

SECTION 12 66 13 – TELESCOPING BLEACHERS

Part 1: General

1.01 Summary

A. Section Includes:

1. Wall-attached telescoping bleacher and seating platform units at the following locations:
 - i. Main gymnasium (with plastic seats).
 - ii. Auxiliary gymnasium (with plastic seats).
 - iii. Auditorium (with upholstered seats).

1.02 Related Sections

1.03 Definitions

1.04 Submittals Required

- A. Product Data
- B. Shop Drawings
- C. Samples
- D. Verification Samples
- E. Maintenance Data
- F. Certification

1.05 Quality Assurance

A. STANDARDS:

1. Comply with 1997 UBC and ADA requirements.
2. Comply with requirements of NFPA 102, "Standard for Assembly Seating, Tents, and Membrane Structures", and specifically with Chapter 5, "Folding and Telescopic Seating", except where more stringent requirements are required by authorities having jurisdiction.
3. Qualify welding processes and operators in accordance with AWS D1.1 "Structural Welding Code - Steel" and D1.3 "Structural Welding Code - Sheet Steel".

B. QUALIFICATIONS:

1. Engage an experienced Installer to perform work who has specialized in the installation of telescoping bleachers and seating platforms similar to that required for this project and who is acceptable to, or certified by, manufacturer of telescoping bleachers and seating platforms.

C. FIELD MEASUREMENTS:

1. Check actual dimensions of construction affecting telescoping bleachers and seating platforms by accurate field measurements before fabrication; show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.
2. Where field measurements cannot be made without delaying the work, guarantee dimensions and proceed with fabrication of telescoping bleachers and seating platforms without field measurements. Coordinate wall and floor construction to ensure that actual dimensions correspond to guaranteed dimensions.

D. PERFORMANCE REQUIREMENTS:

1. Structural Performance:

- i. Design, engineer, fabricate, and install telescoping bleachers and seating platforms to withstand the following structural loads without exceeding the allowable design working stresses of the materials involved, including anchors and connections. Apply each load to produce the maximum stress in each respective component of each bleacher and seating platform unit.
- ii. Design loads specified in NFPA 102, Chapter 5.

2. Operation:

- i. Provide telescoping bleacher and seating platform units incorporating manufacturer's standard telescoping system of seating and understructure members that permit opening and closing with respect to adjacent rows, that allow any or all rows to be locked open for use, and that close with vertical faces of upper skirts in same vertical plane.
- ii. Tractive Electric Operation: Provide manufacturer's standard powered operation of bleacher and seating platform units by means of a series of electric motor-driven

units mounted under first rows of bleacher and seating platform units that apply tractive force to floor. Use units with non-marking rubber rollers or tracks that will not mar or damage type of floor over which bleacher and seating platform units move. Control units by plug-in, walk-along pendant switch. Provide one per room containing bleachers or seating platforms (gymnasium, auxiliary gymnasium and theater).

iii. Coordinate wiring requirements and current characteristics of motors and control stations with building electrical system.

3. Layout:

- i. Layout bleacher and seating platform system to meet the accessibility requirements of the Americans with Disabilities Act Accessibility Guideline (ADAAG).
- ii. Layout bleacher and seating platform system to accommodate the following numbers of people:

E. EXTRA MATERIALS:

1. Furnish upholstery fabric in a size and quantity required to reupholster 2% of each size of installed seats and backs.

1.06 Scheduling

1.07 Delivery, Storage, and Handling

1.08 Regulatory Requirements

Part 2: Products

2.01 Manufacturers

A. Approved Manufacturers

1. Interkal
2. Irwin
3. Hussey Seating Co.

B. Obtain telescoping seating platforms and auditorium and theater seating from a single manufacturer, including accessories, and mounting and other installation components for sole source responsibility.

2.02 Products

A. MANUFACTURED UNITS:

1. Provide Hussey Maxam Model 26 with plastic seats and intermediate aisle steps, except with upholstered seats in auditorium.
2. Provide "Flex-Row" system for front rows of telescoping bleachers in gymnasiums.

B. MATERIALS:

1. Lumber:

- i. Softwood, kiln dried, surfaced 4 sides, 1" nominal thickness, complying with the following requirements:
- ii. Species and Grade: Southern Pine complying with SPIB "Grading Rules" for C and Better finish grade.
- iii. Form: At manufacturer's option, provide either solid lumber complying with PS 20 or glued-up lumber that is either edge and end glued, end glued only, or finger joined as required to produce size needed for bleacher and seating platform components and to comply with SPIB "Glued Lumber Standards for Southern Pine".

2. Plywood:

- i. Softwood plywood panels, 0.625" nominal thickness, 5-ply construction with grade designation APA A-C Exterior, with solid crossbands, Group 1 veneer species for all

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plies, and exterior glue, APA grade trademarked, complying with ANSI/VOL. Prod. Std. PS-1.

3. Structural Steel Shapes, Plates and Bars:

- i. ASTM A36, except where higher strength steel is standard with manufacturer.

4. Uncoated Steel Sheet:

- i. ASTM A366, commercial quality, cold-rolled sheet, stretcher leveled.

5. Galvanized Steel Sheet:

- i. ASTM A526, G60 coating designation, phosphatized, stretcher leveled.

6. Steel Tubing:

- i. ASTM A501, hot-formed.
- 7. Polyethylene Plastic:
 - i. ASTM D1248, Type III, Class B; molded, color-pigmented, textured, impact-resistant, structural formulation in colors. Assume one color for plastic components in gymnasiums and one color for plastic components in auditorium.
 - ii. Heavy duty plastic with re-enforced centers required for gymnasiums and auxiliary gymnasiums.
- 8. Fabric
- 9. Fasteners:
 - i. Vibration proof, of size and material standard with manufacturer.
- C. CONSTRUCTION:
 - 1. General: Provide manufacturer's standard telescopic bleacher and seating platform system fabricated to comply with requirements. Smoothly round corners, edges, and exposed fasteners, if any, to eliminate snagging and pinching hazards. Form exposed sheet metal with flat, flush surfaces, true to line and level, and without cracking and grain separation. Perform welding by operators and processes complying with AWS requirements.
 - 2. Bench Seats and Upper Risers: Fabricate from the following materials to form seats with uniform heights per bleacher and seating platform unit of not less than 16" or more than 18", as standard with manufacturer.
 - i. Material: Polyethylene plastic, contoured to form individual seats.
 - 3. Lower Risers and Foot Rests:
 - i. Provide recessed lower riser and fully closed footrest construction.
 - ii. Fabricate riser from steel sheet with baked enamel finish. Fabricate footrest from plywood as standard with manufacturer.
 - 4. Understructure:
 - i. Fabricate understructure from structural steel members of size, spacing, and form required to support design loads with cantilevered bench seat supports to produce toe space uninterrupted by vertical bracing.
 - 5. Support Column Wheels:
 - i. Provide manufacturer's standard wheel assembly under each support column. Include wheels of size, number, and design required to support bleacher and seating platform units and to achieve smooth operation without damage to flooring surface, but not less than 4 per column or less than 3.5" in diameter and 1" wide.
 - 6. Aisles:
 - i. Fabricate bleacher and seating platform units with the following aisle configuration:
 - ii. Footrest Level Configuration: Interrupt bench seats to provide aisle walking surface at footrest level.
 - iii. Provide manufacturer's standard, metal nosing for aisles with wood walking surfaces.

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- 7. Row Spacing:
 - i. Fabricate units with a row spacing of 24", except 30" at Auditorium.
 - ii. Conform to 1997 UBC for aisle layout and railing requirements.
- 8. Row Rise:
 - i. Fabricate units with row rise of 9.625", except with row rise of 11.625" at auditorium.
- 9. Type of Units:
 - i. Provide assemblies of the following type fabricated in lengths and number of rows.
 - ii. Wall-Attached Type: Construct units to provide for permanent attachment of rear of understructure to wall/floor construction.
- 10. Accessories:
 - i. Provide the following accessories.
 - ii. End panels covering exposed ends of bleacher or seating platform units in closed position.
 - iii. Permanently attached automatic safety end curtain at each end. Provide safety barrier system manufactured by PCSS, Inc. or approved equal.

- iv. Rear fillers including supports for closing openings between top row and rear wall of adjoining construction.
 - v. Closure panels between top of bleachers in gymnasiums in stacked (closed) position and underside of camera platform of similar construction and materials as manufacturer's end panels.
 - vi. End railings of telescoping, self-storing type.
 - vii. Provide removable railings at aisles.
 - viii. Draperies attached with velcro for both ends of the telescoping seating platforms in the open position in the auditorium. Include closure panels for the portion of the ends exposed to normal view in the closed position in the auditorium.
 - ix. Provide signs with international accessibility symbol on face of seats above designated wheelchair spaces.
 - x. Auditorium Seating: Backrests of folding type, permanently attached to seating platform units. Provide plastic seat and backrest panels with minimum 1" thick padding and fully fabric upholstery for seat and backrest.
 - xi. Provide Padded Sentinel by Hussey or approved equal.
 - xii. Fabric: Custom to match fabric provided under the work of other sections.
 - xiii. Aisle Lights for Auditorium Seating: Provide UL approved, low voltage (24 volts), LED aisle lighting fixtures with 100,000 of lamp life for installation in end standards; with louvered face plate for light control and lamp access.
 - xiv. Provide aisle lights as manufactured by Hussey or approved equal.
- D. METAL FINISHES:
- 1. Comply with NAAMM "Metal Finishes Manual" for recommendations relative to application and designations of finishes.
 - 2. Where located in gymnasiums, provide color.
- E. GALVANIZED STEEL FINISHES:
- 1. Surface Preparation:
 - i. Clean surfaces of dirt, grease, and other contaminants followed by a conversion coating of type suited to organic coating applied over it. Clean welds, mechanical connections, and abraded areas; then apply galvanizing repair paint to comply with ASTM A780.

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- ii. Galvanizing Repair Paint: High zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint-20.
2. Baked Enamel Finish:
- i. Immediately after cleaning and pretreatment, apply manufacturer's standard 2-coat baked enamel finish consisting of prime coat and thermosetting topcoat.
- F. STEEL FINISHES:
- 1. Surface Preparation:
 - i. Solvent-clean surfaces in compliance with SSPC-SP 1 to remove dirt, oil, grease, and other contaminants that could impair paint bond. Remove mill scale and rust, if present, from uncoated steel in compliance with SSPC-SP 5 (White Metal Blast Cleaning) or SSPC-SP 8 (Pickling).
 - 2. Baked Enamel Finish:
 - i. Immediately after cleaning and pretreatment, apply manufacturer's standard 2-coat baked enamel finish consisting of prime coat and thermosetting topcoat to exposed and concealed metal surfaces including understructure.
- G. WOOD FINISHES:
- 1. Transparent Finish:
 - i. Prepare surfaces by machine sanding, supplemented by hand sanding where required, followed by application of sealer coats and transparent top coats of type, in number, and by process standard with manufacturer.

Part 3: Execution

3.01 Preparation

- A. Coordinate installation of electrical wiring with auditorium seating layout to ensure that junction boxes for aisle lights are located inboard of aisle light standards in a manner resulting in minimal exposure of conduit.

3.02 Installation

- A. Install telescoping bleacher and seating platform units to comply with final shop drawings. Provide accessories and anchors, fasteners, inserts, and other items required for installation of units and permanent attachment of units to adjoining construction.

3.03 Cleaning and Protection

A. ADJUSTMENT AND CLEANING:

1. Upon completion of installation, including work of other trades, lubricate, test, and adjust each telescoping bleacher and seating platform unit to operate easily and in compliance with manufacturer's specifications.
2. Provide on-site demonstration and instruction for the proper operation of telescoping bleacher and seating platform units.

END OF SECTION 12 66 13

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