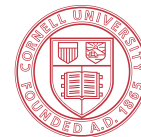


# CORNELL NYCTECH

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Home of the

**TECHNION-CORNELL**  
INNOVATION INSTITUTE



Cornell University



## **An Innovative Growth Strategy for New York City**

**Bloomberg Administration identified  
need for city to materially change  
economic base**

- Substantial growth in tech sector, but extreme need for talent
- Identified applied sciences and engineering as underinvested

### **Competition for modern day land grant**

- Cornell University/Technion Institute partnership selected December 2011

# The Seattle Times

*New York Is Vying to Become  
Global High-Tech Hub*

# Forbes

*Former Twitter CTO Throws Down  
with New York Tech Campus*

# The New York Times

*Cornell's High-Tech Campus Will Have  
a Temporary Home at Google*

# DAILY NEWS U. GENIUS!

*CornellNYC's First Prof. is Tech Brain*

# Newsweek

*Roosevelt Island: New York's New Tech Hub*



*Applications are being accepted*

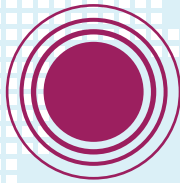
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# CORNELL NYCTECH

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- Distinctive model of graduate tech education fusing academic excellence with commercial success and societal good
- Leverage New York City's role as global capital of commerce and creativity
- Culture of entrepreneurial spirit to spur innovation
- Companies and non-profits on campus
- Magnet for tech sector in NYC, with strong ties to companies and investors





**ESTIMATED PRIVATE SECTOR JOB CREATION**

**30,000 to 120,000**

### **A New Model in New York City**

- Tech sector shifting from technology itself to technologically enabled products, services and experiences
- NYC positioned to become new tech capital
- Unrivalled potential for deep engagement of technology with commerce and social good



**Technion**

Israel Institute of Technology

## **Cornell's Academic Partner**

### **Technion - Israel Institute of Technology**

- One of the world's leading science and technology universities
- Alumni responsible for half the Israeli companies on NASDAQ

### **Technion - Cornell Innovation Institute (TCII)**

- A unique global partnership for technology innovation
- Cornell and Technion joint research
- Novel interdisciplinary dual masters of science, technology commercialization

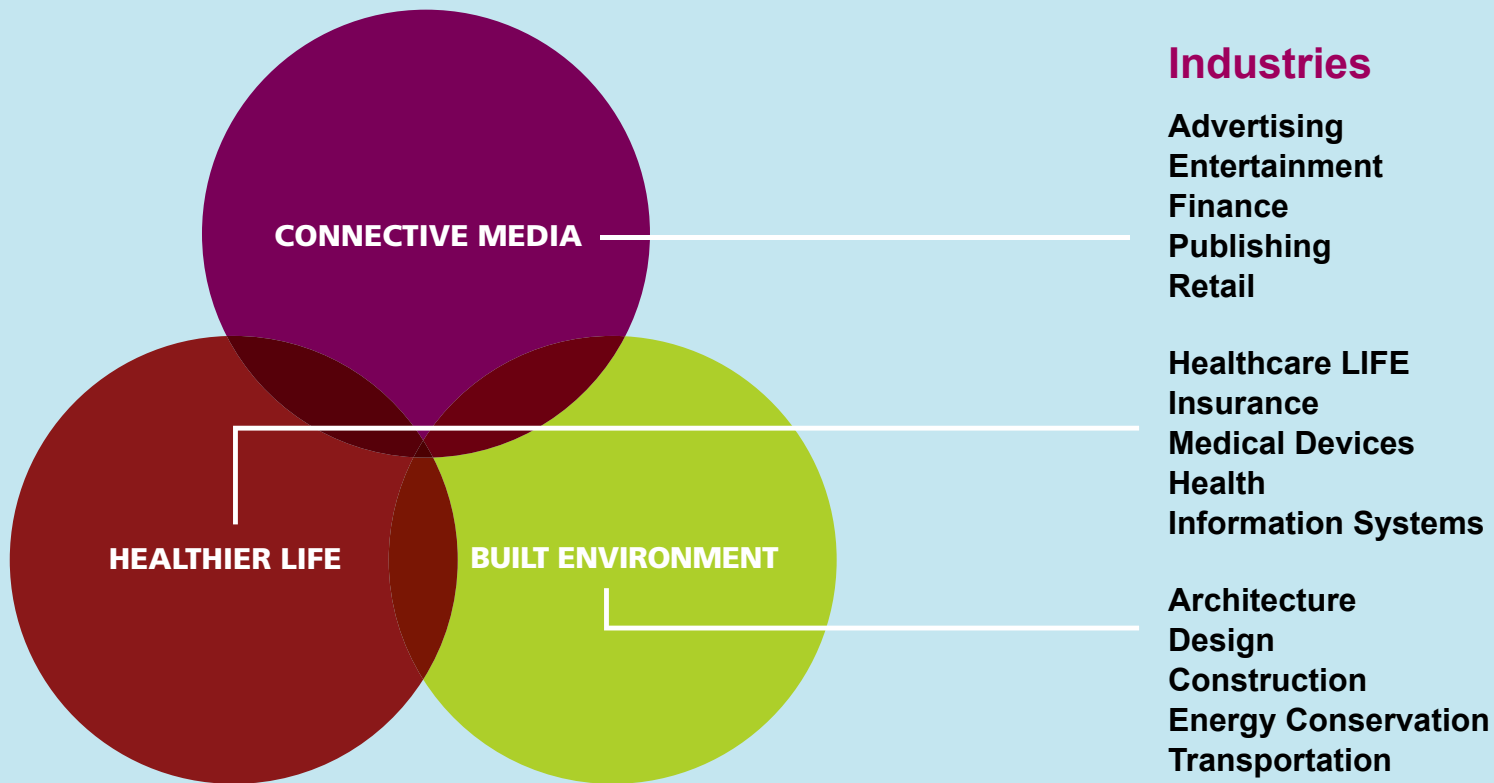


## Academic Programs

- One-year professional masters degrees
- Planned two-year dual MS degree with Technion
- Matrix of interdisciplinary hubs and core technology disciplines
- Integration of technical with business and entrepreneurship courses

## Entrepreneurial Culture

- Entrepreneurial Office, projects and practicums
- Hands-on apprenticeship style learning
- Projects supervised by faculty and industry mentors
- Practicum Fridays for real-world ties and skills



INTERDISCIPLINARY HUBS TIED TO REAL WORLD



## Cornell Tech is Underway

- Located in space generously donated by Google until 2017
- First faculty hired
- Enrolling “beta” class of M.Eng. in Computer Science for January 2013
- Announced a partnership with the US DOC
- Steering Committee established
- Planning permanent campus



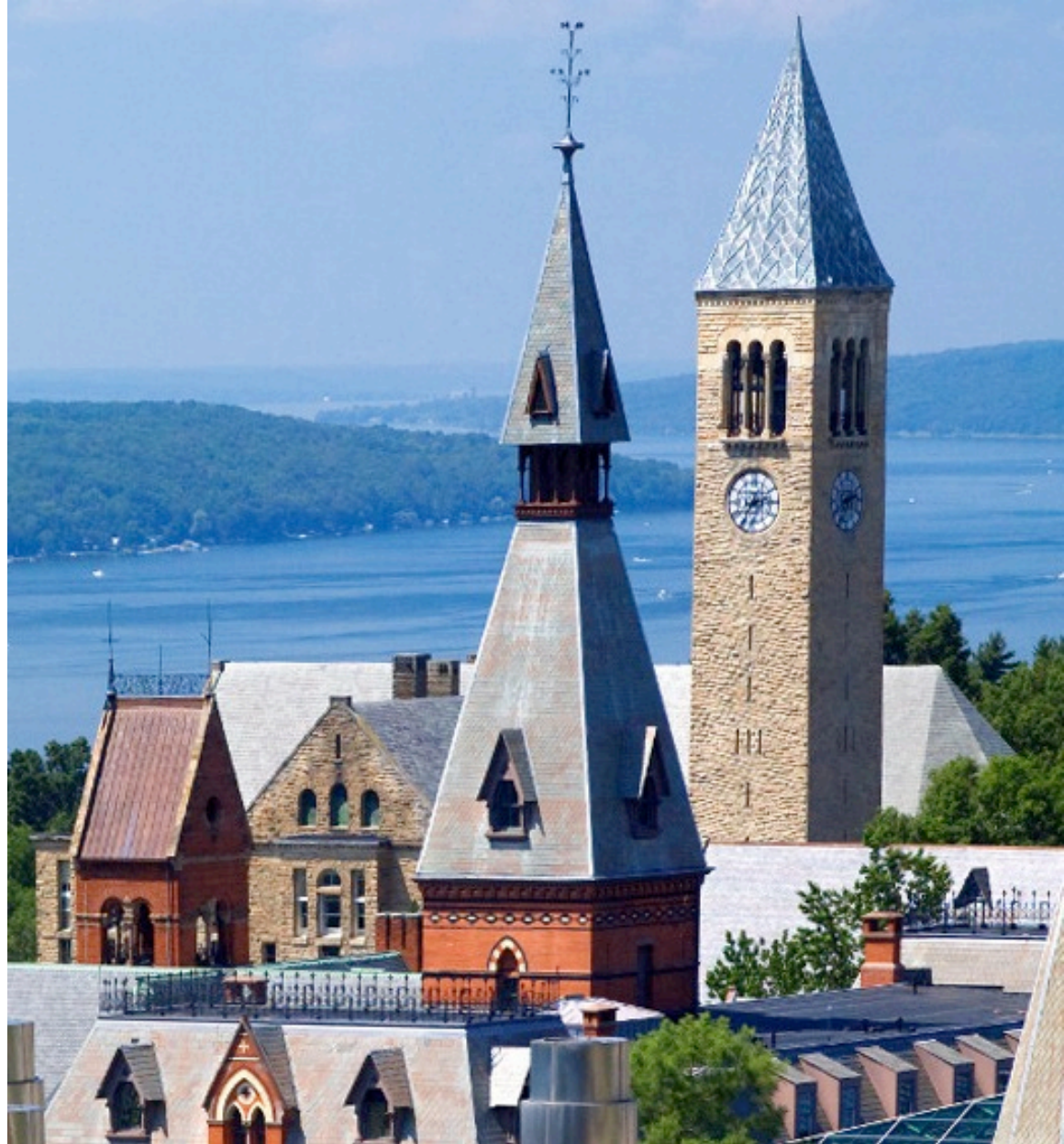


## Part II: Cornell Tech as Part of the Community

## A Founding Tradition of Public Service

- As New York State's land grant university, Cornell transfers and applies university-based knowledge for practical benefits
- Community service is part of our DNA
- Academic activities that lead to beneficial use of research
- Contributes to the City and State's economic prosperity

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## Cornell in NYC

- 50,000 alumni who live and work in New York City
- Weill Cornell Medical College health and wellness programs
- Cornell Cooperative Extension in all five boroughs
- Each college within Cornell engages in community programming

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## Connection to the Tech Community

- New York is new tech
- Center point for the tech community
- Formal and informal venue to foster connections across industry
- Creating networks across companies





## Leverage Cornell Expertise of Faculty and Students

- Committed to impacting thousands of K-12 students and hundreds of teachers across New York City
- Collaborate with New York City institutions
- Graduate level projects with a focus on community engagement

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## Community and the Campus

- 2.5 acres of new open space, welcoming visitors and residents
- Indoor and outdoor public programming
- Community access to Cornell facilities
- New bike lanes, street widening and improvements
- New high pressure gas service
- Cornell population to support RI retail

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## Provide Economic Development Opportunities

- Create quality construction and permanent employment opportunities
- \$150 million Cornell investment fund—investing in New York City start-ups
- Catalyze business growth in western Queens and surrounding areas







### Part III: Cornell Tech on Roosevelt Island



## Campus Vision

Up to 2.1 million sf of program over 25 years

- Academic/research uses
- Commercial co-location
- Housing
- Executive education facilities

Vibrant campus with top quality architecture and public open spaces

Promote sustainability through traditional and innovative technologies



## Campus Site

12.5 acres currently occupied by Goldwater Hospital

- 9.9 acres City Owned
- 2.6 acres City owned and leaded by RIOC

City to decommission Goldwater Hospital per 2010 HHC plan

City approval process (ULURP) for change in zoning use and disposition

State process for inclusion of portion of RIOC property





## PHASE I

## FULL BUILD

TOTAL SQUARE FOOTAGE

up to 790,000

1.8 million–2.13 million

2023

2043



STUDENT POPULATION

600

2,500



TOTAL POPULATION

1,400

5,400

*Source: DEIS. Numbers are rounded*

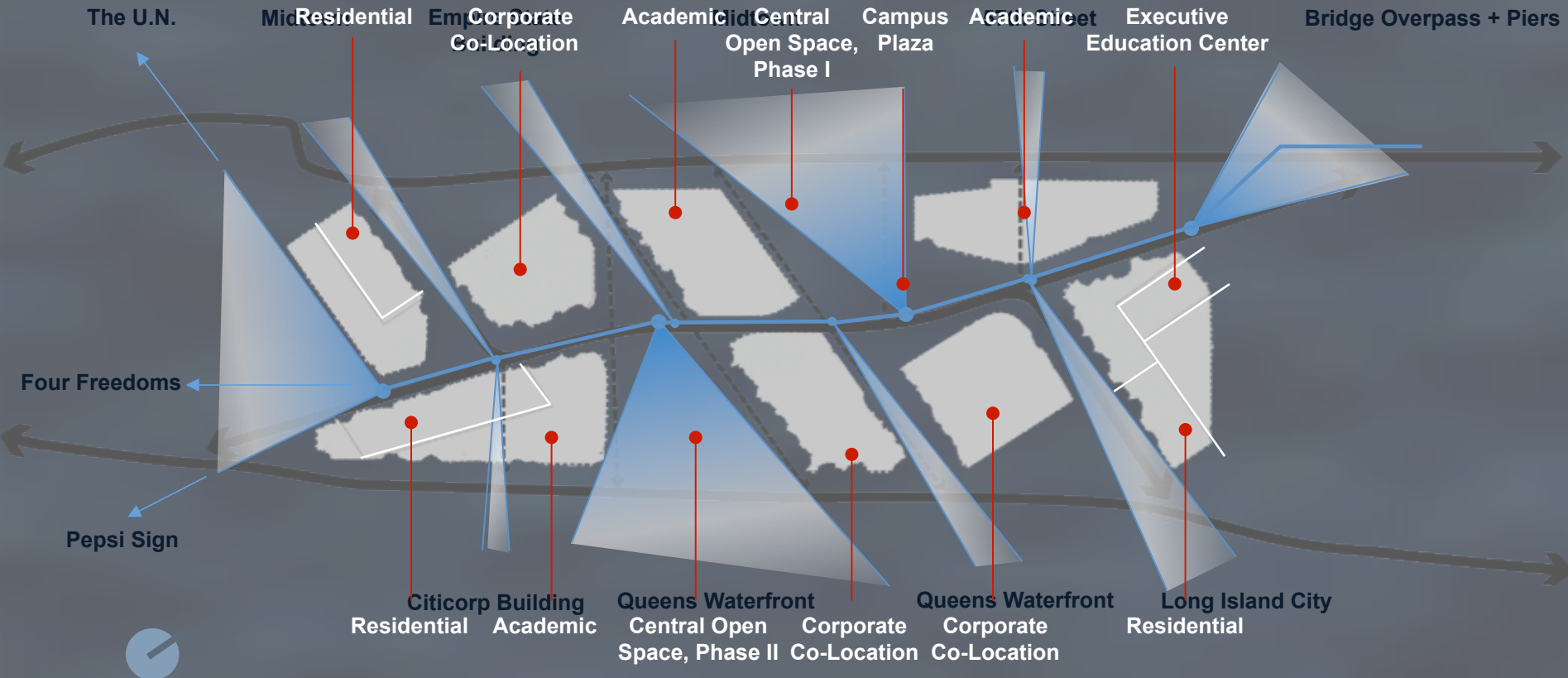
## Cornell Tech campus is designed around 6 key principles

- River to River Experience
- North-South Pedestrian Spine
- Diverse Collection of Active Open Spaces
- Close link Between Indoor and Outdoor Spaces
- Buildings Optimized for Use & Performance
- Livable & Sustainable Campus

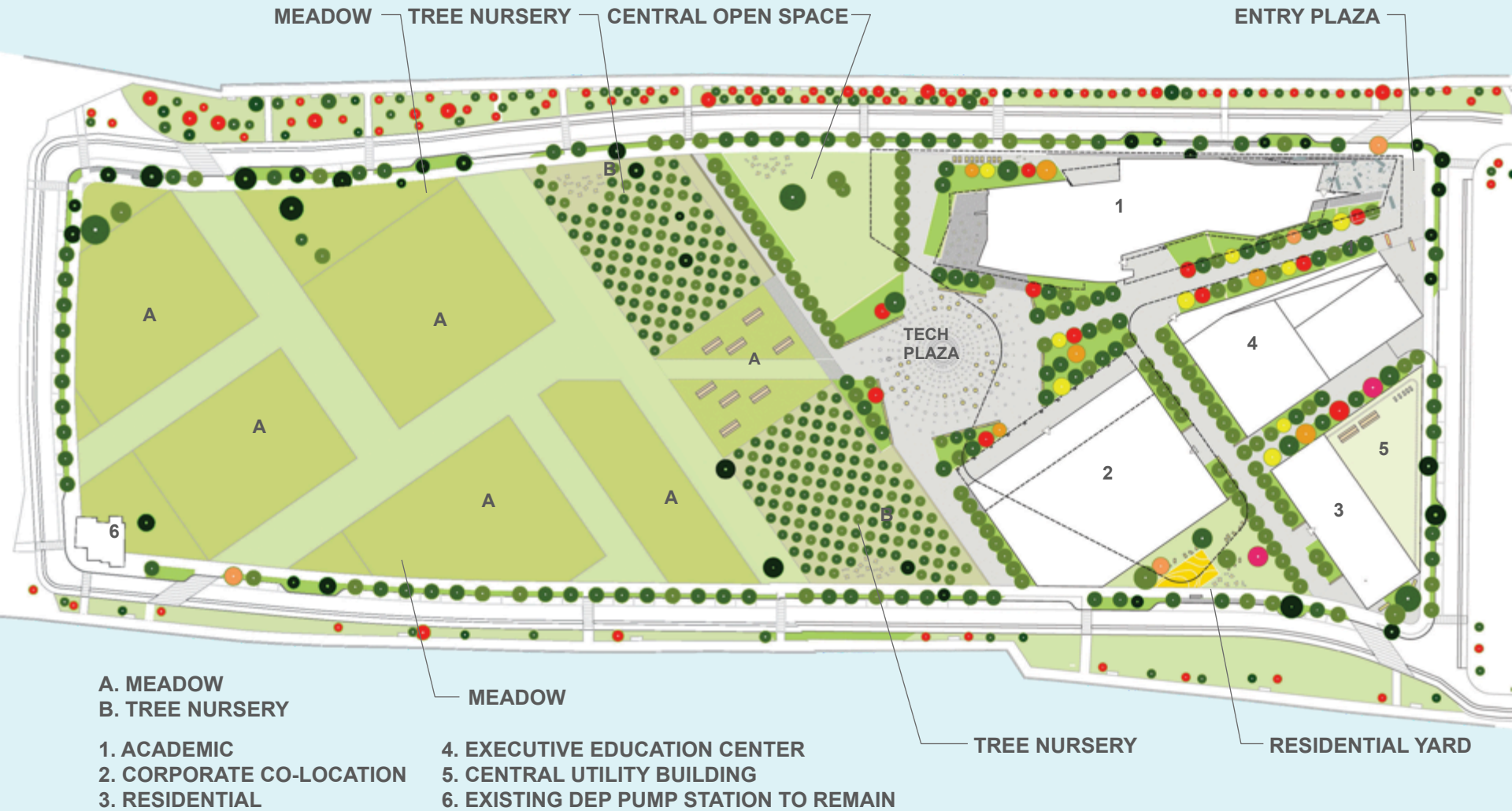
21



River to River Experience  
Circulation Network  
Program  
Activation  
Views

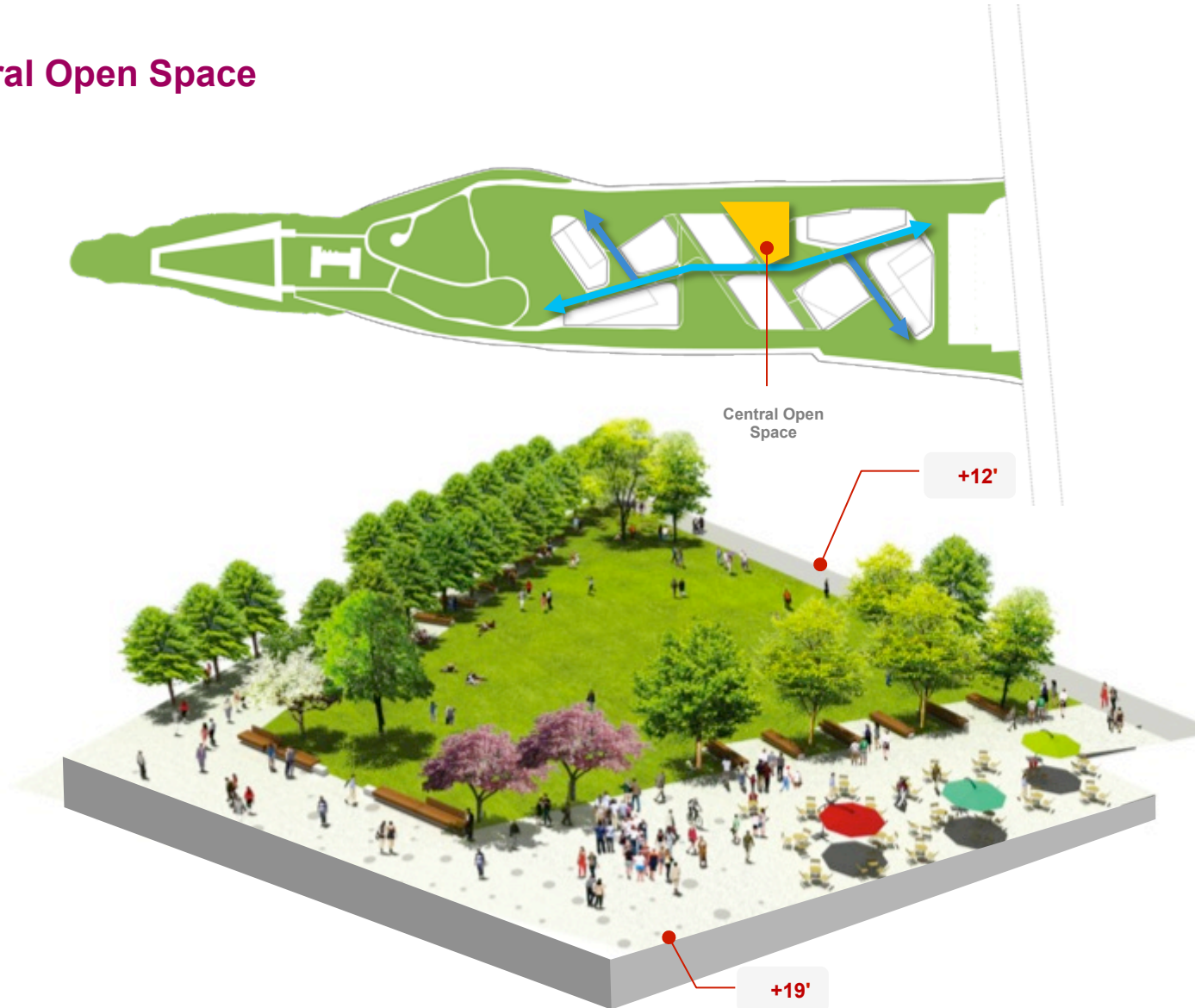


## Phase I: Site Plan





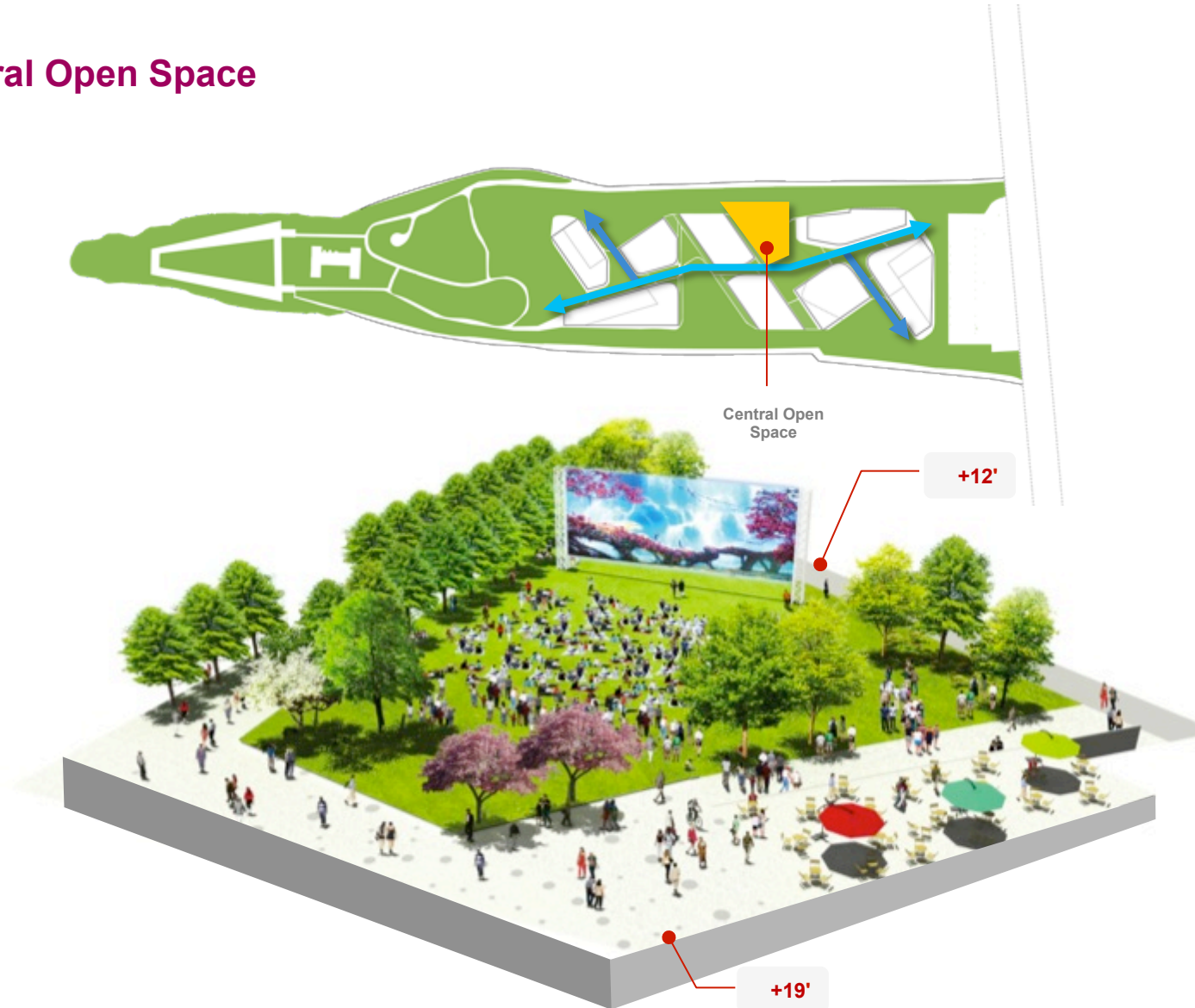
## The Central Open Space



24

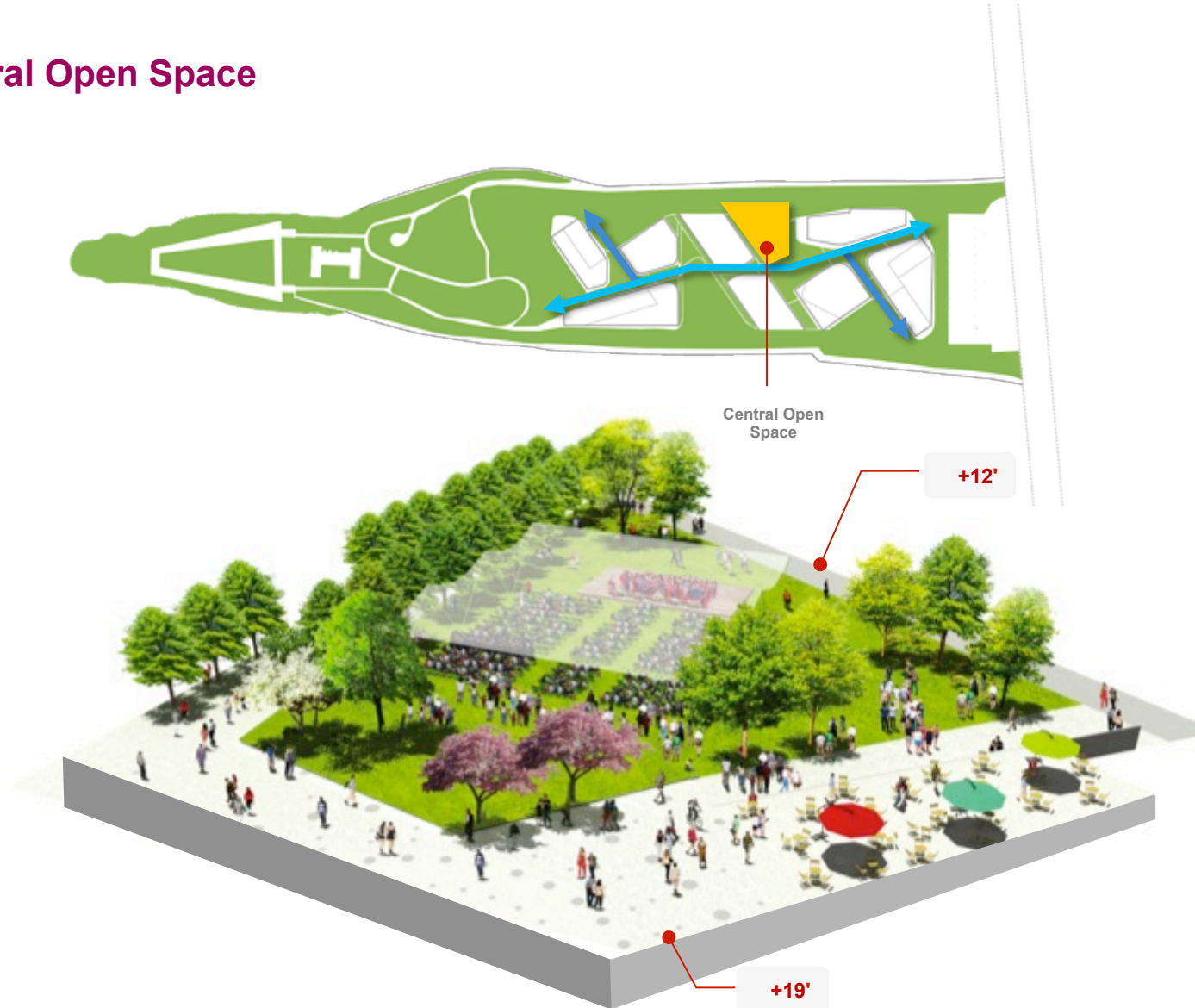


## The Central Open Space



25

## The Central Open Space



## Tech Plaza

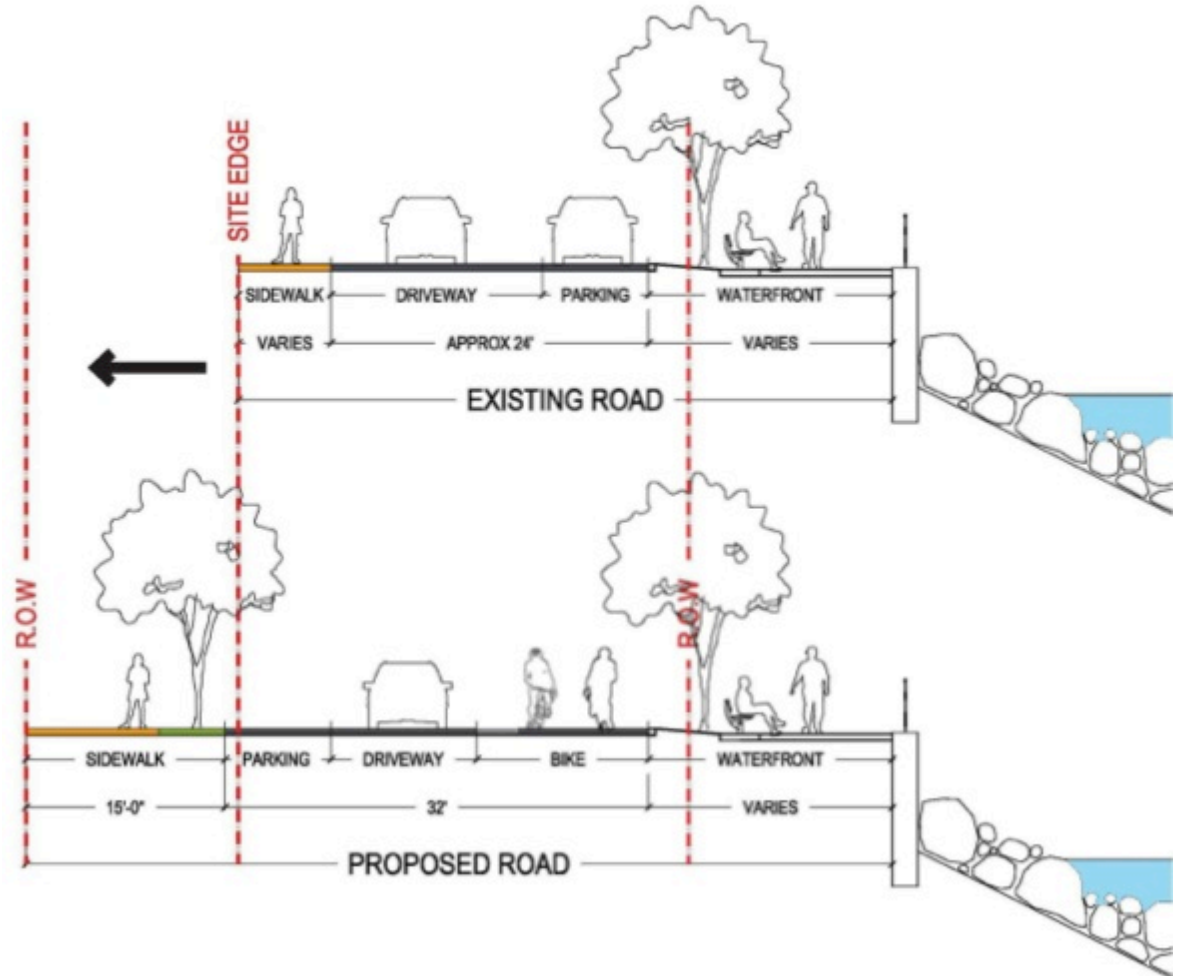


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## Road Improvements

- Bike lane added
- Increased width for emergency access
- Additional lighting and street trees



## First Academic Building

- Innovative academic environment
- Design process underway
- Classrooms and collaborative space
- Ambition for net zero







### Part III: Cornell Tech on Roosevelt Island



## Manage Impacts on Neighbors

Communication

Transportation for construction workers

Material delivery

Air quality

Hazardous materials



## Communication and outreach during construction

- Pro-active communication
  - Monthly update meeting on all construction related issues
  - Advance notice for any special equipment or unusual activities
  - Field representative on-site as a contact point for the community
  - Website with construction information
- Ongoing communication with RIOC and City regulatory agencies
- 24-hour security on-site
- New York City 311 also available for construction-related concerns

## Transportation for Construction Workers

- Work hours from 7:00am – 3:30pm reduce rush hour impacts
- Encourage use of public transit
- Limit on-site parking to 100 spaces
- Support additional Red Bus service during arrival and departure hours, if necessary



## Material Deliveries

- Strategy identified to significantly reduce quantity of truck trips by keeping fill material on site
- DEIS analysis assumes all construction deliveries by truck
  - DEIS projections for Phase 1: average number of trucks per day is 37; peak is 67 per day in third quarter of 2015
  - DEIS projections for Phase 2a: average number of trucks per day is 21; maximum is 35 for third quarter, 2025
- Utilize best practices for management of truck traffic
  - Manage arrival times and prohibit non-scheduled deliveries
  - Use sitewide storage space to reduce concentration of deliveries
  - Require strict dust control measures
  - Enforce idling restrictions on roadways and on-site
  - Provide pedestrian safety management on Main Street where appropriate

## Material Deliveries

- Investigating feasibility of barging as alternative
  - Construction materials -- No decisions yet made about transport of materials or types of materials to be used
  - Logistics – Need to understand options for staging locations, transfer points and RI landing
  - Feasibility – Understand what is feasible to be delivered by barge
  - Cost – Determine costs involved in barging
- Provide regular updates on construction related transportation issues

## Air Quality

- The DEIS studied the impacts of 'mobile source' emissions from construction traffic
  - Studies focused on Carbon Monoxide (CO) and Particulate Matter (PM10 and PM2.5)
  - Slight increases in concentrations compared to the No Build, but overall concentrations would remain well below applicable thresholds
  - The DEIS concluded that there were no significant air quality impacts on CO, PM10 or PM2.5 levels due to mobile sources from construction traffic
- Cornell to provide 24-hour on site air quality monitoring



## Building Demolition

- Studies indicate the likelihood of asbestos containing materials and lead-based paint at the existing hospital
- Asbestos removal will take place prior to demolition
  - Removal and disposal is done under strict containment (2 trucks per day)
  - 3<sup>rd</sup> party monitoring is generally required, depending on the extent and type of material
  - Regulated by NYCDEP, DOL, EPA and OSHA
- Possible PCB-containing materials will be sealed and removed prior to demolition

## On Site Soil

- Studies indicate that the soil is 'urban fill' with some elevated concentrations of certain metals and Semi Volatile Organic Compounds (SVOCs)
- A Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) will be approved by NYCDEP
- On-site soil excavation, storage, stockpiling and removal will be monitored throughout the project
- Clean fill will be installed as a site-cap where required
- Any tanks or other localized contamination will be removed per regulations

# Land Use Actions

## Zoning Map Amendment

## Zoning Text Amendment

## City Map Amendment

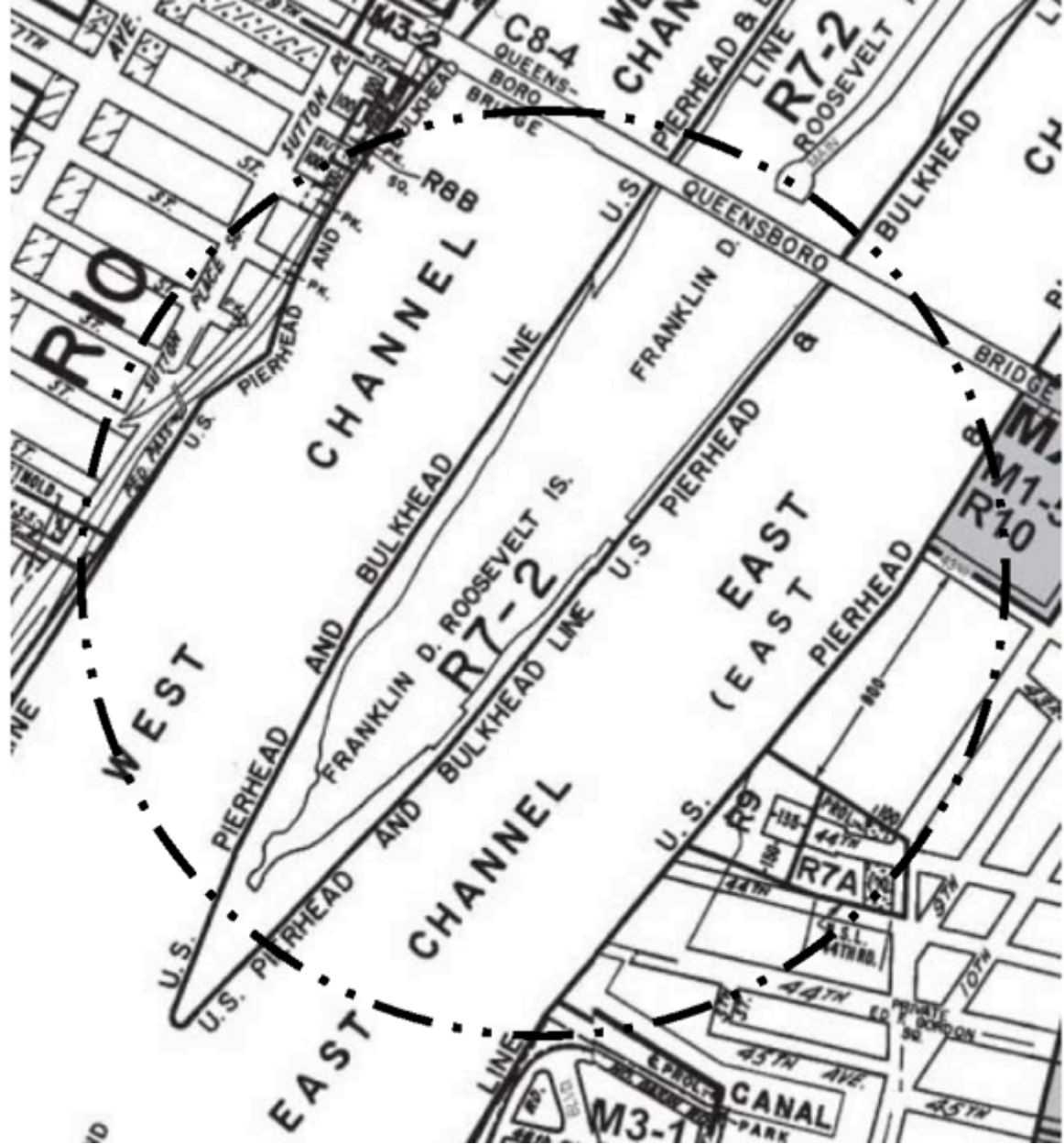
## Disposition of City-Owned Property



# Zoning Map Amendment

## Current Zoning Map: R7-2

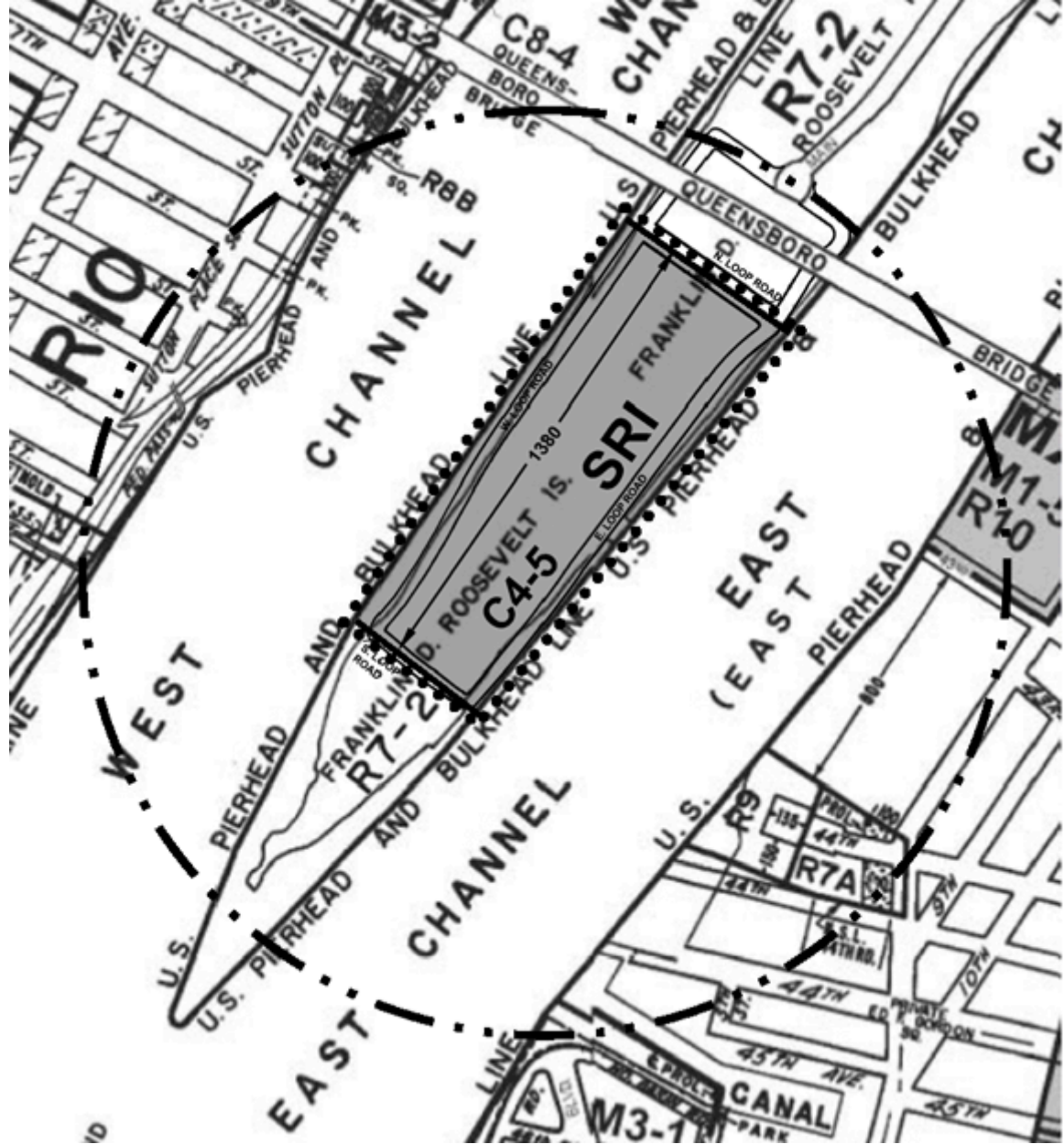
- Residential FAR: up to 3.44
- Community Facility FAR: 6.5
- Mixed Development FAR: 6.5



## Zoning Map Amendment

### Proposed Zoning Map: C4-5/SRI

- Residential FAR:  
3.44
- Community Facility FAR:  
6.5
- Commercial FAR:  
3.4
- Mixed Development FAR:  
6.5



# Zoning Text Amendment

## Creation of a new Special Zoning District to:

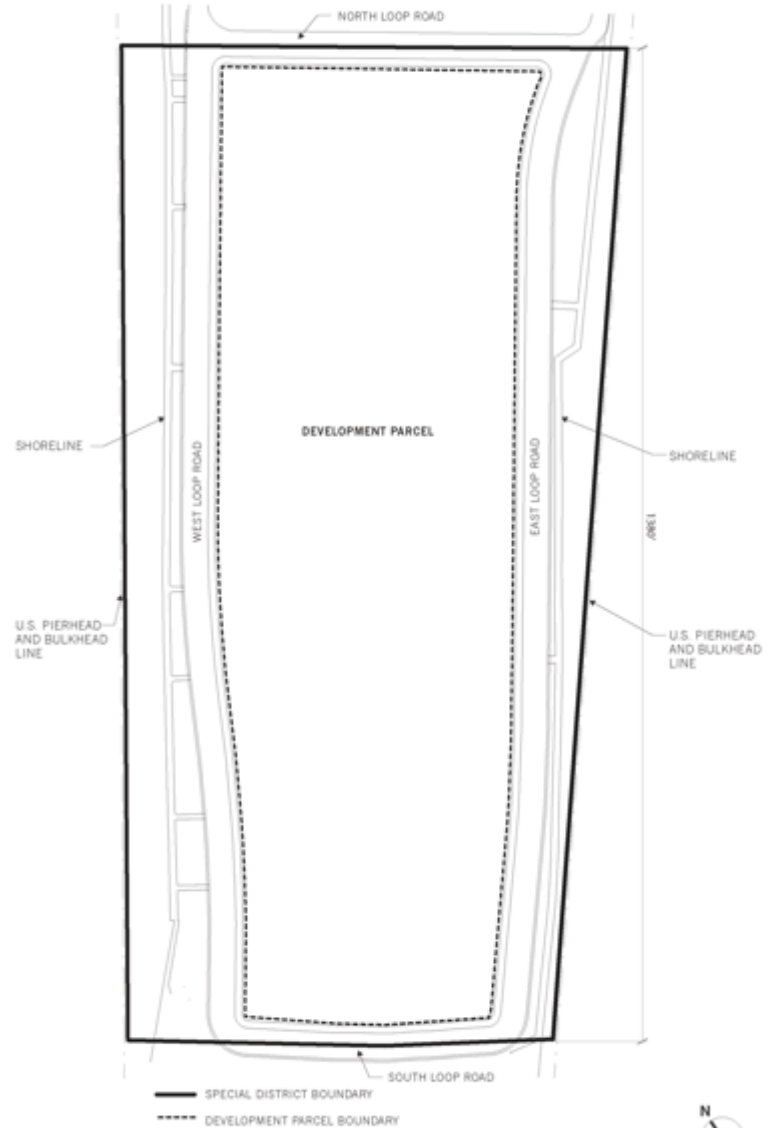
- Promote the development of an academic and research and development campus
- Allow for mix of residential, community facility and commercial uses
- Establish a network of publicly accessible open areas
- Strengthen visual and physical connections between eastern and western shores of Roosevelt Island
- Provide flexibility of architectural design within established limits to assure adequate access of light and air to and encourage more innovative building forms

# Development Parcel and Waterfront



Key Plan

MAP 1 - SPECIAL SOUTHERN ROOSEVELT ISLAND DISTRICT,  
DEVELOPMENT PARCEL AND LOOP ROAD





# Waterfront Area Controls

## ZR 133-05

- Waterfront areas to be preserved for open recreational uses only
- Accessible daily from 6am to 10pm between April 15th and October 31st and from 7am to 8pm for remainder of year

# Development Parcel Controls

- Use
- Bulk
- Parking
- Publicly Accessible Open Space Requirements

# Development Parcel: Use Regulations

## Uses: ZR 133-10

- Adds Use Group 17B research, experimental or testing laboratories as a permitted use

# Development Parcel: Bulk Regulations – Floor Area

## ZR 133-21

- Replaces open space ratio with fixed FAR allowances and lot coverage requirements
- Establishes permitted FAR for residential use of 3.44 (consistent with maximum for underlying zoning)
- Use Group 17B uses limited to maximum FAR of 3.40
- Maximum FAR and FAR for commercial, community facility and mixed buildings unchanged



# Development Parcel: Bulk Regulations – Building Envelope

- Minimum Distance Between Buildings
- Lot Coverage
- Height and Setback Controls

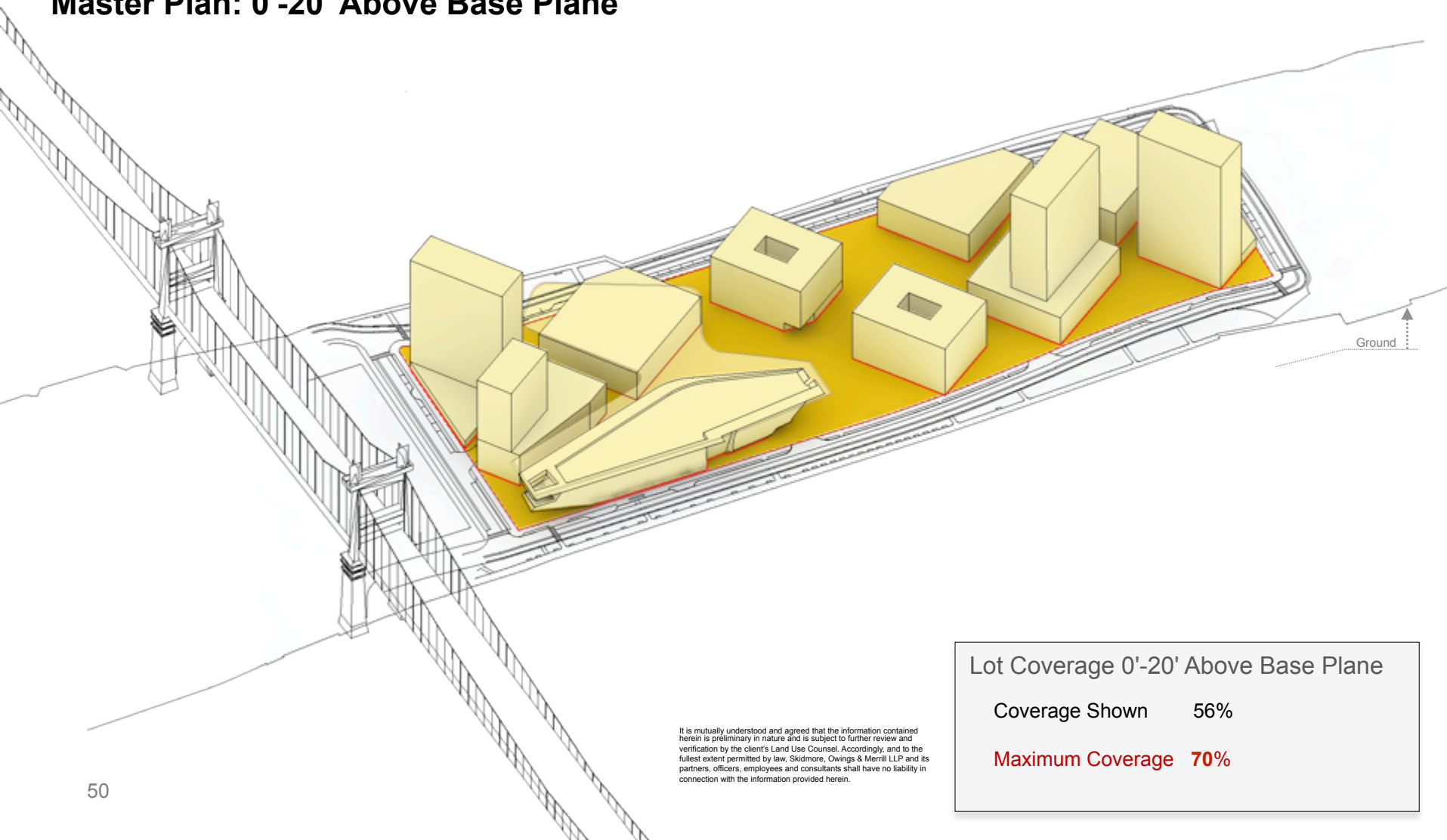
# Bulk Regulations – Lot Coverage

## ZR 133-22

- Max 70% lot coverage permitted between 0' and 20' above base plane
- Max 60% lot coverage permitted between 20'-60' above base plane
- Max 45% lot coverage permitted between 60' and 180' above base plane
- Max 25% lot coverage permitted above 180' above base plane
- Floor Plates of buildings above 180' above base plane limited to a maximum of 15,000 sf.

## Lot Coverage

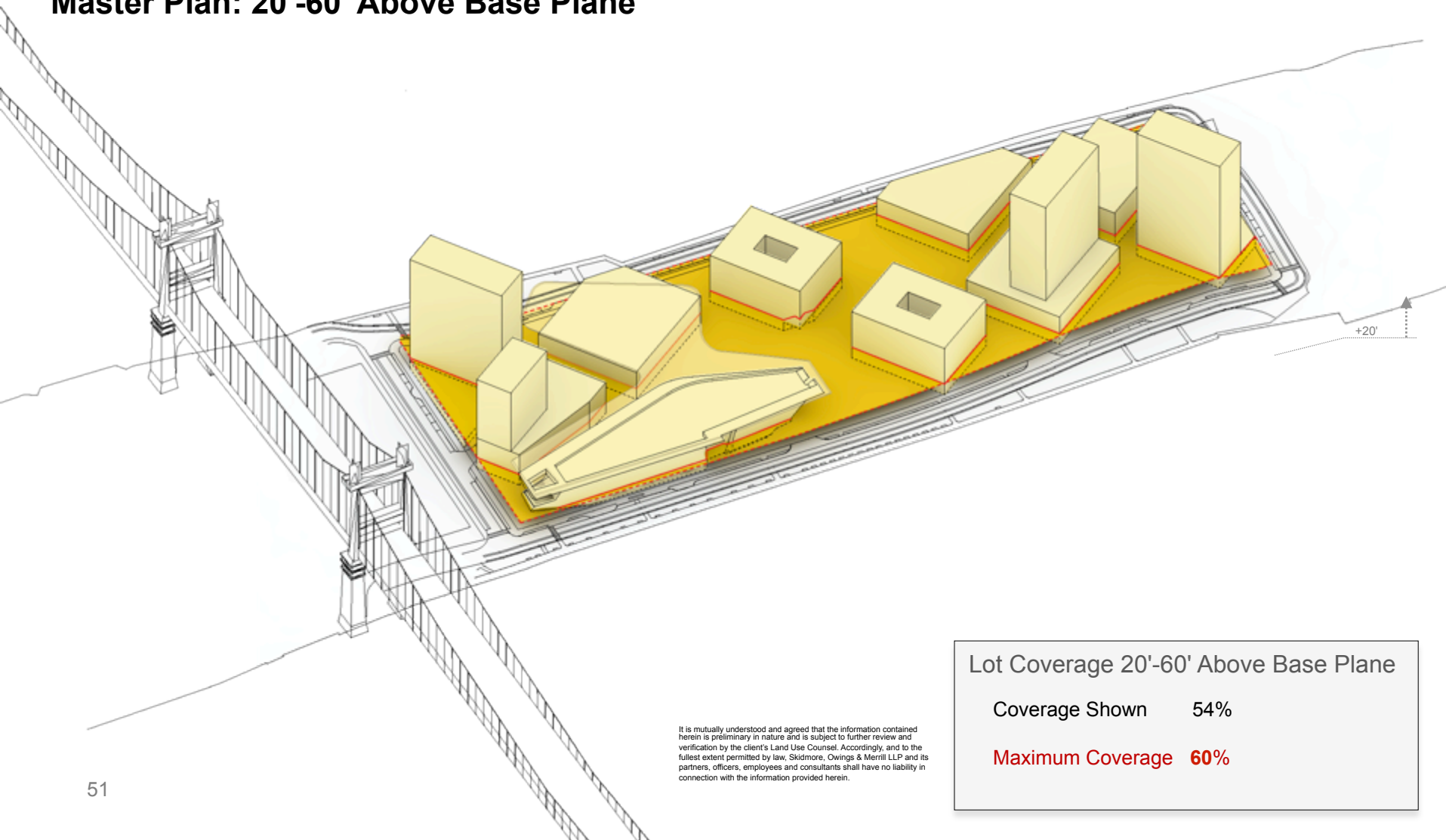
### Master Plan: 0'-20' Above Base Plane



50

## Lot Coverage

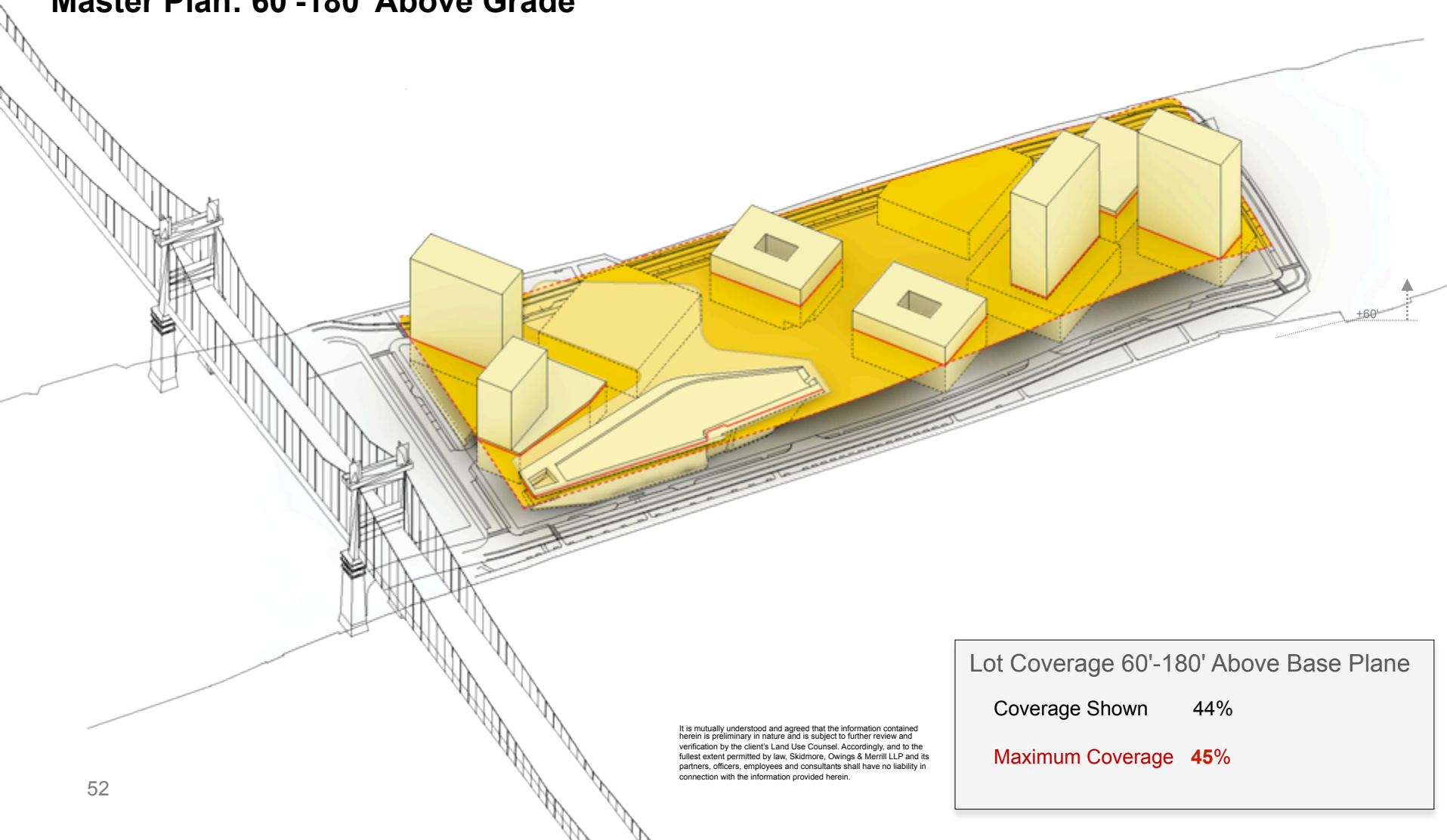
### Master Plan: 20'-60' Above Base Plane





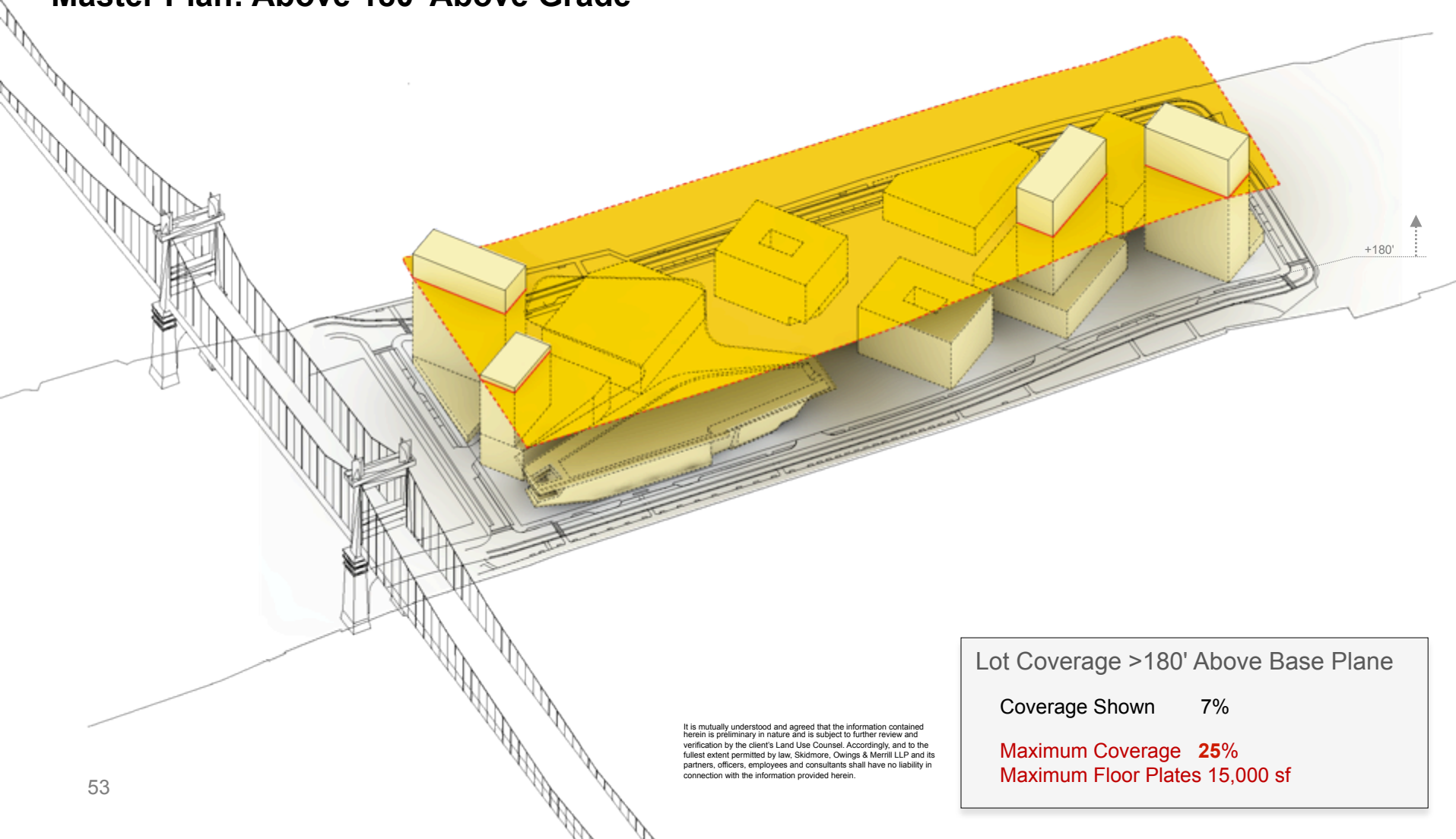
## Lot Coverage

### Master Plan: 60'-180' Above Grade



## Lot Coverage

### Master Plan: Above 180' Above Grade



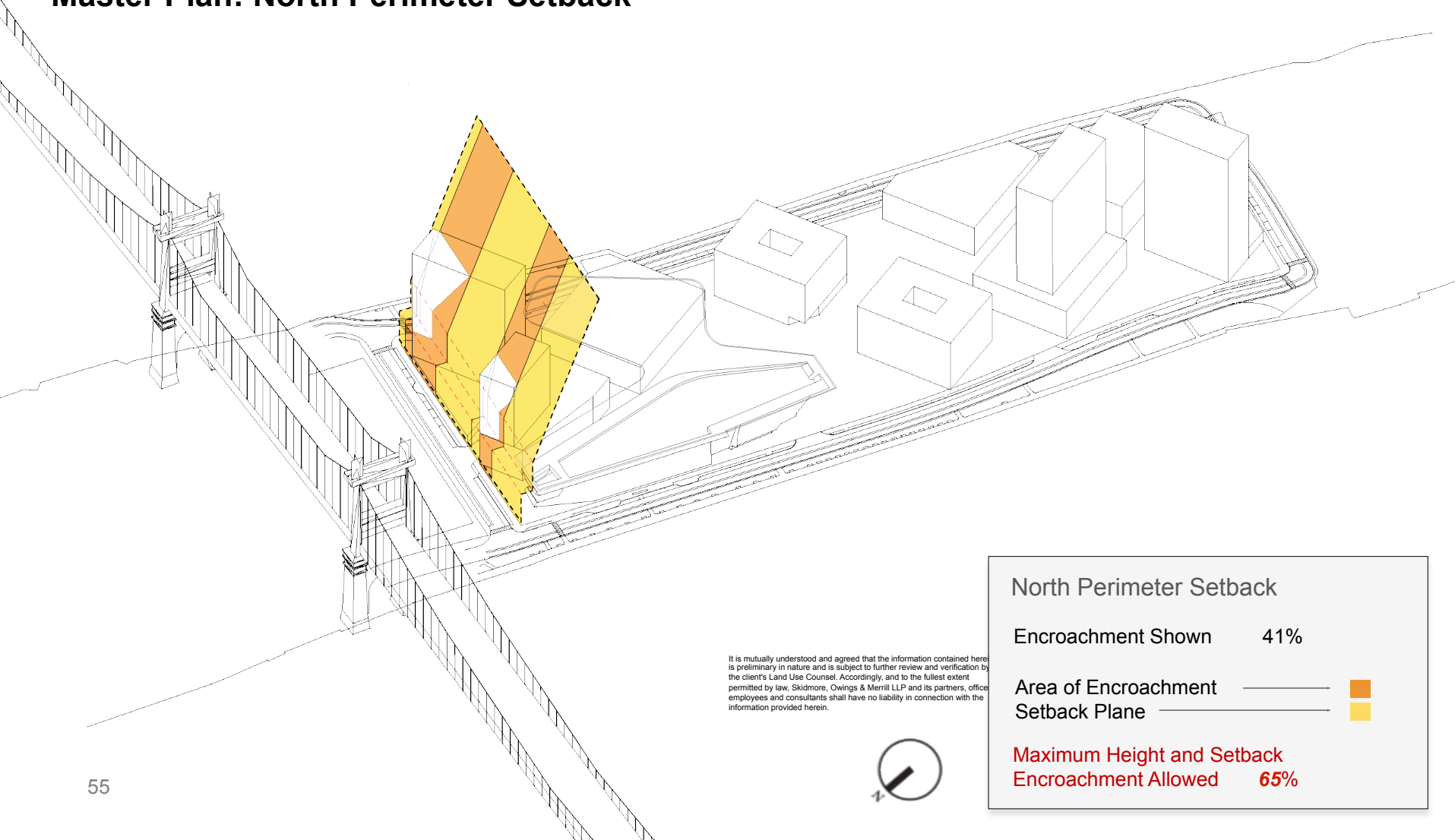
# Bulk Regulations – Height and Setback

## ZR 133-21

- Modifies underlying height and setback controls in part
- Allows for portions of the buildings to exceed sky exposure plane for 65% of northern and southern street frontages and 35% of eastern and western street frontages
- Caps maximum building heights in these areas to 320' within 500' of northern district boundary, and 280' for remainder of campus
- Solar and other energy systems allowed as permitted obstructions

# Height and Setback Controls

## Master Plan: North Perimeter Setback

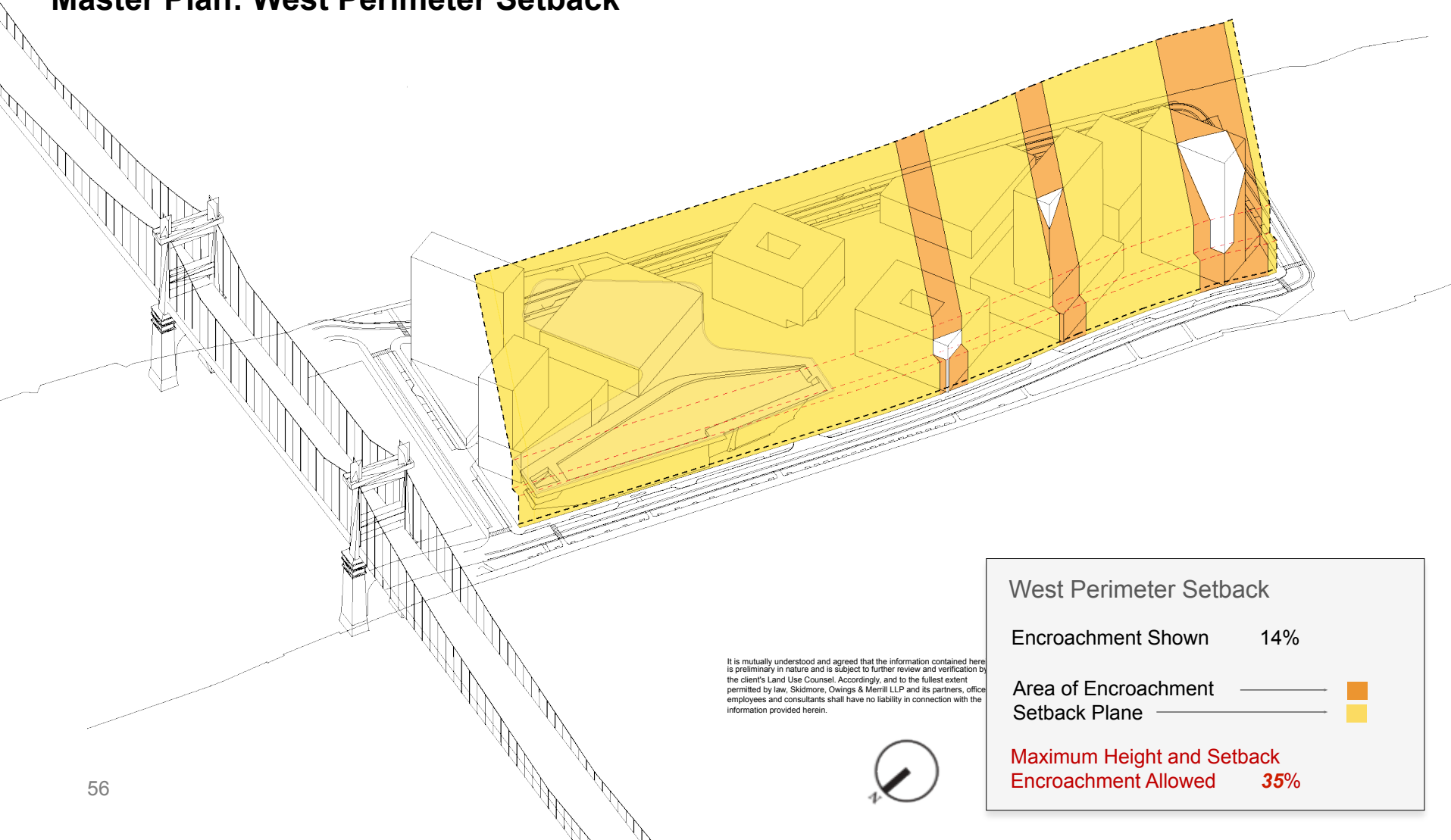


55



# Height and Setback Controls

## Master Plan: West Perimeter Setback



# Parking Regulations

## ZR 133-04

- Eliminates parking requirements of Article III, Chapter 6 (Accessory Off-Street Parking and Loading Regulations)
- Limits permitted accessory parking to a maximum of 500 spaces
- Maintains underlying bicycle parking requirements

# Public Access Areas

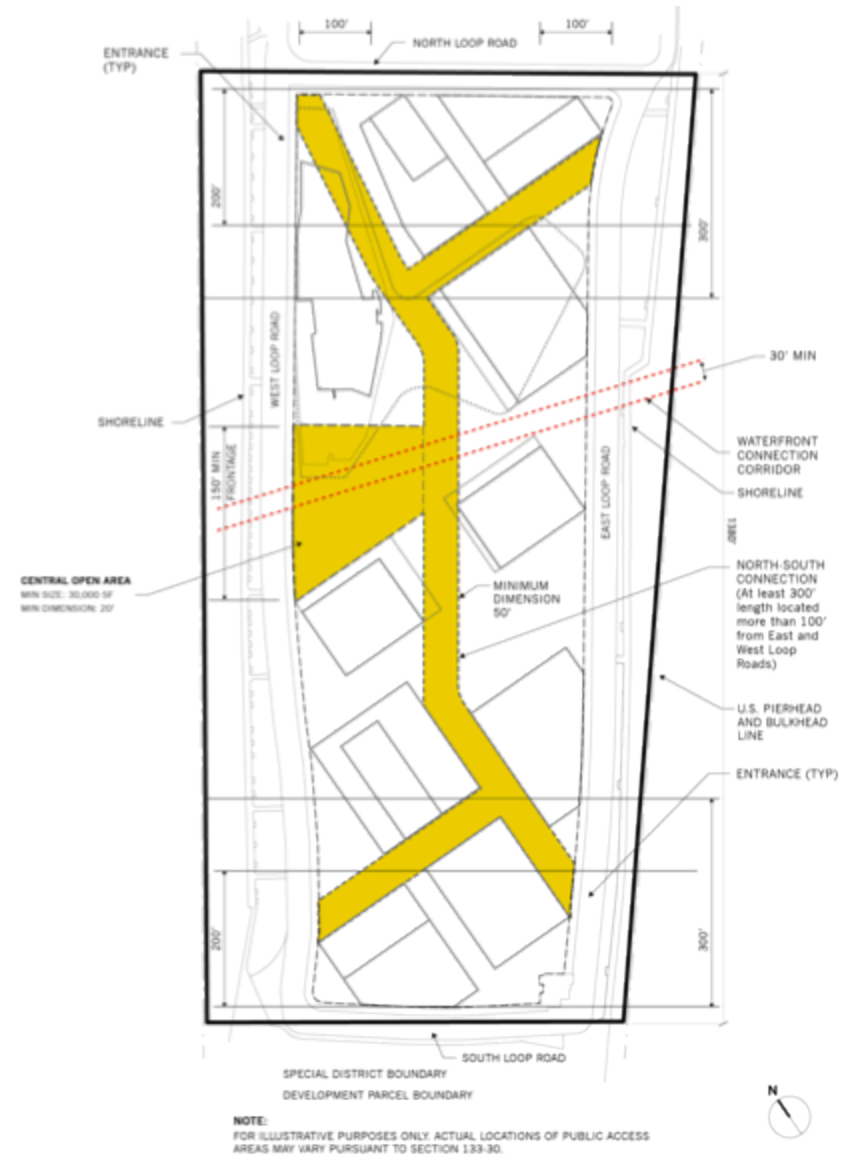
## ZR 133-30

- At least 20% of lot area of Development Parcel (approx. 2.5 acres) must be publicly accessible



# Public Access Areas

- Required public access areas:
  - Central Open Area
  - North-South Connection
  - Waterfront Connection Corridor
  - Supplemental Open Space Areas

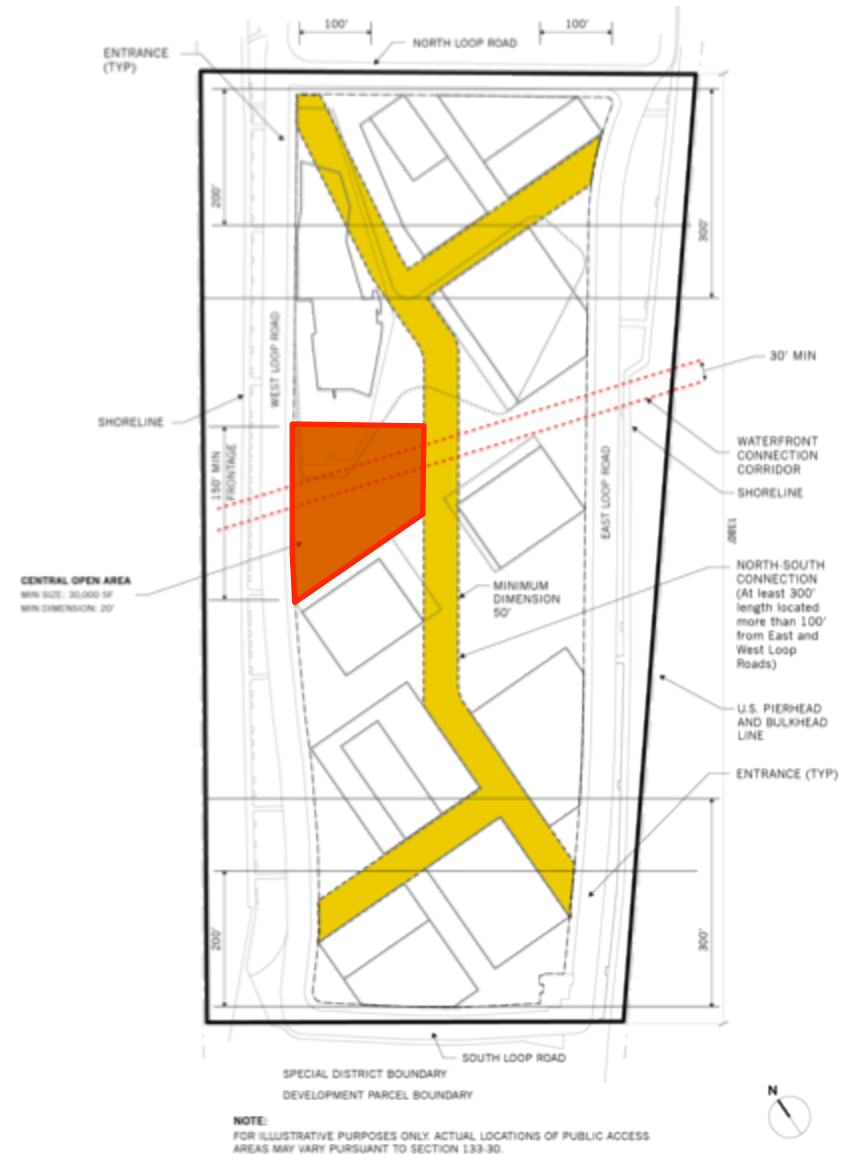




# Public Access Areas

## Central Open Area:

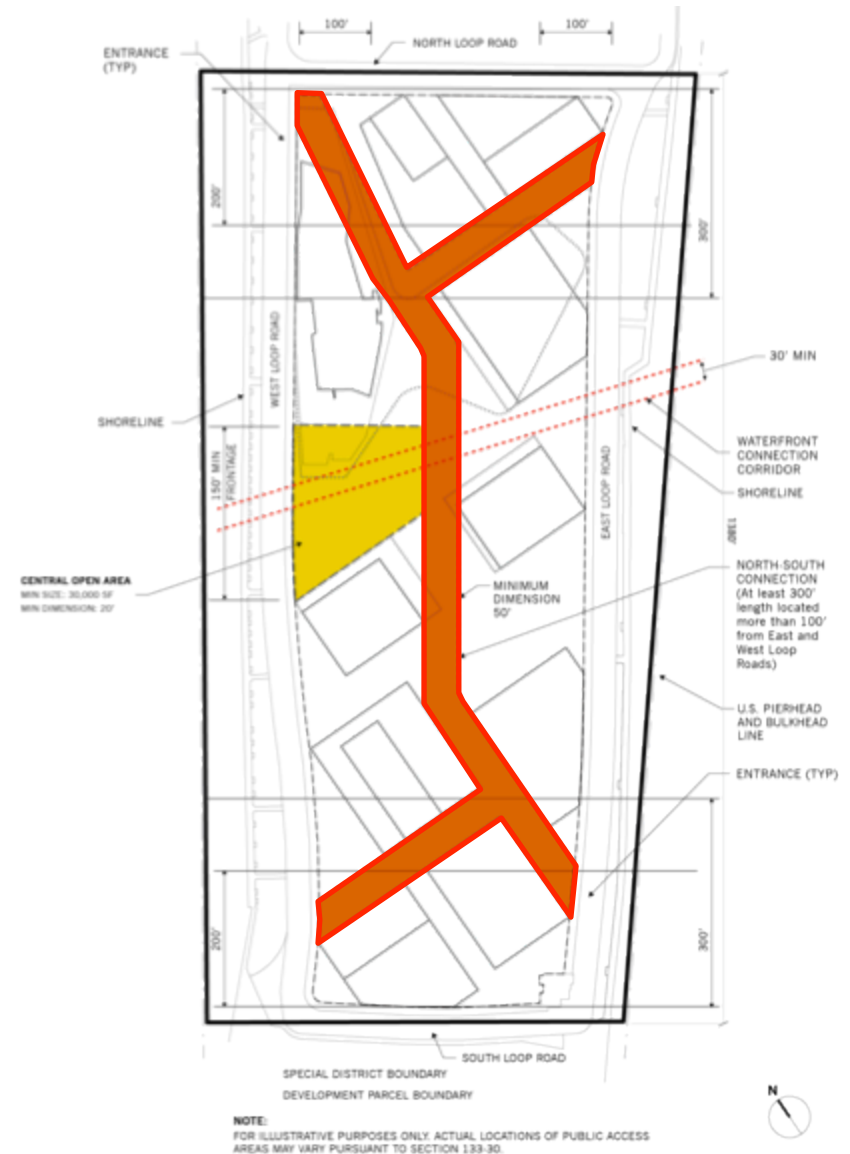
- Adjacent to West Loop Road (at least 150' of frontage)
- Minimum 30,000 sf
- Minimum 300' from northern and southern boundaries of Development Parcel
- Connection to North-South Connection
- Seating/Landscaping (30%) requirements



# Public Access Areas

## North-South Connection

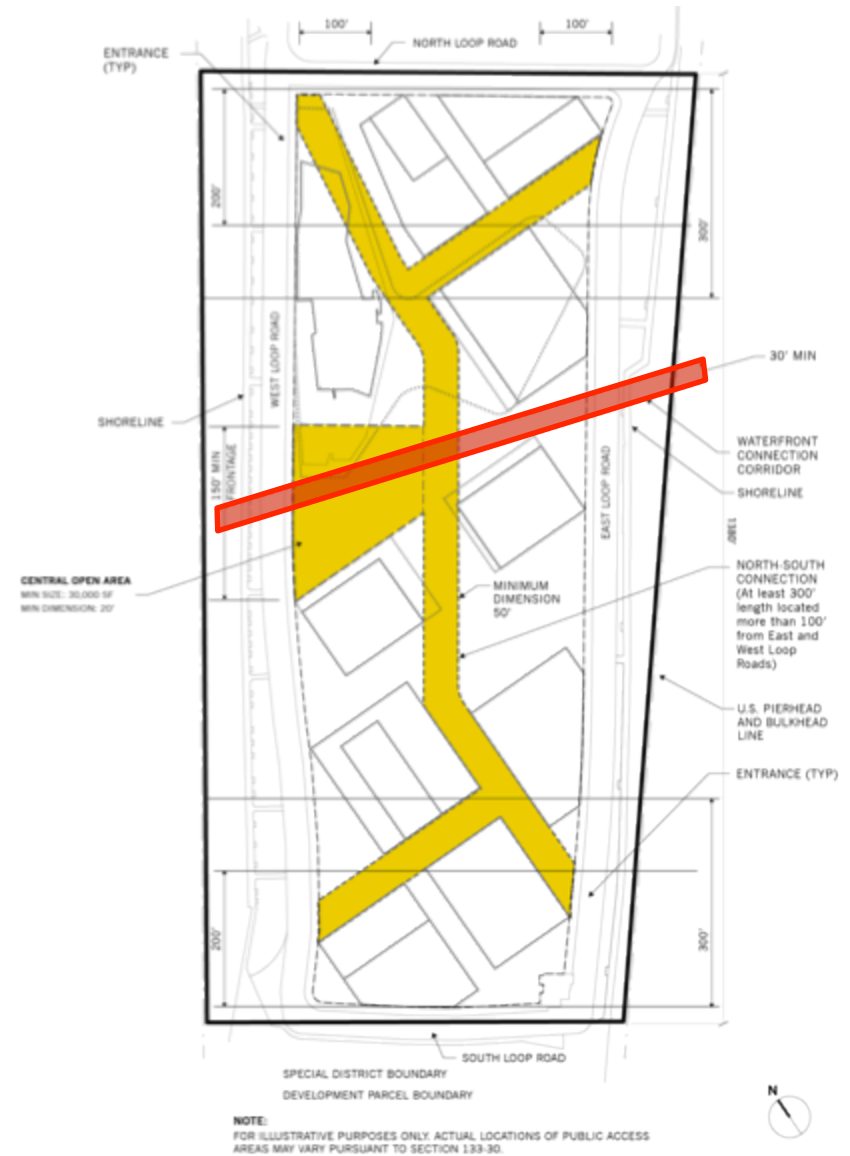
- Must begin and end within 200' of northern and southern boundaries of Development Parcel
- Minimum 50' width
- Minimum 12' clear path throughout
- Minimum 30' wide connection to East and West Loop Roads
- Landscaping and Seating requirements



# Public Access Areas

## Waterfront Connection Corridor:

- Located at least 300' from northern and southern boundaries of Development Parcel
- Minimum 30' width
- Minimum 12' clear path within required width





## Part IV: Zoning





# Public Access Areas/Phasing

## ZR 133-40, 133-50

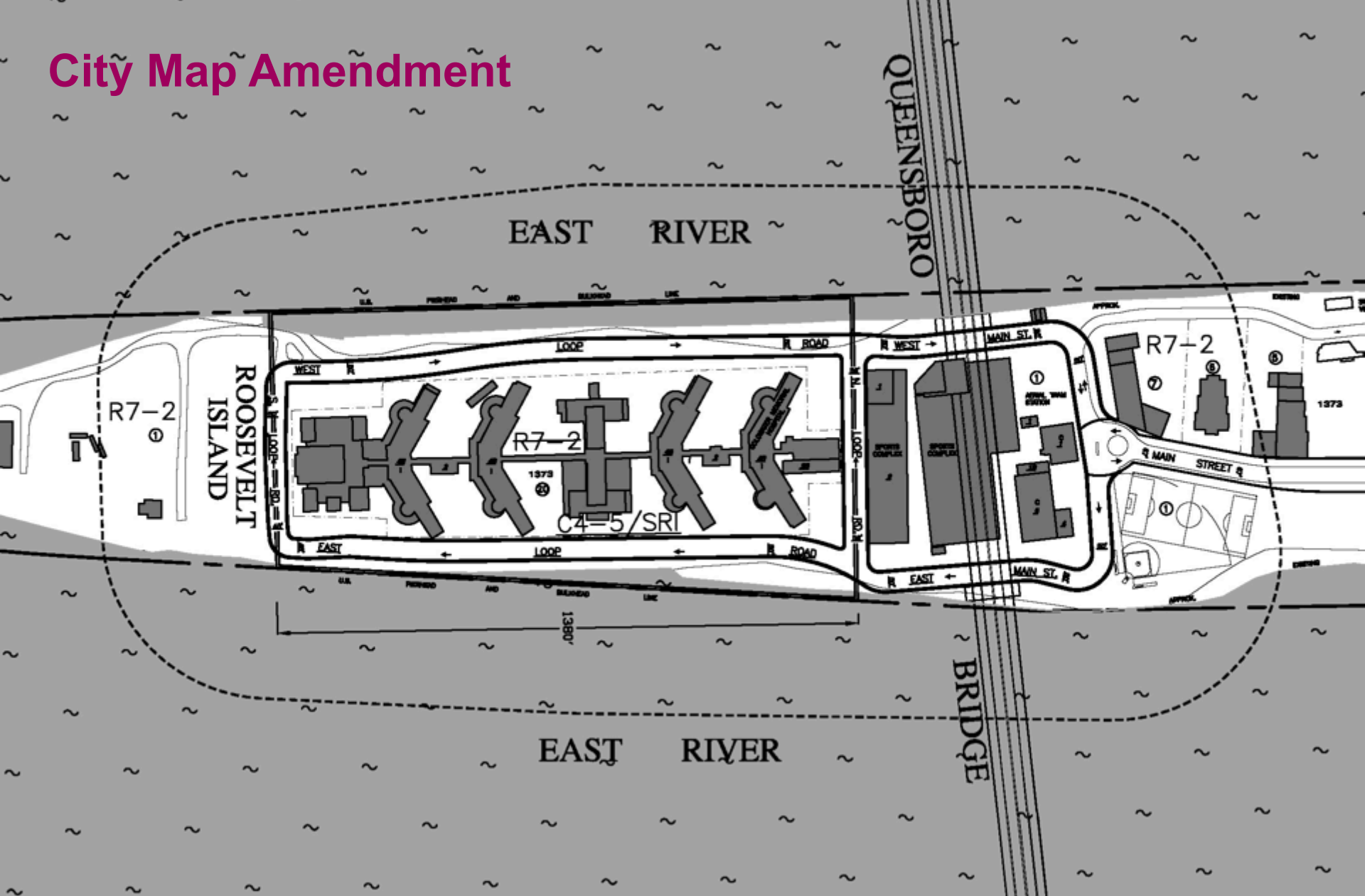
- Min 25,000 sf of public access area required before certificates of occupancy obtained for over 300,000 sf of floor area
- Min 40,000 sf of public access area (including Central Open Area) open to public required before CO obtained for over 500,000 sf of floor area
- Min 12,000 sf of public access area required for every 200,000 sf of development until 20% of lot area developed as public access area
- North-South Connection from North Loop Road to Central Open Area to be substantially complete before CO obtained for more than 750,000 sf of floor area
- Waterfront Connection Corridor to be substantially complete open to public before CO obtained for over 900,000 square feet of floor area
- All required open space to be substantially completed open to public before CO obtained for over 1,700,000 sf of floor area



# City Map Amendment



# City Map Amendment





# Disposition

- City to convey development parcel to a local development corporation
- Long term ground lease to Cornell
- An opportunity for future fee conveyance



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## Environmental Analysis

- In January of this year, Cornell began analysis of potential environmental impacts of Cornell NYC Tech project which will culminate in Final Environmental Impact Statement next spring
- Draft Environmental Impact Statement completed October 10th - Comprehensive study analyzed potential impacts in 20 different categories
- Cornell's team includes specialists in traffic and transportation, construction, civil engineering, energy and sustainability, historic preservation, architecture & urban design, and land use/zoning
- Team has held regular meetings with staff at multiple city agencies, including Depts. of Transportation, Environmental Protection, Landmarks, Parks, and City Planning, in addition to consultations with FDNY, RIOC, MTA and others

## **Draft Environmental Impact Statement: Major Takeaways**

**Open Space:** 20% of lot area will be publicly accessible open space, providing important amenity to community

**Economic Development:** Substantial increase in level and variety of economic activity without displacing current residents or businesses

**Transit:** No adverse impacts to F train or tram, some impacts on MTA and RIOC bus service which can be mitigated by increased service

**Traffic:** Impacts on some intersections in Queens during Phase I and additional intersections in Queens and Roosevelt Island at full build; most impacts can be mitigated

**Parking:** Limited on-site parking (500 spaces despite maximum allowed limit of 2,000)



## **Draft Environmental Impact Statement: Major Takeaways (continued)**

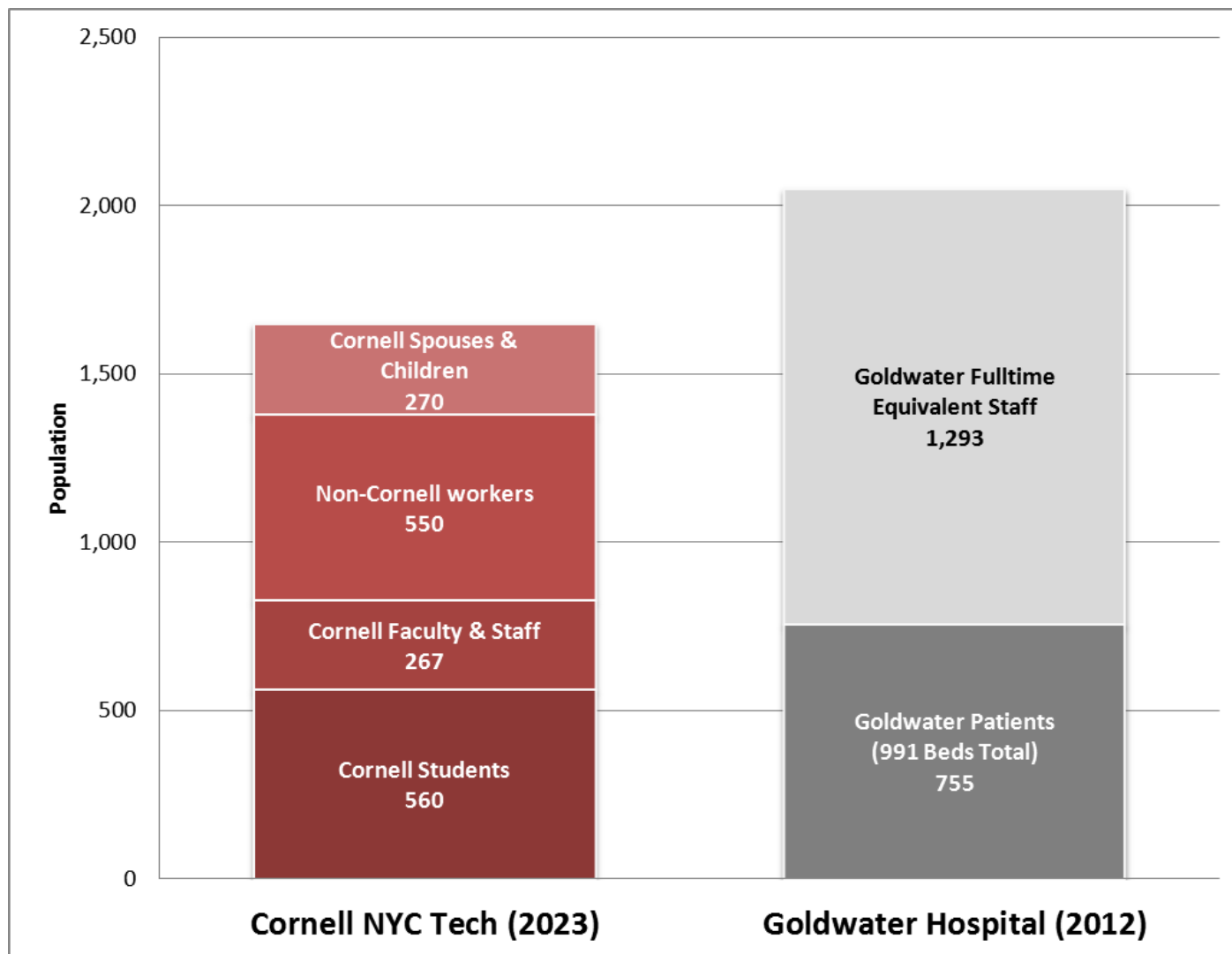
**Infrastructure:** Conditions improved by mapping and reconstructing loop road with wider travel way, bike lane, 15-foot sidewalks. No adverse impacts on waste water, storm water or sewage

**Construction:** Transportation and noise impacts, most can be mitigated

**Energy:** Project will incorporate several measures to achieve significant sustainable energy targets and is committed to minimum LEED Silver certification for all building

**Historic and Cultural Resources:** Cornell will preserve WPA murals currently in Goldwater Hospital

- As decision to decommission Goldwater predates Cornell's designation, DEIS analysis assumed a No Build scenario with a vacant Goldwater, despite population of patients and staff at facility now



## EIS Process

- Positive Declaration and Draft Scope of Work issued on April 18, 2012
- Scoping meeting held on May 22, 2012
- Comment period held open until June 8, 2012
- Final Scope of Work issued on October 5, 2012
- Draft EIS issued on October 10, 2012

## DEIS: Analysis Areas

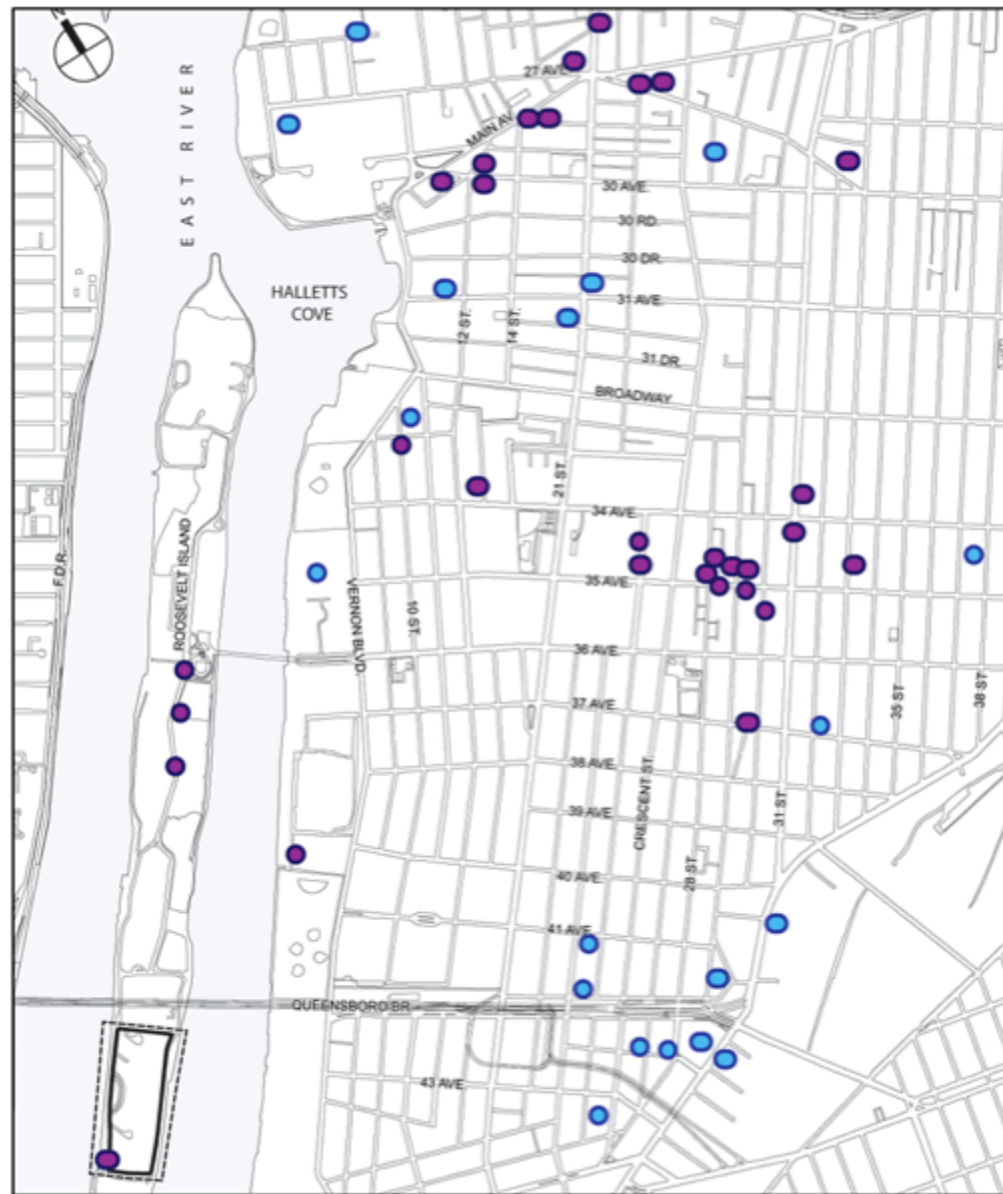
**The following impact categories consistent with the methodologies outlined in the *City Environmental Quality Review Technical Manual* (June 2012):**

- Land Use, Zoning, & Public Policy
- Socioeconomic Conditions
- Community Facilities & Services
- Open Space
- Shadows
- Historic & Cultural Resources
- Urban Design & Visual Resources
- Natural Resources
- Hazardous Materials
- Water & Sewer Infrastructure
- Solid Waste & Sanitation Services
- Energy
- Transportation
- Air Quality
- Greenhouse Gas Emissions
- Noise
- Public Health
- Neighborhood Character
- Construction Impacts
- Growth Inducement



## DEIS: Analysis Framework

- Existing Conditions
- Future without the Project (2018 and 2038)
  - Goldwater Hospital
  - Southtown and other developments
- Future with the Project (2018 and 2038)
  - RWCDS



## DEIS: Reasonable Worst-Case Development Scenario

### Phase 1 (Build Year 2018)

- Academic: 200,000 sf
- Residential (Faculty and Student Housing): 300,000 sf
- Corporate Co-location: 100,000 sf
- Executive Education Center: 170,000 sf
- Utility Plant: 20,000 sf
- **Total: 790,000 sf**

### Full Build (Build Year 2038)

- Academic: 620,000 sf
- Residential (Faculty and Student Housing): 800,000 sf
- Corporate Co-location: 500,000 sf
- Executive Education Center: 170,000 sf
- Utility Plant: 40,000 sf
- **Total: 2.13 million sf**

## **DEIS: Significant Adverse Impacts Identified**

### **Historic and Cultural Resources**

#### **Transportation**

- Traffic
- Transit
- Pedestrian Conditions

#### **Construction**

- Transportation
  - Traffic
  - Transit
  - Pedestrian Conditions
- Noise on Open Space

## DEIS: Historic and Cultural Resources

### Goldwater Hospital

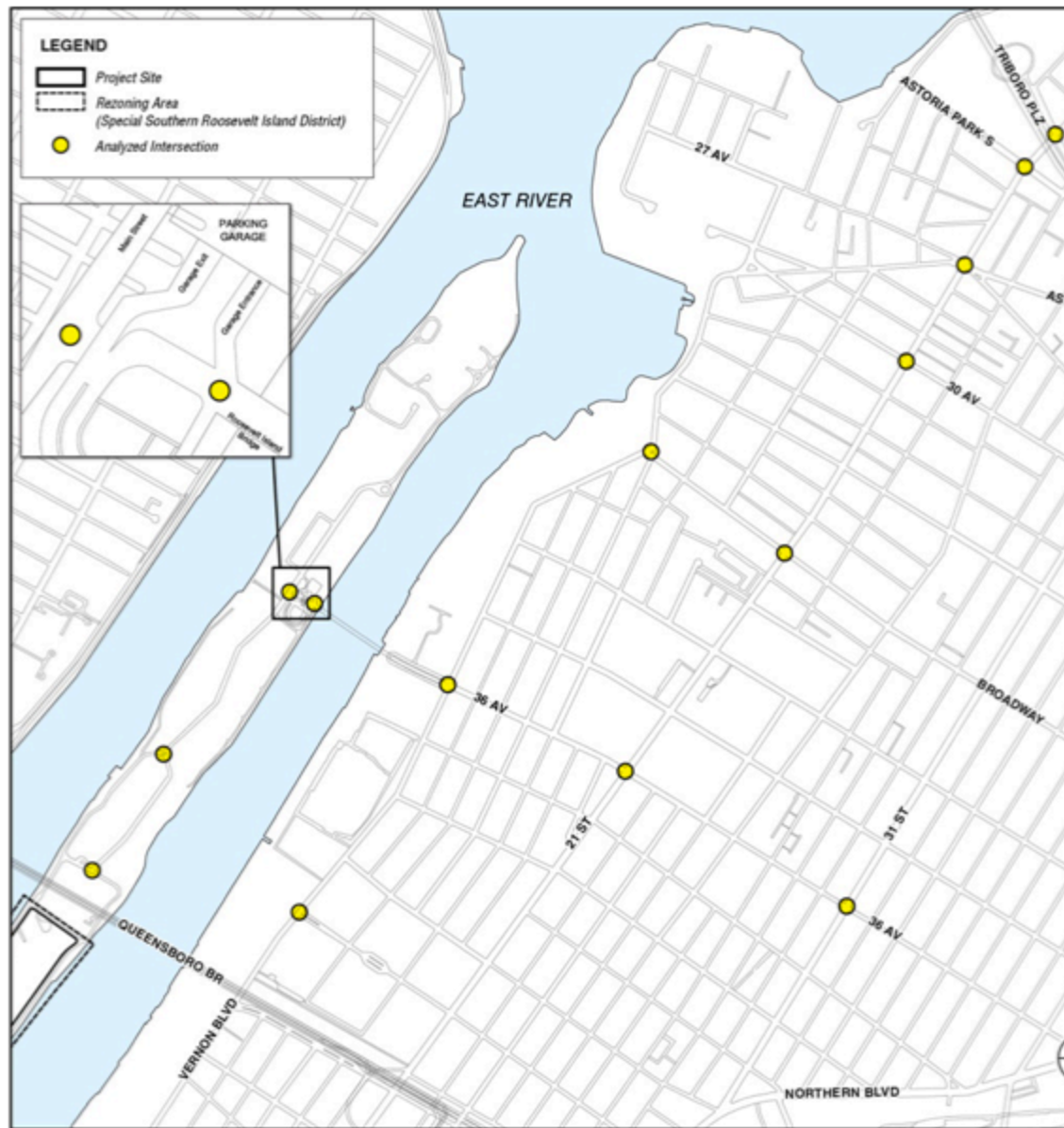
Cornell is working with LPC and SHPO to develop mitigation measures, which will include preservation of WPA murals





## DEIS: Traffic Analysis Locations

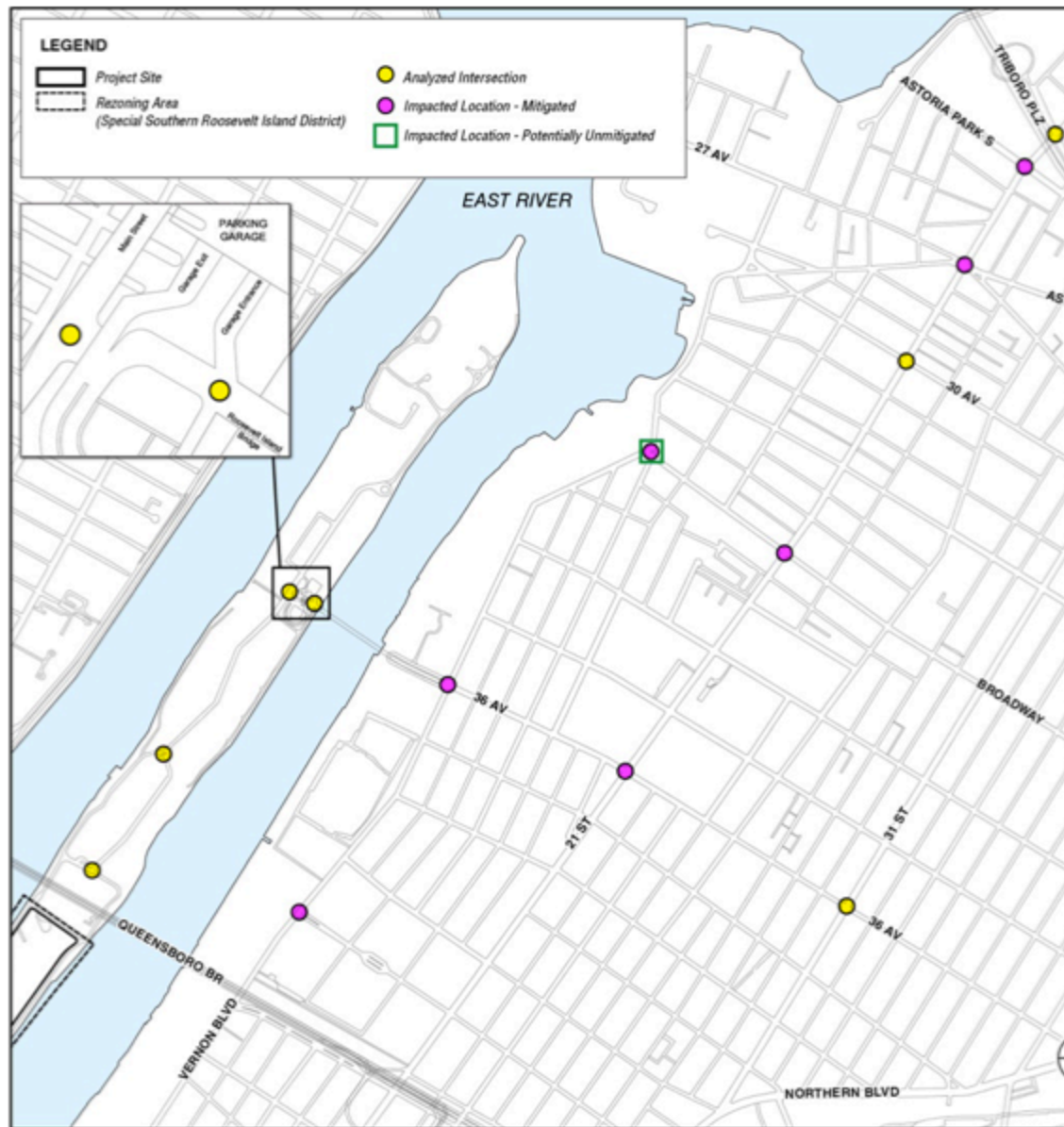
DEIS analyzed traffic conditions at a total of 14 intersections—4 on Roosevelt Island and 10 in western Queens



## DEIS: Traffic Analysis Conclusions

### Phase 1:

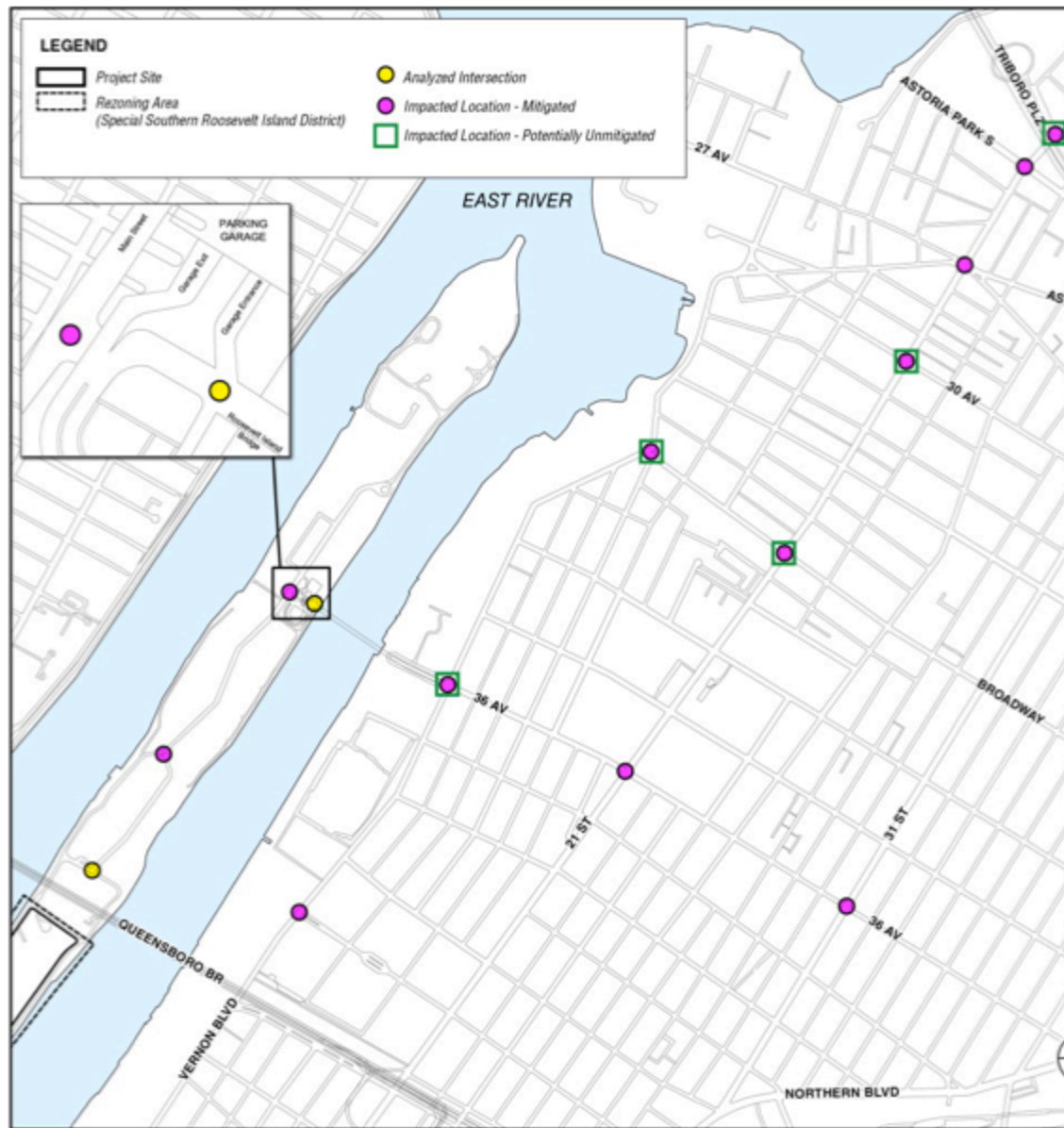
- 7 intersections forecast to experience impacts
- Mitigation measures identified for 6 intersections
- Cornell and DOT working to identify mitigation measures at 1 intersection



## DEIS: Traffic Analysis Conclusions

### Full Build:

- 12 intersections forecast to experience impacts
- Mitigation measures identified for 7 intersections
- Cornell and DOT working to identify mitigation measures at other 5 intersections





## DEIS: Transit Analysis Locations and Conclusions

### F-train subway

- No impacts

### Roosevelt Island Tram

- No impacts

### Q102 MTA bus service

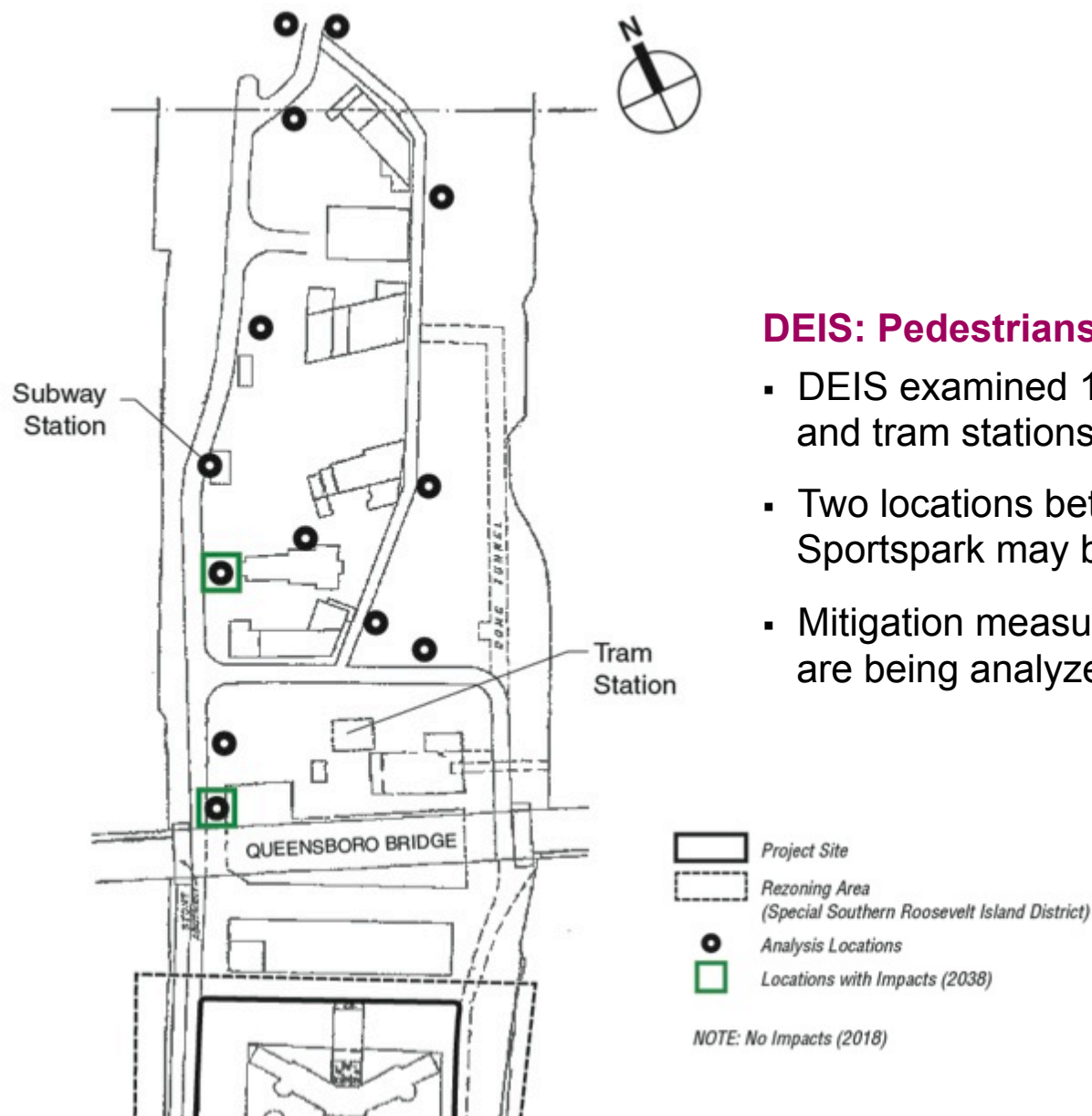
- PM impacts in 2018
- AM & PM impacts in 2038
- Mitigation measures subject to MTA operational and fiscal constraints

### RIOC Red Bus

- No impacts in 2018
- AM & PM impacts in 2038
- Mitigation would be an increase in service frequencies during impacted time periods







## DEIS: Pedestrians Analysis & Conclusions

- DEIS examined 13 locations near subway and tram stations
- Two locations between subway station and Sportspark may be impacted at Full Build
- Mitigation measures have been identified and are being analyzed with DOT and RIOC

## **DEIS: Construction Analysis**

### **Analysis Areas**

- Transportation
- Air Quality
- Noise
- Historic and Cultural Resources
- Hazardous Materials
- Natural Resources
- Open Space
- Socioeconomic Conditions
- Community Facilities
- Land Use and Neighborhood Character

### **Impacts**

- Transportation
  - Traffic
  - Transit
  - Pedestrian Conditions
- Noise on Open Spaces

**Draft EIS available online:**

**New York City Mayor's Office of Environmental Coordination website:**

<http://www.nyc.gov/oec>

**New York City Economic Development Corporation website:**

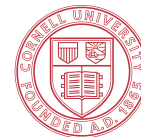
<http://www.nycedc.com/project/applied-sciences-nyc>

# CORNELL NYCTECH

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Home of the

**TECHNION-CORNELL**  
INNOVATION INSTITUTE



Cornell University



An aerial photograph of New York City, showing the dense skyline of Manhattan in the background. In the foreground, the East River is visible, with Roosevelt Island in the center. The island features several modern, glass-walled buildings and green spaces. The Queensboro Bridge is visible on the right side of the image, spanning the river. The text "Email us at [cornellnyc@cornell.edu](mailto:cornellnyc@cornell.edu)" is overlaid in a bold, purple font across the middle of the image.

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**Part III: Cornell Tech on Roosevelt Island**

## Phase I: Site Plan

