

DIVISION 11 - EQUIPMENT

116843 INTERIOR SCOREBOARDS AND CONTROLLERS

SECTION 116843 - INTERIOR SCOREBOARDS AND CONTROLLERS

1. GENERAL

1.1 WORK INCLUDED

- A. Provide all equipment and materials including support structure and do all work necessary to furnish and install electronic scoreboards with operational control center and accessories at the Gymnasium Building E.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM) Publications:
 - 1. ASTM B221 - Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
 - 2. ASTM A6 – Steel Shapes
- B. National Electrical Code (NEC).
- C. Federal Communications Commission, Part 15 Rules & Regulations, EN60950-1, EN55022 & EN55024.
- D. UL and C-UL Standard for Electric Signs

1.3 SUBMITTALS

- A. Provide in accordance with Section 01 33 00 - Submittal Procedures:
 - 1. Product data for scoreboards, controls, and accessories shall include descriptions of control functions etc.
 - 2. Installation drawings, face layout, dimensions, construction, electrical wiring diagrams, and method of anchorage.
 - 3. Copies of manufacturer's warranty.
 - 4. Manufacturer's installation instructions.
 - 5. Finish Samples.

1.4 QUALITY ASSURANCE

- A. Source limitation: All components including scoreboard, control center, control cable, and other accessories and installation hardware shall be products of a single manufacturer.
- B. Manufacturer qualifications: Company specializing in manufacturing electronic scoreboards with 10 years minimum experience.
- C. Scoreboards shall be designed for exterior installation with weatherproof housing and optical isolation circuitry to reduce potential damage from electrical storms.
- D. Should service be necessary, specialized personnel shall not be required. Modular "plug and play" components will be housed in an internal protective enclosure.
- E. Scoreboards and other electrical components shall be certified for use in United States and Canada by Underwriter Laboratories, (UL) Inc. and shall bear either UL label only.

- F. Scoreboards and other electrical components shall be electrically grounded in accordance with National Electrical Code (NEC), Article 600.

1.5 WARRANTY

- A. Provide under provisions of Section 01 78 00 - Closeout Submittals: Warranty to cover defects in materials and workmanship.
 - 1. 5 years parts and factory labor guarantee for scoreboards and accessories from date of Substantial Completion.
 - 2. 2 years part and factory labor warranty for wireless controls and receivers from date of Substantial Completion.
 - 3. Lifetime telephone support.

2. PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Basis of Design: Basketball Scoreboards as scheduled by Fair-Play by Trans-Lux, (800) 247-0265, www.fair-play.com. Model shall be accompanied by a wireless controller.
- B. Equivalent products of the following manufacturers are acceptable:
 - 1. Nevco, Inc., 800-851-4040; www.nevco.com; Model 2710 with MPCW wireless controller.

2.2 MATERIALS

- A. Aluminum faces and perimeter frame: Fabricated from .050 minimum thickness, ASTM B221 aluminum sheet with reinforcement and slotted mounting brackets top and bottom.
- B. Finish: Acrylic polyurethane paint. Color as selected by Architect from manufacturer's full range of available options.
 - 1. Provide white striping to separate scoreboard features.
- C. Brackets: Integrated universal bracket system.
- D. Fasteners, anchors, and other exposed hardware: Corrosion resistant.
- E. Electronics: Low voltage, solid state, 2-wire cable, multiplex system, quartz crystal controlled.
- F. Provide gold-plated electrical contacts on interconnecting wiring to reduce corrosion and improve reliability.
- G. Provide optical communication circuitry to reduce threat of damage from electrical storms and ESD.
- H. LED (light emitting diode) units: Segmented digits, rated typical life 100,000 hours and be designed to provide excellent visibility from all angles and sides. Provide in 3 colors to visually organize critical game information.
- I. Junction boxes where required: Sheet metal box and cover complying with NEMA standards.

2.3 SCOREBOARD TYPE 1: @ Basketball Court (two scoreboards total required)

- A. Type: Interior, electronic basketball scoreboards with LED displays for home & visitor score, time, bonus, possession arrow and period. Basis of Design is Model BB-1620-4 as manufactured by Fair-Play by Trans-Lux Corp.
 - 1. Size: 9 feet long x 5 feet high x 4 inches deep.
 - 2. Approximate weight: 101 pounds.
 - 3. White on black captions:
 - a. 6 inches high: "HOME", "VISITOR".
 - b. 4 inches high: "PERIOD", "BONUS" "FOULS" (personal and team), "PLAYER".
 - c. 3 inches high: "POSS".
 - d. Colon Diameter: 1.5 inches.
 - 4. High Intensity LED displays:
 - a. 12 inches high digits and letters: Game Clock, Team Scores.
 - b. 10 inches high digits: Period, Team Fouls, Personal Fouls, Player Number.
 - 5. Power requirement: 121 Watts MAX w/ ETN's. 120 VAC, 2A, 1-ph, 60 Hz. ETL/CETL in accordance with NEC.
- B. Scoreboard Accessories:
 - 1. Personalized Home Team Name.

2.4 CONTROLLERS

- A. Type: Wireless, microprocessor-based operator's control center designed to operate different models of scoreboards by interchange of keyboard overlay; Model MP60 and compatible hand switches, as manufactured by Fair-Play. Controller shall integrally control both Basketball Scoreboards in the Junior High Gymnasium. Provide optional carrying case for scoreboard console.

3. EXECUTION

3.1 PREPARATION

- A. Verify exact scoreboard and control center quantities and junction box locations.
- B. Coordinate requirements for electrical power, concrete, steel erection, auxiliary framing and supports, suspension cables, and other components to ensure adequate provisions are made for complete, functional installation of scoreboards.
- C. Coordinate scoreboard electrical requirements to ensure proper power source, conduit, wiring, and boxes are provided. Prior to installation, verify type and location of power supply.

3.2 INSTALLATION

- A. Install scoreboards and accessories in accordance with manufacturer's instructions and approved installation drawings.

- B. Before installation, field test scoreboards and accessories for operating functions. Ensure that scoreboards accurately perform all operations. Correct deficiencies.
- C. Rigidly mount scoreboards and accessories level and plumb with brackets and fasteners.
- D. Clean exposed surfaces.
- E. Protect scoreboards and finishes from other construction operations.

3.3 DEMONSTRATING AND TRAINING

- A. Provide demonstration and training session for Owner's representative covering operation and maintenance of electronic scoreboard.

END OF SECTION