



## CPM COMMISSIONING ELEVATOR UNIT

ESCALATOR CONSTRUCTION & COMMISSIONING SEQUENCE AS OF .....				
CONTRACT # .....		ESCALATOR #		
Item	Description of Task	Dates		Relating parties
		Expect.	Complete	
<b>1.</b>	<b>Escalator Submittals</b> (see submittals log)			
1.1.	Factory Test Procedures review & approval			
1.2.	Field Test Procedure review and approval			
1.3.	Escalator Machine Room Coordination Layout review & approval			
1.4.	Shop Drawings – coordination of escalator Decking, Balustrades with adjacent walls, columns and stairs			
1.5.	Shop Drawings – integration with escalator truss/ structure, in case if vertical balustrade cladding/ wall is required			
1.6.	Shop Drawings – coordination for Ceiling Intersection Guards, Antislid Devices and Deck Barricades (in safety zones at entrance and egress)			
1.7.	Submittal & approval for escalator signs, nameplates & tags.			
1.8.	Department of Stations – confirmation if electronic signs for evacuation required and their positioning			
1.9.	O&M submittals			
1.10.	Submittals for syllabus & training manuals			
<b>2.</b>	<b>ESCALATOR CONSTRUCTION</b>			
2.1.	<b>DEMOLITION AND REMOVALS</b>			
2.1.1.	Barricades erection			
2.1.2.	Old escalator demolition or new structural part construction			
2.2.	<b>SYSTEMS INTEGRATION (FOR INFORMATION PURPOSE, see 2.3. for sequence of process)</b>			
2.2.1.	<b>Wet-pipe Fire Protection system</b>			
2.2.1.1.	<b>Automatic Sprinkler System Test</b>			
2.2.1.2.	<b>Sprinkler Heat Tracing System Test</b>			
2.2.2.	<b>Sump Pump</b>			
2.2.2.1.	<b>Escalator Sump Pump Test</b>			
2.2.3.	<b>LiftNet</b>			
2.2.3.1.	Installation of data line from comm. room to EMR			
2.2.3.2.	Conduits, wiring and connection termination			
2.2.3.3.	Open of firewall for two servers, test liftnet communication line functionality and obtain IP address			
2.2.3.4.	Installation, programming and pre-test of liftnet remote unit			
2.2.3.5.	Liftnet Servers Programming & Configuration			
2.2.3.6.	<b>Commissioning pre-test</b>			

2.2.4.	<b>Phone (EMR)</b>			
2.2.4.1.	Request telephone number (or IP) for phone in machine room.			
2.2.4.2.	Conduits, wiring and connection termination			
2.2.4.3.	<b><i>System pre-test by contractor</i></b>			
2.2.5.	<b>Fire Alarm</b>			
2.2.5.1.	Installation of smoke heads, relays, etc.			
2.2.5.2.	Completion of conduits, wiring and connections			
2.2.5.3.	<b><i>System pre-test with Fire Alarm Vendor</i></b>			
2.2.5.4.	<b><i>Final fire Alarm Test</i></b>			
2.2.6.	<b>Lighting</b>			
2.2.6.1.	Completion and test for permanent and emergency lighting in EMR, soffits, etc.			
2.2.6.2.	Installation of lighting fixtures above escalators			
	Completion and test of lighting above escalators			
2.3.	<b>ESCALATOR INSTALLATION PROGRESS</b>			
2.3.1.	<b>Factory Acceptance Test at manufacturer side with following factory punch list corrections</b>			
2.3.2.	Escalator contractor Field Survey for AS-build Compliance			
2.3.3.	Escalator on-site delivery and rigging			
2.3.4.	<b><i>Truss Set &amp; Level Inspection</i></b>			
2.3.5.	<b>Hold Point Inspections</b>			
2.3.5.1.	<b><i>Torque Bolt Inspection</i></b>			
2.3.5.2.	<b><i>Truss Centerline Inspection</i></b>			
2.3.5.3.	<b><i>Step Tracks Alignment</i></b>			
2.3.5.4.	<b><i>Step Chain Tracks Alignment</i></b>			
2.3.5.5.	<b><i>Step Chain Sprocket Alignment</i></b>			
2.3.5.6.	<b><i>Main Drive Chain Sprockets Alignment</i></b>			
2.3.5.7.	<b><i>Upthrust Tracks Alignment</i></b>			
2.3.6.	Completion of escalator wiring and adjustment of all components			
2.3.7.	Installation of Main Drive Chain Guard			
2.3.8.	Completion of installation and tests for Sleep Mode Stanchions at Top & Bottom of escalator			
2.3.9.	<b>Completion of mechanical ASME tests</b>			
2.3.10.	<b>Contractor Field Pre-Test per ASME 17.1 BCCNY RS-18</b>			
2.3.11.	<b>NY Transit witnessed Mechanical Field Acceptance ASME Tests, including</b>			
2.3.11.1.	<b>Braking Distance Load Tests</b>			
2.3.11.2.	<b>Step Indexing Test</b>			
2.3.11.3.	<b>Combplate Switches Calibration Test</b>			
2.3.11.4.	<b>Controller/Liftnet Functionality Tests</b>			
2.3.12.	Completion of G/C work for escalator outer stainless-steel decking/cladding			
2.3.13.	Installation of stainless steel safety railings for escalators entrances and egress			
2.3.14.	Installation of escalator decking stainless steel anti-slide devices where required per ASME			
2.3.15.	Completion of G/C work with ceiling above escalator			
2.3.16.	Completion for painting work of EMR floors and conduits			
2.3.17.	Completion of tile, stone and floor work and all associated at escalator's entrances and egress			

2.3.18.	Correction for found liftnet deficiencies			
2.3.19.	Completion of G/C work outside of escalator			
2.3.20.	Completion of G/C work in EMR			
2.3.21.	Installation of TA required signage, labels and tags			
2.4.	<b>Completion of Mandatory Items from E&amp;E/Cx Observation List</b>			
2.5.	<b>Mandatory E&amp;E Deliverables, including</b>			
2.5.1.	Laminated drawings and O&M in EMR			
2.5.2.	Storage/Oil cabinet per job spec			
2.5.3.	Submit Set of EMR boxes keys			
2.5.4.	Supply all keys, including operational			
2.5.5.	Complete data information sheet for escalator per template			
2.6.	<b>Third Party Tests</b>			
2.6.1.	<b>Sprinkler System Pressure test</b>			
2.6.2.	<b>Pit drainage/ Sump pump operation witnessing</b>			
2.6.3.	<b>Fire Alarm Test (EMD/ System Safety)</b>			
2.6.4.	<b>Phone and CCTV camera tests (EMD)</b>			
2.6.5.	<b>Stations and Lighting Inspection</b>			
2.6.6.	<b>System Safety group inspection</b>			
2.7.	<b>Concurrence Letters obtained by CM Office</b>			
2.7.1.	System Safety concurrence letter			
2.7.2.	Fire Alarm concurrence letter			
2.7.3.	Electronic Maintenance Division (EMD) concurrence letter			
2.7.4.	Station's & Lighting Department approval letter			
2.8.	<b>E&amp;E PERSONNEL TRAINING</b>			
2.8.1.	Coordinating of schedules, syllabus & training manuals			
2.8.2.	Mechanical Training			
2.8.3.	Controller Training			
2.9.	<b>E&amp;E 48 hours Operational Test</b>			
2.10.	<b>Placement into Service – Letter from E&amp;E</b>			
2.10.1.	Issue of Punch List for open items			
2.10.2.	Closing of punch list items			
2.10.3.	Start of warranty period			