

3. HIGHSTED ROAD – PEDESTRIAN SAFETY

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The purpose of this report is to:

1. Advise the Committee of the outcome of meetings with community representatives affected by the proposal to install a pedestrian facility on Highsted Road.
2. Recommend to the Board, an option to progress this issue.

BACKGROUND

A report was presented to the Board on 2 October 2003, in response to community concerns about the safety of pedestrians, particularly children, crossing Highsted Road in the vicinity of Cardome Street and Drysdale Street. Options were discussed and the recommended option was agreed by the Board for consultation with the community.

A report was then presented in February 2004, advising the outcome of this community consultation. The Board requested further survey information relating to the proposal. This is presented below.

SURVEY RESULTS

a. Speed Survey

The **attached** speed survey data (attachments A1 and A2), reveals that there is a marginal difference in operating speeds, when comparing mid day, to afternoon school travel time. The information reveals that the 85th percentile speed, (15% travel faster than this) is in the range of 56-59 km/hr. It is considered that these motorists are travelling too fast for the conditions at this location. Experience has also shown that the 15% of motorists travelling faster than this do cause concern to the local community, as they tend to “stand out”, as speeding motorists.

b. Vehicle numbers especially prior to and after school times

The **attached** survey data sheets (attachments B1 and B2) provide information on vehicle movements over an hour period at 8.15 to 9.15 am and 2.45 to 3.45 pm on a school day.

c. Pedestrian movements crossing Highsted Road

The **attached** survey sheets (attachments C1 and C2) detail the pedestrian road crossing movements, in the vicinity of the two intersections. The crossing movements were divided into four locations, as detailed on the plan. These indicate the desire lines of the pedestrians observed crossing. It was clearly observed that more children cross to the west of Cardome Street, and to the east of Drysdale Street, than cross between the two streets (mid-block).

d. Parking related issues

The **attached** parking survey results (attachments D1 and D2), detail the number of vehicles parked at the kerbside, on each side of the roadway, within the area subject to the proposed parking restriction. In the morning peak hour, the maximum number of vehicles parked both sides was three. This happened for two separate 1 minute periods. There was usually no vehicles parked on the south side. There were usually two vehicles parked on the north side.

During the afternoon school peak hour, the maximum number of vehicles parked both sides, was four. This occurred for three separate 1 minute periods. There was usually one vehicle, parked on the south side. There were usually two vehicles parked on the north side.

One of these vehicles appeared to be parked all day on the north side, outside the property on the northwest corner of Cardome Street.

DISCUSSION AND CONSIDERATION OF SURVEY RESULTS

History has shown that the installation of central islands and flush (painted) median does calm traffic speeds. This will certainly mitigate the concern about speed on Highsted Road raised by many residents as a result of the consultation regarding this crossing proposal.

In regard to the volume of vehicles surveyed, the left turning movements out of Cardome Street fluctuate considerably at school peak times. For example, between 2.45 – 3.00 pm (just before school finish), only one vehicle turned left, out of Cardome Street. From 3.00 – 3.15 pm, 56 vehicles turned left. This coincides with children crossing Highsted Road, and greatly increases the probability of an incident.

The combination of high left turning vehicle volumes particularly out of Cardome Street (previously reported as an issue if children are encouraged to cross midblock), and the number of right turners into both Cardome Street, and Drysdale Street, reinforces my professional opinion and experience, that the proposed islands would be correctly placed.

These observations confirm the need for the location of two islands. As previously reported, those pedestrians that do cross between the intersections would benefit from the “shadow effect” of the two islands, which channels traffic away from any person waiting on the 2 metre wide painted median.

The observed parking is not a high demand, and there appear to be alternatives for this parking demand nearby. It is acknowledged that some residents prefer the convenience of kerbside parking, this needs to be balanced against the safety of children crossing this roadway. The Council's Parking Strategy identifies both road safety and the needs of pedestrians and cyclists as higher priorities than kerbside parking in the allocation of road space (see page 14, special notes).

COMMUNITY FORUM

More recently, in discussion with the Board Chair and Deputy Chair, it was suggested that a community forum be established, comprising affected residents, school parents, school officials and Council staff to attempt to seek an agreed solution, to be reported back to the Board.

This community forum met on 16 June 2004, where it was decided to further consider three options:

- The originally proposed two island option proposal (option 1 **attached**).
- A single island option, which the island location being to the northeast of Drysdale Street (option 3 **attached**).
- A single island option, with the island located between the intersections of Cardome Street and Drysdale Street (option 2 **attached**).

The community forum met again on 21 July 2004 to consider these three options. A table summary of the issues for each option is **attached**. The outcome of that meeting was general agreement for the centrally located single island option. This followed discussion on requirements to mitigate the safety concerns of a crossing point located on the departure side of left turn manoeuvres by vehicles. This option would reduce the extent of parking restrictions required, but residents still requested that parking bays be investigated on Highsted Road between the two intersections, to further reduce the effect of the parking restriction. Some school parents while agreeing to consideration of this single island option, preferred the original proposal for two islands.

It was advised at the meeting that further investigation into the feasibility of this option needed to occur, to be reported back to this Committee. Issues relating to potential conflicts with residents' vehicles required to negotiate the centrally located island was also discussed.

PARKING SURVEY

In addition to the parking survey carried out during school travel times, I was requested to survey vehicles parked in the affected area during other times.

The results of this further survey are:

Day	Date	Time	Vehicles Parked on Northwest Side in Affected Area For:				Vehicles Parked on Southeast Side in Affected Area For:			
			Option 1	Option 2	Option 3	Option 4	Option 1	Option 2	Option 3	Option 4
Monday	26-7-04	19:25	3	2	2	2	1	1	1	0
Tuesday	27-7-04	11:10	3	2	2	2	2	2	0	2
Tuesday	27-7-04	12:55	2	1	1	1	2	2	1	2
Tuesday	27-7-04	16:55	3	1	0	1	1	1	0	0
Wednesday	28-7-04	16:55	1	0	0	0	2	2	0	2
Wednesday	28-7-04	07:45	2	1	1	1	0	0	0	0
Wednesday	28-7-04	17:50	2	1	1	1	3	2	1	1
Thursday	29-7-04	18:55	2	1	1	1	2	1	1	0
Thursday	29-7-04	07:45	2	1	1	1	1	0	0	0
Friday	30-7-04	20:45	2	0	1	0	2	1	1	1
Saturday	31-7-04	13:30	3	2	2	2	0	0	0	0
Saturday	31-7-04	17:30	3	2	2	2	2	1	1	1
Sunday	1-8-04	17:10	2	1	1	1	3	2	1	2

The survey revealed that two to three cars are usually parked on the northwest side within the maximum affected area of Option 1. On the southeast side, there were generally one to two cars parked within the maximum affected area of Option 1. While Option 1 has the greatest effect on kerbside parking, this option usually accounted for one extra car, observed parked at the extremity of the parking restriction, on the northwest side. The position of each car was noted during the survey. The maximum distance any person would be required to relocate a vehicle under any option, to the nearest available kerbside park, is 30 metres, from the surveyed position.

PARKING BAYS

All four options provide the opportunity to install parking bays on either side of the roadway, between the two intersections to mitigate the parking restriction. As discussed at the community meeting, this would require the removal of existing street trees. The Community Board has the delegated authority to request removal of street trees on a "one off" basis, as would be the case at this location. The advice I have received from Greenspace staff, is that course of action occurs only after consultation with the community about the removal of the trees.

The estimated cost of a two car parking bay on the southeast side is \$15,000. The estimated cost of a two carparking bay on the northwest side is between \$17,500 and \$20,000 dependant on location due to what option with island position is used.

COST OF OPTIONS

Option 1 (originally proposed option).

This was estimated at approximately \$25,000. The addition of two parking bays has the potential to increase this to \$57,000 - \$60,000.

Option 2

Estimate without parking bays = \$36,000

Estimate with parking bays = \$68,000 - \$71,000

Option 3

Estimate without parking bays = \$12,000

Estimate with parking bays = \$44,000 - \$47,000

Note: The parking bays are not as critical with this option, due to a lesser requirement for parking restrictions.

Option 4

Estimate without parking bays and with threshold at Cardome Street = \$86,000

Estimate without parking bays and without threshold at Cardome Street = \$59,000

Estimate with parking bays and with threshold at Cardome Street = \$118,000 - \$121,000

Estimate with parking bays and without threshold at Cardome Street = \$91,00 - \$94,000

DISCUSSION

Following the Community Forum meeting, further analysis/peer review by an independent consultant of Option 2 (centrally located island), suggested that this option is not ideal in terms of safety for pedestrians, potentially conflicting with traffic entering/exiting two vehicle entrances. Analysis of other islands where vehicles cross over the island for property access reveals that passing vehicle speeds are lower. The effect of this is to reduce the likelihood of vehicles using the island at higher speed, as following vehicles are travelling slower. The Consultant's advice is that the painted median should have appropriate tapers to safely channel traffic around the island, and provide for turning manoeuvres at the intersections. The effect of this is that the parking restriction difference to Option 1, is minimal. As a result a further Option 4, has been developed (**attached**). This option has a single island, located between the two intersections but the island is located towards the Drysdale Street intersection. This does remove the potential conflict with entering/exiting vehicles at driveways but creates other safety concerns, requiring further work to mitigate effects. With the crossing point being effectively closer to the intersection for Option 4, compared to Option 2, advice from consultants is that a traffic threshold treatment (as illustrated) is required to further reduce the probability of left turning traffic vs pedestrian crossing conflict. A threshold is consistent with the road classification (Highsted is a collector road and Drysdale is a local road.) A threshold also benefits pedestrians required to cross Drysdale Street at the intersection. A threshold has been identified at the Cardome Street intersection, by the consultants for the same reasons, although a corner radius modification would suffice.

CONCLUSION

Survey information reinforces the need and opportunity to create a safer environment for vulnerable road users, being cyclists and pedestrians. Cyclists who are right turning at the side road intersections will benefit from the flush median and islands. Pedestrians are crossing at multiple crossing points and this proposal provides safer and more focussed crossing areas of the road, rather than a single crossing point. The proposals affect kerbside parking, however there appear to be reasonable alternative parking options nearby. Nevertheless, it is accepted that affected residents may have a different opinion on this issue, as in all similar situations across the city.

When considering options described in the original Board report and options described here, a comprehensive analysis of this issue has been carried out. In responding to concerns raised by the school community, this project has developed into trading off an issue of child safety crossing the roadway and the effect on residents' parking. With the exception of Option 3, the recommended roadspace requirement and therefore parking restriction requirement, as recommended by consultants is not too dissimilar for the three other options. Parking surveys, identifying positions of vehicles after hours, demonstrates that a person would have a maximum of 30 metres extra distance to walk from the nearest available kerbside parking if the parking restrictions were installed without parking bays.

Further options considered do not optimise objectives achieved as with the originally proposed option (Option 1). These further options create a cost escalation far in excess of the programmed budget and project cost is a factor when assessing the relative priority, with respect to all other road crossing projects requested. Installation of parking bays would require additional consultation with the community in regard to street tree removal. Further consultation is required if an option is recommended which is fundamentally different from the originally consulted Option 1, which:

- Is within budget
- Is able to maximise crossing options
- Has been publicised to the community
- Has other benefits to other road users, ie right turners into Cardome and Drysdale Streets
- Has effects on kerbside parking for Highsted Road residents

For these reasons, it is my opinion that option 1 remains the preferred one from a technical perspective.

Staff

Recommendation: That the Committee recommend to the Fendalton/Waimairi Community Board that it proceed with Option 1 (the option as originally proposed to the community in leaflet No 1744).