Road to Zero: Speed & Infrastructure Programme

Transportation Conference 2023

Brydon Sundgren (WSP) Ben Grapes (Waka Kotahi)



The Problem – NZ's Poor Road Safety

Ministry of Transport: 2021 Crash Statistics

Road Safety Outcomes	s (2021)	
Fatalities	318	IT'S TIME WE
Serious Injuries	2,317	STOPPED PAYING
Deaths and Serious Injuries (DSIs)	2,635	THE ROAD TOLL
Minor Injuries	10,935	
Social cost of all crashes	\$5 Billion per year	ROAD TO ZERO

The Tricky Bit

From a Programme perspective



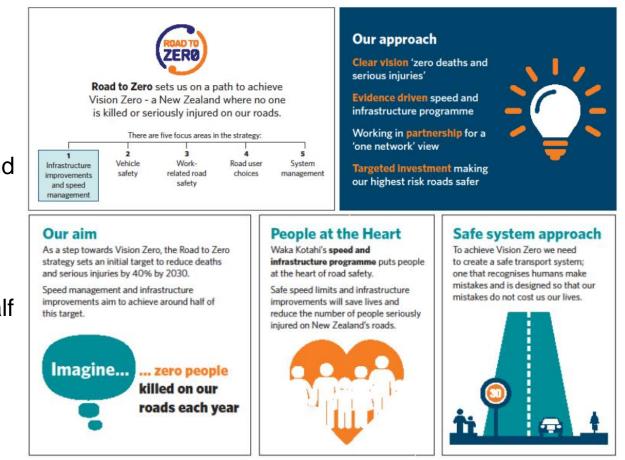




Our Programme

What we deliver

- We are prioritising investment in proven interventions.
- We work in partnership with local government and the wider safety sector to find the right mix of safety solutions for each region.
- It is estimated that improvements delivered through the programme will contribute around half of all the 40% Road to Zero target.
- Key interventions include speed management, median and side barriers, rumble strips, round abouts and wide centrelines.





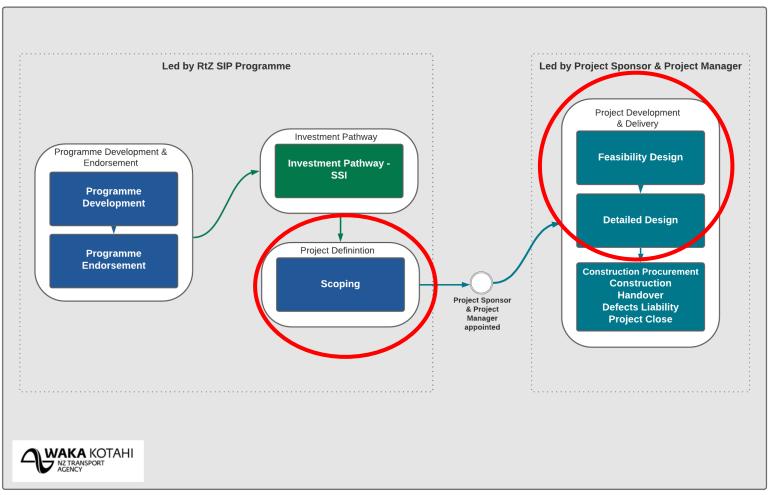
Strategic Programme

Indicative 10-year intervention breakdown

Bay of Plenty Region \$ 71,000,000 10 \$ 262,000,000 26 \$ 333,000,000 36 TLA Taranaki Region \$ 17,000,000 3 \$ 151,000,000 14 \$ 168,000,000 16 Local Roads/SH Gisborne Region \$ 10,000,000 1 \$ 36,000,000 7 \$ 45,000,000 8 Hawke's Bay Region \$ 50,000,000 7 \$ 162,000,000 15 \$ 213,000,000 23 NLTP Period Manawatu-Wanganui Region \$ 85,000,000 12 \$ 380,000,000 34 \$ 464,000,000 47		Safe Networks Pipelin	Feature	Intervention		Number / Length DSi Saved (km)		Cost (to near \$5 million)	Logo	Logout - RequestorNZTA	
Provide adopticit to understanding Part al Safe System Transformation 999 km 129 \$2,000,000,000 Part al Safe System Transformation Part al Safe System Tr	Info			Speed Management				\$205,000,000		٩	
Filter Proje Northland Region \$ 59,000,000 8 \$ 369,000,000 35 \$ 428,000,000 43 Auckland Region \$ 839,000,000 130 \$ 266,000,000 51 \$ 1,105,000,000 180 Maixato Region \$ 252,000,000 31 \$ 523,000,000 55 \$ 776,000,000 86 Bay of Plenty Region \$ 17,000,000 10 \$ 262,000,000 26 \$ 333,000,000 36 TLA Taranaki Region \$ 17,000,000 3 \$ 151,000,000 14 \$ 168,000,000 16 Gisborne Region \$ 10,000,000 1 \$ 36,000,000 7 \$ 45,000,000 88 Hurt Previod Manawatu-Wanganui Region \$ 50,000,000 12 \$ 380,000,000 34 \$ 464,000,000 47 Wellington Region \$ 95,000,000 18 \$ 230,000,000 25 \$ 326,000,000 43 \$ 680,000,000 47 Treatment Philes Yellington Region \$ 261,000,000 43 \$ 419,000,000 11 \$ 128,000,000 43 Vest Coast Region \$ 261,000,000 43 \$ 419,000,000 7 \$ 31,000,000 7 Canterbury Region \$ 261,000,000 1 \$ 27,000,000 7 \$ 31,000,000 7 \$ 36,000,000 7 Grand Total \$ 1,853,000,	To review a projec		dor		nsformation 999	km	129	\$2,600,000,00	LILO	»	
Pritter Proje Auckland Region \$ 839,000,000 130 \$ 226,000,000 51 \$ 1,105,000,000 180 Begin Waikato Region \$ 252,000,000 31 \$ 523,000,000 55 \$ 776,000,000 866 TA Bay of Plenty Region \$ 17,000,000 10 \$ 262,000,000 26 \$ 333,000,000 366 Local Readu/SH Gisborne Region \$ 10,000,000 1 \$ 36,000,000 7 \$ 45,000,000 23 NUTP Period Manawatu-Wanganui Region \$ 50,000,000 7 \$ 162,000,000 34 \$ 464,000,000 47 Checked Starte Top of the South Region \$ 29,000,000 18 \$ 230,000,000 25 \$ 326,000,000 43 Project Pathway Canterbury Region \$ 29,000,000 45 \$ 99,000,000 11 \$ 128,000,000 43 Project Pathway Canterbury Region \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 75 \$ 31,000,000 76 \$ 31,000,000 77 \$ 31,000,000 77 \$ 31,000,000 77 \$ 31,000,000 77 \$ 31,000,000 77		Region		Local Roads	Local Roads Dsi Saved	State Highwa	ays State	Highways Dsi Sa	Total Cost	Total Dsi Saved	
Auckland Region \$ 839,000,000 130 \$ 266,000,000 51 \$ 1,15,000,000 180 Region \$ 252,000,000 31 \$ 523,000,000 25 \$ 776,000,000 36 Bay of Plenty Region \$ 17,000,000 10 \$ 262,000,000 26 \$ 33,000,000 36 Local Road/JFH Gisborne Region \$ 10,000,000 1 \$ 36,000,000 7 \$ 45,000,000 23 Hawke's Bay Region \$ 50,000,000 7 \$ 162,000,000 15 \$ 213,000,000 23 Mit Preidid Manawatu-Wanganui Region \$ 50,000,000 12 \$ 380,000,000 25 \$ 232,000,000 43 Checked Status Wellington Region \$ 29,000,000 18 \$ 230,000,000 25 \$ 31,000,000 43 Project Pathway Canterbury Region \$ 261,000,000 43 \$ 449,000,000 43 \$ 680,000,000 11 \$ 128,000,000 15 Treatment Philos Canterbury Region \$ 261,000,000 10 \$ 185,000,000 7 \$ 31,000,000 31 Gisouth Land Region \$ 22,000,000 4 \$ 4,000,000	Filter Ducie			\$ 59,000,000	8	\$ 369	,000,000	35	\$ 428,000,000	43	
TLA Bay of Plenty Region \$ 71,000,000 10 \$ 262,000,000 26 \$ 333,000,000 36 TLA Taranaki Region \$ 17,000,000 3 \$ 151,000,000 14 \$ 168,000,000 16 Local Reads/SH Gisborne Region \$ 0,000,000 1 \$ 36,000,000 7 \$ 45,000,000 88 Hawke's Bay Region \$ 50,000,000 7 \$ 162,000,000 15 \$ 213,000,000 23 NLTP Period Manawatu-Wanganui Region \$ 50,000,000 12 \$ 380,000,000 34 \$ 464,000,000 43 Checked Status Top of the South Region \$ 22,000,000 4 \$ 99,000,000 11 \$ 128,000,000 43 \$ 680,000,000 43 Project Pathway Canterbury Region \$ 22,000,000 43 \$ 419,000,000 7 \$ 31,000,000 7 Treatment Philice Ket Coast Region \$ 61,000,000 10 \$ 185,000,000 7 \$ 31,000,000 7 Treatment Philice Sub-lotal 2,326 int / 635 \$ 5,010,000,000 13 \$ 5,010,000,000 13 \$ 5,010,000,000 13	Filter Proje	Auckland Region		\$ 839,000,000	130	\$ 266	,000,000	51	\$ 1,105,000,000	180	
TLA Taranaki Region \$ 17,000,000 3 \$ 151,000,000 14 \$ 168,000,000 16 Local Reader,5H Gisborne Region \$ 10,000,000 1 \$ 36,000,000 7 \$ 45,000,000 23 NLTP Period Manawatu-Wanganui Region \$ 50,000,000 12 \$ 380,000,000 34 \$ 464,000,000 47 Cnecked Status Wellington Region \$ 95,000,000 18 \$ 230,000,000 25 \$ 326,000,000 47 Project Pathway Cancerbury Region \$ 261,000,000 4 \$ 99,000,000 11 \$ 128,000,000 43 \$ 680,000,000 437 Project Pathway Cancerbury Region \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 437 Treatment Philos S 04,000,000 10 \$ 185,000,000 211 \$ 246,000,000 31 Treatment Philos Sub- 1otal Z,326 int / G35 \$ 5,010,000,000 7 \$ 5,010,000,000 7 Total Sub- 1otal Z,326 int / G35 \$ 5,010,000,0	Region	Waikato Region		\$ 252,000,000	31	\$ 523	,000,000	55	\$ 776,000,000	86	
Idramatik Region \$ 17,000,000 3 \$ 15,000,000 14 \$ 168,000,000 16 Idramatik Region \$ 10,000,000 1 \$ 36,000,000 7 \$ 45,000,000 8 Idramatik Region \$ 0,000,000 1 \$ 36,000,000 7 \$ 45,000,000 8 NUTP Period Manawatu-Wanganui Region \$ 50,000,000 12 \$ 380,000,000 34 \$ 464,000,000 43 Checked Status Wellington Region \$ 95,000,000 18 \$ 230,000,000 25 \$ 326,000,000 43 Project Pathway Canterbury Region \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 87 Vest Coast Region \$ 4,000,000 10 \$ 185,000,000 21 \$ 246,000,000 7 Otago Region \$ 61,000,000 4 \$ 46,000,000 9 \$ 68,000,000 31 Southland Region \$ 1,853,000,000 282 \$ 3,157,000,000 9 \$ 68,000,000 31 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 13 Grand Total \$ 1,853,000,000 232 \$ 1,812,800,000,000 13 5,010,000,000 13 <td></td> <td>Bay of Plenty Region</td> <td></td> <td>\$ 71,000,000</td> <td>10</td> <td>\$ 262</td> <td>,000,000</td> <td>26</td> <td>\$ 333,000,000</td> <td>36</td>		Bay of Plenty Region		\$ 71,000,000	10	\$ 262	,000,000	26	\$ 333,000,000	36	
Hawke's Bay Region \$ 50,000,000 7 \$ 162,000,000 15 \$ 213,000,000 23 NLTP Period Manawatu-Wanganui Region \$ 85,000,000 12 \$ 380,000,000 34 \$ 464,000,000 47 Cnecked Status Vellington Region \$ 95,000,000 18 \$ 230,000,000 25 \$ 326,000,000 43 Project Pathway Top of the South Region \$ 29,000,000 43 \$ 419,000,000 43 \$ 680,000,000 87 Vest Coast Region \$ 261,000,000 43 \$ 419,000,000 7 \$ 31,000,000 87 Vest Coast Region \$ 4,000,000 10 \$ 125,000,000 7 \$ 31,000,000 7 Otago Region \$ 61,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 9 \$ 68,000,000 13 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Vest Coast Region \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 636	TLA	Taranaki Region		\$ 17,000,000	3	\$ 151	,000,000	14	\$ 168,000,000	16	
NLTP Period Hawke's Bay Region \$ 50,000,000 7 \$ 162,000,000 15 \$ 213,000,000 23 Manawatu-Wanganui Region \$ 85,000,000 12 \$ 380,000,000 34 \$ 464,000,000 47 Vellington Region \$ 95,000,000 18 \$ 230,000,000 25 \$ 326,000,000 43 Top of the South Region \$ 29,000,000 4 \$ 99,000,000 11 \$ 128,000,000 43 Project Pathway Canterbury Region \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 87 Vest Coast Region \$ 4,000,000 1 \$ 27,000,000 7 \$ 31,000,000 7 Otago Region \$ 61,000,000 10 \$ 27,000,000 21 \$ 246,000,000 31 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 232 \$ 5,010,000,000 634 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 2,	Local Roads/SH	Gisborne Region		\$ 10,000,000	1	\$ 36	,000,000	7	\$ 45,000,000	8	
Invalid ward of wang and in Region 3 3 3,000,000 12 3 350,000,000 34 3 404,000,000 47 Wellington Region \$ 95,000,000 18 \$ 230,000,000 25 \$ 326,000,000 43 Top of the South Region \$ 29,000,000 4 \$ 99,000,000 11 \$ 128,000,000 15 Checked Status Top of the South Region \$ 261,000,000 43 \$ 419,000,000 11 \$ 128,000,000 15 Checked Status Treatment Philos \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 87 West Coast Region \$ 4,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Southland Region \$ 22,000,000 4 \$ 46,000,000 9 \$ 68,000,000 13 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total	100000000000000000000000000000000000000	Hawke's Bay Region		\$ 50,000,000	7	\$ 162	,000,000	15	\$ 213,000,000	23	
Checked statular Top of the South Region \$ 29,000,000 4 \$ 99,000,000 11 \$ 128,000,000 15 Project Pathway Canterbury Region \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 87 Treatment Philos West Coast Region \$ 4,000,000 1 \$ 27,000,000 7 \$ 31,000,000 77 Grand Total \$ 61,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 2,326 int / 7,612 km 635 \$ 5,010,000,000 Foreer 0 y Ent Foreer 0 y Ent Foreer 0 y Ent Sub-Total	NLTP Period	Manawatu-Wanganui	Region	\$ 85,000,000	12	\$ 380	,000,000	34	\$ 464,000,000	47	
Project Pathway Top of the South Region \$ 29,000,000 4 \$ 99,000,000 11 \$ 128,000,000 15 Mest Coast Region \$ 261,000,000 43 \$ 419,000,000 43 \$ 680,000,000 87 Otago Region \$ 4,000,000 1 \$ 27,000,000 7 \$ 31,000,000 7 Otago Region \$ 61,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Southland Region \$ 2,2,000,000 4 \$ 46,000,000 9 \$ 68,000,000 13 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 2,326 int 218 \$ 1,280,000,000 500 5000,000 500 5000,000 500 5000,000 500 5000,000 500 5000,000 5000,000 5000,000 5000,000 5000,000 5000,000 5000,000 5000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 5000,000,000 <t< td=""><td>Checked Status</td><td>Wellington Region</td><td></td><td>\$ 95,000,000</td><td>18</td><td>\$ 230</td><td>,000,000</td><td>25</td><td>\$ 326,000,000</td><td>43</td></t<>	Checked Status	Wellington Region		\$ 95,000,000	18	\$ 230	,000,000	25	\$ 326,000,000	43	
Treatment Philose West Coast Region \$ 4,000,000 1 \$ 27,000,000 7 \$ 31,000,000 7 Otago Region \$ 61,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Southland Region \$ 22,000,000 4 \$ 46,000,000 9 \$ 68,000,000 13 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Total \$ 2,326 int / 635 \$ 1,280,000,000 \$ 5,010,000,000 9 \$ 0.000,000 9 \$ 0.000,000 9 \$ 0.000,000 9 \$ 0.000,000 0 \$ 0.	Checked Status	Top of the South Regio	on	\$ 29,000,000	4	\$ 99	,000,000	11	\$ 128,000,000	15	
Treatment Phillose Otago Region \$ 61,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Southland Region \$ 22,000,000 4 \$ 46,000,000 9 \$ 68,000,000 13 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 37% 63% - - - - - Sub-1otal 2,326 int / 7,612 km \$1,280,000,000 - - - Science projects from table - - - - - -	Project Pathway	Canterbury Region		\$ 261,000,000	43	\$ 419	,000,000	43	\$ 680,000,000	87	
Otago Region \$ 61,000,000 10 \$ 185,000,000 21 \$ 246,000,000 31 Southland Region \$ 22,000,000 4 \$ 46,000,000 9 \$ 68,000,000 13 Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 Sub-Total Sub-Total 2,326 int 218 \$1,280,000,000 635 Total 2,326 int / 635 \$5,010,000,000 85 Select projects from table		West Coast Region		\$ 4,000,000	1	\$ 27	,000,000	7	\$ 31,000,000	7	
Grand Total \$ 1,853,000,000 282 \$ 3,157,000,000 352 \$ 5,010,000,000 634 37% 63%	Treatment Philosc	Otago Region		\$ 61,000,000	10	\$ 185	,000,000	21	\$ 246,000,000	31	
37% 63% Sub-Total 2,326 int 218 \$1,280,000,000 Total 2,326 int / 7,612 km 635 \$5,010,000,000		Southland Region		\$ 22,000,000	4	\$ 46	,000,000	9	\$ 68,000,000	13	
Sub-Total 2,326 int / 218 \$1,280,000,000 Total 2,326 int / 635 \$5,010,000,000		Grand Total		\$ 1,853,000,000	282	\$ 3,157	,000,000	352	\$ 5,010,000,000	634	
Total 2,326 int / 635 \$5,010,000,000 Devered by Exit				37%			63%				
Total 2,326 int / 635 \$5,010,000,000 Powered by Exil		Sub-Total				2,326 int 218		\$1,280,000,00	0	44	
Select projects from table		Total					635	\$5,010,000,00	0		
	Map <mark>loading 🍃</mark>		New.	Zealand Government							

In Summary

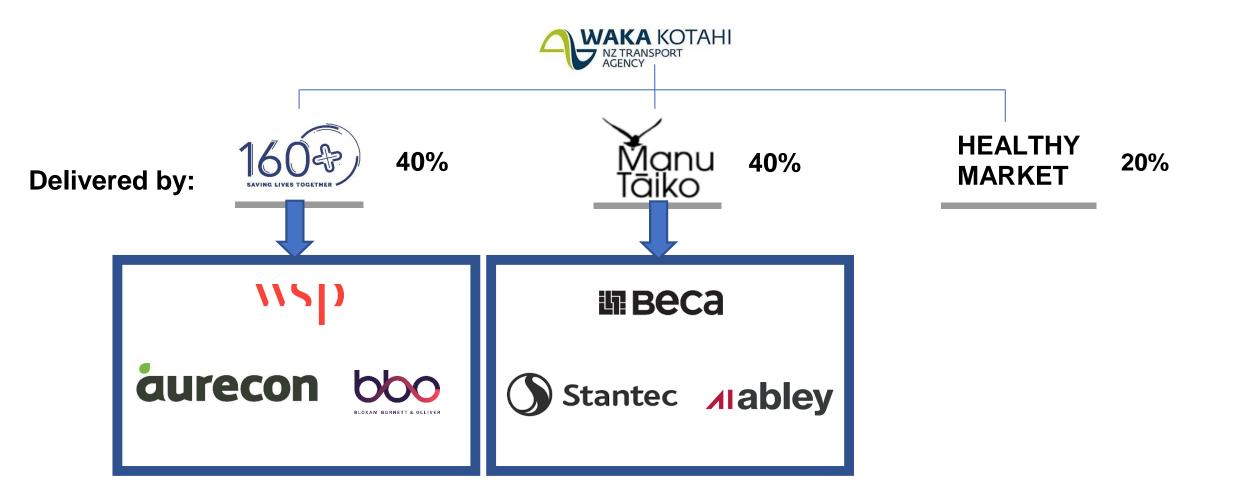
Development to Implementation

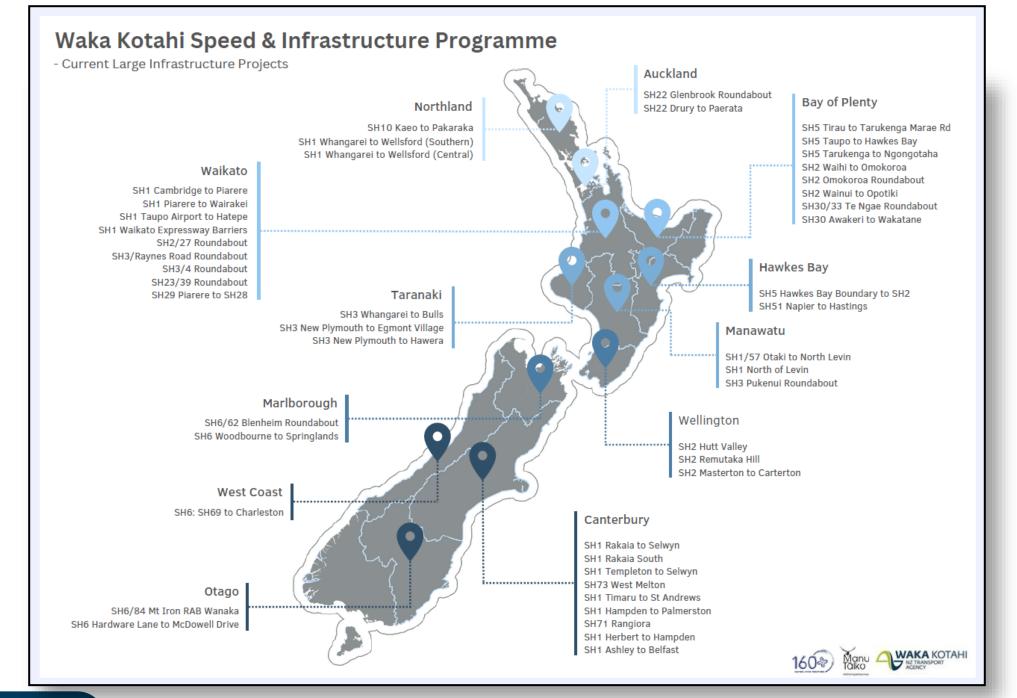


RtZ Speed and Infrastructure Programme - Highways - Overview (v1.3)



Project Delivery Mechanism





SIP: Points of Interest

Innovation

- SIP Design Framework
- Improving use of data for delivery
- Consistent DSI assessment tools
- Streamlined investment applications



SIP: Points of Interest

Construction Safety

- Use of new NZ Guide to Temporary Traffic Management
- Eliminate
- Isolate
- Minimise



SIP: Points of Interest

Retrofitting Existing State Highways

- Cross-section design
- Co-ordination with other works & maintenance
- Whole of life safety by design
- Corridor use adapting to the changes
- Communication and engagement



Looking Ahead

Increasing the roll-out of key interventions

Simplify & phase

Identify what sections of projects we can progress now that don't need detailed design and aren't controversial

Treatment length approach - break up projects to do the 80%, so the 20% doesn't hold everything up

Pragmatic design

- Clearer guidance to enable repeatable design elements
- Designers not designing from scratch every time

Unlock funding

- Unlock funding now to enable earlier construction (imp and property)
- Beyond this NLTP, move to SIP being funded as a Programme, not individual projects

Procurement

- In 2023/24 procure regional construction frameworks for 10-year partnerships
- Drive more certainty and security to invest in resources to support delivery at the correct scale and pace

Construction

- Improve construction safety for our contractors, lower the unit cost & increase productivity on site through targeted state highway closures
- Closures for weeks rather than 5 years of TTM

Benefits Realisation – sharing the success

TOGHIONOONE.

