

CITY OF NORTH LIBERTY, IOWA



Integrating Road Temperature Technology for Customer Requirements

“Receiving data and using the data effectively helps save time and money.” ~Dan Lange, Assistant Street Superintendent



When the City of North Liberty, Iowa was looking to expand their weather monitoring for road safety/maintenance, they came back to Columbia Weather Systems. The new solution integrates an infrared road surface temperature sensor with an Orion 533™ Weather Station for rainfall, wind speed and direction.

Year-Round Weather Monitoring

Mounted on an intersection traffic signal pole, the sensor monitors road surface temperature remotely by measuring the infrared radiation emitted by the surface. “In winter...being able to monitor the air temp/road temp in real time helps determine how best to treat the roads with either salt brine or road salt,” said Dan Lange, Assistant Street Superintendent.

“Depending on the season we are looking at different parameters,” Lange noted. “In the spring/summer I like the rain rate (for flash flooding) and wind gust. You can watch these rates and get a pretty good idea for severity and compare from previous events.”

The city purchased an Orion Weather Station in 2011. “After years of use and not having any function or quality issues, we are pleased with operation of the weather station and decided to purchase another with a custom application for road temp also since the first weather station worked very well,” continued Lange.





The IR Surface Temperature Sensor provides remote measurement of road surface temperature.



The IR Sensor mounted at an intersection in North Liberty, IA.



The Orion 533 weather station measures rainfall, wind speed and wind direction.

“Easy to setup and operate”

The weather stations interface with the Weather MicroServer™, providing real-time information to WeatherMaster™ Software for data monitoring on network computers. “The equipment is pretty easy to setup and operate,” Lange said. “Now that the cloud service is available it makes it even easier to access both stations in one location. Receiving data and using the data effectively helps save time and money.”

Columbia weather offers professional weather monitoring solutions with the flexibility to integrate new technologies so customers can do their job effectively.

Call or email to find out how Columbia Weather Systems can help make weather monitoring easy for you:

1 888 508-7375 / info@columbiaweather.com

For more information

City of North Liberty: <https://northlibertyiowa.org/>

Orion Weather Stations: <https://columbiaweather.com/products/weather-stations/fixed-base/orion-weather-station>

IR Surface Temperature Sensor Data Sheet: <https://columbiaweather.com/resources/data-bulletins/ir-surface-temperature-sensor.pdf>

