

Document Status

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Revision Status

Version	Date	Reason for Issue
0.1	20/10/22	Draft for Review
0.2	14/12/22	Final

Disclaimer

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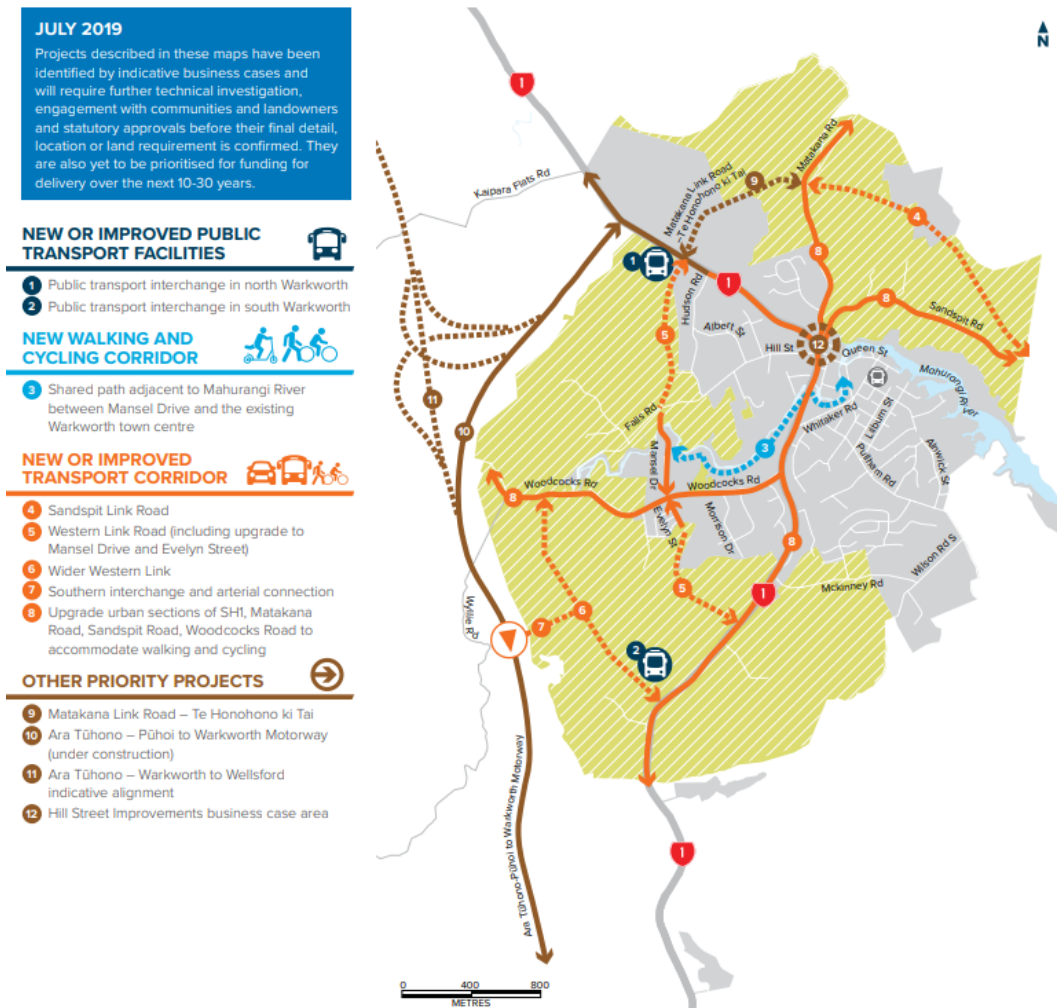
1 Introduction

This technical note has been prepared to confirm the form and function of the northern section of the Western Link Road (WLR).

2 Warkworth Indicative Business Case

The Warkworth Indicative Business Case (Warkworth IBC) proposed a north-south route which connects with Te Honohono ki Tai – Matakana Link Road in the north and with State Highway 1 in the south as shown on the IBC network in Figure 1 below. The section between State Highway 1 in the north and Falls Road is referred to as the Western Link Road North (WLR North).

Figure 1: Warkworth Indicative Business Case Network



The Warkworth IBC indicated that the Western Link Road would be designed to have four traffic lanes; with its purpose being to reduce traffic volumes on the existing SH1 corridor and enable space on that corridor to be reprioritised so that it can act as Warkworth’s central north-south walking, cycling and public transport spine, connecting a southern local centre, Mahurangi College, business and residential activity with the town centre.

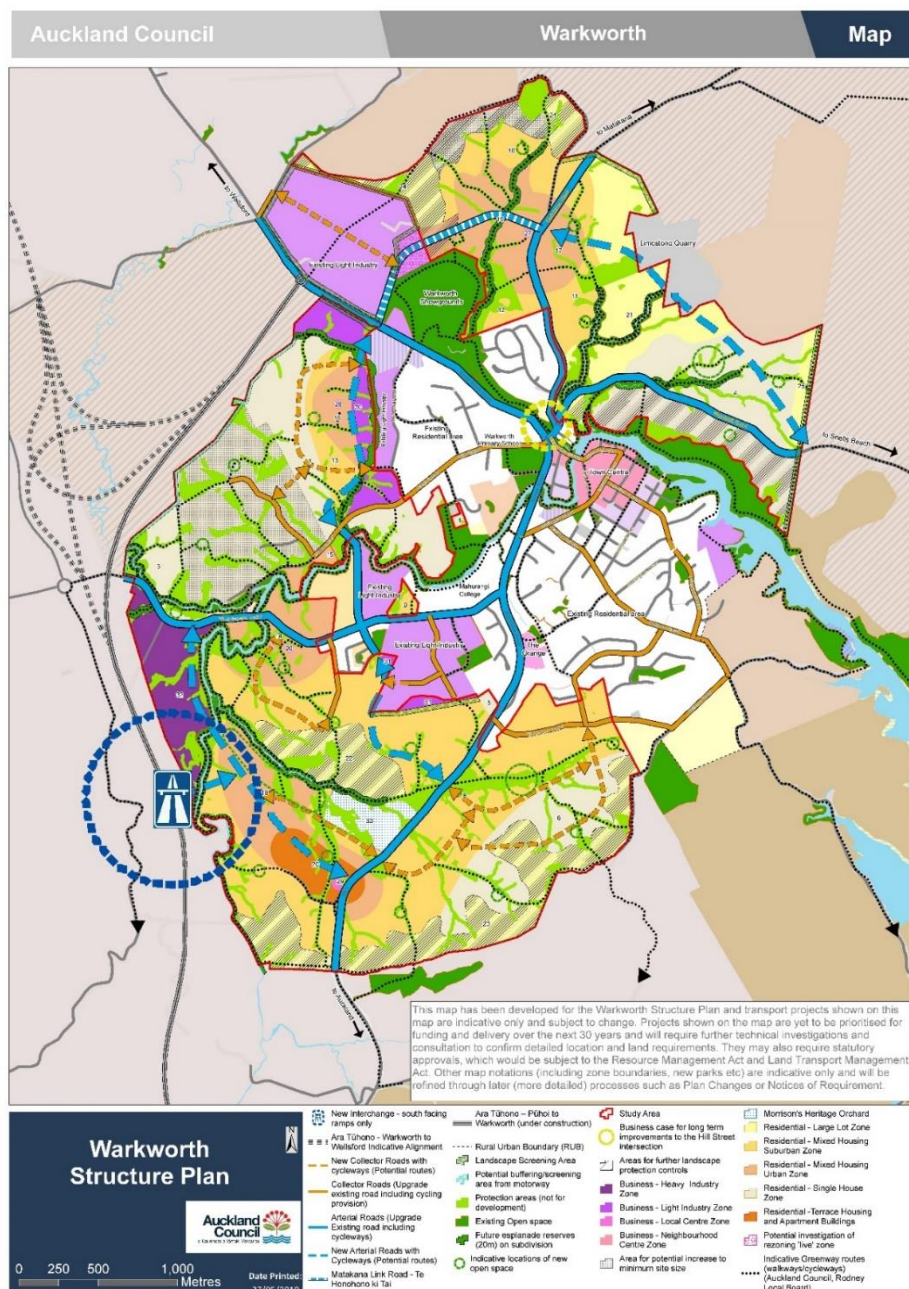
3 Warkworth Structure Plan

The Warkworth Structure Plan was completed in 2019 by Auckland Council in collaboration with the community and sets out the land use pattern for Warkworth’s expansion over the next 30 years.

Traffic volumes in the ITA indicated that traffic volumes in the northern section of the Western Link Road between Falls Road and State Highway 1 would be in the region of 18,000 vehicles per day.

The Western Link Road was identified as a four-lane arterial, likely to implemented as a two-lane road initially followed by four-laning if required. The indicative alignment proposed in the Warkworth Structure Plan is shown below in Figure 2.

Figure 2: Warkworth Structure Plan



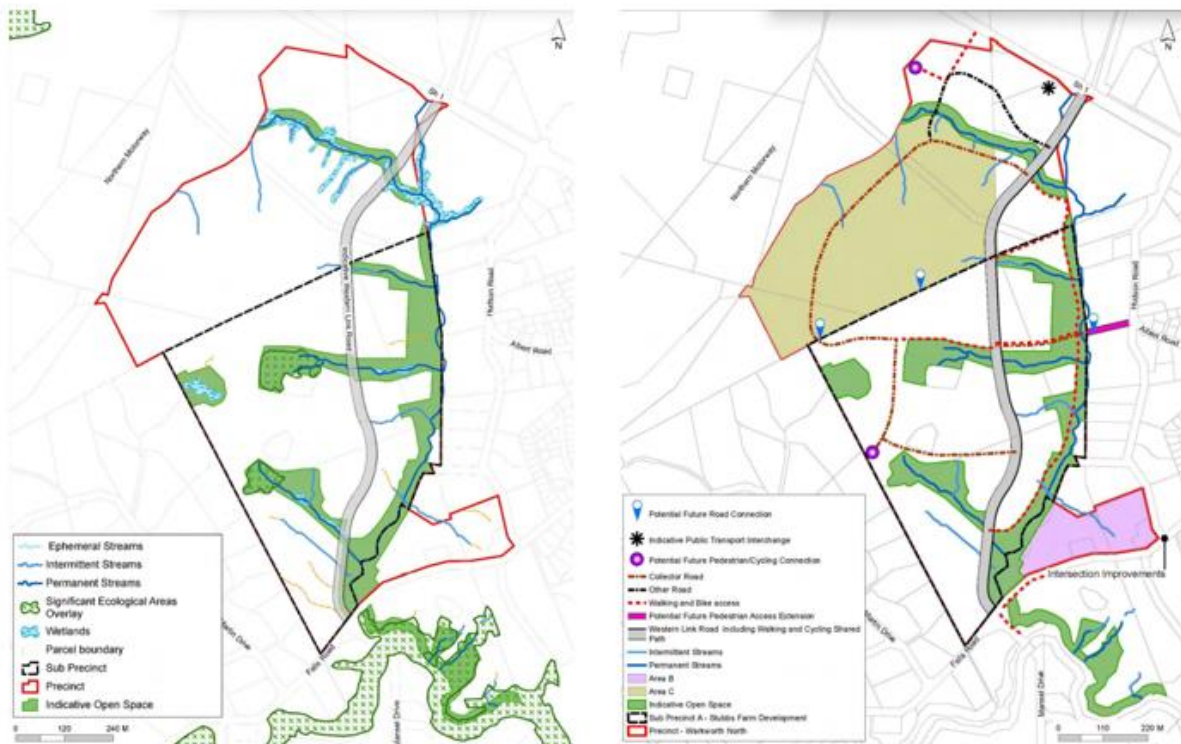
4 Western Link Road Early Works and Plan Change 25

The recommended IBC alignment of the WLR North and the Warkworth Structure Plan (WSP) formed the basis for the indicative alignment of the WLR North approved through PPC 25 and subsequently incorporated into the Warkworth North Precinct - Operative in Part (OIP).

The assessment of PPC 25 considered the alignment in the context of the land use and zonings proposed in the Warkworth North Precinct as well as in relation to environmental and transport matters. The PPC 25 decision noted that the proposed alignment was generally considered to be appropriate by all parties, including Auckland Transport (AT)².

The indicative alignment for the WLR North, as shown indicatively in the Warkworth Structure Plan, was subsequently confirmed through the PPC 25 process and included on the Warkworth North - OIP Precinct Plan 1 and Precinct Plan 2 – Multimodal Transportation Connections and Open Space (refer to Figure 3 below).

Figure 3: Warkworth North: OIP Precinct Plan 1 and 2



The form and function for the Western Link Road has previously been identified in the 'I553 Warkworth North Precinct' Plan. The Precinct Plan outlines the need for 4 general traffic lanes along the WLR North to support growth within Warkworth North.

(1) Subdivision or built form development of land adjacent to the Western Link Road shall include the simultaneously construction of the adjacent portion of this Road to Collector Road standard with:

(a) a connection to Falls Road/ Mansel Drive or Great North Road (SH1); and

(b) a location and completed earthwork level at the legal boundaries of all adjacent properties that enables the delivery of the entire road connection, over time, at the grade and cross-section for both Collector Road, and Arterial Road standards;

(c) appropriate design and sufficient setbacks to enable future upgrading to an Arterial Road standard that provides:

*(i) **4 lanes of traffic;***

(ii) Separated cycle ways

(iii) Footpaths, road berms and median of sufficient width to accommodate landscaping including street trees.

5 Warkworth Detailed Business Case findings

5.1 Updated Corridor Form and Function

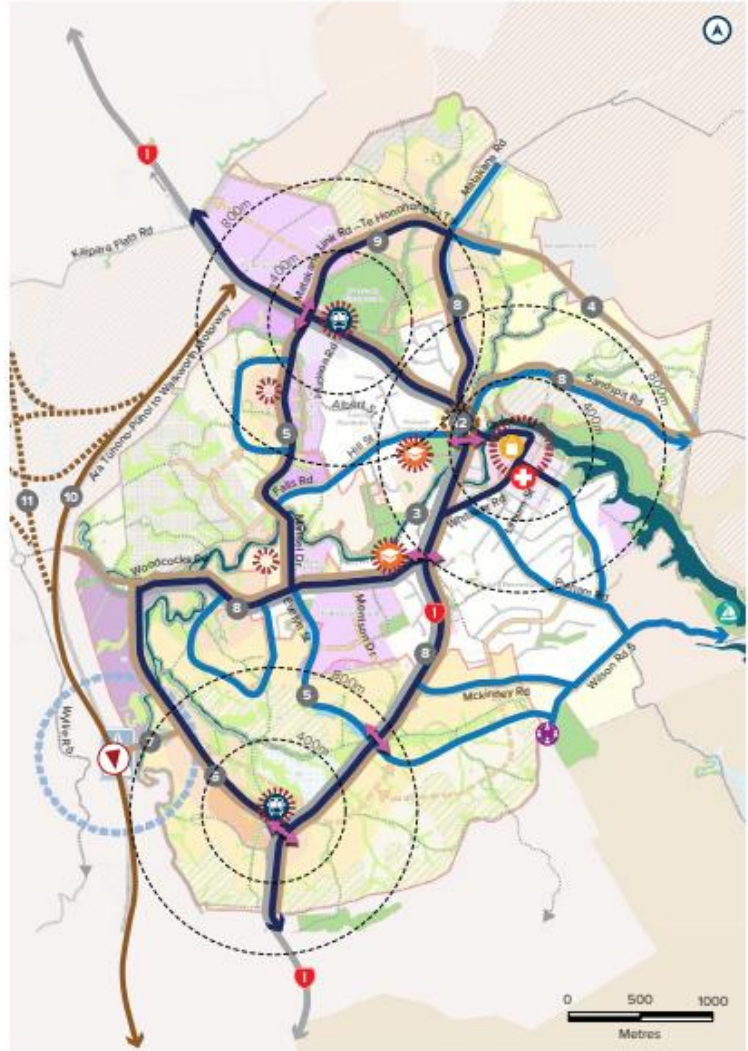
In 2022, Te Tupu Ngātahi undertook several assessments to inform the Warkworth Detailed Business Case. These assessments are necessary to identify the form and function of corridors on the Warkworth transport network. These will be used to inform any necessary notice of requirements (NORs) to route protect for the identified corridors.

As part of corridor form and function process, several network maps developed with Auckland Transport (AT) specialists were used to identify the various functions of individual corridors on the Warkworth network. The public transport and active mode maps used during this process are illustrated in Figures 4 and 5 below.

Figure 4: Indicative Active Modes Network - Warkworth

WARKWORTH INDICATIVE PRIMARY AND SECONDARY ACTIVE MODE NETWORK

- Public Transport Facilities** 
- Public transport interchange in north Warkworth
 - Public transport interchange in south Warkworth
- Walking and Cycling Network** 
- Shared path adjacent to Mahurangi River between Mansel Drive and the existing Warkworth town centre
 - Sandspit Link Road
 - Western Link Road (including upgrade to Mansel Drive and Evelyn Street)
 - Wider Western Link
 - Southern interchange and arterial connection
 - Upgrade urban sections of SH1, Matakana Road, Sandspit Road, Woodcocks Road to accommodate walking and cycling
- Other Priority Projects** 
- Matakana Link Road – Te Hono-hono ki Tai
 - Ara Tūhono – Pūhoi to Warkworth Motorway (under construction)
 - Ara Tūhono – Warkworth to Wellford indicative alignment
 - Hill Street Improvements business case area



Warkworth Structure Plan - Land Use Plan, June 2019

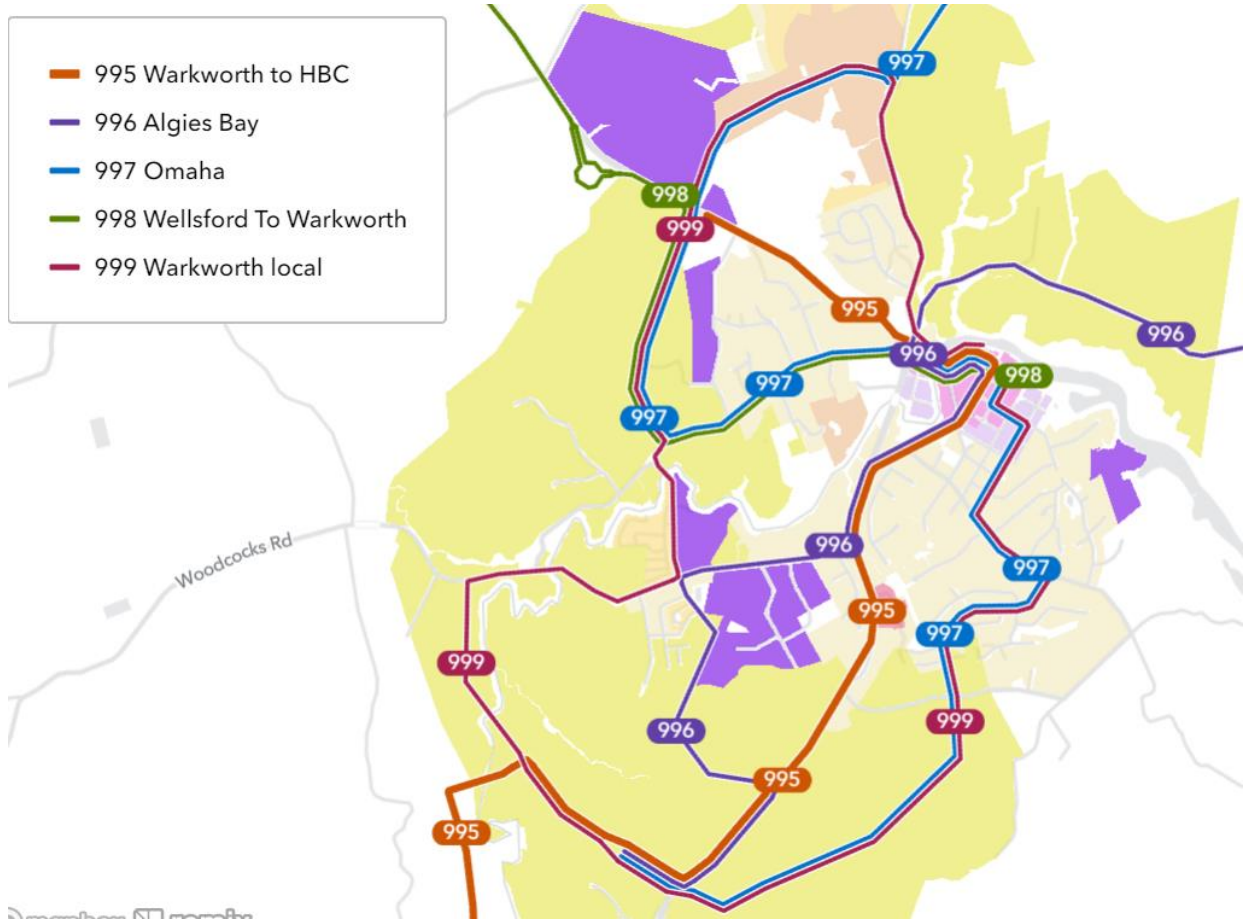
LEGEND

 Primary Active Modes Network	 New Interchange - South Facing Ramps Only	 Warkworth Structure Plan – Land Use Plan:	 Study Area	 Matakana Heritage Orchard
 Secondary Active Mode Network	 Bus Interchange	 New interchange - south facing (single city)	 Business case for long term improvements to the Hill Street intersection	 Residential - Large Lot Zone
 Proposed SGA Network	 School	 Ara Tūhono - Pūhoi to Warkworth (under construction)	 Area for further landscape protection	 Residential - Mixed Housing Suburban Zone
 State Highway	 Medical Centre	 New Collector Roads with cycleways (Potential routes)	 Business - Heavy Industry Zone	 Residential - Mixed Housing Urban Zone
 Priority projects under construction	 Community Centre	 Collector Roads (Upgrade existing road including cycling protection)	 Business - Light Industry Zone	 Residential - Single House Zone
 Other priority projects	 Employment / Retail Centre	 Potential suffering treeless area from motorway	 Business - Local Centre Zone	 Residential - Terrace Housing and Apartment Buildings
 Indicative crossing locations	 Key Destinations	 Protective areas (not for development)	 Business - Neighbourhood Centre Zone	 Potential investigation of moving the zone
 400 / 800m Catchment		 Existing Open space	 Area for potential increase in maximum site size	 Indicative Gateway route (Warkworth/Wellford) (Auckland Council, Poverty Run Local Board)
 Blue Network		 Future open space reserves (DSO in subdivision)		
		 New Arterial Roads with Cycleways (Potential routes)		
		 Matakana Link Road - Te Hono-hono ki Tai		




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Figure 5: Future Public Transport Network - Warkworth



Route #		Week days Headways				Weekends Headways		
		Peak	All-day	Evenings	Span	All-day	Evenings	Span
999	Warkworth to HBC	10 min	15min	30 min	05:30am to midnight	15 min	30 min	05:30am to midnight
996	Algies Bay to Warkworth	15min	30 min	30 min	05:30am to 11pm	30 min	30 min	05:30am to 11pm
997	Matakana to Warkworth	15min	30 min	30 min	05:30am to 11pm	30 min	30 min	05:30am to 11pm
998	Wellsford to Warkworth	15min	30 min	30 min	05:30am to 11pm	30 min	30 min	05:30am to 11pm
999	Local Warkworth	15min	15 min	30 min	05:30am to 11pm	15 min	30 min	05:30am to 11pm

After completing the corridor form and function process for Warkworth, the required form and function of the WLR North is illustrated in the below table. In addition, the potential cross-section for the corridor is also shown in the table.

Western Link Road - North	CFAF Summary
 <p style="text-align: center;">Indicative 30m cross section</p>	<p>Purpose of Corridor: The corridor forms a key north-south connection in the Warkworth network. The Western Link Road has been designed to enable development in west Warkworth and provide access to FUZ land and industrial areas while taking pressure off the existing SH1 and Hill Street intersection.</p>
	<p>General Vehicle Volume: ADT 11,000 in 2048</p>
	<p>Priority Vehicle: 14 buses per hour under indicative 2048 AT bus network</p>
	<p>Freight: Likely to play a supplementary freight function</p>
	<p>Vehicle Lanes Total (Priority Lanes/ PT Priority at intersections): 4 (Bus lanes)</p>
	<p>Active Modes: Separated cycle lanes and footpaths on both sides</p>
	<p>Speed Environment: 50kph</p>
<p>Parking and Access: Property access; no parking</p>	

5.2 Southern Interchange Interrelationships

The inclusion of the Southern Interchange in the network has an impact on the traffic volumes along the Western link Road – North. With the Southern Interchange as part of the recommended network the traffic volumes along the corridor are approximately 11,000 vehicles per day, however should the implementation of the Southern Interchange be delayed, the traffic volumes along the corridor increase to 13,000 vehicles per day.

5.3 Mansell Drive

It is noted that south of Falls Road, at Mansell Drive, the proposed cross section reduced to two lanes. This is largely a result of the divergence of public transport routes, with two routes travelling east towards the Warkworth Town Centre, and one route continuing on Mansell Drive. With land use activities on Mansell Drive being relatively low density, there is limited need for an additional bus priority lane.

5.4 Recommendation and Conclusion

Overall, it is noted that while private vehicles and buses *could* operate within a general two-lane corridor particularly in shorter term, it is considered that protection for a wider corridor should be retained for the longer term. The corridor form and function assessment completed as part of the Warkworth DBC supports this approach with the recommendation of a 30m corridor.

The key reasons for maintaining this flexibility with a 30m corridor are:

- Proximity and access to the Western Link Road for the Northern PT Hub. By ensuring a four-lane corridor at the northern extent in particular, this enables sufficient space to provide direct signalised access for bus services accessing from the existing State Highway 1 and the Tūhonohono ki Tai intersection.
- Provision of an efficient and effective bus corridor. Bus priority lanes along the Western Link Road will provide the services travelling along this corridor with high levels of reliability and enable greater efficiency for buses stopping for passengers to board/disembark. The Warkworth north precinct is expected to have a local centre, mixed use activities and medium density housing. The provision of high-quality infrastructure will encourage public transport patronage for trips to the Warkworth Town centre and employment areas across Warkworth. It will also provide a fast and direct connection to the northern PT Hub – connecting people to wider services.
- Space for local road connections and intersections, which specific locations are unconfirmed at this stage
- Space for higher amenity outcomes, such as buffers and berms within the corridor in the interim