



PRESENT

Form & Function of Large Scale CHP in an Urban Environment



Microgrid 2.0

Advancing Industry Growth

OCTOBER 29-31, 2018 ▼ BALTIMORE, MD



- Team Introductions
- Engineering Considerations
- Architectural Considerations
- Construction Considerations

TEAM INTRODUCTIONS

VANDERWEIL 

 ELLENZWEIG

 BOND



MICHAEL W THORNTON
Principal
VANDERWEIL



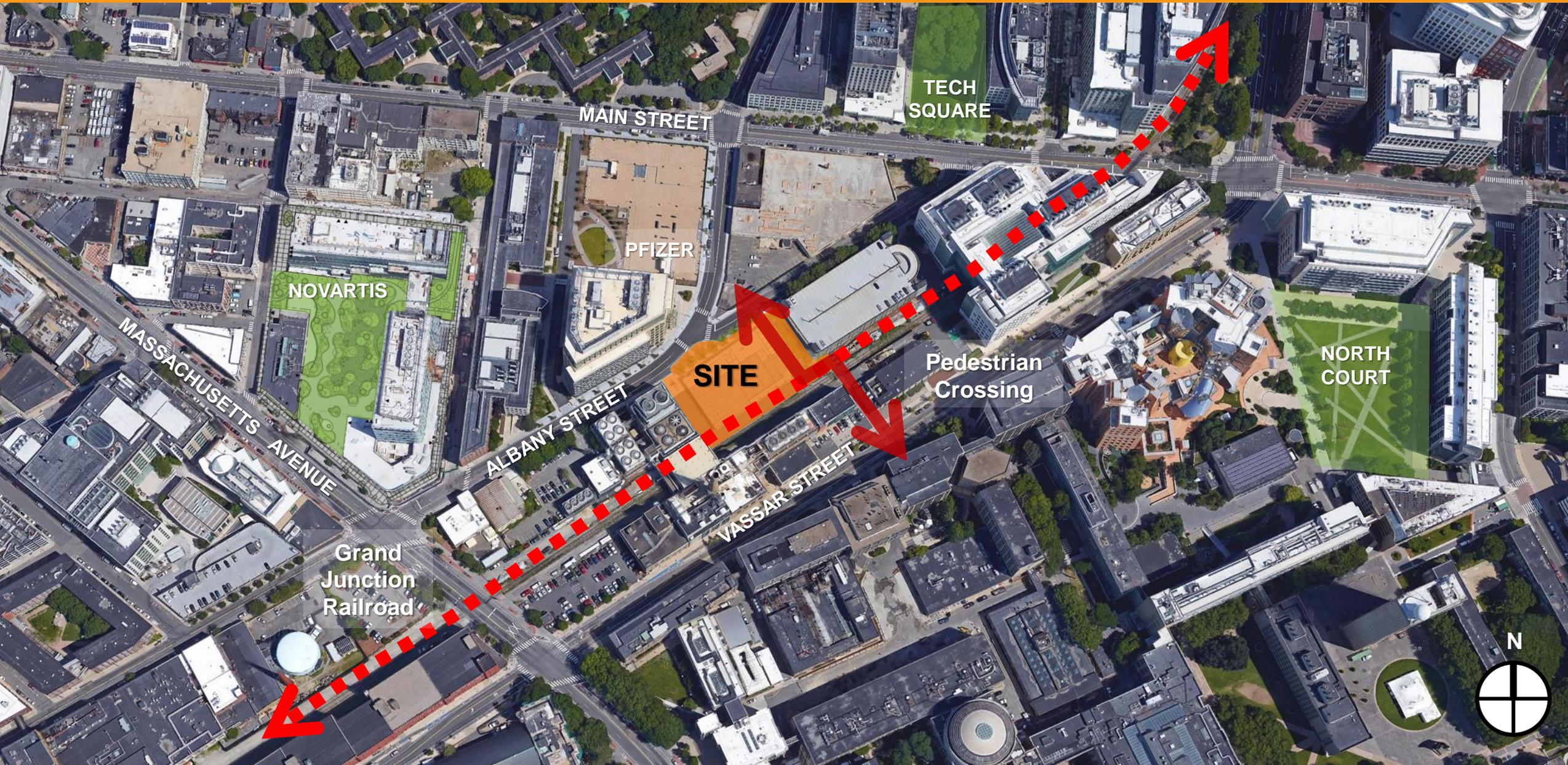
DOMINICK ROVETO, AIA, LEED AP
President
ELLENZWEIG



JESSE CONKLIN
Senior Project Manager
BOND

- Provide resiliency in delivery of utilities during a flood condition of Charles River
- Increase reliability of existing MicroGrid
- Provide support to new science building and campus loads
- Improve efficiency of steam production while reducing operating costs
- Eliminate use of fuel oil except for required code back up
- Reduce greenhouse gas footprint

A: MIT and Community Sensitivities around Site and Building Aesthetics



MAIN STREET

TECH SQUARE

PFIZER

NOVARTIS

SITE

Pedestrian Crossing

NORTH COURT

MASSACHUSETTS AVENUE

ALBANY STREET

VASSAR STREET

Grand Junction Railroad



A: MIT and Community Sensitivities around Site and Building Aesthetics

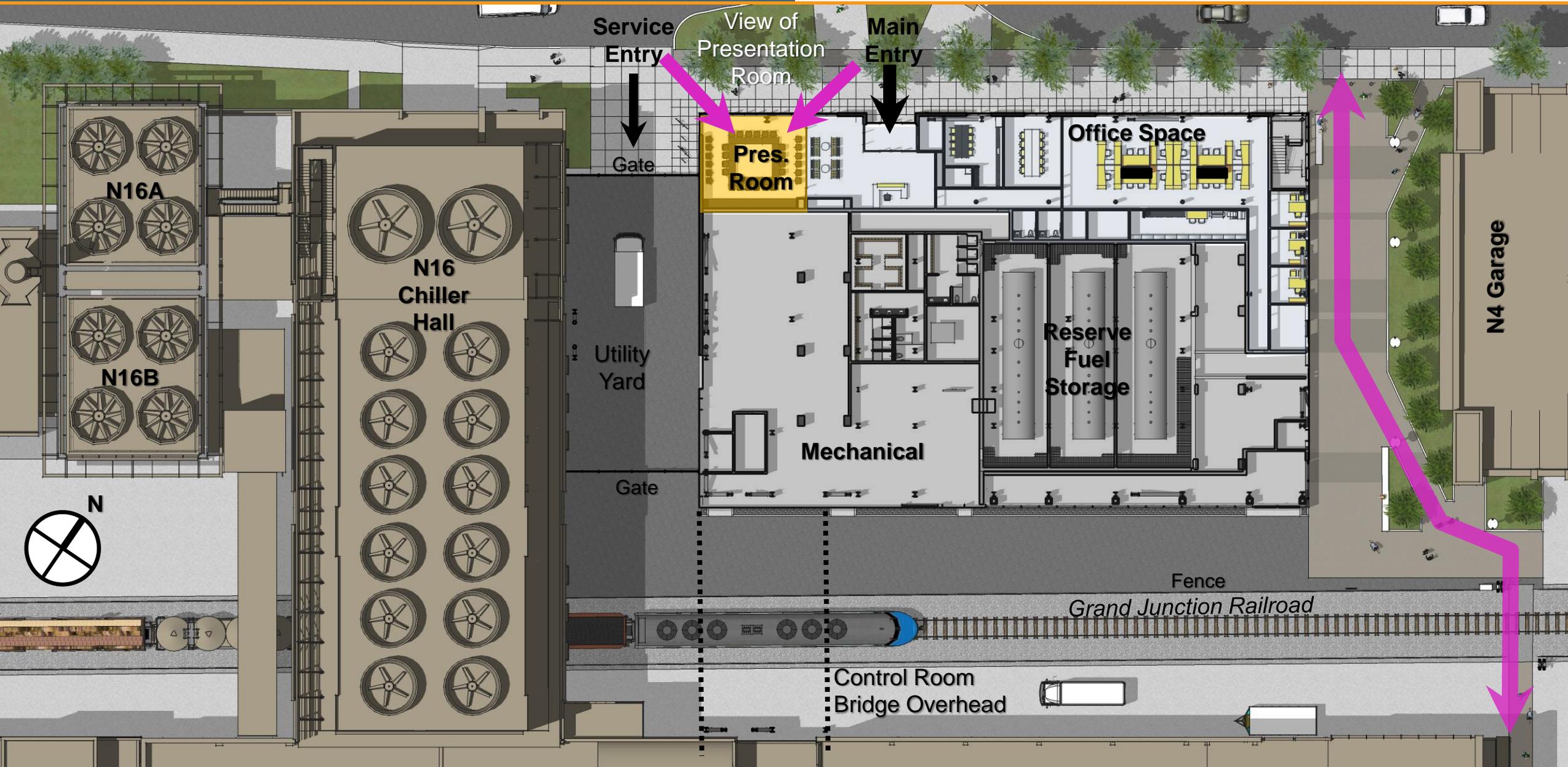
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B: Architectural Overview Plan at Ground Floor (el. 17'-9")



Service Entry

View of Presentation Room

Main Entry

Pres. Room

Office Space

Reserve Fuel Storage

Mechanical

Utility Yard

N4 Garage

Fence
Grand Junction Railroad

Control Room
Bridge Overhead

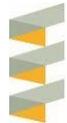


Gate

Gate

B: Architectural Overview Outreach

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B: Architectural Overview Presentation Room

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B: Architectural Overview Office Area

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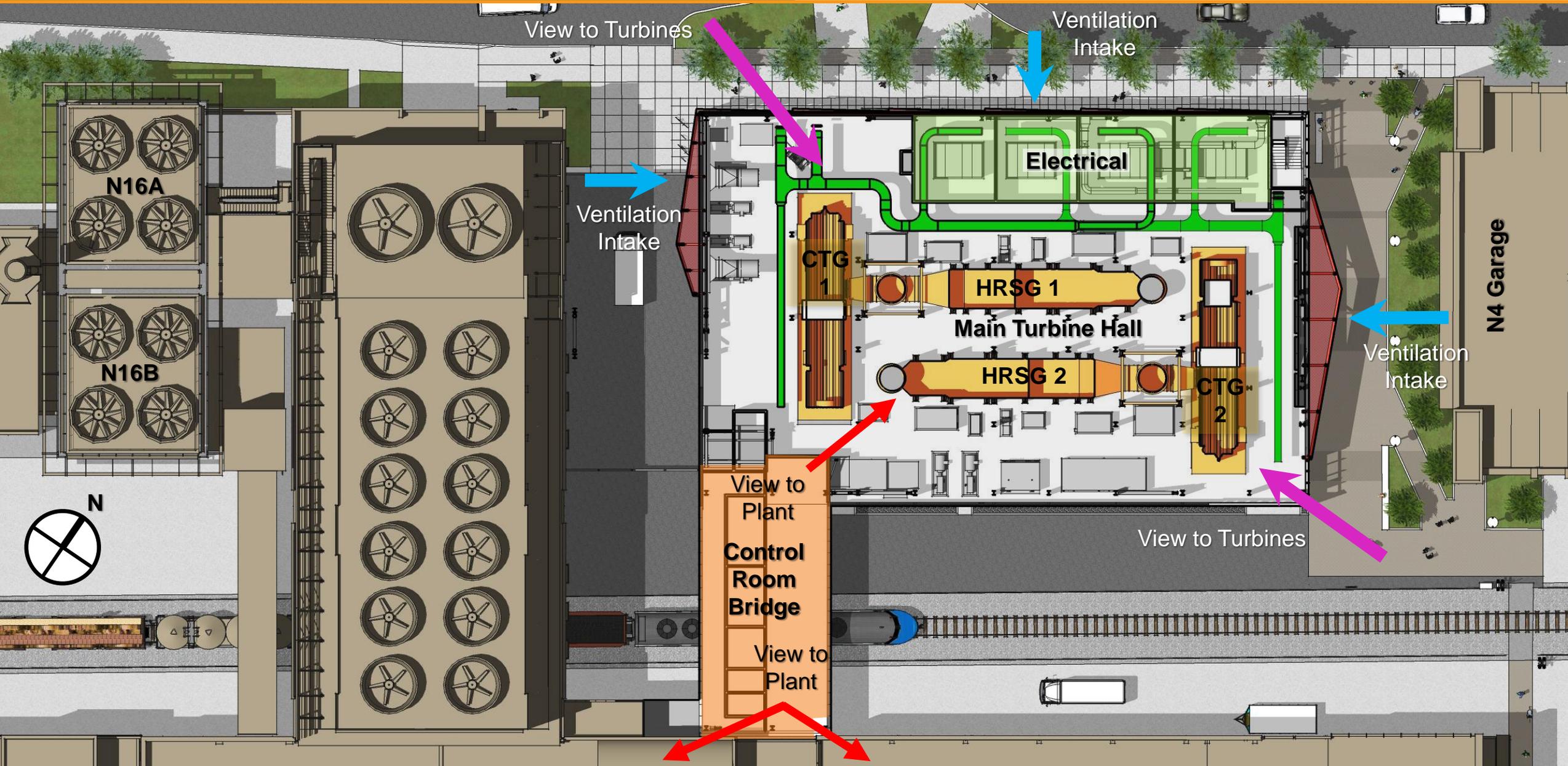


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B: Architectural Overview

Plan at Main Turbine Hall (el. 30'-0")

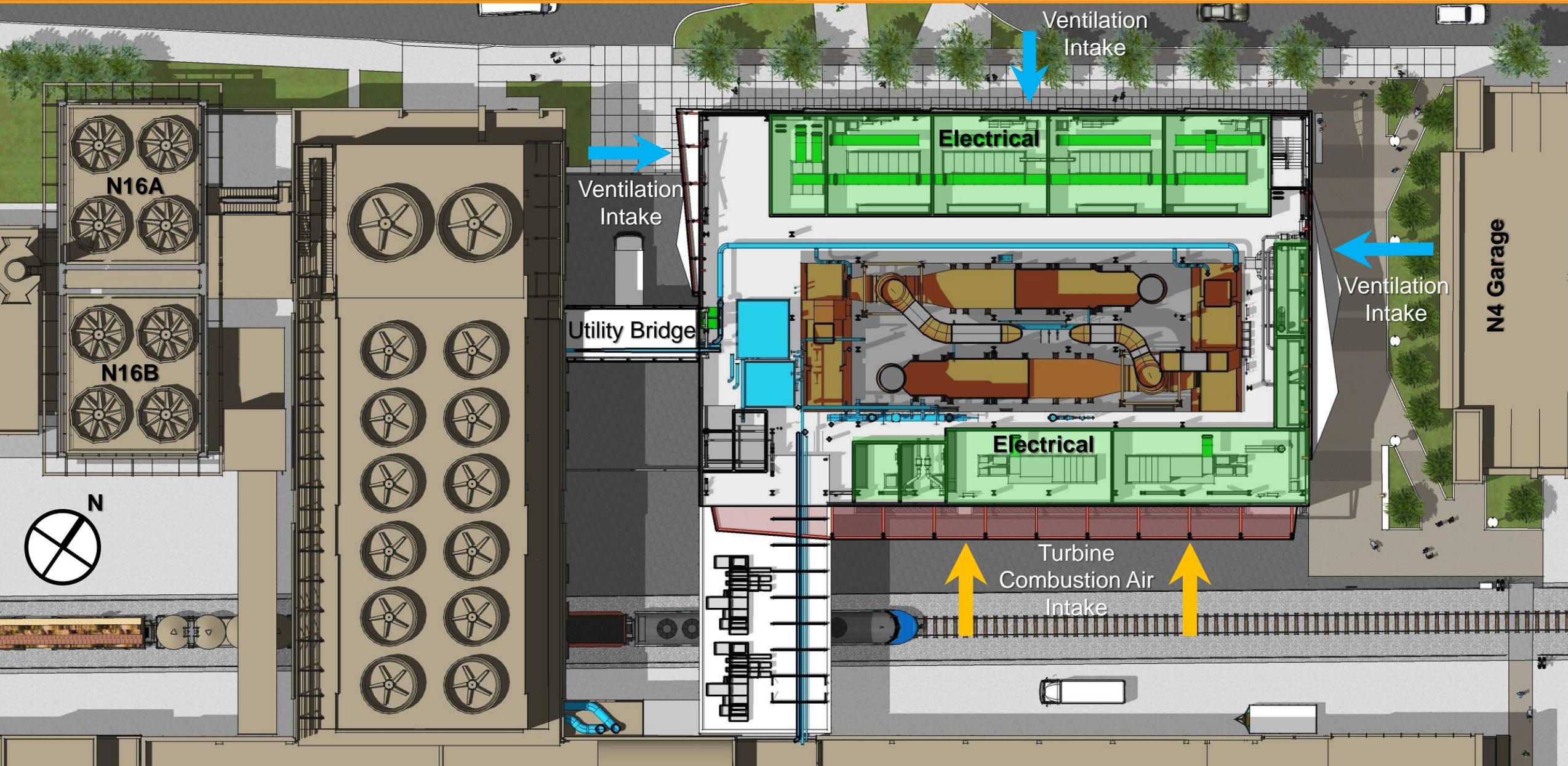


B: Architectural Overview Control Room Bridge

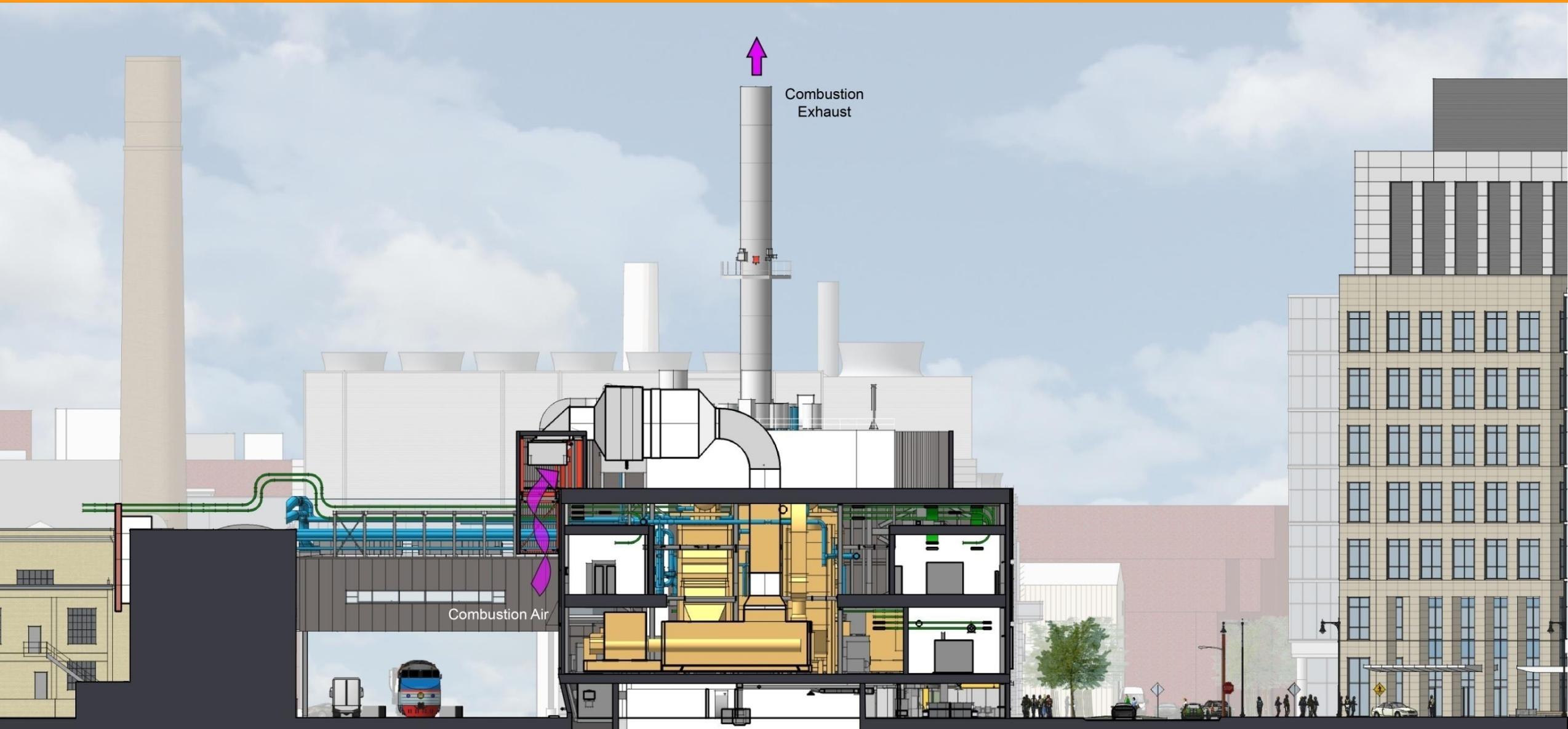


B: Architectural Overview

Plan at Main Electrical Floor (el. 50'-6")

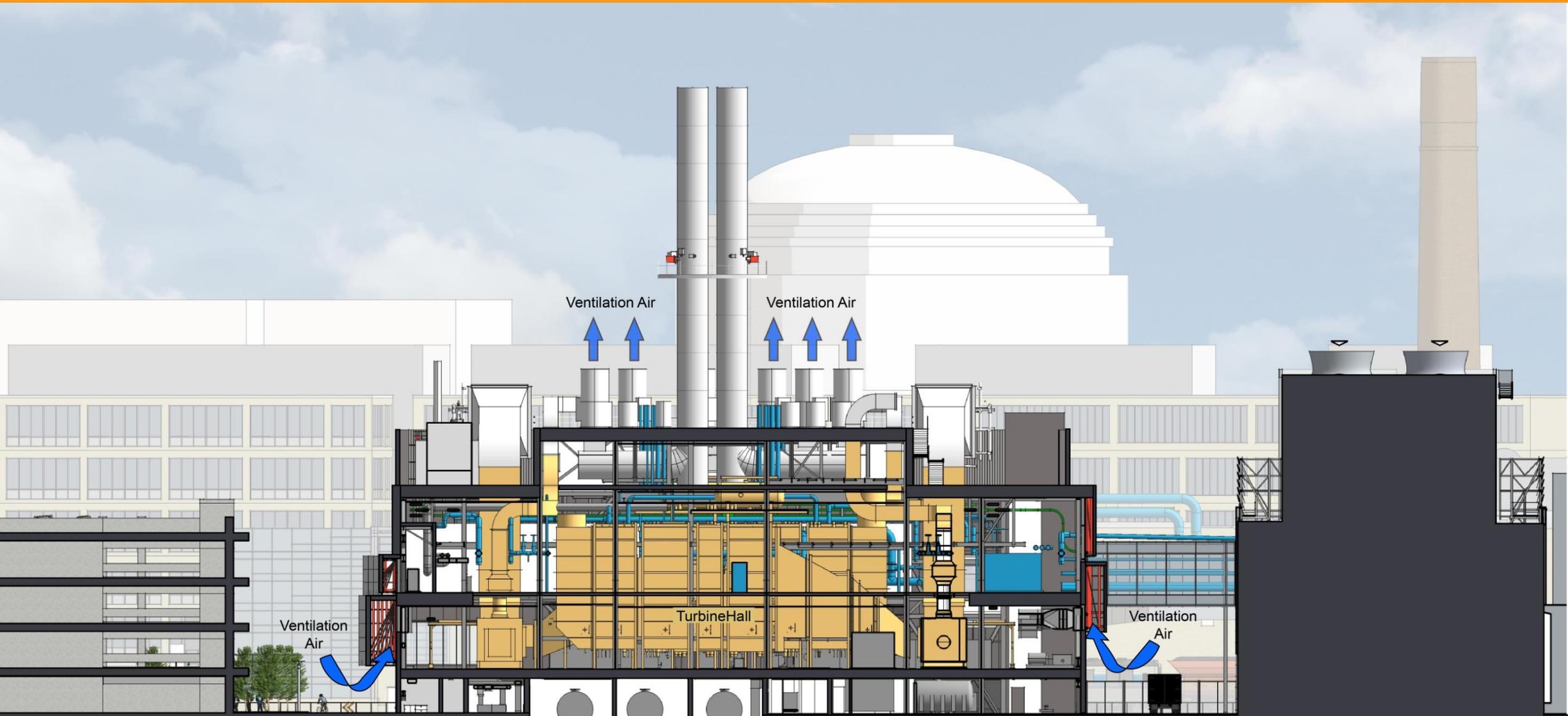


B: Architectural Overview Building Cross Section



B: Architectural Overview

Building Longitudinal Section



Ventilation Air

Ventilation Air

Ventilation Air

Ventilation Air

Turbine Hall

N4 Garage

Pedestrian Crossing

42C Cogeneration Plant

Utility Yard

N16 Chiller Hall

C: Finished Product

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C: Finished Product

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C: Finished Product

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C: Finished Product

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C: Finished Product

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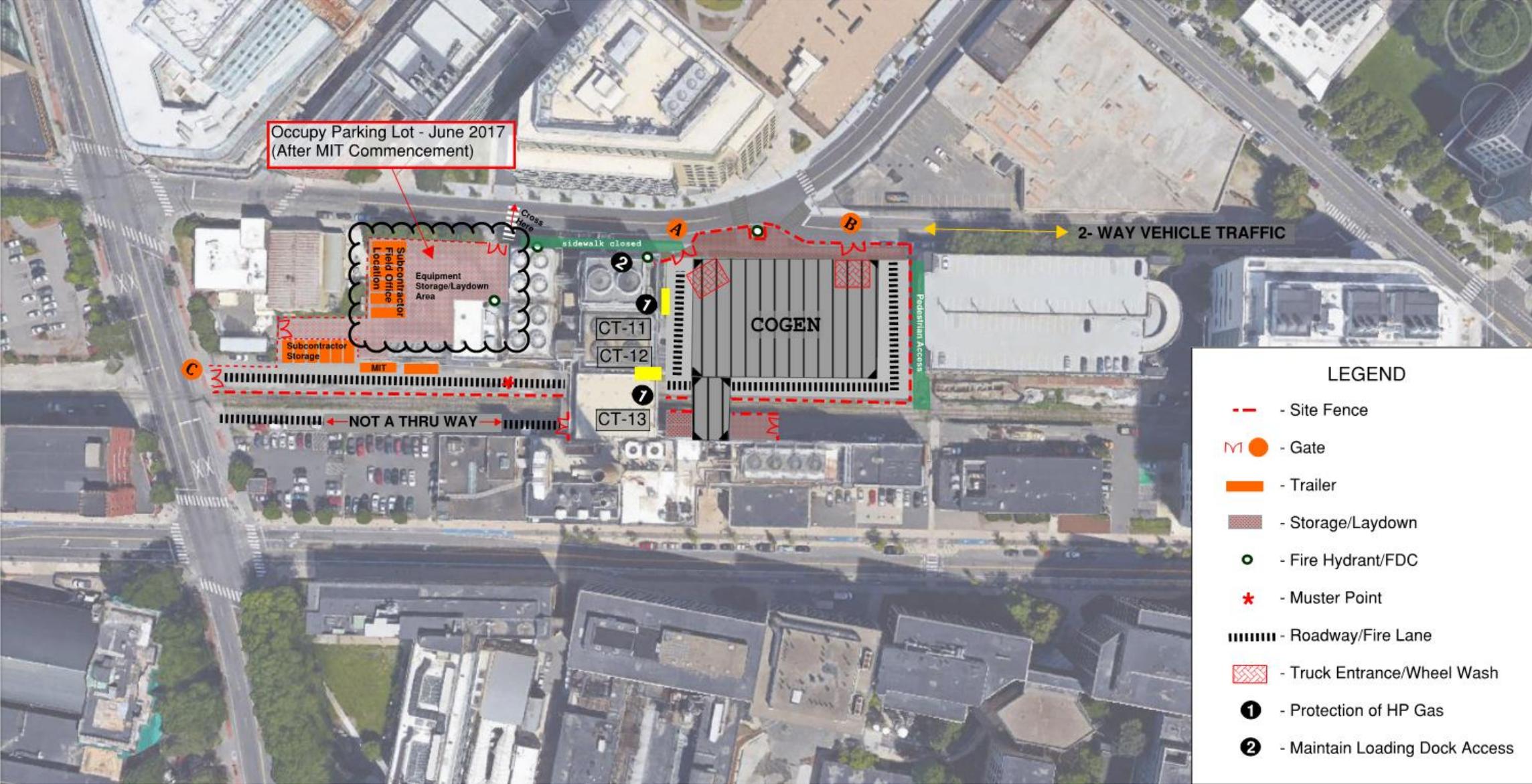


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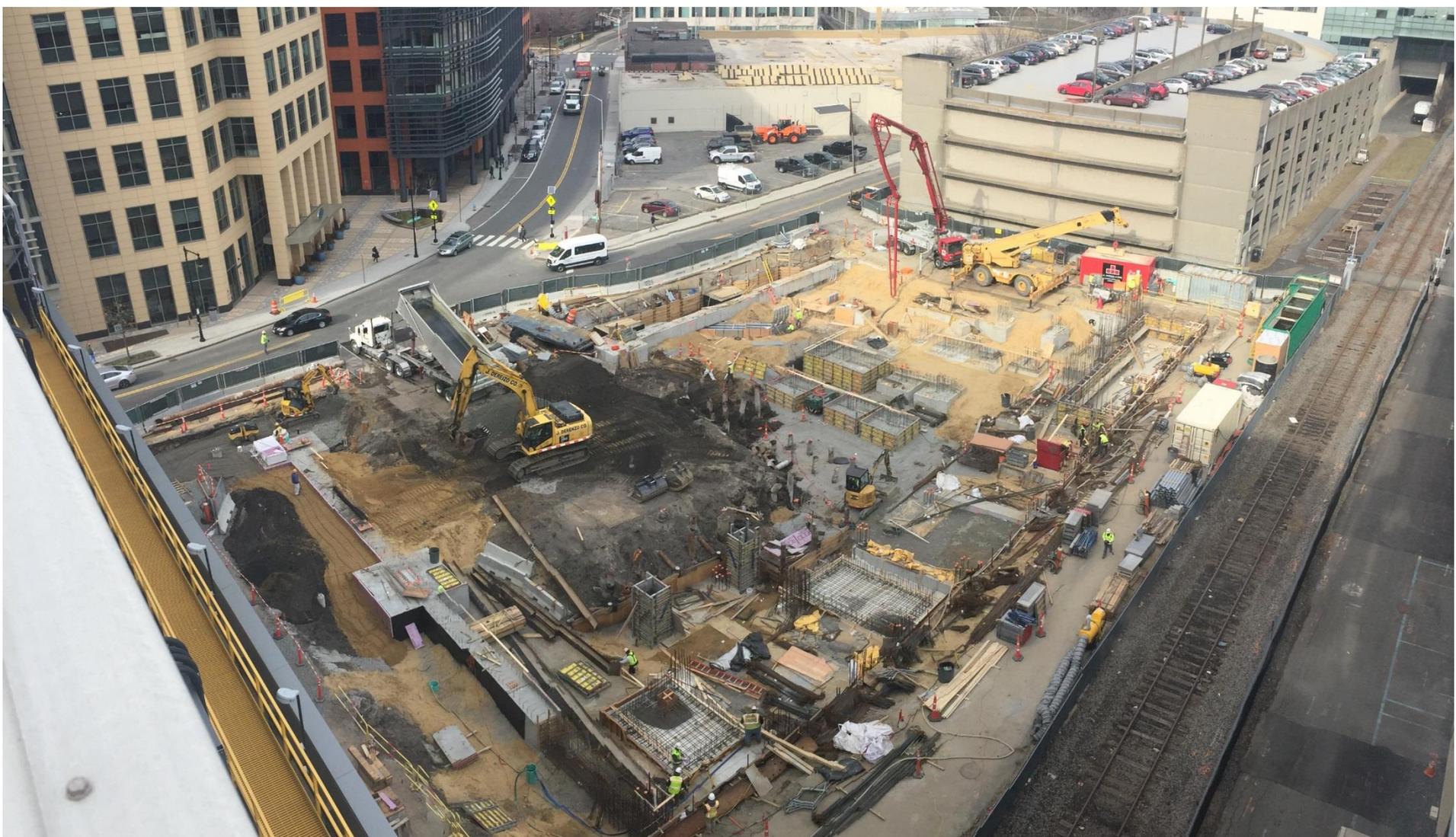
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A: Site Challenges



A: Site Challenges



A: Site Challenges





C: Steel Erection



C: Steel Erection



D: Power Island Rough Set



D: Power Island Rough Set

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D: Next Steps and Schedule for Completion











ANY QUESTIONS?

<https://www.youtube.com/watch?v=J1JhfGKb7j4&feature=youtu.be>

BUILDING A BETTER SOCIETY
THROUGH ENDURING RELATIONSHIPS

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The logo for Bond Brothers, Inc. is a solid orange square with the word "BOND" written in white, bold, sans-serif capital letters in the center.

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Spare Slides

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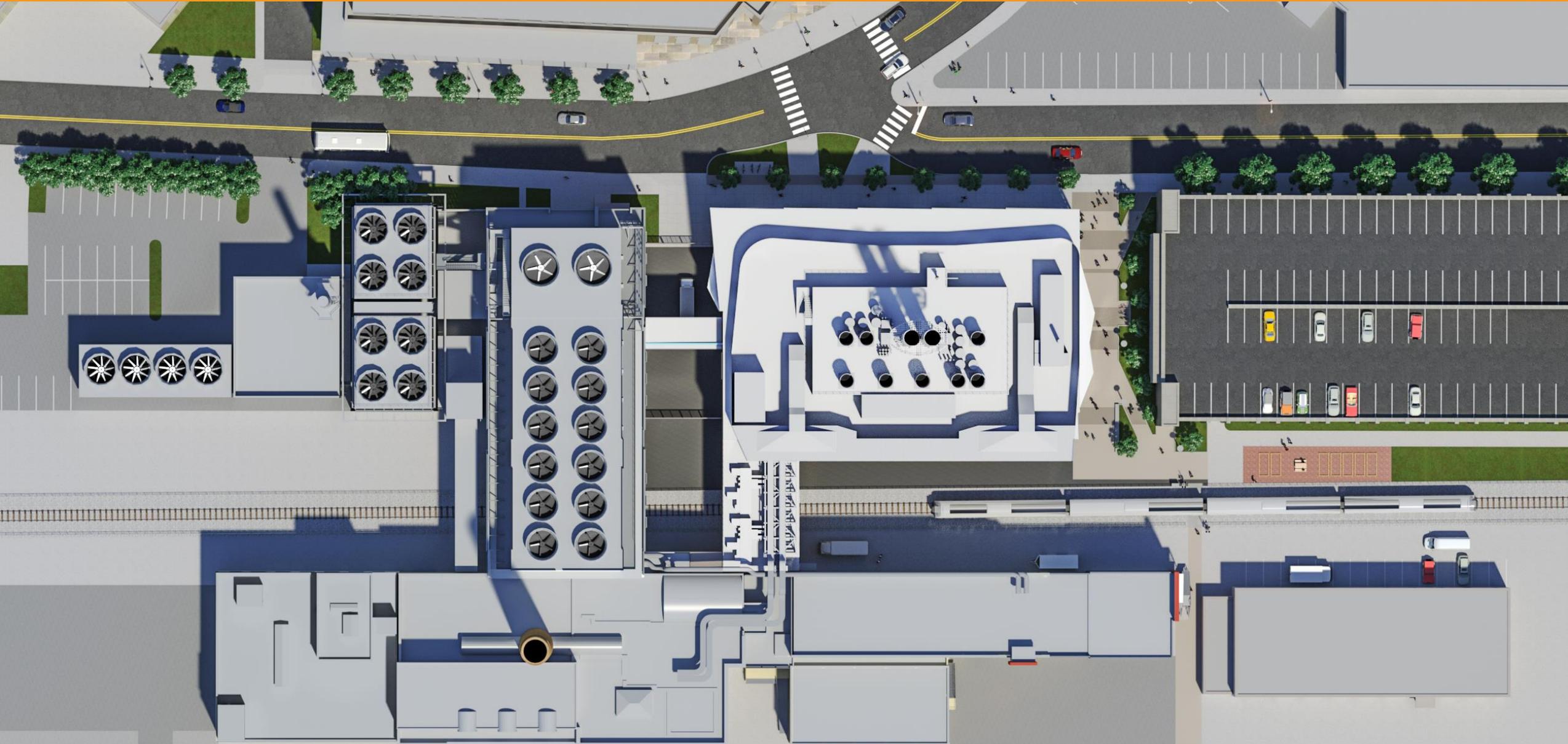
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B: Architectural Overview Plan at Roof Level

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C: Finished Product

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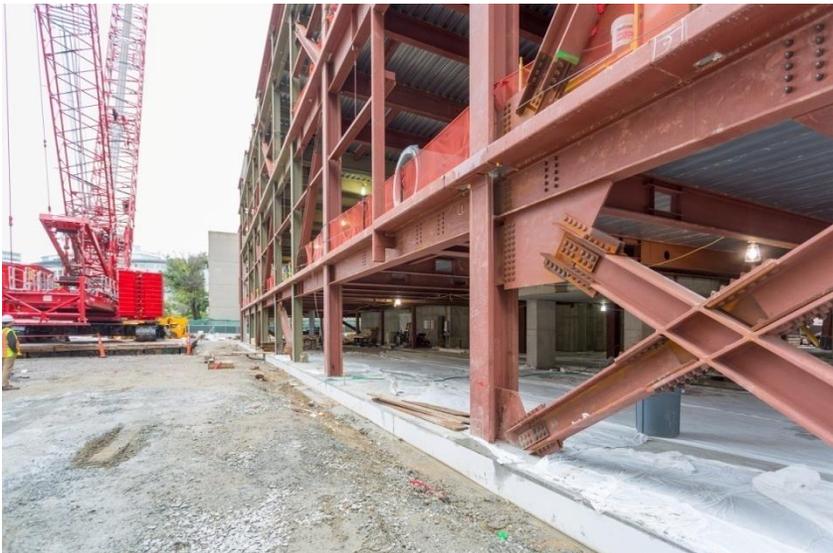
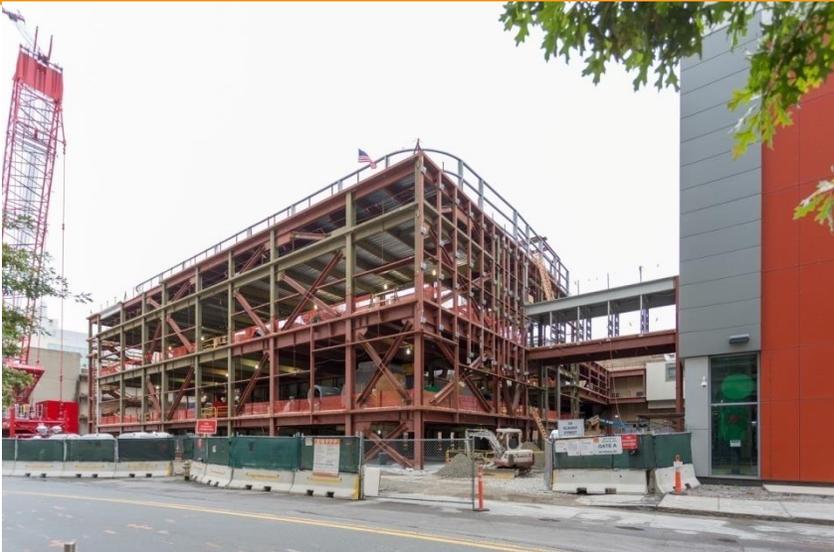
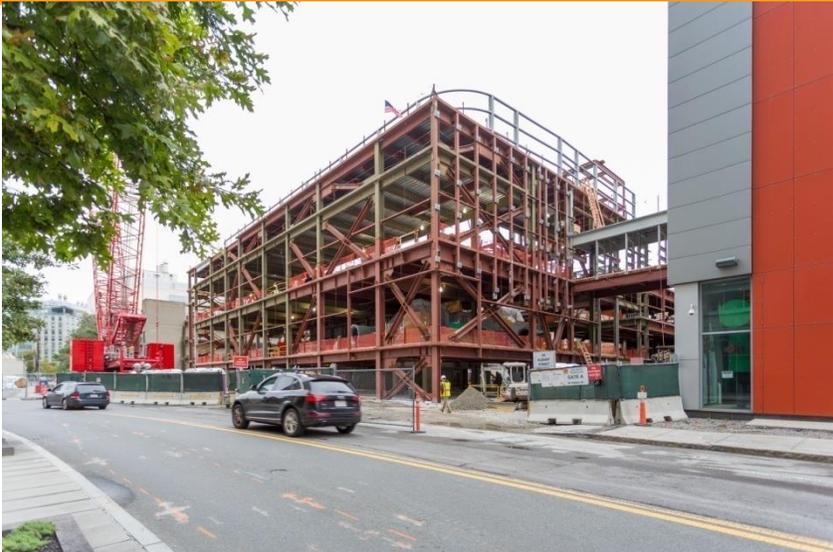
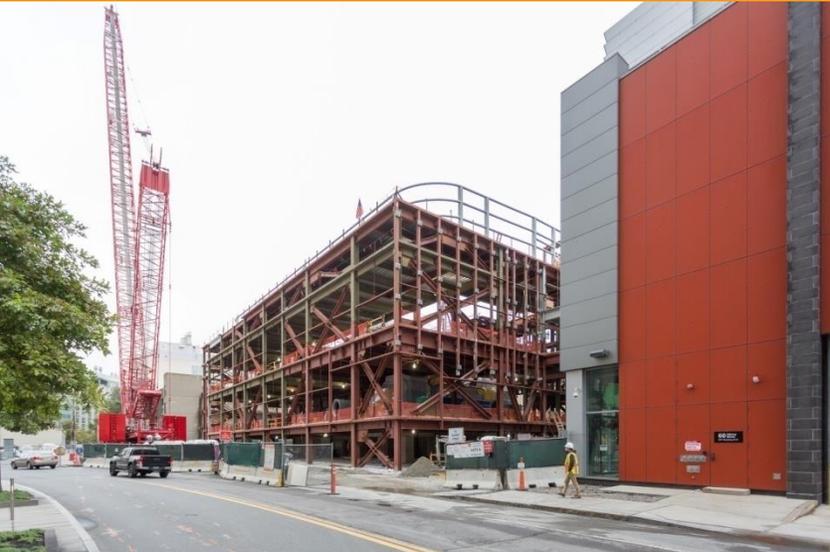
D: Construction Photos

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D: Construction Photos



D: Construction Photos

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D: Construction Photos

