

Center East Applied Life Sciences Hub

New York Blood Center

March 2021

Robert Purvis ...

CENTEREAST Applied Life Sciences Hub

for allowing us to present tonight, go through a little

zoom



Right, So, the New York but centers proposed redevelopment

New York Blood Center Local Partners

is

zoom

NYBC must remain at the Center East location

The success of NYBC to-date has been due in large part to its pivotal location and research collaborations

- Located at current site since 1964
- Enables relationships with academic, medical, research institutions
- Facilitates travel between NYBC and adjacent institutions:
 - Lab staff and researchers
 - Clinicians and faculty
- Supports every day medical and scientific interactions
- Fuels collaborations
- Expedites scientific discoveries
- Attracts and fosters start-ups through East Side Biotech Accelerator program

center East location is Critical to the New York Blood
Center

Center East Location Critical to NYBC

Robert Purvis ...

zoom

NYBC's East Side Biotech Accelerator program supports growth-stage companies that will cure the diseases of today and tomorrow

Robert Purvis ...

Ongoing collaborations are essential to NYBC

- Academic organizations and life science companies
- Foremost generator of startups in New York
- Unique capability to grow companies in gene therapy from seed to scale.
- Innovative research in hematology, blood banking, transfusion medicine and cellular therapies

10-15 companies in the existing NYBC facility are researching thousands of blood-related diseases

- HIV vaccines: Large-scale clinical trials by Project Achieve
- Sickle cell research: as it relates to transfusions
- Infectious disease research: to cure Lyme disease
- Cancer treatments: pre-clinical funding and clinical trials
- Kidney disease: clinical research for new treatments
- New medical devices



RGENIX



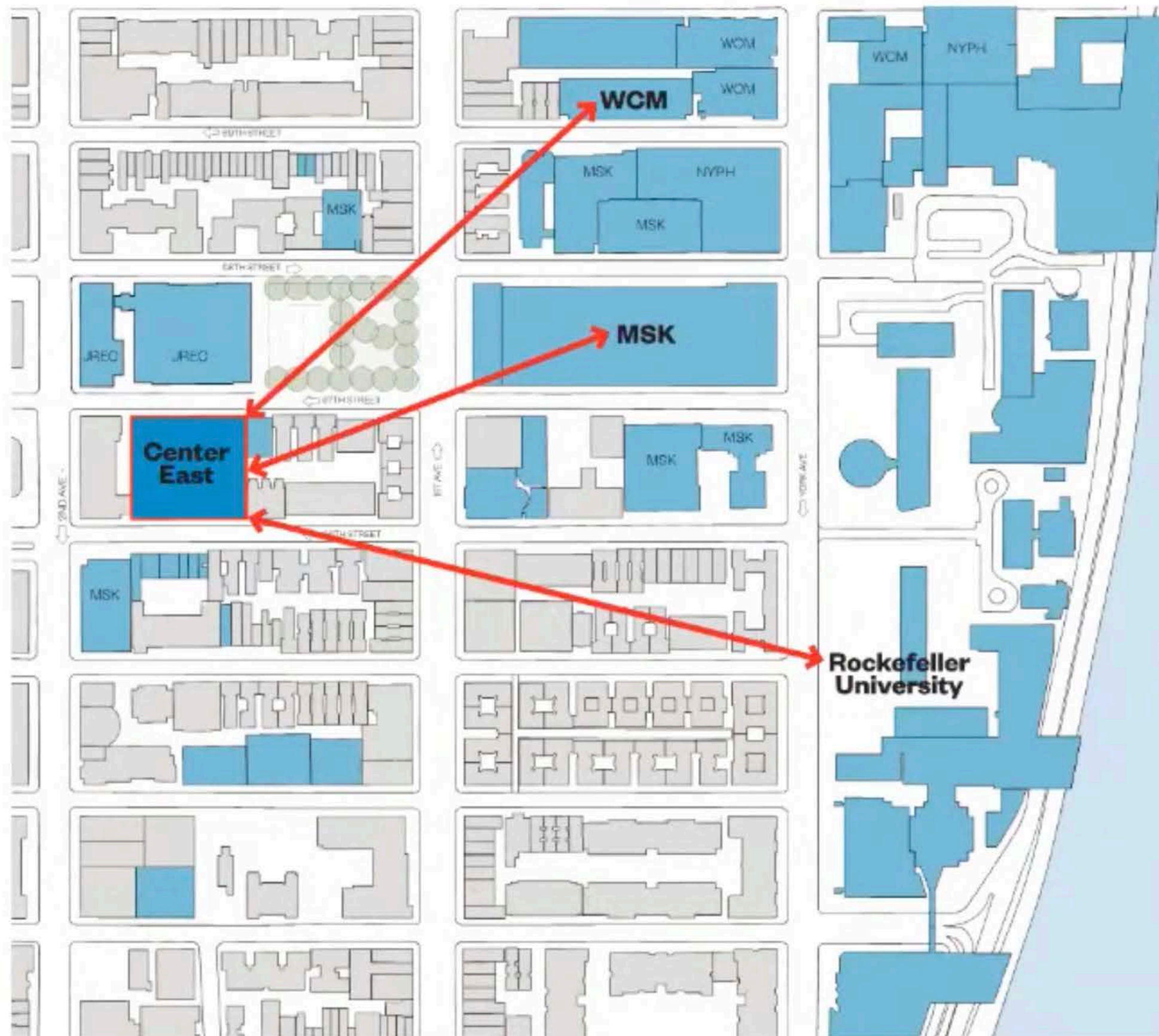
Proximity speeds research discoveries into commercial applications and patient treatments

Elizabeth Ash...



Applied R+D Pipeline So this is a Picture of the applied research and Collaborations Accelerate New Treatments

zoom



Collaborative Studies with Corne

- Understanding the disease biology of p disorders; **+10 years**
- Improving transfusion management for patients with Thalassemia; **+5 years**
- Translational studies on blood donor characteristics and improving cellular therapies; **+2 years**
- NIH funded blood safety surveillance and optimization of transfusion practices; **+3 years**

Collaborative Studies with MSK

- Development of stem cell mobilization drug for patients with sickle cell disease; **+8 years**
- Multiple cord blood transplantation studies which established safety and efficacy; **+20 years**
- Development of novel T-cell therapies through use of iPSCs derived from cord blood; **+3 years**

Collaborative Studies with Rockefeller

- Basic biology of blood cell development resulting in discovery of novel genetic regulators; **+3 years**
- Serological characterization of antibodies in convalescence plasma from COVID19 patients; **<1 year**
- Characterization of sickle cell disease model resulting in treatment discoveries; **+10 years**

Elizabeth Ash...

Why this Site? Maintaining Ongoing Scientific Collaboration

Jason Institutions and continue to build on these related.

Institutional and
Ordnance Facility
Buildings

zoom

Accelerating Research Progress

"In a current NYBC partnership with MSKCC's stem cell engineering lab, it took only one month of meetings (some impromptu) and an iterative series of experiments at our respective locations to reach the same milestone of progress that took a full year to achieve with NYBC's German partner for the same technology."

- Center for Cell Engineering, Memorial Sloan Kettering

Time-sensitive Research

"For our ongoing patient related studies, certain experiments are time sensitive and it makes such a difference if we/they can walk over and pick-up/drop-off the specimen than cabbing it. When it comes to patient studies, many, many times over we have had last minute/off the schedule calls that a sample is ready for pickup and we have rushed over. Getting into a cab there and back could potentially compromise some studies."

- Hematology and Medical Oncology, Weill Cornell Medicine

Research Can Flourish

"The investigators' laboratories being as close as they are allows this research to flourish, and they would come to a standstill if the Center moves, since we would not be able to get critical patient samples to them in a timely manner - many of these must be processed immediately."

- Laboratory of Virology and Infectious Disease, Rockefeller University

Sharing Scientific Information

"I think I may have gone to one seminar in 5 years at NYU or Mount Sinai but I have been to tons at Cornell/MSK/Rockefeller. Also, people from neighboring institutes come to our seminars but hardly ever anyone comes from NYU (... a cab ride/subway ride away). The reason is simply because of distance."

- Laboratory of Vascular Biology, Rockefeller University

Facilitating Impromptu Interaction

"I can safely say that being in walking distance is more conducive for interactions than if they/we are cab ride away. So many times, we (our postdocs/techs as well as PIs) have popped over to their offices or they have come over to us for scientific impromptu discussions of our projects-these are incredibly valuable and I can say probably sometime more exchange of ideas happens this way not having pre-scheduled meetings or having a phone call."

- Laboratory of Retrovirology, Rockefeller University

NYBC Location Proximity to the Life Science Ecosystem

I can just share a couple of quotes with you. Excel

Robert Purvis ...

New York Blood Center has partnered with **Longfellow** to develop Center East, a new research center that will serve as the heart of NYC's research institutions.

Center East will be the catalyst for a new biotech and life sciences ecosystem

Centrally located at the center of **NYC's premier institutions**

Anchored by NYBC as the building's primary occupant

Space for **startups, graduate** companies and **mature** biotechs

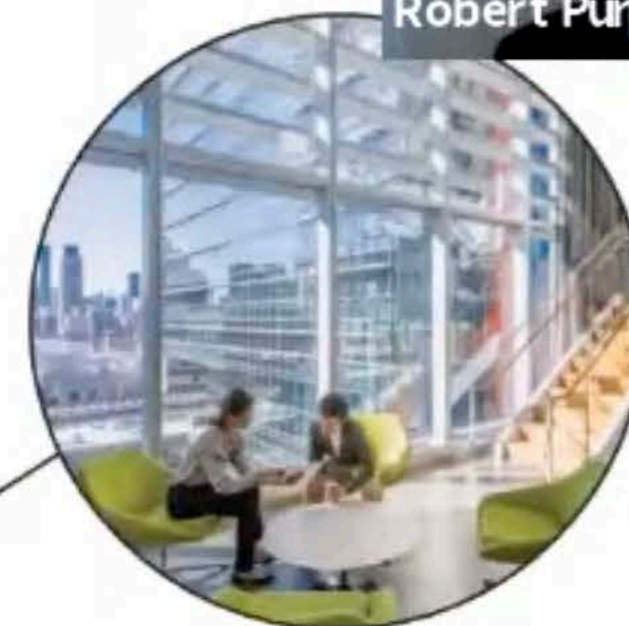
Hub for growth, mentorship, **collaboration** and community

Programming to **bring together** NYBC with life science partners

Mission: help **keep life science entrepreneurs in NYC** while furthering life saving research, drug commercialization and building a better life science community



Science



Collaboration



City

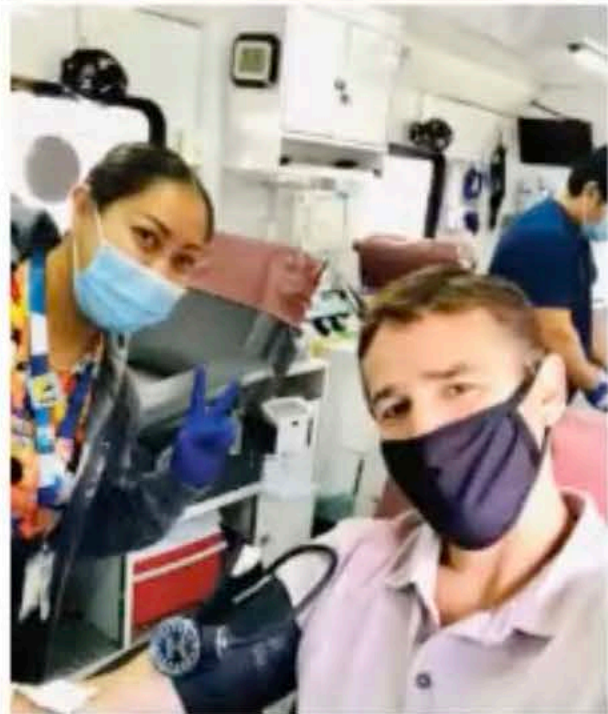
Robert Purvis ...

The New Center East We need to replace, and modernize our facilities, expand
A Catalyst for the Life Sciences

zoom

Longfellow: A Mission Driven Developer of Life Science Facilities

Jamie Peschel...



- Longfellow's portfolio includes **8 million SF** of laboratory and technology space to serve the unique demands of **science and technology companies**
- NYBC and Longfellow have formed a partnership based on a shared dedication to **foster ongoing medical breakthroughs** and a **joint commitment to excellence**
- Center East represents the physical embodiment of Longfellow and NYBC's **shared vision and core values**



LONGFELLOW



New York Blood Center Michelle and Co founder and senior partner of longfellow and

zoom

Academic Research Requirements: BSL-3

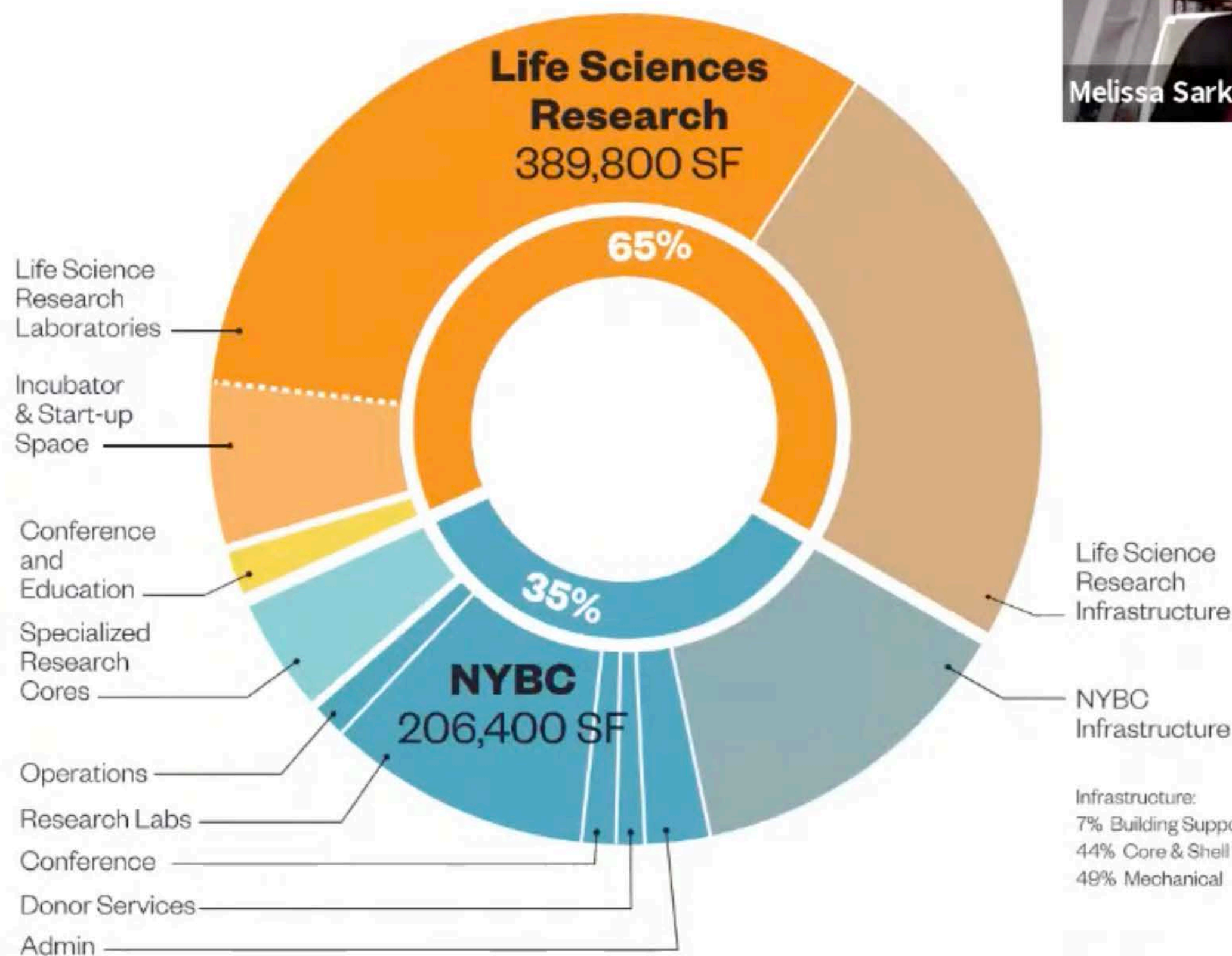
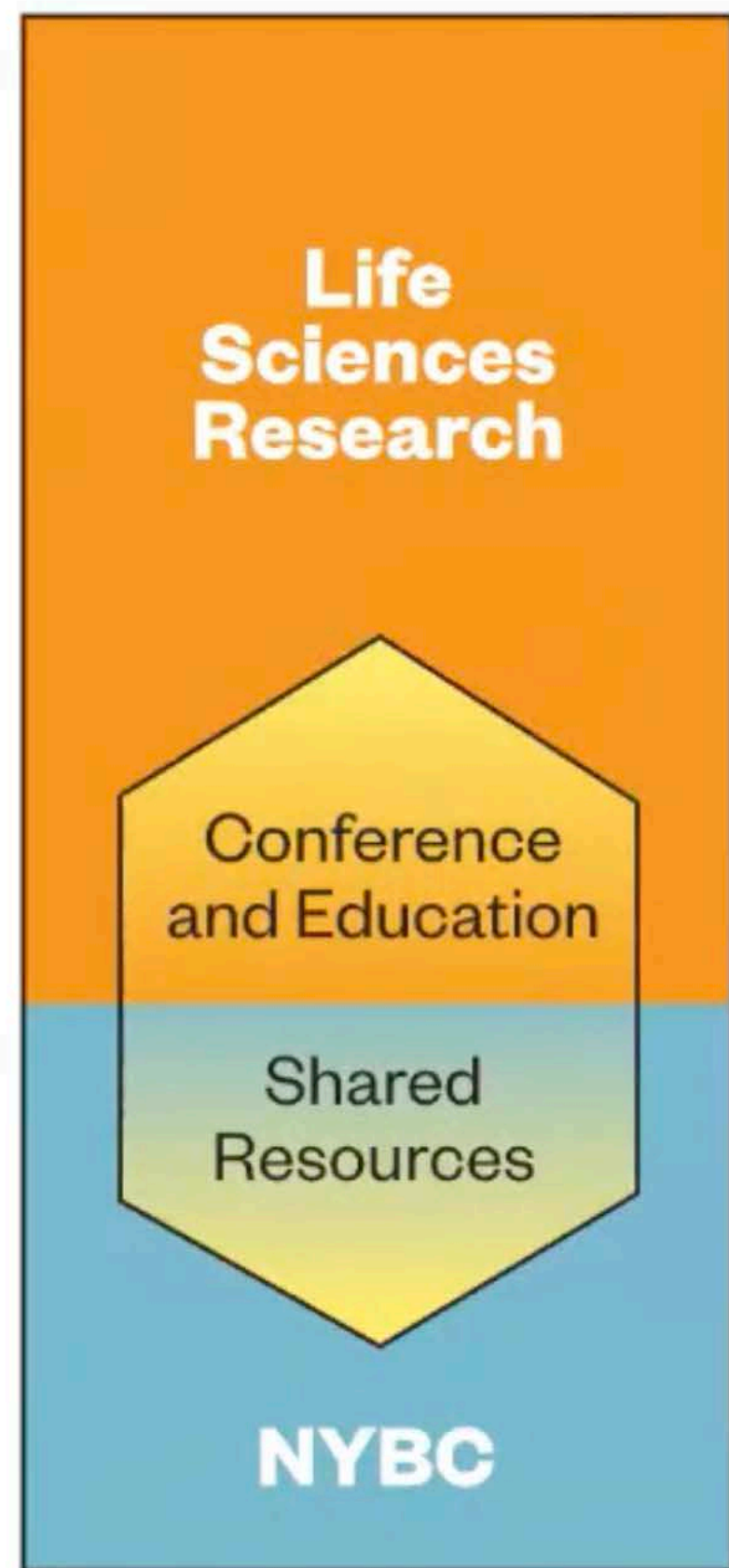
- NYBC has operated 1-2 BSL-3 Labs in their **existing facility without incident since the 1980s**
- The BSL-3 Labs have been used in researching the **diagnosis and treatment of Hepatitis B, Hepatitis C and HIV**
- NYBC Laboratories are **heavily regulated**; BSL-3 Labs must be registered with NYC DOH and comply with CDC/NIH specifications for design and use
- These facilities are **typical for Academic Research Institutions** and are in use at other NYC locations, including neighboring institutions
- Center East will include a **replacement** of NYBC's **currently permitted BSL-3 labs**
- Longfellow currently has no BSL-3 labs across its 8 million SF portfolio and **does not plan to develop any BSL-3 Labs at Center East for commercial use**

Center East Functional Program

And so with that, I'd like to turn it over to betsy to

Jamie Peschel...

zoom



Melissa Sarko ...

Center East Functional Program

I'm Melissa soko with any at architects and I'm going to

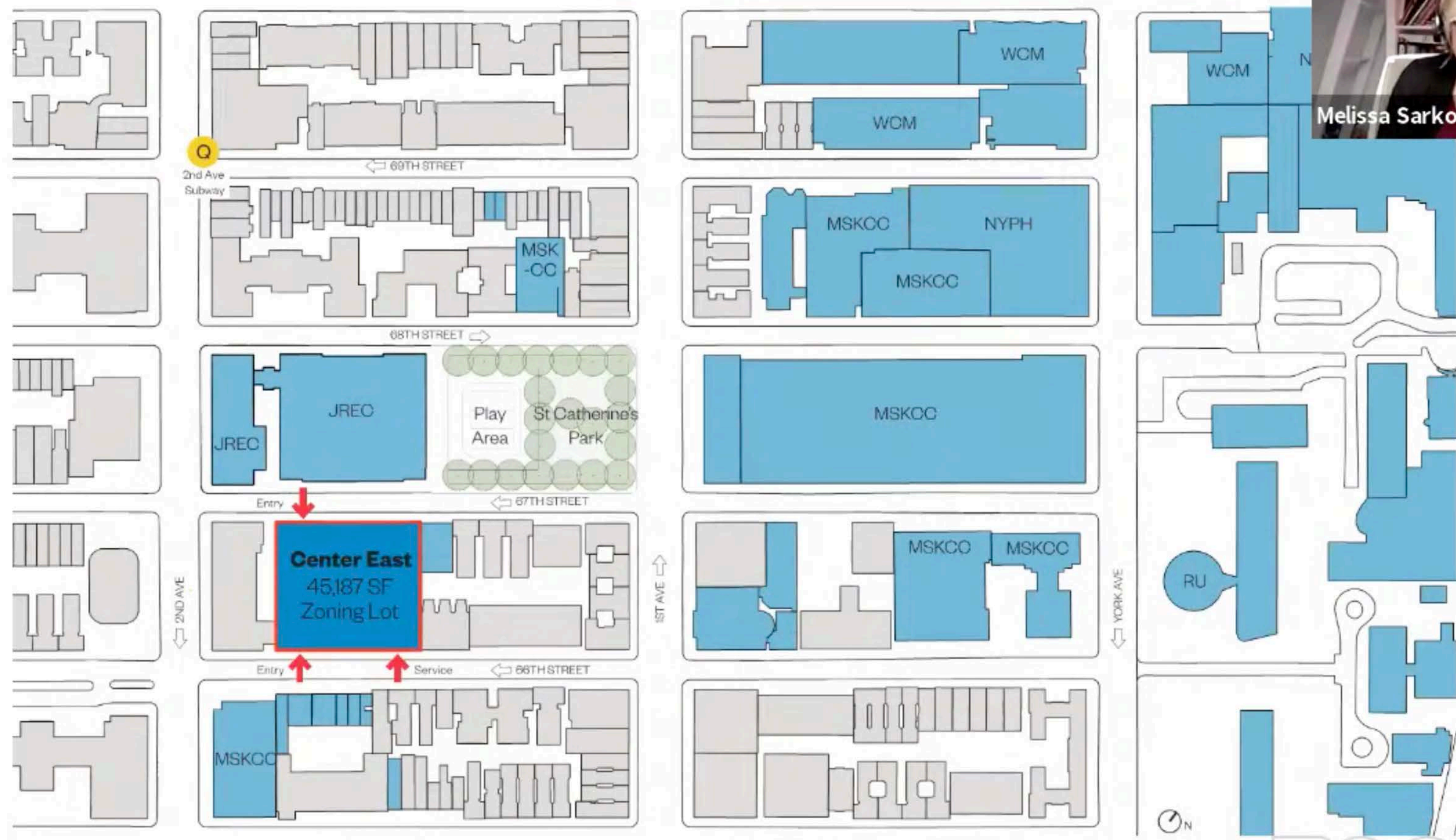
596,200 GSF

40,000 ZFA

zoom



Melissa Sarko ...

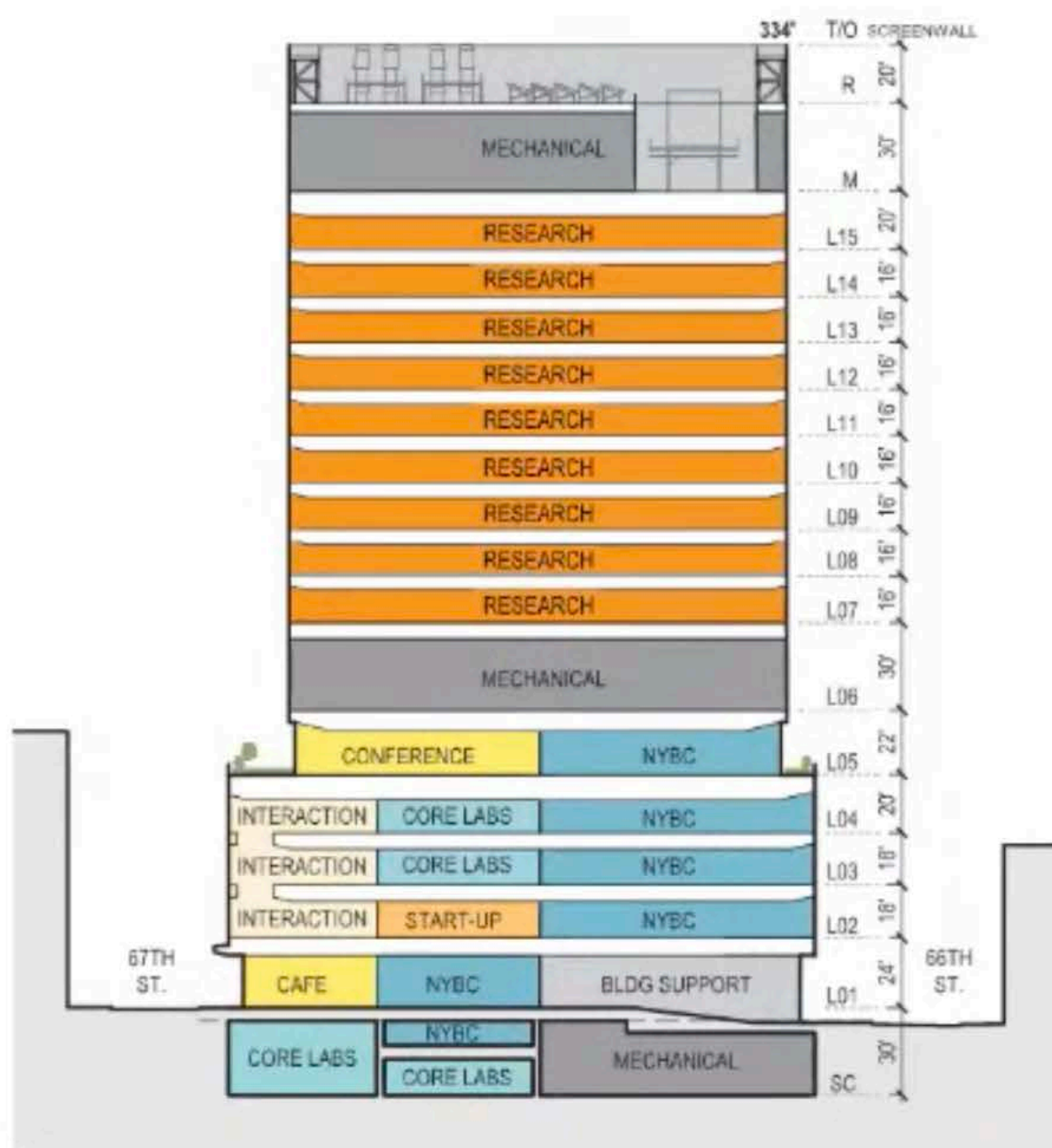


Neighborhood Context Site Plan

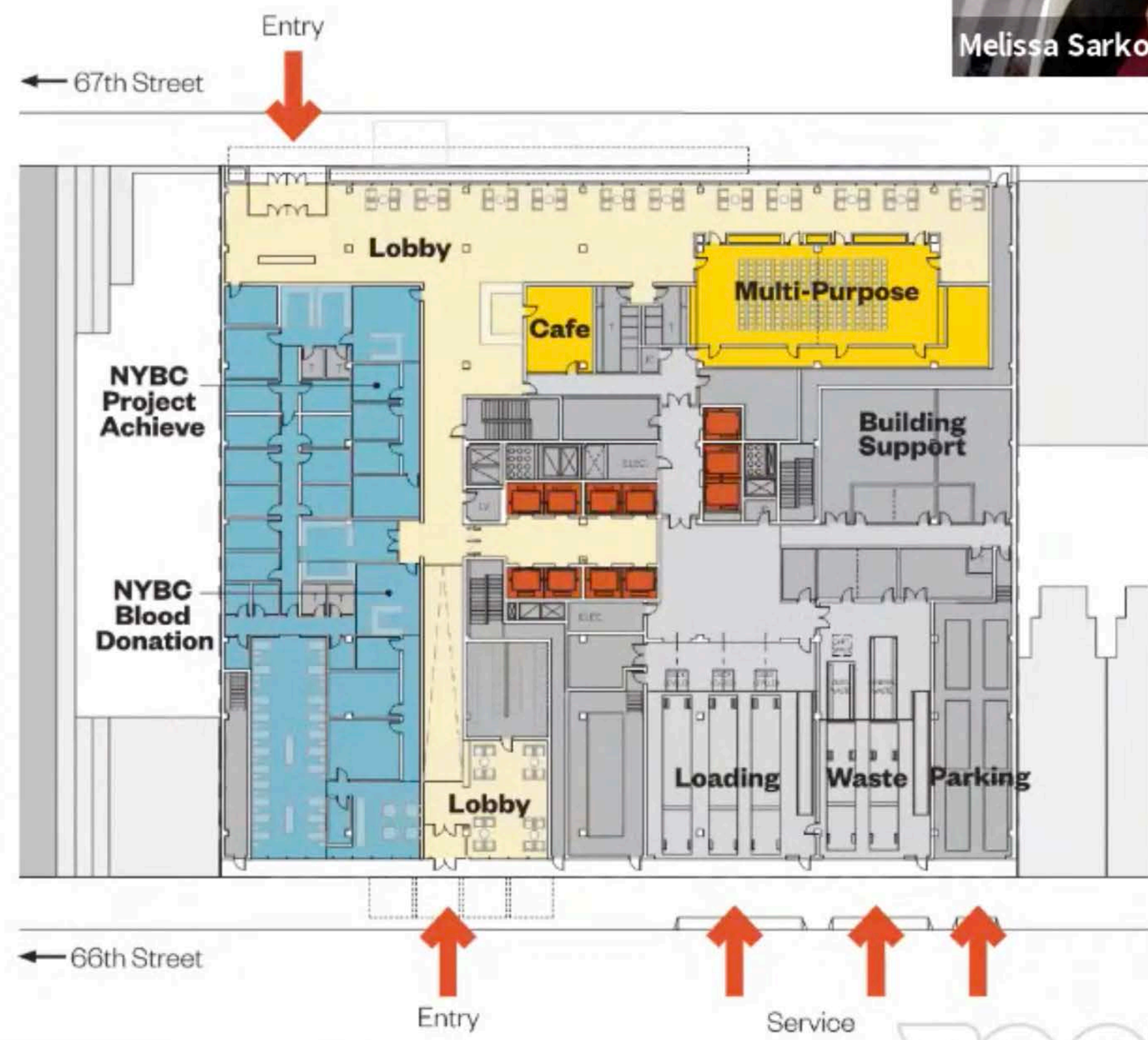
institutional and community facility buildings, the



Melissa Sarko ...

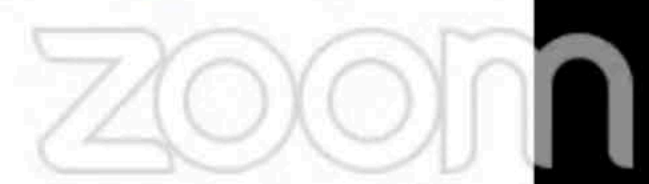


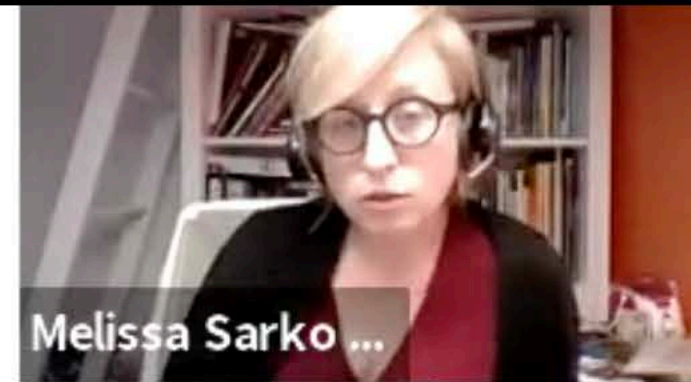
Building Section



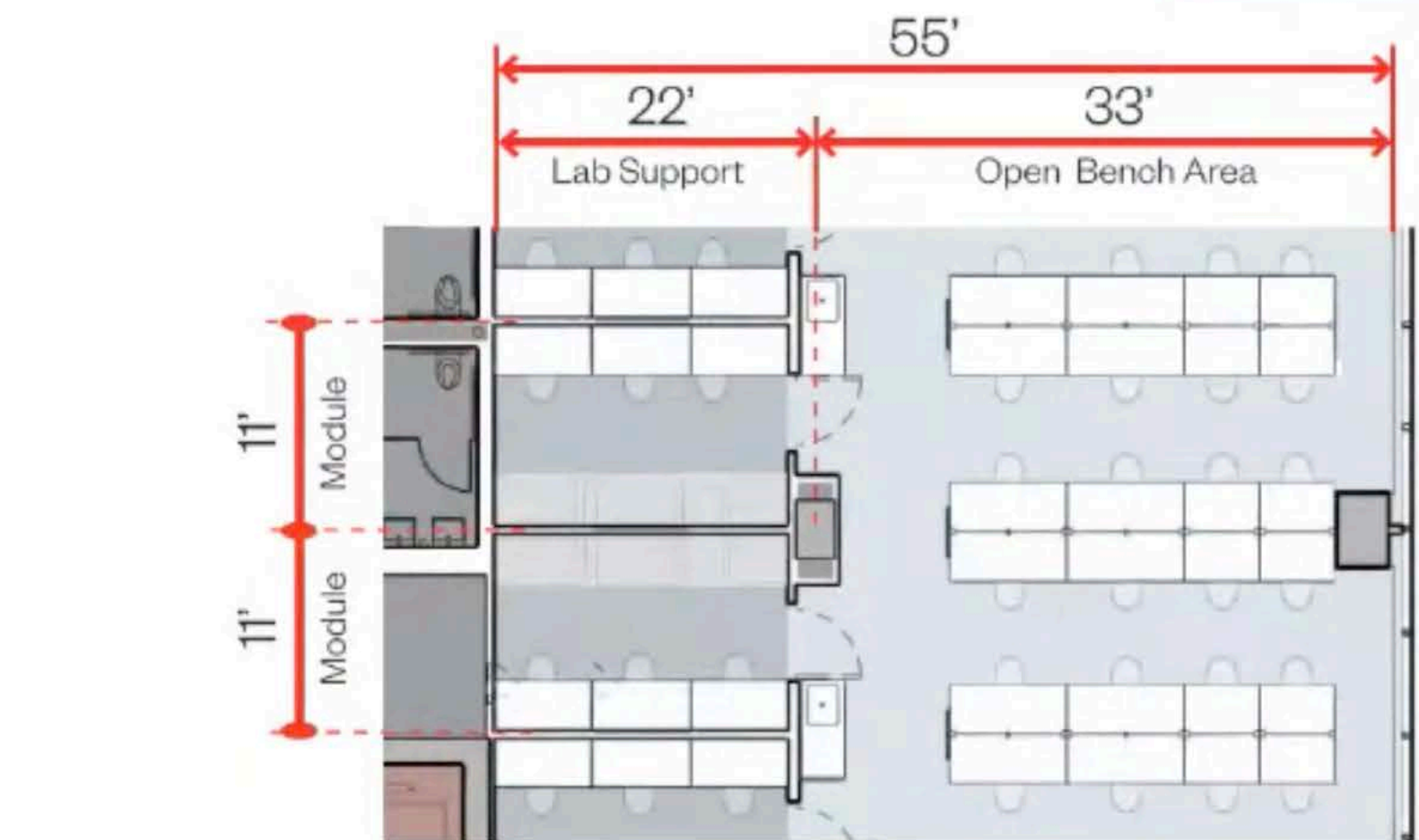
Center East Program Distribution and Ground Floor

to the right of this slide is a blow up of the ground





Melissa Sarko ...



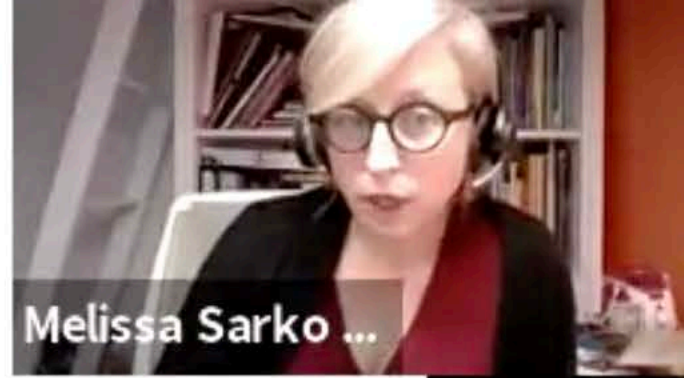
- Optimal floor plate 30,000 sf
- Adaptability for Wet and Dry labs
- Specialized Environmental Requirements
- Capability for Low Vibration Equipment
- Modular Planning for Flexibility



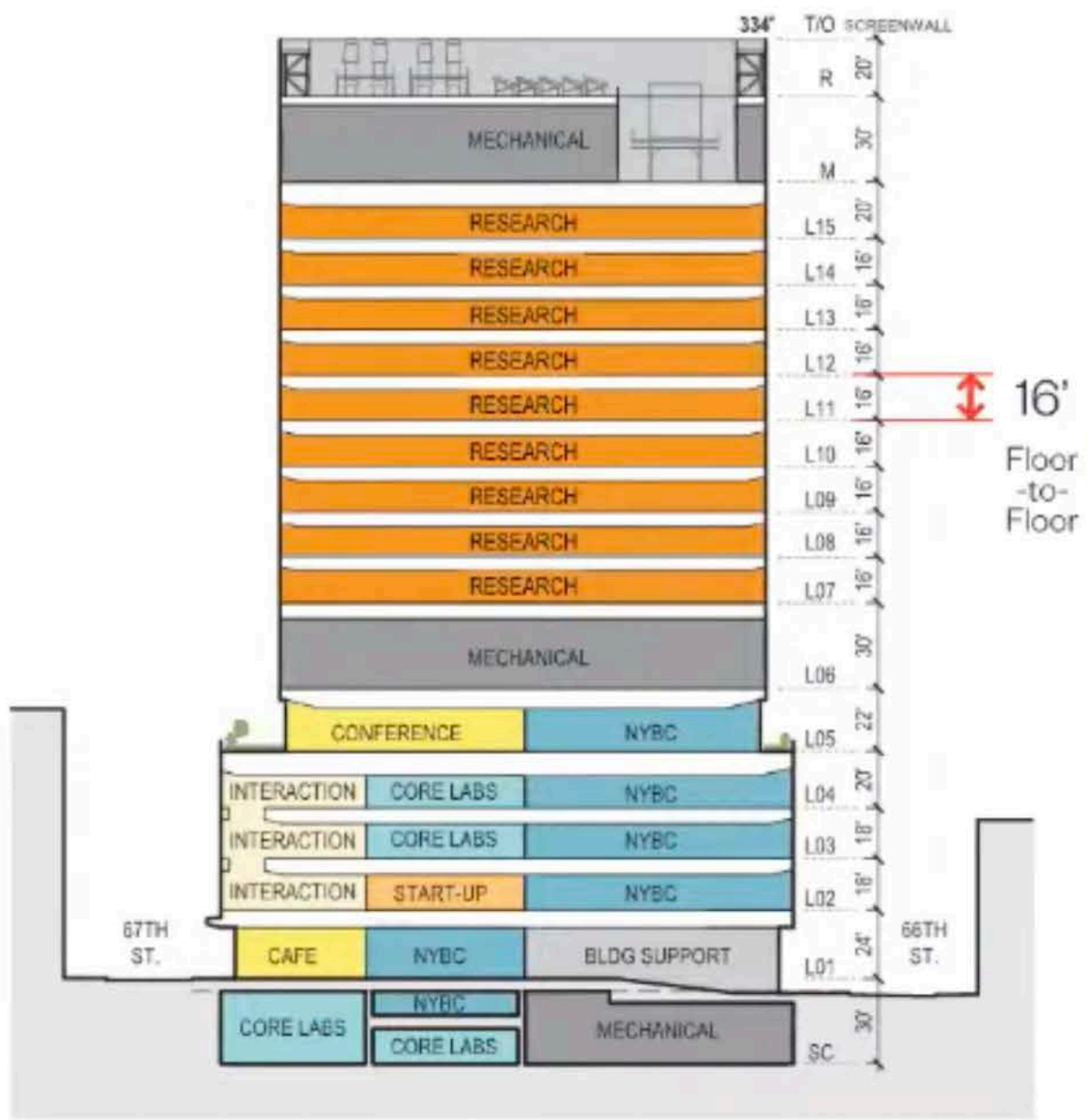
A Machine for Science I also wanted to take a moment just to reiterate that as

Critical Lab Planning Dimensions

zoom



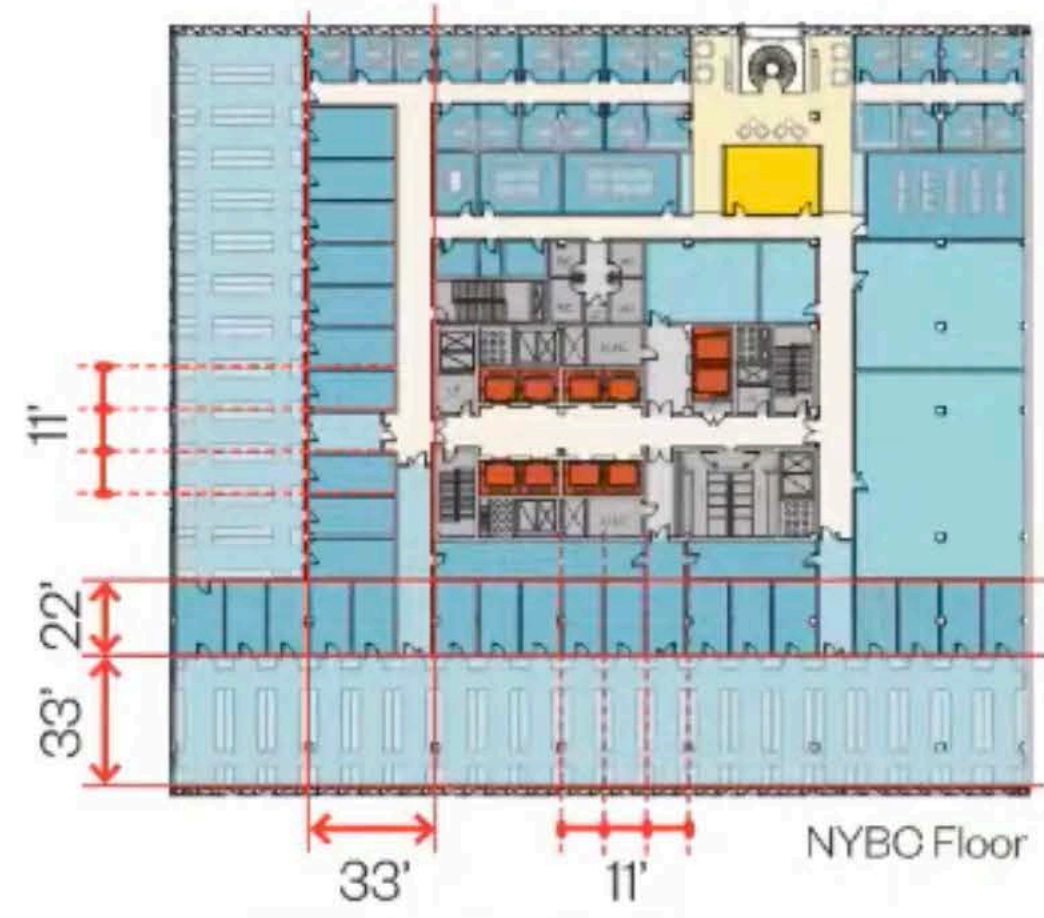
Melissa Sarko ...



Building Section

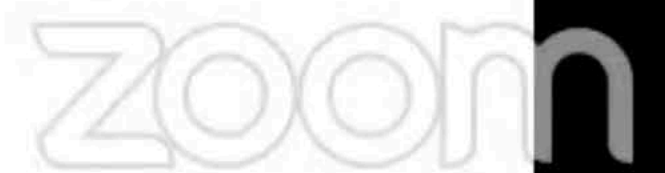


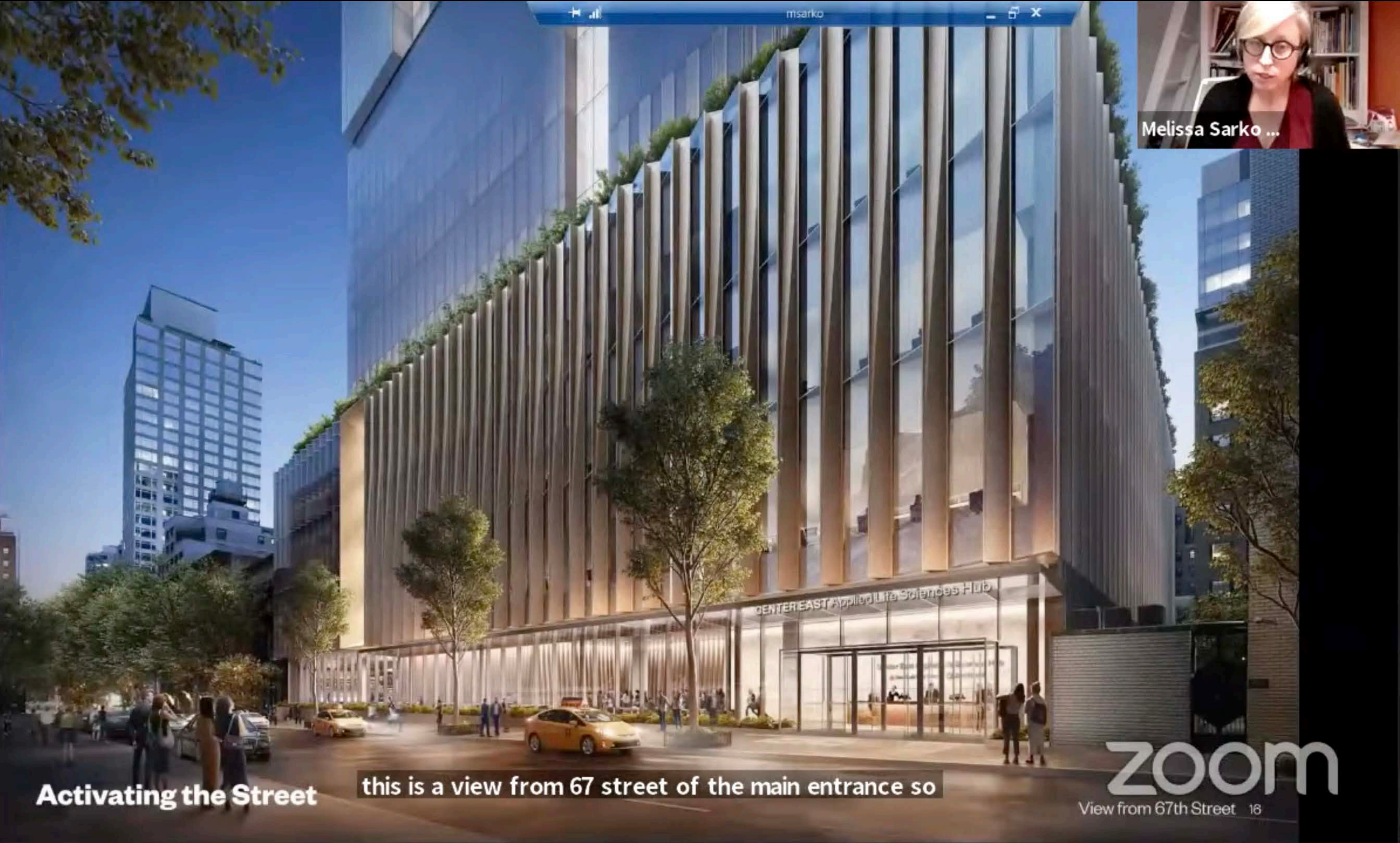
Partner Floor



NYBC Floor

Function Drives Form the building that we're looking at today. On the left, Center East Floor Plates and Heights





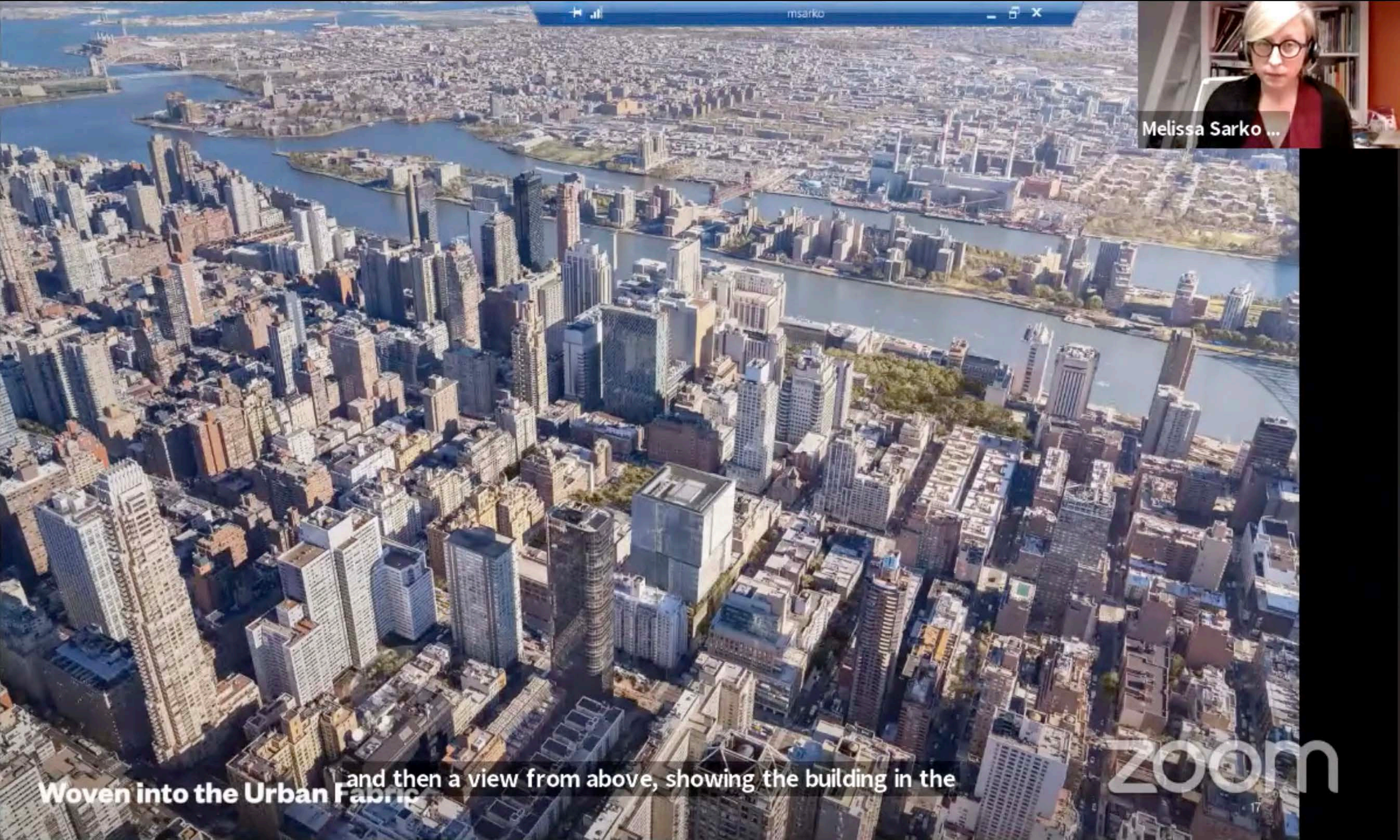
Melissa Sarko ...

Activating the Street

this is a view from 67 street of the main entrance so

zoom

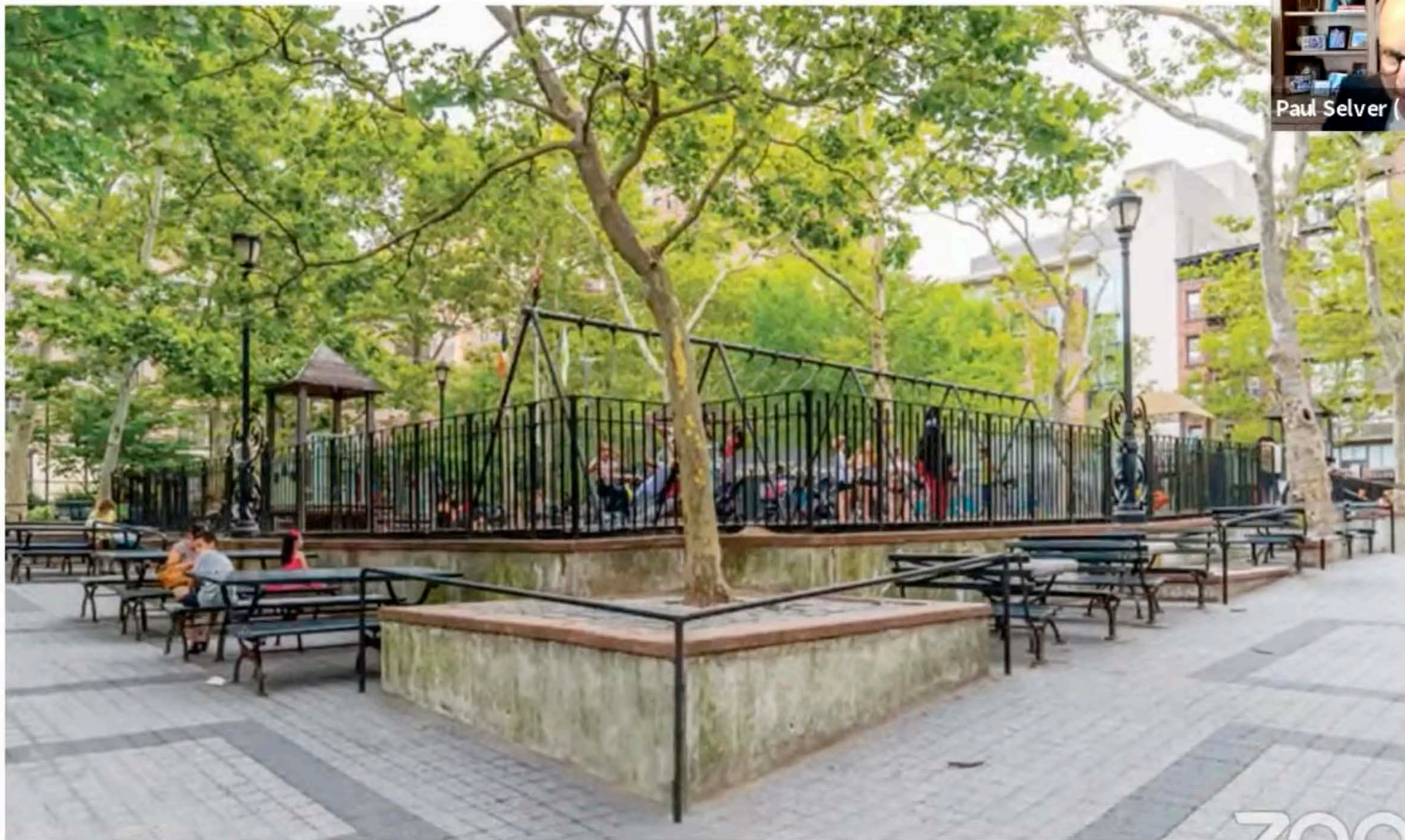
View from 67th Street 16



Melissa Sarko ...

Woven into the Urban Fabric and then a view from above, showing the building in the

zoom



St. Catherine's Park Neighborhood Amenity

cation

zoom



St. Catherine's Park Studies

equinoxes and a date, that is in midst

Park Conditions and Needs

- **Outreach**

Stakeholder engagement to identify programmatic and design enhancements

- **Potential Improvements**

Retained Landscape Architects, MNLA, to prepare an analysis of park needs and translate them into concrete proposals

Sun Studies

- **Detailed Shadow Study Analysis**

Per CEQR Technical Manual

- **Analysis Days**

Dec 21

Mar 21 / Sep 21

May 6 / Aug 6



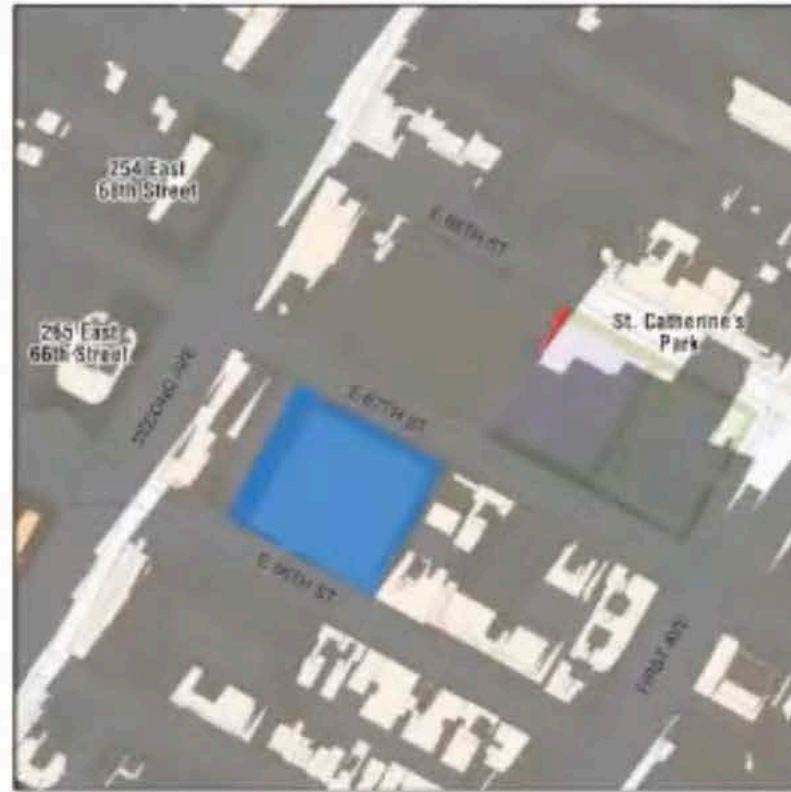
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Analysis Day

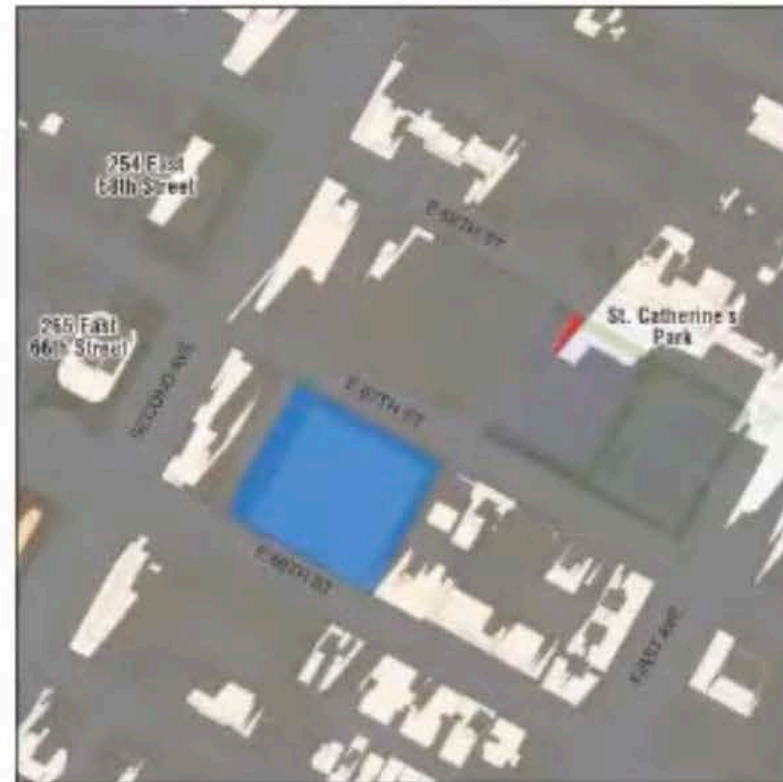
December 21
Winter Solstice




- No shadow impact

2:30 pm (2:30pm EST)



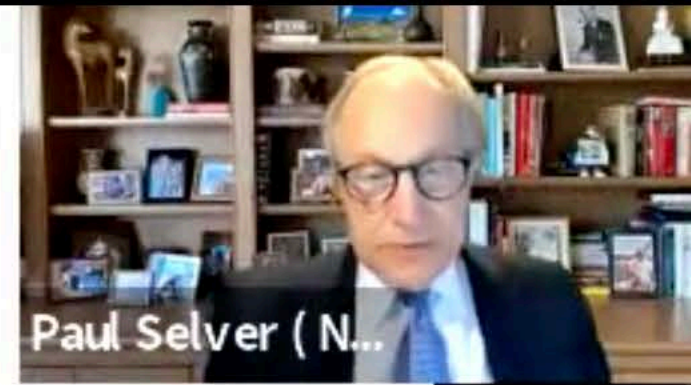
2:45 pm (2:45 EST)



-  Proposed Project
-  Publicly Accessible Open Space
-  Incremental Shadow

Shadow Study Analysis Impact Hours

It has only a minor amount of shadow for



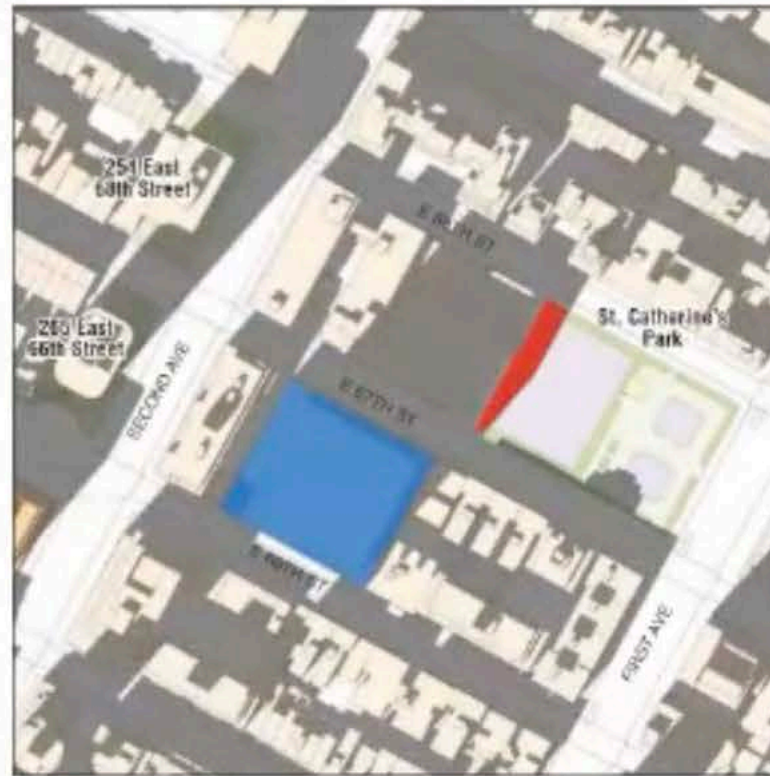
zoom

Analysis Days

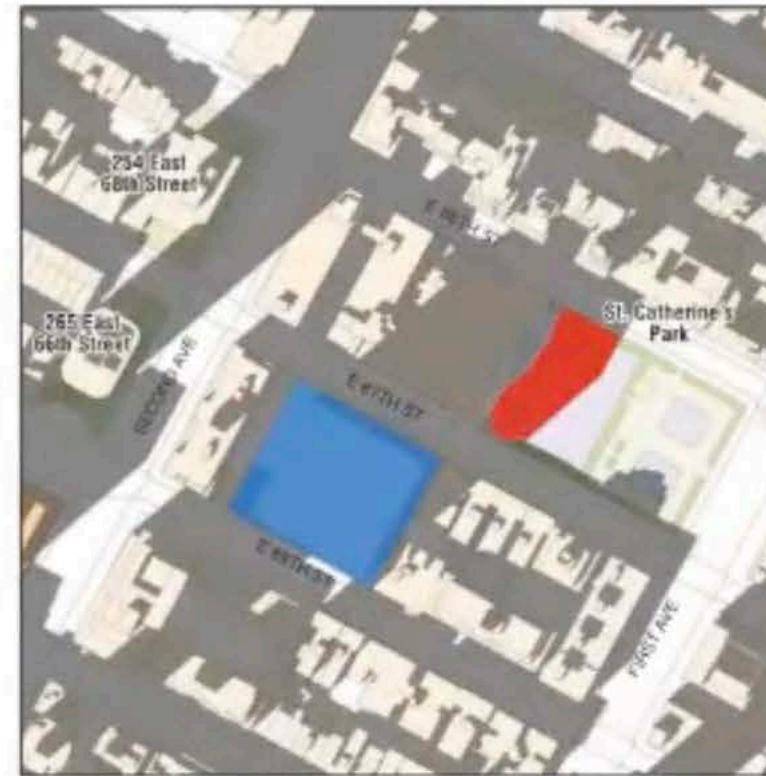
Mar 21 / Sept 21
Equinoxes

- Entire Park is in sun until 3:00pm when shadow enters active play area.
- Passive sitting and playground area is entirely in sun until 4:00pm.
- Passive sitting and playground area is in partial sun until 5:00pm.

3:00 pm (2:00pm EST)



3:30 pm (2:30pm EST)



4:00 pm (3:00pm EST)



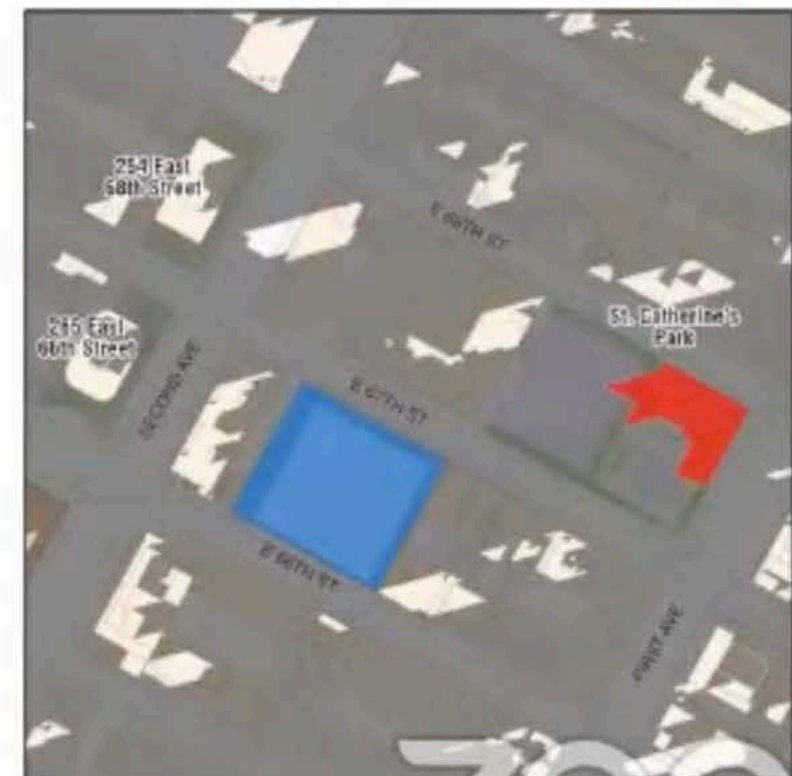
4:30 pm (3:30pm EST)






5:00 pm (4:00pm EST)



5:30 pm (4:30pm EST)



-  Proposed Project
-  Publicly Accessible Open Space
-  Incremental Shadow

Shadow Study Analysis Impact Hours

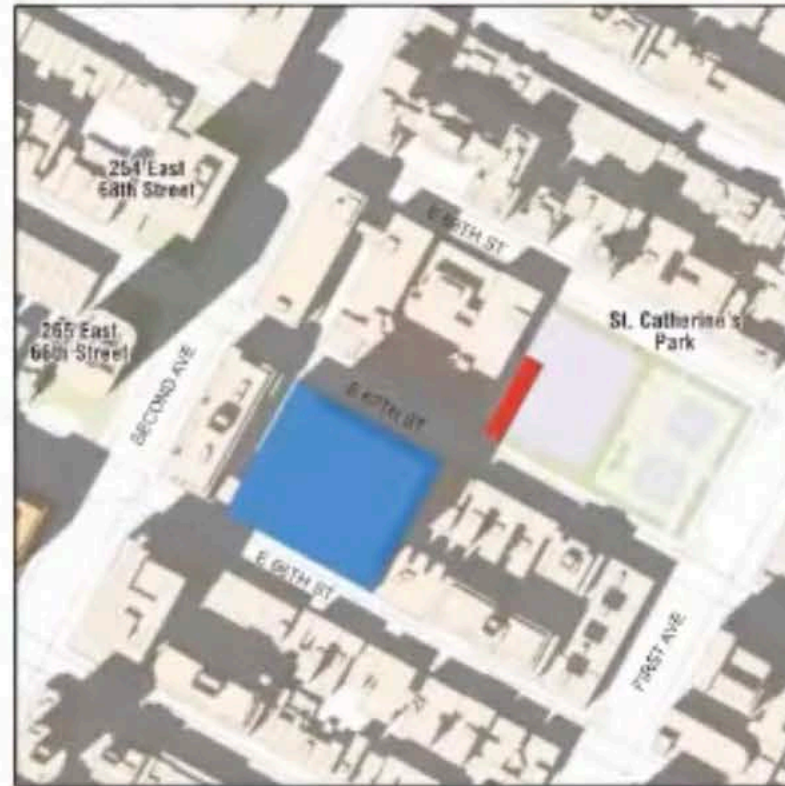
Both sitting and.

Paul Selver (N...

Analysis Days May 6 / Aug 6

- Entire Park is in sun until 2:30pm when shadow enters active play area.
- Passive sitting and playground area is entirely in sun until 4:00pm.
- Passive sitting and playground area is in partial sun until 4:45pm.

2:30 pm (1:30 pm EST)



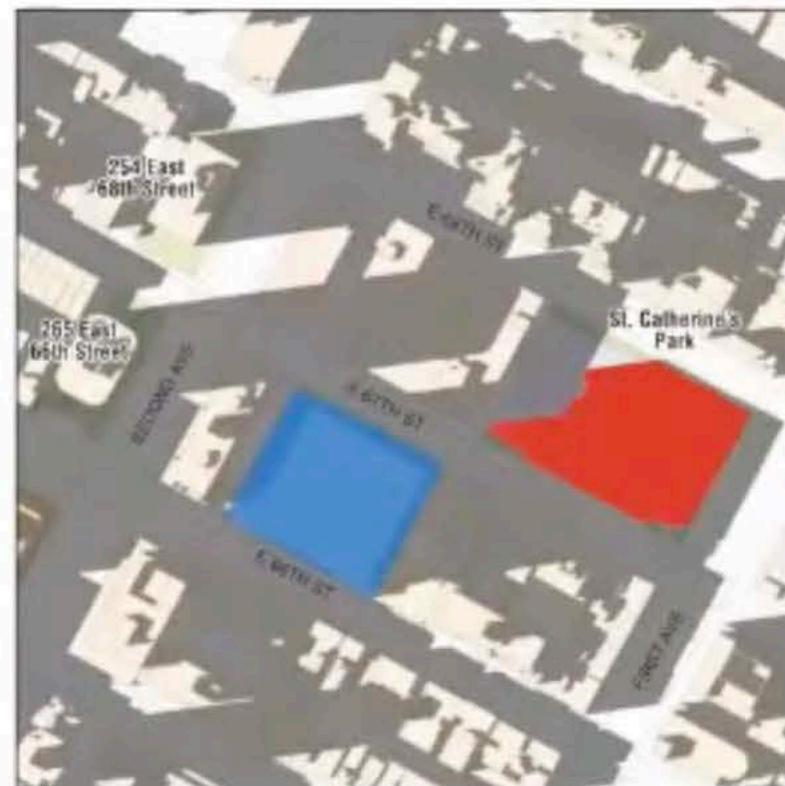
3:15 pm (2:15 pm EST)



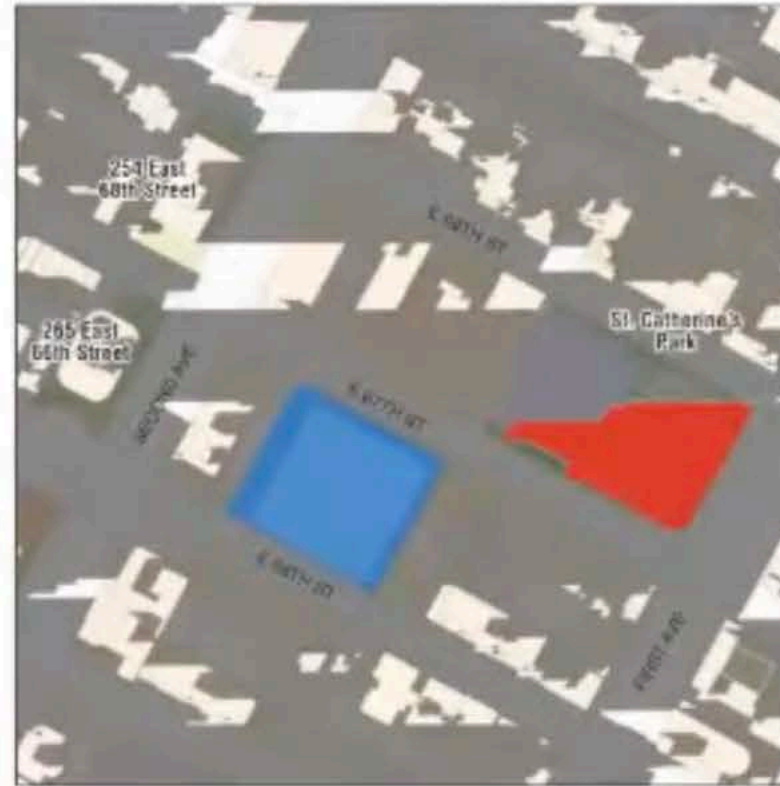
4:00 pm (3:00 pm EST)



4:45 pm (3:45 pm EST)






5:30 pm (4:30 pm EST)



6:15 pm (5:15 pm EST)



-  Proposed Project
-  Publicly Accessible Open Space
-  Incremental Shadow

Shadow Study Analysis up to two hours, hours after the shadow first reaches
Impact Hours

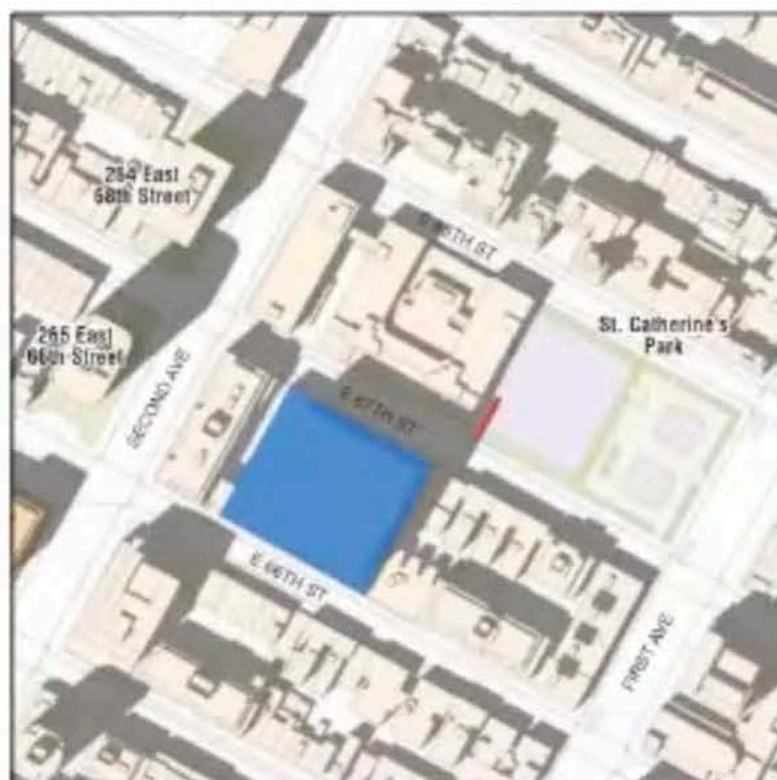


Analysis Day

June 21
Summer Solstice

- Entire Park is in sun until 2:15pm when shadow enters active play area. New shadows never cover more than +/- 60% of the area.
- Passive sitting and playground area is entirely in sun until 4:00pm. New shadows never cover more than +/- 60% of the area.

2:15 pm (1:15 pm EST)



3:00 pm (2:00 pm EST)



3:45 pm (2:45 pm EST)



4:30 pm (3:30 pm EST)






5:15 pm (4:15 pm EST)



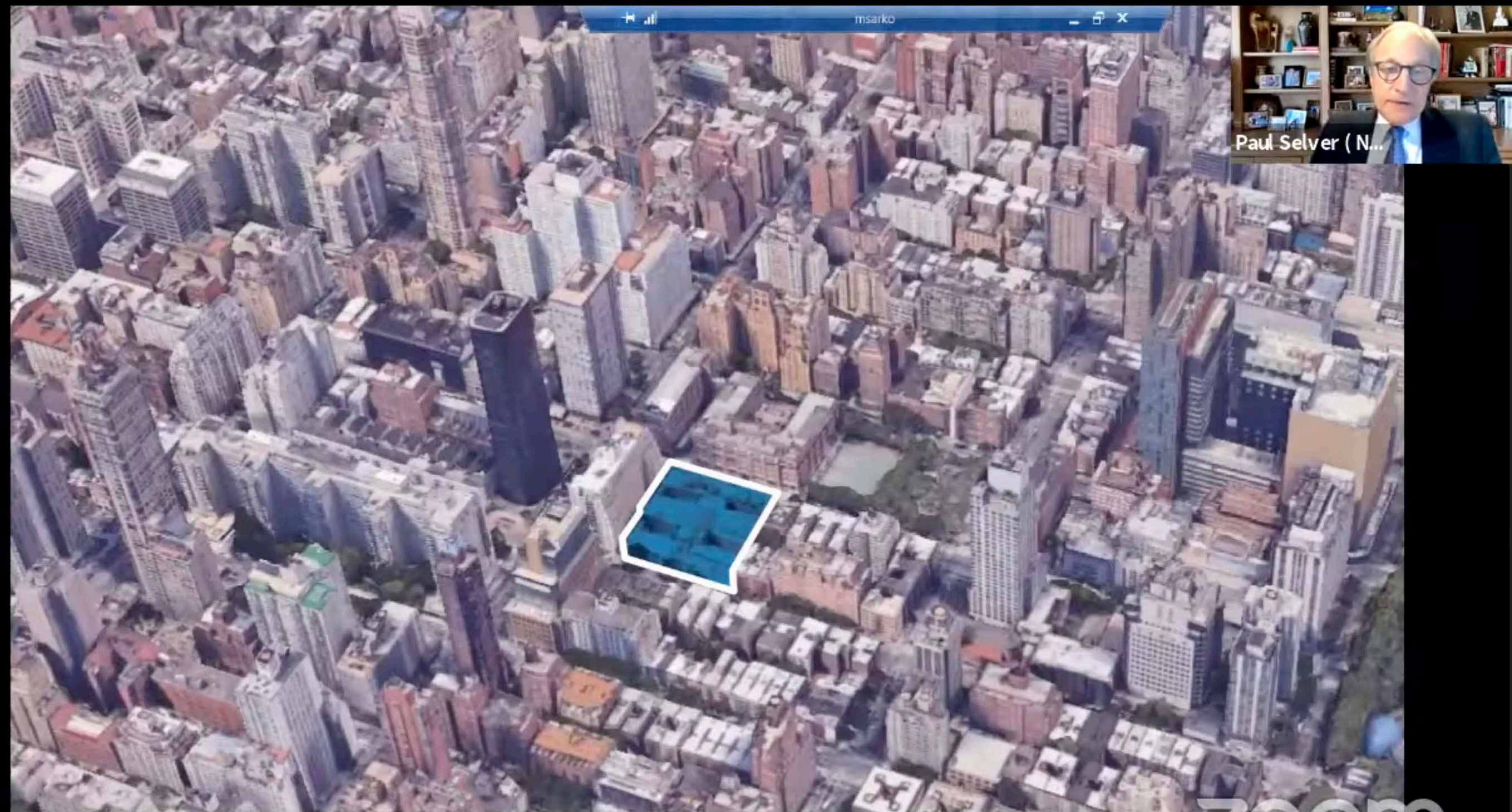
6:00 pm (5:00 pm EST)



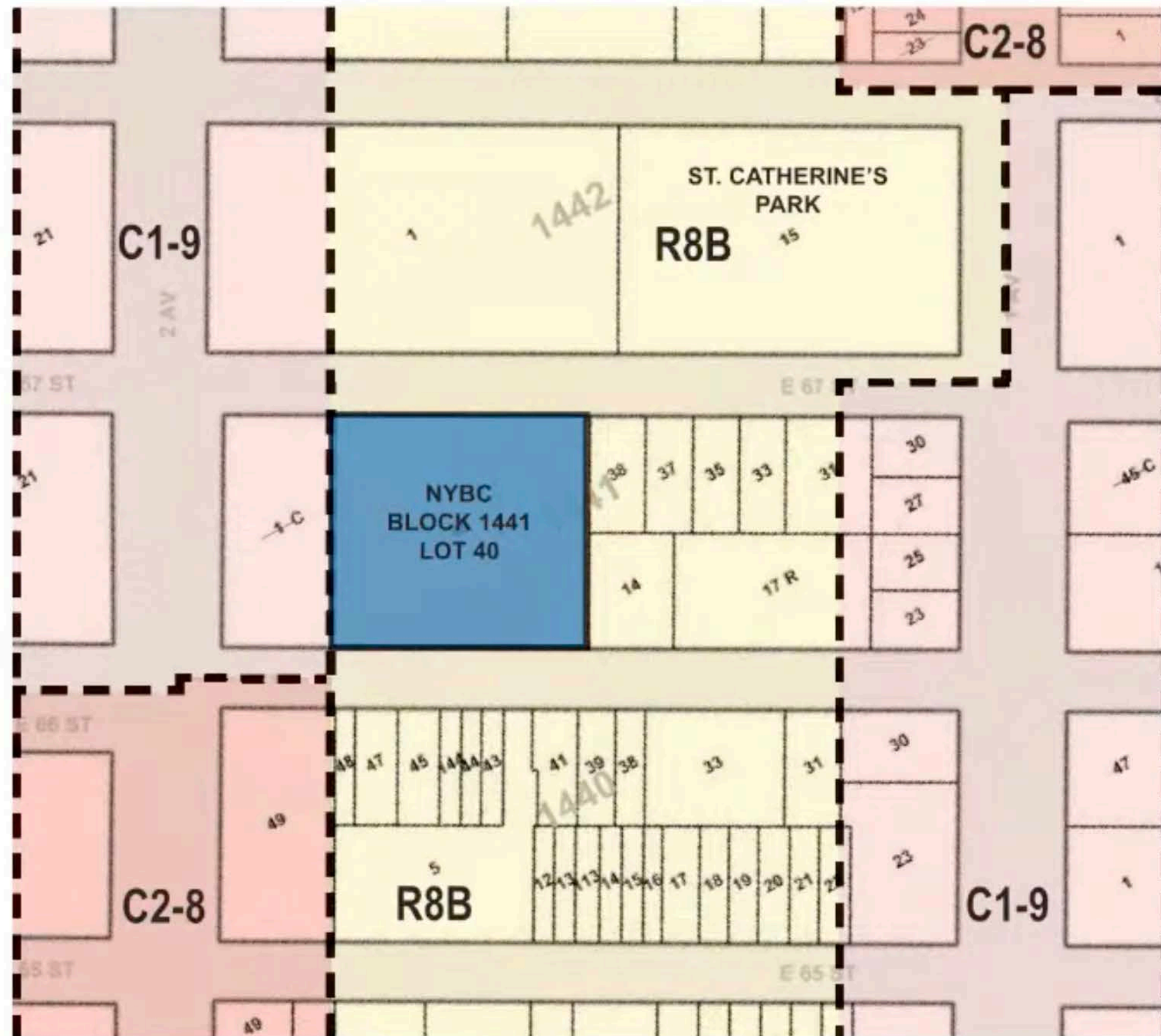
-  Proposed Project
-  Publicly Accessible Open Space
-  Incremental Shadow

Shadow Study Analysis Impact Hours

Paul Selver (N...

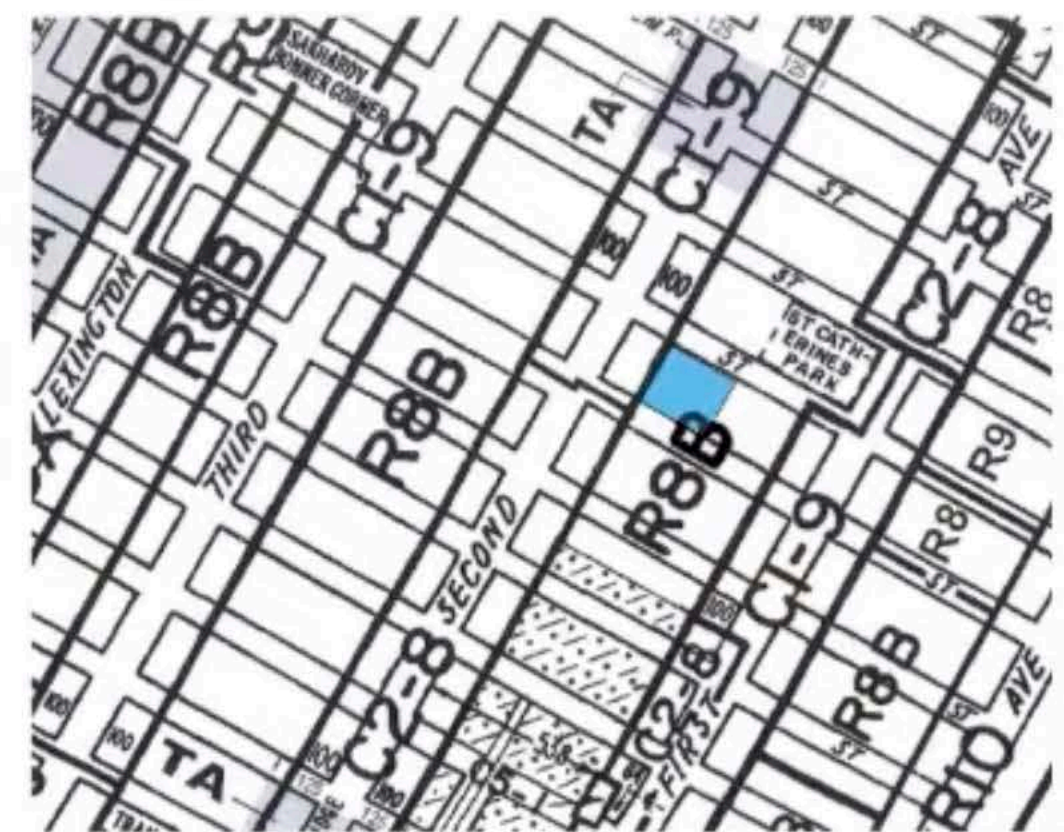


Paul Selver (N...



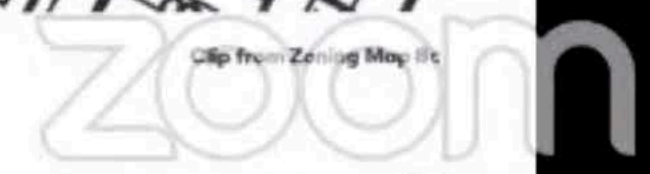
Existing Zoning

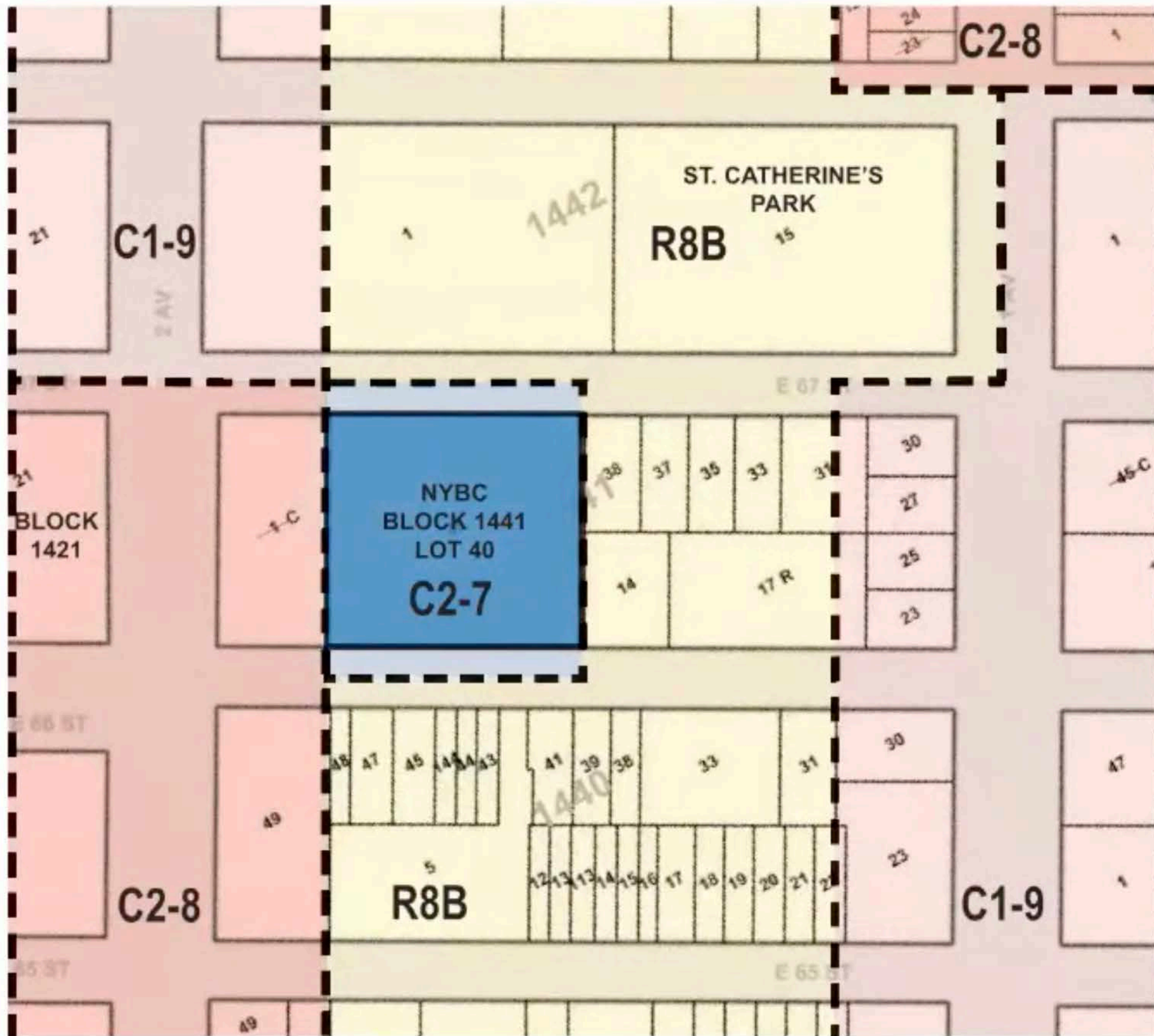
- **Zoning District**
R8B
- **Lot Area**
45,187 SF
- **Floor Area Ratio**
5.10 Max. Allowable Community Facility FAR
4.0 Max. Allowable Residential FAR
0.0 Max. Allowable Commercial FAR
- **Bulk Restrictions**
75 ft Height Limit



Regulatory Approach Existing Zoning

This is the map, you can see that along. Second Avenue there





Proposed Zoning

- **Rezone**

Rezone a portion of Block 1441 from F to C2-7 and a portion blocks 1441 and 1421 from C1-9 to C2-8.

- **Zoning Text Amendment**

Zoning text amendment (a) to Section 74-48 to allow, by special permit, on zoning lots with a minimum of 40,000 square feet located entirely in C2-7 zoning districts, a Scientific Research and Development Facility (a special permit commercial use), and for such buildings, modifications of floor area (not to exceed 10 FAR of permitted commercial uses), height and setback, yard, and signage regulations; and (b) to designate the site as an MHH area

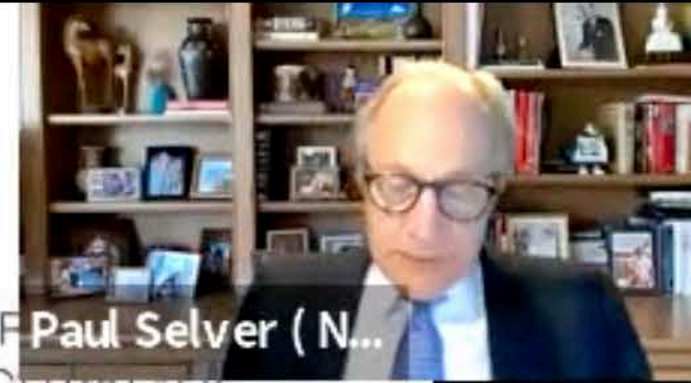
- **Floor Area Ratio**

- 10.0 Max. Allowable Community Facility FAR
- 10.0 Max. Allowable Scientific Research and Development Facility FAR

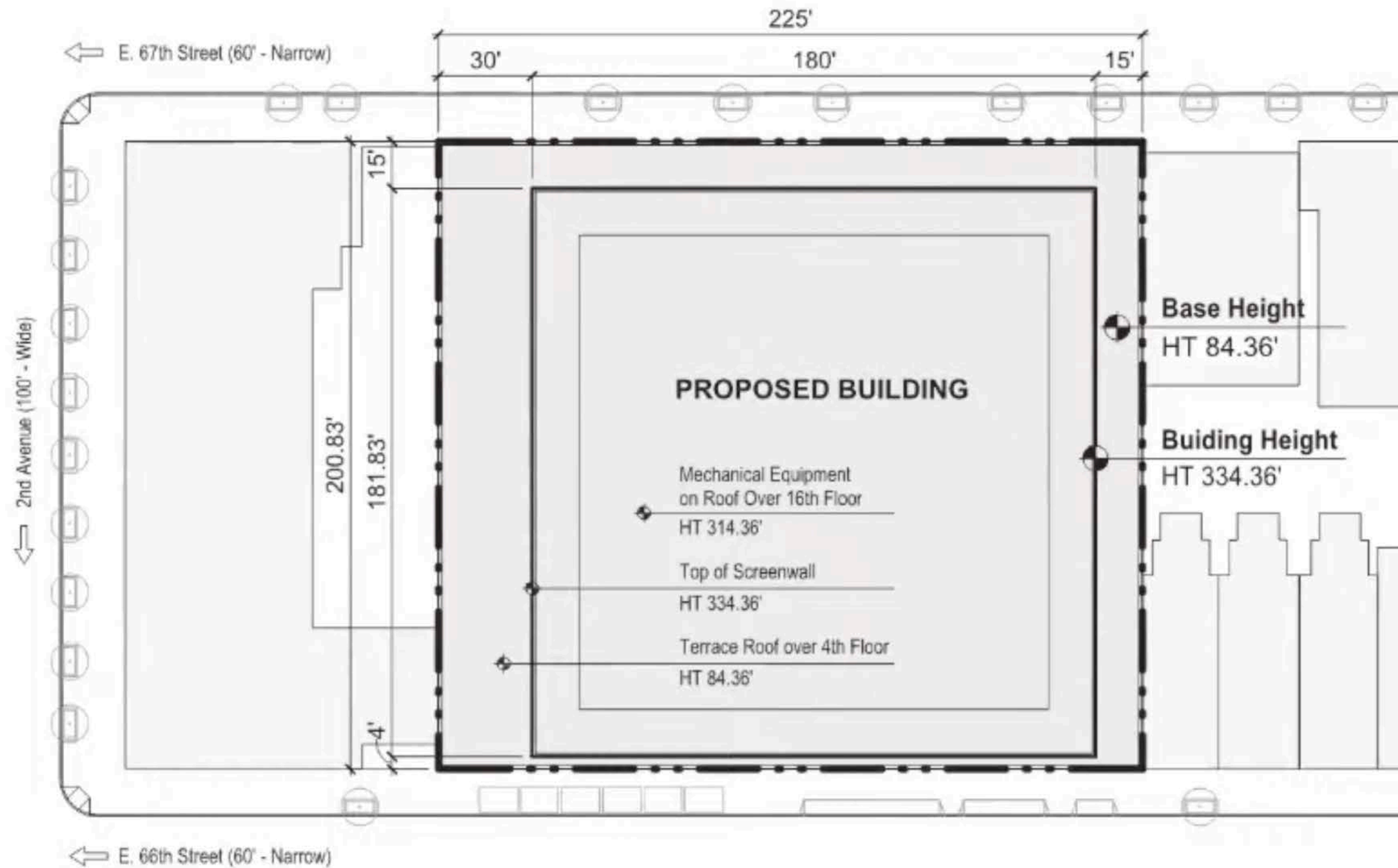
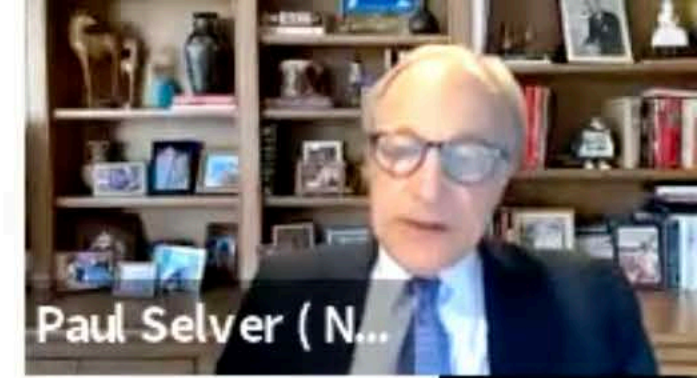
- **Special Permit**

Grant special permit pursuant to ZR Section 74-48, as amended, to allow project-specific modifications.

- Use
- Floor Area
- Height and Setback
- Rear Yard Equivalent
- Signage



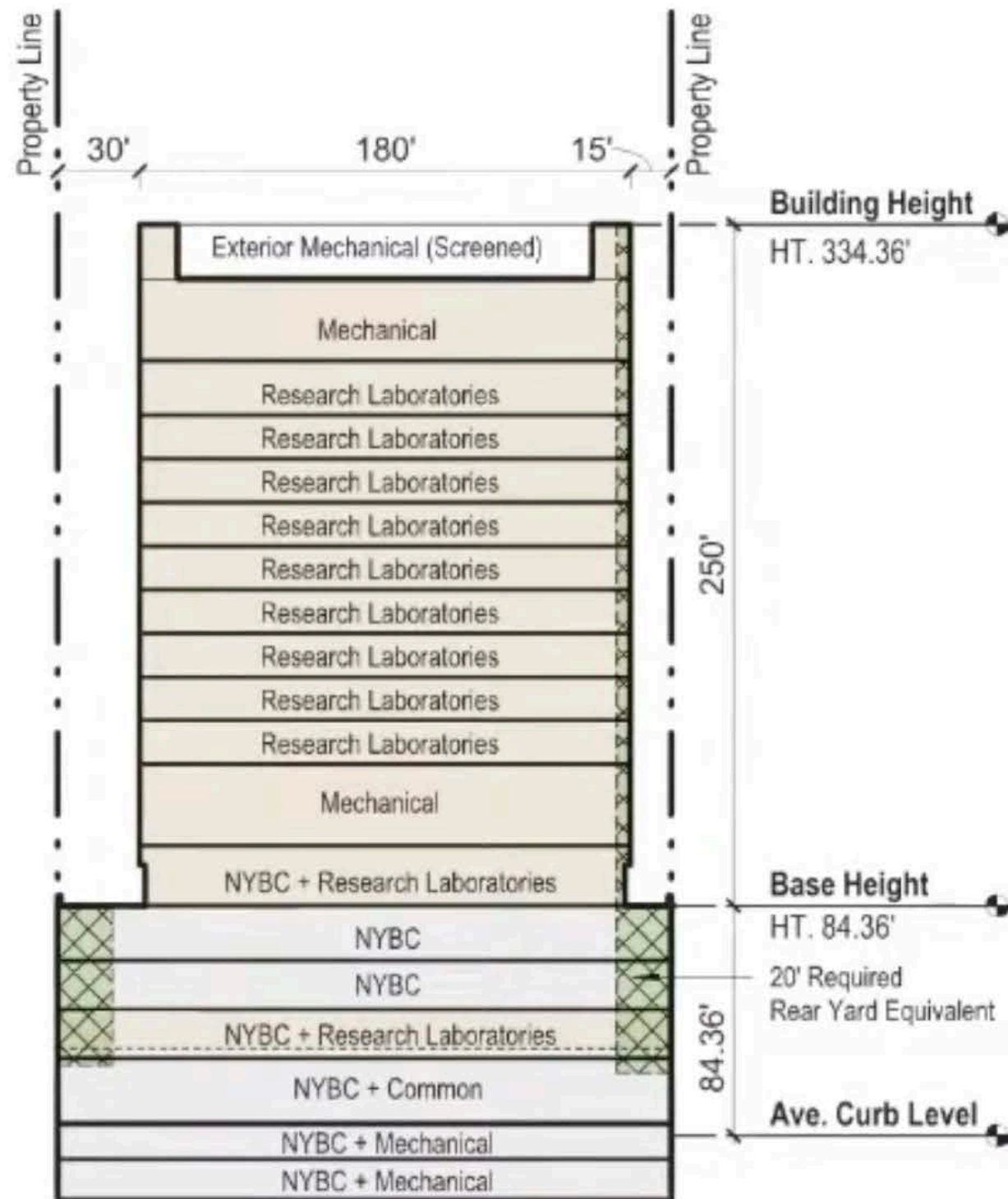
Paul Selver (N...)



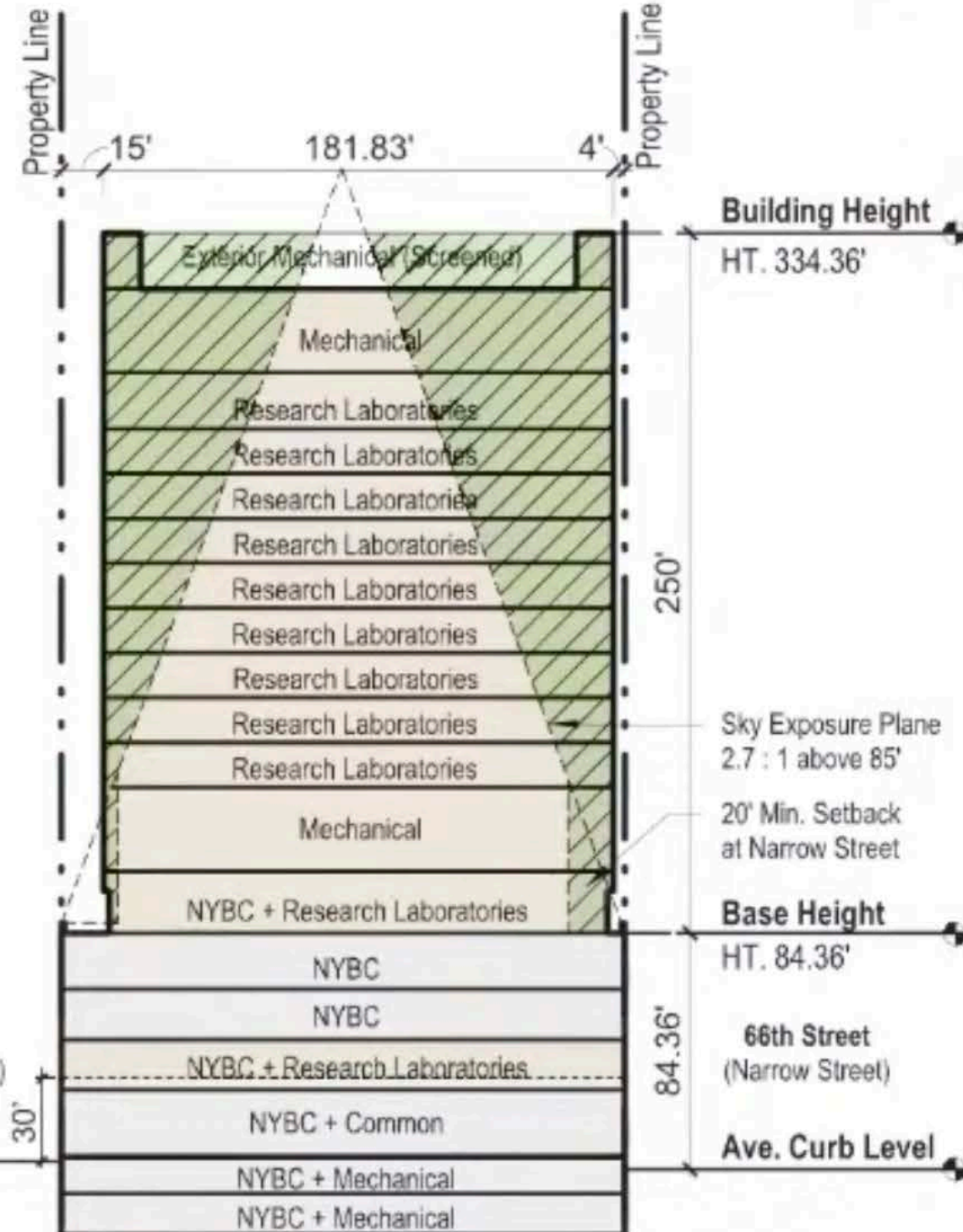
Zoning Drawings Zoning Site Plan

There just hasnt base height of 85 feet.

zoom

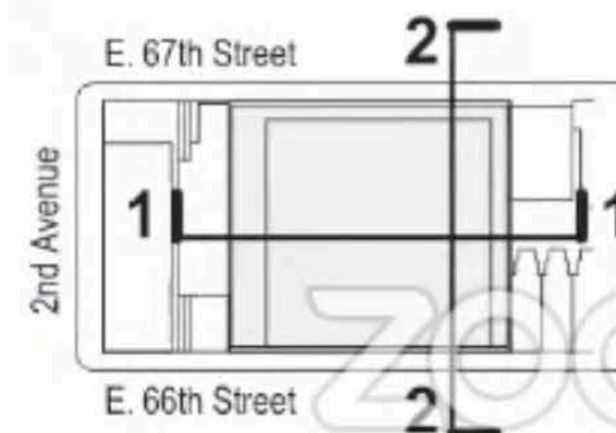


1 East-West Section

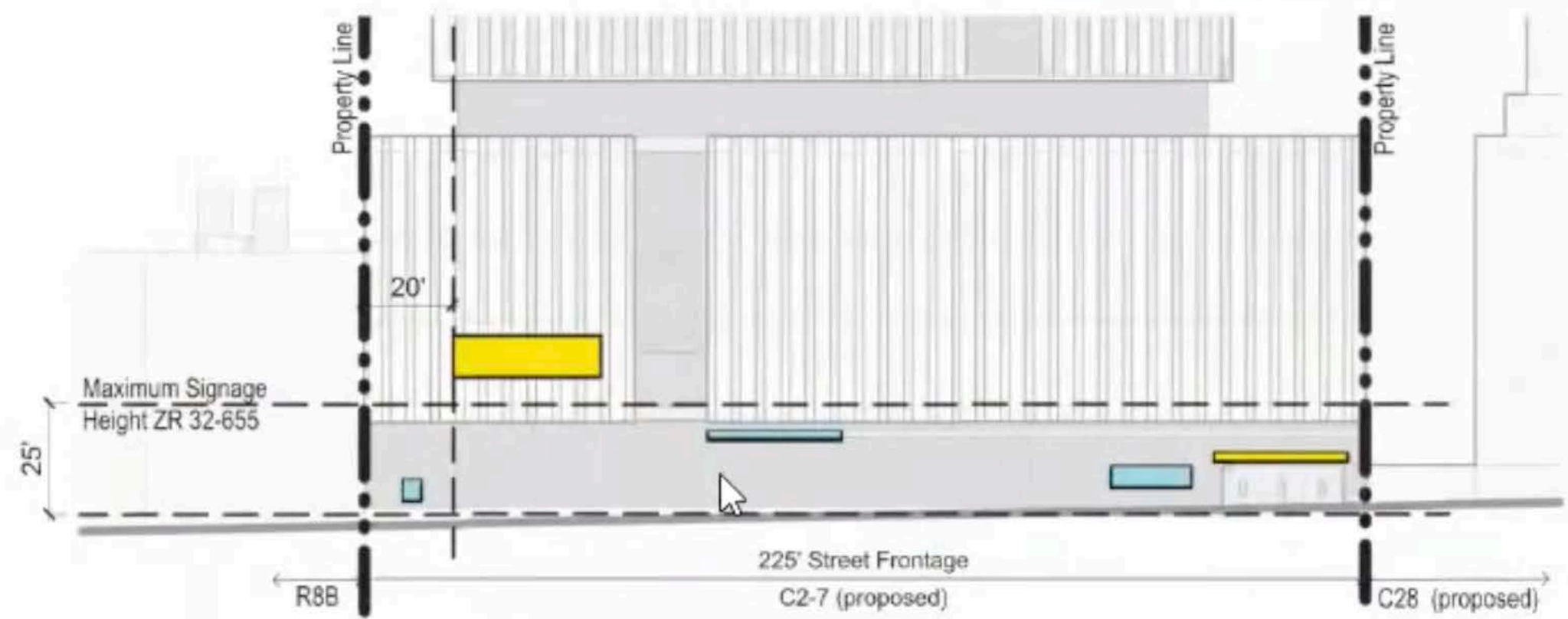


2 North-South Section

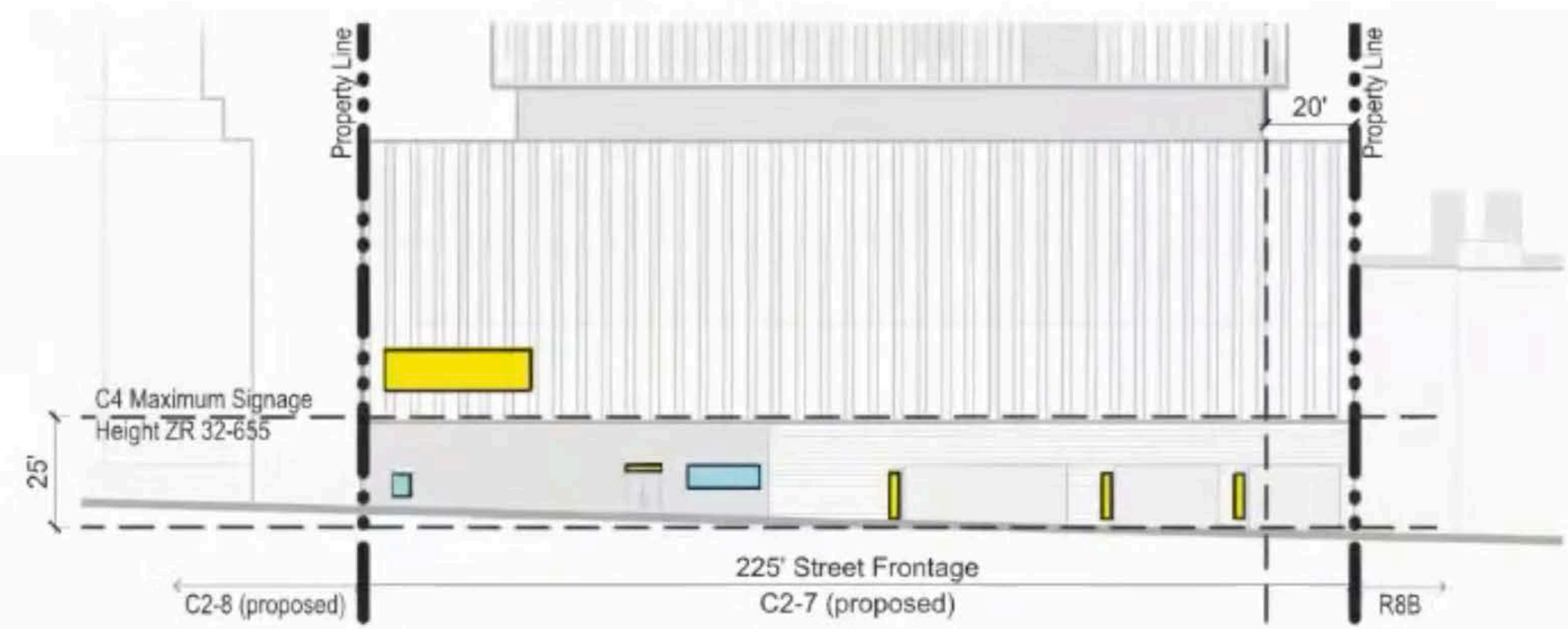
- Rear Yard Equivalent waiver
- Height and Setback waiver
- UG-9A Use waiver



Zoning Drawings Bulk Waivers to be built to each of its east and west lot lines of



1 67th Street Elevation

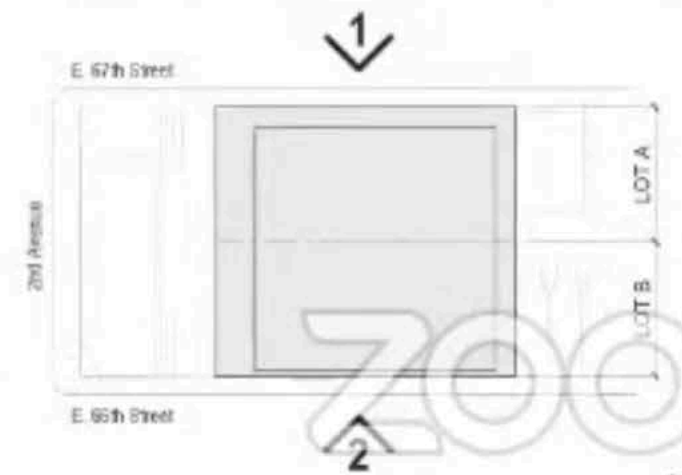


2 66th Street Elevation

Zoning Drawings Signage Waivers

Finally, we get to the signage waiver

- Illuminated Signage
- Non-Illuminated Signage



The benefits of Center East

- It will **provide NYBC with a 21st century home** in which to continue its critical life-saving work
- It will **maintain the essential scientific collaborations** between NYBC and its neighboring institutions and **speed the research discoveries** that are key to medical advances
- It will **support workforce education and development programs** for careers in science
- It will **provide flexible space** that will **encourage life sciences companies to remain in New York City** as they grow from start-ups into mature organizations
- It will make possible **collaborations** among academic and clinical institutions and life sciences companies that **will expedite the development of research into life-saving treatments**
- It will create a world-class life sciences cluster that will **make New York City a national leader in the life sciences**



Paul Selver (N...