Boston University
Center for Computing & Data Sciences

Town Hall Meeting

Student Residence Focus

Project Briefing and Construction Management Plan

December 3, 2019

BOSTON UNIVERSITY

Today's Agenda

Project Introduction
David Zamojski and Walt Meissner

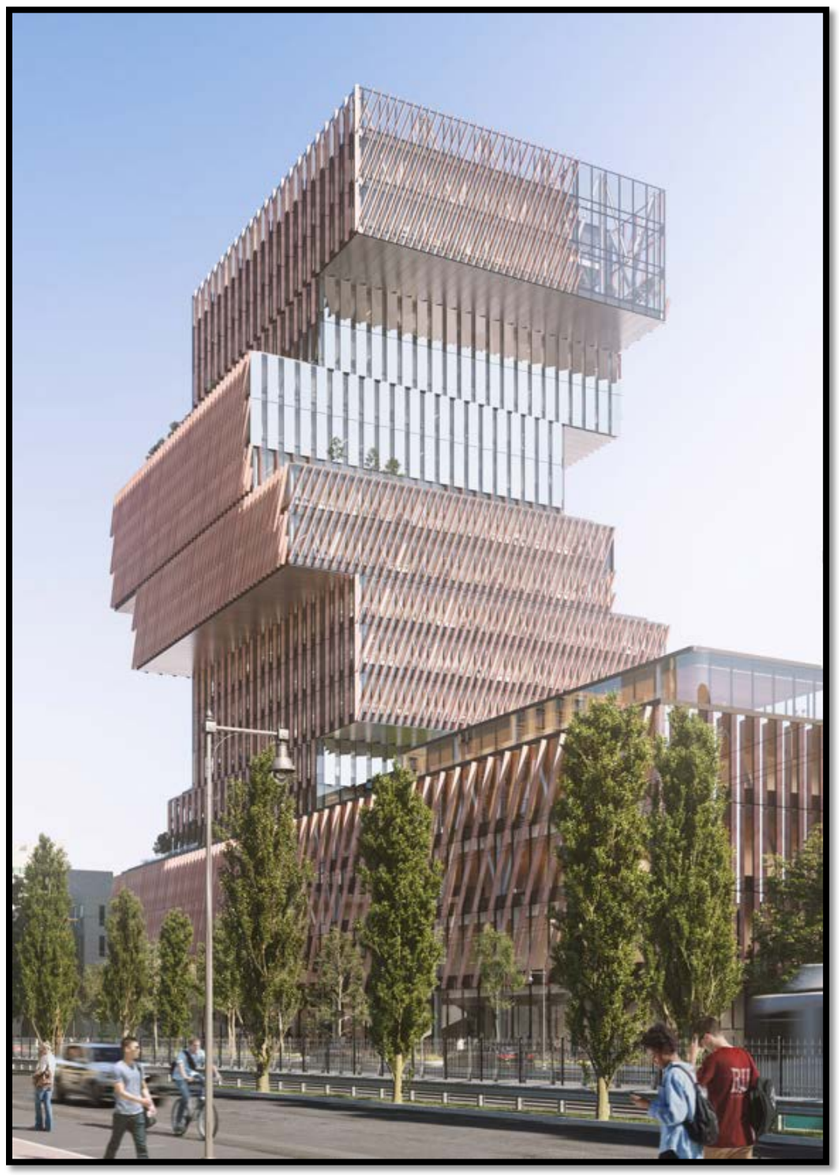
Building Design
Luigi LaRocca, KPMB Architects

Sustainability and Climate Action Plan
Dennis Carlberg, Associate Vice President, Sustainability

Project Impact: What to Expect

- **Overview/Project Schedule**
  Walt Meissner, Project Executive
- **Construction Management Plan**
  Chris Kenny and Tom Spall, Project Manager and Superintendent
- **Noise and Vibration**
  Bryan Sweeney, GeoTech Engineer

Q&A



BOSTON UNIVERSITY

Center for Computing & Data Sciences

- New home for newly created **Faculty of Computing & Data Sciences,** Departments of **Computer Science** and **Mathematics & Statistics**, and **Hariri Institute for Computing**

- 19 stories, 345,000 square feet of classroom, lab, and collaboration space on Commonwealth Avenue; construction to begin in spring 2020

- A game changer for BU in the rapidly growing field of data science

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Why Does Boston University Need It?

World is more interconnected and data-driven than ever before; rapidly increasing demand from students for relevant courses/majors

Emergence of AI and machine learning, as well as the use of data to boost research across all disciplines

Highly competitive landscape among institutions in this field – one where BU is well-positioned to lead

“Data Scientist” ranked hottest job in US four straight years; rise of data science needs expected to create 11.5 million new job openings by 2026

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What the New Building Brings to BU

Enhanced capability for interconnected research by bringing together leaders and emerging scholars from multiple fields under one roof

Physical capacity for strategic institutional growth in rapidly expanding fields

Transformative design and sustainability on evolving Charles River Campus cityscape

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Building Design

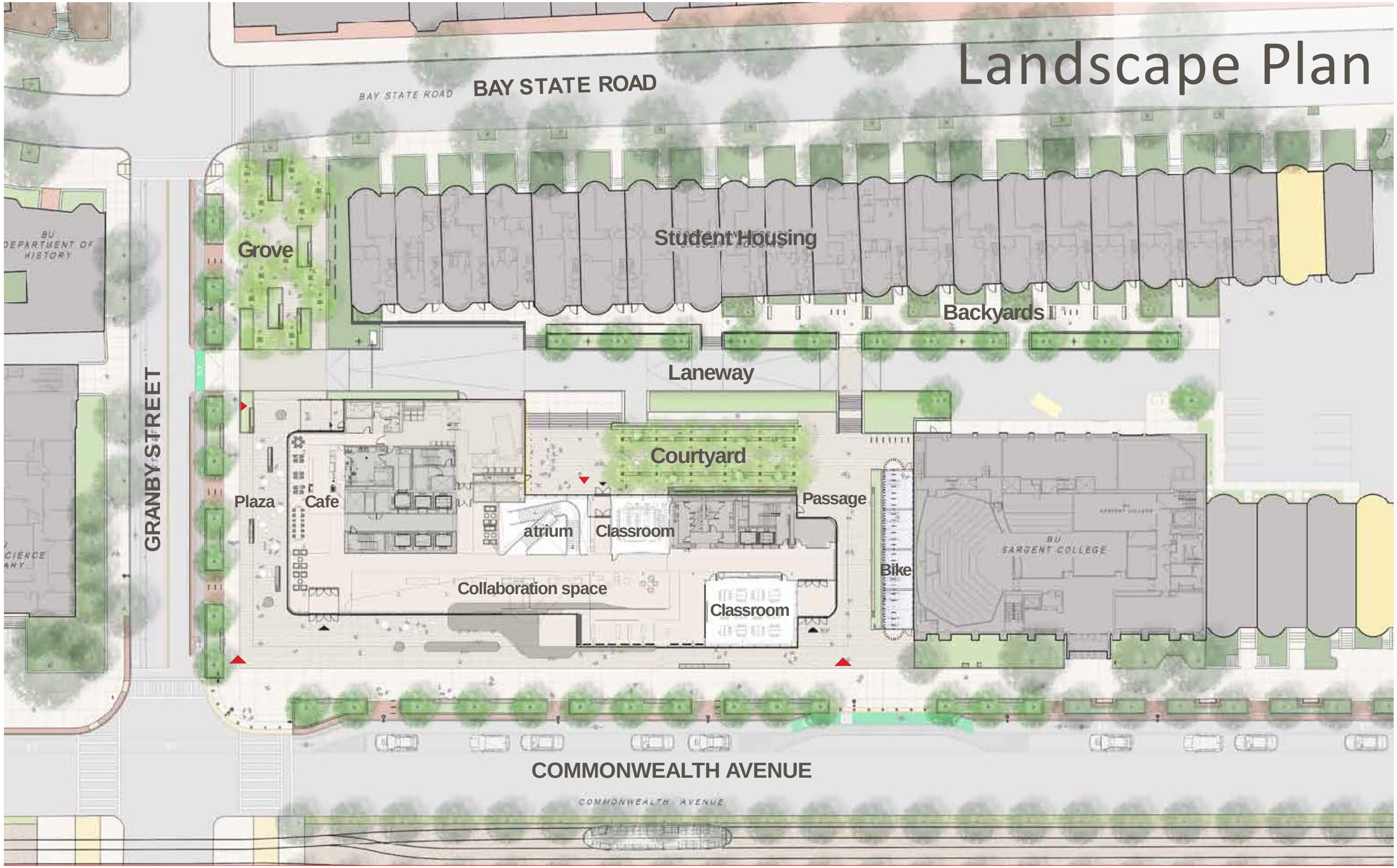
Luigi LaRocca

Principal, KPMB Architects

A Vertical Campus

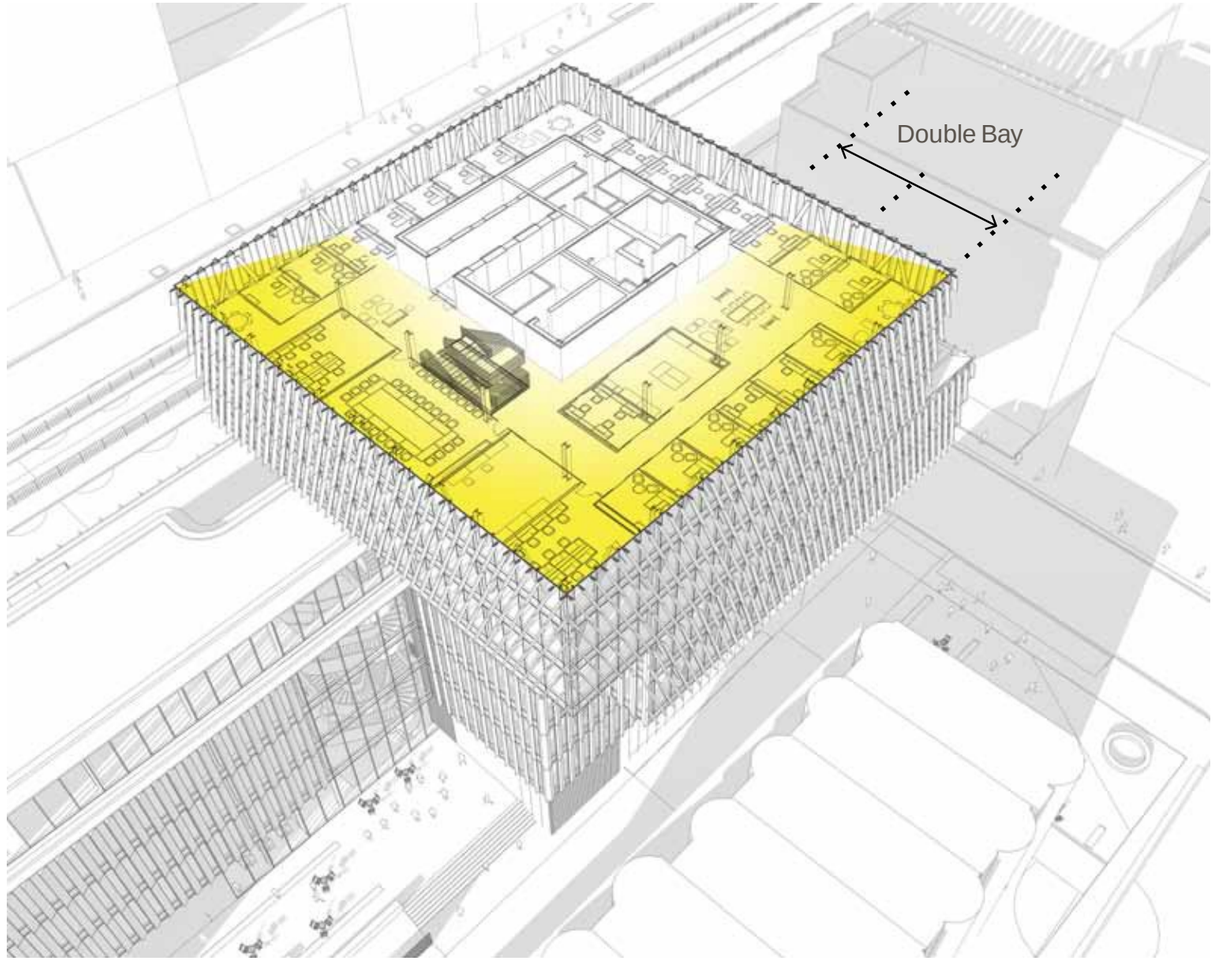
- Create spaces of collaboration and solitude
- Synergies of data and people
- porosity, warmth and vibrancy
- Open ground floor & second floor
- Flexibility
- Develope Departmental Identity

Landscape Plan



Tower Façade Conceptual Framework

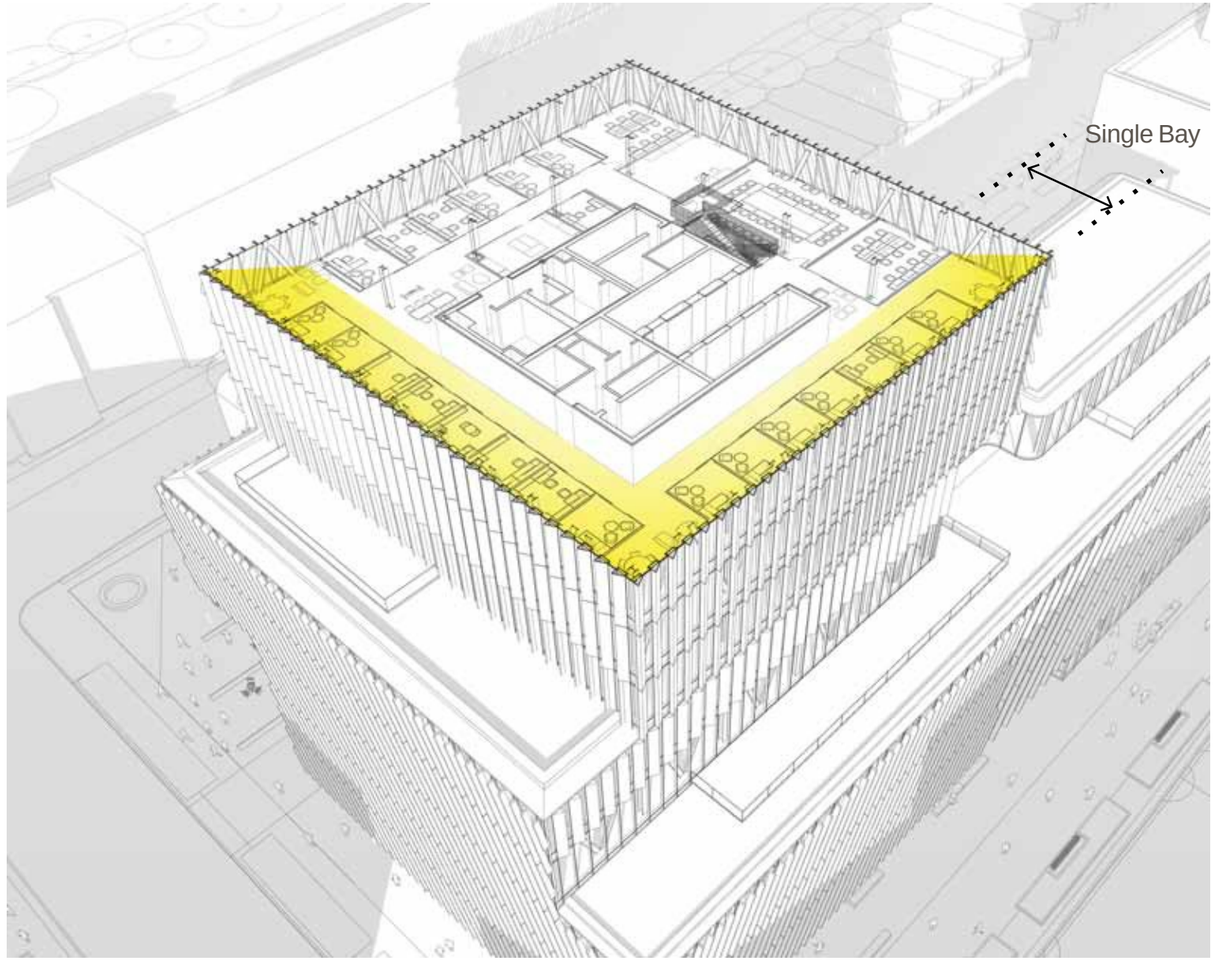
Diagonal Louver Facade Design



Diagonal Louvers Along Double Bay Depth

A diagonal louver in front of 60% vision glazing is used in the deep floor plate zones to cuts out the solar gain and drive daylight deep into the plan.

Sawtooth Facade Design

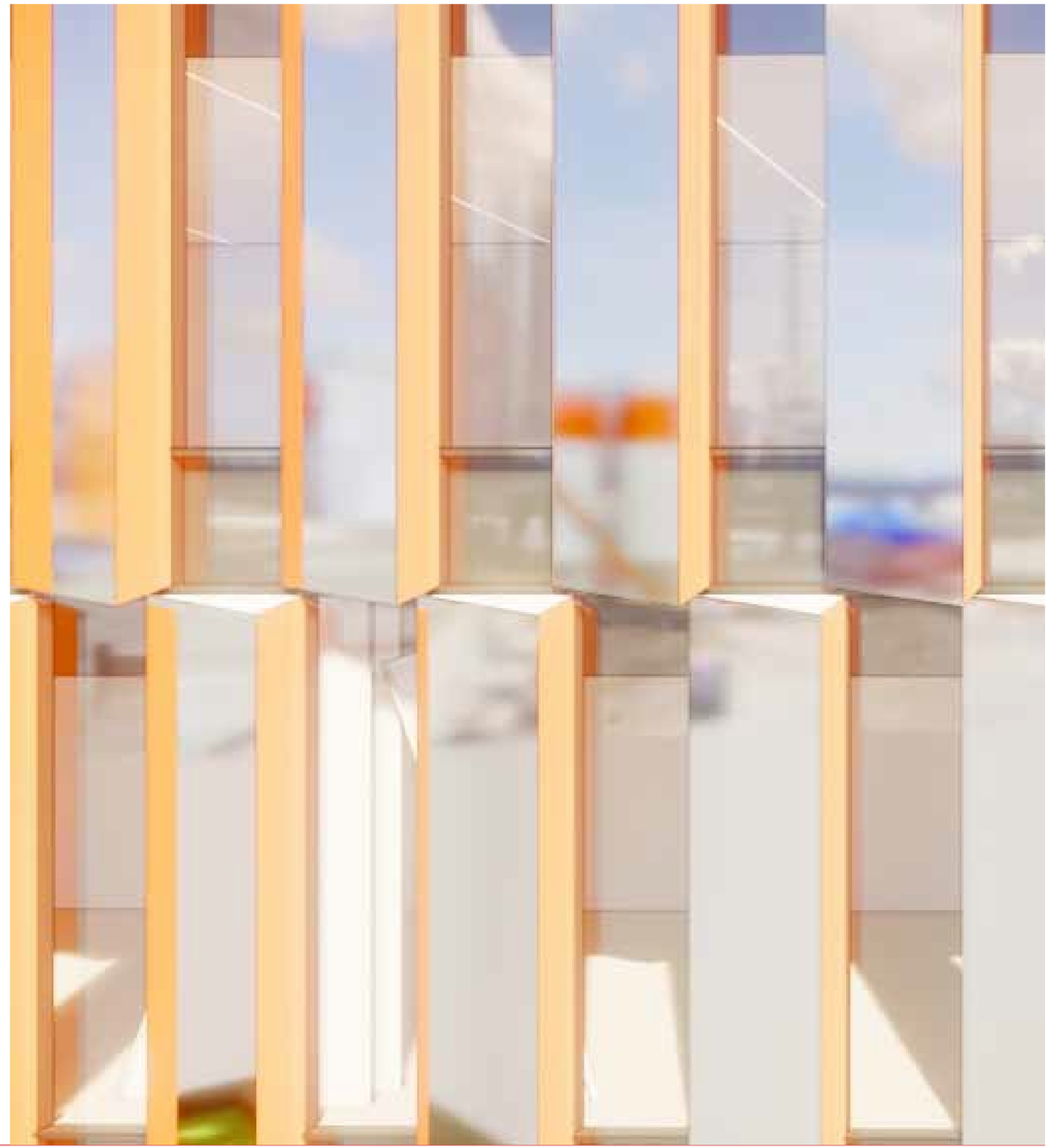


Saw Tooth Facade Along Single Bay Depth

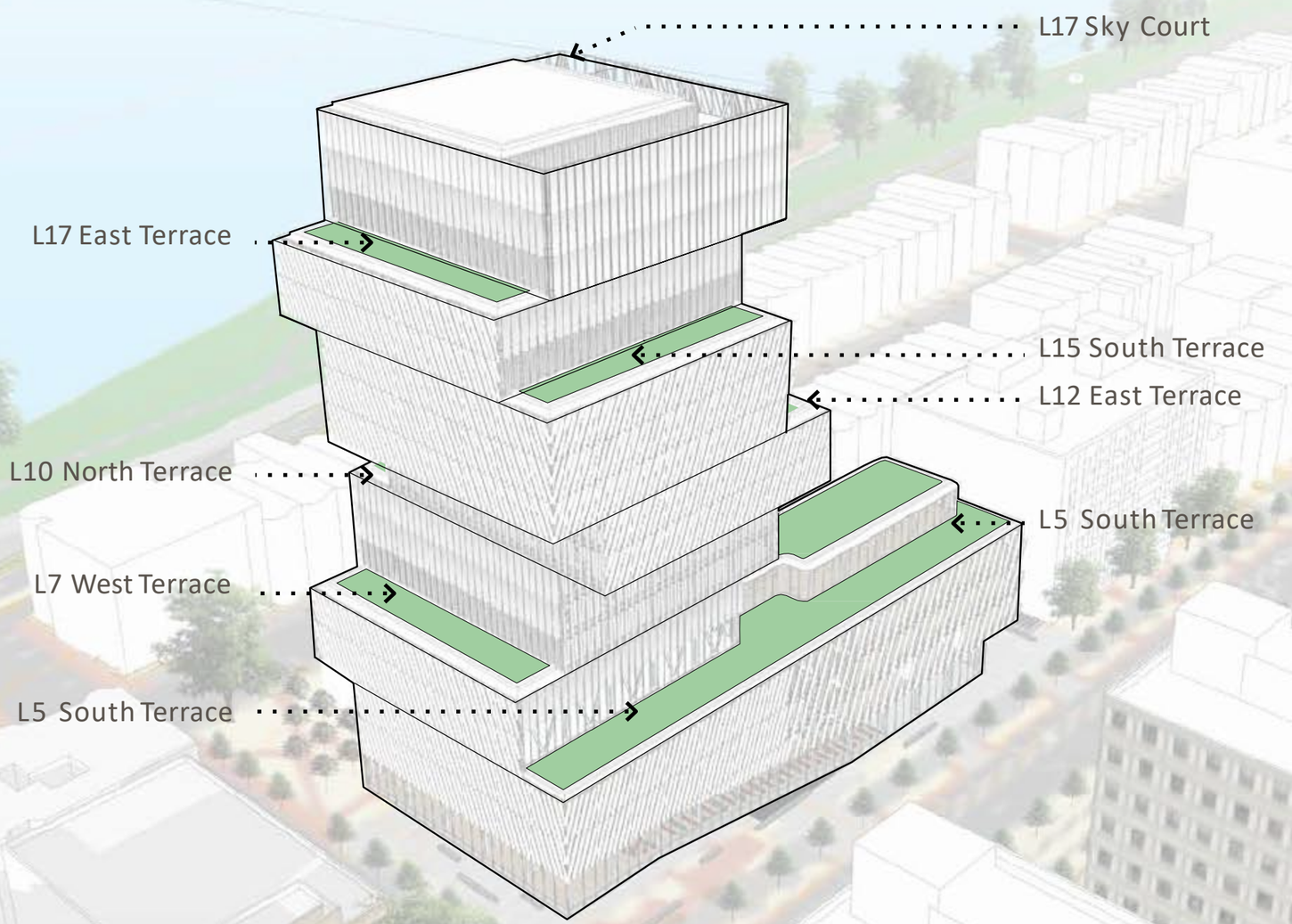
A vertical sawtooth with 40% vision glazing is used on the shallow single bay depth floor plate zone where daylight does not need to penetrate as deep into the floorplate.

Diagonal Louver Facade Design

Sawtooth Facade Design



The shifted volumes break down the scale into verical neighborhoods and create outdoor collaboration spaces on all sides of building



L7 West Terrace View

Center for Computing & Data Sciences

View looking north from corner Commonwealth Ave and Granby St

View from Granby St. looking East to Laneway

View West from Laneway

View East from Laneway

Laneway view looking southeast to courtyard and interior atrium

Courtyard View Looking South

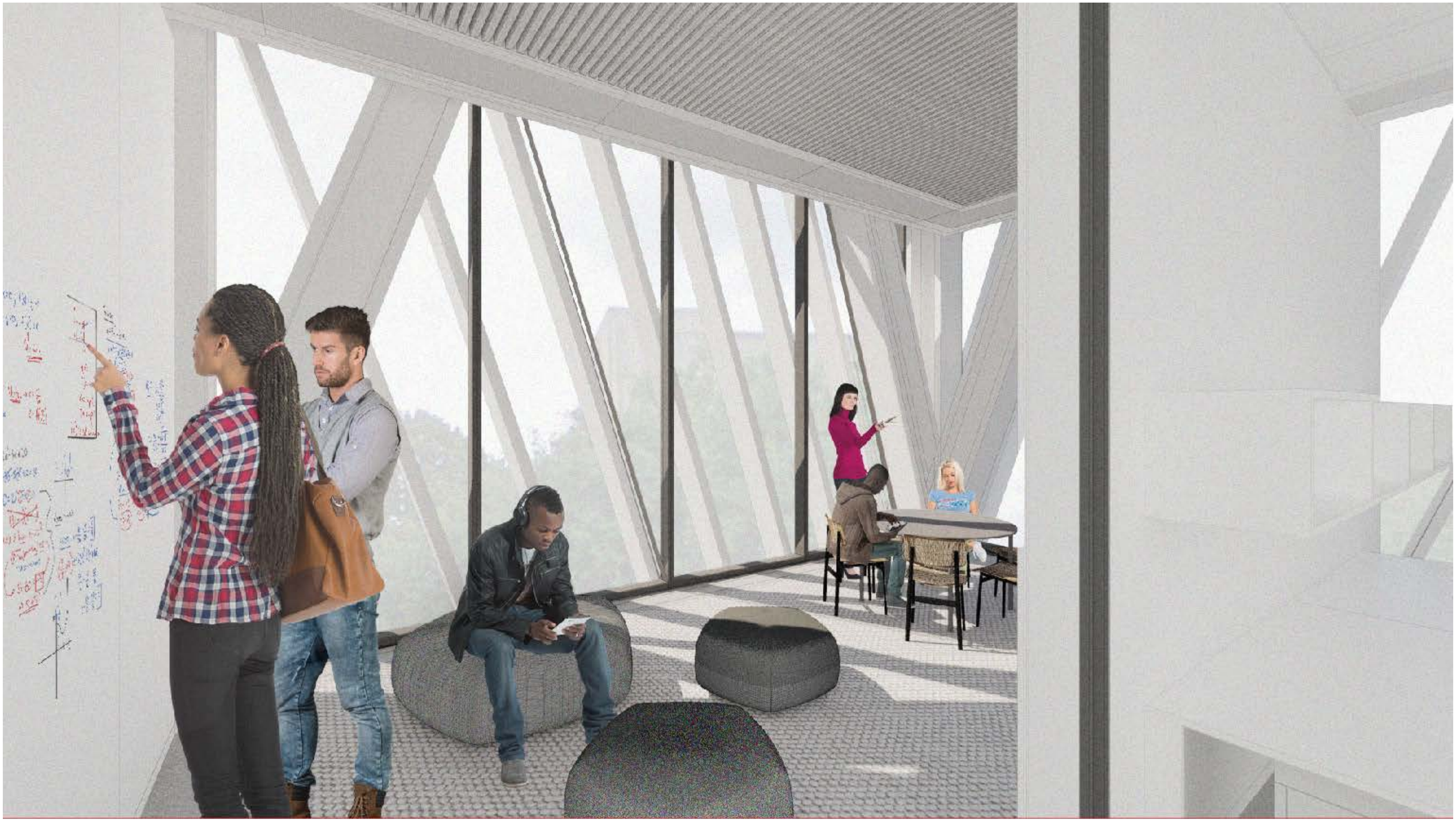
View from Laneway looking south to courtyard and interior atrium

View looking North to East Entrance, Passageway & Bike Shelter

View looking East along Commonwealth Avenue

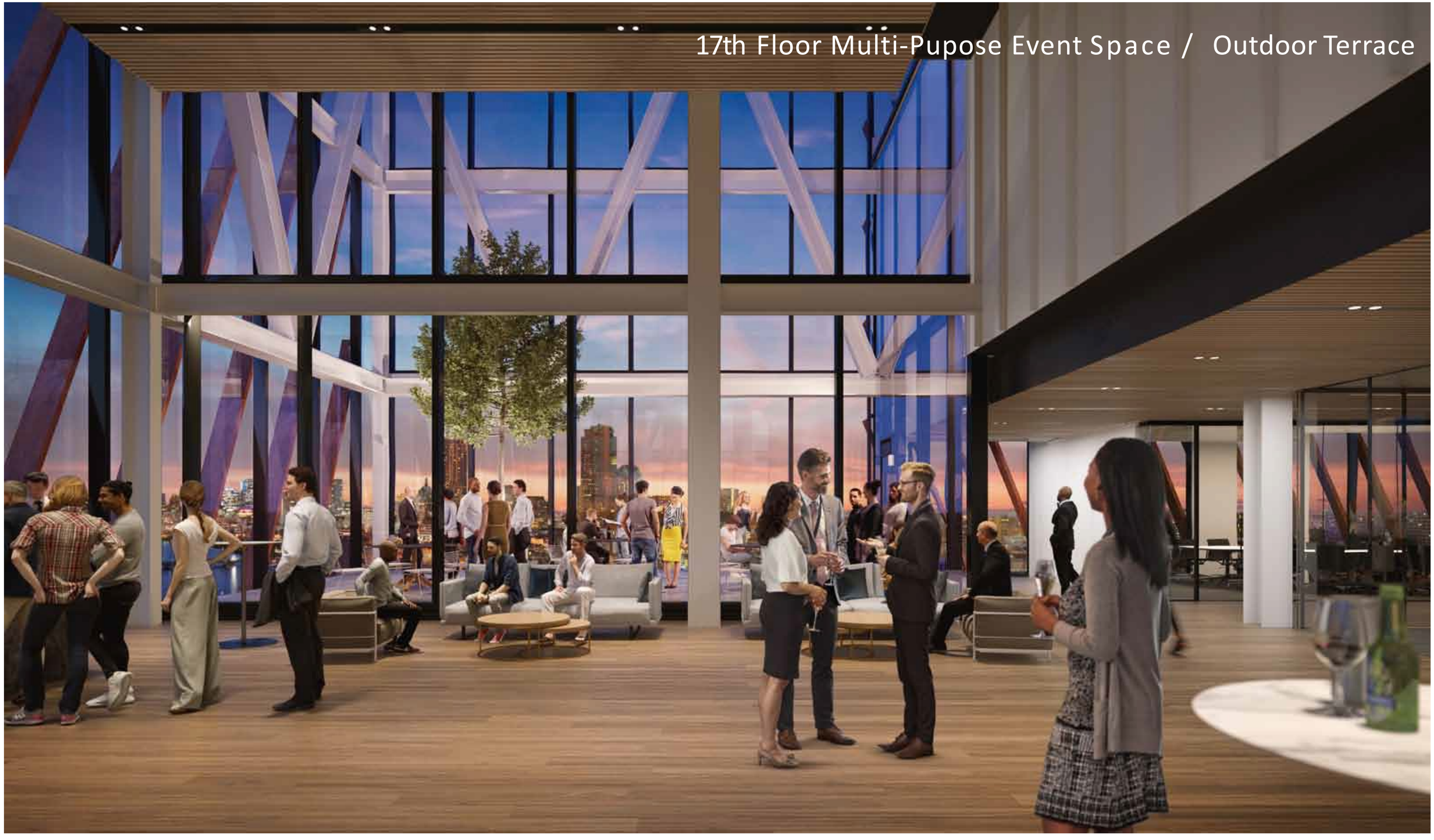
Interior view looking East along Commonwealth Avenue

Typical Tower Floor - Focused Collaboration Spaces

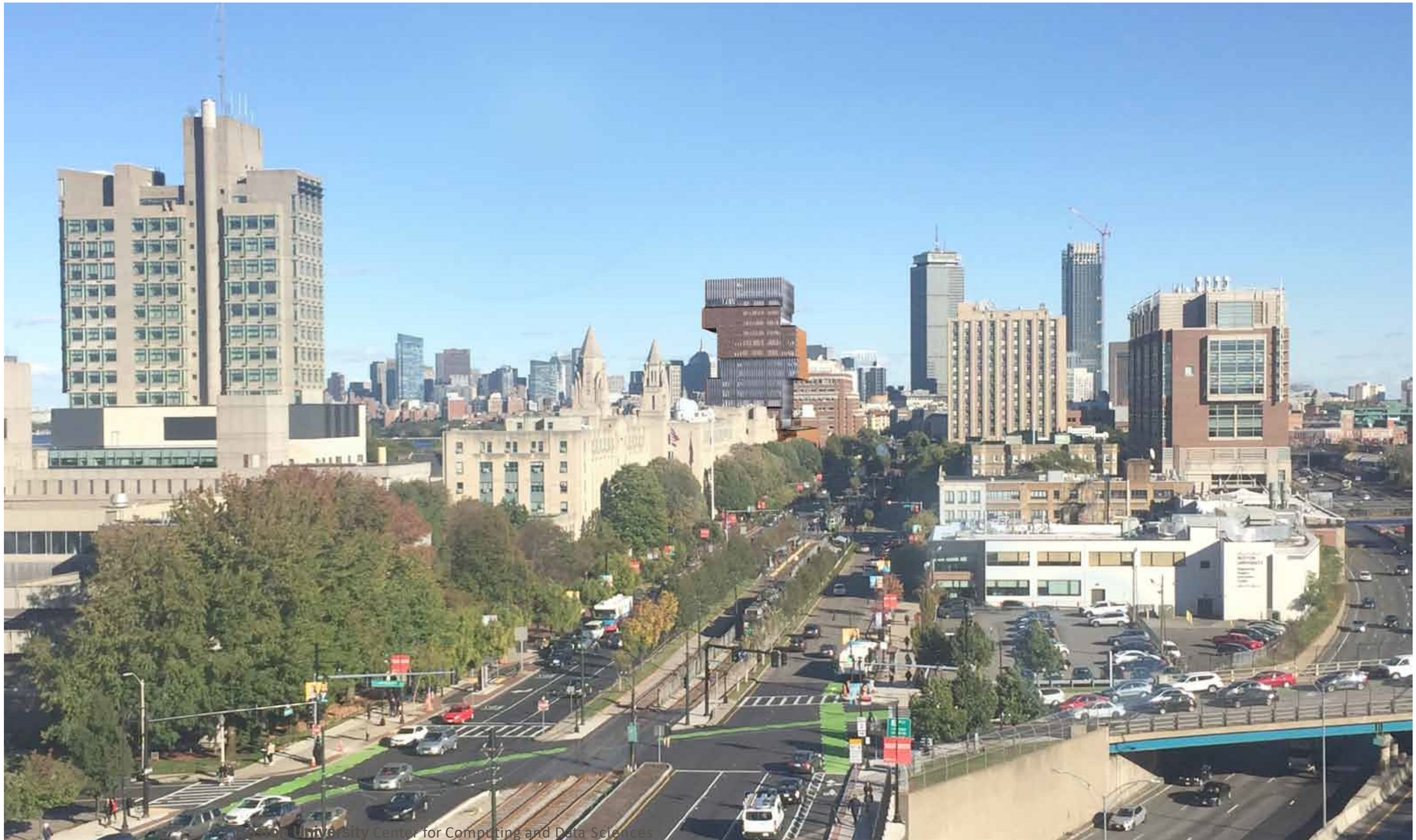


Fifth Floor Pavilion (Evening Event)

17th Floor Multi-Pupose Event Space / Outdoor Terrace



Interior view looking East along Commonwealth Avenue



Sustainability & Climate Action Plan

Dennis Carlberg

Associate Vice President, Sustainability

5 Reasons
This Building Will Be BU's Most Sustainable Yet

Reason #1 Resilient Design

Prepare for Climate Change

First Floor set at 1.25 feet above
BU Elevation of Resilience

Water Depth
- 0.5 ft
- 1 ft
- 1.5 ft
- 2 ft
- 2.5 ft
- 3 ft
- 3.5 ft
- 4 ft
- 4.5 ft
- 5 ft
- 10 ft
- >10 ft

0 0.15 0.3 0.45 0.6 0.75 Miles

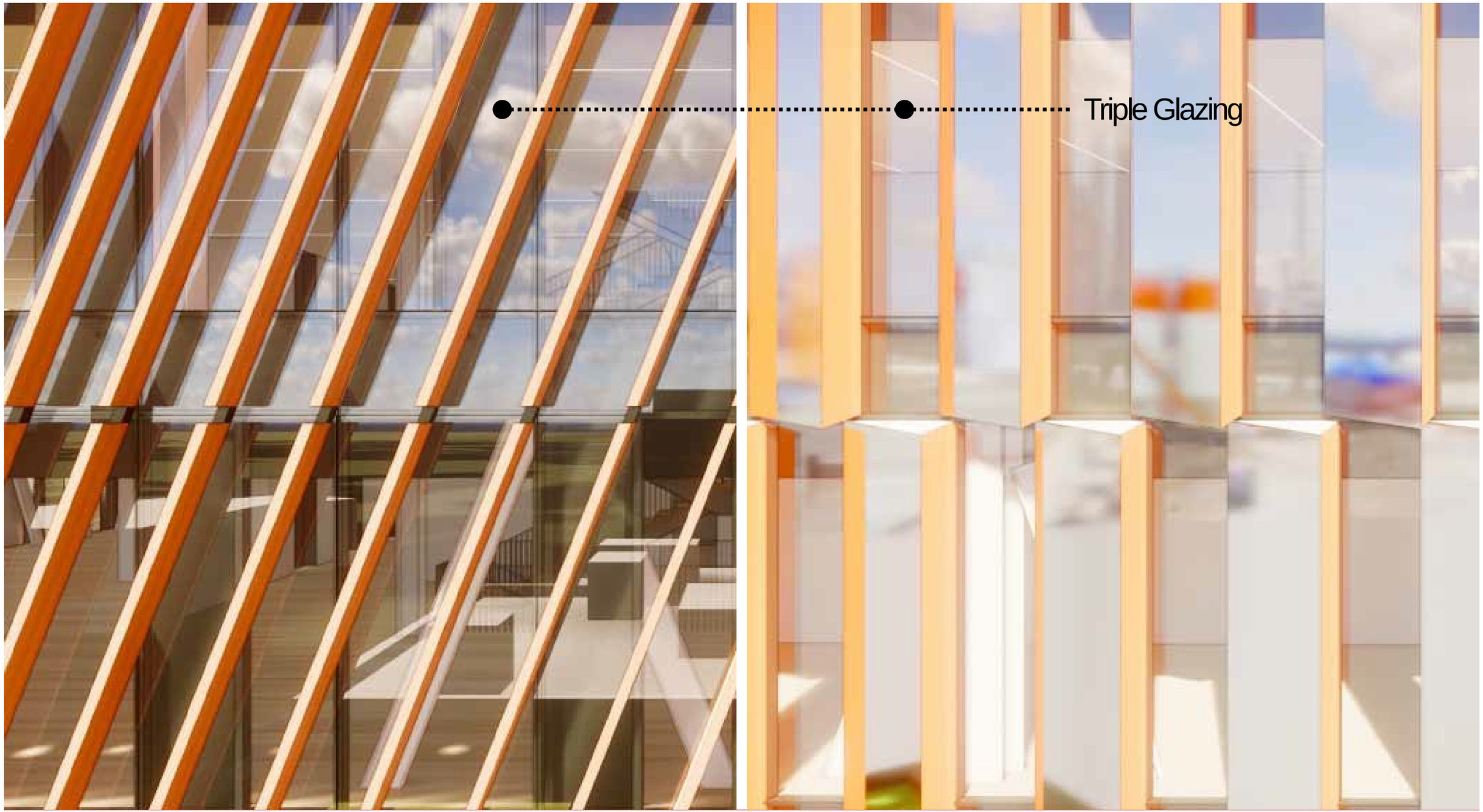
USGS, MassGIS

Reason #2 Energy Efficiency

Building Enclosure

Diagonal Louver Facade Design

Sawtooth Facade Design



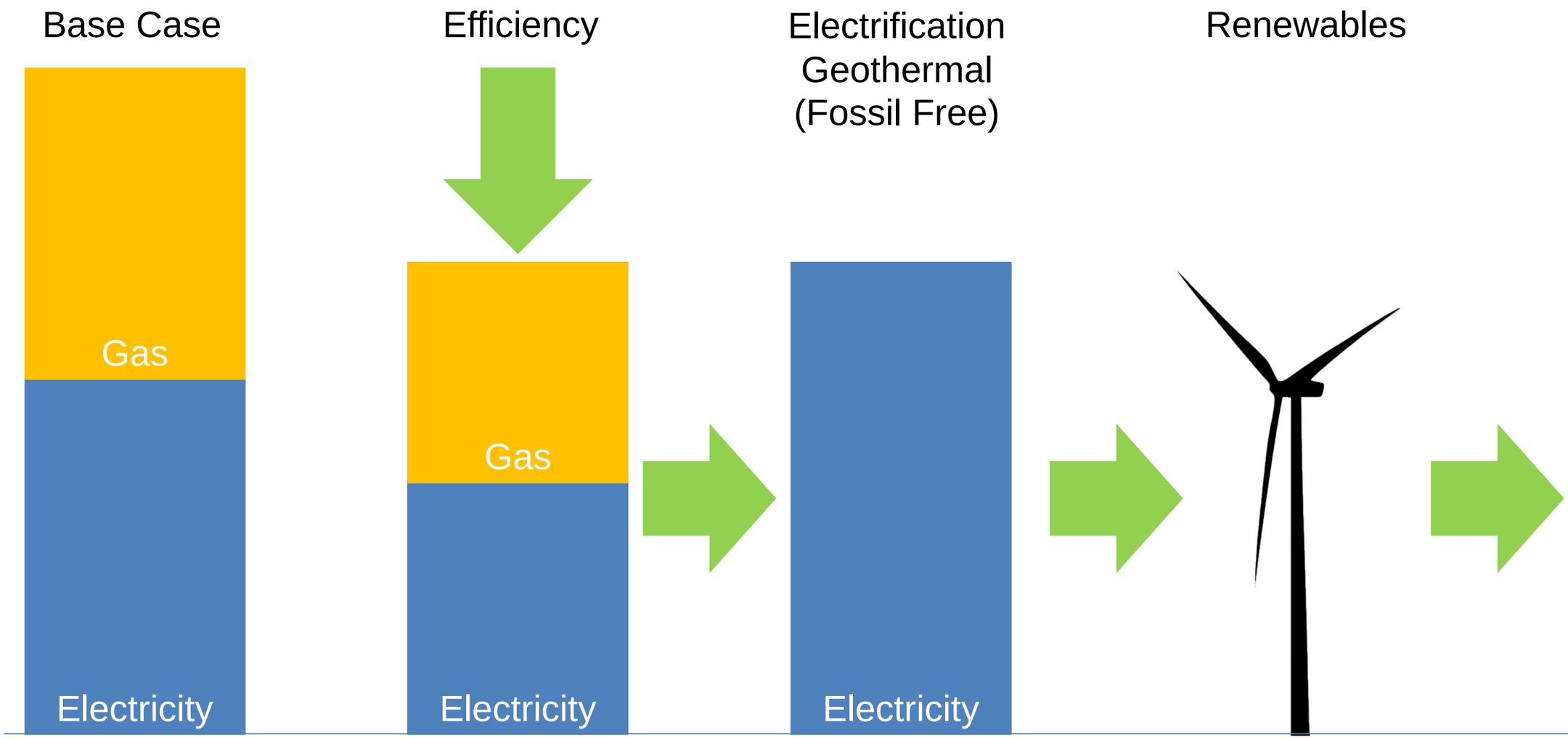
Reason #2 Energy Efficiency

Ground Source Heat Pump

1. Enhanced HVAC System
2. Chilled Beams
3. 1,500 foot deep geothermal

Reason #3 Fossil Free, Carbon Free

De-carbonizing Energy



1,388,488
kg CO_2e

988,901
kg CO_2e

Zero
kg CO_2e

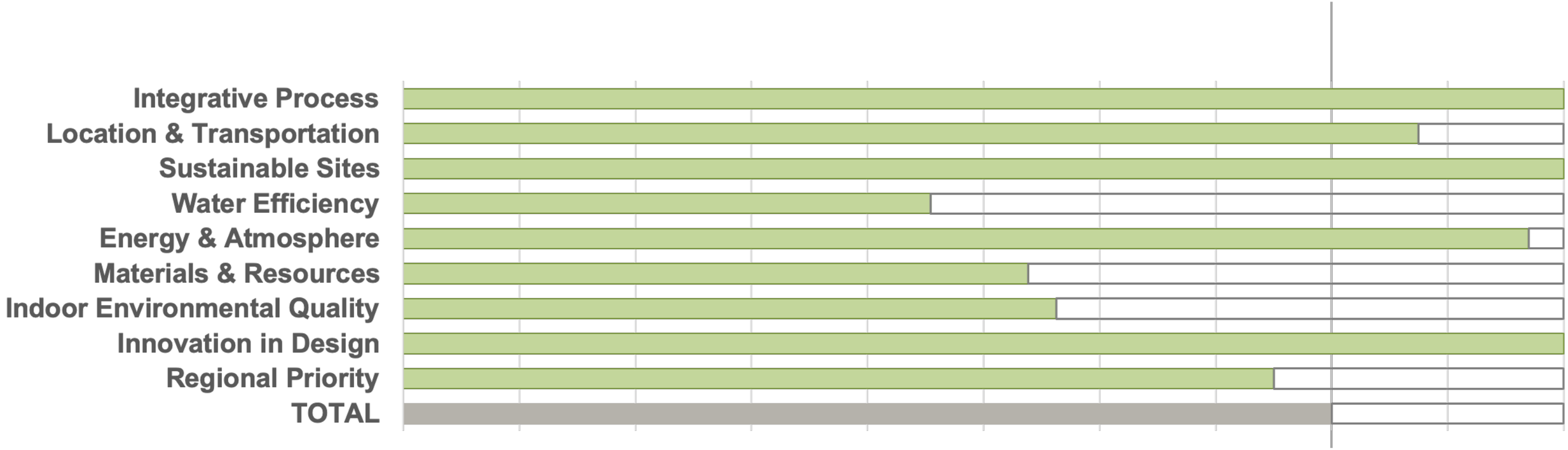
Reason #4 Indoor Environmental Quality

Interconnected Spaces

Reason #5 Climate Leadership

Seeking LEED Platinum

Certified	Silver	Gold	Platinum
40-49 points earned	50-59 points earned	60-79 points earned	80+ points earned



Reason #5 Climate Leadership

City of Boston Climate Action Plan

- Chief of Environment Energy & Open Space
- Sharing Lessons Learned through the Green Ribbon Commission
- Boston Planning & Development Agency Exemplary Project

Reason #1 Resilient Design

Prepare for Climate Change

Reason #2 Energy Efficiency

Building Enclosure

Building Systems

Reason #3 Fossil Free, Carbon Free

De-carbonizing Energy

Geothermal

Reason #4 Indoor Environmental Quality

Interconnected Spaces

Materials

Reason #5 Climate Leadership

Seeking LEED Platinum

City Climate Action Plan

Project Impact - What to Expect

Walt Meissner, *Associate Vice President, Operation*

Chris Kenney, *Project Manager, Compass Project Management*

Tom Spall, *Project Superintendent, Suffolk Construction*

Bryan Sweeney, *GeoTech Engineer, Haley & Aldrich*

Project Team – Lead Consultants

University Leadership

Jean Morrison, University Provost
Gary Nicksa, Senior Vice President, Operations

Project Management

Walt Meissner, Project Executive

Amy Barrett, Program Lead

Paul Rinaldi, Design Lead

David Flynn, Construction Lead

Government & Community Affairs

Stephen Burgay, Senior Vice President, External Relations

Jake Sullivan, Vice President, Gov & Community Relations

Ken Ryan, Director of City Relations

OPM – Owner's Project Manager

Compass Project Management

Construction Manager

Suffolk Construction, Pre-Construction

Permitting Services

Fort Point Associates

Architecture / Structure / MEP / Landscape

KPMB Architects

Entuitive, Structural

Bard, Rao + Athanas (BR+A), MEP

Richard Burke Associates, Landscape

Sustainability Engineers

Transsolar Klima Engineering

Civil

Nitsch Engineering

Life Safety and Building Code Services

Jensen Hughes

Geotechnical Services

Haley Aldrich

LEED Consulting

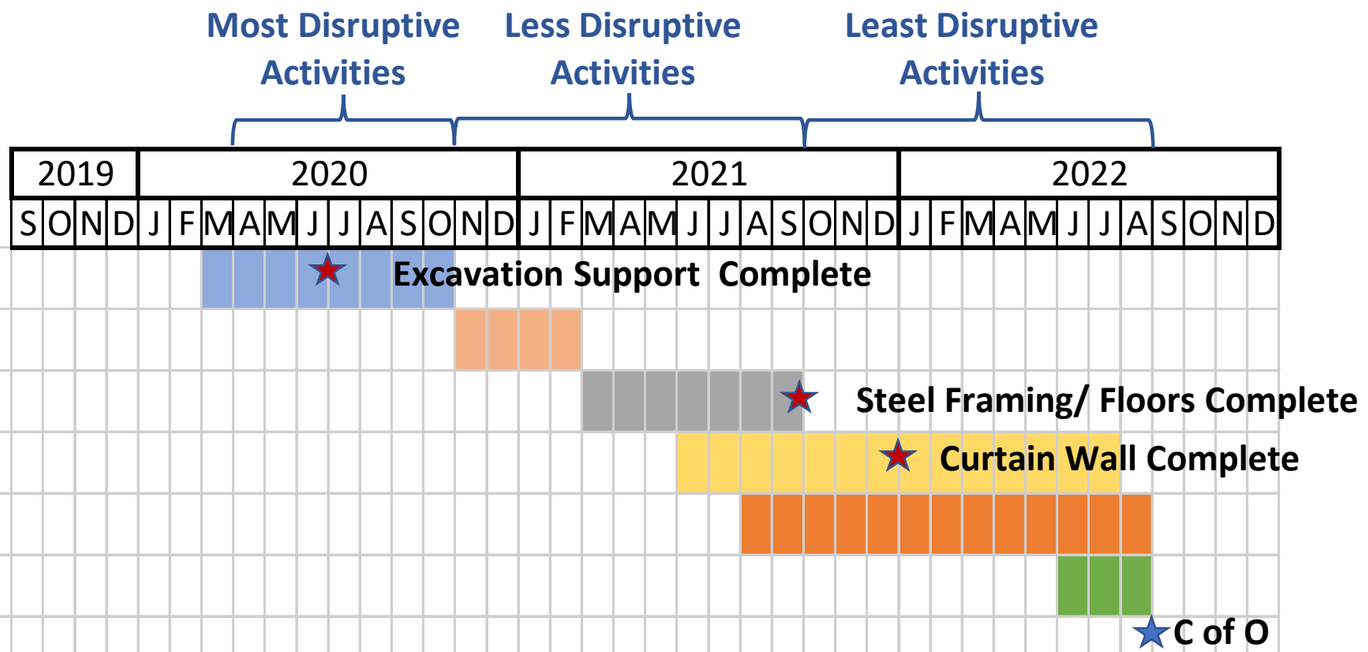
The Green Engineer

Transportation

AECOM

Construction Milestone Schedule

ID	Major Milestone Activities	Start	Finish
1	Support of Excavation/ Mass Excavation	3/23/20	10/31/20
3	Concrete Foundations/ Core Construction	11/1/20	2/28/21
4	Structural Steel/ Superstructure	3/1/21	9/30/21
5	Curtainwall/ Roofing/Building Enclosure	6/1/21	7/31/22
6	Interiors /Finishes	8/1/21	7/31/22
7	Final Hardscape/Landscaping	6/1/22	9/1/22
8	**Construction Completion**		

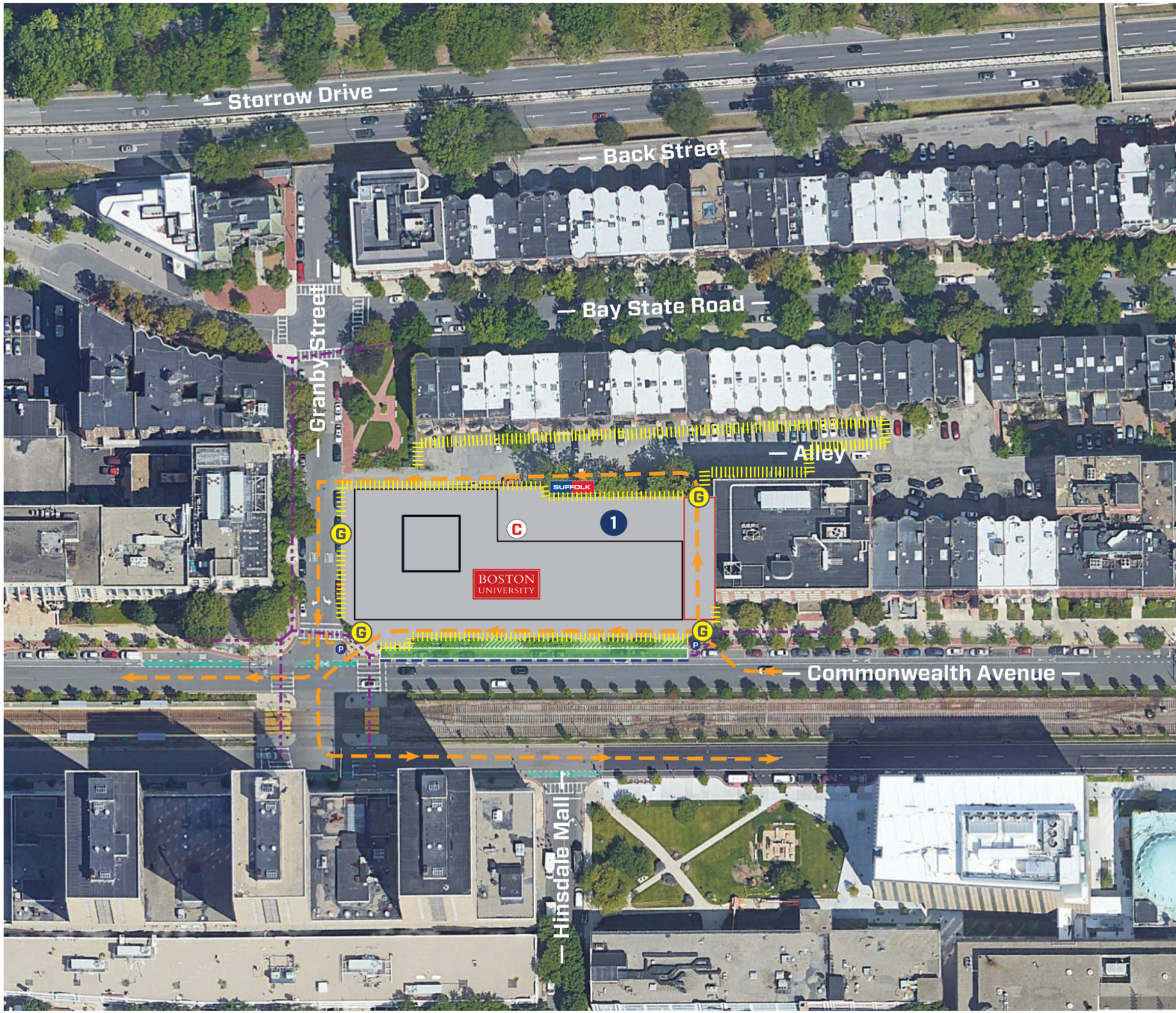


- Work Sequence
- Activity Expectation
- Site Configuration Evolution

SAFER TOGETHER

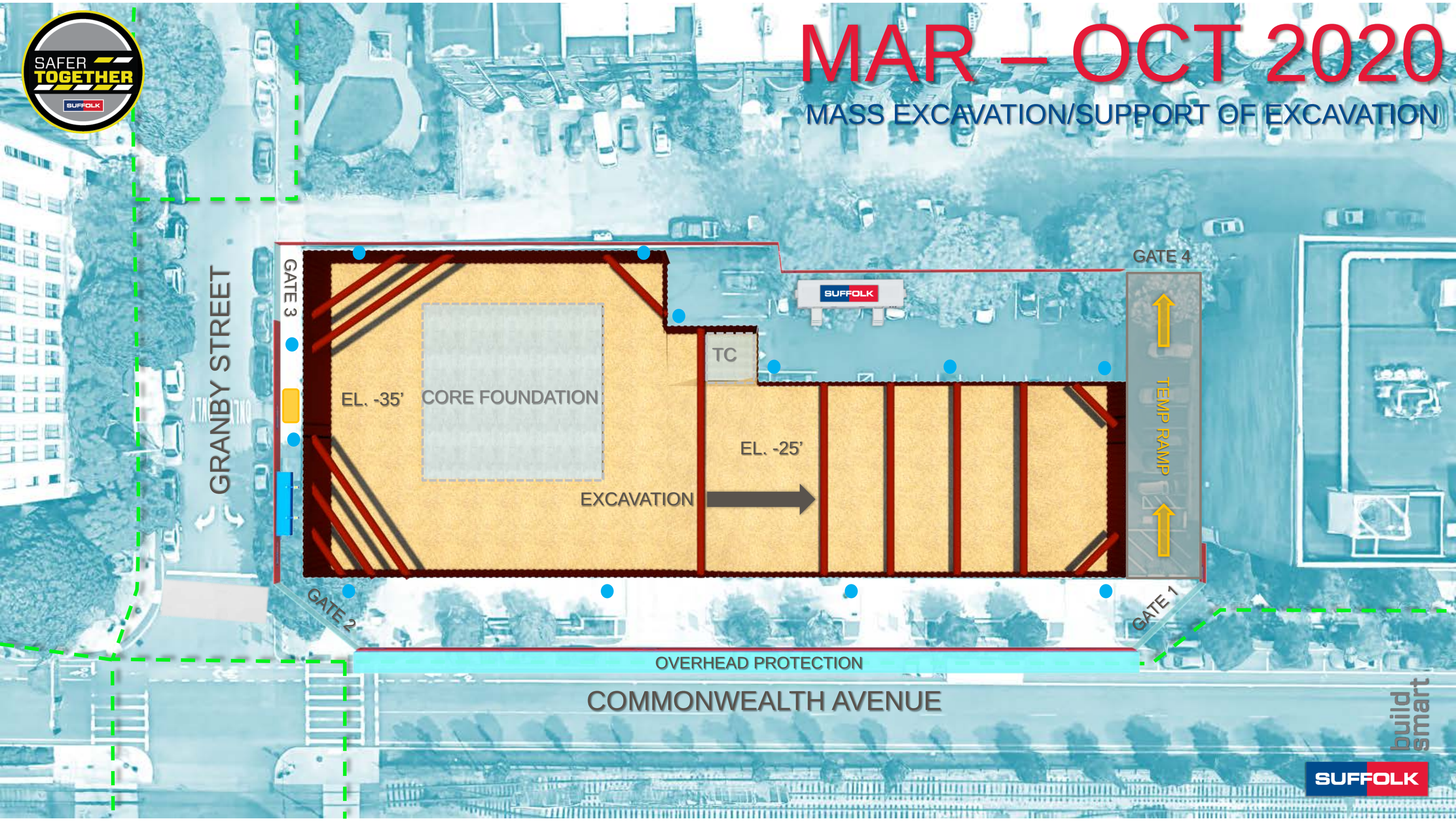
SUFFOLK

- 1 Project Site
- BOSTON UNIVERSITY Boston University Center for Data Studies
- G Gates
- Site Fence
- C Tower Crane
- Jersey Barrier
- Tree Protection
- Core Walls
- SUFFOLK Site Trailers
- Truck Routes
- Pedestrian Egress
- Access Ramp
- Covered Walkway
- P Police Detail



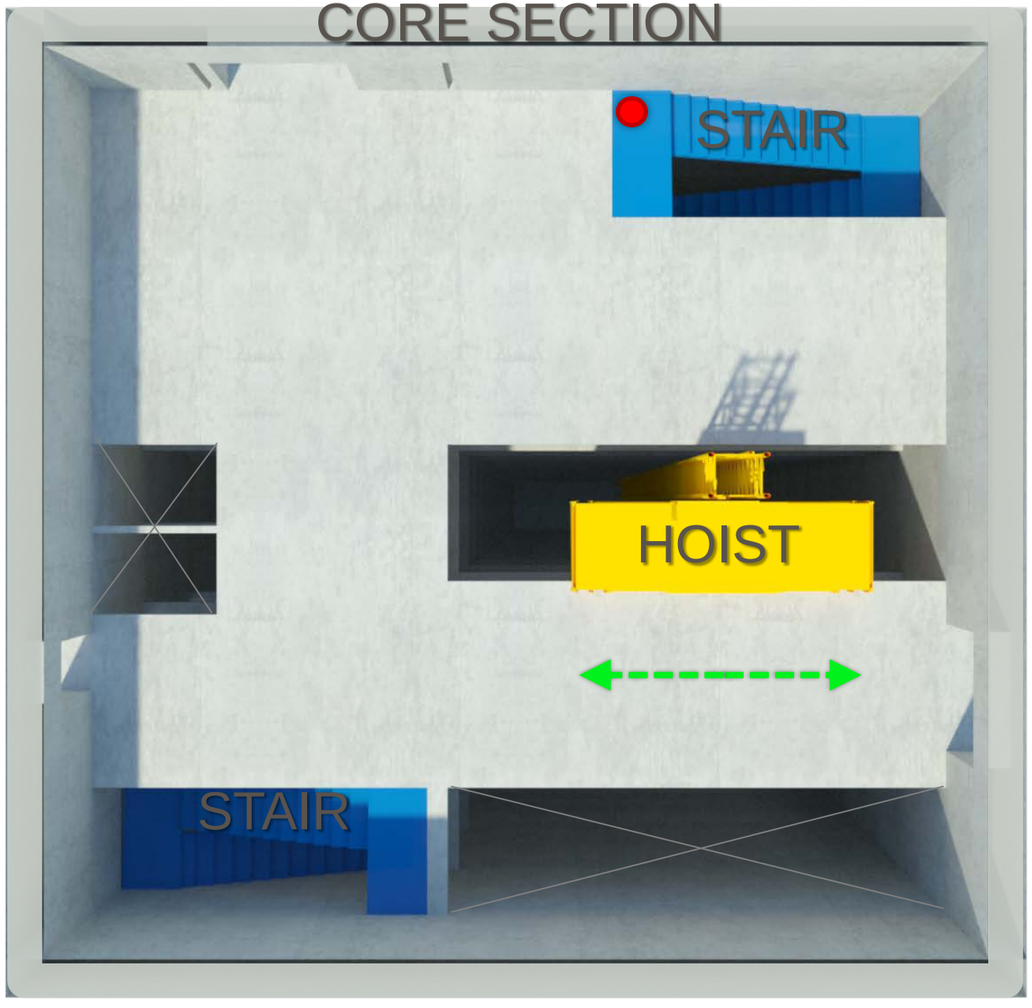
MAR – OCT 2020

MASS EXCAVATION/SUPPORT OF EXCAVATION



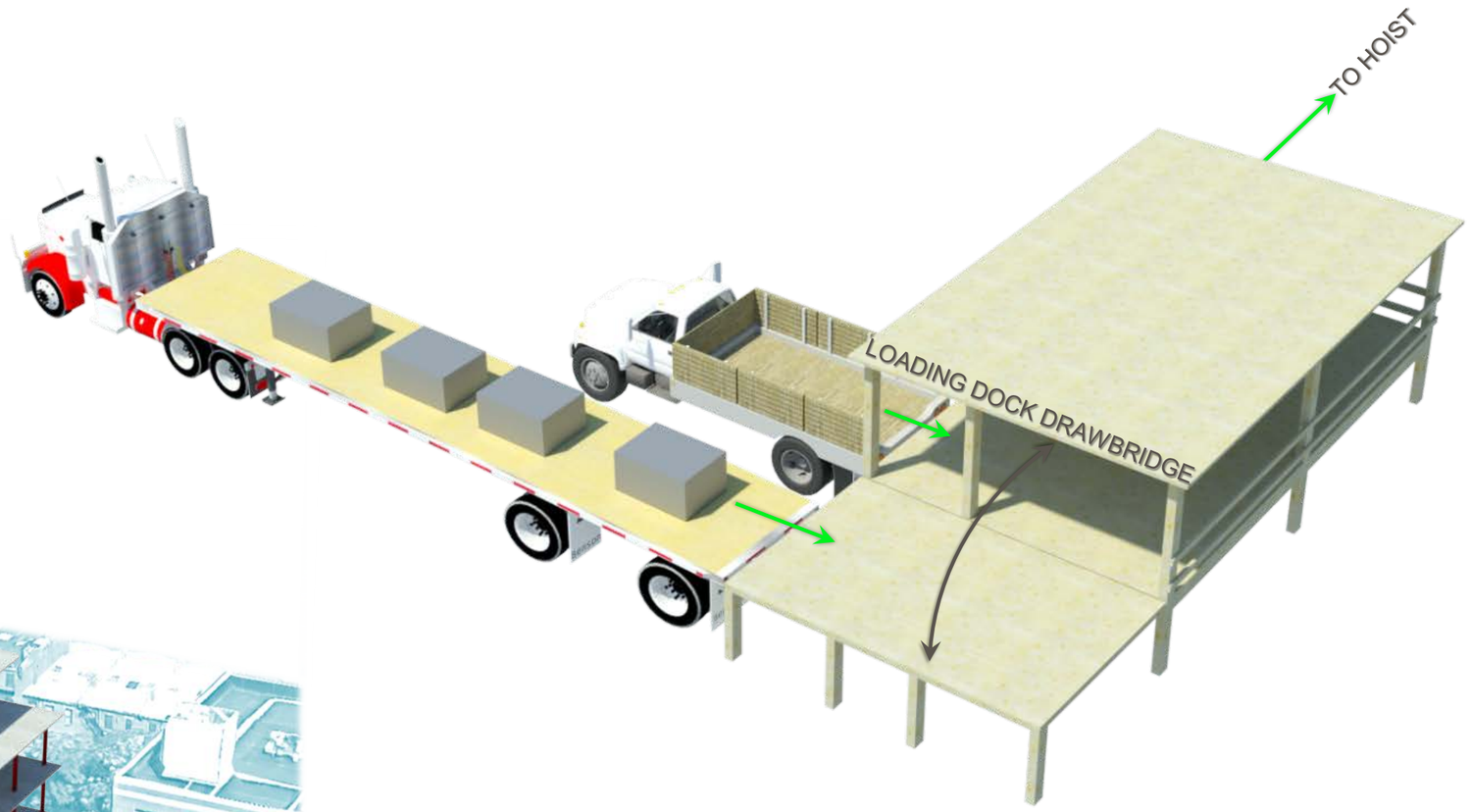
NOV 2020 – FEB 2021

CONCRETE FOUNDATIONS/CORE CONSTRUCTION



FEB – SEP 2021

CONCRETE AND STEEL SUPERSTRUCTURE



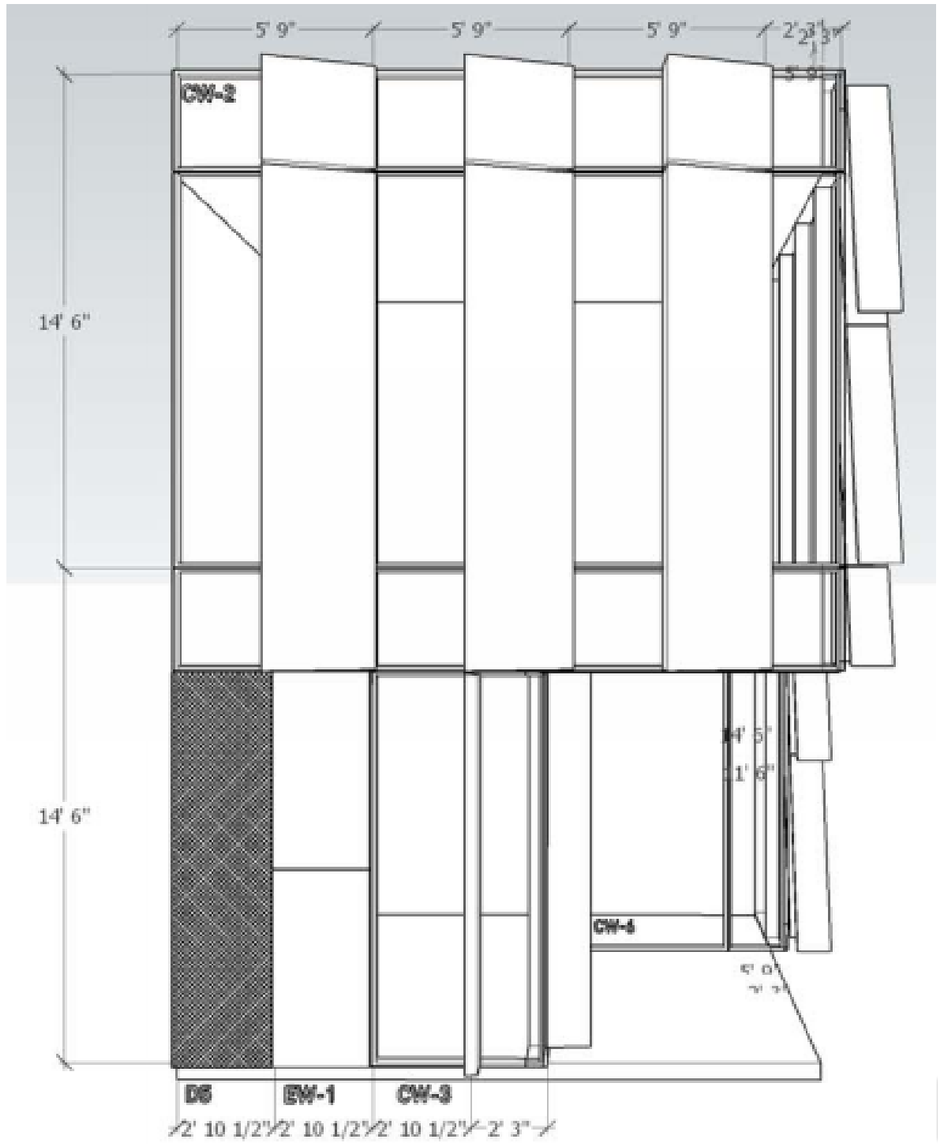
MATERIAL HANDLING

build smart

SUFFOLK

JUN 2021 – JUL 2022

CURTAINWALL/ROOFING/SOFFITS



build smart

SUFFOLK

JUN – SEP 2022

FINAL HARDSCAPE/LANDSCAPE

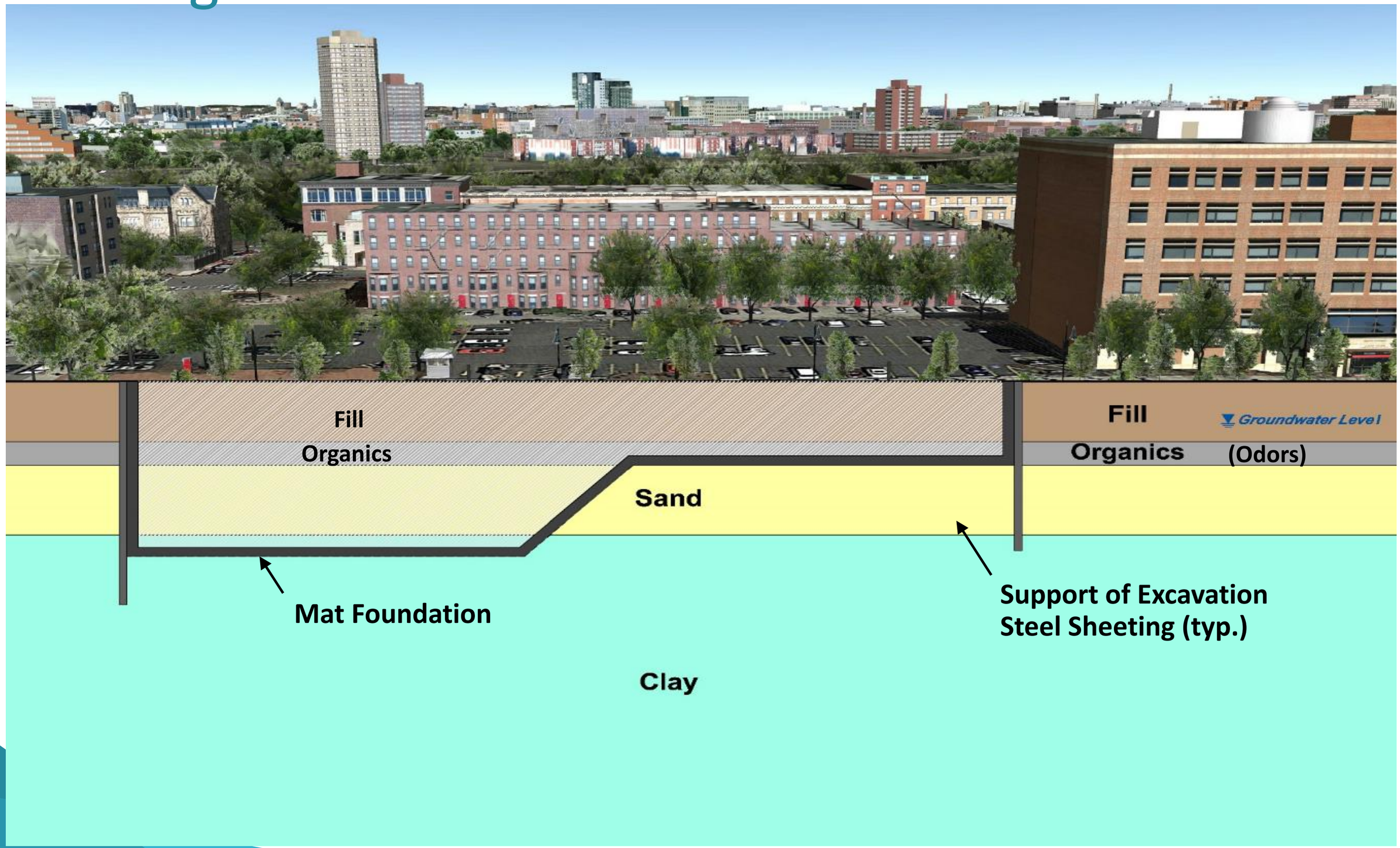
Boston University
Center for Computing and Data Sciences

Bryan P. Sweeney, P.E., Ph.D.

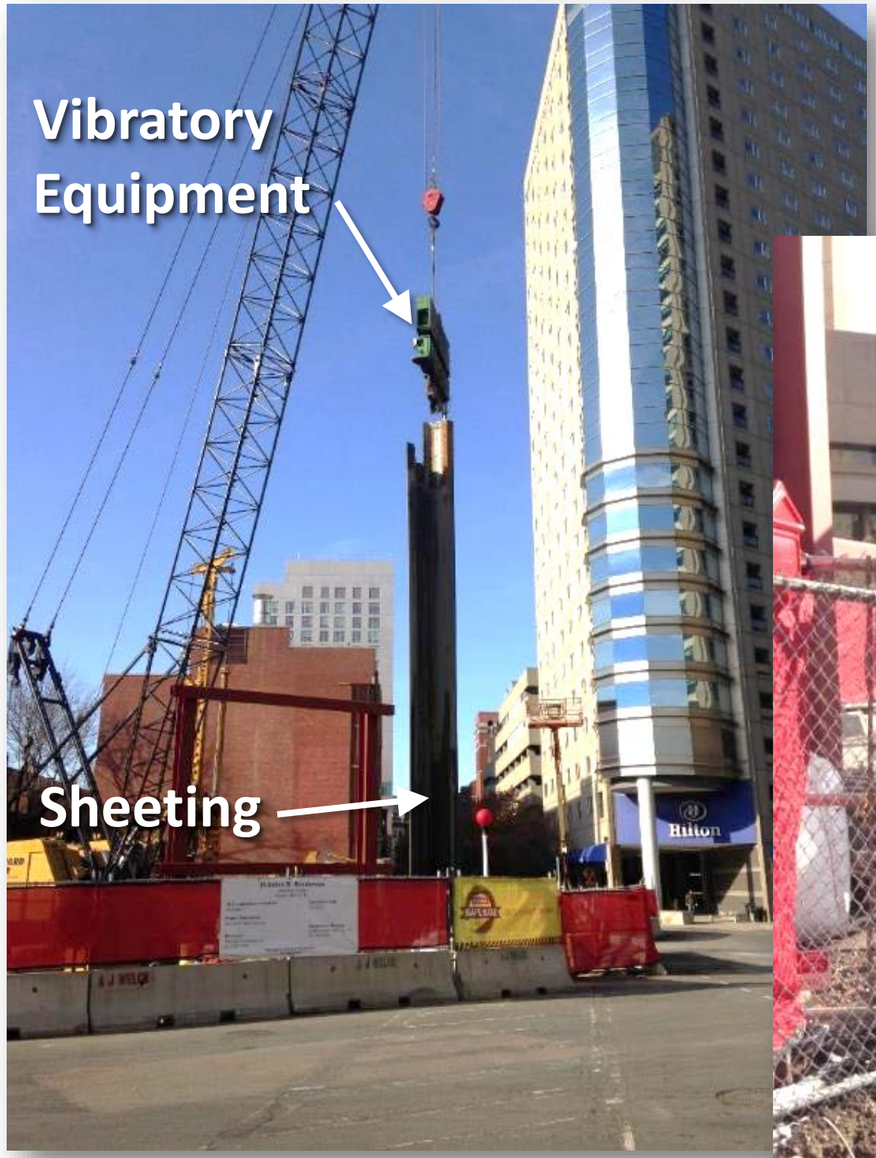
HALEY ALDRICH

Proposed Building Excavation

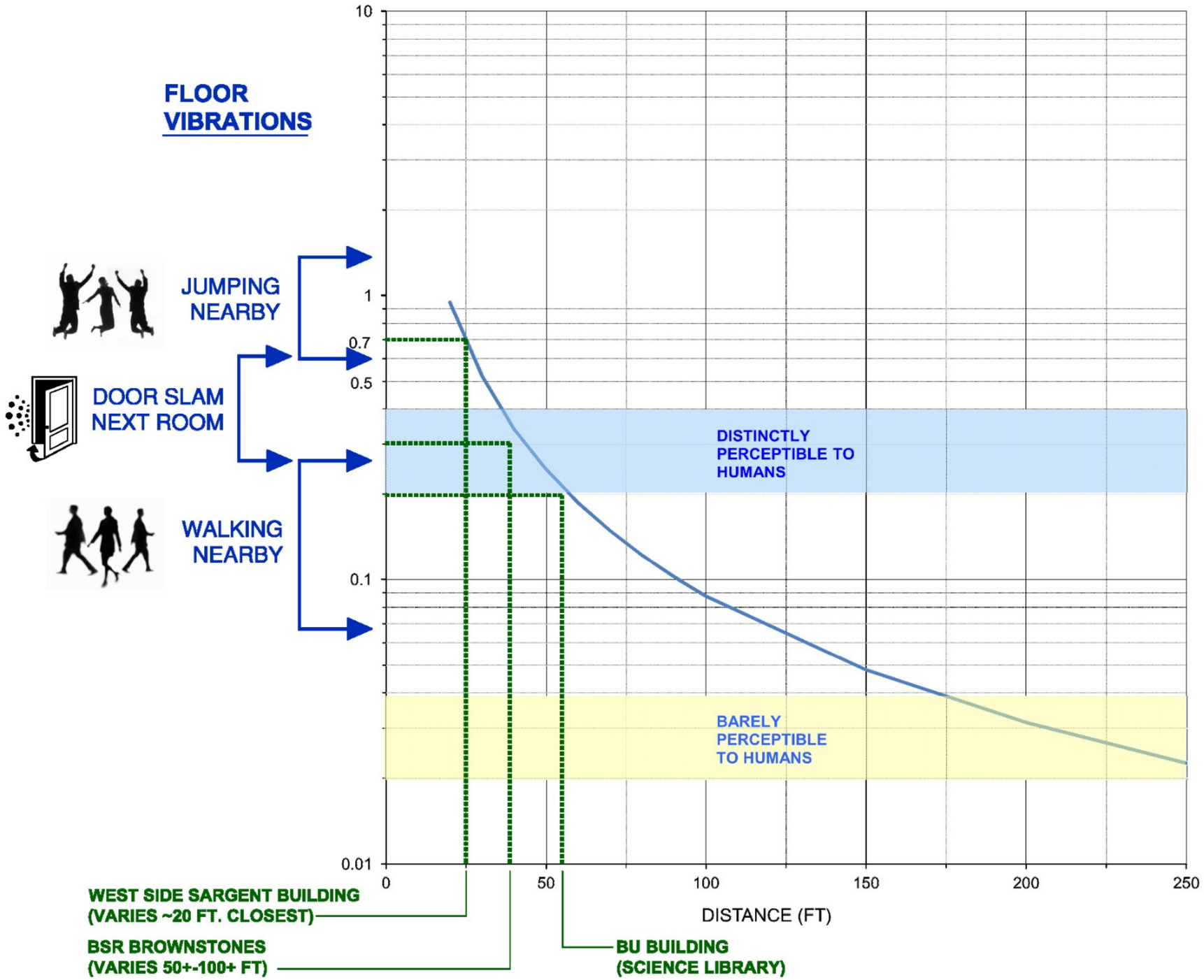
Building Excavation



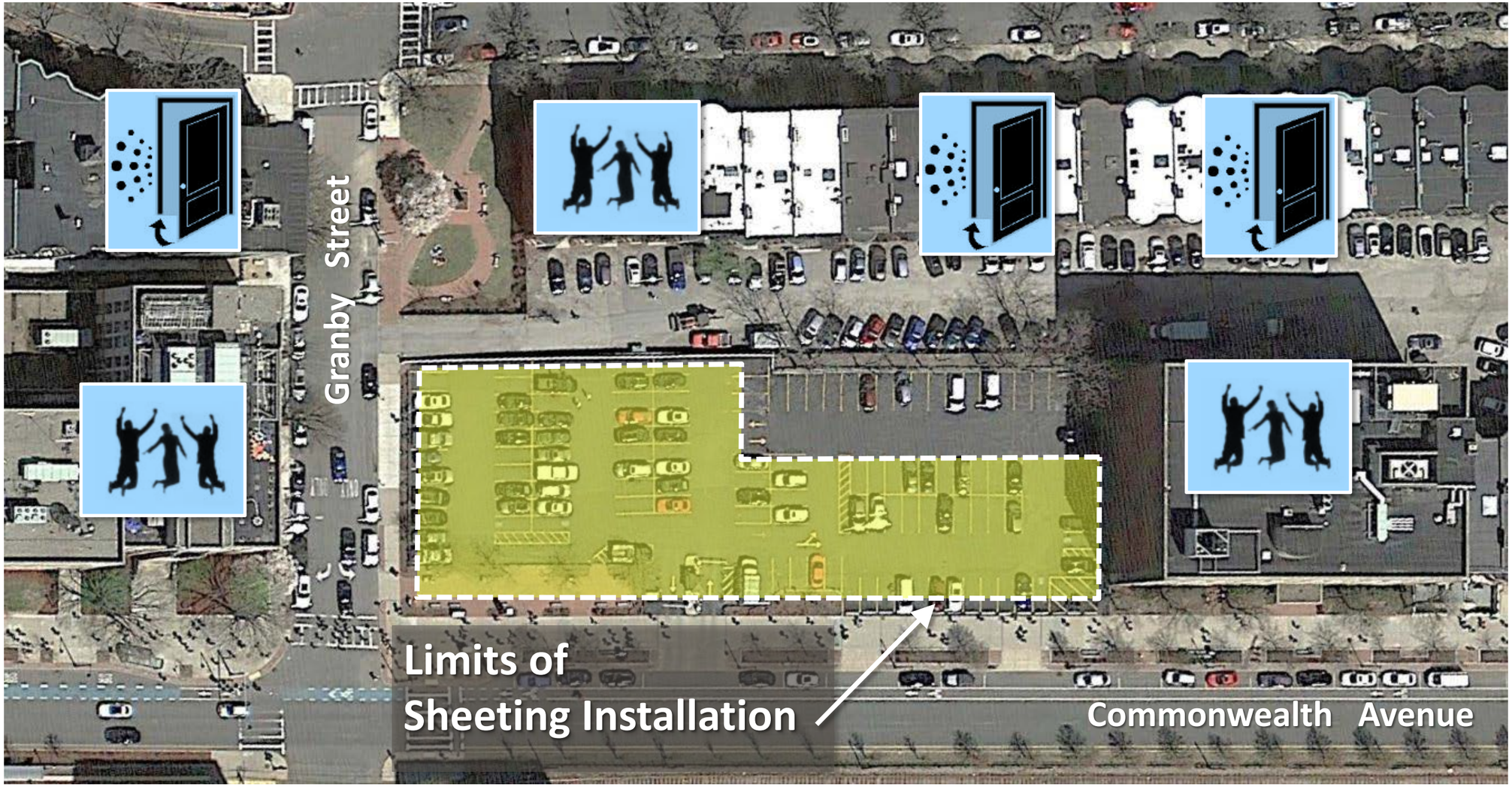
Support of Excavation Sheeting Installation



Sheeting - Vibrations Generated vs. Distance



Sheeting Installation



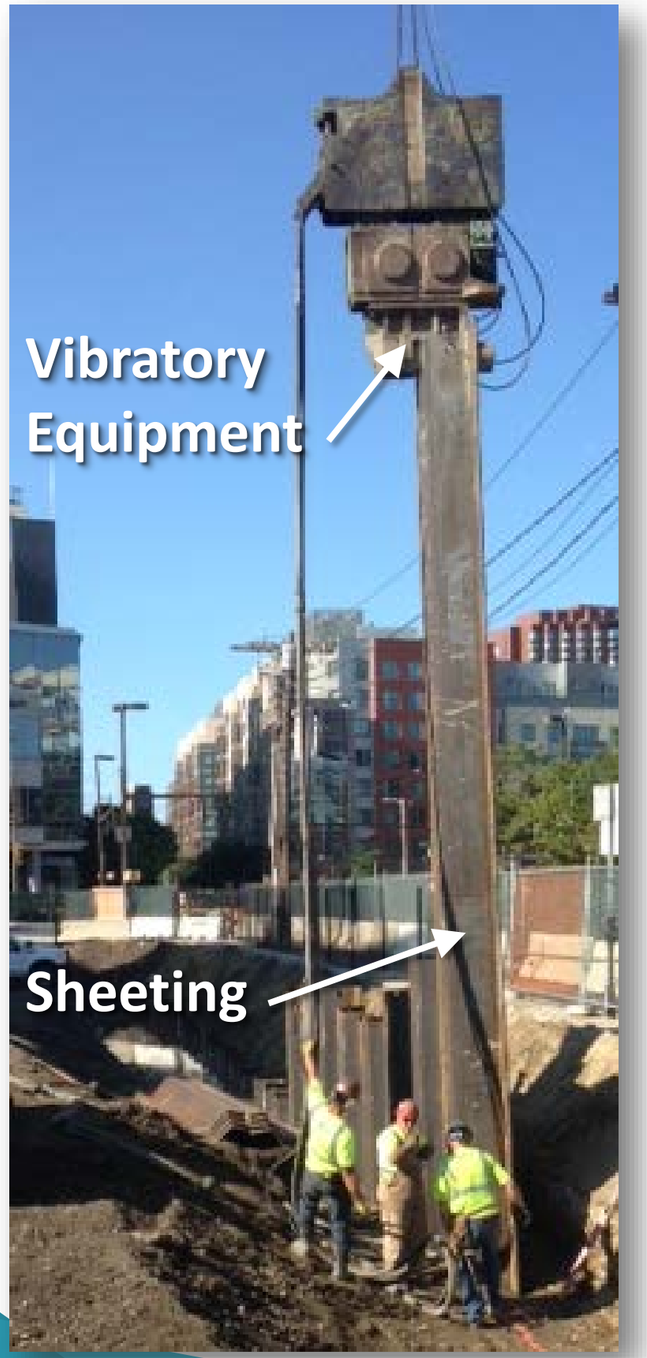
Floor Vibration

People jumping up and down

Door slam next room

Walking nearby

Design and Construction Mitigation Measures



- Shallow mat foundation (not driven piles)
- Drilled mini-piles (not driven)
- Pre-excavation along sheeting alignment
- Permanent continuous steel sheeting for excavation support to reduce groundwater drawdown during construction of excavation support (not removed)
- Organic odors (H_2S) during building excavation will be mitigated by spray-on odor control product, if necessary
- Instrumentation Program during construction

Communication

- Project Management Office
  - Morse Auditorium (602 Commonwealth Ave.) Basement

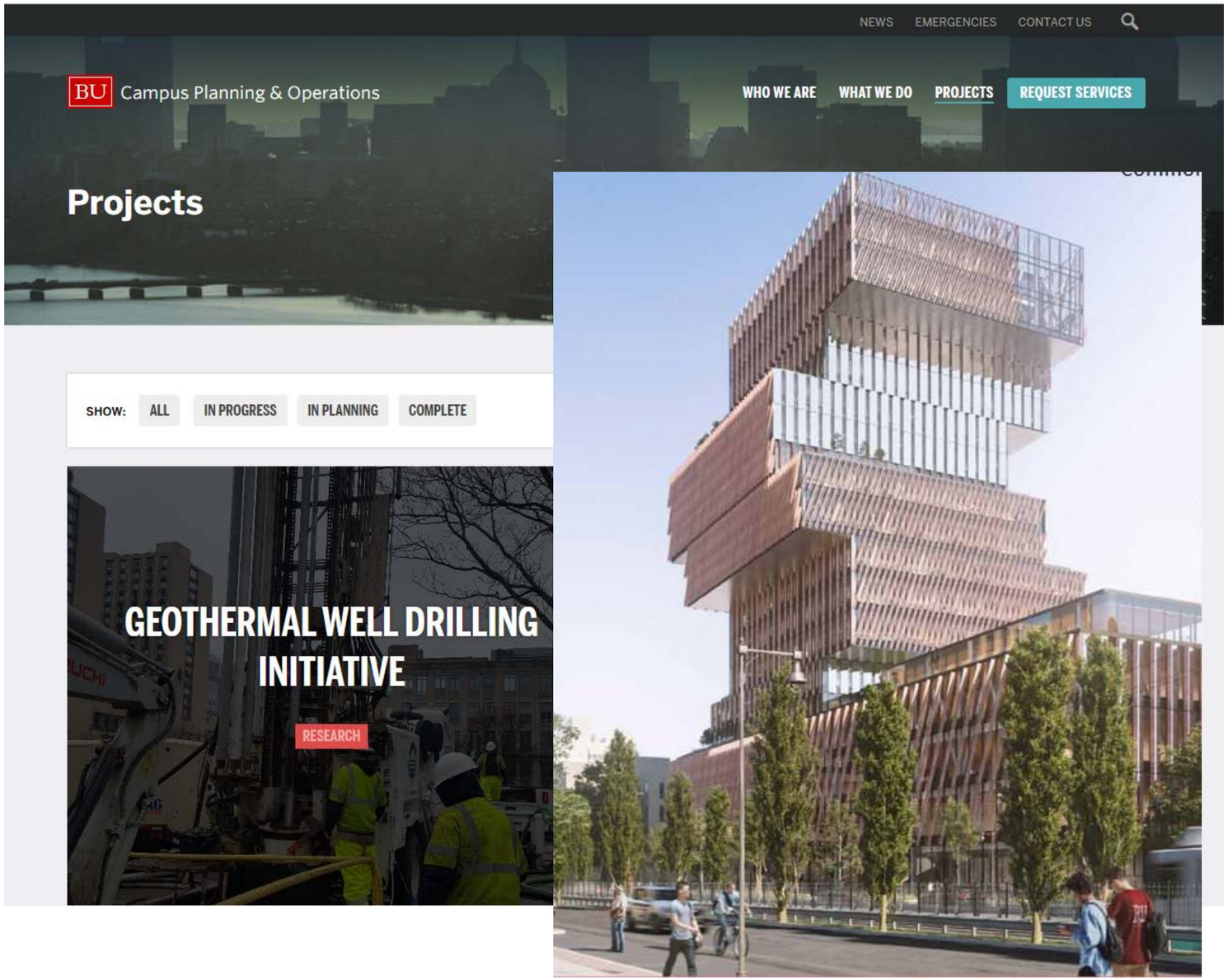
- Compass Project Management – Owner's Project Manager
  - Chris Kenney– Senior Project Manager
    - (617) 671-8669
  - Luke Apone – Assistant Project Manager
    - (617) 448-9230

Online communications: Facilities website

Page on the Facilities website: www.bu.edu/facilities/

- Where to find the page:
  - bu.edu/facilities
  - Projects
    - Research
      - Data Sciences Center

- Information on site:
  - Live Camera Feed
  - Project Notifications
  - Biweekly Schedule Updates
  - Logistic Changes
  - Deliveries
  - High-Impact Activities
    - Example: Noise, closures



Closing Remarks
&
Discussion