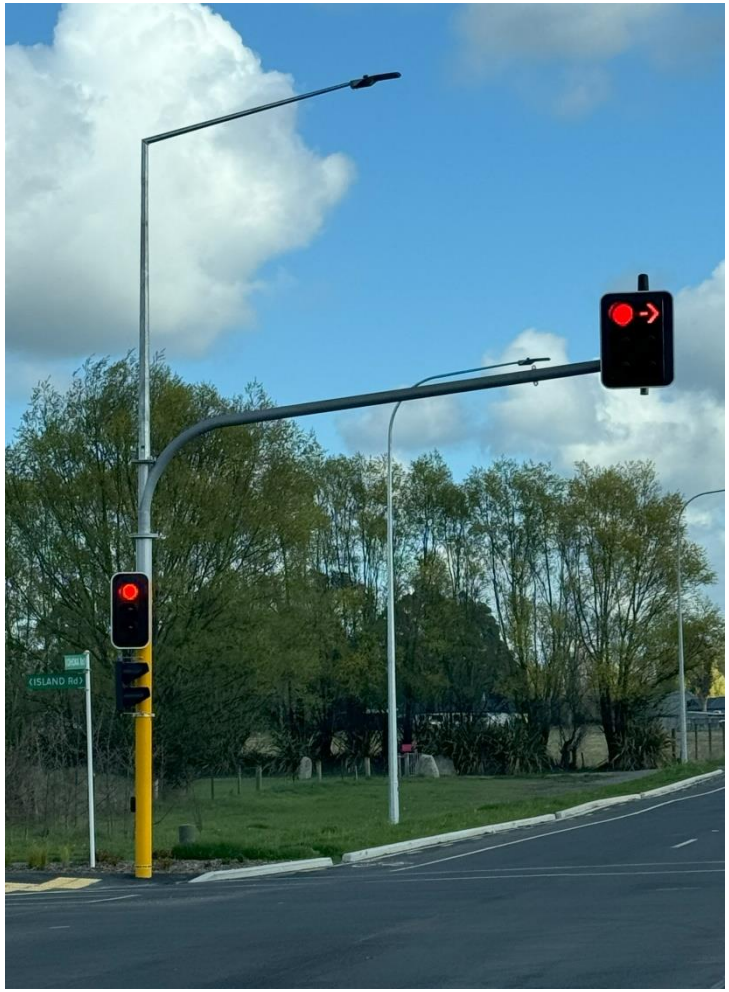
SNUG CONFERENCE 2024



SNUG
SIGNALS NZ USER GROUP

SPUNLITE
LIMITED

2023 – 2024 In Review

Change in Government slashed funding to many traffic projects. NZUP, LGWM, Transport Choices etc.

It has taken 9 months for NZTA and Councils to know what funding is coming from Government for projects.

In this time been working on NZUP Queenstown, Te Kaha Surrounding Streets, some LGWM, SH75, Tolling projects, Riverlink Hutt Valley.

Major Projects Group involved in many different projects in past 12 months KiwiRail Stations, airport lighting upgrades, large streetlighting LED upgrades.

2023 – 2024 In Review

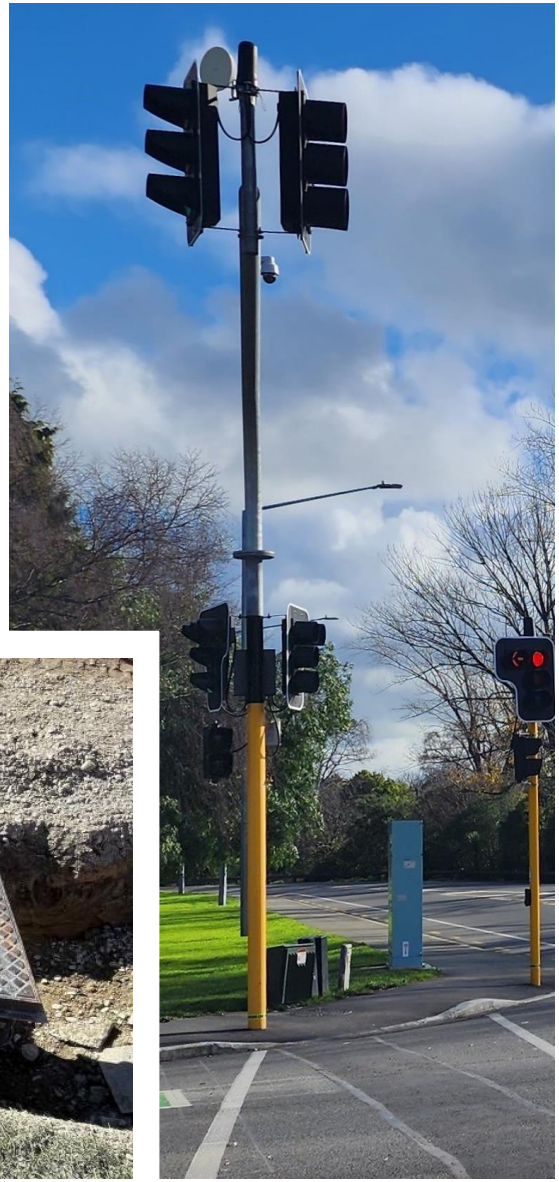
Retention Socket Sales continue to grow in many regions – crash damage replacement poles now being swapped out to Sockets.

Focus on Retention Sockets into Australia, working with TMR Queensland, Transport for NSW, BCC for Brisbane Olympics upgrades projects.

STAKKA Box projects in Christchurch ready for installation in trial sites and future approvals.

Review of alternative materials for traffic and lighting columns completed.


Rangiora 11km
Ohoka 7km
Kaiapoi (West)
200m On Right



2023 – 2024 In Review

SPUNLITE LIMITED

Visited NAL in England and InterTraffic Amsterdam in April.

We have a better understanding of the size and breadth of products in the NAL range.

NAL about to send “High Torque” range of Retention Sockets for high wind environments. This is the Retention Socket that can be used for the JUMAs in NZ. 150NB, 200NB, and 250NB sizes.

NAL supply the range of STAKKA Box composite chambers that can be viewed at our stand. We are about to start trial sites for the 600 x 600mm STAKKA Box.

NAL

A CRH COMPANY

Steel or not steel – this is the question

We have completed a review into the use of steel vs other products for traffic signal columns.

Options Reviewed were steel, aluminium, fibre reinforced polymer (FRP).

Points of reference for the review:

- Energy used during production.
- Green Credentials.
- Performance.
- Recycling.

Steel or not steel – this is the question

For Reference:

One of ton of steel equates to

200kg of Aluminium and 250kg of FRP

Energy used during production:

Steel – 22.7 Giga Joules per ton of steel.

Aluminium – 211 Giga Joules per ton of aluminium. By density twice the power of steel.

Fibre Reinforced Polymer – 17 Giga Joules per ton GF. By density 1/5 the power of steel

Steel or not steel – this is the question

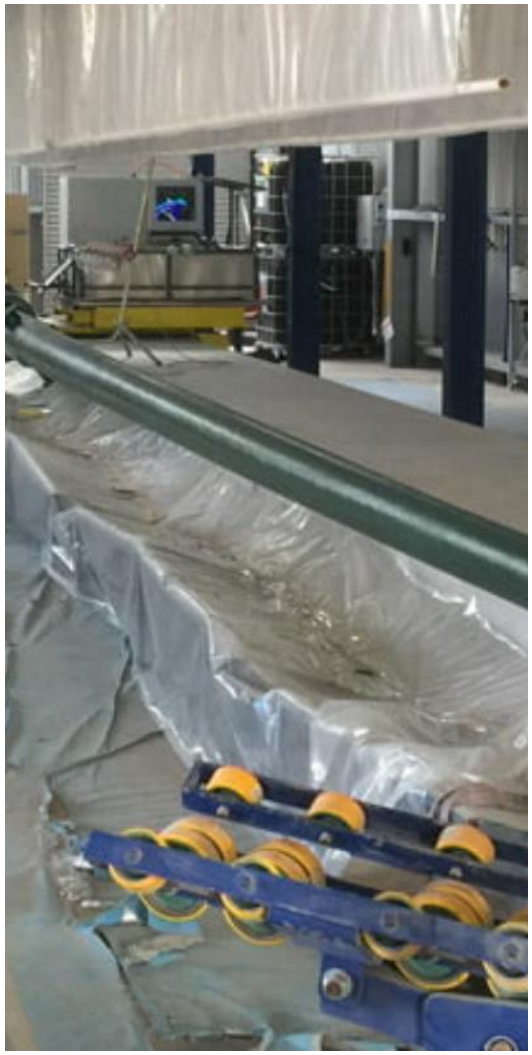
SPUNLITE LIMITED

Green Credentials - Direct Manufacturing CO2 Emissions

Steel – 1.85 tons CO2 per ton of steel.

Aluminium – 3.02 tons CO2 per ton of aluminium. By density 1/3 the emissions of steel

Fibre Reinforced Polymer – 1.7 – 2.2 tons CO2 per ton of FRP. By density roughly 2/5 the emissions of steel



Steel or not steel – this is the question

Performance

Steel:

- Needs to be galvanised to prevent corrosion.
- Can be scratched as the remaining galv coating will provide corrosion resistance
- Potential issues in marine environments.
- Heavy to install.
- High impact resistance compared to other materials.
- Easily welded and fabricated.
- Traffic poles and foundations based around standard steel sizing 100NB, 150NB, 200NB
- Known quantity for use in traffic industry.
- 25 - 50 year life.

Steel or not steel – this is the question

SPUNLITE LIMITED

Performance

Aluminium:

- Needs primer treatment to be painted.
- Can be sold as brushed Aluminium with no coating. Can be scratched with no impact on corrosion resistance.
- Potential issues in marine environments.
- Light weight, easy to install.
- Low impact resistance compared to steel.
- Easily welded and fabricated for straight poles. JUMAs would be an issue
- Would require increase in diameters for traffic poles relative to steel.
- Some issues with fatigue under load.
- 10 – 15 year life due to fatigue.

Steel or not steel – this is the question

SPUNLITE LIMITED

Performance

Fibre Reinforced Polymer:

- Needs to be coated.
- If coating damaged repairs costly and FRP deteriorates quickly.
- Great in marine environments.
- Light weight easy to install.
- Low impact resistance compared steel.
- Difficult to modify only used for straight poles. JUMAs an issue
- Would require increase in diameters for traffic poles relative to steel.
- Significant issues clean up after Car vs Pole impacts.
- 50 year life if coating not damaged.

Steel or not steel – this is the question

Recycling

Steel:
- Can be recycled.
- Takes 50 years to breakdown in the ground.

Aluminium:
- Can be recycled.
- Takes 200 – 500 years to breakdown in the ground

FRP Composite:
- Cannot be recycled.
- Will not breakdown in the ground, remains as fibres and polymers.

Conclusion

- Taking all factors into account, steel is proven for pole construction.
- Spunlite has access to the supply of Aluminium and FRP poles and would welcome any council looking to trial alternative products.

Q&A