3D Milling and Paving Solutions

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Millimeter GPS Control

Multiple user RTK advantages with vertical precision of a laser

Plug-n-Play system design can be added to existing systems

MILLIMETER GPS™

Lazer Zone

MMGPS was created by combining :

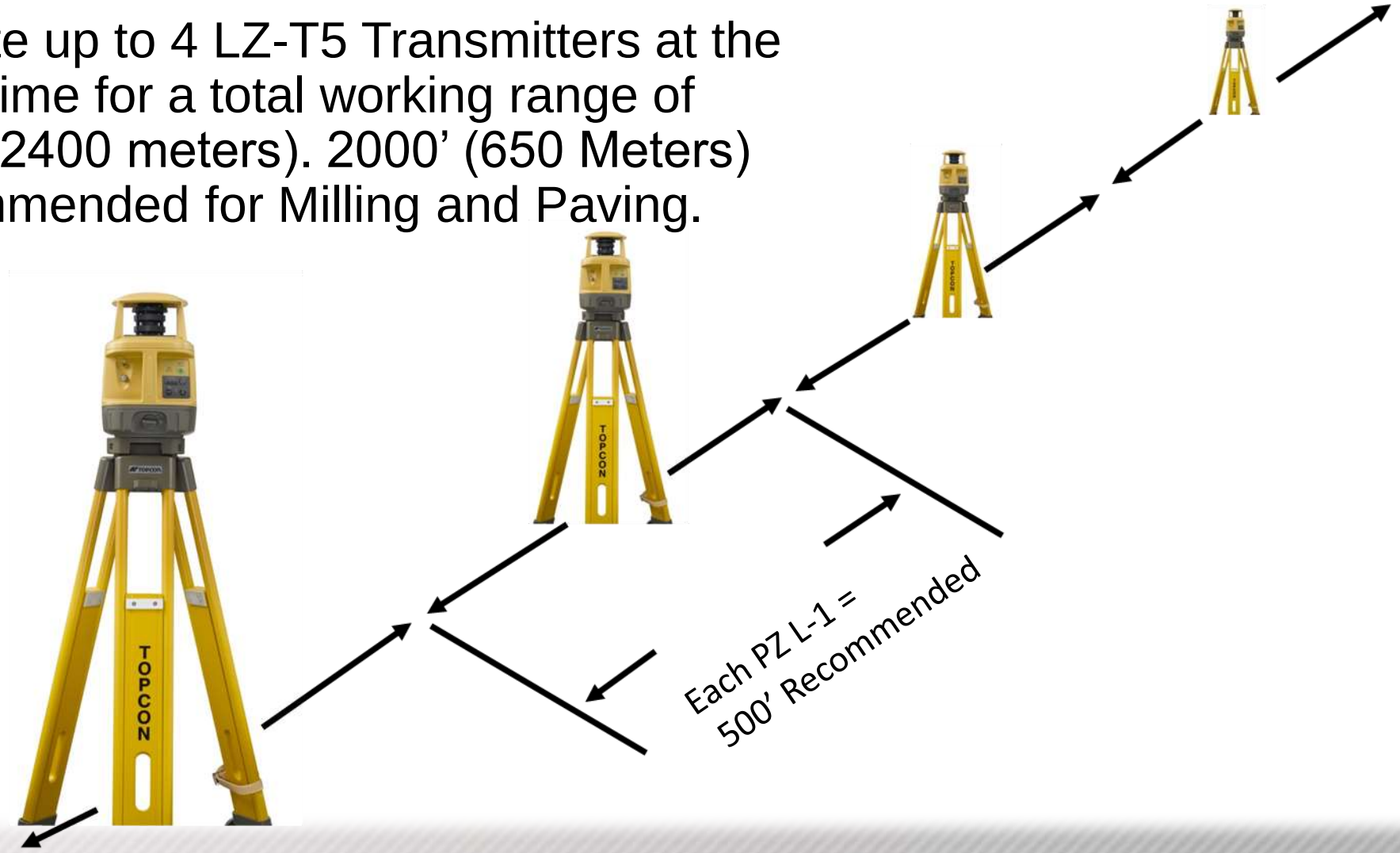
Topcon's Laser Technology
Topcon’s Optical Robotic Technology
Topcon’s GPS Technology

LAZER ZONE

How It Works

Multiple Transmitters

Operate up to 4 LZ-T5 Transmitters at the same time for a total working range of 8000’ (2400 meters). 2000’ (650 Meters) Recommended for Milling and Paving.



Millimeter Milling Applications

What’s New

RDM1/RDMC

New Technology Methods

Accuracy and Precision

MILLIMETER GPS

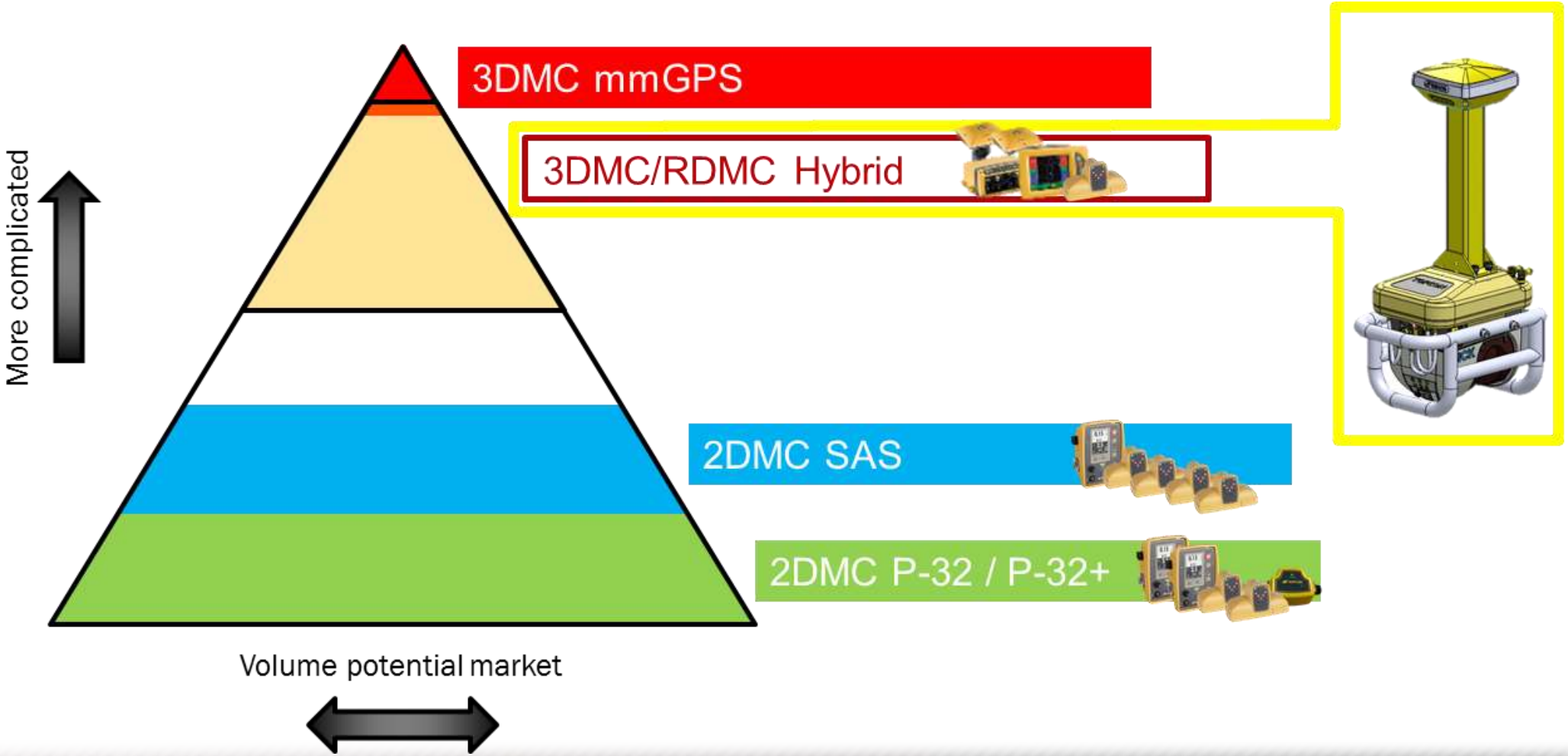
RD

The good:
- Unique
- Great on special jobs

The Challenges:
- Using Zone Lasers is challenging
- Hard to use on main-line paving

Benefits:
- No zone lasers
- Perfect for main-line paving
- Easy to work with
- Differential compaction
- No base required: TopNET Live

Fill the gap between low end and high end



Current road reconstruction process

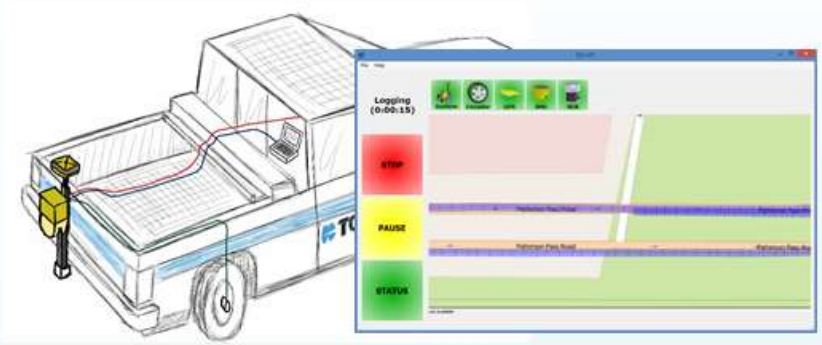
Process and Design

Data collection

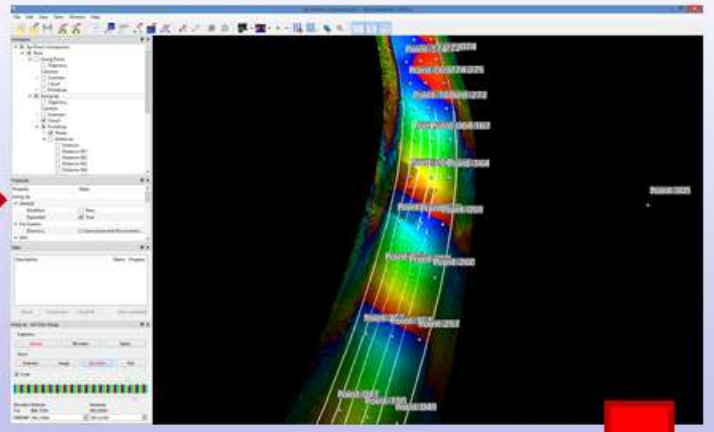
Control with stringline or mmGPS

RD-M1 / RD-MC Road Reconstruction

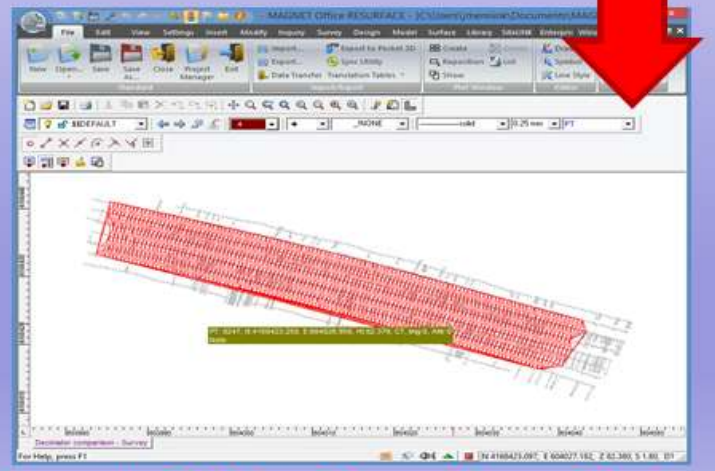
The Products



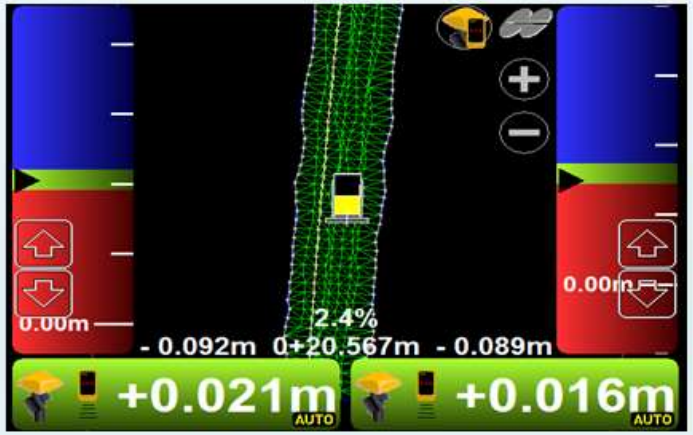
RD-M1 Collection



RD-M1 Process



Magnet Office Resurface Design



RD-MC

MAGNET Resurfacing Features

Dedicated to resurfacing

Multiple window panes

Quickly calc cross slopes and transitions

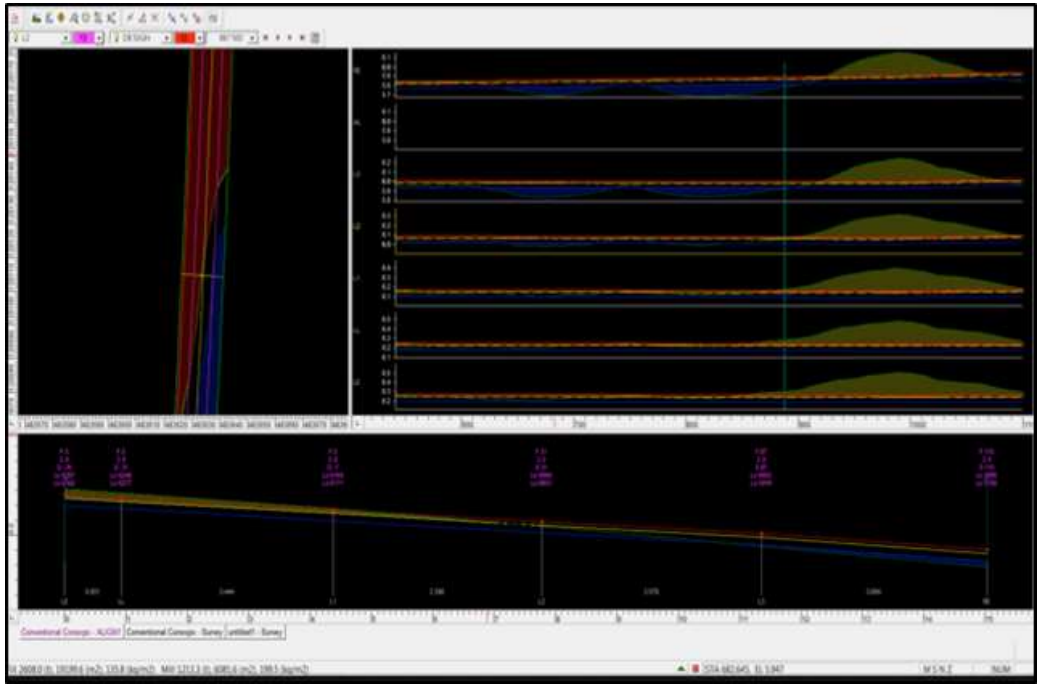
Apply smoothing

Generate milling plans and calc lifts

Instantaneous material quantities

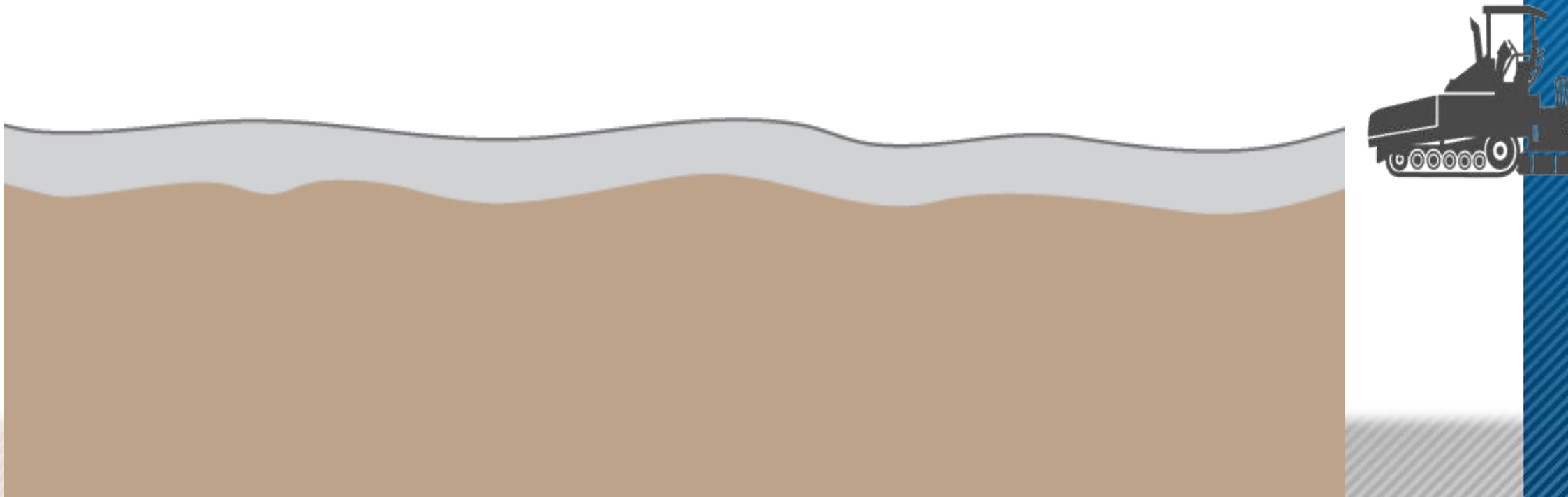
Full 3DMC file support

Process RD-M1 data via MMO



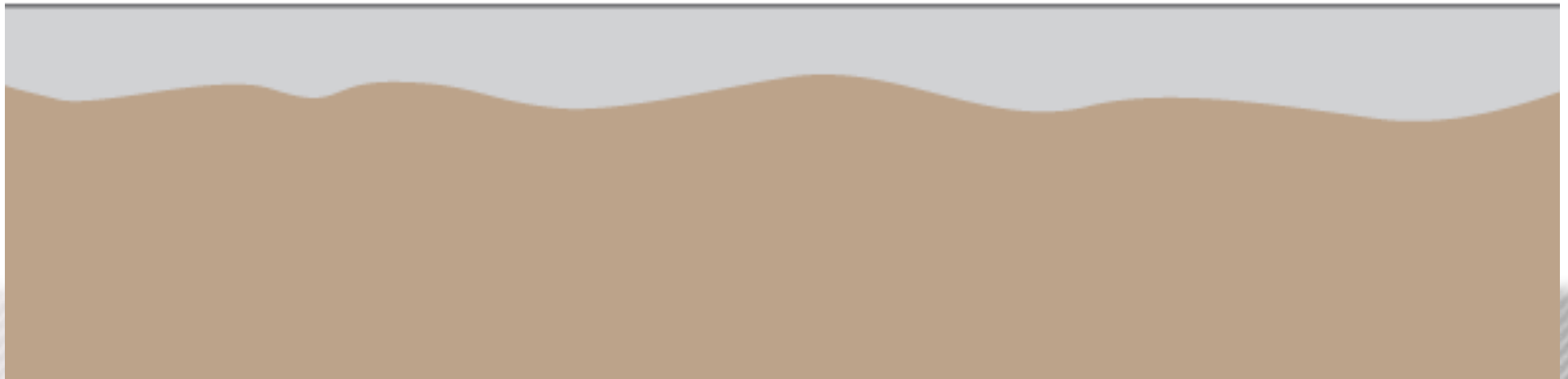
Without differential compaction

- Before rolling – not smooth
  - Put down standard lifts of pavement
  - Rolls the same bumps and dips back into the new surface



With differential compaction

- Before rolling – not smooth
  - Enter differential compaction percentage on the controller
  - 100% smooth in one run

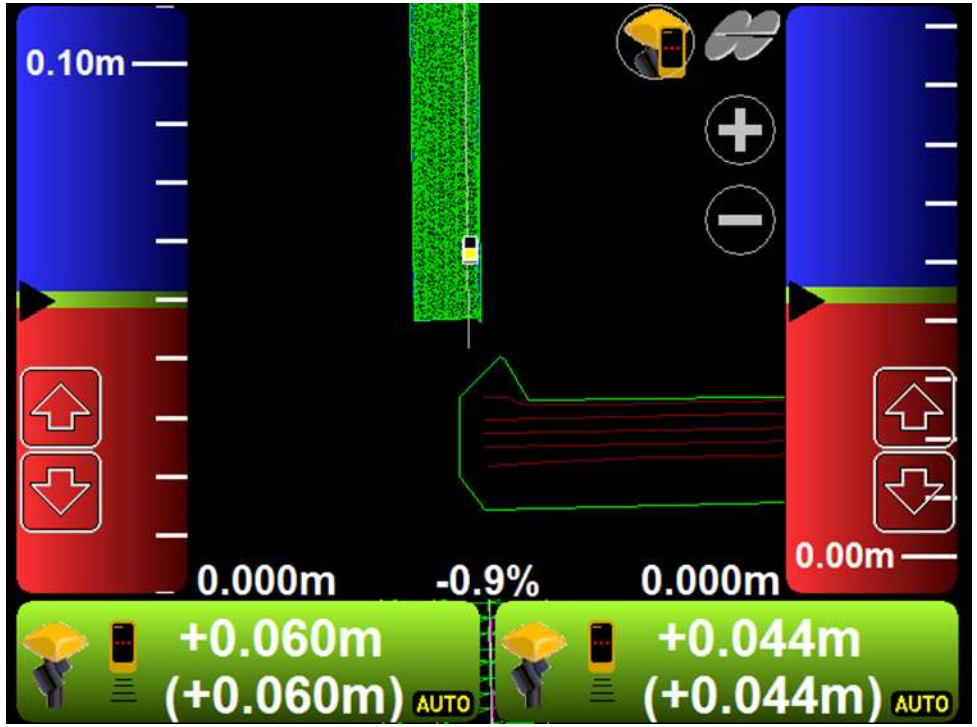


RD-MC

1.2%
0.015m
0+60.522m
0.003m
+0.038m
(+0.000m)
AUTO
+0.040m
(+0.000m)
AUTO
TOPCON
GX-60

New road reconstruction process

Machine Based RD-MC



- Variable Milling and Paving
- Differential Compaction
  - Adjustable percentage
- Easy to calibrate
- Accurate thickness control
- Adjustable on the fly

TOPCON

Thank you

Sitelink3D Enterprise

Make the data useful

sitelink3D
REAL-TIME 3D MANAGEMENT

Key features

- Updates every 15 sec on Sitelink3D Dashboard
- Reports online
- Download PDFs
- Download Veda compatible files

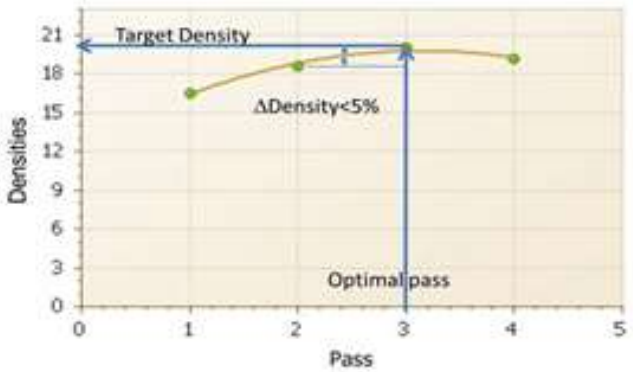
- All other Sitelink3D Enterprise benefits

File Transfer

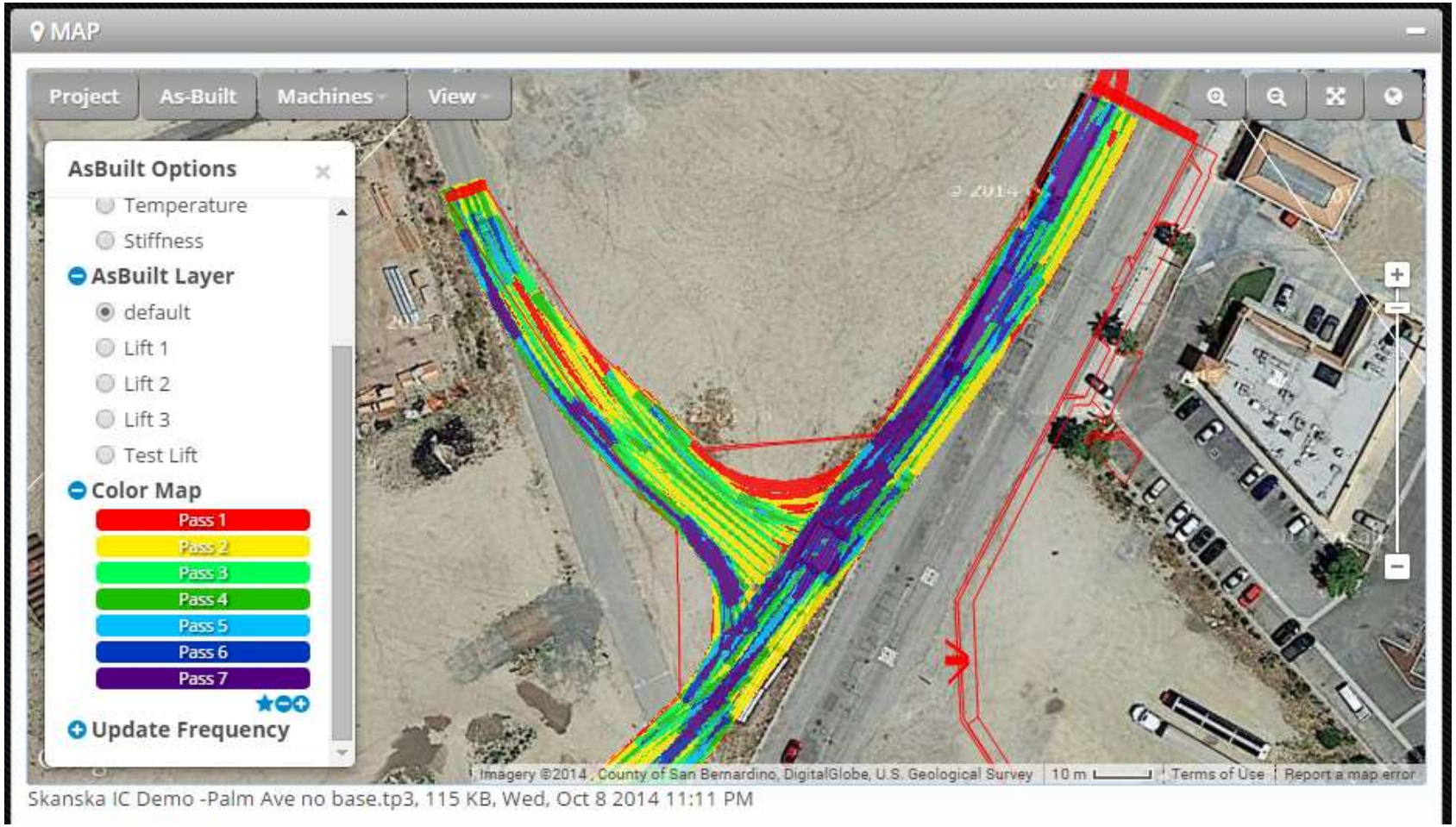
Visibility & tracking

Text Messaging

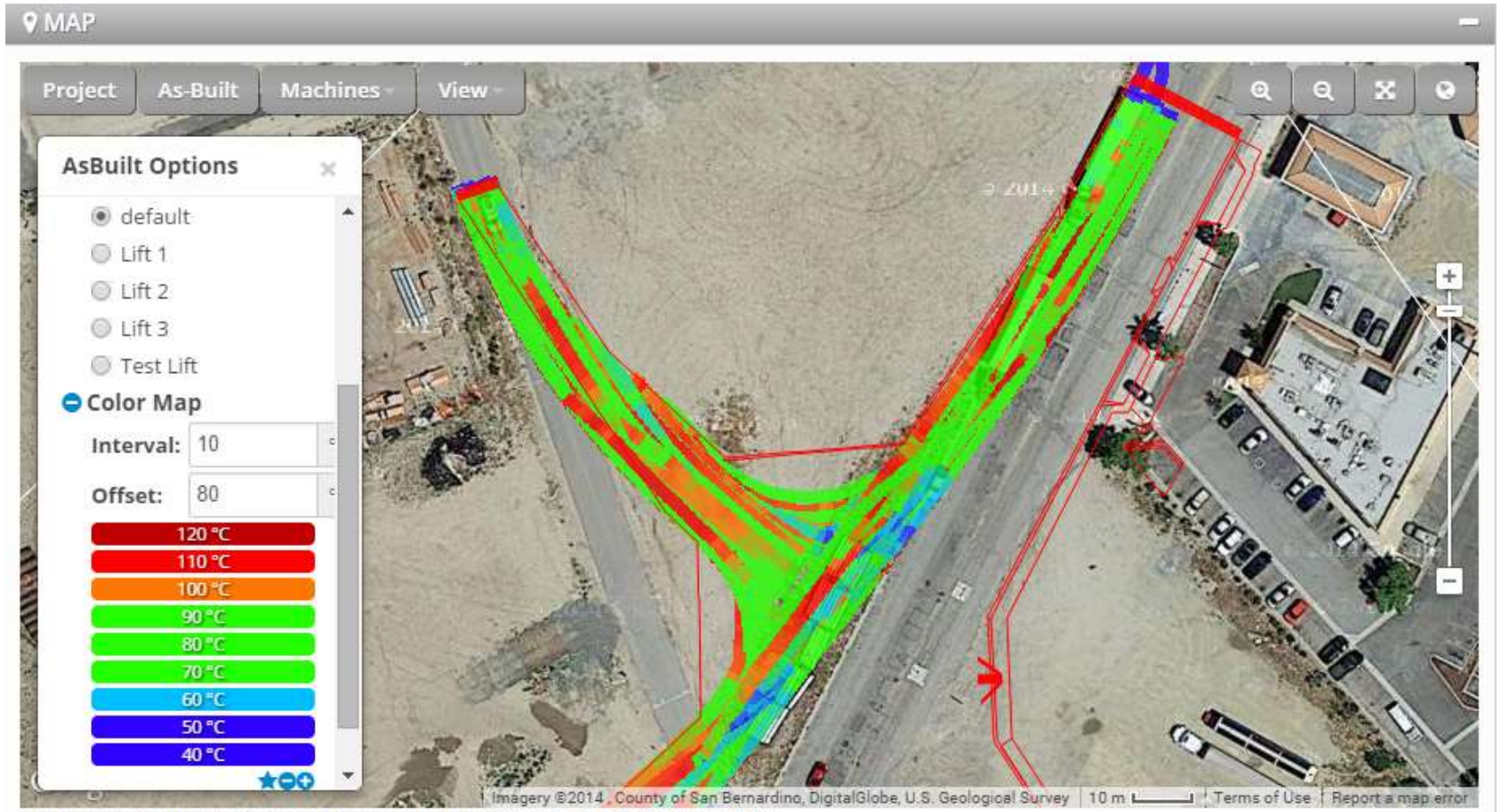
Remote support



Sitelink3D – Dashboard – Mapping – Pass Counts



Sitelink3D – Dashboard – Mapping – Temperature



Skanska IC Demo -Palm Ave no base.tp3, 115 KB, Wed, Oct 8 2014 11:11 PM

Sitelink3D – Report– Mapping – Pass Counts

PASS COUNT 10/13/2014

Site: SR 76
Start Date: Oct 13 2014 12:00 AM
End Date: Oct 13 2014 11:00 PM
Created: Oct 23 2014 8:50 PM

Pass Count	Area	Area (%)	Color
>=1	8767.96 m²	100.00	
>=2	7480.96 m²	85.32	
>=3	7004.04 m²	79.88	
>=4	6599.84 m²	75.27	
>=5	3749.04 m²	42.76	
>=6	1087.92 m²	12.41	
>=7	660.6 m²	7.53	
>=8	398.36 m²	4.54	
>=9	192.76 m²	2.20	
>=10	64.72 m²	0.74	

AREA BY PASSES

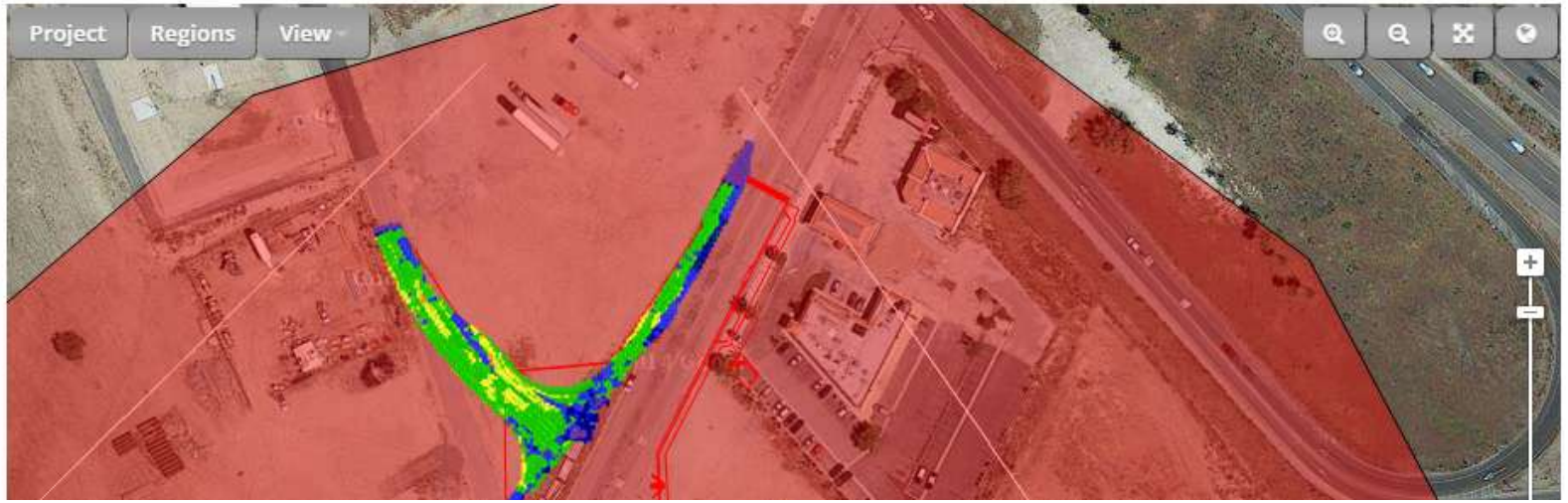
Sitelink3D – Report– Mapping – Temperature

TEMPERATURE REPORT FOR TASK 'LIFT 1'

Site: Skanska IC Demo Palm Ave
Start Date: Oct 9 2014 7:00 AM
End Date: Oct 15 2014 5:00 PM
Created: Nov 9 2014 5:40 PM

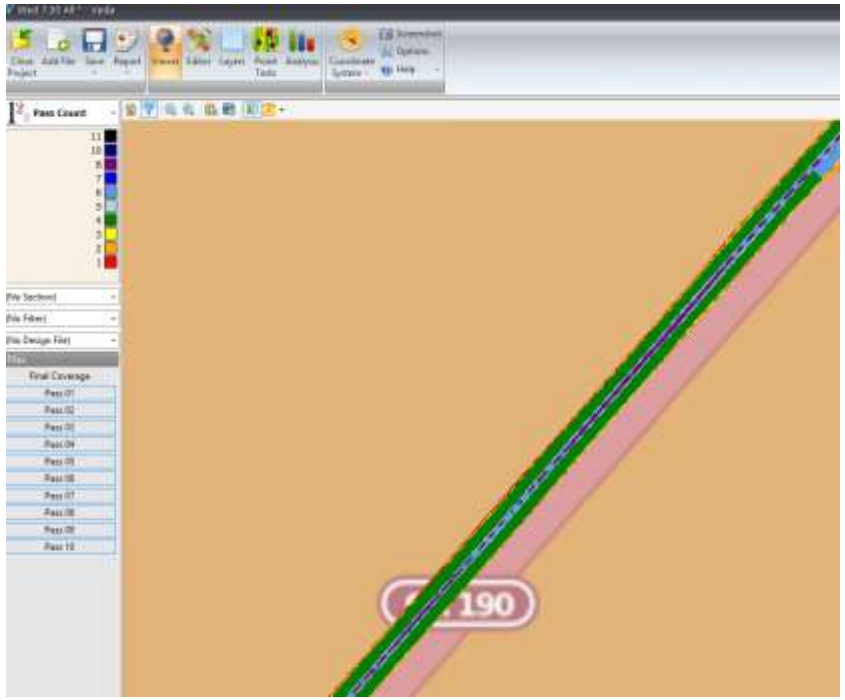
Pass Count	Area	Area (%)	Temperature Distribution
☑ 1	17290.646 ft²	100.00	
☑ 2	14189.361 ft²	82.06	
☑ 3	9389.106 ft²	54.30	
☑ 4	5623.475 ft²	32.52	
☑ 5	2692.689 ft²	15.57	
☑ 6	1209.859 ft²	7.00	

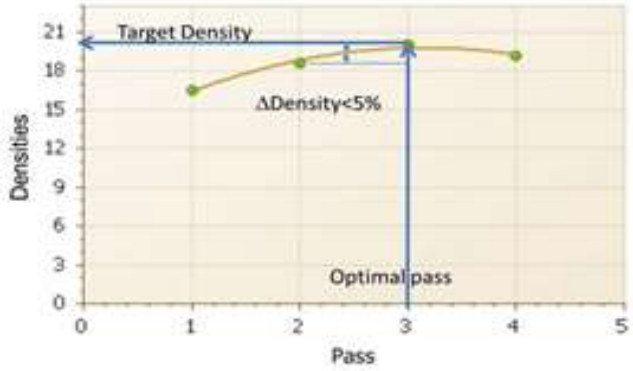
130 °C -
120 °C - 130 °C
110 °C - 120 °C
100 °C - 110 °C
90 °C - 100 °C
80 °C - 90 °C
70 °C - 80 °C
60 °C - 70 °C
50 °C - 60 °C
- 50 °C



Veda report

- “Quick reports” for pass count and temperature
- All data in reports for Veda





Summary

- Base system for Pass Count only
- Temperature and Accelerometer upgrade kits
- Automatic Forward / Reverse detection
- See all as-builds on all displays live!
  - Be more pro-active
- Veda compatible reports

Fresh air

- Now, let’s take a look outside