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21 August 2025
Nathan Hollier
c/o Your Home Designs
112 Government Rd
Nelson Bay NSW 2315

Attn: Barbara Busina

Dear Barb

RE: FLOOD ASSESSMENT FOR PROPOSED DEVELOPMENT AT 1/32 JAMES STREET, HORSESHOE BEND NSW

Background

Torrent Consulting was engaged to undertake a Flood Assessment to assist in the DA process for the proposed development at 1/32 James Street, Horseshoe Bend, NSW (the Site). It is understood that a flood report is required by Maitland Council, as per the requirements of the Maitland LEP and DCP.

The Site is located on the right floodplain of the Hunter River, around 1 km downstream of Belmore Bridge, as shown in Figure 1. The development includes the construction of two new dwellings.

The Site is located below the Flood Planning Level (FPL) and so is subject to flood planning controls, associated guidelines of the Maitland DCP and the ABCB Standards for the construction of buildings in flood hazard areas, is specified in the pre-lodgement meeting minutes from 15 May 2025.

Assessment

The Maitland LEP 2011 Part 5.21 Flood Planning requires that:

Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development—

(a) is compatible with the flood function and behaviour on the land, and

(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and

(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and

(d) incorporates appropriate measures to manage risk to life in the event of a flood, and

(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

In ensuring that proposed development achieves these requirements, the Maitland DCP 2011 Part B.3 provides more specific requirements for the management of flood risk within the Hunter River floodplain. The applicable development controls are addressed herein.

Development Below the Flood Planning Level (FPL)

An application for development below the FPL must demonstrate:

The proposed development will not increase the flood hazard or flood damage or adversely increase flood affectation on other properties, as assessed by a suitably qualified hydraulic engineer.

The proposed development is in an area of floodplain which is of a low conveyance and is principally static floodplain storage. As the proposed development represents a minimal loss of existing floodplain storage, the impacts of the proposed development to existing flood conditions is negligible.

The design of the proposed development is such that the risks of structural failure or damage in the event of flooding (including damage to other property) up to the FPL would be minimal, as assessed by a suitably qualified structural engineer.

This requires the design and construction of the proposed building to be Certified by a Structural Engineer. With a minimal velocity component, the structural requirements will be largely driven by hydrostatic pressure and buoyancy forces.

The proposed development has been designed to withstand the effects of inundation of floodwaters up to the FPL, with contents or fittings susceptible to flood damage being located above this level.

This requires the design and construction of the proposed building structures to utilise flood-compatible materials, as per Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land is appended to this report for reference.

If levees are proposed to protect a development, the impact of the levees on flood behaviour must be assessed and the habitable floor level of the proposed development behind the levee must still be set at or above the FPL (assuming no levee is in place).

No levee is proposed to protect the development and so this requirement is not applicable.

The proposed measures to allow the timely, orderly and safe evacuation of people from the site (these measures should be permanent and maintenance free), and the measures proposed to safeguard goods, material, plant and equipment in a flood. These measures should be compatible with the SES' Maitland City Local Flood Plan (including vol 1 The Maitland City Flood Emergency Sub Plan).

The requirements for evacuation are satisfied and are addressed under the General Building Requirements.

Development in Floodways

The Site is not identified as being within a Floodway, as per Council's Flood Certificate, dated 9 April 2025, and so this set of flood planning controls is not applicable.

Filling of Flood Storage and Flood Fringe Areas

The proposal does not include the importation of fill material for construction and so this set of flood planning controls is not applicable.

General Building Requirements

All habitable finished floors shall be no lower than the FPL.

The FPL applicable to the Site is 10.22 m AHD, as per the pre-lodgement meeting minutes. The proposed development plans (YHD-860, Revision DA.1, dated 21 August 2025) indicate that the FFL of the two dwellings is set at 10.22 m AHD, accordingly.

Parts of buildings and structures at or below the FPL shall be constructed in accordance with Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land. The development shall be certified by a qualified Structural Engineer that the building has been designed to withstand the depth of inundation, buoyancy and flow velocity forces (including potential for debris impact) at the development site for a 1:100 ARI event.

This requires the design and construction of the proposed building structures to utilise flood-compatible materials below the FPL, with Structural Certification also required. With a minimal velocity component, the structural requirements will be largely driven by hydrostatic pressure and buoyancy forces.

Flood-free access shall be provided from the development to an appropriate evacuation facility (as identified in the Maitland Local Flood Plan), at the 1:20 ARI flood level or higher.

At the 5% AEP event flooding at Maitland is limited to the Oakhampton Floodway and low-lying areas of the Wallis Creek floodplain. Therefore, flood-free access is readily available between the Site and the nominated evacuation centres at East Maitland (the Maitland High School and TAFE campuses) in the Maitland Local Flood Plan.

Provision shall be made for the safe evacuation of people from the development in accordance with the Maitland Local Flood Plan.

Evacuation requirements at the Site are consistent with those of the existing development in Maitland.

Sufficient storage space for household effects shall be provided above the FPL.

There is sufficient space for storage above the FPL within the habitable rooms of the proposed development on the first-floor level of the dwellings.

Electrical fixtures such as light fittings and switches shall be sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.

This will apply to the fit out of any electrical circuitry below the first-floor level of the proposed dwellings.

Multi-Storey Residential Development

Development for a multi-storey residential building shall be designed and constructed in accordance with the requirements of Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land.

Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land is appended to this report for reference. Most of the requirements in this reference relate to the adopted materials and construction methods, which should be adhered to where applicable. However, the “Evacuation Point” requirements relate directly to flood risk management and so are addressed below.

Evacuation Point

Provision of street facing veranda or balcony at first floor level (mandatory)

Proposed Building A provides a street facing veranda at the main entry point to the dwelling, with proposed Building B providing a street facing balcony off the master bedroom.

Provide external stairs (minimum 1000 mm in width) towards front of dwelling to facilitate easier evacuation (preferred)

Proposed Building A provides external stairs at the front of the dwelling to access the main entry point. Proposed Building B provides external stairs but at the rear of the dwelling. However, an emergency ladder is also to be provided from the front balcony.

Conclusion

Torrent Consulting was engaged to undertake a Flood Assessment to assist in the DA process for the proposed development at 1/32 James Street, Horseshoe Bend, NSW. In addressing the requirements of the Maitland DCP 2011 Part B.3, the proposed development has appropriately considered and managed its flood risk exposure and satisfies the requirements of the Maitland LEP 2011 Part 5.21 Flood Planning, as summarised below.

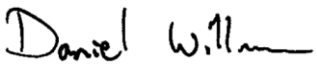
With the Site not being important for the conveyance of flood water and the proposed development taking up minimal floodplain storage, the proposed development is compatible with the flood function of the land. It will also not adversely affect existing flood behaviour in a way that is detrimental to other development, properties or the stated range of environmental impacts

With the long period of warning time available prior to a Hunter River flood event impacting the developed areas of Maitland, together with the evacuation point measures implemented in the design, the proposed development incorporates appropriate measures to manage the risk to life in the event of a flood and will not adversely affect the safe occupation and efficient evacuation of people in the event of a flood.

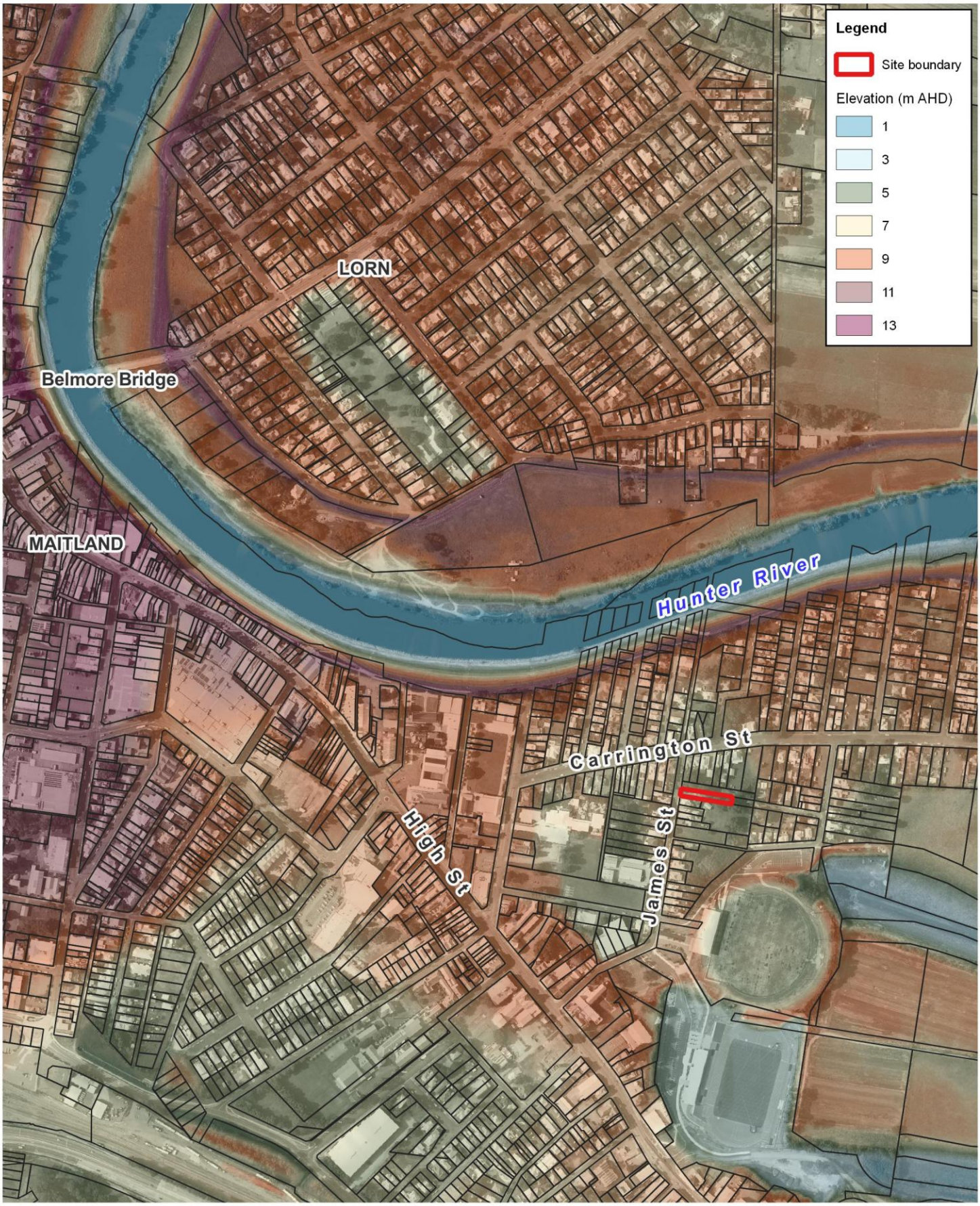
We trust that this report meets your requirements. For further information or clarification please contact the undersigned.

Yours faithfully

Torrent Consulting



Dan Williams
Director



Title:

Site Locality and Local Floodplain Topography

0 100 200 m

approx. scale

Figure: 1

Revision: A

Information shown on this figure is compiled from numerous sources and may not be complete or accurate. Torrent Consulting cannot be held responsible for the misuse or misinterpretation of any information and offers no warranty guarentees or representations of any kind in connection to its accuracy or completeness. Torrent Consulting accepts no liability for any loss, damage or inconvenience caused as a result of reliance on the information.

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