

**SECTION 11 68 13**  
**PLAYGROUND EQUIPMENT**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Playground layout (staking).
- B. Playground equipment.

**1.02 DESCRIPTION OF WORK**

- A. The Contractor shall furnish all labor, materials and equipment necessary to install, adjust, field test and place in satisfactory operation the playground equipment shown on the Contract Drawings and specified herein.
- B. The playground equipment shall be complete with anchors, concrete footings, fastening devices and/or miscellaneous appurtenances.
  - 1. Under this item of work the Contractor shall install playground equipment required to complete the work of this Contract in accordance with the Plans, Specifications and directions of the Authority.

**1.03 RELATED REQUIREMENTS**

- A. Section 03 30 00 - Cast-in-Place Concrete, Control Joints and Reinforcing: Footings for playground equipment.
- B. Section 31 22 00 - Grading: Shaping subgrade to specified grade levels; removal of excess soil and rocks.
- C. Section 32 18 16.13 - Playground Protective Surfacing: Protective surfacing in playground area.

**1.04 REFERENCE STANDARDS**

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2013.
- B. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.
- C. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment; 2009.
- D. ASTM F1487 - Standard Consumer Safety Performance Specification for Playground Equipment for Public Use; 2011.
- E. CPSC Pub. No. 325 - Public Playground Safety Handbook; Consumer Products Safety Commission; 2010.

**1.05 DEFINITIONS**

- A. Play Event: A piece of playground equipment that supports one or more play activities.
- B. Use Zone: The area under and around a play event within which the ground surfacing must meet fall impact attenuation requirements of ASTM F1292 when tested at the fall height specified for the play event.
- C. Fall Height: The vertical distance between the finished elevation of the designated play surface and the finished elevation of the protective surfacing beneath it, as defined in ASTM F1487.
- D. Protective Surfacing: Resilient ground surfacing, specified in Section 32 1816.13. The characteristics of the protective surfacing are based on the fall height of the playground equipment. Changes in either the surfacing or the fall height, particularly reducing the resilience of the protective surfacing or increasing the fall height, will reduce safety-related performance.
- E. Subgrade: The surface of the ground on which the protective surfacing is installed; the subbase for the protective surfacing is installed over the subgrade.

## **1.06 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Proposals for Substitutions: Substitutions that will increase the fall height, platform height, or maximum equipment height will not be considered; submit shop drawings with proposed modifications clearly identified and sufficient information to determine compliance with specified criteria.
- C. Product Data: For all manufactured equipment, provide manufacturer's product data showing materials of construction, compliance with specified standards, installation procedures, safety limitations, and the number of users permitted.
- D. Shop Drawings: Detailed scale drawings showing play event layout, Use Zone perimeters, and fall height for each play event.
  - 1. Show locations and dimensions of footings and anchorage points.
  - 2. Clearly identify mounting elevations in relation to a fixed survey point on site and to subgrade elevation and depth of protective surfacing.
  - 3. Show locations of underground utilities, storm drainage system and irrigation system.
  - 4. Show locations of related construction such as walkways and roadways, fences, site furnishings, and plantings.
- E. Samples: For each item for which color must be selected provide color chart showing full range of colors and finishes.
- F. Maintenance Data: Provide manufacturer's recommended maintenance instructions and list of replaceable parts for each equipment item, with address and phone number of source of supply.
- G. Manufacturer's Field Report/Document of Acceptance.
- H. Warranty: Submit manufacturer warranty and ensure that forms have been completed in NYCHA's name and registered with manufacturer.

## **1.07 QUALITY ASSURANCE**

- A. Maintain one copy of the latest edition of ASTM F1487 and CPSC Pub. No. 325 at project site.
- B. An authorized representative of the playground equipment manufacturer must inspect and approve the completed equipment installation. The authorized representative must complete the course and pass the examination to be a Certified Playground Safety Inspector (CPSI) as issued by the National Recreation and Park Association (NRPA). Approval shall be indicated by completing and signing the Document of Acceptance which will then be submitted to the New York City Housing Authority Contract Inspector. A copy of the Document of Acceptance shall also be sent to the New York City Housing Authority Office of Design, Landscape Architecture Group.
  - 1. The playground equipment will not be accepted by the playground equipment manufacturer or the New York City Housing Authority until both are satisfied with the installation. This approval shall include passing the field test for fastener strength (torque test) as specified under the Construction Section of these Specifications.
  - 2. The Document of Acceptance shall state: the exact location of the installation; and must state that the playground equipment, as installed, meets all current requirements of the U.S. Consumer Products Safety Commission (CPSC) guidelines, ASTM F1487 and the hardware torque test as required by this Specification. No additional compensation shall be granted for any corrective work.

## **1.08 SERVICES OF THE MANUFACTURER'S REPRESENTATIVE**

- A. The Contractor shall provide the services of a qualified manufacturer's representative who shall inspect and approve the completed playground equipment installation.
- B. The manufacturer's representative shall also torque wrench test the selected fastener's to the manufacturer's torque schedule.

- C. The manufacturer's representative shall also provide the Document of Acceptance stating that the playground equipment conforms to the requirements of this specification as stated above.
- D. The on-site time required for the manufacturer's representative to achieve a successful installation shall be at the expense of the Contractor. The manufacturer's representative shall sign in and out of the office of the Resident Engineer and provide written verification of the areas he has approved on each day he is at the project.

## **PART 2 PRODUCTS**

### **2.01 PLAYGROUND EQUIPMENT - GENERAL**

- A. Design Assumptions: Because the safety of the playground depends on strict conformance to the design criteria, this information is provided for Contractor's information.
  - 1. Playground equipment has been designed for children ages 2 years through 5 years or for children ages 5 years through 12 years.
  - 2. If deviations from specified dimensions, especially fall heights, is required, obtain approval prior to proceeding; follow approval request procedure as specified for substitutions.
- B. Mount all equipment on concrete footings, unless otherwise indicated.
  - 1. Protective Surfacing Depth: As required by all codes/guidelines and fall height of play equipment.
  - 2. Provide supports as required to mount equipment at proper height above finish and sub-grades to allow installation of sufficient depth of protective surfacing; portion of support below top of surfacing must comply with specified requirements for equipment.
- C. Label each equipment item with permanent labels stating age group that equipment was designed for, manufacturer identification, and warning labels in accordance with ASTM F1487.

### **2.02 PLAYGROUND EQUIPMENT**

- A. Comply with ASTM F1487 and CPSC Pub. No. 325; provide equipment complying with specific requirements for the relevant age group(s).
  - 1. Provide components having factory-drilled holes. Do not use components with extra holes that will not be filled by hardware or covered by other components.
- B. Manufacturers:
  - 1. Columbia Cascade Inc., 1300 SW Sixth Ave, Suite 310, Portland, OR 97201 phone 800.547.1940 HQ@timberform.com attn: Steven Kirn, Sales Manager, stevek@timberform.com
  - 2. GameTime, Inc., 150 PlayCore Drive SE, Fort Payne, Al. Local Representative: MRC., Inc. PO Box 106, Spring Lake, NJ attn: John Graziano, phone 212.426.2092 JohnG@GameTime.com cell phone 917.574.8240
  - 3. Landscape Structures Inc., 601 7th Street South, Delano, MN 55328 phone 888.438.6574 playlsi.com Local Representative: Site Specialists Ltd., 265 Post Avenue, Suite 365, Westbury, NY 11590 phone 516.338.1630 attn: Craig Heslin or Rob Salzberg
  - 4. Miracle Recreation, Inc., 878 East Highway 60, Monett, Missouri, phone 888.458.2753. Local Representative: PlaySafe Playground Systems of NY, Inc., 3 Laurel Lane, Syosset, NY phone 516.677.9240 attn: Sal Romanello
  - 5. Playworld Systems, Inc., 1000 Buffalo Road, Lewisburg, PA 17837, phone 800.233.8404. Local Representative: Raymond Michael, Ltd, 439 North Terrace Avenue, Mount Vernon, NY 10552, phone 914.667.6800
- C. Signage:
  - 1. Playground equipment units shall have age appropriate signage in a clearly conspicuous place near or on the equipment at the entry point. This signage shall state one of the following:
    - a. "This playground equipment is designed for Pre-School Aged Children 2 to 5 years. Adult supervision is recommended" or "This playground equipment is designed for School Aged Children ages 5 to 12 years. Adult supervision is recommended".
    - b. Details of the signs shall be as shown on the Contract Drawings or as determined by the New York City Housing Authority Landscape Architect.

## **PART 3 EXECUTION**

### **3.01 LAYING OUT THE WORK**

- A. Stake the location of playground elements, including Use Zone perimeters, perimeter of protective surfacing, access and egress points, hard surfaces, walls, fences, and structures, and planting locations.
- B. Stake the layout of the entire Use Zone perimeter before starting any work and before subbase under resilient surfacing is laid.
  - 1. Verify that Use Zone perimeters do not overlap hard surfaces, whether currently installed or not.
  - 2. Verify that Use Zones are free of obstructions that would extend into the resilient portion of the protective surfacing.
  - 3. If conflicts or obstructions exist, notify Landscape Architect. Do not proceed until revised drawings have been provided, showing corrected layout, and obstructions have been removed.

### **3.02 EXAMINATION**

- A. Verify that playground equipment footings have been installed in proper locations and at proper elevations.
- B. Verify location of underground utilities and facilities in the playground area. Damage to underground utilities and facilities will be repaired at Contractor's expense.

### **3.03 INSTALLATION**

- A. Coordinate work with preparation for and installation of protective surfacing specified in Section 32 18 16.13. The resilient portion of the protective surfacing is to be installed within 48 hours after playground equipment installation.
- B. Install in accordance with CPSC Pub. No. 325, ASTM F1487, manufacturer's instructions, and requirements of authorities having jurisdiction.
- C. Install without sharp points, edges, or protrusions; entanglement hazards; or pinch, crush, or shear points.
- D. Do not modify play events on site without written approval of manufacturer.
- E. Install required signage if not factory-installed.
- F. As part of the required inspection by the manufacturer's representative, ten percent (10%) of all Play Equipment Fastening Hardware including bolts, lag/cap/set screws, nuts, etc. shall be tested for maximum fastening strength upon the completion of the installation. An authorized representative of the play equipment manufacturer, with the Contract Inspector, shall select each fastener connection to be torque wrench tested to the manufacturer's required specification as listed in the torque schedule (in shop drawing submission). The play equipment representative will supply the labor and testing equipment to properly administer this test. The manufacturer's maximum torque values for fasteners of each size will apply for the required test. The Play Equipment unit shall be deemed to have passed this test when all ten (10%) percent of all fastening hardware connections meet the above requirement. Should the unit fail, another ten (10%) percent shall be tested until all ten (10%) percent tested pass. All field testing of the Steel Play Equipment shall be deemed included in the bid price. Acknowledgment of passing this field test shall be included in the Document of Acceptance provided by the manufacturers' representative.

### **3.04 FIELD QUALITY CONTROL**

- A. NYCHA or NYCHA's representative will inspect playground equipment after installation to verify that playground meets specified design safety and accessibility requirements.
- B. Repair or replace rejected work until compliance is achieved.

### **3.05 CLEANING**

- A. Restore adjacent existing areas that have been damaged from the construction.

- B. Clean playground equipment of construction materials, dirt, stains, filings, and blemishes due to shipment or installation and remove all shipping labels. Clean in accordance with manufacturer's instructions, using cleaning agents as recommended by manufacturer.
- C. Clean playground area of excess construction materials, debris, and waste.
- D. Remove excess and waste material and dispose of off-site in accordance with requirements of authorities having jurisdiction.

**END OF SECTION**

SAMPLE