DIVISION 14 CONVEYING SYSTEMS
SECTION 144200 - WHEELCHAIR LIFT

SPEC EDITOR: THIS SECTION INCLUDES WHEELCHAIR LIFTS, WHICH ARE DISTINGUISHED FROM BFLD'S, IN PART, BY RESTRICTED LIFT HEIGHT AND MINIMAL SHAFT ENCLOSURE REQUIREMENTS. CONSULT UNIVERSITY OF MICHIGAN DESIGN GUIDELINES FOR SELECTION ASSISTANCE TO DETERMINE WHETHER A WHEELCHAIR LIFT IS AN APPROPRIATE DESIGN SOLUTION, OR WHETHER ANOTHER LIFT TYPE SPECIFIED IN SECTION 14 ("BARRIER-FREE LIFTING DEVICE") IS REQUIRED.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

INCLUDE PARAGRAPH 1.1.A AND B IN EVERY SPECIFICATION SECTION. EDIT RELATED SECTIONS 1.1.B TO MAKE IT PROJECT SPECIFIC.

A. Drawings and general provisions of the Contract, Standard General and Supplementary General Conditions, Division 1 Specification Sections, and other applicable Specification Sections including the Related Sections listed below, apply to this Section.

1.2 SUMMARY

A. This Section specifies a vertical-travel wheelchair lift.
1. Include manufactured hoistway and platform doors.

SPEC EDITOR: SELECT PARAGRAPH ABOVE OR BELOW.
2. Install lift within site-built custom enclosure.

B. Electrical service and final electrical connections are specified in Division 26 sections.

SPEC EDITOR: INCLUDE THE FOLLOWING WHERE APPROPRIATE.

C. Alternates: The work of this Section affected by an alternate. Refer to Division 01 Section "Alternates" for additional information.

1.3 SUBMITTALS

A. Submit each indicated item in compliance with Division 1 Section "Submittals."

B. Product manufacturer's literature indicating compliance with applicable requirements.

C. Shop Drawings: Provide shop drawings showing layout, including critical dimensions for installation, details, and anchorages for wheelchair lift. Include internal wiring diagram and requirements for connection to building electrical service.

D. Samples: Submit finish paint color samples of manufacturer's full standard range of surface coating colors and textures in the form of actual coating material samples applied to metal sample cards of approximately 3 inches wide by 5 inches long.
E. Permits and Certificates: Submit four copies of each of the following:
1. Installation permit required under Quality Assurance Article.
2. Inspection and acceptance certificates required under Quality Assurance Article.

F. Manufacturer's Instructions: Submit operation and maintenance manuals and parts list.

1.4 QUALITY ASSURANCE

**SPEC EDITOR: SPEC SHOULD USUALLY RETAIN ALL BELOW.**

A. Installer Qualifications: Engage an experienced Installer who has completed installation of products similar in design and extent to those required for the project and whose work has resulted in construction with a record of successful in-service performance.

1. Installer shall hold a valid Class C license issued by the State of Michigan.

B. Single-Source Responsibility: Provide products and units from one source and produced by a single manufacturer.

C. Regulatory Requirements: As follows:

1. Comply with applicable provisions of the most recent edition (unless otherwise indicated) of each of following codes and standards:
2. Factory-installed wiring shall comply with applicable requirements of the National Electrical Code.
3. Obtain installation permit from the State of Michigan Elevator Safety Board.
4. Obtain necessary inspection and acceptance certificates from authorities having jurisdiction.

1.5 PROJECT CONDITIONS

A. Field Measurements: Check actual space available by accurate field measurement before fabrication. Show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.

1. Where necessary, proceed with fabrication without field measurements, and coordinate fabrication tolerances to ensure proper fit of window units.
PART 2 - PRODUCTS

2.1 WHEELCHAIR LIFT

SPEC EDITOR: THE PARAGRAPH BELOW INCLUDES PROVISION OF A MANUFACTURED HOISTWAY ENCLOSURE. OMIT THE REFERENCES TO A "MANUFACTURED HOISTWAY ENCLOSURE" IN PARAGRAPHS A AND C IF THE UNIT WILL BE INSTALLED IN A SITE-BUILT CUSTOM ENCLOSURE.

A. Wheelchair Lift, General: Provide vertical-travel wheelchair lift with roped- (cable-) hydraulic-type lift mechanism, with single-chair capacity, and with manufactured hoistway enclosure. Wheelchair lift, hoistway, components, hardware, and operational features shall comply with requirements of this Section and requirements of authorities having jurisdiction.

B. Provide wheelchair lifts with the following characteristics:
   2. Rated Speed: 15 feet per minute max.
   3. Vertical travel distance: As indicated on Drawing.
   4. Platform size: 13 sq. ft. minimum area; meet minimum length and width requirements of authorities having jurisdiction.
   5. Power Supply: 115V, single phase, or as required by manufacturer.
   6. Emergency Operation: Rechargeable battery operated system, capable of completing a full up and down cycle.

C. Product: Subject to compliance with requirements, provide the following product:

   SPEC EDITOR: SELECT ONE OF THE FOLLOWING PARAGRAPHS BASED ON THE SPECIFIC PROJECT.
   1. Wheelchair lift with manufactured enclosure:
      P.A.L-SE; Concord, Div. Ricon Corporation.
   2. Wheelchair lift for use with architectural enclosure:
      Concord, Div. Ricon Corporation.

2.2 COMPONENTS

A. Doors: In addition to complying with regulatory requirements, provide doors that are self-closing, swinging type fabricated with internal noise deadening materials and with rubber bumper stops to prevent metal-to-metal contact with jambs. Provide doors with hydraulic door closers (spring hinges not permitted).
   1. Provide doors with manufacturer's standard safety glazed lights (windows). Provide lights of not less than 625 sq. inches in each door.

B. Seat: Side-mounted, spring loaded seat that in retracted position does not impinge on the required clear width of the platform.

C. Controls: Constant pressure paddle type.

D. Platform entrance safety device: Photo-electric eye.

E. Handrails: Provide guards on both sides of platform with handrails.
F. Fused Safety-Disconnect: Provide unit in accordance with requirements of authorities having jurisdiction. Locate unit as indicated in Installation article of this Section.

2.3 FINISH
A. Paint Coating: Manufacturer's standard powder-coated enamel finish. Color to be selected by Architect from manufacture's standard range.

PART 3 - EXECUTION

3.1 INSPECTION
A. Inspect surrounding wall and floor surfaces before beginning installation. Verify that rough opening tolerances are correct and the landing construction is level. Do not proceed with installation until deficiencies have been corrected.

SPEC EDITOR: DELETE BELOW IF NO DEPRESSED SLABS.
1. Verify that depressed slab area dimensions are correct.

3.2 INSTALLATION
A. Comply with manufacturer's printed installation instructions for products and applications indicated, except where more stringent requirements apply. Comply with applicable requirements of authorities having jurisdiction, and the following:
   1. Securely fasten lifting structures to the structural floor using expansion anchors or similar devices.
   2. Field alteration of factory-fabricated structural elements, including platform and doors is not permitted.
   3. Locate fused safety-disconnect as indicated on Drawings, or if not indicated, in a location near the lift mechanism, but not in the hoistway and not in location accessible to the public.

3.3 ADJUSTING
A. Test and adjust operation of wheelchair lift. Verify, and adjust as required, indicated dimensional tolerances related to enclosure and platform, and landing and platform. Ensure smooth, non-binding operation of platform, doors and other moving parts and assemblies. Ensure proper operation of safety devices and related interlocks. Adjust limit switches to ensure proper alignment with landings.

3.4 CLEANING
A. Clean surface finishes promptly after installation of unit. Lubricate hardware and other moving parts.
3.5 TRAINING

A. Training: Demonstrate proper operation to Owner's personnel. Provide not less than 4 hours of training, by a qualified manufacturer's technician, for Owner's personnel in the proper operation and maintenance of the wheelchair lift.

END OF SECTION 144200