

12 February 2021

MirvacLevel 28
200 George Street
Sydney NSW 2000**Your Ref:****Our Ref:** LTR002-01-18-596-ATL Response to
RTS AIE**Attention: Russell Hogan****Email:** Russell.hogan@mirvac.com

Dear Russell

**RE: ASPECT INDUSTRIAL ESTATE (AIE), KEMPS CREEK (SSD-10448): RESPONSE TO SUBMISSION
CIVIL ENGINEERING COMMENTS**

Pursuant to the Response to Submission (RTS) issued by Department of Planning Industry and Environment (DPIE) on the 22nd of December 2020 for the Aspect Industrial Estate SSD DA (SSD-10448), we have provided responses to the submissions and comments relating to the civil engineering design and documentation for the development.

These are listed below:

DPIE Comment - The Department notes the width of the proposed creek channel is inconsistent between documents. The Riparian Assessment Report states the channel would be 4.75 m wide, whereas Sections 1 and 2 in the Civil Drawing (No: 18-596-C1010) show the low-flow channel would be 5.6 m and 5.7 m wide respectively. Furthermore, the typical riparian corridor section in Civil Drawing (No: 18-596-C1006) shows a 3.75 m wide low-flow channel within a 20 m wide high flow channel. Please clarify the width of the channel.

AT&L Response – The low flow channel width varies due to the existing topography at the boundary and the proposed built form. The Riparian corridor section on Drawing 18-596 C1006 has been updated to suit (i.e., minimum 3.75m width low flow channel). The actual width varies between 3.75 and 5.7m.

DPIE Comment - The Department notes Civil Drawings show an Upstream Diversion Channel (the Channel) is proposed. Please clarify the need for the Channel, how the Channel will impact on water quality of the realigned creek, and what is the fate of the channel once the North-South Collector Road and Access Road 3 are built.

AT&L Response – Yes, the channel is required. This channel is temporary in nature and provides diversion for the “greenfield” flows off the upstream catchment (undeveloped). This channel will become redundant and filled in once Road No 3 is constructed whereby the upstream catchment will be picked up via a pit and pipe network within the road with an overland flow path (to suit to 1% AEP runoff) within the road reserve. In the temporary case this channel will be lined with geo-fabric.

DPIE Comment - Please clarify how earthworks will be carried out in a coordinated manner, particularly in the eastern portion of the site considering level differences between the site and adjoining properties to ensure level transitions can be provided at the realigned creek and future north-south road.

AT&L Response – Refer to updated drawings with additional sections along the eastern portion of the site indicating how proposed levels within the site interface with existing boundary levels.

DPI Fisheries Comment - Any water discharged from the development will flow into Ropes Creek (West) or Kemps Creek (East - which is identified as KFH) and must meet the relevant ANZECC guidelines for water quality.

AT&L Response – Stormwater treatment rates within the Penrith City Council (PCC) WSUD guidelines have been adopted for water quality targets for this development. This incorporates for capture of suspended solids, gross pollutants, phosphorus and nitrogen within the stormwater. It is deemed due to complying with Council’s WSUD guidelines on removing pollutants from the stormwater our proposed WSUD treatment train is compliant with the ANZECC guidelines.

Transport for NSW Comment - The right turn bay on Mamre Road South Approach for several scenarios appears to not be adequate to store the predicted queue length.

AT&L Response – Ason Group to review adequacy of the proposed right turn bay.

Transport for NSW Comment - Appendix F_3 – The swept paths for vehicles egressing Lot 3 on estate road 02 appears to encroach over the centreline of the road in order to achieve the turn. Consideration should be given to widening the driveway access to allow for adequate turn paths to be achieved.

AT&L Response – Refer updated swept path drawings.

ESS Comment - Key standard requirements

Dot point 5 states “OSD is to mitigate post development flows to pre-development flows for peak Average Recurrence Interval (ARI) events”. The dot point should specify the limit of OSD capacity is up to and includes the 1% AEP event.

Dot point 6 states “All OSD basins have been designed with a 3.0m wide stabilised”. This dot point indicates there would be multiple basins which is inconsistent with the Flood Impact report and with previous dot points of this Section, which specify that one OSD basin is proposed to serve as estate-based measure and to be designed for the ultimate developed scenario.

AT&L Response – Noted this is a typo in the report. Only one basin is proposed to serve the entire estate.

ESS Comment - In its submission on the SEARs for this SSD (dated 9 April 2020), EES recommended a number of water and soil environment assessment requirements which included a requirement in relation to the OEHL/EPA Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions http://www.environment.nsw.gov.au/research-andpublications/publications_search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning.

AT&L Response – Stormwater treatment rates within the Penrith City Council WSUD guidelines have been adopted for water quality targets for this development. This incorporates for capture of suspended solids, gross pollutants, phosphorus and nitrogen within the stormwater. It is noted all sediment and erosion control measures for the entire have been designed as per the Landcom “Blue Book”. As such it is deemed compliant with the OEHL/EPA guidelines.

ESS Comment - EES has also worked with DPIE PDPS in developing the draft Mamre Road Precinct DCP that is currently on exhibition and it is expected that the interim objectives in Section 2.6 in exhibited draft Mamre Road Precinct DCP will be superseded by tables 1 and 2 below as follows (REFER SUBMISSION):

AT&L Response – Noted however we understand this Mamre Road DCP is draft in nature and is still under review and subject to discussion. At this stage, the SSDA civil drawings have been designed in accordance with PCC Engineering and WSUD guidelines

Penrith City Council Comment - It is noted that no MUSIC modelling was submitted in support of the proposal. As such, Council was not able to complete a full assessment of the stormwater management strategy.

AT&L Response – Noted Music model can be provided. Given this will be conditioned as part of the SSDA however it is assumed full assessment of the Music model would be undertaken at detailed design too.

Penrith City Council Comment - It is also noted that the proposal has not considered the relevant water management WSUD controls outlined in the Draft Mamre Road Precinct DCP. It is considered that the proposal should have regard for these controls in developing the approach to stormwater management. In this regard, the proposed stormwater management approach is not consistent with the controls and objectives outlined in Section 2.6 (Integrated Water Cycle Management) of the draft DCP.

AT&L Response – Noted however we understand this Mamre Road DCP is draft in nature and is still under review and subject to discussion. At this stage, the SSDA civil drawings have been designed in accordance with PCC Engineering and WSUD guidelines.

Penrith City Council Comment - In relation to the treatment of stormwater, it is proposed that a 1,600m² bioretention system pre-treated with an Ocean Save OS-2324 be implemented. It is also proposed to use a proprietary filter media called Filterra. The use of Filterra is not currently supported and additional information to demonstrate its performance and compliance with Section 4.6 of Council's WSUD Technical Guidelines is required.

AT&L Response – Refer to Ocean Protect response. It is noted Filterra has been used both within Penrith and Blacktown LGAs. Ocean Protect have also provided supporting documentation and performance reports.

Penrith City Council Comment - There are also some concerns in relation to the configuration of the bioretention systems (e.g., maximum depth of extended detention) which should be considered in the context of Council's WSUD Technical Guidelines.

AT&L Response – Noted however the bio-retention system has been designed in accordance with Ocean Protect guidelines whilst also understanding PCC's WSUD guidelines. Given this system is approved within other Council LGA's it is considered the configuration proposed is deemed acceptable.

Penrith City Council Comment - In terms of water conservation measures, commitments have been made to meet a minimum of 80% non-potable demand with harvested rainwater. Additional details are required regarding the sizing of the tanks.

AT&L Response – Noted Music model can be provided to indicate each rainwater tank size and re-use rates to ensure 80% non-potable demand is met. It is noted as part of CC works on each individual lot RWT tank design is further developed to ensure the non-potable demand is met. As such it is understood this comment should be conditioned.

Penrith City Council Comment - With regard to the drainage strategy, additional information is required to demonstrate compliance with Council's current WSUD Policy. The use of Filterra as a media is not currently supported and requires supporting field testing data. There are also opportunities to revise the strategy, so it has more of a focus on providing for a range of ecological services, including integrated water management,

which maximises opportunities for rainwater harvesting and reuse as well as passive irrigation so as to better contribute to urban cooling.

AT&L Response – Refer to Ocean Protect response. It is noted Filterra has been used both within Penrith and Blacktown LGAs. Ocean Protect have also provided supporting documentation and performance reports.

Penrith City Council Comment - Overall, and as outlined above, the proposed approach to stormwater management is inconsistent with the integrated water cycle management provisions outlined in the Draft Mamre Road Precinct DCP and the provisions in Council's WSUD Policy and supporting technical guidelines.

AT&L Response – Noted however we understand this Mamre Road DCP is draft in nature and is still under review and subject to discussion. At this stage, the SSDA civil drawings have been designed in accordance with PCC Engineering and WSUD guidelines.

Penrith City Council Comment - Should the proposed internal road terminations at the northern and southern side boundaries ultimately be accepted and delivered as an initial stage of the proposal, it will be necessary that temporary turning heads be provided.

AT&L Response – Yes turning heads as per the civil drawings will be provided. Note these turn heads are designed to comply with PCC industrial roads guidelines and Austroads standards.

Penrith City Council Comment - Roadways, driveways, pathways, cycleways, vehicular access and manoeuvring, parking areas and the like shall comply with Australian Standards (AS 2890 including parts 1, 2 and 6 and AS 1158), Austroads Guidelines, TfNSW (RMS) Technical Directions / Guidelines, the final Mamre Road Precinct DCP and the NSW Government Walking and Cycling Guidelines.

AT&L Response – Noted and will be provided during detailed design. It is assumed this can be conditioned as part of the SSD approval.

Penrith City Council Comment - Separate and accessible pedestrian pathways at least 1.8m wide shall be provided from car parks and from roadway footpaths to building entrances in accordance with AS 2890 (car park access) and AS 1428 (mobility accessible paths of travel). Consideration shall be given to the most direct access to buildings for pedestrians.

AT&L Response – Noted and will be provided during detailed design. It is assumed this can be conditioned as part of the SSD approval.

Penrith City Council Comment - Wheel stops shall be provided for any parking spaces that front or back onto a pedestrianised area to control kerb overhang. Wheel stops shall be designed in accordance with AS 2890.

AT&L Response – Noted and will be provided during detailed design. It is assumed this can be conditioned as part of the SSD approval.

Penrith City Council Comment - Sight distance requirements at verges, footpaths and driveways shall be in accordance with AS 2890.2, Figure 3.3 and Figure 3.4.

AT&L Response – Noted refer to updated sight line distance drawings.

Penrith City Council Comment - The batter of the estate basin along the Mamre Road frontage shall be located clear of the proposed future widened road reserve boundary for Mamre Road. Grass batters shall be at a maximum of 1 in 5 (vertical to horizontal).

AT&L Response – Noted batter of basin has been coordinated with future Mamre Road widening. No encroachment.

We trust you find the supporting information satisfactory. Should you have any questions, please do not hesitate to contact the undersigned.

Yours sincerely,



Andrew Tweedie
Associate Director
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DRAFT