AQUACULTURE AND FORESHORE LICENCE APPLICATION FORM, for purposes of FISHERIES (AMENDMENT) ACT, 1997 and FORESHORE ACT, 1933

NB: The accompanying Guidance Notes should be read before completing this form.

Note: Details provided in Parts 1 and 2 will be made available for public inspection. Details provided in Parts 3 and 4 and any other information supplied will not be released except as may be required by law, including the Freedom of Information Act 1997 as amended.

USE BLOCK CAPITALS IN BLACK INK PLEASE

For Office Use

Application Ref. No. T05/640.

Date of Receipt (Dept. Stamp):

Type of Applicant (tick one)		
Sole Trader		
Partnership		
Company		X
Co-Operative		
Other	Please specify-	

PART 1: PRELIMINARY DETAILS

Applicant's Name(s)
1. Bantry Marine Research Station Ltd.
Address: Gearhies, Bantry, Co. Cork P75 AX07
2.
Address:
3.
Address:
4.
Address:

Contact in case of enquiries (if different from above)	
Contact Name	**David O' Neill**
Organisation Name (if applicable)	**Bantry Marine Research Station**
Address	**Gerahies,** **Bantry,** **Co. Cork**

PART 1: PRELIMINARY DETAILS

TYPE OF APPLICATION – please indicate relevant type of application
This Application Form is valid for each type of application - ***See Guidance Note 3.1***

(i) Aquaculture Licence	X
(ii) Trial Licence	
(iii) Foreshore Licence, if Marine Based	X
(iv) Review of Aquaculture Licence	
(v) Renewal of Aquaculture Licence	

TYPE OF AQUACULTURE *See Guidance Note 3.2*

Indicate the relevant type of application with a tick.

(i) MARINE-BASED

Finfish			Go to Parts 2.1 and 2.1A
Shellfish	***Subtidal***		Go to Parts 2.2 and 2.2A
	Intertidal		Go to Parts 2.2 and 2.2A
Seaweed/Aquatic Plants/Aquatic Fish Food		X	Go to Parts 2.3 and 2.3A

(ii) LAND-BASED

Finfish ☐ **Shellfish** ☐ Go to Parts 2.4 and 2.4A

Aquatic Plants ☐ **Aquatic Fish Food** ☐ Go to Parts 2.4 and 2.4A

(iii) TRIAL LICENCE ☐ Go to appropriate Parts as above **and** to Part 2.5.

2.3 MARINE-BASED SEAWEED/AQUATIC PLANTS/AQUATIC FISH FOOD AQUACULTURE

When filling out this section refer also to 2.3A and Guidance Note 3.3 for information on Conditions and Documents required with this application type

Proposed Site Location

(i) Bay:_____Dunmanus Bay_____

(ii) County: _____Cork_____

(iii) OS Map No: ____88_____

(iv) Co-ordinates of Site: (please specify coordinate reference system used e.g. Irish Grid (IG) or Irish Transverse Mercator (ITM) or Latitude/Longitude [in which case specify whether ETRS89 or WG84 etc.]

Irish Grid
080390E, 036270N to Irish Grid reference point
080503E, 036036N to Irish Grid reference point
081048E, 036297N to Irish Grid reference point
080935E, 036532N to the first mentioned point

(v) Size (hectares): __ _____15.73Ha_____

(vi) Species (common and scientific name):
Native macro algae; *Alaria esculenta* (winged kelp), *Ulva lactuca* (sea lettuce), *Palmaria palmata* (dulse), *Asparagopsis armata* (harpoon weed), *Saccharina latissima* (sugar kelp), *Laminaria digitata* (oar weed), *Fucus serratus* (serrated wrack)

(vii) What is the source of plantlet? Bantry Marine Research Station hatchery_____

(viii) Cultivation Method? _long lines_____

(ix) Proposed total number of lines/ropes_____50 lines_____

_____

(x) Proposed Production:

Year 1	22T	Year 2	44T	Year 3	110T	Year 4	110T	Year 5	110T

(xi) Reasons for site selection: Dunmanus Bay has ideal conditions for growing indigenous species of seaweed. The site itself is sheltered and has access from a nearby pier for maintenance purposes.

_____

(xii) Provide detailed information on the techniques for cultivation in use or to be used. Are these techniques currently in use in the industry or are they new? Please give details;

Longline deployment techniques are currently in use in the industry. Seeded seaweed string will be prepared onshore at the BMRS hatchery. The company is familiar with the deployment of same and has been utilising these techniques on their existing site for a number of years.
On arrival at the longline, the boat is tied to the header rope at one end to allow for same to be quickly detached when needed. The header rope is temporarily detached from the anchor rope with

the use of a buoy to avoid loss. The header rope is passed through the end of the collector. The collector is held at either end to avoid touching the delicate plants on the culture string. The anchor rope is then reattached to the header rope ensuring a strong connection. The boat is then untied from the line and is pulled down the length of the header rope over hand. The collector should also be pulled down the length of the header rope, the culture string spiralling around the larger diameter header rope. The string must not be coiled too loosely around the rope to ensure the plants anchor to the line. Upon reaching the end of the longline or the end of the culture string, whichever comes first, the end of the culture string is tied through the lay of the rope, as at the start. Before leaving the site it is ensured that the header rope is submerged to a depth of at least .5m below the surface. The buoys are then attached to the header rope spacing them evenly down the length of the line.

(xiii) Methods used for harvesting. - A Boat operated crane will be utilised to remove the longlines from the bay and will then be hand cut into 1T bins.

(xiv) Has the site sufficient space for the site structures including mooring blocks?

Yes, detailed drawings
Attached.

Please provide separately detailed drawings of both over and under water structures including moorings. (See Guidance Note on Site Structures 3.3.2)

(xv) How will the visual impact issues of the flotation devices for the proposed application be addressed? -We propose to use grey LD2 buoys (these are specifically designed to be almost invisible from the shore) and MFL130 floats

(xvi) Is the site located in a sensitive area e.g. SPA (Special Protection Area) or SAC (Special Area of Conservation) i.e. a Natura 2000 site? (Refer to Guidance Note 3.3.1- Natura 2000 sites)

If Yes give details
-No the site of the proposed development is not in a SPA, SAC or Natura 2000 site. However the site is adjacent to or in the vicinity of SPA 004156 (Sheeps Head to Toe Head SPA), SAC 002189 (Farranamanagh Lough SAC) and proposed natural heritage area 000102 (Sheeps head).

See Part 2.3A for details of documentation to be included with this application type

2.3A DOCUMENTATION REQUIRED FOR MARINE-BASED SEAWEED/AQUATIC PLANTS/AQUATIC FISH FOOD AQUACULTURE

(to be included separately with a Licence Application for a new site or for a renewal or review of an existing Licence)

1. **Scale drawing of the structures to be used and the layout of the farm.** The proposed site drawings must illustrate all site structures above and below the water including mooring blocks. (recommended scales normally 1:100 for structures and 1:200 for layout) (See Guidance Note 3.3.2 on Site Structures)

2. **An Appropriate Ordnance Survey Map (recommendation is a map to the Scale of 1:10,000/ 1:10,560, i.e. equivalent to a six inch map).** Note: The proposed access route to the site from the public road across tidal foreshore, (e.g. pier or slipway) must also be shown on the map.

3. **The prescribed application fee (See Guidance Note Section 4)**

4. **If the applicant is a limited Company within the meaning of the Companies Act 1963, as amended, the Certificate of Incorporation and Memorandum and Articles of Association**

5. **If the applicant is a Co-operative, the Certificate of Incorporation and Rules of the Co-operative Society**

6. **Environmental Impact Statement (if required) in certain cases- See Guidance Notes Section 3.3.1**

NOW COMPLETE PARTS 2.6, 3, 4 AND 5 PLEASE

2.6 Employment, Qualifications, Experience, etc
TO BE FILLED IN BY ALL AQUACULTURE APPLICANTS

(i) Please provide details of experience/qualifications of the applicant and any key personnel which are relevant to the aquaculture now proposed:

Bantry Marine Research Station Ltd (BMRS) has been in operation since 1991 as part of the Aquaculture and Fisheries development Centre, University College Cork. However in 2005 it was established as an independent research centre. Research work at the station has grown steadily and has included commercial trials and participation in EU research projects. Key personnel include

Dr. Julie Maguire (Research Director)
Julie Maguire has a PhD in Marine Biology from University College Cork (awarded in 1998). As Research Director of BMRS, Dr Maguire has managed all the Stations research projects and managed the seaweed farm in Bantry Bay since the license was first awarded. Her main research interests lie in climate change mitigation particularly by using seaweed. Her main research efforts and subsequent projects are in; macroalgal cultivation and Integrated Multi Trophic Aquaculture (MABFUEL, NETALGAE, BIFF, ACCIPHOT, IDREEM, ECOFISH, SEAFOOD-AGE, Agrefine, Farm4More, EATFISH), and the extraction and quantification of bioactive compounds and bioplastics (SEABIOPLAS), research to improve products and services such as zero waste and traceability (ORION, LABELFISH, SEATRACES, BIOTECMAR), forecasting and monitoring (ASIMUTH, OSS2015, SAFI, AtlantOS, C-TEP, PRIMROSE, Co-Clime, Nanoculture). Some highlights from her career include she was awarded the Copernicus Masters Award for "Best service for European citizens" for her work on forecasting Harmful Algal Blooms in 2013 and in 2018 she gave a presentation at the European Parliament "Exploring the Use of Seaweed-Derived Biopolymers in Biomedical Technology". She has 28 peer reviewed publications and 2 best practice guidelines for seaweed harvesting in Europe and mussel fisheries management.

Dr Simona Paolacci (Researcher/Principal Investigator)
Dr Paolacci graduated in Environmental Sciences from Sapienza University of Rome (Italy) and has a research Masters in environmental Monitoring and Restoration. After completing her PhD in plant eco-physiology at University College Cork, she worked for three years as a post-doc also in UCC. She developed a phytoremediation system to treat aquaculture wastewater whilst producing a valuable, protein-rich plant biomass. She is interested in marine and freshwater aquatic ecosystems and plants restoration ability. Currently she is involved in a project investigating seafood traceability and compliance to EU seafood labelling legislation. In general, she is interested in environmental policy, and also enjoys using plants and algae to solve environmental issues.

Mr Mick Mackey (Researcher)
Mick Mackey studied Marine and Freshwater Biology at the Royal Melbourne Institute of Technology (RMIT) and the University of Tasmania between 1986 and 1988. After monitoring the phytoplankton and zooplankton of Melbourne's water supplies and streams for six years, he returned to Tasmania in 1995 to study the productivity of Antarctic sea-ice algae as part of his Honours Year. Mick spent the next 20 years working in Ireland and Antarctica researching various aspects of marine mammal and seabird biology, including a 2.5-year stint on Bird Island, South Georgia. He is currently working as a Research Scientist at the Station, where he is immersed in a wide variety of lab-based and field studies involving macroalgae, microalgae, marine invertebrates and fish.

Ms. Dee McElligott MSc. (Researcher)
Ms McElligott holds an MSc. in Geographical Information Systems and Remote Sensing and an undergraduate degree in Zoology. With over ten years' experience in marine research she has participated in EC FP, INTERREG and numerous nationally funded projects. Dee is currently involved in INTERREG projects delivering improved forecasts of HABs, microbial risks and climate impacts in aquaculture locations in a number of EU countries (PRIMROSE), and a project co-developing and co-producing a prototype marine ecosystem climate services (CoCliME). Dee is also involved in a number of macroalgae based projects, including running trials for growing Asparagopsis armata onshore, the purpose of this is to produce an antimethanogenic product for delivery to the cattle industry.

(ii) If a new application please provide details of projected employment creation during first four years of the proposed aquaculture project:

(iii) In the case of a renewal please provide current and future details:

____BMRS is a significant employer in a remote, rural area. The company currently employs 14 staff members which it is hoped will increase significantly in the years to come. It is projected that in year 1, approximately 10 lines will be deployed, in year 2 c.20 lines and in year 3 c.50 lines thus fully utilising the site. The world market for seaweed products is increasing dramatically. Seaweed processing and sales activities will increase over the first 3-4 years. It is envisaged that this project will create 1.5 full time equivalent jobs with a further 2.25 part time equivalent jobs.

FULLTIME JOBS

Year 1:	1	Year 2:	1	Year 3:	2	Year 4:	2

PART TIME JOBS

Year 1:	1	Year 2:	2	Year 3:	3	Year 4:	3

PART 3 D. LIMITED COMPANY

Company Name: Bantry Marine Research Station Ltd._____

Address: Gearhies, Bantry, Co. Cork, P75 AX07_____

_____

Company Registered No. (CRO No.) 402087_____

VAT No. IE-6422087U_____

Phone No. 027 29180_____

Mobile No. [redacted]_____

E-mail Address: jmaguire@bmrs.ie_____

Please list below the names and Personal Public Service No's of the Directors of the Company

Name: __Julie Maguire_____ Personal Public Service No.

Name: ___David'O'Neill_____ Personal Public Service No.

Name: ____Dan Tierney_____ Personal Public Service No.

Name: _____ Personal Public Service No. _____

Please list below the names and Personal Public Service No.'s of the Shareholders in the Company and the percentage shareholding held in each case

Name: _Cervellos Limited (Dan Tierney beneficial owner) _____
Personal Public Service No. _CRO No. 591529_____

% Shareholding:____100%_____

Name: _____ Personal Public Service No. _____

% Shareholding:_____

Name: _____ Personal Public Service No. _____

% Shareholding:_____

Name: _____ Personal Public Service No. _____

% Shareholding:_____

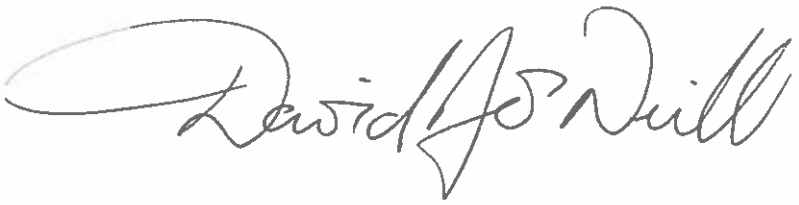
PART 5: DECLARATION AND SIGNING

NB: Refer to Guidance Note Section 3.5 and Section 4 - Guidance on Declaration and Signing and Annual Aquaculture and Foreshore Licence Fees

If this is a renewal have you met all licence conditions of the existing aquaculture licence? If applicable, explain why you have not complied with all conditions:

N/A

I/We hereby declare the information provided in Parts 1, 2, 3 and 4 above to be true to the best of my/our knowledge and that I am over 18 years of age. I/We enclose an application fee* of €_95.23_____ with this application.



Signature(s) of Applicant(s):
(Please state capacity of persons signing on behalf of a Company/Co-op) Director,
Bantry Marine Research Station Ltd.

Date: 18/02/22

NB All persons named on this licence application must sign and date this application form.
Only the existing licence holder(s) can apply for the renewal/review of an Aquaculture Licence.

*Preferred method of payment is by cheque or bank draft. The fee should be made payable to the Department of Agriculture, Food and the Marine.

Refer to Guidance Note Section 4 - Guidance on Aquaculture and Foreshore Licence Fees

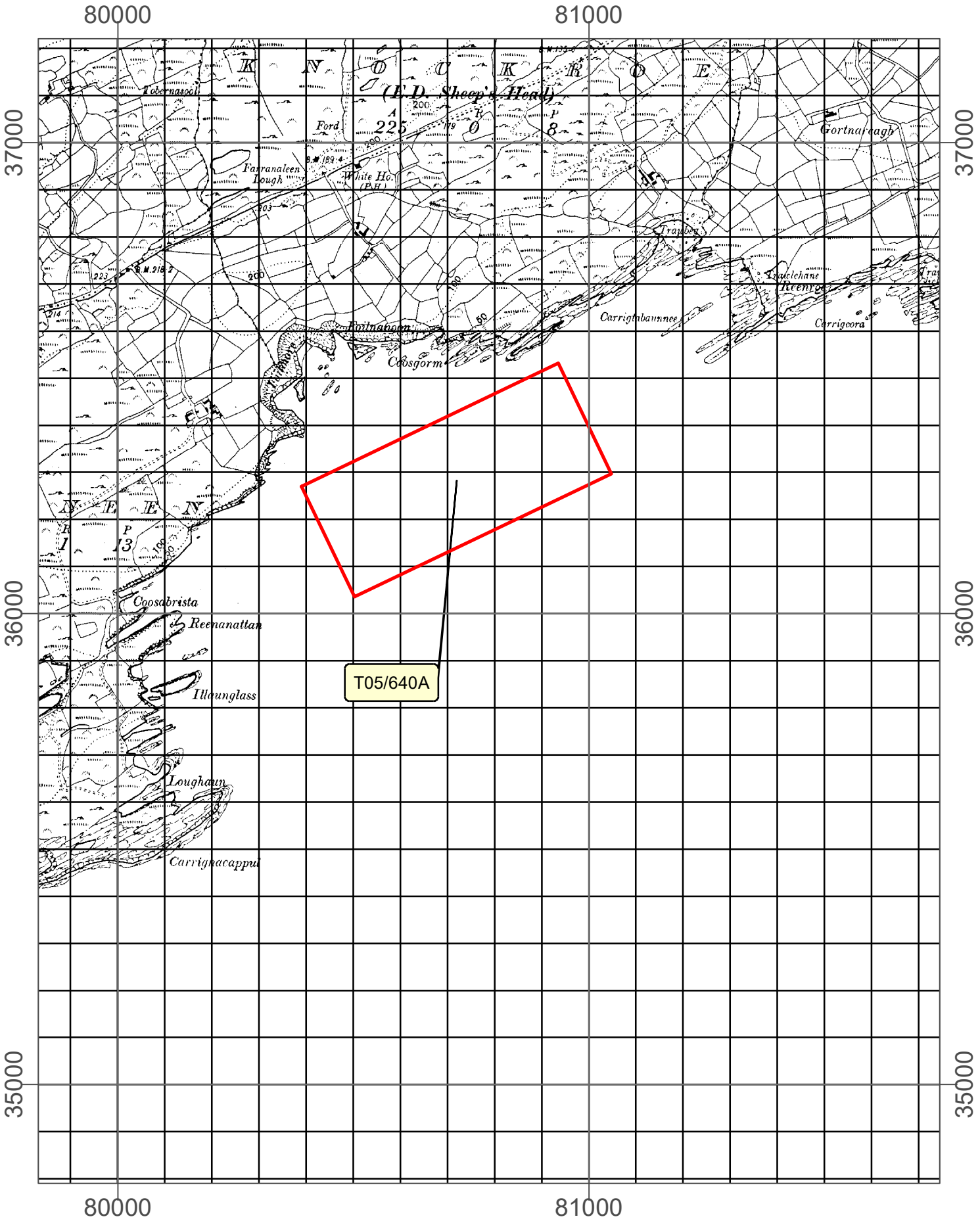
1 NO. SITE AT DUNMANUS BAY CO.CORK

Co-ordinates & Area

Site T05/640A (15.74 Ha)

The area seaward of the high water mark and enclosed by a line drawn from Irish National Grid Reference point

080390, 036270	to Irish National Grid Reference point
080935, 036532	to Irish National Grid Reference point
081048, 036297	to Irish National Grid Reference point
080503, 036036	to the first mentioned point.

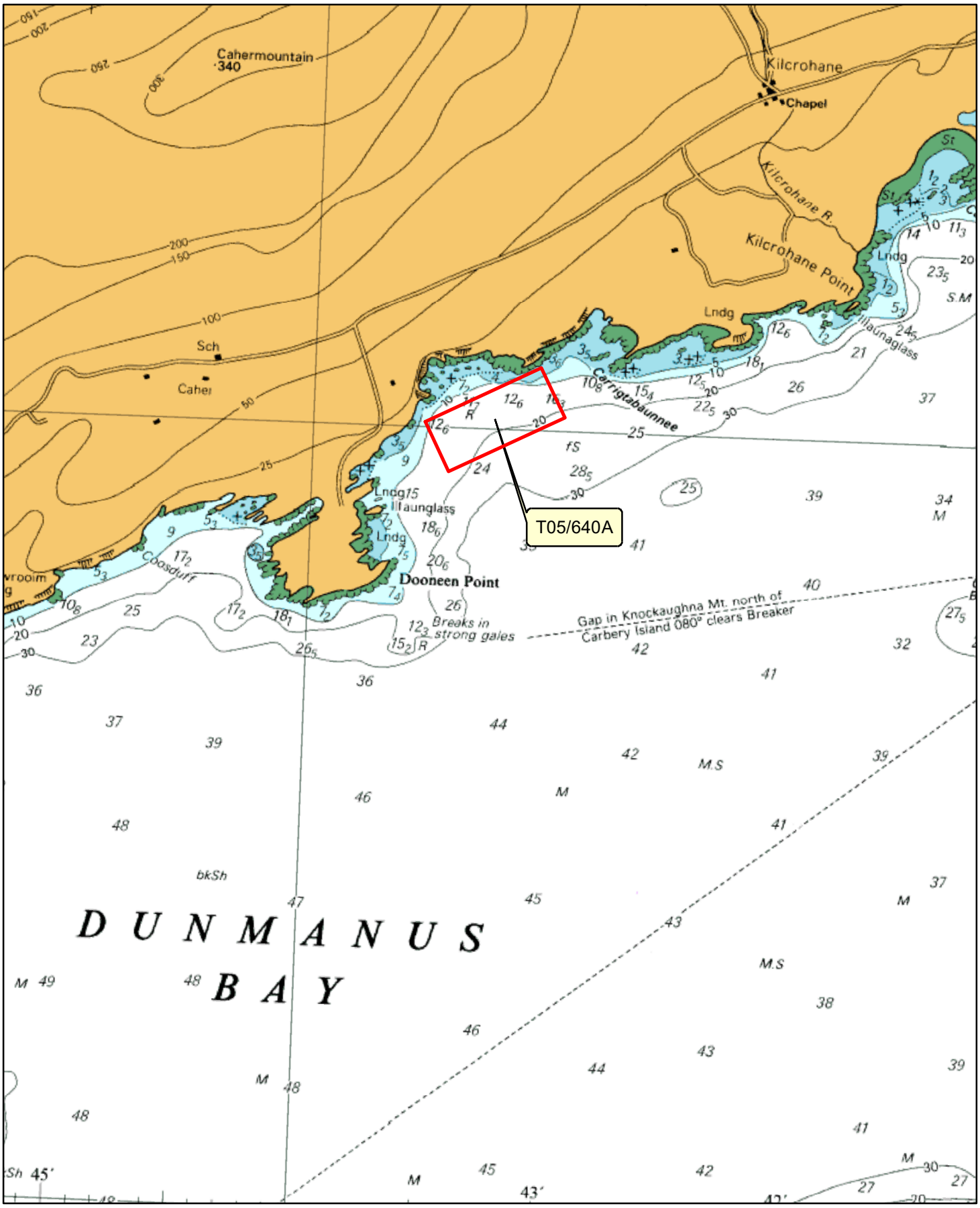


1:10,560

Site_Status
Application
Licensed
100mgrid

Sites highlighted in red denotes Application

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine



1:24,000

Site_Status

Application

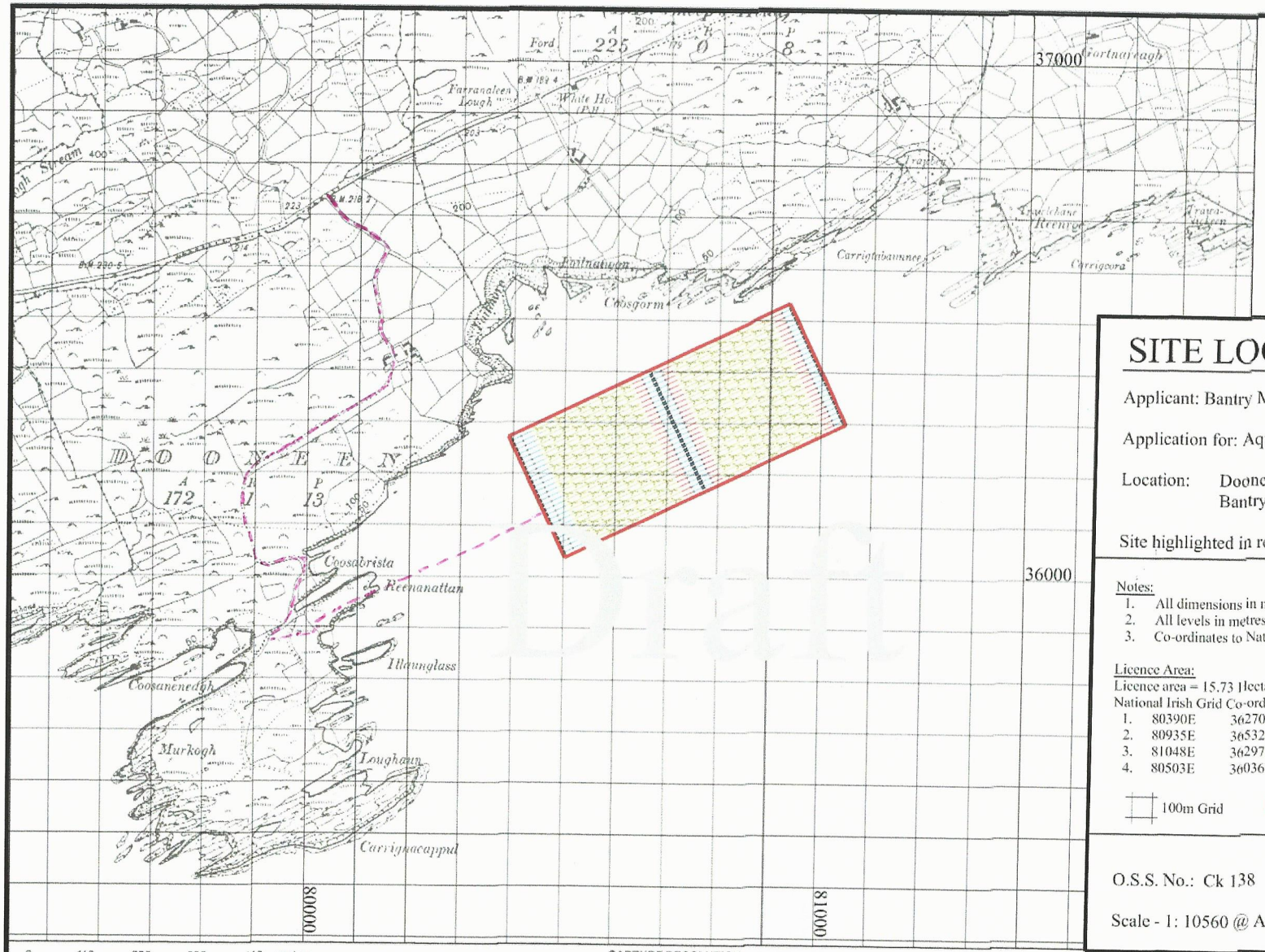
Licensed

Sites highlighted in red denotes Application

Part of Admiralty Chart No =2552-0

Not to be used for Navigation

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine



PUBLISHED: 16/01/2022
ORDER NO.: 50243776_1
MAP SERIES: 6 Inch Raster
MAP SHEETS: CK138+138A

SITE LOCATION MAP

Applicant: Bantry Marine Research Station Ltd.

Application for: Aquaculture Licence

Location: Dooneen Point, Kilcrohane, Bantry, Co. Cork.

Site highlighted in red denotes application.

Notes:
1. All dimensions in metres unless noted otherwise.
2. All levels in metres related to OD Malin.
3. Co-ordinates to National Irish Grid.

Licence Area:
Licence area = 15.73 Hectares
National Irish Grid Co-ordinates

1.	80390E	36270N	
2.	80935E	36532N	
3.	81048E	36297N	
4.	80503E	36036N	to first mentioned point.

100m Grid Application

O.S.S. No.: Ck 138

Scale - 1: 10560 @ A4

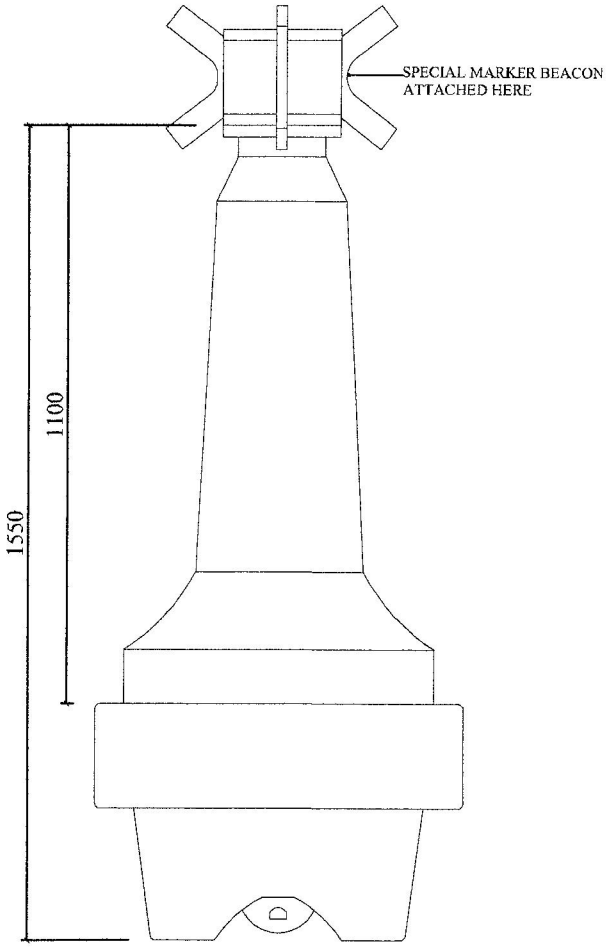
N

OUTPUT SCALE: 1:10,560

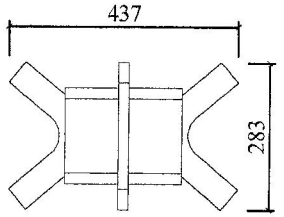
CAPTURE RESOLUTION:
The map objects are only accurate to the resolution at which they were captured.
Output scale is not indicative of data capture scale.
Further information is available at:
http://www.osi.ie; search 'Capture Resolution'

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

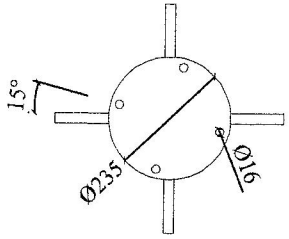
---- = ACCESS ROUTE TO SITE FROM PUBLIC ROAD.



ELEVATION: FLOATING MARKER BUOY
SCALE 1:10



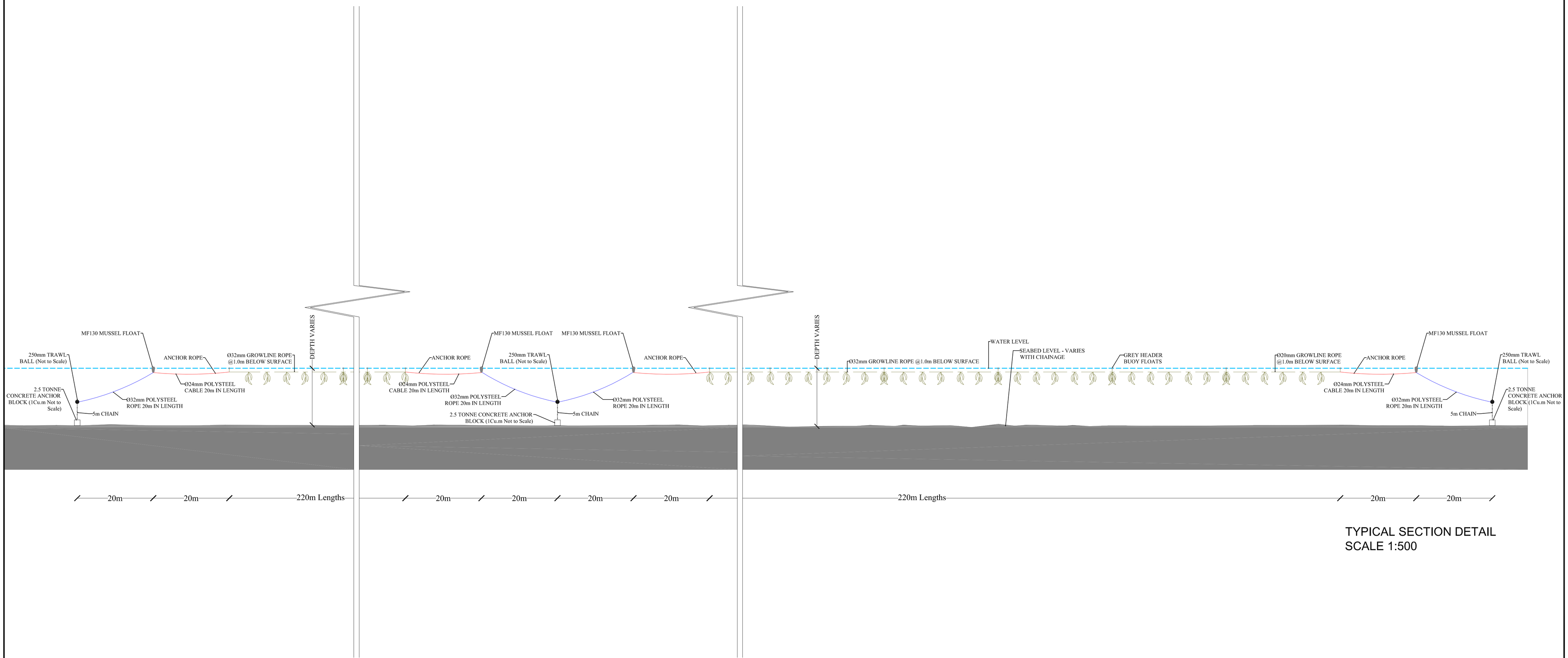
ELEVATION: SPECIAL MARKER BEACON
SCALE 1:10



PLAN: SPECIAL MARKER BEACON
SCALE 1:10

Floating Marker Buoy Specification:

- Total Height 1550mm
- Total Weight 65kg
- Diameter 600mm
- Volume 189 Litres
- Focal View 1100mm
- Mooring Ring Diameter 25mm
- Mooring Line and Block Suitable for Location



TYPICAL SECTION DETAIL
SCALE 1:500

This drawing is for illustration purposes only.
Not to be used as a working drawing.

Notes:
All anchor blocks to be 2.5 tonne concrete with 32mm polysteel rope to surface.

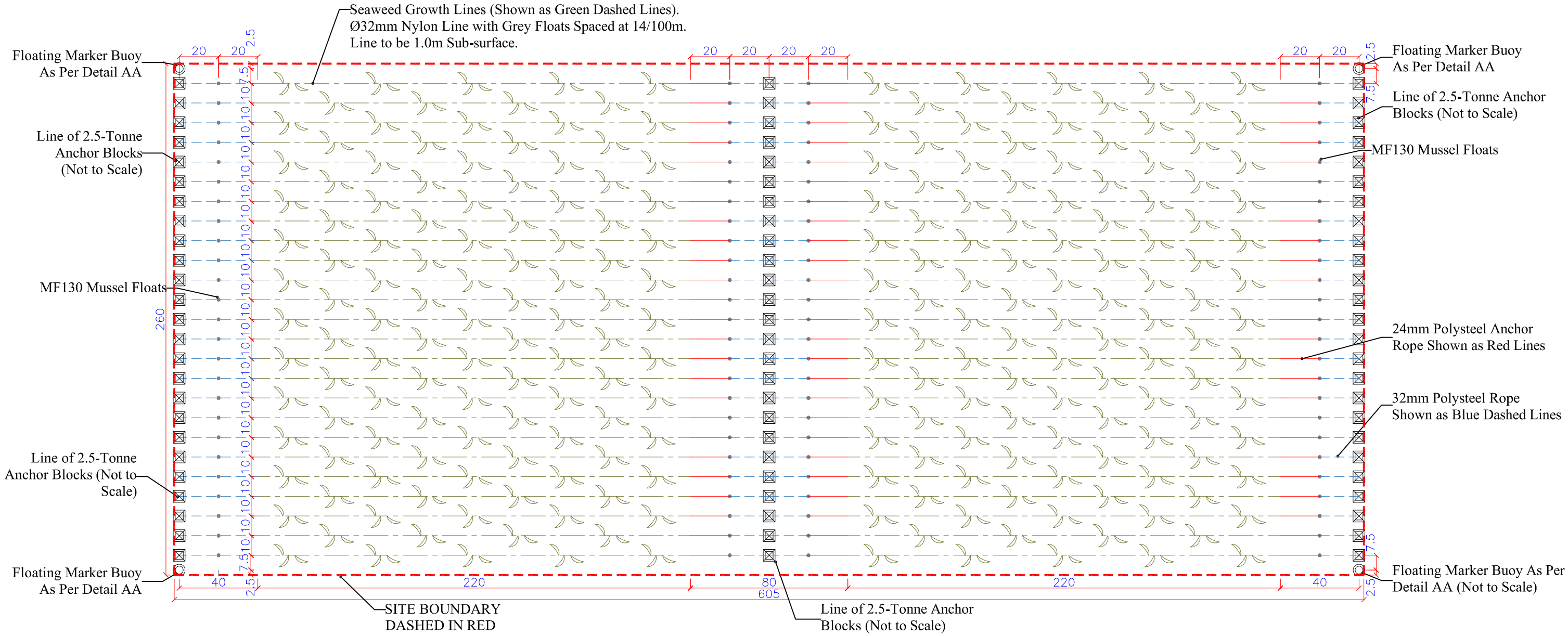
Navigation Marker buoy as each corner of the area as per C.I.L.

Notes:
1. All dimensions in metres unless noted otherwise.
2. All levels in metres related to OD Malin.
3. Co-ordinates to National Irish Grid.

Licence Area:
Licence area = 15.73 Hectares
National Irish Grid Co-ordinates
1. 80390E 36270N
2. 80935E 36532N
3. 81048E 36297N
4. 80503E 36036N to first mentioned point.

Marker Beacons:
St. Andrews Cross special beacons located at corners of site.

Client: Bantry Marine Research Station Ltd.	Date: October 2021
	Scale: 1:500 @ A1, 1:1000 @ A3
Project: Aquaculture Licence - Dooneen Point	Drawn By: E.O.M.
	Checked:
Drawing Title: Proposed Section Detail	Dwg No.: DP-S0-02
	Rev.



PROPOSED APPLICATION SITE LAYOUT
SCALE 1/1000

TOTAL SITE AREA = 157,300 SQ.m / 15.73Ha

This drawing is for illustration purposes only.
Not to be used as a working drawing.

Notes:
All anchor blocks to be 2.5 tonne concrete with 32mm polysteel rope to surface.

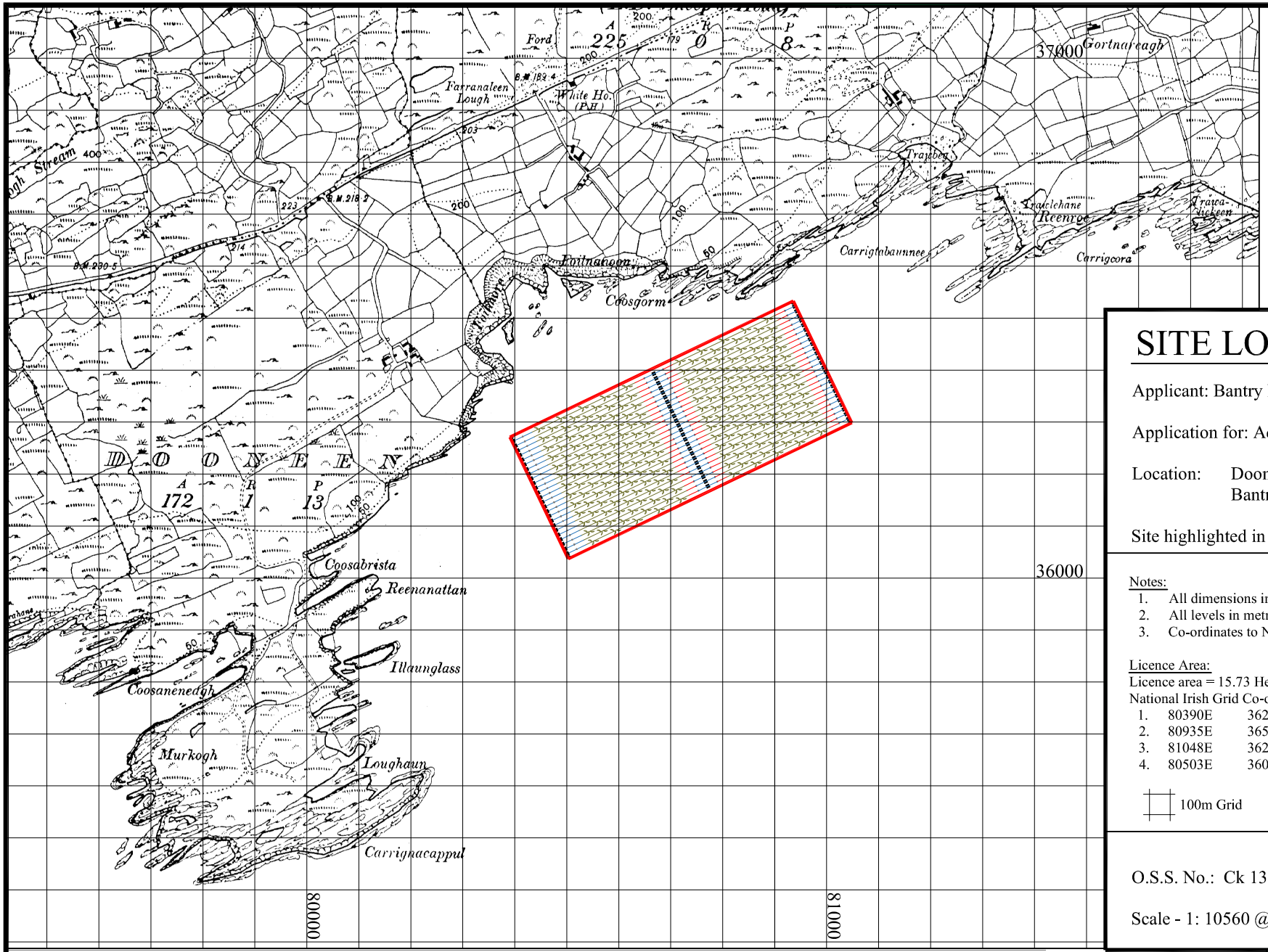
Navigation Marker buoy as each corner of the area as per C.I.L.

Notes:
1. All dimensions in metres unless noted otherwise.
2. All levels in metres related to OD Malin.
3. Co-ordinates to National Irish Grid.

Licence Area:
Licence area = 15.73 Hectares
National Irish Grid Co-ordinates
1. 80390E 36270N
2. 80935E 36532N
3. 81048E 36297N
4. 80503E 36036N to first mentioned point.

Marker Beacons:
St. Andrews Cross special beacons located at corners of site.

Client: Bantry Marine Research Station Ltd.	Date: October 2021
	Scale: 1:2000 @ A3
Project: Aquaculture Licence - Dooneen Point	Drawn By: E.O.M.
	Checked:
Drawing Title: Proposed Layout Plan	Dwg No.: DP-PD-01
	Rev.



PUBLISHED: 16/01/2022
ORDER NO.: 50243776_1
MAP SERIES: 6 Inch Raster
MAP SHEETS: CK138+138A

SITE LOCATION MAP

Applicant: Bantry Marine Research Station Ltd.

Application for: Aquaculture Licence

Location: Dooneen Point, Kilcrohane, Bantry, Co. Cork.

Site highlighted in red denotes application.

Notes:
1. All dimensions in metres unless noted otherwise.
2. All levels in metres related to OD Malin.
3. Co-ordinates to National Irish Grid.

Licence Area:
Licence area = 15.73 Hectares
National Irish Grid Co-ordinates

1.	80390E	36270N	
2.	80935E	36532N	
3.	81048E	36297N	
4.	80503E	36036N	to first mentioned point.

100m Grid Application

O.S.S. No.: Ck 138

Scale - 1: 10560 @ A4

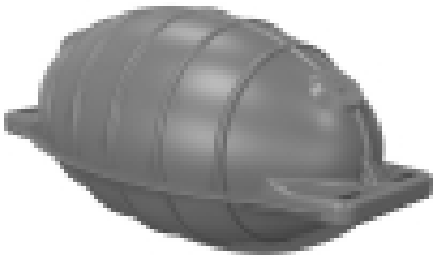
N

0 110 220 330 440 metres
0 200 400 600 800 1,000 Feet

OUTPUT SCALE: 1:10,560

CAPTURE RESOLUTION:
The map objects are only accurate to the resolution at which they were captured.
Output scale is not indicative of data capture scale.
Further information is available at:
http://www.osi.ie; search 'Capture Resolution'

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine



MFL 130 (988L*580H*530W)

LD2 Buoys (note yellow image but proposed in grey) 61cm Length * 29 cm Diameter

Mooring Block single eye