

Our Ref.: DFA009/AJDfarm/EIA Statement

Your Ref.: EA/00007/18

29 January 2024

Environment & Resources Authority

Attention: EIA Team

Subject: EA/00007/18 – Proposed conversion from a temporary to a permanent tuna farming area as established in PA/02175/18; retaining the approved total biomass of fish and all relative conditions (PA/05908/23)

Introduction

1. On request by the Environment & Resources Authority (ERA) in a letter dated 6 November 2023, this statement is being prepared by the EIA Coordinator who carried out the EIA for the original proposal to *consolidate temporary tuna farming area at a parcel of sea approximately 5 kilometers from the shore (in general area approved for PA/03072/17 and PA/05858/17) for a total biomass of 3,300 tonnes of fish (PA/02175/18)*, in order to assess whether the proposed conversion of the tuna farming facility from a temporary one to a permanent one, as submitted to the Planning Authority and subject of development permit application PA/05908/23 would have a significant impact on the environment beyond that which had already been assessed in the original EIA Report.
2. Specifically, the ERA requested:

ERA notes that the above-mentioned project proposes a change of use of the site from temporary as per in PA/02175/18 to a permanent one. In this regard, ERA requires a Statement from the EIA Coordinator outlining whether the said change will affect the conclusions of the EIA and AA Reports undertaken for PA/02175/18.
3. In order to assess the proposed changes, the EIA Coordinator requested the plans and a note on any changes being proposed from the project architect as no information was available on the Planning Authority's e-apps portal since the application is not yet fully submitted. A full set of the plans made available by the project architect are included in **Appendix I**. We are informed that no changes are being proposed from the project currently operated by AJD Tuna Limited at the Scheme site.

4. The plans provided were reviewed by the EIA Coordinator and we could confirm that the coordinates of the aquaculture zone are identical to those considered in the original EIA for application PA/02175/18.

5. The proposal to convert the tuna farming installation from a temporary to a permanent one is hereinafter referred to as 'the Scheme'.

Background

6. As mentioned, an EIA was first prepared in July 2018 on behalf of AJD Tuna Limited to support application PA/02175/18 which proposed the consolidation of two tuna farming operations that had already been approved under two separate applications (PA/03072/17 and PA/05858/17). The original scheme site was located at 5 km offshore and had a total biomass of 3,300 tonnes. This development came about following a decision by the Planning Authority to revoke all permits for all tuna farms in Maltese waters in September 2016 and ordering all farms to relocate to approved aquaculture zones by May 2017.
7. The ERA had requested an EIA as the proposal fell under Schedule I, Category I, Section 8.2.1.1 of the Environmental Impact Assessment Regulations, 2017 (S.L. 549.46).
8. The permit was approved in May 2019 and covered the consolidation of the former AJD Tuna Ltd and MML tuna farms relocated from St Paul's Bay and the South Comino Channel, respectively in one area approximately 5 km offshore. The biomass reared did not increase and covered that allowed to be reared in the two farms mentioned. **Figure 1** shows the location of the two original farms in Comino and St Paul's Bay, their temporary relocation site 5 km offshore and the final approved consolidated area, subject of application PA/02175/18 and of the current proposal for conversion to a permanent facility. **Figure 2** shows the location of the Scheme site with distances from shore.
9. In addition to this application, whose location was deemed to be only a temporary solution (see below), a second application, this time by the Department of Fisheries and Aquaculture (PA/04811/19) was submitted for the establishment of a North Aquaculture Zone (NAZ) to complement that already set up in the South of the island, approximately 6.3 km off Marsascala in 2006. The application proposed to relocate tuna farms in the north of Malta for a total biomass of approximately 5,000 tonnes of fish. The application for the NAZ was itself the subject of an EIA process. The application is still awaiting a decision.
10. It is to be noted that the establishment of a NAZ, as per PA/04811/19, was always considered as the final location where all tuna farms in the north are relocated to. The application also included the possibility of extending the farming area in a northwesterly direction. The location for the NAZ was arrived at following a detailed site selection exercise aimed at identifying possible sites for the establishment of such a zone for the rearing of bluefin tuna .
11. The operation at the Scheme location included an average of 24 cages, with each cage containing approximately 1,200 fishes with an average mass of 115 kg (or a total of 137.5 tonnes of fish per cage. This stocking density corresponds to the maximum capacity of the farm as defined by ICCAT.

Figure 1: Location of former farms off St Paul's Bay and South Comino Channel in relation to the temporary location 5 km offshore and the Scheme site

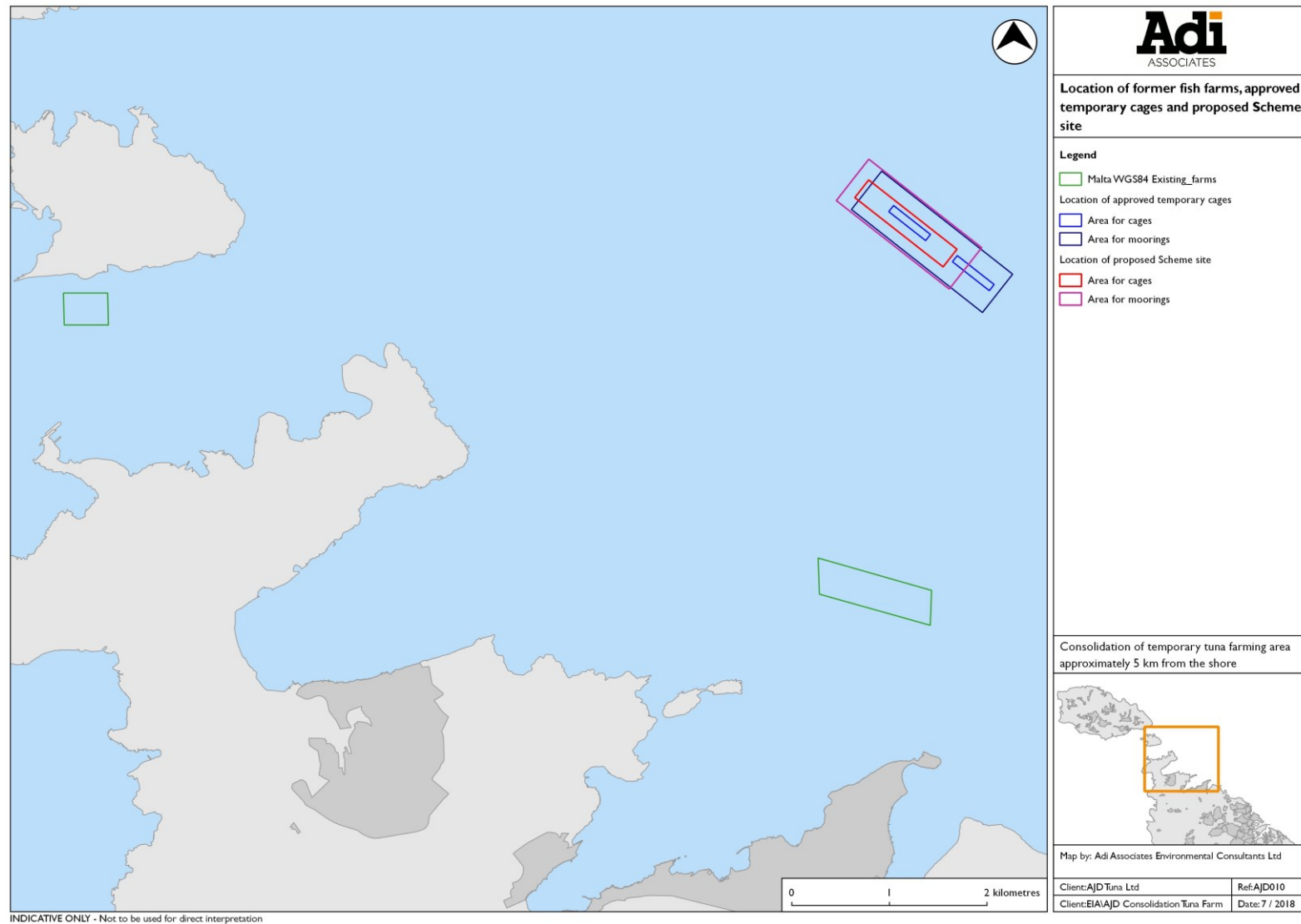
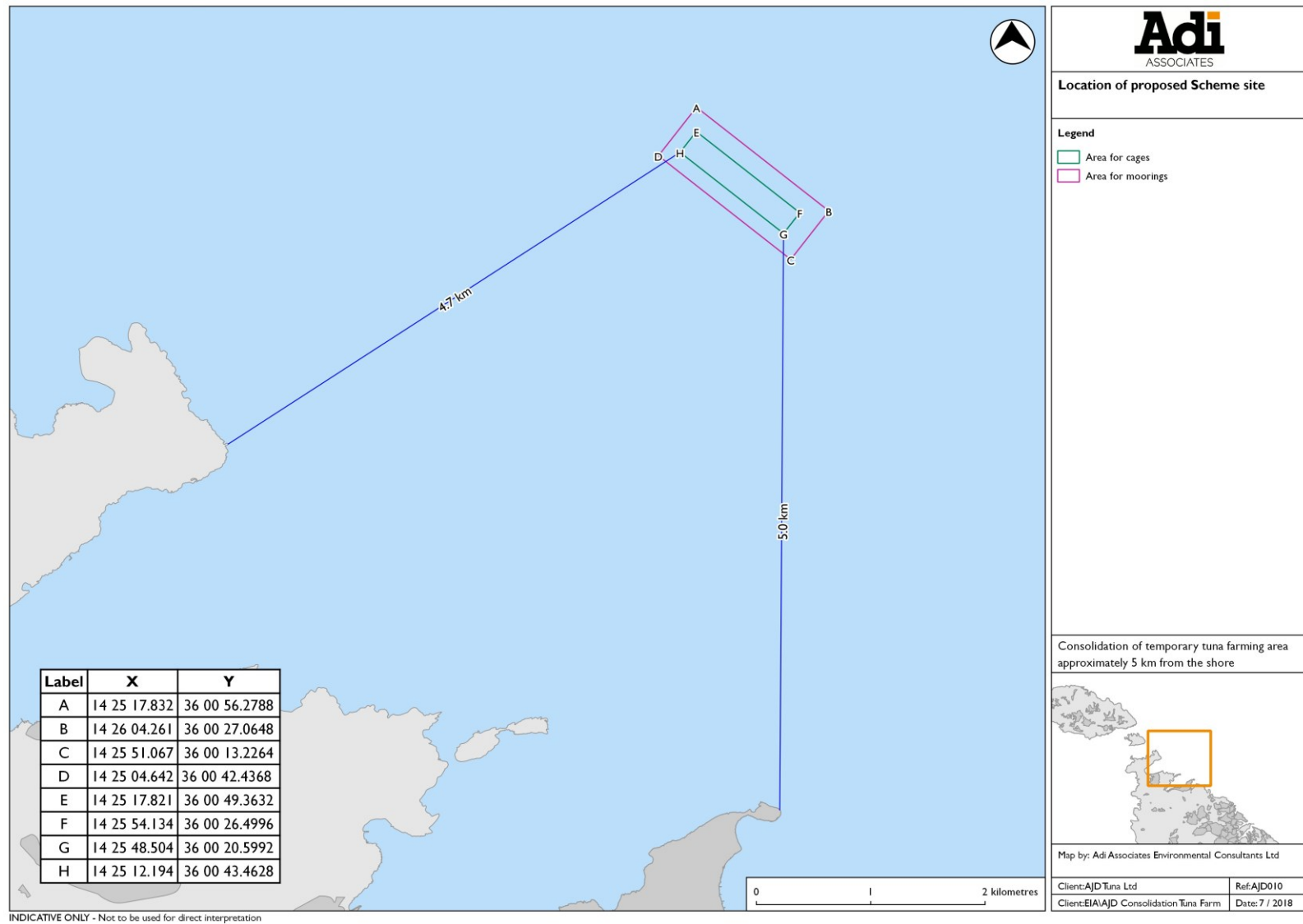


Figure 2: Scheme location and distance from shore



12. Transport Malta's Harbour Master directed that the search area should be located no closer than 300 m from the bunkering zone.
13. The benthic habitat survey revealed that the search area included maerl/rhodolith beds and coarse sand with rhodoliths. The proposed site was then located as far as possible over the area with predominantly coarse sand and muddy heterogeneous sediment.
14. **Figure 3** shows the search area considered following the findings of the Site Selection Exercise that had identified this general region as suitable for the establishment of the farm. **Figure 4** shows the location of the Scheme superimposed on the benthic habitats map.

Proposed changes to the Scheme

15. As explained by the project architect, the Scheme as proposed in development permit application PA/05908/23 is identical to that approved in PA/02175/18 in terms of the location of the Scheme, the number of cages / amount of biomass to be reared, and the number, type, and area of moorings for the cages deployed. The only difference is that instead of a temporary facility that would move to a further offshore location once the NAZ is established, it will become a permanent one at this same location such that the impacts assessed as "short-term and/or temporary (for as long as the fish farm is in operation)", will now become permanent and long-term.
16. As stated, the full set of plans for the Scheme as proposed are included in **Appendix I**.

Figure 3: Search area for relocation of AJD farms from Comino and St Paul's Bay (2016)

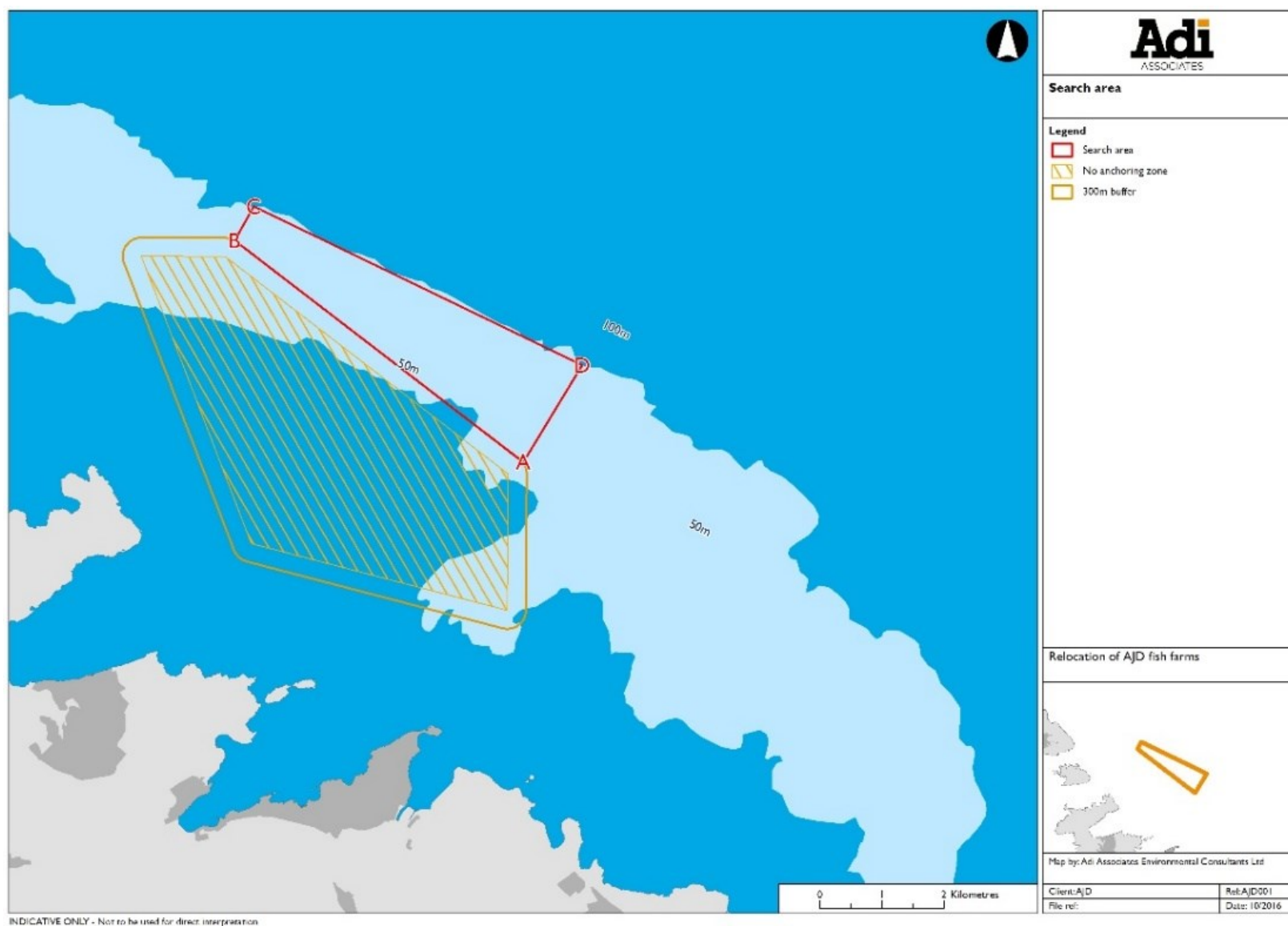
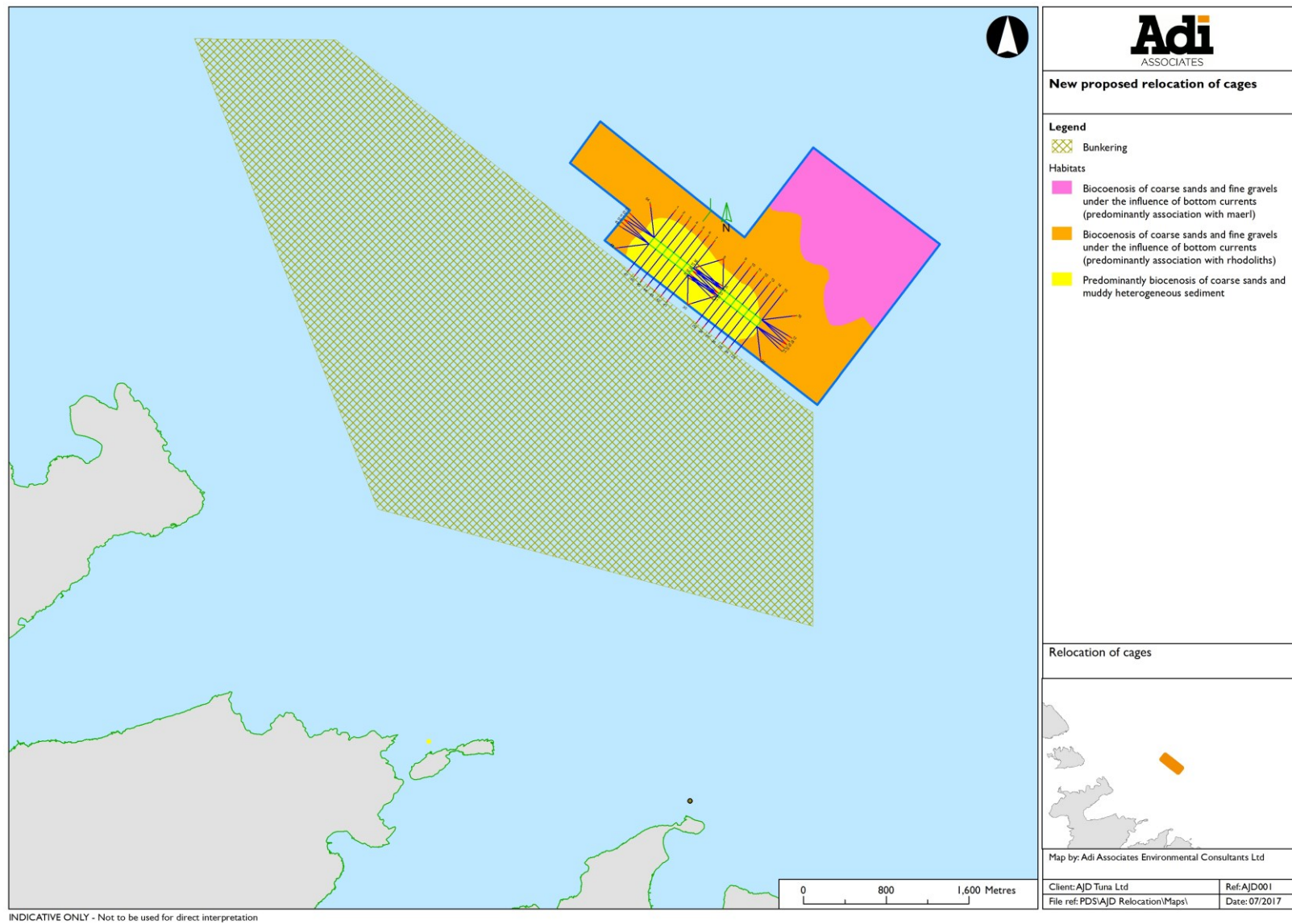


Figure 4: Scheme site superimposed on benthic habitats



Assessment of Impacts for new Scheme

17. In the next sections, a detailed re-assessment of the impacts of the original scheme is portrayed in the light of the proposed change from a temporary to a permanent facility. It is noted that since the development application for the North Aquaculture Zone was not yet filed, the EIA for PA/02175/18 did not assess cumulative impacts of the 2 farm areas.

Marine Environment (Water Quality)

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
During Deployment	
Increased potential for oil pollution due to increased maritime traffic (deployment craft) in area	No difference – cages already deployed; no changes by converting to a permanent facility
Reduction in bottom water transparency due to re-suspension of sediment particulates by mooring blocks	No difference – cages already deployed; no changes by converting to a permanent facility
Operational Phase	
Reduction in water quality of surface waters due to release of fish oils and mucus from baitfish during feeding	Impact assessed as minor to not significant – no changes expected if farm remains permanently on site, except that the duration of the impact will change from temporary (due to the former temporary nature of the farm at this location) to permanent / long-term. It however must be noted that the “temporary” nature of the farm as approved was linked to its relocation to another site in the general northern area of the island, which was subsequently identified as a site approximately 2 km northwest of the current (temporary) site and located in deeper water. Unless there are major changes in the operation (or the extent of area given to aquaculture increases), impacts are not expected to change.
Deterioration in water quality due to increased nutrient loads from fish waste and uneaten feed	Impacts on nutrient levels assessed as minor and transient in nature. Impact from uneaten baitfish settling on the bottom was deemed to be uncertain but likely to be minor to major beneath the cages and minor to not significant with increasing distance from the cages. No changes to these impacts are expected if the farm changes from a temporary facility to a permanent one except that the duration of

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
	the impact will change from temporary (due to the former temporary nature of the farm at this location) to permanent / long-term. In the long run, unless farm operations are very carefully managed to ensure against loss of feed or accumulation of other organic material (such as dead tuna carcasses) beneath the cages, the impact could become chronic and increase in magnitude over time.
Deterioration in water quality and transparency from blood and offal released during culling, harvesting, and processing	Impact assessed as minor to not significant. No changes to these impacts are expected if the farm changes from a temporary facility to a permanent one except that the duration of the impact will change from temporary (due to the former temporary nature of the farm at this location) to permanent / long-term.
Pollution from operational release of petroleum hydrocarbons and bilge waters, and from litter and sewage from vessels associated with the Scheme	Impact from smaller craft assessed as temporary and not significant to minor except in the unlikely event of a larger spill, when impact would be minor to major. Impact from larger craft assessed as potentially major. Adherence to MARPOL Regulations reduces impact to minor. No changes to these impacts are expected if the farm changes from a temporary facility to a permanent one except that the duration of the impacts at the site will change from temporary (due to the former temporary nature of the farm at this location) to permanent / long-term. Note that the vessels would still be used for other activities so the overall impact would not be removed only sifted elsewhere. Impacts from ship litter assessed as of minor to major significance depending on the type of items lost and whether they can be transported away from the site. The impact will not change with the proposed change from a temporary to a permanent facility except that the impact duration will also change from temporary to permanent / long term but mitigatable through good housekeeping and attention not to lose materials overboard.

Marine Environment (Benthic Ecology)

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
During Deployment	
Loss of habitats through burial under the mooring blocks	No difference – mooring blocks already deployed; no changes by converting to a permanent facility
Damage or disturbance to habitats and species in the Area of Influence through increased human presence	No difference – mooring blocks already deployed; no changes by converting to a permanent facility
Operational Phase	
Loss of habitats through permanent burial under the mooring blocks	No difference – mooring blocks already deployed; no changes by converting to a permanent facility
Disturbance to habitats and species through sand scouring as a result of alteration to currents and sediment movement around the mooring blocks	No difference – mooring blocks already deployed; no changes by converting to a permanent facility, except that the impact will be long term for as long as the mooring blocks remain in place or become completely buried in sediment.
Loss of habitats and decimation of biota from settlement of uneaten feed and faeces on the seabed	Impacts from fish waste on habitats was assessed as not significant. No changes expected if the facility is converted from a temporary to a permanent one. Impacts from uneaten feed on the benthic habitats were assessed as of minor to major significance directly under the cages and minor to not significant further away. No changes to these impacts are expected if the farm changes from a temporary facility to a permanent one except that the duration of the impacts at the site will change from temporary to permanent / long-term too. The permanent nature of the farm could eventually lead to an accumulation of uneaten feed and a chronic increased impact over time. Increased vigilance on feed management would be required to minimise such effects.
Disturbance to habitats and species from increased organic input in the area	Impacts assessed as not significant to minor and mostly restricted to the farming period. This will not change with the proposed change except that the impact

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
	can become cumulative from season to season potentially becoming of major significance with time unless cage sites are allowed to fallow and recover between seasons (i.e. not allowing any overwintering of fish).
Availability of new habitat space for colonisation	Impact assessed as minor beneficial due to the availability of shelter and new habitat space. No change is expected in the assessment or significance with the proposed change from temporary to permanent facility except that the benefit can be extended over a longer period.
Availability of new food sources, shelter, etc.	
Disturbance to habitats and species from increased human activity, including littering	Impact assessed as being not significant. No changes expected from the change to a permanent facility.
Potential introduction of alien species and disease-causing organisms via baitfish	Impact assessed as uncertain. No changes expected from a change to a permanent facility.
Attraction of pelagic and benthic species (including predators and scavengers) as a result of the presence of food and prey fish	Impact from wild species attracted to the farms was assessed as not significant to minor. No change in this assessment is expected as a result of the change from a temporary to a permanent facility except that the potential to attract wild species would continue indefinitely for as long as the farm is <i>in situ</i> .
Changes in ecological relationships and succession	Impact from wild species attracted to the farms was assessed as not significant to minor. No change in this assessment is expected as a result of the change from a temporary to a permanent facility. Impacts on the rhodoliths in the area occupied by the cages was assessed as to be of major significance but not significant in the case of other benthic assemblages. The impact is not expected to change initially but can become chronic and affect a larger extent of the rhodoliths as impacts from successive farming seasons add up. Impacts on infauna were deemed to be minor to not significant. The impact is not expected to change initially but can likewise become chronic and increase over time.

Avifauna

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
Impinging on sea area that is used by the seabirds for activity including rafting, social interaction, potentially feeding, etc	The impact was assessed as of minor significance in view of the small area occupied by the farm compared to the area used for foraging, rafting etc. This will not change if the facility becomes a permanent one except that the duration of the impacts at the site will change from temporary (due to the former temporary nature of the farm at this location) to permanent / long-term.
Disturbance due to light pollution	Impact judged to be uncertain but likely of minor to major significance during seabird breeding season. No changes are expected in the impact significance except that it would become permanent with more scope for cumulative effects with other light sources.
Disturbance due to noise pollution	Impacts related to movement of boats, especially during fattening and harvesting operations. Impacts assessed as not significant to minor. No changes are expected if the facility becomes a permanent one, but the impact could become cumulative with those of other noise sources in the area.
Change in prey abundance	The impact is considered to be uncertain though likely to be minor to not significant in the absence of any further data. No changes in the assessment are expected from the change to a permanent facility
Increasing population of Yellow-Legged Gull (predator)	The EIA had considered this impact to be uncertain with the data currently available on the gull population. It however also considered that if the gull population increased as a result of more readily available feed in the area, then the impacts downstream could be major. The EIA also considered that although the Scheme occurs at a new site, the proposed degree of operation is not new and therefore it does not introduce additional capacity for subsidising the diet of gulls. No change is

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
	expected from the current proposal.
Entanglement	This impact was assessed as not significant to minor. No changes are expected as a result of the proposal.
Ingestion of marine debris	Impact assessed as uncertain but ranging from minor to major depending on the number of seabirds affected and the level of management at the farm. No immediate changes are expected as a result of the proposed change to a permanent facility; however, the impact could increase in magnitude if the permanent nature of the activity would lead to an increased chronic loss of items into the marine environment and hence an increase in marine debris.

Marine Archaeology

As assessed in the EIA for PA/02175/18	Potential Changes as a result of PA/05908/23
One artefact of potential cultural heritage significance was identified during the survey. A 100 m exclusion zone was designated around the target within which area there should be no disturbance (i.e. no cages or mooring blocks). In the absence of further detail about the target, there is a degree of uncertainty and the impacts on the target can be classified as insignificant to major.	No difference – mooring blocks already deployed; no changes by converting to a permanent facility.

Effects on Human Populations

18. The EIA had considered effects on a number of socio-economic activities and pursuits. The major issues that would affect the conversion from a temporary to a permanent facility relate mainly to the fact that the location of the temporary farm was accepted on a “tolerance” basis when the permit was first issued. Relevant issues are reproduced in the following table from the original EIA. The text highlighted in **bold** is of particular relevance, and the re-evaluation is provided in red text.

Subject	Socio-economic data
Amenity / views from the shore	<p>The Scheme site is located a substantial distance from the shore (5 km), which is an improvement over the previous inshore sites. The offshore move is supported from a tourism and recreation point of view as well.</p> <p>The Mellieha Local Council also prefers a more northward move of the Scheme site (once the North Aquaculture Zone is set up) but as long as the zone will not be too large.</p> <p>The oily sheen from the farms may be visible more than the cages themselves, especially under certain atmospheric conditions and when viewed from high ground (e.g. High Ridge).</p> <p>No changes as a result of the change to a permanent facility.</p>
Bunkering activities	<p>The Scheme is located northward of the largest bunkering zone in the Maltese Islands- that at Is-Sikka l-Bajda. The Scheme moorings are located at the boundary of the bunkering zone, but the cages themselves are located at approximately 250 – 300 m from the bunkering zone boundary. It is imperative that all the navigational aids (special marker buoys and navigational lights) are maintained by the farm operator throughout the use of the site. The farming activities at the Scheme site are not expected to affect the economic activities related to bunkering.</p> <p>No changes as a result of the change to a permanent facility.</p>
AFM firing practice	<p>The Scheme site's original location overlapped with the AFM's Pembroke High firing practice arc. This was only tolerated for one year and the farm must be moved to an area outside of the firing arc. The ranges and their firing arcs cannot be touched. Activities such as bunkering and fish farming are prohibited within these areas.</p> <p>No changes as a result of the change to a permanent facility. The proposed conversion to a permanent facility will require consultation with the Armed Forces.</p>
Navigation	<p>There are three principal directions from which the majority of shipping to Malta approaches: North (down the coast) from the east and from the southeast. The Scheme site is situated along the approach to the Grand Harbour from the north and west.</p> <p>TM advised that the placing of the moorings close to (or within) the bunkering zone is only being tolerated; however, the cages must not be deployed any closer than 250 – 300 m from the bunkering zone boundary to ensure safety of navigation. However, the Scheme's location at this site is only considered as a temporary solution and the Scheme will need to be shifted to the new North Aquaculture Zone once this is set up. The location of the North Aquaculture Zone further to the north is preferred from a safety of navigation point of view. The approaches to Mellieha Bay / St Paul's Bay for the north must remain unencumbered for free navigation.</p> <p>No changes as a result of the change to a permanent facility. The conversion of the facility to a permanent one goes counter to the instructions from TM and will require further consultation with the Authority for Transport in Malta.</p>
Amateur fishing	<p>Amateur fishermen tend to use sites situated 1 to 1.5 km from the coast, although some may also venture further offshore. The tuna farms are a recognised fishing attraction.</p> <p>Fish farms typically act as a magnet for fish. This is especially in view of the presence of uneaten feed, which could attract wild fish to the area, with the possibility that fisheries could be enhanced. However, such a concentration of fish from other areas could also lead to over-fishing and depletion of stocks in the same way that artificial reefs may make the fish more easily caught. Fishermen observed that the attraction of wild fish to the pens can depopulate other areas.</p> <p>Fishermen also highlighted the problem with wild tuna attracted to the farm pens and remaining in local waters. These tuna would then prey on the smaller fish, which would typically be targeted by the amateur fishermen. Fishermen claim to have seen a</p>

Subject	Socio-economic data
	<p>drastic reduction in prey species in certain areas; others attribute the increase in fish in their area to the presence of the farm.</p> <p>The Scheme proposal is not deemed to affect fisheries as long as the area enclosed by the outer perimeter buoys does not increase from that already permitted.</p> <p><i>No changes as a result of the change to a permanent facility.</i></p>
Diving and related recreational pursuits	<p>The nearest “official” dive site to the Scheme site is the wreck of the HMS Stubborn. Fish farming and diving activities are not really compatible but acknowledging that fish farming is also a legitimate use of the marine environment, the diving industry highlights the need for enforcement of regulations and permit conditions by all concerned. Operational management on farms also need to improve to minimise impacts on dive sites.</p> <p>The offshore relocation of the Scheme site (from its previous location off South Comino coasts and St Paul’s Bay, is considered as a positive move. Further relocation to a site even further offshore would be preferable.</p> <p><i>No changes as a result of the change to a permanent facility. The relocation to a site further offshore is still preferred.</i></p>
Bathing and similar recreational pursuits	<p>Local recreation comprises the use of the coastal areas and adjacent waters by pleasure craft and the use of the coastal lands for recreation.</p> <p>Two issues are relevant to socio-economics: a) the current use of waters close to the Scheme site by pleasure craft, and b) the effect that the operation of the Scheme may have on users of the coast. The latter includes considerations such as the likelihood of currents carrying fish oils and detritus to the coast, and the visual impact of the farms on the users of the coast. The dispersal of fish oils was modelled as part of this EIA Report (see Chapter 5) and shown to impact the coastline within 2 days of release unless contained and collected. Disposal of offal, even if beyond the 12 nautical mile limit, may still impact the coastline if the entrails float and are carried by the current.</p> <p>Pleasure craft typically operate within 800 metres of the coast although very occasionally they are seen 1.5 -2 Km from the coast. It is unlikely that pleasure craft traverse / frequent the Scheme site (5 km).</p> <p>Farm discharges (uneaten feed, fish oils, fish wastes (excreta), litter, and operational discharges from craft can all impact the quality of the water (see Chapter 5). Such discharges need to be controlled and appropriately managed to minimise nuisance and inconvenience to coastal users, especially from oily slicks and fish slime in the water, odours from decomposing / uneaten fish, offal, or carcasses.</p> <p><i>No changes as a result of the change to a permanent facility.</i></p>
Tourism	<p>The Mellieha/St Paul’s Bay area is an important tourism zone and the relocation of the Scheme site from their previous location was a positive move. Further offshore relocation once the North Aquaculture Zone is set up would be encouraged. The main concern from a tourism/recreation point of view is the oil/slime problem encountered in recent years. The MTA would like all farms to commit to positive and practical measures to minimise these impacts (including possibly R&D initiatives). The farming activity should not impact diving or marine archaeological sites.</p> <p><i>No changes as a result of the change to a permanent facility.</i></p>
The potential for attracting large predatory fish	<p>Since fish farms are reported to attract wild tuna and other fish, it is possible that they might also attract other predator species, such as sharks. Although current fish farm operators have not reported that their operations have attracted predator fish, there is evidence abroad that sharks have been attracted to tuna cages when under tow. The same source indicates that “<i>there is no scientific proof that (white pointer) sharks are attracted to tuna cages. There has been no scientific research done into whether sharks are attracted to tuna cages. But there is a lot of anecdotal evidence to suggest that</i></p>

Subject	Socio-economic data
	<i>sharks are appearing around tuna cages, and I believe that the decision makers should be exercising caution.”</i> No changes as a result of the change to a permanent facility.

19. In summary, from a **navigational / bunkering** perspective, the proposed conversion of this temporary tuna farming facility into a permanent installation goes counter to the direction provided by Transport Malta in 2018 on navigation and bunkering activities, as described above, and hence the matter should be discussed with the Authority afresh as it is a major change in position that could seriously affect safety to navigation and the operation of the bunkering zone. Whether this charted infrastructure can be made permanent will need to be agreed with the Authority for Transport in Malta. Furthermore, there needs to be some clarity on the position with regards to the projected North Aquaculture Zone, since the planning application for that proposal (PA/04811/19) is currently on hold. Whether both sites will be pursued resulting in two large aquaculture zones within 2 km of each other needs to be discussed and properly assessed in view of potential navigational conflicts (including cumulative effects from the presence of two such zones in close proximity).
20. As regards the impact on the **AFM's firing practice** the original Scheme location overlapped with the Armed Forces of Malta's Pembroke High firing practice arc and in a consultation meeting with the AFM, it was made clear that the tuna farm cannot remain within this area for safety reasons – not only of the farmers themselves but also in view of the farm's attraction to amateur fishermen who congregate at this location to target the wild fish attracted to the farm. This location had curtailed some activities within the firing ranges, and this was not acceptable. As instructed by the AFM, the farm operator had amended the application for the Scheme to be shifted entirely to the northwest and to maintain a buffer area of approximately 75 m from the firing arc on the Scheme's eastern boundary. This is the current location of the temporary Scheme site and has so operated for the past years. The latest proposal does not change this situation, except that the installation will remain in this zone of sea within 75 m of the AFM's firing arc, which position was only allowed by the Armed Forces on a “tolerance” basis in view that it was a temporary solution. Hence this change in position should be rediscussed with the Armed Forces of Malta.
21. As for **tourism**, the EIA had highlighted that this benefitted from the relocation of the tuna farms from their previous inshore locations to the current Scheme site by freeing up the inshore waters for other recreational pursuits and moving the cages to a location where they are much less visible. From a tourism point of view, the major concern was always the fish oil/slime problem especially that encountered in recent years. The mitigation measures and good housekeeping measures implemented in recent years need to be maintained and enhanced to keep this matter in check. This applies whether the facility is relocated or remains in its current location.

Cumulative impacts with proposed North Aquaculture Zone

22. Another aspect to be addressed in this evaluation is the fact that the original Scheme was always considered temporary and had to be eventually relocated to a new North Aquaculture Zone (NAZ), subject of application PA/04811/19. With the current proposal to convert the Scheme to a permanent one and the proposal for

the establishment of a NAZ still on the cards, the potential for cumulative effects from the two aquaculture zones would need to be properly assessed.

23. It is noted that the final location for all tuna farms in the north of the island was always considered to be the NAZ once this is established. Indeed, the EIA for that proposal also considered the potential for future expansion.
24. Stakeholders consulted during both EIAs (that for the AJD tuna Ltd farm and the proposal for the NAZ) were all adamant that while they supported the offshore relocation of the tuna farms, they all insisted that only one zone should be set up. There was general agreement that the better location was that of the NAZ, except for the Qala Local Council, who objected to this in view of its closer proximity to the Qala coastline.
25. Should the Scheme be converted to a permanent facility and the NAZ still pursued, cumulative impacts are expected in view of the doubling in the area of sea and seabed occupied, impacts on navigation, and especially impacts on avifauna (from lighting, noise, and increased feed¹), doubling (or more) of discharges and increased stresses on the environment. A more detailed analysis would be required in this scenario.
26. Another aspect to be considered is whether with the confirmation of the Scheme site as a permanent tuna farming facility, the NAZ would still be earmarked for tuna farming or whether it would be proposed for a different type of aquaculture².
27. Should the NAZ be considered to house aquaculture activities other than tuna rearing, it should be considered that the location of the NAZ subject of application PA/04811/19 was identified through a detailed site selection exercise that considered its use for tuna farming. If a different use or form of aquaculture is considered, then the Site Selection Exercise would be obsolete and a new one should be prepared as other sites that had been discarded before may be equally or more suitable for the new use.

Conclusion

28. The above has evaluated the impacts resulting from the proposal to convert the north tuna farming zone operated by AJD Tuna Limited from a temporary to a permanent facility.
29. Individually, impacts are not expected to differ from those assessed, except that the impacts would no longer be short term or temporary but become long-term and/or permanent, which could, in the long run lead to chronic effects on environmental resources.
30. Furthermore, detailed consideration should be given to the fate of the proposed NAZ and its pending development permit application since the cumulative effects from the Scheme and the NAZ could further exacerbate the negative impacts. This

¹ In the scenario that the current facility is retained as a permanent one and the NAZ proposal is pursued further so as to have two sites in close proximity, impacts on avifauna would be magnified in view of a doubling of navigational marker lights, increased noise from vessels in the two areas (which cumulate with those in the adjacent bunkering zone), and the increased presence of a potential source of food for the gulls, which could positively affect the gull population to the detriment of the other sea birds.

² It is noted that in the recent Government of Malta call for proposals for economic activities in the Exclusive Economic Zone between 12 and 25 nm, aquaculture was identified as one of four sectors that would be positively considered.

is still an uncertain scenario, and a detailed assessment would be required once this matter is clarified.

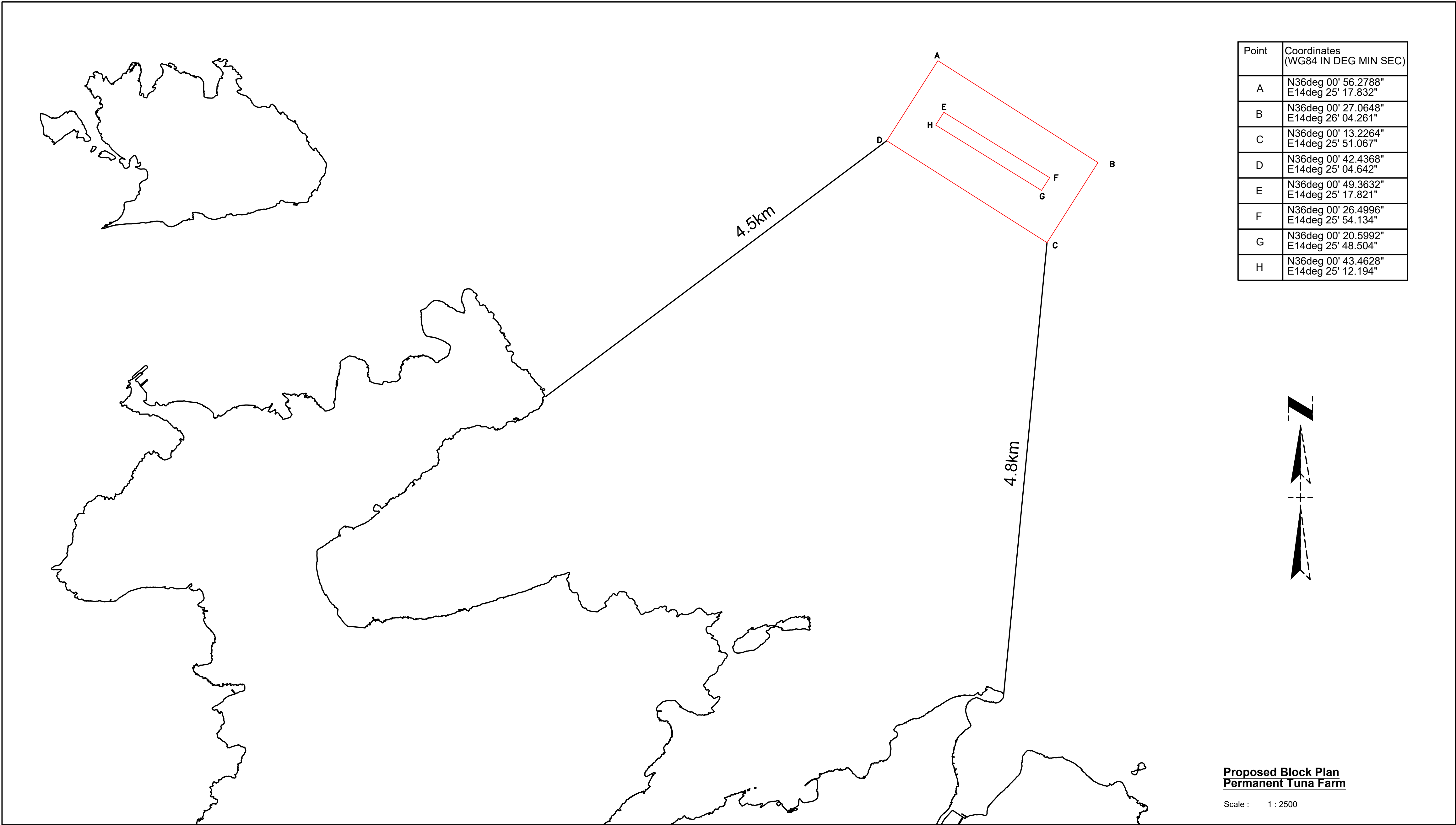
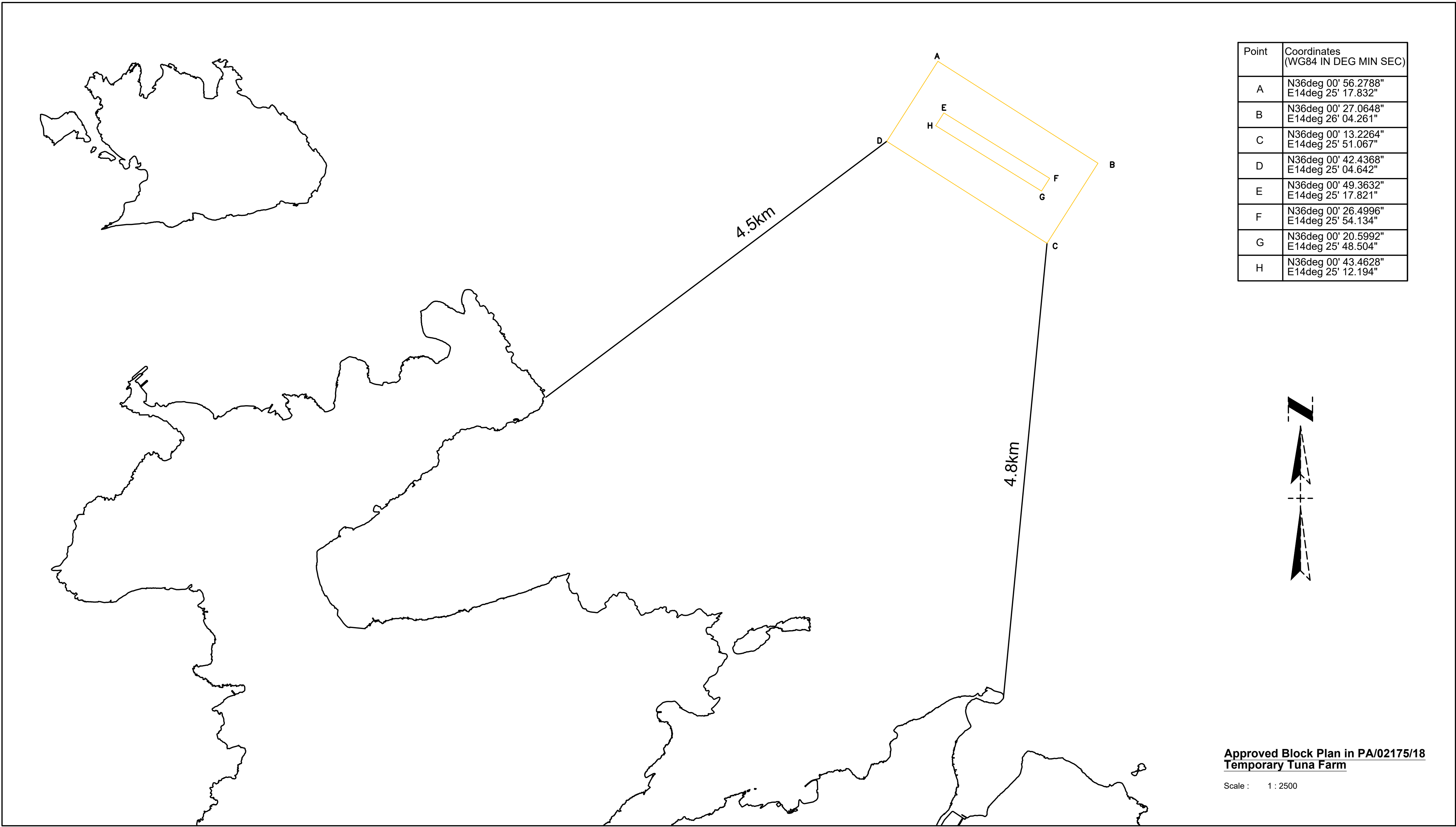
31. We trust that the above meets ERA requirements for application PA/05908/23.

Yours sincerely,

A handwritten signature in purple ink, appearing to read 'Mallia', with a large, stylized initial 'A'.

Adrian Mallia
Managing Director
Adi Associates Environmental Consultants Ltd

Appendix I: Plans for PA/05908/23



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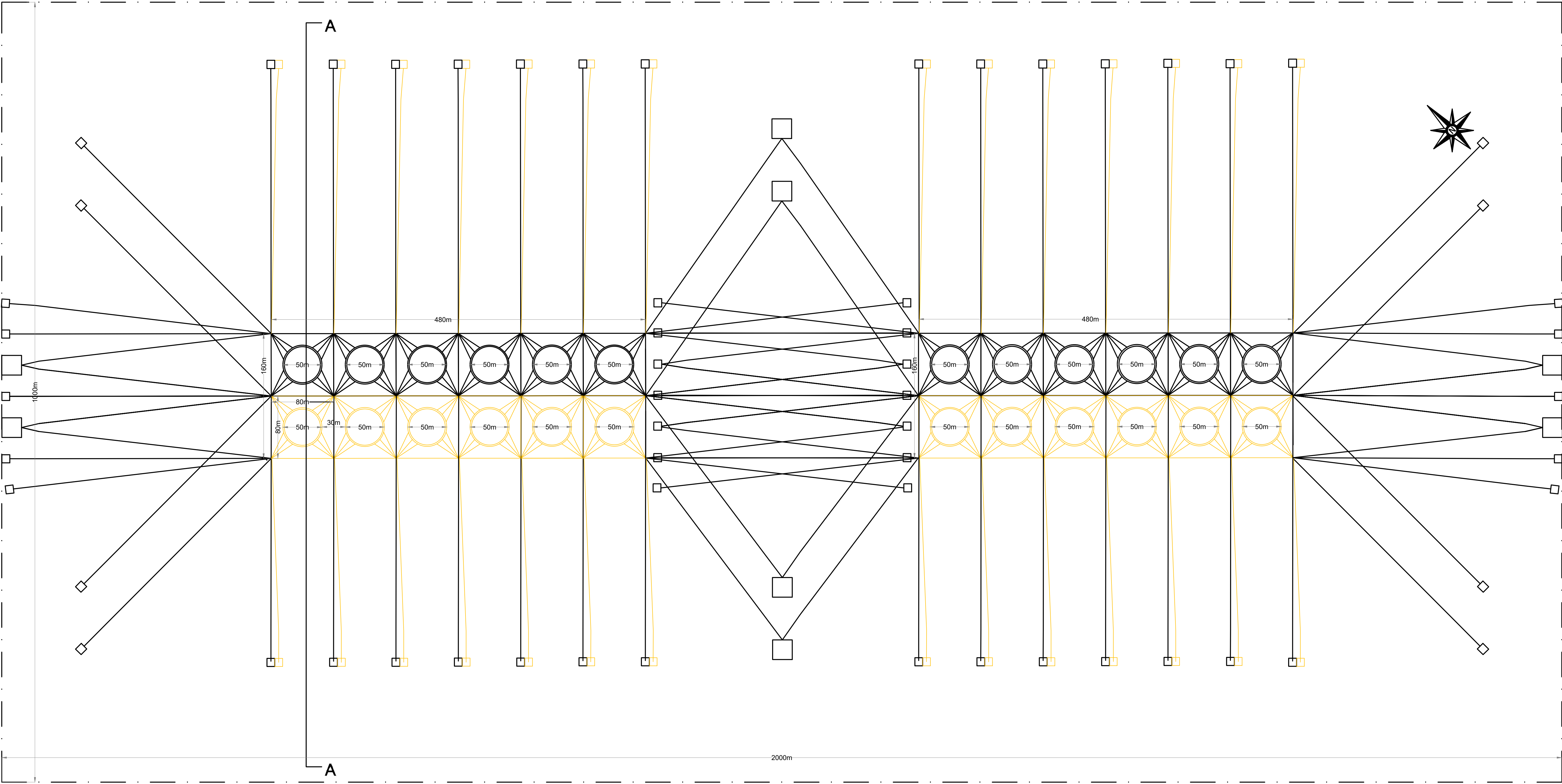
Legend	Notes
<div>Construction Proposed</div>	-Do not scale from this drawing.
<div>Demolition Proposed</div>	-This drawing is to be read in conjunction with other architectural, structural and services drawings or other consultant's documentation, permit conditions etc as may be applicable.
<div>As Constructed - To Sanction</div>	Information as supplied by the current operator. Any discrepancies and inaccuracies in the drawing shall be brought to the attention of the architect in charge within 7 days of receipt.
<div>Approved but not Constructed</div>	



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JOB TITLE	TUNA FARM OFF ST PAUL'S BAY
DRAWING TITLE	PLANS
CLIENT	D.G.Bjorn Callus obo D.H. Ministry for Agriculture, Fisheries, Food D.I. & Animal rights
LOCATION	Site off Sikka I-Bajda, Sikka I-Bajda, San Pawl il-Bahar

DATE	15.07.2022
REF. NO.	AFD423-004
SCALE	1:25,000
SIZES	A0
DRAWN	N.S.
APPROVED	N.S.
DRAWING NO.	110
REVISION NO.	00

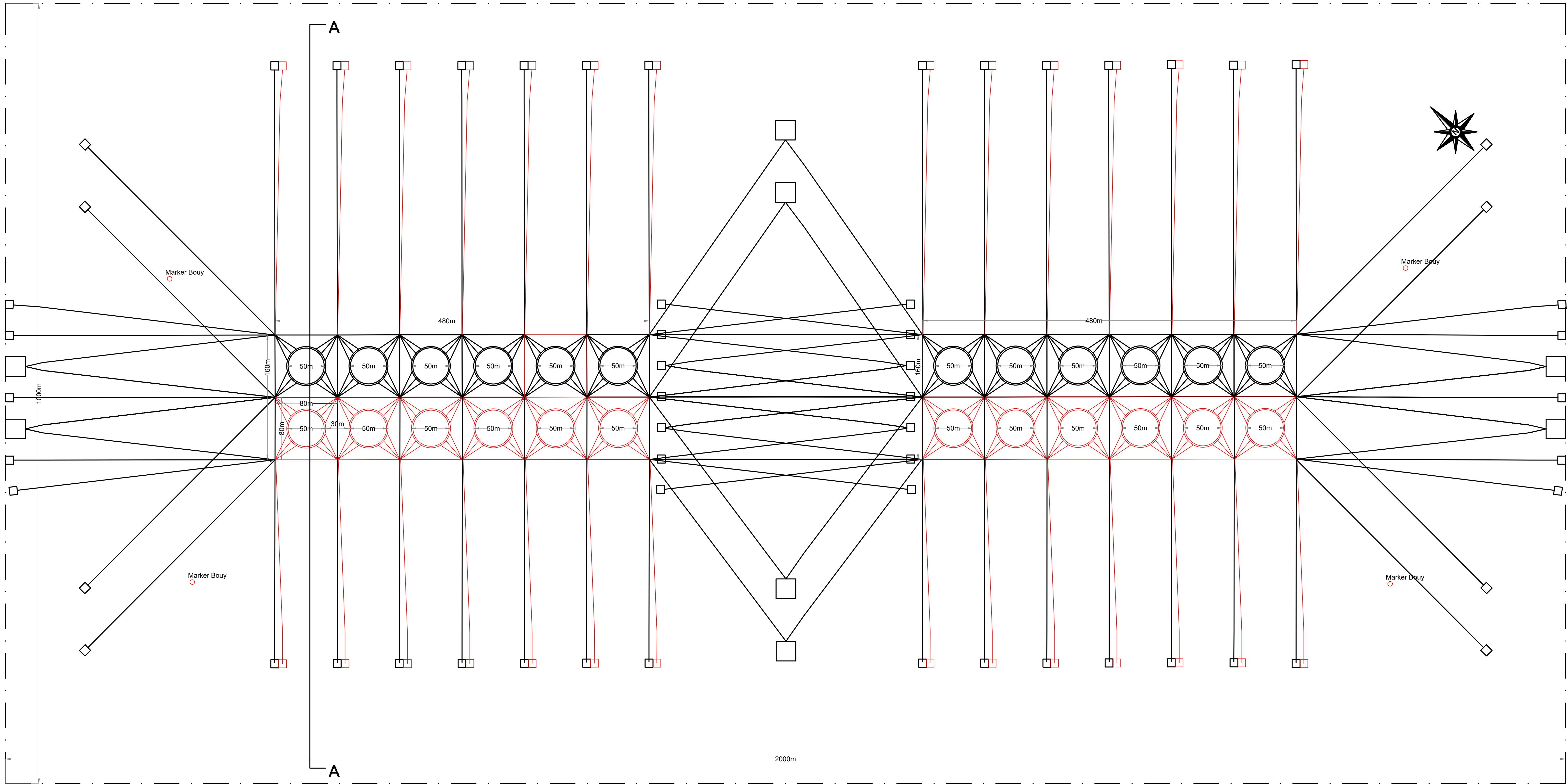


Approved Plan in PA/02175/18 - Temporary Tuna Farm
Scale 1:2500

METRES 0 50 100 200 300 500
SCALE 1:2500

<div>Legend</div> <div><div>Construction Proposed</div><div>Demolition Proposed</div><div>As Constructed - To Sanction</div><div>Approved but not Constructed</div></div>	<div>Notes</div> <div><div>-Do not scale from this drawing.</div><div>-This drawing is to be read in conjunction with other architectural, structural and services drawings or other consultant's documentation, permit conditions etc as may be applicable.</div><div>-Information as supplied by the current operator. Any discrepancies and inaccuracies in the drawing shall be brought to the attention of the architect in charge within 7 days of receipt.</div></div>	<div><div><div><div><div></div><div>RAY SAMMUT & ASSOCIATES</div><div>ARCHITECTS & CIVIL ENGINEERS</div></div></div></div></div>	<div><div>ARCHITECT</div><div><div>RAY SAMMUT & Associates</div><div>ARCHITECTS & CIVIL ENGINEERS</div><div>B.E. & A.(Hons), A. & C.E.</div><div>No. 4, Ta' Xbiex Wharf, Ta' Xbiex, Malta</div><div>Mob.(356)99814788 (356)99994542</div><div>E. raysammut27@gmail.com</div><div>E. sammutnat@gmail.com</div><div>www.raysammut.com</div></div></div>	<div><div><div>JOB TITLE</div><div>TUNA FARM OFF ST PAUL'S BAY</div></div><div><div>DRAWING TITLE</div><div>PLANS</div></div><div><div>CLIENT</div><div>D.G.Bjorn Callus obo D.H. Ministry for Agriculture, Fisheries, Food D.I. & Animal rights</div></div><div><div>LOCATION</div><div>Site off Sikka I-Bajda, Sikka I-Bajda, San Pawl il-Bahar</div></div></div>	<div><div><div>DATE</div><div>15.07.2022</div></div><div><div>REF. NO.</div><div>AFD423-004</div></div><div><div>SCALE</div><div>1:2500</div><div>SIZE</div><div>A0</div></div><div><div>DRAWN</div><div>N.S.</div><div>APPROVED</div><div>N.S.</div></div><div><div>DRAWING NO.</div><div>100</div><div>REVISION NO.</div><div>00</div></div></div>
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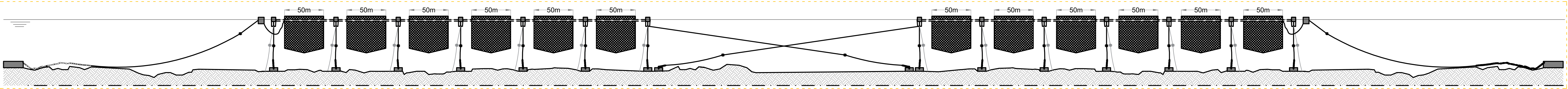


Proposed Plan - Permanent Tuna Farm
Scale 1:2500

METRES 0 50 100 200 300 500
SCALE 1:2500

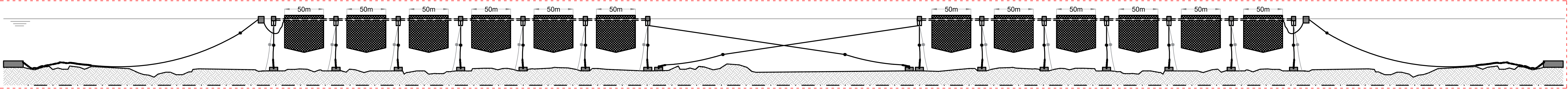
<div>Legend</div> <div><div>Construction Proposed</div><div>Demolition Proposed</div><div>As Constructed - To Sanction</div><div>Approved but not Constructed</div></div>	<div>Notes</div> <div><div>-Do not scale from this drawing.</div><div>-This drawing is to be read in conjunction with other architectural, structural and services drawings or other consultant's documentation, permit conditions etc as may be applicable.</div><div>-Information as supplied by the current operator. Any discrepancies and inaccuracies in the drawing shall be brought to the attention of the architect in charge within 7 days of receipt.</div></div>	<div><div><div>RAY SAMMUT & Associates</div><div>ARCHITECTS & CIVIL ENGINEERS</div><div>B.E. & A.(Hons), A. & C.E.</div><div>No. 4, Ta' Xbiex Wharf, Ta' Xbiex, Malta</div><div>Mob.(356)99814788 (356)99994542</div><div>E. raysammut27@gmail.com</div><div>E. sammutnat@gmail.com</div><div>www.raysammut.com</div></div></div>	<div>ARCHITECT</div>	<div>JOB TITLE</div> <div>TUNA FARM OFF ST PAUL'S BAY</div>	<div>DATE</div> <div>15.07.2022</div>
			<div>DRAWING TITLE</div> <div>PLANS</div>	<div>REF. NO.</div> <div>AFD423-004</div>	
			<div>CLIENT</div> <div>D.G.Bjorn Callus obo D.H. Ministry for Agriculture, Fisheries, Food D.I. & Animal rights</div>	<div>SCALE</div> <div>1:2500</div>	<div>SIZE</div> <div>A0</div>
			<div>LOCATION</div> <div>Site off Sikka I-Bajda, Sikka I-Bajda, San Pawl il-Bahar</div>	<div>DRAWN</div> <div>N.S.</div>	<div>APPROVED</div> <div>N.S.</div>
				<div>DRAWING NO.</div> <div>110</div>	<div>REVISION NO.</div> <div>00</div>





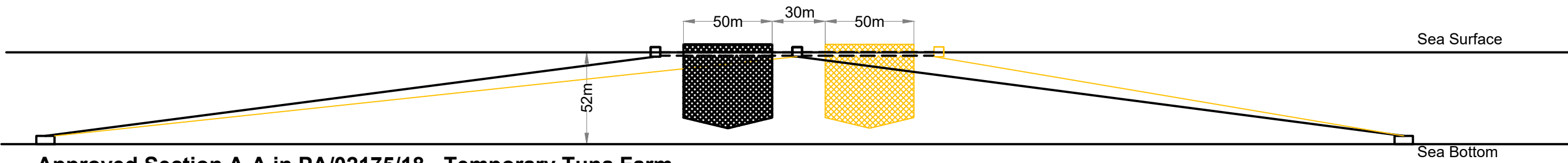
Approved Anchoring Detail in PA/02175/18 - Temporary Tuna Farm

Scale : 1 : 2500



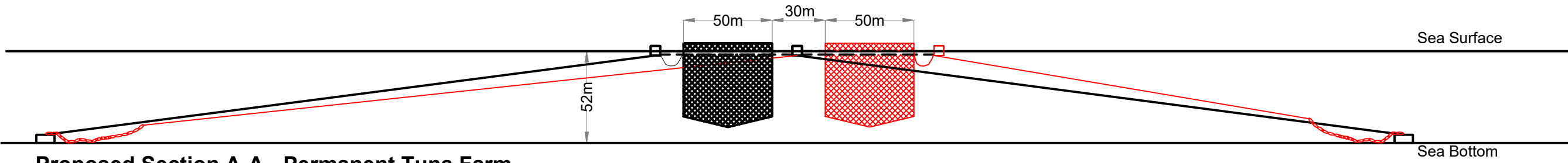
Proposed Anchoring Detail in PA/02175/18 - Permanent Tuna Farm

Scale : 1 : 2500



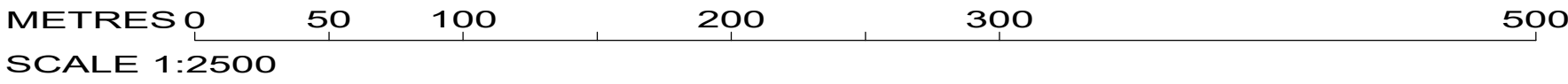
Approved Section A-A in PA/02175/18 - Temporary Tuna Farm

Scale : 1 : 2500



Proposed Section A-A - Permanent Tuna Farm

Scale : 1 : 2500

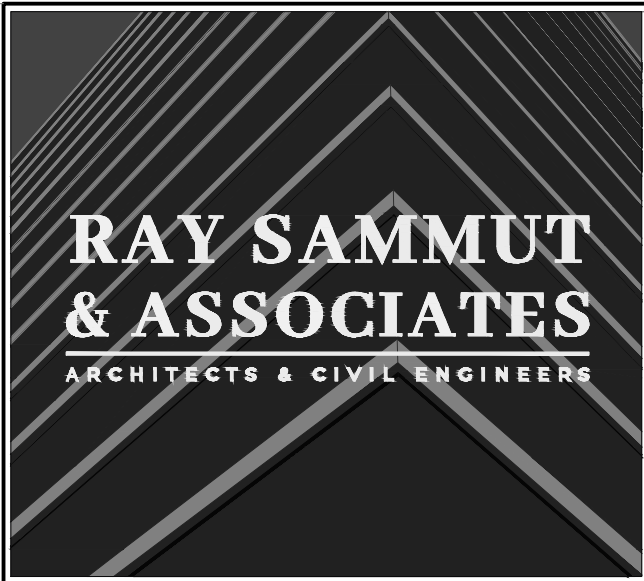


Legend

- Construction Proposed
- Demolition Proposed
- As Constructed - To Sanction
- Approved but not Constructed

Notes

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JOB TITLE

TUNA FARM OFF ST PAUL'S BAY

DRAWING TITLE

SECTIONS

CLIENT

D.G.Bjorn Callus obo
D.H. Ministry for Agriculture, Fisheries, Food
D.I. & Animal rights

LOCATION

Site off Sikka I-Bajda,
Sikka I-Bajda, San Pawl il-Bahar

DATE

15.07.2022

REF. No.

AFD423-004

SCALE

1:2500

DRAWN

N.S.

DRAWING No.

120

SIZE

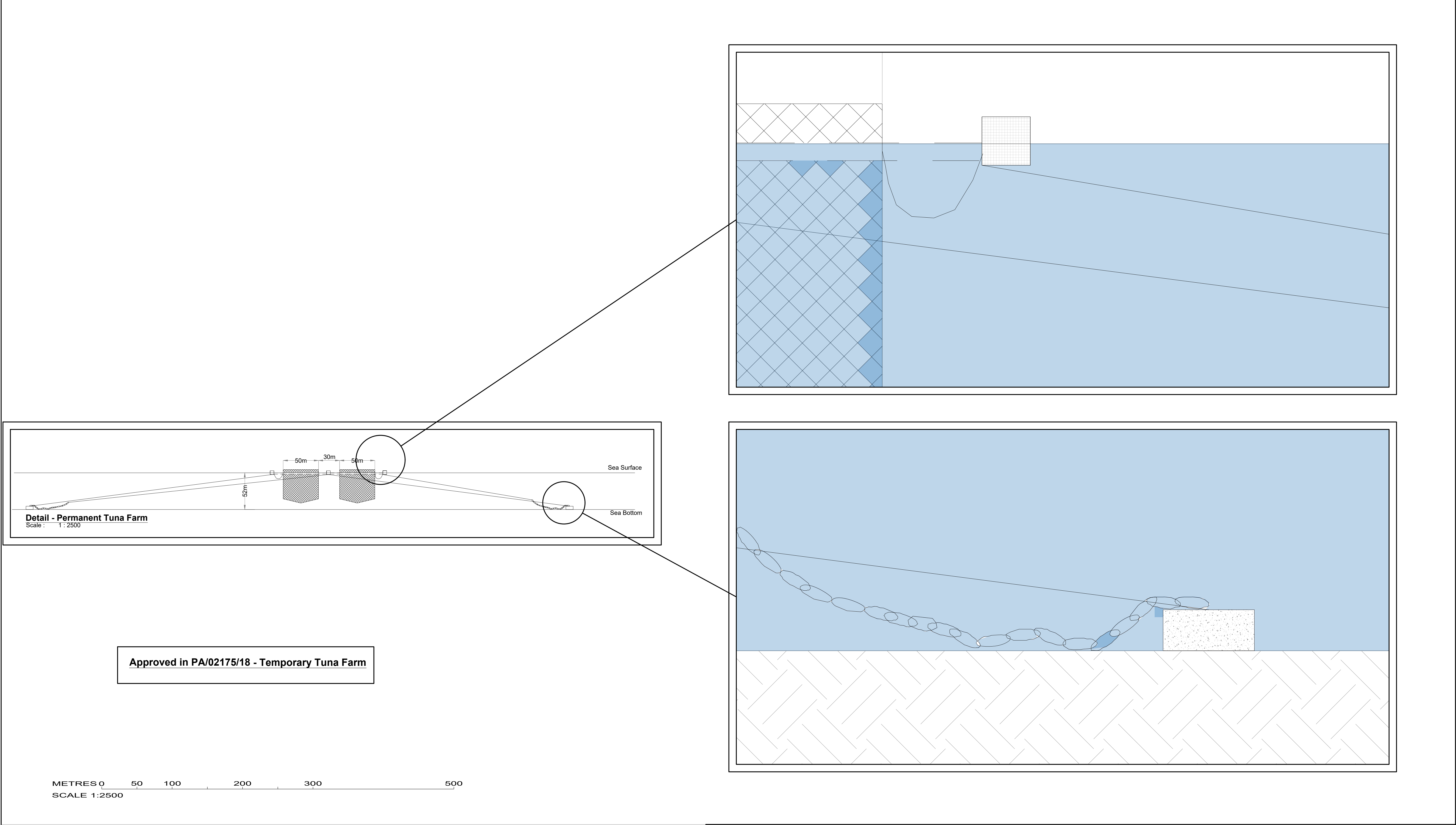
A1

APPROVED

N.S.

REVISION No.

00



<div><div>Legend</div><div><div>Construction Proposed</div><div>Demolition Proposed</div><div>As Constructed - To Sanction</div><div>Approved but not Constructed</div></div></div>	<div><div>Notes</div><div><div>-Do not scale from this drawing.</div><div>-This drawing is to be read in conjunction with other architectural, structural and services drawings or other consultant's documentation, permit conditions etc as may be applicable.</div><div>-Information as supplied by the current operator. Any discrepancies and inaccuracies in the drawing shall be brought to the attention of the architect in charge within 7 days of receipt.</div></div></div>	<div><div><div><div>RAY SAMMUT & ASSOCIATES</div><div>ARCHITECTS & CIVIL ENGINEERS</div></div></div></div>	<div><div>ARCHITECT</div><div><div>RAY SAMMUT & Associates</div><div>ARCHITECTS & CIVIL ENGINEERS</div><div>B.E. & A.(Hons), A. & C.E.</div><div>No. 4, Ta' Xbiex Wharf, Ta' Xbiex, Malta</div><div>Mob.(356)99814788 (356)99994542</div><div>E. raysammut27@gmail.com</div><div>E. sammutnat@gmail.com</div><div>www.raysammut.com</div></div></div>	<div><div><div>JOB TITLE</div><div>TUNA FARM OFF ST PAUL'S BAY</div><div>DRAWING TITLE</div><div>Detail</div><div>CLIENT</div><div>D.G.Bjorn Callus obo D.H. Ministry for Agriculture, Fisheries, Food D.I. & Animal rights</div><div>LOCATION</div><div>Site off Sikka I-Bajda, Sikka I-Bajda, San Pawl il-Bahar</div></div></div>	<div><div><div>DATE</div><div>15.07.2022</div><div>REF. No.</div><div>AFD423-004</div><div><div>SCALE</div><div>1:2500</div><div>SIZE</div><div>A1</div></div><div><div>DRAWN</div><div>N.S.</div><div>APPROVED</div><div>N.S.</div></div><div><div>DRAWING No.</div><div>120</div><div>REVISION No.</div><div>00</div></div></div></div>
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