SECTION 11132 - PROJECTION SCREEN

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Front-projection screen – Electrically operated

B. Related Sections include the following:

1. Division 6 Section "Rough Carpentry" for wood blocking for screen installations.
2. Division 16 Sections for electrical wiring, connections, and installation of remote-control switches for electrically operated projection screen.

1.3 DEFINITIONS

A. Gain: Ratio of light reflected from or refracted by screen material to that reflected perpendicularly from a magnesium carbonate surface as determined per FS GG-S-00172D(1).

B. Half-Gain Angle: The angle, measured from the axis of the screen surface, to the most central position on perpendicular plane through the horizontal centerline of the screen where the gain is half of the peak gain.

1.4 SUBMITTALS

A. Product Data: For type of screen specified.

B. Shop Drawings: Show layout of projection screen. Include the following:

1. Location of screen centerline relative to ends of screen case.
2. Location of wiring connections.
3. Location of seams in drop surface.
4. Anchorage details.
5. Details of juncture of exposed surfaces with adjacent finishes.
6. Accessories.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain screen as a complete unit, including necessary mounting hardware and accessories.
B. Coordination of Work: Coordinate layout and installation of projection screen with other construction supported by, or penetrating through, ceilings, including light fixtures, HVAC equipment, fire-suppression system, and partitions.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver projection screen until building is enclosed, other construction within spaces where screens will be installed is substantially complete, and installation of screens is ready to begin.

PART 2 - PRODUCTS

2.1 FRONT-PROJECTION SCREENS

A. Electrically Operated Screen, General: Provide manufacturer's standard UL-labeled units consisting of case, screen, motor, controls, mounting accessories, and other components necessary for a complete installation. Remotely control operation of each screen to comply with the following:

1. Single-Station Control: 3-position control switch key operated with metal device box and cover plate for flush wall mounting and for connection to 120-V, ac power supply.


3. Screen Mounting: Top edge securely anchored to rigid metal roller and bottom edge formed into a pocket holding a 3/8-inch (9.5-mm) diameter, metal rod with ends of rod protected by plastic caps.

B. Suspended, Electrically Operated Screens with Automatic Ceiling Closure: Motor-in-roller units designed and fabricated for suspended mounting; with bottom of case composed of two panels, fully enclosing screen, motor, and wiring; one panel hinged and designed to open and close automatically when screen is lowered and fully raised, the other removable or openable for access to interior of case.

1. Products: Subject to compliance with requirements, provide one of the following

   a. Motor in Roller:

      1) Da-Lite Screen Company; Tensioned Advantage Deluxe Electrol – Basis of Design.
      2) Draper Inc.; Envoy.
      3) Stewart Filmscreen Corporation; Model ABT-4.

2. Provide metal or metal-lined wiring compartment on units with motor in roller.

3. Screen Case: Made from metal, wood, wood products, and fire-retardant materials.

4. Provide screen case constructed to be installed with underside flush with ceiling.

C. Matte-White Viewing Surface: Peak gain not less than 0.9, and gain not less than 0.8 at an angle of 50 degrees from the axis of the screen surface.

1. Products: Subject to compliance with requirements, provide one of the following
a. BEI Audio-Visual Products; Matte White.
c. Da-Lite Screen Company; Matte White.
d. Draper Inc.; Fiberglass Matte White.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install projection screens at locations indicated to comply with screen manufacturer's written instructions.

B. Install front-projection screen with screen case in position and relationship to adjoining construction indicated. Securely anchor to supporting substrate in a manner that produces a smoothly operating screen with vertical edges plumb and viewing surface flat when screen is lowered.

1. Test electrically operated units to verify that screen, controls, limit switches, closure, and other operating components are in optimum functioning condition.

3.2 PROTECTING AND CLEANING

A. Protect projection screen after installation from damage during construction. If damage occurs despite such protection, remove and replace damaged components or entire unit as required to provide unit in its original, undamaged condition.

3.3 PROJECTION SCREEN SCHEDULE

A. Electrically Operated, Front-Projection Screen Type: Suspended, with automatic ceiling closure.

2. Screen Surface: Matte white.
3. Size: 96 by 120 inches.
4. Extra Drop Length: As needed at top of screen for bottom of screen to be 36 inches (900 mm) above floor and 36 inches (900 mm) at bottom of screen.

END OF SECTION 11132