

The background of the slide is a photograph of a modern building's interior. It features a woman with long dark hair in the foreground, looking slightly to the right. Behind her, several other people are visible, though out of focus. The architecture includes glass railings and a high ceiling with industrial-style lighting.

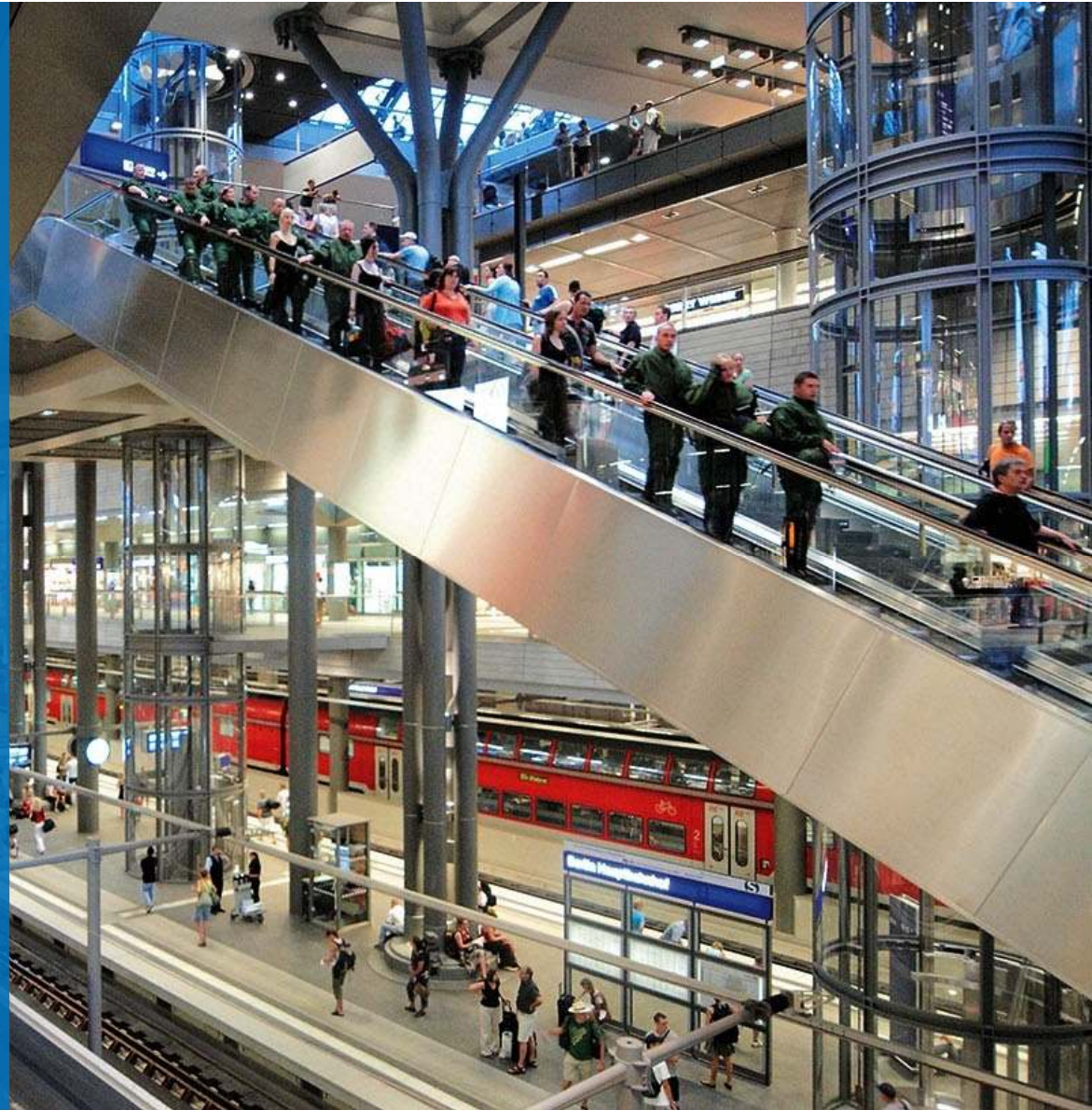
# Elevators 102 – Continued Education & Intro to Modernization

# Introductions



# AGENDA - 102

- Safety Message
- Elev. 101 Education Recap
- Capital Planning
- Modernization
  - Elevators
  - Escalators
- Transitioning back to Service
- Q&A



# Safety Message: Phones



# Elevator Phone Overview

- KONE recommends checking phones as often as monthly.
- Every Elevator is required to have a phone, except for non-person transportation (dumbwaiter)
- Phone Lines are a Shared Responsibility
  - Phone Line Provider
  - Phone Monitoring (Security Desk or Elevator Service Provider)
  - Ownership (is required to keep phone lines 'hot')
- One Touch Response
  - Recorded Message Should State Location & Elevator #
  - Monitored 24/7 for emergency entrapments





# Elevator Education 101 Recap

BRIEF OVERVIEW OF PREVIOUS MATERIAL

# Recap of Elevator 101 – Service & Code Compliance

- Elevators & Escalators follow **ASME 17.1, 17.2 & 17.3**
- General Requirements – MCP in place (Maintenance Control Program with your service provider)
- Testing is required annually.
- Inspections are required Annually.
- Elevator Phones to be Monitored 24/7
- Service Requests
  - Quick Fix or Adjustment
  - Repair work may be needed
  - Long Term Upgrades and/or **Modernization** may be the next step.

# New Code Updates for the Suburbs & Projected Updates for the City of Chicago

- Suburbs Require all new Elevator installs to have two way Audio AND visual Communication.
  - Should an entrapment occur, now the user can visually see a emergency response representative, and been seen, to ensure there are no emergency.
- City of Chicago does not require New Elevators to have two way Visual Communication.
- Dates for city adoption are not firm yet, however we expect a decision within the next year or two.
- Any Elevators installed with out two way visual communication, prior to Spring of 2021, are grandfathered in.
- This is part of ASME Code 17.3.



# Capital Planning

The background is a dark blue gradient with a starry, cosmic texture. It features several glowing, abstract elements: a series of light blue and pink wavy lines that resemble a sine wave or a data trend line; a bar chart with vertical lines of varying heights in light blue and pink; and several straight, glowing lines in light blue and pink that radiate from the bottom left towards the right side of the frame.










Proactively analyze to assist in budgeting and prioritizing improvements and upgrades for a safer, more enjoyable passenger experience

# Asset Management Plan

Asset Management Plan provides a summary of your building's elevator and escalator requirements to assist you in budgeting and prioritizing available upgrades.

## We have categorized recommendations as:

	Code		Aesthetics
	Safety		Eco-Efficiency
	Performance & Reliability		Modernization
	Accessibility		

- Budget figures are provided for your financial planning.
- Modernization figures if that is more cost-effective to your situation.
- Firm proposals will be provided upon request.





Asset Management Plan Elevators By Unit ABC Building 7/1/2013		KONE								
Description of Upgrade	Code	Safety	Accessibility	Performance & Reliability	Aesthetics	Eco-Efficiency	North Elevator	South Elevator	Total	Comments
Car door restrictor	✓	✓	✓	✓	✓	✓	\$ 4,900	\$ 4,900	\$ 9,800	
Keyed stop switch	✓	✓	✓	✓	✓	✓	\$ 1,900	\$ 1,900	\$ 3,800	
Fire service upgrades	✓	✓	✓	✓	✓	✓	\$ 26,460	\$ 26,460	\$ 52,920	
Hydraulic cylinder replacement	✓	✓	✓	✓	✓	✓	\$ 60,300	\$ 60,300	\$ 120,600	
Hydro annual pressure relief test	✓	✓	✓	✓	✓	✓	\$ 500	\$ 500	\$ 1,000	
ReNova door operator upgrade A2 - partial hoistway retention	✓	✓	✓	✓	✓	✓	\$ 28,490	\$ 28,490	\$ 56,980	
Power unit/pump upgrade	✓	✓	✓	✓	✓	✓	\$ 32,890	\$ 32,890	\$ 65,780	
Controller upgrade	✓	✓	✓	✓	✓	✓	\$ 57,500	\$ 57,500	\$ 115,000	
Scavenger pump	✓	✓	✓	✓	✓	✓	\$ 2,000	\$ 2,000	\$ 4,000	
Soft starter	✓	✓	✓	✓	✓	✓	\$ 2,415	\$ 2,415	\$ 4,830	
ADA signal fixture upgrade	✓	✓	✓	✓	✓	✓	\$ 14,145	\$ 14,145	\$ 28,290	
Cab interior upgrades	✓	✓	✓	✓	✓	✓	\$ 20,720	\$ 20,720	\$ 41,440	
TOTAL							\$ 271,620	\$ 271,620	\$ 543,240	
Modernization Option Total							\$ 166,750	\$ 166,750	\$ 333,500	

Safety | Performance &amp; Reliability



## ReNova A2 Door Operator Upgrade

### Partial Hoistway Equipment Retention



#### Benefits:

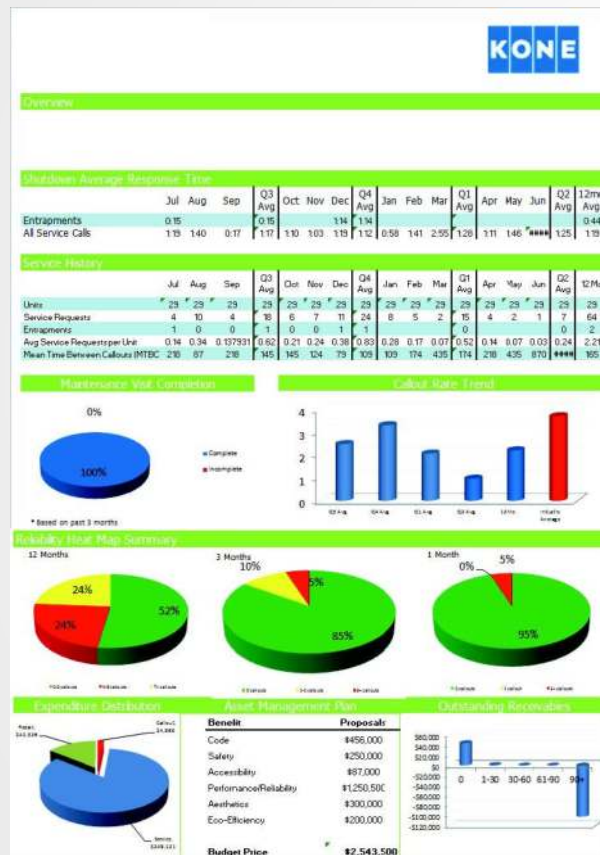
- Improves reliability of the door system and reduces operating noise
- Decrease service interruption and increases availability, which may reduce operating expenses not covered under your maintenance agreement
- Reduces noise improving tenant satisfaction
- Improves passenger and tenant perception of the equipment and building overall
- Rugged mechanical design prolongs equipment life
- Increases safety and reduces claims risk

Replaces both the car door equipment and the pickup rollers and interlocks on the hoistway doors. Designed for 800,000 door operations per year, has closed loop control, a permanent magnetic synchronous motor and variable frequency drive.





## Executive Summary – KPI's



## Callback Trends

Equip Description	Technical Callout Values		
	Last 12mo	Last 3mo	Last Mo
-#2 PASSENGER ELEVATOR	0	0	0
-#4 ESCALATOR	1	0	0
THWEST - #8 EAST TOWER SERV ELEV	1	0	0
-#4 PASSENGER ELEVATOR	1	0	0
-#13 ESCALATOR	1	0	0
-#12 ESCALATOR	1	0	0
-#11 ESCALATOR	1	0	0
-#5 ESCALATOR	2	0	0
-#9 PASSENGER ELEVATOR			
-#6 ESCALATOR	3	0	0
-#7 PASSENGER ELEVATOR	1	0	0
-#8 PASSENGER ELEVATOR	2	0	0
-#1 ESCALATOR	4	0	0
-#1 PASSENGER ELEVATOR	4	0	0
-#6 TRACTION FREIGHT	5	2	0
-#2 ESCALATOR	5	0	0
-#9 ESCALATOR	7	0	0
-#3 TRACTION FREIGHT	5	0	0
-#10 ESCALATOR	3	0	0
-#5 PASSENGER ELEVATOR	7	1	0

# Modernization

The background is a dark blue gradient with a starry, cosmic texture. It features several glowing, neon-like lines in shades of cyan and magenta. These lines form various shapes, including wavy curves, straight paths, and vertical bars, resembling a stylized data visualization or a futuristic cityscape. The overall aesthetic is high-tech and modern.



## What is considered an Elevator Modernization?

### ELEVATOR CONTROLLER

#### When to Modernize?

- When Costs rise substantially on older equipment & larger spending is wasted when elevators are renewed.
- An old elevator may not be code compliant and could be a safety risk.
- Older elevators can consume more power and may contain outdated technology





# Four easy steps to an upgraded elevator

1

## Fact-finding



- Elevator Company Shall carry out a detailed site survey to learn more about what kinds of upgrades would be best for your elevator and building.
- As part of this process, your Elevator Company should talk to the key stakeholders to find out what they want to get out of the project.

3

## Execution



- Once the project is underway it's typical for a project manager to assume responsibility for quality checks and supervision throughout the process.
- A Common Modernization Superintendent or Project Manager (Main Operational Point of Contact) Typically informs building members of progress.

2

## Recommendation and Estimate



- You should receive recommendations about what to upgrade based on your needs and our expert opinion.
- Your Elevator Company provide a detailed schedule and cost breakdown so you know what to budget for and how long the project will take.

4

## Ongoing Maintenance and Care



- Code Compliance Dictates that the installing company MUST oversee the elevator service for the first year. This is in the form of a warranty. It is important to ask your installing company if a Maintenance Control Program is included.





# Hydraulic Modernization

## Basic Scope

### Controller, Wiring and Fixture Package

- Passengers enjoy improved safety, accessibility and comfort
- Owners benefit from optimum reliability, potentially reducing operating expenses

## Optional Scope Adds

### Power Unit Package

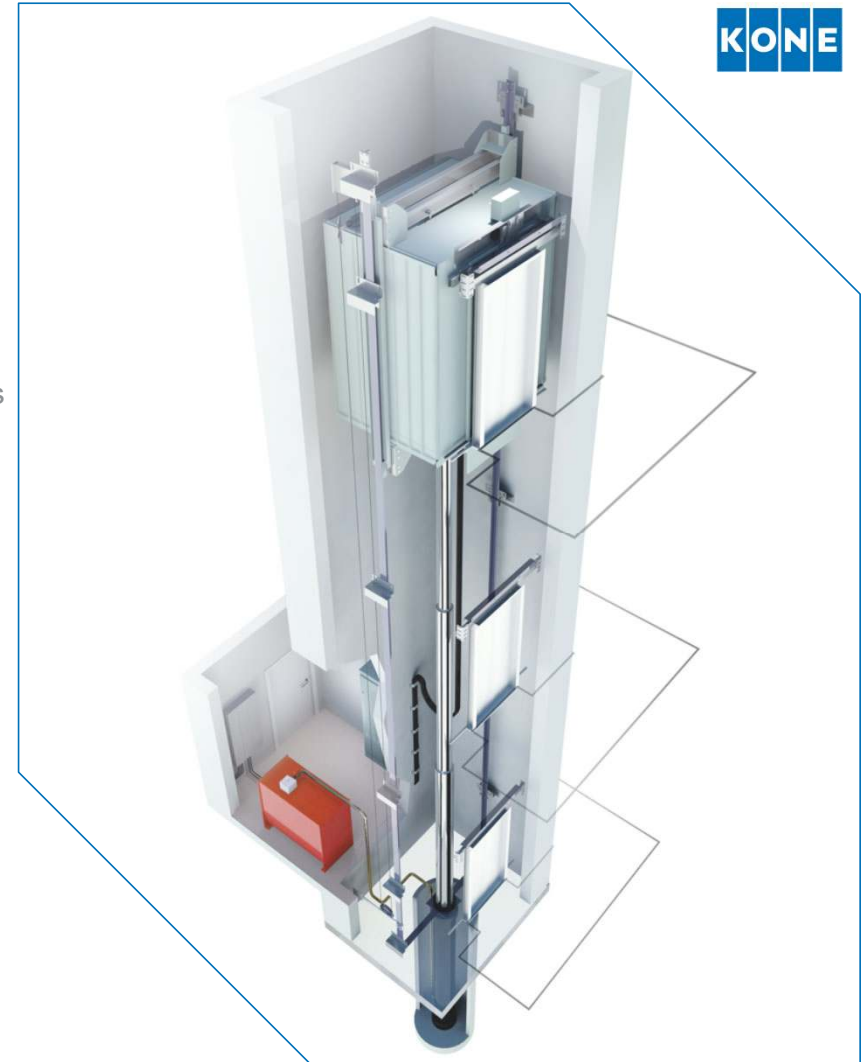
- Enhanced ride quality

### Door Equipment Package

- Improved safety, performance and reliability

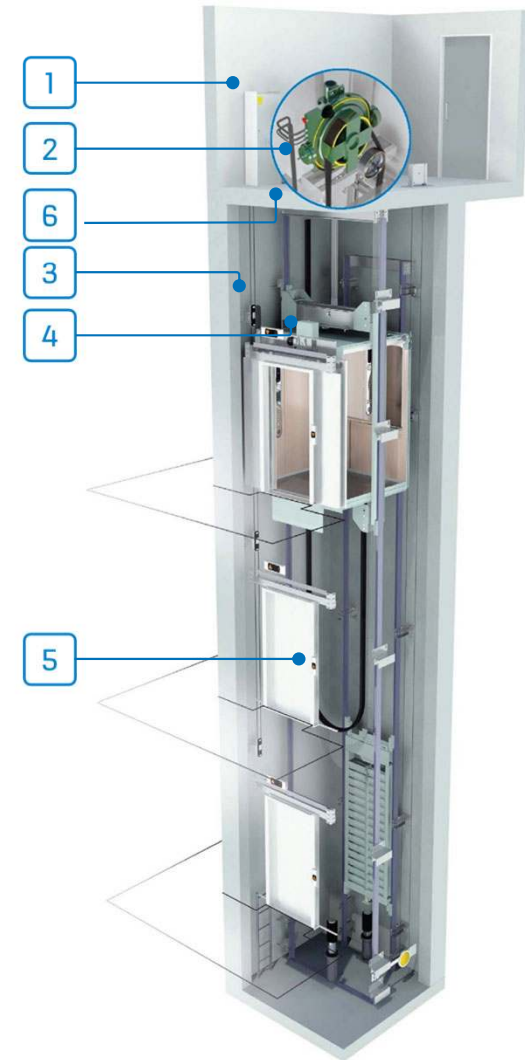
### Cab Interior Package

- Enhances the aesthetic appearance and increases end user satisfaction



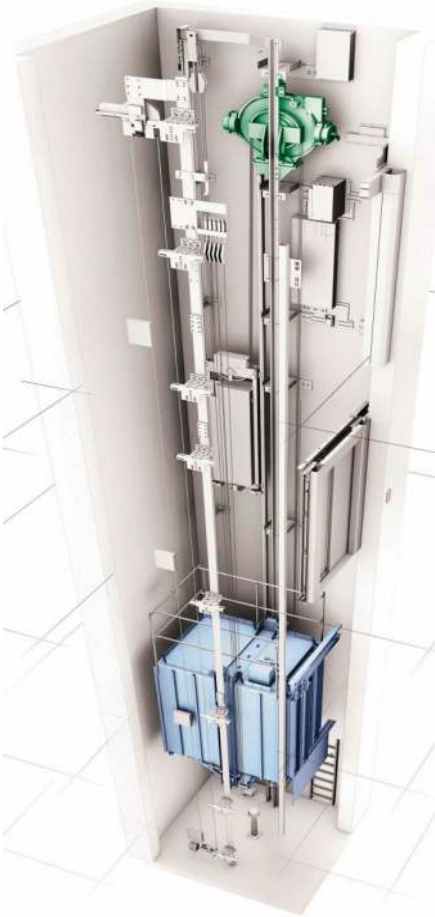
# Traction Elevator Modernization Geared vs Gearless

- 1** Controller cabinet
- 2** Retain Geared Machine, New AC Motor  
New Hoisting Machinery with Rope Gripper and new  
Hoist Ropes
- 3** Positioning / Leveling system
- 4** Door operator
- 5** Signalization
- 6** Governor / Governor Ropes





# FULL REPLACEMENT SOLUTION FOR EXISTING BUILDINGS



- Complete new gearless traction elevator
- Designed to fit into existing traction and hydraulic hoistways
- Option to retain existing entrances
- Gearless performance and ride comfort up to 350 FPM
- Environmentally focused and energy efficient
- Integrated control space option
  - Eliminates machine room code compliance work
  - Gives machine room back to owner for other uses

## DUTY RANGES

- 150-350 FPM
- 2000 – 5200 lb capacity
- Up to 150' travel

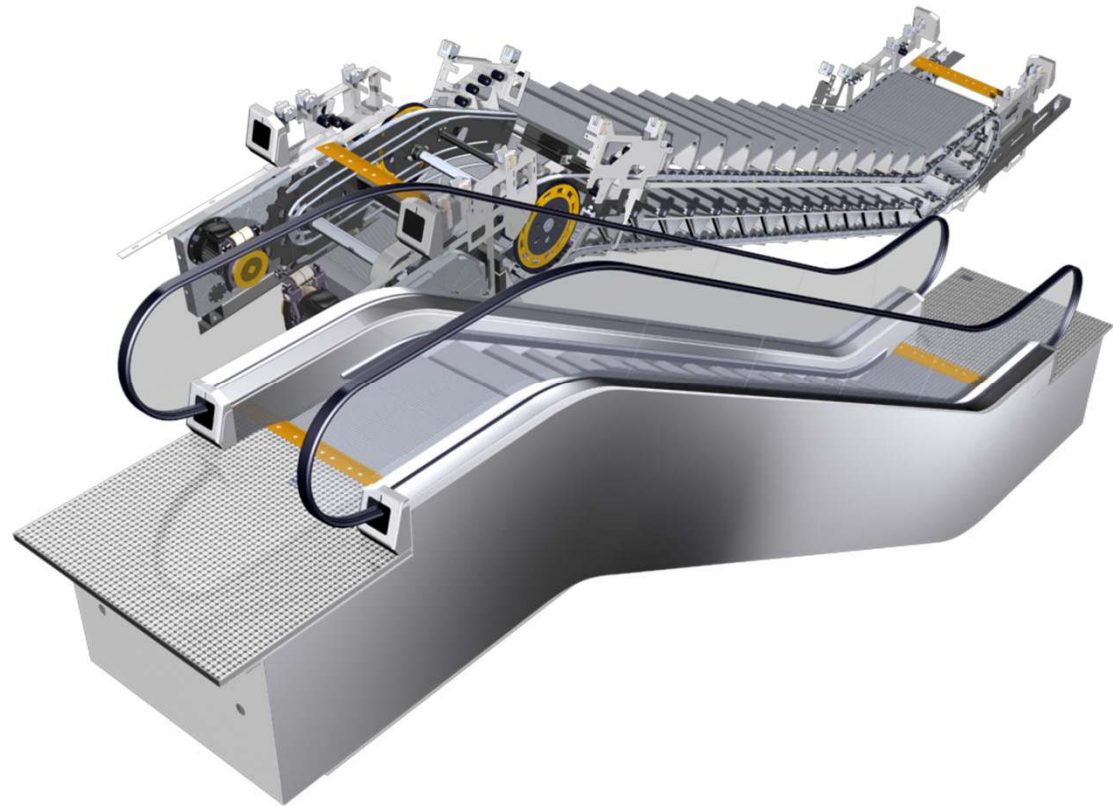


## Escalator Replacement

### PRODUCT OVERVIEW

#### - WHAT IS ECOMOD?

- 100% of old product removed
- ALL internal and external parts are new
- ALL new modern technology
- Eliminates obsolescence
- 100% ASME compliant
- ABOVE commercial grade by design
- MORE OWNER / USER benefits
- DESIGNED for reliability and performance



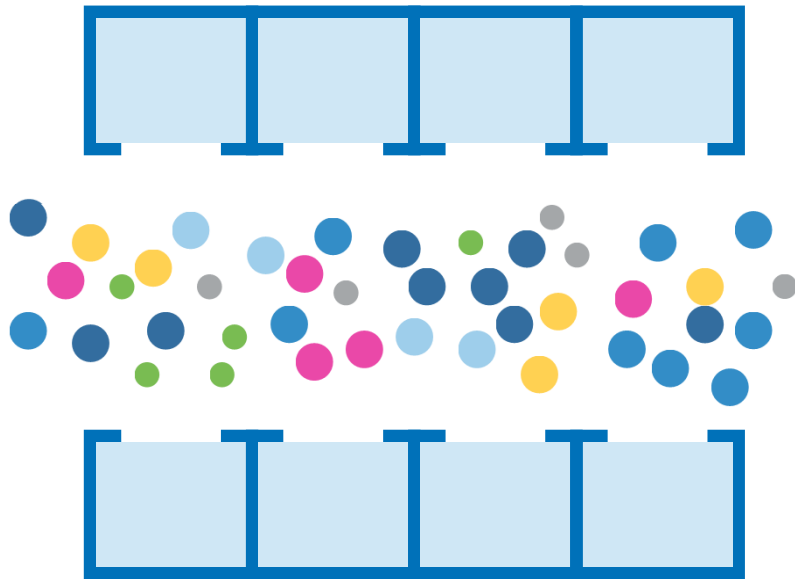
**Get MORE - A BRAND NEW Escalator....**  
**...With LESS - SKIP the Construction!**



# Destination Control

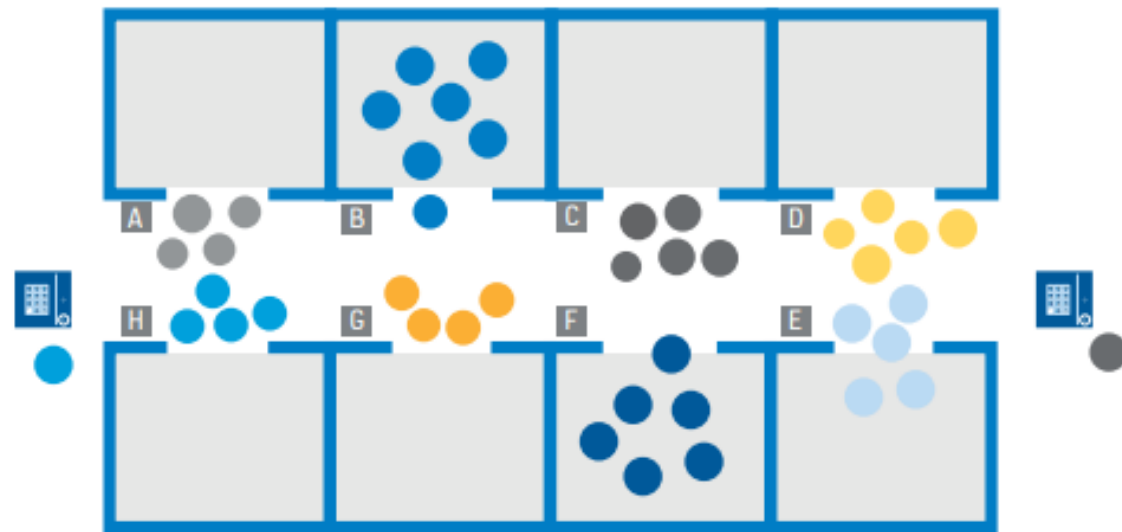
## Conventional Control

- Passengers push up- / down buttons and thus are not grouped



## Destination Control

- Passengers enter their destination floor using destination operating panels – people traveling to the same floors are guided to the same elevator



# Cab Interiors

Typical Recommended Cab Allowances including:

Plastic Laminate Wall Panels

LED Ceiling

Handrails on side / rear wall(s)

**Budget: \$40,000/elevator**

## Traceless Laminate



## Wood Laminate



## 3D Laminate



## Colored Glass



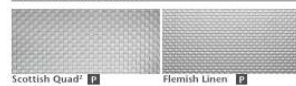
## Patterned Glass



## Etched Stainless Steel



## Textured Stainless Steel



## Brushed Stainless Steel



Round, straight ends (HR61)  
Brushed Stainless Steel (455)  
Golden Brushed Stainless Steel (SS1) [P]



Flat, straight ends (HR63)  
Brushed Stainless Steel (455)  
Golden Brushed Stainless Steel (SS1) [P]



Round, bent ends (HR64)



Round, straight ends (HR50)



Round, LED spotlights (CL88)\*  
Brushed Stainless Steel (455)  
Golden Brushed Stainless Steel (SS1) [P]



Rectangular, LED light panel (CL94)\*\*  
Brushed Stainless Steel (455)



Square, LED spotlights (CL92)\*



Rectangular, LED spotlights (CL93)\*

# Building Related Work

- Modernization Related work has a vast range of what may need to be performed to maintain building code compliance. More Standard Projects can range from \$25,000 to \$50,000 per unit, where as more Complex Projects can be \$50,000+ per unit.
  - Electrical & Hoistway Lighting
  - Fire Life Safety
  - Mechanical / HVAC
  - Sump Pits & Pumps
  - Structural work
  - Hoistway Patching, Canting, etc.

# Modernization Schedule / Lead Times

- Schedule and Complete Initial Survey: 2-3 weeks
- Proposal Preparation: 3-4 weeks
- Discussions / Questions
- Award
- Contract Review: 6-8 weeks
- Engineering Surveys and Submittal Preparation: 6-8 weeks
- Submittal Review by Customer (fixtures, cabs, etc.): 2-3 weeks
- Manufacturing (dependent on product)
  - HydroMOD: 12-16 weeks
  - Traction Modernization: 24-28 weeks
  - Elevator Rip out and Replace: 18-20 weeks
  - Escalator Modernization: 24-28 weeks

## Total Lead Time(s) from Award to Start of Installation:

- Hydraulic Modernization: 20-27 weeks
- Traction Modernization: 32-39 weeks
- Elevator Rip out & Replace: 26-31 weeks
- Escalator Modernization: 32-49 weeks



# Transitioning back to Service

# Post Modernization Warranty & Service

- Following the final inspection, elevator will be issued a new conveyance tag since this is no longer the same elevator
- Shutdowns will be reduced long term.
- Early Shutdowns – it is common to experience shutdowns within the first six months, as the elevator is adapting to it's hoistway, & service providers will need to adjust the equipment to 'fine tune' the equipment.
- New MCPs – New Maintenance Control Programs are distributed to the machine rooms including updated prints & engineering configuration.





# Professional Elevator Consultation Services

- Elevator Consultants are able to put together multiple Bids to ensure proposals are 'apples to apples'
- If you are starting a new project and need additional support outside of your service provider, a Consultant may be able to write Specs for a job.
- Elevator Consultants can identify exposures or non-covered work, such as "Proprietary Software Chips" or Like for like equipment proposals, and challenge bidders if they are proposing a lower quality product.
- It can be beneficial to have a consultant if you are working on a Major Project, such as:
  - 10+ elevators being put out to maintenance.
  - Mid-high rise modernization projects, with multiple elevators
  - Assistance with Legal review, ensuring all terms and conditions are mutual between a Purchaser and an installer at the time of a new project's award.

The background of the slide is a photograph of a modern building interior. In the center, a woman with long dark hair, wearing a light-colored jacket over a white shirt, looks slightly to her right. Behind her and to the sides, several other people are visible but out of focus. The architecture features glass railings and a high ceiling with industrial-style lighting.

Thank You!  
Q&A