

122 Queen Street BEACONSFIELD NSW 2015

14 December 2022

Mr Steve Russell Senior Project Engineer – JHHIP Multiplex Australasia Level 23, 135 King Street SYDNEY NSW 2000

JOHN HUNTER HEALTH AND INNOVATION PRECINCT - STATE SIGNIFICANT DEVELOPMENT (SSD) 9351535 CONSENT CONDITION B12 – EXISTING HELIPAD / HELICOPTER OPERATIONS DURING CONSTRUCTION (ERECTION OF CRANES)

## References:

- A. John Hunter Health and Innovation Precinct Development Consent dated 30 November 2021
- B. NSW Health Policy GL2020 014 Guidelines for NSW Hospital HLS dated 1 July 2020
- C. CASA Advisory Circular 139.R v1.0 Guidelines for heliports design and operation
- D. CASA Advisory Circular 91-29 Guidelines for helicopters suitable places to takeoff and land
- E. CASA Advisory Circular 133-01 V3.0 Performance class operations
- F. International Civil Aviation Organisation (ICAO) Annex 14, Volume 2 Heliports Edn 5 2021
- G. ICAO Doc 9261-AN/903 Heliport Manual 5th Edition 2021
- H. CASR Part 139 (Aerodromes) Manual of Standards 2019 (MOS 139) dated 5 September 2019

## Dear Steve,

The State Significant Development Application (SSDA) for the John Hunter Health and Innovation Precinct (JHHIP) was approved under cover of Reference A. In relation to that Development Consent, this letter addresses Condition B12.

## Condition B12 of Reference A requires that:

"Prior to the erection of cranes on the site or any structures that may obstruct helicopter flight paths, existing helipad / helicopter operations at the existing hospital are to be reviewed by a suitably qualified and experienced aviation professional in consultation with relevant stakeholders. The review must consider the proposed construction methodology including plant and equipment to be used (including lighting and cranes) and recommend changes to the construction methodology and / or flight paths where required to ensure safe ongoing helicopter operations to and from the existing helipad at the site during construction. A report summarising the outcome of the review must be submitted to the Certifier and Planning Secretary."



In relation to these requirements, I advise the following:

- 1. I am a suitably qualified and experienced aviation professional, particularly in relation to the design, commissioning, operation, maintenance and audit of HLS' within the NSW jurisdiction;
- 2. I have consulted with relevant stakeholders (NSW Ambulance Aeromedical Operations, Toll, Westpac and CareFlight);
- 3. In undertaking this review, I have considered all relevant information in References B to H;
- 4. I have reviewed plans for the erection of cranes at the JHHIP development;
- 5. I have discussed and considered plans for the erection of other structures such as concrete pumps and piling rigs etc at the JHHIP;
- 6. I have reviewed the approach and departure paths for the existing HLS at the John Hunter Hospital (JHH); and
- 7. I have considered the impacts on aviation safety in relation to helicopters using the existing HLS at the JHH.

Ozrunways Helipads is a data base used by commercial pilots across Australia to obtain information on HLS'. It is a respected resource. The Ozrunways entry for the existing JHH HLS advises that approaches and departures should be to/from the South and North-East.

An aerial view of the JHH existing HLS is in Image 1 below. On the HLS deck, it shows the approach and departure directions referred to in the Ozrunways entry as well as an additional approach and departure path to/from the West. Yellow arrows have been added to highlight these directions. The location of the JHHIP development site and radii of the construction cranes are also shown. For safety reasons, there is no intent that helicopters will ever use the northern quadrant for approaches and departures.

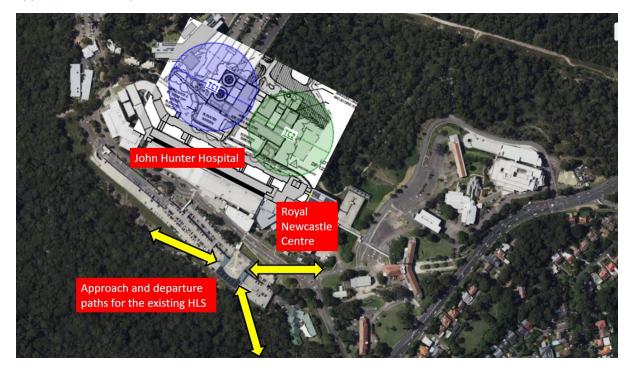


Image 1: the Existing JHH HLS



Five concrete tower boom pumps will be used on the development. These will not be obstructions for helicopter operations to/from the HLS as their extremities are contained within the envelope of the hammerhead tower cranes. See Figure 1 below (the concrete tower boom pump diameters are shown in pink).

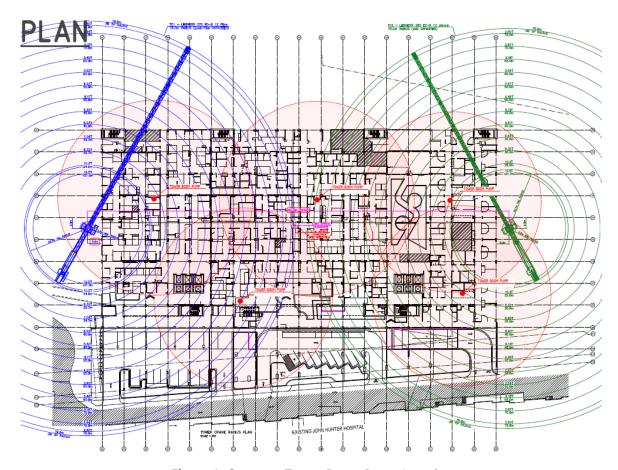


Figure 1: Concrete Tower Boom Pump Locations

The new JHHIP development is being constructed to the north-west of the existing JHH HLS. It will be partially shielded by the existing JHH and the Royal Newcastle Centre. "Shielding" is a principle whereby one tall structure acts as a barrier for another tall structure such that the level of hazard or risk to aviation safety is not actually increased. It is used in some cases by the relevant Regulators and Delegates involved in granting approvals for Obstacle Limitation Surfaces (OLS) and Procedures for Air Navigation – Aircraft Operations (PANS-OPS) penetrations/intrusions, however, Reference H states in a note to Chapter 7, Division 4 Part 7.25 General that: "A new obstacle, located in the vicinity of an existing obstacle, and assessed as not being a hazard to aircraft, would be considered to be shielded. Only existing permanent obstacles may be considered in assessing the applicability of shielding of new obstacles." In the case of the JHHIP, it could reasonably be considered to be "shielded" by the existing JHH and the Royal Newcastle Centre. Because there is no safe and workable approach and departure path to or from the JHH HLS via the new JHHIP development, helicopters using the existing JHH HLS will not go near the new JHHIP development site at altitudes that create airspace confliction. Additionally, the cranes working on the new JHHIP development will be well lit in accordance with the requirements contained in Reference B and their positions easily recognised, so that the risk of inadvertent tracking is minimal. The residual risk is low.



A draft of this letter (less this paragraph) was circulated to relevant stakeholders, with feedback from consulted executives/duty-holders containing the following:

- NSW Ambulance "I have no issues with John Hunter crane planning. Thanks for the consultation.";
- Toll "Looking at the position of the two cranes, they don't interfere or pose threats to any
  of the app/dep paths used for JHH. Zero issues from me, and no alterations to the draft
  letter needed IMO.";
- Westpac "I have reviewed the AVIPRO assessment of the proposed crane sites and concur
  with its findings there are no safety implications to the two planned cranes for our
  continued operations into the JHH."; and
- CareFlight "No issues".

In summary, implementing the plans for vertical obstructions connected to the construction of the JHHIP will have no detrimental impact on helicopter operations into and out of the existing HLS at the JHH. That stated, I am aware that plans change and I therefore recommend that where material changes to the plan for vertical obstructions occurs, I am consulted at the earliest opportunity to review this document and ensure it remains valid i.e. that the proposed changes will not adversely impact aviation safety. As you are aware, AviPro has been contracted by Multiplex Australasia to provide this service.

Should you wish to discuss this matter, please contact me in accordance with the details below.

Sincerely,

Jeff Stark

**Senior Consultant - Infrastructure** 

**AviPro** 

**Aviation Management and Safety Advisors** 

Tel: 0412 424201

Email: j.stark@avipro.com.au