SECTION 142400

HYDRAULIC ELEVATORS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Passenger elevator system, Two (2) required.

B. Motor and pump, controllers, and equipment.

1.2 SYSTEM DESCRIPTION

A. Hydraulic Elevator System: One unit; buried cylinder and casing or hole less hoist way cylinder, with motor and pump adjacent to hoistway. Equal to Thyssen Krupp Endura, Above Ground (1-stage)

B. Characteristics of the elevator are as follows:
1. Rated Net Capacity: 3,500 lbs.
2. Rated Speed: 100 ft/min.
3. Automatic Lowering
4. Clear Net Platform Size: 80 x 51 inches.
5. Hoistway and Cab Entrance Frame Opening Sizes: 42 x 88 inches.
6. Door Type: Single leaf.
7. Door Operation: Side opening.
8. Elevator No.1: Number of Stops: 3
9. Elevator No. 2: Number of Stops: 2
10. Elevator No.1: Number of Openings: 4 (3 Front and 2 Rear)
11. Elevator No. 2: Number of Openings 2
12. Handrails: two side walls – 1 ½" diameter.
13. Provide Removable wall mats.

C. Finishes
1. Floor Finish to be Sheet Vinyl No. 1 (SV-1)which will be furnished and installed by the Flooring Contractor.
2. Wall and Ceiling Panels must be Powder Coat
3. Handrails must be Stainless Steel
4. Lighting must be Downlight with LED
5. Hoistway Door & Frame: Powder Coat
6. Cab Door & Front Wall Finish: Brushed Stainless Steel

D. Controls System: Conform to the following criteria:
1. Single Automatic Operation elevator control system.
2. Lighted call button at each landing.
3. Position indicator in the car.
4. Prominent direction arrows in the car and at each landing.
5. Audible signals which sound at each floor, sounding once in the up direction and sounding twice in the down direction.

6. Emergency call phone connected to the reception office
7. An in-car alarm button.

8. Additional Traveling Cables for the installation of an electronic reader for floor access and a closed circuit TV camera.
9. Electronic lock out of all floors

E. Special Operational Features:
1. Interconnect with building fire and smoke alarm system.

1.3 SUBMITTALS

A. Shop Drawings: Indicate the following minimum information on shop drawings:
1. Motor and hydraulic pump, valves, and other component locations.
2. Car, supporting beams, guide rails, and other components in hoistway.
3. Loads on hoisting beams.
4. Elevator control functions and operational description.

B. Product Data: Provide data on the following items:
1. Signal and operating fixtures, operating panels, indicators.
2. Cab design, dimensions, layout, and components.
3. Cab and hoistway door and frame details.

C. Schematic: Provide legible schematic of hydraulic piping and electric wiring diagrams describing installed equipment. Provide one copy of master schematic, mounted in plastic glazed metal frame, mounted on machine room wall.

D. Samples: Submit three samples illustrating cab floor material, cab interior finishes, cab and hoistway door and frame finishes.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with the following:
1. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People and the Uniform Federal Accessibility Standards.
2. ANSI/ASME A17.1 - Safety Code for Elevators and Escalators.
3. ANSI/UL 10B - Fire Tests of Door Assemblies.
4. Building Code of New York State
5. Applicable Local Building Codes
6. HUD Minimum Property Standards

1.5 MAINTENANCE

A. Include description of elevator system's method of operation, control description, motor control system, cab and hoistway door operation, visual and audio signals, and specified non-standard features.

B. Include a parts catalog with complete list of equipment replacement parts.

C. Include legible schematic wiring diagrams of installed electrical equipment.

1.6 GUARANTEE

A. Provide written guarantee from the manufacturer to cover parts and components for a period of one year after the date of final acceptance.

B. Repairs or replacements made under the guarantee, must be guaranteed for an additional one year period.

1.7 SERVICE CONTRACT

A. Elevator Contractor must provide a service contract to cover maintenance and callback service for a period of one year after the ate of final acceptance by Owner. Coverage must include regular and systematic examination, adjustment, lubrication, and repair and/or replacement of equipment whenever required by the wear and tear of normal elevator usage. A service contract must be in continual enforcement for the entire length of the regulatory period.

B. Owners are required to provide an Annual Service Contract for continual coverage for the entire length of the regulatory period. Service Contracts are to provide the same level of coverage as outlined above.

PART 2 PRODUCTS

A.1 ELEVATOR SYSTEM AND COMPONENTS

A. Manufacturers: Equal to: Thyssen Krupp's 3,500-pound hydraulic elevator (Endura MRL Above Ground 2-stage)

B. Structural Components, Cylinder and Casing: Required to construct elevator system and conform to code.

C. Sheet Steel: ASTM A366 Class 1.

D. Stainless Steel: ASTM A167 Type 304, No. 4 finish.

E. Aluminum: ASTM B221, extruded.

F. Motors, Pumps, Valves, Regulators, Fluid Tank, Hydraulic Fluid, Controller, Controls, Buttons, Wiring and Devices, Indicators: UL approved.

G. Spring Buffers, Attachment Brackets and Anchors: Purpose designed, sized according to code with safety factors.

H. Pump Housing: Sheet steel, acoustically insulated, removable.

2.2 ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. Electrical Characteristics: 25 h.p., 208 volt, 3 phase, 60 cycle.

B. Disconnect Switches: Provided by the electrical contractor.

C. Products Requiring Electrical Connection: Listed and classified by Underwriters' Laboratories, Inc., or other testing firm acceptable to the authority having jurisdiction as suitable for the purpose specified and indicated.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that hoistway, pit and machine room are ready for work of this Section.

B. Verify shaft and openings are of correct size and within tolerances.

C. Verify that electrical power is available and of the correct characteristics.

3.2 INSTALLATION

A. Install in accordance with ANSI/ASME A17.1.

B. Install system components and connect to building utilities.

C. Accommodate equipment in space indicated.

D. Coordinate installation of hoistway wall construction.

E. Grout sills in place. Set entrances in vertical alignment with car openings and aligned with plumb hoistway lines.

F. Fill hoistway door frames solid with grout.

G. Adjust for smooth acceleration and deceleration of car so not to cause passenger discomfort.

H. Adjust automatic floor leveling feature at each floor to achieve 1/4 inch from flush.

3.3 TESTS BY REGULATORY AGENCIES

A. Obtain required permits to perform tests. Perform tests required by regulatory agencies.

END OF SECTION