

# BACK TO THE FUTURE



BIG + ARUP

# Overcrowding

EMERGENCY  
PUBLIC ASSISTANCE  
NYPD 911  
**CALL  
BOY**  
B B M

WHEN THIS  
COMPETITION STARTED,  
NYC WAS ALREADY A  
CROWDED REALITY.

# COVID-19 Pandemic



# Beyond COVID NYC



# BLM March/Site Visit

June 4th, 2020



# BLM March/Site Visit

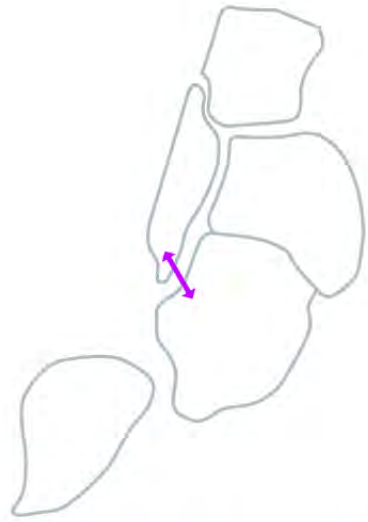
June 4th, 2020

Matthew Emmi

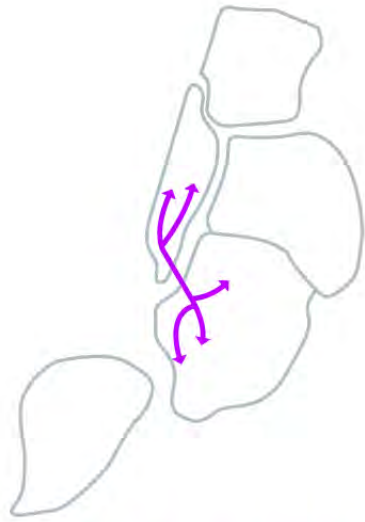
THE WHOLE CITY IS LOOKING AT OUR  
STREETS RIGHT NOW WITH NEW EYES - HOW  
CAN WE CHANNEL THE ENERGY OF THIS  
MOMENT TOWARD LONG-TERM CHANGE?

# THE OPPORTUNITY

# Intervention Scales



**BRIDGE**



**ANCHORAGES**



**NETWORK**



**BRIDGE**

**1900s**

Mass Transit

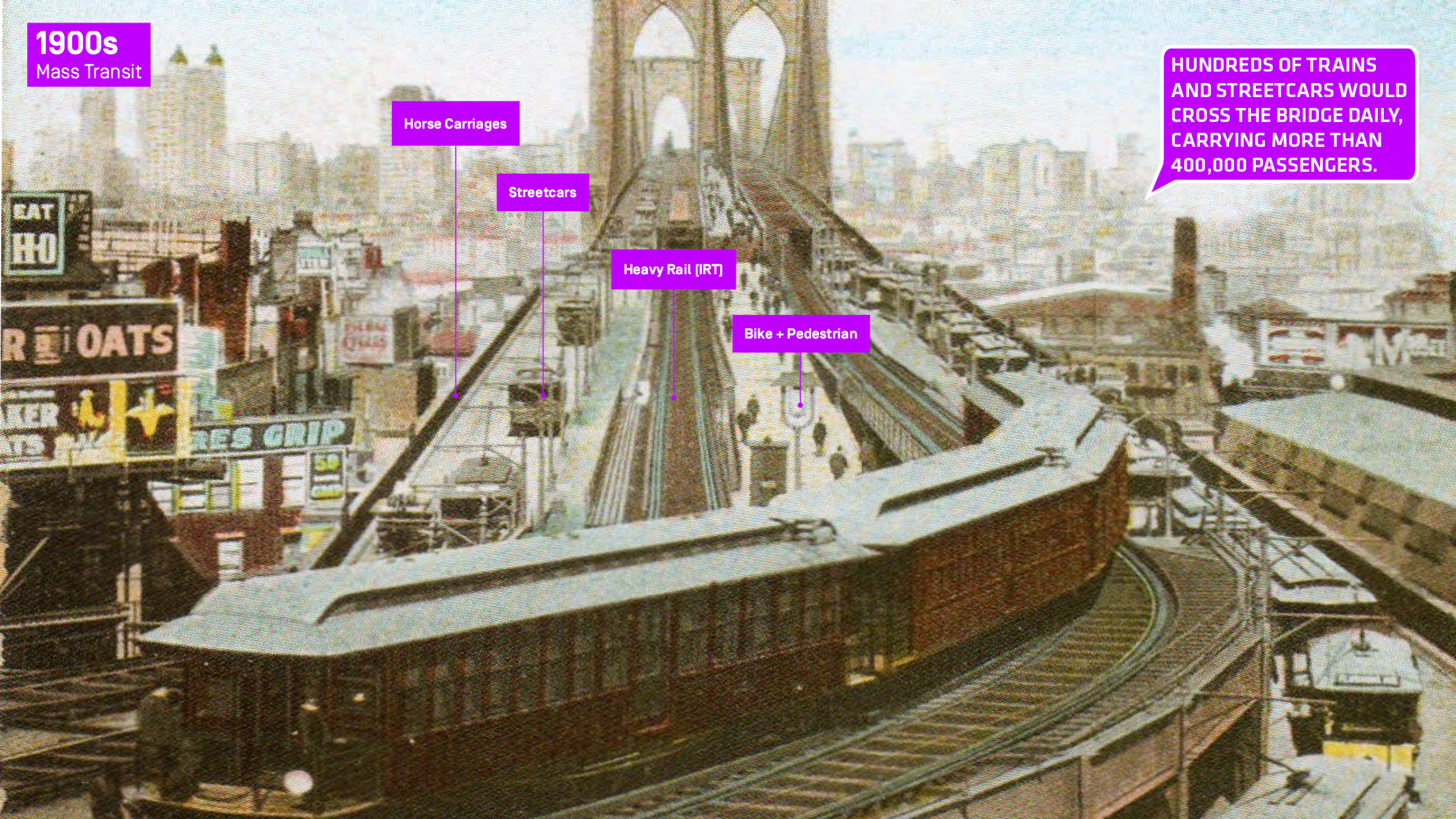
Horse Carriages

Streetcars

Heavy Rail (IRT)

Bike + Pedestrian

HUNDREDS OF TRAINS AND STREETCARS WOULD CROSS THE BRIDGE DAILY, CARRYING MORE THAN 400,000 PASSENGERS.



An aerial photograph of Grand Central Terminal in New York City. The iconic stone structure with its large arched windows is the central focus. The surrounding cityscape is visible, with various buildings and streets. Overlaid on the image is the number '425,000' in a large, bold, purple font. Below the number, the text 'people per day' is written in a smaller, purple font. The image has a slightly grainy, vintage quality.

425,000

people per day

# Post-War

Demolishing Streetcar Terminals





A photograph of a busy suspension bridge, likely the Manhattan Bridge, with a dense traffic jam of cars and a yellow taxi in the foreground. A person on a motorcycle is also visible. The background features a city skyline with various skyscrapers under a hazy sky. A large purple text overlay is centered on the image.

160,000  
people per day

A photograph of a crowded pedestrian bridge, likely the Manhattan Bridge, with a city skyline in the background. The bridge's steel cables and structure are prominent in the foreground. A large crowd of people is walking across the bridge. In the background, several tall buildings are visible, including one with a circular structure on its side. An American flag is flying from a pole on the bridge. The text "160,000" is overlaid in large purple font, and "people per day" is overlaid in smaller purple font below it.

160,000  
people per day

# Brooklyn Bridge

Today

HOW WILL THE BRIDGE SMOOTHLY  
ACCOMMODATE THE NEW FLOW OF  
PEOPLE AND NEW ACTIVITIES?



# Brooklyn Bridge

Drivers



USER  
DEMANDS



# Brooklyn Bridge

Drivers



USER  
DEMANDS



HISTORIC  
INTEGRITY



# Brooklyn Bridge

Drivers



USER  
DEMANDS



HISTORIC  
INTEGRITY



STRUCTURAL  
CAPACITY

# Brooklyn Bridge

Drivers



USER  
DEMANDS



HISTORIC  
INTEGRITY



STRUCTURAL  
CAPACITY



LOW COST,  
HIGH IMPACT

# Back to the Future



# Back to the Future



# Back to the Future

  
FLEXIBLE  
PROMENADE

  
DEDICATED  
PEDESTRIAN



# Back to the Future



FLEXIBLE  
PROMENADE



DEDICATED  
PEDESTRIAN



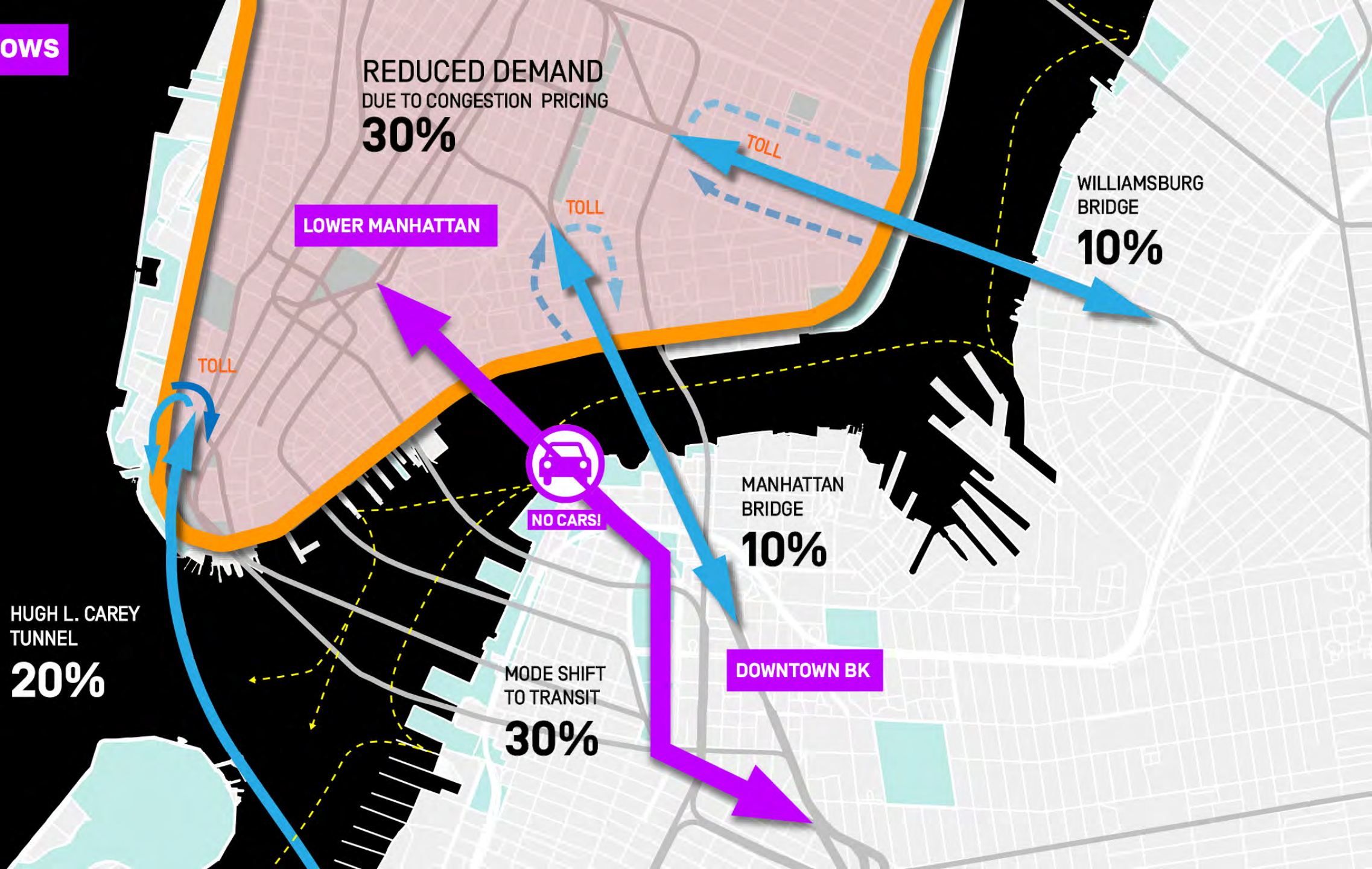
AUTONOMOUS  
GROUP RAPID  
TRANSIT



ACTIVE MOBILITY/  
E-MOBILITY



# Future Flows



# The People's Bridge

Existing Condition

20,800

PEOPLE MOVED PER HOUR



30'  
Three Vehicle Lanes

16'  
Shared Pedestrian/Bike

30'  
Three Vehicle Lanes

# The People's Bridge

Phase 1: Introduce Ped/Bike

55%

POTENTIAL CAPACITY INCREASE



# The People's Bridge

Phase 2: Introduce Ped/Bike/Transit

135%

POTENTIAL CAPACITY INCREASE



20'  
Two Vehicle Lanes (Two-Way)

2' 8'  
Bike (One-Way)

16'  
Pedestrian

20'  
Bus Rapid Transit Only (Two-Way)

2' 8'  
Bike (One-Way)

# The People's Bridge

Phase 3: Proposed Future

200%

POTENTIAL CAPACITY INCREASE



20' 2' 8' 16' 20' 2' 8'

Sky-Plaza Bike (One-Way) Pedestrian Bus Rapid Transit Only (Two-Way) Bike (One-Way)

# The People's Bridge

Phase 4: Smart Future

200%

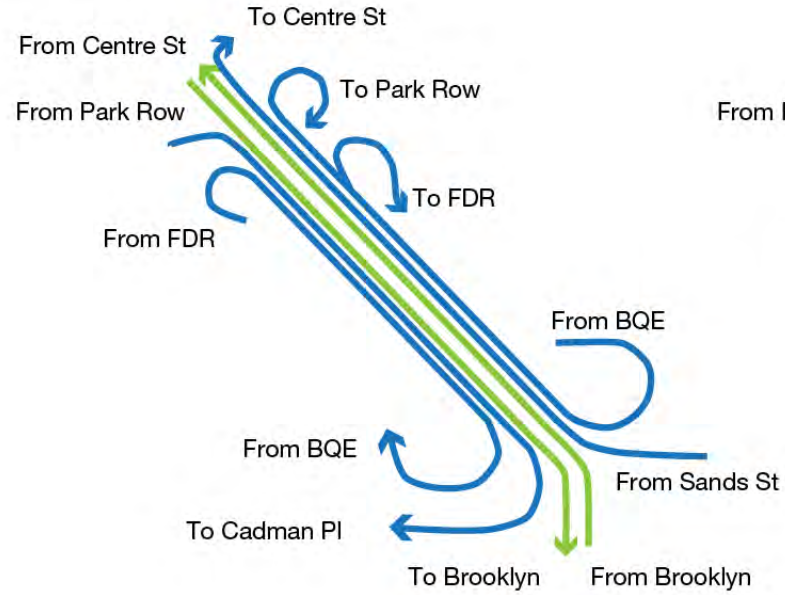
POTENTIAL CAPACITY INCREASE



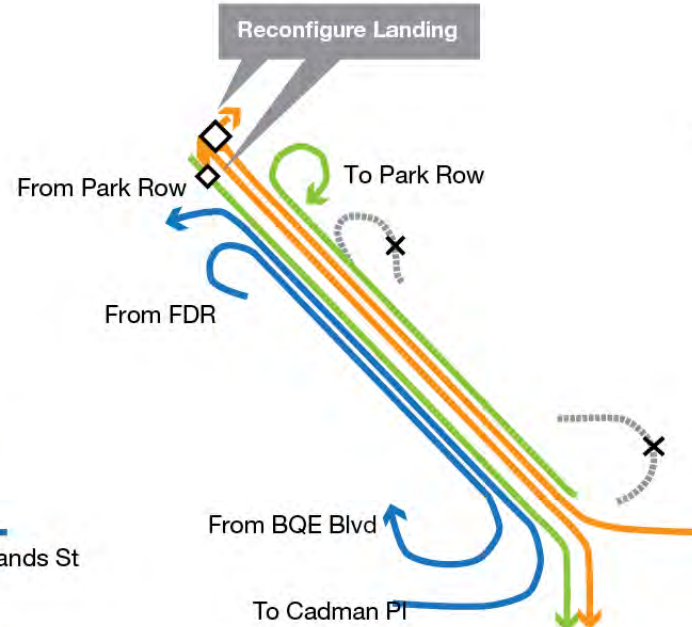
# The People's Bridge

Implementation Over Time

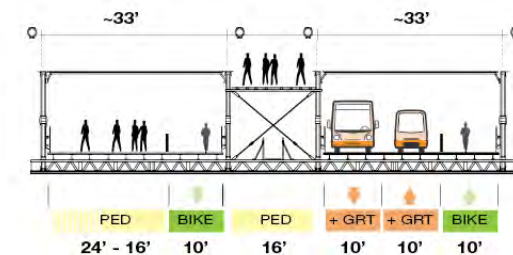
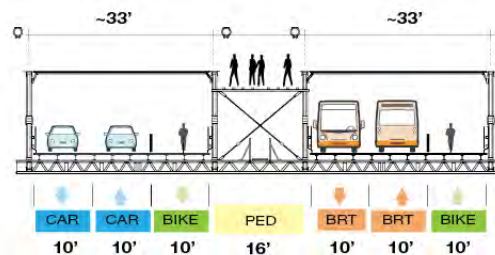
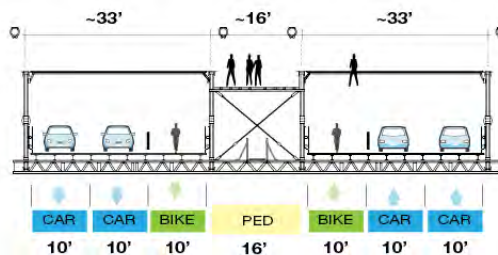
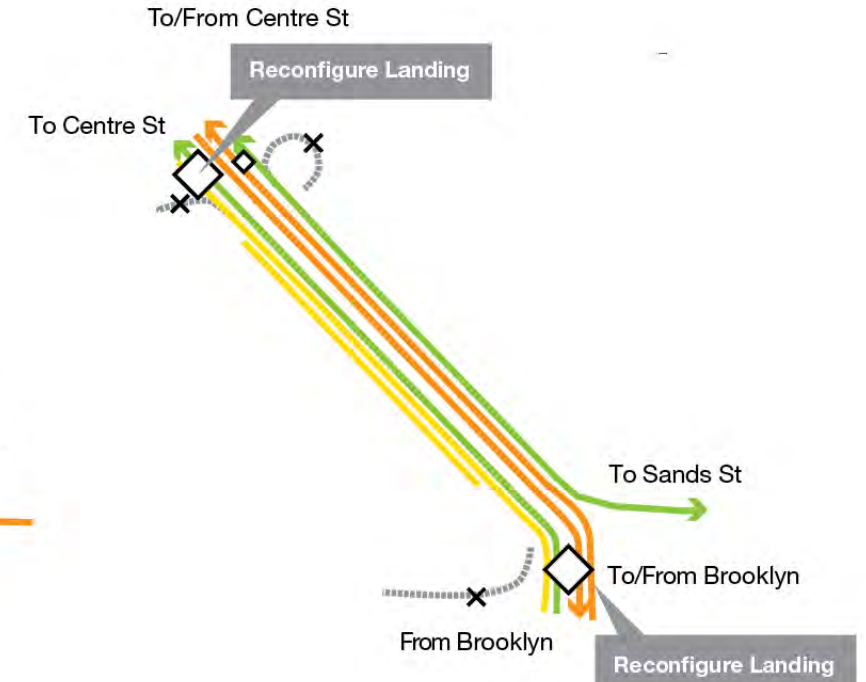
## PHASE 1



## PHASE 2



## PHASE 3 + 4



# BLM March/Site Visit

June 4th, 2020



# Near-Term

## Manhattan Bound Roadway

One-Way  
Bike Lane

Precast  
Concrete  
Barrier

Manhattan Downtown  
To Brooklyn Downtown  
Loop Bus



# Long-Term Manhattan Bound Roadway

E-Bike Share

E-Personal  
Mobility

Precast  
Concrete  
Barrier

Manhattan Downtown  
To Brooklyn Downtown  
Smart Rapid Transit Loop



**Today**  
Brooklyn Bound Roadway

Close Road  
To Cars



# Near-Term

Brooklyn Bound Roadway

Pop-Up Commerce  
and Activities

Slow Shared  
Space

Flexible Outdoor  
Seating

Moveable Planters

Graphic Paint



# Long-Term

Brooklyn Bound Roadway



Skyline  
Overlook

Upgrade Surface to  
Warmer Materials

Permanent  
Planters and  
Seat Edges

Stair to  
Promenade  
Above

Dynamic  
Lighting

One-Way  
Bike Lane

# Long-Term

Brooklyn Bound Roadway

Skyline  
Overlook

WOOD DECKING



Upgrade Surface to  
Warmer Materials

STONE FURNISHINGS



Stair to  
Promenade  
Above

Dynamic  
Lighting

One-Way  
Bike Lane

HISTORIC HARDWARE



# Flexible Programming



Urban Gallery



SmorgasBridge



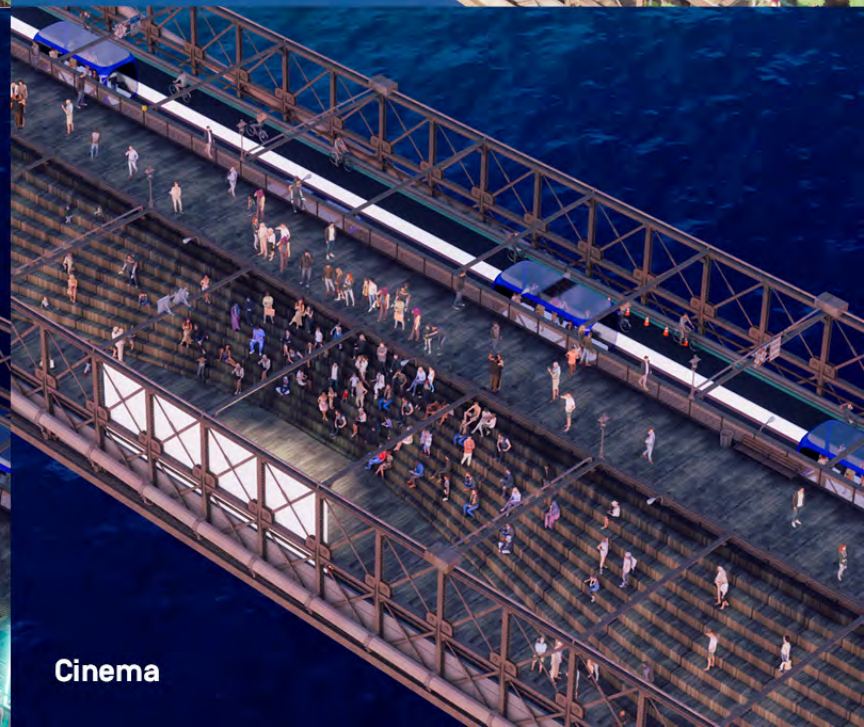
Sky Garden



OktoberBridge



March Madness



Cinema



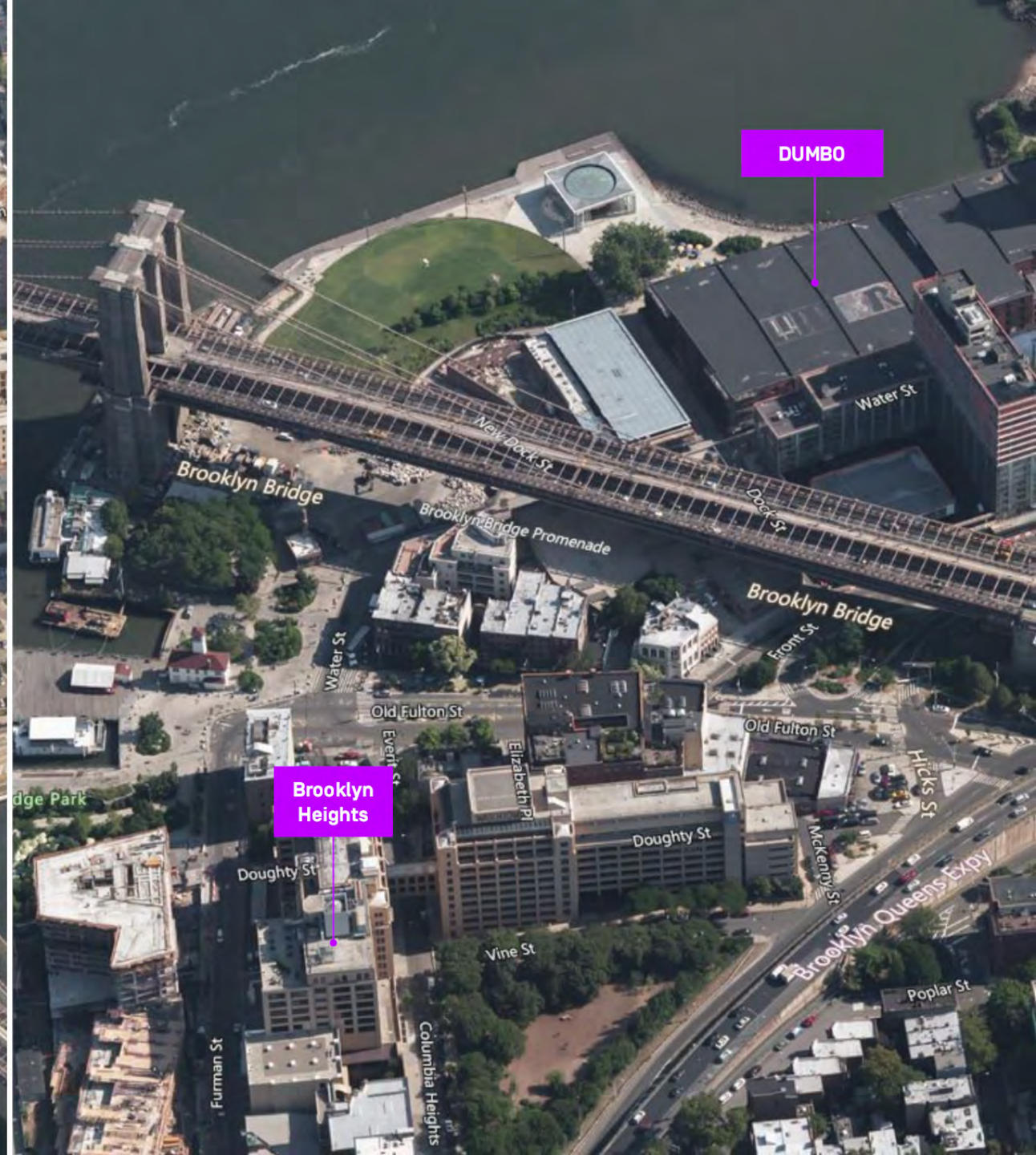
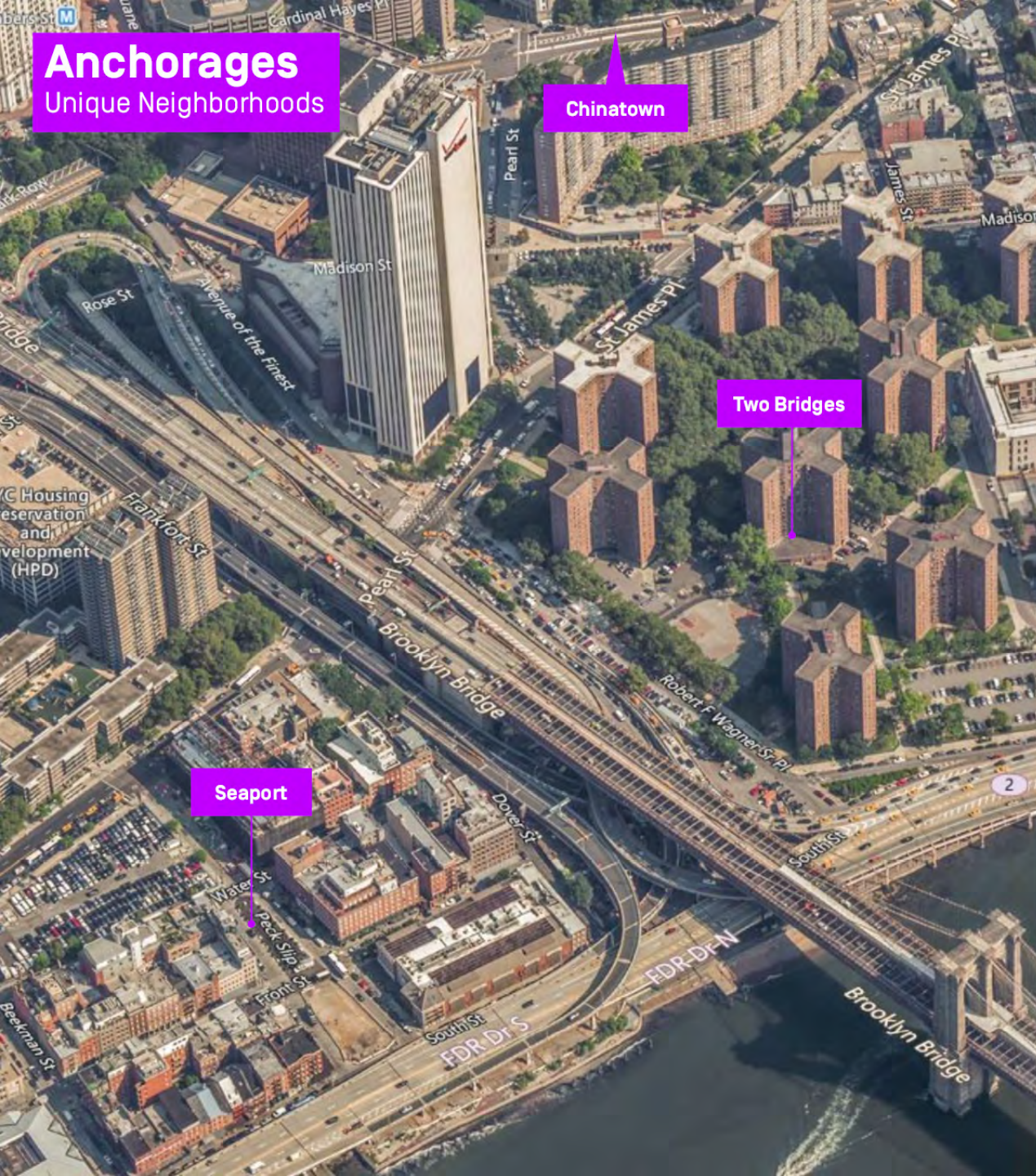
# ANCHORAGES

**Anchorage**  
Bridge Opening, 1883



# Anchorage

Unique Neighborhoods



# Anchorage

Community Partners



# Citywide Stakeholders

CHINATOWN IS QUITE CLOSE TO DOWNTOWN TODAY, YET IT DOESN'T FEEL THAT WAY DUE TO THE POOR PHYSICAL AND VISUAL CONNECTIONS.



**THOMAS YU      JENNIFER SUN**  
ASIAN AMERICANS FOR EQUALITY

CAN YOU RELATE THE FUTURE MOBILITY INNOVATIONS, LIKE GRT, TO THINGS NEW YORKERS ARE FAMILIAR WITH, LIKE DOLLAR VANS?



**BETSY PLUM**  
RIDERS ALLIANCE



**AMY CHESTER**  
REBUILD BY DESIGN

LET'S START BY ENHANCING THE INFRASTRUCTURE WE HAVE!

# Manhattan Stakeholders

I HAVE CHILDHOOD MEMORIES OF THE AREA AROUND THE MANHATTAN ANCHORAGE BEING ACTIVE AND PLEASANT.



**JONATHAN GARDENHIRE**  
ARTIST & NYS ASSEMBLY  
DISTRICT 65, PART B  
LEADER



**ARIANA BRANCHINI**

DOWNTOWN ALLIANCE



**TAINA PRADO**

COVID CHANGED EVERYTHING - PEOPLE'S PERCEPTIONS OF WHAT'S DOABLE, WHAT'S ACCEPTABLE AND WHAT'S NOT.

FOR EXAMPLE, BUILDING OWNERS USED TO BE RESISTANT TO MAKING SPACE FOR BIKE AND SCOOTER STORAGE, BUT NOW A LOT OF THEM WANT TO.



**TREVER HOLLAND**  
TWO BRIDGES  
NEIGHBORHOOD  
ASSOCIATION

BIKERS TODAY ARE SEEN AS WHITE. YOU NEED TO RELATE BIKING TO THE RESIDENTS OF PUBLIC HOUSING.

# Manhattan Anchorage

## Challenges

DISCONNECTED

FORGOTTEN

VULNERABLE

HOT

# Manhattan Anchorage

Opportunities

CONNECTED

Nørreport Station, Denmark, Copenhagen

REIMAGINED

Art in the Anchorage, 1983

RESILIENT

The BIG U, NYC

COOL

Opera Garnier, Paris, France

# Manhattan Anchorage

Today



# Manhattan Anchorage

Back to the Future



## Today

## Blocked Waterfront



# Manhattan Anchorage

Back to the Future



Anchorage  
Park

Re-Activated  
Vaults

Bridge Lawn

Urban  
Cooling

Preserved  
Viaduct

New Access

# Manhattan Anchorage

Back to the Future

IMPROVED WAYFINDING  
AND CIRCULATION

RECREATIONAL  
SPACES

EXPANDED  
URBAN FOREST

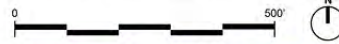
## PROPOSED NEW INTERVENTIONS

1. CIVIC PLAZA AND BRIDGE ENTRY POINT
2. TRANSIT AND DROP OFF PLAZA
3. DEDICATED BIKE AND TRANSIT ROUTE
4. BRIDGE STAIR ENTRY PLAZA
5. NEW GRT DROP-OFF POINT
6. ENHANCED PEDESTRIAN ROUTE TO FULTON STATION
7. SECURED ACCESS STREETS
8. RECONFIGURED STREETSCAPE TO RELEASE PUBLIC REALM SPACE
9. STORMWATER MANAGEMENT PARK
10. FLEXIBLE CIVIC / MARKET / CAFE / RECREATIONAL SPACE

11. ANCHORAGE CULTURAL SPACE
12. DRUMGOOLE ELEVATED RAMP PARK & PLAZA
13. CAFE / RETAIL SPACES
14. COMMUNITY SPACE & RECREATION
15. PARK MANAGEMENT & VISITOR AMENITIES
16. SOUTH BRIDGE BOULEVARD PARK
17. BRIDGE VIEW COMMUNITY PLAZA
18. ELEVATED RAMP SEGMENT PARK
19. ENHANCED CONNECTIVITY TO ALFRED E SMITH NYCHA HOUSING
20. EAST RIVER BRIDGE PARK
21. ACCESS TO WATER

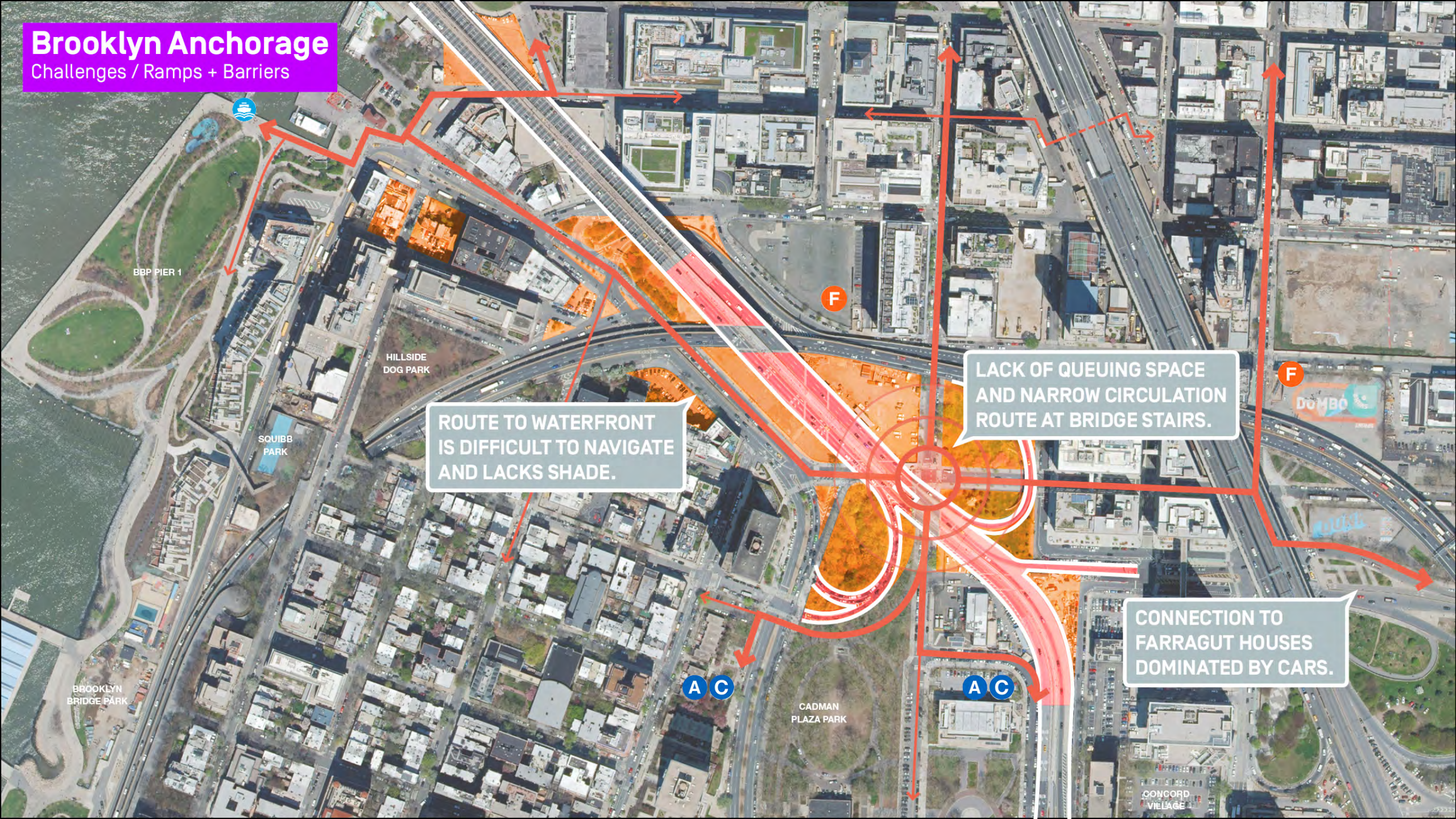
## LEGEND

- Park / Open Space
- Plaza / Public Space
- Shared Street with Sharrows
- Transit-only Lane
- Bike Lane
- Anchorage with Cavity
- Existing Building
- New Development
- Station Entrance
- Secured Access Point



# Brooklyn Anchorage

Challenges / Ramps + Barriers



BBP PIER 1

HILLSIDE  
DOG PARK

SQUIBB  
PARK

BROOKLYN  
BRIDGE PARK

CADMAN  
PLAZA PARK

CONCORD  
VILLAGE

ROUTE TO WATERFRONT  
IS DIFFICULT TO NAVIGATE  
AND LACKS SHADE.

LACK OF QUEUING SPACE  
AND NARROW CIRCULATION  
ROUTE AT BRIDGE STAIRS.

CONNECTION TO  
FARRAGUT HOUSES  
DOMINATED BY CARS.

A C

A C

F

F

# Brooklyn Anchorage

Back to the Future

IMPROVED  
WATERFRONT ACCESS

BQ-PARK

'WELCOME TO  
BROOKLYN' PLAZA

THE STRAND

QUICK CONNECTIONS  
TO DOWNTOWN  
BROOKLYN

## PROPOSED NEW INTERVENTIONS

1. LINEAR PARK CONNECTIONS TO WATERFRONT WITH RETAIL OPPORTUNITIES
2. RECONFIGURED STREETScape TO RELEASE PUBLIC REALM SPACE
3. BQ-PARK CAPPED EXPRESSWAY AND BOULEVARD
4. RAMP REMOVAL TO CREATE PLAZA CONNECTION TO FRONT STREET
5. BQE: BOULEVARD AT-GRADE
6. SHARED STREET
7. JAY STREET SHARED SPACE
8. COMMUNITY RECREATIONAL SPACES
9. ANCHORAGE RETAIL / CAFE / COMMUNITY FACILITIES
10. POTENTIAL DEVELOPMENT OPPORTUNITIES
11. BRIDGE BIKE RAMP AT SANDS STREET
12. LINEAR PARK CONNECTION FROM CADMAN PLAZA TO BROOKLYN BRIDGE PARK
13. CADMAN PLAZA EXTENSION
14. BRIDGE STAIR ENTRY PLAZA
15. CADMAN PLAZA SHARED STREET AND SECURITY PLAZA
16. TRANSIT AND NEW GRT DROP-OFF PLAZA
17. STORMWATER MANAGEMENT TERRACES
18. VISITOR AMENITIES
19. PEDESTRIAN ACCESS TO LOWER BRIDGE DECK
20. EXISTING BUILDING MOVED TO RELEASE PUBLIC REALM
21. FUTURE GRT DROP-OFF (DOWNTOWN)
22. DROP OFF FOR TNC
23. ENHANCED CONNECTIVITY AND PUBLIC REALM CONNECTING TO FARRAGUT HOUSING

## LEGEND

- Park / Open Space
- Plaza / Public Space
- Shared Street with Sharrows
- Transit-only Lane
- Bike Lane
- Anchorage with Cavity
- Existing Building
- New Development
- Station Entrance
- Secured Access Point



# Brooklyn Anchorage

Today

Legacy NYPD Facility

Inactive Street Life

Over-Wide Streets



# Brooklyn Anchorage

Back to the Future

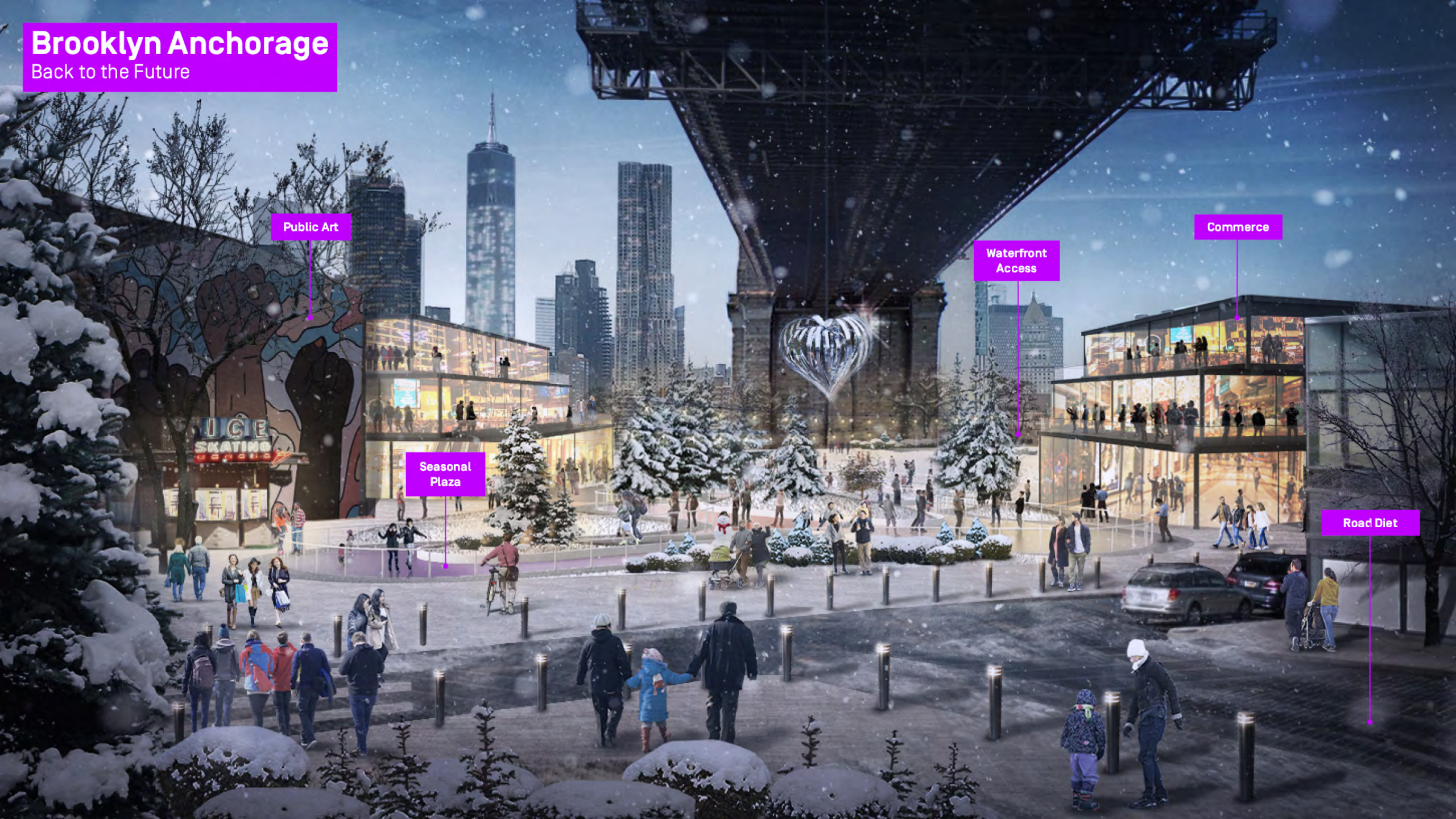
Public Art

Seasonal Plaza

Waterfront Access

Commerce

Road Diet





**NETWORK**

**Early 1900s**

Street Life

**NYC STREETS  
WERE ORIGINALLY  
PEOPLE STREETS.**



# Re-Connecting NYC and BK



WALKING



E-MOBILITY



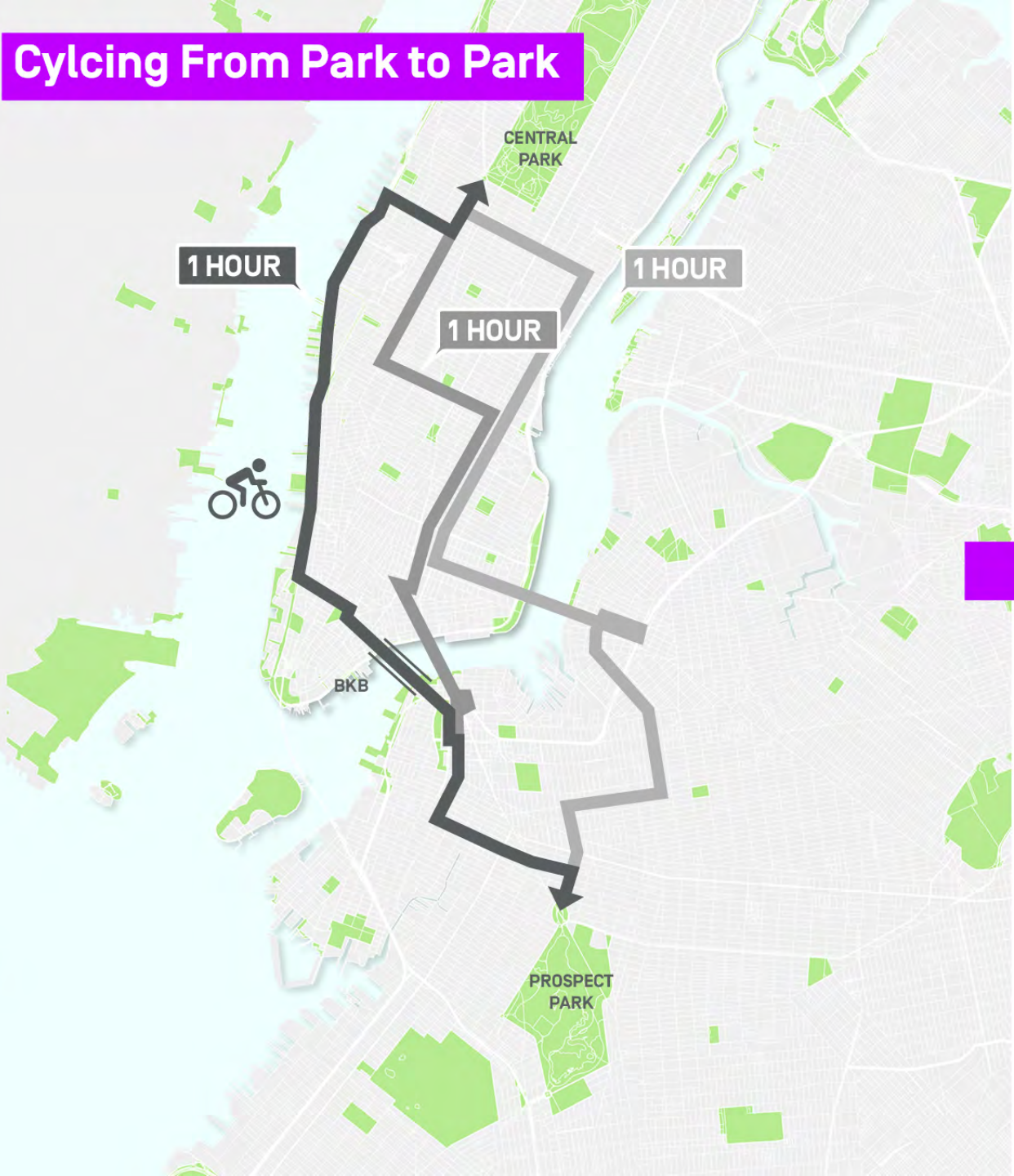
BIKING



COLLECTIVE TRANSIT

HOW DO WE MAKE CONNECTIONS TO AND LEVERAGE THE INCREASED CAPACITY OF THE BRIDGE?

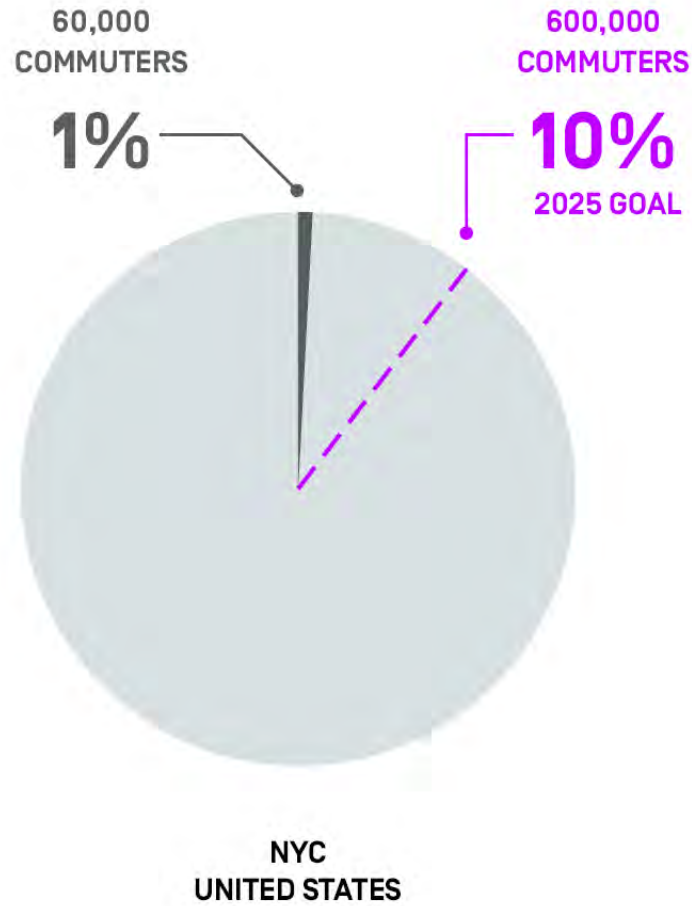
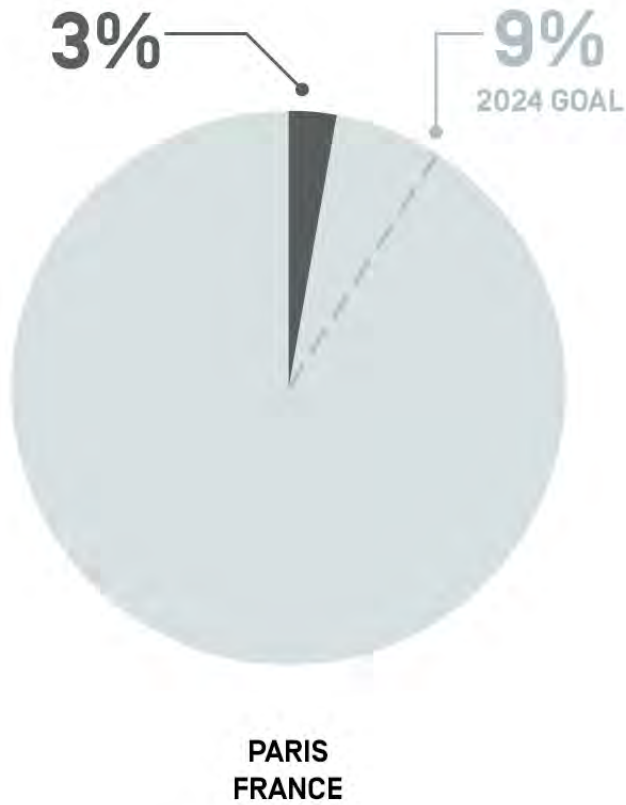
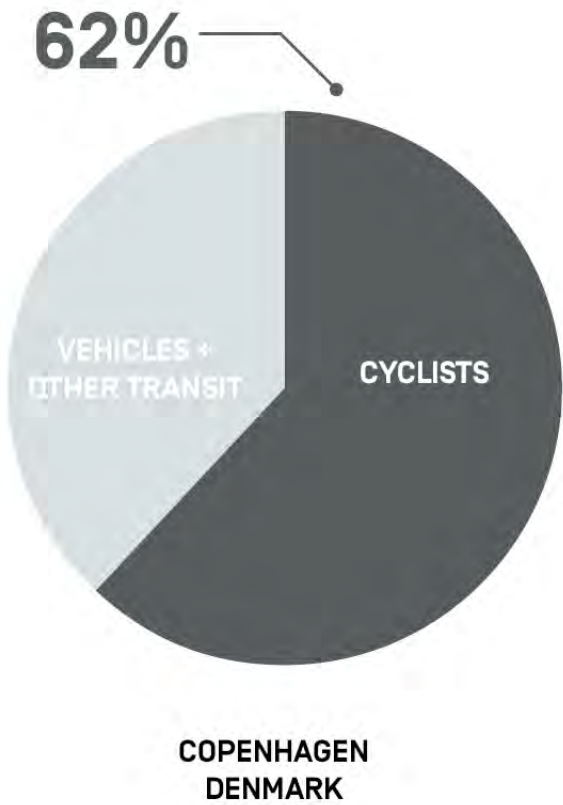
# Cycling From Park to Park



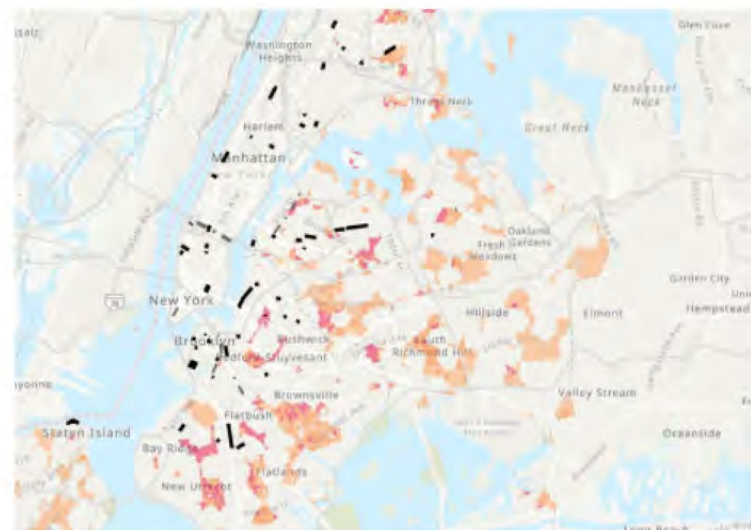
# Commuting by Bike

Cyclist Commuters Per Day

WE'RE AT 1% TODAY...  
IMAGINE IF WE MADE IT  
TO 10% IN FIVE YEARS?



By **CLAYTON GUSE**  
NEW YORK DAILY NEWS | MAY 21, 2020 | 6:29 PM



Neighborhoods like Brownsville in Brooklyn and Elmhurst in Queens contain large swaths that are more than a 10-minute walk from an open public park. But parts of those neighborhoods have

**New School furloughs student health services staff, cutting off students from a remote medical lifeline**

11

U.S. spending, coronavirus cases after reopenings cloud economic outlook

2.3.1

NYC Transit chief attacks de Blasio for remarks on COVID-19 reopening

2.5.

**MOST READ • CORONAVIRUS**

Trump cuts U.S. ties with World Health Organization over coronavirus feud

20

NYC to start reopening June 8, Cuomo allows certain upstate regions to move into Phase Two

21

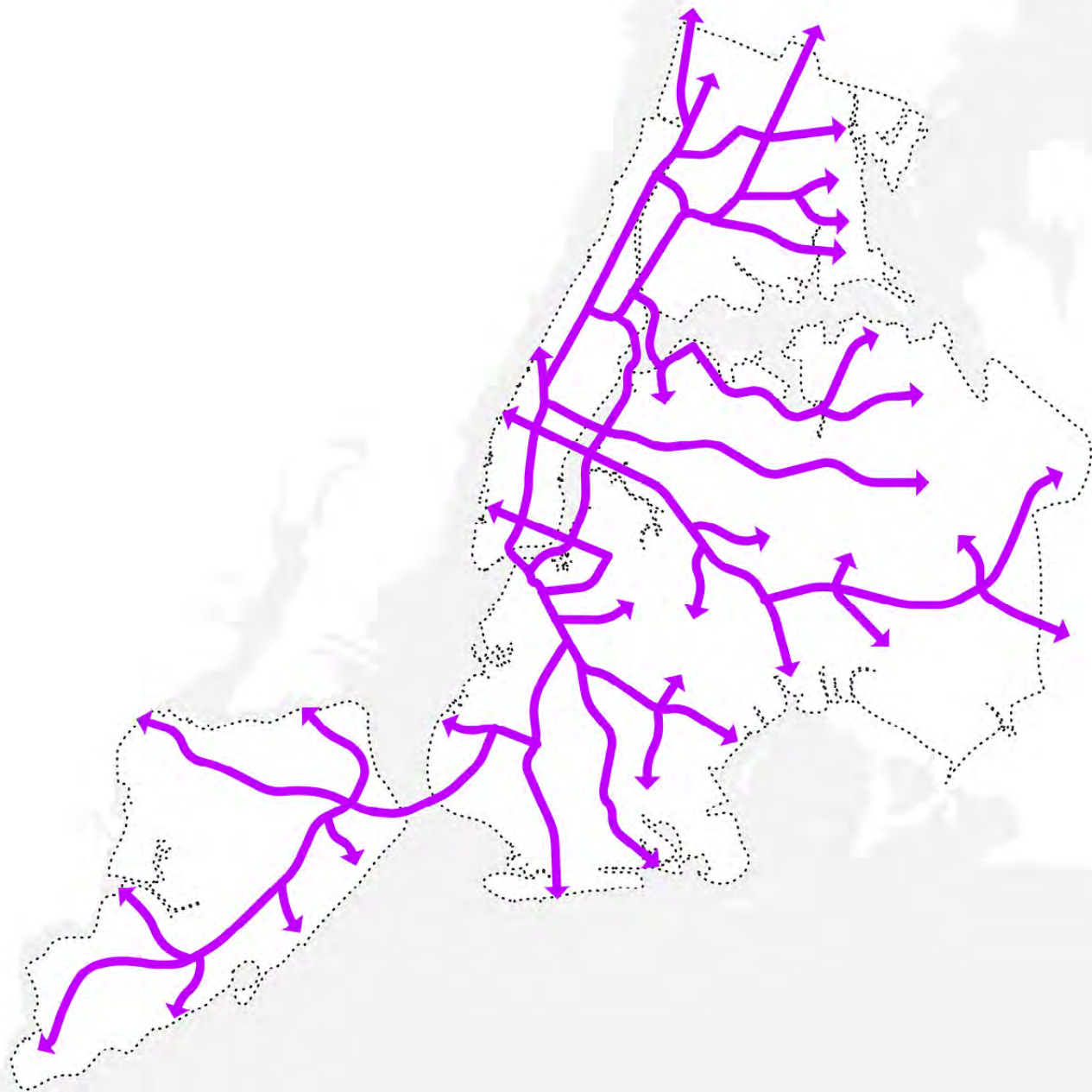
## The People's Bridge



## Phase 1 – Park to Park



## Phase 2 – Corridors



## Phase 3 – Network

WHAT DOES A NETWORK  
THAT PRIORITIZES PEOPLE  
OVER CARS LOOK LIKE?



**PEOPLE STREETS**

# People Streets

Flatbush Ave

3,200  
PEOPLE MOVED PER HOUR

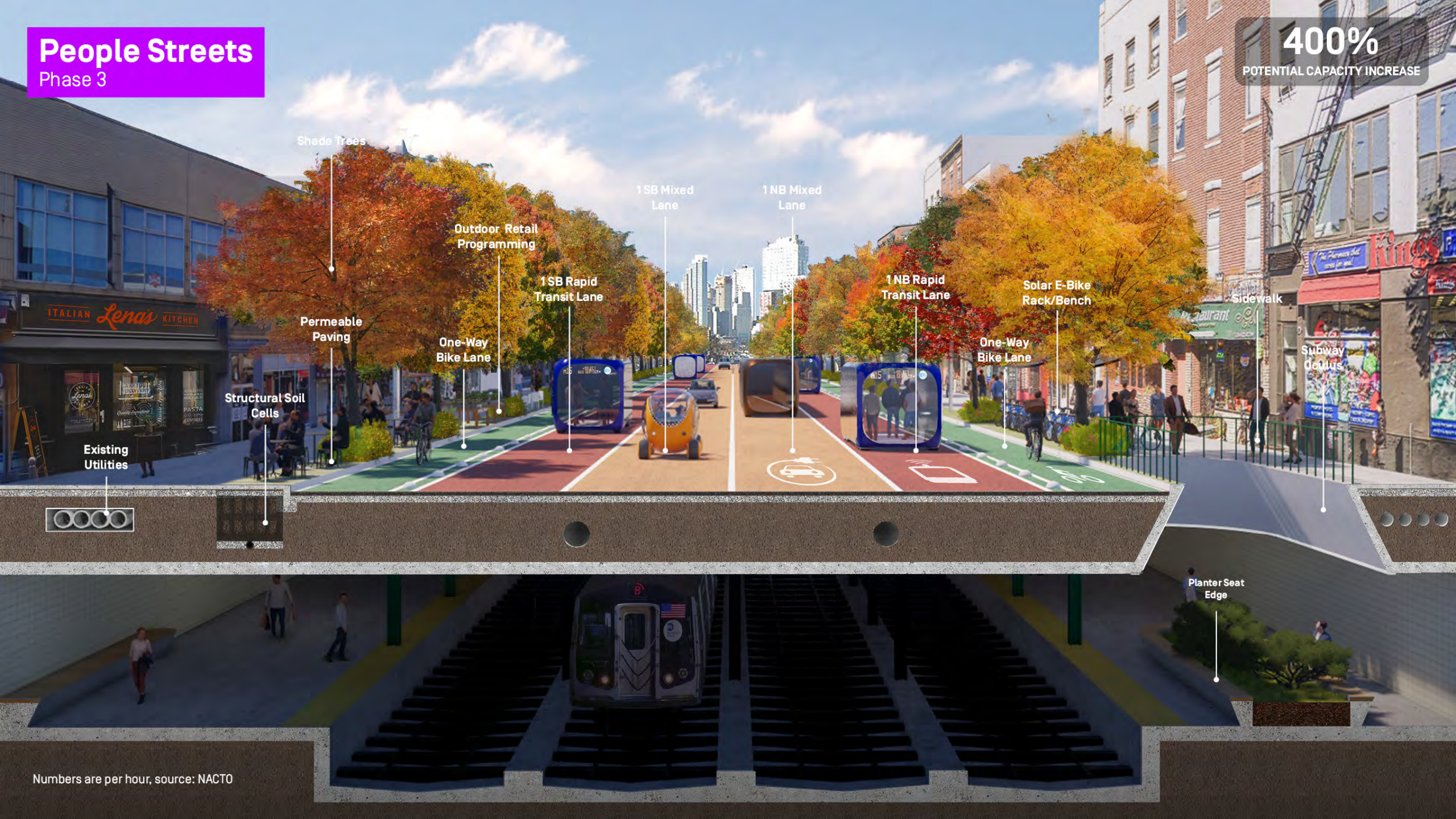


Numbers are per hour, source: NACTO

# People Streets

Phase 3

400%  
POTENTIAL CAPACITY INCREASE



# People Streets

## Co-Benefits

PEOPLE WHO WALK  
8.6 MINUTES A DAY ARE

**33%**

MORE LIKELY TO REPORT  
BETTER MENTAL HEALTH.

FOR EVERY 12 BLOCKS OR SO WALKED  
A DAY, YOUR RISK OF OBESITY DROPS

**4.8%**

PEOPLE WALKING, CYCLING  
AND USING PUBLIC  
TRANSPORTATION SPEND

**40%**

MORE EACH MONTH IN NEIGHBORHOOD  
SHOPS THAN MOTORISTS.

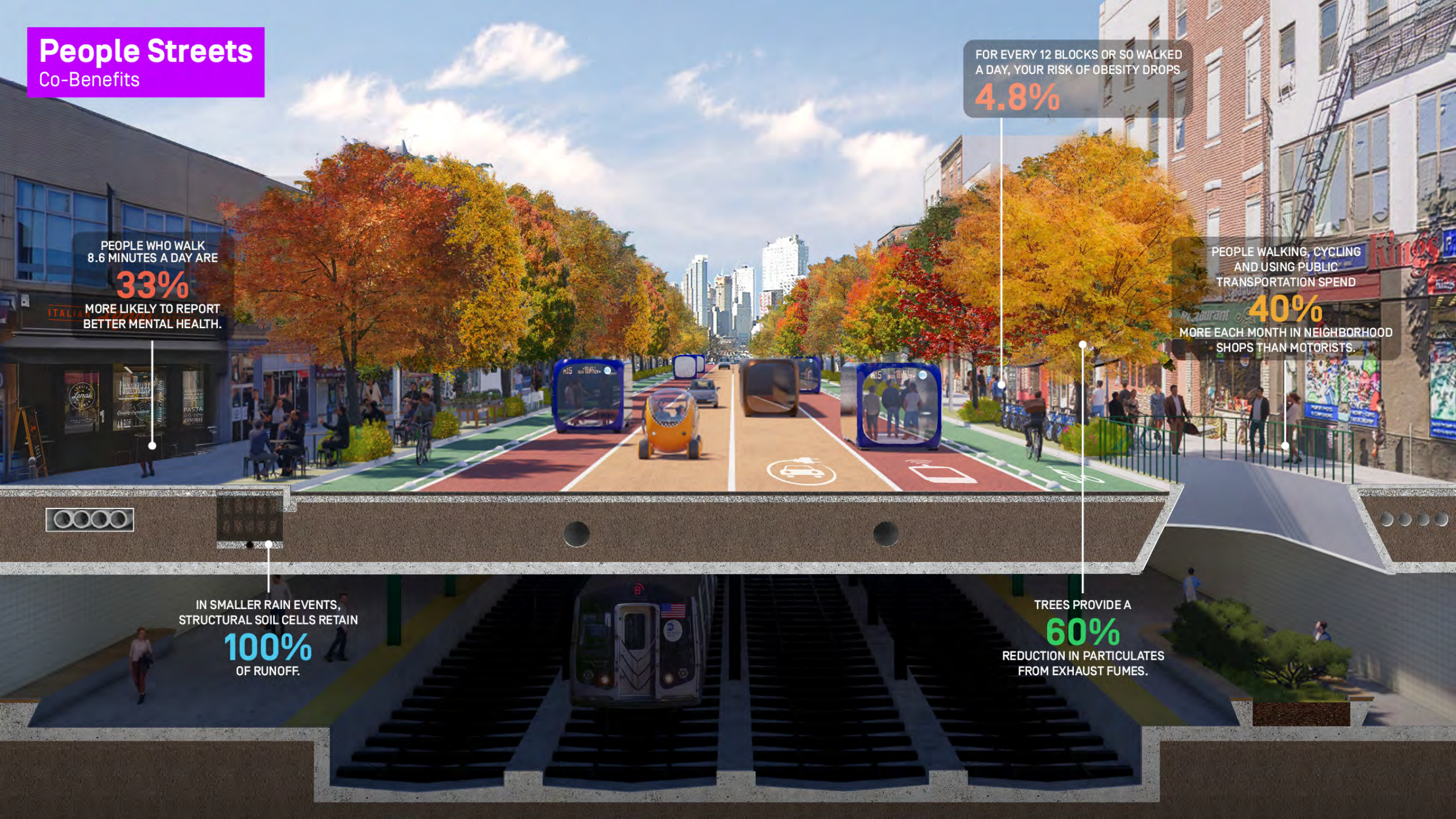
IN SMALLER RAIN EVENTS,  
STRUCTURAL SOIL CELLS RETAIN

**100%**  
OF RUNOFF.

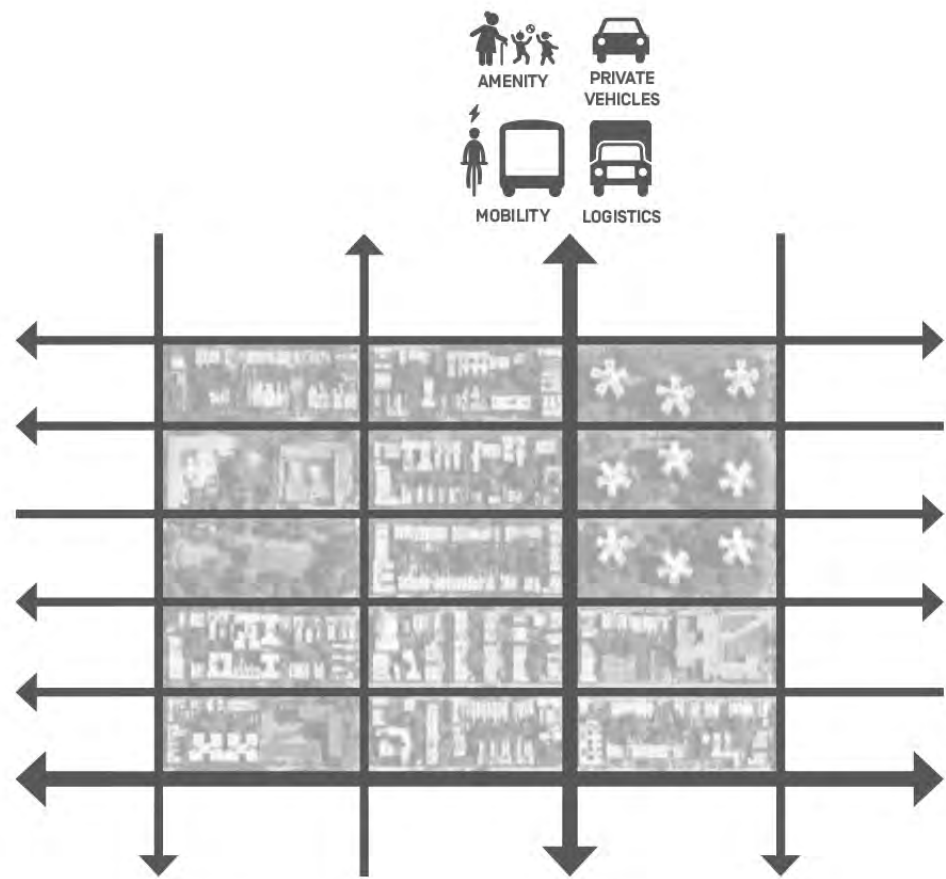
TREES PROVIDE A

**60%**

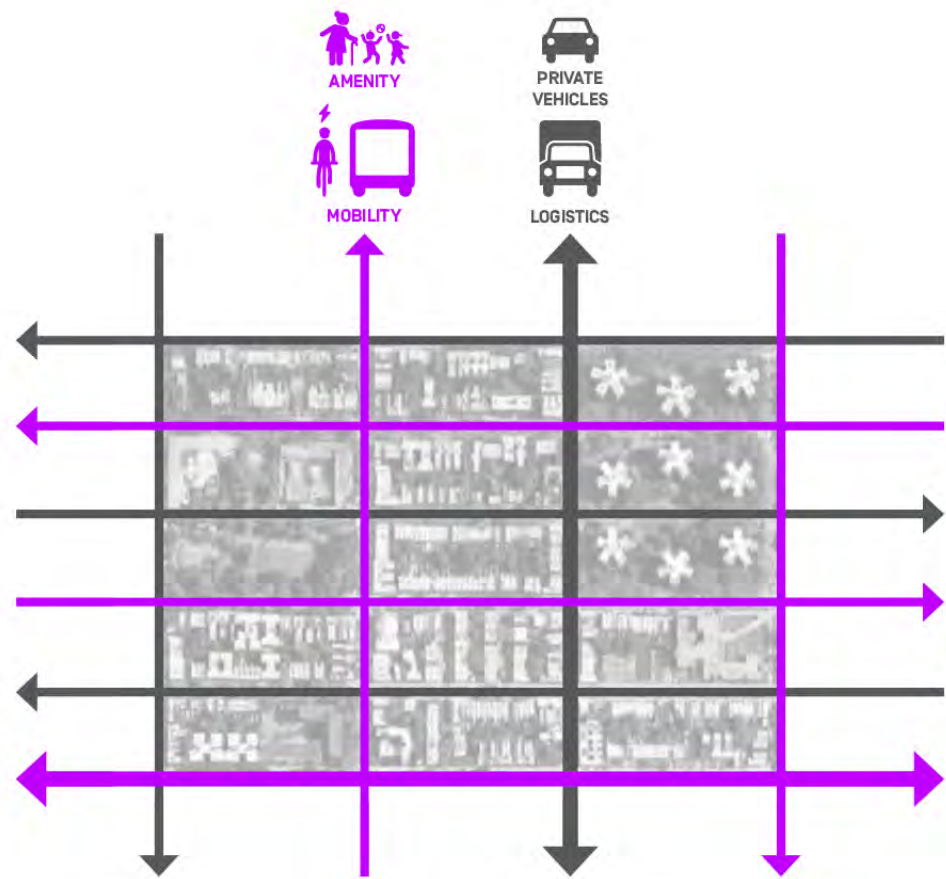
REDUCTION IN PARTICULATES  
FROM EXHAUST FUMES.



# People Streets



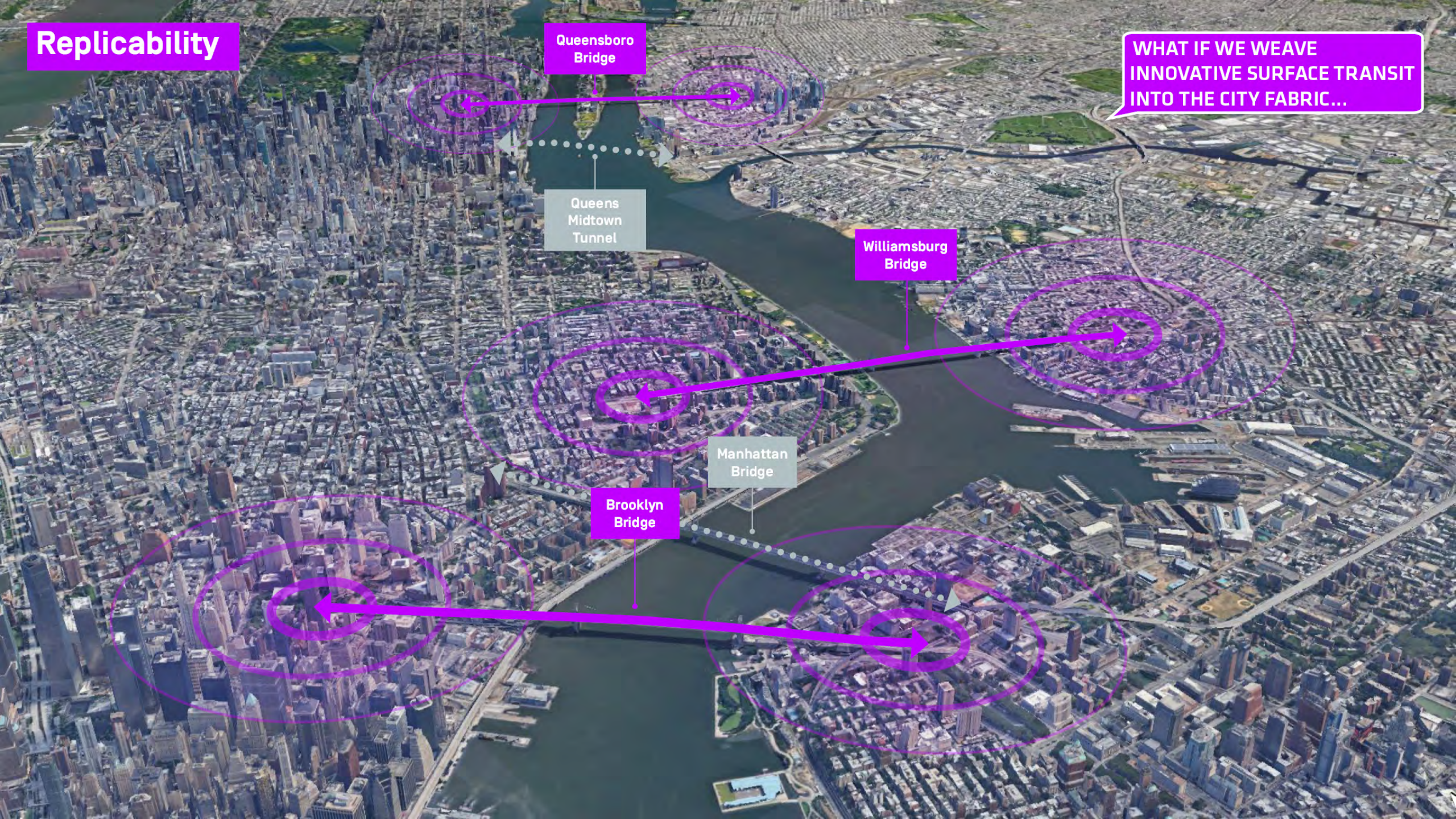
TRADITIONAL CITY GRID



PROPOSED BINARY CITY GRID

# Replicability

WHAT IF WE WEAVE  
INNOVATIVE SURFACE TRANSIT  
INTO THE CITY FABRIC...



Queensboro  
Bridge

Queens  
Midtown  
Tunnel

Williamsburg  
Bridge

Manhattan  
Bridge

Brooklyn  
Bridge



FLEXIBLE  
PROMENADE



DEDICATED  
PEDESTRIAN

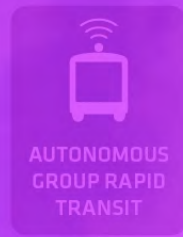


AUTONOMOUS  
GROUP RAPID  
TRANSIT



ACTIVE MOBILITY/  
E-MOBILITY





# THANK YOU VAN ALLEN + CITY COUNCIL