



Case Study

Russian

Road Stud Trial



Product: SolarLite F Series Road Studs and Snow Plough Housings
Date of installation: June 2015

Background

The sheer size and scale of the road network across Russia makes it difficult to manage in a consistent way, and in places it remains very dangerous to use.

While exact statistics are difficult to obtain, it has been suggested that over 35,000 deaths occur on Russian road annually. Because of this the Russian authorities have a directive to improve road safety, and via the State sponsored transport arm, AvtoDor, they have been examining a number of innovative technologies.

To date road studs, including cat eyes, have not been part of any safety programme due to their unknown reliability and outstanding questions over what effect the harsh Russian winter might have on any installation. The harsh winter also raises the challenge of protecting the studs from the steel tipped snow ploughs and gritting machines that are used on the Russian roads.

To test the effectiveness and capabilities of road studs on the road network AvtoDor commissioned Q1 Project Management, who are Clearview's Russian distributor to undertake a trial project on the M1 Moscow – Minsk highway using Clearview Intelligence's SolarLite F Series studs.

Solution

The M1 federal highway, at the 129-130KM mark from Moscow, was chosen to be the trial site as it is a fast moving 4 lane dual carriageway with no central reservation barrier. The Q1PM installation of Clearview Intelligence SolarLite F Series road studs consisted of 3 lines of studs at interval of 15m for approx. 0.5 of km on a long sweeping left-hand bend.

The studs were installed in June 2015, prior to the 2015/16 winter and consisted of 90 SolarLite studs. 60 red LED studs were placed on the outside lanes and 30 white LED studs placed down the central lane. 30 of the units were installed with specially designed snow plough housings in order to protect the stud from any potential machinery damage.

Conclusion

In April 2016, after the winter months, a group of technical specialists from AvtoDor undertook a detailed physical inspection of the roadway and studs. The results were excellent with all 90 studs remaining fully operational, including those that were without snow plough housings. Due to the harsh Russian winter, the road was often cleared using snowploughs and sweepers, with grit applied as well.

Based on the results of the trial, AvtoDor has provided a letter of product recommendation, noting that they have no issues using Clearview Intelligence SolarLite studs elsewhere within the Russian road network.

Key Benefits

- Superior distance visibility of road layout ahead compared to retro-reflective studs
- Reliable all night, all year round performance
- Lower lifetime costs than traditional road studs
- Long lasting, carefree operation with snow plough resistant housing available
- Maintains superior visibility even in poor weather conditions and on wet roads
- Highly impactful and politically visible contribution towards reducing road safety fears

