



Ironworks Ithaca

URBAN INFILL : HIGH PERFORMANCE : MULTIFAMILY

Agenda

1 Meet the team

2 Project overview

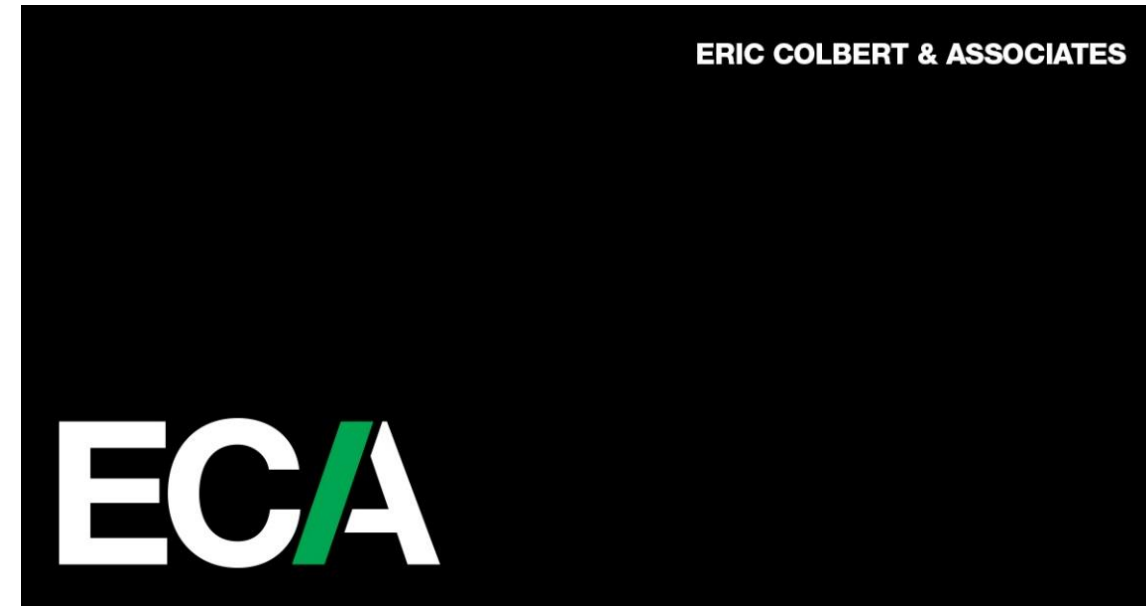
3 Design and Construction

4 Energy Performance

5 Building Tour

6 Q&A at Ironworks Lounge

The team







Ironworks Ithaca

- 113,300 SF; 129 units, 5 stories
- Energy efficient, urban infill project
- All-electric heating, cooling and domestic hot water systems
- Energy Star Multifamily High Rise Certified
- Incentives secured through various state programs
- Cost effective solutions for high performance
- Occupied August 2022

Ithaca's West End





Existing site



NORTH CORN STREET

CONCRETE WALK

WEST SENECA STREET

PROPERTY LINE

79'-3 3/8"

ZONE S-2D
ZONE
CBD-02

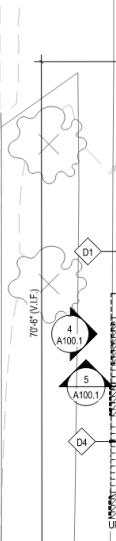
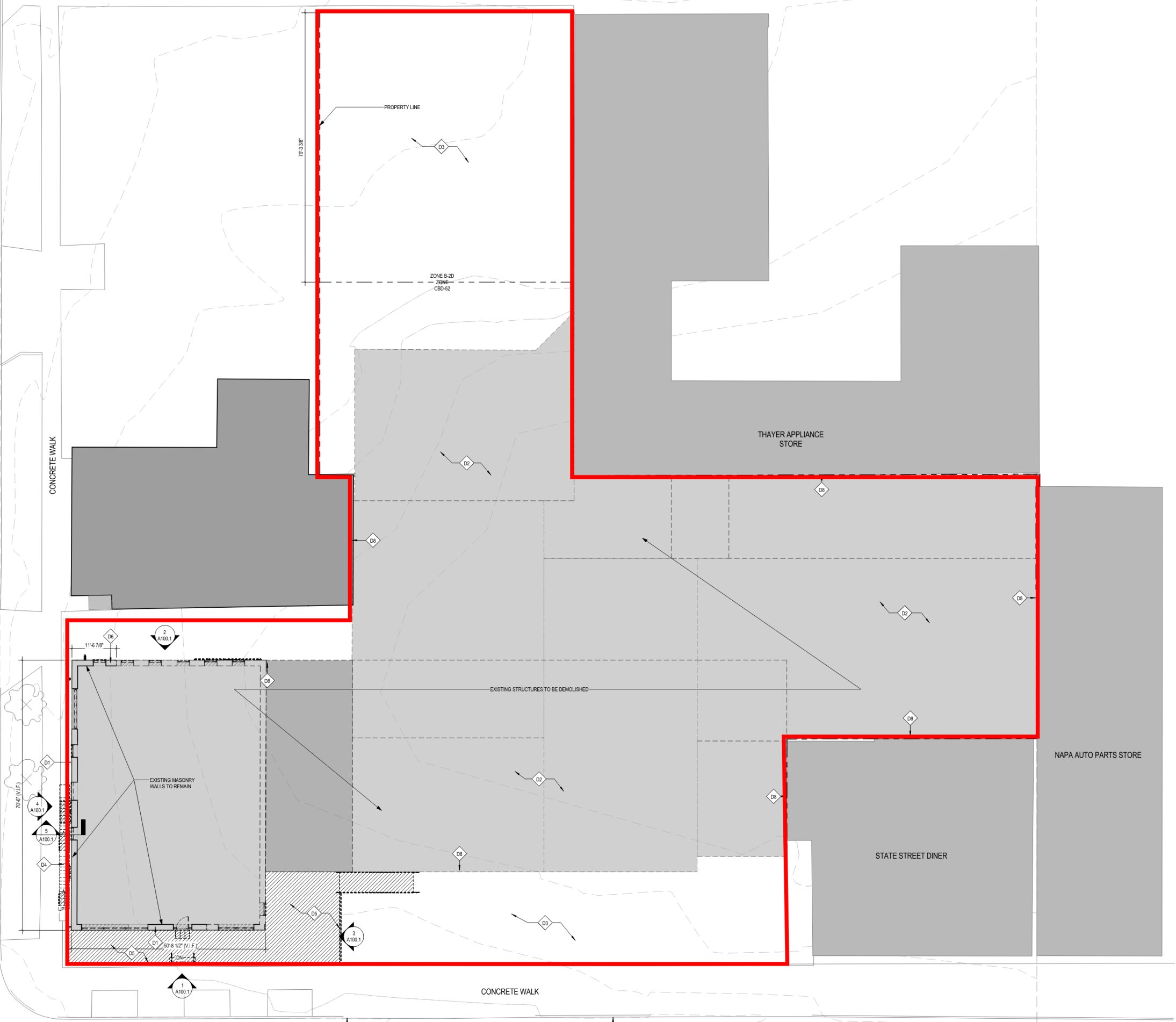
THAYER APPLIANCE
STORE

NAPA AUTO PARTS STORE

STATE STREET DINER

CONCRETE WALK

WEST STATE / MLK STREET



CONTEMPORARY EXPRESSION
OF CORNICE
RECTANGULAR BRICK
FACADE ELEMENTS
HELP CORRECT THE
PROPORTIONS OF THIS
HORIZONTAL VOLUME
BY ADDING VERTICALITY
TO THE COMPOSITION

NOTE: A HIGH PERCENTAGE
OF NON STREET FACADES
INCLUDE BALCONIES

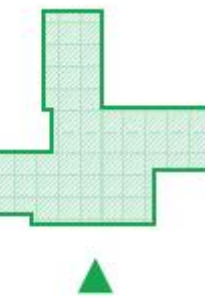
TRIPLE GLAZED WINDOWS
THROUGHOUT
SUN SHADES FOR PASSIVE
SOLAR
WINDOWS SET BACK
TO CREATE FACADE DEPTH

Building function



100% POINT UP
AND RESTORATION
OF OLD MASONRY
BASE EXPRESSION CHANGES
TO COMPLEMENT FACADE MATERIAL ABOVE
EXPRESSED LINTELS REINFORCE
THE INDUSTRIAL VIBE

FACADE ON PROPERTY LINE
STOREFRONT WINDOWS +
DOORS EXPRESS A WELCOMING
FACADE AND ADD LIVELINESS
TO THE STREET
"RAW" STEEL COLUMNS
ZONE OF WEATHERING
STEEL FACADE PANELS
ENHANCES VERTICALITY





WALLIE'S DRY CLEANING
102

Granada's Pizzeria

STATE
RITZ-D
Coca-Cola

DIANE'S
DOWNTOWN

Ithaca is the first U.S. City to commit to decarbonizing by 2030

The Ithaca Energy Code Supplement is a supplement to the 2020 Energy Conservation Construction Code of New York State and available for voluntary adoption by local governments as a more stringent local energy code.



Energy Programs



**BUSINESS
ENERGY
ADVISOR**



**Tompkins County
Industrial Development Agency**



NYSERDA



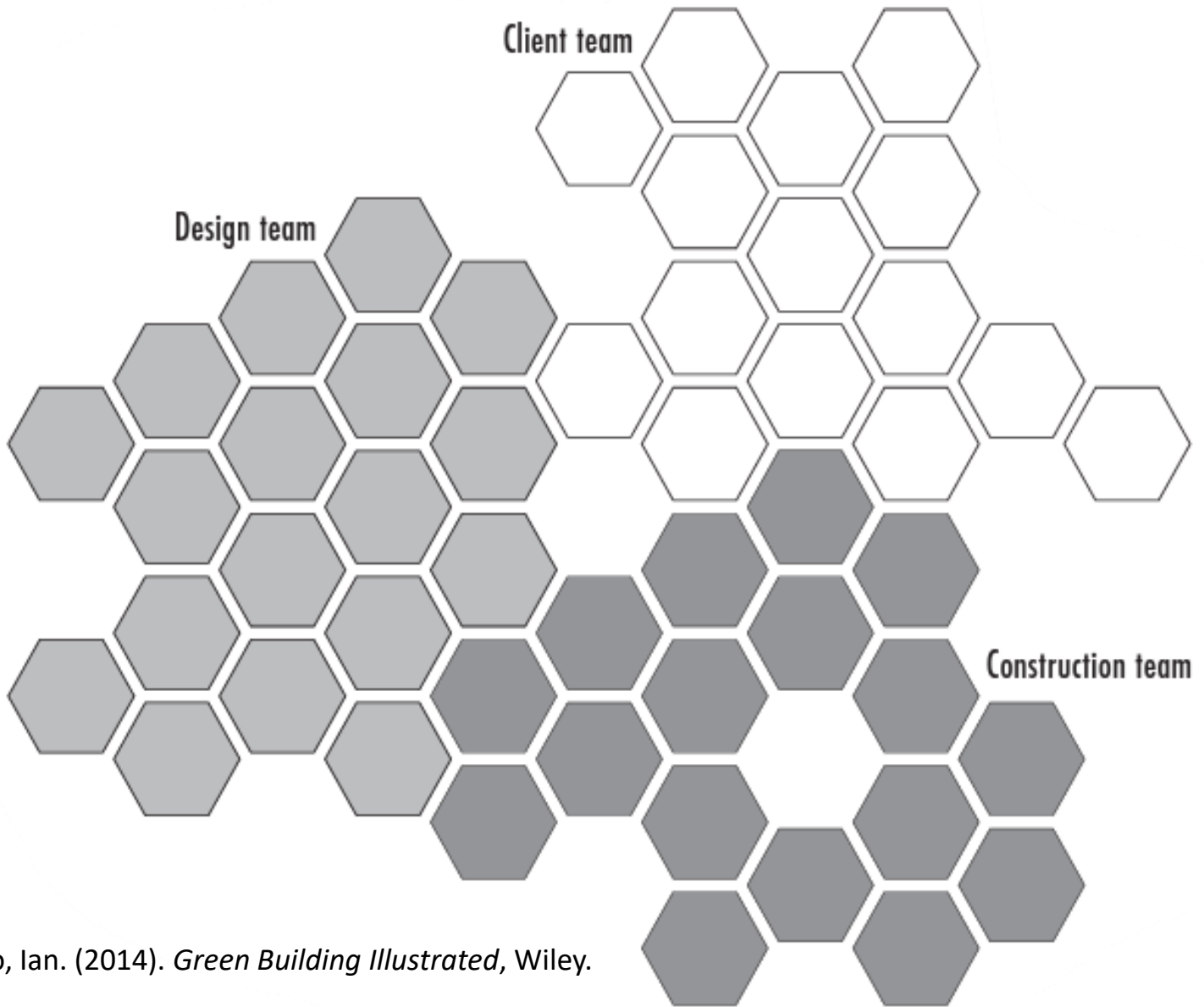
An AVANGRID Company



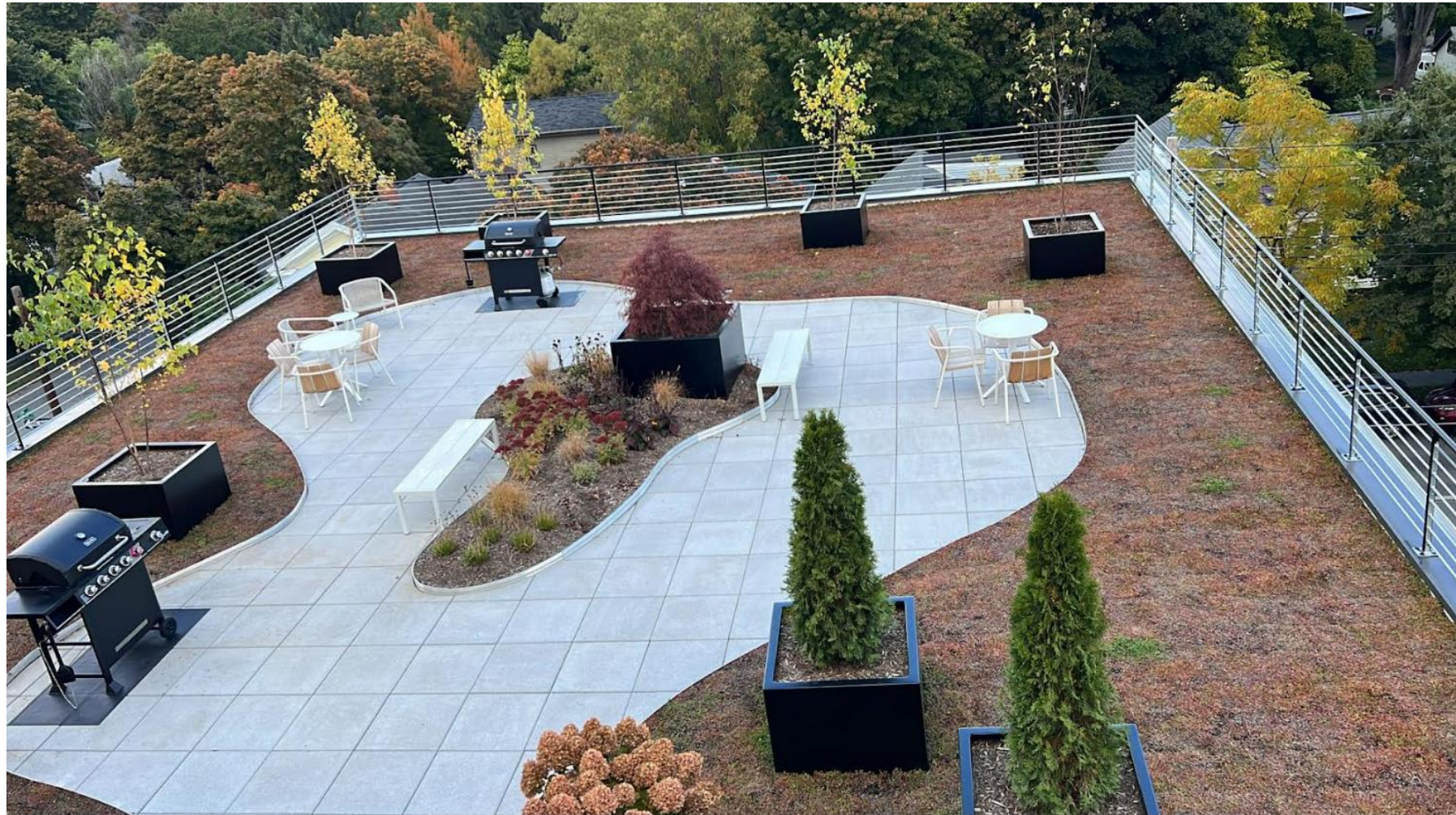
NYS Clean Heat

**Electric Vehicle Charging Station
Make-Ready Program**

Integrated design approach



Shapiro, Ian. (2014). *Green Building Illustrated*, Wiley.



Overall Design

Structure

Envelope

MEP+FP

Electrification



CONSTRUCTION







UP Code ASTM D1785-15 8" SCH 40 PVC













WYLLIE CLEANING

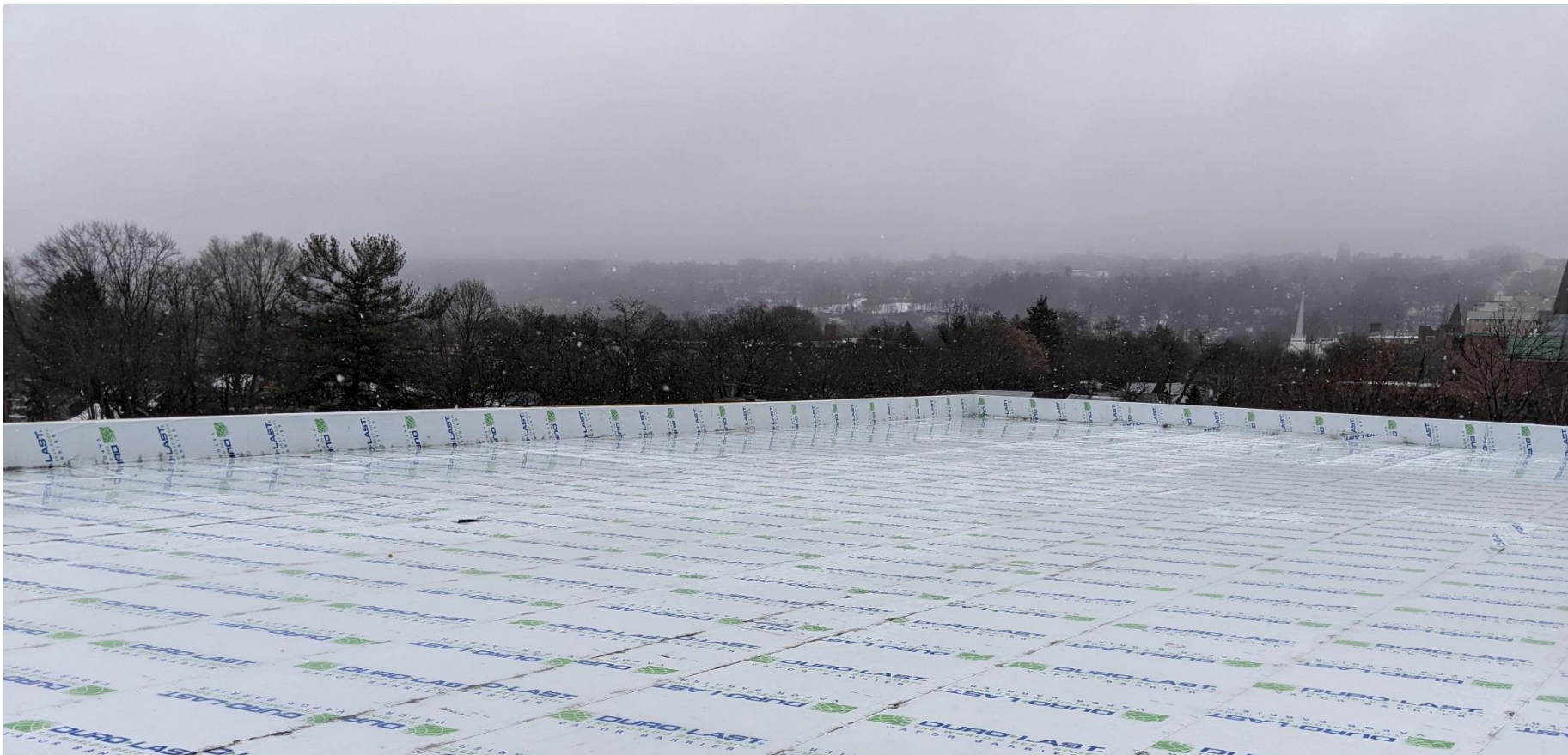
FEAR
ITSELF

WE THE PEOPLE
THE GOVERNMENT







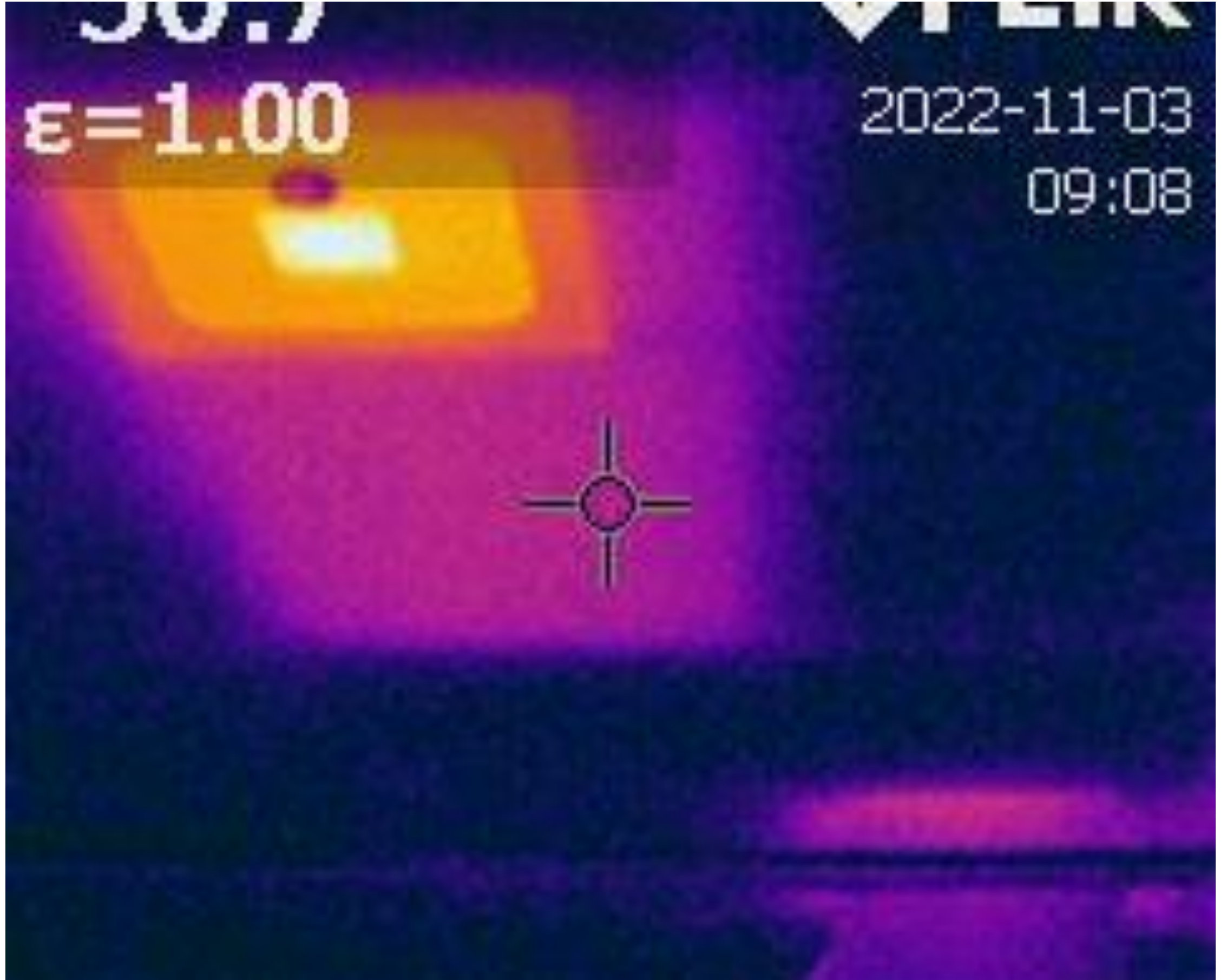














Construction Costs

Total increase in construction costs: ~3.3%

Total increase in construction costs with
NYSERDA/Utility Incentives: ~0.6%

This analysis includes consulting fees but
excludes the benefits of the TC IDA Enhanced
Energy Abatement

Modeled Savings and Performance

Modeled Energy Savings

39.4% source energy savings over a code baseline building

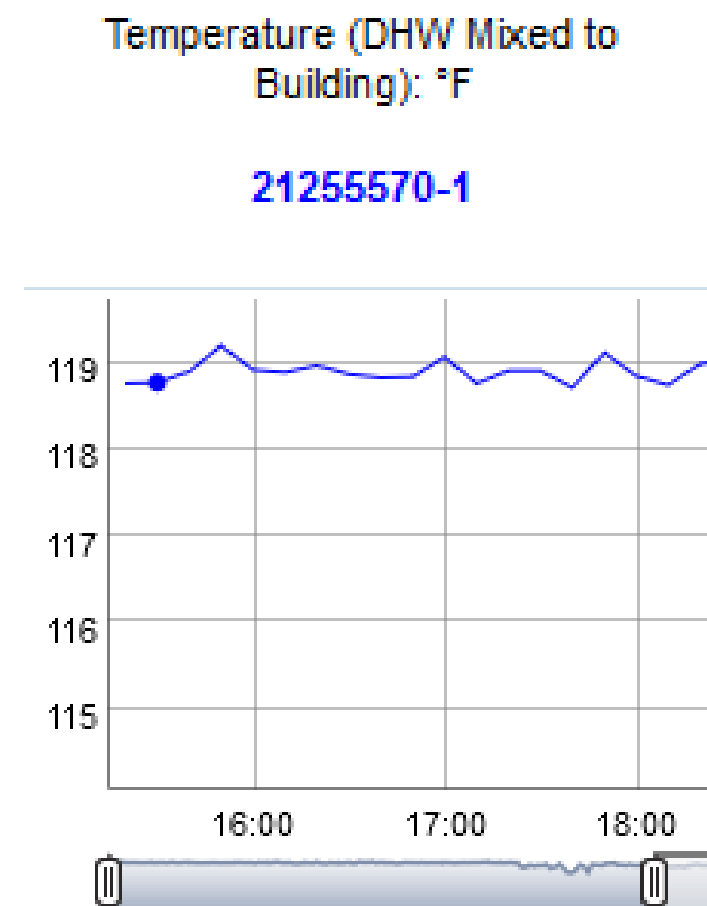
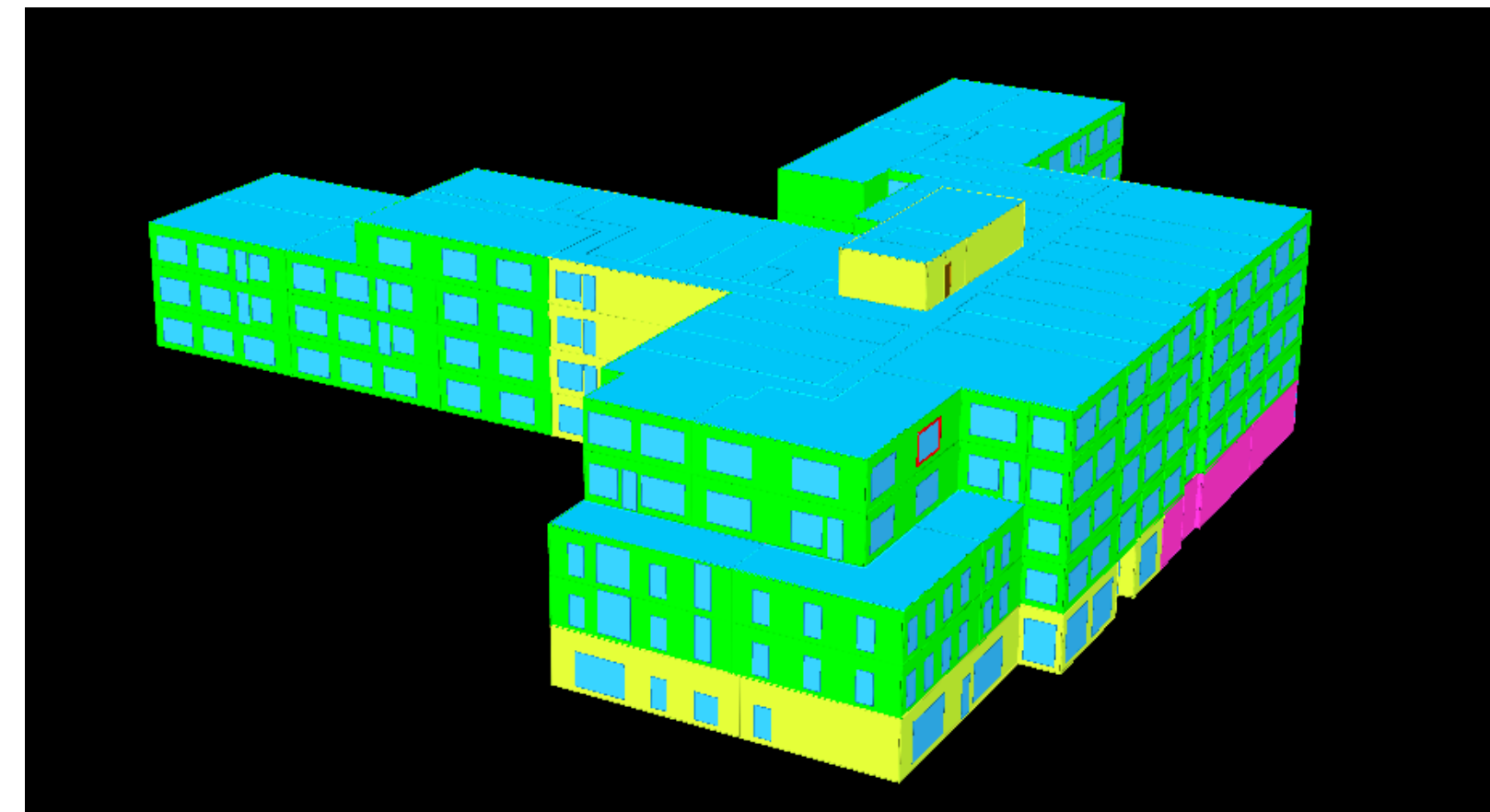
Site energy utilization intensity (EUI) of 24.2 kBtu/SF/yr

Actual Usage

Site energy utilization intensity (EUI) of 30 kBtu/SF/yr

Electricity Usage: 917,616 kWh/yr

Passive House Allowance: 1,099,400 kWh/yr



Breakout sessions

ON THE ROOFTOP to discuss the ASHP DHW system

Brendan Mangino, Plumbing Design Engineer,
Taitem Engineering

IN THE LOUNGE to discuss building envelope

Evan Hallas, Senior Energy Analyst
Taitem Engineering

GARAGE/EV CHARGERS to discuss overall system design and NYSEG/NYSERDA EV programs

Yossi Bronsnick, President, Partner
Taitem Engineering

Alex LesVeaux and Chris Wallace
Franklin Energy | NYSEG/RG&E EV Make-Ready Programs

