

Appendix D – Drawings showing Schemes Developed during the Maunsell Study





Appendix D Transport Networks

The following tables list the projects and investments included in the Do Minimum and RTP networks; the first covers all but the rail improvements which are given in the second table.

Projects	2006	2016	2026	DoMin Network	Description	Model Changes
MacKays Crossing Overbridge	Y	Y	Y	Y	Grade separation of SH1 and the rail crossing and local roads at MacKays crossing. Refer to Appendix A1 for layout. Construction now complete.	Grade separation implemented as no intersection delay
Inner City bypass	N	Y	Y	Y	New road layout including new signals between the Terrace Tunnel and the Basin Reserve. Refer to Appendix A2 for layout. Construction now complete.	Implemented
Waiohine Bridge	N	Y	Y	Y	Bridge replacement	No changes implemented as no change in capacity
Centennial Highway Median Barrier - Stage 1	Y	Y	Y	Y	Median barrier installation on SH1	No changes implemented as no change in capacity
Centennial Highway Median Barrier - Stage 2	N	Y	Y	Y	Median barrier installation on SH2	No changes implemented as no change in capacity
Dowse to Petone Interchange	N	Y	Y	Y	Currently under construction	Implemented
Basin Reserve Improvements	N	Y	Y	N	Grade separation in accordance with MWH option F. Refer to Appendix A3 for layout.	Implemented
Kapiti Western Link Road - Stage 1	N	Y	Y	Y	Construction of the WLR Stage 1	Implemented
Kapiti Western Link Road - Stage 2	N	Y	Y	Y	Construction of the WLR Stage 2	Implemented
Kapiti Western Link Road - Stage 3	N	Y	Y	Y	Construction of the WLR Stage 3	Implemented
Melling Interchange	N	N	Y	N	Grade separation of SH2 and Melling bridge. Refer to Appendix A5 for layout.	Implemented
Kennedy Good Bridge Grade Separation	N	N	Y	N	Grade separation of SH2 and Kennedy Good bridge. Refer to Appendix A6 for	Implemented



					layout.	
Rimutaka Corner Easing (Muldoon's)	N	Y	Y	N	Geometric improvements on SH2 Rimutaka Hill Road	No changes implemented as no change in capacity
SH2/58 Grade Separation	N	Y	Y	N	Grade separation of SH2 and SH58. Refer to Appendix A7 for layout	Implemented
Rugby St/Adelaide Rd Intersection	N	Y	Y	Y	Rugby St / Adelaide Rd Intersection signalisation and amendments to lane markings. Refer to Appendix A10 for layout. Construction completed.	Implemented
Ngauranga to Terrace Tunnel ATMS	N	Y	Y	Y	New ATMS infrastructure (VMS signage, cameras etc.) on SH1 between Ngauranga and the Terrace Tunnel.	No changes implemented
Petone to Ngauranga ATMS	N	Y	Y	Y	New ATMS infrastructure (VMS signage, cameras etc.) on SH2 between Petone and Ngauranga.	No changes implemented
Otaki Roundabout	N	Y	Y	Y	Additional circulating lanes installed on the Otaki Roundabout	Implemented
Old Hautere Road Safety Improvements	N	Y	Y	Y	Intersection safety improvements	No changes implemented
Paekakariki Improvements	N	Y	Y	Y	New seagull layout at the SH1 / Paekakariki Hill Road / Beach Road. Refer to Appendix A8 for layout.	Implemented
Pukerua Bay Improvements	N	Y	Y	Y	Safety improvements at intersections.	No changes implemented as no impact on capacity
Otaki to Waikanae Sth Bd PL	N	Y	Y	Y	SH1 Otaki to Waikanae southbound passing lane - location is from RP 1012/0.47 to RP 1012/2.25 approx	Not coded in model
Featherston to Greytown Nth Bd PL	N	Y	Y	Y	Northbound passing lane located between Featherston and Greytown	Not coded in model
Greytown to Featherston Sth Bd PL	N	Y	Y	Y	Northbound passing lane located between Featherston and Greytown	Not coded in model
Carterton to Masterton Nth Bd PL	N	Y	Y	Y	Northbound passing lane located between Carterton to Masterton	Not coded in model
Masterton to Carterton Sth	N	Y	Y	Y	Southbound passing lane located between Masterton	Not coded in model



Bd PL					to Carterton	
Judgeford Passing Lane	N	Y	Y	Y	Unknown - check with Transit	Not coded in model
Petone - Horokiwi Cycling Facility						No changes implemented as no impact on capacity
Teihana Road Pedestrian Facilities						No changes implemented as no impact on capacity
Wellington State Highway Strategy						No changes implemented as no impact on capacity
SH2 Petone to Hayward Safety Review						No changes implemented as no impact on capacity
Wellington Cycle Strategic Audit						No changes implemented as no impact on capacity
TDM Impacts	N	Y	Y	Y	Impacts of TDM strategy - the RLTS assumes 5% reduction in trips to the CBD.	Revised approach implemented
Lindale Grade Separation	Y	Y	Y	Y	Already constructed.	No connections in model to modify
Mana-Plimerton Upgrade	Y	Y	Y	Y	Already constructed.	Implemented in 2006 base
Waterloo Quay Rail Grade Separation	N	Y	Y	N	Grade separation of Aotea Quay and the rail line to the port.	Not to be included in the model
Terrace Tunnel Tidal flow	N	Y	Y	N	Installation of two vs one lane tidal flow in the peak periods through the Terrace Tunnel	Implemented
Ngauranga – Aotea Capacity Improvement	N	Y	Y	N	8-laning of SH1 between Ngauranga and Aotea Quay offramp.	Implemented
Grenada - Gracefield Stage 1 to Petone	N	Y	Y	N	New link between SH1 (Grenada North) and SH2 (Petone).	Implemented
Grenada - Gracefield Stage 2 CVL	N	N	Y	N	New link between SH2 (Petone) and Gracefield.	Implemented
SH58 SH2-summit 4 laning	N	N	N	N	4-laning from SH2 to the summit	
Petone - Ngauranga incl cyclelane	N	Y	Y	N		No changes implemented as no impact on capacity
Akatarawa Upgrade	N	N	N	N		



TDM, Western Corridor ATMS+HOV	N	N	N	N		
Transmission Gully Motorway Construction	N	Y	Y	N	Transmission Gully Motorway constructed between MacKays crossing and Linden with all connections as per the Beca Costed viaduct option. Refer to Appendix A9 for layout. Capacity across Mana Bridge reduced to one lane in each direction.	Implemented
SH58 upgrade TGM to SH2	N	N	Y	N	Roundabouts at 7 locations & 70 km/h treatment: <ul style="list-style-type: none"> ▪ Roundabout at Bradey Road ▪ Roundabout at Sawmill ▪ Roundabout at Belmont Road ▪ Roundabout at Murphys Rd / Flightys Rd ▪ Roundabout at Mulhern Rd ▪ Roundabout at Judgeford Golf Club entrance ▪ Roundabout at Moonshine Road ▪ 70 km/h speed limit from Pauatahanui to Moonshine Road Existing alignment with 100 km/h speed limit from Moonshine Road to SH2	Not implemented in the model
Otaihanga Interchange (2 lane)	N	Y	Y	N	Grade separation of SH1 and Otaihanga Road	Implemented
Waikanae Upgrade	N	N	Y	N	Grade separation of SH1 and Te Moana and Elizabeth Street in Waikanae	Implemented
Rail Station Maintenance and Upgrade	N	Y	Y	Y		No changes implemented in model
Park & ride Carparks	N	Y	Y	Y		No changes implemented in model
Porirua Interchange	N	N	N	N		



Kaiwharawhara Throat Improvements	N	Y	Y	Y	Additional capacity at the Kaiwharawhara throat. Improved reliability.	Not implemented in the model
Integrated Ticketing	N	Y	Y	N	Reduced boarding time as a result of improved ticketing	Reduction in boarding penalty of 0.5 minute
Integrated Fares	N	Y	Y	N	Passengers can pay for whole journey independent of operator	No boarding fare for 2nd/3rd boardings in assignment
Real Time Information Systems	N	Y	Y	N	New automated passenger information signs	1 minute reduction in boarding times based on 5% fare and VoT \$6/h
Buslanes	N	Y	Y	N		Implemented
Road Pricing	N	N	N	N		Not implemented in the model

Scenario		Do Minimum 2016 and 2026	RTP 2016 - 15-Minute Scenario	RTP 2026 - 10-Minute Scenario
Service Spec - Peak	Hutt	As existing	4 tph Upper Hutt <-> Wellington (all stops to Taita, then non-stop Waterloo, then non-stop Wellington)	6 tph Upper Hutt <-> Wellington (all stops to Taita, then non-stop Waterloo, then non-stop Wellington)
			4 tph Taita <-> Wellington (all stops Wellington)	6 tph Taita <-> Wellington (all stops Wellington)
			4 tph Melling <-> Wellington (all stops Wellington)	4 tph Melling <-> Wellington (all stops Wellington)
	Western	As existing but ...	4 tph Waikanae <-> Wellington (all stops to Porirua, then non-stop Wellington)	6 tph Waikanae <-> Wellington (all stops to Plimmerton, then non-stop Wellington)
			Paraparaumu <-> Wellington services extended to Waikanae (non stop Porirua to Wellington)	4 tph Plimmerton <-> Wellington (all stops to Wellington)
				6 tph Porirua <-> Wellington (all stops to Wellington)

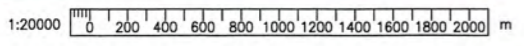


	Johnsonville	As existing	4 tph Johnsonville <-> Wellington (all stops to Wellington)	6 tph Johnsonville <-> Wellington (all stops to Wellington)
	Wairarapa	As existing	As existing	2 tph Wairarapa <-> Wellington (existing stopping pattern)
Service Spec - Offpeak	Hutt	As existing	2 tph Upper Hutt <-> Wellington (all stops to Wellington)	3 tph Upper Hutt <-> Wellington (all stops to Wellington)
			No Melling	2 tph Melling <-> Wellington (all stops)
	Western	As existing but ... Paraparaumu <-> Wellington services extended to Waikanae (non stop Porirua to Wellington)	2 tph Waikanae <-> Wellington (all stops to Wellington)	3 tph Waikanae <-> Wellington (all stops to Wellington)
	Johnsonville	As existing	2 tph Johnsonville <-> Wellington (all stops to Wellington)	3 tph Johnsonville <-> Wellington (all stops to Wellington)
	Wairarapa	As existing	As existing	As existing
New Rolling Stock - Better Quality	Johnsonville/ Wairarapa	replacement of English Electric and older stock	As DM	As DM
	Capital Connection	same stock	As DM	As DM
	Rest	replacement of Ganz	As DM	As DM
New Rolling Stock - Faster Speeds	All lines	10% faster services apart from north of Waikanae	As DM	As DM
Stations	Lindale	No	Yes	Yes
	Raumati	No	No	Yes
	Electrification to Maymorn (all UH services running to Maymorn)	No	No	Yes
	Timberlea	No	No	Yes
	Cruickshank	No	No	Yes
	Kaiwharawhara	Closed	Closed	Closed



LEGEND

ES_	ECOLOGICAL SITE
H_	HERITAGE SITE
CS_	MAORI CULTURAL SITE
PT_	PROTECTED TREES
DS_	DESIGNATION



STATE HIGHWAY 1 KAPITI STRATEGY STUDY
SOUTHERN SECTION - Peka Peka to MacKays Crossing



LEGEND

ES_	ECOLOGICAL SITE
H_	HERITAGE SITE
CS_	MAORI CULTURAL SITE
PT_	PROTECTED TREES
DS_	DESIGNATION

