

Chapman Rd.

Hortonsview

Bridge Dr.

00052

3. Future Demands

3.1 Ferry

The draft Auckland Ferry Strategy has undertaken an assessment of the possible demands for a ferry service between Te Atatu and downtown Auckland. This assessment includes factors such as employment in central Auckland, car ownership and likely catchment area. It has not included ease of access and assumes that the ferry would be available to cyclists, pedestrians, bus and car users. The primary catchment is within a 1.5 km radius and covers Te Atatu between Edmonton Road and Beach Road. The secondary catchment covers the rest of Te Atatu Peninsular and the area north of Strid Road.

The travel time by ferry to downtown Auckland is estimated at 38 minutes which is similar to buses with priority and some 10 minutes faster than car. The travel time includes access time but not the time to travel from home to the wharf.

The Auckland Regional Authority requires a half-hour service so consequently two vessels of approximately \$1 million each would be needed. The ferry strategy has estimated that the demand in 2016 would be 139 daily passengers of the total 939 potential trips to downtown Auckland. This estimate does not include tourists who may visit the park or other attractions such as the wineries. No estimate is provided on likely access mode, but if 1 in 2 arrived by car, parking requirements would be of the order of 70 spaces. However Fuller Group have indicated that parking for up to 150 cars would be considered the minimum together with bus access, sheltered walkways and a covered waiting area for up to 60 passengers.

The strategy has rated the ferry service as priority 2 with the timing dependent on the residential redevelopment of land in proximity to the proposed wharf. This land area is now included in the Peoples Park and major increases in residents close to the interchange area is not possible.

The relevant sections of the regional ferry report are attached in **Appendix E** for easy reference.

3.2 Bus

Demands

The future demands for a park and ride generated by the buses services are hard to ascertain from the available information. The Regional Passenger Transport Plan defines the major bus corridors for 2003 and does not indicate any improvements. The major focus is given to the upgrading of the existing rail line as part of the Rapid Transit Network. Overall bus patronage in the region is estimated to increase from 42.2 million passenger journeys in 2001 to 57.9 million in the ten years to 2011. While this 37% increase would mainly arise from the North Shore busway and regional rail upgrading, smaller increases in the Te Atatu area are likely. In addition, the new development in the Hobsonville area and adjacent to the Upper Harbour motorway will require additional public transport links, some of which would use the North Western motorway.

Park and Ride

The layout of Te Atatu means that a park and ride is most likely to assist travellers from the peninsular. At present the data shown in section 2.2 indicates that at least 450 people are leaving Te Atatu Peninsular each morning by bus with 70 % heading to Auckland City. The bus route servicing the area covers the majority of the area and any park and ride facility would be unlikely to result in a significant increase in demand. It is estimated that up to 10 % of the bus passengers may use such a facility.

For commuters from the south, a considerable delay in their journey time to the east arises in the queuing in Te Atatu Road to gain access to the motorway. Some people may choose to transfer to buses north of the motorway interchange, but the time to turn at Toru Street, park the car and then walk to and wait for the bus is likely to exceed any time saving over the car trip provided by the bus priority systems into Auckland Central. The same scenario would apply to car occupants presently using the motorway. The estimate in the ferry report indicates that less than 1000 Te Atatu residents are likely to be employed in the downtown area of Auckland City. The bus system is already handling a significant portion of this demand and the provision of a park and ride is unlikely to increase the number of bus riders.

Consequently a small park and ride facility of up to 50 vehicles may be useful near the Te Atatu interchange. Larger parking areas would be better made available at the commencement of congested areas or at the start of rapid transit systems. In Waitakere City these would include Swanson and Sturges Road for rail and the Westgate area for buses initially and possible LRT at a later date. These facilities may assist the major increase in market share for Public Transport recommended by the RLTS of 20% for the Northwestern motorway and 25% from West Auckland. (See Appendix F)

4. Opportunities and Constraints

The study area will be effected by a number of major projects over the next few years. Some of these are about to enter the design stage and the opportunity exist to incorporate public transport features and ensure that other travel modes such as walking and cycling are considered. The following table indicates the some of the identified issues and the transport service on which they would impact.

Opportunity	Mode
A reasonable number of car parking spaces would be available during the weekday. These are associated with the Harbourview Peoples Park.	Bus and Ferry
Integration of the Entry Statement proposals with planting for parking or bus stop locations.	Bus
Park access for pedestrian and cycles used for park and ride access	Bus
Shelter available to both Park and transport users	Bus
Use of Bridge Ave wharf facilities for ferry service	Ferry
Extension of the Westpark ferry route to Chapman Road (Henderson Creek). This would require a new wharf structure.	Ferry
Likely increase in motorway based bus routes.	Bus
Proposed widening of the motorway could provide Public Transport or High Occupancy Vehicle priority.	Bus
Early provision of Bus priority lanes associated with any proposal.	Bus

Constraints	Mode
Large walk up distances for residents reduces ease of use and attraction.	Ferry Bus
Lack of defined catchments for bus service with respect to rail system	Bus
A proposed wharf in an isolated area	Ferry
Constraints in the District and Regional Plans (buildings and dredging)	Ferry
Difficulty in providing good access to car park for return journey bus trips	Bus
General security issues for people and vehicles due to limited activity in the area especially in the evening.	Bus Ferry

The following concepts have been developed with the desire to minimise the constraints while building on the opportunities.

5. Concepts

Several concepts have been developed for both transport modes. An assessment of the practical operation requirements has been undertaken, the facilities required listed and the advantages and disadvantages discussed.

5.1 Local Ferry

Operation

The Peoples Park concept provides a ferry pier as part of its design. This is in a location previously considered and some preliminary studies have been undertaken in the area. Long shore drift and wave action has been highlighted and wave protection and regular dredging have been identified as likely to be required if the ferry is to dock close to the shore. In addition, emergency vehicular access and amenities such as toilets and shelters would be required for the operation of a regular ferry service. The ARC requirements have been considered in previous sections but the shallow water and proximity to the shore would require the ferry to operate at slow speed for much of the journey past Te Atatu Peninsular unless special dispensation is obtained.

To be an effective commuter service and match bus and car travel times into Auckland Central, parking would be required near to the wharf.

Facilities

The wharf would be between 100 and 200m long depending on the final location in order to reduce the need for dredging. Covered access and safety rails would be required together with a small waiting area providing timetables seating and possibly toilets

Several locations for parking areas have been considered. The obvious area is under the power pylons to the south west of the wharf. The road access would be extended from the marae and follow the curve of the Transit land in order to minimise the effect on the open space. Access to the wharf would then be via steps or a path down the escarpment. Given the lack of emergency access and the high personal safety risks, this option was not pursued further.

Parking near the foreshore would be desirable for the ferry but the adjacent historic sites and the escarpment limit the available space.

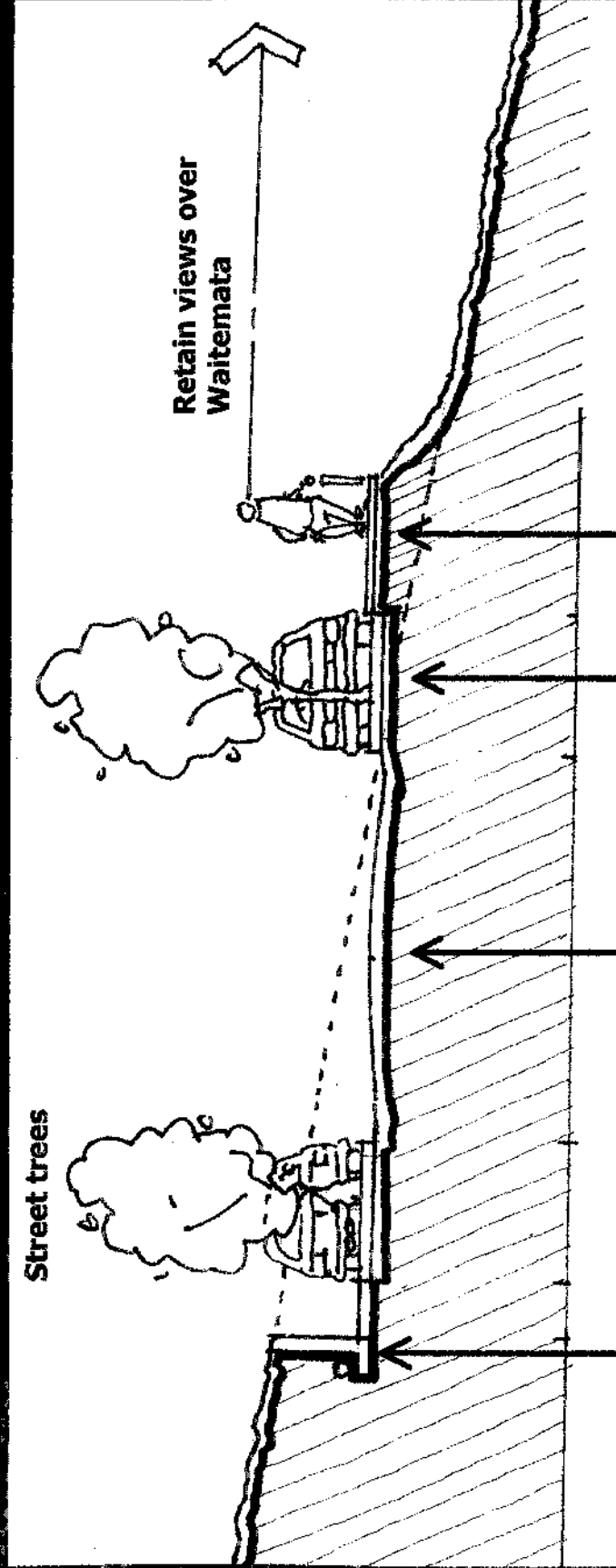
The most practical location for parking would be on one or both sides of the access road. The road width would be at least 10.5m wide and special design features and planting would be required to restrict speed and incorrect parking.

Discussion

Any car parking adjacent to Te Atatu Road or the motorway would be unlikely to effectively serve a ferry operation. If a ferry commences, a road access would be required for safety reasons. This road could follow the proposed pedestrian route and parking could be provided along its length. This would introduce vehicles into the main area of the park and this appears to be an inappropriate use of the area. Physical barriers are likely to be required to stop traffic after ferry operations have ceased. Given the small number of users and limited timesaving for the journey to downtown Auckland, a ferry service at this location appears to have little benefits.

ferry access cross section

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Possible retaining wall

5.5 m wide access road

Pedestrian board-walk
to be retained along
access roads 'outer' edge

On-street parking along
both sides of roadway
(250m in length) includes
tree every 4 bays

□ **Costs**

Ferry Pier (From Alan Betts report)	\$905,000
Waiting Room	\$70,000
Road access and parking	\$676,000

Total costs for ferry access and structures are \$1.65 million.

5.2 Other Ferry Locations

□ **Operation**

Council wishes to pursue the option of a ferry service for Te Atatu. There is an existing wharf at the end of Bridge Avenue which has some facilities and reasonable parking. The Auckland Regional Council reported that some concerns had been raised about the restriction to vessel passage due to the lack of headroom at the motorway bridge. Discussions with recreational users confirmed that clearance of about 2m was all that was available at peak tides. This would be insufficient for most ferries and precludes its commercial use. In addition the road access is difficult and major delays and traffic safety issues have been predicted at the intersection of Bridge Avenue with Te Atatu Road should increase traffic use the route.

An alternative site is possible at the end of Chapman Road in Te Atatu Peninsular. This location would enlarge the area of public transport options and encourage its use for travellers to downtown Auckland away from the heavily congested Northwestern corridor. There is a boat club, boat ramp, a park area and some onstreet parking but considerable civil work including a wharf would be required for ferry service. The service would be an extension of the more favoured West Harbour ferry route but it would be unlikely to serve visitor use or off peak patronage. The additional 1.5km would require an extra 10 minutes at slow cruising speeds. No work has been done to fully assess the site but costs appear similar to the wharf in the Peoples Park.

5.3 Single Park and Ride (Option 1)

□ **Operation**

This option uses a portion of the proposed central car parking facilities for the Harbourview Peoples Park for a bus-based park and ride system. Buses already on Te Atatu Road (north) would stop south of Toru Street for inbound journeys. Some or all buses on or entering the Motorway at Te Atatu interchange would be diverted to the area and turn at Toru Street roundabout. This would involve an extra kilometre of travel.

□ **Facilities**

A recessed double bus stop with shelters would be provided on the exit side of the proposed roundabout at Toru Street. The bus passengers would use carparks at the greatest distance from the park facilities and are predicted to fill the last two rows or about 5% of the proposed parking spaces.

□ **Advantages**

Minimal changes to the proposed Harbourview Peoples Park would be required and the security of the area would be adjacent to a busy road. The numbers of residents within a 400m radius (which is used as a reasonable walking distance to a bus stop) would be increased but this area does not include Harbourview Estate.

❑ Disadvantages

Express buses on the motorway would need to leave the route. This would add approximately 3 minutes to the travel time that excludes boarding and alighting times and traffic delay. Returning users on Peninsular buses would be required to cross Te Atatu Road to the car park. Ferry passengers would be unlikely to use the facility, as the proposed jetty is 700m to the southeast.

❑ Costs

Most of the costs would be included in the Harbourview Peoples Park development. The proposed recessed bus stop would be included in the new roundabout at Toru Street but the marginal cost for this work is estimated at \$25,000

5.4 Multiple Park and Ride (Option 2)

❑ Operation

This arrangement minimises the bus diversions by providing parking close to the motorway. It also requires that the bus routes be altered to ensure that the bus stops for both inbound and return journeys are within easy walking distance.

A new bus stop would be provided on the Auckland bound on ramp from Te Atatu Peninsular. This could serve all eastbound buses. The return journey would require a drop off point for buses heading to both Henderson and Te Atatu Peninsular. This could be provided at the newly formed bus only lane at the top of the westbound off ramp. The location is unlikely to add any significant delay to buses, as the stop would be solely used for alighting passengers. A shelter is therefore not required.

❑ Facilities

An enlarged carpark close to the proposed marae would be required. This should provide at least additional 50 spaces and could be constructed with a permeable surface. It could also serve as an overflow park for major meetings at the marae.

A double bus bay on the on ramp is required. This would serve all routes, as there is a common destination for all buses using this ramp. An illuminated double shelter with sidewalls is recommended to meet the likely passenger demands.

Pedestrian access from the proposed carpark to the on ramp is direct but patrons returning to the area would need to cross two motorway ramps. The off ramp has a set of traffic signals with pedestrian facilities but the footpath on the eastern side of the motorway bridge peters out before the on ramp. This path would need to be enlarged to a shared path with cyclists and a crossing point would need to be provided. The sightlines suggest that an at-grade crossing point could be satisfactory but the final design should be incorporated with the proposed access to the Peoples Park from Te Atatu south.

The access to the on ramp bus stop from Henderson is to be provided by a bus only right turn lane at the northern side of the interchange. There is sufficient area for a

short lane to be installed. This improvement may be undertaken prior to any park and ride facility as the existing buses would be able to use the central lane on Te Atatu Road and so avoid some of the delays associated queuing in the area.

□ Advantages

The proposed layout would meet and improve the needs of existing bus operations. It is relatively easy to install and is in a well-lit area for passenger security. Some Park visitors would also use the access paths.

The provision of two smaller car parks for the park would reduce the visual and environmental impacts. The close proximity of the park and ride area to the motorway may encourage the use of bus services.

□ Disadvantages

The motorway bus service would be required to leave the main route to service the park and ride. Delays would be reduced by the use of bus only lanes but the boarding times would increase the travel time of the service. Other traffic would be tempted to use the bus lanes to reduce their delays.

The location of the enlarged carpark is below eye height but within the sight areas proposed in the Peoples Park plan. While the distance from the carpark to bus stop is less than 200m the area is exposed and walking in wet weather would be unpleasant.

□ Costs

The southern car park has been re-positioned from the Peoples Park plan and thus may be included in that cost. The cost of a 50 car space area excluding special drainage improvements which would be included in the Marae area are estimated at \$276,000

Additional construction costs are

Bus stops with safety area and platform	\$30,000
Shelters	\$10,000
Bus only lanes	\$ 82,000

Total costs are therefore approximately \$400,000

5.5 Bus Interchange

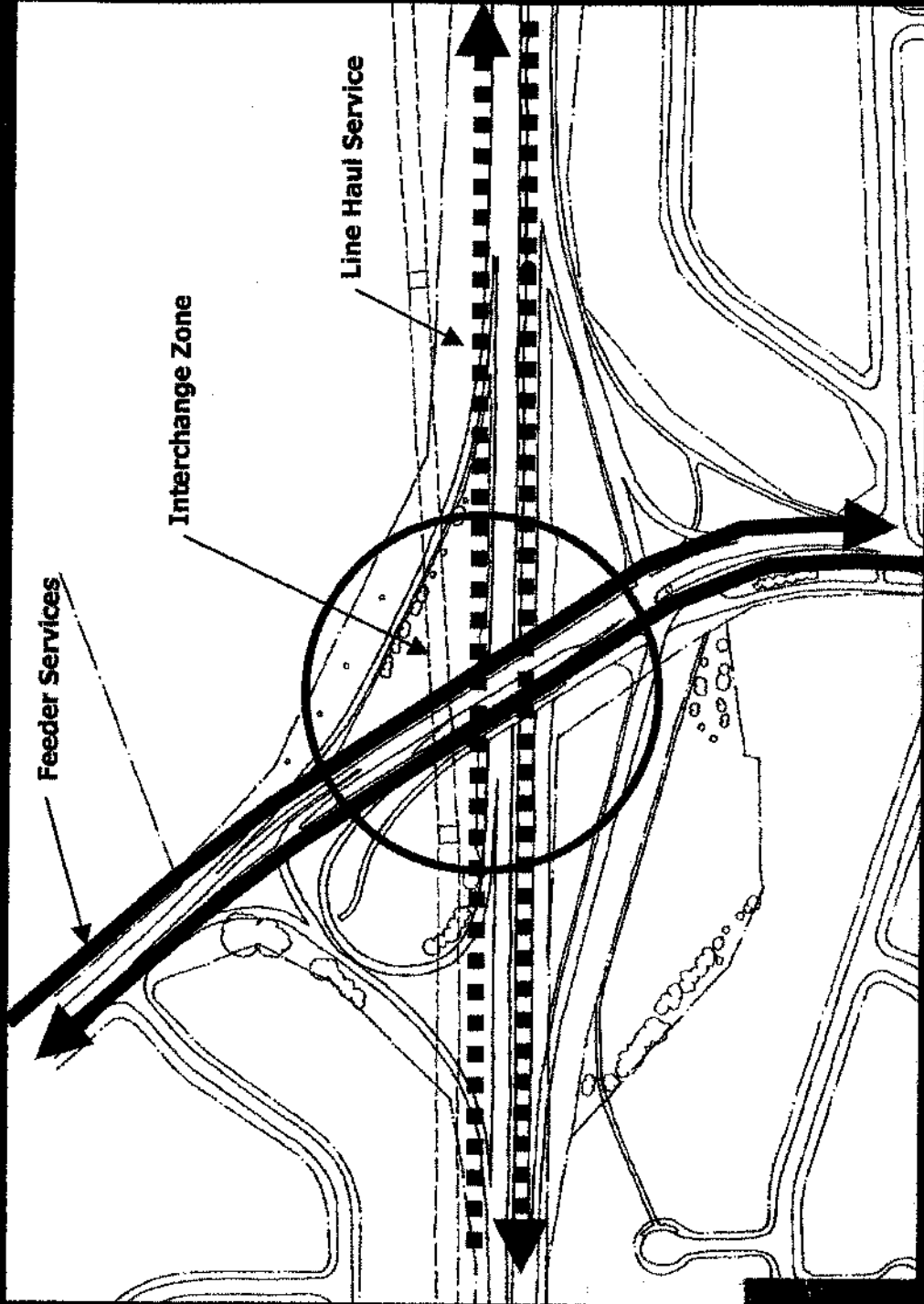
□ Operation

As part of the review of bus routes in this study, it became apparent that the future bus routes may well develop into a line haul and feeder system. The internal routes could be based on Henderson and other rail stations and a line haul route along the motorway, servicing West Harbour, Massey and locations further north. With this in mind an interchange between Te Atatu Peninsular and the motorway was explored to determine the impact, if any, on the proposed park and ride station.

This new system would allow a transfer of passengers between both routes without the need for buses to divert significantly from the main route. A design is possible and the pedestrian access between the motorway stops and the bridge could integrate well with the vertical structures being considered for the City entry statement. The concept would require covered walkways over the motorway bridge and these would need to be transparent (similar to Grafton Gully bridge) to enable the panoramic views to the harbour bridge to be enjoyed.

Bus interchange option

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❑ Facilities

This project would need to have two bus stop areas within the motorway reserve, two connections between the bridge and the motorway, which would need both disabled access as well as stairs, two bus stops on the bridge for local trips, and a connection to the Peoples Park.

❑ Advantages

The design could meet likely future needs of the bus-based network. It would reflect Councils commitment to Public Transport and could be integrated into the different park and ride options

❑ Disadvantages

The system requires a major change to the present bus operation but could be implemented when the need is established.

The bus stop for westbound buses on the motorway could restrict any proposed cloverleaf off-ramp to Te Atatu Peninsular which may be developed in the future. However the design will allow the motorway to be widened by a further through lane.

❑ Costs

Motorway widening	\$595,000
Access including lift	\$476,000
On ramp bus stop	\$112,000

The total cost is therefore approximately \$1.2 million

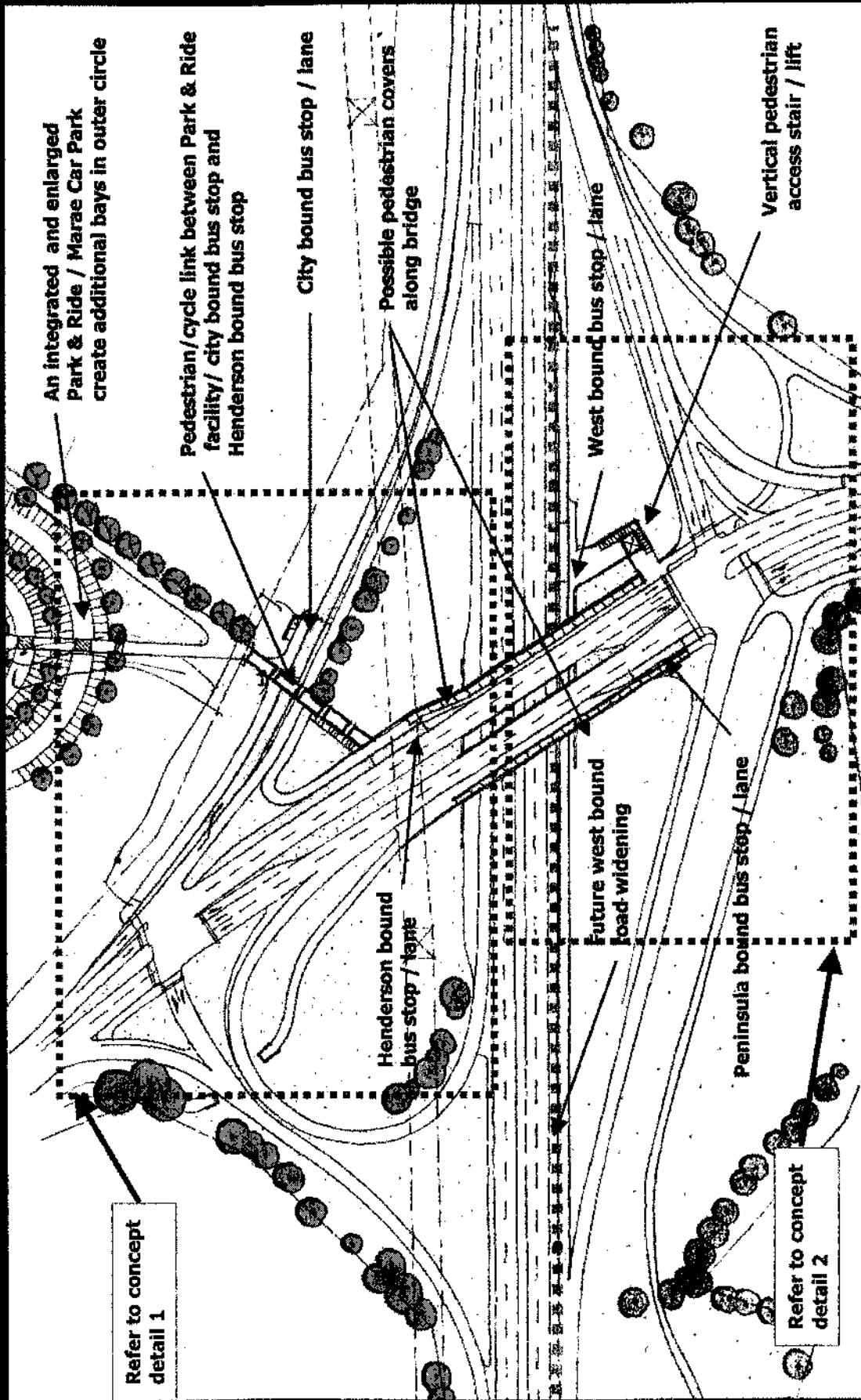
5.6 Integrated Approach

From all the options, a long-term scheme has been developed that brings together the salient features to improve public transport facilities while integrating with the likely projects in the area. This option provides a long-term scheme that has the flexibility to provide initial improvements but respond to likely changes in road design and public transport operations. The proposal provides:

- ❑ A small park and ride of 50 vehicles as an addition to the marae carpark area.
- ❑ Bus stop and shelter on a widened eastbound motorway on ramp adjacent to the Peoples Park
- ❑ Bus priority measures at the northern motorway ramp intersection for north and eastbound vehicles.
- ❑ Covered pedestrian routes from Te Atatu south to both the Peoples Park and the Park and Ride area.
- ❑ Bus stops on westbound lanes of the motorway
- ❑ A pedestrian route between the Peoples Park, the Te Atatu bridge and the motorway that is integrated with the entry statement design
- ❑ Planting that shields the parked vehicles while enhancing the view.
- ❑ The design could be constructed in stages to meet the changing needs.
- ❑ Installation of traffic signals at the northern intersection of the motorway ramps to assist pedestrian access and bus priority measures.

An integrated concept

Te Atatu Peninsula Public Transport Options



6. Recommendation and Staging

Council has identified the Harbour View land at Te Atatu Peninsula as a possible site for the development of significant bus and ferry facilities, as it is close to the Northwestern Motorway and the Waitemata Harbour. This project was to identify the best location and provide concept designs for bus and/or ferry facilities and associated park and ride areas so that the opportunity to build these in the future could be protected. The clients brief was not to undertake a feasibility assessment, but high level assumptions on the likely public transport patronage levels were obtained from other studies.

This study has reached the following conclusions:

6.1 Ferry Service

- Low patronage is predicted for the ferry service from Te Atatu.
- A ferry wharf in the Whan River located north of the motorway has significant engineering, and costs issues. Resource consents will require a major submission.
- No safe and convenient parking can be provided in the southern sector of the People's Park for the service.
- The existing wharf facility at Bridge Avenue can not be used in all tide conditions by existing vessels.
- X Ferry service to the northern sector of the Te Atatu Peninsular should be considered further.
- X If the Peoples Park service is to be pursued, parking along the access road provides the best arrangement. The access road would be 5.5m with widening to 10.5m for 250m. A turning area would be needed near the wharf.

6.2 Bus Service

- A Park and Ride facility at Te Atatu would have a limited patronage catchment.
- X The use of bus priority features on the Te Atatu on ramps would improve both existing and future bus services.
- Both the above features could be provided before or during the development of the People's Park.
- ? A full public transport interchange is considered to be the best long-term option in the area.
- A concept design has been identified with features that can be built as other projects occur and/or as public transport needs arise.
- This proposed concept integrates public transport, pedestrian access to the park, proposed entry statements by the Council, and existing and proposed cycle and walking routes.

6.3 Staging

The following construction programme could be undertaken to assist public transport in the Te Atatu area.

- Stage 1 Provide bus priority measures at the northeastern on ramp at the Te Atatu on-ramp
- Stage 2 Expand the marae carpark by 50 spaces for a park and ride area and construct a bus lane and stop on the northeastern on ramp. Divert all or some of the motorway express buses through the facility
- Stage 3 Upgrade the pedestrian and cycle access to the Peoples Park by building a shared path on the eastern side of the motorway bridge. This should include a clear pedestrian cover and provide widened area for bus stops.
- Stage 4 Develop a terminal at the Te Atatu motorway interchange when the bus system increases the motorway services.

