SECTION 10 25 13
PATIENT BED SERVICE WALLS

PART 1 - GENERAL

1.1 DESCRIPTION

This section specifies the furnishing, installation and connection of the patient bed service wall systems both horizontal and vertical. Patient wall systems are also referred to as Head Walls.

1.2 RELATED WORK

A. Vacuum Systems, Gas Systems, Requirements for air, oxygen and vacuum outlets in the patient wall units: Division 22-PLUMBING.

B. Electrical and Lighting: Division 26-ELECTRICAL

C. Nurse call/code blue systems: Division 27 - COMMUNICATIONS

1.3 SUBMITTALS

A. In accordance with Section 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, submit the following:

B. Shop Drawings:

1. Sufficient information, clearly presented, shall be included to determine compliance with drawings and specifications.
2. Include electrical ratings, dimensions, mounting details, front view, side view, equipment and device arrangement, wiring diagrams, material, and connection diagrams.
3. Determine final layout of each style of patient wall system at this stage. Provide configuration drawings showing all possible devices, such as nurse call, medical gases, electrical receptacles and switch locations to the Architect/ Engineer. The Architect / Engineer will provide by return of submittal the desired configuration of each style of patient wall system. Limit the number and type of devices allowed for each style of unit to the number and type of devices specified for that style below.

C. Manuals: Two weeks prior to the final inspection, deliver four copies of the following to the Architect/ Engineer.

1. Complete maintenance and operating manuals including wiring diagrams, technical data sheets, and information for ordering replacement parts:
   a. Include complete "As installed" diagrams which indicate all items of equipment, their interconnecting wiring and interconnecting piping.

b. Include complete diagrams of the internal wiring for each of the items of equipment, including "As installed" revisions of the diagrams.

c. Identify terminals on the wiring diagrams to facilitate installation, maintenance and operation.

D. Certifications: Two weeks prior to the final inspection, deliver four copies of the following certifications to the Architect / Engineer:

1. Certification by the manufacturer that the equipment conforms to the requirements of the drawings and specifications.
2. Certification by the Contractor that the equipment has been properly installed, adjusted, and tested in accordance with the manufacturer's recommendations.

1.4 APPLICABLE PUBLICATIONS:

A. Publications listed below (including amendments, addenda, revisions, supplements and errata) form a part of this specification to the extent referenced. Publications are referenced in text by the basic designation only.

B. National Fire Protection Association (NFPA):
70-07.....National Electrical Code (NEC)
99-05.....Health Care Facilities

C. Underwriters Laboratories, Inc. (UL):
UL listed in product category SECTIONS AND UNITS (QQXX). This standard used to investigate listed products in this category is NFPA 70 (NEC).

PART 2 - PRODUCTS

2.1 PATIENT WALL SYSTEMS

A. Shall be UL listed.

B. Shall consist of a structural framework, removable panels and removable equipment console units, factory assembled to house all permanent bedside services including but not necessarily limited to fixtures, grounding jacks, power outlets, telephone outlet, nurses call patient station, medical gas outlet(s) and other fittings or devices.

C. Shall conform to the following:

1. Applicable requirements in NFPA 70 (NEC) and NFPA 99.
2. Assembly and all components shall be UL listed or labeled.

D. Coordinate the mounting space provisions for the nurse call equipment with Section 27 52 23, NURSE CALL/CODE BLUE SYSTEMS.

E. Compressed Air, Oxygen and Vacuum System Equipment: Furnish, install and test the equipment in accordance with the drawings and Section 22 62 00, VACUUM SYSTEMS FOR LABORATORY AND HEALTHCARE FACILITIES and Section 22 63 00, GAS SYSTEMS FOR LABORATORY AND HEALTHCARE FACILITIES.

1. Fixed medical gas outlets are permanently installed in one location and may not be moved without special tools and shutting off the gas involved.
2. Movable medical gas outlets:
   a. Hose connected to gas manifold type:
      1) The hoses connected to gas manifold shall be UL listed and labeled for the purpose.

      2) All hoses shall be accessible at all times. Use bars or other restraining devices to control exposed hoses. A panel may cover the hoses provided it can be easily removed with out the use of special tools for hose inspection.
   b. Relocatable type:
      1) Relocatable (snap-in) without the use of tools to any one of several different fixed locations.
      2) Appropriate relocatable adapter can be used to access available gases from each fixed location.
      3) Cover all unused locations with a blank (no gas) adapter plate.

F. Electrical receptacles and switches shall comply with the requirements in Section 26 27 26, WIRING DEVICES; grounding in Section 26 05 26, GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS; and internal wiring in Section 26 05 21, LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (600 VOLTS AND BELOW).

G. Styles:
   1. Style A1: A single bed patient wall unit consisting of a vertical unit. Patient bed light power must be wired through the patient wall unit. Vertical units shall be surface of wall mounted. The width of the vertical unit shall not be less than 250 mm (10 inches) and not more than 350 mm (14 inches) nominal.

   Available Products: Listed below is a manufacturer's product, which has been identified as meeting the salient characteristics of this specification. Such information is only provided to show an example of the type of product which meets the specifications and does not, in any way, limit the offeror from providing products from other manufacturers which meet the salient characteristics as identified in this specification:
   a. Basis of Design Product: Surface-Mount Profile Series.
   b. Provide oxygen gas outlet(s): 1-each fixed or 1-each movable.
   c. Provide air outlet (s): 1-each fixed or 1-each moveable, (except at (3) Phase II chair stations none required)

d. Provide vacuum outlet(s): 3-each fixed or 3-each movable, (except at (3) Phase II chair stations 1-each fixed or movable required)
e. Provide vacuum slide outlets: 2-each fixed or 2-each movable (except at (3) Phase II chair stations 1-each movable or fixed required)
f. Provide emergency power outlets: 2-each NEMA 20R duplex receptacles,with stainless steel or anodized aluminum cover plate, engraved "EMERGENCY POWER" with minimum 6 mm (1/4 inch) red filled letters.
g. Provide normal power outlets: 2-each NEMA 20R duplex white receptacles.Provide stainless steel or anodized aluminum cover plates.
h. Provide Nurses Call audio-visual single bed station.
i. Provide Tele-cart jack.
j. Provide an auxiliary light (6 to 7 watts) with hood and switch. Both shall be mounted on a stainless steel or an anodized aluminum face plate installed in a single gang box.
k. Provide a switch for the overhead/exam light and the overhead ambient light.

2. Style A2: A single bed patient wall unit consisting of a horizontal unit. Horizontal units shall be surface of wall mounted. The width of the horizontal unit shall be not less than 400 mm (16 inches) nor more than 475 mm (19 inches) and the height shall be not less than 325 mm (13 inches) nor more than 375 mm (15 inches) nominal.
a. Basis of Design Product: Surface-Mount PROVIDER - PLUS Series, by Modular Services Company, Oklahoma City, OK.(800) 687-0938
b. Provide electrical devices only (no med-gas), as indicated on electrical drawings.
c. Color / finishes to match Style A1.

H. Units shall have the following features:
1. Basic structural framework shall be constructed of heavy gage extruded aluminum or minimum (16 gage) cold-rolled steel, designed to be a self-supporting unit for above-the-floor, surface of wall mounting.
2. Drill and tap the side frame members to permit the installation of front panel devices at modular intervals at any elevation between the top and bottom.
3. Provide removable front panels:
a. Construct panel of the following materials:

1) high pressure plastic laminated facing sheet applied over sheet steel minimum 1.6 mm (0.059 inch).

b. Color and texture shall be as selected by Architect/Engineer from Manufacturer's full range.

c. Bond the panel edges with an aluminum extrusion or cold-rolled steel trim designed for mounting directly to the structural framework, thus allowing the panels to be easily removed for access to internal components and for servicing of utility connections or future modifications. Secure panels with hidden screws or other means to offer an overall finished appearance. All exposed metal surfaces or trims greater than 4 mm (1/8 inch) wide shall be of anodized aluminum or stainless steel finished to resist abrasion and affects from hospital cleaning compounds.

6. Provide patient services as indicated in paragraphs Styles above, the schematic wiring diagram shown on drawings, and as follows:

a. Electrical components: Factory assembled and prewired to a sectionalized junction box at the top of the unit in accordance with circuiting and switching arrangements shown on the drawings. Factory assembled prewiring may be stranded in sizes AWG #10 and #12. Provide an equipotential ground bus with lugs suitable for connecting AWG #14 to AWG #6 conductors with a minimum of 48 screw-type terminals, unless otherwise shown.

b. Receptacles: Duplex Hospital Grade NEMA 5-20R, unless otherwise specified.

c. Provide medical gas components compatible with those installed elsewhere in the project that are factory assembled, manifolded and pre-piped, using medical grade copper pipe, to single point connections of each service at the top of the units.

d. Provide nurse call services consisting of provisions for adequate space and matching face plates for the equipment and empty conduit to the sectionalized junction box at the top of the unit.

e. Provide internal power and signal wiring in separate EMT, flexible metal conduits or approved raceway. Separate normal power circuits from emergency power circuits. Also, provide adequate supports for conduits and piping within the structural frame.

f. Telephone outlets/jacks: Plug-in type as approved by the VAMC.

g. Except for anodized aluminum and galvanized or stainless steel surfaces, clean and paint all other metal surfaces at the factory with primer and not less than two coats of baked enamel.

PART 3 - EXECUTION

3.1 INSTALLATION:

A. Installation shall be in accordance with NFPA 70 (NEC), NFPA 99, and as shown on the drawings.

B. Compressed Air, Oxygen and Vacuum System Equipment:

1. Install and test the equipment and piping system in accordance with the drawings and Section 22 62 00, VACUUM SYSTEMS FOR LABORATORY AND HEALTHCARE FACILITIES and Section 22 63 00, GAS SYSTEMS FOR LABORATORY AND HEALTHCARE FACILITIES.
2. Install and make connections as required for a complete and operational patient wall system for each unit.

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