APPENDIX F

Elevator, Escalator, and Lift Modernization Components

The following list identifies major system components that may be replaced, upgraded, or modernized as part of Full or Partial Modernization efforts under this contract.

A. Elevator System Components:

1. Controllers & Electrical: Installation of non-proprietary controllers, modernization of dispatching systems, and upgrading to energy-efficient motors (hydraulic or traction).

2. Hoisting and Drive Equipment: Replace suspension ropes and drive sheaves to ensure proper traction and safety. Upgrade drive systems with Variable Voltage Variable Frequency for smoother acceleration, deceleration and reduced energy consumption. Replace aging motors with modern high efficiency gearless machines.

3. Door Equipment & Operations: Replacing door operators, tracks, hangers, and sills to enhance safety and reliability.

4. Safety Features: Upgrading safety brakes, overspeed governors, and emergency communication systems.

5. Fixtures & Interior: Installing new car operating panels (COP), hall stations (lanterns), and digital position indicators.

6. Cab Enhancements: Installing energy-efficient LED lighting, updating interior panels, and adding high-tech, touchless control systems.

7. Machine Room & Infrastructure: Upgrading hydraulic pumps/valves, adding ventilation/HVAC for controllers, and installing new wiring and traveling cables.

B. Escalator Modernization Components:

1. Escalator modernization involves replacing steps, step chain, handrail, handrail drive system, main drive motor and gearbox.
2. Upgrade brake system, safety switches, landing plates and step demarcations lighting.

C. Lift System Modernization Components

1. Lift system (Platform lifts, wheelchair lifts, or limited-use lifts) modernizations upgrade includes new lift controllers, drive motors, hydraulic pumps and cylinders, safety sensors, platform operating panel, battery back-up, gate interlock and emergency lowering systems.

D. Accessibility and Code Compliance Upgrades

1. Modernization tasks include upgrades required to comply with ADA accessibility and safety code requirements, seismic compliance upgrades, fire service upgrades, emergency communication systems, audible and visual signals, braille and tactile signage.