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17 October 2024

John Fisher
Principal Advisor
Environment and Planning
Alexandra Venice Consulting

Email: john.fisher@alexandravenice.com

Dear Mr Fisher

Submission in Response to the Merotherie Transport Strategy

Thank you for the opportunity to provide comments on the Merotherie Road Transport Strategy.

A comprehensive review has been undertaken and Council does not agree at this point in time that Strategy complies with SSI consent condition B31(b) largely due to the omission of strategic pavement designs and other Austroads details required below.

We feel that the Strategy is not acceptable as it does not mitigate the road safety and Council's asset impacts arising from project traffic so far as is practicable or reasonable. Our comments and requests are outlined below:

1. Please provide a copy of the Merotherie Temporary Workers Camp Management Plan (TWCMP) for Warrumbungle Shire Council review, as the resulting construction trips will have a significant impact along Merotherie Road. It is understood a copy was provided to MWRC for comment.
2. Note: Council's comments herein relate specifically to the Merotherie Transport Strategy and do not necessarily determine or limit Council's position on other road segment Strategies to be reviewed under later documents provided by EnergyCo in due course – as the facts of each road situation are different. Descriptions provided by EnergyCo in this document in relation to other roads are not accepted until review of those relevant strategies and so may be subject to change. Ideally non-Merotherie Road segments should not be referenced in the current plan to avoid revisioning this Strategy if the details are superseded in another Strategy – e.g. Table 2-3 roads.

3. Section 1.2: Council has no objection to deferral of strategic design submissions for HV line crossings of Council roads to be submitted under a subsequent 'Stringing Transport Strategy', however a document with that title (shown at this Strategy Table 1-2) was not shown in the WSC-EnCo PCG meeting schedule / circular provided to Council on 14th October 2024 which listed status dates for upcoming Management Plans. The Stringing Transport Strategy will require Council's review in accordance with Condition B31. Primary concern is no new roadside hazards within Council's public roads, so far as is practicable.
4. Section 2.2 Design Criteria.
 - Remove each reference to 'specifically' as it implies other Guides to Road Design and Guides to Traffic Management chapters need not be considered – but they are an integral suite of specifications. Consent condition B31 requires all Austroads specifications to be considered.
 - Add Austroads Guides to Pavement Technology.
5. Table 2-3 Construction Traffic Demands (specifically in relation to Merotherie Road only)
 - Clarify if the Table movements are one-way only, i.e. 734 daily vehicles equal some 1,468 movements (in and out combined). For the large key workforce being located at Merotherie Road worker accommodation it appears 342 movements may be the projected one-way vehicle volume, with around twice this number when return movements are counted.
 - The figure in the movements per hour column for Light Vehicles does not appear to reflect that almost all workers will move during the commuter peak hours (heading out at start of day shift and returning at end) and that this peak is likely to coincide with site start up and shut down (heavy vehicle peak hour scenario being 10% of daily HVs, made up of deliveries and equipment mobilisation). The heavy vehicle peak of 10% of daily HV movements appears reasonable.
6. Section 2.6.1 right turn volumes of 50 vph may need revision in light of the Table 2-3 queries above.
7. Section 2.6.2 traffic operations at Golden Hwy intersection are a matter for TfNSW. However, insert a note that any physical works in the Golden Hwy reserve outside the State Road carriageway and not incorporated into a TfNSW WAD would (due to project approval Condition B31) require consultation with Council as roads authority.
8. Traffic control works including devices (lines and signs etc.) require Council's approval as roads authority under Section 87 of the Roads Act. The Roads Act Schedule 2 Part 2 Division 1 Section 5 exemption from Council approval for Crown development under Section 138 does not apply to traffic control works covered by Section 87. Confirm this at references to traffic control works, including Table 3-1 Design Criteria (signage to AS 1742).
 - The Tables 3-1 and 3-2 Amenity commentary requires update to address the construction of the road work itself. A traffic control plan

will be required (later) to maintain traffic flow and safety under works and will require Council's approval under Roads Act Section 87.

9. **Section 3 MEROTHERIE ROAD – INITIAL UPGRADE** stage including regrading to make suitable for construction traffic to commence: Council supports a staged approach by EnergyCo involving early works use and maintenance in unsealed condition as it will reduce project Heavy Vehicle (HV) wear on the FULL UPGRADE stage sealed pavement. However all the following need to be addressed. If these items are not clarified, Council objects to a staged approach and the FULL UPGRADE work must be designed and commenced before commencement of construction as required by SSI Condition B31:

- Formation and bridge widening is warranted for construction traffic safety given the extended campaign (several years). Temporary speed zone reductions for an extended period are not a substitute for road safety improvement works and will lead to poor community engagement and compliance outcomes, with diminishing effectiveness in mitigating safety incidents as time goes on.
- Council agrees with the proposed ultimate FULL UPGRADE 7m sealed width + 0.5m unsealed shoulders based on its SSI submission in the RTS Phase [Austroads AGRD03 150-500 average daily traffic (ADT) sealed road]. Where the road will remain unsealed in the interim and under heavy volumes, an additional 1m wearing course width (**total formation 9m**) is warranted as per the ARRB Unsealed Roads Best Practice Guide to provide extra shoulder as a buffer between passing heavy vehicles with trailers. Unless temporary speed zone reductions are accepted by Council under Roads Act Section 87 and the FULL UPGRADE is completed as soon as practicable.
- EnergyCo's (delivery partners') responsibility to undertake regular maintenance including patrol grading and re-sheeting where necessary in the interim until ultimate upgrade is completed must be a clear commitment of the Strategy.
- Council advises the existing pavement condition is not expected to be sufficient in depth or design life to cater for the project traffic and it is strongly suggested EnergyCo should investigate pavement strengthening and/or re-sheeting even as an initial stage, to ensure all-weather condition is maintained until the FULL UPGRADE is completed.

10. **Section 3.1 MEROTHERIE ROAD – FULL UPGRADE:**

- Key parameters for the pavement design to widen and raise road surface levels are required. Where the existing pavement will be retained in service as a road base layer it will require full depth upgrading or an equivalent rehabilitation design, to meet Austroads Guide to Pavement Technology (including AGPT02) in accordance with consent condition B31(b). The design is at minimum to cater for the existing background traffic plus the design project traffic (all phases including construction, operation and decommissioning). Council specified in its SSI (RTS) submission that a design value of 1×10^6 Equivalent Standard Axles (ESAs) was expected for the final

sealed pavement to offset the impacts of project traffic. Design calculations to Austroads spec are to be provided in a report from a qualified designer along with any supporting info available at this strategic stage (e.g. geotechnical test results etc.).

- The NSW default rural speed zone applies and permanent reductions in design and posted speeds will require TfNSW approval – with the outcome uncertain (approval not guaranteed) and the review process generally taking a minimum 12-18 months including all legislated procedures. Council staff suggests a permanent design speed less than 110 km/h (100 km/h posted speed) in this environment will be inconsistent with the NSW Speed Zone Guidelines and Austroads road safety guidance and very unlikely to be supported by Council or TfNSW. NSW speed zone policy does not support permanent reduction in speed in response to isolated development projects. In the unlikely scenario permanent speed reduction is to proceed, there is to be demonstrated community acceptance of the proposed reduction and the speed environment is to be significantly altered to form a coherent traffic calming scheme (i.e. by geometric realignment and other features to discourage higher speeds, fewer ‘gun barrel’ runs, and adequate signage and delineation). If this is not achieved there will be a significant risk of poor traffic safety outcomes (incidents).

<https://standards.transport.nsw.gov.au/search-standard-specific/?id=TBA%20-%200004459:2022>

11. Section 3.2 MEROTHERIE ROAD TALBRAGAR RIVER (LEO NOTT) BRIDGE UPGRADE stage: While Council appreciates the ACEREZ consortium may have design and construct responsibility and detailed designs are not currently available for the Bridge, key design criteria need to be specified by EnergyCo (as client) for review by Council (as future asset owner) including:

- All critical design vehicle load cases, deck and precast units / spans nominal dimensions (minimum two-way vehicle widths), strategic-level longitudinal profile of approaches and deck transitions, bridge element and foundation design principles to optimise maintenance and future replacement by Council, flood planning levels, flow conveyance and freeboard scenarios up to and including 1:500 AEP, environmental impacts and key controls (for detailed design elements, e.g. including veg removal footprint and aquatic fauna passage), Controlled Activity Approval requirement, realignment of cadastral boundaries and dedication of road reserves (and disposal of redundant reserve), whether existing Council bridge asset is to be removed / recycled / returned to Council depot (to be discussed), bridge naming.
- Nothing in this list prevents innovative or beneficial changes as the D+C firms up, with Council consultation.

12. Noted cadastral boundaries are required but not currently shown on the General Arrangement and regular Cross Section drawings as a design constraint. Existing sections of Merotherie Road appear to lay outside dedicated reserves, especially on Talbragar bridge approaches and the existing bridge itself. Establish legal right to construct and/or propose road

widening acquisition extents (and identify potential disposal of surplus land, subject to Roads Act due process?).

13. The following additional details are requested on the drawings for the WSC-owned Merotherie Road segment (between and inclusive of the Golden Hwy and Talbragar River).

- Signage and line marking plan (traffic control works for approval under Roads Act Section 87).
- Long sections show a large design surface uplift of up to 700mm for at least CH0 to CH900m from the highway. The local cross sections (or at minimum, several typical sections) are to show the proposed pavement design in context relative to the different existing pavement situations (depths) that will be encountered, e.g., what to do where box out is deeper than the underside of existing pavement, versus retention of the existing pavement in situ and overlay, versus the scenario where a bridging layer (select fill?) may be required between the existing and new pavements. Ensure min and max pavement layer thickness requirements for compaction and constructability are achievable, and show horizontal and vertical joint lapping details to minimise long term moisture ingress and eliminate trapped low points for drainage.
- Concrete causeway shown at Merotherie Rd CH500 Drg 211001 is to be removed and disposed of to an authorised waste collection centre or recycling recovery centre.
- Arising from the low design speed, horizontal curve radii of R100m to R150m specified along Merotherie Road are very low for the minimum required design speed 110 km/h. Increase to comply with Austroads.
- Relatedly, the short S-bend on southbound approach to Talbragar bridge does not meet design speed constraint and is out of context, so is likely to lead to high speed incidents. Transition spirals and a robust delineation plan may be needed to achieve the proposed offset of the new bridge, or an alternative design alignment.
- Cross sections: batter slopes for shoulder and table drain are shown at 1V:2H or steeper. This slope is not traversable in a run-off-road event as per Austroads AGRD06 guidance. Flatten batters to maximum 1V:4H (25%) where there aren't local constraints that justify steeper batters.
- Table drains: provide a summary of the supporting calculations / hydrology and a sketch showing the drainage sub-catchments served, which has led to the variable sizing of table drain geometries for the WSC-owned Merotherie Road segment (first 1.8km from Golden Hwy). Why is the table drain proposed on only one side of the road in certain sections? For minimal long term maintenance, nominal table drain invert below surrounding levels should be provided (at minimum) on both sides to contain water within the road reserve, and the underside of pavement should daylight (be exposed and freely draining above the invert of table drain).

If you have any queries regarding the abovementioned matters please don't hesitate to contact the undersigned.

Yours sincerely

A handwritten signature in black ink, appearing to read 'LM', with a long horizontal flourish extending to the right.

LINDSAY MASON
ACTING GENERAL MANAGER