

# **City of Scottsbluff, Nebraska**

**Monday, December 4, 2017**

**Regular Meeting**

## **Item Consent2**

**Council to approve bid specifications for the purchase and installation of two (2) electronic, radio controlled, community outdoor warning sirens, and authorize the City Clerk to advertise for bids to be received by December 28, 2017, 10:00 a.m. local time.**

**Staff Contact: Tim Newman, Emergency Management Director**

## **BID SPECIFICATIONS FOR SCOTTSBLUFF, NEBRASKA COMMUNITY OUTDOOR WARNING SIRENS**

SCOTTSBLUFF, NEBRASKA will be accepting bids for the purchase and installation of two (2) electronic, radio controlled, community outdoor warning sirens. The sirens shall be installed at or near the following locations:

1. 3<sup>rd</sup> Avenue and Railway Street or another suitable location near downtown Scottsbluff (41.857094, -103.657994)
2. Overland Park on E 12<sup>th</sup> Street one block east of 12<sup>th</sup> Avenue. (41.858614, -103.646338)

### **GENERAL REQUIREMENTS:**

1. Bidders must offer an omni-directional siren design with 360° coverage at all times during activation. The acoustic performance level shall be at least 123 dB(C) @ 100', with a minimum 70dB(C) perimeter range of 4000 feet in accordance with FEMA guidelines of -10 dB per distance doubled. The system must be designed to provide full coverage of the specified area @ 70 dB(C) minimum, unless otherwise specified. The siren shall produce 2000 Watts output. Speaker drivers must be accessible through access panels. Electronic sirens that use 100 watt speaker drivers will not be accepted. Sirens that fail to meet minimum performance ratings will not be accepted. The electronics control cabinet shall be manufactured from Natural Finish Aluminum. The use of two (2) batteries are required, and must be locally available. Batteries must be accessible with pull-out battery trays for service safety. A single 120 Volt AC temperature compensated battery charger must supply the incoming charge for the sirens. The charger must warm the batteries through increased voltage during cold weather. The use of battery heaters is strictly prohibited. The Radio control for the sirens must be a receiver with appropriate antenna, polyphaser for lightning protection and integration for the siren controller. The siren controller must be capable of decoding all current commands for activation and monitoring with two-tone sequential module as well as 10 digit DTMF Narrow Band. In addition to 10 digit the siren must also be capable of decoding all current commands which includes 2 tone and 8 digit DTMF 50ms on 50ms off. The winning bidder will install the siren. The vendor must provide complete advisory services during installation and complete all internal wiring, battery installation, siren programming, head-end programming, programming at the Scotts Bluff County Communications Center, the Scottsbluff Fire Trucks and the Scottsbluff Fire Station MIP5000 computer.

2. The siren system shall be an Electronic Siren System featuring six (6) warning tones: Wail, Attack, Alert, Hi/Lo, Air-horn, and Whoop. Timing duration for each tone shall be selectable, and shall include 30 seconds, 60 seconds, 90 seconds, 3 minutes, or up to five (5) minutes. The pitch of the "Alert" tone must be 565hz. In addition, the siren must have pre-recorded voice messages as well.

3. The siren assembly and mounting bracket shall weigh no more than 400 lbs. maximum atop the pole, and shall be able to sustain and operate in winds up to 100 mph. The siren head will have absolutely no internal or external moving parts. Sound MUST be produced electronically through speakers.

4. The siren system shall consist of a pole top mounted speaker cluster, and a two (2) compartment siren case assembly. The battery compartment must be completely separated from the electronics compartment. Batteries are required to be placed on pull-out battery trays for service and to prevent terminals from shorting to cabinet ground.

5. The five-speaker cluster assembly shall be equipped with five 400 watt speaker drivers and not less than 50ft of speaker cable. Speaker cable must not be spliced in any way. It shall be designed to project uniform acoustic output throughout 360°, ± 1 dB, out and away from the speaker in a vertical dispersion pattern, thus minimizing potentially environmentally hazardous ultrasonic signals in the area adjacent to the pole location. Peak output of the siren must be able to converge at one point at the 100 ft. reference distance. The speaker assembly shall be fabricated from composite material, thus requiring no maintenance painting.

6. The siren case assembly, or electronics cabinet, shall consist of a two (2) compartment, natural finish aluminum housing, and shall not require maintenance painting. The upper compartment shall contain all of the necessary electronic assemblies for control and operation of the system; the lower compartment houses the batteries for the system. The siren controller must be water and moisture resistant.

7. Each siren shall operate on a 24 VDC power supply system provided by two (2) 12 volt, deep cycle, DC batteries wired in series. The battery system shall be maintained by a temperature compensated battery charger operating from an AC source.

8. In the event of incoming power loss, each siren shall be capable of at least twenty (20) minutes of continuous operation, or several days of intermittent use of brief siren signals before recharging of the batteries is necessary. For the AC powered sirens, a standard receptacle outlet must be installed inside the cabinet.

9. All sirens shall be controlled and activated by radio, utilizing two-tone and DTMF encoding controls. The radio receiver encoder/decoder unit in the siren enclosure shall be compatible with and interface to the Scotts Bluff County Consolidated Communications Center's existing base station radio and encoder (or existing siren systems).

10. Vendor will provide complete turn-key services to the City of Scottsbluff for Head-End integration. Complete wiring diagrams, schematics, and operational and installation instructions shall be provided within 30 days of project completion.

11. Nebraska Public Power District will provide the necessary trucks and manpower to remove existing Thunderbolt siren equipment at the City shop on 3rd Ave. and the siren at the intersection of East 27th and Hwy 26. The rotator, horn and bracket, solenoid, and chopper weigh approximately 333 lbs. It will not be necessary to salvage the rigid conduit or other supporting materials. NPPD will install the new siren on the top of pole and attach conduit from the top to the 15 foot level. NPPD will not be required to remove any materials from the site. The City of Scottsbluff will be responsible for removing the old equipment from the site once NPPD removes it from the poles. The electric meter at 3rd Ave will either be changed to single phase or will be removed by NPPD. This work will be coordinated between NPPD, the City, and the winning bidder to insure the minimum amount of time that sirens will not be

operational. The work performed by NPPD is estimated at \$4742.20 and will be billed to the winning bidder. All bids will reflect this amount as a pass-through to the City.

12. Existing poles have been inspected and found to be suitable for the new sirens by NPPD. Bidders shall not include the price of new poles in their bid.

13. All bids shall include any shipping freight charges;  
Ship to:

**Cindy Dickinson, City Clerk**  
**2525 Circle Drive**  
**Scottsbluff, NE 69361**

14. All bids shall include costs for startup and operational system training. Each competing bidder must provide sound mapping for the respective siren site.

15. Vendor shall deliver all sirens within (120) days of bid acceptance. Complete installation and verifiable compatible operation of all sirens will be completed within (45) days of siren delivery.

16. The seller must warrant the siren equipment from the date of installation for a period of not less than two (2) years for defects in components and parts, and for an additional period of three (3) years for no more than \$75.00 per module deductible. Batteries may be excluded from this warranty.

17. Scottsbluff will accept Industry Standard equivalents. Any deviations must be presented to Scottsbluff as a Request for Approved Equal (RAP), and must fully explained in writing to the Region 22 Emergency Management Director. If a manufacturer chooses not to produce equipment with the minimum above specifications, Scottsbluff shall in no way be held liable for rejection of the proposal.

18. The City of Scottsbluff reserves the right to reject any and all bids.

## **INTENT**

These specifications are not intended to include any proprietary items, components, circuits, or devices which would preclude any outdoor siren manufacturer from producing equipment to meet these specifications. All ratings, power outputs, and specific criteria are currently being met by commercially available equipment. The fact that a manufacturer chooses not to (or perhaps is unable to) produce equipment to meet these specifications, providing the above criteria are met, will not be sufficient cause to adjudge these specifications as restrictive.

## **EXCEPTIONS TO INDUSTRY STANDARD EQUIVALENTS:**

1. 100 Watt Compression Drivers will not be accepted as an approved equal.
2. Painted steel cabinets to house the siren electronics will not be accepted as an approved equal.
3. Siren head assemblies fabricated from any material other than corrosion resistant

composition material will not be accepted as an approved equal.

4. Any primary power source other than 160 watt power will not be accepted as an approved equal.

5. The Sound Pressure Level (SPL) within the designated boundary shall be 70 dB(C) minimum, in conformance with FEMA's -10 dB per distance doubled path model, in accordance with FEMA publication CPG 1-17. A distance "halved" scheme will not be accepted.

6. To ensure system uniformity for operators, it is very important that voice messages be exactly what is currently in service on other electronic sirens within the Region 22 Emergency Management area. Any difference in format, duration, wording, pitch, or timing is unacceptable and cause for immediate rejection of proposal.

#### **INSTALLATION:**

1. This shall be a **Turnkey installation**. All work shall be done by the bidder and/or under the supervision of the bidder. Bidder shall furnish all labor, materials, accessories, and services necessary to perform all the work in a professional manner as per the manufacturer's specifications, where applicable, and as set forth in these specifications. All work shall comply with all local, state, and federal codes having jurisdiction as well as the regulations of the area utility companies whose service is to be used. All costs are inclusive, no additional costs will be considered without an approved change order.

2. The Bidder must have a **24 hour or less** response time for maintenance service and no more than three (3) days response time for replacement parts.

3. The bidder must have no judgments or potential judgments against them or the product that is offered. This will ensure that the winning bidder will be able to offer the provided warranty for the full duration required.

#### **BIDDER SHALL RETURN THIS FORM FILLED OUT IN FULL AND SIGNED**

#### **BID FOR ELECTRONIC SIREN SYSTEM**

#### **BOTTOM LINE PRICE:**

Sirens:

Turnkey Installation:

#### **SPECIAL CONDITIONS:**

The undersigned hereby certifies that he or she understands all of the above specifications and has read them carefully, and will deliver and furnish all

**DELIVERY TIME:**

The specified delivery date shall be a firm date as specified in the bid.

FIRM NAME SUBMITTING BID:

SIGNATURE OF AUTHORIZED REPRESENTATIVE:

PRINTED NAME OF AUTHORIZED REPRESENTATIVE:

TITLE OF AUTHORIZED REPRESENTATIVE:

ADDRESS:

TELEPHONE #: ( ) FAX #: ( )

**CITY OF SCOTTSBLUFF**  
**Advertisement for Bids**

The City of Scottsbluff is accepting bids for the purchase and installation of two (2) electronic, radio controlled, community outdoor warning sirens. Specifications may be obtained from Tim Newman, Emergency Manager, City of Scottsbluff, 1801 Ave. B, Scottsbluff, NE 69361 or email [tnewman@scottsbluff.org](mailto:tnewman@scottsbluff.org). "Community Outdoor Warning Siren" shall appear on the envelope. Sealed bids will be accepted by the City Clerk, 2525 Circle Drive, Scottsbluff, NE, 69361 until 10:00 a.m. local time, on December 28, 2017. The City of Scottsbluff reserves the right to reject all bids.

/s/ Cindy Dickinson, City Clerk

Print 3 Times:  
December 8, 15, 22, 2017  
One affidavit of publication requested

Bid Cost Form:

**Siren #1:**

Siren Make & Model \_\_\_\_\_ Price \_\_\_\_\_

Radio Transceiver (VHF) \_\_\_\_\_ Price \_\_\_\_\_

AC Charger \_\_\_\_\_ Price \_\_\_\_\_

Optional Item #1 \_\_\_\_\_ Price \_\_\_\_\_

Batteries (qty 4) Type \_\_\_\_\_ Price \_\_\_\_\_

Installation (turnkey) \_\_\_\_\_ Price \_\_\_\_\_

**System Costs:**

Shipping \_\_\_\_\_ Price \_\_\_\_\_

System Integration \_\_\_\_\_ Price \_\_\_\_\_

Administration, per diem & other costs (not to exceed NTE) \_\_\_\_\_ Price \_\_\_\_\_

(Any discounts) \_\_\_\_\_ Price \_\_\_\_\_

**Total: \$** \_\_\_\_\_

Bidder Evaluations: ( \_\_\_\_\_ Name of bidder \_\_\_\_\_ )

Requirement(a): Siren ( \_\_\_\_\_ Type of Siren \_\_\_\_\_ )

#1: 123dBc rated siren @ 100ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#2: 5 Speaker Cells	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#3: 4000ft of 70dB coverage	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#4: Omni-Directional	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#5: 400W Speaker drivers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#6: Speaker Access panels	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#7: Cabinet Manufactured with Aluminum	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#8: 5 Amplifiers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#9: Interstate or AC Delco Batteries	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#11: Battery pull-out trays	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#12a: 120VAC Temp. Compensated Charger	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#13: High-Speed Decoding	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#14: Match all existing activation formats	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#15: Siren controller store history	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#18: Vendor assistance during installation	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#19: Projected system down-time no more than 24 hr	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#20: 5 Year on-site warranty on components/parts	<input type="checkbox"/> Yes	<input type="checkbox"/> No
#21: Complete Verifiable match to current system	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Proposal Meets All Necessary Criteria?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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