

**DATABASE HEALTH INDEX - DASHBOARD**

Area: BOP EAST  
Date: 9/09/2013

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

Category	Measures	Performance					
		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	14.4%	Grade 1	Grade 1	91	81
		% Surfaces at least 50% older than expected age	6.6%	Grade 2	Grade 2		
		% of Network with no surfacing	0.1%	Grade 1	Grade 1		
		Illogical Records inc. % (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	1.0%	Grade 1	Grade 1		
	Pavement Layer	Proportion of Network with layer Information	72.1%	Grade 2	Grade 3	56	77
		New layer length in previous 6 – 30 months	1.2%	Grade 3	Grade 2		
		Illogical records (Pavement Layers v Incorrect Surfacing)	14.2%	Grade 2	Grade 1		
	Road Marking	Breakdown of road markings by type	see attached report			-	-
Treatment Length	Proportion of very short (< 20m) TLs	3.2%	Grade 1	Grade 1	82	85	
	Proportion of very long (> 2000m) TLs	1.6%	Grade 1	Grade 1			
	Proportion of TLs with < 80% coverage of major surfacing	6.6%	Grade 2	Grade 1			
	% updated in last 5 years	50.2%	Grade 3	Grade 2			
Forward Works Programme	Date FWP last updated	10/09/2013	-	-	87	90	
	Proportion of network identified for treatment in next ten years (from FWP)	149.2%	Grade 1	Grade 2			
	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP excluding 2nd coats)	0.3%	Grade 1	Grade 1			
	Evidence of active MIS strategy, reasons for treatments listed and detailed	60.9%	Grade 3	Grade 1			
Collected Data	Carriageway Rating	Percentage rated in last year	97.7%	Grade 1	Grade 1	98	90
	High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	99.9%	Grade 1	Grade 1	92	90
		% network meeting standards for FWD (Roads surveyed in last 5years)	76.0%	Grade 2	Grade 1		
		% network meeting standards for SCRIM (Roads surveyed in last year)	99.9%	Grade 1	Grade 1		
	Maintenance Activity	Items per km for PA and SU cost groups in previous 4 – 15 months v Regional Average	121.4%	Grade 1	Grade 2	89	83
		Spread of location in previous 4 - 15 months (proportion located at carriageway start)	1.1%	Grade 1	Grade 2		
		Distribution of maintenance patch sizes by Hierarchy	see attached report				
		Breakdown of Maintenance Cost Activities	see attached report				
	Miscellaneous	No. of test pits with layer data recorded	28	no.	-	-	-
		No. of LTPP sites recorded in RAMM	7	no.	-	-	-
Traffic Count	Latest ADT Counts	31/12/2012	-	-	100	70	
	Latest ADT Estimates	19/08/2013	-	-			
	% loading estimate (i.e. not default)	100.0%	Grade 1	Grade 2			
Non-Carriageway Asset Inventory	Structures	No. of Pavement Type "Bridge" v No. of Bridges > 50m in length in BDS	9.5%	Grade 5	Grade 1	21	85
		No. Large Culverts v No. BDS	30.8%	Grade 4	Grade 2		
		Retaining Walls	335	no.	-		
		Gantries (see attached report for locations)	13	no.	-		
		Barriers in RAMM (m)	30122	m	-		
		End Treatments in RAMM	see attached report				
	Drainage	Culverts per km v Regional Average (Rural)	92.3%	Grade 1	Grade 2	51	82
		Catchpits per km v Regional Average (Urban)	87.9%	Grade 2	Grade 2		
		Manholes per km v Regional Average (Urban)	0.0%	Grade 5	Grade 2		
		Subsoil Drains per km v Regional Average (Rural)	21.8%	Grade 4	Grade 2		
		% of Drainage (Construction Date in previous 4 – 15 months)	1.2%	Grade 3	Grade 2		
	Surface Water Channels	Surfaced SWC per km v Regional Average (Urban)	91.3%	Grade 1	Grade 2	86	77
		Earth SWC per km v Regional Average (Rural)	118.2%	Grade 1	Grade 2		
		Sealed SWC renewal activity (Construction Date in previous 4 – 27 months)	2.8%	Grade 2	Grade 2		
	Signs	Signs per km v Regional Average	91.8%	Grade 1	Grade 2	51	78
		Large Signs >4.0m <sup>2</sup> (see attached report for quantity by type)	175	no.	-		
		ITS VMS	3	no.	-		
		% of Signs with renewal date in last 4 - 15 months	0.6%	Grade 4	Grade 2		
No. Frangible bases in RAMM (no posts in RAMM)		0	no.	-			
Streetlights	Streetlights per km v Regional Average	0.0%	Grade 5	Grade 2	33	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)	4	no.	-	-	-	
Rest Areas	Number of rest areas	32	no.	-	-	-	
Weigh Stations	Number of Weigh Stations (see attached report for locations)	9	no.	-	-	-	

## DATABASE HEALTH INDEX DASHBOARD - PROJECTS

Area: BOP EAST  
Date: 9/09/2013

In RAMM (Y/N/P)	Project Name	SH	RS	Dir	RP		Comments	Year
Y	Wainui Road Approach	2	283	B	2.65	2591m SDCUL	Economic Stimulus Approach	09/10
?	Culvert 1 Extension	2	294	L	0.44		Economic Stimulus Extension	09/10
N	Waiotahi Beach Curves Signage Upgrade	2	294	B	1.85		Signage Upgrade	09/10
P	Pohutukawa Tunnel Seal Widening	2	294	B	3.9	Pavement and Surfacing missing	Seal Widening with K&C	09/10
Y	Matahi Rd Curves Realignment	30	187	R	0.4		Minor Safety Curve	09/10
	Drainage Trap Removal	30	194	L	1.1		Minor Safety Removal	09/10
Y	Crest Curve Delineation	30	194	B	2.3		Minor Safety Delineation	09/10
Y	White Cross Orchard Drain	30	206	L	5.25		Economic Stimulus Drain	09/10
Y	MacDonald Road Widening	30	206	R	6.35		Seal Widening to Corner	09/10
Y	Culvert 3043 Guardrail	30	206	B	8.02		Economic Stimulus Guardrail	09/10
Y	Hot Springs Curve Signage Upgrade	30	206	R	9		Signage Upgrade	09/10
Y	Stock Underpass Guardrail	30	206	B	10.56		Economic Stimulus Guardrail	09/10
Y	Matata Speed Threshold	2	223	B	1.15		Minor Safety Threshold	10/11
Y	Taneatua Eastern Speed Threshold	2	258	B	2.17	Installation date needs updating	Minor Safety Threshold	10/11
P	Waimana Curves	2	271	B	1	No Guardrail	Sign and Guardrail	10/11
	Waiotahi River Bridge Guardrail	2	294	B	0.1	Bridge Guardrail does not get entered in RAMM	Bridge Guardrail	10/11
	Tarawera River Bridge Guardrail	30	194	B	8.45	Bridge Guardrail does not get entered in RAMM	Bridge Guardrail	10/11
Y	Tirohanga Speed Threshold Upgrade	35	0	B	7.5		Minor Safety Upgrade	10/11
	Hawai Bridge Guardrail	35	28	B	0	Bridge Guardrail does not get entered in RAMM	Install TL3 guardrail	10/11
Y	SH2 Matata Pump Station Guardrail	2	223	L	2.8		Minor Safety Guardrail	2011
N	Site 4 – Tarukenga Seal Widening	5	29	Both	10.10 to 11.53			2011
P	SH5 Fairy Springs Rd 4-Laning	5	45	Inc & Dec	1.9 to 3.1	1946-2959 D no RAMM details, Only Carriageway, retaining wall and signs updated	Widening existing carriageway from 2 lanes to divided 4 lanes	2011
Y	Site 5A – Waipa Stream Guardrail	5	56	Dec	0.09 to 0.21			2011
Y	Site 5B – Waipa South Guardrail	5	56	Inc	5.15 to 5.22			2011
Y	Site 5C – Gasline Curve Culvert 1 Guardrail	5	67	Both	7.45 to 7.64			2011
Y	Site 5D – Gasline Curve Culvert 1 Guardrail	5	67	Both	7.71 to 7.84			2011
P	Site 7 – Airport to Rotokawa Improvements	30	147	Both	6.50 to 7.30	date		2011
Y	Site 9 – Ohaunui Stream Guardrail	30	158	Dec	2.68 to 2.75			2011
P	Site 6 – SH 30/33 Intersection Improvements	33	0	Dec	0.00 to 0.150	missing		2011
Y	SH36 Mangapouri South AWT	36	28	both	5.93 to 7.23	Historical surfacing records need updating	Pavement Overlay and Seal Widening	2011
	Reids Canal	2	232	B	5.5		Bridge Replacement	2012
P	Maraenui Hill Realignment	35	28	B	5	4470-5600 Historical surfacing records need updating, marking painted date missing. No structures.	Emergency Work	2012
P	Sandy's Slip	2	345	B	9.3	9055-9409 AWPT in RAMM. Structures, railing and retaining wall missing	Emergency Work	2013
Y	SH5 Waiotapu Sth AWT	5	77	both	5.25 to 6.75	Historical pavement and surfacing records need removed dates. signs missing	Pavement Overlay and Seal Widening	2013
P	SH30 Te Ngae East AWT	30	158	both	1.25 to 2.97	Historical pavement and surfacing records need removed dates. Signs missing	Pavement Overlay and Seal Widening	2013
N	SITE 3: Wapiti Road East Guardrail Installation	30	115	Dec	3.635 to 3.815			2013
N	SITE 4: No. 26 Culvert Extension	30	120	Dec	4.86 to			2013
N	SITE 5: No. 4 Culvert Extension and Guardrail Extension	30	131	Both	0.572 to 0.726			2013
N	SITE 13: Hells Gate Entrance Upgrade	30	158	Both	3.4 to 3.64			2013
Y	SITE 1: Moose Lodge East Curve Guardrail	30	158	Inc	8.83 to 8.93			2013
N	SITE 2: Rotoma Divepoint Guardrail Extension	30	170	Inc	14.49 to 14.57			2013
N	Widening	33	0	Both	8.39 to 8.99			2013
N	SITE 7: Gum Plantation Guardrail	33	0	Dec	11.06 to 11.85			2013
N	SITE 8: Maniatutu Road North Guardrail & Seal Widening	33	0	Inc	12.1 to 13.1			2013
N	SITE 9: Motorbike Fatal Hill Guardrail	33	0	Dec	13.66 to 13.8			2013
N	SITE 10: Sun Valley South Logging Road Guardrail	33	0	Inc	14.23 to 14.43			2013
N	SITE 11: Sun Valley Station Guardrail	33	0	Inc	14.7 to 14.9			2013
N	SITE 14: Kaharoa Rd/Stewart Rd Intersection	36	28	Both	7.5 to 8.5			2013
N	SITE 12: Kathy's Curve Guardrail	36	28	Inc	7.95 to 8.05			2013

## DATABASE HEALTH INDEX - REGIONAL AVERAGES

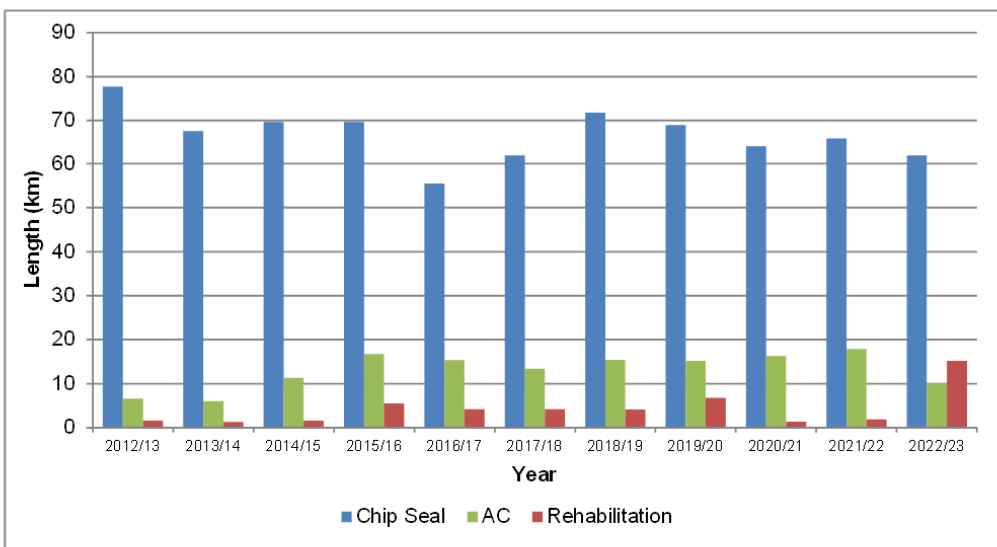
Area: BOP EAST  
Date: 9/09/2013

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>	<b>6</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>5</b>	5
	Napier	4	2	4	-	3	
	Gisborne	-	-	7	5	9	
	East Waikato	6	-	3	5	3	
	BOP West	7	-	6	9	9	
	BOP East	-	-	7	5	5	
Culverts (Rural) (no. per km)	<b>Regional Average for route type</b>	<b>11</b>	<b>7</b>	<b>9</b>	<b>8</b>	<b>9</b>	9
	Napier	4	7	9	-	7	
	Gisborne	-	-	8	11	9	
	East Waikato	15	-	7	8	11	
	BOP West	12	-	9	6	13	
	BOP East	-	-	9	8	7	
Catchpit (Urban) (no. per km)	<b>Regional Average for route type</b>	<b>9</b>	<b>12</b>	<b>15</b>	<b>10</b>	<b>8</b>	10
	Napier	10	12	11	-	9	
	Gisborne	-	-	0	6	5	
	East Waikato	0	-	21	13	10	
	BOP West	8	-	9	6	13	
	BOP East	-	-	16	7	6	
Manholes (urban) (no. per km)	<b>Regional Average for route type</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	1
	Napier	0	0	2	-	1	
	Gisborne	-	-	0	1	0	
	East Waikato	0	-	0	1	1	
	BOP West	0	-	0	0	0	
	BOP East	-	-	0	0	0	
Subsoil Drain (Rural) (m per km)	<b>Regional Average for route type</b>	<b>18</b>	<b>34</b>	<b>136</b>	<b>27</b>	<b>43</b>	61
	Napier	107	34	223	-	14	
	Gisborne	-	-	151	93	148	
	East Waikato	0	-	0	4	2	
	BOP West	0	-	0	0	0	
	BOP East	-	-	8	34	3	
Surfaced SWC (Urban) (m per km)	<b>Regional Average for route type</b>	<b>1389</b>	<b>1447</b>	<b>1620</b>	<b>1175</b>	<b>923</b>	1137
	Napier	1488	1447	1815	-	1623	
	Gisborne	-	-	0	426	784	
	East Waikato	0	-	1538	1189	989	
	BOP West	1155	-	1243	0	0	
	BOP East	-	-	1637	1237	520	
Earth SWC (Rural) (m per km)	<b>Regional Average for route type</b>	<b>991</b>	<b>523</b>	<b>751</b>	<b>1315</b>	<b>1131</b>	1050
	Napier	313	523	448	-	718	
	Gisborne	-	-	1087	1403	1328	
	East Waikato	782	-	1031	1407	1174	
	BOP West	1207	-	1259	642	1671	
	BOP East	-	-	1379	1283	1117	
Signs (no. per km)	<b>Regional Average for route type</b>	<b>22</b>	<b>14</b>	<b>18</b>	<b>16</b>	<b>15</b>	16
	Napier	26	14	16	-	15	
	Gisborne	-	-	19	20	15	
	East Waikato	18	-	22	16	18	
	BOP West	20	-	21	12	8	
	BOP East	-	-	18	15	12	
Streetlights (no. per km)	<b>Regional Average for route type</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	2
	Napier	17	2	1	-	2	
	Gisborne	-	-	0	1	2	
	East Waikato	2	-	5	3	2	
	BOP West	0	-	0	0	0	
	BOP East	-	-	0	0	0	

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

Area: **BOP EAST**  
Date: **9/09/2013**

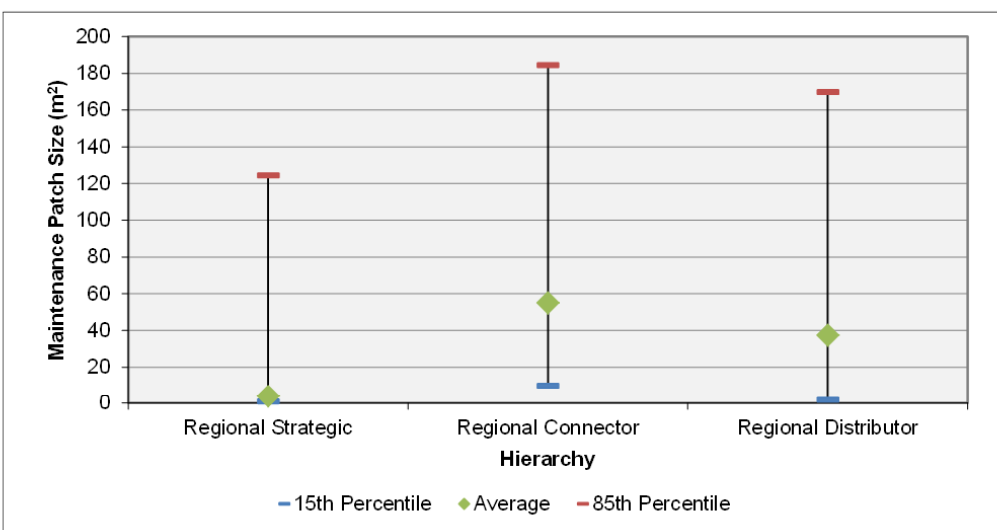
**Breakdown of 10 Year FWP by Treatment Type**



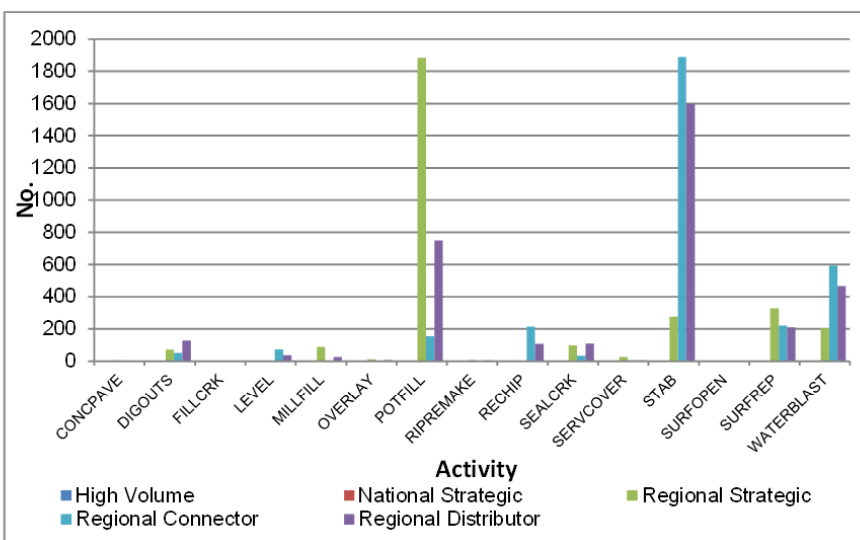
**Signalised Intersections in RAMM**

Road Name	Location	No.
005-0050-D	0	1
005-0050-D	541	1
005-0050-I	0	1
005-0050-I	541	1
<b>Total</b>		<b>4</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	26
Advance direction (Stack) - "T" intersection	8
Feature TURN left/right "_____"m	5
Intersection Direction - "T"	6
Advance direction (Map) - Roundabout	13
Advance direction (Stack) - Cross roads	6
Advanced lane direction [Arrow]	1
Chevron Board	7
Chevron Board - Advisory speed 45km/h	1
Confirmation Destination	2
Fire Hazard (Grapefruit sign)	1
Intersection Direction	6
Intersection Direction - Urban with street name sign	1
Intersection Direction - route marker with St.name sign	1
Intersection Direction - with route marker	3
Intersection Direction [Arrow]	15
Major tourist attractions - special information	1
Place Name	8
Place Name	4
STOP	1
Side Road Junction - Controlled	1
Speed Limit	10
Speed Limit 50km/h with PN-1	4
Speed Limit 70km/h	2
Speed Limit 70km/h with PN-1	10
Speed Limit 80km/h with PN-1	18
Threshold Sign - Place Name + Speed Limit	9
Tourist Heritage Trail	1
Welcome To .....	4
<b>Total</b>	<b>175</b>

**End Treatments in RAMM**

End Treatment Type	No.
Armorflex X 350	142
Breakaway Cable Terminal (Bull Nose)	138
Breakaway Cable Terminal Unit	29
Bridge Plate/Bridge Connector	88
ET2000	46
Fishtail/Butterfly end	20
Fleat 350	78
Fleat MT	2
M23 Compliant	38
Not Applicable	17
SKT 350	40
Terminal end	33
Texas Twist	5
Trailing End Anchor Units	2
<b>Total</b>	<b>678</b>

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

**Area:** BOP EAST

**Date:** 9/09/2013

### Breakdown of road markings by type Weigh Stations

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)
Long Life Flat	13005
Long Life Profile	19318
Paint	1192911
Raised Pavement Marker	343440
Reflectorised Paint	688643
Thermoplastic Audible	41313
Unknown	194506

Road Name	Location	Side
002-0223	7934	R
002-0294	5996	L
005-0029	2155	R
005-0067	4350	R
030-0131/06.10	11801	L
030-0147/01.11	7488	L
030-0147/01.11	7467	L
030-0219	8018	R
035-0000	3671	L
Total		9

### Footpath and CycleWays Gantries

None

Road Name	Location	
005-0045/01.95-D	4498	
005-0045/01.95-I	4158	
005-0045/05.50	5547	
005-0045/05.50	5576	
005-0045/05.50	5577	
005-0045/05.50	5623	
005-0050-D	150	
030-0144	1036	
030-0219	7042	
30A-0000/01.22-D	1317	
30A-0000/01.22-D	1957	
30A-0000/01.22-I	1701	
30A-0000/01.22-I	1859	
Total		13

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) 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	RAMM carr_way, signs	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