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8 August 2025

Link Wentworth Housing Limited

c/- Touchstone Partners

Level 10, 67 Albert Avenue

Chatswood NSW, 2067

RE: FLOOD IMPACT AND RISK ASSESSMENT STATEMENT FOR PROPOSED DEVELOPMENT AT LOT 117 LACHLAN'S LINE (6 HALIFAX STREET, MACQUARIE PARK NSW) - SSDA MODIFICATION

This Flood Impact and Risk Assessment (FIRA) Statement (the "Statement") has been prepared in support of the State Significant Development Application (SSDA) Modification for the proposed affordable housing development located at Lot 117 Lachlan's Line (6 Halifax Street, Macquarie Park NSW).

The purpose of this Statement is to confirm that the revised architectural and engineering design remains consistent with the flood risk management outcomes previously outlined in the *Flood Impact Assessment – Lot 117 Lachlan's Line (6 Halifax Street, Macquarie Park NSW)*, issued on 19 July 2024 by Living Water Engineering Pty Ltd ("LWE"). This report is referred to hereafter as the "2024 Report".

In preparing this Statement, LWE has reviewed the following documentation based on the revised architectural and engineering design for the proposed development:

- Building Architectural Plans for Lot 117 Lachlan's Line by SJB, issued 29 July 2025; and
- Civil Engineering Package for Lachlan's Line Affordable Housing by Northrop, issued 31 July 2025.

The proposed development plans for the SSDA Modification are attached herein as Annexure A, and the 2024 Report is also attached as Annexure B.

Assessment of SSDA Modification Design

Table 1 provides a summary of the assessment of the revised SSDA Modification design against the flood risk management outcomes outlined in the 2024 Report.

Table 1: Assessment of SSDA Modification Design

Flood Risk Management Outcomes	Comments
1. Based on the post-development scenario flood modelling results, the proposed development does not encroach into the major overland flow path to the west as well	**Remains Applicable.** The revised design does not encroach into the major overland flow path to the west

Flood Risk Management Outcomes	Comments
as the overland flow path along Halifax Street.	and the overland flow path along Halifax Street.
2. The proposed development would result in negligible change to the surrounding flood behaviour and would not adversely impact the flood affectation of neighbouring developments. The overland flow regime adjacent to the Site would not be significantly altered from pre-development conditions to the detriment of downstream catchment flood behaviour.	**Remains Applicable.** The proposed development would not result in adverse flood impacts on surrounding land as the revised design does not encroach into the major overland flow path to the west and the overland flow path along Halifax Street.
3. The finished floor levels, landscape/crest levels and basement entry level for the proposed development were assessed against Council's freeboard requirements. It was demonstrated that compliance can be achieved at key locations (adjacent to doorways and entries) based on the proposed levels.	**Remains Applicable.** Refer '*Floor Level Requirements*' section.
The proposed development will be afforded flood protection up to the 1% AEP event including freeboard as well as the PMF event. Any nuisance runoff within the Site will be managed as part of the internal drainage system proposed for the development.	**Remains Applicable.** Refer '*Floor Level Requirements*' section.
A Flood Emergency Response Plan (FERP) was prepared for the proposed development based on a "Shelter-in-place" (SIP) strategy, considering the flash flooding behaviour predicted for the primary egress route, i.e. Halifax Street.	**Remains Applicable.** The Flood Emergency Response Plan (FERP) presented in the 2024 Report remains applicable for the revised design.
Based on the proposed levels for the development, building occupants can be situated above the flood levels associated with the 1% AEP event including freeboard as well as the PMF event. It is therefore recommended that the building occupants remain inside the proposed buildings until the floodwaters subside around the Site. Evacuation is not recommended since Halifax Street would be subject to hazardous flow conditions unless early evacuation prior to the arrival of rainfall can take place. Evacuating the Site during extreme flooding conditions on Halifax Street would be unsafe and impractical due to the limited warning time available.	**Remains Applicable.** These flood emergency response recommendations remain applicable for the revised design.

Flood Risk Management Outcomes	Comments
This FIA addresses the Secretary's Environmental Assessment Requirements (SEARs) for the proposed development relating to flooding as follows: • *Established the development impacts on hydrology, downstream assets and watercourses;* • *Identified flood risk on-site having regard to Council's adopted flood studies, the potential effects of climate change, and any relevant provisions of the NSW Floodplain Development Manual (2005) and Flood Risk Management Manual (DPE, 2023); and* • *Established the development impacts including any changes to flood risk on-site or off-site, and proposed design solutions and operational procedures to mitigate flood risk.*	**Remains Applicable.** The SEARs relating to flooding continue to be met by the revised design.

Floor Level Requirements

The finished floor levels, landscape/crest levels and basement entry levels for the revised SSDA Modification design were determined from the Building Architectural Plans prepared by SJB (issued 29 July 2025) and Civil Engineering Package prepared by Northrop (issued 31 July 2025). The proposed levels were assessed against the requirements previously outlined in the 2024 Report by comparing against the peak flood levels measured at key locations shown in Figure 1. The results are summarised in Table 2, which shows compliance can be achieved at each of the location based on the proposed levels. It should be noted that achieving the previously outlined requirements is difficult for the proposed southern building as the habitable floor level is generally below existing ground elevation. It was proposed that the landscape and paved areas adjacent (east) to the southern building be raised instead to prevent ingress of runoff from the Halifax Street corridor during a flood event. It was also assumed that a future road with kerb and gutter will be constructed within the development lot to the south which would prevent nuisance runoff (from the southern development) from entering the southern building.

Based on the proposed threshold levels for the SSDA Modification design, the proposed development will be afforded flood protection up to the 1% AEP event including freeboard as well as the PMF event. Any nuisance runoff within the Site will be managed as part of the internal drainage system proposed for the development.

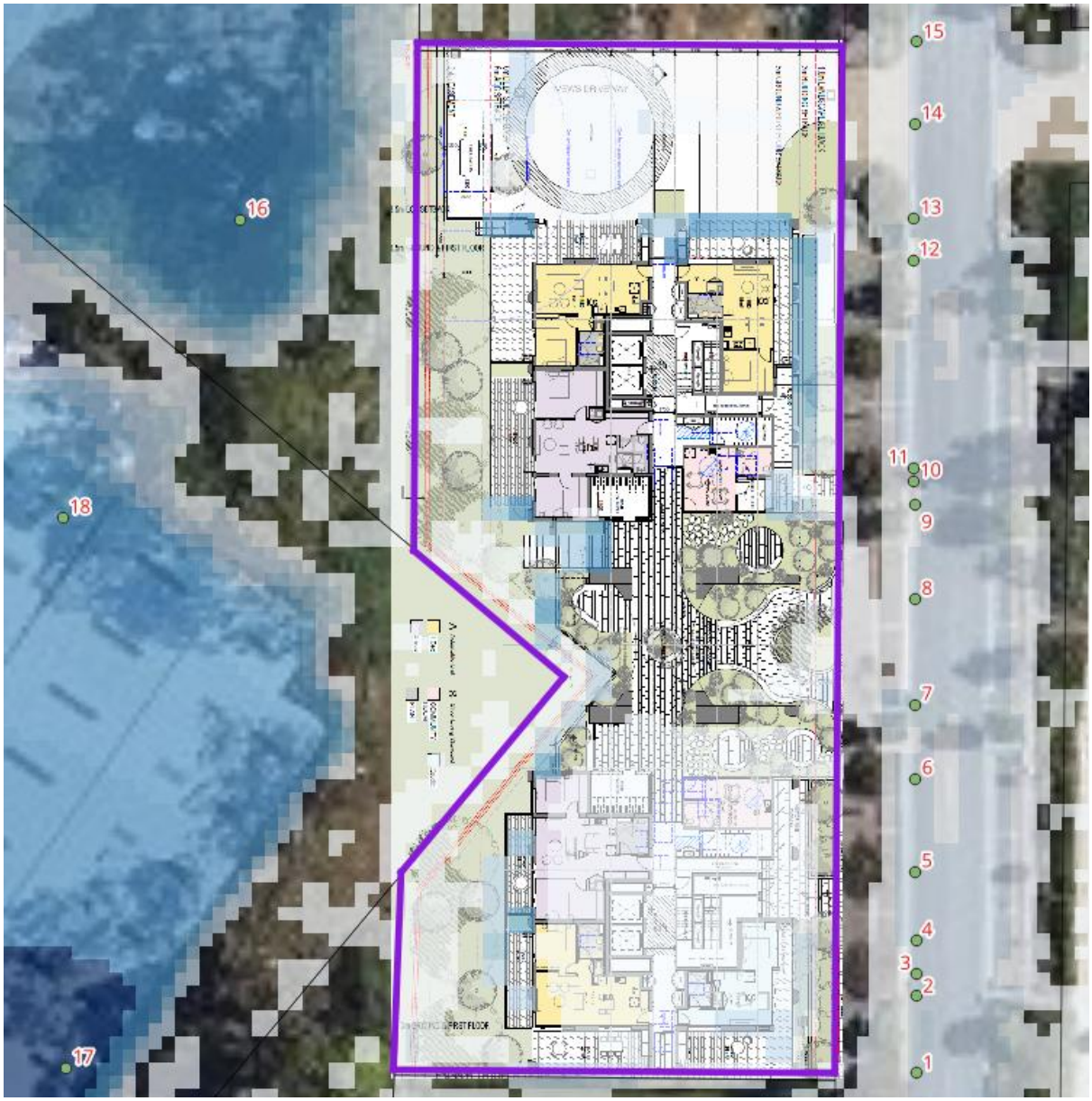

Figure 1: Key Flood Level Measuring Locations around the Site

Table 2: Comparison of Flood Levels against Proposed Threshold Levels

Location	Description	Finished Floor Level (mAHD)	Basement Entry Level (mAHD)	Landscape /Crest Level (mAHD)	1% AEP Peak Flood Level (mAHD)	Applicable Freeboard (m)	1% AEP Peak Flood Level + Freeboard (mAHD)	PMF Peak Flood Level (mAHD)	Required Level (mAHD)	Compliance Achieved
1	South Building – Habitable Floor Level, Lift Shafts, Fire Egress	50.95		**52.67***	52.31	0.30	52.61	52.41	**52.61**	Yes
2		50.95		**52.40***	51.99	0.30	52.29	52.09	**52.29**	Yes
3		50.95		**52.30***	51.93	0.30	52.23	52.02	**52.23**	Yes
4		50.95		**52.20***	51.74	0.30	52.04	51.83	**52.04**	Yes
5		50.95		**52.10***	51.43	0.30	51.73	51.51	**51.73**	Yes
6		50.95		**51.80***	50.96	0.30	51.26	51.04	**51.26**	Yes
7	Breezeway	**50.95**			50.56	0.30	50.86	50.67	**50.86**	Yes
8		**50.95**			49.96	0.50	50.46	50.03	**50.46**	Yes
9	North Building – Habitable Floor Level, Lift Shafts, Fire Egress	**50.95**			49.35	0.50	49.85	49.43	**49.85**	Yes
10		**50.95**			49.21	0.50	49.71	49.29	**49.71**	Yes
11		**50.95**			49.16	0.50	49.66	49.23	**49.66**	Yes
12		**50.95**			48.02	0.50	48.52	48.10	**48.52**	Yes
13	Mews Road Driveway			**48.50**	47.83	N/A	N/A	47.94	**47.94**	Yes
14				**47.50**	47.36	N/A	N/A	47.47	**47.47**	Yes
15				**47.10**	46.94	N/A	N/A	47.04	**47.04**	Yes
16	Basement Entry		**46.60**		42.83	0.50	43.33	43.95	**43.95**	Yes
17	South Building – Habitable Floor Level, Lift Shafts, Fire Egress	**50.95**			44.67	0.50	45.17	46.88	**46.88**	Yes
18	North Building – Main Switch Room Rear Entry, Basement		**46.60**		44.21	0.50	44.71	45.20	**45.20**	Yes

* Landscape/crest levels to meet the threshold requirements in lieu of the building floor levels.

Conclusion

Based on the aforementioned findings, this Statement reaffirms that the revised SSDA Modification design does not result in any material changes to the flood affectation or associated risks to the development site or its surrounds as outlined in the 2024 Report, and that all relevant flood planning controls and flood-related design requirements continue to be met.

Please do not hesitate to contact us should you require further clarification regarding any aspect of this Statement.

Yours Sincerely

Dr. Nathan Cheah *BE, PhD, MIEAust, CPEng, NER*

Principal Engineer

Living Water Engineering Pty Ltd