

**Request for Proposals - External Digital Signage  
Marlboro County, SC**

Marlboro County, SC intends to purchase an external digital sign in accordance with the following specifications:

**Description**

Marlboro County is seeking an External Digital Signage installation and service contract for installation, configuration, user training, maintenance & support, and a software management tool to make changes to the external digital sign. All bidders are required to install the necessary electrical wiring, hardware, and accessories. The bidder may engage a sub-contractor to perform the electrical installation work necessary to facilitate use of the external digital sign. The signage/display system shall consist of cloud-based software, hardware devices for wireless connectivity to site/department, specific display needs, and display system that is compatible for outdoor use. Contractor will provide details of the digital security of the software being used to use the signage and store all associated cloud stored data. This proposal is to include unit and extended pricing detail. The total costs of all re-occurring and non-re-occurring charges must be explicitly specified. No used, demo, refurbished or re-manufactured products will be accepted. All proposals must include proposed costs to complete the tasks described in the project scope. Pricing should be listed for each of the following items: (1) materials, (2) construction cost, (3) electrical work and (4) software cost.

NOTE: All costs and fees must be clearly described in each proposal. Contractor will only provide pricing and specifications for digital signage that will be used outside, resulting in the digital sign being exposed to weather and temperatures typical of the Marlboro County, SC area. Bid responders must be a direct service provider of the requested services and products. Bid responses submitted by contractors that are not direct service providers will not be considered.

**Scope of Work**

The contractor will be responsible for procuring, installing, configuring, and testing all hardware and software required. The proposed system must be compatible with all future revisions and software/hardware versions for entire life of contract. Any upgrades or patching required to bring newer hardware or software into production must be included as part of this entire contract life. The contractor will be responsible to finalize digital display signage configuration and testing all digital display signage system hardware components and sub-components and ensuring interfaces are working properly. The external digital sign must be Wi-Fi enabled.

- 1) Software: The contractor shall grant Marlboro County the right to use all software and firmware provided under the contract and will not impose any licensing restrictions on interfacing data to or from the digital display system software. Marlboro County shall be the owner of all software data. The contractor shall provide for hosting of the content management software. Hosting services, monthly service fees, maintenance, and licensing for the software shall be provided for the duration of the warranty period for all

digital display signage system software. Marlboro County shall have the option to extend the duration of software hosting beyond the system warranty period to be negotiated with system contractor at future periods. An Equal Opportunity Employer, Marlboro County does not discriminate based on race, age, sex, religion, sexual orientation, gender identity or expression, national origin, color, disability, or veteran status.

- 2) **Maintenance and Repair:** The Service Provider shall undertake maintenance, repair and rectification of the Digital Signage and the signage related software and hardware to ensure uninterrupted availability of Digital Signage Service to Marlboro County. Maintenance and repair of the external digital sign and its management software and tools shall be the responsibility of the Service Provider and Marlboro County shall pay no additional cost for the same for such maintenance. In case the Service Provider is not able to rectify the problem with any of this equipment for any reason, the equipment shall be replaced by the Service Provider at no extra cost to Marlboro County.
- 3) **Digital Display Signage System Training:** The contractor shall provide user training that enables Marlboro County employees to operate and maintain the system. Training topics shall include digital display signage operator training, system administration training including 3rd party interfaces. The contractor shall provide a detailed training plan and user manual in conjunction with the overall project schedule. All training will be conducted onsite at Marlboro County. Training materials and user training sessions are to be included in the total cost bid submitted. Additional training shall be provided by the Contractor at no cost to Marlboro County.
- 4) **System Management Software and Security:** The system/management software must provide user security to accommodate multiple administrative groups. The system/management software should allow the user to carry out all content management and admin functions. System Administrators must be able to define system/management software user roles such as admin and read only users, etc. The software management tool/system data is to be in the cloud, and it is required to include security and be stored independent of other customer data.
- 5) **Warranty:** The Contractor will provide a five (5) year service and warranty policy on all components of the system including equipment, services, and software purchased under this contract. The warranty period will begin following final system acceptance by Marlboro County. Contractors are required to identify their service facility in their proposals. Marlboro County reserves the right to approve or reject the service facility specified by the Contractors. A complete copy of the contractor's warranty shall be included in the proposal. Contractor shall provide a single point of contact for all warranty administration during the warranty period. The Contractor shall provide any software updates and patches for the current version at no cost to Marlboro County during the warranty and support period. Future upgrades to the software system will be

made available to Marlboro County at no additional charge during the warranty and support period. If there is a change in the production configuration of any equipment or software being installed prior to installation completion, Marlboro County may require that all previously installed equipment and software be upgraded to match the updated configuration. The contractor shall provide ongoing user and technical support for a period of three (3) years as part of the warranty period.

- 6) **Repair or Replacement of Faulty Components:** During the warranty period, the contractor shall repair or replace any faulty components, with the cost included in the warranty price. If at least 25% of a given component requires repair or replacement within the five-year warranty period, the component shall be deemed to warrant system-wide replacement. System wide replacement shall require the Contractor to replace all units of the suspect component throughout the system, whether they have exhibited any fault. Even if the system-wide replacement activity extends beyond the warranty period, the Contractor shall be obligated to complete the system-wide replacement if the need was documented before the end of the warranty period. Software support during the warranty period shall include technical support for all hardware and software, with a technical support line, as well as providing, licensing, installing, and integrating all released software patches and updates.

## **Specifications**

### **1) Warranty:**

- A. Provide 5 years of parts coverage.
- B. Provide toll-free service coordination.
- C. Provide a toll-free help desk number that will be staffed from 7 a.m. to 7 p.m.

### **2) Products:**

Cabinet Construction:

Display housing dimensions shall be approximately 4'8" inches tall by 8'1" inches wide. Specify exact dimensions for each option presented in response.

- A. Maximum display power shall not exceed 1475 watts when 100% of the pixels are operating at their maximum possible drive current. Display shall operate from the following power sources: 120/240 VAC, 60 Hz single-phase, including neutral and earth ground. Display shall operate in a minimum ambient temperature range of -40 degrees to +120 degrees F and to 95% humidity.
- B. Internal display component hardware (nuts, bolts, screws, standoffs, rivets, fasteners, etc.) shall be fabricated from stainless steel, aluminum, nylon, or other durable corrosion-resistant materials suitable for the signage application.
- C. Electrical display components shall be 100% solid state.

- D. The presence of ambient radio signals and magnetic or electromagnetic interference, including those from power lines, transformers, and motors, shall not impair performance of the displaysystem.
- E. The display shall contain full LED matrix measuring a minimum of 80-pixel rows high by 150-pixel columns wide. The LED display shall display messages that are continuous, uniform, andunbroken in appearance.

Housing Frame:

- A. Display materials shall use non-corrosive materials or have a protective coating so they shall be anti-corrosive and not degrade or oxidize.
- B. Adequate ventilation shall be provided through convection without the need to provide extra space around the sides or behind the display.
- C. Steel mounting points that can be used for mounting purposes shall be providedwith the display and have the ability to be adjusted for alternative mounting methods.  
Exterior Finish
- D. The LED display border pieces shall be constructed with automotive-grade acrylic urethane paint.

Front Face Construction:

- A. To meet the display readability requirements, the front face must be constructed insuch a manner that it provides high contract, low sunlight reflection and durability in all weather and site conditions.
- B. Minimum features of front face shall:
  - i. Provide UV resistance to prevent discoloring.
  - ii. Include louvers for contract enhancement.
  - iii. Use surface material in the active LED area, such as metal, plastic, or other face materials, designed for low sunlight reflectivity.

Serviceability:

- A. The display housing shall provide safe and convenient front service access for all modular assemblies, components, wiring, and other materials located with the housing.
- B. All internal components shall be removable and replaceable by a single technicianwith basic hand tools.
- C. Service access shall be easily obtained by removal of one or more modules in frontof the associated internal component.
- D. Each module should allow simple removal with a single latch system.
- E. Displays shall be designed with service features that minimize potential bodily harm.

Display Components:

A. LED display modules shall be constructed for good readability, long life, and ease of service. Each display module shall be constructed as follows:

1. Each module within the product family shall be designed with the same physical footprint of 12.48" x 15.59".
2. All modules and their components shall be fully encapsulated and sealed to meet IP-67 standards.
3. An LED module shall consist of LEDs with all drive electronics mounted on a single Painted Circuit Board (PCB)
4. LEDs shall be auto inserted in order to maintain quality and uniformity of the LEDs within each LED module.
5. All PCBs shall be wave-soldered to ensure uniformity, quality, and durability of all solder joints.
6. All PCBs shall be cleaned in a manner so as not to contain more than 2 parts per million contaminants.
7. Module signal and electrical connections shall be of the positive locking and removable type. Removal of a module from the display shall not require a de-soldering operation.
8. Data to the modules shall be redundant in that the signal can reach the module from multiple directions in the event of a loss in signal path from either direction.
9. All LED display modules in a single display shall be identical in construction and interchangeable throughout the display with the ability to be field calibrated.
10. All module rows shall include continuous louvers over the LEDs for sunlight shading and enhanced contrast.
11. Modules shall be individually attached to the cabinet frame.
12. Removal of one or more modules shall not affect the display's structural integrity.
13. The distance from the center of one line or column of pixels to the center of all adjacent lines or columns shall be 15.85 mm (0.62 inches) both horizontally and vertically.
14. The failure of a single pixel, module or power supply shall not cause the failure of any other pixel, module, or power supply in the display.
15. All modules shall have no less than 140 degrees horizontal half-intensity viewing angle and a readability angle of 160 degrees horizontal.
16. The transition of the viewing intensity shall be consistent throughout the viewing cone.

B. Pixels shall be constructed with discrete LEDs, and these discrete LEDs shall conform to the following specifications:

1. LEDs shall be non-diffused, ultra-bright, solid-state light emitting diodes.
2. The red LEDs shall be constructed of AlInGaP technology, and the green and blue LEDs shall be constructed of InGaN technology.
3. Each color of LEDs used in all LED displays provided for this contract shall be from the same bin.
4. LED half-life shall be an estimated minimum of 100,000 hours.
5. Display shall have a minimum intensity of 10,000 cd/m<sup>2</sup> for RGB maximum light output, 4,500 cd/m<sup>2</sup> for red maximum light output, and 6,000 cd/m<sup>2</sup> for amber maximum light output.

#### C. Power Supply

1. All power supplies shall be regulated, auto-ranging AC to DC power, with protection for the LED pixel, LED display and driver circuitry in the event of power spikes or surges.
2. Each power supply and their connectors shall be fully sealed to protect from corrosive environmental factors meeting IP-67 standards.

#### D. Internal Wiring

1. Wiring for LED display modules and other internal components shall be installed in the housing in a neat and professional manner.
2. Wiring shall not impede the removal of display modules, power supplies or other display components.
3. Wires shall not make contact with or be bent around sharp metal edges.
4. All wiring shall conform to the National Electric Code.
  - i. The display shall be protected from electrical spikes and transients.
  - ii. The manufacture shall provide an earth-ground lug on the display.

### Display Performance:

#### A. Display Capability

1. The display shall contain a full LED matrix measuring a minimum of 80-pixel rows high by 150-pixel columns wide.
2. The LED display shall present messages that are continuous, uniform, and unbroken in appearance.
3. The LED display shall be capable of producing 281 trillion colors for RGB and 4096 shades of color for monochrome red or amber at all dimming levels. Each display pixel shall be composed of one each- red, green, and blue LEDs or one red or one amber.
4. The LED display shall be capable of displaying all true type fonts.
5. The display shall be able to display messages composed of any combination of alphanumeric text, punctuation symbols, graphic images, and pre-canned video files.
6. Video and messages file shall have up to 30 frames per second playback capability.

## B. Controller

1. The display's controller shall be able to run independently from a controlling computing device allowing the display to operate even when the controlling device is unhooked or turned off.
2. Communication protocol shall support other matrix products from the vendor such as other outdoor or indoor displays of varying sizes and/ or colors.
3. Each controller shall be connected to a light sensor allowing each LED display to automatically adjust brightness according to display direction and lighting conditions.
4. The controller shall allow connection to a temperature sensor that provides accurate site temperatures.
5. Active presentations, stored presentations, schedules, display configuration, time and date shall be stored in non-volatile memory. No external power or battery backup will be required to maintain this data.

## C. Control and Communications

1. The display controller should be DHCP-enabled and allow for static IP addressing.
2. Each single-face display shall be controlled and monitored by its own LED controller.
3. The LED controller shall be able to receive instructions from remote software using the following communication modes:
  - i. Ethernet Fiber Optic
  - ii. Ethernet Bridge Radio
  - iii. Ethernet Cat5 Wire
  - iv. Ethernet CDMA Modem

### Control Software:

Displays shall be controlled by remote software that is web based and cloud accessible.

## 3) Execution:

### Examination:

- A. Mounting Structure to be installed by contractor to support desired displays in all locations. Verify that separate conduit is in place for power and data to display unless fiber is being used. Verify that all control equipment has access to 120 VAC.

### Installation:

- A. Support structure design depends on the mounting methods, display size, and weight. The structure design is critical and should be done only by a qualified individual. It is the contractor's responsibility to ensure that the structure and mounting hardware are adequate.

- B. It is the contractor's responsibility to ensure that the installations meet local standards. The mounting hardware shall be capable of supporting all components to be mounted.
- C. All mounted displays must be inspected by a qualified structural engineer, at the expense of the contractor.
- D. Possible power and signal entrance are designed by etched markings. Separate conduit must be used to route the power, signal in wires, and signal out wires.
- E. Displays must be grounded according to the previously outlined in Article 250 of the National Electrical Code. The display must be connected to earth-ground. Proper grounding is necessary for reliable equipment operation and protects equipment from damaging electrical disturbances and lighting.

**4) Base Construction:**

- A. Contractor is responsible for providing a poured concrete base, suitable of supporting the sign and components.
- B. The support structure is designed and warranted to withstand wind loads of up to 100mph.
- C. The support will be warranted for the lifetime of the purchasing organization against defects in workmanship and or materials.

**5) Material Construction:**

Material Construction:

- A. Skirt/Base Construction
  - 1. Dimensions and design of the base and skirt of the sign must be included in the response.
  - 2. Aluminum construction, UV, and corrosion resistant.
  - 3. Painted with semi- gloss automotive grade paint to match red Pantone 2347 C.
  - 4. Lettering on skirt shall be white 3M vinyl. Refer to appendix A.
  - 5. Skirt shall be constructed of all aluminum secured with non-corrosive fasteners.
  - 6. Skirt shall be constructed of suitable grade sheet material that will not exhibit "oil canning" or waviness of the flat areas of skirt surfaces.
- B. Backlit Identification Panel – respondents must include options for a backlit identification panel with the following features or other features outlined in response.
  - 1. Double sided display.
  - 2. Cabinet size to match width of electronic display.
  - 3. Aluminum construction, UV, and corrosion resistant.
  - 4. Painted with semi-gloss automotive grade paint.
  - 5. Lighting element to be LEDs with minimum of 200,000 hours of life on a L70 spec.
  - 6. Identification sign shall be warranted for a minimum of 1 year



against faulty workmanship or defective materials.

7. The Backlit Identification Panel should measure 1'2" high x 8'1" wide.
8. Polycarbonate solar grade face panel with translucent 3M vinyl.
9. Sign face decorated red to match Pantone 2347 C with translucent white lettering.

### **General Specifications and Conditions**

**Inspection of location-** Before submitting a bid, bidders shall be held to examine the location specified herein where work is to be performed and become satisfied as to the existing conditions under which a contractor will be obliged to operate, that may affect the work under this contract. No allowances shall be made in this connection on behalf of the bidder and or contract, for any negligence on their part.

**Insurance requirements-** The contractor must provide Marlboro County an insurance certificate **before any work may begin**. All insurance policies and certificates must include an endorsement providing (10) ten days prior written notice to the County of cancellation or reduction of coverage. The contractor shall cease operations on the occurrence of any such cancellation or reduction and shall not resume operations until new insurance is in force. The required limits of coverage are as follows:

Comprehensive General Liability: \$1,000,000.00

Worker Compensation: Minimum \$500,000.00

Workers Compensation and employers Liability must be per statute.

**Award-**Upon notification of contract award, the contractor shall submit to the Director of Public Services, documentation as may be requested or required hereunder. Upon the receipt of requested and subsequent approval by Marlboro County, the contractor will be informed when they may proceed.

**Award Criteria-**Each contractor proposal will be reviewed and scored against the criteria in the table below. A review committee with at least three members will evaluate the proposals. Each member of the committee will conduct a thorough, independent evaluation of each proposal. The committee will then meet for a discussion after which members will have the option to revise their scores. The technical score will be determined by averaging each member's score in each category. Evaluations will place the greatest significance on:

Price/Cost 25%

Prior Experience 15%

Financial Stability 15%

Ease of Operation 20%

Design 25%

Marlboro County may choose to seek clarifications from contractors regarding their proposals. All responses will be provided in writing, and incomplete and/or unclear responses may result in a proposal being deemed technically unacceptable. Marlboro County reserves the right to select without requesting clarification. Additionally, Marlboro County may not necessarily seek clarifications from all contractors submitting proposals.

**Contract Administrator-** The Public Services Director shall be contract administrator: Doug Carabo, [dacarabo@marlborocounty.sc.gov](mailto:dacarabo@marlborocounty.sc.gov). The administrator will audit billings, approve payments, oversee schedules, and oversee the contract in general.

**Contractor Status-** The contractor and his/her employees at all times shall be considered as an independent contractor, and not County employees. As an independent contractor, the contractor's payment under this contract shall not be subject to any withholdings for taxes, social security, or other purposes; nor shall the contractor or his/her employees be entitled to sick leave, pension benefits, vacation, medical benefits, life insurance or unemployment compensation from Marlboro County.

**Cancellation Option-**Marlboro County reserves the right to cancel the contract by giving thirty (30) days prior written notice to the contractor. If cancellation is for default of contract due to non-performance, the contract may be cancelled without notice. The contractor may cancel the contract by giving the County thirty (30) days prior written notice of such intention. All notices are effective upon the date of mailing.

**Protection of Property -** The contractor shall be responsible for protecting and preserving from damage all facilities, public and private, which are adjacent to the area where the work is being performed.

### **Schedule**

Advertisement of RFP	10/22/2021
Pre-bid Conference (remote via Zoom)	10/28/2021 (10:00 am)
Deadline for Questions	11/2/2021
Public opening of Proposals	11/5/2021 (Noon)