



**TRAFFIC AND TRANSPORT
ENGINEERING CONSULTANTS**

GOLD COAST

27 Paradise Ave Miami Qld 4220

P: (07) 5527 7333 **F:** (07) 5527 7555

Postal: PO Box 441 Mermaid Beach Qld 4218

BRISBANE

Level 36 Riparian Plaza 71 Eagle St Brisbane Qld 4000

P: (07) 3121 3198 **F:** (07) 3121 3030

SYDNEY

Level 26, 44 Market St Sydney NSW 2000

P: (02) 9089 8752 **F:** (02) 9089 8842

E: info@crg.net.au **www.crg.net.au**

CRG Traffic Pty Ltd ACN 151 846 847

In association with CRG Acoustics Pty Ltd



5 November 2012

CRGref: 12640

Gold Coast City Council
C/- Gassman Development Perspectives
PO Box 392
Beenleigh Qld 4207

Dear Sir,

**Preliminary Approval Industry
31 Yellowwood Road, 60 Stapylton Jacobs Well Road and 82 Christensen Road – Stapylton
PN163781/01/DA1 MCU201100650**

Reference is made to the above proposal and Council's Information Request dated 19 July 2012 (issued by City Transport). The following information is provided in response to each of the items raised (refer to Figure 1).

Modified staging proposal

It is noted that the proposed staging plan has been amended to that shown in Figure 2.

As shown, it is proposed that access be achieved as follows:

- Stage 1 - via DeBortoli Street
- Stage 2 - via De Bortoli Street (through stage 1) and Stapylton – Jacob's Well Road
- Stage 3 - via De Bortoli Street and Stapylton – Jacob's Well Road (through stages 1 and 2)
- Stage 4 - via Christensen Road, with connectivity to S-JW Rd and DeBortoli Street.

It is estimated that Stage 4 will not be developed until beyond the year 2023.

Traffic Impact Assessment

1) The applicant is requested to provide an amended/updated traffic impact assessment report, based on the staging of the development. The report is to provide an assessment of the impacts of traffic for each stage of development. The report must take into account the following;

- a) Increased traffic on Christensen Road and impacts on the operation of the intersection of Christensen Road and the Eastern Service Road.
- b) Plans that indicate there will be connectivity between stages 1 and 3. As such, please assess potential traffic distribution and impacts on Debortli Street, Angel Road/Quarry Street (which may be connected to the site at time of development).

2) The applicant is requested to provide further detail on plan of the proposed intersection of Christensen Road and Road 1. Plans are to be fully dimensioned ensuring a minimum 4.5m verge is maintained on the western side of Christensen Road. Also identify any land which will require future land dedication based on road widening and/or corner truncations.

3) The applicant is requested to submit preliminary design plans for the intersection of Christensen Road and Christensen Road South in accordance with an Industrial Collector Standard, as per Council's Land Development Guidelines. The road is to be designed such that connection from Christensen Road to Christensen Road South has priority as the through road, with the existing continuation of Christensen Road towards the south being considered as a road stub. Consideration is also to be given to how public/private access from the road stub will be aligned and safe sight lines will be achievable and identify any land for road widening.

4) The applicant is requested to identify driveway locations and a built footprint for the proposed lot on the southern side of Christensen Road South. This is to demonstrate the safe access can be provided and that an Articulated Vehicle will be able to enter/exit the site in a forward gear.

Figure 1 – Information Request Items

Impact upon Christensen Street

A road connection to Christensen Road will not be established until Stage 4 of the development, which is expected to commence beyond the year 2023.

Overall, the proposed road network will serve to spread traffic demands throughout the local road network, rather than forcing traffic through constrained intersections such as the Eastern Service Road / Christensen Road and the Motorway interchange roundabout (east). The proposed road network will allow traffic to bypass these problem locations and will therefore alleviate current congestion.

Given the layout of the local road network, it is unlikely that a significant volume of traffic generated by the proposed development will use Christensen Road to access the Pacific Motorway. Traffic will generally travel through the site and access the Stapytton-Jacob's Well Road to travel west towards the Motorway.

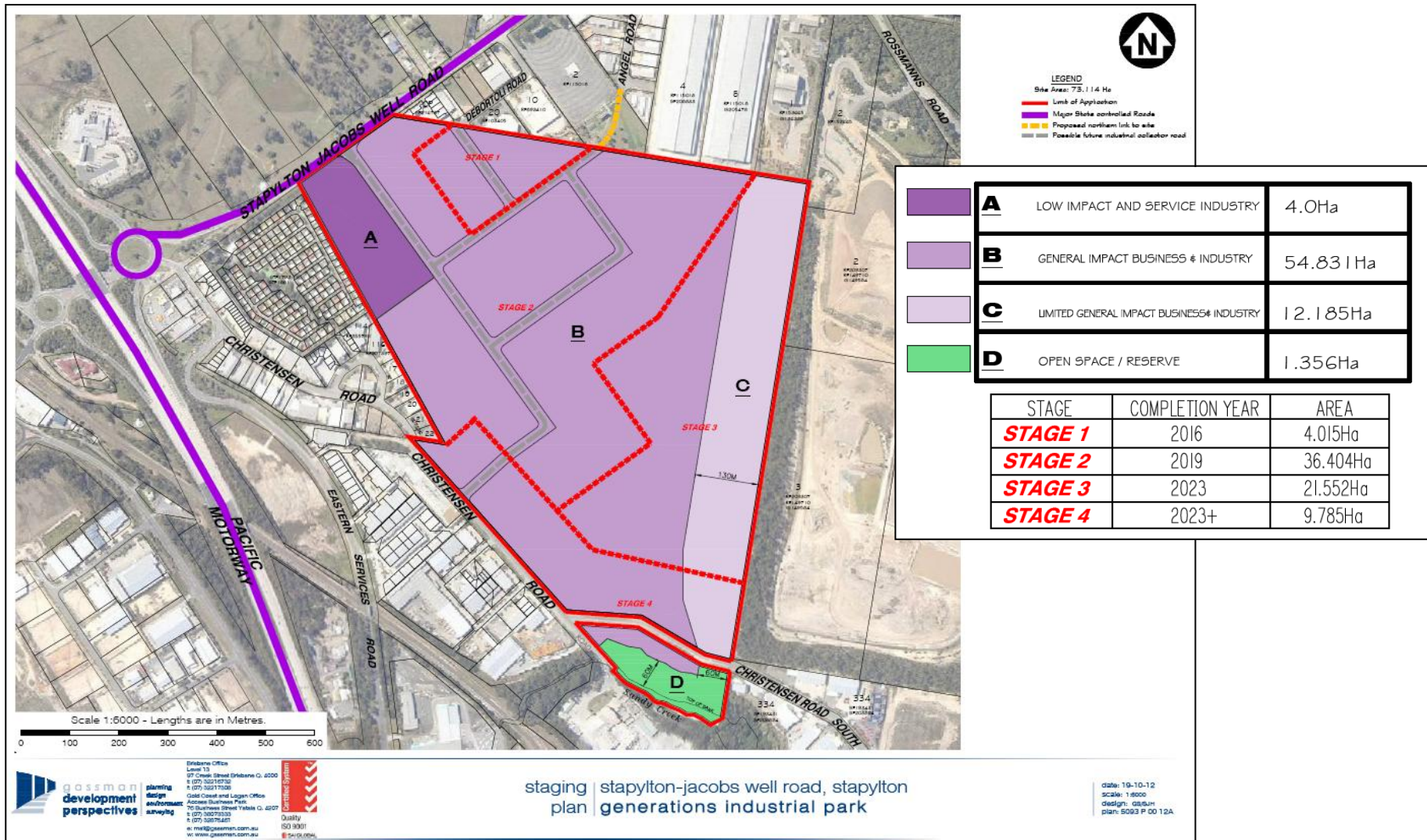


Figure 2 – Modified Development Staging Plan

Furthermore, it is unlikely that a significant volume of traffic generated by future development on the subject site will use Christensen Road to travel south towards Burnside Road. Travelling north to the Stapylton – Jacob’s Well Road and then the Motorway will be a far more efficient route than via Burnside Road to the Yatala South (Cuthbert Drive) interchange. This is shown in Figure 3.

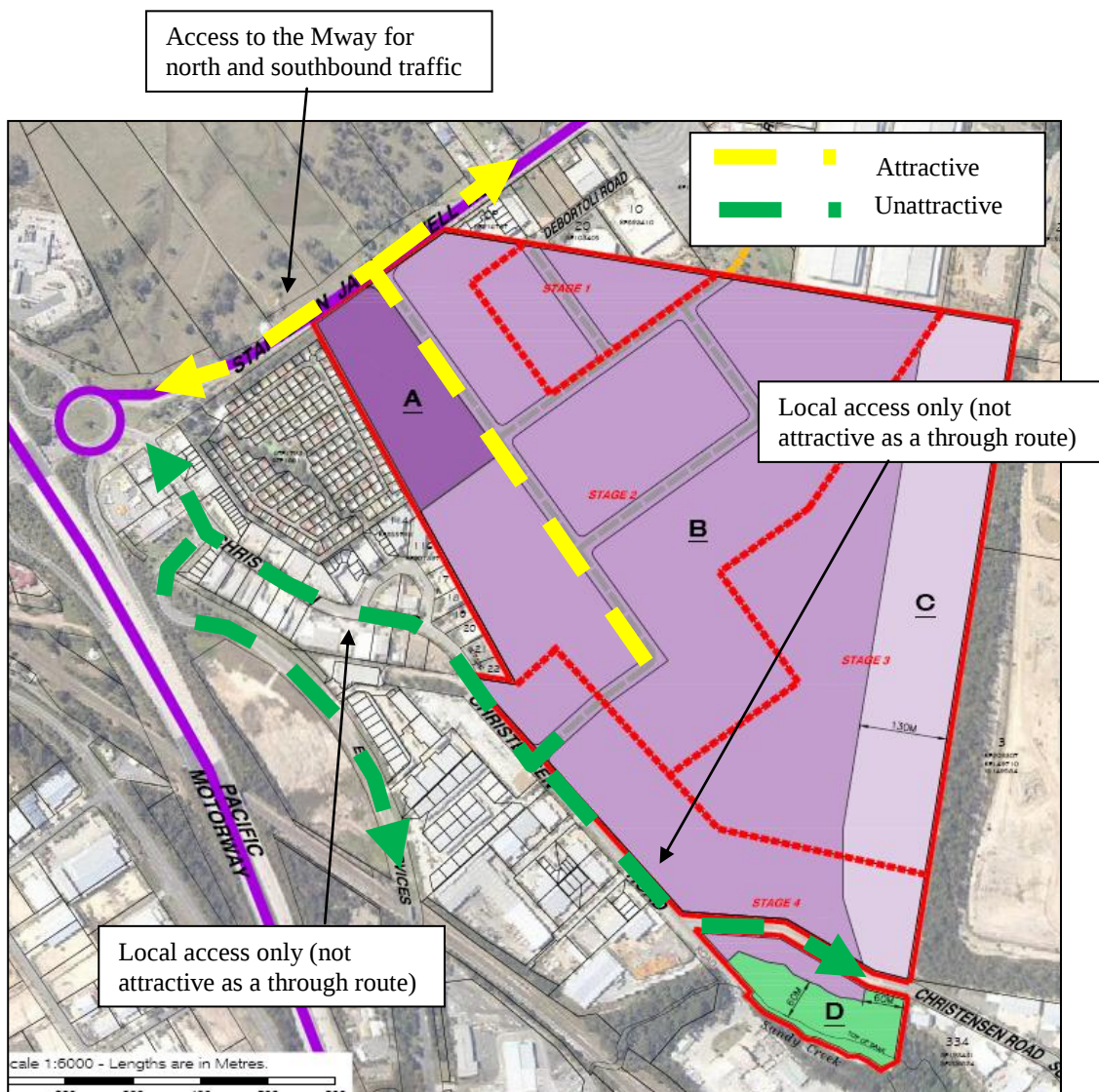


Figure 3 – Attractive and Unattractive through travel routes for traffic generated by future development on the subject site

Instead, non-development traffic will use the proposed road network to bypass the eastern roundabout at the Stapylton – Jacob’s Well Road interchange with the Motorway. Regardless of the regular congested conditions at the roundabout, the proposed road network will provide a more direct and efficient route for traffic to move between Christensen Road and Stapylton (and beyond to the east). This is shown in Figure 4.

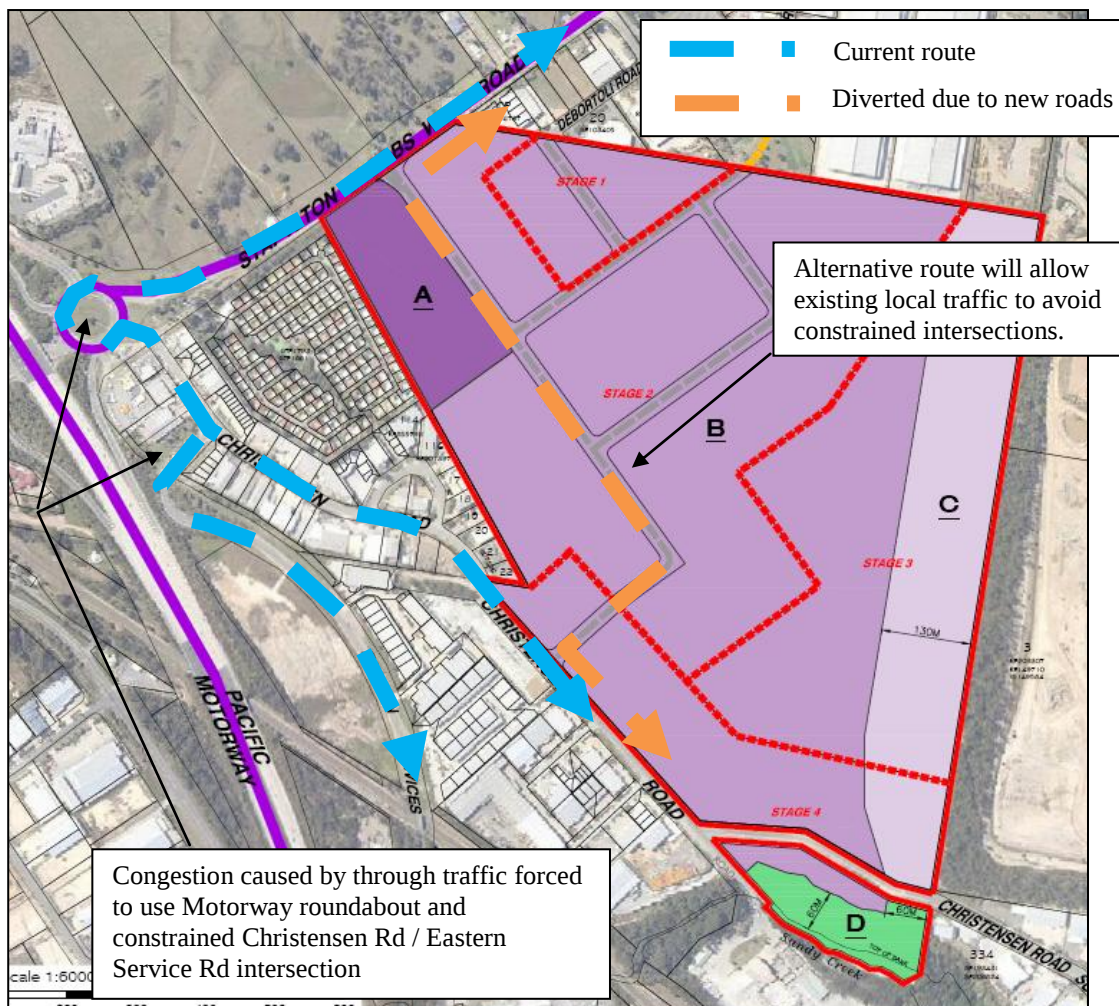


Figure 4 – Attractive and Unattractive through travel routes for traffic generated by future development on the subject site

Based on the above assessment it is concluded that:

- Traffic generated by future development on the subject site will not have a significant impact upon Christensen Road, including its intersection with the Eastern Service Road.
- The Stapylton – JW Road route to the Motorway will provide a far more efficient route for north and southbound Motorway traffic than the Christensen Road – Burnside Road route to the South Yatala interchange.
- The proposed road network will have a positive impact upon the local road network by facilitating an alternative route to existing constrained intersections.

Impacts upon the DeBortoli Street intersection

As shown in Figure 5, the DeBortoli Street intersection with the S-JW Road is already channelised. The Quarry Road intersection further to the east has been constructed to a similar standard. It is expected that the DeBortoli Street intersection will ultimately be restricted to left in / left out movements with right turns facilitated at the proposed signalized intersection with the S-JW Road. Therefore, traffic patterns will vary over time as various changes to the road network configuration occur. Under Stage 1, development traffic will use DeBortoli Street to access the S-JW Road, however, when Stage 2 is completed, Stage 1 development traffic will use the new intersection as will some traffic generated by existing development in Emeri Street.

DeBortoli Street, Emeri Street and Angel Road have been constructed as Industrial Access Streets, with a 12 metre wide carriageway. In accordance with the GCCC Land Development Guidelines, such roads provide for a catchment of up to 8 hectares.

As shown in Figure 6, the existing catchment of Emeri Street has an area of approximately 3.4 hectares (incl roads). The existing catchment off Angel Street has an area of approximately 2.7 hectares.

Stage 1 of the proposed development has a developable area of approximately 4 hectares. Therefore, the resultant catchment will not exceed with the capacity of the existing streets. It is noted that the initial impact is considered to be the worst case – the use of Emeri Street and DeBortoli Street will reduce when the new road connection to the S-JW Road is made during Stage 2.

Similarly, Angel Street has significant spare capacity. It is noted, however, that development traffic will only use Angel Street to travel to and from Quarry Road or to travel to the east via the S-JW Road. It is unlikely that a significant volume of traffic will use these routes as the new intersection with the S-JW Road will provide the most efficient route.



Figure 5 – S-JW Road / DeBortoli Street intersection



Figure 6 – Existing catchments off Emeri Street and Angel Street

Christensen Road / Road 1 Intersection

It is considered premature to require detailed plans of this intersection. As discussed above, this intersection will only be formed as part of Stage 4 which is unlikely to occur until beyond the year 2023. It is recommended that a condition of approval be applied which requires a detailed traffic assessment as part of a future Development Application for Stage 4. Conditions should also be applied in relation to standard verge widths.

Christensen Road / Christensen Road South Intersection

There does not appear to be any reason why plans of the intersection are required at this stage. It is suggested that Council imposes a condition of approval which requires that re-priorisation be adopted during the future design of the road. Again, such will not be required for a considerable period when Stage 4 of the development is developed (post 2023).

Future developable area on southern side of Christensen Road South

Whilst relatively small, compared to the balance of the site, this area has a width of some 30 metres at its narrowest point. Given the size and shape of the southern portion of land, there does not appear to be any reason why the requirements of the GCCC Car Parking, Access and Transport Integration Constraint Code could not be achieved. It is not practical at this preliminary stage to be designing future access points and heavy vehicle arrangements. It is suggested that a condition of approval be applied which requires such elements to comply with Austroads and the Planning Scheme.

Please contact the undersigned regarding any queries in relation to this matter.

Yours faithfully



LUKE RYTENSKILD
DIRECTOR, BEng (Civil), RPEQ