# NC State University Design and Construction Guidelines Division 14 Conveying Equipment

#### 1.0 Purpose

A. The following guidelines apply to the design of all elevators and handicap lifts. It is worth noting that in this document the terms "elevators" and "handicap lifts" are interchangeable.

### 2.0 General Requirements

- A. Elevator control systems shall be non-proprietary.
- B. All tools, programmers, CRT with keyboard, hand-held or lap-top computer, software, instruction manuals and other miscellaneous devices required to maintain, service, and troubleshoot the elevator system shall be furnished to NC State.
- C. Non-proprietary components such as microprocessor based elevator control systems shall be serviceable and maintainable by ANY qualified elevator maintenance provider that is capable of maintaining apparatus of similar design and complexity.
- D. Maintenance and repair of the elevator control system shall not require ANY external proprietary service tool, such as but not limited to: SIM Cards, belt monitors.
- E. Technical support must be provided by the manufacturer of any non-proprietary elevator system over the life of the unit and within 24 hours to NC State or their representative.
- F. Manufacturers of elevator controls and other components must have a prior satisfactory performance history in not less than 25 other elevator installations of equal or greater capacity and speed for a minimum of 18 months within the United States and a minimum of 3 installations in North Carolina. Names, addresses, phone numbers, buildings, owners, e-mail addresses and elevator specifications in which the proposed components have performed satisfactory must be provided to NC State.
- G. Operation and Maintenance manuals, 3 copies per unit (one set laminated), shall be provided for each unit installed. These manuals will contain all electrical and solid state wiring diagrams.
- H. Elevator contractor shall provide 3 complete sets of keys, labeled according to function and 1 elevator door key to NC State.
- I. The elevator contractor shall provide a key switch (Best Lock system) access control for any elevator stops for mechanical rooms or rooftop penthouse spaces.

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#### 3.0 Equipment

- A. Elevator Telephone
  - 1. All elevator telephones installed on the NC State campus shall be Gaitronics.
  - 2. All telephones shall be wired back to the elevator machine room.
  - 3. Contractor shall include the procurement and installation of the telephone in the elevator.
  - 4. NC State will provide the wiring for the telephone from the building telecom room to the elevator machine room where the controller is located. The final connection of the telephone circuit in the controller will be made by the elevator contractor and shall be coordinated with NC State.
  - 5. Contractor shall provide telecom conduit or raceway for the telephone wiring from the elevator machine room to the nearest NC State raceway.
- B. Digitized Floor Annunciator
  - 1. Comply with preferred manufacturer list.
  - 2. All annunciators shall be factory assembled and tested, digital voice annunciator, with female recorded voice, adjustable volume and tone controls. The recorded message shall state the floor location of the cab and the direction of travel when the cabs doors open. The audible signals of the elevator shall be replaced with the digital voice annunciator.
- C. Elevator Control System
  - 1. Elevator Control Systems shall comply with NC State's Preferred Manufacturer List.