

Before the Expert Panel

FTAA-2504-1054

Under **Fast-track Approvals Act 2024**

In the matter of an application for approvals in relation to the Ryans Road Industrial Development

By **Carter Group Limited**
Applicant

**Supplementary statement of evidence of Geraint Rhys Price Bermingham
(Navigatus)**

23 February 2026

Submitter's solicitors:

J M Appleyard | M E Davidson

Anderson Lloyd

Floor 2, The Regent Building, 33 Cathedral Square, Christchurch 8011

PO Box 13831, Armagh, Christchurch 8141

DX Box WX10009

p + 64 3 379 0037

jo.appleyard@al.nz | meg.davidson@al.nz

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lloyd.**

Supplementary statement of Geraint Rhys Price Bermingham (Navigatus)

Introduction

1 My name is Geraint Rhys Price Bermingham.

- (i) I am the director of Navigatus Consulting Limited. Navigatus specialises in risk management assessment and analysis across all sectors and high-hazard activities, with particular expertise and recognition in the field of aviation operations, management and analysis as well as the adoption of aviation practices within the maritime sector.
- (ii) I am a founding member and Life Member of Risk NZ, an incorporated professional society with the stated aim of improving the knowledge and practice of risk management in New Zealand. I held the position of Chair of Risk NZ for three consecutive 2-year terms.
- (iii) I for many years was the Engineering New Zealand (*EngNZ*) representative on a joint Australian and New Zealand standards committee responsible for the drafting of standards related to the management and assessment of risk.
- (iv) I was the New Zealand appointed expert for the development of the first global risk management standard (ISO31000) and assisted the Australian committee members for that country's involvement in the preparation of the first global standard on risk analysis (ISO31010).
- (v) My professional background comprises a career as a nuclear submarine engineer, a consulting risk engineer, as Manager Operational Risk with Air New Zealand and as a risk management consultant specialising in aviation and marine risk. Over a period of 20 years, I have developed and conducted risk analysis and assessments in a range of sectors including marine, aviation, industrial, infrastructure, petro-chemical, nuclear power, bio-research, commercial business and local government.
- (vi) With regard to aerodrome and airport operational safety, I have conducted numerous risk analyses and safety assessments of on-airfield and off-airfield activities and developments and am

frequently engaged to advise of developments on or near to aerodromes.

- (vii) I am a Civil Aviation Authority (CAA) approved 'Senior Person' and am responsible for the compliance (under Civil Aviation Rules Parts 174 and Part 100) of an aviation meteorological service.
- (viii) Navigatus manages and operates an aviation meteorological service comprising of seven meteorological stations positioned at locations around the Whakatipu Basin of which two stations are located on Queenstown aerodrome. This system has been developed to assist the pilots of Regular Passenger Transport (RPT) aircraft operated by Air New Zealand, Qantas, Jetstar and Virgin to manage the inherent challenges of the local weather and wind conditions.
- (ix) I am an active glider pilot who, based in Omarama, typically flies in the Southern Alps region.

2 Qualifications and Experience

- (i) My qualifications are B.Eng (Hons) in Systems Engineering and PGDip (Nuclear technology). Prior to specialising in risk management, I was a Chartered and internationally registered professional engineer (IntPE / CPEng).
- (ii) My aviation experience consists in summary:
 - (A) Manager Operational Risk – Air New Zealand (2002 – 2004)
 - (B) Manager Operational Risk and Performance – Air New Zealand (2004 – 2006)
 - (C) Manager Technical Risk and Compliance – Air New Zealand (2006 – 2008)
 - (D) As director of Navigatus Consulting:
 - (1) Development of Queenstown Night Operations Safety Case.
 - (2) QAC taxiway / runway separation risk analysis and assessment.

- (3) Aviation compliance and design of QAC Northern Aviation Precinct (NAP) heliport.
- (4) Building wind turbulence analysis of proposed QAC NAP hangars.
- (5) Runway works Safety Committee Chair for Auckland International Airport.
- (6) Risk analysis and safety management of displaced runway threshold operations at Auckland International Airport.
- (7) Risk advice to Hamilton Airport regarding close-in developments on airport land.

- 3 I led the preparation of the **Aviation Safeguarding Assessment** for the **Ryans Road Industrial Development** which was submitted as part of the Applicant's response to submissions on the application (Appendix 19).

Code of practice for expert witnesses

- 4 I have prepared this statement of evidence in my capacity as an expert, and I acknowledge that I have read and understand the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with it when preparing this statement of evidence. I have also complied with it when preparing the assessment described at paragraph 3 above. Other than where I state that I am relying on the evidence of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Purpose and scope of this supplementary evidence

- 5 I have been asked by the Applicant to prepare this supplementary statement of evidence in response to the supplementary submission of Airways New Zealand (**Airways**) and Christchurch International Airport Limited (**CIAL**) dated 18 December 2025.
- 6 This supplementary statement addresses matters raised by Airways and CIAL in their respective supplementary submissions, including responses to their comments regarding:
 - (a) the applicable statutory and regulatory framework for aviation / aerodrome safeguarding under the Civil Aviation Act 2023 (Act) and

the Civil Aviation Rules (CARs), and the standard processes that apply;

- (b) the appropriateness and adequacy of the assessments on the potential impact on aviation operations and safety prepared in support of the application, including the scope of assessment, methodology adopted, and conclusions reached;
- (c) the likely implications of the proposed development for the operations and functions of Airways and/or CIAL, including any additional operational, procedural, or administrative requirements that may arise, having regard to the mitigation measures and conditions proposed by the Applicant;
- (d) my overall conclusion as to the acceptability of the aviation safety effects of the proposal, having regard to the assessment work undertaken and the matters raised by Airways and CIAL.

Executive summary

- 7 This supplementary statement of evidence is a response to the supplementary submission of Airways New Zealand (**Airways**) and Christchurch International Airport Limited (**CIAL**) dated 18 December 2025 and addresses matters raised by Airways and CIAL in their respective supplementary submissions.
- 8 It is my view that:
 - (a) The Applicant's proposal adheres to all the requirements set out in the District Plan, with regard to aerodrome safeguarding.
 - (b) The Applicant has had the aerodrome safeguarding framework as recommended by New Zealand Airports Associations (NZ Airports) applied and the relevant analysis undertaken.
 - (c) The proposed maximum building envelope for the development reflects the safeguarding findings and the District Plan constraints – this addresses almost all potential aviation impacts.
 - (d) The established CAA Part 77 process will enable any physical obstacle, laser and light distraction hazards during the construction phase to be properly managed.
 - (e) While the technical assessment by Cyrrus concludes that “*no significant operational impacts are anticipated to arise from the*

proposal”, other further viable mitigations are available should radio signal interference issues arise.

- (f) Should development result in existing emergency landing areas not being available to helicopters operating to and from the GCH heliport, alternative flight procedures may need to be developed. This may result in some limited operational efficiency or utility costs on GCH.
- 9 Irrespective of the assessment work, given the protection offered by CAR Part 77 and the applicable clauses of CAR Parts 139, CARs 171, and 172, and CAR 91, aviation safety will be maintained.
- 10 The assessment provides confidence that aviation safety risks are identified, and can be managed, and mitigated.

Aviation Legal and Regulatory Framework

- 11 The CAA is the regulatory agency that safeguards civil aviation in New Zealand in accordance with the Civil Aviation Act 2023 ('the Act'). The CAA controls and monitors ongoing adherence to safety standards.
- 12 The CAA has safety obligations under the 1944 Chicago Convention that established the International Civil Aviation Organisation (ICAO) and the NZ Civil Aviation Act 2023.
- 13 The CAA enforces secondary legislation in the form of CARs made under the Act. All aviation system 'participants'¹ must comply with the Act and CARs. However, the Act applies to all persons in New Zealand² meaning that other parties (implicitly, 'non-participants') such as the public are also subject to the Act's safety and security regulations where their activity may influence aviation safety.
- 14 CAR Part 77 also refers to '...persons within the territorial limits of New Zealand...'. and so applies to any 'non-participant'.
- 15 The CAA also issues guidance on how to comply with CARs in the form of Advisory Circulars (ACs). ACs contain information about standards,

¹ 'Aviation participant' is defined in the Civil Aviation Act 2023 Section 5 Interpretation as "(a) means a person who- (i) operates, maintains, services, or does any other act in respect of an aircraft, aerodrome, or aeronautical product; or (ii) provides an aviation-related service; and (b) includes (without limitation)— (i) aircraft pilots: (ii) flight crew members: (iii) air traffic service personnel: (iv) aviation security personnel: (v) aviation examiners and medical examiners: (vi) aerodrome operators: (vii) aircraft engineers; and (c) includes a person referred to in section 37(1); and (d) includes the holder of an Australian AOC with ANZA privileges"

² Civil Aviation Act 2023, s 9(1)(a).

practices, and procedures that the Director of CAA (DCA) has found to be an acceptable means of compliance with the associated CAR.

- 16 If ACs cannot be complied with in full, then “alternative means of compliance” (AMOC) can be tabled. As the system is ‘risk based’, in complex cases a “safety case” may be required to demonstrate how safety is assured.
- 17 Ultimately, the CAA and its administration of the legal and regulatory framework described above ensures that the main purpose and additional purposes of the Act are achieved. These are set out in full, as follows:

3 Main purpose

The main purpose of this Act is a safe and secure civil aviation system.

4. Additional purposes

This Act has the following additional purposes:

(a) to maintain, enhance, and promote a transport system that contributes to environmental sustainability, economic prosperity, inclusive access, healthy and safe people, and resilience and security:

(b) to promote innovation, effectiveness, and efficiency in civil aviation:

(c) to ensure that New Zealand’s obligations under international civil aviation conventions, agreements, and understandings are implemented:

(d) to preserve New Zealand’s national security and national interests:

(e) to take into account the adverse effects of civil aviation on the interests of people, property, and the environment.

Aviation References Relevant to the Proposed Ryans Road Development

- 18 The following New Zealand aviation system references are, in light of the proposed development’s location relative to the Christchurch aerodrome runway and the associated Garden City Helicopters (GCH) heliport, applicable to the proposed development:

(a) CAR Part 139 – Aerodromes Certification, Operation and Use and associated ACs, including:

(i) AC139-6 – Aerodrome Design Requirements

- (ii) AC139-8 – Aerodrome Design: Heliports
 - (iii) AC139-10 – Control of Obstacles
 - (iv) AC139-15 – Aeronautical Studies for Aerodrome Operators;
and
- (b) CAR Part 77 – Objects and Activities Affecting Navigable Airspace.
- 19 Additionally, given the location of the proposed development relative to a number of aviation radio-aids, two further CARs may also be considered relevant.
- 20 These two CARs are:
- (a) CAR Part 171 - Aeronautical Telecommunication Services -
Operation and Certification
 - (b) CAR Part 172 - Air Traffic Service Organisations Certification

Responsibilities of stakeholders

- 21 As noted before, all ‘participants’ in the aviation system (airlines, airports, pilots etc.) must comply with the Act and the associated CARs. Similarly, the Civil Aviation Act applies to ‘non-participants’ – that being persons that are not within the aviation system but whose actions may impact aviation safety.

CAR Part 139 obligations and process for CIAL

- 22 Part 139 and a series of directly associated AC’s (i.e. AC139-2, through to AC139-16) set requirements on aerodrome and heliport owners and operators.
- 23 Each ‘certificated’ aerodrome operator must obtain and retain certification under Part 139. In summary, Part 139 sets rules for aerodrome certification, operation, and use, requiring operators to meet ICAO standards for safety and security, including detailed requirements for aerodrome maintenance, emergency plans, rescue & firefighting, runway reporting, security measures, and personnel competency, all documented in an aerodrome’s ‘exposition’. It ensures safe physical conditions, operational procedures, and security for all aircraft using the aerodrome.
- 24 It is of note that Part 139 also sets requirements for navigation aids and ensuring safe visual and non-visual guidance, requiring robust power, proper marking (like beacons, approach lights), installation protection, and

detailed maintenance/inspection procedures within an aerodrome's 'exposition' ensuring compliance with ICAO Standards for safe operations.

- 25 Clause 139.121 of Part 139 covers the protection of navigation aids and ATS facilities. It states, with my emphasis in bold, that “A *holder of an aerodrome operator certificate must— (1) prevent any construction or activity **on the aerodrome or surrounding area that the certificate holder has authority over**, that could have an adverse effect on the operation of any electronic or visual navigation aid or air traffic service facility for the aerodrome; and **prevent, as far as it is within the certificate holder's authority**, any interruption of electronic or visual navigation aid or air traffic service facility for the aerodrome.*”
- 26 It follows that airports' expositions include any requirements or procedures that are necessary to manage risks relating to the provision of aerodrome air traffic services and the protection of aerodrome navigation aids and ATS facilities.
- 27 I also note, clause 139.123 requires a holder of an aerodrome operator certificate to have a 'Notice to Airmen' (NOTAM)³ issued for any aerodrome operational condition that may affect the safe operation of aircraft. This would apply to conditions on and also in the vicinity of the aerodrome.
- 28 Additionally, clause 139.125 requires an aerodrome operator to “*establish procedures for ensuring that aircraft operations are restricted, or if necessary prohibited, on any part of the aerodrome where an unsafe condition may exist*”.

CAR Parts 171 and 172 - obligations and process for Airways

- 29 CAR Part 171 and CAR Part 172 set the requirements that Airways must meet in its role as the National Air Navigation Service Provider (NASP).
- 30 Part 171 (Aeronautical Telecommunication Services) sets requirements mandating certification, operational standards, personnel competency, and safety management for organisations providing communication/navigation for air traffic and IFR flights, covering aspects like documentation

• ³ An official, time-critical notice issued by the CAA to alert pilots of temporary abnormal hazards. A NOTAM ensures safety by communicating essential information that is not known far enough in advance to be included in regular aeronautical charts or publications. E.g. runway/taxiway closures, lighting outages, crane operations, etc.

(expositions), regular testing, maintenance, security, and incident reporting for critical aviation infrastructure.

- 31 Importantly in this case it is of note that, aside from maintaining the exposition (Operations Manual) and having qualified and competent personnel, Part 171 also sets requirements on facilities including for Standards for communication and navigation equipment, ensuring reliability and performance.
- 32 Part 172 (Air Traffic Service Organisations) requirements mandate certification, specific equipment, personnel training, safety management, and operational standards for providing air traffic control, flight information, and alerting services.
- 33 Importantly, the requirements extend to specific equipment for control towers (displays, communications, power, etc.) and contingency planning as well as procedures for separation (of aircraft in controlled airspace), clearances (for aircraft to proceed as requested), emergencies, and flow control.
- 34 This rule ensures that surveillance data (such as radar or ADS-B) is used consistently and safely to manage aircraft separation and provide traffic information.
- 35 The specific CAR relevant to the use of surveillance radars is 172.107 - ATS surveillance Service. This rule mandates the procedures an air traffic service (ATS) organisation must establish when using surveillance systems.
- 36 Under this rule, Airways must ensure that any ATS surveillance system used to support their services follows specific international and local standards. Principally:
 - (a) **ICAO Document 4444**: Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM).
 - (b) **ICAO Document 7030**: Regional Supplementary Procedures - specifically as they apply to the **Pacific region**.
- 37 The above are underpinned by technical standards that the equipment such as the PSR and SSR must conform to. These are highly involved and require specialised technical training and knowledge that, within New Zealand only Airways can retain.

Aircraft Operators

- 38 CAR Part 135 Air Operations — Helicopters and Small Aeroplanes applies to GCH. It states that a holder of an air operator certificate under Part 135 must ensure that any heliport used in its air transport operations meets the applicable requirements of Part 91.
- 39 CAR Part 91 - 91.127 is directly applicable in this case as it covers the use of aerodromes. It requires that any place used as a heliport or as a place to hover that is outside a congested area of a city, town, or settlement (as is the case here) — (i) is suitable for the helicopter to hover clear of obstructions; and any place used as a heliport or as a place to hover has such approach and take-off paths that an autorotative landing can be conducted without causing a hazard to any persons or property on the surface.

Non-participants

- 40 Part 77 is the most relevant in this case in terms of requirements of the Act on 'non-participants'. Part 77 applies to all 'persons' in New Zealand, including those intending to undertake construction near to aerodromes and heliports (i.e. it would apply to those persons undertaking any construction or operational activities on the subject site). The objective of this Part is to ensure aircraft safety is not compromised by any visual or structural obstacle, or by persons proposing to construct, alter, or use such an obstacle that could pose a hazard in navigable airspace. Aside from physical structures, hazards to navigable airspace covered by Part 77 include, for example, lights, lasers, colours, construction dust, etc. The Part 77 process is described further below.

Aerodrome Protection Surfaces (AC139-6)

- 41 Aerodrome protection surfaces (termed Aircraft Protection Surfaces in the Christchurch District Plan) are imaginary three-dimensional surfaces established around an aerodrome to safeguard aircraft operations by preventing obstacles from encroaching into the airspace. These Obstacle Limitation Surfaces (OLS) define the limits to which objects can project into the airspace without affecting the safety and regularity of air operations. They are crucial for maintaining safe flight paths for both visual and instrument approaches, and ensuring the aerodrome remains usable. The OLS requirements for aerodromes operating medium and large transport aircraft (as is the case for Christchurch) are set out in AC139-6.
- 42 Additionally, given that international RPT aircraft operate from Christchurch Airport, a further surface is defined – the Type A surface. While a

penetration of this surface is allowable, any penetration would lead to operational constraints for airlines - principally in terms of maximum take-off weight. A copy of the Type A chart for CIA is shown at Appendix A.

Protection Surfaces most relevant to the Ryans Road Project

- 43 The following OLS are directly relevant to the proposed development and need to be considered when designing the vertical height and extent of the overall building envelope as well as any construction (due to temporary obstacles such as cranes) within the area:
- (a) The runway side transition surfaces (referred to as “1:7 Transitional Surface” in the District Plan) to the south and east of the southern end of the main runway (RWY02/20).
 - (i) The buildings within the proposed development do not penetrate this surface.
 - (ii) Temporary short term penetrations during construction may however occur – if so these would be managed under the Part 77 process (refer 49).
 - (b) Take-off Climb OLS of the main runway (southern end of the main runway).
 - (i) The proposed development do not include any structures under this surface.
 - (c) Approach OLS of the main runway (southern end of the main runway).
 - (i) The buildings within the proposed development do not penetrate this surface.
 - (ii) Temporary short term penetrations of the associated Part 77 notification surface that may occur during construction may however occur – these will be managed under the Part 77 process.
 - (d) Type A protection surface at the southern end of the main runway.
 - (i) The proposed development does not include any structures under this surface.
 - (e) The southern Take-off Climb and Approach OLS of the GCH heliport.

- (i) The proposed development does not have any buildings that will penetrate this surface.
- (ii) Temporary short-term penetrations of the associated Part 77 notification surface during construction may however occur – these will be managed under the Part 77 process.

Other Aviation-Related Regulatory Measures

Christchurch District Plan

- 44 Subchapter 6.7 of the Christchurch District Plan (CDP) sets out the OLS for the runways of Christchurch aerodrome together with the associated planning rules that relate to aircraft protection. The proposal has been designed to comply with these provisions.
- 45 The CDP also sets out in Section 10 D1 (A2 and B) a designation for CIAL (they are the Requiring Authority) associated with the parts of the Runway End Protection Areas (REPA) that lie outside of the boundary of the aerodrome. The purpose of the designation is stated to be *‘for the safe and efficient functioning of the Airport’* and to address a wide range of potential effects, including for example, *‘i. mass assembly of people, ...v. production of radio or electrical interference which could affect aircraft communications or navigational equipment, and vi. attraction of birds’*. Development is not proposed within the REPA and as such, the proposal complies with the rules relating to the REPA.
- 46 I note that there are no protection areas related to the GCH heliport OLS in the CDP. As far as I can establish these OLS are not in the public domain but have been provided and taken into account by the Applicant as part of the consultation related to the Fast Track process.
- 47 For completeness I note that some other district plans include rules or designations to protect of aviation radio aids operated by Airways⁴. For example, plans for Waipā District Council, Palmerston North City Council and Wellington City Council have rule relating to the protection of VOR

⁴ I note that the New Zealand National Airspace Policy of 2012 noted the following: *“To avoid or mitigate incompatible land uses or activities and potential obstacles or hazards that will impact, or have the potential to impact on the safe and efficient operation of aircraft, regional and district plans should have regard to applicable Civil Aviation Rules. Airport authorities and local authorities should work together in a strategic, cooperative and integrated way to ensure that planning documents (including those under the Resource Management Act) appropriately reflect the required noise contours and/or controls and approach and departure paths that take account of current and projected traffic flows. Resource Management Act planning tools (including plan rules and designations) should as far as practicable seek to avoid the establishment of land uses or activities and potential obstacles or hazards that are incompatible with aerodrome operations or create adverse effects.”*

stations and Dunedin City's plan has a more general protection of interference with the performance of telecommunications and radiocommunications equipment. In this case, and as described above, the CDP includes a designation by CIAL (see Chapter 10 D1, A2 and B) which is for the purpose of addressing '*Production of radio or electrical interference which could affect aircraft communications or navigational equipment*' and which does not include any part of the proposed development.

- 48 To summarise, the proposed development has been designed to comply with all aviation-safety related provisions in the Christchurch District Plan.

CAR Part 77 process

- 49 As mentioned above, the objective of Part 77 is to ensure aircraft safety is not compromised by any visual or structural obstacle, or by persons proposing to construct, alter, or use such an obstacle that could pose a hazard in navigable airspace.
- 50 Part 77 is routinely used for construction activity near to aerodromes and the process well practiced by the CAA. Given that the use of cranes are often the trigger of the Part 77 process, it is also well understood by many crane companies and crane drivers.
- 51 Part 77 sets out what the DCA must determine is a hazard to air navigation and what may be hazards.
- 52 On receiving a notification the DCA must carry out an aeronautical study and must make a determination within 28 days. The DCA may consult "*.... with such persons, industry representatives, representative groups, and organisations as the Director considers appropriate.*"⁵
- 53 The usual trigger for notifying the DCA under Part 77 is for a structure, including cranes, that may penetrate / breach an imaginary notification surface under a Take-off Climb or Approach surface (the notification surface being shallower than the Take-off Climb or Approach surfaces) or may penetrate the runway side transition surface. It is these surfaces that are relevant in this case.
- 54 In the case of heliports, Part 77 is triggered in a similar way but referenced to the heliport's 'safety area'. Again, given the location relative to GCH's heliport, this surface is also relevant in this case.

⁵ CAA Part 77.21 (b)

- 55 Breaching Part 77 notification surfaces is not in itself an issue and Part 77 is a well-established and routinely applied regime that ensures work can go ahead while aviation safety is protected. The breaching of OLS is also perfectly manageable through the same process and using established and well-practiced mitigation methods.
- 56 In the case of the proposed development and based upon the building envelope as per ([Appendix A – Ryans Road Plan Set](#) drawings), and that the construction activity within the western lots would almost certainly require use of cranes that may penetrate the side transition surface of the runway (1:7 slope with an origin 150m from the extended centreline of the main runway), Part 77 would be triggered.
- 57 Given modern construction activity now routinely involves the use of lasers for measurement and establishing levels, Part 77 may also be triggered by the use of lasers, regardless of the height of cranes.
- 58 Additionally, construction activity in the northern lots of the development may also trigger Part 77 as any cranes would likely penetrate a 1:25 slope with an origin at the edge of the safety area surrounding the heliport's combined Final Approach and Take Off (FATO) and Touchdown and Lift-Off Area (TLOF) area – commonly referred to as a 'helicopter stand'.
- 59 In this case, given the closeness to the runway and the heliport the DCA may decide to consult with CIAL. However, given the scope of Part 77 – in terms of types of hazard that can be considered, and that construction activity is routinely undertaken relatively close to aerodromes, the DCA may well simply require consultation between the party who is intending to construct a building and CIAL to ensure coordination during the works. This is usually by way of a Method of Works Plan (MoWP). The MoWP would ensure coordination of when works could be undertaken (e.g. runway not in use), communications with CIAL and Airways (ATC) and the practical control of hazards by the construction teams.
- 60 It is important to note that the only cases where a structure may be allowed to penetrate an OLS would be for an essential aviation facility (e.g. a meteorological equipment mast), but in these cases the structure would be frangible (can shatter or collapse on impact) so as to limit any risk to aircraft. The DCA would therefore not allow a building of any kind to be constructed that penetrated an OLS. This fact is reflected in the design of the proposed development.
- 61 After the DCA has completed the aeronautical study that is referenced above CAA CAR Part 77 states in 77.21 (a) that "*The Director shall, within 28 working days of receiving any notification under 77.13(a) for*

construction, alteration, or use of a structure, make a determination as to whether the proposed construction, alteration, or use, if executed, will be a hazard in navigable airspace and ... may ... impose any conditions or limitation and that ensure the hazard in navigable airspace is minimised; and in determinations of no hazard in navigable airspace, considered necessary to minimise potential problems, such as the use of temporary construction equipment; and ... specify additional notice requirements.”

- 62 In practice the conditions may, aside from working with the airport to coordinate works under a 'Method of Works Plan' include, for example, working at night or coordinating so that high crane lifts are carried out while a runway or heliport is temporarily closed for a few hours. Such cases are not unusual or uncommon.
- 63 It is important to note the relatively narrow scope of Part 77. This CAR only considers physical structures, lights, lasers, weapons, efflux, and pyrotechnics that may cause hazards to air navigation. The scope of what hazards are considered is not as broad as that of the Australian safeguarding framework and so Part 77 does not empower the DCA to consider the effect of structures on the performance CNS systems or aviation navigation aids.

Assessments of Aviation Safety

Aeronautical Studies (AC139-15)

- 64 An aeronautical study as per AC139-15 is a tool used to review aerodrome and airspace processes to ensure safety criteria are appropriate. While CAR 139.131 is applicable to CIAL, an aeronautical study under CAR Part 139 can be triggered for any proposed change and, while rarely the case, by any party.
- 65 AC139-15 outlines a generic methodology for an aeronautical study which includes a detailed risk management process consisting of:
- (a) Risk Management Process: The study must systematically identify hazards, evaluate the seriousness of potential consequences, and assess the probability of them occurring. If a risk is not acceptable, mitigation measures must be implemented to reduce it to an acceptable and "as low as reasonably practicable" (ALARP) level.
 - (b) Consultation: Operators are required to consult widely with aerodrome users and other stakeholders, including aircraft operators, pilot organisations, and air traffic service providers.

- (c) Content Considerations: The study should consider factors such as aerodrome layout, types of aircraft and traffic density, obstacles, weather conditions, airspace complexity, and current operational levels.

66 Whilst an aeronautical study in accordance with AC139-15 has not been conducted and is not required for the proposal (noting that such a study is only usually undertaken by or for a holder of a Part139 certificate (i.e. an aerodrome operator), an aerodrome safeguarding study has been.

Safeguarding Studies

67 The term “safeguarding study” is not defined under the CA Act or within the CARs, or indeed in ICAO Standards and Recommended Practices and Annexes applicable to aerodromes.

68 While the term can be traced back to its use by the UK CAA in the early 2000’s, its relatively recent uptake in use in New Zealand is probably due to its use within the Australian aviation and planning sectors and more recently due to NZ Airports recommending the application of the Australian Safeguarding guidance.

69 It is important to note that, while there is likely to be overlap in terms of subject matter, a ‘safeguarding study’ is not the same as an ‘aeronautical study’. A ‘safeguarding study’ is more tightly defined in terms of matters to be considered – reflecting a focus on the potential effect of developments near aerodromes. An aeronautical study on the other hand, can consider any matter related to aviation risk and therefore the scope is not so tightly defined. They can also often be technically complex in terms of aircraft performance and technical systems.

70 Given the more clearly defined subject matter, a safeguarding study is likely to be able to be scoped more quickly and completed in a shorter time and require less depth of aviation technical expertise as many aeronautical studies may require. That noted, it is quite possible that a safeguarding study may identify a matter that requires further detailed analysis that may more typically be considered an aeronautical study.

71 The parts of the Australian safeguarding guidelines that can be applied in this case are:

- (a) Guideline B: Managing Building Generated Windshear and Turbulence
- (b) Guideline C: Managing Wildlife Strike Risk

- (c) Guideline E: Managing Pilot Lighting Distraction
 - (d) Guideline G: Communications, Navigation and Surveillance
 - (e) Guideline I: Managing the Risk in Public Safety Areas at the Ends of Runways
- 72 I would consider that Guideline F: Managing Protected Airspace Intrusion is not relevant as the New Zealand CARs are explicit and aligned with ICAO.
- 73 I note that GCH make a case that Guideline H: Protecting Strategically Important Helicopter Landing Sites should be applied in this case. Guideline H's applies landing sites "*(not located on an aerodrome)...*" and I am not personally persuaded that they meet the stated criteria to be classed as 'Strategically Important'. That said, they do support important services such as emergency medical response and the proposed development is close to the heliport and under the southern take-off climb and approach slope.
- 74 Given that Safeguarding studies focus on the potential effect of developments near aerodromes, and putting aside that they are not formalised under the Act or elsewhere under New Zealand law or regulations, they can reasonably be considered appropriate for at least initially evaluating aerodrome safety effects in resource management plan making or consenting processes. That noted, clearly the Act and CARs must be complied with and aspects of the development and any affected aviation stakeholders will be subject to those requirements as it develops and on an ongoing basis. Additionally being Australian, the Safeguarding framework references Civil Aviation Safety Authority (CASA) rules.
- 75 Overall, I consider that the safeguarding assessments prepared for the proposal are appropriate in scope and depth, has identified the aviation-safety implications relevant to development in this location.

Consent Conditions

- 76 I have reviewed the proposed consent conditions revised 19 February 2026. I consider that the proposed conditions will effectively address any aviation safety risks that may arise from any particular development:
- (a) Condition 6a. ensures that a key modeled parameter used by Cyrrus is assured.
 - (b) Condition 6b ensures that a key modeled parameter used by Navigatus is not exceeded.

- (c) Condition 6c. ensures that a key modeled parameter used by Navigatus is assured.
- (d) Condition 6d and 6e. ensure that a key protection area is not compromised.
- (e) Condition 6 e. ensures that a key modeled parameter used by Navigatus is not exceeded.
- (f) Conditions 9, 10, and 12 appropriately address lighting requirements.
- (g) Condition 13 addresses the protection surfaces (including obstacle limitation surfaces).
- (h) Advice Note A addresses the helicopter downwash hazard.
- (i) The new proposed condition 21A appropriately addresses Part 77 notification requirements.
- (j) New condition 21C proposes an aviation risk assessment, which:
 - (i) Is limited to only the matters that are relevant to development within the industrial park, which is appropriate given the overall controls on the industrial park (such as building heights).
 - (ii) Addresses residual aviation safety and does not overlap or potentially conflict with matters already properly covered by existing requirements such as Part 77.
 - (iii) Requires the Applicant to notify the CAA and invite the CAA to comment on any aviation safety matters it considers should be addressed with the scope of the proposal.
 - (iv) Provides an appropriate definition of what constitutes meaningful engagement with other stakeholders. With the full package of consent conditions in place it is appropriate that other stakeholders are able to comment but their agreement is not required.

77 Overall, I consider the conditions proposed by the Applicant to be suitable and appropriate to address and mitigate any residual aviation safety effects that may arise from individual developments within the industrial park.

Potential Impacts of the Proposal

- 78 With regard to impacts on aviation stakeholders of the proposed development and associated building envelope, and based largely upon the analysis by Cyrrus, I assess the expected impacts to be:
- (a) CIAL: there will be no material impact on either general or commercial fixed wing operations. Also, no impact on helicopter operations - as noted in (c) below.
 - (b) Airways NZ: Based on the Cyrrus assessment, it is expected there will be no impact on the performance of surveillance systems and the delivery of ATS. However, if there was later found to be an effect of surveillance systems, further viable mitigations are available to Airways and potentially building owners.
 - (c) GCH: Given buildings will be located on the lots to the northeast of the development area, there can be expected, to in time be the loss of emergency landing options if flying to and from the south. Mitigations for this will require redesign of the southern flight paths that in turn can be expected to incur some loss of operational efficiency and possibly additional weather constraints and hence utility of the heliport. As the approach procedures are not instrument procedures, the cost to redesign these procedures would not be significant.

Comments on CIAL and Airways NZ Supplementary Responses

- 79 My comments below address aspects of CIAL and Airways Supplementary Responses where I have expertise or insights. Cyrrus has provided a detailed technical response to Airways' supplementary submission, and the conclude that "*no significant operational impacts are anticipated to arise from the proposal*". I therefore do not comment further on the aspects they have addressed.
- 80 In CIAL submission titled '*Memorandum of Counsel for Christchurch International Airport Limited Addressing Minute 6*' CIAL states:
- (a) Paragraph 8.2 (b) that "*To the extent aviation safety risks could be mitigated or avoided at all, the Project would do so by externalising those risks to existing aviation infrastructure and operators, requiring changes to, or curtailment of, airport and aviation operations at CHC.*" In my opinion, given the protections provided by Part 77 and the District Plan, all physical and construction related hazards and risks can be adequately controlled. There may be some impacts that would need to be addressed through changes to the heliport procedures and

flight paths should emergency landing options become unavailable. These changes would be required of CIAL and / or GCH, under CAR Part 139 and Part 91. I note that proposed consent condition 21C requires an aviation risk assessment prior to construction and requires meaningful engagement with relevant stakeholders (such as CIAL and GCH), therefore affording an opportunity to identify potential impacts of this nature and mitigation measures. As stated above, I do expect that there will be some operational efficiency or utility impacts on GCH. However, such adjustments would not be costly or significant.

- (b) Paragraph 8.3 that *“the core deficiencies as to its assessment of aviation safety remain, because the foundational assessment of potential impacts on aviation safety (and therefore the appropriateness of development on this site) has still not been properly undertaken and this inadequacy cannot be cured within the confines and timing constraints of the FTAA process”*. The Applicant is adhering to all District Planning requirements with respect to aerodrome protections, will adhere to its obligations under Part 77, and has otherwise provided safeguarding studies or technical assessments by suitably experienced and qualified experts that has identified the likely impacts and potential risks. Condition 21C, as described above, also provides a further opportunity for engagement with CIAL and Airways on aviation safety matters prior to construction.
- (c) *Footnote 20: “Noting CIAL has not been able to undertake an exhaustive check in the time available. For example, it has not had time to engage an aviation engineer to do a full review. These observations are, for the most part, applied through a planning lens”*. While it is acknowledged that the statutory timeframe has limited the ability for a fully exhaustive review, the matters being considered are highly technical in nature. In that context, it is notable that CIAL has not sought input from a suitably qualified aviation engineering specialist, and its comments are therefore necessarily framed at a relatively high level. Notwithstanding this, the safeguarding assessments that have been undertaken by several expert persons and that have applied a recognised framework recommended by the Airports NZ. On that basis, I am not aware of any additional aeronautical assessments that the Applicant could reasonably undertake which would identify any further aviation safety issues beyond those already identified.

81 I note that GCH's comments are included in the CIAL minute, including their position that the site constitutes a 'Strategically Important Helicopter Landing Site' to which Safeguarding Guideline H should apply. As stated above, parts of the development may necessitate changes to how the heliport is operated. In particular, the reduction in available emergency landing options might mean that continued use of the existing southerly take-off climb and approach path is unlikely to be practicable. The development of an alternative would require consideration of factors such as approach directions, speed constraints, wind limits and noise effects on the ground. As the approach procedures are not instrument procedures, the cost to redesign these procedures would not be significant.

Conclusion

82 The Applicant's proposal adheres to all the requirements set out in the District Plan, with regard to aerodrome safeguarding.

83 The Applicant has had the aerodrome safeguarding framework as recommended by Airports NZ applied and the relevant analysis undertaken.

84 The proposed maximum building envelope for the development (in terms of land not to be built upon and maximum heights of buildings) reflects the safeguarding findings and the District Plan constraints – this addresses almost all potential aviation impacts.

85 The established CAA Part 77 process will enable any physical obstacle, laser and light distraction hazards during the construction phase to be managed and mitigated through a MoWP developed in consultation with CIAL.

86 The proposed building envelope and constraints / requirements now embedded within the design of the proposed development, confirm compliance with the aerodrome OLS limits. Therefore, there will be no permanent obstacle hazards to air navigation.

87 With regard to the potential to impact upon the performance of radio navigation aids, the technical assessment by Cyrrus concludes that "*no significant operational impacts are anticipated to arise from the proposal*".

88 Noting the above, it is my view that, should it later be found that a building structure does cause interference with radio navigation aids, other further viable mitigations are available to Airways and potentially the building owner(s).

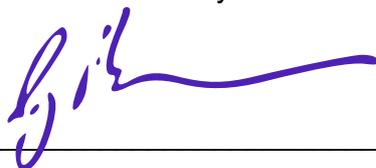
89 The remaining issue concerns the GCH heliport. On the assumption that the development incorporates all potential buildings to the north and east

of the site, changes to helicopter approach and departure procedures to the south of the heliport are likely to be required. This arises principally from the occupation of land that is currently available for use as emergency landing areas in proximity to the GCH heliport. If this land were no longer available for emergency landing purposes, helicopters operating to or from the south would need to adopt alternative approach and departure routes. Identifying suitable alternatives would likely require an aeronautical study undertaken by CIAL and GCH in accordance with AC139-15. Such a study would assess and underpin the development of alternative flight procedures. Any operational efficiency or utility costs on GCH associated with the adoption of alternative procedures would be expected to be limited.

- 90 The proposed development complies with the relevant aviation safety provisions of the Christchurch District Plan and will be subject to the ongoing requirements of the Civil Aviation Act 2023 and the Civil Aviation Rules, including CAR Part 77. The aerodrome safeguarding assessments prepared in support of the application are appropriate in scope, sound in methodology, and provide a reliable basis for understanding potential implications for aviation operations and safety.
- 91 Irrespective of the assessment work, given the protection offered by CAR Part 77 and the applicable clauses of CAR Parts 139, CARs 171, and 172, and CAR 91, aviation safety will be maintained.
- 92 Having considered the supplementary responses provided by CIAL and Airways. I confirm that I maintain the conclusion reached in the Aviation Safeguarding Assessment dated 28 November 2025 as to the overall acceptability of the proposal that:

... provided the development proceeds in accordance with the modelled parameters and recommended⁶ conditions, the effects on aviation safety are acceptable. The assessment provides confidence that aviation safety risks are identified, managed, and mitigated.

Dated 23 February 2026



Geraint Bermingham

⁶ For 'recommended' read 'suggested'.

Appendix A

