

THE CITY OF MANCHESTER, TENNESSEE WILL ACCEPT SEALED BIDS FOR 6 SOLAR POWERED RADAR SPEED SIGNS. SEALED BIDS MUST BE RETURNED WITH AN ORIGINAL AND A COPY, SEALED, NO LATER THAN TUESDAY NOVEMBER 2, 2023 @ 1:00PM TO THE FINANCE DIRECTOR, CITY OF MANCHESTER, 200 WEST FORT STREET, MANCHESTER, TN 37355. FURTHER INQUIRIES CAN BE DIRECTED TO LISA MYERS, FINANCE DIRECTOR. THE CITY RESERVES THE RIGHT TO REJECT ANY AND OR ALL BIDS. **NO SUBSTITUTES NOT MATCHING SPECIFICATIONS WILL BE EXCEPTED.**

THE CITY OF MANCHESTER SEEKS

Quantity

- 6 – Solar powered radar speed signs
- 6 – 50-watt solar panels
- 6 – Standard face plates
- 6 – School zone alerts
- 6 - Date – time calendar
- 6 – Data collection software – license
- 6 – 2-year Warranty including batteries, parts, labor, shipping etc.
- 12 – Universal mounting kits used on square post or U-Channel post

SPECIFICATIONS:

Solar Power

- Operates 24/7 with solar power supply
- Power Supply: Two 12-volt, 18 amp/hour AGM batteries (UL recognized) | Provides up to 14 days of back-up operation on fully charged batteries
- Power consumption: < 2.0 amps (24w) at maximum display intensity
- Idle mode: < 1/2 watt
- Circuit breaker: Multi-circuit | 3 x 10 amp fuses
- Battery status: Check battery charge levels and solar amperage via Wi-Fi
- Low battery cut-off feature provides intelligent battery management
- Solar panel output: 50 watt standard
- Solar charger: Fully integrated charge controller with continuous monitoring and data logging of solar output/ battery charge status
- Charger and battery characteristics matched to operate within the sign's operating temperature range

AC Power

- Operates 24/7 with AC power supply
- Power supply: Hard wire to 100V-240V power supply
- Power consumption: < 2.0 amp (24w) at maximum display intensity
- Idle mode: < 1/2 watt
- Circuit breaker: Multi-circuit, 10 amp fuse

LED Display

- 13" tall speed display numbers | 2 or 3 digit capable
- Speed digits easily readable up to 600 feet
- Ideal for roads with traffic speeds of 5-70 mph
- Super bright amber LEDs in full matrix design | Life up to 100,000 hours
- Laser cut flat black mask enhances visibility of LED display when illuminated | Ensures completely dark display when LEDs are off
- Display brightness fully automatic or user adjustable

Speed Violator Alerts

- Standard alerts: SPEED (3 flash rate options) | Enhanced font | SLOW DOWN | TOO FAST
- Speed display flash rates: MUTCD flash (approx. 55-60 fpm) | slow flash (approx. 90 fpm) | fast flash (approx. 140 fpm)

fpm)

- *Optional* message alerts: SHARP CURVE | Right or left facing chevrons | SCHOOL ZONE | FINE \$\$\$ | Smiley face | Custom message alert upon request
- Display speed and word message alerts, alternately or individually, based on speed settings
- *Optional* strobe alerts - *Choice of one*: alternating red/blue strobe alert (police flash) or white strobe alert (can simulate a camera flash)

YOUR SPEED Faceplate

- 28"W x 33"H YOUR SPEED faceplate with 4" high lettering
- *Optional* oversized 30"W x 36"H YOUR SPEED faceplate available
- Manufactured with highest grade reflectivity backing
- Available in white | yellow | fluorescent yellow/green | safety orange

Radar

- Type: K Band, single direction Doppler radar | FCC part 15 compliant | No license required
- Sensor Range: Detects vehicles up to 1200 feet
- Beam Width: 12 degrees, +/- 2 degrees
- Operating Frequency: 24.125 GHz, +/- 50 MHz
- Accuracy: +/- 1.0 mph
- Speed Detection Range: 5-127 mph | 8-198 kph
- All power inputs are fused and reverse polarity protected
- All circuit boards are conformally coated for extra protection
- Sign has automatic reset and watch-dog circuitry to return to normal operation without user intervention

Radar Speed Sign Housing

- Dimensions: 18.5"H x 26.25" W x 5.0"D
- Thickness: .1875" to .25" thick, heavy-duty aluminum
- IP65 compliant | NEMA 4 level compliant
- Humidity Maximum: 100% | Non-sealed and ventilated
- Provides maximum protection from the elements and vandalism
- Single-piece cast aluminum housing design | Seamless construction with no welding
- Stainless steel mounting hardware included for poles up to 4.5" OD

Bashplate™ with Integrated LED Reflector Cones

- Heavy duty aluminum shield over LED display to protect components from abuse or vandalism
- Directional beam technology, includes beveled cones around each LED, magnifying the intensity of the light and providing the highest quality viewable display with minimum energy usage

Polycarbonate Display Cover

- .25" thick protective sheet covers entire display area
- Abrasion, graffiti and shatter resistant | Provides UV protection

Wi-Fi Enabled

- sign emits its own Wi-Fi signal | No internet required | Manage sign with smart phone, tablet, or laptop
- Connection range up to 300 feet from sign
- Allows for quick and easy sign operation and data download from most web enabled devices
- Speed is 10x faster and has 10x the range of Bluetooth
- WPA2 encrypted security | Password protected
- OTA software updates (over-the-air) allow the wireless delivery of software updates and upgrades directly to the sign

Standard Programming

- Setup functions: Easy to follow digital menu | No mechanical switches to operate
- Daily timers: Allow 5 on/off timer settings per day (4 timers plus the standard setting), also by day of week | Settings allow for lower speed limits for school zone times
- Stealth mode: Display on/off feature allows traffic data collection to continue even when the display is off
- Possum Switch™: Feature allows the sign to "play dead" for 30 minutes if attacked with force
- Maximum speed cutoff: Feature prevents "racing" of sign at high speeds | Choice of flashing dashes or LED display cutoff

Warranty

- 2-year warranty on parts and labor, including batteries | *Exceptions:* Does not cover malicious abuse, theft, or damage due to unauthorized modification | *Optional* third year warranty extension available

Optional Scheduling and Data Reporting Features

Advanced Scheduler

Date driven program allows pre-programming multiple years and multiple schedules for your radar speed signs | Especially useful for school zone scheduling or in areas where events occur on a regular basis

Traffic Data Collection & Reporting Software

Lifetime license - One time charge - No recurring fees | *Licensed per sign* - Download, report, organize, and analyze speed and traffic data that is recorded by the radar speed sign | Generate 35 charts and graphs with Excel™ macro | Traffic Data Storage Capacity: Stores data on 5 million vehicles | Retains data for 12 months in sign before writing over oldest data first

Cloud Service

Cellular modem is cloud accessible from anywhere internet is available. Allows remote management of sign settings for entire network of signs | Uploads daily traffic statistics to Cloud server (*requires the purchase of data license*) | Provides alerts if batteries run low, or connection is interrupted

IT IS THE POLICY OF THE CITY OF MANCHESTER, TENNESSEE TO ENSURE COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964; 49 CFR, PART 21. NO PERSON SHALL BE EXCLUDED FROM PARTICIPATION IN OR BE DENIED THE BENEFITS OF, OR BE SUBJECTED TO DISCRIMINATION UNDER ANY PROGRAM OR ACTIVITY RECEIVING FEDERAL FINANCIAL ASSISTANCE ON THE GROUNDS OF RACE, COLOR, SEX, AGE, DISABILITY, OR NATIONAL ORIGIN. BOYCOTT OF ISRAEL. THE CONTRACTOR CERTIFIES THAT IT IS NOT CURRENTLY ENGAGED IN, AND WILL NOT FOR THE DURATION OF THE CONTRACT ENGAGE IN, A BOYCOTT OF ISRAEL AS DEFINED BY TENN. CODE ANN. § 12-4-119. THIS PROVISION SHALL NOT APPLY TO CONTRACTS WITH A TOTAL VALUE OF LESS THAN TWO HUNDRED FIFTY THOUSAND DOLLARS (\$250,000) OR TO CONTRACTORS WITH LESS THAN TEN (10) EMPLOYEES.

LISA MYERS,

FINANCE DIRECTOR