

**SUBMISSION ON MEMORIAL BUSINESS PARK - PRIVATE PLAN CHANGE
REQUEST**

To: Christchurch City Council
Civic Offices
53 Hereford Street
Christchurch

Attention: Hamish Osbourne



From: Airways Corporation of New Zealand Limited
PO Box 294
Wellington

(Please note the different address for service)

Airways Corporation of New Zealand Limited (Airways) hereby makes a submission on Memorial Business Park – Private Plan Change Request (Plan Change).

Airways does not support the private plan change due to insufficient details regarding the design of lighting. Airways seeks input into the design of lighting for the Memorial Business Park.

The Role of Airways

Airways has principal responsibility for facilitating the safe movement of air traffic through New Zealand airspace. Airways' core business (air navigation services), comprises air traffic control, air traffic management and navigation services. It is responsible for managing all domestic and international air traffic for one of the largest areas of airspace in the world – approximately 30 million square kilometres. Within this 30 million square kilometres Airways is to all intents and purposes a sole supplier and controls approximately one million aircraft movements per year.

Airways has an interest in the Plan Change due to the close proximity of the Memorial Business Park (~1000m) to the Airways control tower and the potential for adverse effects from lighting to be generated from developments as a result of this Plan Change.

Adverse effects from lighting

Airways main concerns relate to the potential adverse effects from lighting that may arise from developments within Memorial Business Park that would be allowed as a result of this Plan Change Request. Airways must ensure that the operations of the Christchurch Control Tower and pilots from descending aircraft are safeguarded from such effects.

This submission will cover the following points:

- Safe and efficient operation of the tower
- Pilot distraction caused by light
- Requirement for a detailed lighting design plan to Airways satisfaction

Safe and efficient operation of the tower

Because of the close proximity of the Memorial Business Park (~1000m) to the Airways control tower, lighting, in particular glare at night time, has the potential to affect air traffic controller's vision of aircraft from the control tower. Likewise any forms of flashing lights or large bright lights will also create a direct distraction to air traffic controllers inside the tower.

These distractions have the potential to adversely affect the safe and efficient operations of Airways.

Pilot distraction caused by light

The proposed Memorial Business Park is located to the east of Russley Road which aligns directly with the approach to Christchurch International Airport's runway number 29. Runway 29 is used for cross wind approaches into Christchurch. Given the close proximity of the proposed development and the fact that the proposed development is directly aligned to the approach of runway 29, key concerns arise over the effects from interfering light sources. Light sources have the potential to distract pilots and interfere with the safe and efficient approach to runway 29.

Because of its glare or effect on a pilot's vision, lighting within close proximity to the airport has the potential to endanger aircraft.

Civil aviation rules (Part 77) determine that impacts from light is likely to endanger aircraft by being mistaken for –

- (a) A light or part of a system of lights established or approved for display at or near an aerodrome; or
- (b) A light marking a hazard in navigable airspace

Light pollution and glare shall be minimised to the Airport's operational flight paths by ensuring that lighting is shrouded and not past the point of horizontal. Shielding around lights is generally specified to eliminate or mitigate such risks. The applicant however, has not provided any information on the detail of the potential lighting sources from the proposed Development within the Private Plan Change Request.

Airways are therefore not currently in a position which allows them to assess the potential for distraction from light sources that may be generated from the development of Memorial Business Park.

Requirement for a detail lighting design plan to Airways satisfaction

As mentioned above the applicant of the proposed private plan change has not included any detail of the lighting sources that may exist within the Memorial Business Park. Given the sensitive location of the site in question, in relation to the airport it would have been expected that some detail of lighting effects on the airport and the operations of Airways would have been considered.

Airways would like to see such detail of proposed light sources if these are available. If not, Airways seeks the opportunity to have an input on any lighting design proposed for Memorial Business Park. In both instances Airways require that the prescribed lighting for Memorial Business Park meets their satisfaction in order for the operations of airways to be safeguard from any adverse effects. Without this input it has the potential to adversely affect how Airways can provide their service, which is the safe and efficient operation of aircraft navigation and control of air traffic.

Comment on Provisions to be included in the Industrial Park Zone (Memorial Avenue)

Airways considers there is insufficient detail contained in the Proposed Plan Change to enable an assessment to determine whether the proposal will have an adverse effect on Airways operations. In particular, there is no cross-reference to the existing lighting rules from the operative Christchurch City Plan and there is no indication as to how those rules will relate to the proposed activity.

For example 2.4.2 Assessment Matters (Volume 3 Operative City Plan):

- (j) *the effect of lighting on aircraft approaching airports in terms of the potential distraction or confusion, and any measures to ensure that non-aeronautical ground lights do not shine above the horizontal.*

The area subject to this matter above in relation to Christchurch International Airport is attached (appendix 1).

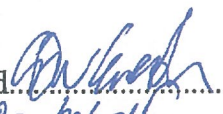
This appendix shows that the Memorial Business Park is within the designated area where ground light has the potential to create a hazard for aircraft safety.

Given the proximity to the airport and the importance of controlling the potential adverse effects from lighting, Airways seeks to understand how such standards or rules as exemplified above from the operative City Plan, and rules from the Proposed City Plan will integrate with the Key Structuring Elements and or Built Form Standards in the Planning Provisions for the Memorial Business Park.

Relief Sought:

1. Airways seek the opportunity to have input on the detailed lighting design that shall be permitted in the Memorial Business Park.
2. Memorial Ave Investments Limited, the owners of Memorial Business Park shall liaise with Airways to ensure the detail design of all lighting associated with the Business Park does not result in any adverse effect on Airways operations.
3. Airways seeks details of the Built Form Standards or Key Structuring Elements for lighting provisions within Memorial Business Park.

Airways does wish to be heard in support of its submission.

Signed  Date 29/1/15
- on behalf.

Opus International Limited
Consultant to:
Airways Corporation of New Zealand Limited

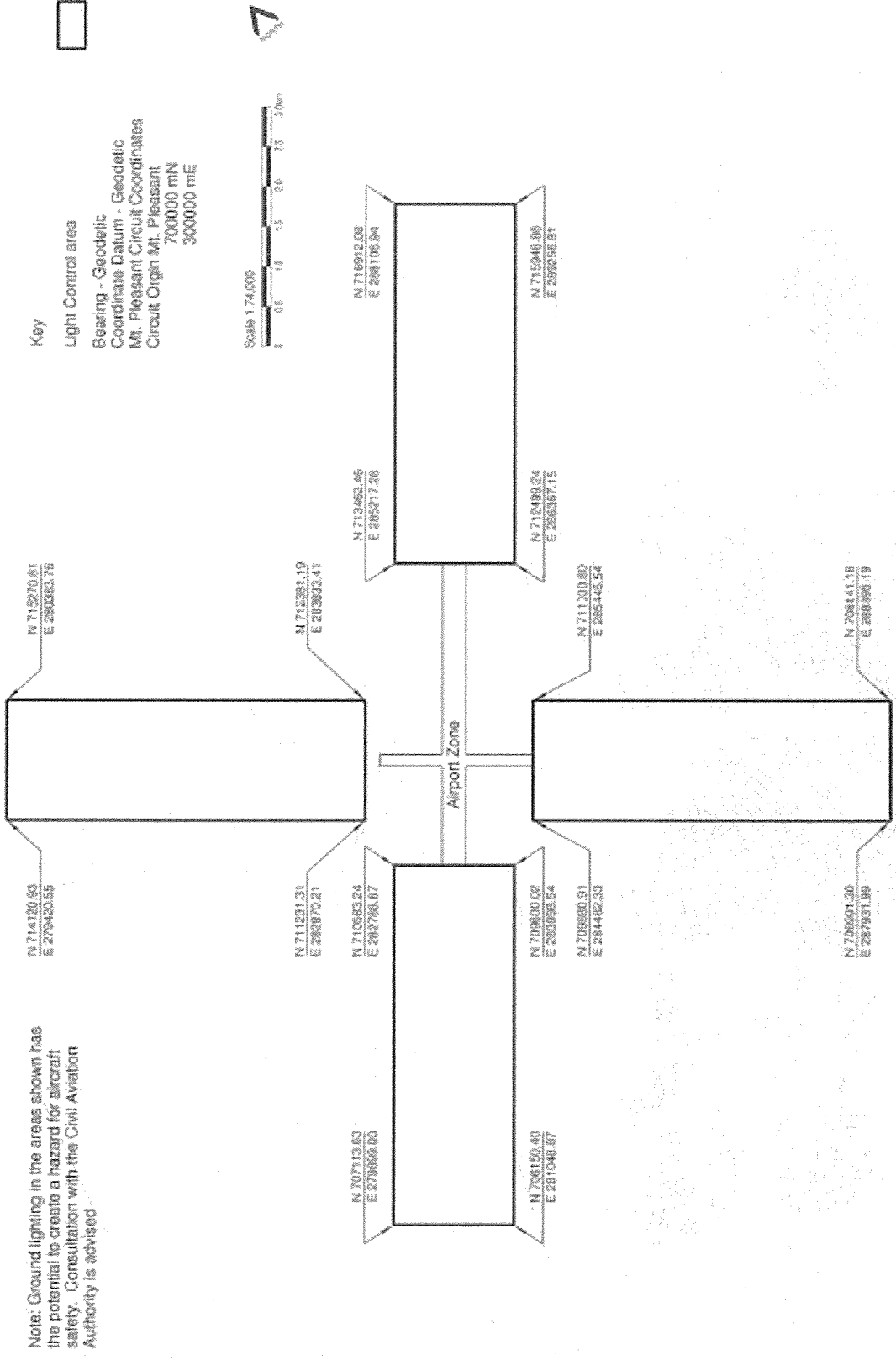
Address for Service

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Appendix 1 – Ground Lighting and Aircraft Safety Areas

Appendix 2. Ground lighting and aircraft safety (Part 11 Health and Safety)



Note: Ground lighting in the areas shown has the potential to create a hazard for aircraft safety. Consultation with the Civil Aviation Authority is advised.

Key
 Light Control area
 Bearing - Geodetic
 Coordinate Datum - Geodetic
 Mt. Pleasant Circuit Coordinates
 Circuit Origin Mt. Pleasant
 700000 mN
 3000000 mE

