

# SPECIFICATIONS

FOR

Athletics Video Board/Scoreboards  
Lake Land College District Number 517  
Mattoon, Illinois 61938

PROJECT NO. 2018-006

Bid Date: April 16, 2018

Community College District Number 517  
Mattoon, Illinois

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ADVERTISEMENT FOR BIDS

Bids: April 16, 2018  
LAKE LAND COLLEGE DISTRICT #517  
MATTOON, ILLINOIS  
Project No. 2018-006

The Lake Land College District Number 517 Board of Trustees will receive sealed bids for the purchase of an Athletics Video Board/Scoreboards.

Bids will be received until 2:00 PM Central Standard Time on Monday, April 16, 2018 in the Office of the Vice President for Business Services on the campus of Lake Land College, 5001 Lake Land Blvd., Mattoon, IL. Bids will be on a stipulated sum basis. Bids received after this time will not be accepted. Bids will be opened and publicly read immediately after the specified closing time. Obtain bidding documents/requirements at the office of the Vice President for Business Services on the campus of Lake Land College, phone (217) 234-5224.

The Board of Trustees reserves the right to waive irregularities and reject all bids or parts of bids.

Successful Bidders shall have the sole responsibility of complying with all aspects of existing Prevailing Wage Policies.

Dave Storm  
Chairperson - Lake Land College Board of Trustees

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### INSTRUCTIONS TO BIDDERS

#### PART 1 GENERAL

##### 1.01 DEFINITIONS

- A. Lake Land College Board of Trustees will be hereafter referred to in this Specification as "Owners" and all correspondence shall be addressed to: Bryan Gleckler, Vice President for Business Services, Lake Land College, 5001 Lake Land Blvd., Mattoon, IL 61938.
- B. A Bidder is a person or entity who submits a Bid to the Owner.
- C. Bidding Documents include the Advertisement for Bid, Instructions to Bidders, Bid Forms and supplements, specifications and Addenda.
- D. Contract Documents include any Contract forms, Specifications, Drawings, Addenda, and modifications.
- E. The Agreement is the written agreement between the Owner and Contractor setting forth the obligations of the parties thereunder, including but not limited to the performance of the Work, the basis of payment and the contract time.
- F. The Work is the entire delivery, installation or construction or separately identifiable parts thereof required to be furnished under the contract documents.
- G. A Bid is a complete and properly signed proposal to provide the materials and labor for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- H. The Base Bid is the sum stated in the Bid for which the Bidder offers to provide the equipment described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.
- I. An Alternate Bid is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding changes in the items, as described in the Bidding Documents are executed.
- J. A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials or service as described in the Bidding Documents or in the proposed Contract Documents.

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### 1.02 DOCUMENTS

- A. Copies of the Bidding Documents may be obtained at the office of the Vice President for Business Services, 5001 Lake Land Boulevard, Mattoon, Illinois 61938; (217) 234-5224.

### 1.03 EXAMINATION OF DOCUMENTS

- A. Bidders shall examine all documents and shall inform themselves of the Work to be performed. Failure to do so will not relieve a successful bidder of his obligation to provide all materials necessary to execute the Work for the sum stated thereon.
- B. Each Bidder, by submitting his bid represents that he has read and understands the bidding documents and has informed himself of the conditions of the Work.

### 1.04 INTERPRETATIONS DURING BIDDING

- A. If any Bidder is in doubt as to the meaning of any part of the Bidding Documents, they may submit a written request to: Bill Jackson, Director of Athletics, 5001 Lake Land Boulevard, Mattoon, Illinois 61938, (217) 234-5296, wjackson60312@lakelandcollege.edu; for an interpretation of that part.
- B. Written requests for interpretations or clarifications must be made no later than ten (10) working days prior to the Bid Date specified in the Advertisement for Bids.
- C. Any interpretation or change will be made only by Addenda numbered, dated, and issued by the Owner to each Bidder on record as having received a set of Bidding Documents and will be available for inspection wherever the Bidding Documents are kept available for that purpose. Lake Land College will not be responsible for any other explanations or interpretations of the Bidding Documents.

### 1.05 SUBSTITUTION OF PRODUCTS

- A. MANUFACTURER'S TRADE NAMES ARE USED IN SPECIFICATIONS FOR THE EXPRESS PURPOSE OF ESTABLISHING A STANDARD OF QUALITY AND COORDINATION OF DESIGN, NOT FOR THE PURPOSE OF LIMITING COMPETITION.
- B. All sizes of equipment must be as specified, and all pieces of equipment must include or have those features which are set forth in the specifications.

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- C. Bidders proposing substitutions in writing must submit detailed specifications with catalog cuts or manufacturer's literature, pictorially portraying that on which they are bidding for comparison to specified items by the Owner.
- D. Any additional explanation or statement which the Bidder wishes to make must be placed in the same envelope and attached to the proposal. Unless the Bidder so indicates, it is understood that the Bidder has bid in strict accordance with the specifications and drawings and has made no substitutions, modifications or additional stipulations.

### 1.06 QUALIFICATION OF BIDDERS

- A. Bidders may be disqualified and their Bids not considered for any of the following specific reasons:
  - 1. Reason to believe collusion exists among Bidders.
  - 2. The Bidder being interested in any litigation against the Owner.
  - 3. The Bidder being in arrears on any existing contract or having defaulted on a previous contract.
  - 4. Lack of competency as revealed by the financial statement, experience, and equipment, questionnaires, or qualification statement.
- B. If requested, a Bidder shall submit to the Owner a confidential Financial Statement in a sealed envelope.

### 1.07 PREPARATION OF BID:

- A. No modification to the terms of these bid documents will be permitted. Any deviation shall be considered cause for disqualification.
- B. All bids must be submitted on the bid form contained herein.
- C. The Bidder shall base the bid on materials complying with the Bidding Documents, and shall list all information where the bid form requires.
- D. Bids shall not be based on discounts, rebates or other refunds unless all requirements of these Bid documents are met within the terms of the discounts, rebates or refunds. Bidder shall notify Owner of intention to base Bid on any discounts, rebates or refunds in writing. This notification shall be attached to bid form when submitted to owner.
- E. The blank spaces in the bid form shall be filled in correctly with ink or typewritten. A bid form containing an alteration or erasure of any price

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contained in the bid which is used in determining the lowest responsible bid shall be rejected unless the alteration or erasure is corrected as herein provided:

1. An alteration or erasure must be crossed out and the correction printed in ink or typewritten adjacent to the alteration or erasure.
  2. The person signing the bid must initial the correction in ink.
  3. In the event that any price used in determining the lowest responsible bid is expressed by the Bidder in both written and numerical form, the written representation shall govern in all cases.
- F. If the bid form includes alternates, each Bidder may bid on any alternate he/she chooses provided they have the required level of proficiency with item in question.
- G. If an individual submits Bid, he or his duly authorized agent must sign his name. If a firm, association or partnership submits the Bid, the name, address and title of each member must be given, and an official or duly authorized agent must sign the Bid. Powers of attorney authorizing agents or others to sign Bids must be properly certified and must be in writing and submitted with the Bid.
- H. Bids from individuals or partnerships, if signed by an attorney-in-fact, shall have attached to the bid the power of attorney, evidencing the authority to sign the bid. If the bid is signed by any other legal entity, the authority of the person signing shall be attached to the bid.

### 1.08 EXEMPTION FROM SALES TAX ON MATERIALS

- A. The Owner is exempted by Section Three of the Illinois Use Tax Act (Sec 3, House Bill 1610 approved July 31, 1961. IL. Rev. Stat. 1961, Chap. 120 Sec 439.3) from paying any of the taxes imposed by that act and sales to the Owner are exempt by Section Two of the Illinois Retailer's Occupation Tax Act (Section 2, House Bill 1609, Approved July 31, 1961 IL. Rev. Stat. 1961, Chap. 120 Sec. 441) from any of the taxes imposed by that Act.

### 1.09 IDENTIFICATION AND SUBMITTAL OF BID

- A. Each bid and all papers bound and attached to it shall be placed in an envelope and securely sealed therein. The envelope shall be plainly marked with the following:
1. The word "BID"
  2. Name and address of the Bidder.

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- B. The envelope of the bid shall be addressed to:  
  
Lake Land College Athletics  
Video Board/Scoreboards Bid  
C/O Bryan Gleckler  
5001 Lake Land Boulevard  
Mattoon, Illinois, 61938
- C. Bids shall be delivered before the time set for the opening of the bids. Bids arriving by mail or otherwise after the time designated for the opening of bids will be returned unopened.
- D. No oral, telephone, facsimile or email proposals or modifications will be considered.

### 1.10 MODIFICATION OR WITHDRAWAL OF BID

- A. A bid may not be modified after submittal. Bidders may withdraw a bid at any time before opening. A Withdrawal of a Bid must be made in writing or in person by a bidder or his duly authorized agent. If a firm, association or partnership wishes to withdraw a bid, an official or duly authorized agent must sign the written request or appear in person.
- B. Once withdrawn, the bidder must submit a new bid prior to the opening in order to be considered.
- C. No Bid may be withdrawn or modified after the Bid opening except where the award of the Contract has been delayed beyond 60 days after date of Bid.

### 1.11 OPENING OF BIDS

- A. The Bids submitted will be opened at the time and place stated in the Advertisement for Bids and publicly read aloud and thereafter shall remain on file with the Owner.
- B. After Bids are opened, the Bids will be tabulated for comparison on the basis of the Bid prices and quantities shown on the Bids.
- C. The Owner reserves the right to withhold the award of the Work for a period of 60 days from the date of the opening of Bids and no award will be made until the Owner is satisfied as to the responsibilities of the low Bidders.
- D. Until final award of the Work, the Owner reserves the right to reject any or all Bids or proceed to do the Work otherwise in the best interest of the Owner.



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### 1.12 EVALUATION AND CONSIDERATION OF BIDS

- A. The Owner reserves the right to reject all bids or parts of bids, and to waive informalities therein.
- B. For the purpose of determining the lowest responsible bidder in the consideration of all bids submitted, the Owner reserves the right to accept or reject any or all alternates in the numerical order in which they appear on the bid form.

### 1.13 DISQUALIFICATION OF BIDDERS

- A. Bids will not be considered if they show any omissions, additions, alterations of form, conditions not requested, unauthorized alternate Bids or irregularities of any kind. However, the Owner reserves the right to waive any irregularities and to make the award in the best interest of the Owner.
- B. The Bidder acknowledges the right of the Owner to reject any or all Bids and to waive any informality or irregularity in any Bid received. In addition, the Bidder recognizes the right of the Owner to reject a Bid if the Bidder fails to submit the data required by the Bidding Documents.
- C. For the purpose of determining the lowest responsible bidder in the consideration of all bids submitted, the Owner reserves the right to accept or reject any or all alternates.

### 1.14 APPLICABLE LAWS

- A. All applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the Work shall apply throughout, and they will be deemed to be included the same as though herein written out in full.
- B. Bidder's signatures shall be construed as acceptance of and willingness to comply with all provisions of the acts of the General Assembly of the State of Illinois relating to the Department of Human Rights Act, previously the Illinois Fair Employment Practices Act, Prevailing Wage Act for workers in our area, preference to citizens of the United States and residents of the State of Illinois, and discrimination and intimidation of employees. Provisions of said acts are hereby incorporated by reference and become a part of this proposal and specification.

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1.15 RECORDS:

- A. The Contractor shall maintain, for a minimum of 5 years after the completion of the Work, adequate books, records and supporting documents to verify the amounts, recipients, and uses of all disbursements of funds passing in conjunction with the Work; all books, records and supporting documents related to the Work shall be available for review and audit, and the Contractor agrees to cooperate fully with any audit conducted and to provide full access to all relevant materials.

END OF SECTION

SECTION 004146

BID FORM

PROJECT IDENTIFICATION: Athletics Video Board/Scoreboards, Project 2018-006

BID TO: Board of Trustees  
Lake Land College District Number #517  
C/O Bryan Gleckler  
Vice President for Business Services  
5001 Lake Land Boulevard  
Mattoon, Illinois, 61938

BID FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The undersigned Bidder agrees, if this Bid is accepted, to enter into an Agreement with the Owner, in the form included in the Bidding Documents, to perform and furnish Work as specified or indicated in the Bidding Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

In submitting this Bid, Bidder represents that:

- A. This Bid will remain subject to acceptance for 60 days after the day of the bid opening.
- B. The Owner has the right to reject this bid.
- C. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Bidding requirements within 15 days after the Owner's Notice of Award.
- D. Bidder has copies of all the Bidding Documents.
- E. Bidder has visited the site and become familiar with the general, local and site conditions.
- F. Bidder is familiar with federal, state and local laws and regulations.
- G. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the bidding documents and additional examinations, investigations, explorations, tests, studies and data with the Bidding Documents.
- H. This Bid is genuine and not made in the interest of or on the behalf of an undisclosed person, firm or corporation and is not submitted in conformity with an agreement or rules of a group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited another Bidder to submit a false or sham Bid; Bidder has not solicited or induced a person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself an advantage over another Bidder or over the Owner.
- I. Bidder has received the following addenda receipt of which is hereby acknowledged.

Date	Number
_____	_____
_____	_____

BID PRICE (Complete) \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) (use words)

Bidder agrees to provide all materials, labor and equipment, as specified, on or before the number of calendar days indicated below.

SUBMITTED on \_\_\_\_\_, 2018

Company \_\_\_\_\_, (Seal)

Address \_\_\_\_\_

Signed \_\_\_\_\_

\_\_\_\_\_  
(Printed Name)

Phone \_\_\_\_\_

Fax \_\_\_\_\_

END OF SECTION

## SECTION 012900

### PAYMENT PROCEDURES

#### PART 1 GENERAL

##### 1.01 PAYMENTS

- A. The Owner will make payment on account of the Contract as follows:
1. Upon completion of all work as directed in these specifications the Contractor shall request payment in full.
  2. Payment will be made provided Owner certifies that the work meets all requirements of these specifications.
  3. The Contractor shall provide an invoice for the work which will satisfy the following:
    - 1) Itemize separate line item cost for each unit type of equipment as indicated on the Bid Form.
    - 2) All forms must be typed and all sections of the forms completed.
  4. Payment will be made within 60 days of certification of work by Owner.

##### 1.02 PAYMENTS WITHHELD

- A. The Owner may withhold, or on account of subsequently discovered evidence, nullify the whole or part of any payment to such an extent as may be necessary to protect the Owner from loss on account of:
1. Defective work not remedied.
  2. Claims filed or reasonable evidence indicating probable filing of claims.
  3. Failure of the Contractor to make payment properly to Subcontractors for materials and/or labor.
  4. A reasonable doubt that the Contract can be completed for the balance then unpaid.
  5. Damage to another Contractor.
- B. When the above conditions are remedied payment will be made for the amounts withheld.

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- C. Should the Contractor fail to perform any work according to the drawings and specifications, or should he refuse to correct any work not done according to the drawings and specifications, the Owner may, after having given the Contractor ten days written notice, construct such work or make repairs necessary to meet the requirements of the Contract. The cost of such work shall be deducted from the final payment due the Contractor.

END OF SECTION

## SECTION 117000

### ATHLETICS VIDEO BOARD/SCOREBOARDS

#### PART 1 GENERAL

##### 1.01 SCOPE

- A. The work under this section includes the furnishing of all labor, material, equipment, supervision and services necessary for the execution and completion of all items necessary to provide complete and functioning Athletics Video Board/Scoreboards, delivery and installation as herein specified.
- B. If a Bidder is unable to comply with any of the following specifications, the Bidder shall submit in writing the reason for noncompliance. Noncompliance with any specification is grounds for rejection of the entire bid. The buyer reserves the right to reject any bid which does not meet these specifications.
- C. Bids shall include all shipping, handling, delivery and installation fees and will have no hidden costs.
- D. Bids shall include explicit technical information regarding electrical requirements or special structural considerations or other accommodations required for the proper installation and operation of specified equipment.
- E. Provide 5 years of no cost parts exchange including standard shipping on electronics parts and radios due to manufacturing defects. Provide toll-free service coordination. Provide technical online and phone support during business hours.
- F. All Owner's materials, software, manuals, guides or other supplied information shall be presented in a neat, orderly, and professional manner using binders, folders or other devices as necessary.
- G. Includes:
- LED matrix display
  - Control System
  - Baseball/Softball Scoreboard
  - Basketball/Volleyball/Wrestling Scoreboard
  - Shot Clock Timer Display
  - Locker Room Clock Display
  - Backboard Lighting Kit
  - Scoring Console
  - Non-backlit Ad/ID panel
  - Outdoor Decorative Accent

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### 1.02 RELATED DOCUMENTS:

- A. All provisions of the Specifications apply to the work of this section.
- B. References:
  - Standard for Electric Signs, UL-48, 14th Edition
  - Standard for Control Centers for Changing Message Type Signs, UL-1433, 4th Edition
  - Standard for CAN/CSA C22.2 No. 207-M89
  - Federal Communications Commission Regulation Part 15
  - National Electric Code

### 1.03 SUBMITTALS:

- A. Submit for approval; shop drawings and product data to properly illustrate the appearance and function of the proposed Athletics Video Board/Scoreboards, including but not limited to:
  - 1. Product data: Submit manufacturer's product illustrations, data and literature that fully describe the displays and accessories proposed for installation.  
  
Shop drawings: Submit mechanical and electrical drawings.  
  
Maintenance data: Submit manufacturer's installation, operation, and maintenance manuals.
- B. Upon completion Athletics Video Board/Scoreboards vendor shall provide three (3) sets of equipment manuals and warranty documents for all equipment.

### 1.04 QUALITY ASSURANCE:

- A. Deliver, handle, store and install the Athletics Video Board/Scoreboards in accordance with manufacturer's approved printed instructions.
  - For indoor use only
  - Source Limitations: Obtain each type of electronic display through one source from a single manufacturer
  - ETL listed to UL Standards 48 and 1433
  - ETLC listed to CAN/CSA 22.2
  - CE compliant
  - FCC compliant
  - EU EMC Directives 55022/55024/61000 compliant
  - Installed per NEC

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### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Provide Athletics Video Board/Scoreboards, as manufactured by Daktronics, Inc., P.O. Box 5128, Brookings, SD 57006-5128, or equal, which shall include the following:

Communication Type: Fiber Optic (50/125 um multi-mode)

DVNMC video displays show real-time scores/stats, animations, graphics, recorded video clips, and text messages in 19 standard cabinet sizes. Modules feature SMD (3-in-1) LED packages with 10mm pixel-to-pixel spacing to provide wider viewing angles and extremely close viewing distances.

Daktronics BA-2026 single-sided baseball scoreboard displays HOME and GUEST team scores for up to 10 innings, total RUNS and HITS to 99 and ERR (errors) to nine for each team, AT BAT to 99, BALL to three, STRIKE to two, OUT to two, and H/E (hit or error) with field position number for the error. Scoreboard can show TIME or PITCH COUNT instead of AT BAT, as well as AT BAT or PITCH COUNT in place of H/E. PITCH COUNT displays up to 199.

Daktronics BB-2107 single-sided basketball scoreboard displays period time to 99:59, HOME and GUEST scores to 199, PERIOD to nine, team FOULS to 19, PLAYER number to 99, player FOUL to nine, T.O.L. (time outs left) to nine and indicates possession and bonus. During the last minute of the period, scoreboard displays time to 1/10 of a second. Scoreboard can also score volleyball, wrestling and any sport requiring a clock, score and period function.

Daktronics BB-2114 single-sided basketball shot clock timer displays shot times up to a value of 99 seconds. It can also count down from any preset time between 0 and 99 seconds. A hand-held start/stop/reset switch is included with purchase.

Daktronics TI-2031 wall mounted locker room clock displays game time or time of day. Displays time in synchronization with scoreboard clocks.

Daktronics BB-2135 LED light strip kit acts as a visual indicator to communicate with basketball players, fans and officials. A strip of red LEDs behind the face of the backboard lights up when the game clock reaches zero. Alternately, the light strip can be programmed to illuminate when the game (or shot clock) horn sounds or while the clock is stopped. This kit is designed to fit typical backboard models used at high school and collegiate levels.



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LED Display: Provide one (1) Daktronics DVNMC-934-160x288-RGB-SF-120VAC-MA -MN-WMC-MR Video Display.

### General Information:

- Cabinet Dimensions: 6' (1.83m) high, 10'-0" (3.05m) wide, 0'-6" (152.4mm) deep
- Matrix size: 160x288
- Line/Column Spacing: 9.9mm
- Weight: 290# (131.7 kg) unpackaged
- Power requirements: 3984 watts/display

### Pixel Characteristics:

- Each pixel shall consist of RGB 3-in-1 SMD style LED. Pixels with through hole LED technology are not acceptable
- Pixel spacing measurement shall be measured from the center points of neighboring physical pixels, rather than neighboring physical and virtual pixels
- All LEDs shall be official Nichia brand and bidder shall provide a letter from Nichia indicating bidder is an established customer of Nichia Japan with bid response

### Display Capabilities:

- Gradations Per Color: 16,384
- Color Capability: 16 bit (281 trillion colors)
- LED Refresh Rate: 4800 Hz as defined by the number of times per second the LED image is repainted in intensity.
- Display shall 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 failure.

### Video Processing:

- Video Frame Rate: 50/60 frames per second
- Graphic Frame Rate: 30 frames per second
- Processing Architecture: 22-bit distributed
- System Architecture: 100% digital
- Video Enhancement: Color space conversion, adjustable gamma correction, proprietary sharpening technology and enhancement algorithms for optimal picture quality

### LED Quality

- Quality Control: Sorted by intensity and color wavelength
- LED Lifetime: 100,000 hours of operation as defined by time at which display intensity has decreased to 50 percent of the original intensity

### Display Construction

- Service Access: Front
- It shall not be necessary to remove or insert screws in order to remove or install modules
- Cabinet Depth: 6"
- Cabinet Construction: All-aluminum construction for lightweight and corrosion resistance. Cabinet must be manufactured in the same facility as modules

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### Viewing Characteristics

- Module Intensity: 2,000 nits (adjustable)
- Brightness Control: 256 levels (manual, scheduled or automatic)
- Suggested Viewing Angle: 170° horizontally and +60°-80° vertical

Display Interface: The full-color video display MUST have the ability to interface and display real-time data from the control system without the need for a duplicate or redundant input.

Media Player: Provide one (1) Daktronics Digital Media Player

### Minimum Standard Hardware Features

- Resolution: 720p full motion

#### Hardware Features:

- 8 GB DDR2 SDRAM (single channel)
- 240 GB solid state drive
- 10/100/1000 Ethernet (RJ-45 LAN) @ 2
- Audio output: 3-pin XLR balanced
- Ports: 6 USB 2.0, 4 USB 3.0
- Inputs: Component or Composite or SDI (HD-SDI)
- Outputs: DVI to Daktronics Processor
- Animation rates of up to 60 frames per second Processor

### Specifications

- Width: 222 mm (8.5"), Height: 43 mm (1.7"), Depth: 305 mm (12")
- Power: 15 watts 120/240 volts 50-60 Hz
- Weight: 3.24 kg (7.15 lbs)
- Half width 1RU

Video Processor: Provide one (1) Daktronics Video Processor

### Video Input

- DVI from Daktronics Digital Media Player

### Video Output

- Two (2) Daktronics ProLink® 6 (fiber optic)

### Control and Communication

- One (1) network interface (Cat 5e)

### Color Space Conversion

- Proprietary LED conversion

### Specifications

- Width: 222 mm (8.75"), Height: 43 mm (1.7"), Depth: 305 mm (12")
- Power: 15 watts 120/240 volts 50-60 Hz
- Weight: 3.24 kg (7.15 lbs)
- Half width 1RU

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### Control System Software Functions:

#### Laptop

- Operating System: Windows® 10 Pro 64
- Processor: Intel® Core™ i5
- Memory Support: 8 GB DDR4-2133 SDRAM
- Hard Drive: 500 GB 7200 RPM
- Form Factor: HP ProBook 650 G2 with 15.6" (584 mm) display

#### Display Software Features

- Simultaneous display and edit capability
- Quick display to direct access from any point in the operation to the display function
- Support optional input devices such as a mouse, keyboard, touch screen, and dual monitor
- In-place editing features
- Icon and pull-down menu programming features
- Help screens
- Control multiple signs directly
- Content playlists with loop, shuffle, random and next play functionality
- Networking software feature
- Thumbnail preview
- Monitor displays
- Color-coded buttons
- Adjustable button sizes
- Unlimited buttons
- The ability to control and download to remote displays
- Multiple operator workspaces

#### Content Editor Software Functions

- Display of true type fonts and other Windows® compatible character fonts
- Image and animation import of multitude different formats, including BMP, JPEG, PCX and AVI
- Import still and motion graphics
- Content preview
- Layer content
- Transitions and effects
- Inline text editing
- Must be capable of real-time data display that allows operators to create a sequence with information such as: scores, game-time, player statistics, team statistics, time-of-day, date or temperature that automatically updates without user intervention

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### Animations

- Have the ability to receive Daktronics standard or enhanced RTD (real time data)
- Be configured to send RTD to individual displays or groups of displays
- Have the ability to control signs by sending messages, running messages, stopping messages, blanking displays, etc. from the RTD stream

### Baseball Scoreboard @ 2

#### General Information

- Dimensions: 9'-4" (2.85 m) high, 36'-0" (10.97 m) wide, 0'-8" (203 mm) deep
- Base weight: 1680 lb (762 kg) with vinyl captions – options may increase weight
- Base power requirement: 505 W (red/amber digits), 1110 W (white digits) with vinyl captions – options may increase wattage
- Color: provide over 150 colors to choose from

#### Construction

- Alcoa aluminum alloy 5052 for excellent corrosion resistance
- Scoreboard back, face, and perimeter: 0.063" (1.60 mm) thick
- Scoreboard top and bottom: 0.125" (3.18 mm) thick

#### Digits

- LED color: BALL, STRIKE, OUT and RUNS digits Amber, all others Red (-RA)
- AT BAT, BALL, STRIKE, OUT, and H/E digits: 24" (610 mm) high
- Inning scores, RUNS, HITS, and ERR digits: 18" (457 mm) high
- Seven bar segments per digit
- PanaView® LED digit technology
- All digits are sealed front and back with weather-tight silicone gel

#### Captions

- Vinyl applied directly to scoreboard face
- HOME and GUEST captions: 15" (381 mm) high
- AT BAT, BALL, STRIKE, OUT, and H/E captions: 12" (305 mm) high
- Inning numbers, RUNS, HITS, and ERR captions: 10" (254 mm) high
- Color: standard white or others available upon request

#### Accessory Equipment

- Vinyl striping applied around the scoreboard face
- Vinyl striping applied around the BALL, STRIKE, and OUT digits
- Programmable Team Name Message Centers (TNMCs) – add 120 lb (54 kg)

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### Basketball/Volleyball/Wrestling scoreboard @ 1

#### General Information

- Dimensions: 6'-0" (1.83 m) high, 10'-0" (3.05 m) wide, 0'-6" (152 mm) deep
- Base weight: 260 lb (118 kg) – options may increase weight
- Base power requirement: 200 W – options may increase wattage
- Color: provide over 150 colors to choose from

#### Construction

- All-aluminum construction
- Scoreboard back, face, and perimeter: 0.063" (1.60 mm) thick
- Cabinet withstands high-velocity impact from air-filled sports balls without the need for protective screens

#### Digits & Indicators

- LED digit technology: PanaView® (PV) – discrete LEDs protrude through the scoreboard face
- LED color: Amber clock/colon, PERIOD, PLAYER/FOUL and T.O.L. digits and bonus indicators with Red score and FOULS digits and possession indicators
- Clock and score digits: 13" (330 mm) high
- Bonus indicators: 4" (102 mm) high
- Possession arrows: 3" (76 mm) high
- Seven bar segments per digit

#### Captions

- Vinyl applied directly to scoreboard face
- HOME and GUEST captions: 6" (152 mm) high
- PERIOD, FOULS/SCORE, PLAYER/FOUL/MATCH and T.O.L. captions: 4" (102 mm) high
- Color: standard white or others available upon request

#### Horn

- Vibrating horn mounted inside the scoreboard cabinet behind the face
- Sounds automatically when period clock counts down to zero
- Sounds manually as directed by operator

#### Power Cord

- Cord is 11' (3.35 m) long
- Cord plugs into a standard grounded outlet

#### Accessory Equipment

- Vinyl striping applied around the clock and scoreboard face
- Two 6" (152 mm) high Programmable Team Name Message Centers (TNMCs) in place of vinyl HOME and GUEST captions
- Double bonus indicators in place of single bonus indicators

## SECTION 117000

### Shot Clock Timer Displays @ 1 pair of displays

#### General Information

- Dimensions: 1'-7" (483 mm) high, 1'-10" (559 mm) wide, 0'-6" (152 mm) deep
- Weight: 15 lb (7 kg)
- Power requirement: 350 W
- Color: Semi-gloss black

#### Construction

- All-aluminum construction
- Scoreboard back, face, and perimeter: 0.063" (1.60 mm) thick
- Cabinet withstands high-velocity impact from air-filled sports balls without the need for protective screens

#### Digits

- LED digit technology: PanaView® (PV) – discrete LEDs protrude through the scoreboard face
- Shot clock digits: 13" (330 mm) high
- Shot clock digits: red LEDs
- Seven bar segments per digit

#### Horn

- Internal horn sounds automatically when shot clock counts down to zero
- Sound is distinctly different from the game-clock horn

#### Power Cord

- Cord is 11' (3.35 m) long
- Cord plugs into a standard grounded outlet

### Indoor Locker Room Clock display @ 4

#### General Information

- Dimensions: 8" (203 mm) high, 1'-3" (381 mm) wide, 3.25" deep (83 mm) for Surface Mount or 1.375" (35 mm) deep for Flush Mount
- Weight: 4 lb (1.8 kg)
- Power requirement: 40 W
- Color: provide over 150 colors to choose from

#### Construction

- Durable, high impact polystyrene

## SECTION 117000

### Digits

- LED digit technology: diffusant lenses over the LEDs blend the light for a uniform bar look and 140° viewing angle
- LED digit color: Red
- Seven bar segments per digit

### Power Cord

- Cord is 6' (1.83 m) long
- Cord plugs into a standard grounded outlet

### Backboard Lighting Kit @ 2

#### General Information

- Dimensions: Light strips are 0.5" (13 mm) tall and 1.5" (38 mm) deep. Light strip across the top is 62" (1475 mm) wide. The two light strips on the bottom are each 18" (457 mm) wide. The lengths of the two light strips along the sides vary depending on size of backboard, either 29" (737 mm) for a 42" (1067 mm) tall backboard or 35" (889 mm) for a 48" (1219 mm) tall backboard.
- Weight: 8 lb (4 kg)
- Power requirement: 16 VDC, 100 Watts, 0.9 Amp

#### Construction

- Durable plastic composite material with aluminum brackets
- Paint Color: Mounting brackets are painted gloss black

#### Indicators

- Red LED

#### Control

- Daktronics shot clock or LED light strip controller; 18 AWG jacketed signal cable with 3-pin XLR male and female ends

#### Scoring Console

- Console is an All Sport® 5000 controller
- Scores multiple sports using changeable keyboard inserts
- Controls multiple scoreboards and displays, including other All Sport 5000 controlled displays currently owned by customer
- Recalls clock, score, and period information if power is lost
- Runs Time of Day and Segment Timer modes
- Provide handheld control / receiver for one scoreboard in gym for practices. (Must be able to activate control and turn on and operate scoreboard without manual switching or connections.)
- Console includes:
  - Rugged aluminum enclosure to house electronics
  - Sealed membrane water-resistant keyboard

## SECTION 117000

32-character LCD to verify entries and recall information currently displayed

Power cord that plugs into a standard grounded outlet; 6 watts max

Control cable to connect to the control receptacle junction box (wired system only)

Hand-held switch for main clock start/stop and horn

Soft-sided carrying case

### Accessory Equipment

- 2.4 GHz spread spectrum radio system with frequency hopping technology and 64 non-interfering channels; system includes a transmitter installed inside the console and a receiver installed inside the scoreboard(s)

### Non-Backlit AD & ID Panels

#### General Information

- Dimensions: 3' x 36' Outdoor non-backlit @ 4 for Baseball/Softball Scoreboard
- Dimensions: 3' x 10' Indoor non-backlit @ 2 for Basketball/Volleyball/Wrestling Scoreboard
- Weight shall vary with size of panel
- Color: over 150 colors to choose from, plus unlimited digital image selection

#### Construction

- Signage cabinetry and metal parts shall be made of durable, lightweight aluminum
- All sheet metal parts shall be constructed of 0.050" aluminum with an alloy content of 5052-H34 minimum
- All painted surfaces shall be primed and painted using automotive industrial finish or better

#### Sign Decoration

- Sign decoration shall be constructed using self-adhesive vinyl materials with a minimum of a 3-year outdoor warranty
- Digitally produced graphics shall be 3M Scotchprint® or equivalent

### Outdoor Decorative Truss Accent

#### General Information

- Dimensions: 32" x 106" non-backlit domed sponsor/ID panel @ 2
- Weight shall vary with size of accent
- Color: over 150 colors to choose from, plus unlimited digital image selection



## SECTION 117000

### Construction

- Accent and logo area shall be made of durable, lightweight aluminum
- All sheet metal parts shall be constructed of 0.050" aluminum with an alloy content of 5052-H34 minimum
- All painted surfaces shall be primed and painted using automotive industrial finish or better

### Sign Decoration

- Sign decoration shall be constructed using self-adhesive vinyl materials with a minimum of a 3-year outdoor warranty

## PART 3 EXECUTION

### 3.01 DELIVERY, STORAGE AND HANDLING

#### A. Contractor shall:

1. Product delivered on site. Install Athletics Video Board/Scoreboards per manufacturer's instructions in a professional, neat and timely manner. Display and equipment to be housed in a clean, dry environment.
2. Provide all accessories, controls and appurtenances to provide a fully functioning system.
3. All equipment shall be provided in the manufacturer's original sealed packaging and shall be clearly marked with the project name and number;

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### 3.02 Project Conditions

- A. Environmental Limitations: Do not install equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for project when occupied for its intended use.
- B. Field Measurements: Coordinate display location and height with the customer. Verify dimensions by field measurements.
- C. Supply weight and mounting method for owner to verify that building structure can support the display's weight in addition to the auxiliary equipment.

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### 3.03 Examination

- A. Verify that mounting surface is ready to receive the display. Verify that placement of conduit and junction boxes are as specified and indicated in plans and shop drawings.

### 3.04 Installation

- A. Power conduit, cables and outlet boxes to be provided and installed by the electrical contractor. Signal raceways, conduit and boxes to be provided by the electrical contractor. Electrical contractor is responsible for pulling signal wire and terminators between each display and control location. Display vendor to terminate signal wire of controller and conduit to display.
- B. Mount interior displays to wall in location detailed and in accordance with manufacturer's instructions. Unit to be plumb and level.

### 3.04 Installation-Control Center

- A. Provide boxes, cover plates and jacks as required to meet control specification requirements. Control cables to control panels must be concealed.
- B. Test the operation of the display, controller and all control jacks; leave control unit and other loose items with owner's designated representative.
- C. Conduct operator training on the display/controller operation.
- D. Manufacturer must supply all required signal conversion hardware to allow for direct wire control of electronic display. Manufacturer must supply all required signal conversion hardware to allow for direct wire control of electronic display.

END OF SECTION