

# E-34028 Replacement of Traction Elevators

- Clark Street Station

September 16, 2019

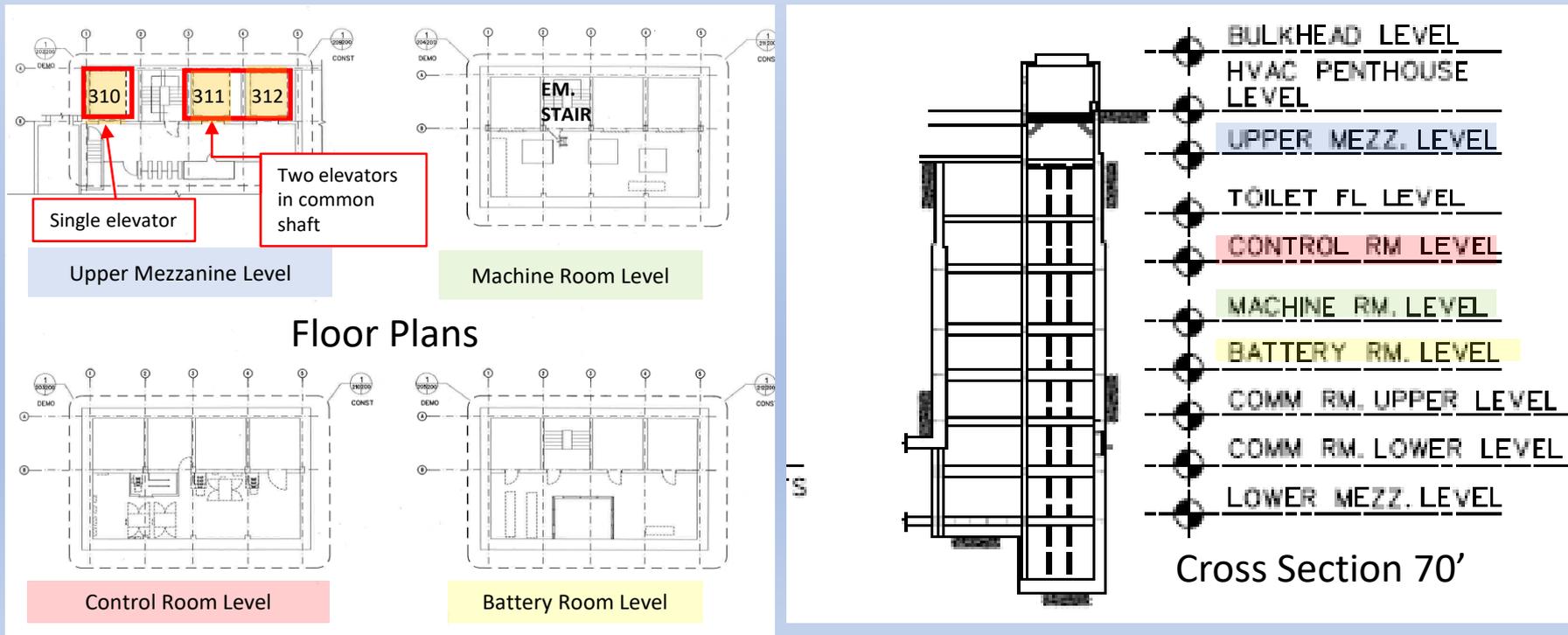
# Project Scope

## Major Items

- Replace three traction elevators
- Replace all equipment in multi-level elevator machine rooms
- Provide new controllers, motors, elevator cabs, other elevator components
- Provide new battery system for elevator (two round trips) operation during power failure
- Replace air conditioning systems in the elevator machine rooms

## Other

- A combination of elevators and stairs are the only way to access the platform level at Clark Street



# Clark Street

1. Option 1 Station closure with train bypass (8 months, preferred)
2. Option 2 No bypass with 2 elevators operational at **ALL times**<sup>1</sup> (24 months)
3. Option 3 No bypass with 2 elevators operational during **PEAK hours**<sup>1</sup> (22 months)

## Notes:

1. Station will be bypassed if any operating elevators fails
2. In 2000, the station was bypassed for 5 months to replace controllers, cabs and repair three motors.

# Clark Street

## Three options for elevator replacement

Options	OPERATION	POSITIVE	NEGATIVE/RISK
<u>Option 1</u> Bypass station for 8 months, preferred	No elevators	<ul style="list-style-type: none"> <li>Least expensive with shortest duration</li> </ul>	<ul style="list-style-type: none"> <li>No Separate Shuttle Bus Service</li> <li>Within a 5 block radius, there are 3 other open stations (High Street A,C; Court St on R; Borough Hall 2,3)</li> </ul>
<u>Option 2</u> Work on one elevator at a time for 24 months	2 elevators operational at all times	<ul style="list-style-type: none"> <li>Station remains open</li> </ul>	<ul style="list-style-type: none"> <li><b>Station will be bypassed if any operating elevators fails</b></li> <li>Reliability concerns of operating elevators</li> <li>Construction of partition wall required to work separately in elevators in shared shaft</li> <li>Customer flow concerns</li> <li>Standby NYCT Personnel required</li> <li>Safety of worker (work near operating equipment/shared machine Rooms)</li> <li>Temporary supporting electrical services needed during construction</li> <li>Restricted work area</li> </ul>
<u>Option 3</u> Work on one elevator at a time for 22 months	2 elevators operational only during peak hours	<ul style="list-style-type: none"> <li>Station remains open</li> </ul>	

# Elevator History

## Availability:

	Q1 2018-Availibility	Q1 2019- Availability
El # 310	96.69%	<b>89.73%</b>
El # 311	<b>83.50%</b>	<b>94.28%</b> (major repairs performed recently)
El # 312	98.84%	<b>81.47%</b>

## Outages:

	Planned (past 10 years)	Unplanned (past 10 years)
El # 310	352 days	257 days
El # 311	439 days	266 days
El # 312	282 days	273 days

## Out of Service for more than 7 days:

	Planned (past 10 years)	Unplanned (past 10 years)
El # 310	0 events	2 events
El # 311	3 events	6 events
El # 312	0 events	7 events

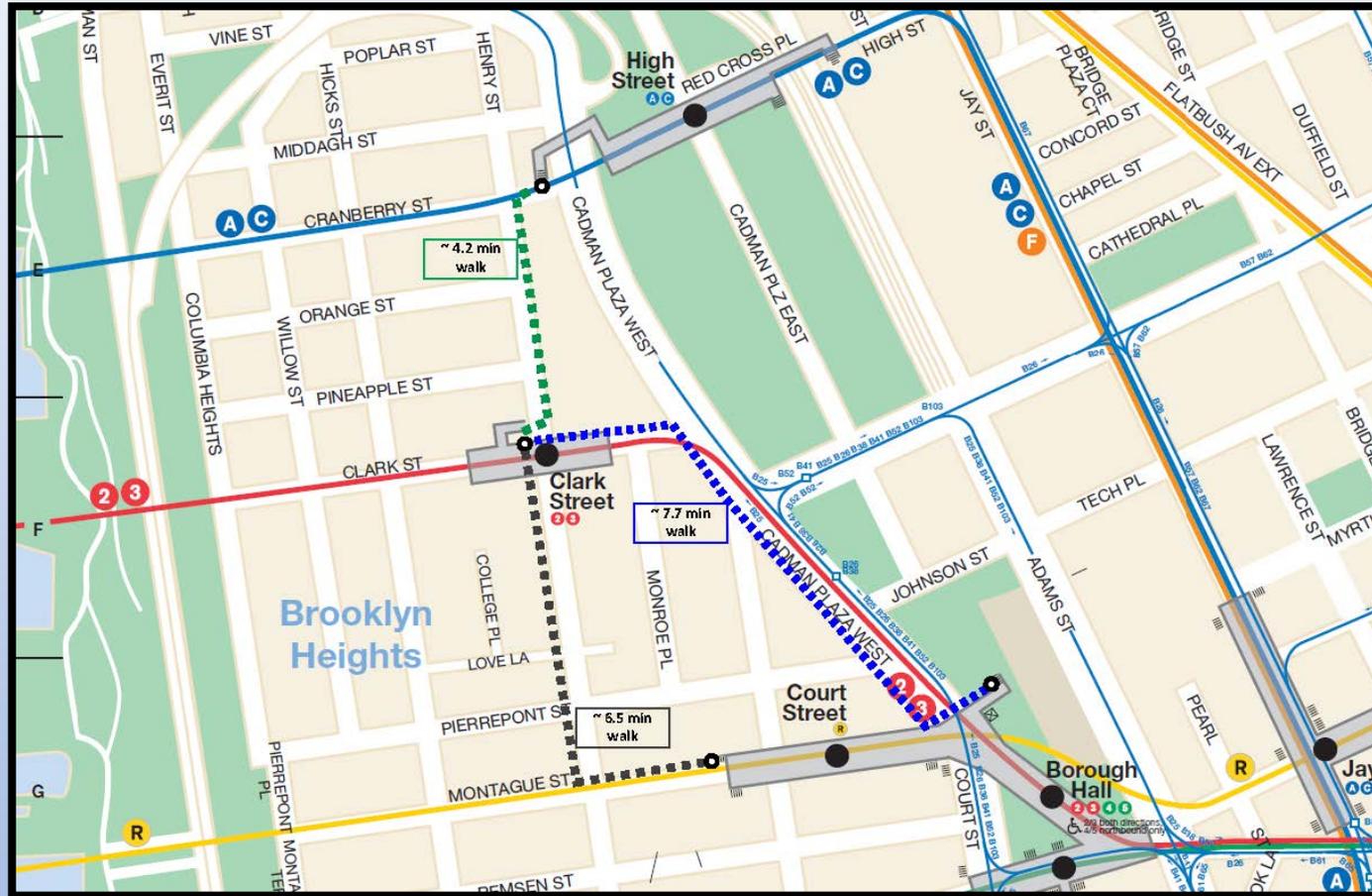
# Cost and Time Impacts

	Cost Impact	Time Impact
Option 1 (bypass)	Base	Base
Option 2 (no bypass)	+\$6M	+16 months
Option 3 (no bypass)	+\$6M	+14 months

## Current Schedule

- Advertise in 4<sup>th</sup> quarter of 2019
- Award in 2<sup>nd</sup> quarter of 2020
- Work at Clark Street to begin in 4<sup>th</sup> quarter of 2020

# Clark St – Other Transit Options



# ADA at Clark Street 2,3 station

- Clark Street is a unique station—deep tunnel construction with narrow island platform
- ADA accessibility at the station has been found to have no practical engineering solution.
- Any attempt to alter the tunnel structure to accommodate an elevator would require excavation in the middle of Clark Street down 70 feet, which would compromise the structural integrity of the tunnel.

Thank you!