

Effectiveness of T2 Parking for the Busway and Wharfs in North Shore

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1.0 Introduction

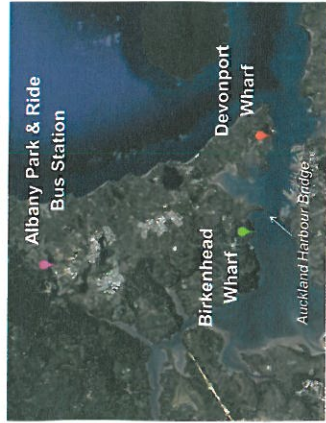


Fig.1.1 - Locations of T2 Parking, source: Google maps

In 2010, Auckland Transport implemented T2 Parking, preferential parking for high occupancy vehicles containing two people or more commuting from the North Shore via public transport. It helps to relieve demand on the motorways and parking in central city thereby increasing public transport usage. The aim of T2 Parking is to encourage carpooling during morning peak by providing convenient parking. This research investigates the effectiveness of T2 Parking at the Albany Park and Ride Bus Station, Devonport Wharf and Birkenhead Wharf in North Shore, Auckland. The T2 Parking provision applies from midnight to 9:30am, Monday to Friday.

2.0 Methodology

Step 1 Traffic Observation

- Record time when T2 Parking spaces are full
- Determine number of high occupancy vehicles (HOV) parked in the car park at 9:30am

Step 2 Direct Interviews

- Obtain opinions from users on T2 Parking

Step 3 Data analysis

- Identify T2 Parking demand
- Determine people's understanding on T2 Parking

Acknowledgements

- Assoc Prof R. Dunn & B. Clement (University of Auckland)
- S. Ebbett & A. Blom (Auckland Transport)
- Other transportation authorities and organisations

3.0 Results

Fig.3.1 - The time when T2 Parking is full in the three car parks

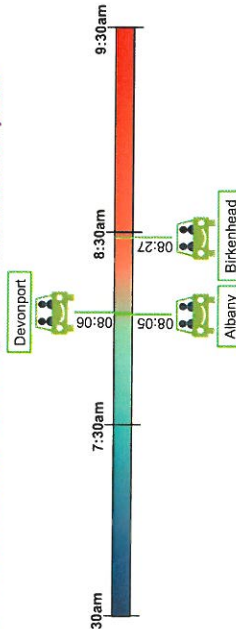


Fig.3.2 - T2 Parking Capacity vs. Extra Demand



Fig.3.3 - T2 Parking misuse (out of 10 surveys at each site)

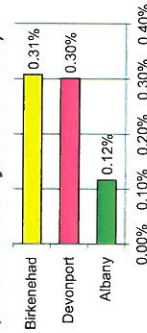


Fig.3.4 - Reasons for carpooling in the three car parks

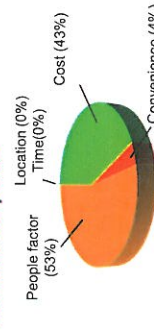


Fig.3.5 - Users' Understanding on T2 Parking

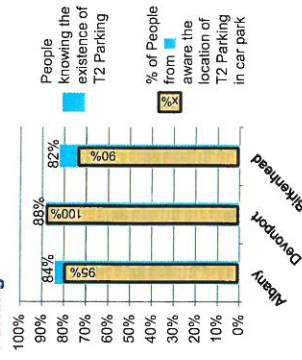


Fig.3.6 - Carpooling Statistics of T2 Parking

Location	Already Carpooling	Potentially in the future	Unwilling
Albany	9%	81%	10%
Devonport	22%	49%	29%
Birkenhead	31%	59%	10%

4.0 Data Analysis

- T2 Parking in the three car parks is fully occupied reasonably early, between 8am-8:30am, indicating high popularity of the provision by the users. (Refer to Fig.3.1)
- The number of HOV/T2 Parking Capacity found in Albany, Devonport and Birkenhead are 84/45, 37/29, and 29/10 respectively. Therefore extra demand of T2 Parking spaces is required. (Refer to Fig.3.2)
- T2 Parking misuse in Albany (0.12%) is low compared to Birkenhead (0.31%) and Devonport (0.30%). (Refer to Fig.3.3)
- Carpooling is enhanced by available carpool partners such as colleagues, friends or family members. (Refer to Fig.3.4)
- Knowledge and awareness of T2 Parking in the three car parks were recorded to be high (above 80%). (Refer to Fig.3.5)
- The potential to increase in carpooling at all three sites was high; 81% in Albany, 49% in Devonport, and 59% in Birkenhead. (Refer to Fig.3.6)

5.0 Discussion

Although the users are aware of T2 Parking (82-88%) and its location in the three car parks (90-100%), the percentage of carpoolers is low (varies from 9-31%). Possible reasons for this are:

- Insufficient T2 Parking available
- Too many non-T2 Parking spaces compared to T2 Parking spaces available
- The inconvenience of carpooling

How to develop a strategy to help non-carpoolers to carpool?

- Develop a software programme to bring people together.
- Provide notice board at station/wharf allowing interested parties to find carpool partner.

6.0 Conclusion

As shown in Fig.3.2, the existing T2 Parking is fully utilised at the three car parks. The main conclusion of this research is that T2 Parking provisions are effective for carpooling and can promote the use of public transport on the North Shore in Auckland. Potential for improvement exists for further considerable increase of T2 Parking utilisation as given in recommendations below.

7.0 Recommendations

From this research, it is recommended to:

- Increase T2 Parking spaces to meet the three car parks demand.
- Provide level of vacancy of T2 Parking (using electronic number board or Way Finder indicator lights)
- Consider re-arrangement of car park to provide better and more convenient T2 Parking particularly at Birkenhead.
- Consider providing penalties for repeat offenders particularly at Birkenhead.
- Provide more incentive for T2 Parking usage of the three car parks such as discounted bus/ferry fare and free coffee coupon. Charging for the non-T2 Parking could also be considered.
- Continue monitoring the changes and demands of the three car parks.