



## APPLICATION NOTE – Traffic

# CITY OF HOOFDDORP USES FLIR DETECTORS TO MAKE SCHOOL CHILDREN MORE VISIBLE TO TRAFFIC

*A smart pedestrian crossing that uses FLIR thermal imaging technology and LED road studs has made it safer for school children in the city of Hoofddorp, The Netherlands to cross a busy road. The FLIR thermal sensors activate the flashing studs, giving a visual warning to oncoming motorists to slow down.*

Safety and responsibility are key values at the Het Braambos primary school in Hoofddorp, The Netherlands—and traffic education is no exception at the school of approximately 500 students. From the age of four, children are taught traffic regulations and road safety, how to act in the presence of traffic, and how to move through the city safely.

Het Braambos is located close to a main city road that many students have to cross on their way to and from school. From time to time, crashes and other incidents in the vicinity of the school occur, posing a major safety challenge.

“Children cannot always judge for themselves whether or not it is safe to cross, and sometimes they put themselves at risk,” said Manon De Jong, School Manager at Het Braambos. “Of course, we make sure that our children can come to school as safely as possible, but when additional traffic measures can be taken to enhance safety, this can only be a good thing.”

## SMART PEDESTRIAN CROSSING

To help prevent traffic incidents with children, the city of Hoofddorp invested in a smart crossing near the school consisting of FLIR thermal pedestrian sensors and LED road studs. The FLIR sensors detect pedestrians or cyclists when they arrive at the crossing and, upon detection, activate the LED warning system. The moment someone approaches the crossing, the lights on the road surface blink and motorists are warned about the oncoming pedestrians.

The smart system makes use of FLIR ThermiCam camera sensors for vehicle and bike detection. These sensors use thermal imaging technology, which makes it possible to detect pedestrians and cyclists on a 24/7 basis, even in the dark of night or in bad weather conditions.

## PEDESTRIANS MADE VISIBLE

Installed on an existing traffic pole, the ThermiCam cameras utilize analytics to detect approaching and crossing pedestrians and cyclists. It was possible to cover the entire pedestrian crossing, as well as the sidewalk area leading up to the crossing, with only two ThermiCam sensors.

“The LED warning system is very effective,” said De Jong. “Especially in the darker months the LED lights catch the eye of motorists. The system makes parents and children who use the crossing in front of our school much more visible.”

Since the installation of the LED warning system, the number of dangerous situations has been reduced. There is more space between oncoming cars and children crossing the road. Now pedestrians and cyclists have plenty of time to cross the road safely.



*“The smart crossing makes parents and children much more visible for oncoming motorists.”*

**Manon De Jong, School manager,  
Het Braambos Primary School**



FLIR ThermiCam



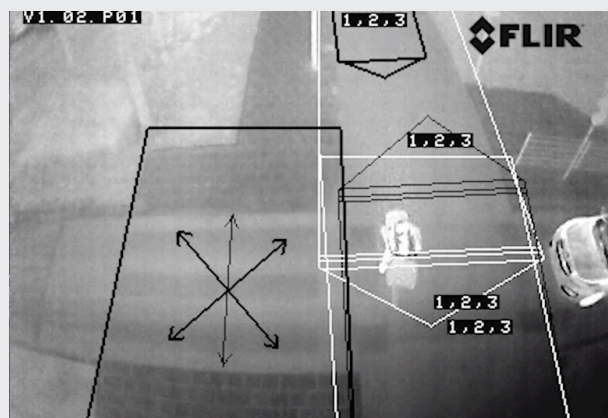
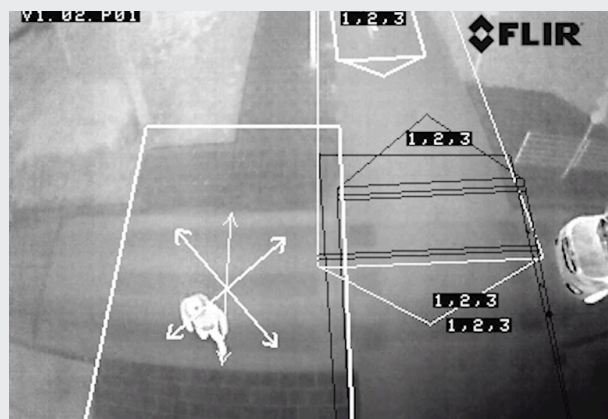
FLIR thermal cameras activate flashing road studs that give a visual warning to oncoming motorists that they need to slow down.



## HIGHER ATTENTION VALUE

According to Stan de Lie, owner of zebra-safe system installer TrafficCare, there is an undeniable advantage to this dynamic warning system. The true power of the system is that the road studs will only light up when pedestrians are using the crossing. This way, drivers already know from a distance away that they need to slow down.

"With road studs, or other warning systems that flash permanently, you will probably alert motorists once, but after a while, the attention value will drop and motorists will not pay attention anymore," said de Lie. "With this system, motorists know that there is actually someone crossing when the lights are flashing. And the attention value will remain, even after many weeks and months."



FLIR ThermiCam can detect pedestrians and cyclists 24/7, even during dark nights or in poor weather conditions.



The smart pedestrian crossing especially demonstrates its power in dark conditions. The flashing lights are very prominent for motorists.

For more information about thermal imaging cameras or about this application please visit:  
[www.FLIR.com/traffic](http://www.FLIR.com/traffic)

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