



## **SECTION 11 61 23**

### **UPLIFT® PLATFORMS**

#### **PART 1-GENERAL**

##### **1.1 SUMMARY**

- A. This specification section includes the engineering, fabrication, furnishing, delivery and installation of the drill operated scissor-lift style Uplift® platforms for multiple height positions.
- B. The platforms shall consist of a system of interlocking Uplift® platforms of appropriate construction and sizes for the staging configurations shown on the drawings.
- C. The platforms shall consist of adjustable components designed to minimize setup time. Set-up shall require one person with a cordless electric drill.

##### **1.2 SCOPE OF WORK**

- A. Comply with the state, local and jurisdictional codes.
- B. Work under this section consists of the fabrication of new equipment and installation of new Uplift® platforms. Work shall include the installation of all materials and equipment necessary for the proper operation of the platforming system.
- C. Preparation and submission of complete engineered shop drawings for approval.
- D. Submission of required record documents.
- E. Coordination with other affected work, trades and inspections.
- F. Final assembly of components to provide a complete, operable system.

##### **1.3 REFERENCES**

- A. Aluminum Association (AA):
  - 1. AA Standard AA-M12C22A41.
  - 2. AA Standard AA-M12C22A42/44.
- B. American Institute of Steel Construction (AISC):
  - 1. AISC Manual of Steel Construction.
- C. American Plywood Association (APA)
  - 1. US. Product Standard PS 1-83

- D. American Society for Testing and Materials (ASTM):
  - 1. ASTM A36: Standard Specification for Structural Steel.
  - 2. ASTM B209: Standard Specification for Aluminum-Alloy Sheet and Plate.
  - 3. ASTM B221: Standard Specification for Aluminum and Aluminum – Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
  - 4. ASTM A513: Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.
  
- E. American Welding Society (AWS):
  - 1. AWS D1.1 Structural Welding Code-Steel.
  - 2. AWS D1.2 Structural Welding Code- Aluminum.
  - 3. AWS D1.3 Structural Welding Code-Sheet Steel, Second Edition.
  
- F. Steel Structures Painting Council (SSPC):
  - 1. SSPC SP3: Power Tool Cleaning.

#### **1.4 RELATED SECTIONS**

- A. Section 05 51 00 Metal Stairs
- B. Section 05 52 00 Metal Railings
- C. Section 09 60 00 Flooring
- D. Section 09 90 00 Painting and Coating
- E. Section 12 62 00 Portable Audience Seating

#### **1.5 SUBMITTALS**

- A. Comply with Section 01 33 00 Submittal Procedures, unless otherwise indicated.
  
- B. Product Data: Staging Concepts specifications and technical data including the following:
  - 1. Detailed specification of construction and fabrication.
  - 2. Staging Concepts installation instructions.
  - 3. Description of operations.
  - 4. Operation and maintenance manual
  
- C. Shop Drawings: Prepared by Staging Concepts. Include dimensioned plans, sections and elevations showing Uplift® component sizes, arrangements and details of each condition of installation. Show fabrication and installation details for each platform type, understructure and accessories.
  
- D. Samples: Provide deck samples by request of the owner, architect or consultant.
  
- E. Contract Closeout Submittals: Comply with Section 01 70 00 Execution and Closeout Requirements.
  - 1. Project record documents
  - 2. Operating and maintenance manuals.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Not less than 10 years experience in the actual production of staging equipment.
- B. Installer's Qualifications: Firm experienced in installation or application of systems similar in complexity to those required for this Project.
  - 1. Acceptable to or licensed by manufacturer.
  - 2. Not less than 3 years experience with systems.
- C. Welding and Connections:  
Welds: Performed by welders certified for the process employed.

## 1.7 DELIVERY, STORAGE AND HANDLING

- A. Packing and Shipping: Deliver products in original unopened packaging as applicable, with legible manufacturer's identification.
- B. Storage and Protection: Comply with manufacturer's recommendations.
  - 1. Store in a cool, dry place out of direct sunlight.
  - 2. Protect from the elements and from damage.

## 1.8 WARRANTY

- A. Special Warranty: Staging Concepts written warranty indicating Staging Concepts intent to repair or replace the Uplift® platform components that fail in materials or workmanship within three (3) years from the date of substantial completion. Paint and exterior surfaces are excluded. Failures are defined to include, but are not limited to the following:
  - 1. Mechanical defects
  - 2. Damaged materials due to fabrication
  - 3. Material deterioration and discoloration other than normal wear and weathering conditions
  - 4. failure to maintain dimensional stability

## PART 2- PRODUCTS

### 2.1 MANUFACTURER

- A. Basis of design: Platform design is based upon the Staging Concepts Uplift® Platforms.
  - 1. Staging Concepts. 8400 Wyoming Ave. North, Suite 100, Minneapolis, MN 55445  
Phone: 763-533-2094. [www.stagingconcepts.com](http://www.stagingconcepts.com)

### 2.2 COMPONENTS

- A. Uplift® Platform  
Single side platform. Design platform to be fully field repairable and to function with Staging Concepts supports and to comply with the following:
  - 1. Standard sizes include: 4' x 8' (1.2 meters x 2.4 meters), 3' x 8' (0.9 meters x 2.4 meters). Additional sizes and custom shapes are available.

2. Edging: 4 inch [102 millimeter] high extruded 6105-T5 aluminum frame (including protective edge), mill finish (standard), powder coat and anodizing as an option. Design frame to accept:
  - a. Built-in Dual-Lock system.
  - b. Skirting clip.
  - c. Guardrail.
  - d. Closure panels.
  - e. Chair stops.
  - f. Step units.
  - g. ADA compliant ramps.
3. Subfloor: 1 inch [25 millimeters] thick Structural 1 (S1), exterior grade plywood
  - a. Finished surface: Polypropylene (black or grey vinyl), carpet, Plyron, acrylic, natural wood, painted wood, or tongue & groove wood.
  - b. Aluminum skin backer
4. Deck will support a uniform live load of 150 psf [732 kg/sq. meter].
5. Design support system to permit bridging platforms between units, and to meet the following:
  - a. Adjustable heights 11 inches up to 47 inches (0.3 meters up to 1.2 meters).
  - b. Base assembly members: Extruded Aluminum channels.
  - c. Leveling shims
  - d. Main support members:  $\frac{3}{4}$  inch (18 millimeters) 6061-T6 aluminum flat bar and 3x2x1/4 inch 6061-T6 aluminum rectangular tube.
  - e. Cross brace members:  $\frac{1}{8}$  inch (3 millimeters) 6061-T6 aluminum formed plates and  $\frac{3}{4}$  inch (18 millimeters) 6061-T6 aluminum flat bar.
  - f. Threaded rod assembly: Consists of 1-1/2 inch diameter (38.1 millimeters) steel rod with left-hand and right-hand threads, and A36 steel threaded left-hand and right-hand bars.
  - g. The threaded rod assembly is operated by the output shaft of the gear reducer and coupler assembly.

## 2.3 ACCESSORIES

- A. Drill not included with purchase. Recommended drills for smooth operation:
  1. Hilti SFC 22-A Electric Drill
  2. DeWalt 20V Max XR Lithium Ion Brushless Premium 3-speed drill/driver kit.
- B. Design accessories to attach to the exposed edge of the platforms without the use of tools and shall be easily removable.
  1. Exposed Fasteners: Non-corrosive and tamper resistant.
- C. Fixed Stair Units:
  1. Material: 6061 aluminum pipe. Weld joints together and grind smooth.
  2. Finish: Mill, anodized or powder coat.
  3. Equip stair system with locking mechanism to allow for attachment to side of platform extrusion.
  4. Treads: 12 inches (305 millimeters) deep by 36 inches (914 millimeters) wide or 48 inches (1219 millimeters) wide, unless otherwise specified. Rise not to exceed 7 inches (178 millimeters)
  5. Tread Surface: Match deck surface.

D. Adjustable Stair Units:

1. Material: 6161-T6 aluminum angle.
2. Finish: Mill, anodized or powder coat.
3. Equip stair system with locking mechanism to allow for attachment to side of deck.
4. Treads: 12 inches (305 millimeters) deep by 36 inches (914 millimeters) wide, unless otherwise specified. Adjustable rises from 16 inches (406 millimeters) to 24 inches (610 millimeters), 24 inches (610 millimeters) to 36 inches (914 millimeters), 30 inches (762 millimeters) to 40 inches (1016 millimeters), 36 inches (914 millimeters) to 48 inches (1219 millimeters), 36 inches (914 millimeters) to 56 inches (1422 millimeters) , and 48 inches (1219 millimeters) to 72 inches (1829 millimeters).
5. Tread Surface: Match deck surface.

E. Guardrails:

1. Material: 1 ¼" inch (32 millimeters) Schedule 40 6061-T6 aluminum extrusion.
2. Finish: Mill, Anodized or Powder Coat finish.
3. Toeboard: 4 inch (102 millimeters) extruded aluminum toeboard where required by code.
4. Equip guardrail with locking mechanism to allow for attachment to deck. Design lock mechanism to allow for easy removal.
5. Provide manufacturer's standard guardrails.
  - a. IBC compliant guardrail: Space vertical members so that no sphere 4 inches (102 millimeters) in diameter or larger may pass through.

F. Closure Panels: Provide closure panels meeting the following requirements as directed by design:

1. Material: Plywood substrate construction. Provide polyethylene tee-moulding at top.
2. Finish: Match deck surface.
3. Attach closure panels with snap-on clips ("button-lock" brackets) or set screw to platform frame.

G. Skirting:

1. Material: Flame retardant Wyndham fabric.
2. Thread Color: Match fabric.
3. Pleat skirts with 50 percent fullness.
4. Style: Shirred or box pleat.
5. Reinforce top hem with continuous webbing.
6. Attachment: Attach to platforms with velcro and extruded plastic clips.

## 2.4 FINISHES

A. Aluminum Framing: Mill Finish (standard). Clear or black anodized (optional)

B. Steel: Clear Zinc (standard). Black Zinc (optional)

C. Platform finish as determined by the architect or owner.

## PART 3- EXECUTION

### 3.1 EXAMINATION

A. Verification of Conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

1. Do not proceed until unsatisfactory conditions have been corrected.
2. Field verify dimensions for all units prior to fabrication if indicated by the owner, architect or consultant.

### **3.2 INSTALLATION**

A. Comply with manufacturer's recommendations.

B. Set up each type of removable, collapsible platform and adjust for proper operation and correct assembly.

1. Install plumb and level.
2. Accurately fit, properly align, securely fasten, and install free from distortion or defects.
3. Shim Uplift® Platforms to level.

### **3.3 CLEANING**

A. Clean exposed surfaces of Uplift® Platforms. Comply with Staging Concepts written instructions for cleaning and touchup of minor finish damage.

B. Repair or replace defective work as directed by the owner, architect or consultant upon inspection.

### **3.4 TRAINING AND DEMONSTRATION**

A. Train Owner's personnel to assemble, adjust, operate and maintain platform systems.

### **3.5 MAINTENANCE**

A. Apply recommended grease on the threaded rod to ensure smooth operation. Refer to the provided Operation & Maintenance Manual for information on gear reducer best practices. Within the O&M Manual, Staging Concepts provides a maintenance and inspection schedule.

**END OF SECTION 11 61 23**