

## Subsidence Advisory

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Thomas Bertwistle Environmental Assessment Officer Department of Planning, Industry and the Environment

Via Email: thomas.bertwistle@planning.nsw.gov.au

Dear Thomas

# Response to enquiry – EBA21-00245 – 330 PICTON ROAD MALDON – ALLIED MILLS DA318-12-2004-MOD-4

I refer to your request through the portal requesting our advice on conditions of approval for the above proposal.

Subsidence Advisory NSW (Subsidence Advisory) can confirm that the site is located within an active coal mining lease in an area where the lease holder has previously been granted project approval to mine. The lease holder advises that the site is likely to be affected by mine subsidence within the next 15 years.

Given that a risk of future subsidence impacting the site has been identified, Subsidence Advisory recommends the conditions outlined below are included as part of any future approval conditions.

The recommended conditions have been derived in accordance with our merit assessment policy using available information, existing mine approvals and advice from the lease holder regarding future mining.

#### **Condition 1**

The proposed extension to the mill (warehouse) and any structural alterations to the existing building shall be designed by a qualified structural engineer with experience in designing for mine subsidence ground movements using the following conventional mine subsidence impact parameters: Strain of  $\pm$  3mm/m, Tilt of  $\pm$  7mm/m, Radius of Curvature of 5km (hogging and sagging).

#### **Condition 2**

Prior to commencing detailed design, submit an "Engineering Impact Statement" for acceptance by Subsidence Advisory.

The statement shall include (1) the Mine Subsidence Parameters used for the design, (2) a description of the proposed building elements and materials, (3) and an assessment of the likelihood damage due to mine subsidence given the design measures proposed to control the risks. The proposed design shall include design mitigation measures to reduce the transfer of horizontal strain into building structures. The design shall also include design mitigation measures to relieve excessive strains into building structures.

### **Condition 3**

Prior to construction, submit a final design endorsed by Subsidence Advisory. The design shall incorporate the design methodology contained in the "Engineering Impact Statement", previously accepted by SA NSW. It shall include certification by a qualified structural engineer with experience in designing for mine subsidence that the improvements will remain "safe, serviceable and any damage from mine subsidence shall be limited to 'slight' damage in accordance with AS2870 (Damage Classification), and readily repairable" taking into consideration the conventional mine subsidence parameters outlined above.

The final design shall;

- a) Include sufficient drawing plans, long-sections, elevations and details, to fully describe the work and proposed mine subsidence mitigation measures.
- b) Include design mitigation measures to reduce the transfer of horizontal strain into building structures.
- c) Include design mitigation measures to relieve excessive strains into building structures.
- d) Include an additional grade for tilt due to mine subsidence, in excess of the minimum Code requirements for structures including pipes, gutters and wet areas.
- e) For underground pipes or conduits allow for flexible joints, flexible bedding surround and flexible building connections and penetrations.
- f) Ensure there is sufficient capacity in any storage structure for tilt due to mine subsidence.
- g) Locate underground structures to facilitate ease of repair and replacement.
- h) Ensure internal finishes are installed in accordance with relevant codes and standards and industry best practice guidelines with additional provision for mine-subsidence induced movements.
- Ensure there is suitable provision for articulation jointing in building elements. All control joints including articulation for mine subsidence are to be shown on the design plans and elevations,
- j) Ensure there is provision for isolation joints between adjoining structures. For example, between a building and adjacent paving.

If you have any queries concerning this matter, please contact Kieran Black via e-mail <u>subsidencedevelopment@customerservice.nsw.gov.au</u> or 4908 4300.

Yours faithfully,

Kha ka

Kieran Black Technical Specialist, Subsidence Advisory NSW 27 January 2022