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Dear Mr Fowler

SPBL Private Plan Change: Response to RFI

This letter provides a response to the Selwyn District Council's Request for Further Information (RFI) dated 22 March 2010, relating to the proposed 'Holmes Block' Rural Residential Plan Change in Rolleston. Specifically this letter addresses item 7 of the RFI which states:

> *"Assess the proposed CDL Block, the Rolleston Structure Plan and PC7 to consider the wider interaction between the township and the development site, with particular emphasis on the safety and efficiency of the road network given the relatively close proximity of the CDL Block to the Holmes Block."*

The following documents have been reviewed when preparing the response:

- SPBL Holmes Block Transportation Assessment
- SPBL Skellerup Block Transportation Assessment
- CDL Stonebrook Transportation Assessment
- Rolleston Structure Plan
- PC7 - Outline Development Plan Area 1
- Selwyn District Council – Subdivision Design Guide
- Selwyn Distrcit Council - District Plan
- NZS 4404: Land Development and Subdivision Engineering

In addition to the specific RFI relating to the Holmes Block Plan Change, the influence of the transportation aspects of the Rolleston Structure Plan on the Skellerup Block Plan Change have also been considered.

1. Rolleston Structure Plan

The Rolleston Structure Plan considers how existing and future development in Rolleston should be integrated in order to ensure that sustainable development occurs and makes best use of natural resources. The structure plan is intended to manage growth that is expected to occur in the long term, and generally covers the Rolleston urban limit promoted through Proposed Change 1 to the Regional Policy Statement. The Holmes Block is located outside of the Structure Plan Study Area.

Figure 1 attached shows the Rolleston Structure Plan Diagram. The structure plan has been developed in four key layers being a Centre Strategy, Land Use Movement Networks, and Infrastructure.

A key feature of note in relation to the Holmes Block is the identification of both a Neighbourhood Centre and Local Centre in the northwest corner of Rolleston, which will provide local services within 400m of the Holmes Block site boundary. This provision will encourage opportunities for the Holmes Block to be less reliant on the private motor vehicle for accessing local services. The Outline Development Plan for the Holmes Block has been developed to encourage a high level of permeability through the internal transport network of the site, and will provide for direct connections to the Neighbourhood and Local Centre. It is considered that the location of a rural residential development in such close proximity to local services is consistent with the District and Regional transportation objectives and policies.

The Structure Plan seeks to provide a cohesive and efficient movement network for pedestrians, cyclists and vehicles, and diagrams relating to the movement network are included as an attachment to this letter. The primary transport network generally adopts the CRETS transport network included within the Holmes Block Plan Change Assessment. The proposed outer ring road encompasses Dunns Crossing Road, Selwyn Road and Weedons Road, and is defined as a Main (primary) road. Dunns Crossing Road is anticipated to remain fully connected with SH1 via a "full at-grade controlled intersection" and be one of three "entry points" into Rolleston. Access to Dunns Crossing Road is intended to be managed to maintain a higher speed environment. It is considered that the layout of the Holmes Block and the restricted access onto Dunns Crossing Road with provision of a single intersection will not detract from the movement function of Dunns Crossing Road, or its safety and efficiency.

A Public Transport Route has been identified that will provide an orbital service within Rolleston (passing through the nearby Neighbourhood Centre on Brookside Road), and in turn connect with services to Christchurch and Lincoln. Together with the expected provision of Park and Ride services in the Town Centre, the bus services will enable the Holmes Block Rural Residential Plan Change site to have good opportunities for utilising these services compared with rural residential development further from a town centre.

In summary, it is considered that the provisions of the Rolleston Structure Plan will positively contribute to the opportunities for the rural residential development to utilise modes of transport other than the private motor vehicle for both local service and longer distance commuting trips. The transport network provisions of the Structure Plan are consistent with those previously assessed within the Plan Change Transport Assessment Report.

2. Plan Change 7

The Selwyn District Council has notified Plan Change 7 addressing matters relating to growth of townships, and subdivision design. Within the Plan Change is an Outline Development Plan for the residential development of a block of land adjacent to Dunns Crossing Road (on its eastern side), referred to as "Stonebrook".

The Stonebrook block shows a new road through the site between Dunns Crossing Road and Brookside Road, and this will improve permeability of the transport network in this area. It will also provide a neighbourhood centre that is conveniently located for use by the SPBL block.

The ODP for the Stonebrook land provides for two connections to Dunns Crossing Road. The southern Stonebrook intersection is approximately 115m from the proposed Holmes Block intersection location (centreline to centreline). The northern Stonebrook intersection is approximately 245m from the Dunns Holmes Block intersection. The Holmes Block intersection location was located prior to notification of PC7, and was based on providing an efficient access both into the Rolleston Township, and to the State Highway. By locating access as far south as practicable, distances to services, community facilities, and other neighbourhoods are minimised and will encourage integration of the SPBL rural residential site with the surrounding Township.

The Selwyn District Plan includes a rule (E13.3.2) that states that intersections shall be separated by 220m in a posted 70km/h speed limit area. The proposed provision of new intersections onto Dunns Crossing Road from the Holmes block and CDL will result in an unavoidable non-compliance with this rule. The District Plan does not include assessment matters to consider in relation to intersection separation.

The "Austroads Guide to Road Design Part 4: Intersections and Crossings – General" also does not give specific requirements in regards to intersection separation, but provides some guidance. In relation to the proposed separation:

- Austroads suggests that desirably, stopping sight distance is provided between access/intersections. At a speed of 70km/h, the stopping sight distance of a car is 92m (reaction time of 2 seconds), which is less than the separation provided. This will enable a driver to clear the upstream intersection, react and then stop prior to reaching the next intersection.
- The distance required for a car to travel the reaction time of 2 seconds and comfortably decelerate to a stop is 114m, which can be achieved.
- As the intersections are on opposite sides of the road, the potential for confusion is diminished as there is no 'left turn overlap conflict' between intersections.
- The intersection separation would have a minor effect on the need for through vehicles to activate their brake lights.

Based on this guidance, it is expected that the proposed location of the intersection relative to the Stonebrook intersection will have a negligible effect on road safety and efficiency.

Further, the intersections are located on a straight and flat section of road with good intervisibility and there will be an absence of other access from the SPBL Holmes Block frontage reducing drivers decision making. The proposed separation will enable the provision of a right-left stagger in which vehicles crossing from one side of the road to the other wait for an appropriate gap in both streams of traffic on Dunns Crossing Road before turning right, and are then able to utilise the shoulder or auxiliary lane (if provided) for a left turn to enable efficient movement into the opposite intersection. If this separation was increased, then the speed differentials between through and turning traffic occur over a greater length of road. As discussed above the separation provided is sufficient to accommodate the deceleration distance between the intersections, and therefore any provision of auxiliary lanes would not be affected by the intersection spacing.

In summary, it is considered that the proposed intersection location will not result in adverse safety and efficiency effects on Dunns Crossing Road.

3. SPBL Skellerup Block Plan Change

The Rolleston Structure Plan provides for a transportation network within the southwest of the proposed Rolleston urban area generally consistent with the CRETS transport network assessed in the Transportation Assessment for the Skellerup block Plan Change. In this regard, the Skellerup Block Plan Change Outline Development Plan includes a note to ensure that the southern intersection location is considered further at the time of subdivision when further detail is known of the main road positioning on the northeast side of Dunns Crossing Road.

The Structure Plan makes provision in the southwest of Rolleston for a neighbourhood centre and local centres, which enables the rural residential development to be located as close as practicable to local service facilities. Provision is also made for an educational facility near to the Skellerup Block. The Public Transport network will also pass through the southwest part of Rolleston. Whilst the service is still located more than a desirable walking distance from the site, it nevertheless affords some opportunity for public transport to be utilised, particularly for longer distance trips where a longer walk time is likely to be more acceptable.

In summary, it is considered that the Structure Plan provisions will enable a high utilisation of alternative modes of transport for the rural residential development, when compared with possible rural residential development further from urban areas.

I trust that these responses satisfactorily address the matters raised by the Council on Point 7 of the RFI. If you have any queries, please do not hesitate to contact me.

Yours faithfully
Traffic Design Group Ltd

Andrew Metherell
Principal Transportation Engineer