

Approve purchase of signs

**VILLAGE OF WATERLOO
RESOLUTION NO. 07-13-21-04**

WHEREAS, the Board of Trustees have found it necessary to install radar signs within the Village; and

WHEREAS, Jamie Bednar, Maintenance Supervisor, presented a bid from Radar Sign at a cost of \$3,910 each.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE VILLAGE OF WATERLOO, NEBRASKA, AS FOLLOWS:

THAT, the attached bid are hereby approved in the amount of ³⁰³⁵~~\$3,910~~ plus associated shipping and handling fees from Radar Sign.

PASSED THIS 13 **DAY OF** JULY, 2021

ATTEST:

Melissa Smith
Melissa Smith
Village Clerk



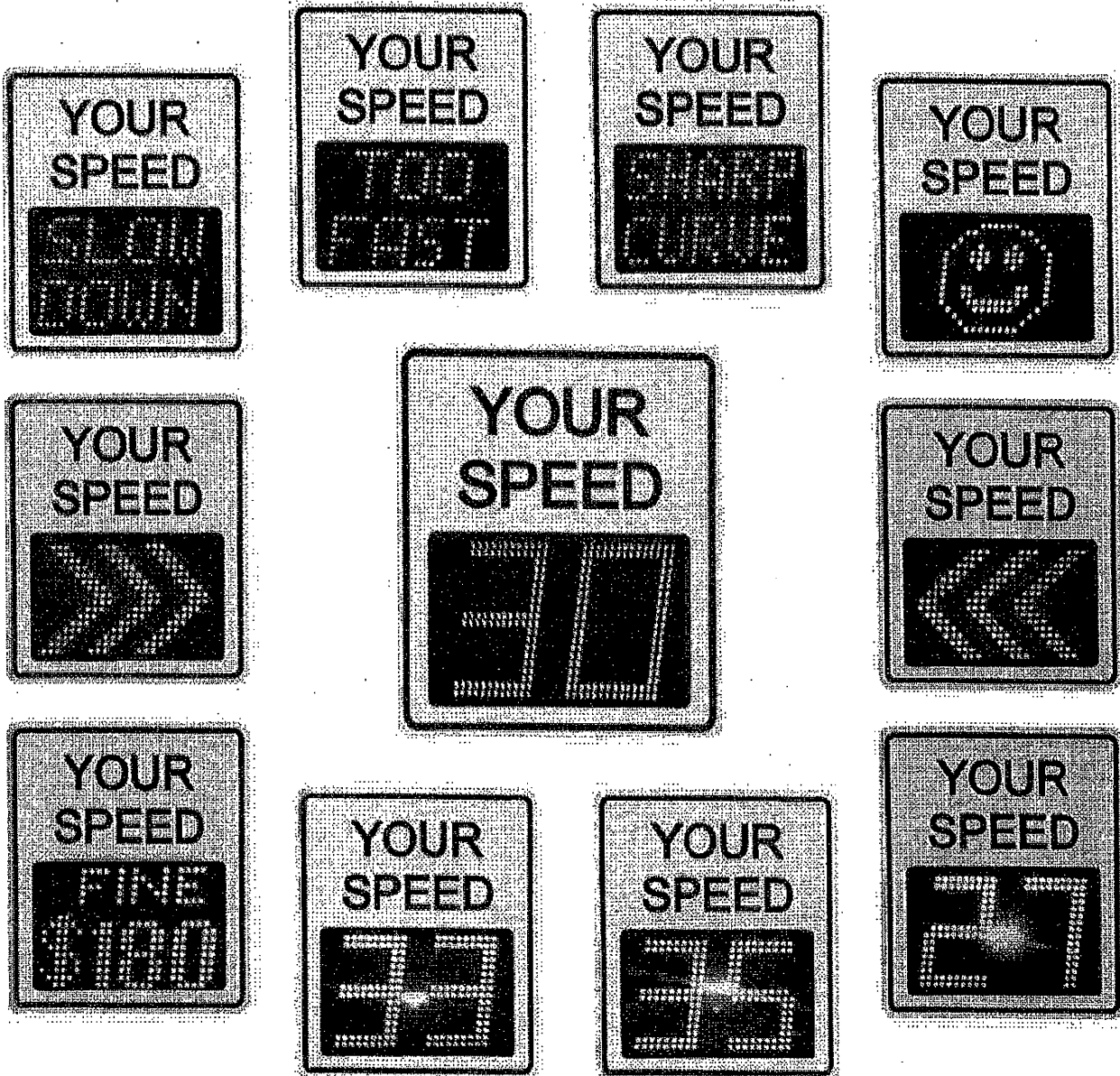
Village of Waterloo

Travis Harlow
Travis Harlow
Chairperson

One Sign...
Multiple Applications



TC-600 Full Matrix Radar Speed Sign
Your Traffic Calming POWER Tool



Certified Quality System
ISO 9001:2015



MUTCD Compliant
Radar Speed Signs



Proudly Engineered &
Manufactured in the USA

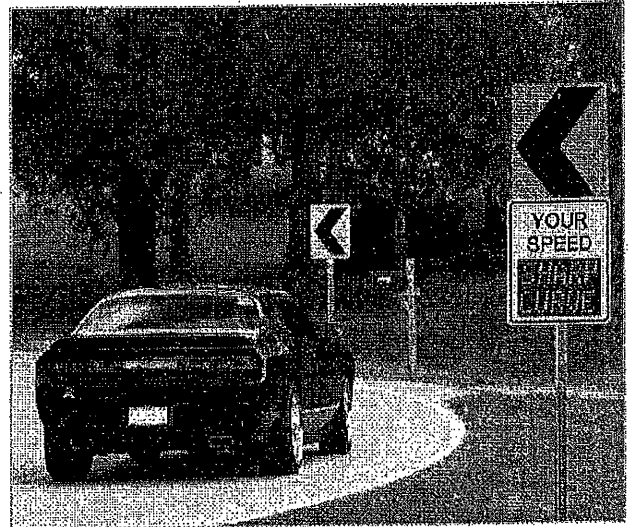
Display and Radar Specifications

YOUR SPEED Faceplate

- 28"W x 33"H YOUR SPEED faceplate with 4" high lettering (Optional oversized 30"W x 36"H available)
- Ideal for roads with traffic speeds of 5-70 mph
- MUTCD compliant colors and reflectivity
- Available in white, fluorescent yellow/green, safety orange, and yellow

Speed Violator Alerts

- Standard alerts include:
 - Slow flash or fast flash of actual speed
 - SLOW DOWN message
 - TOO FAST message
- **Optional** alert choices:
 - SHARP CURVE
 - Chevrons (right or left facing)
 - Smiley face
 - Fine alert
 - Alternating red/blue alert, all red alert, all blue alert, or white alert (can flash as a strobe, or simulate a camera flash)
- Display speed and word message alerts alternately or individually, based on speed settings



LEDs

- 2 digits, 13" high super bright amber full matrix LEDs (life up to 100,000 hours)
- Easily readable up to 600 feet
- Display brightness control: Automatic intensity adjustment to ambient light conditions for maximum visibility

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

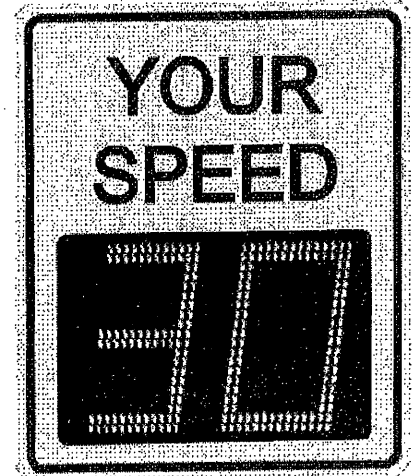
Power Options / Battery Specifications

TC-600S (Solar Powered)

- Solar Panel Output: 50 watt standard; 75 watt optional
- 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
- Solar Charge Controller: Manages the flow of solar energy input (up to 120 watts from solar panel to battery)
- Low battery cut-off feature provides intelligent battery management
- Battery Status: Check battery charge levels and solar amperage via Wi-Fi
- Power Consumption: < 2.0 amps in active mode; Idle mode < 1/2 watt
- Circuit Breaker: Multi-circuit, 3x10 amp fuses
- Pole Mount Solar Bracket: Side of pole mount with adjustable angle bracket

TC-600A (AC Powered)

- Power Supply: Hard wire to 100V-240V power supply
- Power Consumption: < 2.0 amps in active mode; Idle mode < 1/2 watt
- Circuit Breaker: Multi-circuit, 10 amp fuse



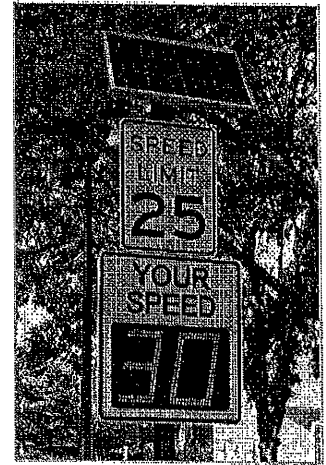
Housing Specifications

Radar Speed Sign Housing

- Dimensions: 18.5"H x 26.25" W x 5.0"D
- Thickness: .1875" to .25" thick, heavy-duty aluminum
- NEMA 4 level compliant
- Humidity Maximum: 100%
- Non-sealed and ventilated
- Provides maximum protection from the elements and vandalism
- Single housing design means no separate battery box to mount

Bashplate® with LED Cones

- Internal .375" aluminum shield over LED display to protect components from abuse or vandalism
- Directional beam technology: Individual holes for each LED focus and reflect light toward the road, 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; UV protection

Weight

- TC-600S (Solar Powered): 41 lbs., (67 lbs. with batteries)
- TC-600A (AC Powered): 41 lbs.

Operating Temperature

- Operating Temperature: -40°F to +160°F

Standard Features

Standard Programming

- Setup functions: Easy to follow menu, no mechanical switches to operate
- Daily timers: Allow 4 on/off timer settings per day, also by day of week. Settings allow lower speed limits for school zone times and for late night display shutoff. (Optional Advanced Scheduler available with all models)
- Stealth mode: Display on-off feature allows traffic data collection continue even when the display is off
- "Possum Switch" activation feature allows the sign to "play dead" for 30 minutes if attacked with force
- Maximum speed cutoff: Prevents unwanted high speed displays; up to 99 mph; discourages "racing" of sign. Choice of flashing matrix, or LED display cutoff.

Wi-Fi Enabled

- No internet required. Manage your radar speed sign with phone, tablet, or laptop.
- Allows for quick and easy sign operation/data download from most web enabled devices
- WPA2 encrypted security; Password protection
- Connection range up to 300 feet from sign

OTA Software Updates (over-the-air)

- Allows the wireless delivery of software updates and upgrades directly to the radar speed sign

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.

Traffic Data Reporting Option

StreetSmart (optional)

- Traffic data reporting software to report, organize and analyze speed and traffic data. The information collected by the radar speed sign is loaded into Excel™ ready .csv files, and can generate 35 charts and graphs.

Traffic Data Storage Capacity:

- Stores data on up to 5 million vehicles; Retains data for retrieval for 12 months.

Hyper-Alerts™ Compact Flash Technology

Hyper-Alerts™ are compact clusters of LED lights built right into the "YOUR SPEED" faceplate of the TC-600 model, delivering a significantly more compact solution than traditional beacons. By clustering the LEDs into a smaller footprint, the same light from a typical flasher becomes an urgent notification for the driver.

Application

Perfect for use in pedestrian-heavy environments such as school zones, business campuses, military bases and anywhere else there is an urgency to slow drivers.

Raised Awareness

The LED clusters deliver the same luminescence as a 12" beacon, only in a more compact surface. This results in an "impossible to ignore alert" even 1000 feet from the sign.

Cost Effective

Instead of having to choose between either flashing beacons or a radar speed sign, now you can have both alerts for slightly more than the price of either one. The LED clusters are built right into the oversized (30"W x 36"H) YOUR SPEED faceplate resulting in a more compact system that is far easier to install. This upgrade offers a cost-effective solution to provide the maximum traffic calming effect on speeding drivers.

Design

- Industrial construction with sleek design is in stark contrast to the individual, bulky, piece-meal look of traditional beacons
- Dual high-intensity amber LED clusters
- Meets ITE guidelines for brightness use in school zones
- LED luminosity: 3000 mcd minimum – 12000 mcd maximum
- 68 LEDs per alert, highly viewable at 1000 feet
- Flash patterns: MUTCD standard 60 fpm, Wig-Wag (alternating); Custom patterns available

Scheduling Flexibility

- Programmable for an entire year in advance, by date and time, using our Advanced Scheduler
- Hyper-Alerts™ can be activated based on time of day, by speed, or by both

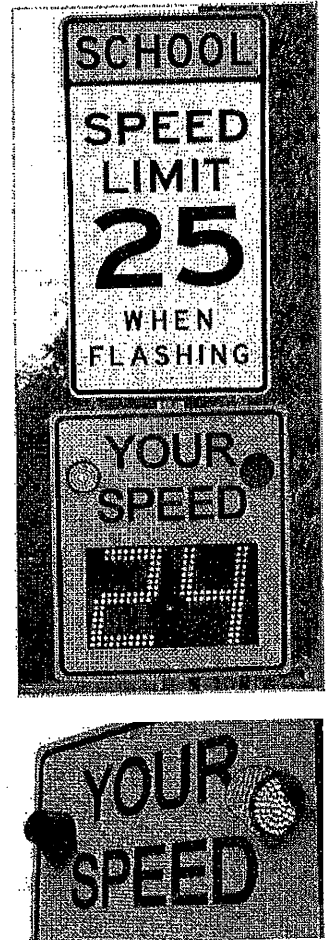
Solar Power Output with Hyper-Alert™ Option

- 50 watt solar panel for maximum 4 hour daily operation
- 75 watt for maximum 10 hour daily operation
- 90 watt for 24/7 operation
- 120 watt for high volume traffic and cold temperatures

Weight

- TC-600S with Hyper-Alerts™: 47 lbs., (73 w/ batteries)
- TC-600A (AC Powered) with Hyper-Alerts™: 47 lbs.

The Hyper-Alert™ option is available on a new TC-600 sign, or as a retrofit of an existing sign; Existing sign must be returned to Radarsign for the retrofit.





Quotation

Date: 6/8/2021

1220 Kennestone Circle
Suite 130
Marietta, GA 30068

PROPOSED BY:		
Name	Chad Christnacht	cchristnacht@radarsign.com
Phone	812-987-2029	
Fax	678-270-1256	

Cloud Admin:
Phone:
Email:

PROPOSED TO / SOLD TO:	SHIP TO:
Village of Waterloone	
	Account
	Address
	City, ST, Zip
	Phone
	Email
Jamie Bednar	Attention

P. O. NUMBER	TERMS	F. O. B.
		Marietta, GA

LINE #	QTY	PART #	DESCRIPTION	PRICE EACH	TOTALS
1	1	TC 600S	Solar Power Radar Sign 13" Full Matrix Display: speeds readable at 600 feet 13" LED display - superbright amber with est. 100,000 hour life AA003: Solar panel pole mounting bracket Two 12V 18 amp hour AGM batteries, provides up to 12 days backup operation K Band radar, meets FCC Part 15 rules, detection range up to 1200 feet "SLOW DOWN" & "TOO FAST" speeder alert messages 3/8" thick Bashplate™ (provides the ultimate in vandal protection of sign) Standard timers allow up to 5 settings per day Possum Switch' allows sign to go dark for 30 minutes if assaulted with force Wi-Fi wireless transmitter, communication range up to 300 feet	\$3,495.00	\$3,495.00
			Included		
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2	1	AA063	Universal Pivot Pole Mount Bracket set (includes tilt feature) TC-600 only		
3	1	RS019	Standard faceplate, 28" x 33", 4" lettering: (White RS019, Fl. Yellow/Green RS020, Orange RS021, or Yellow RS022) & hardware kit (AA062)		
4	0	AA073	Optional Heavy Duty Lock for Universal Pivot Bracket (TC-600)	\$20.00	\$0.00
5	0	AC027	Optional Large pipe clamp set for mounting solar bracket on 4"-6" OD round pole	\$14.00	\$0.00
6	0	AC026	Optional Small pipe clamp set for mounting solar bracket on 2.5" - 4" OD round pole	\$12.00	\$0.00
7	0	AA061	Optional simulated camera flash & white strobe	\$90.00	\$0.00
8	0	AA064	Optional Red/Blue Strobe alert	\$90.00	\$0.00
9	0	AA068	Optional Smiley face message	\$90.00	\$0.00
10	0	AA069	Optional Left/Right chevrons alert	\$90.00	\$0.00
11	0	AA070	Optional SHARP CURVE message alert	\$90.00	\$0.00
12	0	AA071	Optional FINE \$xxx alert	\$90.00	\$0.00
13	0	AA083	Optional SCHOOL ZONE message alert	\$90.00	\$0.00
14	0	AA067	Optional Date/Time Calendar Programmer: (Set operation by date for entire year)	\$90.00	\$0.00
15	0	EC091	Optional Relay Switch to activate Hyper-Alert option, or other external devices	\$90.00	\$0.00
16	0	RSM01	Optional Internal Cellular Modem (Include when ordering Cloud Service RS-MODEM1)	N/C	
17	0	RS-MODEM1	Access to Cloud Service for remote access and programming of radar speed sign and/or beacons. Also uploads traffic data every day. Recurring fee per device, per year.	\$400.00	\$0.00
18	1	AA041	50 watt solar panel, standard (includes AA003 mounting bracket)	Included	
19	0	RP010	Substitute 75 watt solar panel (add AA002 mounting bracket to quote)	\$80.00	\$0.00
20	0	RP009	Substitute 90 watt solar panel (add AA040 mounting bracket to quote)	\$135.00	\$0.00
21	0	RP008	Substitute 120 watt solar panel (add AA040 mounting bracket to quote)	\$275.00	\$0.00
22	0	AA040	Required Mounting bracket for 90 or 120 watt solar panel	\$150.00	\$0.00
23	0	AA002	Required Mounting bracket for 75 watt solar panel	\$120.00	\$0.00
24	1	SS002	Optional: StreetSmart Data Collection software license (per sign) 36 charts, graphs, and tables included. Provides weekly, daily, hourly, and 1/2 hour data on # of vehicles, # of speeders, average speeds, peak speeds, 50th & 85th percentile & more. Extended 30 day charts included for trend analysis.	\$275.00	\$275.00
25	1	RW002	Two year warranty (includes parts & labor, and backup batteries)	Included	
26	1	SHPK	Ground Shipping for TC-600S with solar panel	\$140.00	\$140.00

Minimum re-stock fee: 15%
Quote valid for 60 days. Pricing does not include any international taxes, fees, or duties.

TOTAL US\$ **\$3,910.00**

Sales Tax Rate: 0.000% **\$0.00**

US State sales tax must be collected unless you provide a sales tax exempt form. Grand Total: **\$3,910.00**

Authorized Signature _____
Print Name/Title _____