Appropriate Assessment Screening Report

Goleen Housing Project (P81YK02), Goleen, Co. Cork

April 2024

Prepared for:

Comhairle Contae Chorcaí
Cork County Council

CIEEM
REGISTERED
PRACTICE 2023-2024

O'DONNELL ENVIRONMENTAL

Summary

Project: Goleen Housing Project (P81YK02), Goleen, Co. Cork

Coordinates: 51.491806, -9.711618 (WGS84)

Company Profile: O'Donnell Environmental is an independent environmental consultancy established by Tom O'Donnell in 2019. O'Donnell Environmental is a Chartered Institute of Ecology and Environmental Management (CIEEM) 'Registered Practice' which demonstrates our commitment to high professional standards, accountability and the delivery of the best outcomes for biodiversity and our Clients.

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Executive Summary

Cork County Council propose a housing project at Goleen in West Cork, involving the redevelopment of a site consisting of an existing building (previously occupied as Goleen Garda Station) and associated outbuilding. The proposal includes for the complete renovation of the internal layout of the former Garda Station to form two apartments, the demolition of an existing outbuilding and the patio which surrounds both structures and all associated landscaping works.

This report presents the results of a screening assessment, in support of the Appropriate Assessment process. The purpose of the report is to identify whether significant effects on the conservation objectives of any Natura 2000 site are likely to occur, and to inform Cork County Council's screening decision.

It is objectively concluded that the proposed project, either individually or in combination with other plans or projects, is not likely to have significant effects on any Natura 2000 site.

1 Introduction

O'Donnell Environmental Ltd. was commissioned by Cork County Council to undertake an Appropriate Assessment (AA) in relation to a proposed housing project in Goleen, west Co. Cork. This Appropriate Assessment (AA) screening report represents the product of the Appropriate Assessment process.

Cork County Council propose to develop two apartments within an existing structure, formerly Goleen Garda Station, located on the outskirts of Goleen village in west Co. Cork. The proposal includes for the complete renovation of the internal layout within the existing building, the demolition of an existing outbuilding and patio which wraps around the footprint of both structures, the construction of a new car parking area, landscaping and all associated works (including vegetation clearance).

The proposed site is fronted by the local road L4401 to the north and is bordered by an agricultural field to the east and south and residential buildings to the west. The land uses in the wider area are residential and agricultural. A site location map is presented in **Figure 1.1**.

This Appropriate Assessment has been undertaken in accordance with the following guidance documents:

- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – European Commission Methodical Guidance on the provisions of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (European Commission, 2021).
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DoEHLG, 2009).
- Environmental Assessments and Planning in Ireland (Office of Planning Regulator, 2021).

The following documents supplied by CroCon Engineers Ltd. (2024) inform the current assessment:

- Existing Site Layout.
- Proposed Demolitions.
- Proposed Site Layout.
- Proposed Drainage Layout.
- Proposed Watermain Layout.

1.1 APPROPRIATE ASSESSMENT PROCESS

The 'Appropriate Assessment' process that consists of up to four stages, carried out consecutively. This process is summarised as follows:

- Stage 1: A screening assessment is undertaken to identify whether in view of best scientific knowledge and in light of the conservation objectives of the Natura 2000 site(s) significant impacts on a Natura 2000 site(s) are likely to arise from the project or plan in question (individually or in combination with other plan or projects), in the absence of mitigation. If the likelihood of significant impacts cannot be ruled out, or if uncertainty exists, then the process moves on to Stage 2.
- Stage 2: Carried out when a screening assessment determines impacts on the Natura 2000 sites(s) are likely to arise from the project or plan, or where uncertainty exists, and considers potential mitigation measures to avoid or reduce adverse impacts.

- Stage 3: Carried out to assess alternative solutions when it is considered that mitigation measures will not be able to adequately avoid or minimise potential adverse impacts on a Natura 2000 site(s).
- Stage 4: Carried out to consider compensatory measures when no alternative solutions exist but the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI).

1.2 LEGISLATIVE CONTEXT

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and of wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (79/409/EEC) seeks to protect birds of special importance by the designation of Special Protected Areas (SPAs). These designations form part of Natura 2000, a network of key conservation sites throughout the European Community. Article 6(3) of the Habitats Directive requires member states to carry out an 'appropriate assessment' of the implications of plans and projects on the Natura 2000 network. The Habitats Directive has been transposed into Irish law and the relevant Regulations are the European Communities (Birds and Natural Habitats) Regulations 2011.

The EU Court of Justice has ruled in case C-721/21 that Article 6(3) of Directive 92/43 must be interpreted as meaning that in order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the plan or project on that site, where those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site.

1.3 STATEMENT OF AUTHORITY

O'Donnell Environmental is an independent environmental consultancy established by Tom O'Donnell BSc (Hons) MSc CEnv MCIEEM in 2019. O'Donnell Environmental is a Chartered Institute of Ecology and Environmental Management (CIEEM) 'Registered Practice' which demonstrates our commitment to high professional standards, accountability and the delivery of the best outcomes for biodiversity and our Clients.

Tom O'Donnell BSc (Hons) MSc CEnv MCIEEM is a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management. He was awarded a BSc in Environmental and Earth System Science [Applied Ecology] in 2007 and an MSc in Ecological Assessment in 2009, both from UCC. Tom has 15 years professional experience in the environmental industry, including working on projects such as windfarms, overhead power lines, roads, cycleways and residential developments.

Claire McCarthy BSc (Hons) MSc is a Qualifying member of the Chartered Institute of Ecology and Environmental Management. She was awarded a BSc in Biological, Earth and Environmental Sciences [Zoology] in 2018 and an MSc in Marine Biology in 2022, both from UCC. Claire has contributed to the preparation of EIA and EcIA reports for renewable energy developments and has experience in mammal walkover surveys, preliminary bat roost assessments and bat activity surveys.

Colm Breslin BSc (Hons) is a Qualifying member of the Chartered Institute of Ecology and Environmental Management. He was awarded a BSc in Biological, Earth and Environmental Sciences [Ecology and Environmental Biology] in 2023 from UCC. Colm has experience in habitat mapping, bat activity surveys and preliminary roost assessments for a variety of windfarm and residential developments. Colm is licenced by NPWS for roost disturbance (Ref: DER/BAT 2024-09) and to capture bats (C03/2024).

1.4 DESCRIPTION OF THE PROPOSAL

The proposed project involves the development of two apartments within an existing structure, previously occupied as Goleen Garda Station, located on the outskirts of Goleen village in west Co. Cork. The proposal includes for the complete renovation of the internal layout within the existing building, the demolition of an existing outbuilding and existing patio which wraps around the footprint of the building, the construction of a new car parking area, landscaping and all associated works. The works will proceed for an approximate 12 month duration.

Specifically, the project will involve the following elements:

- Demolition of existing entry steps at two locations on the northern boundary of the site and the blockage of these existing entrances to the site.
- Demolition and removal of existing manholes and inspection chambers.
- Demolition and removal of existing 1m high concrete block wall with steel gate and railing at the southwest corner of the existing building.
- Demolition of an existing stone wall located northeast of the existing site boundary and the reduction of this area to formation level.
- Removal of existing gullies.
- Decommissioning and removal of an existing oil tank and associated pipe work.
- Removal and repositioning of an existing lamppost located at the northwest corner of the site. The repositioning of the existing pole and over-head ESB wire will be carried out as per M&E specifications.
- Construction of an access ramp at the northwest corner of the site.
- Construction of a new car parking area which will be level with the new adjoining footpath and will allow for the installation of a new road gully. The parking bay will be in accordance with 'RRM013' of 'TSM-Chapter'.
- Installation of a new hop top fence.
- Installation of two new ESB meter boxes on the external insulation of the building.
- Construction of a new footpath around the perimeter of the building and installation of a 100mm land drain adjoining the east, south and west of the perimeter footpath.
- Construction of a new 600mm high blockwork wall with 1.1m high railing located at the northeast corner of the site.
- Construction of a stone-faced retaining wall to tie into the existing wall located at the northwest corner of the site.
- Recapping and plastering of the existing block boundary walls which will be retained.
- Landscaping works to include the cutback and removal of the existing hedge along the northern boundary of the site and the removal of existing trees and shrubs to include the grubbing up of roots (all to be carried out by a licenced tree surgeon).
- Grading of the entire existing green area to meet the level of the new footpath and the reseeding of the area upon the completion of the works.

- Works will be carried out under a road opening license.
- No 'off-site' works such as temporary storage, welfare services or other ancillary works are required to facilitate the development project.

Appendix A presents a photographic record on the current condition of the proposed site and **Appendix B** presents the proposed development design information.

1.4.1 Do Nothing Scenario

If the proposed development does not proceed, the 'do nothing' scenario is that the existing environment within the site boundary is likely to remain as described herein in the short term at least.


0
10
20 m
Figure 1.1
Study Site Location
Project:
Goleen Housing Project
Prepared for:
Cork County Council
Claire McCarthy BSc (Hons) MSc
D: 02.04.2024
Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation
O'DONNELL ENVIRONMENTAL
Legend
Proposed Site Boundary

2 Methodology

This Appropriate Assessment was informed by desk-based and site-based assessments.

2.1 DESK STUDY

A desk study was carried out to collate relevant available information including the following:

- National Parks and Wildlife Service (NPWS) (online).
- National Biodiversity Data Centre (NBDC) (online)[1].
- The Environmental Protection Agency (EPA) website.

2.2 SITE VISIT

This Appropriate Assessment is informed by a site visit that was carried out by Colm Breslin BSc (Hons) and Claire McCarthy BSc (Hons) MSc on the 21st March 2024. The entirety of the proposed site and former Garda Station building was assessed (see **Appendix A**). Any possible source-receptor pathways identified during the desk study were surveyed. Additionally, surface expressions of invasive alien plant species within and immediately adjacent to the development footprint were identified and recorded.

[1] Accessed 2nd April 2024

3 Appropriate Assessment Screening

The proposed development site occurs within a residential area on the outskirts of the rural Goleen village. The site is fronted by the local road L4401 to the north and is bordered by an agricultural field to the east and south and residential buildings to the west. The land uses in the wider area are residential and agricultural.

The proposed development is not connected with or necessary for the management of any Natura 2000 site.

3.1 DESCRIPTION OF THE NATURA 2000 SITES

The proposed development site is not located within a Natura 2000 site. Seven Natura 2000 sites are located within 15km of the proposed site, one of which is a Special Protection Areas (SPA) and six of which are Special Areas of Conservation (SAC) (see **Table 3.1**). It is important to note that this arbitrary distance of 15km is used for illustrative purposes only and all potential pathways for impact on designated sites have been included for both within and outside the 15km zone.

Barley Cove to Ballyrisode Point SAC (1040) is the most proximal SAC to the proposed site as shown in **Figure 3.1** and Sheep's Head to Toe Head SPA (4156) is the most proximal and only SPA located within 15km of the proposed site. No watercourses runs through or adjoin the proposed site and so no European designated site is in direct hydrologically connectivity to the proposed site. The qualifying interests and conservation objectives of the relevant Natura 2000 sites are summarised in **Table 3.2**.

No further sites, beyond the standard 15km search area, are considered to be relevant to the current assessment due to the nature and scale of the proposed project and the lack of a viable source-receptor pathway between the proposed site and any other Natura 2000 sites.

Table 3.1 - Natura 2000 sites within 15km of the proposed development site.

Site Name	Site Code	Distance (km)
Barley Cove to Ballyrisode Point SAC	001040	380m
Sheep's Head to Toe Head SPA	004156	2.20
Roaringwater Bay and Islands SAC	000101	4.75
Three Castle Head to Mizen Head SAC	000109	6.40
Sheep's Head SAC	000102	7.95
Farranamanagh Lough SAC	002189	9.30
Reen Point Shingle SAC	002281	13.80

3.1.1 Barley Cove to Ballyrisode Point SAC

This designated site stretches along 10km of coastline from the Barley Cove inlet to Ballyrisode Point at Toormore Bay. Rocky habitat is most dominant within the SAC but the priority habitat listed under this sites designation are the fixed sand dunes and related habitats which occur at Barley Cove, one of the few examples of such habitat type in Co. Cork and Co. Kerry. The rare bryophyte Petalwort (*Petalophyllum ralfsii*), listed on Annex II of the E.U. Habitats Directive, has been recorded in this dune

system. This site includes lengths of rocky shoreline along which Sea-kale (*Crambe maritima*), listed on the Red Data Book occurs. Coastal Heath is the remaining dominant habitat which is of high conservation value. A notable feature of the site is the concentration of rare plants associated with the heath habitat, three of which are legally protected under the Flora (Protection) Order (2022): Hairy Bird's-foot-trefoil (*Lotus subbiflorus*), Pale Dog-violet (*Viola lactea*) and Lanceolate Spleenwort (*Asplenium billotii*).

This site is of notable ornithological importance for Chough (*Pyrrhocorax pyrrhocorax*), which is listed on Annex I of the E.U Bird's Directive. This species use this site for nesting (9 breeding pairs in 1992), feeding and socialising. Lissagriffin Lake (situated at the western end of the Mizen Head peninsula, approx. 5km west of Crookhaven) is of local importance for wintering waterfowl that includes Whooper Swan (*Cygnus cygnus*) and Mute Swan (*Cygnus olor*). Additionally small numbers of seabirds are recorded to breed along the cliffs within this site and include Fulmar (*Fulmarus glacialis*), Lesser Black-backed Gull (*Larus fuscus*), Herring Gull (*Larus argentatus*), Shag (*Phalacrocorax aristotelis*) and Black Guillemot (*Cepphus grille*).

3.1.2 Sheep's Head to Toe Head SPA

This designated site encompasses the high coast and sea cliffs from Sheep's Head to Mizen Head, brow Head and Crookhaven in the west and from Baltimore to Tragumna Bay, Gokane Point and the Toe Head peninsula in the east. The site is designated of special conservation interest for Peregrine (*Falco peregrinus*) and Chough.

This site supports an internationally important breeding population of Chough. Chough are a Red Data Book species, listed on Annex I of the E.U. Birds Directive and are found in pairs and flocks along the coast from Sheep's Head (north) to beyond Toe Head (south). 82 breeding pairs of Chough were recorded from the site in the 1992 survey and 73 pairs in the 2002/03 survey. The Mizen Head cliffs hold some of the highest concentrations of breeding Chough in Ireland.

This site supports nationally important populations of Peregrine, listed on Annex I of the E.U Bird's Directive, with a total of seven pairs recorded in a 2002 survey. Other breeding seabirds in the area include Fulmar (57 pairs), Herring Gull (30 pairs), Shag (17 pairs), Kittiwake (20 pairs), Black Guillemot (137 individuals) and Great Black-backed Gull (1 pair).

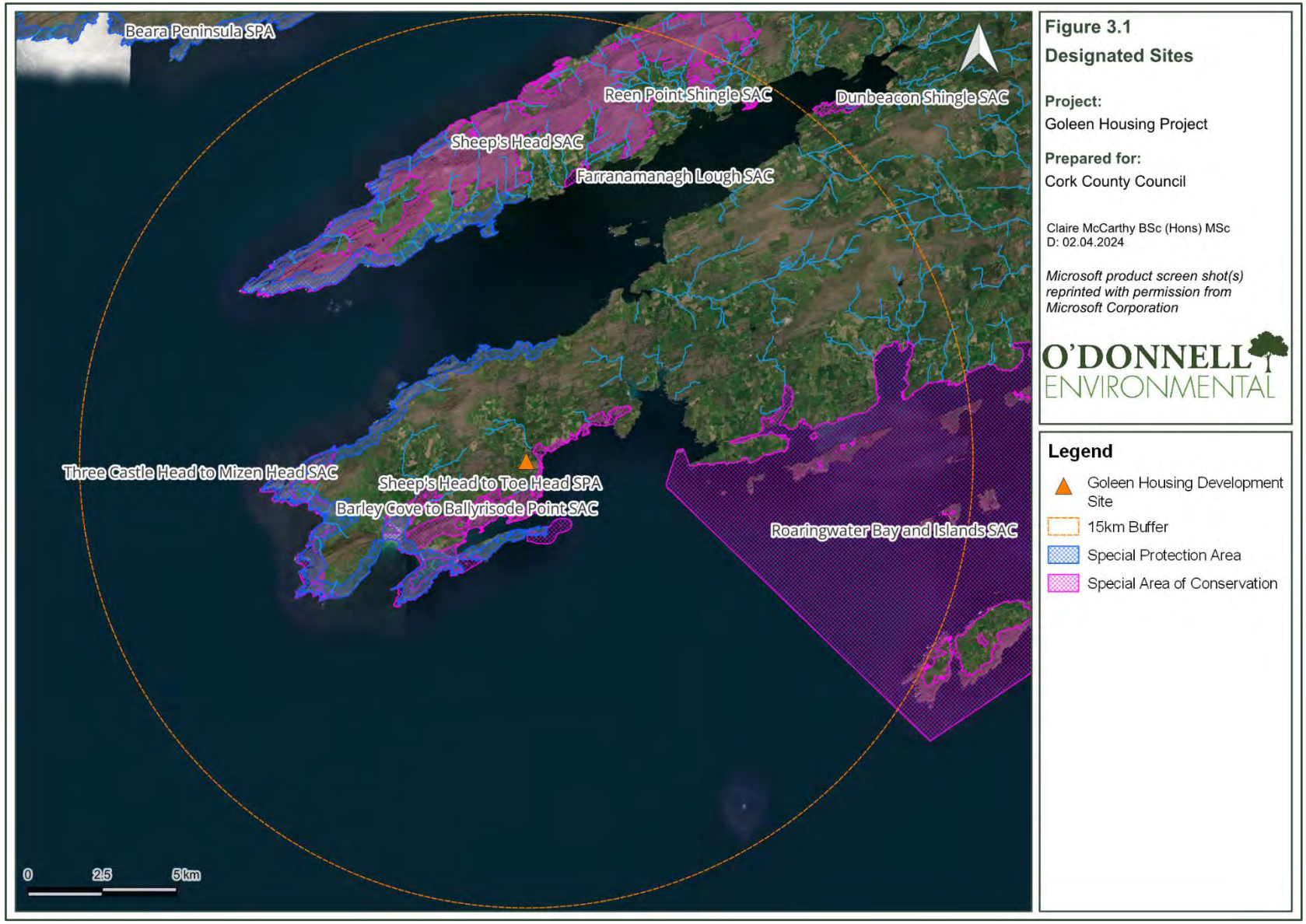
3.1.3 Roaringwater Bay and Islands SAC

Roaringwater bay is a site which supports diverse marine and terrestrial habitats, five of which are listed under the E.U Habitat's Directive. Qualifying interest species of this site include Otter (*Lutra lutra*), Grey Seal (*Halichoerus grypus*) and Harbour Porpoise (*Phocoena phocoena*), all of which are listed on Annex II of the E.U. Habitat's Directive. Nationally important populations of Black Guillemot have been recorded within this site (198 individuals recorded in 1999). The site holds a very important concentration of Chough (33 pairs in 1992), as well as several pairs of Peregrine Falcon. Both of these species are listed on Annex I of the E.U. Birds Directive. The terrestrial habitats at this site are also of conservation interest and include good examples of dry heath and sea cliffs, both of which are listed under the E.U. Habitats Directive. Two Red Data Book plants, Little-Robin (*Geranium purpureum*) and Sea Pea (*Lathyrus japonicus subsp. maritimus*), occur rarely on shingle beaches within this designated site. Sea Pea is also listed on the Flora (Protection) Order (2022). Additionally, the Red Data Book species Lesser Centaury (*Centaurium pulchellum*) is recorded in the sand habitat of Sherkin Island and is also listed under the Flora (Protection) Order (2022).

The qualifying interests of the relevant Natura 2000 sites are shown below in **Table 3.2**.

Table 3.2 – Natura 2000 Site Details.

Site Name & Code	Qualifying Interests	Minimum Distance from Site (km)
Barley Cove to Ballyrisode Point SAC	• Mudflats and sandflats not covered by seawater at low tide [1140] • Perennial vegetation of stony banks [1220] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • European dry heaths [4030] • *Petalophyllum ralfsii* (Petalwort) [1395]	380m
Sheep's Head to Toe Head SPA (4156)	• Peregrine (*Falco peregrinus*) [A103] • Chough (*Pyrrhocorax pyrrhocorax*) [A346]	2.20
Roaringwater Bay and Islands SAC	• Large shallow inlets and bays [1160] • Reefs [1170] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • European dry heaths [4030] • Submerged or partially submerged sea caves [8330] • *Phocoena phocoena* (Harbour Porpoise) [1351] • *Lutra lutra* (Otter) [1355] • *Halichoerus grypus* (Grey Seal) [1364	4.75
Three Castle Head to Mizen Head SAC	• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • European dry heaths [4030]	6.70
Sheep's Head SAC	• Northern Atlantic wet heaths with *Erica tetralix* [4010] • European dry heaths [4030] • *Geomalacus maculosus* (Kerry Slug) [1024]	7.95
Farranamanagh Lough SAC	• Coastal lagoons [1150] • Perennial vegetation of stony banks [1220]	9.30
Reen Point Shingle SAC	• Perennial vegetation of stony banks [1220]	13.80


Beara Peninsula SPA
Reen Point Shingle SAC
Dunbeacon Shingle SAC
Sheep's Head SAC
Farranamanagh Lough SAC
Three Castle Head to Mizen Head SAC
Sheep's Head to Toe Head SPA
Barley Cove to Ballyrisode Point SAC
Roaringwater Bay and Islands SAC
0
2.5
5 km
Figure 3.1
Designated Sites
Project:
Goleen Housing Project
Prepared for:
Cork County Council
Claire McCarthy BSc (Hons) MSc
D: 02.04.2024
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O'DONNELL ENVIRONMENTAL
Legend
Goleen Housing Development Site
15km Buffer
Special Protection Area
Special Area of Conservation

3.2 HYDROLOGICAL CONTEXT

The proposed site is located in the Bandon-Ilen Catchment, Area 20 and sub-catchment EnterpriseCentreSkull_SC_010. No watercourses run through the proposed site. The most proximal watercourse is the Oughter Callaros watercourse(EPA code: 20006) which runs north of Goleen village and discharges into Ballydivlin Bay, forming part of the Barley Cove to Ballyrisode Point SAC (1040), approximately 400m north of the proposed site. The Knockagallane 20 watercourse (EPA code: 20K14) runs approximately 765m south of the proposed site and also discharges into Ballydivlin Bay. Neither watercourse is in direct hydrological connectivity with the site.

The EPA undertakes surveys of the water quality of groundwaters and based on this they categorise the water quality of the groundwater in the site location (IE_SW_G_085) as 'Good' (Ground Waterbody WFD Status 2016-2021). Both the Oughter Callaros and the Knockagallane 20 watercourse (IE_SW_200060910) have received a 'Good' water quality status (River Waterbody WFD Status 2016-2021). The EPA has not undertaken water quality surveys along any watercourse that is proximal to the proposed site, but the coastal water quality in the area (Roaringwater Bay) was designated a status of 'unpolluted' in July 2021 (Coastal Water Quality 2018-2020).

3.3 ORNITHOLOGICAL CONTEXT

The proposed site is located approximately 2.2km north of the Sheep's Head to Toe Head SPA (004156), which encompasses the coastline of the Mizen Head peninsula, Sheep's Head peninsula and Baltimore peninsula. This SPA is of conservation value for internationally important numbers of protected bird species, including breeding populations of Chough (*Pyrrocorax pyrrocorax*), a species listed on Annex I of the E.U. Birds Directive[2]. This designated site also supports a nationally important Peregrine (*Falco peregrinus*) population. The proposed works occur along an active local road and are confined to a redline boundary measuring approx. 925m^2, located in a residential area on the southern outskirt of Goleen village. No suitable habitat for the bird species associated with Sheep's Head to Toe Head SPA occurs within the proposed site boundary, and the residential nature of the local area and active use of the local roads results in anthropogenic disturbances such that the site is highly unlikely to be of foraging or nesting importance to any bird species associated with Sheep's Head to Toe Head SPA or any other Natura 2000 site.

3.4 IDENTIFICATION OF POTENTIAL IMPACTS ON NATURA 2000 SITES

Consideration is given here to identifying any aspects of the proposal which are likely to impact on the relevant Natura 2000 sites (identified above), and to identifying if uncertainty exists as to likelihood of occurrence.

The likelihood of effects is assessed considering a number of indicators including:

- Habitat loss.
- Habitat alteration.
- Habitat or species fragmentation.

[2] https://www.npws.ie/protected-sites/spa/004156 (Accessed: 2nd April 2024).

- Disturbance and/or displacement of species.
- Water quality and resource.

3.4.1 Potential Construction Phase Impacts

The potential for direct and indirect impacts on any Natura 2000 site during the construction phase is discussed below.

3.4.1.1 Direct Impacts

The proposed works are not located within a Natura 2000 site, nor do they require any resources from the site. The proposed works area does not contain any of the habitats for which the named Natura 2000 sites have been designated. Direct impacts on the Natura 2000 sites can therefore be ruled out.

3.4.1.2 Indirect Impacts

Habitat loss or deterioration of the ecological status of designated sites can occur from the indirect effects of contaminated run-off or discharge into the aquatic environment, through siltation, nutrient release and/or contamination. Indirect disturbances to relevant species may also be caused by anthropogenic disturbances such as noise, light or emissions of dust. Should habitat loss or deterioration of the ecological status Barley Cove to Ballyrisode Point SAC, Sheep's Head to Toe Head SPA or Roaringwater Bay SAC occur, a negative impact on the qualifying interests of the designated sites may result. In this instance the relevant qualifying interests consist of coastal habitats and associated marine mammal, bird and plant species.

The local drainage network is understood to discharge into Ballydivlin Bay, which forms part of the Barley Cove to Ballyrisode Point SAC and Roaringwater Bay SAC, thus a source receptor pathway exists between the proposed site and these designated sites. The potential for indirect impacts to occur on these sites is discussed in greater detail below.

Given the nature and scale of the proposed works, the distances involved and the lack of a viable source-receptor pathway, the potential for impacts on Sheep's Head to Toe SPA could only occur as a result of ex-situ impacts on the avian qualifying features of the SPA, Chough (high densities of which have been recorded to inhabit the designated Barley Cove to Ballyrisode Point SAC) and Peregrine. These are discussed further below.

3.4.1.3 Surface Water

During the construction phase, indirect impacts on the qualifying interests of the Natura 2000 sites could occur if siltation, nutrient release and/or contamination of downstream receptors were to occur. Indirect impacts on the designated site requires connectivity between the proposed works and the designated site in question through watercourses or through surface run-off.

Surface water from the proposed site will be disposed of by means of discharge to the existing storm network on the public road. A comprehensive Drainage Impact Assessment was completed by CroCon Engineers (2024) to understand to potential effects of the drainage systems on the environment and surrounding area and to guide the development of appropriate mitigation measures. Standard surface water management procedures will be employed according to the Construction and Environmental Management Plan (CEMP) (CroCon Engineers, 2024), CIRIA (2001) and CIRIA 753 (SuDs Manual) (2015) to prevent the discharge of soil-contaminated run-off during the construction phase (i.e. permeable paving, water butts and oil separators). The CEMP outlines that the removal of pollutants

and/or silt will be ensured by the interception of surface water run-off which will be directed to appropriate treatment systems (settlement facilities and oil traps).

A preliminary Flood Risk review was carried out by CroCon Engineers (2024) to determine the susceptibility of the site to flooding. The risk of flooding at the proposed site is considered minimal and according to the Planning System and Flood Risk Management (PSFRM) guidelines (2009) the development is considered 'appropriate'.

Considering the nature and scale of the proposed works, the separation distances involved, the nature of the receiving environment, the assimilation capacity of the receiving waterbodies and standard surface water management procedures, there is no likelihood of significant indirect impacts on the Barley Cove to Ballyrisode Point SAC or any other Natura 2000 site, arising from run-off during the construction phase of the proposed reinforcement project.

3.4.1.4 Hydrocarbons and Harmful Materials

The storage of fuels and other chemical will be contained within the area of the proposed construction compound and in accordance with relevant legislation and best practice, will include the following measures listed in the CEMP (CroCon Engineers, 2024):

- Fuel storage tanks shall have secondary containment provided by means of an above ground bund to capture any leaks.
- Storage tanks and associated provisions, including bunds, will conform to the current best practice for oil storage and will be undertaken in accordance with Best Practice Guide BPGCS005 – Oil Storage Guidelines (Enterprise Ireland).

All harmful materials will be stored in a controlled manner on site for construction works only and a bunded refuelling area using double bunded steel tanks will be installed. Soils accidentally contaminated by on-site spillages will be stored in a clearly identified hazardous waste storage compound.

Given the processes outlined above, no significant negative impacts are likely to occur on Barley Cove to Ballyrisode Point SAC, or any other Natura 2000 sites as a result of the hydrocarbons and/or other harmful materials from the proposed site during the construction phase.

3.4.1.5 Foul Water

Wastewater drainage from all site offices and construction facilities (incl. Portaloos) will be contained and disposed of in an appropriate manner in accordance with the relevant statutory requirements to prevent water pollution.

Given the processes outlined above, no significant negative impacts are likely to occur on Barley Cove to Ballyrisode Point SAC, or any other Natura 2000 sites as a result of the foul water emissions from the proposed site during the construction phase.

3.4.1.6 Noise and Air Emissions

Localised increases in noise levels are likely to occur during the construction phase through the operation of machinery. The project will require excavations and earthworks which will be carried out in accordance with the CEMP (CroCon Engineers, 2024). The existing site is located in a residential area subject to localised noise and air pollution as a result of road traffic along the local road which adjoins the proposed site (L4401).

Given the nature and scale of the proposed works, the separation distances involved, the standard management procedures, and the screening effect of the intermediate landscape features and structures, it is considered that there is no likelihood of effects on Sheep's Head to Toe SPA, the Barley Cove to Ballyrisode Point SAC, or any other Natura 2000 site as a result of the proposed works.

3.4.1.7 Alien Invasive Plant Species

No high-impact invasive plant species (Kelly et al. 2013; O'Flynn et al. 2014) were recorded within the redline boundary of the proposed site or within close proximity to the proposed site, and thus there is no likelihood of impacts arising from the spread of high-impact alien invasive plant species on any Natura 2000 site.

The invasive plant Montbretia (*Crocosmia x crocosmiiflora*) occurs within the site boundary and is locally abundant in the locality and wider landscape, but has not been formally risk-assessed in an Irish context. The CEMP (CroCon Engineers, 2024) was written in cognisance of 'The Management of Invasive Alien Plant Species on National Roads – Technical Guidance' (TII, 2020).

3.4.1.8 Ex-situ Impacts on Birds

Disturbance and/or displacement may occur where populations of a mobile species listed as a qualifying interest of a Natura 2000 site suffer negative effects outside of the Natura 2000 site (ex-situ impacts). Such effects also include fatalities and loss of foraging opportunities.

No hazardous activities are proposed which have potential to give rise to bird fatalities. There is no likelihood that birds listed as qualifying interests of Sheep's Head to Toe SPA would be found within the proposed works area. The proposed works area consists of hardstanding and sealed roadway and footpath, grassland and adjoining hedgerows and trees. These habitats are not of significant importance for any relevant bird species given the local context of the surrounding highly modified residential environment.

Given that the proposed site is located in a in area of negligible value to relevant bird species, it is considered highly unlikely that the proposed development will result in any ex-situ impacts on such species and therefore no effects on the qualifying interests of Sheep's Head to Toe SPA (or any other Natura 2000 site) are likely to occur.

3.4.2 Potential Operational Phase Impacts

The operational phase impacts of the proposed project otherwise do not differ significantly from the impacts already occurring at the site (the do-nothing scenario) in terms of habitat loss and disturbance. No additional potential impacts arise as a result of the operational phase of the proposed development specifically.

When operational, the former Goleen Garda Station discharged foul water directly to the local wastewater infrastructure. Goleen is currently served by multiple municipal septic tanks, with the proposed site discharging to 'Goleen South Septic Tank' (see **Figure 3.2**). The Irish Water 'Wastewater Treatment Capacity Register' (accessed 5th April 2024) describes the Goleen agglomeration as not having available capacity, and no planned upgrade is current listed for the town. The NPWS does not list effluent as a threat to the Conservation Objectives or Qualifying Interests of this Natura 2000 site[3].

[3] https://biodiversity.europa.eu/sites/natura2000/IE0001040 & https://eunis.eea.europa.eu/sites/IE0001040 (accessed 5th April 2024).

A pre-connection enquiry was submitted to Irish Water to confirm the feasibility of wastewater connection at the proposed development site to the existing wastewater infrastructure in the local area. The enquiry response states that to facilitate the reconnection of the proposed development site a private on-site septic tank is required, for pre-treatment of effluent prior to the connection into the wastewater network. The design details of the proposed on-site septic tank are shown in **Appendix B**.

Given the information outlined above and considering the nature of the relevant designated sites their qualifying interests and the significant assimilation capacity available, no significant negative impacts are likely to occur on Barley Cove to Ballyrisode Point SAC, or any other Natura 2000 sites as a result of the foul water emissions from the proposed site during the operational phase.

Figure 3.2 – Existing foul water networks servicing the proposed site. Following on-site pre-treatment, foul water will flow eastward to 'Goleen South Septic Tank'.

3.5 LIKELY IMPACTS OF THE PROJECT ON THE NATURA 2000 SITES

As outlined in above, it is deemed that the proposed development does not have the potential to impact the qualifying interests of Barley Cove to Ballyrisode Point SAC, Sheep's Head to Toe SPA, Roaringwater Bay SPA or any other Natura 2000 site via hydrological connectivity, ex-situ impacts or other pathways. All works will be carried out applying standard environmental controls throughout the construction phase and in accordance with the CEMP (CroCon Engineers, 2024). The likely impact is discussed below.

3.5.1 Size, Scale & Land-take

There will be no direct impacts on any Natura 2000 site.

3.5.2 Distance from or Key Features of the Natura 2000 Sites

As detailed in **Table 3.1** and shown in **Figure 3.1**.

3.5.3 Resource Requirements (water abstraction *etc.*)

There will be no resource requirements (including water abstraction) from Natura 2000 sites as a result of the proposed works.

3.5.4 Excavation Requirements

Not applicable.

3.5.5 Emission (disposal to land, water or air)

No significant impacts on any Natura 2000 site are likely to occur as a result of emissions from the proposed development in the construction or operational phases.

3.5.6 Transportation Requirements

Transport requirements during construction and operation will use existing road networks and will not occur within the boundaries of any Natura 2000 sites.

3.5.7 Duration of Operations

For the purposes of environmental assessment, the duration of operations at the proposed facility is assumed to be permanent.

3.5.8 Cumulative Effects

A review of the National Planning Database (NPD) was undertaken to identify relevant planning applications proximal to the study area. An appropriate site search area was defined as consisting of 250m from the proposed reinforcement route. A search of planning applications within this area within the last 5 years was undertaken on 4th April 2024 by Impact GIS on behalf of O'Donnell Environmental. **Table 3.3** below provides the results of this search. The locations of applications are shown in **Figure 3.2**.

No planning applications which are relevant to the assessment of in-combination effects were found. Development pressure in Goleen is generally low. Cork County Development Plan identifies a need for 20 new residential units in Goleen.

The proposed housing development itself is unlikely to have any significant adverse effects on downstream Natura 2000 sites. Given the nature and location of the relevant Natura 2000 sites, and with consideration of the source-receptor pathway model, it considered that there is no significant likelihood of adverse cumulative effects to on any Natura 2000 site to occur as a result of the proposed development in combination with other relevant plans or projects.

Table 3.3 – Summary of relevant planning applications within the relevant search area.

Application Number	Development Description	Decision	Decision Date
2156	Permission for construction of vehicular / pedestrian entrance into zoned lands	Conditional Permission	2021-03-22
21148	Permission for outline permission for dwelling and associated site works	Conditional Permission	2021-04-20
22447	Construction of 4 no. dwelling houses and associated site works	Conditional Permission	2023-04-28

Note: 'Development Description' field was truncated by the Planning Authority when providing data to the NPD.

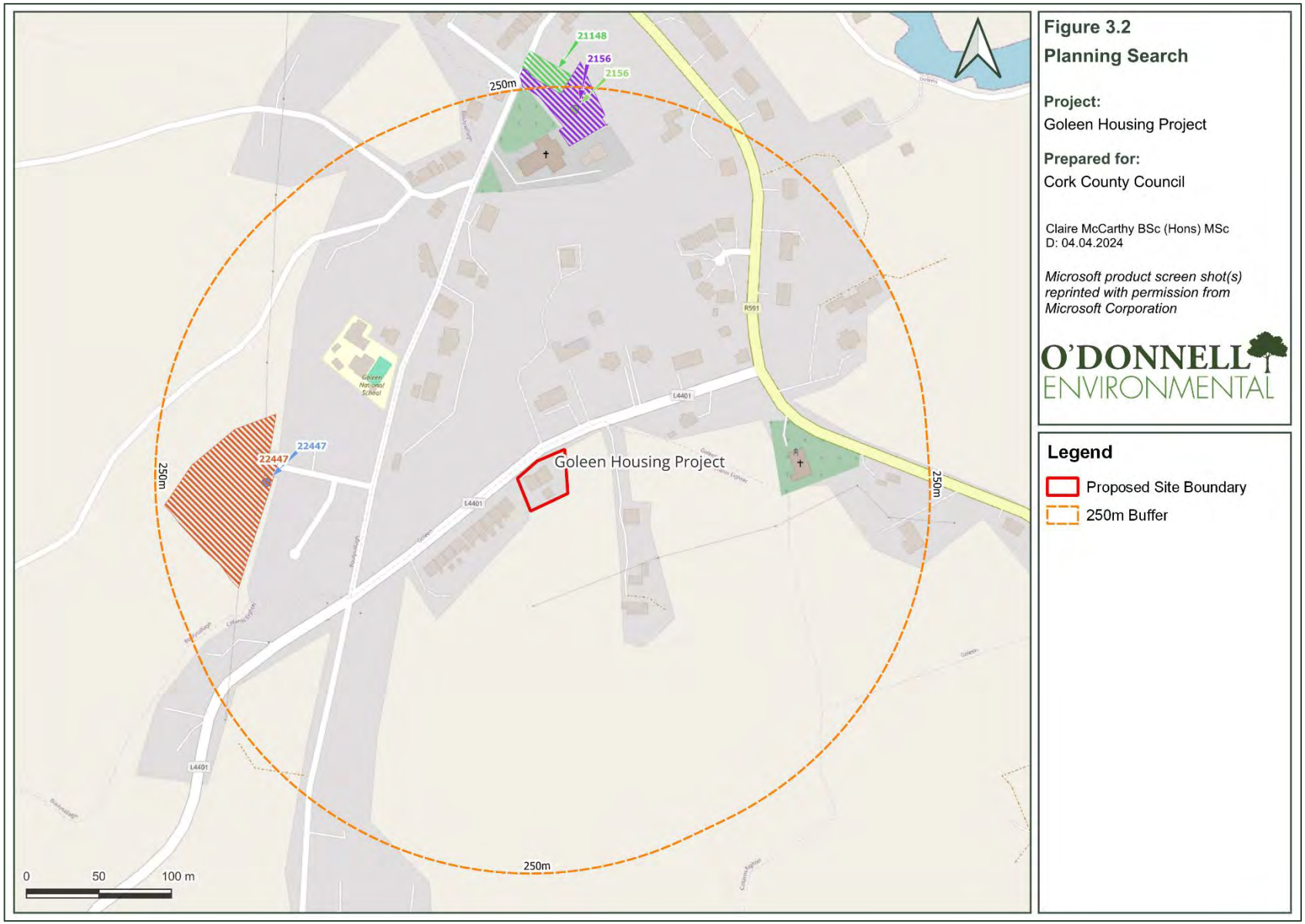


Figure 3.2
Planning Search

Project:
Goleen Housing Project

Prepared for:
Cork County Council

Claire McCarthy BSc (Hons) MSc
D: 04.04.2024

Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

Legend
- Proposed Site Boundary
- 250m Buffer

3.6 AA SCREENING CONCLUSION

This Appropriate Assessment screening exercise has been carried out based on the best available scientific information and data, an ecological site walkover and project details provided by CroCon Engineers Ltd. on behalf of Cork County Council. It is considered that bespoke avoidance or mitigation measures are not required to eliminate the likelihood of significant negative impacts occurring on any Natura 2000 site as a result of the proposal.

It is concluded that the proposed project is not likely to cause significant adverse effects on Barley Cove to Ballyrisode Point SAC, Sheep's Head to Toe SPA, Roaringwater Bay SAC or any other Natura 2000 site, individually or in combination with other plans or projects. It is considered that there is no reasonable scientific doubt in relation to this conclusion.

4 References

Council of the European Communities (1992) Council Directive of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC). OJL 206/35, 1992.

Construction Industry Research and Information Association CIRIA (2001). Control of water pollution from construction sites. Guidance for consultants and contractors (C532D).

Department of the Environment, Heritage and Local Government (DoEHLG) (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.

European Commission (2001). Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Luxembourg: Office for Official Publications of the European Communities.

Kelly, J., O'Flynn, C., and Maguire, C. (2013) Risk analysis and prioritisation for invasive and nonnative species in Ireland and Northern Ireland. A report prepared for the Northern Ireland Environment Agency and National Parks and Wildlife Service as part of Invasive Species Ireland.

NPWS (2014) Conservation Objectives: Barley Cove to Ballyrisode Point SAC 001040. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2015) Site Synopsis: Barley Cove to Ballyrisode Point SAC 001040. Version 15. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2022) Conservation objectives for Sheep's Head to Toe Head SPA [004156]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

NPWS (2015) Site Synopsis: Sheep's Head to Toe SPA 004156. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NPWS (2011) Conservation Objectives: Roaringwater Bay and Islands SAC 000101 . First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

NPWS (2014) Site Synopsis: Roaringwater Bay and Islands SAC 000101. Version 13. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

O'Flynn, C., Kelly, J. and Lysaght, L. (2014). Ireland's invasive and non-native species – trends in introductions. National Biodiversity Data Centre Series No. 2. Ireland.

Appendix A
Photographic Record

A1. View of the northeast corner of the existing building at the proposed site, previously occupied as Goleen Garda Station, photographed from the L4401.

A2. View of the north-facing façade of the existing building facing west.

A3. Outbuilding associated with the existing building located to the south, photographed from the east facing southwest.

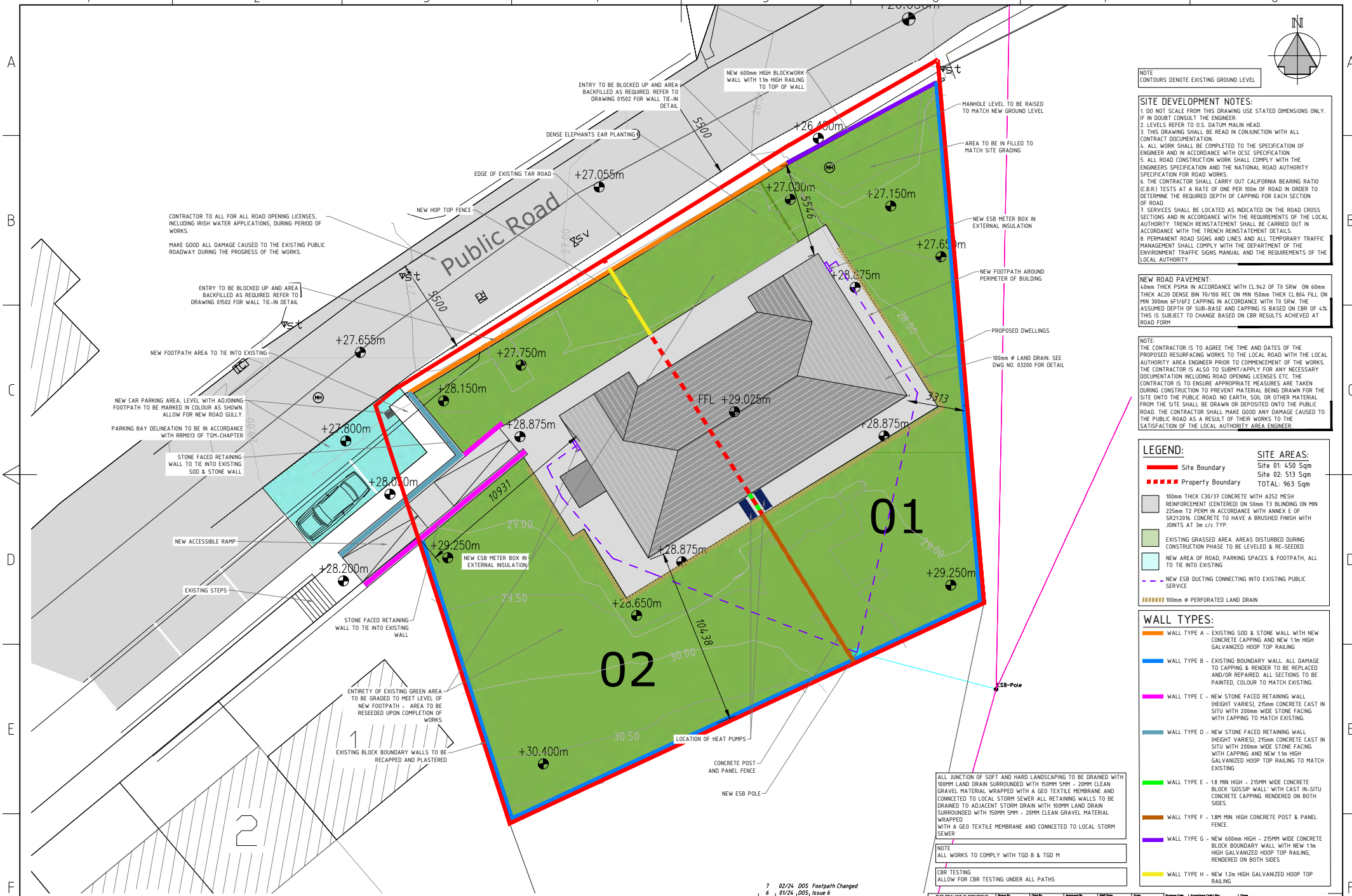
A4. View of the western façade of the existing main building.

A5. View of the existing grassland area located at the western extent of the porposed site, facing southwest.

A6. View of the existing grassland area located at the western extent of the porposed site, facing northwest.

Appendix B

Project Design Information



NOTE
CONTOURS DENOTE EXISTING GROUND LEVEL

SITE DEVELOPMENT NOTES:

1. DO NOT SCALE FROM THIS DRAWING USE STATED DIMENSIONS ONLY. IF IN DOUBT CONSULT THE ENGINEER.
2. LEVELS REFER TO O.S. DATUM MALIN HEAD.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTATION.
4. ALL WORK SHALL BE COMPLETED TO THE SPECIFICATION OF ENGINEER AND IN ACCORDANCE WITH OCSC SPECIFICATION.
5. ALL ROAD CONSTRUCTION WORK SHALL COMPLY WITH THE ENGINEERS SPECIFICATION AND THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS.
6. THE CONTRACTOR SHALL CARRY OUT CALIFORNIA BEARING RATIO (C.B.R.) TESTS AT A RATE OF ONE PER 100m OF ROAD IN ORDER TO DETERMINE THE REQUIRED DEPTH OF CAPPING FOR EACH SECTION OF ROAD.
7. SERVICES SHALL BE LOCATED AS INDICATED ON THE ROAD CROSS SECTIONS AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY. TRENCH REINSTATEMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH THE TRENCH REINSTATEMENT DETAILS.
8. PERMANENT ROAD SIGNS AND LINES AND ALL TEMPORARY TRAFFIC MANAGEMENT SHALL COMPLY WITH THE DEPARTMENT OF THE ENVIRONMENT TRAFFIC SIGNS MANUAL AND THE REQUIREMENTS OF THE LOCAL AUTHORITY.

NEW ROAD PAVEMENT:

40mm THICK PSMA IN ACCORDANCE WITH CL.942 OF TII SRW ON 60mm THICK AC20 DENSE BIN 70/100 REC ON MIN 150mm THICK CL.804 FILL ON MIN 300mm 6F1/6F2 CAPPING IN ACCORDANCE WITH TII SRW. THE ASSUMED DEPTH OF SUB-BASE AND CAPPING IS BASED ON CBR OF 4%. THIS IS SUBJECT TO CHANGE BASED ON CBR RESULTS ACHIEVED AT ROAD FORM

NOTE:
THE CONTRACTOR IS TO AGREE THE TIME AND DATES OF THE PROPOSED RESURFACING WORKS TO THE LOCAL ROAD WITH THE LOCAL AUTHORITY AREA ENGINEER PRIOR TO COMMENCEMENT OF THE WORKS. THE CONTRACTOR IS ALSO TO SUBMIT/APPLY FOR ANY NECESSARY DOCUMENTATION INCLUDING ROAD OPENING LICENSES ETC. THE CONTRACTOR IS TO ENSURE APPROPRIATE MEASURES ARE TAKEN DURING CONSTRUCTION TO PREVENT MATERIAL BEING DRAWN FOR THE SITE ONTO THE PUBLIC ROAD. NO EARTH, SOIL OR OTHER MATERIAL FROM THE SITE SHALL BE DRAWN OR DEPOSITED ONTO THE PUBLIC ROAD. THE CONTRACTOR SHALL MAKE GOOD ANY DAMAGE CAUSED TO THE PUBLIC ROAD AS A RESULT OF THEIR WORKS TO THE SATISFACTION OF THE LOCAL AUTHORITY AREA ENGINEER.

LEGEND:

- Site Boundary
- Property Boundary
- 100mm THICK C30/37 CONCRETE WITH A252 MESH REINFORCEMENT (CENTERED) ON 50mm T3 BLINDING ON MIN 225mm T2 PERM IN ACCORDANCE WITH ANNEX E OF SR21:2016. CONCRETE TO HAVE A BRUSHED FINISH WITH JOINTS AT 3m c/c TYP.
- EXISTING GRASSED AREA. AREAS DISTURBED DURING CONSTRUCTION PHASE TO BE LEVELED & RE-SEEDED.
- NEW AREA OF ROAD, PARKING SPACES & FOOTPATH, ALL TO TIE INTO EXISTING
- NEW ESB DUCTING CONNECTING INTO EXISTING PUBLIC SERVICE
- 100mm ø PERFORATED LAND DRAIN

SITE AREAS:

Site 01: 450 Sqm
Site 02: 513 Sqm
TOTAL: 963 Sqm

WALL TYPES:

- WALL TYPE A - EXISTING SOD & STONE WALL WITH NEW CONCRETE CAPPING AND NEW 1.1m HIGH GALVANIZED HOOP TOP RAILING
- WALL TYPE B - EXISTING BOUNDARY WALL. ALL DAMAGE TO CAPPING & RENDER TO BE REPLACED AND/OR REPAIRED. ALL SECTIONS TO BE PAINTED, COLOUR TO MATCH EXISTING.
- WALL TYPE C - NEW STONE FACED RETAINING WALL (HEIGHT VARIES), 215mm CONCRETE CAST IN SITU WITH 200mm WIDE STONE FACING WITH CAPPING TO MATCH EXISTING.
- WALL TYPE D - NEW STONE FACED RETAINING WALL (HEIGHT VARIES), 215mm CONCRETE CAST IN SITU WITH 200mm WIDE STONE FACING WITH CAPPING AND NEW 1.1m HIGH GALVANIZED HOOP TOP RAILING TO MATCH EXISTING
- WALL TYPE E - 1.8 MIN HIGH - 215MM WIDE CONCRETE BLOCK 'GOSSIP WALL' WITH CAST IN-SITU CONCRETE CAPPING. RENDERED ON BOTH SIDES.
- WALL TYPE F - 1.8M MIN. HIGH CONCRETE POST & PANEL FENCE.
- WALL TYPE G - NEW 600mm HIGH - 215MM WIDE CONCRETE BLOCK BOUNDARY WALL WITH NEW 1.1m HIGH GALVANIZED HOOP TOP RAILING, RENDERED ON BOTH SIDES
- WALL TYPE H - NEW 1.2m HIGH GALVANIZED HOOP TOP RAILING

ALL JUNCTION OF SOFT AND HARD LANDSCAPING TO BE DRAINED WITH 100MM LAND DRAIN SURROUNDED WITH 150MM 5MM - 20MM CLEAN GRAVEL MATERIAL WRAPPED WITH A GEO TEXTILE MEMBRANE AND CONNCETED TO LOCAL STORM SEWER ALL RETAINING WALLS TO BE DRAINED TO ADJACENT STORM DRAIN WITH 100MM LAND DRAIN SURROUNDED WITH 150MM 5MM - 20MM CLEAN GRAVEL MATERIAL WRAPPED
WITH A GEO TEXTILE MEMBRANE AND CONNCETED TO LOCAL STORM SEWER

NOTE
ALL WORKS TO COMPLY WITH TGD B & TGD M

CBR TESTING
ALLOW FOR CBR TESTING UNDER ALL PATHS

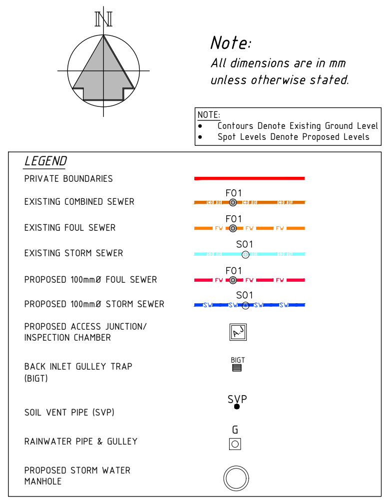
Rev	Date	By	Details
7	02/24	DOS	Footpath Changed
6	01/24	DOS	Issue 6
5	01/24	DOS	Ramp changed
4	09/23	DOS	Issue 4
3	09/23	DOS	Footpath & Retaining Wall Removed
2	05/23	CC	Issue 2
1	04/23	CC	Issue 1
0	03/23	CC	Issue 0

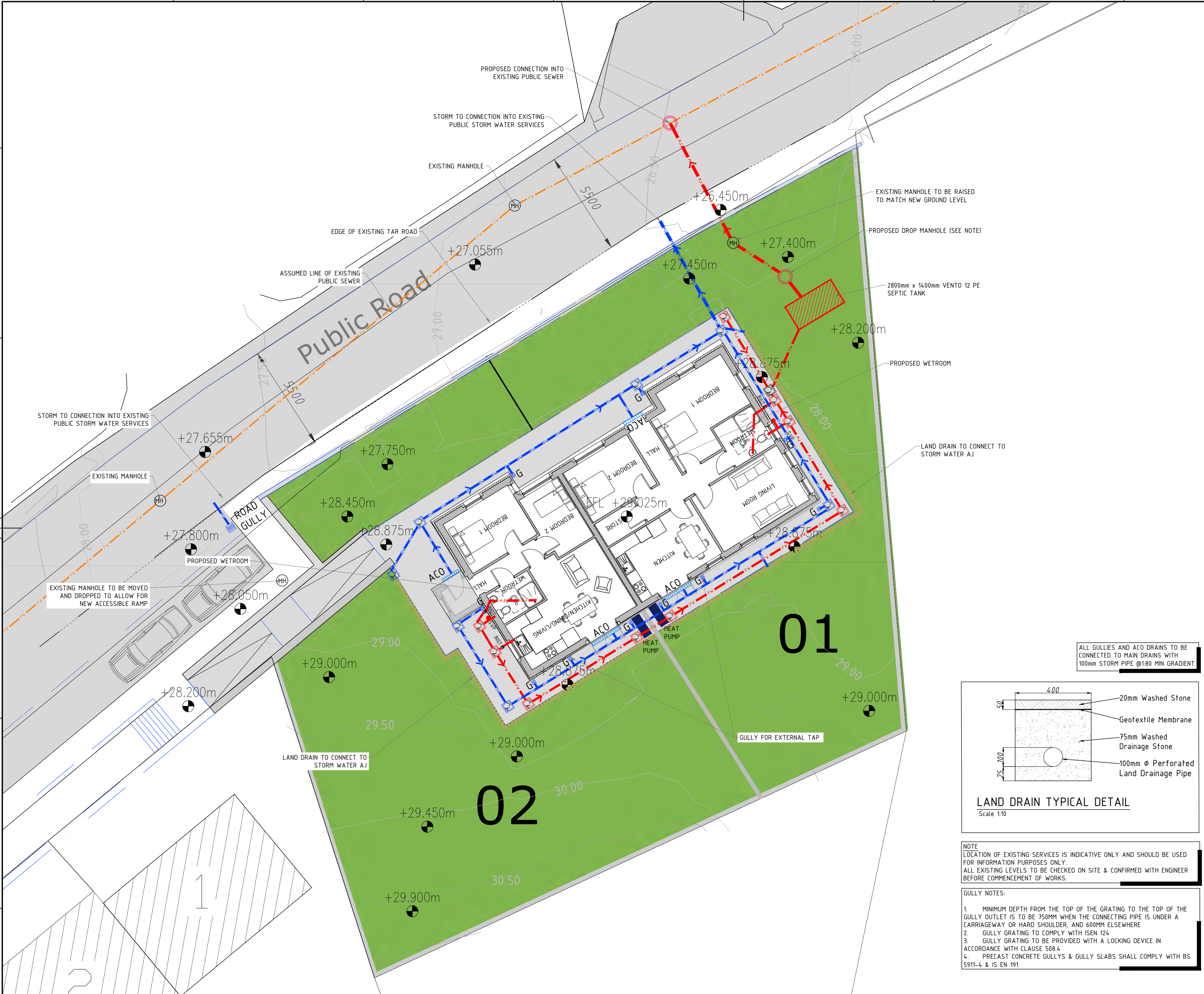
Drawn By	Chkd By	Approved By	Status Date	Scale	Purpose Code	Acceptance Code	Rev.	Stage
DOS	CC	CC	22/02/24	1/200 @A1	P08	S	7	Tender

CroCon Engineers Ltd.
Consulting Engineers
4 Main St., Bantry, Co. Cork
E: info@crocon.ie
Tel: (027) 50123

Project: 23005 - CRO - X - XXX - DR - SE - 01002
Originator | Spatial Zone | Level | Info Type | Role | Number

Client: Cork County Council
Project: Proposed 2 No. Houses, Goleen Garda Station, Co. Cork
Title: Proposed Site Layout





LAND DRAIN TYPICAL DETAIL

Scale 1:10

NOTE

LOCATION OF EXISTING SERVICES IS INDICATIVE ONLY AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.

ALL EXISTING LEVELS TO BE CHECKED ON SITE & CONFIRMED WITH ENGINEER BEFORE COMMENCEMENT OF WORKS.

GULLY NOTES:

1. MINIMUM DEPTH FROM THE TOP OF THE GRATING TO THE TOP OF THE GULLY OUTLET IS TO BE 750MM WHEN THE CONNECTING PIPE IS UNDER A CARRIAGEWAY OR HARD SHOULDER, AND 600MM ELSEWHERE
2. GULLY GRATING TO COMPLY WITH ISEN 124
3. GULLY GRATING TO BE PROVIDED WITH A LOCKING DEVICE IN ACCORDANCE WITH CLAUSE 508.4
4. PRECAST CONCRETE GULLYS & GULLY SLABS SHALL COMPLY WITH BS 5911-4 & IS EN 191

FOUL & SURFACE WATER NOTES:

1. FOR SETTING OUT REFER TO ARCHITECT'S DRAWINGS.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTURAL AND ENGINEERING DRAWINGS AND ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
3. FOR UNDER FLOOR DRAINAGE ARRANGEMENT PLEASE REFER TO ARCHITECT'S DRAWINGS.
4. DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
5. ALL SURFACE WATER SEWERS SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN "RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS" AS PUBLISHED BY DEPARTMENT OF ENVIRONMENT AND LOCAL GOVERNMENT AND IRISH WATER STANDARD DETAILS FOR WASTE WATER INFRASTRUCTURE.
6. ALL FOWL SEWER WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE & IRISH WATERS WASTE WATER INFRASTRUCTURE STANDARD DETAILS
7. GROUND LEVELS, COVER LEVELS AND INVERT LEVELS ARE APPROXIMATE ONLY. EXACT LEVELS TO BE CONFIRMED ON SITE.
8. THE DEVELOPMENT SHALL BE CONNECTED TO THE PUBLIC SEWER TO THE SATISFACTION OF THE LOCAL AUTHORITY AND IRISH WATER. THE MINIMUM COVER TO ANY SEWER PIPE SHALL BE 1.2m IN ROAD AND 0.9m IN OPEN SPACES AND FOOTPATHS NOT ADJACENT TO CARRIAGEWAYS. WHERE IT IS NOT POSSIBLE TO ACHIEVE THESE MINIMUM COVERS, PIPES SHALL BE BEDDED AND SURROUNDED IN CONCRETE 150thk.
9. THE SEWERS AND MANHOLES SHALL BE LAID AND TESTED TO THE SATISFACTION OF IRISH WATER AND THE LOCAL AUTHORITY. LAYING, BEDDING AND BACK FILLING OF SEWERS SHALL BE IN ACCORDANCE WITH THE IRISH WATER STANDARD DETAILS.
10. ALL SERVICE TRENCHES IN ROADS SHALL BE BACK FILLED AND PROPERLY COMPACTED WITH GRANULAR MATERIAL IN ACCORDANCE WITH IRISH WATER STANDARD DETAILS FOR WASTEWATER INFRASTRUCTURE.
11. GULLIES A) ALL GULLIES AND MANHOLES LOCATED IN THE PUBLIC ROAD SHALL BE LOCKING TYPE. GULLIES TO BE LOACTED EVERY 45m OR 200m2 OF HARD STANDING. B) DOUBLE GULLIES TO BE PROVIDED AT ALL ROAD SAG CURVES AND CUL DE SACS WHERE INDICATED. SEPARATE CONNECTIONS SHALL BE PROVIDED FOR EACH GULLY.

IRISH WATER STANDARD DETAILS AND CODE PRACTICE:

ALL OF THE SITE DRAINAGE WORKS SHOULD BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER'S (IW) "WASTEWATER INFRASTRUCTURE STANDARD DETAILS" AND "CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE".

STANDARD DETAILS FOR WASTEWATER NETWORKS :

- -STD-WW-02 TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENTS
- -STD-WW-03 DRAIN & SERVICE CONNECTION PIPEWORK
- -STD-WW-07 TRENCH BACKFILL & BEDDING
- -STD-WW-08 CONCRETE BED, HAUNCH & SURROUNDING TO WASTEWATER PIPES
- -STD-WW-10 PRECAST CONCRETE MANHOLE
- -STD-WW-12 BACKDROP MANHOLES
- -STD-WW-13 PRIVATE SIDE INSPECTION CHAMBER

FOR REINFORCED IN SITU ITEMS SUCH AS MANHOLES ETC, ALLOW H12 REBAR@200c/c BOTH FACES. NOTE THAT PRECAST OPTIONS ARE ALSO SPECIFIED.

PIPE MATERIALS:

1. SERVICE CONNECTIONS FROM DWELLING TO BE 100mm Ø UNPLASTICISED PVC IN ACCORDANCE WITH SECTION 3.13 OF IW CODE PRACTICE.
2. SITE SEWER TO BE THERMOPLASTIC STRUCTURED WALL PIPES IN ACCORDANCE WITH SECTION 3.13 OF THE IW CODE OF PRACTICE..
3. RISING MAIN TO BE POLYETHYLENE IN ACCORDANCE WITH SECTION 3.14 OF WASTEWATER CODE OF PRACTICE.

TESTING:

1. SITE SEWER AND MANHOLES TO BE TESTED IN ACCORDANCE WITH SECTION 4.10 OF IW CODE OF PRACTICE.
2. CCTV AND MANHOLE CONDITION SURVEYS TO BE CARRIED OUT IN ACCORDANCE WITH SECTION 1.9 OF IW CODE OF PRACTICE IN ADVANCE OF THE DEFECTS LIABILITY PERIOD.

NOTE: ALL MANHOLE COVER LEVELS TO BE CHECKED IN SITU TO ENSURE THAT THEY ARE LEVEL WITH THE SURROUNDING FINISHED SURFACES.

NOTE
REFER TO STANDARD IRISH WATER DETAILS FOR DROP MANHOLE DETAIL

Revision	Date	By	Details
0	03/24	DOS	Issue 0

Drawn By	Chkd By	Approved By	DWG Date	Scale	Purpose Code	Acceptance Code	Rev.	Stage
DOS	CC	CC	13/03/24	1/100 @A1	P03	S	0	Planning

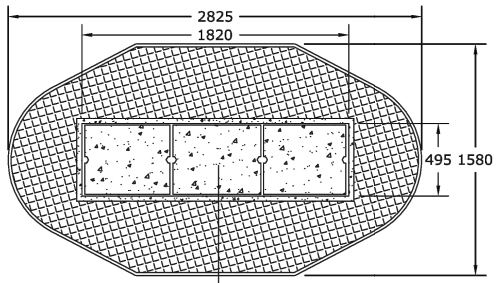
CroCon Engineers Ltd.
Consulting Engineers
4 Main St., Bantry, Co. Cork
E: info@crocon.ie
Tel: (027) 50123

Project	Originator	Spatial Zone	Level	Info Type	Role	Number
23005	CRO	X	XXX	DR	CE	03200

Client: Cork County Council
Project: Proposed 2 No. Houses, Goleen Garda Station, Co. Cork
Title: Proposed Drainage Layout

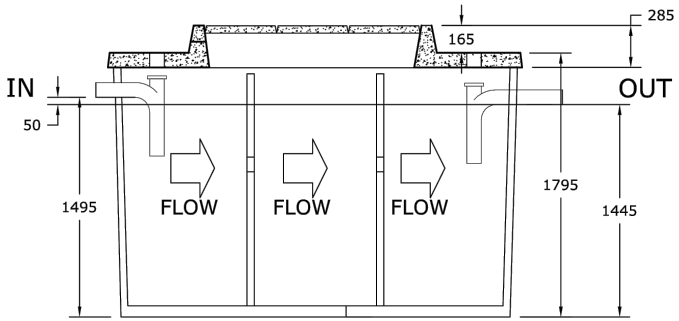
1000 GALLON (4.5 cubic metre) SEPTIC TANK

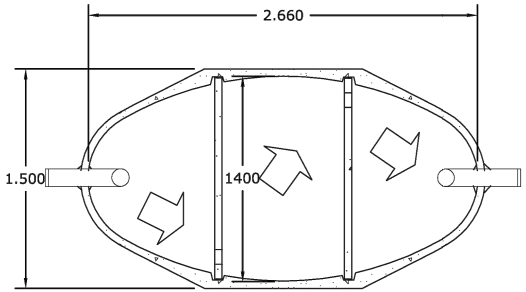
CERTIFIED TO EN12566-1



ROOF PLAN

Concrete Slabs
Pedestrian Traffic





FLOOR PLAN

Three equal chambers of 330 gallons (1.5 cubic metres).

110mm Wavin compatable fittings typical. (Others available to order).

Standard tank weight 3.75 tonnes.

Working capacity 740 gallons (3.37 cubic metres).

300mm Risers available

REVISION	DATE	BY	DETAILS
0	03/24	DOS	Issue 0

Drawn By	Chkd By	Approved By	DWG Date	Scale	Purpose Code	Acceptance Code	Rev.	Stage
DOS	CC	CC	13/03/24	NTS @A3	P03	S	0	Planning

CroCon Engineers Ltd.
Consulting Engineers
4 Main St., Bantry, Co. Cork
E: info@crocon.ie
Tel: (027) 50123

Project	Originator	Spatial Zone	Level	Info Type	Role	Number
23005	CRO	X	XXX	DR	CE	03201

Client: Cork County Council
Project: Proposed 2 No. Houses, Goleen Garda Station, Co. Cork
Title: Septic Tank Detail - Concrete

O'DONNELL ENVIRONMENTAL

info@odonnellenviro.ie