

### DATABASE HEALTH INDEX - DASHBOARD

KEY: On or exceeding target  
One grade, or between 0 and 15 below captured value  
Greater than one grade, or 15 below captured value

Area: **SOUTHLAND M&O**  
 Date: **25/11/2013**

		Performance						
Category	Measures	Result	Measure	Expected Value	Category	Expected Value		
Carriageway Asset Inventory	Capital Projects	Major capital projects completed v RAMM (in last 6 -30 months)			see attached report		-	-
		Minor capital or safety improvement projects v RAMM (in last 6 -30 months)			see attached report		-	-
	Surfacing	% of Network surfaced in RAMM over previous 4 – 15 months		9.7%	Grade 1	Grade 1	100	81
		% Surfaces at least 50% older than expected age		0.0%	Grade 1	Grade 2		
		% of Network with no surfacing		0.0%	Grade 1	Grade 1		
		Illogical Records inc. % (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)		0.8%	Grade 1	Grade 1		
	Pavement Layer	Proportion of Network with layer Information		93.9%	Grade 1	Grade 3	80	77
		New layer length in previous 6 – 30 months		2.1%	Grade 3	Grade 2		
		Illogical records (Pavement Layers v Incorrect Surfacing)		0.0%	Grade 1	Grade 1		
	Road Marking	Breakdown of road markings by type		see attached report			-	-
	Treatment Length	Proportion of very short (< 20m) TLs		0.1%	Grade 1	Grade 1	68	85
		Proportion of very long (> 2000m) TLs		4.4%	Grade 1	Grade 1		
		Proportion of TLs with < 80% coverage of major surfacing		10.3%	Grade 2	Grade 1		
		% updated in last 5 years		0.6%	Grade 5	Grade 2		
Forward Works Programme	Date FWP last updated		25/11/2013	-	-	59	90	
	Proportion of network identified for treatment in next ten years (from FWP)		76.1%	Grade 2	Grade 2			
	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP excluding 2nd coats)		0.0%	Grade 1	Grade 1			
	Evidence of active MIS strategy, reasons for treatments listed and detailed		0.0%	Grade 5	Grade 1			
Carriageway Rating	Percentage rated in last year		99.1%	Grade 1	Grade 1	99	90	
High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)		100.0%	Grade 1	Grade 1	67	90	
	% network meeting standards for FWD (Roads surveyed in last 5years)		1.2%	Grade 5	Grade 1			
	% network meeting standards for SCRIM (Roads surveyed in last year)		100.0%	Grade 1	Grade 1			
Maintenance Activity	Items per km for PA and SU cost groups in previous 4 – 15 months v Regional Average		100.0%	Grade 1	Grade 2	83	83	
	Spread of location in previous 4 - 15 months (proportion located at carriageway start)		5.3%	Grade 2	Grade 2			
	Distribution of maintenance patch sizes by Hierarchy		see attached report					
	Breakdown of Maintenance Cost Activities		see attached report					
	% of Maintenance Activity where fault type is "Unknown"		20.7%	Grade 3	Grade 1			
Miscellaneous	No. of test pits with layer data recorded		67	no.	-	-	-	
	No. of LTPP sites recorded in RAMM		3	no.	-	-	-	
Traffic Count	Latest ADT Counts		31/12/2012	-	-	99	70	
	Latest ADT Estimates		20/11/2013	-	-			
	% loading estimate (i.e. not default)		98.8%	Grade 1	Grade 2			
Structures	No. of Pavement Type "Bridge" v No. of Bridges > 50m in length in BDS		0.0%	Grade 5	Grade 1	6	85	
	No. Large Culverts v No. BDS		12.1%	Grade 5	Grade 2			
	Retaining Walls		60	no.	-			
	Gantries (see attached report for locations)		4	no.	-			
	Barriers in RAMM (m)		20725	m	-			
	End Treatments in RAMM		see attached report					
Drainage	Culverts per km v Regional Average (Rural)		114.3%	Grade 1	Grade 2	75	80	
	Catchpits per km v Regional Average (Urban)		139.4%	Grade 1	Grade 2			
	Manholes per km v Regional Average (Urban)		100.0%	Grade 1	Grade 2			
	Subsoil Drains per km v Regional Average (Rural)		73.6%	Grade 2	Grade 2			
	% of Drainage (Construction Date in previous 4 – 15 months)		0.0%	Grade 4	Grade 2			
Surface Water Channels	Surfaced SWC per km v Regional Average (Urban)		105.3%	Grade 1	Grade 2	67	77	
	Earth SWC per km v Regional Average (Rural)		129.9%	Grade 1	Grade 2			
	Sealed SWC renewal activity (Construction Date in previous 4 – 27 months)		0.0%	Grade 4	Grade 2			
Signs	Signs per km v Regional Average		118.2%	Grade 1	Grade 2	51	78	
	Large Signs >4.0m <sup>2</sup> (see attached report for quantity by type)		49	no.	-			
	ITS VMS		2	no.	-			
	% of Signs with renewal date in last 4 - 15 months		0.1%	Grade 4	Grade 2			
	No. Frangible bases in RAMM (no posts in RAMM)		0	no.	-			
Streetlights	Streetlights per km v Regional Average		200.0%	Grade 1	Grade 2	67	82	
	Frangible Base type no.		0	no.	-			
	Shear Base type no.		0	no.	-			
	% of Streetlight Poles with renewal date in last 4 – 15 months		0.0%	Grade 4	Grade 2			
	Duplicates or near duplicates plus poles with no light or bracket		0.0%	Grade 1	Grade 1			
Footpaths & Cycleways	Total length of Footpath and Cycleways (see attached tables for listings)		see attached report			-	-	
Signal Controlled Intersections	Signal Controlled Intersections (see attached report for locations)		19	no.	-	-	-	
Rest Areas	Number of rest areas		6	no.	-	-	-	
Weigh Stations	Number of Weigh Stations (see attached report for locations)		7	no.	-	-	-	

**DATABASE HEALTH INDEX DASHBOARD - PROJECTS**

Area: **SOUTHLAND M&O**  
Date: **25/11/2013**

In RAMM (Y/N/P)	Project Name	SH	RS	Dir	RP	Comments	Year
N	Charlton Park Cemetery Road Intersection Flaglight	1	858	B	6.54	Installation of flag light at the intersection of SH1 and Charlton Park Cemetery Road	10/11
P	Kerr Road Seal Extension	1	900	B	2.3	Extension of Kerr Road and SH1 Intersection	10/11
Y	Elles Road Turn left bay extension	1	926	I	1.56	Left turn bay in the increasing direction of Elles Road and SH1.	10/11
N	Bay View Road Lag light	1	926	I	4.75	Flag light installed at the intersection of Bay View Road and SH1.	10/11
Y	Garston Threshold	6	1046	I	6.65	Threshold treatment of the 100 to 80km/h speed limit before Garston in the increasing direction through the use of signage, islands and painted flush median.	10/11
N	Josephville- Genure Road intersection widening	6	1095	B	8.48	Increase in intersection width of Josephville- Genure Road and SH6.	10/11
P	Josephville Hill Slow Bay	6	1095	D	10.28	Added slow Vehicle bay in the decreasing direction at the top of the Josephville Hill	10/11
P	Fox Street Traffic Lights	6	1168	B	6.33	Installation of traffic lights at Fox Street and SH6	10/11
P	Three Stones Road intersection widening	93	0	I	4.38	Widening if seal before the Three Stones SH6 intersection.	10/11
Y	Three Stones Road slow vehicle bay	93	0	I	3.65-4.38	The Realignment and addition of a Slow Vehicle bay in the Increasing direction.	10/11
P	Gore West Threshold	94	0	D	1.37	Threshold treatment for the west entrance to gore on SH94	10/11
?	Sinclair Road Curve Realignment	94	138	B	4.78	Realignment and seal widening of Sinclair Road Curve.	10/11
N	Dunsdale Valley Road Intersection Widening	96	15	D	3.15	Widening of Dunsdale Valley Road and SH96 intersection with the addition of quadrant kerbing.	10/11
P	Craig Road Right Turn Bay	1	872	I	2.2	Installation of a right turn bay in the increasing direction and a flag light.	11/12
Y	Garston Guardrail	6	1046	B	6.87-6.93	Guardrail installed on Decreasing side of corner.	11/12
Y	Lochiel- Branxholme Road Intersection right turn bay	6	1145	I	6.67	Area widening and addition of right turn bay at Lochiel- Branxholme Road and SH6 corner.	11/12
N	Lochiel Corner Guardrail	6	1145	D	6.7	Guardrail installed on Decreasing side of corner.	11/12
Y	Makarewa Threshold	6	1157	I	8.45	Threshold treatment of the 100 to 80km/h speed limit before Makarewa through the use of signage, islands and painted flush median.	11/12
Y	Glennstuart Guardrail	93	31	B	7.76	Widening if seal and addition of Guardrail in both directions.	11/12
Y	Greenhills OverBridge Barrier	1	933	I	8.41	Installation of W section Barrier on the increasing side the Over bridge.	12/13
Y	Parawa Curves Upgrade	6	1061	B	9 - 11.2	The installation of chevrons and seal widening.	12/13
Y	Caroline Valley Curve Upgrade	6	1095	B	13.5 -14.5	The installation of chevrons and seal widening.	12/13
N	Yarrow Street Traffic Lights	6	1168	B	7.05 & 7.12	The upgrade of traffic lights to LED	12/13
P	Monaghan Road intersection widening	94	0	D	6.85	Widening of Monaghan Road and SH94 intersection with the addition of quadrant kerbing.	12/13
?	Te Anau Active Warning School Signs	94	138	B	1.02 & 1.20	Active Warning sign for Te Anau School in the increasing and Decreasing Directions.	12/13
N	Hauroko Active Warning School	99	78	B	10.4 & 10.8	Active Warning sign for Hauroko School in the increasing and Decreasing Directions.	12/13
N	Selbourne Street Intersection upgrade	1	858	D	10.6	The installation of a right turn bay seal widening.	13/14
Y	Ettrick Street Throat Islands	1	923	B	0.78	Installation of throat islands to emphasise give way controls	13/14
Y	Crinan Street Throat Islands	1	923	B	1.02	Installation of throat islands to emphasise give way controls	13/14
N	Invercargill South Threshold	1	926	B	0.4	Threshold treatment for the soth entrance to gore on SH1	13/14
Y	Siberia Active Warning signs	6	1061	B	0.27 & 2.25	Installation of active warning signs saying "slowdown" for when icy	13/14
?	Luxmore Pedestrian Crossing	94	78	B	10.4	Installation of a pedestrian drop crossing and central refuge.	13/14
	Planned for 13/14						
	SH1 Mona Bush Road - Rockdale Road					Add throat island on side road approaches, upgrade curve delineation and improve sight distance where possible, and extended right turn bay over crest of hill	13/14
	Makarewa River Bridge Curve Improvements					Install Speed Indication devices (SID's) on each approach	13/14
	Centre Bush Otapiri Rd Flag Lighting					install flag lighting at the intersection	13/14
	Blackmount Redcliff Road Curve Warning					Upgrade curve warning signage	13/14
	Queens Drive Intersection Upgrade					Change phasing to remove filter turns and improve the street lighting	13/14

## DATABASE HEALTH INDEX - REGIONAL AVERAGES

**Area:** SOUTHLAND M&O  
**Date:** 25/11/2013

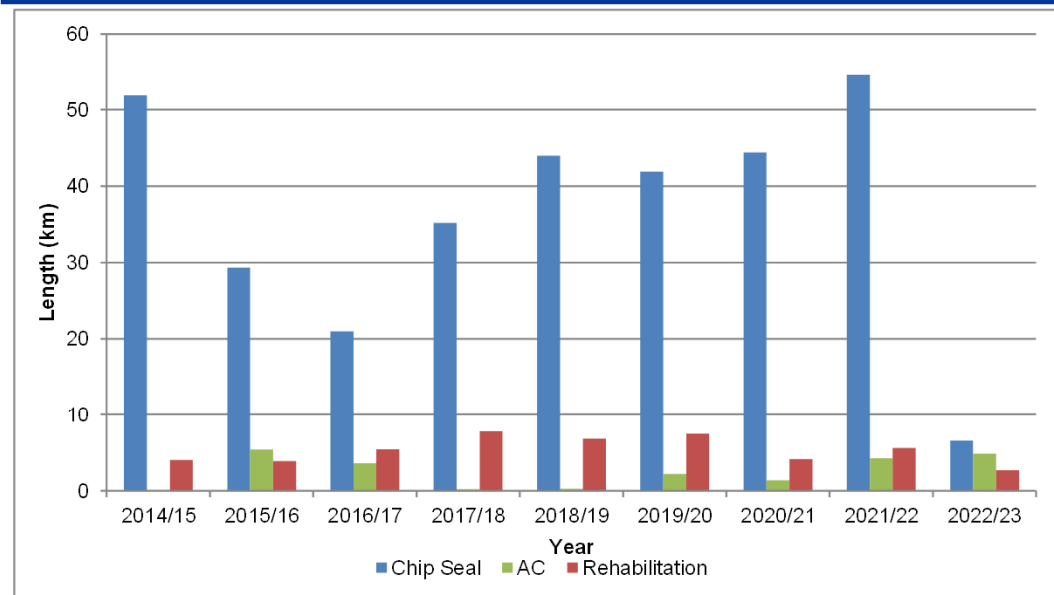
Regional Averages							
Asset	Region	Hierarchy					Regional Average
		High Volume	National Strategic	Regional Strategic	Regional Connector	Regional Distributor	
Maintenance Costs (no. of pavement and surfacing faults per km)	<b>Regional Average for route type</b>	-	4	3	1	2	2
	Sth Canterbury	-	2	-	1	1	
	Otago Central	-	-	1	0	1	
	Coastal Otago	-	7	8	1	3	
	Southland	-	-	2	2	2	
Culverts (Rural) (no. per km)	<b>Regional Average for route type</b>	-	5	5	4	5	5
	Sth Canterbury	-	4	-	4	4	
	Otago Central	-	-	5	4	4	
	Coastal Otago	-	6	5	2	6	
	Southland	-	-	4	6	6	
Catchpit (Urban) (no. per km)	<b>Regional Average for route type</b>	-	11	13	11	9	11
	Sth Canterbury	-	10	-	8	9	
	Otago Central	-	-	9	9	0	
	Coastal Otago	-	13	11	2	8	
	Southland	-	-	17	12	17	
Manholes (urban) (no. per km)	<b>Regional Average for route type</b>	-	0	0	0	0	0
	Sth Canterbury	-	0	-	0	0	
	Otago Central	-	-	0	0	0	
	Coastal Otago	-	0	0	0	0	
	Southland	-	-	0	0	0	
Subsoil Drain (Rural) (m per km)	<b>Regional Average for route type</b>	-	0	36	22	14	34
	Sth Canterbury	-	37	-	7	2	
	Otago Central	-	-	0	0	20	
	Coastal Otago	-	106	194	2	46	
	Southland	-	-	9	20	24	
Surfaced SWC (Urban) (m per km)	<b>Regional Average for route type</b>	-	1645	1554	1457	1307	1495
	Sth Canterbury	-	1603	-	1469	1562	
	Otago Central	-	-	1374	1352	1626	
	Coastal Otago	-	1695	1437	428	1025	
	Southland	-	-	1702	1548	1299	
Earth SWC (Rural) (m per km)	<b>Regional Average for route type</b>	-	1553	1347	1040	1535	1373
	Sth Canterbury	-	1642	-	644	1470	
	Otago Central	-	-	1305	1262	1575	
	Coastal Otago	-	1453	1173	352	1607	
	Southland	-	-	1819	1814	1461	
Signs (no. per km)	<b>Regional Average for route type</b>	-	17	14	9	10	12
	Sth Canterbury	-	15	-	8	10	
	Otago Central	-	-	12	8	8	
	Coastal Otago	-	19	16	8	11	
	Southland	-	-	15	13	11	
Streetlights (no. per km)	<b>Regional Average for route type</b>	-	2	1	0	0	1
	Sth Canterbury	-	4	-	1	1	
	Otago Central	-	-	3	1	1	
	Coastal Otago	-	0	0	0	0	
	Southland	-	-	2	0	0	

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

Area: **SOUTHLAND M&O**

Date: **25/11/2013**

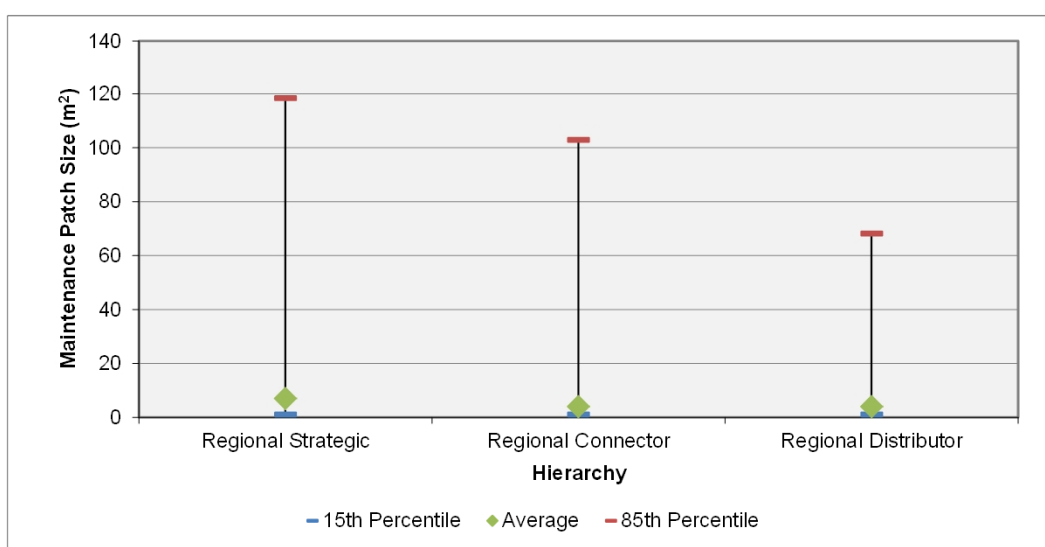
### Breakdown of 10 Year FWP by Treatment Type



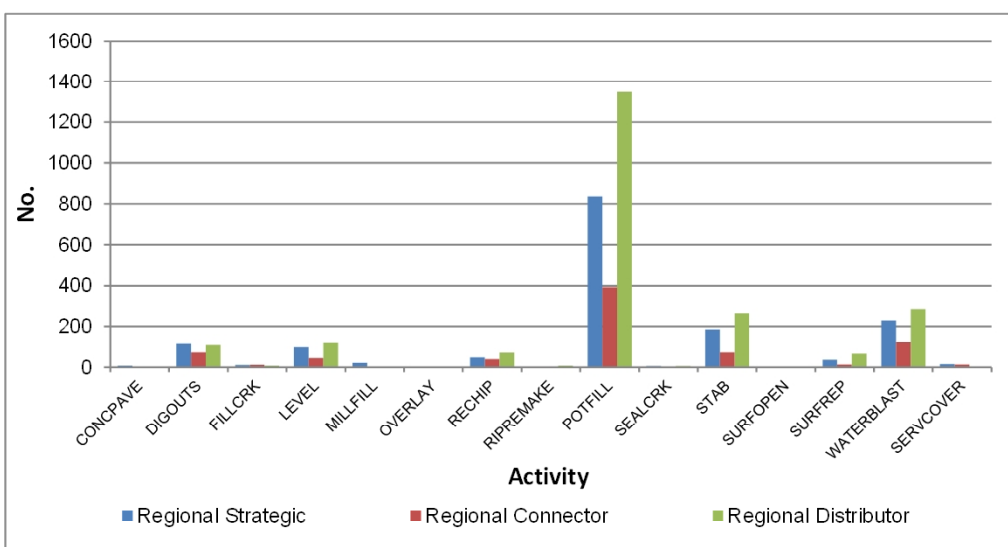
### Signalised Intersections in RAMM

Road Name	No.
01S-0920/01.12	1
01S-0920/02.60-D	2
006-1168/02.75-D	7
006-1168/02.75-I	9
<b>Total</b>	<b>19</b>

### Distribution of maintenance patch sizes by Hierarchy



### Breakdown of Maintenance Cost Activities last 3 years



### Large Signs >4.0m²

Sign Type	No.
Advance direction (Map) - "T" or cross roads	8
Advance direction (Stack) - "T" intersection	3
Feature "____"m ON left/right	2
Intersection Direction - "Fingerboard" Street Name S1Intersection Dire	1
Advance Direction - Street name sign	1
Advance direction (Map) - Roundabout	4
Advance direction (Stack) - Cross roads	4
Chevron Curve Indicator	4
Confirmation Destination	2
Four services [Arrow]	1
GIVE WAY	3
Information (Miscellaneous Sign) - User Defined	1
Intersection Direction [Arrow]	2
STOP	1
Slippery Surface (never erected separately)	7
Speed Limit 70km/h with PN-1	1
Speed Limit 80km/h with PN-1	2
Tourist route marker - arrow and route number	1
Warning (Miscellaneous Sign) - User defined	1
<b>Total</b>	<b>49</b>

### End Treatments in RAMM

End Treatment Type	No.
Armorflex X 350	58
Breakaway Cable Terminal (Bull Nose)	199
Bridge Plate/Bridge Connector	21
Cable end	8
ET2000	83
Fishtail/Butterfly end	6
MELT(Similar to BCT)	8
Regent	8
Steel Wire Rope End Anchor Block	10
Texas Twist	9
Unknown	2
<b>Total</b>	<b>412</b>

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

**Area:** SOUTHLAND M&O

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<b>Breakdown of road markings by type</b>	<b>Weigh Stations</b>
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Please note that NZTA does not require recording of standard centerline and edgeline lengths and therefore these quantities may not include some or all of these items

Marking Material	length (m)
Paint	226909
Raised Pavement Marker	356
Reflectorised Paint	67689
Thermoplastic - cold	54586
Unknown	14331

Road Name	Location	Side
006-1145/00.64	3950	Right
006-1157/07.94	8269	Left
015-0858/02.04	3943	Right
015-0886	14455	Left
015-0926	6825	Left
094-0063	15441	Left
099-0000/00.52	6181	Right
<b>Total</b>	<b>7</b>	

<b>Footpath and CycleWays</b>	<b>Gantries</b>
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None

Road Name	Location
006-1093-C094	2410
006-1095	95
006-1168/02.75-l	7530
015-0920/02.60-l	3593
<b>Total</b>	<b>4</b>



**DATABASE HEALTH INDEX - PARAMETERS**

Measures		Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
<b>Pavement and Footpath Inventory</b>							
Capital Projects	Major capital projects completed v RAMM (in last 6 -30 months)	Proportion of major capital projects completed within in 6 - 30 months that have been captured in RAMM	NZTA Regional Office, RAMM	N/A	N/A	N/A	N/A
	Minor capital or safety improvement projects v RAMM (in last 6 -30 months)	Proportion of minor capital or safety improvement projects completed within in 6 - 30 months that have been captured in RAMM	NZTA Regional Office, RAMM	N/A	N/A	N/A	N/A
Surfacing	% of Network surfaced in RAMM over previous 4 – 15 months	Total length of Network with surface date between 4-15 months old / total length of network	RAMM surface_structure, carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	8% 5% 2%	8% 5% 2%	Grade 1
	% Surfaces 50% older than expected age	Total length of Network with surface date > 50% older than expected age / total length of network	RAMM surface_structure, carr_way	Grade 1 Grade 2 Grade 3 Grade 4	3% 7% 15%	3% 7% 15%	Grade 2
	% of Network with no surfacing	Total length of Network with no surface material / total length of network	RAMM treatment_length, carr_way	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	Illogical records (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	No. Records with inconsistencies / No carriageway sections	RAMM carr_way, c_surface, traffic_loading, traffic_loading_dtl	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Pavement Layer	Proportion with layer information	Total length of Network with layer material / total length of network	RAMM treatment_length, carr_way	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 3
	New Layer length in 6 – 30 months	Total length of Network with layer date between 6-30 months old / total length of network	RAMM pave_structure, carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 3% 1%	5% 3% 1%	Grade 2
	Illogical records (Pavement layers v Incorrect Surfacing)	Total No. illogical Records / total No treatment lengths	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Road Marking	Breakdown of road markings by type	Total road marking length by type	RAMM carr_way, markings	N/A	N/A	N/A	N/A
Treatment Length	Proportion of very short < 20m TLs	Total length of Network with length < 20m / total length of network	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	Proportion of very long > 2000m TLs	Total length of Network with length > 2000m / total length of network	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	Proportion of TLs with < 80% coverage of major surfacing	Total length of Network with < 80% coverage of major surfacings / total length of network	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	% updated in last 5 years	Total No treatment lengths updated in last 5 years / total No TL's	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
Forward Works Programme	Date FWP Last Updated	Date FWP last updated	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	N/A	N/A	N/A	N/A
	Proportion of network identified for treatment in next ten years (date last updated)	Length of network identified for treatment in the 10 year FWP / total network length	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP exc 2nd coats)	Total length of Network with surfacings with dates in last year with a treatment scheduled in first 2 years of FWP (excl 2nd coats) / total length in first 2 years of FWP	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	Grade 1 Grade 2 Grade 3 Grade 4	2% 5% 8%	2% 5% 6%	Grade 1
	Evidence of active MIS strategy, reasons for treatments listed and detailed	Total length of Network with MIS strategy present / Total Network Length	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
<b>Collected Data</b>							
Carriageway Rating	Percentage rated in last year	Total network length rated in the last year / total network length	RAMM carr_way, treatment_length, rating	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	Total length of network with roughness, rutting and texture surveyed in the last year / total network length	RAMM carr_way, treatment_length, hsd_rough, hsd_rutting, hsd_texture	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
	% network meeting standards for FWD (Roads surveyed in last 5 years)	Total length of network with FWD surveyed in the last 5 years / total network length	RAMM carr_way, treatment_length, falling_weight	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
	% network meeting standards for SCRIM (Roads surveyed in last year)	Total length of network with SCRIM surveyed in the last year / total network length	RAMM carr_way, treatment_length, skid_resistance	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1

**DATABASE HEALTH INDEX - PARAMETERS**

Measures	Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade	
Maintenance Costs	Items per km for PA and SU cost groups in previous 4 – 15 months vs Regional Average	Total number of pavement and surfacing activity in last 4-15 months/Total Carriageway Length vs Regional Average	RAMM carr_way, mc_cost	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Spread of location in previous 4 - 15 months (proportion located at carriageway start)	Total number of pavement and surfacing activity in last 4-15 months at carriageway start / Total pavement and surfacing activity	RAMM carr_way, mc_cost	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 2
	Distribution of maintenance patch sizes by Hierarchy	Distribution of maintenance patch sizes by State Highway Classification	RAMM carr_way, mc_cost	N/A	N/A	N/A	N/A
	Breakdown of Maintenance Cost Activities	Breakdown of maintenance cost activities by type for the last 3 years by State Highway Classification	RAMM carr_way, mc_cost	N/A	N/A	N/A	N/A
	% of Maintenance Activity where fault type is "Unknown"	Percentage of maintenance cost activity recorded as unknown for the last 3 years.	RAMM carr_way, mc_cost	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Miscellaneous	No. Test Pits with layer data recorded	Total number of test pit records	RAMM carr_way, pave_test_pit_hdr	N/A	N/A	N/A	N/A
	No. of LTPP Sites recorded in RAMM	Total number of LTPP Sites	RAMM carr_way, ud_ltp	N/A	N/A	N/A	N/A
Traffic Count	Latest ADT Counts	Latest date of counts	RAMM traffic_loading	N/A	N/A	N/A	N/A
	Latest ADT Estimates	Latest date of Estimates	RAMM traffic_loading	N/A	N/A	N/A	N/A
	% loading estimate (i.e. not default)	Total no. loading estimates in last year / total no carriageway sections	RAMM carriageway, traffic_loading, carr_way, traffic_loading_dtl	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
<b>Non-Carriageway Asset Inventory</b>							
Structures	No. Pavement Type "Bridge" v No. Bridges > 50m in length in BDS	Total No. Bridge pavement type in RAMM vs Total No. Bridges >50m in length in BDS that carry the State Highway	RAMM carr_way, BDS	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
	No. Large Culverts v No. BDS	Total No. Culverts with an area >= 3.4m <sup>2</sup> vs Total No. culverts in BDS	RAMM carr_way, drainage, BDS	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Retaining Walls	Total No. Retaining Walls	RAMM carr_way, retaining_wall	N/A	N/A	N/A	N/A
	Gantries	Total No. Gantries	RAMM carr_way, minor_structure	N/A	N/A	N/A	N/A
	Barriers in RAMM(m)	Total Length Barriers (excludes SR, HR, OTHER, GREAT)	RAMM carr_way, railings	N/A	N/A	N/A	N/A
Drainage	Culverts per km v Regional Average (Rural)	Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Catchpits per km v Regional Average (Urban)	Total No. of catchpits per km Urban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Manholes per km v Regional Average (Urban)	Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Subsoil Drains per km v benchmark Regional Average (Rural)	Length of subsoil drains per km Rural vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	% of Drainage (Construction Date in previous 4 – 15 months)	Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4	4% 2% 1%	4% 2% 1%	Grade 2
Surface Water Channels	Surfaced SWC per km v Regional Average (Urban)	Length of surfaced SWC per km Urban vs regional average per km	RAMM carr_way, sw_channel	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Earth SWC per km v Regional Average (Rural)	Length of Earth SWC per km Rural vs regional average per km	RAMM carr_way, sw_channel	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Sealed SWC Renewal Activity (Construction Date in previous 4 – 27 months)	Length of surfaced SWC renewed or replaced in last 4-15 months / total length of surfaced SWC	RAMM carr_way, sw_channel	Grade 1 Grade 2 Grade 3 Grade 4	4% 2% 1%	4% 2% 1%	Grade 2

## DATABASE HEALTH INDEX - PARAMETERS

	Measures	Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
Signs	Signs per km v Regional Average	Total No. of signs per km vs regional average per km	RAMM carr_way, signs	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Large Signs >4.0m <sup>2</sup>	Total No. of large signs with a sign face greater than 4.0m <sup>2</sup>	RAMM carr_way, signs	N/A	N/A	N/A	N/A
	ITS VMS	Total No. of ITS Assets (3VMS, 3MVMS, 3VMSS, 3VSS) and its_state = "In Service"	RAMM carr_way, ud_its	N/A	N/A	N/A	N/A
	% of Signs with renewal date in previous 4 – 15 months	Total No. of signs renewed or replaced in last 4-15 months / total number of signs	RAMM carr_way, signs	Grade 1 Grade 2 Grade 3 Grade 4	6% 4% 2%	6% 4% 2%	Grade 2
	No. Frangible bases in RAMM	Total No of signs with frangible bases, type includes (SJ and BP)	RAMM signs, sign_to_post_join, sign_post	N/A	N/A	N/A	N/A
Streetlights	Streetlights per km v benchmark	Total No. of street lights per km vs regional average per km	RAMM carr_way, sl_pole	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Frangible Base type no.	Total No. of street lights with frangible bases	RAMM carr_way, sl_pole	N/A	N/A	N/A	N/A
	Shear Base type no.	Total No. of street lights with shear bases	RAMM carr_way, sl_pole	N/A	N/A	N/A	N/A
	% of Street lights with renewal date in previous 4 – 15 months	Total No. of street lights renewed or replaced in last 4-15 months / total number of street lights	RAMM carr_way, sl_pole	Grade 1 Grade 2 Grade 3 Grade 4	6% 4% 2%	6% 4% 2%	Grade 2
	Duplicates or near duplicates plus poles with no light or bracket	Total No. Poles with no brackets attached, total No. brackets with no light attached, total No. poles with duplicate road_id, location, offset_side, offset	RAMM carr_way, sl_pole, sl_bracket, sl_light	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Footpath & Cycleways	Total Length of footpath and cycleways (see attached tables for listing)	Total length of footpath and cycleways	RAMM carr_way, features	N/A	N/A	N/A	N/A
Signal Controlled intersections	No. Signal Controlled Intersections (see attached report for loactions)	Number of signal Controlled Intersections (SIGINT)	RAMM carr_way, features	N/A	N/A	N/A	N/A
Rest Areas	Number of rest areas	Total No of rest areas	RAMM carr_way, features	N/A	N/A	N/A	N/A
Weigh Station	No. Weigh stations	Number of weighs Stations (WSTAT)	RAMM carr_way, minor_structure	N/A	N/A	N/A	N/A