

**AVIATION SAFETY ASSESSMENT REPORT
[ADDITIONAL INFORMATION]**

**RE SITE 'R' AT
AERODROME BUSINESS PARK
RATHCOOLE
COUNTY DUBLIN**

**FOR
PLANNING APPLICATION**

**BY
EXETER IRELAND PROPERTY IV C LTD.**

**SOUTH DUBLIN COUNTY COUNCIL
PLANNING REG. REF. NO.: SD21A/0140**

OCTOBER 2021



**O'DWYER & JONES DESIGN PARTNERSHIP
AVIATION PLANNING & ARCHITECTURE CONSULTANTS
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Aviation Safety Assessment – 7th October 2021

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1. Purpose of this Report

- 1.1 This report addresses the aviation impact of a proposed warehouse development for Exeter Ireland Property Ltd. at Aerodrome Business Park, Rathcoole, for which the South Dublin County Council planning register reference no. is SD21A/0140.
- 1.2 In particular this report addresses the issues which were raised
 - (i) by the Department of Defence (in its submission to South Dublin dated 23rd June 2021); and
 - (ii) by South Dublin County Council in its request for **Additional Information** dated 22nd July 2021, in which additional information was specifically requested with regard to Aviation Safety (and other matters).
- 1.3 This report assesses the various ICAO Obstacle Limitation Surfaces which affect the site, with detailed calculations as to how the proposed development lies in relation to these Surfaces – taking into account the adjustments that have been made to the building (which has been reduced in height by ~1m, and relocated ~15m farther to the north-west, i.e. ~12m farther from the 04/22 flight path).
- 1.4 In addition, the report includes assessments of other relevant aviation issues.

2. Description and Zoning of the Site

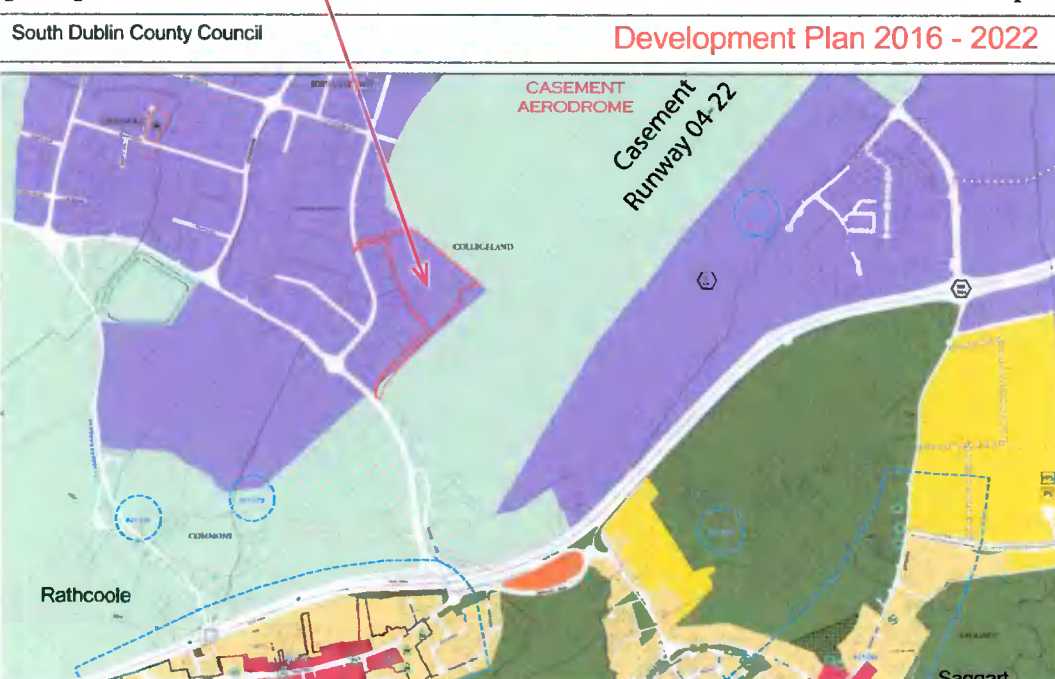
2.1 Site Description:

The site (of area 5.67 hectares, *and outlined in red on the aerial photo below*) is at Aerodrome Business Park, Rathcoole, County Dublin. It lies to west-south-west of Threshold 04 at Casement Aerodrome, and close to (but not under) the Approach Surface to Runway 04. The ground elevations on the site vary from 92.3m OD to 99m OD, with the proposed Warehouse ground floor level at 95.2m OD (i.e. at exactly 2m lower than the Threshold of Casement Aerodrome's Runway 04).



2.2 Zoning:

In the current South Dublin County Council Development Plan 2016-2022, the Aerodrome Business Park (which includes this site) is zoned 'Objective EE: To provide for enterprise and employment related uses' (in which 'Warehousing' is 'permitted in principle'). The site is outlined in red below on an extract from the 2016-2022 Plan Map 8.



3. Relevant Development Plan Paragraphs

- 3.1 Of particular relevance to the aeronautical assessment of the site in question are the paragraphs reproduced below from the South Dublin County Council Development Plan 2016-2022. We also point out that much of the information concerning aviation & aerodromes (including that for Casement military aerodrome) has been provided by our own firm as aviation consultant to S.D.C.C.
- 3.2 Paragraphs from page 136 of the Plan are reproduced below. These refer to the principal ICAO Obstacle Limitation Surfaces (including Approach, Transitional, and Inner Horizontal Surfaces) and refer (under Section 7.8.1) to Casement Aerodrome and to Policy 8 of the Plan re Casement. It should also be noted that, as of February 2019, Casement's runways have been **redesignated 10/28 & 04/22** (rather than 11/29 & 05/23 as they were referred to when the Plan was made).

SOUTH DUBLIN COUNTY COUNCIL DEVELOPMENT PLAN 2016 - 2022

Obstacle Limitation Surfaces of the International Civil Aviation Organisation's (ICAO) 'Annex 14' are:

- Approach Surfaces: long wedge-shaped funnels, leading to the end(s) of each runway.
- Transitional Surfaces: to both sides of each runway and approach surface, mostly contained within the aerodrome itself.
- Inner Horizontal Surface: a large race track shaped or circular area above an aerodrome.
- Conical Surface: a large rising 'rim' area just outside the Inner Horizontal Surface.

The main Obstacle Limitation Surfaces for each instrument runway are mapped on the County Development Plan Map Index.

Casement Aerodrome, being a military aerodrome, does not fall under the control of the Irish Aviation Authority but the ICAO Standards and Recommended Practices are applied as policy by the Department of Defence at Casement Aerodrome.

CASEMENT AERODROME

Casement Aerodrome is in continuous aviation use and is the only fully equipped military airbase in the State and serves as the main centre of Air Corps operations.

The aerodrome has two runways:

1. **Runway 11/29:** The existing main runway with east to west orientation (north of Newcastle & over Kingswood).
2. **Runway 05/23:** Existing secondary runway with a south-east to north-west orientation (05 - Over Rathcoole & 23 - Over Corkagh Park).

INFRASTRUCTURE AND ENVIRONMENTAL QUALITY (IE) Policy 8 Casement Aerodrome

It is the policy of the Council to safeguard the current and future operational, safety and technical requirements of Casement Aerodrome and to facilitate its ongoing development for military and ancillary uses, such as an aviation museum, within a sustainable development framework.

3.3 'IE8 Objective 2' on page 137 of the Plan concerning Casement Aerodrome and its subsidiary Runway '05/23' [now designated '04/22'] are reproduced below:

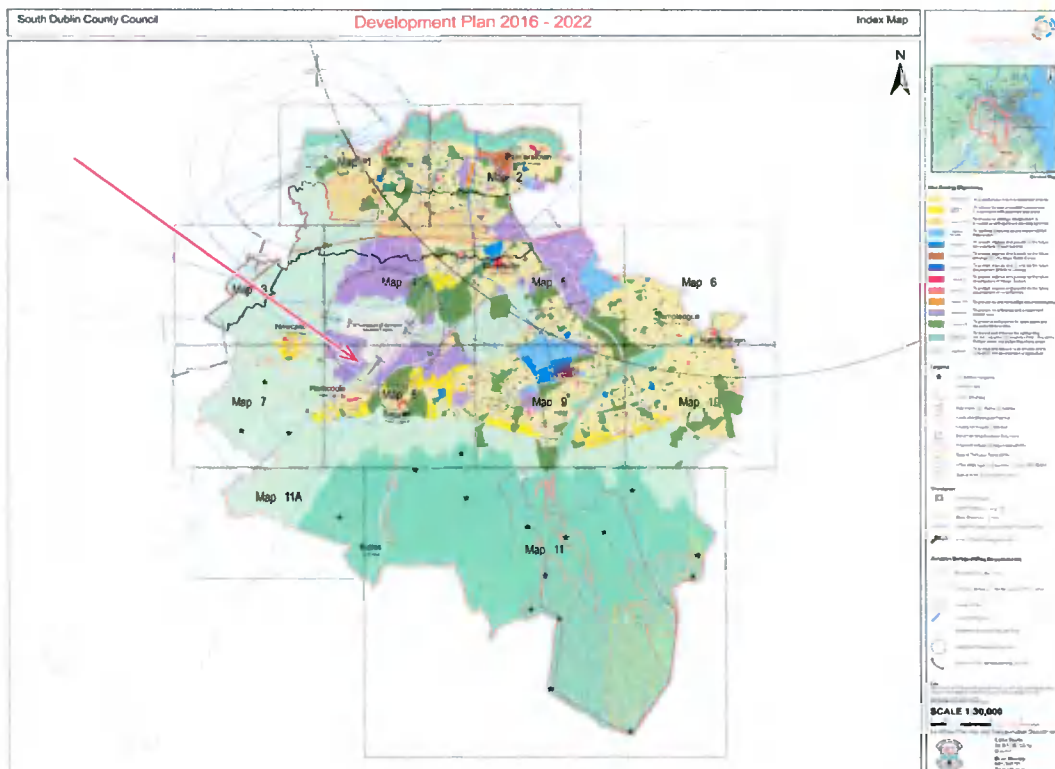
IE8 Objective 2:

To maintain the airspace around the aerodrome free from obstacles to facilitate aircraft operations to be conducted safely, including restricting development in the environs of the aerodrome.

The airspace of Casement is defined by the Obstacle Limitation Surfaces, prepared and mapped on the County Development Plan map in accordance with the ICAO Standards and the Irish Aviation Authority 'Guidance Material on Aerodrome Annex 14 Surfaces (2015)', including the following:

- a). Prevent objects from penetrating the Obstacle Limitation Surfaces for runway 11/29. The existing main runway (11/29) is considered as an instrument approach Code 4 runway and the relevant Obstacle Limitation Surfaces of the Irish Aviation Authority 'Guidance Material on Aerodrome Annex 14 Surfaces' (2015) are applicable.
- b). Prevent objects from penetrating the established International Civil Aviation Organisation (ICAO) Annex 14 standards for approach, transitional, inner horizontal and conical Code 3 Obstacle Limitation Surfaces for the subsidiary instrument approach runway (23) in accordance with Tables 1-7 of the Irish Aviation Authority 'Guidance Material on Aerodrome Annex 14 Surfaces' (2015). The extent of the lands under the runway approach surface whereby no development is allowed for runway 23 (Corkagh Park) is shown on the Development Plan maps. i.e 1,100 metres.
- c). Protect runway 05 as a Code 3 subsidiary visual approach runway due to the land contours in the area and prevent objects from penetrating the relevant approach, transitional, inner horizontal and conical limitation surfaces for a visual approach runway in accordance with Section 3.13 of the Irish Aviation Authority 'Guidance Material on Aerodrome Annex 14 Surfaces' (2015). The extent of the lands under the runway approach surface whereby no development is allowed for runway 05 (Rathcoole end) is shown on the Development Plan maps (i.e 1,100 metres) and the ICAO standards will not prejudice the development of zoned lands in Rathcoole.

3.4 The S.D.C.C. Development Plan Index Map (*illustrated below, with the site location indicated by a red arrow*) outlines some of the Obstacle Limitation Surfaces including Approach and Inner Horizontal Surfaces:

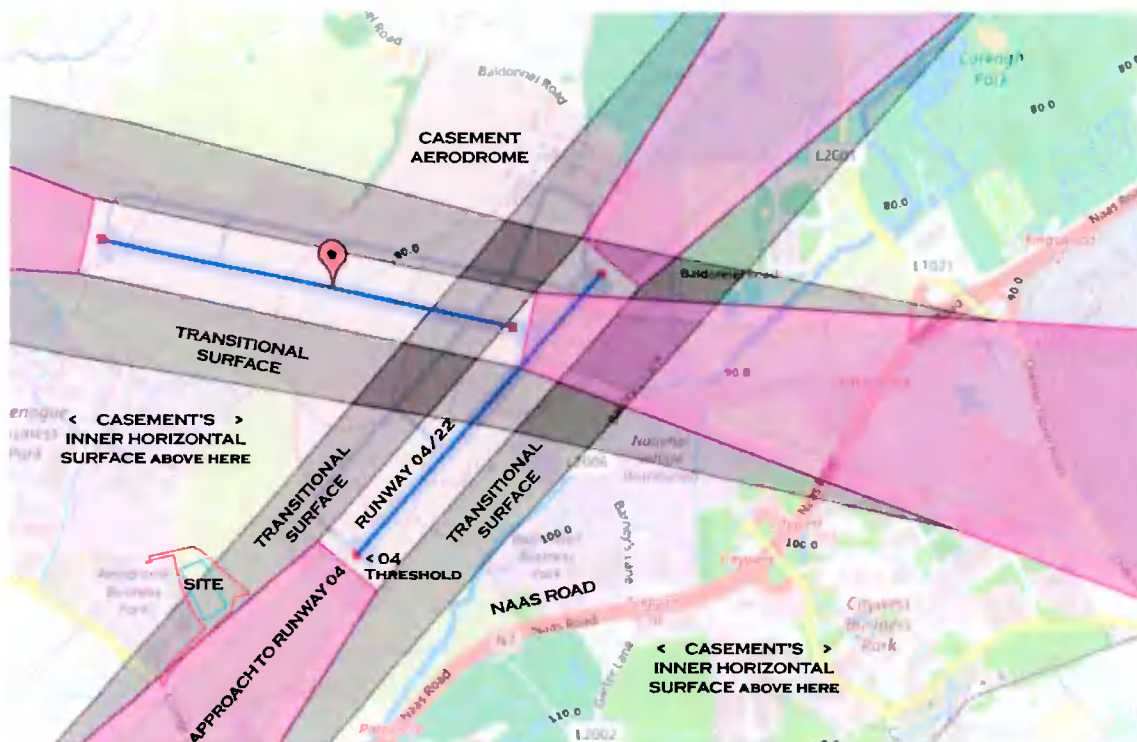


4 Items of Aeronautical Significance Affecting the Site

4.1 The Department of Defence has adopted the I.C.A.O. Obstacle Limitation Surfaces in relation to Casement Aerodrome. Being a military aerodrome, Casement is not bound by these Civil Aviation standards, but the Department of Defence has opted as policy to apply these Standards at Casement.

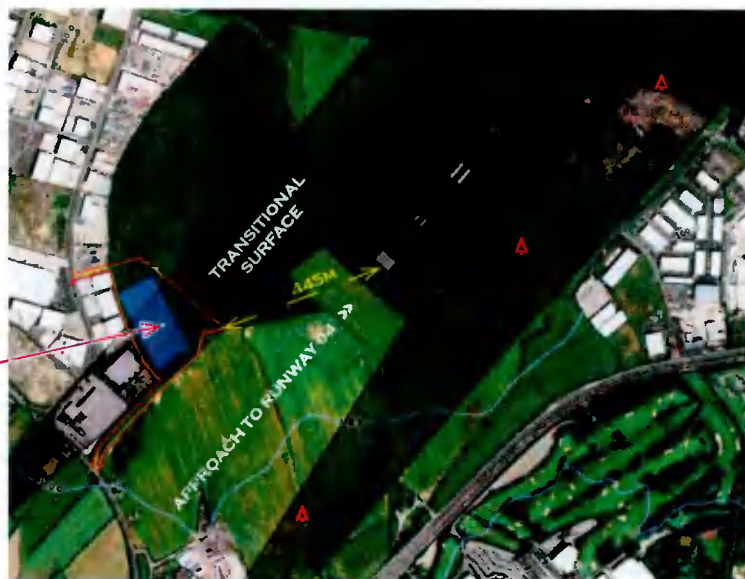
These Obstacle Limitation Surfaces – similar to the E.A.S.A. Specifications which now apply at Dublin and other Irish airports – are defined by the International Civil Aviation Organization (based in Montreal) as *International Standards and Recommended Practices* in its *Annex 14 – 'Aerodromes'* document, which have been significantly amended in its 8th edition which came into force in November 2018.

4.2 An illustration from the I.A.A. 'Asset' data (of 2017) is shown below, with Site 'R' outlined in red. Transitional Surfaces are indicated in grey, Approach Surfaces (commencing at Asset's pre-2018 [300m] 'instrument' width) in paler purple, and Take-Off Climb Surfaces in darker purple. The centrelines of Casement Aerodrome's two runways are marked in blue lines, and Casement Aerodrome's Inner Horizontal Surface lies above all of the other (unshaded) areas on the map below. It should be noted that recent the I.C.A.O. amendments (of November 2018) to its *Annex 14* are subsequent to date of the IAA 'Asset' data shown below.



4.3 It can be seen (as indicated on the IAA's pre-2018 'Asset' diagram above) that the site (outlined in red) lies partly under one of the Transitional Surfaces of Casement Aerodrome's subsidiary runway 04/22, and partly under the Aerodrome's Inner Horizontal Surface.

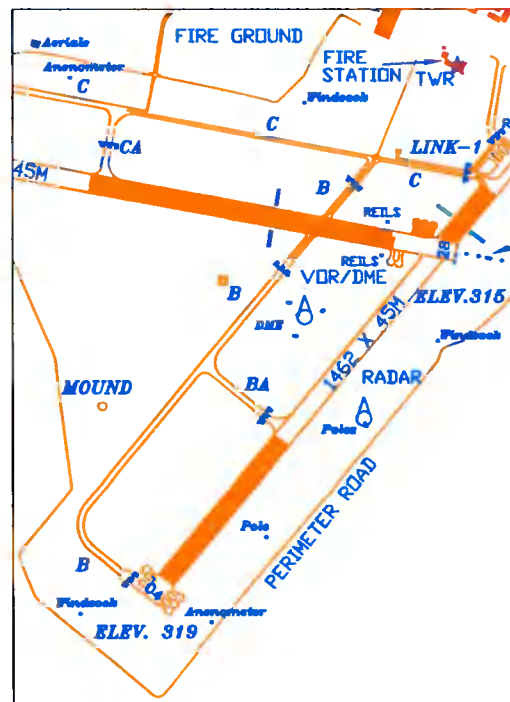
4.4 Opposite [>] is a larger view of another IAA 'Asset' diagram – this time with the Transitional Surfaces superimposed onto an aerial photo (on which we have added the site outline in red+yellow, and the proposed warehouse in blue). It can be seen that the proposed building (shaded blue) lies under a Transitional Surface, and while it lies near the Approach Surface to Casement's Runway 04, it is clear that **it does not lie under this Surface** even at its 20-metre wider (pre-2018) dimension (see para 4.5 below).



4.5 The clearances at this site have been further improved by the recent revisions made by ICAO to its *Annex 14* dimensions, which took effect on 8th November 2018. This reduced the widths of Flight Strips and of Approach Surfaces for all Code 3 & Code 4 instrument runways by 20m, and moved Transitional Surfaces 10m closer to runways – with the effect of providing an additional 1.43m clearance under these Transitional Surfaces.
(These updated [post-2018] Obstacle Limitation Surfaces have been plotted in our diagrams on pages 9 & 11 of this report).

4.4 Threshold 04 (shown here on Casement's current Aerodrome Chart >) is at 319ft /97.2m OD elevation, and located 445m north-east of the nearest corner of the site. Ground levels on the main part of the site are lower, i.e. at 92.7m to 95.4m OD.

The exact location of the proposed Warehouse in relation to Casement Aerodrome's 'Obstacle Limitation Surfaces' (per current ICAO *Annex 14* definitions) are calculated in Section 5 (following). Because of the proposed building's close proximity to Threshold 04, these calculations are done using precise coordinates and elevation figures.



5. Location of the Development in Relation to Casement's 'Surfaces'

- 5.1 The Department of Defence has expressed its concern that the proposed warehouse building should not project above any of Casement Aerodrome's 'Obstacle Limitation Surfaces' (as defined by ICAO's *Annex 14*). To ensure that this will not occur, precise calculations have been made, using exact WGS-84 coordinates and exact Ordnance Datum elevations, as shown below.
- 5.2 To establish exactly how the Warehouse will lie in relation to the extended centreline of Casement's Runway/s 22/04, and to its Approach, Take-off Climb, and Transitional Surfaces, the most relevant coordinates are (i) those of Threshold 04, (ii) those of Threshold 22, and (iii) those of the east corner of the Warehouse:



These 3 sets of coordinates are shown above, along with the exact distances between them (to the nearest metre). From these dimensions, the distances 'X' and 'Y' marked on the diagram can be calculated (*as on the following page >>*).

[It may be of interest to note that the exact length of Runway 04/22 between its threshold coordinates is 1,459.15m (rather than 1,462m as published).]

- 5.3 Where 'Y' (on the preceding diagram) is the distance along the extended centreline of Runway 04/22 from Threshold 04 to a point directly opposite the nearest (east) corner of the proposed Warehouse, and where 'X' is the lateral distance between the Warehouse edge and the extended centreline of Runway 04/22, these dimensions 'X' and 'Y' are established by means of the following formulae:

$$(549)^2 = X^2 + Y^2; \text{ and } (1,967)^2 = (1,459+Y)^2 + X^2;$$

from which we get —

X = 239m (i.e. distance between warehouse and extended runway centreline), and

Y = 494m (i.e. distance along extended centreline from Threshold 04).

[Mathematically confirmed as follows: $239 \times 239 + 494 \times 494 = 301,157 = 549 \times 549$]

- 5.4 With these dimensions, the exact location of the Transitional Surface in relation to the corner of the building nearest to Threshold 04 can be established (as in para. 5.5 below).

It should be noted that, in accordance with the wishes of the Department of Defence, the calculations below are made in relation to a full Instrument Approach Surface (at 2% slope) to Runway 04 – regardless of the fact that this full Instrumentation does not currently exist for Approaches over the Dublin Mountains to Casement's Runway 04, and that provision for this is not strictly required under the 2016-2022 Development Plan.

It should also be noted that, for an Instrument-Approach Runway, the exact elevations of its Transitional Surfaces (where they taper beyond the flight strip) must be calculated – (i) firstly, by establishing the obstacle clearance limit **at the point along the extended runway centreline which is directly opposite the proposed building;** (ii) secondly, by establishing **the width of the Approach Surface at that distance** from the Flight Strip; and (iii) thirdly, by calculating a **14.3% slope from the edge of the Approach Surface** at that location.

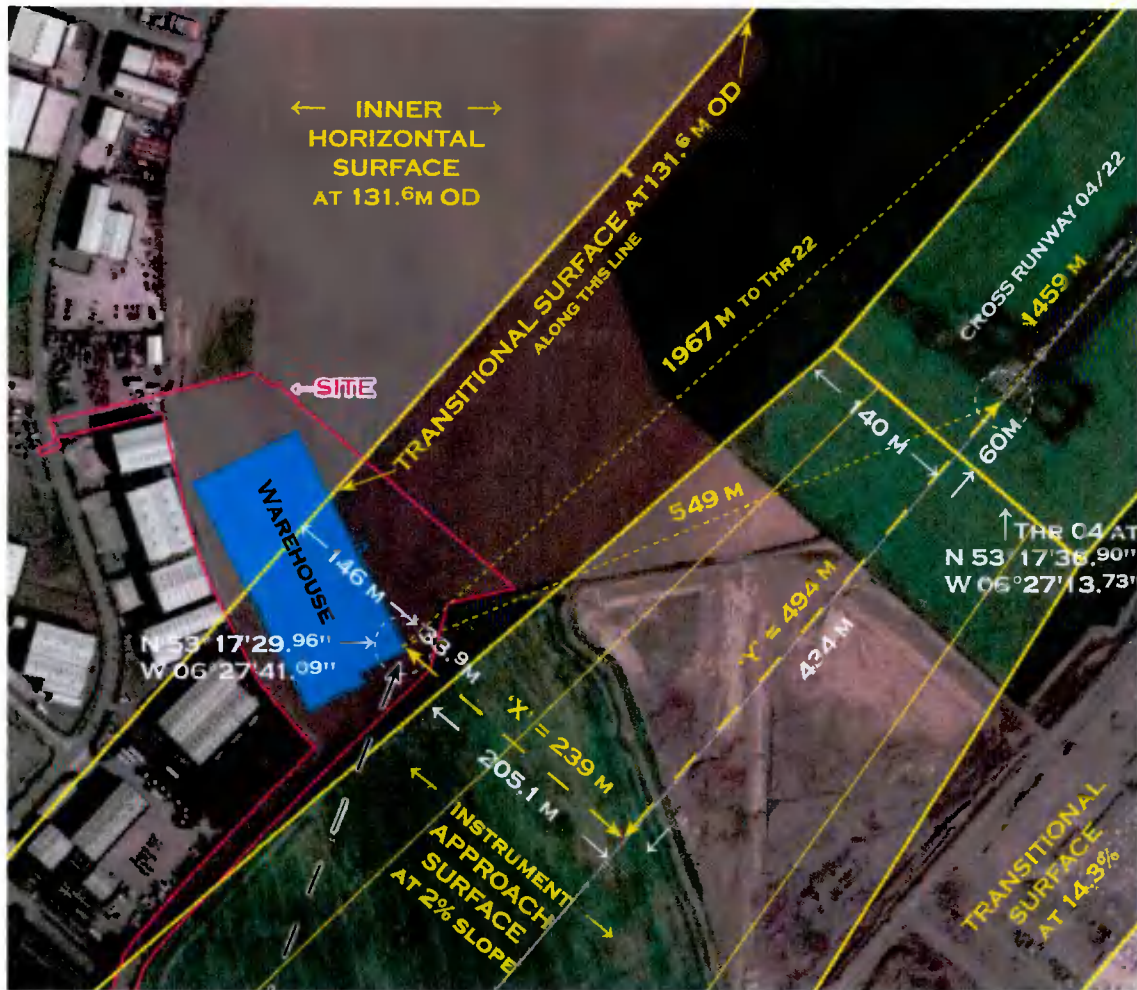
[The reason for the need to calculate in this way (in three successive different directions) is that the Transitional Surfaces for an Instrument Runway change direction (by 1% outwards) after the end of the flight strip, in order that their geometry ensures that they will reach the Inner Horizontal Surface at the same point as the edge of the Approach Surface to which they relate (per ICAO and EASA definitions).]

- 5.5 **Calculation of Transitional Surface above the site** (as illustrated on the following page):

- (i) At 494m distance (i.e. 'Y') from Threshold 04, the Approach Surface will rise by 2% over 434m [494-60m], i.e. it will rise by 8.68m from 97.2m OD elevation, and will therefore be at **105.88m OD**.
- (ii) This 105.88m obstacle clearance limitation will extend by **140m+65.1m*** to either side of the Approach Surface [** 65.1m = 434×15% widening to each side*].
- (iii) From the edge of the Approach Surface (at 140+65.1m [*i.e. 205.1m*], from runway centreline), the Transitional Surface will rise by 14.3% over the remaining **33.9m**** to the nearest corner of the proposed warehouse, so that the Transitional Surface will lie at exactly 105.88+4.85m OD, i.e. at **110.73m OD above the nearest corner** of the proposed Warehouse. [***239 (i.e. 'X') minus 205.1 = 33.9*]
- (iv) From **110.73m OD** (at its lowest above the Warehouse) the Transitional Surface will continue to rise at 14.3% over a further 146m distance above the Warehouse roof until it reaches the Inner Horizontal Surface at **131.6m OD**.

5.6 The diagram below illustrates the calculations in para. 5.5 (on the previous page). In this diagram, the Transitional Surfaces (to either side of the 280m-wide Flight Strip, and to either side of an 'Instrument' Approach Surface to Casement's Runway 04) are shaded in grey.

[An outline of the Take-off Climb Surface from Casement's Runway 22 is also included (in thinner yellow lines) but this does not need to feature in these calculations because it is at exactly the same 2% gradient as the Approach Surface to Runway 04, and the proposed building does not lie under it].



AT THIS (CRITICAL) POINT
THE TRANSITIONAL SURFACE IS AT 110.73 M OD

5.7 As the highest point of the Warehouse is at **110.05m OD** elevation, and as the sloping Transitional Surface to Casement's Runway 04/22 is at exactly **110.73m OD** at its lowest above the Warehouse, **no part of the Warehouse will extend above the Transitional Surface (or above any Obstacle Limitation Surface).**

It can be seen that 2/3 of the building lies under the Transitional Surface to runway 04, and 1/3 of it (to north-west side) lies under the aerodrome's Inner Horizontal Surface, which is at **131.6m OD** (i.e. at **21.55m above the building**).

No part of the building lies under any Approach or Take-off Climb Surface.

6. Summary with regard to Casement Aerodrome's 'Obstacle Limitation Surfaces'

6.1 As noted (*in para 1.3 above*) adjustments have been made to the height and location of the proposed Warehouse, which has been reduced in height by 1m and located farther from the flight paths to/from Casement's Runways 04/22. These adjustments have significantly benefitted the building's clearance in relation to Casement Aerodrome's 'Obstacle Limitation Surfaces', *listed at 6.3 to 6.6 below*.

6.2 It should be noted that the Warehouse building is located entirely on land zoned 'EE', and this zoned land lies outside the Approach Zone to Runway 04 which is plotted to full instrument width (with 'RU' zoning), in the 2016 Development Plan.

It should also be noted that in assessing in this report (i) the Approach Surface to Runway 04, (ii) the Transitional Surfaces to the 04 end of Runway 04/22, and (iii) the edge of the Inner Horizontal Surface above the site, **Runway 04 has been assessed as a full instrument-approach runway** (in accordance with Department of Defence's wishes), per current ICAO [$>$] definitions*, even though Runway 04 does not at present have 'instrument' status (and the current SDCC Development Plan allows for a steeper Approach Surface at 3.33% over existing rising ground at Rathcoole).



6.3 **Approach Surface to Runway 04** (* at 2% 'instrument' slope & 15% divergence): No part of the proposed warehouse is located under this Surface, as it is at 33.9m north-west of the edge of an 'instrument' Approach Surface to Runway 04.

6.4 **Take-off Climb Surface from Runway 22** (at 2% slope): No part of the proposed warehouse is located under this Surface, as it is at 94.7m north-west of the edge of the Code 3 Take-off Climb Surface from Runway 22.

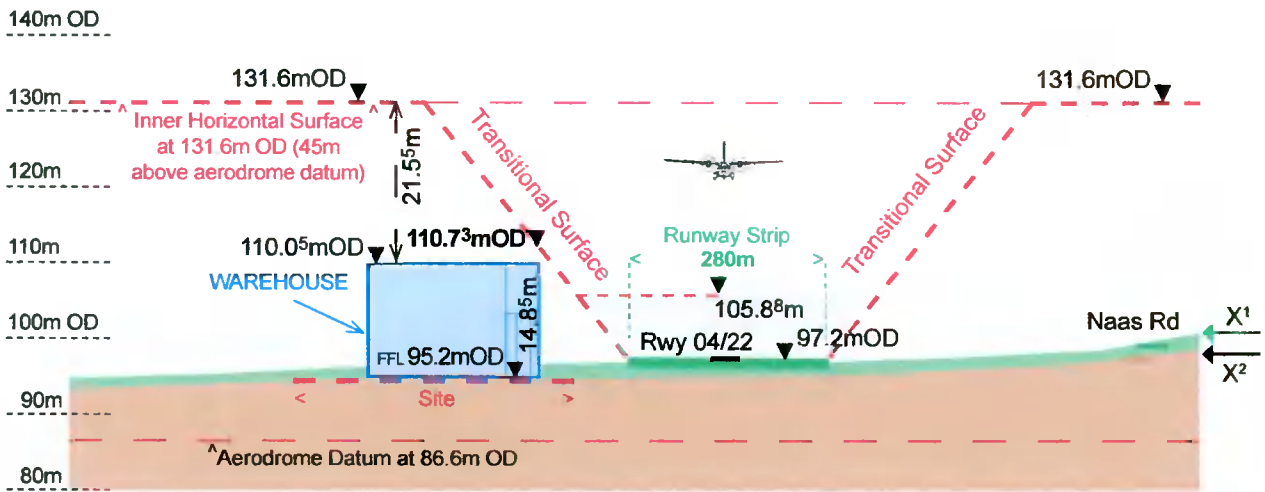
6.5 **Transitional Surface** to north-west of Runways 04/22: Two-thirds of the proposed warehouse lie under this Transitional Surface, with the Surface at **110.73m OD** directly above the eastern corner of the Warehouse (i.e. at **0.68m above** that corner's 110.05m OD parapet elevation). From there the Transitional Surface rises at 14.3% slope to **131.6m OD** elevation (i.e. to **21.55m above** the Warehouse roof) where it joins the aerodrome's Inner Horizontal Surface at 146m horizontal distance to the west.

6.6 **Inner Horizontal Surface** to Casement Aerodrome: One-third of the Warehouse (to its west side) lies under the Inner Horizontal Surface, which is at **131.6m OD**, i.e. at **21.55m above** the Warehouse roof.

6.7 Diagrams illustrating the above, in Cross-Section and in Plan, appear on the following page.

7. Cross Section & Aerial Map Diagrams

NB – Aeronautical Diagram:
horizontal scale = 10x vertical scale.



Cross-Section Diagram (above) to approx. Scales 1:1,000 (vertical) and 1:10,000 (horizontal) [A4-SIZE]

Plan Diagram (below) superimposed on aerial photograph, to approx. Scale 1:10,000 [A4-SIZE]



8. Other Aviation Considerations Relevant to this Site

8.1 Solar /PV Panels

No Solar/PV panels are being provided as part of this development (so that no Glint & Glare Study will be required).

8.2 External Lighting & Obstacle Lighting

Being close to the Approach and Take-Off Climb Surfaces to and from Runway(s) 04/22, any external lighting should be of the cut-off type (i.e. showing no light above the horizontal). Proposed lighting masts are to be of 6m, 8m and 10m height, and will therefore be well below all 'obstacle limitation surfaces'

With regard to provision of obstacle lighting, we note that no part of the proposed building intrudes into an area where obstacle lighting is required by ICAO, but an obstacle light could be provided on the corner of the building nearest to the flight path to/from Runways 04/22 if it should be considered desirable by the Air Corps.

8.3 Use of Cranes During Construction

It is proposed that mobile cranes will be used during construction of this warehouse. It is possible that, in certain locations (to the east side) a crane might project above the Transitional Surface. In any event, prior notification of the use of any cranes on this site must be submitted, at least 30 days in advance, to the Irish Aviation Authority [in accordance with S.I. 215 of 2005 – *Irish Aviation Authority (Obstacles to Aircraft in Flight) Order*] and to the Air Corps Air Traffic Services at Casement Aerodrome (with 90 days' notice preferred if possible), who may need to issue any necessary notifications to pilots. It is possible that these cranes may need to be fitted with aviation warning lights, and may be subject to other restrictions to minimize any possible interference with operations on Casement's Runway(s) 04/22.

8.4 Aviation Noise

Although the proposed Warehouse is located within a noise contour for Casement Aerodrome (as shown on the SDCC Index Map), the development is not of a type that is susceptible to aviation noise, and its ancillary office areas will be provided with appropriate sound insulation to suit their location.

8.5 Casement Aerodrome's 'Security Zone'

Because the site lies close to the 'Department of Defence Security Zone' (although outside this Zone as plotted on the Development Plan Index Map), we have enquired as to whether any of this Zone's additional security-related restrictions might apply, and have been assured by the Department of Defence that these do not apply to this particular site or to this development. [See Correspondence in the Appendix on page 15]

9. SUMMARY

9.1 Points raised by the Department of Defence

The Department of Defence has expressed concern that the proposed warehouse should not project above any of Casement Aerodrome's 'Obstacle Limitation Surfaces' – in particular the Approach Surface to Runway 04, the Take-off Climb Surface to Runway 22, and the Transitional Surface north-west of Runways 04/22.

9.2 The Proposed Development in Relation to these Obstacle Limitation Surfaces

In relation to para 9.1 above, we can confirm that no part of the proposed Warehouse will lie under the Take-off Climb Surface from Runway 22, or under a full-width 'instrument' Approach Surface (at 2% slope) to Casement's Runway 04. The two Obstacle Limitation Surfaces which will lie above the proposed Warehouse are:

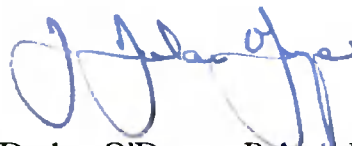
- (i) the **Transitional Surface** to north-west of Casement Runways 04/22; and
- (ii) Casement Aerodrome's **Inner Horizontal Surface**.

Taking into account the building's FFL at exactly 2m lower than Threshold 04, and its revised height, and its exact (revised) distance from Runways 04/22, we confirm —

- (i) that the **Transitional Surface to 04/22** will lie at exactly 0.68m above the highest point of the building's east corner, and this Transitional Surface will rise from that level to 21.55m near the west side of the building; and we confirm
- (ii) that the aerodrome's **Inner Horizontal Surface** will lie above the west side of the building at 21.55m above its roof and parapets; and
- (iii) **the building will not project above either of these Surfaces (or above any 'Surface')**.

9.3 General

We consider that the proposed Warehouse development complies with all aviation and aeronautical requirements affecting the site; and we have provided a copy of this Report to the Department of Defence Property Management Branch, and to the IAA.



J. Declan O'Dwyer B.Arch MBA RIBA

14th October 2021

O'Dwyer & Jones Design Partnership

Aviation Planning Consultants

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APPENDIX: Emails (of September 2021) to & from the Department of Defence

From: O'Dwyer & Jones - Aviation Planning <admin@aviationplanning.ie>
Sent: Wednesday 1 September 2021 15:16
To: Gareth O'Flaherty (Defence) <Gareth.OFlaherty@defence.ie>
Cc: 'Sadhbh O'Connor' <Sadhbh@toctownplanning.ie>; pkavanagh@kavanaghburke.ie; 'Teisla Klein' <tklein@kavanaghburke.ie>
Subject: Planning Application # SD21A/0140 - 'Site R' (to south of Casement)

O'DWYER & JONES DESIGN PARTNERSHIP
AVIATION PLANNING CONSULTANTS
28 LEESON PARK, DUBLIN 6, D06E338, IRELAND
TEL: 00-353-1-4981893, EMAIL: ADMIN@AVIATIONPLANNING.IE OR DESIGNPARTNERS@IQI.IE WEB: WWW.AVIATIONPLANNING.IE
FROM: J. DECLAN O'DWYER B.ARCH MBA RIBA
TO: GARETH O'FLAHERTY, PROPERTY MANAGEMENT BRANCH, DEPARTMENT OF DEFENCE.
RE: S.D.C.C. PLANNING APPLICATION REF. SD21A/0140

Dear Gareth,

Thank you for taking my call earlier, and as discussed I've sent a note to Thornton O'Connor (agents for the applicant) that a formal **written request** be made by them to the Department for a **copy of the Department's submitted comment/objection**, which we'll be glad to receive.

As mentioned on the phone, the **first item** we are dealing with is ensuring that **all ICAO clearances vis-à-vis** any Obstacle Limitation Surface are provided for. In this particular location the most relevant surface is the 'Transitional Surface' along the side of Runway 04/22. At first glance it all looks ok, but we'll be sending on to you details of all our calculations etc and any relevant diagram. It is beneficial that this site is a couple of metres lower than the 04 Threshold.

The **second item** we want to check/discuss with you is/are any **"Security Zone" requirements**. Adjustments may have to be done here and there, but all requirements (as listed on page 230 of the current Development Plan etc) seem achievable without difficulty.

In relation to this I enclose the inserted diagram, on which the site is outlined in red, and as you can see already zoned [coloured purple] since 2016 for the proposed use. >>

The main initial question that I have in relation to this is **the extent to which the Department's "Security Zone" restrictions are to be applied**, given that the site (located towards the outer edge of the "Security Zone") does not directly adjoin the airfield, but – at its nearest – is at **about 225m from the Aerodrome's boundary**. -?

- Does this mean for example that the 2.5m "sterile zone" (along the side facing the airfield) does not apply?
- And to what extent are the roof considerations to be applied, i.e. is a roof parapet ok?, given that there is no access to the roof?
- And should any windows towards the airside have 'frosted' glass, or is this necessary at 225m distance?
- And do you require CCTV coverage?
- And would you want a 3m fence towards the airside, or does this only apply at sites directly adjoining the airfield? etc.

The Department and Air Corps may wish to consider these security queries in relation to this particular site, and we would be grateful if you could get back to us as soon as convenient in relation to them, since any revised or 'further information' is to be submitted as soon as possible to South Dublin.

If you wish we could set up a 'Teams' meeting involving the building's design team, at which any necessary "Security Zone" considerations could be decided?

In the meantime we ourselves are checking that all elements of the building are clear of any ICAO 'Obstacle Limitation Surface' and we will provide the Department & Air Corps with the data on this. [And you will be glad to note that there are to be no solar/PV panels.]

We will also be advising that particular care be exercised as to use of any cranes on this site, with mobile cranes preferred, and with 30 days' *minimum* notice given to the Air Corps (and 90 days' notice to be given if possible).

Very best wishes, and thanks,
Declan

APPENDIX: *Emails (of September 2021) to & from the Department of Defence*

From: Gareth O'Flaherty (Defence) <Gareth.OFlaherty@defence.ie>
Sent: 17 September 2021 10:45
To: O'Dwyer & Jones - Aviation Planning <admin@aviationplanning.ie>
Cc: Jason Kearney (Defence) <Jason.Kearney@defence.ie>; Don Watchorn (Defence) <Don.Watchorn@defence.ie>; Sarah Zacharia (Defence) <Sarah.Zacharia@defence.ie>
Subject: FW: Planning Application # SD21A/0140 - 'Site R' (to south of Casement)

Dear Declan,

I hope this email finds you well. Further to your email of 1 September 2021, please see comments below:

1. The concern with regard to the OLS is the eastern corner of the development. Specifically the Approach Surface for Runway 04 protected as a precision approach runway. Secondly the Transitional Surface may come into play.
2. There are no additional security requirements as the building is just outside 400m from runways and taxiways and not adjoining the boundary. So none of 3-7 apply:
3. *Does this mean for example that the 2.5m "sterile zone" (along the side facing the airfield) does not apply?*
4. *And to what extent are the roof considerations to be applied, i.e. is a roof parapet ok?, given that there is no access to the roof?*
5. *And should any windows towards the airside have 'frosted' glass, or is this necessary at 225m distance?*
6. *And do you require CCTV coverage?*
7. *And would you want a 3m fence towards the airside, or does this only apply at sites directly adjoining the airfield? etc.*

The DOD will reserve further comment until after an aviation impact report assessing the OLS is provided. Also, a copy of the Department's objections has been provided to the applicant's agents (Thornton O'Connor).

One final point to note, the Department understands that the zoned line in the SDCC Development Plan shown below does not reflect the Approach Surface to Runway 04 when protected as an instrument runway (15 degree divergence and 2 degree slope).

Kind regards,
Gareth.

Gareth O'Flaherty

Higher Executive Officer – Property Management Branch

An Roinn Cosanta

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