lt Col. R.E. from demolitions of Old Fort.	NO. 2001, 5382, of an S. 1884	1. 10. 1894	18. 10. 1897	4,000	5,670
1 Engine Room. W.C. & Bathroom. Soldiers' Quarters. E & B Barrack. Block. Regimental Mess (old building). Mess for 2nd Lt. Col. & 2 s.c. Hospital. Mess. Mess. Regimental Library. Specialists' Mess. Reconstruction of Officers' Mess. S.E. Engine Room.	Robert Colburn, London. Robert Colburn, London. Robert Colburn, London. Robert Colburn, London. Mess for 2nd Lt. Col. & 2 s.c. Hospital. Mess. Mess. Regimental Library. Specialists' Mess. Reconstruction of Officers' Mess. S.E. Engine Room.	NO. 2001, 5382, of an S. 1884	1. 10. 1894	1. 10. 1897	4,000	5,670
						1,571
						505
						1,200
						818
						734
						900
						3,002

REFERENCE

Foot Drains shown blue.	Storm Water Drains shown blue.	Water Supply Pipes shown blue.	Fire Alarm (anti-fuse) shown blue.	Electric Light Mains shown blue.	Mains for Steam, Gas, and Hot Water.	Sanitary Channels shown blue.	Gullies & Siphons in Channels shown blue.	W.C. Sinks.	Electric Light.	Electric Light Pole.	Incandescent Gas.	Chimney Pipe.	Brickwork Pipe.	Downwater Pipe.	Shed Cais.	Water Stop.	Stone Pipe.	Fire Staircase.	W.B. Boundary Stone.	Height of Chimney.
.....

Mean Sea Level of Dunree is 9.970 above O.D. datum

TABLE OF ACCOMMODATION

Officers.	NCO's & Men.	Horses.	Vehicles.	Hospital Beds.	Average Area of Barrack Room per Man.	Mean Glass Area per 100 sq. ft. of Room Space.
10	157	3	2	108	61	78.682

A.C. Munro
Lieut. R.A.S.C.
Officer in Charge, 25th May 1920.

M.J. Jones
Lieut. Colonel, R.E.
Commander Royal Engineers,
Northern Ireland District, 20.5.1920.

Figure 6d: Historic Map of Fort Dunree

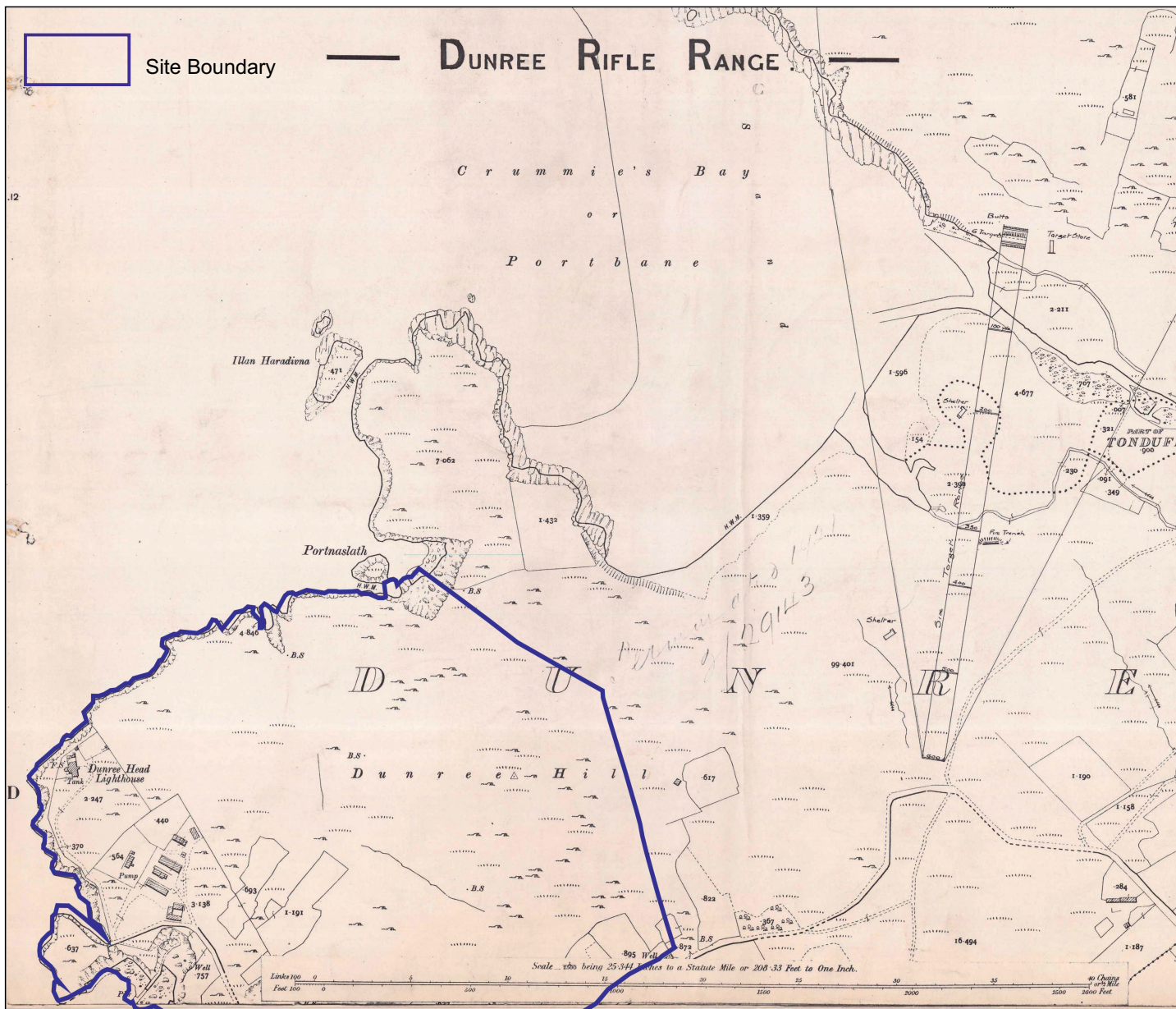


Figure 6e: Historic map of Dunree Rifle Range (1920s - 1930s)

4.11.11.5 Griffiths Valuation Records

Valuation records⁹ were consulted as a means of confirming the historic development of the site during the 19th century and assess the land use of the PDA (Table 3).

The valuation records show that the PDA spans three plots (Plot 1, Plot 3 and Plot 10). Whilst Plots 1 and 3 were used as farmland and each contained a house, offices and land, Plot 10 was owned by the Board of Ordnance, a British Government body in operation from the Tudor period to 1855, which acted as the custodians of the lands, depots and forts occupied by the British Army and Navy who operated the site as a barracks.

Source	Year	Plot	Occupier	Immediate Lessor	Tenement	Area	Rateable Annual Valuation	
							Land	Buildings
Griffith's Valuation Record	1857	1	James McKenny	George Harvey	House, offices and land	7 acres, 0 roods, 25 perches	£4 4s	16s
		3	Daniel Magory	George Harvey	House, office and land	51 acres, 1 rood, 35 perches	£3 10s	10s
		10	Hon. Bd. Of Ordnance	In fee	Barrack fort and land	8 acres, 2 roods, 35 perches	10s	£24 10s

Table 3: Land use of the PDA during the 19th century

4.11.11.6 Aerial Photography

The aerial photograph of the site (fig. 7) shows the PDA located within a rural coastal landscape occupying a prominent position within the landscape with some modern dwellings located to the south of the southern site boundary. An access road runs along the southern site boundary which leads to the western part of the PDA where buildings and a car park are located. The buildings appear to have been constructed in rows with additional roads/paths providing access between the buildings, to the lighthouse to the north of the buildings and to the buildings constructed on the outcrop located to the south east of the carpark.

The paths continue into the northern part of the PDA as well as leading around and to the top of Dunree Hill. At the top of Dunree Hill there is a military structure, a battery constructed c.1900 (NIAH 40901826), which was not depicted on the historic maps. The remaining areas of the PDA have remained undeveloped and are covered with vegetation including grasses and heather.

Inspection of the aerial photograph revealed the buildings and roads/paths which survive from when the site was occupied as a military fort, as well as highlighting the position of a battery which was not depicted on the historic maps. No obvious potential archaeological features were identified within the boundaries of the PDA.

4.11.11.7 Place name evidence

Often the origin of town or townland names¹⁰ will indicate the historic topography of an area or its use in past times. As such a search of the meanings of place names can assist in the assessment of the archaeological potential of an area.

⁹ <http://www.askaboutireland.ie/griffith-valuation>

¹⁰ <http://www.logainm.ie/>

The proposed development is located within the townland of Dunree. One suggestion is that Dunree comes from the Irish *An Dún Riabhach*. With *Dún* meaning 'fort' and *Riabhach* meaning 'streaked' or 'grey'. The second interpretation is that Fort Dunree comes from the Irish *Dún Fhraoigh* which means 'Fort of the Heather'. The placename evidence suggests that while the site was developed in the 19th century as a commanding military structure, it may have been the site of an older medieval defensive settlement at one time.

4.11.11.8 Previous Archaeological Excavations

The Database of Irish Archaeological Excavation Reports¹¹ was consulted in order to identify previous archaeological investigations within the study area.

No previous archaeological investigations have taken place within the boundaries of the PDA or within the 2km study area.

4.11.11.9 Current Site Conditions

An examination of the current site conditions has been carried out in order to confirm the results of the desk-based assessment and identify any potential previously unknown archaeological sites located within the PDA.

The examination confirmed that the PDA is located within a rural coastal landscape accessed via Fort Dunree Road (Plate 1) which runs along the southern site boundary at the bottom of the slope of Dunree Hill (Plates 2 - 5). Paths through the PDA and circling Dunree Hill are accessible from Fort Dunree Road (Plate 6). The entrance to Fort Dunree is marked with a corrugated metal sentry hut on the southern side of Fort Dunree Road and a stone-built sentry building located on the northern side (Plates 7 – 8).

Fort Dunree Road continues through the Fort with many surviving buildings from when the fort was in use including the stone/brick-built buildings and corrugated metal huts (Plates 9 – 17). Some of surviving buildings are in a good condition as many are used in association with the museum, whilst some, particularly the corrugated metal huts, survive in a poor condition or have collapsed. The walls and buildings of Dunree Fort (Plate 12) which is located on a small outcrop from the mainland survive and are currently used as a museum. There are surviving remains of the walls of the battery which was located at the summit of Dunree Hill (Plates 18 – 21).

No newly identified archaeological remains were noted during the examination of the current site conditions.

4.11.12 **Assessment of Archaeological Potential**

The assessment of the topographic potential and the examination of the type, density and distribution of archaeological sites within that landscape give rise to the identification of the archaeological potential of any given landscape. These areas of archaeological potential may be indicated given their:

- a. close proximity to recorded archaeological monuments (as depicted on the SMR and IHR maps)
- b. close proximity to newly identified potential archaeological sites.

4.11.12.1 *Summary of Findings- Desk Based Assessment*

Consultation of the records maintained by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media revealed that the wider study area has a proven archaeological heritage with 13 recorded SMR sites and 15 Recorded Structures located

¹¹ www.excavations.ie (accessed 21/09/22)

within 2km of the proposed development. The main focus of past activity within the archaeological record dates to the Prehistoric period with continued occupation of the landscape evident in the archaeological record through to the Medieval period. Two SMR sites, a Prehistoric Midden (DG018-007----) and a Medieval Burial Mound (DG018-008----), are located less than 150m north east and east of the boundary of the proposed development area respectively. There are nine Recorded Structures located within the boundaries of the PDA relating to Fort Dunree and Dunree Lighthouse with Fort Dunree included on the Donegal Record of Protected Structures (RPS).

Consultation of early historical records and maps dating from the beginning of the 18th century onwards indicate that prior to the construction of Dunree Fort, the land at Dunree was undeveloped, however placename evidence does suggest that the site has historically been the location for a defensive settlement further in the past. The historic maps also confirm the undeveloped nature of the landscape and the gradual expansion of the fort with the construction of brick and corrugated metal huts.

No previous archaeological investigations have taken place within the boundaries of the PDA or within the study area.

Based solely on the desk top study, the area of the PDA can be assessed to be of moderate archaeological potential based solely upon its location within an archaeological landscape, proximity to a Prehistoric Midden and Medieval Burial Mound, its placename evidence and the previously undeveloped nature of parts of the PDA.

4.11.12.2 *Summary of findings – Topographic Assessment: interpretation of the archaeological landscape*

Consideration of the topographic setting of any proposed development is fundamental in the interpretation of the archaeological landscape of a given area. Three topographical characteristics may be considered as of archaeological importance within the landscape setting:

- High ground/elevated areas: These may be deemed as being of archaeological potential given their prominence in the local landscape. Numerous examples of the importance of areas of high/elevated land are recorded within the archaeological record, with specific emphasis upon early Christian defensive sites (i.e., raths/forts), prehistoric funerary (i.e., Barrows/Megalithic tombs) and ritual (i.e., prehistoric enclosures) sites.
- Areas in proximity to river courses: These areas may be deemed as being of archaeological potential given their ease of access to both natural resources such as water, food, and water energy (i.e., mills).
- Areas in proximity to lakes/coastal areas: As with those areas in proximity to river courses, these may also be deemed as being of archaeological potential due to their ease of access to water and food sources.

The proposed development is located in a prominent elevated position along the coastline of Lough Swilly. The elevated position of the PDA which allows for its defensive position, along with the ease of access to natural resources such as water and food as well as access to a transportation route would have made this area a focal point for occupation since the prehistoric period. Based upon its topographic setting the PDA may be considered as being of high archaeological potential.

4.11.13 **Assessment of Archaeological Impact of the Development**

Criteria for assessing the Archaeological Impact

The proposed development is to include the improvement of the visitor experience at Dunree Fort, Co Donegal to include;

- Widening of the existing access road into the site and construction of a new 110 space car park with facilities of bus/coach, EV charging and cycle parking
- Construction of a new access road (160m) connecting the Welcome Buildings and High Fort
- Removal of existing car park to be replaced with soft landscaping
- Construction of a new treatment plant including all infrastructure



Figure 7: Aerial Photograph showing modern land use of the proposed development

- Construction of new walkway at the Lower fort
- Construction of a new viewing building at the High Fort and refurbishment of the High Fort
- Restoration of the High Guns
- Upgrade of 4nr Watchtowers
- Repairs and upgrades to the Lighthouse and construction of a new Lighthouse Walkway
- Ancillary works consisting of general repairs to existing infrastructure.

No nationally accepted standard method of evaluation and assessment is available for the assessment of impact significance upon archaeological / historic remains (cultural heritage). Archaeological Impact of the proposed development is assessed from a baseline which is based upon the situation that would exist if the proposed development scheme were not pursued. Previous Sections 8 through to 11 therefore form the baseline survey for this assessment.

The framework for identifying the archaeological impact of any development upon cultural heritage and archaeological remains uncovered during the development are governed by National legislation and 4.1 County Donegal Development Plan 2018 – 2024 with specific reference to Archaeological Heritage Policies AH-P-1 – 8 and Objectives AH-O-1 and Built Heritage Policies BH-P-1 – 18 and Objectives BH-O-1 – 5.

The criteria for assessing the impact include; period, rarity, documentation, group value, survival / condition, fragility / vulnerability, diversity and potential.

This information, in conjunction with various other legal and statutory policies (as outlined above in Section 2) and with professional judgement, is used to assess the value of archaeological sites and monuments within a development. The approach to assessing the Cultural Heritage Value is presented in Table 4 below^{12,13}.

Value	Examples
Very High	<ul style="list-style-type: none"> • World Heritage Sites; • Assets of acknowledged international importance; • Other buildings of recognized international importance; • Historic landscapes of international sensitivity, whether designated or not.
High	<ul style="list-style-type: none"> • Scheduled Monuments; • Undesignated sites/features of schedulable quality and importance; • Listed Buildings; • Undesignated structures of clear national importance; • Designated & undesignated historic landscapes of outstanding interest.
Medium	<ul style="list-style-type: none"> • Sites/features that contribute to regional research objectives; Unlisted buildings that can be shown to have exceptional qualities in their fabric or historical association; • Historic townscape or built-up areas with historic integrity in their buildings, or built settings; • Designated special historic landscapes and undesignated historic landscapes of regional sensitivity.
Low	<ul style="list-style-type: none"> • Undesignated sites/features of local importance; • 'Locally Listed' buildings and unlisted buildings of modest quality in their fabric or historical association; • Historic landscapes whose sensitivity is limited by poor preservation and/or poor survival of contextual associations or with specific and substantial importance to local interest groups.
Negligible	<ul style="list-style-type: none"> • Assets with very little or no surviving archaeological interest; • Buildings of no architectural or historical note; buildings of an intrusive character; • Landscapes with little or no significant historical interest
Unknown	<ul style="list-style-type: none"> • Archaeological sites/features where the importance of the resource cannot be ascertained; • Buildings with some hidden (i.e., inaccessible) potential for historic significance.

Table 4: Determining cultural heritage value

¹² Design Manual for Roads and Bridges Vol II Section 3 Part 2 HA 208/07 Annex 5 Cultural Heritage Sub-topic Guidance: Archaeological Remains 2007

¹³ Design Manual for Roads and Bridges LA104 Revision 1 Environmental Assessment and Monitoring 2020

The magnitude of the potential impact is assessed independently for each individual site as well as its cultural heritage value. The impact categories are outlined in Table 5 below.

Magnitude	Criteria
Major	Change to most or all key archaeological/historic building/historic landscape elements, such that the resource is totally altered. Comprehensive or total changes to setting.
Intermediate	Changes to many key archaeological/historic building/historic landscape elements, such that the resource is clearly modified. Considerable changes to setting.
Minor	Changes to key archaeological/historic building/historic landscape elements, such that the asset is slightly altered. Slight changes to setting.
Negligible	Very minor changes to elements or setting.
No Change	No change

Table 5: Determining Magnitude of Impact

Significance of Impact	Magnitude of Potential Impact				
	Major	Intermediate	Minor	Negligible	No change
Cultural Heritage Value					
Very high	Very Large	Large/Very Large	Moderate/ Large	Slight	Neutral
High	Large/Very Large	Moderate/ Large	Slight/ Moderate	Slight	Neutral
Medium	Moderate/ Large	Moderate	Slight	Neutral/ Slight	Neutral
Low	Slight/ Moderate	Slight	Neutral/ Slight	Neutral/ Slight	Neutral
Negligible	Slight	Neutral/ Slight	Neutral/ Slight	Neutral	Neutral

Table 6: Magnitude of impact

Impact Significance	Criteria
Very Large	Cultural heritage features assigned this level of impact significance will represent key factors in the decision-making process. <i>Adverse</i> – Features of high/very high value which are partially damaged; sites of high/medium value which are almost wholly damaged or destroyed. Mitigation measures will have had minimal effect in reducing the significance of impact. <i>Beneficial</i> – These effects will virtually restore a site or its setting and re-establish its significance.
Large	These effects are considered to be very important in the decision-making process. These effects are important at a national level and to statutory bodies. <i>Adverse</i> – These effects will damage assets or their setting, so that their integrity or understanding is destroyed or severely compromised. This will result in a resource that can no longer be appreciated or understood. Mitigation measures may not deal appropriately with all aspects of the impact. <i>Beneficial</i> – These effects will halt rapid degradation or erosion of cultural heritage features or result in significant restoration of setting.
Moderate	These effects are likely to be important to considerations, but not key factors, in the decision-making process. However, cumulative effects may raise the overall significance of impact. These impacts are likely to be important at a regional level. <i>Adverse</i> – These effects will damage cultural heritage assets, or their setting, so that their integrity or understanding is compromised but not destroyed. Adequate mitigation measures can be specified. <i>Beneficial</i> – These effects are likely to result in the halting of degradation or erosion of heritage assets or result in the restoration of characteristics features or setting so that understanding, and appreciation is improved.
Slight	These effects are unlikely to be critical factors in the decision-making process but are likely to be important factors in the design of a project. These effects are important at a local level. <i>Adverse</i> – the proposals will damage cultural heritage assets, or their setting, so that their integrity or understanding is diminished but not compromised. <i>Beneficial</i> – the proposals will stabilise cultural heritage assets or enhance their setting, so that their integrity is maintained, or understanding is improved.
Neutral	No effects upon cultural heritage or the effects are negligible. There is no conflict with or contribution to policies for protection of heritage resources.

Table 7: Significance of Level of Impact

The two sets of criteria, for both the cultural heritage value and the magnitude of the impact, are therefore combined to determine the significance of the impact, as laid out Table 6 above.

The significance of the impact can be either beneficial or adverse (Table 7). In general, a beneficial impact would involve the preservation of archaeological or historical remains *in situ* and through record. An adverse impact would be the destruction of archaeological or historical remains

4.11.13.1 Assessment of Archaeological Impact: Previously Identified Cultural Heritage Features.

The proposed development site lies within an area of moderate archaeological / historical potential, with 13 archaeological sites and monuments and 15 Recorded Structures, of which nine are located within the boundaries of the Proposed Development Area, are recorded within a 2km radius of its boundaries.

Based upon the above criteria the following designations may be proposed for the existing recorded cultural heritage sites set within 2km of the site (Table 8).

Cultural Heritage Receptor	Assessment of significance	Value	Magnitude	Significance of Impact
DG018-005----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-006----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-007----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-008----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-009----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-010----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-011----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-013----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-014----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-015----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-016----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-021----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
DG018-022----	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901812	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901813	Sites/features that contribute to regional research objectives	Medium	Moderate	Slight / Moderate
40901817	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901818	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901819	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901820	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901821	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901824	Sites/features that contribute to regional research objectives	Medium	Moderate	Beneficial
40901825	Sites/features that contribute to regional research objectives	Medium	Neutral	Neutral
40901826	Sites/features that contribute to regional research objectives	Medium	Moderate	Beneficial
40901827	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral
40901828	Sites/features that contribute to regional research objectives	Medium	Moderate	Beneficial
40901829	Sites/features that contribute to regional research objectives	Medium	Moderate	Beneficial
40901830	Sites/features that contribute to regional research objectives	Medium	Moderate	Beneficial
40901831	Sites/features that contribute to regional research objectives	Medium	No Change	Neutral

Table 8: Assessment of Impact of proposed development upon existing known archaeological sites and monuments.

Whilst there are no SMR sites located within the boundaries of the PDA there are two SMR sites located less than 150m from the site boundaries. However neither these two sites or the remaining SMR sites within the wider area will be directly or indirectly impacted upon by the proposed development and therefore the significance of impact being considered neutral.

There are nine Recorded Structures located within the boundaries of the PDA. A building conservation assessment report is being compiled by Dedalus Architects in conjunction with this Archaeological Impact Assessment, therefore this report will not detail the exact impact of the proposed development on these structures and associated mitigation. However given that many of the structures are proposed to be renovated/restored and public access to these building elements and the wider fort site as a whole. there is the potential for the proposed development to have a beneficial impact. There will be no direct or indirect impact upon the Recorded Structures located outside the boundaries of the development area with the corresponding significance of impact being neutral.

4.11.13.2 *Assessment of Archaeological Impact: Previously Unidentified/Potential Archaeological Remains*

Previous archaeological investigations associated with development works within Ireland have highlighted the potential for subsurface archaeological remains associated with both prehistoric and historic activity to be adversely impacted upon during development works such as those carried out during development for housing, infrastructure and commercial development.

The desk-based assessment suggests that the PDA is located within an area of moderate archaeological potential considering its location within an archaeological landscape with known archaeological sites within the study area. The proposed site is situated within a rural coastal landscape which, outside of the existing buildings associated with the fort and the lighthouse, has remained undeveloped from the early 18th century based on historic mapping, while modern aerial photography has shown that there has been a low degree of recent modern development on the site, again suggesting a moderate potential of survival of sub-surface archaeological remains outside the area of the existing buildings.

The proposed development will entail invasive ground works across various areas of the site associated with the construction of site access, a new car park, new walkways and other infrastructure. Therefore any ground works with extend beyond the depth of existing modern formation levels and below topsoil to disturb underlying subsoil have the potential to negatively impact upon buried archaeological deposits and features.

4.11.14 **Conclusions and Recommendations¹⁴**

The desktop study has confirmed that the site is both located within the upstanding remains of the important historic defensive site of Dunree and is also located within an area of moderate archaeological potential given the location of the proposed development area within a wider archaeological landscape and considering the relatively low degree of modern development outside of the fort area which has previously occurred at the site.

Given that there is the potential for archaeological remains to survive within the site boundaries, but these are an unknown, it is recommended that archaeological mitigation measures are implemented in line with National legislation and County Donegal Development Plan 2018 – 2024 (Archaeological Heritage Policies AH-P-1 – 8 and Objectives AH-O-1 and Built Heritage Policies BH-P-1 – 18 and Objectives BH-O-1 – 5). Such works may be carried out in association with archaeological conditional grant of planning approval as part of pre-construction and construction phase works at the site. The following recommendations are proposed as part of such investigations:

4.11.14.1 Pre-Construction Investigations

¹⁴ All recommendations are subject to discussions with and the approval of the relevant heritage authorities

The most significant area of proposed invasive ground works for the proposed development is the construction of the new car park at the southern portion of the development site. This will entail extensive ground cut and fill and will present, while the size of the area of proposed works represents the greatest potential for uncovering sub-surface archaeological remains which may be impacted upon by development. Therefore, it is recommended that pre-construction archaeological test trenching is carried out within the area of the proposed new car park and access road widening. The aims of the test trenching are to identify any potential sub-surface archaeological remains which survive and to provide for an appropriate mitigation strategy to be implemented, either through in situ preservation or preservation through archaeological excavation and recording.

Details for the proposed new treatment plant are still to be issued, however if this proves to also be of a significant size it is recommended that pre-construction test trenching is carried out within the footprint of the proposed new treatment plant.

The aims of the pre-construction test trenching are also to allow sufficient time in the project timetable for appropriate archaeological mitigation measures to be implemented prior to commencement of on-site construction works.

4.11.14.2 Construction Phase investigations

Additional ground disturbance works associated with installation of new paths, walkways drainage etc., while not as extensive as the proposed car park still represent a potential risk of adverse impact upon surviving sub-surface archaeological remains, albeit on a smaller scale. It is therefore recommended that those areas of ground works outside of the proposed car park/treatment plant which are to undergo ground reduction beyond the level of topsoil / modern formation levels during construction phase works are carried out under the supervision of a professional archaeologist under licence from National Monument Service in consultation with National Museum of Ireland.

The aims of the archaeological monitoring are to identify any potential sub-surface archaeological remains which survive and to provide for an appropriate mitigation strategy to be implemented, either through in situ preservation or preservation through archaeological excavation and recording.

4.11.14.3 Post Development/Post Excavation Investigations

Once all of the required fieldwork is completed, post-excavation analysis and the production of a report outlining the findings and results of archaeological excavations (if undertaken) will be required under both planning and licencing conditions.

It is recommended that a full timetable and costing of post excavation requirements are produced and agreed between archaeologist and developer, with timetables and post excavation methodologies to be submitted to Department of Culture, Heritage, and Gaeltacht: National Monuments Service. This should ideally be carried out in the final stages of on-site archaeological attendance.



Plate 1: View of the PDA from Fort Dunree Road facing north west



Plate 2: View of the PDA from the Fort Dunree Fort facing north



Plate 3: View towards the battery on Dunree Hill from Fort Dunree Fort facing north west



Plate 4: View of the south facing slope of Dunree Hill and Fort Dunree Road facing east



Plate 5: View of the south facing slope of Dunree Hill and Fort Dunree Road facing west



Plate 6: View of the entrance to Fort Dunree and a path which circles around Dunree Hill facing west



Plate 7: View of the entrance to Fort Dunree facing west with the sentry hut to the left of Fort Dunree Road



Plate 8: View of a stone sentry building located to the north side of Fort Dunree Road facing north west



Plate 9: View towards Fort Dunree and the married Officer's quarter on the right from Fort Dunree Road facing west



Plate 9: View (from left to right) of the N.O. Quarters, an old quarry, squash racquet court and the married soldiers quarters from Fort Dunree Road facing east



Plate 10: View (from left to right) of the Barracks, the Sergeants Mess and the N.O. Quarters from Fort Dunree Road facing south east



Plate 11: View (from left to right) of the Armament Office, the location of the former Officer's Stable, store and yard and a battery gun is located at the site of the former R.A. General Store facing north



Plate 12: View of Dunree Fort from the car park on Fort Dunree Road facing west



Plate 13: View (left to right) towards the Reception Station and barracks 'A' Block facing north east



Plate 14: View of barracks 'A' Block from the car park at Fort Dunree Road facing east



Plate 15: View (left to right) of Dunree Fort, barracks 'A' and 'B' Block and the drill shed with Dunree Lighthouse and the Lighthouse Keeper's house in the background facing north



Plate 16: View (left to right) of Dunree Lighthouse and Lighthouse Keeper's House, the drill shed and a storage tank facing north



Plate 17: The front row of building (right to left) is the Bath House, Hut 6 and Hut 5. The back row of building (right to left) is the N.O. Quarters, the Sergeants Mess, barracks 'D' and 'C', Huts 7, 8 and 9 facing south



Plate 17: View across from the Ordnance Ground towards Dunree Hill and the battery located at the summit facing east



Plate 18: View from the centre of the battery looking towards the walls facing west



Plate 19: View from the centre of the battery looking towards the walls facing south east



Plate 20 (above): View from the centre of the battery looking towards the walls facing north east



Plate 21 (left): View from the centre of the battery looking towards the walls facing north