

7. HAREWOOD ROAD/RESTELL STREET INTERSECTION SAFETY IMPROVEMENTS

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The purpose of this report is to inform the Council of a proposal to improve safety at the Restell Street/Harewood Road intersection and railway crossing. The Shirley/Papanui Community Board has also considered this report.

BACKGROUND

The design of the Restell Street/Harewood Road intersection, as it exists, was approved and installed in 1991 following protracted meetings between Railways representatives and a Subcommittee of Councillors and Board members. All of the problems currently being experienced at the intersection and railway crossing were predicted at that time.

Changes to the Restell Street/Harewood Road intersection were proposed to the Board in 1997, as a safety improvement to eliminate reported crashes, predominantly involving vehicles turning right out of Restell Street into Harewood Road.

As a result of consultation with the business community the proposal was deferred, pending further investigation. A report updating the developments to the Restell Street/Harewood Road intersection was presented to the Board in June 1999 (copy tabled). The Board's decision at this meeting was:

- *That the Restell Street/Harewood Road intersection [improvements] be deferred until the Northlands Mall service road construction has been finalised.*
- *That the Restell Street/Harewood Road intersection be entered into the next Annual Plan capital expenditure programme as a main roads safety project requiring substantial funding.*

CRASH RECORD

A total of 14 crashes have been reported at this intersection over the past ten Years (1993-2002). Correspondence to the Council has been received from a number of motorists and following the most recent crash (June 2002), the Police have requested a review of the intersection controls on safety grounds.

DISCUSSION

A detailed crash listing has been compiled for the ten year crash period 1993 – 2002. A total of 14 crashes are recorded in the official LTSA crash database. A breakdown of these crashes by year is detailed in the following table:

Severity/Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Fatal										1
Serious					1					
Minor	1		1		1	1				
Non-injury		2	2	2			1			1
Total	1	2	3	2	2	1	1	-	-	2

Analysis of the crash records reveal that the dominant traffic movement involving crashes is traffic right turning out of Restell Street into Harewood Road. These crashes (8) represent 60% of all recorded crashes.

Two crashes have been recorded within the last 9 months (June 2002, September 2002). Both of these were high profile, with a train impacting with a car on the railway line. The June 2002 crash resulted in fatal injuries.

The June 2002 fatal crash involved a vehicle exiting from Restell Street. In both instances the crashes involved vehicles being trapped between the rail and the currently installed barrier arm.

Council staff have received a number of calls from drivers caught between the barriers and the railway line. While these have not resulted in crashes, the risk of impact is very high.

INTERSECTION PROBLEM

Visibility from the Restell Street intersection is restricted to the right by both the adjacent vegetation in the kerb build-out adjacent to the railway line, and the vertical profile of the road due to the elevated rail crossing. This visibility restriction places an additional demand on the driving task. Observations on site would indicate that drivers are undertaking unsafe turning movements.

Remedial treatment to improve the visibility to the right, on exit, would require either the raising/re-profiling of Harewood Road, or the lowering of the railway embankment. Both of these solutions would require a large capital expenditure and may not eliminate the conflict between right turning vehicles and trains.

Restell Street intersects with Harewood Road approximately 14m to the east of the railway line. This proximity, in association with the acute angle that a vehicle is required to negotiate, makes the right turn movement difficult. Furthermore the desired turning movement undertaken permits the vehicle to enter the railway crossing ahead of the installed barrier arm. This movement does not allow any forward visibility onto the rail crossing signals.

The turning movement does not meet the required Council design standards. Some heavy motor vehicles undertaking this turn may require two attempts to complete the turn. This introduces an additional hazard and results in delays to traffic on Harewood Road.

Observations and measurements taken on site indicate that a car of average size would be safe in the zone between the barrier arm and the rail, if the vehicle reversed to the barrier arm. However, this placement would be very traumatic to the driver of the vehicle, with the train passing within one metre of the stationary vehicle. (Drivers have reported that they have been caught in this very situation.)

LANGDONS ROAD ROUNDABOUT

The upcoming programmed construction of the Langdons Road roundabout (which is part of the Northlands development) will have an influence on the traffic patterns within the local area. This will result in a redistribution of traffic flows within the local road network. An increase in traffic along Restell Street from the roundabout will increase the risk of crashes at the Harewood Road intersection unless changes are made.

SOLUTION

The extension of the existing central median island and banning the right turn movement out of and into Restell Street will eliminate major conflicts at the intersection and rail crossing. In addition, the proposed central median island will eliminate the high risk of turning traffic being trapped between the current rail safety barrier and the railway line.

CONCLUSIONS

The crash rate at the Harewood Road/Restell Street intersection and railway is high. In the past the Council has considered remedial work that would be cost effective and would eliminate the major conflicts at the intersection and railway.

Due to business community concerns about the banning of right turn movements at the intersection this work was deferred until the form of the Northlands service road was known and agreed upon. The anticipated increase in traffic along Restell Street once a roundabout is constructed at Langdons Road means the Council will need to reassess this project with a view to improve safety at this known black spot.

Allowance has been made in the draft 2003/04 budget (Safety Improvement Works) for work at the Harewood Road/Restell Street intersection. The Council will need to stress the importance of this project when consulting with the business community in particular.

The work should be completed as soon as practicable as planning indicates that the roundabout at the Langdons Road/Restell Street/Northlands service road intersection will be constructed in April 2003. The Shirley/Papanui Community Board considered this report at its seminar meeting on 17 March 2003 and supported the proposals and proceeding with consultation.

Recommendation: That the extension of the existing central median island, the banning of right turns and other improvements at the Restell Street/Harewood Road intersection, as illustrated on the attached plan, be adopted for consultation.