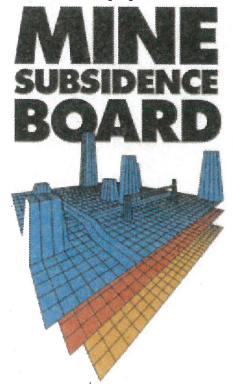
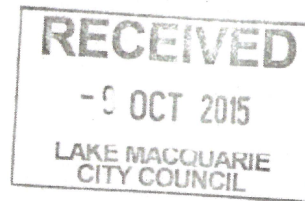


In reply please send to: Newcastle District Office

Our reference: FN01-12004L0

Your reference: DA/1774/2013

Contact: Peter Evans (02) 4908 4391



ABN: 87 445 348 918

LAKE MACQUARIE CITY COUNCIL
BOX 1906
HRMC NSW 2310

9 September 2015

Dear Sir or Madam,

BUILDING APPLICATION NO. TBA15-32837L1 : LOT 1 DP 436503
142, 144 146 DUDLEY 2 & 4 KOPA STREET WHITEBRIDGE
MULTI -DWELLING HOUSING DEVELOPMENT

I refer to Council's Integrated Development Application dated 12th August 2015, for the above proposal. I understand the Joint Regional Planning Panel recent requested an amendment to the design previously considered by the Board (Ref TBA14-29187L1). Based on the details provided the changes are minor so approval is subject to the following conditions as previously determined by the Members of the Board at a meeting on 27 May 2015;

1. Submit a final "*Mine Subsidence Impact Statement*" prior to commencement of detailed design for acceptance by the Board, which incorporates the draft version (reference Forum Engineer's letter dated 26 June 2014) and subsequent amendments.
2. Submit a final design incorporating the design methodology contained in the final "*Mine Subsidence Impact Statement*", for acceptance by the Board prior to commencement of construction. This shall include certification by a qualified structural engineer to the effect that the improvements will remain "*safe, serviceable and any damage from mine subsidence will be slight, localised and readily repairable*" taking into consideration the mine subsidence parameters;
 - a) Maximum vertical subsidence: 650 mm.
 - b) Maximum ground strain: $\pm 4\text{mm/m}$.
 - c) Maximum radius of curvature: 7km.
 - d) Maximum tilt : 6mm/m.
3. The Structural, Civil, and Hydraulic, Engineers provide certification that the design is in accordance with Australia Codes including the Building Code and relevant Standards, with an allowance for mine subsidence parameters, over and above the minimum code requirements.

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www.minesub.nsw.gov.au

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Free Call 1800 248 083

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4. The final design shall;

- a) Be developed from the concept design accompanying the Building Application dated 19th June 2014
 - b) Where permitted under the relevant Building Codes and Standards, reduce the likelihood of cracking in the basement structures by designing the reinforced concrete for a allowable reinforcing bar stress less than 60% of the yield strength, in lieu of the AS 3600 code provision of 80%.
 - c) Where practicable include design mitigation measures to reduce the transfer of horizontal strain, such as;
 - Void filler or equivalent on the vertical surfaces of buried structures.
 - HD polyethylene sheeting, sand bedding or equivalent on the horizontal surfaces of buried structures.
 - Slip joints between any piers and foundation footings.
 - d) Include design measures to adjust building levels for mine subsidence tilt, such as floor screw jacks or equivalent.
 - e) Where practicable include an additional grade for tilt due to mine subsidence, in excess of the minimum Code requirements for drainage structures including pipes, gutters and wet areas.
 - f) Where practicable include mine subsidence design measures for underground pipes or conduits. This may necessitate flexible joints, flexible bedding surround and flexible building connections and penetrations.
 - g) Where practicable reduce the effective length of building structures by designing independent modules less than 30m long that eliminate the transfer of horizontal strain and curvature between modules.
 - h) Locate all underground pipes or conduits to facilitate ease of repair and replacement. For example services under the building are to be minimised or otherwise routed to the nearest building perimeter line.
 - i) Ensure internal finishes are installed in accordance with relevant codes and standards and industry best practice guidelines with additional provision for mine subsidence.
 - j) 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,
 - k) Ensure there is provision for isolation joints between adjoining structures. For example between a building and adjacent paving.
 - l) Ensure roads, driveways and pavement areas are designed as flexible structures with an asphalt surface course and unbound base and sub base. If a concrete surface course is required, it shall be designed so any damage is slight classification and include expansion and crack control joints or sacrificial sections.
5. On completion, certification by a qualified structural engineer is to be forwarded to the Board, that all improvements have been constructed in compliance with plans approved by the Board under this development application with supporting documentation.

In addition to these conditions, as agreed at a meeting on 3rd December 2014;

6. the continuous length of the basement shall be no greater than 65m long and is to be constructed in accordance with the engineering design principles submitted.

7. All Residential Structures shall;
 - Make provision for screw jacks to enable future adjustment for tilt due to mine subsidence.
 - Use light weight frame and cladding in lieu of brick veneer.
8. All Residential Structures shall be constructed on a raft slab or equivalent in lieu of reinforced concrete strip footings.

This "conditional approval" remains current for 2 years from the date of this letter. You will need to respond adequately to these conditions before the Board will consider its approval of this development.

If you have any queries concerning this matter please contact the acting District Manager Mr Ian Bullen (02 49084352).

Yours faithfully



Peter Evans
Subsidence Risk Engineer

MINE SUBSIDENCE BOARD



Minute Paper

FN01-12004L0

B/A No: TBA15-32837L1:

Property: LOT 1 DP 436503; 142, 144 146 Dudley 2 & 4 Kopa Street Whitebridge

Development: Multi -Dwelling Housing Development

ISSUE:

In an integrated development application, Council has sought the Boards approval for minor modifications to the design drawings previously considered by the Members of the Board (Ref: TBA14-29187L1).

BACKGROUND:

At a meeting on 21 November 2014, the Members of the Mine Subsidence Board approved the above development subject to 5x conditions. A letter of conditional approval incorporating this agreement was issued on 9 December 2014.

The applicant then sought a request for a minor amendment to the Boards conditions of approval. So, at a meeting of the Board members on 17 December 2014, the modifications were agreed to, otherwise, the Board's other conditions remained unchanged.

PRESENT POSITION:

Following a review of the design by the Joint Regional Planning Panel there have now been some minor amendments to the design. The most significant of these concern the main building, which faces Dudley Road where there has been a reduction of the storey height from 4 to 3 at the western end. Otherwise, the changes are very minor and do not otherwise effect the Boards previous assessment of the application.

The new configuration represents a slightly lower risk from mine subsidence due to a reduction in height. Therefore, the minor modifications remain consistent with the Boards previous assessment of the risk profile, so the current conditions of approval should remain unchanged.

A Development Application of this size (\$25 M) would normally be referred to the Board Members under delegation; however, the changes are minor and effectively reduce the Boards risk. Therefore, the Boards previous conditions of approval should remain unchanged.

RECOMMENDATION:

CEO approves the modified Building Application on behalf of the Board Members with the same conditions of approval previously determined by the Members of the Board under TBA14-29187L1.

Peter Evans
Subsidence Risk Engineer
8 September 2015

For approval

Jim Walker
Chief Executive Officer