

January 9, 2023

**TO ALL BIDDERS ON:**

State University of New York College at Cortland  
Red Field Scoreboard Replacement  
Project No. 20210021

**ADDENDUM NO. 1**

This Addendum is hereby included in and made a part of the Contract Documents whether or not attached hereto.

All requirements of the original specifications and drawings shall remain in force except as notified by this Addendum.

As an acknowledgment of this Addendum No. 1 dated January 9, 2023, please sign the form below and return it with your bid. Failure to do so could result in your bid being deemed informal and potentially disqualified.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Firm

State University of New York College at Cortland  
Red Field Scoreboard Replacement  
Project No. 20210021

## ADDENDUM NO. 1

This Addendum has been issued to update:

1. Document #4- Proposal:

Section 5. Bid Calculations- E. Unit Prices-

**All listed material descriptions have been removed.** There will be no materials under this section. The attached updated Proposal, through this addendum, will be the accepted proposal form at time of bid.

2. Document #7- Technical Section: (updated area highlighted on attached updated document)

Section 323001 Scoreboards- 2.0 PART 2- Products:

a. 2.2 Standard of Quality-

C. Integrated LED RGB Live Video Display:

**“...336 x 600-13HD...” updated to “...392 x 700-13HD...”**

b. 2.6 LED Integrated Video Display

A. Single-sided display in single cabinets extending the entire width of the display and shall be equipped to complement the specified outdoor scoreboard. outdoor display shall use one red, one green and one blue lamp-style LEDs to form pixels. Display shall be capable of displaying live and recorded full length video files up to 3 hours, per file, Real-Time -Data produced by the scoreboard control console including: BALL ON, YARD TO GO, DOWN, QUARTER, TIME OUTS LEFT, SHOTS, SAVES, PLAYER NUMBER, PENALTY, among other information that can be displayed directly via network connection of the AllSport scoreboard console, custom animations, 35 pre-created sports themed animations, photographs, and other .jpg files. System shall also be capable of displaying data from 3rd party sources such as statistics programs (i.e. Stat Crew):

1. Matrix pixel layout:

**1."336 x 600" updated to "392 x 700"**



NAME OF BIDDER

ADDRESS OF BIDDER

PROPOSAL FOR

Project Number: 20210021 Date:
Project Name: Red Field Scoreboard Replacement

TO THE STATE UNIVERSITY OF NEW YORK:

1. The Work Proposed Herein Will Be Completed Within the timeframe stated on page one of the Agreement. In the event the bidder fails to complete such work by said date or dates, or within the time to which such completion may have been extended in accordance with the Contract Documents, the bidder agrees to pay the University liquidated damages in an amount equal to the values indicate in the Liquidated Damages Schedule below for each calendar day of delay in completing the work.

LIQUIDATED DAMAGES SCHEDULE

Table with 2 columns: Contract Amount and Liquidated Damages. Rows include ranges from Under \$100,000 to Over \$5MM.

- 2. The bidder hereby declares that it has carefully examined all Bidding and Contract Documents and that it has personally inspected the actual location of the work...
3. The bidder further understands and agrees that it is to do, perform and complete all work in accordance with the Contract Documents...
4. The bidder further agrees to accept the unit prices, if any, set forth in paragraph (5) of this proposal...

**5. BID CALCULATION**

**a. BASE BID** (*does not include allowances*)

\$ \_\_\_\_\_  
(in numbers)

\_\_\_\_\_  
(in words)

**b. ALLOWANCES:** In accordance with the Schedule II and Section 4.05 of Agreement, the bidder further agrees to the following additions to the Base Bid:

| A                             | B   | C   | D   |
|-------------------------------|---|---|---|
| Work or Materials Description | Allowance Percentage Pursuant to Base Bid | Amount in Words (Calculation from Column B) | Amount in Figures (Calculation from Column B) |
| Field Order Allowance         | 3.5% X Base Bid=                          |   |   |
|                               |   |   |   |

**c. TOTAL BID** (*base bid + allowances = total bid*)

\$ \_\_\_\_\_ (in numbers)

\$ \_\_\_\_\_ (in words)

**d. ALTERNATES:** In accordance with Section B of the General Requirements the bidder proposes the following additions to or deductions from the Total Bid for the alternates listed below:

| Alternate Number | Alternate Description | Add/Deduct | Amount in Words | Amount in Figures |
|------------------|-----------------------|------------|-----------------|-------------------|
| 1                |                       |            |                 |                   |
|                  |                       |            |                 |                   |
|                  |                       |            |                 |                   |
|                  |                       |            |                 |                   |

**e. UNIT PRICES:** In accordance with Section (5) paragraph (2) of the Information to Bidders and Section 4.04

of the Agreement the bidder or the University may insert unit prices for the work or materials listed below for clarification.

| Work or Materials Description | Amount in Words | Amount in Figures |
|-------------------------------|-----------------|-------------------|
|                               |                 |                   |
|                               |                 |                   |
|                               |                 |                   |
|                               |                 |                   |
|                               |                 |                   |
|                               |                 |                   |

6. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (a) the prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (b) unless otherwise required by law, the prices have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (c) no attempt has been made or will be made by the bidder to induce any person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award, nor shall any award be made where (a), (b) and (c) above have not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefor. Where (a), (b), and (c) above shall have not been complied with, the bid shall not be considered for award nor shall any award be made unless the Campus President, or designee, or Vice Chancellor for Capital Facilities, or designee, determines that such disclosure was not made for purposes of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of this Section.

7. The bidder agrees that if awarded the Contract, it will commence work within (10) calendar days after date of receipt of a fully executed Agreement and that it will fully complete the work by the date stated herein.
8. The bidder acknowledges the receipt of the following addenda but agrees that it is bound by all addenda whether or not listed herein.

|                 |                |                 |                |
|-----------------|----------------|-----------------|----------------|
| Addendum Number | Date           | Addendum Number | Date           |
| _____           | ____/____/____ | _____           | ____/____/____ |

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

9. The bidder submits herewith bid security in an amount not less than five (5) percent of the Total Bid. In the event that (a) the bidder's Total Bid is the lowest one submitted and the bidder does not timely provide the Post-Bid Information required by the Information for Bidders or (b) this Proposal is accepted by the University and the bidder shall refuse or neglect, within ten (10) calendar days after date of receipt of Agreement, to execute and deliver said Agreement in the form provided herein, or to execute and deliver a Performance Bond and a Labor and Material Bond in the amounts required and in the form prescribed, the bidder shall be liable to the University, as liquidated damages, for the amount of the bid security or the difference between the Total Bid of the bidder and the Total Bid of the bidder submitting the next lowest bid, whichever sum shall be higher, otherwise the total amount of the bid security will be returned to the bidder in accordance with the provisions set forth in the Information for Bidders. The University may apply the bid security in full or partial payments, as the case may be, of said liquidated damages and in the event the bid security is less than the amount of liquidated damages to which the University is entitled, the bidder shall pay the difference, upon demand, to the University.
10. The bidder certifies that all wood products that are to be used in the performance of this Contract shall be in accordance with the Specifications and provisions of Section 167 b. of the State Finance Law which Section prohibits the purchase and use of tropical hardwoods.
11. The bidder affirms that it understands and agrees to comply with the procedures of the Fund relative to permissible contracts as required by Sections 139-j(3) and 139-j-(6)(b) of the State Finance Law.
12. The bidder certifies that all information provided or to be provided to the University in connection with this procurement is, as required by Section 139-k of the State Finance Law, complete, true and accurate.

Dated \_\_\_\_/\_\_\_\_/\_\_\_\_\_

Firm's Federal ID Number or  
Social Security Number as applicable \_\_\_\_\_

Legal name of person, partnership, joint venture or corporation:

\_\_\_\_\_

By \_\_\_\_\_  
(signature)

Title \_\_\_\_\_

## ACKNOWLEDGMENT FOR THE PROPOSAL

THE LEGAL ADDRESS OF THE BIDDER

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Telephone No. \_\_\_\_\_ Facsimile No. \_\_\_\_\_

**If a Corporation**

| Name                  | Address |
|-----------------------|---------|
| _____ PRESIDENT _____ | _____   |
| _____ SECRETARY _____ | _____   |
| _____ TREASURER _____ | _____   |

**If a Partnership**

| Name of Partners | Address |
|------------------|---------|
| _____            | _____   |
| _____            | _____   |
| _____            | _____   |

**If a Joint Venture**

| Name of Members | Address |
|-----------------|---------|
| _____           | _____   |
| _____           | _____   |
| _____           | _____   |

**If an Individual**

| Name of Individual | Address |
|--------------------|---------|
| _____              | _____   |



**Bidder Name:**

**Project No.: 20210021**

Bidders must provide three (3) example projects completed in the past five (5) years in which the Bidder served as the prime contractor. Example projects must be of similar size, scope and complexity to the project currently being bid, as further described in the Description of Work. Each project must include the Owner/Agency, Award Date, Contract Amount, Date Completed, Contact Person, Telephone number of the contact, Architect and/or Engineer's Name, Contract Number, Contact Email, and the Project Title and a brief scope description. Reference contacts may be used to verify project size, scope, dollar value, percentages and quality of performance.

|                      |                             |               |                       |  |                 |                |
|----------------------|-----------------------------|---------------|-----------------------|--|-----------------|----------------|
| <b>1.</b>            | Agency/Owner                |               |                       | Award Date                                 | Contract Amount | Date Completed |
|                      | Agency/Owner Contact Person |               | Telephone No.         | Designer Architect and /or Design Engineer |                 |                |
|                      | Contract No.                | Contact Email | Project Title & Scope |  |                 |                |
| <b>2.</b>            | Agency/Owner                |               |                       | Award Date                                 | Contract Amount | Date Completed |
|                      | Agency/Owner Contact Person |               | Telephone No.         | Designer Architect and /or Design Engineer |                 |                |
|                      | Contract No.                | Contact Email | Project Title & Scope |  |                 |                |
| <b>3.</b>            | Agency/Owner                |               |                       | Award Date                                 | Contract Amount | Date Completed |
|                      | Agency/Owner Contact Person |               | Telephone No.         | Designer Architect and /or Design Engineer |                 |                |
|                      | Contract No.                | Contact Email | Project Title & Scope |  |                 |                |
| <b>Completed By:</b> |                             |               |                       | Phone Number:                              |                 |                |
|                      |                             |               |                       | Email:                                     |                 |                |
|                      |                             |               |                       | Date:                                      |                 |                |



# SUNY Cortland Scoreboard Replacement

Project No. 20210021

## Specifications

|        |                  |
|--------|------------------|
| 311201 | Site Preparation |
| 323001 | Scoreboards      |

## Drawing List

|     |                   |
|-----|-------------------|
| L-0 | Site Survey       |
| L-1 | Site Improvements |
| L-2 | Details           |

## SECTION 311201 - SITE PREPARATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

The general provisions of the Contract, including General and Supplementary Conditions and General Requirements (if any), apply to the work specified in Division 31 and 32.

#### 1.2 DESCRIPTION OF WORK

- A. The extent of site preparation is shown on the drawings.
- B. Site preparation work includes, but is not limited to, the following:
  - 1. Site investigation and utility identification
  - 2. Protection of existing elements to remain
  - 3. Site removals
  - 4. Clean up
- C. Provide materials, labor, equipment, and services required to accomplish related work in accordance with the drawings and specifications.

#### 1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 323001 – Scoreboard(s)

#### 1.4 SITE INVESTIGATION

- A. The Contractor shall visit the site before bidding, inform and familiarize themselves of all site conditions, and equipment access. No allowance or additional cost will be made in the work of this contract for failing to determine overall project site conditions and access.
- B. Verify locations and protect utilities and structures, whether or not shown on the drawings. Existing utilities and structures shown on the drawings are for the Contractor's convenience and locations are not guaranteed.
- C. Verify survey information given on drawings. Walk the site with the Owner's Facilities Management Personnel to discuss approximate locations of reputed utilities not shown on the survey, prior to performing work. Notify the Architect of any and all discrepancies prior to commencing work. Commencement of work will be construed as complete acceptance of survey information.
- D. Locate and protect from disturbance existing survey monuments, pins, markers and benchmarks whether or not shown on drawings. When any disturbance or damage occurs, notify Architect in writing within 24 hours. Describe nature of disturbance or damage and date first occurred. Provide copies to applicable government and municipal agencies. Pay costs for restoring monument to satisfaction of said agencies, at no additional expense to the Owner.

#### 1.5 JOB CONDITIONS

- A. The terms "Architect" and "Landscape Architect" for Divisions 31 and 32 work shall mean Appel Osborne Landscape Architecture, 102 West Division St., Suite 100, Syracuse, NY

- 13204, Tel. (315) 476-1022, or other representative(s) that SUNY Cortland may determine.
- B. Examine drawings and specifications for the entire project. Become familiar with the scope and sequencing of work required. Coordinate and cooperate with other Contractors and trades working in and adjacent to the project.
  - C. Examine work prepared prior to this contract. Commencement of work will be construed as complete acceptance of all preparatory work by others.
  - D. Obtain and pay for permits required by authorities. Perform the work in compliance with applicable standards, codes and requirements of governing authorities having jurisdiction.
  - E. Safety is the sole responsibility of the Contractor.
  - F. Responsibility for existing utilities:
    - 1. Should uncharted or incorrectly charted utilities be encountered, notify the Owner immediately for directions as to procedure.
    - 2. Do not break utility connections without providing temporary services as acceptable to the Owner and the owner of the utility.
    - 3. Repair and pay for damages to existing utilities as directed by utility Owner at no additional cost to the Owner.
  - H. Provide protections and conduct operations to prevent injury and damage to persons, work of other Contractors, existing items to remain, structures, pavements, lawns, and adjacent properties.
  - I. Restore work damaged by this Contractor inside and outside the contract limits to the condition existing prior to the start of work, unless otherwise directed to the satisfaction of the Architect at no additional cost to the Owner.
  - J. Vehicular and pedestrian traffic control:
    - 1. Maintain vehicular and pedestrian traffic during construction activities.
    - 2. Provide alternate routes and traffic control around closed and obstructed traffic ways as required by governing regulations or the Owner.
    - 3. Provide temporary fencing, flag persons, barricades, warning signs, and warning lights or other measures to protect the public and cause the least interruption of work.
  - K. Field Measurements: Take necessary field horizontal and vertical measurements required in order to perform the work and design intent shown on the drawings and outlined in the specifications. Assume complete responsibility for accuracy of such measurements and dimensions.
  - L. Construction Review - General: Site visits will be made by the Architect to observe construction conformance to drawings and specifications. The occasional site visits by the Architect shall not be construed as supervision of construction or make them responsible for the safety programs and precautions, including but not limited to: the safe access, visit, use, work travel, or occupancy of any person. Site visits shall not make the

Architect responsible for means, methods, techniques, sequences, or procedures of construction selected by the Owner.

- M. Site Complexity: The existing site will be intensively developed. Because of the construction and resulting graphic complexity, it is impractical to show every detail. However, the general design intent is clearly shown and shall be applied to individual conditions not specifically shown as directed by the Architect and at no additional cost to the Owner.
- N. Asbestos, Toxic and Hazardous Materials: The Division 31, 32 and 33 site work contract does not include testing for, handling or removal of hazardous materials such as, but not limited to: asbestos, fuel, oil, PCB's, or other toxic or hazardous waste materials as identified by the EPA and/or NYSDEC. If any such materials are encountered during any part of the site work, the Contractor is responsible for identifying potential hazardous material and immediately notify all governing agencies having jurisdiction as required by law. Also, within one (1) hour of discovery notify the Architect, Landscape Architect, Consultants, and Owner. The Owner shall provide testing and removal by others, under separate contract. The Contractor shall recommence work under this contract when the Owner provides written certification that remediation is complete per governing agency. The Contractor shall not be penalized for any delays caused by the hazardous testing and removal unless such hazardous material incident was a result of Contractor's operations. The Contractor shall indemnify and hold harmless the Architect, Landscape Architect, Consultants and Owner, agents, and employees from and against all claims, damages, losses and expenses, direct and indirect or consequential damages, including but not limited to fees and charges of attorneys and court and arbitration costs, arising out of or resulting from the performance of the work by the Architect, Landscape Architect, Consultants and Owner, or claims against the Architect, Landscape Architect, Consultants and Owner arising from the work of others, related to hazardous waste.
- The above indemnification provision extends to claims against the Architect, Landscape Architect, Consultants and Owner which arise out of, are related to, or are based upon, the dispersal, discharge, escape, release or saturation of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, or pollutant in or into the atmosphere, or on, onto, upon, in or into the surface or subsurface soil, water or water courses, objects, or any tangible or intangible matter, whether sudden or not.
- Should the hazardous material incident be the result of the Contractor's operations, the Contractor shall be responsible for all costs associated with the discovery and remediation of such hazardous material such as, but not limited to: testing, consultant fees, damage, loss, fees and charges of attorneys, court and arbitration costs, claims by other contractors, direct and indirect or consequential damages.
- O. Salvageable Items: Remove at any time after work starts. Storage or sale on site of salvageable and removed items is not permitted. Do not remove topsoil from site without written permission from the Owner.
- P. SUBMITTALS/PROCEDURES: Submit Tests, Shop Drawings, Material Certificates (showing content/mechanical analysis) and Manufacturer's Product Data (MPD) to Architect for review a minimum of two (2) weeks prior to installation.
1. Provide electronic submittals from material producer or laboratory, stamped as checked and approved by the Contractor before submittal to the Architect.
  2. Refer to individual specification sections for a list of required submittals.

3. For each material certificate required, provide certification by an Architect approved independent testing laboratory which gives analysis results and states that the material complies with or is superior to the specified requirements.

#### 1.6 SUBMITTALS

- A. Provide photographic documentation. Photographically document existing features which, may be affected by the construction, inside and outside the contract limit line. Existing features include, but are not limited to: structures, pavements, curbs, utilities, lawns and vegetation, especially individual trees which are over six (6") inches in diameter and noted to remain on the drawings. Also, particular attention shall be paid to the construction access, stockpile, and access road areas. Distribute a copy of the photographic documentation (digital format) to the Owner and Architect prior to the start of construction.

### PART 2 - PRODUCTS

#### 2.1 PROTECTIVE DEVICES

- A. Contractor to provide all necessary protections required by Occupational Safety and Health Administration (OSHA) and SUNY Cortland.

### PART 3 - EXECUTION

#### 3.1 REMOVALS

- A. Items and materials noted to be removed shall become the property of the Contractor, unless otherwise noted. Obtain Owner's approval prior to removal off site or for relocation of salvaged material on site. Remove material off site and legally dispose of it.
- B. Remove physical elements above and below grade as shown and which interfere with proposed construction. Physical elements include but are not limited to: scoreboard.
- C. Maintain existing utilities shown to remain and protect from damage during demolition and construction operations. Do not interrupt existing utilities; provide temporary services when required, as acceptable to the Architect.
- D. Research with Owner possible locations of existing subsurface utilities prior to disconnection or removals.
- E. Salvaged items shall be returned to the Owner as noted on the drawings. Move items to Owner designated areas.

#### 3.2 CLEAN UP

During the contract and at intervals as directed by the Architect and as site preparation is completed, clear the site of extraneous materials, rubbish, and debris. Leave the site in a clean, safe, well-draining, neat condition.

**END OF SECTION 311201**

**SECTION 323001 – SCOREBOARD(S)**

1.0 PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The extent of the scoreboard(s) is shown on the drawings.
- B. Work includes, but is not limited to, the following:
  - 1. One (1) Single-sided LED Multi-sport Scoreboards
  - 2. One (1) Set of Delay of Game Clocks
  - 3. One (1) Integrated Sports Statistics and Interactive LED Video Display
  - 4. Decorative Accent Panels and Trusses
  - 5. Press Box Equipment for Scoreboards and Video Display
  - 6. Wireless on-field Control Equipment for Scoreboards and Video Display
  - 7. Attachment, Bracing and Mounting Clips
  - 8. Scoreboard Training and Warranty
  - 9. Cleanup
- C. Provide all materials, labor, equipment, and services required to accomplish all related work in accordance with the drawings and specifications.

1.2 RELATED SECTIONS

- A. Section 311201 - Site Preparation

1.3 REFERENCES

- A. Standard for Electric Signs, UL-48, 13th Edition
- B. Standard for Control Centers for Changing Message Type Signs, UL-1433, 1st Edition
- C. Standard for CAN/CSA C22.2
- D. Federal Communications Commission Regulation Part 15
- E. National Electric Code

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product illustrations, data and literature that fully describe the scoreboards and accessories proposed for installation.
- B. Shop Drawings Include:
  - 1. Colored graphics depicting school logos and / or text as directed by the Owner. Provide color chips.
  - 2. Cabinet design drawings consisting of the cabinets' overall dimensions, cabinet integration with a display structure and estimated weight of entire system with all equipment installed.
  - 3. Submit mechanical and electrical drawings for connection.
- C. Functional system block diagram showing all major equipment and signal flow.

- D. Maintenance data: Submit manufacturer's installation, operation, and maintenance manuals.
- F. References as required in 1.8 "Qualifications" of this specification section.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Product delivered on site.
- B. Scoreboard, video display, and equipment to be housed in a clean, dry environment.

#### 1.6 PROJECT CONDITIONS

- A. Environmental limitations: Do not install scoreboard equipment until mounting structure is secure and concrete has ample time to cure.
- B. Field measurements: Verify position and elevation of structure and its layout for scoreboard equipment. Verify dimensions by field measurements.
- C. Verify mounting structure is capable of supporting the scoreboard's weight and wind load in addition to the auxiliary equipment.
- D. Environmental Limitations: Do not install video equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperatures and humidity conditions are maintained at the levels indicated for project when occupied for its intended use.
- E. Installation may proceed within acceptable weather conditions.
- F. All job conditions in Section 312201 apply.

#### 1.7 QUALITY ASSURANCE

- A. For outdoor use
- B. Source Limitations: To ensure consistency of appearance and compatibility of operation, each scoring, timing, and video component of this package, including scoreboard, play clocks, video display, scoreboard control equipment, video control software, must be engineered, designed, manufactured, and warranted from a single manufacturer.
- C. All proposed equipment and models of equipment must be standardized, previously designed, and documented with current reliability records, product cut sheets and shop drawings.
- D. ETL listed to UL Standards 48 and 1433
- E. NEC compliant
- F. FCC Class A compliant
- G. ETL listed to CAN/CSA 22.2

## 1.8 QUALIFICATIONS

- A. Installers Qualifications: Business familiar in the installation of systems similar in complexity to those specified for this project; and fulfillment of the following:
1. At least (5) five years' experience with systems of the specified types and products included.
  2. Provide examples of ten (10) previous installations, located within 200 miles of Cortland, NY with similar stadium scoreboard designs – integrating Real Time Data from a fixed digit LED scoreboard and controller within the digital display of an LED video/matrix display, allowing the video display to act as a “virtual scoreboard”
  3. Retain a fully staffed and equipped service company within 100 miles of project.
  4. Installer to be factory trained and certified on the installation and maintenance of any digital signal processed based control systems, specified here in.
  5. At the request of the Owner, the Installer must demonstrate that he has:
    - Sufficient plant and equipment to complete the work within the specified schedule.
    - Sufficient staff with commensurate technical experience.
    - Appropriate financial status to meet the obligations of the work.
- B. Installers Service Technician **MUST** have SAME / NEXT Day service capability. Provide evidence that this service is provided.

## 1.9 WARRANTY

- A. Provide five (5) years of factory warranty and five (5) years of local labor on permanently mounted scoreboards and LED video displays, including LEDs and wireless control equipment.
- B. Provide one (1) year warranty for laptop computers, batteries, battery-packs, battery recharging equipment, solar panels, pushbuttons, test meters, data cables, handheld control consoles/units, and any stretch mesh indicated.
- C. Provide ten (10) years of guaranteed availability of original parts for all equipment from the scoreboard manufacturer.
- D. Provide an established and on-going exchange program, with at least ten years of proven effectiveness, to supply replacement parts for any/all components that fail during the coverage period. To minimize downtime, the exchange parts shall be shipped on the same day the order is received or the following day. The manufacturer will include an air bill for the return of the defective components.
- E. Provide toll-free service coordination.
- F. Provide technical phone support during Owner's business hours.
- G. Some scoreboard system shall have remote diagnostic capabilities.
- H. Spare parts inventory shall be turned over to the Owner at completion of the project.



## 2.0 PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- A. Daktronics, Inc., 331 32nd Avenue, P.O. Box 5128, Brookings, South Dakota 57006-5128 or Architect approved equal.

### 2.2 STANDARD OF QUALITY

- A. Single-sided multisport scoreboard displays period time to 99:59, HOME and GUEST scores to 99, PERIOD to nine, and indicates team penalty. During the last minute of the period, the clock displays time to 1/10 of a second.
- B. Single-sided timing display can be configured to count up or down from any preset number from 0 to 99.
- C. Integrated LED RGB Live Video Display:  
392x700-13HD Full-color (RGB) electronic live video display with control software and wireless tablet control integration system allowing scoring functions and video display prompts to be commanded from a single wireless iPad
- D. Wireless tablet control integration system allowing scoring functions and video display prompt to be commanded from a single wireless iPad.
- E. Score system allows full functionality of the fixed digit scoreboards from a cell phone via free downloadable app.

### 2.3 MULTI-SPORT SCOREBOARD ON CHUGGAR DAVIS BUILDING

- A. General information
  - 1. Dimensions: 4'-6" high, 25'-0" wide, 0'-8" deep
  - 2. Base weight: 587 lb
  - 3. Base power requirement: 650 W
- B. Construction
  - 1. Alcoa aluminum alloy 5052 construction
  - 2. To avoid oil canning or waves in the face of the aluminum, no mechanical fasteners (screws, rivets or welds) shall be used to attach the face to the scoreboard body frame. Commercial sign tape shall be used to cover 100% coverage on all face attachment points.
  - 3. The scoreboard cabinet structure shall not have any internal vertical or horizontal members spaced more than 42" O.C.
  - 4. The cabinet shall be one continuous structure without any vertical seams to be stitched together.
  - 5. Scoreboard shall be able to be mounted to a minimum of two (2) vertical columns and a have documented engineering data reflecting the ability of the cabinet to withstand wind pressure up to 72 lbs./sq. ft. with vertical I-beam spacing up to 16 ft. O.C.
  - 6. Scoreboard face, back and perimeter: 0.063" thick
  - 7. Scoreboard top and bottom shall be a minimum of 0.125" thick extruded aluminum for added strength and to eliminate sagging
  - 8. Digit faceplates: 0.063" thick
  - 9. All scoreboard, video display, decorative truss and school identification panel attachments to the beam structure shall be fastened only to the front flange of the beam.
  - 10. Each scoreboard, video display, decorative truss and school identification cabinet shall require no more than one pair of mounting clamps per vertical column at the top and bottom of each cabinet.
  - 11. Mounting shall not require any drilling, welding or fastening hardware that penetrates the scoreboard, video display, decorative truss and school identification cabinets

- C. Digits and drivers
  1. TS AllnGaP Light Emitting Diodes (LEDs)
  2. Seven bar segments per digit
  3. Digit color: White
  4. LED 140-degree digit technology. LED elements must protrude from scoreboard face and should NOT include any plastic, reflective protective face cover
  5. All components of each LED digit shall be encapsulated in a minimum of 1/8" thick, potting material, front and back allowing the entire unit to be 100% waterproof
  6. Digit drivers and circuit boards within the scoreboard must be encapsulated in a minimum of 1/8" thick, potting material, front and back allowing the entire unit to be 100% waterproof
  7. HOME, GUEST, and clock digits: 24" (610 mm) high
  8. PERIOD digit: 18" (457 mm) high
  9. Individual digit panels are to be fastened with a maximum of four screws for easy access and quick removal. Rivets are not an acceptable fastening method. Lexan covers shall not be used.
  10. All digits must be serviceable from the front of the display.
- D. Captions
  1. Programmable white LED electronic HOME and GUEST and PERIOD captions: 10" high
- E. Additional Required Equipment
  1. Vinyl scoreboard striping around the scoreboard and video display to create a continuous border.
  2. 120-volt horn, 0.75A, 60HZ, 100 DB of sound @10ft, 110 DB of sound @1 meter, weatherproof
  3. Removable protective netting shall cover the front of the scoreboard face. Netting shall be supported 36" in front of the scoreboard face with a 100% aluminum angle and tube structure.
  4. Dual purpose 2.4 GHz spread spectrum radio control receiver mounted within the scoreboard cabinet to allow for control of scoreboard, wirelessly via mobile cell phone device and from the press box via the I-pad and the cell phone App control systems
  5. Wireless laptop and iPad control for all scoring functions.

## 2.4 FOOTBALL / LACROSSE DELAY OF GAME CLOCKS

- A. General information
  1. Dimensions: 4'-6" high, 6'-0" wide, 0'-8" deep
  2. Weight: 150 lbs
  3. Power requirement: 185 W (white digits)
  4. Color: semi-gloss black
- B. Construction
  1. Alcoa aluminum alloy 5052 construction
  2. Display back, face, and perimeter: 0.063" (1.60 mm) thick
  3. Display top and bottom: 0.125" (3.18 mm) thick
  4. To avoid oil canning or waves in the face of the aluminum, no mechanical fasteners (screws, rivets or welds shall be used to attach the face to the scoreboard body frame. Commercial sign tape shall be used to cover 100% coverage on all face attachment points.
- C. Digits and drivers
  1. TS AllnGaP Light Emitting Diodes (LEDs)
  2. Seven bar segments per digit
  3. Digit color: White
  4. LED 140-degree digit technology. LED elements must protrude from scoreboard face and should not include any plastic, reflective protective face cover
  5. All components of each LED digit shall be encapsulated in a minimum of 1/8" thick, potting material, front and back allowing the entire unit to be 100% waterproof

6. Digit driver must be encapsulated in a minimum of 1/8" thick, potting material, front and back allowing the entire unit to be 100% waterproof
  7. Clock digits: 36" (762 mm) high
- D. Horn
1. 12VDC Trumpet Horn
- E. Additional Required Equipment
1. Individual digit protective screens
  2. 4'- 6" x 8' illuminated advertising panel beside each display.
  3. Dual purpose 2.4 GHz spread spectrum radio control receiver mounted within the scoreboard cabinet to allow for control of play clock, wirelessly via mobile cell phone device and from the press box via the AllSport Pro iPad control system

## 2.5 SCORING CONSOLES

- A. Consoles shall be an All Sport® 5010 controller and All Sport Pro iPad and MX-1 mobile scoring application from smartphone or Architect Approved equal.
- B. Capable of scoring football, lacrosse, soccer and field hockey through the use of keyboard inserts
- C. Controls multiple scoreboards and displays, including other compatible displays currently owned by customer
- D. Mobile Scoring Control
1. Portable, wireless, control shall allow function of the scoreboard including electronic changeable captions from any location on site (i.e. bleachers, playing field, etc.).
  2. Controls multiple scoreboards and displays, including other compatible displays currently owned by customer
  3. Outdoor weather sealed mounting enclosure.
  4. 2.4 GHz spread spectrum radio system with frequency hopping technology and 64 non-interfering channels; system includes a transmitter installed inside the console enclosure and a receiver installed inside the scoreboard
  5. Mobile app shall be downloadable to any Apple or Android phone or tablet.
- E. Full Feature Console includes:
1. Capability to operate the fixed-digit portion of the scoreboard system and play clocks as a standalone system, from the press box.
  2. Maximum power requirement of 5 watts
  3. Ability to recall clock, score, and period information if power is lost
  4. A rugged aluminum enclosure to house electronics
  5. A sealed membrane water-resistant keyboard
  6. A 32-character liquid crystal prompting display to verify entries and recall information currently displayed
  7. A 6' (1829 mm) power cord to plug into a standard grounded 120 V AC outlet
  8. A 20' (6096 mm) control cable to connect to the control receptacle junction box
  9. A practice timer mode
    - a. Can sound the horn at the end of each segment
    - b. Has 99 programmable segments
    - c. Displays the segment number and segment length
    - d. Has a programmable interval time
  10. Carrying case for console
  11. 2.4 GHz spread spectrum radio system with frequency hopping technology and 64 non-interfering channels; system includes a transmitter installed inside the console enclosure and a receiver installed inside the scoreboard
    - a. Encapsulated Protective Molded PVC external antenna enclosure affixed to control console.
- F. 8-Button Remote Network Control Panel

1. Enables selection of video screen layout (Football, Lacrosse, Soccer, Full Video, Sponsor School, Player Head Shot, Practice Segment Timer) without requirement of a laptop computer or access to the press box
  2. Shall fit into one-gang junction box; 4.13" H x 1.93" W x 1.21" D
  3. Provide waterproof, exterior enclosure
  4. Shall use Power over Ethernet (PoE), via a single Ethernet cable running between the existing control rack and the network control panel location, up to 250' (76 m) away from the rack.
- G. Full Scoring Control Software
1. Modern interface allows wireless control from the field via provided touchscreen tablet.
  2. Assign common or custom rule profiles to fit the level of play.
  3. Display Software Hot Buttons:
  4. Manually play content directly from the Scoring Control Software.
  5. Automatically play content via game triggers, such as when a team scores.
  6. Multiple data outputs control fixed-digit scoreboards and send RTD to video displays.
  7. Create custom color schemes for different teams/operators.

## 2.6 LED INTEGRATED VIDEO DISPLAY

- A. Single-sided display in single cabinets extending the entire width of the display and shall be equipped to complement the specified outdoor scoreboard. Outdoor display shall use one red, one green and one blue lamp-style LEDs to form pixels. Display shall be capable of displaying live and recorded full length video files up to 3 hours, per file, Real-Time -Data produced by the scoreboard control console including: BALL ON, YARD TO GO, DOWN, QUARTER, TIME OUTS LEFT, SHOTS, SAVES, PLAYER NUMBER, PENALTY, among other information that can be displayed directly via network connection of the AllSport scoreboard console, custom animations, 35 pre-created sports themed animations, photographs, and other .jpg files. System shall also be capable of displaying data from 3<sup>rd</sup> party sources such as statistics programs i.e.(Stat Crew)
1. Matrix pixel layout:
    1. 392x700
  2. Cabinet width:
    1. 36'
  3. Display Area:
    1. 16.8' high x 30.0' wide
  4. Weight:
    1. 5,448 lbs.
  5. Power requirements:
    1. 22,056 W Max Line 1: 94.0 amps, Line 2: 89.8 amps
  6. Two integrated filler panels into a single cabinet. Video display cabinets should be one continuous horizontal cabinet without any vertical seams to be stitched together.
  7. Outside edges of video display shall be decorated with vinyl applied decoration
  8. All cabinet colors to match scoreboard
- B. Construction
1. All-aluminum construction for light weight and corrosion resistance
  2. Service Access: Front and Rear - Rear access by removable panels with no special tools (hinged access panels not acceptable)
  3. The back of the display cabinet shall be a minimum of 3" from any vertical structural beam to allow for removal of back access panels.
  4. Display cabinet must incorporate an internal spare parts/service rack which provides space for spare modules, PLRs, power supplies, and included standard service tools inside the display cabinet.
- C. Display Capabilities
1. Gradations Per Color: 16,384

2. 13mm pixel pitch minimum
  3. Color Capability: (281 trillion colors min)
  4. LED Refresh Rate: 4800 Hz as defined by the number of times per second the LED image is repainted in intensity
  5. Display must have signal redundancy allowing for signal path both forward and backwards through modules allowing for loss of only 1 module vs. rows or blocks of multiple modules or panels in case of module failure. No visual disruption shall occur if only one signal path is disrupted (i.e. one signal cable or connector failed).
  6. Display must have capability to be remotely accessed via an Internet connection to monitor, diagnose and troubleshoot any issues related to the display. System shall be capable of identifying the location of any broken connection to/from the primary and/or redundant signal pathway.
- D. Viewing Characteristics
1. Module Intensity: 9,500 nits (adjustable)
  2. Brightness Control: 256 levels (manual, scheduled or automatic)
  3. Suggested Viewing Angle: 160° horizontal and +25°/-45° vertical
- DI. Pixel Characteristics
1. Each pixel consists of 3 through-hole LEDs per pixel (1 red, 1 green, 1 blue).
  2. Pixel spacing measurement must be measured from the center points of neighboring physical pixels, rather than neighboring physical and virtual pixels.
  3. 13 mm pixel pitch minimum
- DII. LED Module Characteristics
1. Module shall be for outdoor use.
  2. Module shall have anti-reflective black paint or coating applied to display face. To achieve the required contrast, state across all modules shall exhibit a Delta E color variation of no more than .4.
  3. Modules shall have horizontal louvers running between LEDs or pixels.
  4. Modules shall be able to be removed and installed from both the front and rear of the display.
  5. It is not necessary to remove or insert screws in order to remove or install modules.
  6. Module shall be silicone potted on the face beneath louver and rear, providing a 100% waterproof seal, regardless of module, **cabinet**, or panel construction.
- DIII. Video Processing
1. Video Frame Rate: 50/60 frames per second
  2. Graphic Frame Rate: 30 frames per second
  3. Processing Architecture: 22-bit distributed
  4. System Architecture: 100% digital
  5. Video Enhancement: Color space conversion, adjustable gamma correction, proprietary sharpening technology and enhancement algorithms for optimal picture quality
- DIV. LED Quality
1. Quality Control: Sorted by intensity and color wavelength
  2. LED Lifetime: 100,000 hours of operation as defined by time at which display intensity has decreased to 50 percent of the original intensity
- DV. Calibration
1. Pixel-to-pixel and module-to-module optical color calibration must be performed at the factory. The manufacturer must also provide easy-to-use calibration software that allows individual modules and pixels to be independently adjusted while in the display.
  2. If modules should need replacement during the life of the display, the calibration software must match newer modules' brightness levels to older modules' levels to preserve picture quality and maintain a uniform display appearance.
- DVI. Required Redundancy
1. Each module shall have data delivered via two isolated communication paths, allowing the module to function fully should any data path fail.
  2. Scoring console providing RTD data to the video display shall have alternate path of information via standalone standard console included within this project

3. Video display shall instantly operate as full feature scoreboard should any component fail within the fixed digit scoreboard.
- K. Sports Display and Real Time Data (RTD) Requirements
  1. System must be able to display live data supplied by control console with or without the use of the Control Software being open.
  2. Live data (Down, To Go, Ball On, Penalty Time, Shots On Goal, etc....) produced by the scoreboard control console must be able to be displayed directly to the integrated sports display without the requirement of any additional controllers or computers.
  3. System must be capable of displaying other sports software including live stats via network connections.
- L. Real-time data (RTD) integration allows operators to create messages with information that automatically updates without user intervention. Such data may include scores, game time, player/team statistics, time-of-day, date or temperature.
- M. Decorative truss (3' x 36'-0") above the video display with backlit (illuminated) school identification lettering or logo.
  1. Must be constructed of 100% aluminum
  2. Aluminum members shall be a combination of 2" x 2" and 3" x 3" square tubes and angles
  3. Letters and logos must be a minimum of 36" in height
  4. To maintain consistency in paint color and longevity, all truss painting shall be completed by the same manufacturer as the scoreboard, video board and school identification panels.
  5. Removable protective netting shall cover the front of the scoreboard face. Netting shall be supported 36" in front of the scoreboard face with a 100% aluminum angle and tube structure.

## 2.7 VIDEO PRODUCTION AND DISPLAY EQUIPMENT

- A. Equipment Rack
  1. 8RU half rack
  2. Dimensions: 15" high x 10.65" wide x 14" deep (381 mm, 271 mm, 356 mm)
- B. Media Player
  1. Provide a Digital Media Player (DMP).
  2. Animation rates of up to 60 frames per second
  3. Resolution: 1080p 59.94
  4. Video Input: up to 1080p 59.94
  5. Video Output: DisplayPort to Video Image Processor
  6. Audio Output: balanced 3-pin XLR
  7. Ports: USB 2.0 @4, USB 3.0 @2
  8. Memory: 16 GB DDR4
  9. Storage: 1 TB
  10. Networking: 10/100/1000 Ethernet (RJ-45 LAN) @2
  11. Dimensions: Half-width 1RU; 1.75" (44.5 mm) H x 8.75" (222 mm) W x 12" (305 mm)
- C. Video Processor
  1. Provide a Video Image Processor (VIP).
  2. Video Input: DVI
  3. Video Output: ProLink® 6 (fiber optic) @2
  4. Color space conversion: Proprietary LED conversion
  5. Networking: 10/100/1000 Ethernet (RJ-45 LAN) @1
  6. Dimensions: Half-width 1RU; 1.75" (44.5 mm) H, 8.75" (222 mm) W, 12" (305 mm)
- D. Network Router
  1. 8-port gigabit
- E. Single Click Exterior Control Panel: Must include an 8-button networked control panel that allows for quick and easy selection of video screen layout (Football, Lacrosse, Soccer, Full Video, Sponsor School, Player Head Shot, Practice Segment Timer) without requirement of a

laptop computer or access to the press box.

1. Fits into one-gang junction box; 4.13" H x 1.93" W x 1.21" D
  2. Uses Power over Ethernet (PoE), a single Ethernet cable runs between the existing control rack and the network control panel location, up to 250' (76 m) away from the rack.
- F. Full Scoring Remote User Station for Scoring/Video Control
1. Modern interface allows wireless control from the field via provided touchscreen tablet.
  2. Assign common or custom rule profiles to fit the level of play.
  3. Display Software Hot Buttons:
  4. Manually play content directly from the Scoring Control Software.
  5. Automatically play content via game triggers, such as when a team scores.
  6. Multiple data outputs control fixed-digit scoreboards and send RTD to video displays.
  7. Create custom color schemes for different teams/operators.
  8. Single Apple iPad control for both upper fixed digit scoreboard and video display
  9. Dual Band Wi-Fi Wireless Access Point (2.4/5.8 GHz)

## 2.8 CONTROL COMPUTER

- A. Laptop
1. Operating System: Windows® 10 Pro 64
  2. Processor: Intel® Core™ i5
  3. Memory: 16 GB RAM
  4. Hard Drive: 500 GB
  5. Form Factor: Dell Latitude 5510
  6. Laptop may be removed from the control location so content can be created and modified elsewhere. When the laptop is reconnected to the rack, updated content is synced in a matter of minutes.

## 2.9 VIDEO DISPLAY CONTROL SOFTWARE

- A. Manufacturer must provide a Windows® 10 based laptop computer with the control software loaded, configured, and ready to control display at startup.
- B. Must be developed, engineered, and supported by the same manufacturer as the: scoreboard, video display, media player, and video processor. Third party software is NOT acceptable.
- C. The display's control software must provide simple, user-friendly features for creating, editing, scheduling, running, and deleting messages.
- D. Display Software features:
1. Direct control of an infinite number of displays located on a network
  2. Simultaneous display and edit capability
  3. Content playlists with loop, shuffle, random and next play functionality
  4. Thumbnail preview of content clips
  5. Onscreen display monitor
  6. Unlimited, color-coded buttons with adjustable sizes
  7. Multiple operator workspaces
  8. Support input devices such as a mouse, keyboard, touch screen, and dual monitor
  9. Icon and pull-down menu programming features
  10. Help screens
- E. Content Editor Software features:
1. Display of TrueType fonts and other Windows® compatible character fonts
  2. Inline text editing
  3. Outlined, Drop shadowed, Bold, Italic, and Underlined text modes
  4. Ability to copy and paste text from most Windows applications
  5. Import common image and animation formats, including BMP, JPEG and AVI
  6. Content preview
  7. Content layering

8. Real-time data (RTD) integration allows operators to create messages with information that automatically updates without user intervention. Such data may include scores, game time, player/team statistics, time-of-day, date or temperature.
9. Profanity protection and Spell Check
10. Multiple transition effects for entry, hold and exit.

### 3.0 PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that mounting structure is ready to receive scoreboard. Verify that placement of conduit and junction boxes are as specified and indicated in plans and shop drawings.
- B. Verify surfaces that the video board is to be mounted to are ready to receive the work. Verify that the conduit and junction boxes specified are as specified and indicated in the plans and shop drawings.

#### 3.2 INSTALLATION

- A. All power and control cables to scoreboards, and displays will be routed in conduit, power to the scoreboards/displays as well as raceways by the Electrical Contractor.
- B. Install scoreboards and exterior displays to beams in location detailed and in accordance with manufacturer's instructions. Verify unit is plumb and level.
- C. All scoreboard and video display attachments to the beam structure shall be fastened only to the front flange of the beam to allow for attachment of additional panels to the back flange of the beam.
- D. Each scoreboard and video display cabinet shall require no more than one set of mounting clamps per vertical column at the top and bottom of each cabinet.
- E. Mounting shall not require any drilling, welding or fastening hardware that penetrates the scoreboard or video board cabinets.
- F. Manufacturer's representative to provide and install structural support steel in accordance to the equipment ordered.

#### 3.4 INSTALLATION—CONTROL CENTER

- A. Provide boxes, cover plates and connectors as required to meet control specification requirements. Control cables from scoreboard to control console junction box shall be concealed. Control cables from video display to computer junction box shall be concealed.
- B. Test the operation of the scoreboard, control console and all cables and connections. Leave control console unit in carrying case and other loose accessories with Owner's designated representative.
- C. Verify earth ground does not exceed 15 ohms.
- D. Test the operation of the video board, install software and test computer and all cables



and connections

3.5 TRAINING

- A. Provide minimum two (2), four (4) hour sessions of on-site scoreboard and video software training.
- B. In addition to on-site training, provide a one-on-one webinar with an official factory trainer. Webinar training shall be recorded for future reference.

3.6 SPARE PARTS INVENTORY

- A. Spare parts to be provided to College at conclusion of scoreboard installations.

3.7 CLEAN UP

- A. During the contract and at intervals as directed by the Architect and as scoreboard installation is completed, clear the site of extraneous metal pieces, Aor debris. Leave the site in a clean, safe, well-draining, neat condition.

**END OF SECTION 323001**