

Seasonal Surfacing

HIGGINS®





What is Seasonal Surfacing?

Fostering Collaboration: Whanaungatanga in transport asset management

IDS
Infrastructure
Decision Support

Āpōpō



METCONNECT



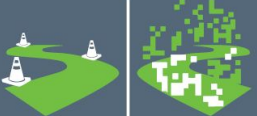
Cloud Data



Planning



Execution



Digital Twin



Claiming

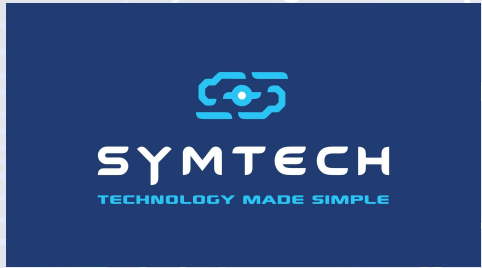


Fostering Collaboration: Whanaungatanga in transport asset management





METCONNECT



Cloud Data



Planning



Execution



Digital Twin



Claiming



Fostering Collaboration: Whanaungatanga in transport asset management



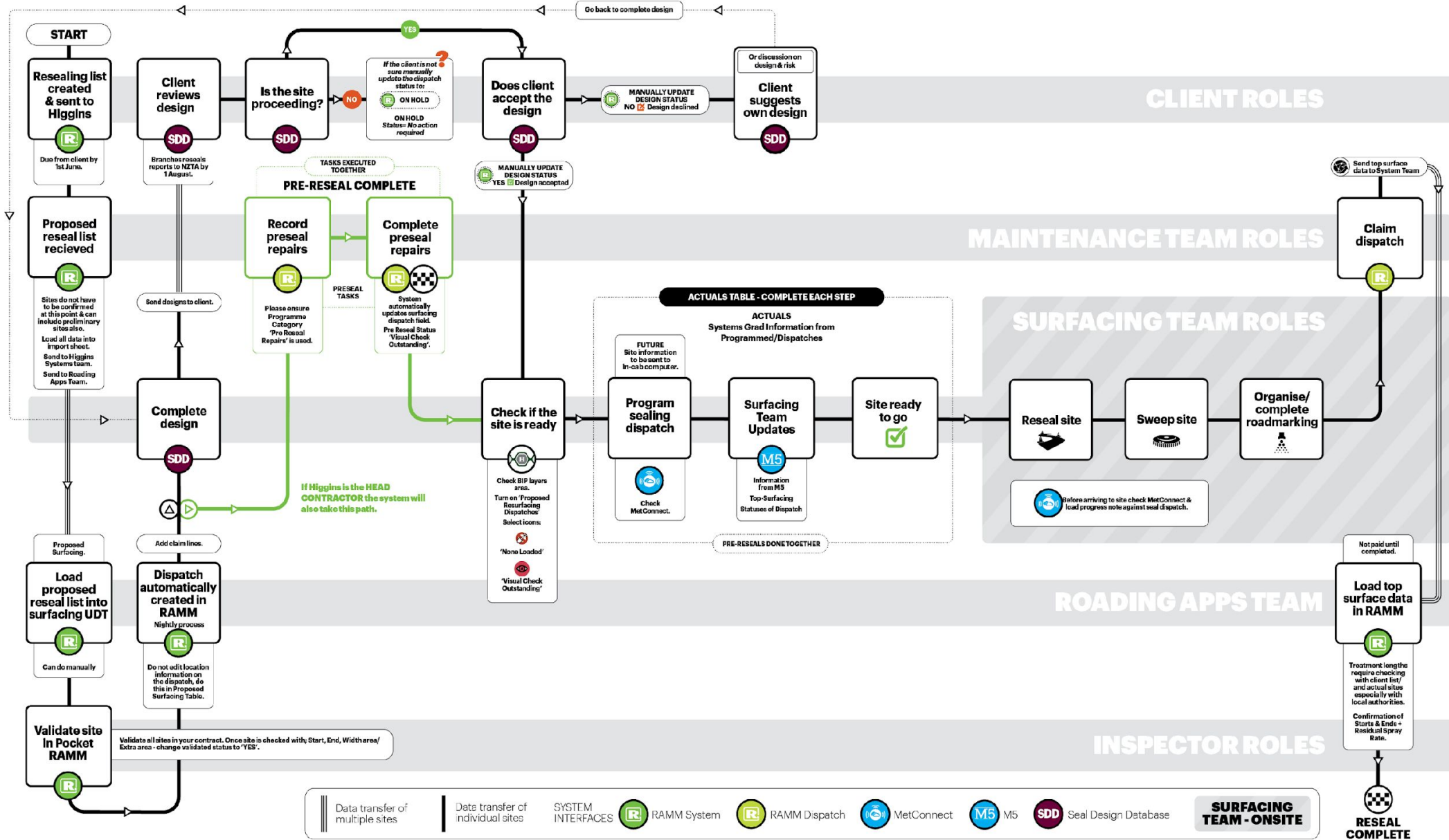


Proposed Surfacing?

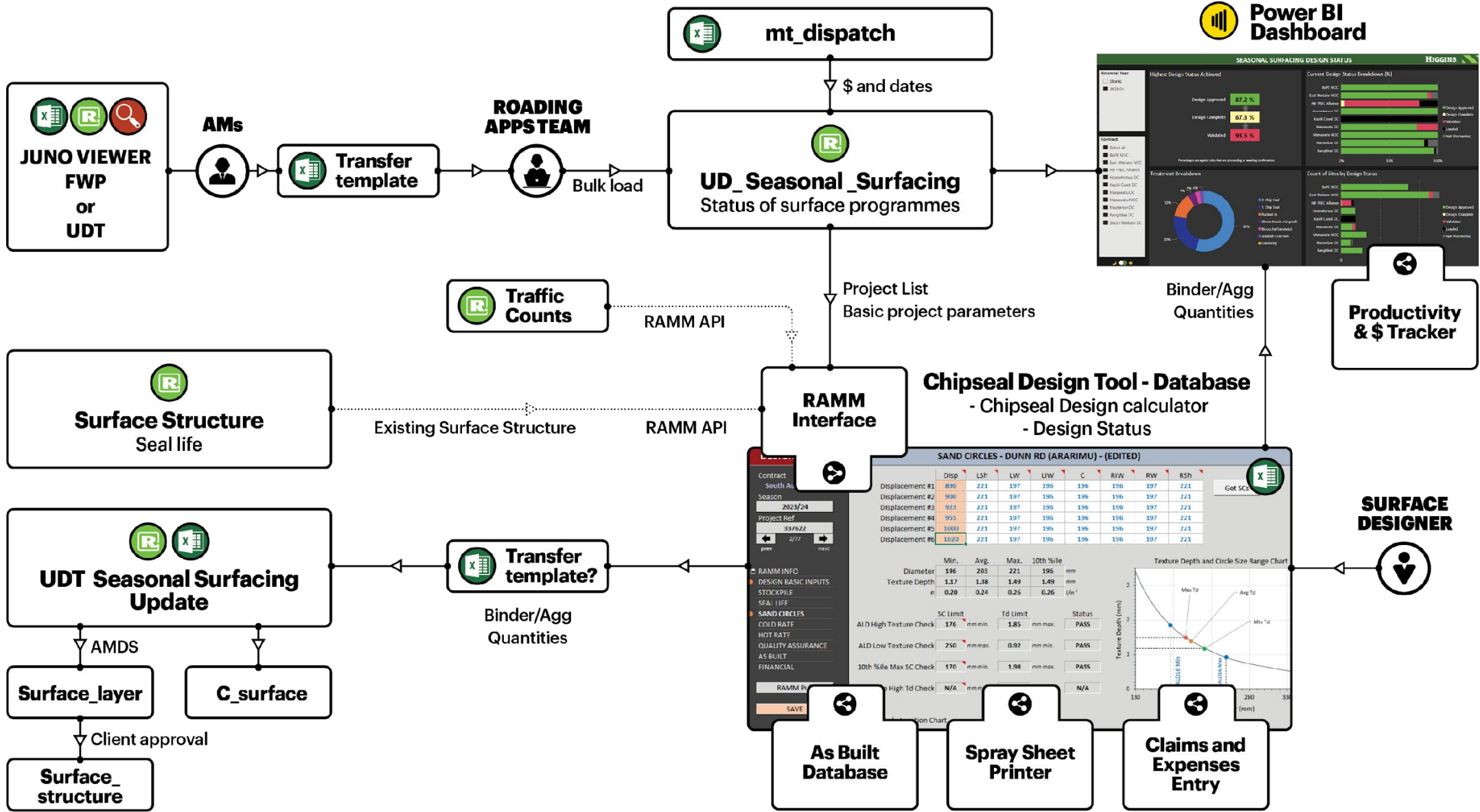


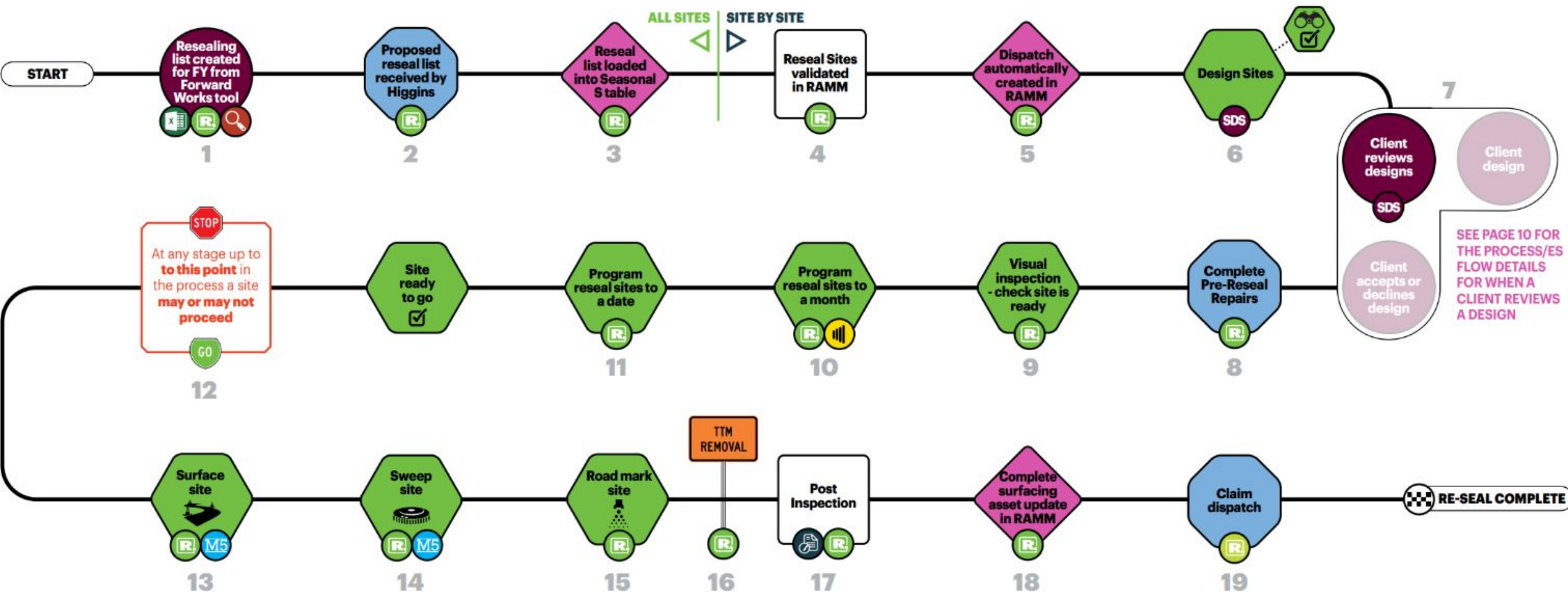
Higgins Surfacing?

Where we were...

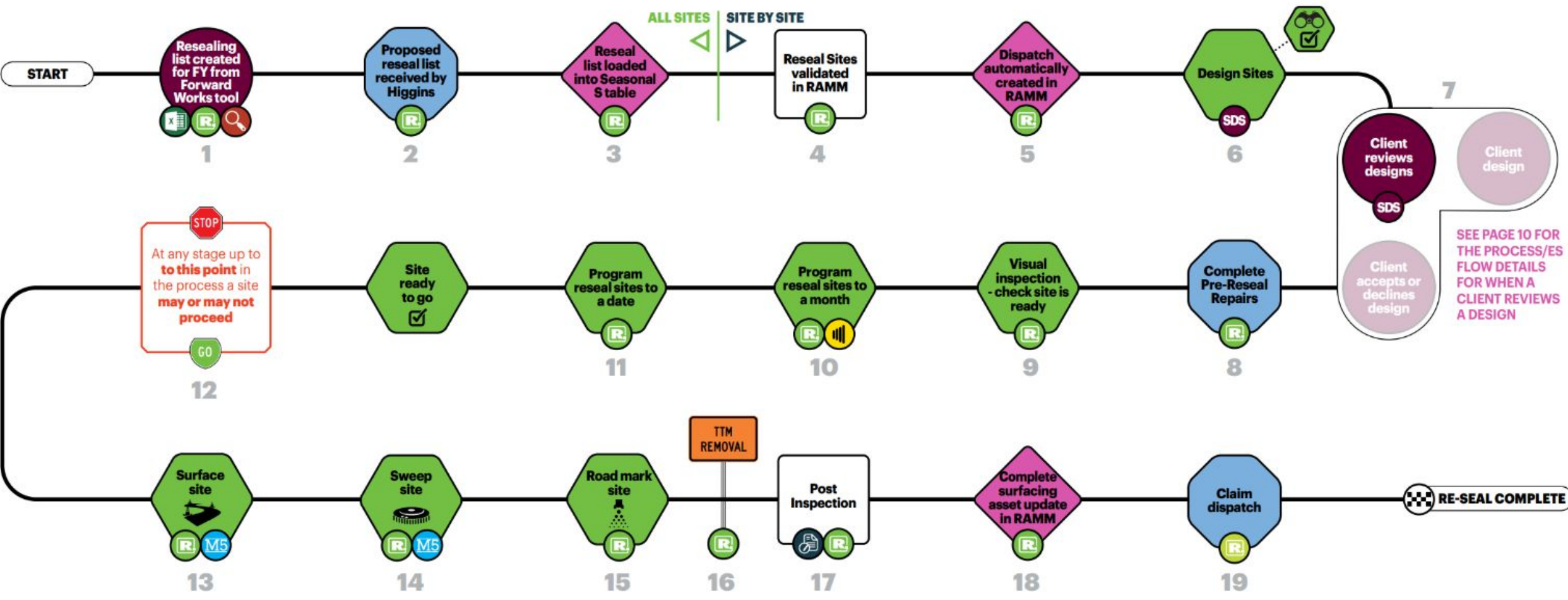


SEASONAL SURFACING LINKAGES





What it does for Higgins and the client



What it does for Higgins and the client



What it does for Higgins and the client

INSTRUCTIVE MANUAL FOR EACH STEP OF THE PROCESS

H Higgins Seasonal Surfacing Process

System Overview



8. Complete Pre-Reseal Repairs

HOW: Communicate with the relevant Maintenance Team/s.

It's **HIGHLY ADVISABLE** to communicate with the appropriate 'Maintenance Team' when determining if a site is ready for re-sealing.

Where Higgins is the **head maintenance contractor** the **Pre-Reseal Status** is locked down and will be updated automatically.

Where we are **NOT** the Head Maintenance Contractor talk to the **relevant 'Maintenance Team'** to find out the status of a site.

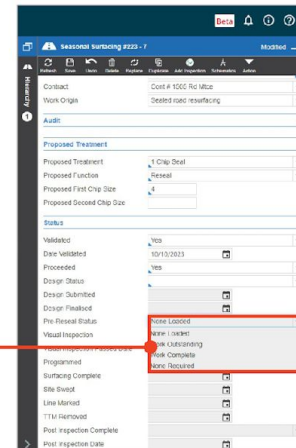
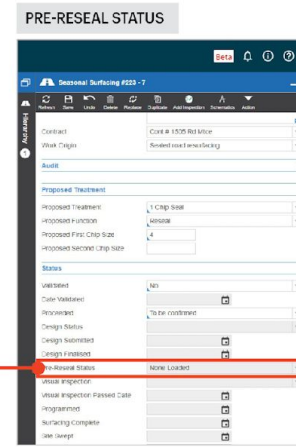
ACTION: Check/Update 'Pre-Reseal Status'.

The following status's are potential statuses that a site may follow before a **VISUAL INSPECTION** can be done. Look at the Dashboard + RAMM for sites showing:

- 'None Loaded'.
- 'Work Complete'
- 'None Required'
- 'Work Outstanding'

The only two status's confirming a visual inspection can be done are:

- 'Work Complete'
- 'None Required'



PRE- RESEALS
Is all of the work done BEFORE the putting down of the surfacing

NOTE: Dispatches for Pre-Reseal Repairs are validated in the system which takes 48 hours.

The system automatically performs on-going searches for all Seasonal Surfacing sites which are loaded with RP information, and if **NONE** are found for 90 days the system changes the status to '**None Required**'.

If a site is found during those on-going automated searches the status is changed to '**Work Complete**'.

Pre-Reseals = x1 Dispatch

Sealing = x1 Dispatch

- Menu
- Map
- Seasonal Surfacing 2023/...
- Surfacing Dispatches
- Pre-Reseal Dispatches
- Surfacing Asset Update

Contract	Site Reference	Site Name	Road
<input type="checkbox"/>	Cont No. 980 - RD MTCE	WHALES LINE	WHALES LINE 1
<input type="checkbox"/>	Cont No. 980 - RD MTCE	WHALES LINE	WHALES LINE 2
<input type="checkbox"/>	Cont No. 980 - RD MTCE	GOLDINGS LINE	GOLDINGS LINE
<input type="checkbox"/>	Cont No. 980 - RD MTCE	TUTAENUI ROAD	TUTAENUI ROAD 3
<input type="checkbox"/>	Cont No. 980 - RD MTCE	GALPINS ROAD	GALPINS ROAD
<input type="checkbox"/>	Cont No. 980 - RD MTCE	ALDWORTH ROAD	ALDWORTH ROAD 1
<input type="checkbox"/>	Cont No. 980 - RD MTCE	ALDWORTH ROAD	ALDWORTH ROAD 2
<input type="checkbox"/>	Cont No. 980 - RD MTCE	WHANGAEHU BEACH ROAD	WHANGAEHU BEACH ROAD
<input type="checkbox"/>	Cont No. 980 - RD MTCE	WATERSHED ROAD	WATERSHED ROAD
<input type="checkbox"/>	Cont No. 980 - RD MTCE	TE KAPUA ROAD	TE KAPUA ROAD
<input type="checkbox"/>	Cont No. 980 - RD MTCE	MATAROA ROAD	MATAROA ROAD 1
<input type="checkbox"/>	Cont No. 980 - RD MTCE	MATAROA ROAD	MATAROA ROAD 2
<input type="checkbox"/>	Cont No. 980 - RD MTCE	MATAROA ROAD	MATAROA ROAD 3
<input type="checkbox"/>	Cont No. 980 - RD MTCE	RUANUI ROAD	RUANUI ROAD
<input type="checkbox"/>	Cont No. 980 - RD MTCE	DEACONS ROAD	DEACONS ROAD
<input type="checkbox"/>	Cont No. 980 - RD MTCE	ABATTOIR ROAD	ABATTOIR ROAD 1
<input type="checkbox"/>	Cont No. 980 - RD MTCE	ABATTOIR ROAD	ABATTOIR ROAD 2
<input type="checkbox"/>	Cont No. 980 - RD MTCE	ABATTOIR ROAD	ABATTOIR ROAD 3
<input type="checkbox"/>	Cont No. 980 - RD MTCE	RONGOITI ROAD	RONGOITI ROAD

Seasonal Surfacing #3 - GOLDINGS LINE

Contract: Cont No. 980 - RD MTCE

Work Origin: Sealed road resurfacing

Audit

Proposed Treatment

Proposed Treatment: 1 Chip Seal

Proposed Function: Reseal

Proposed First Chip Size: 4

Proposed Second Chip Size:

Status

Validated: Yes

Date Validated: 30/08/2023

Proceeded: Yes

Design Status: Design Accepted

Design Submitted: 12/10/2023

Design Finalised: 09/10/2023

Pre-Reseal Status: None Required

Visual Inspection: Pass

Visual Inspection Passed Date: 10/01/2024

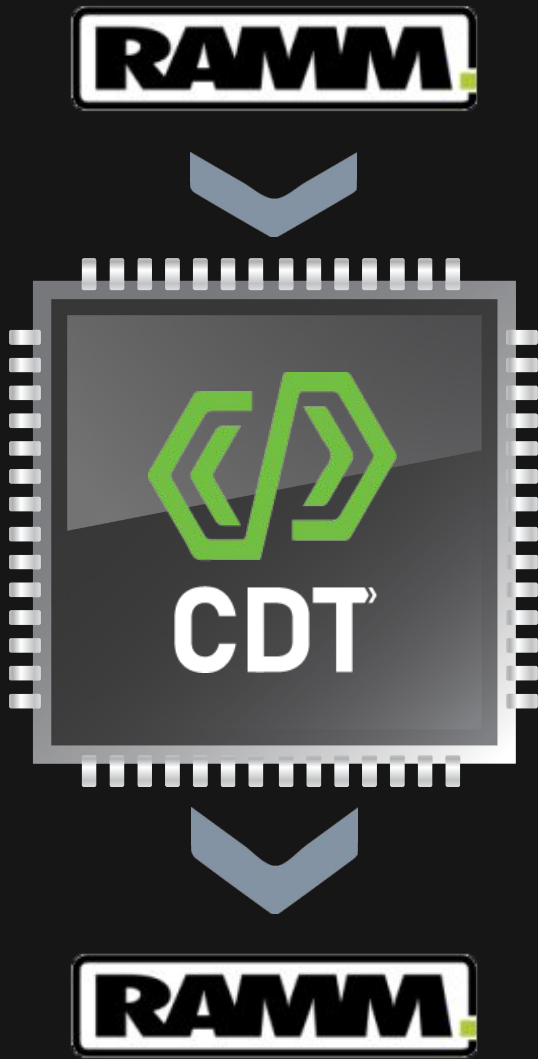
Programmed:

Surfacing Complete: 12/01/2024

Site Swept: 15/01/2024

Line Marked: 15/01/2024

TTM Removed: 16/01/2024



DESIGN EDITOR

Horowhenua DC
2023/24

Project Ref
1
1/36
prev

- RAMM INFO
- DESIGN BASIC I
- STOCKPILE
- SEAL LIFE
- SAND CIRCLES**
- COLD RATE
- HOT RATE
- QUALITY ASSUR
- AS BUILT
- FINANCIAL

RAMM P

SAVE

DELETE

Last RAMM

SAND CIRCLES - BARBER ROAD

	Min.	Avg.	Max.	10th %ile	
Diameter	195	247	295	219	mm
Texture Depth	0.66	0.94	1.51	1.20	mm
	0.00	0.15	0.27	0.20	1/m ²

Texture Depth and Circle Size Range Chart

DESIGN EDITOR

Horowhenua DC
2023/24

Project Ref
1
1/36
prev next

- RAMM INFO
- DESIGN BASIC INPUTS
- STOCKPILE**
- SEAL LIFE
- SAND CIRCLES
- COLD RATE
- HOT RATE
- QUALITY ASSURANCE
- AS BUILT
- FINANCIAL

RAMM Pull

SAVE

DELETE

Last RAMM Pull:

STOCKPILE FOR BARBER ROAD PROJECT

1st Chip (G3)

Aggregate Source: Rangitikei Aggregates ALD 1st Chip: 9.64

Stockpile Location: Vidaspace

Stockpile Description: All of Levin Stockpile Number: 2

PSV: 57 PSV Check: Unknown

2nd Chip (G5)

Aggregate Source: Rangitikei Aggregates ALD 2nd Chip: 5

Stockpile Location: Vidaspace

Stockpile Description: All of Levin Stockpile Number: 2

PSV: 57 PSV Check: Unknown

Drylock Chip (N/A)

Aggregate Source: N/A Stockpile Number: N/A

Stockpile Location: N/A

Texturing Chip (N/A)

Aggregate Source: N/A Stockpile Number: N/A

Stockpile Location: N/A

Design Quantities

1st Coat Chipping Rate: 160 m²/m³ 1st Coat Quantity: 7 m³

2nd Coat Chipping Rate: 120 m²/m³ 2nd Coat Quantity: 9 m³

ALD Compatibility Chart

ALD Compatibility Check: PASS

Stockpile Comments:



DESIGN EDITOR

Horowhenua DC
2023/24

Project Ref
1

1/36

prev next

- RAMM INFO
- DESIGN BASIC INPUTS
- STOCKPILE**
- SEAL LIFE
- SAND CIRCLES
- COLD RATE
- HOT RATE
- QUALITY ASSURANCE
- AS BUILT
- FINANCIAL

RAMM Pull

SAVE

DELETE

Last RAMM Pull:

STOCKPILE FOR BARBER ROAD PROJECT

1st Chip (G3)

Aggregate Source: ALD 1st Chip:

Stockpile Location:

Stockpile Description: Stockpile Number:

PSV: PSV Check:

2nd Chip (G5)

Aggregate Source: ALD 2nd Chip:

Stockpile Location:

Stockpile Description: Stockpile Number:

PSV: PSV Check:

Drylock Chip (N/A)

Aggregate Source: Stockpile Number:

Stockpile Location:

Texturising Chip (N/A)

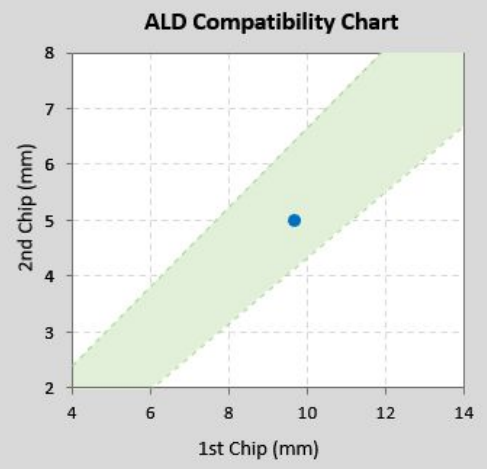
Aggregate Source: Stockpile Number:

Stockpile Location:

Design Quantities

1st Coat Chipping Rate: m²/m² 1st Coat Quantity: m²

2nd Coat Chipping Rate: m²/m² 2nd Coat Quantity: m²



ALD Compatibility Check: PASS

Stockpile Comments:



Selection	CHISEAL DESIGN TOOL		HIGGINS
Contract	<ul style="list-style-type: none"> RONGOITI ROAD RONGOITI ROAD FERRY ROAD FERRY ROAD VILES ROAD VILES ROAD ALEXANDER STREET (OHINGAITI) 2 ALEXANDER STREET (OHINGAITI) DOMAIN ROAD 2 DOMAIN ROAD RUANUI ROAD RUANUI ROAD TUTAENUI ROAD 3 TUTAENUI ROAD MATAROA ROAD 3 MATAROA ROAD DOVE PLACE DOVE PLACE SANTOFT ROAD 2 SANTOFT ROAD ABATTOIR ROAD 1 ABATTOIR ROAD GALPINS ROAD GALPINS ROAD MARUMARU STREET MARUMARU STREET SANTOFT ROAD 1 SANTOFT ROAD ONSLow STREET (EAST) 1 ONSLOW STREET (EAST) 	<p>Contract Rangitikei DC</p> <p>Season 2023/24</p> <p>Higgins Reference GALPINS ROAD</p> <p>Site Name GALPINS ROAD</p> <p>Road GALPINS ROAD</p> <p>Programmed Seal Date</p> <p>Proposed Treatment 1 Chip Seal</p> <p>Proposed 1st Chip 4</p> <p>Proposed 2nd Chip</p>	
Kapiti Coast DC			
MDC Testing			
Manawatu NOC			
Manawatu DC			
East Waikato NOC			
HB TREC Alliance			
BoPE NOC			
Rangitikei DC			
Masterton DC			
Financial Year			
2023/24			
			Edit This Design

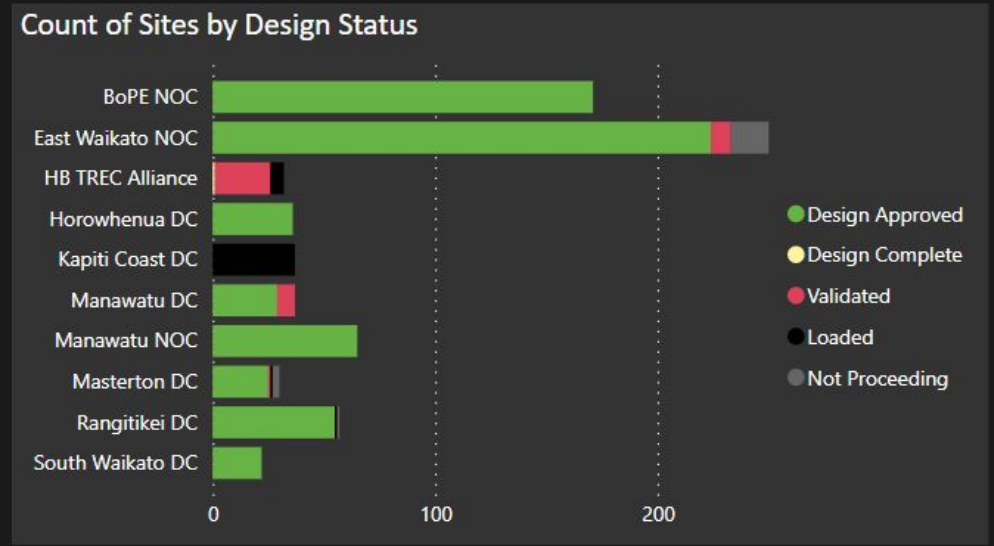
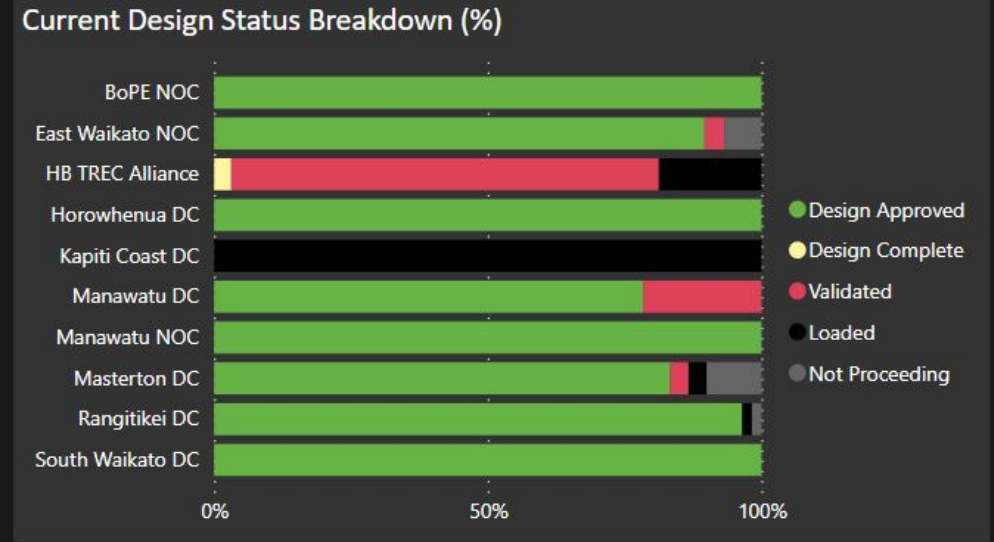
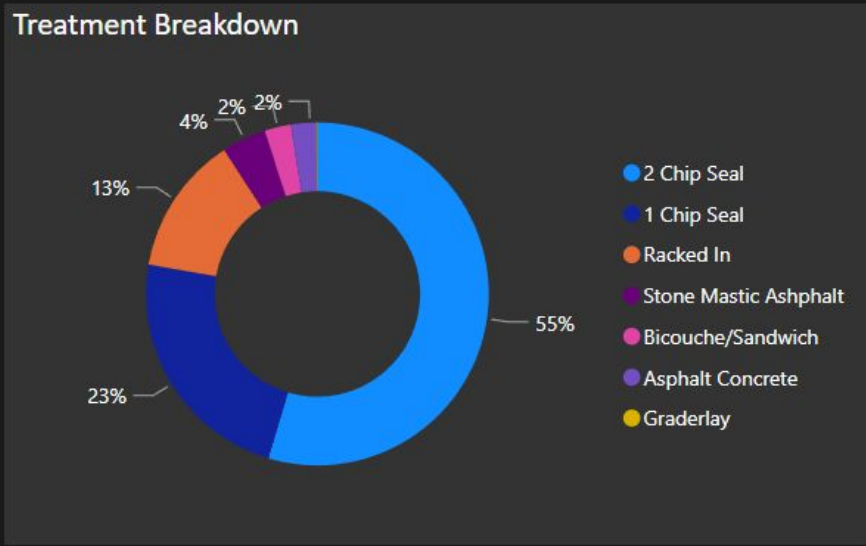
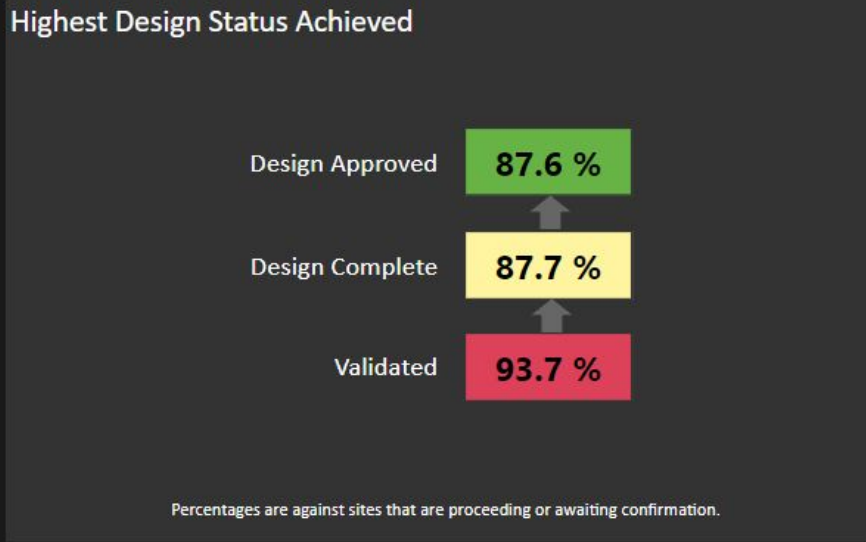
Design STATUS

Financial Year

- 2023/24
- 2024/25
- 2025/26

Contract

- Select all
- BoPE NOC
- East Waikato NOC
- HB TREC Alliance
- Horowhenua DC
- Kapiti Coast DC
- Manawatu DC
- Manawatu NOC
- Masterton DC
- Rangitikei DC
- South Waikato DC



WORK STATUS

Financial Year

- 2023/24
- 2024/25
- 2025/26

Contract

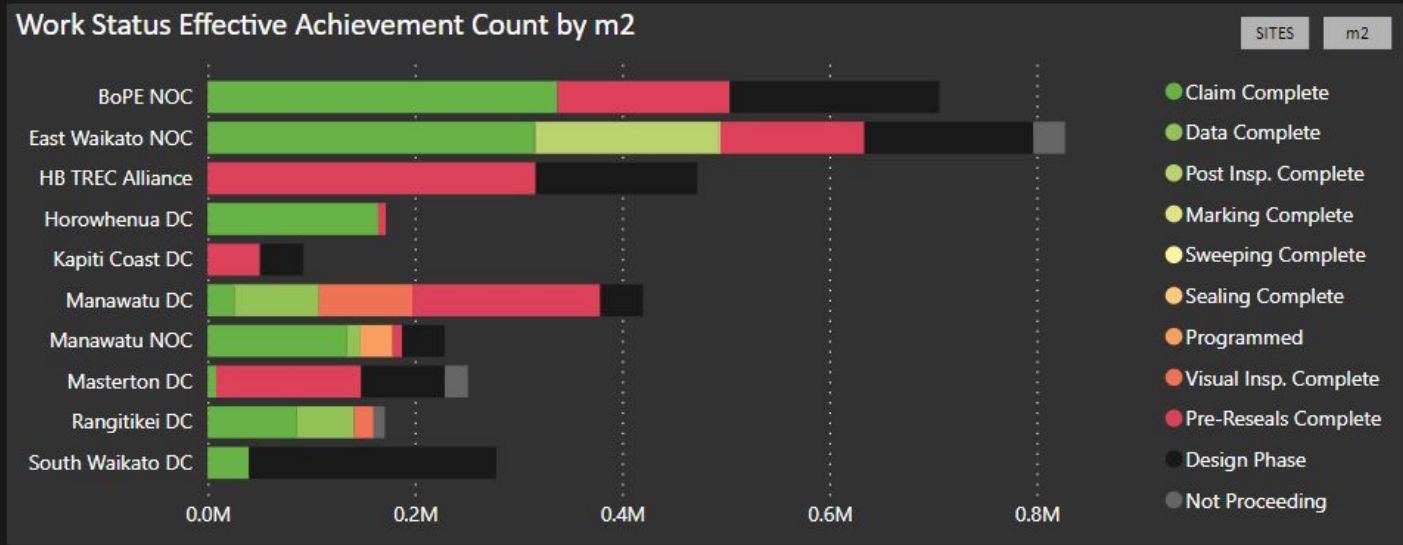
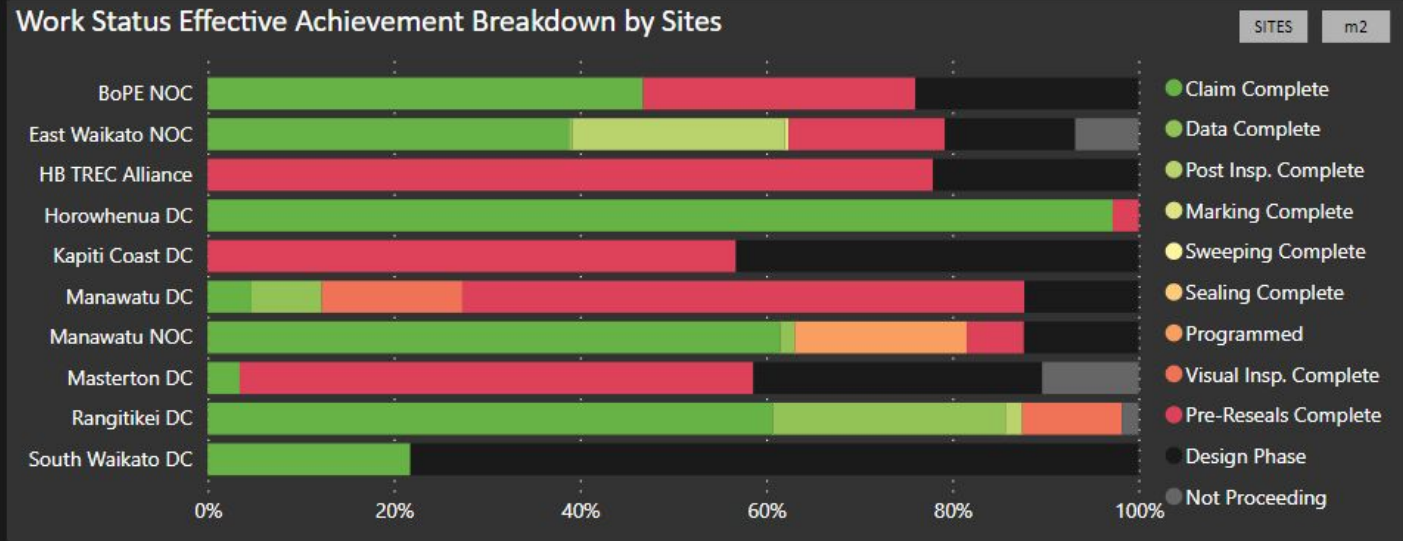
- Select all
- BoPE NOC
- East Waikato NOC
- HB TREC Alliance
- Horowhenua DC
- Kapiti Coast DC
- Manawatu DC
- Manawatu NOC
- Masterton DC
- Rangitikei DC
- South Waikato DC



Work Status Achievement

Effective | Data Quality

- Claim Complete **56 %**
- Data Complete **34.9 %**
- Post Insp. Complete **48.2 %**
- Marking Complete **48.2 %**
- Sweeping Complete **48.2 %**
- Sealing Complete **48.2 %**
- Programmed **40.2 %**
- Vis. Insp. Complete **55.2 %**
- Pre-Reseals Complete **78.7 %**
- Validated **100 %**
- Proceeded **2.3 %**



WORK STATUS: WHAT GOOD LOOKS LIKE

Financial Year

2023/24

Contract

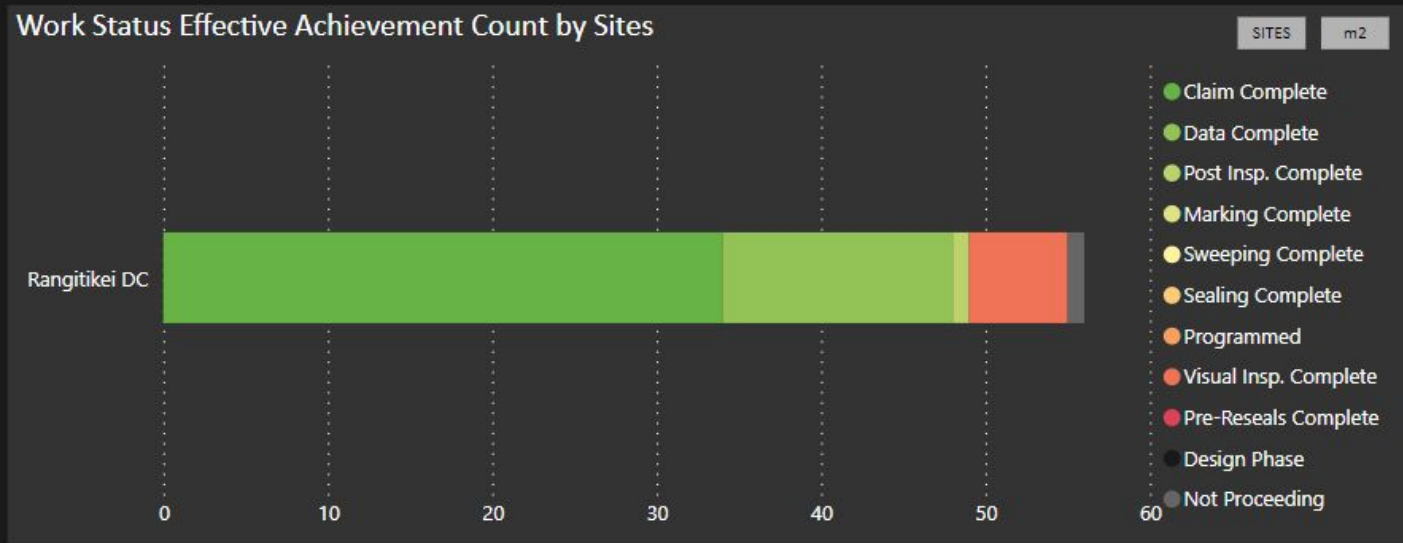
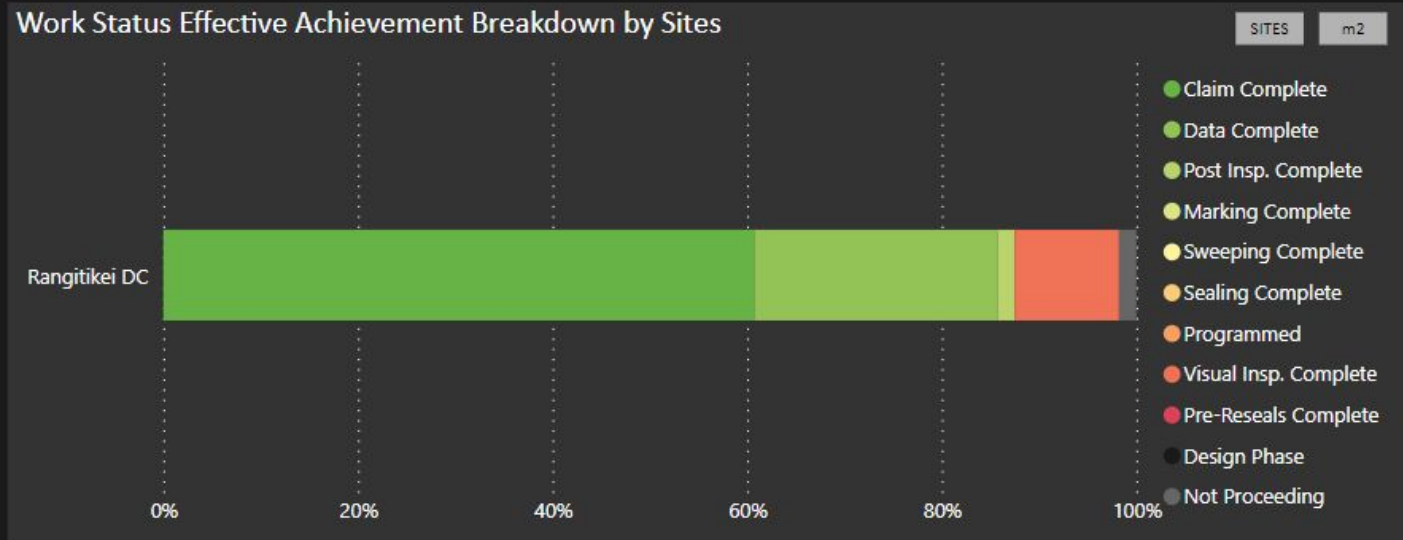
- Select all
- BoPE NOC
- East Waikato NOC
- HB TREC Alliance
- Horowhenua DC
- Kapiti Coast DC
- Manawatu DC
- Manawatu NOC
- Masterton DC
- Rangitikei DC
- South Waikato DC



Work Status Achievement

Effective | Data Quality

Claim Complete	61.8 %
Data Complete	78.2 %
Post Insp. Complete	81.8 %
Marking Complete	81.8 %
Sweeping Complete	81.8 %
Sealing Complete	81.8 %
Programmed	61.8 %
Vis. Insp. Complete	96.4 %
Pre-Reseals Complete	100 %
Validated	100 %
Proceeded	3.5 %



HEAT MAPS

Financial Year

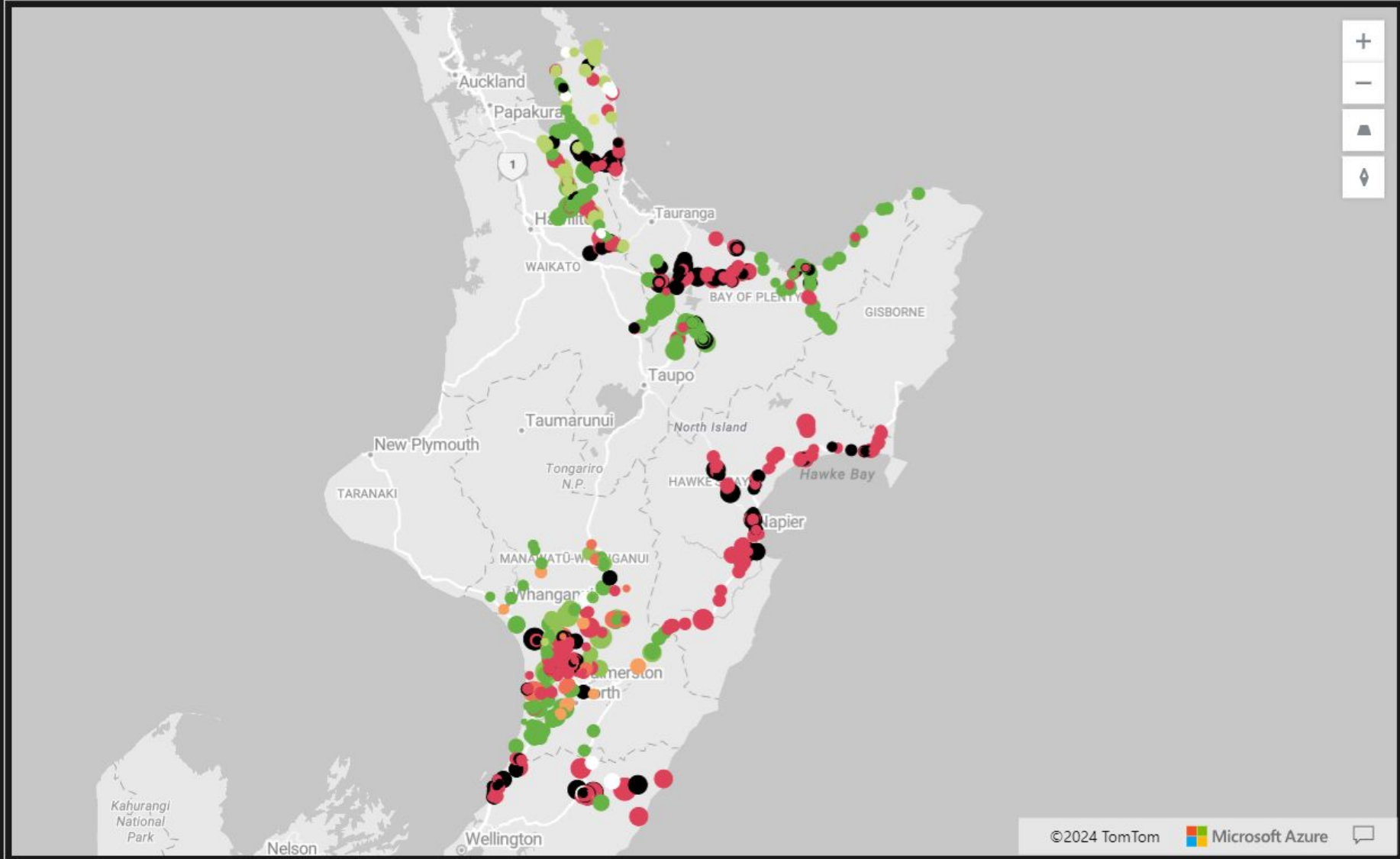
- 2023/24
- 2024/25
- 2025/26

Contract

- Select all
- BoPE NOC
- East Waikato NOC
- HB TREC Alliance
- Horowhenua DC
- Kapiti Coast DC
- Manawatu DC
- Manawatu NOC
- Masterton DC
- Rangitikei DC
- South Waikato DC

Work Status

- Select all
- Claim Complete
- Data Complete
- Design Phase
- Marking Complete
- Not Proceeding
- Post-Inspection Co...
- Pre-Reseals Complete
- Programmed





M5

Workshop Machinery Management

Fostering Collaboration: Whanaungatanga in transport asset management



BITUMEN SPRAYER: JOB SUMMARY



Map | **Satellite**

Working History ^

- Coat 1
- Coat 2
- Coat 3
- Other coat
- Not spraying
- Invalid data

Job Summary ✕

Contract SH2 Reseals

Contract Description 23_24 Reseals

Job H112

Job Location San Hill I

Distance Sprayed 1992 m

Area Sprayed 8765 m²

Start Time 3/5/2024, 12:47:11 PM

End Time 3/5/2024, 2:10:10 PM

Number of Runs 8

Working History – Job Summary – All Coats

5053.1 - Bitumen Sprayer-Isuzu (PCL4) 📄 ✕

Last Driver: Unknown

Status **History** Events

Time Period

◀ 12:00 am, Mar 05 11:59 pm, Mar 05 ▶

Layers

- Travel history
- Input history
- Snapshot
- Working History

Job Summary		Run Data	Point Data
Job Name	Total Bitumen Volume (l)	Distance Sprayed (m)	Area Sprayed (m ²)
H100	989	1339	6775
H112	1269	1992	8765

Job Name	Total Bitumen Volume (l)	Distance Sprayed (m)	Area Sprayed (m ²)
		1339	6775
		1992	

1 - 2 of 2 ◀ ◂ ▸ ▶

BITUMEN SPRAYER: RUN DATA



Map | Satellite

Working History ^

- Coat 1
- Coat 2
- Coat 3
- Other coat
- Not spraying
- Invalid data

Run Data

Job: H112
 Run Number: 2
 Coat Number: 1
 Distance Sprayed: 332 m
 Area Sprayed: 1724 m²
 Air Temperature: 86.7 °C
 Tolerance: 1%
 Start Time: 3/5/2024, 12:48:50 PM
 RP Start: ...
 End Time: 3/5/2024, 12:52:55 PM
 RP End: ...

Working History – Run Data

Google

5053.1 - Bitumen Sprayer-Isuzu (PCL4)
 Last Driver: Unknown

Status | History | Events

Time Period

12:00 am, Mar 05 | 11:59 pm, Mar 05

Reload | Help

Layers

- Travel history
- Input history
- Snapshot
- Working History

Job Summary | Run Data | Point Data

Run Number	Tolerance (%)	Distance Sprayed (m)	Area Sprayed (m ²)
1	-27%	143	315
2	1%	332	1724
3	1%	216	765
1	4%	84	192
2	1%	331	1642
3	1%	230	744
4	1%	328	1644
4	1%	328	1739

230 | 744
 328 | 1644
 328 | 1739

View Report

1 - 8 of

BITUMEN SPRAYER: POINT DATA



Map | **Satellite**

Working History ^

- Coat 1
- Coat 2
- Coat 3
- Other coat
- Not spraying
- Invalid data

Point Data ✕

Job H112

Run Number 2

Coat Number 1

Distance Sprayed 53 m

Road Temperature 31 °C

Duration 00:02:18

Time 3/5/2024, 12:49:30 PM

RP ...

Working History – Point Data

Google

Keyboard shortcuts

5053.1 - Bitumen Sprayer-Isuzu (PCL4)

Last Driver: Unknown

Status **History** Events

Time Period

◀ 12:00 am, Mar 05 11:59 pm, Mar 05 ▶

Reload Help

Layers

- Travel history
- Input history
- Snapshot
- Working History

Job Summary Run Data **Point Data**

Is Spraying	Distance Sprayed	Tank Volume	Width (m)
Yes	27	913	5.35
Yes	29	911	5.35
Yes	32	909	5.30
Yes	35	907	5.30
Yes	37	904	5.30
Yes	40	902	5.30
Yes	43		
Yes	46	909	5.30
Yes	48	907	5.30
Yes	53	904	5.30
Yes	55	902	5.30
Yes	58	901	5.34

1 - 100 of 125

◀ ▶

BITUMEN SPRAYER: JOB & RUN REPORT



Asset Name	Contract Nu...	Contract Des...	Job N...	Job Loc...	Total Bi...	Distance Spr...	Area Spraye...	Average Wid...	Start Time
5053.1 - Bitumen Sprayer-Isuzu (PCL4)	SH2 Reseals	23_24 Reseals	H112	San Hill I	1269	1992	8765	4.40	05/03/2024 1

Bitumen Sprayer: Job Report ▲

Bitumen Sprayer: Run Report ▼

Job Name	Job Location	Contract Num...	Contract Des...	Run Number	Coat Number	Chip Size	Binder Type	Dipstick Volu...	Target Rate (L...	Actual Rate (L...	T
H112	San Hill I	SH2 Reseals	23_24 Reseals	1	1	Grade 3	Cationic 70 (CRS2)	9347	1.45	1.06	-2
H112	San Hill I	SH2 Reseals	23_24 Reseals	2	1	Grade 3	Cationic 70 (CRS2)	6822	1.45	1.46	1
H112	San Hill I	SH2 Reseals	23_24 Reseals	3	1	Grade 3	Cationic 70 (CRS2)	5708	1.45	1.46	1
H112	San Hill I	SH2 Reseals	23_24 Reseals	1	2	Grade 5	Cationic 70 (CRS2)	5418	1.45	1.51	4
H112	San Hill I	SH2 Reseals	23_24 Reseals	2	2	Grade 5	Cationic 70 (CRS2)	3006	1.45	1.47	1
Nozzle Flow ...	Start Time	End Time	Address	Location	Total Bitumen...	Total Radar V...	Duration	Average Width (m)	Average Road T...		
1.2	05/03/2024 12:47:1...	05/03/2024 12:47:1...			33		No time	2.20			
1.2	05/03/2024 12:48:5...	05/03/2024 12:52:5...	2576 State Highway...	-39.9866033, 176.5...	252	226.6	4 Mins, 5 Secs	5.19	31.7		
1.2	05/03/2024 12:56:4...	05/03/2024 12:59:2...	2576 State Highway...	-39.9877467, 176.5...	111	174.6	2 Mins, 39 Secs	3.54	25.3		
1.2	05/03/2024 1:08:25...	05/03/2024 1:09:25...	2576 State Highway...	-39.9863400, 176.5...	29	36.3	1 Mins	2.28	29.4		
1.2	05/03/2024 1:12:21...	05/03/2024 1:16:26...	2576 State Highway...	-39.9872033, 176.5...	241	275.8	4 Mins, 5 Secs	4.96	29.3		
1.2	05/03/2024 1:19:06...	05/03/2024 1:21:55...	2576 State Highway...	-39.9877850, 176.5...	109	105.3	2 Mins, 49 Secs	3.24	28.1		
1.2	05/03/2024 2:00:25...	05/03/2024 2:00:25...			239		No time	5.01			
1.2	05/03/2024 2:05:58...	05/03/2024 2:10:10...	2576 State Highway...	-39.9862400, 176.5...	254	313.7	4 Mins, 12 Secs	5.30	28.3		

BITUMEN SPRAYER: POINT DATA REPORT & NOTIFICATIONS



Machinery Work Reports

Filter

Report: Bitumen Point Report | Asset: 5053.1 - Bitumen Sprayer... | 5 March | Generate

Date Recorded	Job Name	Job Location	Run Number	Is Spraying	Is Paused	Distance Sprayed	Tank Volume	Radar Volume	Road Temperature	Width (m)	Duration (hh:mm)
05/03/2024 12:47:12 pm	H112	San Hill I	2	No	No	142	935	875.8	30.3	-0.90	00:00:00
05/03/2024 12:47:46 pm	H112	San Hill I	2	No	No	0	935	958.2	30.9	2.87	00:00:34
05/03/2024 12:48:50 pm	H112	San Hill I	2	Yes	No	0	935	932.6	27.9	5.29	00:01:38
05/03/2024 12:48:52 pm	H112	San Hill I	2	Yes	No	2	932	933.7	28.5	5.29	00:01:40
05/03/2024 12:48:54 pm	H112	San Hill I	2	Yes	No	5	930	953.8	29.8	5.29	00:01:42
05/03/2024 12:48:56 pm	H112	San Hill I	2	Yes	No	7	928	952.8	30.4	5.27	00:01:44
05/03/2024 12:48:58 pm	H112	San Hill I	2	Yes	No	10	926	948.9	30.5	5.27	00:01:46

Bitumen Sprayer: Point Data Report ▲

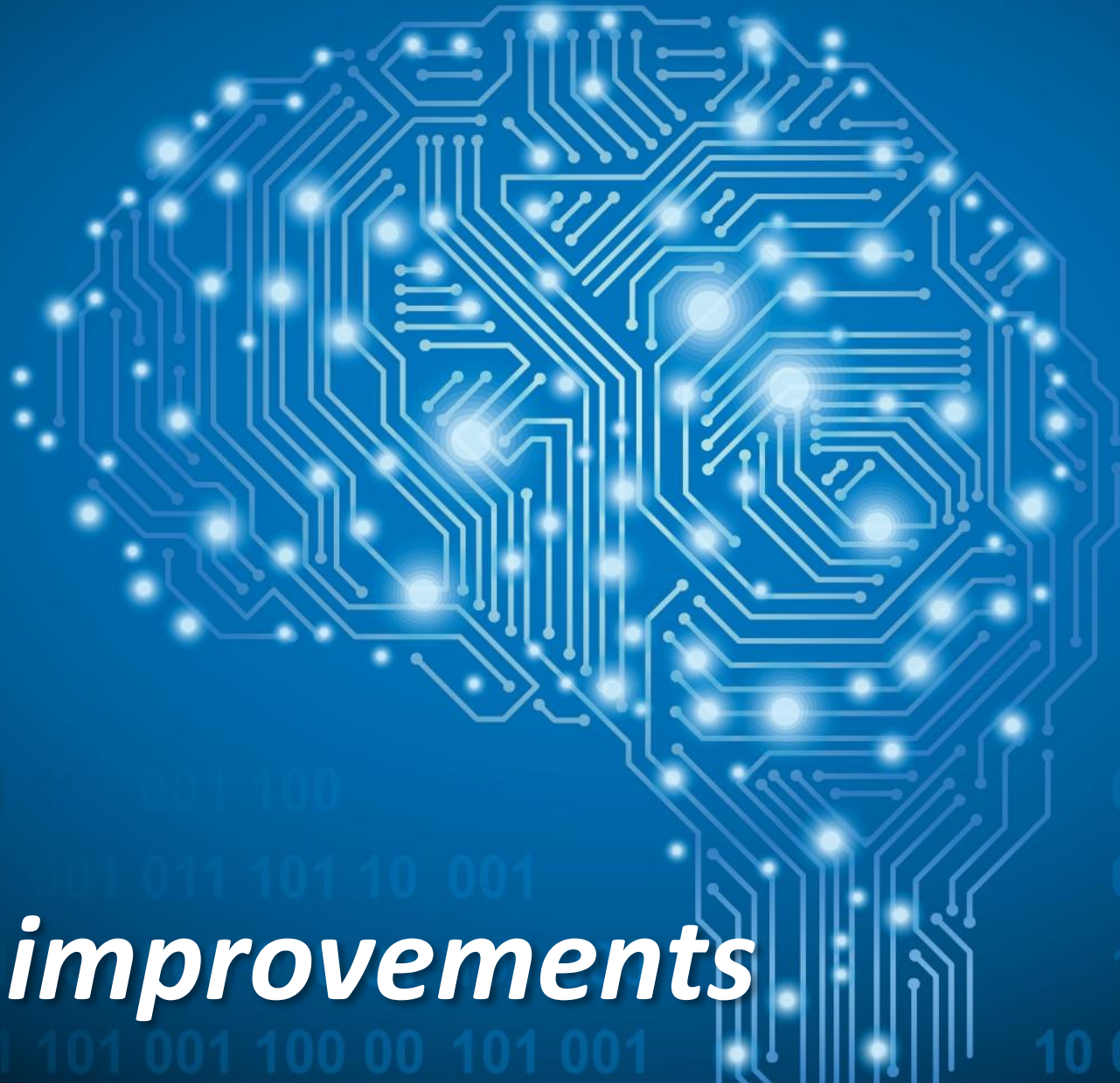
Notifications System ▼

M5^{Beta} Workshop Machinery Management | Dashboard | Geofencing | Reports | Servicing | Fleet Register | Administration | Notification | Logbook | Evan Yeoman - Higgins

My Notifications

Filter

Name	Creator	My recipient email	Total Recipient Count	Resource Type	Trigger(s)	Frequency(s)	Enabled	Send If No Results
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Future improvements

10 011 101 011 100 011 101
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Your Presenter – EVAN YEOMAN

Evan has over 20 years' experience in the construction industry in both New Zealand and the UK.

Starting his career as a structural draftsman then joining the Higgins team as a Project Manager, after eight years he had a stint in the UK as a Quality Section Manager for Tarmac.

On Evans return to New Zealand, Evan then became the Higgins Fleet and Asset Systems expert and manages staff and support teams to deliver Asset systems (RAMM, Juno, M5 & Eroad) for Higgins.

“This is to bring about improvements in business technology for both Higgins and the client.”