SECTION 14210
ELECTRIC TRACTION ELEVATORS

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes:

1. Specific requirements for electric traction elevators. Comply with the requirements of Section 14200 regarding the work of this section.

B. Related Sections:

1. Section 14200 - Elevators, General.

1.2 SUBMITTALS:

A. Shop Drawings:

1. Submit shop drawings detailing power conversion unit and drive system.

1.3 QUALITY ASSURANCE:

A. Manufacturer Qualifications:

1. The elevator equipment shall be manufactured as an integrated system by a manufacturer who is regularly engaged in the design and manufacture of electric elevators and who designs and manufacturers the power unit and the various electrical and mechanical safety systems, except that the fixtures, motor, and power conversion unit may be manufactured by qualified manufacturers of these items to the elevator company's specifications.

B. Tolerances:

1. Plumb and secure guide rails within an overall tolerance of 0.063" per 100' (measured with no wind or solar load on building) and within 0.01" joint offset on rail surfaces. Limit short-span tolerance (measured between upper and lower car guides, continuously) to 0.063".

PART 2 - PRODUCTS
2.1 MACHINES:

A. Traction Machines:

1. Provide manufacturer's standard variable-voltage DC traction-type hoisting machines. Provide geared-type machines for speeds up to 450 fpm, gearless type for speeds of 500 fpm and over.

B. Power Control:

1. Provide manufacturer's standard solid-state power converters for use with motors on elevator machines with variable voltage direct current.

2. Provide isolation transformers, line filters or chokes to prevent electrical peaks or spikes from feeding back into building power system from solid-state power converters.

C. Machine Location:

1. Provide elevator machines designed for location directly over hoistways, in manufacturer's standard arrangement.

2.2 LEVELING SYSTEM:

A. Automatic two-way leveling and releveling. Leveling accuracy ±1/4". Provide LS Quad by Motion Control Engineering (no substitutions).

2.3 MICROCOMPUTER ELEVATOR CONTROL SYSTEM:

A. Manufacturer: Motion Control Engineering (no substitutions).

B. Model: IMC 12 Pulse with SCR drive and LS Quad landing system.

C. Include the following features and options.

1. On board diagnostic station.
2. Secured access to computer diagnostic capability.
3. Modem communication link with controller.
4. UL and CSA labels.
5. Solid state, reduced voltage starting.
6. Permanent display of calls, car position and direction, key modes of operation and condition codes.
7. Door motor protection timer.
8. Single wire registration and acknowledgment.
9. Stuck button protection feature to keep any stuck car call or hall call from holding car at floor.
10. Test feature to allow adjustment of elevator without door operation or interfering with hall calls.
11. Hi/lo inspection speed selector switch.
12. Relay panel inspection switch to allow manual operation of car from machine room.
13. CMS Monitoring System
14. Basic Security Package

PART 3 - EXECUTION

Not Used

END OF SECTION 14210