

SECTION 13 34 23  
SECURITY CONTROL BOOTHS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: High security control booths.

1.2 ACTION SUBMITTALS

- A. Product Data: Technical data including construction details, material descriptions, dimensions of individual components and profiles, and finishes for control booths.
- B. Shop Drawings: Submit plans, elevations, sections, details, accessories, and fastening and anchorage details, including mechanical fasteners.
  - 1. Anchor Bolt Plans: Submit anchor bolt plans and templates. Include location, diameter, and projection of anchor bolts required to attach control booths to foundation. Indicate post reactions at each location.
- C. Delegated Design Submittal: Submit for Security Control Booths indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance Data: Submit data for control booths to include in maintenance manuals.

1.4 COORDINATION

- A. Cast in Anchorage: Coordinate installation of anchorages for control booths. Furnish sleeves, concrete inserts, anchor bolts, and items with integral anchors that are to be embedded in concrete bases. Include setting drawings, templates, and directions for installing anchorages. Deliver items to site in time for installation.

1.5 WARRANTY

- A. Written warranty signed by manufacturer in which manufacturer agrees to repair finish or replace control booths that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Control booths shall withstand the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7:
  - 1. Loads: Indicated on Drawings.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
  - 1. Temperature Change (Range): 120 degrees F (67 degrees C), ambient; 180 degrees F (100 degrees C), material surfaces.
- C. Ballistic Resistance: Provide components, including windows, walls, and doors, identical to those tested for compliance with requirements indicated:
  - 1. Listed and labeled as Level 1 when tested according to UL 752.
  - 2. Type I when tested according to NIJ STD-0108.01.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- E. Safety Glazing Products: Category II materials complying with testing requirements in 16 CFR 1201.
  - 1. Subject to compliance with requirements, obtain safety glazing products permanently marked with certification label of SGCC or another certification agency or manufacturer acceptable to authorities having jurisdiction.
- F. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines, [and] ICC A117.1.

### 2.2 FABRICATED STEEL CONTROL BOOTHS

- A. Fabricate control booths from an integrated set of mutually dependent components to form a completed assembly, ready for installation on Project site.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. B.I.G. Enterprises, Inc.
    - b. Keystone Structures, Inc.
    - c. Parking Booth Company, Inc.
    - d. Par-Kut International, Inc.
    - e. Porta-King Building Systems.
- B. Building Style: Standard square corners.
- C. Structural Framework: Fabricated from 2 inch by 2 inch by 0.075 inch (50 mm by 50 mm by 1.90 mm) steel structural or mechanical tubing. Connect framework by welding.

- D. Doors: Sliding and swing doors indicated on Drawings.
1. Sliding Door: Top suspended from aluminum track with ball bearing rollers; 1-3/4 inches (44 mm) thick; tubular frame design fabricated from [galvanized steel; with top half of door glazed. Equip door with deadlock, lock support, guide hardware, and full weather stripping.
    - a. Glazing: Fixed unit with ballistic resistant glazing, UL 752 Level.
    - b. Deadlock: Mortised, laminated hook bolt type with removable cylinder capable of being master keyed.
  2. Swinging Door: 1-3/4 inches (44 mm) thick; tubular frame design fabricated from galvanized steel; with top half of door glazed. Equip door with deadlock, three butt hinges, closer, and full weather stripping.
    - a. Glazing: Ballistic resistant glazing, UL 752.
    - b. Deadlock: Mortised, with lever handle and removable cylinder capable of being master keyed.
- E. Windows: Extruded aluminum sash frames glazed with ballistic resistant glazing, UL 752 Level.
1. Frame Finish: Clear anodic.
  2. Operable Windows: Equip windows with cam locks, weather stripping, and stainless steel ball bearing rollers.
  3. Screens: Security screens for each window.
  4. Corner Shape: Square.
- F. Wall Panel Assembly: Assembly consisting of exterior face panel fabricated from 0.079 inch (2.01 mm) nominal thickness, galvanized steel sheet; and interior face panel fabricated from 0.064 inch (1.63 mm) nominal thickness, galvanized steel sheet; with 3 inch (76 mm) thick, rigid fiberglass or polystyrene board insulation in cavity between exterior and interior face panels.
- G. Base/Floor Assembly: 4 inch (102 mm) high assembly consisting of perimeter frame welded to structural framework of booth. Fabricate frame from 2 inch by 4 inch (51 mm by 102 mm) galvanized steel structural tubing; 0.108 inch (2.74 mm) nominal thickness, C shaped, galvanized steel sheet channels; or galvanized structural steel angles. Include anchor clips fabricated from 1/4 inch (6 mm) thick galvanized steel plate, predrilled and welded to exterior of integral floor frame.
1. Finished Floor: 0.108 inch (2.74 mm) nominal thickness, galvanized, rolled steel tread plate.
- H. Flat Roof/Ceiling Assembly: Assembly consisting of exterior roof panels, interior ceiling panels, and insulation between exterior and interior panels; sloped to drain at booth perimeter.
1. Exterior Roof Panel: Fabricated from 0.079 inch (2.01 mm) nominal thickness, galvanized steel sheet; with painted finish, continuously welded seams, and full perimeter gutter.
  2. Insulated Exterior/Interior Panel: Fabricated from 0.028 inch (0.71 mm) nominal thickness, galvanized steel sheet faces and expanded foam insulation core.

3. Canopy Fascia: Fabricated from 0.079 inch (2.01 mm) nominal thickness, galvanized steel sheet, of standard design.
    - a. Height: 6 inches (152 mm).
    - b. Overhang: 3 inches (76 mm) beyond face of walls below.
  4. Downspouts: Integral, extending 3 inches (76 mm) beyond booth walls.
  5. Roof scuppers.
  6. Rooftop finial.
- I. Work Counters: Full width of control booth, reinforced; with 16 inch (406 mm) wide storage drawer below each counter and an access opening for electrical cords at each rear corner of counter.
1. Material: 0.078 inch (1.98 mm) thick, stainless steel sheet.
  2. Depth: 20 inches (508 mm).
- J. Electrical Power Service: 125-A, 120/240 V ac, single phase, three wire service with 8-16 circuit breaker panel; located under one end of work counter. Run copper wiring in 1/2 inch (13 mm) EMT conduit.
1. Provide minimum two 120-V ground-fault circuit interrupter (GFCI) power receptacle(s).
- K. Lighting Fixtures: Two ceiling mounted LED lighting fixture(s), 48 inches (1219 mm) long, with acrylic lens and two 40-W lamps in each fixture. Provide single pole switch mounted adjacent to door to control lighting fixture.
- L. Heating Unit: Roof mounted, thermostatically controlled, 110-V, 1500-W electric heater with fan forced operation and with capacity of not less than 5000 Btu/h (1465 W). Enclose in enameled steel cabinet and mount under work counter.
- M. Cooling Unit: Roof mounted, thermostatically controlled air conditioner with cooling capacity of not less than 13,500 Btu/h (3956 W). Enclose in enameled steel cabinet.
- N. Accessories: Provide the following for each control booth:
1. Antifatigue mats.
  2. Signage: Refer to Drawings.
  3. Ventilation fan.
  4. Bollards: Refer to Section 05 50 00.
- O. Anchorage: Cast in place anchor bolts fabricated from nonferrous or corrosion resistant materials, with allowable load or strength design greater than or equal to the design load determined by testing conducted by a qualified testing agency.
- P. Materials:
1. Zinc Coated (Galvanized) Steel Sheet: ASTM A653/A653M, commercial quality, G90 (Z275) coating designation; mill phosphatized.
  2. Galvanized, Rolled Steel Tread Plate: ASTM A786/A786M, rolled from steel plate complying with ASTM A572/A572M, Grade 55 (380); hot dip galvanized according to ASTM A123/A123M.

3. Steel Structural Tubing: ASTM A500/A500M, Grade B.
4. Steel Plates, Shapes, and Bars: ASTM A36/A36M.
5. Steel Mechanical Tubing: ASTM A513, welded steel mechanical tubing.
6. Zinc Coated (Galvanized) Steel: Hot dip galvanized according to ASTM A123/A123M.
7. Stainless Steel Sheet: ASTM A666, Type 304.
8. Plywood: DOC PS 1, Exterior grade.
9. Particleboard: ANSI A208.1, Grade M-2.
10. Ballistic Resistant Glazing: Tested to comply with bullet resistant testing level indicated.

- Q. Finish: Immediately after cleaning and pretreating, apply two coat, baked on finish consisting of prime coat and thermosetting topcoat.
1. Color and Gloss: Selected by Architect.

## 2.3 FABRICATION

- A. Factory fabricate control booths completely. Factory preglaze windows and doors.
- B. Factory prewire control booths, ready for connection to service at Project site.
- C. Fabricate control booths with forklift pockets in base of booth.
- D. Accessible Control Booths: Where indicated to be accessible, fabricate control booths as follows:
  1. Provide service windows located no higher than 34 inches (865 mm) above exterior grade.
  2. Provide door opening with minimum 32 inch (813 mm) clear width.
  3. Provide minimum 60 inch (1525 mm) clear turning spacing within the booth.
  4. Provide minimum 27 inch (685 mm) clearance beneath interior work surfaces. Locate work surfaces 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the floor.
  5. Locate controls and operable parts no lower than 15 inches (381 mm) and no higher than 48 inches (1219 mm) above the floor where reach is unobstructed. Where side reach is obstructed, locate controls and operable parts no lower than 15 inches (381 mm) and no higher than 46 inches (1219 mm) above the floor.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances, including concrete bases; accurate placement, pattern, and orientation of anchor bolts; critical dimensions; and conditions affecting performance of the work.

- B. Examine roughing in for electrical and communication systems to verify actual locations of connections before control booth installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the work.
- D. Proceed with installation after correcting unsatisfactory conditions.

### 3.2 INSTALLATION

- A. Install control booths according to manufacturer's written instructions.
- B. Accessible Control Booths: Install with interior floor surface at same elevation as adjacent paved surfaces.
- C. Set control booths plumb and aligned. Level baseplates true to plane with full bearing on concrete bases.
- D. Fasten control booths securely to concrete base with anchorage indicated.
- E. Connect to electrical power service and data systems.
- F. Perform startup checks of heating and cooling units according to manufacturer's written instructions.

### 3.3 ADJUSTING

- A. Adjust doors and hardware to operate smoothly, easily, properly, and without binding. Confirm that locks engage accurately and securely without forcing or binding.
- B. Lubricate hardware and moving parts.
- C. After completing installation, inspect exposed finishes and repair damaged finishes.

END OF SECTION