

Our Ref: FR104016-46 letter 001

Contact: Mark Klein

17 September 2010

Fabcot Pty Ltd
c/- Compass Project Management
PO Box 2008
NORTH SYDNEY NSW 2059

Attention: Ian Goodman

Cardno (NSW/ACT) Pty Ltd
ABN 95 001 145 035

278 Keira Street
Wollongong NSW 2500
Australia

PO Box 1285
Wollongong NSW 2500
Australia

Phone: 61 2 4228 4133
Fax: 61 2 4228 6811

www.cardno.com.au

**RE: MAJOR PROJECT APPLICATION: MP 06_0205
MODIFICATION NO 2
RESPONSE TO SHOALHAVEN CITY COUNCIL INTERIM SUBMISSION**

SHC Comment:

1.0 Proposed VDC Stage 1 - Modification No 2

The applicant has forwarded preliminary drawings prepared by Cardno Forbes Rigby (Cardno), engineering consultants, in respect of drainage proposals. The drawings are 46701 to 46711 and 46720 to 46722 (all are Revision P1). These have been used to assist parts of the council's submission, but are not such that are approved in this form by Council.

Cardno Response: It is unclear what this statement is suggesting. The plans submitted by Cardno are to support the application for the MarketPlace Civil works. These plans are to be approved by DoP as part of the Project Approval. We understand that further details will need to be provided and approved by Council or PC prior to commencement of construction in the CC application.

*The applicant has forwarded preliminary plans prepared by Cardno in respect of The Wool Road proposals. The plans are 104016 -1001 drawings 1006 – 1011 and 1021 (all are Revision PO). These have been used to assist parts of the Council's submission, **but are not such that are approved in this form by Council.***

Cardno Response: The drawings submitted thus far are based on the current concepts for Wool Rd. Further plans may be required by Cardno if the concepts of the Wool Rd are amended in the ongoing negotiations between Council, DoP and Fabcot.

5.4 Moona Creek Road

- Council Traffic Unit have considered the approval and the available road reserve widths of Moona Creek Road. Notwithstanding that Stockland and not Fabcot may have responsibility regarding Moona Creek Road, there are significant impacts caused from the VDC and therefore it is a strong recommendation that the following works be conditioned in Moona Creek Road (from south to north);
 - Moona Creek Road (between Naval College Road and the car park access) > two lanes northbound in Moona Creek Road including a single through lane and a single separate right turn bay (right turn lane) for protection of traffic turning into the car park

Cardno Response: This configuration has been catered for

17 September 2010

- *Moona Creek Road (between Naval College Road and the car park access) > two lanes southbound (exit to Naval College Road)*

Cardno Response: This configuration has been catered for

- *Moona Creek Road (between Naval College Road and the car park access) > median; of minimum 900mm width (include RTA pedestrian fence along full length of median in this section).*

Cardno Response: A 0.8m wide (not 0.9m wide) median was shown on Cardno Dwg 8016 Rev P0 as approved previously. The number of pedestrians that might seek to cross this section of road would be negligible as there is no significant pedestrian desire line across it. A median is proposed but a fence is unnecessary.

- *Moona Creek Road (intersection with car park access) > design must ensure that all traffic exiting the car park be forced to turn left out only by way of physical traffic island. Traffic Unit consider that it would be unsafe to allow traffic to turn right out at this location. Traffic may turn "in" to the car park from either direction.*

Cardno Response: Refer Halcrow response

Moona Creek Road (between car park access and Halloran Street) > single lanes in each direction; and median; of minimum 2m width. No fence required along median.

Cardno Response: A 0.8m wide (not 2.0m wide) median was shown on Cardno Dwg 8016 Rev P0 as approved previously.

- *Moona Creek Road (intersection with Halloran Street) > non mountable roundabout of inscribed circle R16m suitable for turning large rigid buses around; will provide satisfactory traffic management and improved pedestrian access*

Cardno Response: A roundabout configuration cannot be achieved due to existing boundary definition constraints. Also refer to Halcrow response

- *Moona Creek Road (between Halloran Street and eastern roundabout) > single lanes in each direction; and median; of minimum 2m width.*

Cardno Response: A 0.8m wide (not 2.0m wide) median was shown on Cardno Dwg 8016 Rev P0 as approved previously.

- *No fence required along median. On street car parking; change 90 degree angled car parking to 45 degree angled car parking. Traffic Unit consider 90 degree angled car parking would not be safe and if any parking is to be provided 45 degree angled parking (nose in) would be more appropriate.*

Cardno Response: 60° parking was shown on Cardno Dwg 8016 Rev P0 as approved previously

- *Moona Creek Road (at eastern roundabout) > roundabout is accepted; ensure mountable roundabout of inscribed circle R16m.*

7.0 Landscaping

1) Buffer Planting along Naval College and The Wool Road:

- iii) *Overhead wires should be placed underground where possible to reduce the visual impact/dominance of this utility. The recently installed power lines at the Bayswood entrance detract from the development and have affected the natural amenity of Naval College Road.*

Cardno Response: The new electrical supply to this development site will be underground.

17 September 2010

8.0 Stormwater, WSUD facilities

As stated above in Section 1.0, above;

*"The applicant has forwarded preliminary drawings prepared by Cardno Forbes Rigby (Cardno), engineering consultants, in respect of drainage proposals. The drawings are 46701 to 46711 and 46720 to 46722 (all are Revision P1). These have been used to assist parts of the council's submission, **but are not such that are approved in this form by Council.**"*

Cardno Response: It is unclear what this statement is suggesting. The plans submitted by Cardno are to support the application for the MarketPlace Civil works. These plans are to be approved by DoP as part of the Project Approval. We understand that further details will need to be provided and approved by Council or PC prior to commencement of construction in the CC application.

It is noted that it is proposed to direct stormwater from the southern side of Naval College Road (Culvert CIV 3) into the car park bioswales. There are comments in Section 5.2(a) concerning the car parking spaced adjacent to the east-west boardwalk / drainage. The design safety of the pond wetlands should be considered in the overall civil designs.

The stormwater and WUSD detailed plans will be considered at Construction Certificate stage.

Cardno Response: This is correct and therefore no further details are required at this time.

9.0 Traffic, Access, Roads and works in The Wool Road

9.1 Masson Wilson Twiney (MWT) - 3 October 2008 Report

Detailed design plans for works in The Wool Road are to be submitted to Council for approval. Council has provided separate comments to the preliminary Cardno plans to assist their preparation of details design plans. The preliminary Cardno plans for work in The Wool Road and in particular the two signalised intersections are to be reviewed by the Roads and Traffic Authority (RTA) as the RTA has to advise Council and the applicant of their requirements before the detailed plans can be finalised. The local Shoalhaven Traffic Committee will have an approving role for the regulatory signs and lines once detailed design plans are submitted to council for approval. This is similar to the works required in Naval College Road by Stockland under the original Concept approval.

Council considers that as traffic volumes in The Wool Road increase over time, there should be provision for two right turn lanes from the east tuning into Access D. The preliminary Cardno plan 1008 indicates that the median could be altered in the future to provide an additional turning lane. However it is considered that provision should be made on the northern side from the intersection and the internal movements into the VDC site to avoid unnecessary impacts to infrastructure located at Stage 1. The RTA may make comment about the timing of a second right turn lane as well.

Council considers that the approval conditions should provide that additional future upgrades to the intersection should be at the cost of the VDC owner.

Cardno Response: The final road design will be in accordance with the final approved Halcrow design.

Based on the preliminary Cardno road plans both Access D and access E designs should ensure the environmental areas are not impacted unnecessarily or outside approved disturbance areas.

9.2 New Intersection E - BBLC access / Vincentia High School access / The Wool Road intersection

The Lane provision is generally accepted as shown in Appendix A of the MWT report 3 October 2008. This is consistent with Council's assessment.

However auxiliary lane "lengths" are not accepted as shown; these need to be increased to meet minimum standards for deceleration plus the queue storage requirement.

17 September 2010

Sensitivity analysis needs to be undertaken having regards to the factors discussed above to determine reasonable queue storage requirements to be provided in addition to deceleration and diverge requirements.

Accordingly the layout shown in Appendix A of the MWT report 3 October 2008 needs to be updated to include auxiliary lanes that comply with AUSTROADS and RTA guidelines including containing all forecast queue storage determined from sensitivity analysis.

Cardno Response: The final road design will be in accordance with the final approved Halcrow design

9.3 Access to and from the Vincentia High School (Intersection E)

The Cardo preliminary designs referred to, above, for this intersection (drawing 1010) shows the proposal for one entry lane and two exit lanes including a left turn west. It is understood that Council and the RTA will be involved in the final approval of the works due to the traffic signals, however Council is not aware of any comments that the Education Department may have submitted at the original Stage 1 application and it is understood that the Education Department may not have been consulted at the Mod 2 stage.

Council has received local representations that to avoid congestion within the school driveway for exiting vehicles that there should be arrangements with the Education Department land to widen the internal school driveway near the intersection with The Wool Road. This will require internal work on the Education Department land for a distance back at least 40m of the intersection for two exit lanes that enable a split for left and right turns and a further 23m to taper from one lane into two lanes; a total of 63m - all within the school land. Council requests the Department consider this matter.

Cardno Response: The final road design will be in accordance with the final approved Halcrow design.

10.0 Pedestrian pathways and facilities

10.1 Pathways

EAR-Mod 2 Appendix K (Halcrow page 16) states that it is proposed to construct a shared pathway on the west side of The Wool Road to link what are described as Access D and access E. The preliminary Cardno plans 1008, 1009 and 1010 do not currently show a path in this location. In orienting the plans to "north", the west reference in Appendix K is closer to north-west.

Council requests that a 2.0m wide pathway be provided on the north-west side of The Wool Road between the Access D footpath and the footpath at Access E to the BBLC to be consistent with the Halcrow report. This will also remove the need for pedestrians moving between the two locations from making two crossings of The Wool Road. The Statement of Commitment No 65 should also be amended.

Cardno Response: The final pathway design will be in accordance with the final approved Halcrow design.

11.0 Water and Sewer

Water and Sewerage Matters

9. Works associated with the proposed road works adjacent to the Bay & Basin Leisure Centre will impact upon Shoalhaven Council's sewer easement.

Any proposed adjustment/alteration to the arrangement for the easement shall be requested in writing to the Director of Shoalhaven Water and Council's Property Section.

All existing rights/entitlements are to be retained within the easement with the exception of parts of the easement that are to be converted to public road reserve. Access along the route of the easement is to

17 September 2010

be retained and no structure, landscaping or land rehabilitation is to take place within the boundaries of the existing or modified easement without prior approval of Shoalhaven Water's Director.

Cardno Response: Shoalhaven Water will be consulted during the design process of the proposed road

10. *An Easement for Water Supply shall be created over the existing water main where it traverses private lands. Shoalhaven Water shall provide details of easement for water supply requirements upon submission of a plan by the applicant.*

Cardno Response: Shoalhaven Water may be referring to the fact that the existing lead-in main on Naval College Rd has in part been constructed in private land being Lots 72 and 73 in DP 874040 owned by Stockland Developments. Once the Naval College Rd widening works have been undertaken, this water main will fall within public road reserve that will be dedicated to Council.

11. *An easement for services shall be created over the water service line (which serves Council's sewage pumping station) where it traverses private lands. Currently located adjacent to the Bay & Basin Leisure Centre. Shoalhaven Water shall provide details of easement for services requirements upon submission of a plan by the applicant.*

Cardno Response: This water main is external to the MarketPlace development site and is of no consequence to this application. If to be enforced Council should liaise with Stockland/Fabcot and Cardno directly to arrange, however it's likely the pump station water service will be re-connected to a new reticulation main once the Stockland residential footprint is developed adjacent to the pump station. The existing main will therefore become redundant negating the need for an easement

Yours faithfully



Mark Klein
Project Director
For **Cardno (NSW/ACT) Pty Ltd**