SECTION 11 61 23
STAGING CONCEPTS WEATHER RESISTANT PLATFORMS

PART 1-GENERAL

1.1 SUMMARY

A. This specification section includes the engineering, fabrication, furnishing, delivery and installation of new platforms as specified.

B. The equipment shall consist of a system of interlocking platforms of appropriate construction on a support system to provide the height and configuration as indicated.

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 platforms. Work shall include the installation of all materials and equipment necessary for the proper operation of the equipment.

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 Society for Testing and Materials (ASTM):
1. ASTM A36: Standard Specification for Structural Steel.
2. ASTM A283: Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.

3. ASTM A307: Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.

4. ASTM A325: Standard Specification for High-Strength Bolts for Structural Steel Joints.
5. ASTM A500: Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
6. ASTM A501: Standard Specifications for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
7. ASTM A570: Standard Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality.
8. ASTM B209: Standard Specification for Aluminum-Alloy Sheet and Plate.

D. American Welding Society (AWS):
1. AWS D1.1 Structural Welding Code-Steel.
2. AWS D1.3 Structural Welding Code-Sheet Steel, Second Edition.

E. Americans with Disabilities Act (ADA)

F. National Fire Protection Association (NFPA):
1. NFPA 102: Standard for Assembly Seating, Tents, and Membrane Structures.

G. 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. Certified engineer's reports indicating compliance with performance requirements specified herein.
4. Description of operations, including step by step set-up and take-down tasks.

C. Shop Drawings: Prepared by Staging Concepts. Include dimensioned plans, sections and elevations showing Seating Riser 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 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 portable riser platform units.

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 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 manufacturer fabrication
3. Material deterioration other than normal wear and weathering conditions
4. Failure to maintain dimensional stability

PART 2- PRODUCTS

2.1 MANUFACTURER

A. Basis of design: SC90 platform system based on the design by Staging Concepts.

1. Staging Concepts. 8400 Wyoming Ave. North, Suite 100, Minneapolis, MN 55445
Phone: 763-533-2094. www.stagingconcepts.com

2.2 COMPONENTS

A. Clima-Core™ Platform:
Single side, weather resistant portable platform for exterior use. Platform design to be field repairable, to function with Staging Concepts supports and to comply with the following:

1. 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 Roto-Lock® system.
    b. Skirting clip.
    c. Guardrail.
    d. Closure panels.
    e. Chair stops.
    f. Step units.
    g. ADA compliant ramps.
2. Subfloor: 1 inch [25 millimeters] thick composite honeycomb core panel that utilizes no wood or paper products. Subfloor shall be water resistant, bugproof, formaldehyde free and shall not rot, mildew, swell, warp or absorb moisture when exposed to the outdoor environment.
3. Finished surface: HDPE (black or grey) with UV stabilizer additive laminated to subfloor. Surface shall have a slip resistant texture.
4. Deck will support a uniform live load of 150 psf [733 kg/sq. meter]. Lateral sway-bracing loads: 24 lbs/ft (350 N/m) applied parallel to and 10 lbf/ft. (145.9 N/m) applied perpendicular to platforms. (standard). Additional support beams can be installed to increase load rating.

A. SC97 Platform:
Single side, all aluminum, weather resistant, portable platform. Design platform to be fully field repairable to function with Staging Concepts supports and to comply with the following:
1. Edging: 4-3/4 inch (121 millimeters) high extruded 6105-T5 aluminum frame, mill finish. (standard), anodizing as an option. Design frame to enclose floor and aisle steps and to accept:
    a. Built-in Roto-Lock® system.
    b. Latch receptacle to receive engaging latch.
    c. Skirting.
    d. Guardrail.
    e. Chair stops.
    f. Closure panels.
    g. Step units.
    h. ADA compliant ramps.
2. Floor and Aisle steps: Non-slip, ribbed extruded aluminum with surface material thickness of not less than 0.090 inch [2 millimeter]. Provide inverted “T’s” at floor underside at approximately 3 inches (76 millimeter) on center. Design material thickness to meet design requirements.
    a. Secure floor and step extrusions to frame cantilevers using self-tapping screws from underside of platform.
3. Deck will support live load of 125 psf [610 kg/sq. meter]. (standard). Additional support beams can be installed to increase load rating.

A. SC90® TREX® Platform:
Single side, weather resistant portable platform for exterior use. Platform design to be fully field repairable and to function with Staging Concepts supports. Platform to comply with the following:
1. Edging: 4 inch (101.6 millimeters) high extruded 6105-T5 aluminum frame, mill finish (standard), anodizing as an option. Design frame to enclose floor and aisle steps and to accept:

a. Built-in Roto-Lock® system.
b. Latch receptacle to receive engaging latch.
c. Skirting.
d. Guardrail.
e. Chair stops.
f. Closure panels.
g. Step units.
h. ADA compliant ramps.

2. Floor: TREX® ENHANCE® BASICS composite decking planks.
a. Secure planks to frame using TREX® HIDEAWAY® Hidden Fastening System.
b. Assure recommended spacing between adjacent planks and planks to frame to allow for drainage and expansion/contraction due to environmental conditions.
c. Finished surface color offerings: Beach Dune, Clam Shell and Saddle.

3. Deck will support live load of 150 psf [733 kg/sq. meter]. (standard). Additional support beams can be installed to increase load rating.

B. SC90 Leg Supports:

1. General: For use with Clima-Core™, SC97 and SC90® TREX® decks. Design support system to the following:

2. Legs: 1-1/4 inch [32 millimeter] Schedule 40, 6105-T5 aluminum pipe. Join leg to platform in a compression loading condition. Hold in place by a 3/8 inch [10 millimeter], 16 socket head cap screw with plastic tighening knob.
a. Fixed heights: 4 inches to 96 inches (102 millimeters to 2438 millimeters) (Standard) (stabilzer bracing required when at height of 30" [762 millimeters] and over). Custom heights available upon request.
b. Adjustable heights: 8 inches to 12 inches [203 millimeters to 305 millimeters], 12 inches to 16 [305 millimeters to 406 millimeters], 16 inches to 24 inches [406 millimetes to 610 millimeters], 24 inches to 36 inches [610 millimeters to 914 millimeters] (stabilzer bracing required), 36 inches to 48 inches [914 millimeters to 1219 millimeters] (stabilzer bracing required).
c. Terminate each leg with a non-marring leveling foot to allow for a 2 inch [51 millimeter] fine height adjustment. Fabricate foot from molded skid resistant PVC pad.
Optional: Terminate each leg with a nickel-plated foot.
d. Capable of being erected without use of tools.
e. Finish: Mill (standard), powder coat and anodizing as an option

3. Stabilizer-bracing (when required): 1-1/4 inch [32 millimeter] Schedule 40 6105-T5 aluminum pipe. Connect to leg supports with slip-on structural fitting.

2.3 ACCESSORIES

A. Design accessories to attach without the use of tools and shall be easily removable.
1. Exposed Fasteners: Non-corrosive and tamper resistant.

B. 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.

C. Guardrails:
1. Material: 1 ¼" inch (32 millimeters) Schedule 40 6105-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.

D. 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.

F. Transport Carts:
1. Leg and Bracing Cart
a. Material: Tubular steel with welded joints.
b. Casters: Provide 4 casters for each cart; 2 fixed and 2 swivel.
c. Caster Sizes: 4 inch (102 millimeters) or 6 inch (152 millimeters) diameter, with a load capacity of 900 pounds (408.23 kilograms) each.
d. Provide pivoting ramp to lock into position with hitch pins.
e. Provide pivoting cross members to lockin in position with hitch pins.
f. Provide straps to hold leg supports during transport.
g. Design transport carts to contain intended load in a secure and organized manner.

2. Platform Cart
a. Material: Tubular steel with welded joints. Grind weld joints smooth.
b. Casters: Provide 4 casters for each cart; 2 fixed and 2 swivel.
c. Caster Sizes: 4 inch (102 millimeters) or 6 inch (152 millimeters) diameter, with a load capacity of 900 pounds (408.23 kilograms) each.
d. Design transport carts to contain intended load in a secure and organized manner.

2.4 FINISHES

A. Aluminum Framing: Mill Finish (standard). Powder coat or anodizing as an option.

B. Platform surface 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.

3.3 CLEANING

A. Clean exposed surfaces of platform. 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 system.

END OF SECTION 11 61 23