



HIGH SIERRA ELECTRONICS
environmental monitoring solutions

RWIS

MEASURING THE WEATHER

TO PROTECT THE PUBLIC

AND IMPROVE TRAFFIC SAFETY



Flooded Roadway



High Wind



RWIS



Visibility and Fog

highsierraelectronics.com

*Measuring the weather to
protect the public and
improve traffic safety*

Eric Gibbons

ITS Product/Project Manager



www.highsierraelectronics.com



HIGH SIERRA ELECTRONICS
environmental monitoring solutions

- HSE designs, manufactures, installs and maintains quality road weather systems, hydrological monitoring systems and meteorological instruments to improve public safety and protect the environment.
- A family owned US company with 20 years experience developing, integrating and supporting open architecture remote monitoring systems around the world.



TxDOT Bridge Mount Weather & Stream Monitoring System SH35 at Brazos River



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High Sierra Electronics, Inc.

HSE is focused on customer satisfaction. We bring a fresh approach to innovative and cost effective RWIS design and implementation.

- Headquarters in Grass Valley, CA
- Field offices in
 - Fort Worth, TX
 - San Antonio, TX
 - Hauppauge, NY
- 33 employees
- ISO 9001-2008 Certified
- Member ITS America
- WBE/MBE



Product Families

- Road Weather Information Systems (RWIS)
 - 3 - NTCIP 1204 ESS Compliant RPUs
 - ALERT Protocol based RPU/Data-Loggers & Controllers
 - Manufacture the IceSight Non-Intrusive Road Sensors
 - Weather Responsive Traffic Management Systems
 - Flooded Roadway Warnings
 - Wet & Icy Warnings
 - High Wind Warnings
 - Low Visibility Warnings
- Hydrological & Meteorological Monitoring & Flood Warning
 - Flood Warning & Environmental Monitoring
 - Rain & Stream Gauging
 - Weather Stations
 - Dam and Levee Safety
- Solar Power devices
 - MPPT Solar Charger & Load Control
 - Charges batteries & activates warning devices



Road Weather Information Systems

- RWIS product family
 - Flooded Roadway Advisory Systems
 - Compact RWIS
 - Now supports the full range of atmospheric and road sensors
 - Compact 1U fully enclosed design
 - Traffic cabinet mount
 - “Ground-Up” NTCIP 1204 ESS Compliant
 - Full RWIS
 - Tower equipment cabinet mount
 - Full range of atmospheric and road sensors
 - “Ground-Up” NTCIP 1204 ESS Compliant



Flooded Roadway Warning System
with Automatic Barrier Gates
W.W. White Rd, San Antonio, TX

Weather Responsive Traffic Management Systems (WRTMS)

- TMC decision making (advisory & control)
 - Site Specific RWIS provides information for making decisions about traffic management
 - TMC initiates action
- Local automated decision making (local control)
 - Systems implement traffic management changes based on pre-determined criteria
 - TMC notified of action taken



Flooded Roadway Warning System
with on-demand video monitoring
City of Colleyville, TX

Weather Responsive Traffic Management

- DOTs and Municipalities have ITS infrastructure in place that can house and connect compact RWIS systems to monitor local conditions.
- Site Specific RWIS systems can often be worked into a local construction project budget.
- Improve traffic safety while contributing data to the regional RWIS network.



You don't have to spend
a ton of money.

Road Surface Status at controlled intersection

- 1U NTCIP MiniRWIS Compact Remote Processing Unit
 - Specifically designed to integrate into existing infrastructure (ATC & DMS cabinets & signs)
 - Full complement of atmospheric and road sensors
 - Built-in Surge Suppressors
 - Selected sensors drive dry contact output enabling optional local control of public safety devices (WRTMS)



It doesn't have to be complicated









Weather Responsive Traffic Management (TMC)

Non-Intrusive Pavement Sensor & MiniRWIS NTCIP RPU report road surface conditions to Public Works



College & Quivira
Overland Park, KS

\$15K



- Provides air temp, surface temp, surface status, surface grip coefficient & soiled lens "clean me" indication.
- Flat Plate window & lens guard simplifies lens cleaning.
- Wi-Fi access simplifies set-up and calibration from ground level
- One-Click Automatic calibration

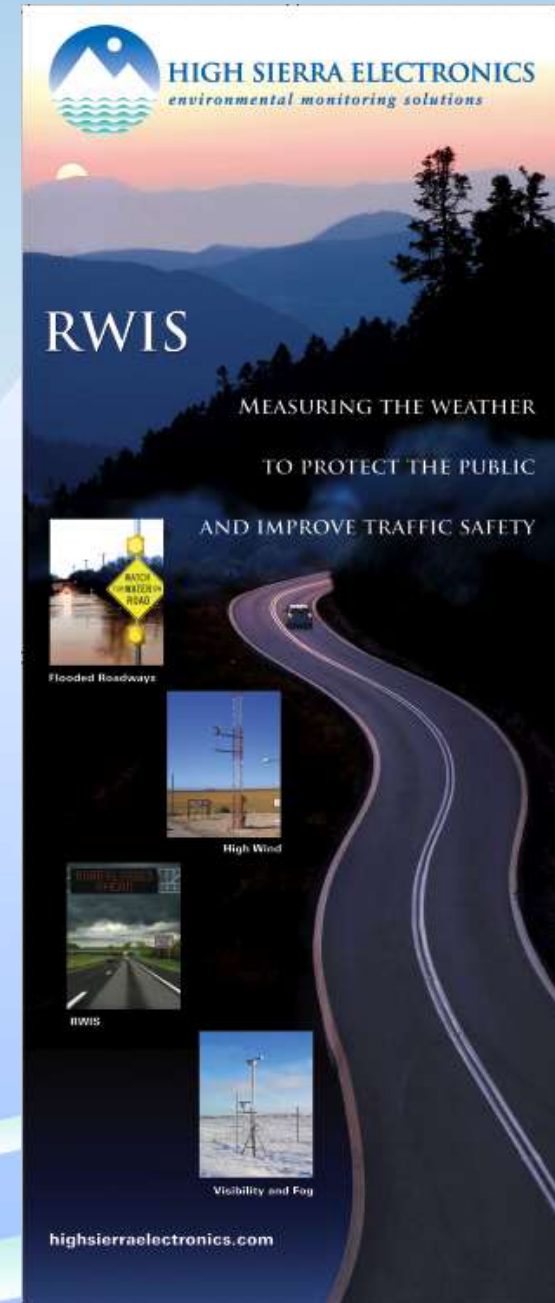
So What?

- Full Complement of Sensors, including;
- Discrete Atmospheric Sensors
- Compact weather stations
 - WS Series
 - Met One Station
- In-Road Surface
 - HSE Passive
 - Lufft IRS31/ARS (8)
 - Sensit
- IceSight Non-Intrusive (8)
- American made cost effective RWIS
- 2 NTCIP Complaint Central Software
 - DEC Data Systems "DataWise NTCIP"
 - Delcan Intelligent Networks RWIS module
 - Remotely Hosted



The High Sierra Difference

- HSE is a growing family owned business that focuses on customer satisfaction. We bring a fresh approach to innovative and cost effective RWIS implementation.
- Innovator of the “MiniRWIS” full function compact RWIS station. All our RWIS systems are NTCIP compliant from the ground up. They are not re-engineered proprietary systems.
- We provide the only US built non-intrusive surface sensor. All of our RPU and sensors systems are designed, and built here in the USA.
- We have invested in Interoperability and Open Architecture solutions using a combination of our own sensors and RPUs, and commercially available sensors.



The advertisement features a vertical layout with a scenic mountain background. At the top is the High Sierra Electronics logo, which includes a stylized mountain and water icon, followed by the text 'HIGH SIERRA ELECTRONICS' and 'environmental monitoring solutions'. Below the logo, the text 'RWIS' is prominently displayed in a large, white, serif font. Underneath 'RWIS', the text 'MEASURING THE WEATHER TO PROTECT THE PUBLIC AND IMPROVE TRAFFIC SAFETY' is written in a smaller, white, sans-serif font. The advertisement includes four small inset images: 'Flooded Roadways' showing a road with water and a yellow warning sign; 'High Wind' showing a weather station on a tower; 'RWIS' showing a road with a sensor unit; and 'Visibility and Fog' showing a weather station in a foggy environment. At the bottom of the advertisement, the website 'highsierraelectronics.com' is listed.

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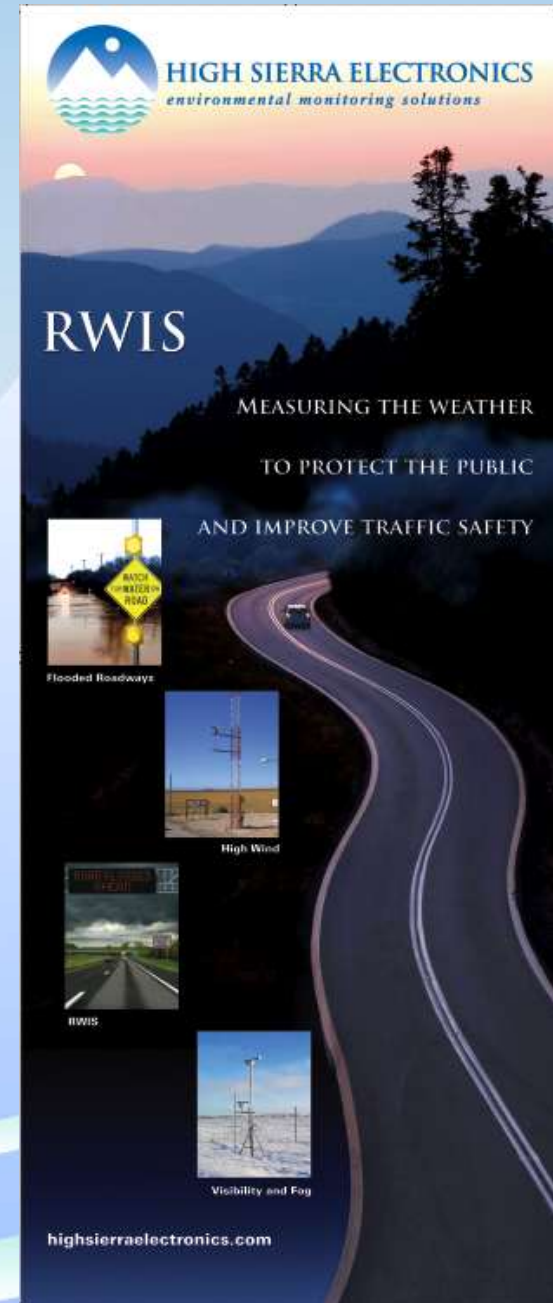
highsierraelectronics.com

The High Sierra Difference

We provide open architecture customer configurable Central Software. We believe it is in your best interest to embrace interoperability and user configurable open architecture solutions.

Encrypted databases and rationed information are expensive, frustrating legacy solutions and will ultimately be replaced with open architecture solutions.

RWIS Un-Complicated!



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9/20/2011

The advertisement features a vertical layout with a scenic mountain background. At the top is the High Sierra Electronics logo and tagline. Below this, the product name 'RWIS' is prominently displayed, followed by its purpose: 'MEASURING THE WEATHER TO PROTECT THE PUBLIC AND IMPROVE TRAFFIC SAFETY'. Four small inset images illustrate various weather-related road conditions: a flooded road with a 'WATER OVER ROAD' sign, a high wind warning sign, a road view with the RWIS acronym, and a foggy road. The website URL 'highsierraelectronics.com' and the date '9/20/2011' are at the bottom.

Points to Ponder

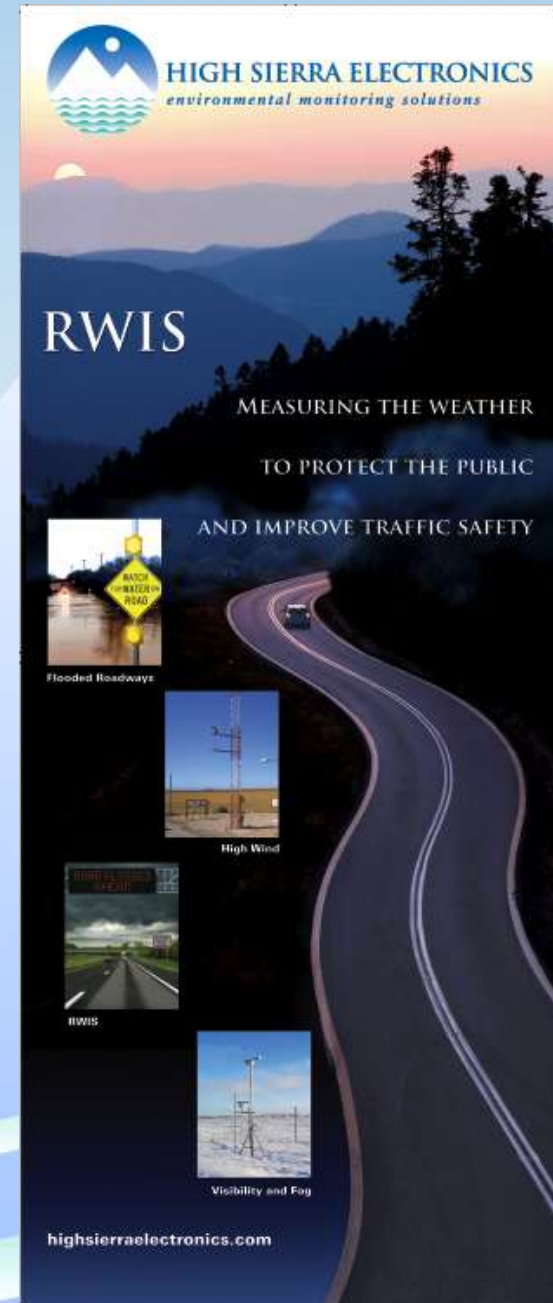
How do your bid specifications read? Are they a barrier to open competition and the adoption of newer more flexible technologies? Are they documents that focus on results, or do they focus on the means?

Documents that focus on “the means” limits competition and serves to perpetuate the closed market that dominates winter RWIS.

Make sure you consider all the options!
Focus on the results...

HSE has 13 Resellers in North America to help serve your agency.

To learn more, drop me your card...



The advertisement for High Sierra Electronics (HSE) features a scenic background of mountains and a winding road. At the top left is the HSE logo, which includes a stylized mountain and water waves. To the right of the logo, the text reads "HIGH SIERRA ELECTRONICS" in a bold, sans-serif font, with "environmental monitoring solutions" in a smaller font below it. The main title "RWIS" is prominently displayed in a large, white, serif font. Below the title, the text "MEASURING THE WEATHER TO PROTECT THE PUBLIC AND IMPROVE TRAFFIC SAFETY" is written in a smaller, white, sans-serif font. The advertisement includes four small inset images: "Flooded Roadways" showing a road with water and a yellow "WATCH FOR SLICED WHEELS" sign; "High Wind" showing a weather station on a tall pole; "RWIS" showing a road with a weather station; and "Visibility and Fog" showing a weather station in a foggy environment. At the bottom left, the website "highsierraelectronics.com" is listed. The date "9/20/2011" is visible in the bottom right corner.



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Eric Gibbons

ITS Product/Project Manager

800-275-2080

egibbons@highsierraelectronics.com

Frank Gutierrez

South Central Sales Manager

817-350-3088

frankgutierrez@gmail.com

Irv Rosenblum

ITS/RWIS Sales Manager

631-392-8650

irosenblum@highsierraelectronics.com



