

**SECTION 32 30 00**  
**EXTERIOR ATHLETIC EQUIPMENT & FIELD MARKERS**

**PART 1 GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 specification sections, apply to work in this section.
- B. Section 01 60 00 - Material/Equipment and Approved Equals
- C. Section 31 20 00 – Earth Moving
- D. Section 03 30 00 - Cast-in-place Concrete
- E. Section 09 91 13 – Exterior Painting

**1.2 DESCRIPTION OF WORK**

- A. Provide labor, materials and equipment necessary for the complete installation of the following items as shown on the drawings and specified herein.
- B. Work in this section includes, but is not limited to the following:
  - 1. Post and panel signs
  - 2. Soccer goals
  - 3. Long jump pits
  - 4. Long jump take-off boards
  - 5. Dugout and Sideline Benches
  - 6. Skinned infield
  - 7. Field lining and reference monuments for soccer and football fields.

**1.3 QUALITY ASSURANCE**

- A. In addition to the requirements of these specifications, comply with manufacturer's instructions and recommendations for the work, including preparation of substrate and application.

**1.4 SUBMITTALS**

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Submit current copies of the manufacturer's current product literature for each item specified herein.
  - 1. Include types of materials, construction details, sizes and layout, and complete information on hardware and accessories.
- C. Shop drawings: Submit shop drawings for all items not fully described by standard product literature.
- D. Exterior traffic signs shall be to scale.
- E. Submit samples of the following:
  - 1. Sign posts and framing extrusions.

**1.5 QUALITY ASSURANCE**

- A. Preliminary Coordination Conference: As soon as possible after the award of site improvement work, meet with the installer, and installers of substrate construction, and other related work including penetrating work such as playground equipment, the Architect, and the Owner.
  - 1. Review requirements (Contract Documents), submittals, status of coordinating work, availability of materials, and installation of facilities and establish a preliminary installation schedule.
  - 2. Review requirements for inspections, tests, certifications, forecasted weather conditions, governing regulations, and proposed installation procedures.

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## 1.6 REGULATORY REQUIREMENTS

- A. Conform to the Florida Building Code, and State and Local Regulations, these requirements supersede the Technical Specifications in this section.

## PART 2 PRODUCTS

### 2.1 SITE SIGNAGE MANUFACTURERS

- A. Post and Panel Signs as manufactured by Andco Industries Corp, No. 33 series, Type PP-2, ground mounted (GM-1-X mounting) or as manufactured by ASI Sign Systems, Inc, Type Aluminum post, and panel, Series No. 2300 with 2½" x 3¼" extruded aluminum outbound posts with direct embedment and a 3" high sign panel.
- B. Mount signs at 7'-0" above grade or ground surface if within 5'-0" of a walking surface or playing area.

### 2.2 LONG JUMP EQUIPMENT

- A. Long Jump Pits: As indicated on the drawings to meet current State of Florida regulations for official track and field meets.
- B. Long Jump Take Off Board: Board to be as manufactured by The Aluminum Athletic Equipment Co. Material shall be AAE #HTB-16, made of select fir. Board shall be 2" x 16" x 48" housed in a stainless steel tray.

### 2.3 SOCCER GOALS

- A. Portable Soccer Goal
  1. Provide portable soccer goal 8'H x 24'W x 4'B x 10'D as manufactured by Jaypro Sports, Model # SGP-100.
    - a. Use 4" x 2" steel uprights with an aluminum crossbar to prevent goal from being top heavy.
    - b. Uprights and crossbar are to have a factory painted white finish.
    - c. Backstays and rear ground crossbar are to be 2" O.D. galvanized steel.
  2. Provide 14" steel auger anchor system including steel wire lanyard as manufactured by Jaypro Sports, Model No SAS-95.
  3. Provide nets, 8'H x 24'W x 4'B x 10'D as manufactured by Jaypro Sports, Model No STG-824N.
  4. See Section 11 65 00 for other approved manufacturer equals.

### 2.4 DUGOUT AND SIDELINE BENCHES

- A. Provide aluminum benches as manufactured by Jaypro Sports, Model No PB-15 (15') and PB-75 (7½") or approved equivalent.
- B. Bench to have aluminum concealed fasteners and end caps at the bench assembly.
- C. Provide benches to accommodate 20 students at each dugout for both the softball and baseball fields and as shown on the drawings.

### 2.5 SKINNED INFIELD

- A. Skinned Infield: 60% silt clay (.001mm to .005mm) and 40% mason sand (0.074mm to 0.42mm). Provide "Soilmaster" soil conditioner as manufactured by Pro's Choice Products, Inc., or Equal products by Aimcor.

### 2.6 SPORT FIELD MARKING SUPPLIES

- A. Ground sockets shall be as manufactured by Markers, Inc. or equal.
  1. Provide plastic plus for all ground sockets.
    - a. Provide four lining plugs for setting string lines for each field.
    - b. The lining plugs shall also fit in the ground sockets.

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- B. Use acrylic latex field marking paint for field line marking.
  - 1. The paint shall be "Super Craft Latex Field Marking Paint 165" as manufactured by Benjamin Moore & Co., or equal.
- C. Provide twelve football pylons for each competition play football field on the school campus.
  - 1. The contractor will provide the "End Zone Pylon Set" as manufactured by Markers, Inc. or approved equal.
- D. Provide four soccer corner flags for each field on the school campus.
  - 1. The corner flags will be spring loaded soccer flags as manufactured by Markers, Inc. or equal.

### **PART 3 EXECUTION**

#### **3.1 PREPARATION**

- A. Make such arrangements as are necessary to provide scaffolding to perform work under this section.
  - 1. The Contractor, at his expense, shall correct any damage to floors and/or equipment and the like.
- B. Layout equipment as indicated on the drawings and in the referenced official standards.

#### **3.2 INSTALLATION**

- A. Install in accordance with manufacturer's printed instructions, drawings, specifications, and final shop drawings.
- B. Install all post and panel signs, exterior parking signs for spaces for the physically disabled, stop signs, and building identification signs in strict accordance with the drawings and specifications.
- C. Construct and fill the Long Jump Pits as indicated.
- D. Install the Long Jump Take-Off Boards in accordance with manufacturer's instructions.
- E. Skinned Infield: See drawings for elevations. Grade to ¼" variation in 10' for flat, sloped, or curved profiles.
  - 1. The sub-grade shall be prepared at a uniform depth of 6" below the finished grade.
    - a. Remove all rocks, earth clods, roots and other debris from this soil horizon.
  - 2. Then roll the sub-grade with a 3 to 5 ton roller, or other suitable roller and the surface lightly scarified to insure bonding with the sandy clay mixture.
  - 3. Evenly spread a layer of clay on the prepared sub-grade and thereon a layer of sand to such a loose depth that, when compacted, the material mixed together with the soil conditioner shall be the required 6" depth.
    - a. May reverse the order of spreading the sand and clay if approved by the Architect.
  - 4. Thoroughly mix and pulverize these 2-layers in place and spread by roto-tiller or other approved mechanical means, shape and compact to a uniform depth approved by the Architect.
    - a. Add water under the Architects direction, if the moisture content is such as not to permit satisfactory compaction.
  - 5. Apply soil conditioner at the rate of (8) 50 lb. bags per 100 SF, equal to 12½ SF per bag.
    - a. Apply each bag at the center of a square measuring 42½" on each side.
    - b. Then level the piles of soil conditioner with rakes or tractor grading blade to a uniform depth of 1.3" to 1.4".
    - c. By the use of a roto-tiller, disc cultivator, tiller rake, or time harrow, thoroughly mix soil conditioner into the top 3" according to the manufacturer's recommendations.

- d. Continue this operation until the soil conditioner is evenly blended in a layer.
  - e. A half-ton or one-ton power roller will compact the loose mixture to the required firmness.
6. Surface: As recommended by the manufacturer.
- a. "Soilmaster" top dress surface with layer of "Soilmaster" spread evenly at a rate of 20 at 50 lb. bags per field.

### 3.3 INITIAL SPORT FIELD MARKING

- A. The Contractor shall provide initial sport field marking and reference monuments as noted on the football and soccer field diagrams, see diagrams at the end of this section.

#### 2. Football Fields

a. Dimensions (High School Field)

- 1) The standard football field is 100 yards long by 160 feet wide.
- 2) The end zone is 10 yards past the zero yard line and extends over the full width of the field.
  - a) The end of the end zone is marked by the end line.
- 3) The single yard hash marks are two feet long.
  - a) The side hash mark strings are offset 4" from the inside edge of the sideline to the near edge of the hash mark.
- 4) The center hash mark strings are offset 53' 4" from the inside of the sideline to the far edge of the hash mark.
- 5) The yard line numbers are 6' tall by 4' wide for the full width numerals (e.g., zero is 4' wide, the 1 digit will be less wide). The top of the yard line number is located 9 yards from the inside edge of the sideline.
- 6) The directional arrows are 36" tall with an 18" base and look like triangles.
  - a) The inside vertex of the arrow aligns with the top of the yard line numerals.
- 7) Place a special hash mark at the field centerline for the three-yard line.
- 8) All lines are four inches wide.
- 9) Goal posts are not shown but shall be set per the post manufacturer's directions.
- 10) The Architect's plan dimensions will take precedence over the dimensions listed herein.

- b. Marking – Provide chalk marking for all yard lines and sport field boundaries, including end zones. (Refer to the diagram presented below.)

- c. Monuments – Provide ground sockets set in the ground at the locations identified on the field diagram and explained below:

- 1) All circles represent a ground socket placed to coordinate layout of the yard lines and field boundaries.
- 2) All rectangles represent a ground socket placed to coordinate layout of the yard lines and field boundaries. These sockets will also hold pylons in place during play.

#### 3. Soccer Fields

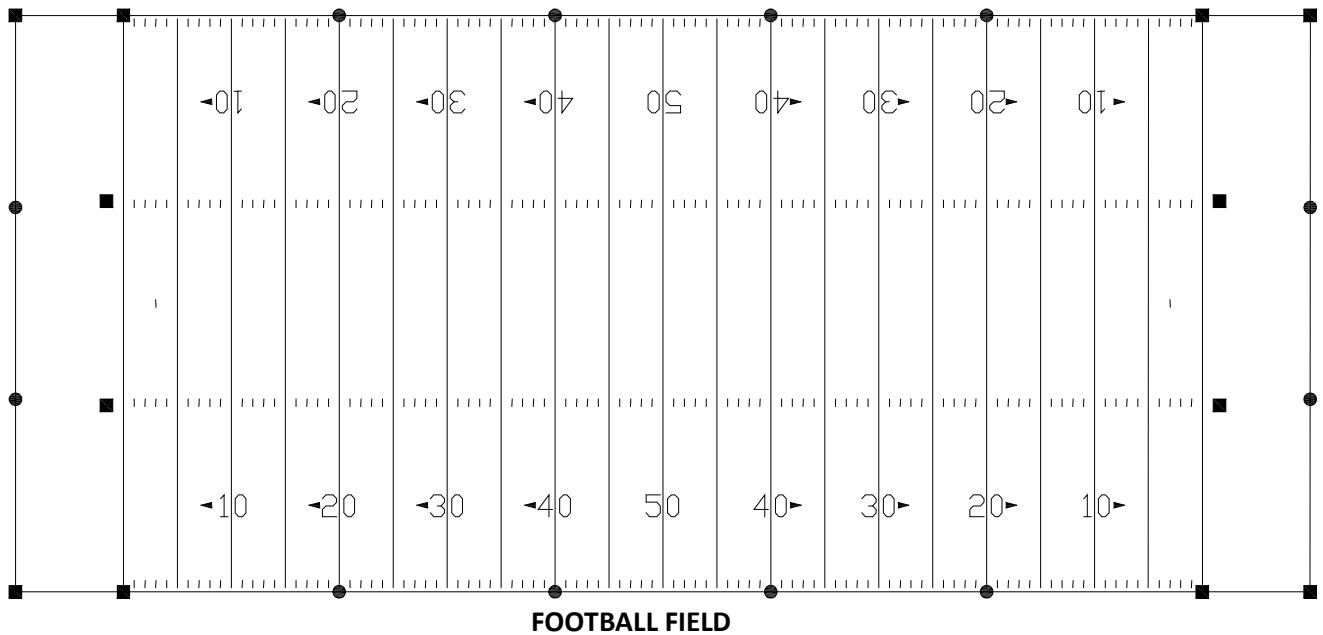
a. Dimensions (High School Field)

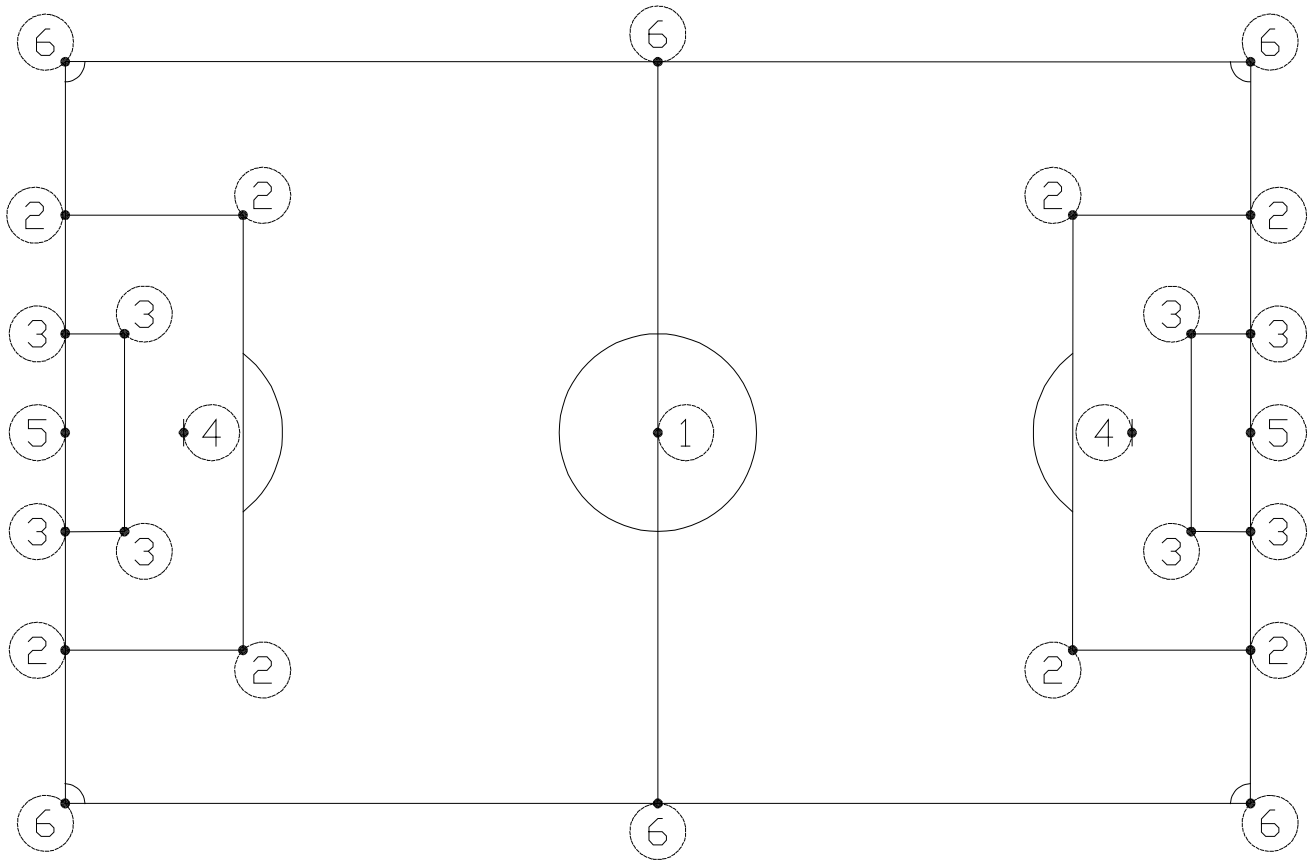
- 1) The standard soccer field is 120 yards long by 75 yards wide.
- 2) The center circle has a 10-yard radius.
- 3) The penalty box is 18 yards deep (parallel to the sideline) by 44 yards long (parallel to the goal line). Center the box on the middle of the field.
- 4) The goal box is 6 yards deep (parallel to the sideline) by 20 yards long (parallel to the goal line). Center the box on the middle of the field.

- 5) The penalty kick line is two feet long (parallel to the goal line), centered on the middle of the field, and offset 12 yards from the goal line.
  - 6) The corner kick arcs have a one-yard radius.
  - 7) The penalty kick arc has a radius of 10 yards with the center at the middle of the penalty kick line.
  - 8) The Architect's plan dimensions will take precedence over the dimensions listed herein.
- b. Marking – Provide chalk marking for all field boundaries (touch lines and goal lines), half-way line, center circle, penalty boxes, goal boxes, penalty kick lines, arc centered on penalty kick line, arc centered on corners. Refer to diagram presented below.
- c. Monuments – Provide ground sockets set in the ground at the locations identified on the field diagram and explained below:
- 1) Bubble 1 – Center of entire field.
  - 2) Bubble 2 – Corners of penalty box.
  - 3) Bubble 3 – Corners of goal box.
  - 4) Bubble 4 – Center of penalty kick line and arc.
  - 5) Bubble 5 – Middle of goal box, on goal line.
  - 6) Bubble 6 – Center and ends of touch lines.
    - a) Ground sockets at ends of touchlines must hold corner flags during play.
- d. Securely anchor all soccer goals in accordance with the goal manufacturer's recommendations for 140 mph winds.

3.4 ACCEPTANCE

- A. Dispose of all debris and excess unusable materials.
- B. Leave all areas and installations clean and in a manner acceptable to the Architect and Owner.





**SOCCER FIELD**

END OF SECTION