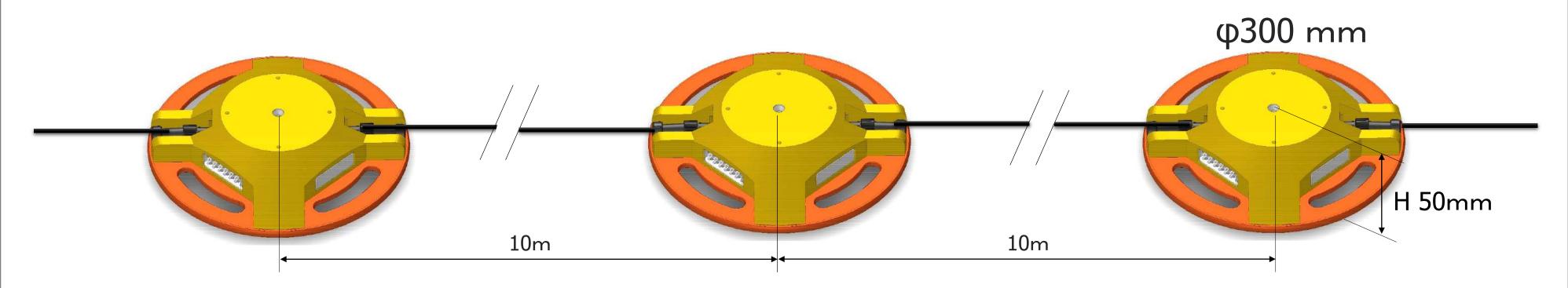
## Road Surface Blink Guide Light

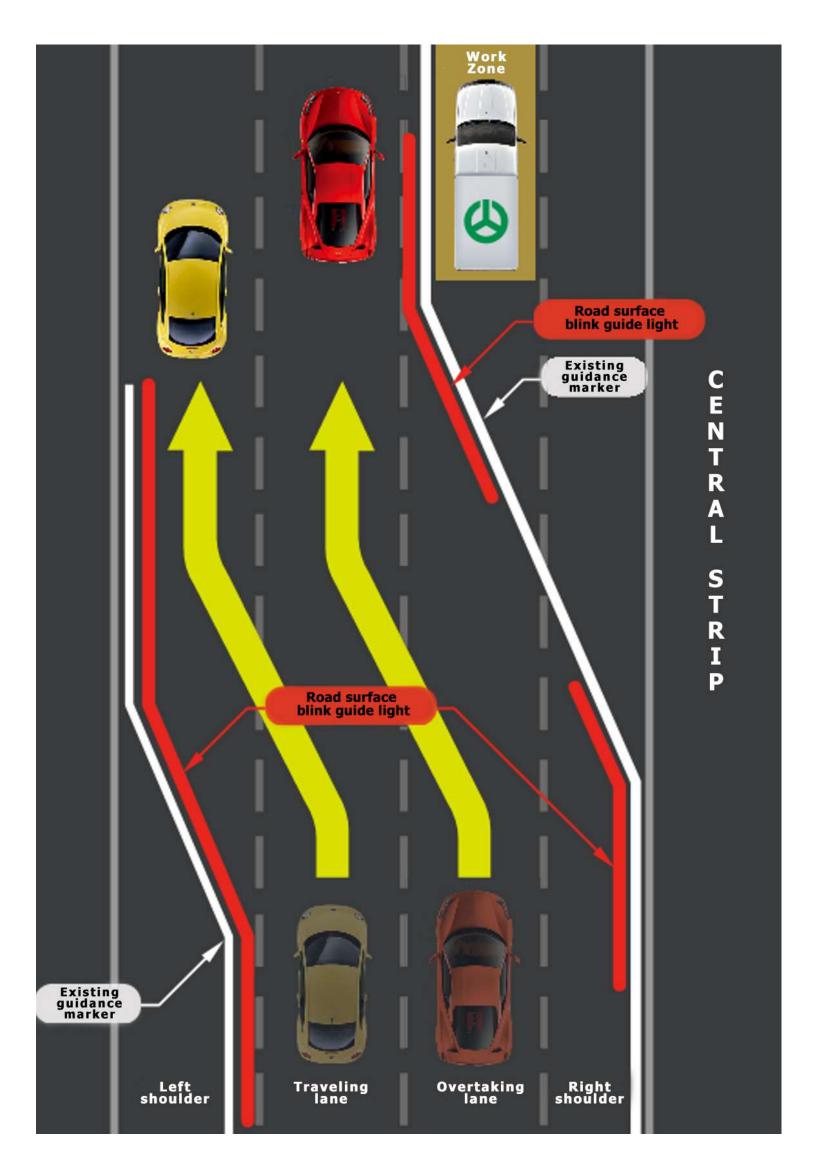
Assures driving safety during lane restriction

ومضات سطح الطريق الإرشادية القيادة الآمنة خلال فترات علام المسير المسادية السير المسادية السير المساد المس

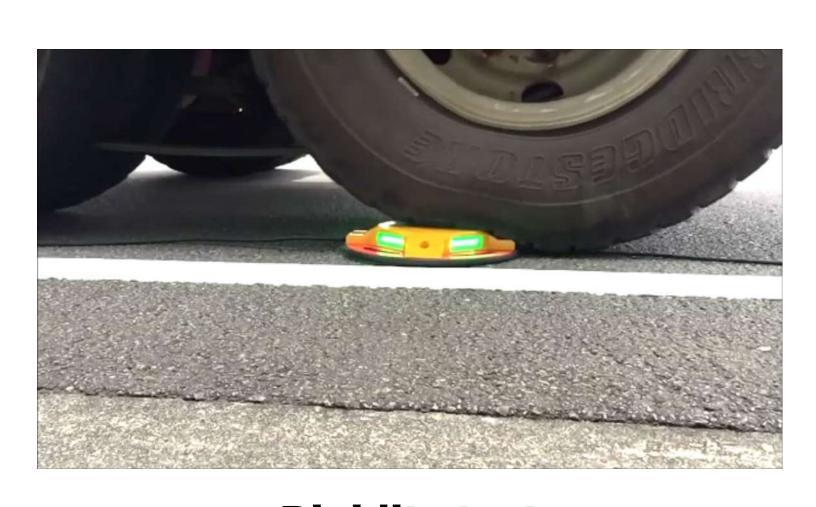
A series of blinking lights on the road following one another alerts drivers and reminds them to control vehicle speed.



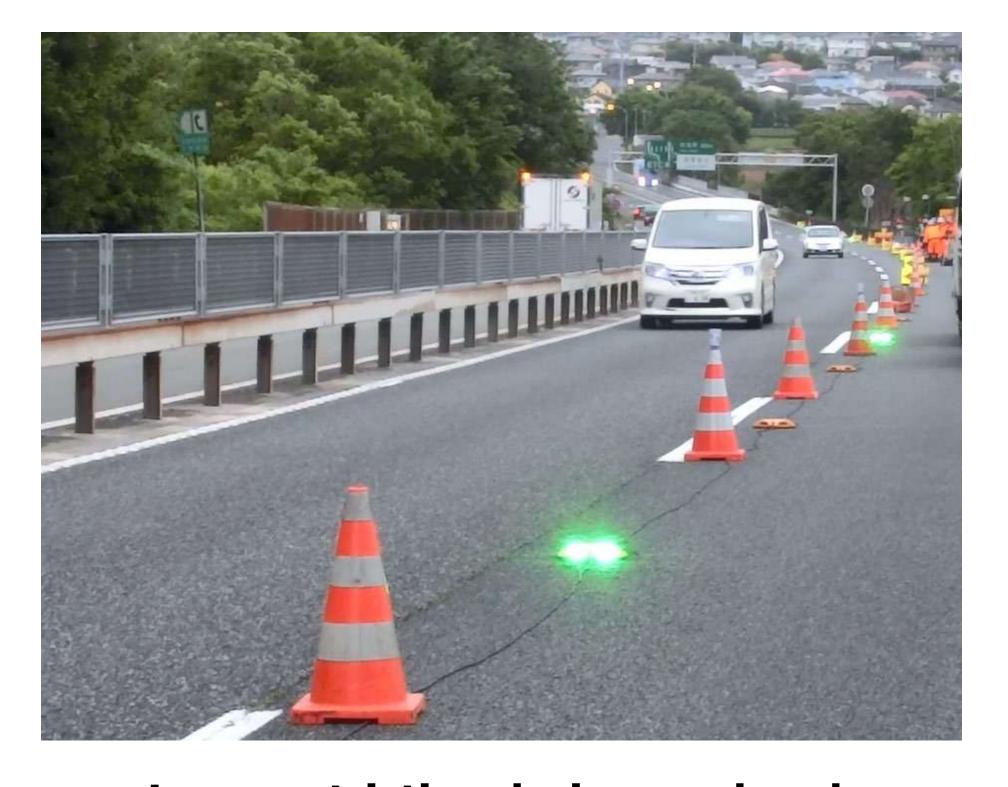
## Basic configuration of the road surface blink guide light system



Lane guidance example



**Rigidity test** 



Lane restriction during roadwork



Light intensity adjusted to the time of the day (daytime/nighttime)

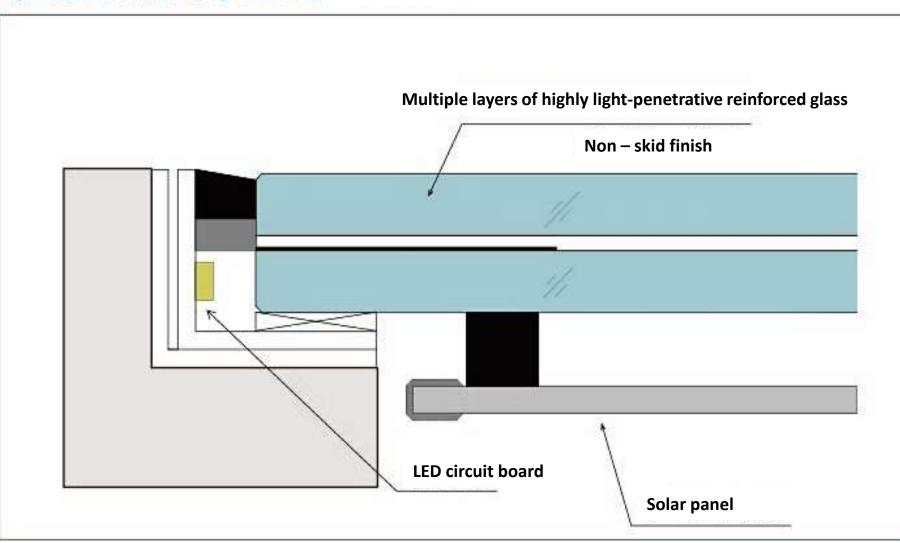


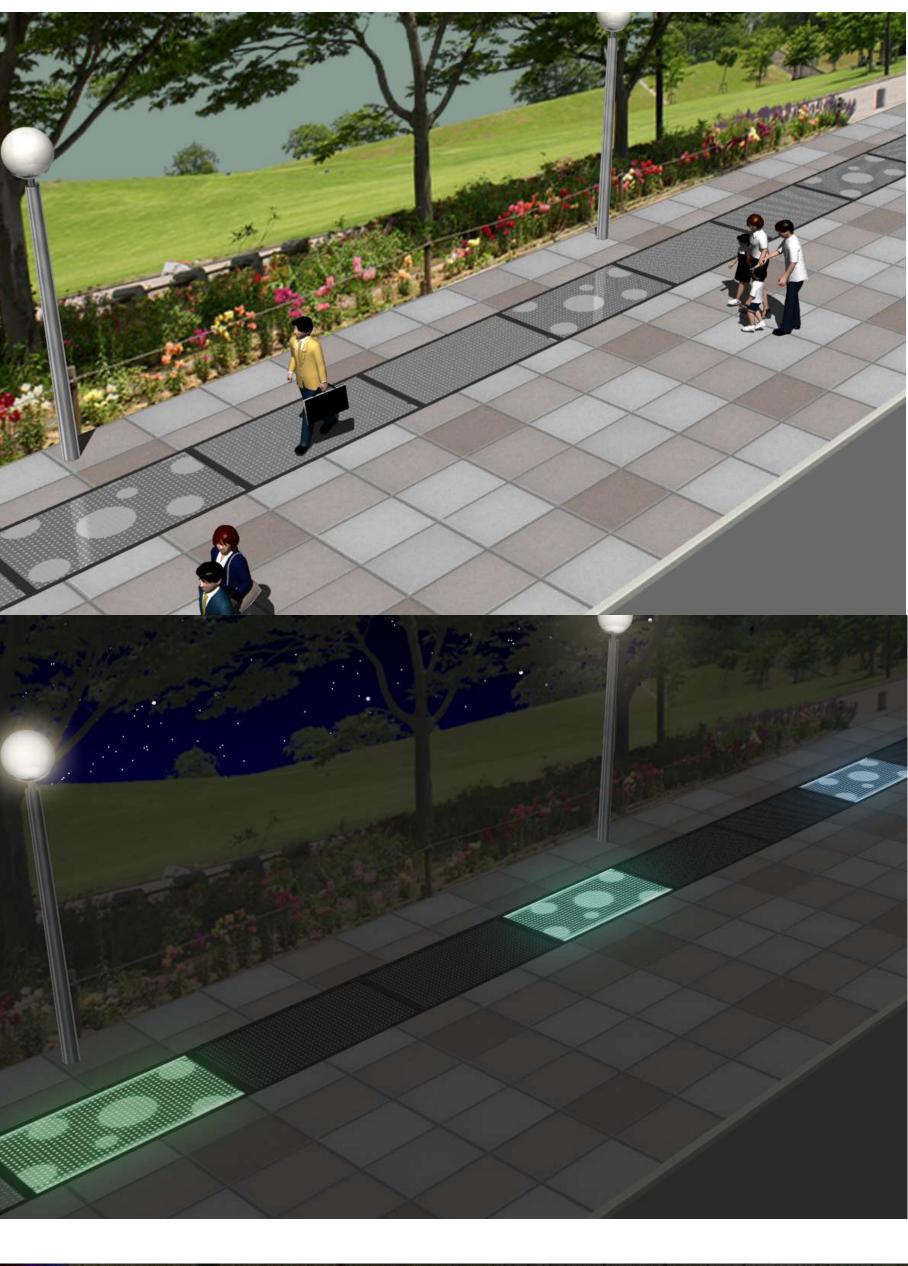
Runs on 100 VAC, compatible with solar power connection.



# Solar panel-embedded glass illuminating guidance panel unit اللوحات الشمسية المدمجة وحدات لوحات الإضاءة الإرشادية الزجاجية

## Solg(WAY Structure





## **Specifications**

Outer dimensions:  $1,337 \times 724$ 

Weight: 70kg

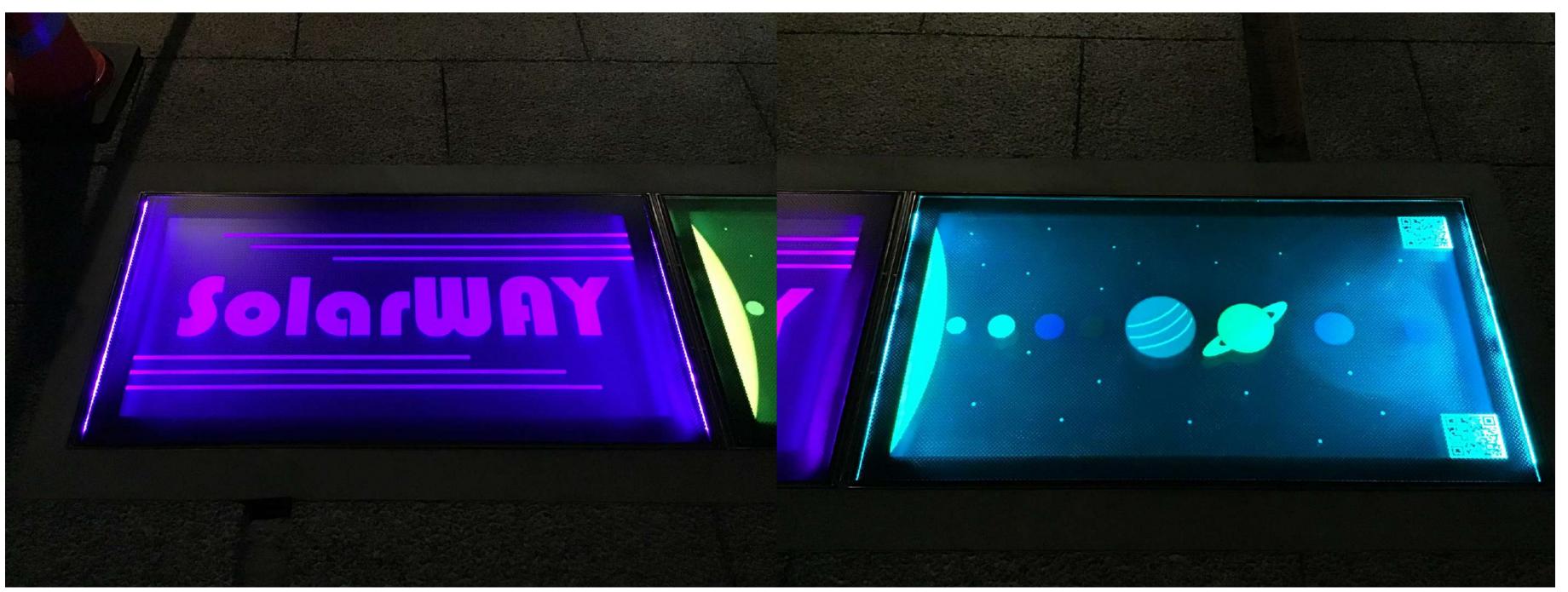
**Nominal maximum output: 100 W** 

**LED power consumption:** 24 VDC, 15 W

Glass type: Highly light-penetrative glass,

t10+t10

- ◆ Combination of glass panels and a solar panel allows generating and storing power in place on the sidewalk.
- After sunset, LED light will be lit, transmitting specified colors of light through the glass.
- ◆ Letters and patterns drawn on the glass with luminescent ink will illuminate in the color of glass-penetrating light.
- ◆ Flashing timing and color can be flexibly controlled to create a romantic atmosphere along the nighttime sidewalk.



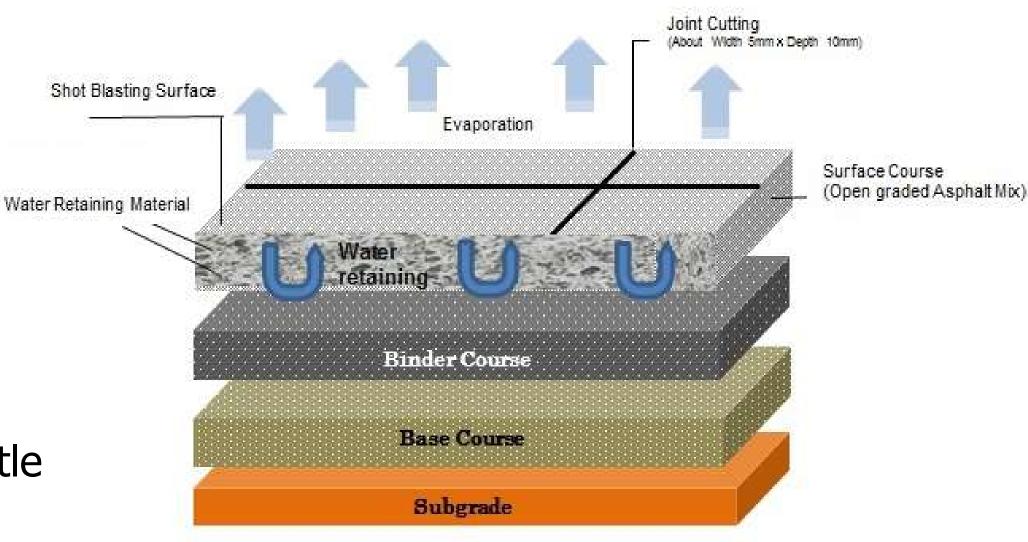
The glass panel is built with consideration for strength, skid resistance and dew concentration prevention.

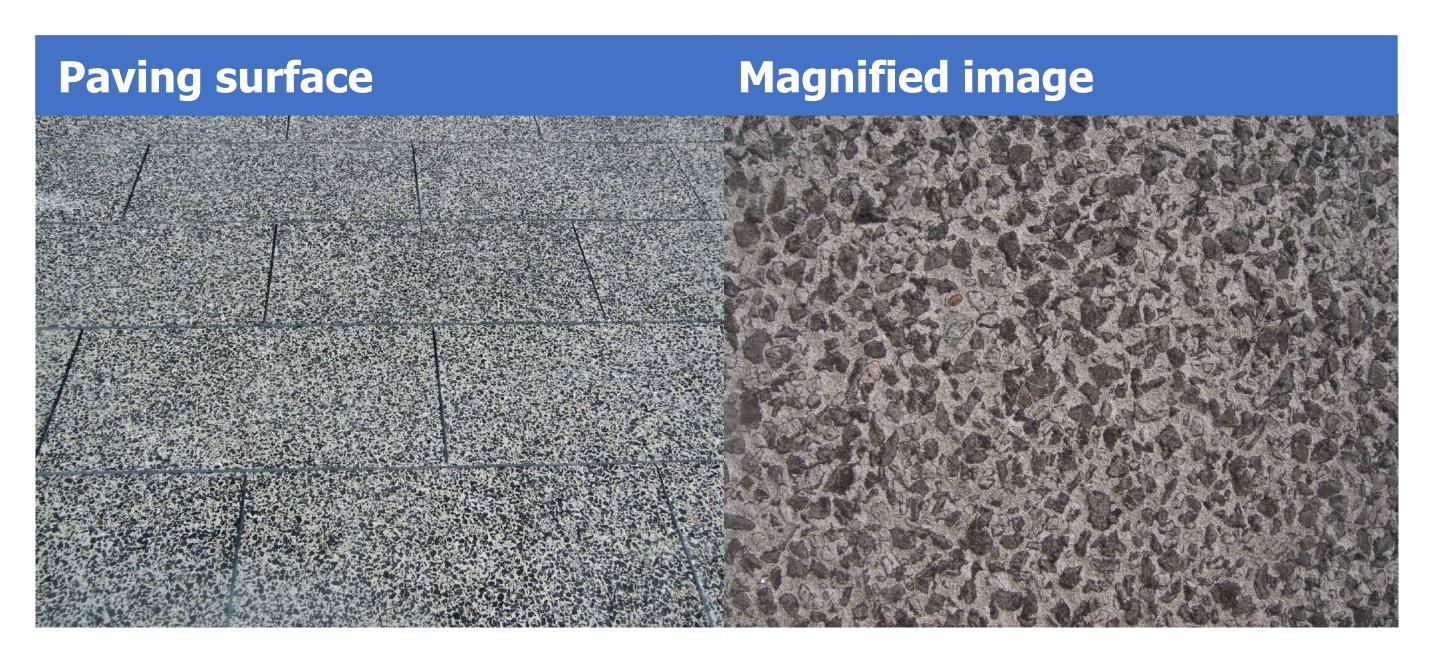


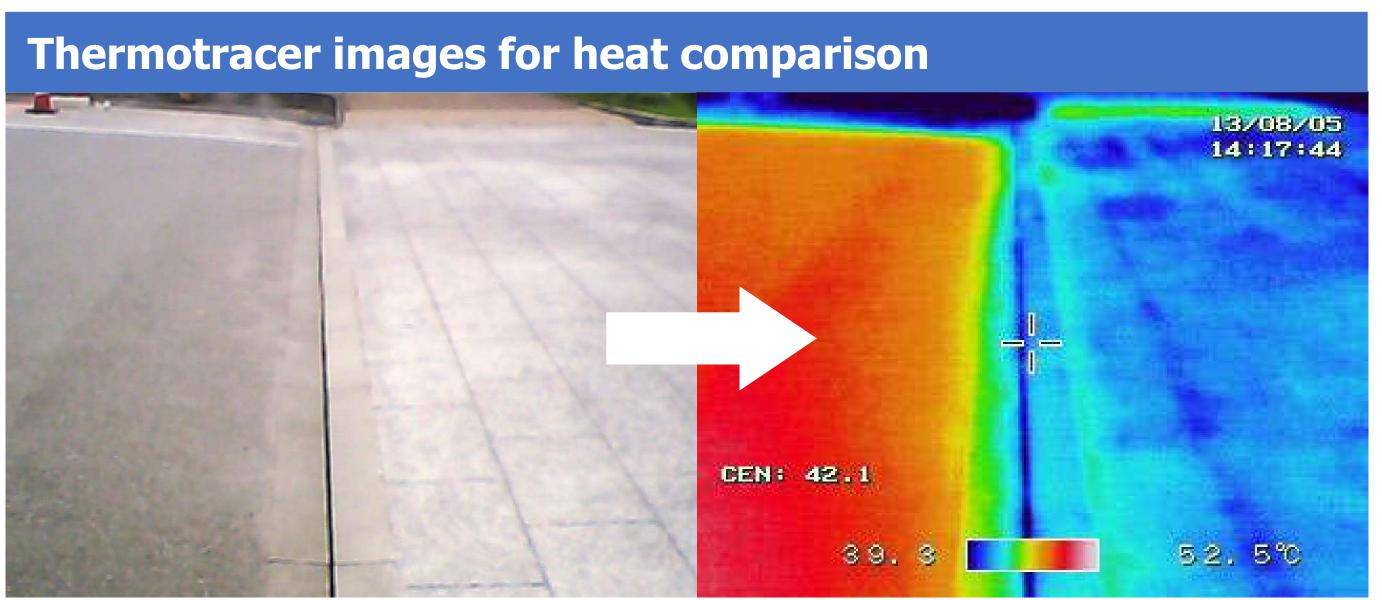
## Simulated stone paving with heat alleviation effect Water vaporization reduces road surface heating. الرصف بحجارة تمنع ارتفاع درجة الحرارة تبخر الماء منع ارتفاع درجة حرارة سطح الطريق بسبب حرارة تبخر الماء



- ◆ The paving structure is designed in much the same way as common asphalt pavement, except that a binder course should always be provided.
- ◆ An appropriate amount of water spraying is necessary to maintain a good heat alleviation effect.
- Water vaporization helps reduce road surface heating in summertime.
- The road surface looks like granite stone paving.
- The aggregates mix is adjusted for subtle shade and texture control.





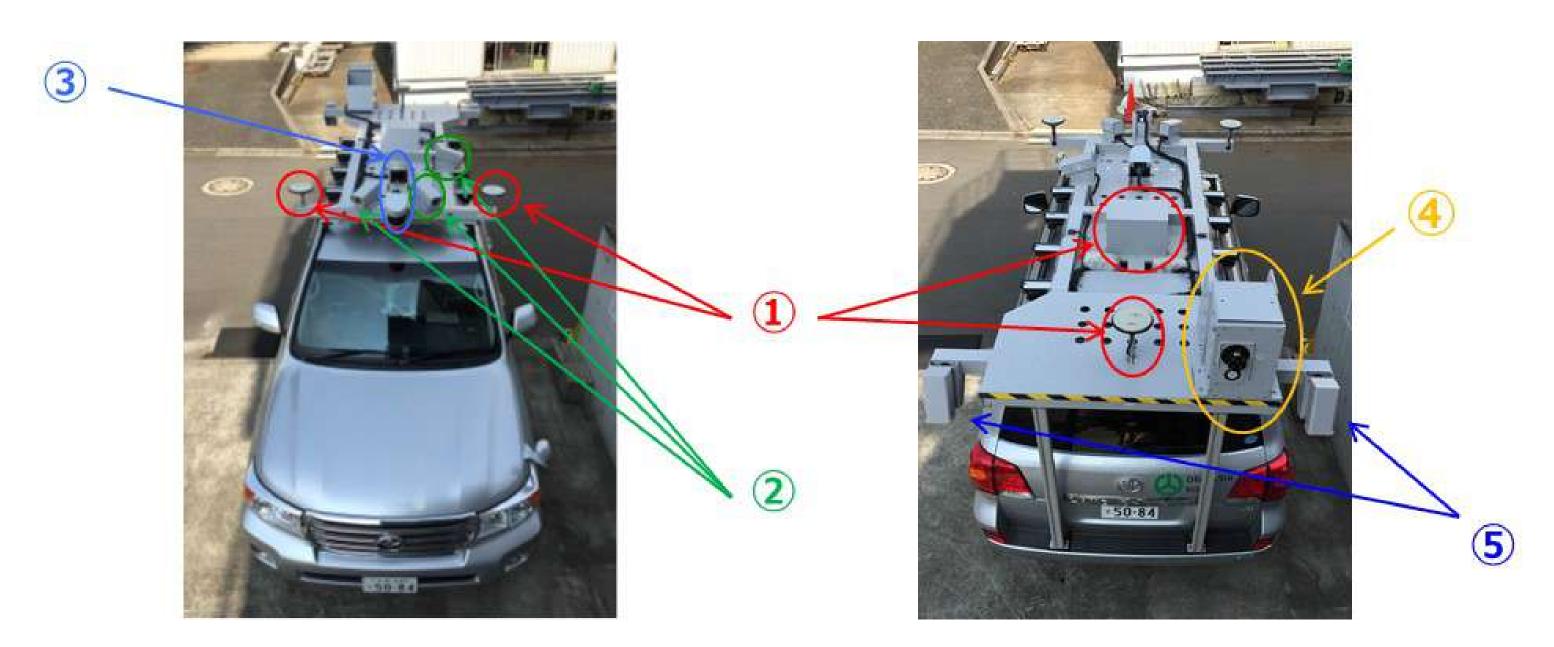




# Road management MMS Road surface geometry change monitoring system نظام MMSلادارة الطرق مراقبة تغيرات شكل سطح الطريق

## **System component devices**

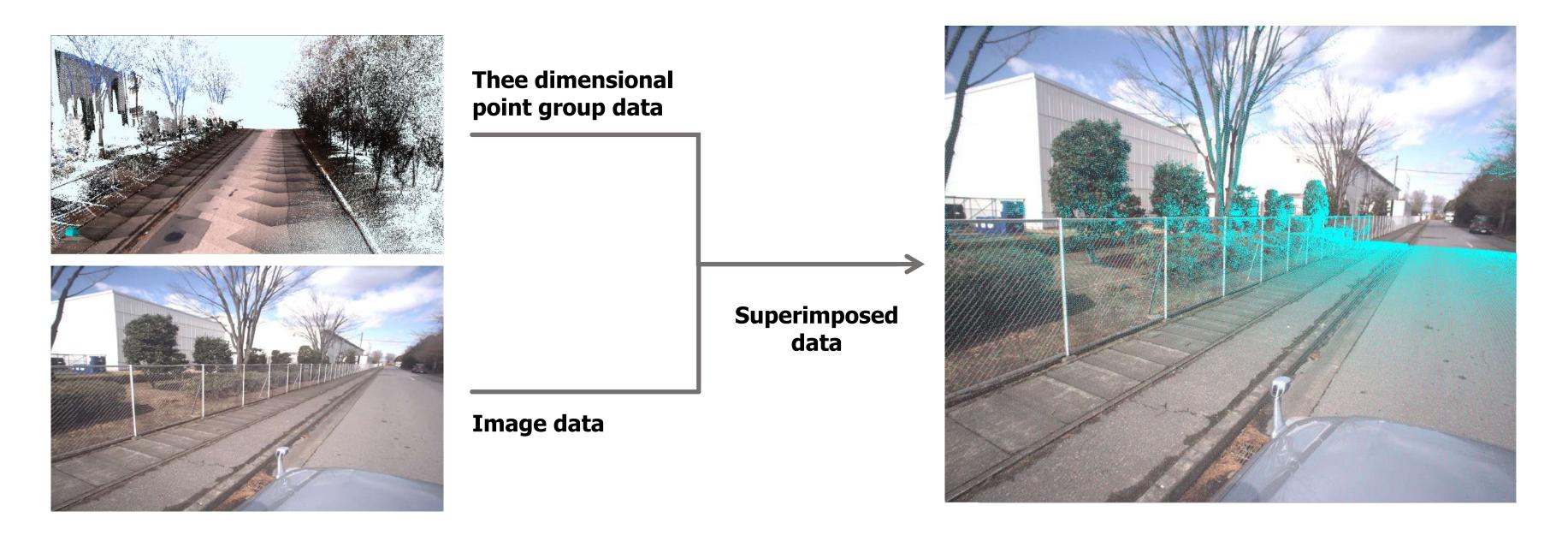
Laser scanner, digital cameras (general view & road surface), GPS, IMU



- 1 GPS antenna and IMU
- ② General view-recording color digital camera: 5 million pixels, records 10 frames per second
- 3 Laser scanner: 27,100 points/second, maximum scanning range of 65 m
- 4 High precision laser scanner: 1,016,000 points/second, maximum scanning range of 100 m
- 5 Road surface-recording monochrome digital camera: 5 million pixels, records 10 frames per second

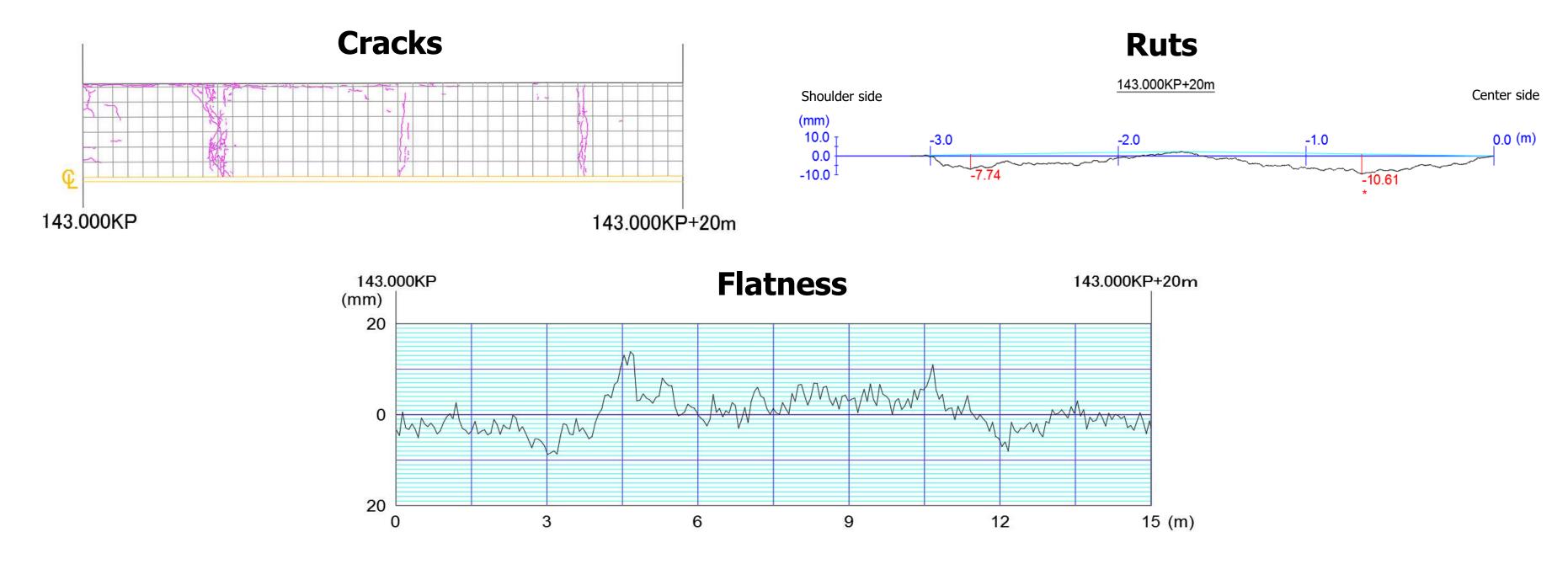
### Measurement

Road space geometry and dimensions are measured based on a 3D coordinate system.



## **Analysis**

Properties important for pavement maintenance and management are measured and analyzed in speedy manner.





https://www.obayashi-road.co.jp/

