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Urbis Pty Ltd
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Attention: Stewart Doran

RE: AVIATION ASSESSMENT OF PROPOSED ENERGY FROM WASTE FACILITY EASTERN CREEK – ADDENDUM.

Airspace Design Solutions was commissioned by Savills Australia to assess a proposed Energy from Waste Facility located at Eastern Creek NSW with reference to the surrounding airspace in September of 2015. Since this time the facility design and construction process have been revised and further developed. The purpose of this addendum is to review the amended design against the original assessment material and confirm that the information contain there in remains relevant and fit for purpose. This addendum should be read in conjunction with the original assessment.

The following material forms the basis of this review;

- Proposed Site Masterplan (Stage 1) Drawing AR-KTA-1001 Issue 7;
- Vehicle Movement & Traffic Signage Drawing AR-KTA-1002 Issue 5;
- Site Dimension Plan (Stage 1) Drawing AR-KTA-1011 Issue 5;
- West Elevation (Stage 1) Drawing AR-KTA-1601 Issue 3;
- East Elevation (Stage 1) Drawing AR-KTA-1602 Issue 3;
- South Elevation (Stage 1) Drawing AR-KTA-1603 Issue 3;
- North Elevation (stage 1) Drawing AR-KTA-1604 Issue 3;
- Long Section (Stage 1) Drawing AR-KTA-1611 Issue 2;
- Proposed Building Signage Drawing AR-KTA-1901 Issue 3; and
- Plume Rise Assessment Ramboll Environ – Sept 2017

1. DESIGN REVIEW

The original aviation assessment was based on design material contained in '*The Concept Design Report, 6 March 2015*'. A desktop review of new material prepared by Krikis Tayler Architects against the Concept Design Report was undertaken to identify design changes that potentially could have an impact on the findings of the original aviation assessment. The outcome of that review can be summarised as follows;

- The project is to be built in a two-stage process with stage 1 being subject to this application and this aviation assessment, and stage 2 being subject to a separate and future application;
- Stage 1 will treat up to 552,500 tonnes of waste;
- A single exhaust stack will be constructed within Stage 1;
- The exhaust stack will have a maximum RL of 168.00m AHD.

The 168m AHD exhaust stack height forms the basis of this assessment.

2. AIRSPACE ASSESSMENT

The proposed Stage 1 design has been assessed against the original airspace assessment section headings and the outcomes discussed in the following subsections.

2.1 SYDNEY AIRPORT

The revised design will have no further impact on Sydney Airports airspace other than that noted in the Aviation Assessment September 2015.

2.2 BANKSTOWN AIRPORT

The revised design will have no further impact on Bankstown Airports airspace other than that noted in the Aviation Assessment September 2015.

2.3 WESTERN SYDNEY AIRPORT (BADGERYS CREEK)

The proposed Western Sydney Airport is still in the planning stages and as such the protection of the surrounding airspace has not been prescribed. Should the assumptions on the anticipated future airspace requirements for Badgerys Creek be accepted, the revised design will have no further impact other than that noted in the Aviation Assessment 2015

2.4 OTHER AIRSPACE

The revised design will not impact any Lower Safe Altitude (LSALT) associated with any published IFR route or any Grid LSALT.

The facility is to be located within a “Danger Area” which is associated with flight training operations from Bankstown Airport. The findings of the original assessment remain valid however; the minor increase in exhaust stack height may further impact on flight training operations in the area.

The revised design will have no further impact on The Radar Terrain Clearance Chart other than that noted in the Aviation Assessment 2015.

3. PLUME RISE

As a result of the proposed design changes, Ramboll Environ was commissioned to undertake a revised plume rise assessment to assess the critical plume height associated with operation of the Energy from Waste facility. Since the protected airspace associated with the planned Western Sydney Airport is yet to be prescribed the plume rise assessment has been based on a critical airspace surface level of 223m which is an assumed airspace restriction based on the available planning information. The outcome

of this assessment indicated that the average critical plume height is below 223m AHD for each year modelled. Maximum plume heights are above 223m AHD however; less than 5% of all critical plume heights are above this height. Plots of critical plume velocities greater than 4.3m/sec occur between 0.1% - 0.2% for all years modelled and are isolated to an area in the immediate vicinity of the exhaust stack.

4. CONCLUSION

In the context of the original Airspace Assessment, the review of the Stage 1 development only is summarised as follows:

- The proposed design changes will have no further impact on the prescribed airspace associated with Sydney and Bankstown Airports to those identified in the original assessment;
- The proposed design changes will have no further impact on the assumed airspace likely to be associated with the proposed Western Sydney Airport to those identified in the original assessment. The assumptions and architecture of the airspace likely to be required for the operation of Western Sydney Airport should be confirmed.
- The proposed design changes will not impact on any published LSALT or Grid LSALT;
- The facility is to be located within designated airspace associated with flying training. The slight stack height increase may impact on these operations; and
- Based on analysis conducted by others there is a low occurrence rate of critical plume velocities being present at the assumed critical airspace height.