

11 December 2019

Erilyan Pty Ltd 1/27 Hotham Parade Artarmon NSW 2064

Attention: Ryan Cooke

## PROJECT MAUI ONCOLOGY, FRENCHS FOREST NSW

Soil Retention and Excavation Strategy

Dear Ryan,

We write regarding the excavation of the proposed basement of Project Maui Oncology at French Forest, NSW. The proposed basement will consist of three level of basement carparking requiring excavation to depth ranging about 13m to 14m below existing ground level.

As a soil retention method, soldier piles shoring system with shotcrete infill panel will be adopted as recommended in the geotechnical report.

To minimise the lateral soil movement during excavation, the proposed excavation will require at least two rows of temporary support by means of Internal props and external ground anchor. Due to the presence of existing underground services around the excavation area, it has been proposed that internal props consist of a series of hydraulic struts are to be installed at the capping beam levels to temporarily support the excavation. External ground anchors are proposed to be installed approximately at mid-height of the excavation. It is envisaged that the ground anchors installation at this RL will not cause clashes with existing underground services including the existing OSD tank to the south side of the boundary. Temporary ground anchors will have a design life of at least 2 years and will not be stressed greater than 75% of the tendon ultimate tensile strength to prevent upward movement of existing ground.

Excavation will be conducted progressively at maximum 1500mm section as recommended in the geotechnical report. Reinforced shotcrete infill will be installed to the exposed face of the soil between the soldier piles before the next stage of excavation commenced.

To further manage the risk of the proposed excavation, dilapidation surveys to the adjacent properties and existing services will be conducted. Vibration monitoring and ground monitoring system could potentially be installed nearby the adjoining structure should this become a requirement in future.

TTW will produce the shoring brief documents to incorporate the design criteria as discussed above. Final design and documentation of the proposed shoring system will be conducted by D&C shoring contractor.

Provided these measures are undertaken through both the design and construction of the project, the risk of damage to neighbouring properties will be reduced.

Should you require anything further please contact the undersigned.

Yours faithfully, TAYLOR THOMSON WHITTING (NSW) PTY LTD in its capacity as trustee for the TAYLOR THOMSON WHITTING NSW TRUST

KEVIN BERRY Director P:\2019\1911\191134\Letters\191211 Ltr Project Maui Soil Retention Strategy (Revision 2)\_ MR.docx

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