

BUILDINGENERGY NYC

Persuasion, Pushback, and Compromise: Making the Case for Decarbonization

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Description

How do high performance building practitioners persuade clients to pursue deep reductions in operational and embodied carbon? Industry experts from architecture, energy consulting, and development share lessons on owner decision making, cost, risk, and defining an acceptable outcome for new and rehabilitation projects. The discussion offers honest reflection on what persuasion methods succeed and when results are limited, and how some strategies fail. The discussion will share lessons learned, and perspectives on what strategies work best with various stakeholders. We know how to do it; we just need to convince Owners to do it.

Learning Objectives

- | | |
|----|--|
| 1. | Discuss the real-world challenges of delivering low operational and embodied carbon projects within Owner and Developer cost, risk, and delivery constraints. |
| 2. | Evaluate how design, engineering, and ownership perspectives and competing priorities may influence decisions, budgets, and project feasibility. |
| 3. | Communicate long-term value and life-cycle cost benefits of Passive House and carbon reduction using relevant persuasive strategies to skeptical stakeholders. |
| 4. | Recognize where persuasive efforts succeed or fail and apply lessons learned to future high-performance projects. |

Cost

Cost

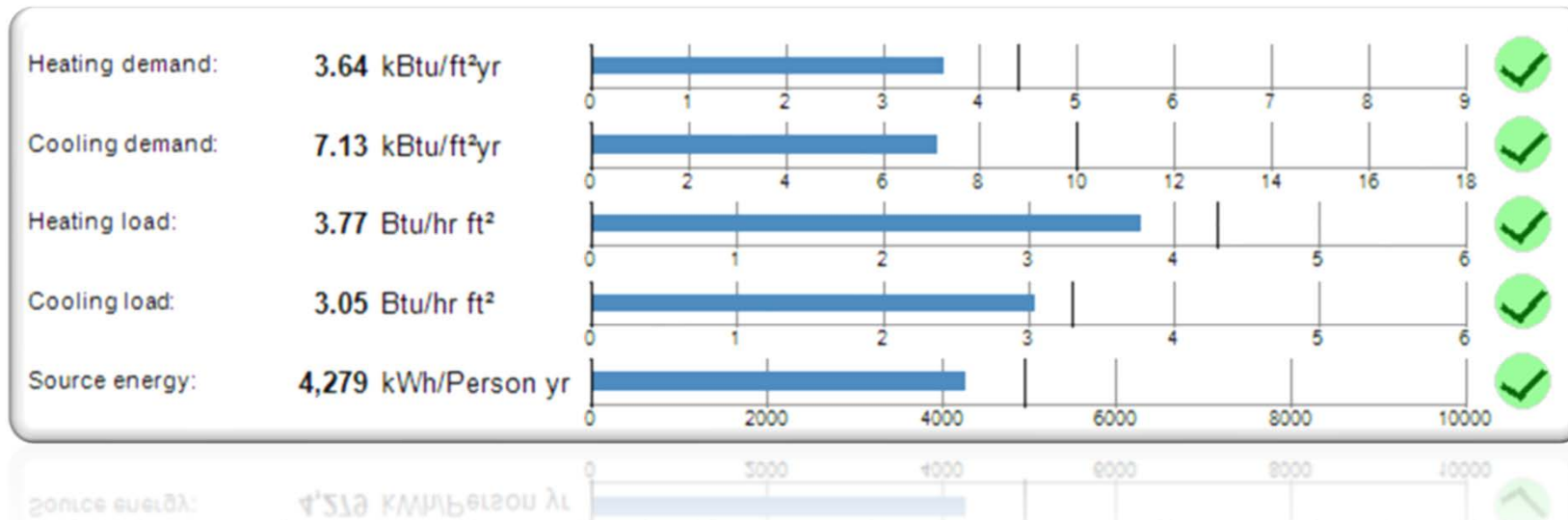
Better Economics

- Lower and more predictable operating costs
- Underwriteable savings that can support financing

The Process – How does it apply to your project?

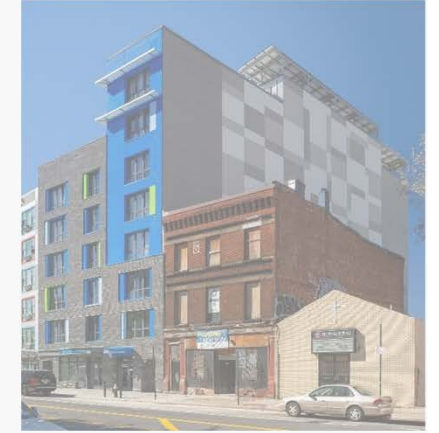
➤ Early Design / Feasibility Study

- Run initial energy model
- Establish envelope & HVAC design targets
- Hold kickoff meeting w/ design team



Sustainability's Importance in Maintaining Affordable Housing

16 Passive House Projects | 6 LEED-certified Projects | 16,000 Units of Affordable Housing



Castle Gardens

Completed 2010 | 114 Units

Rainwater
harvesting saves

40% = \$55,000

of building demand

per year

MG2



Slide 7

GU1

i don't know where that number came from. was not in original presentaiton

Guest User, 2026-09-03T21:21:51.865

MG2

33,000 gallons of water per day.

Water only: \$5.35 per 100 cubic feet, or roughly \$0.0071 per gallon.Sewer only: The remaining portion of the combined fee, or roughly \$0.0114 per gallon.Minimum charge: Metered h

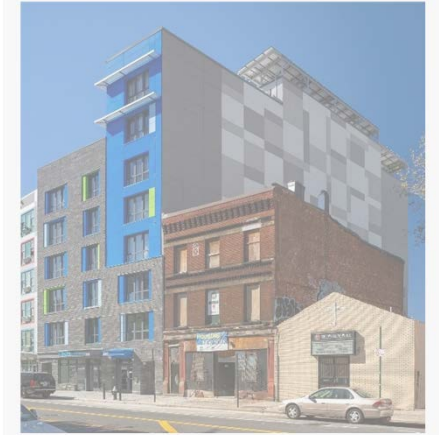
.0185 per gallon

40% = 13200

$13200 * .0114 = 150.48$ $*365 = 54,925$

Mark Ginsberg, 2026-09-06T19:47:56.993

Sustainability's Importance in Maintaining Affordable Housing



Beach Green Dunes I

Completed 2017 | 101 Units

70%

Energy Reduction compare to
Existing NYC MF Buildings

On Site Solar produces

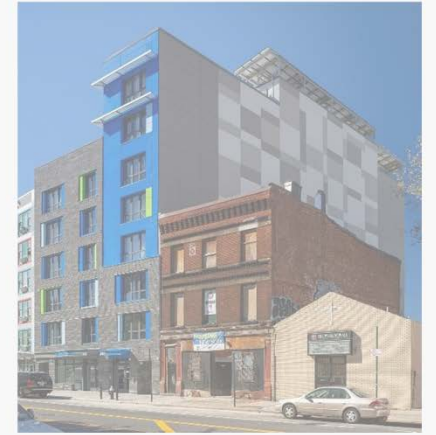
25%

of building energy demand



Sustainability's Importance in Maintaining Affordable Housing

16 Passive House Projects | 6 LEED-certified Projects | 16,000 Units of Affordable Housing



Beach Green Dunes II

Completed 2020 | 127 Units

67%

Energy Reduction compare to Code Compliant Building

Slide 9

GU1

the 67% is energy savings, not cost savings I think.

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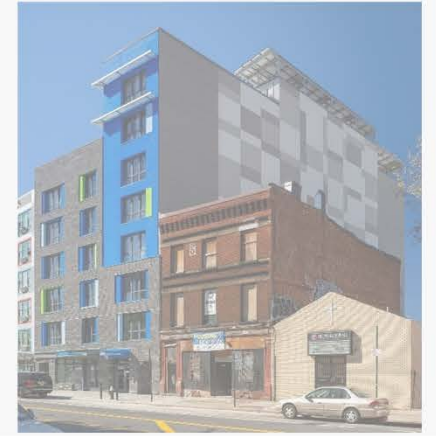
GU2

the percentage is energy reduction

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Sustainability's Importance in Maintaining Affordable Housing

16 Passive House Projects | 6 LEED-certified Projects | 16,000 Units of Affordable Housing



Melrose North
In Construction | 171 Units

67% = \$50K

Energy Reduction compare to
Code Compliant Building

Saving over 1 year to current code compliant building

MG1



Slide 10

- MG1

What percent savings
Mark Ginsberg, 2026-08-07T19:17:07.845
- GU2

i have 67% energy saving and 50K annual saving
Guest User, 2026-09-03T20:41:00.659
- GU2 0

or 549,653 over 10 years
Guest User, 2026-09-03T21:23:25.228

Innovation | System approach to Deep Energy Retrofits



Baychester Houses – Before



Baychester Houses – After overclad

Baychester Houses

Completed 2020 | 11 Buildings | 441 Units
Envelope Improvements: Stabilized Existing Façade, over cladding and Window Replacement

\$45,400

Annual Utility Savings



Murphy Houses - Existing



Murphy Houses – Proposed

Murphy Houses

In Construction | 149 Units
Envelope Improvements: Stabilizing Existing Façade, over cladding , Roof Replacement, and Window Replacement

\$47,500

Annual Utility Savings

Slide 11

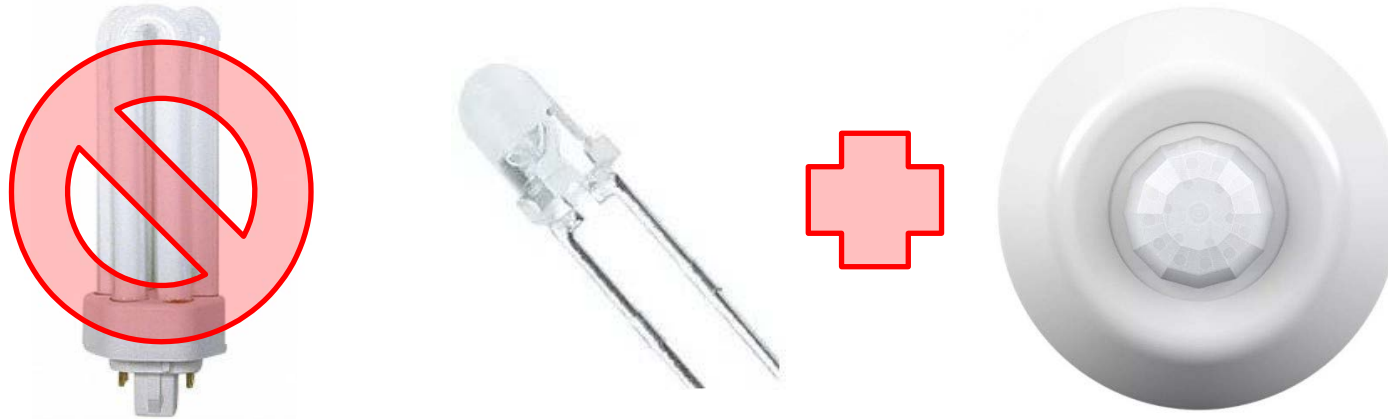
GU1

This slide is just about the EIFS and the WIndow replacement utlity savings to heating and cool

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Innovation | Energy Efficient Lighting Systems

C+GA was an early adopter of LEDs and sensor control for required egress lighting in stairs and corridors. Replacing CFL with LED with occupancy sensors that dimmed unoccupied spaces to 20% light power



83% = \$17K = 16mo

Energy Reduction

Annual saving for a 30 unit building

Payback for upgrades

This strategy is now standard in all our buildings.

Health

Health

Better Homes

- Healthier indoor air
- Better thermal comfort
- Lower utility costs
- Quieter apartments

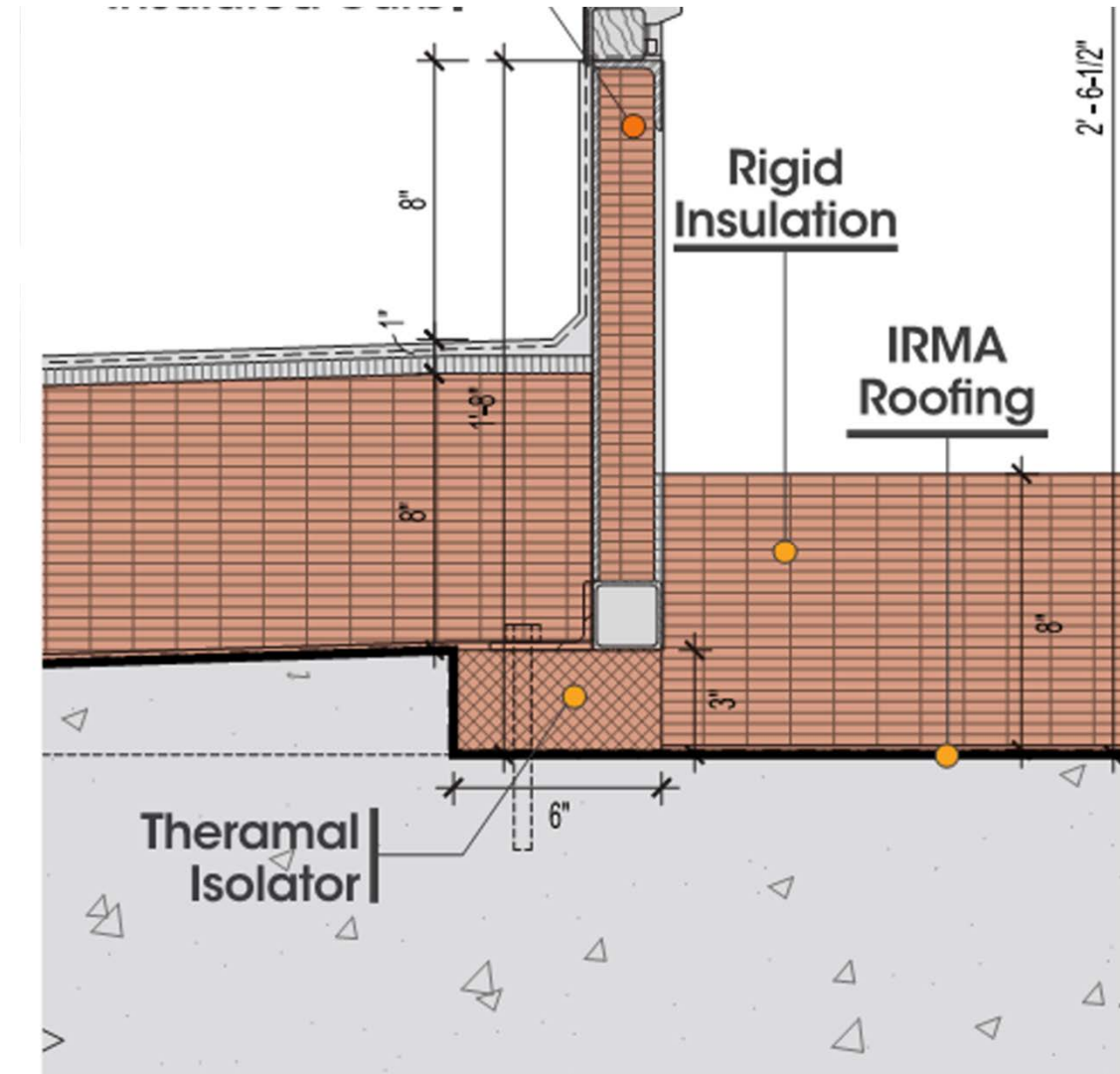
Durable, Healthy, Quite

PH Principles

- Continuous insulation
- Thermal bridge free
- Air tight
- Continuous filtered fresh air

Results

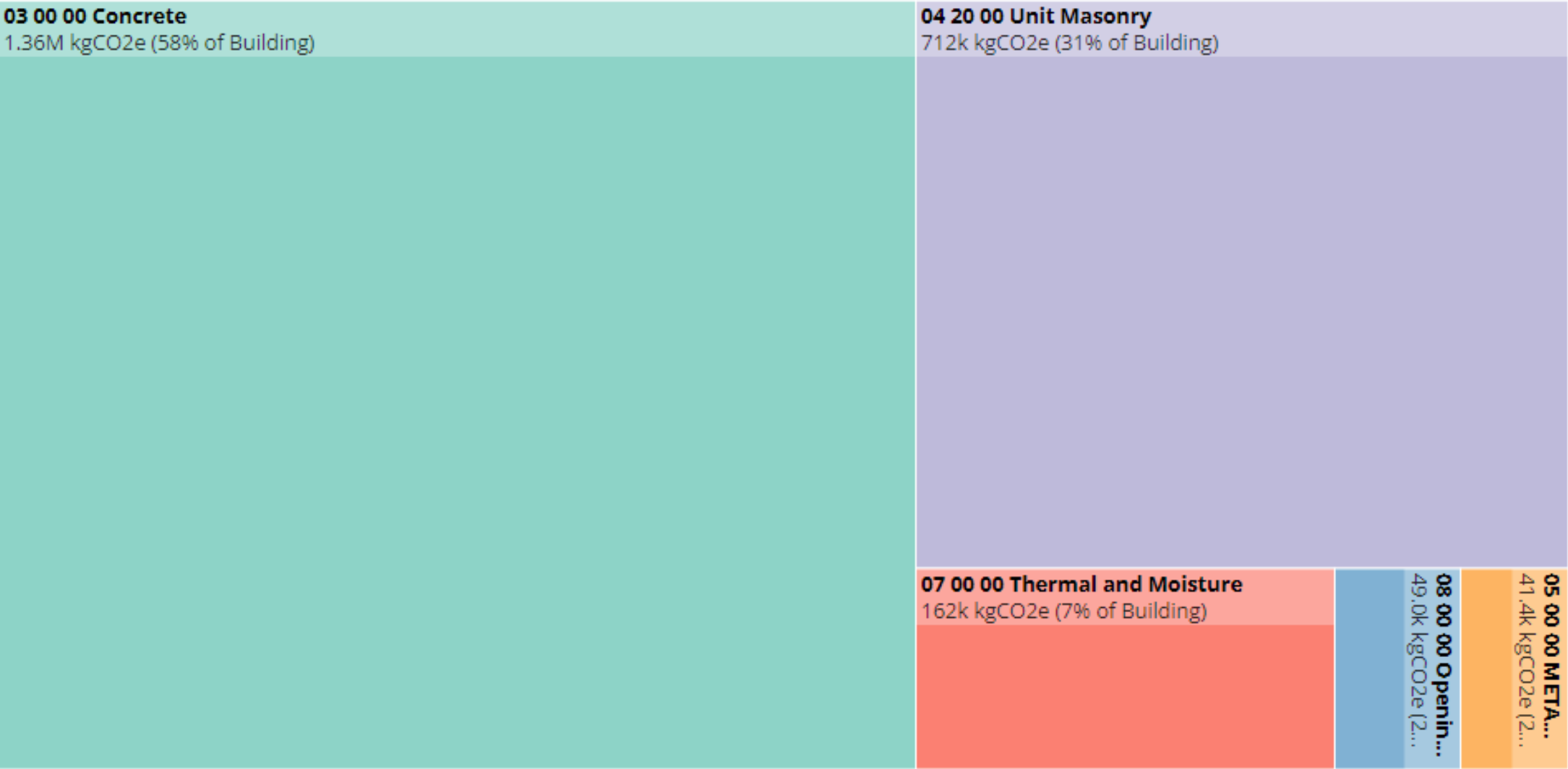
- Assemblies/surfaces mold free
- No drafts or cold spots
- Sound proof



Embodied Carbon:

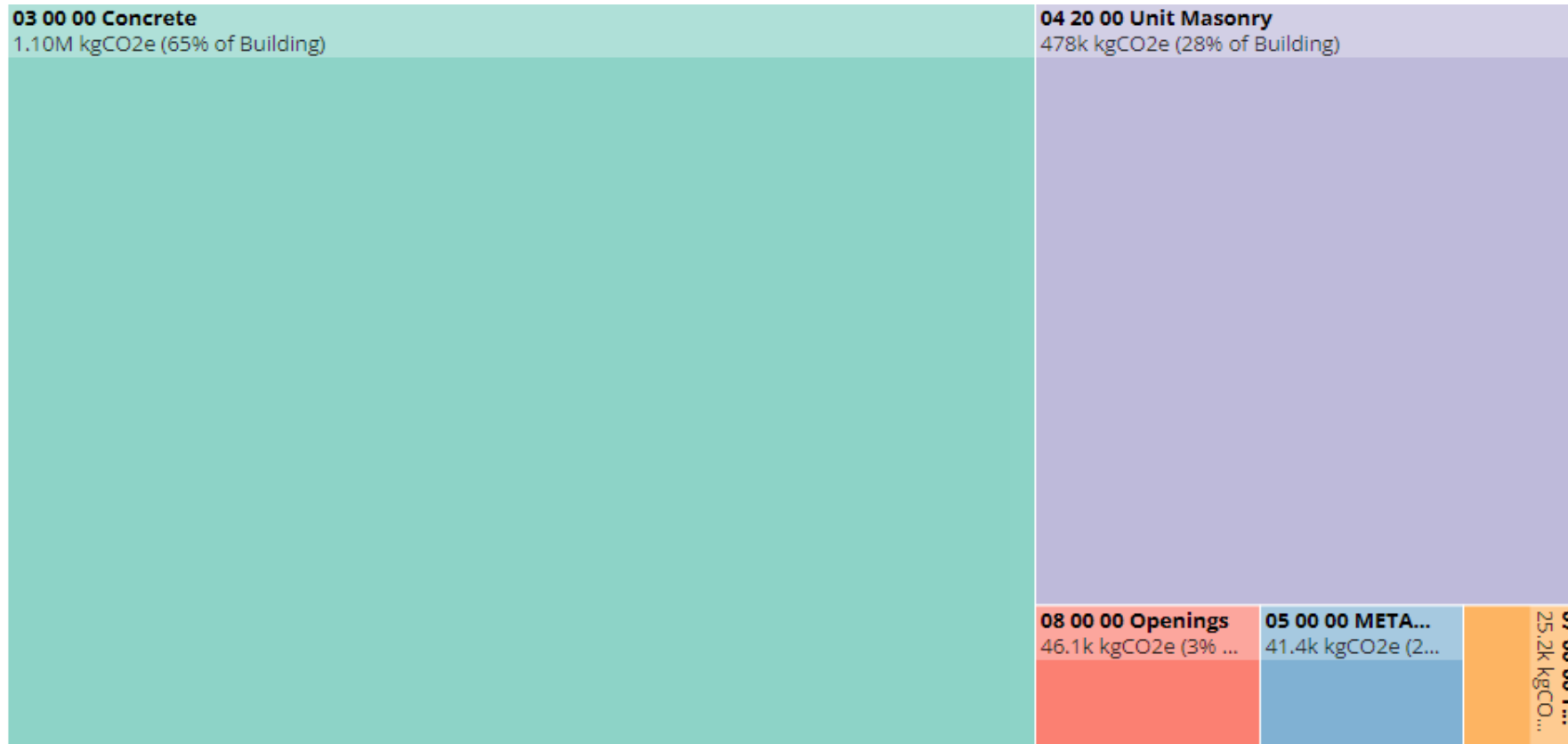
- No Financial Incentive
- Regulations coming

New Construction Baseline: 2.32M kgCO2e



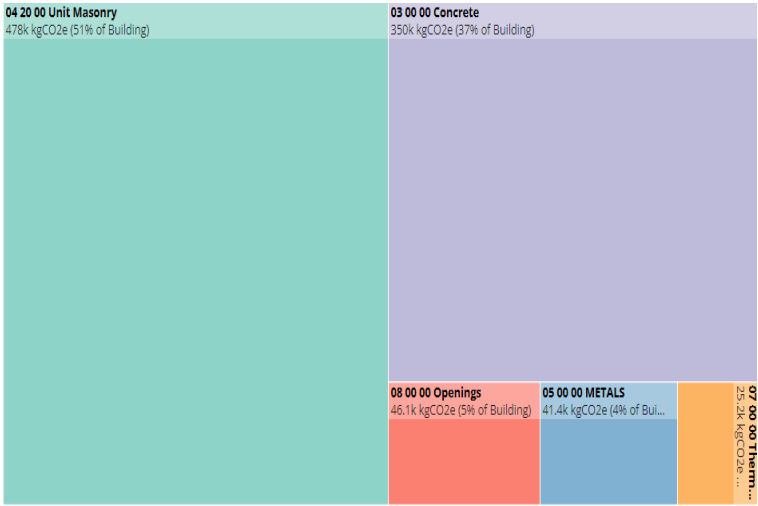
New Construction Enhanced*:

1.6M kgCO₂e 27% Reduction



* = Readily available today
Study funded by NYSERDA

New Construction Super Enhanced*: 940K kgCO2e 60% Reduction



* = Readily available today (but not in the Northeast)
Study funded by NYSERDA

Quality

Quality

Better Buildings

- More durable construction
- Better quality control and testing
- Lower moisture and building-envelope risk
- Greater resilience during extreme weather and outages

What is Passive House (PH)? - How is it different?

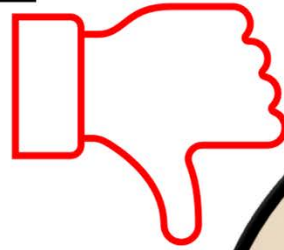
WHAT IS PASSIVE HOUSE?

- ✓ **The most rigorous** of the energy focused building standards/certifications
- ✓ **An overall holistic** approach to the design of a building that is guided by both curtailing energy usage and increasing user comfort
- ✓ **A strict quality control** program during construction that assures the building is assembled as designed

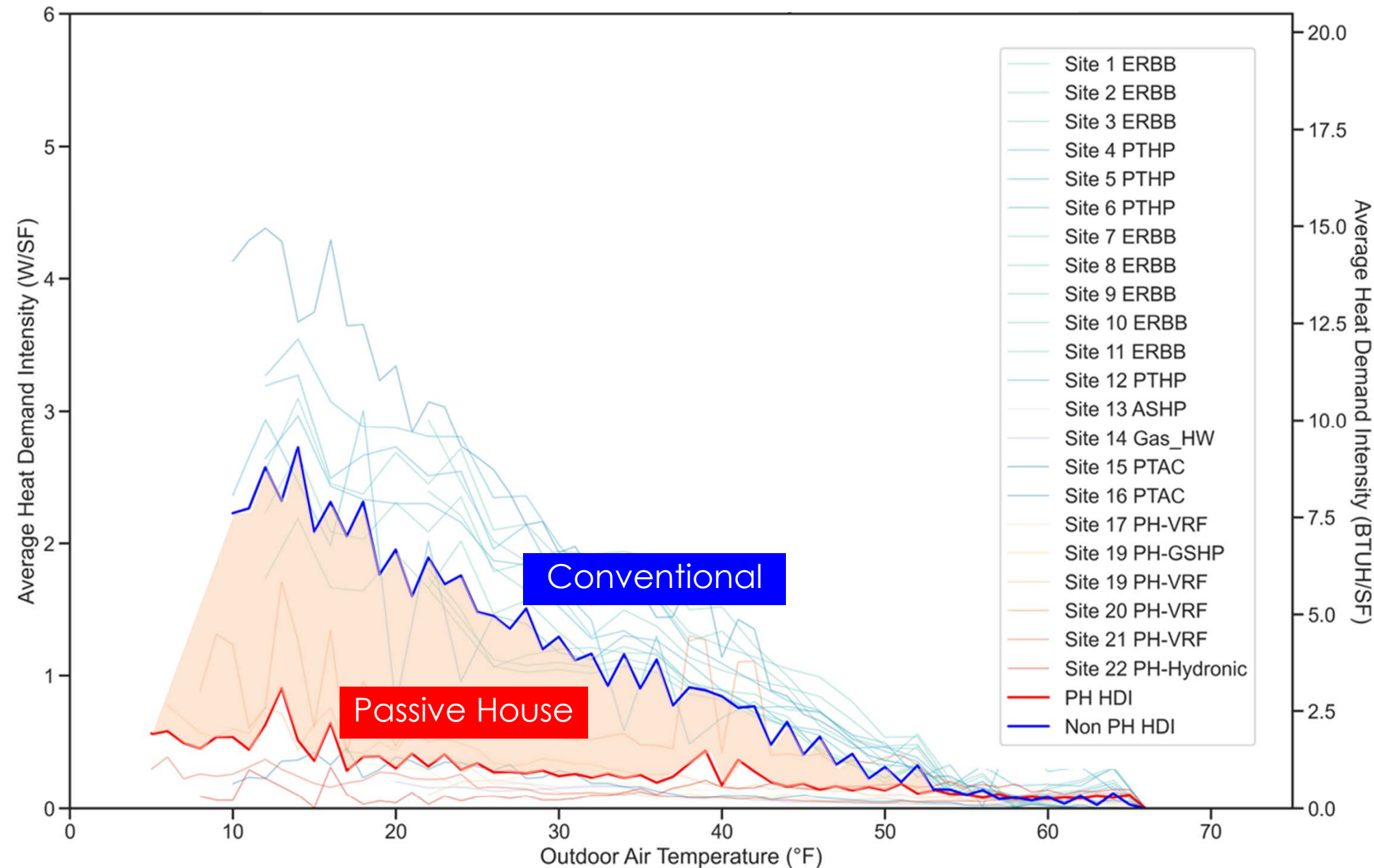
Lessons Learned - Mitigating Pain Points: **Ventilation**

A new level of duct tightness

- Commercial duct systems sealed to conventional standards often leak 25-40%
- **Leads to more energy consumption and poor air balance**



Actual Performance - Measured Peak Heating Demand



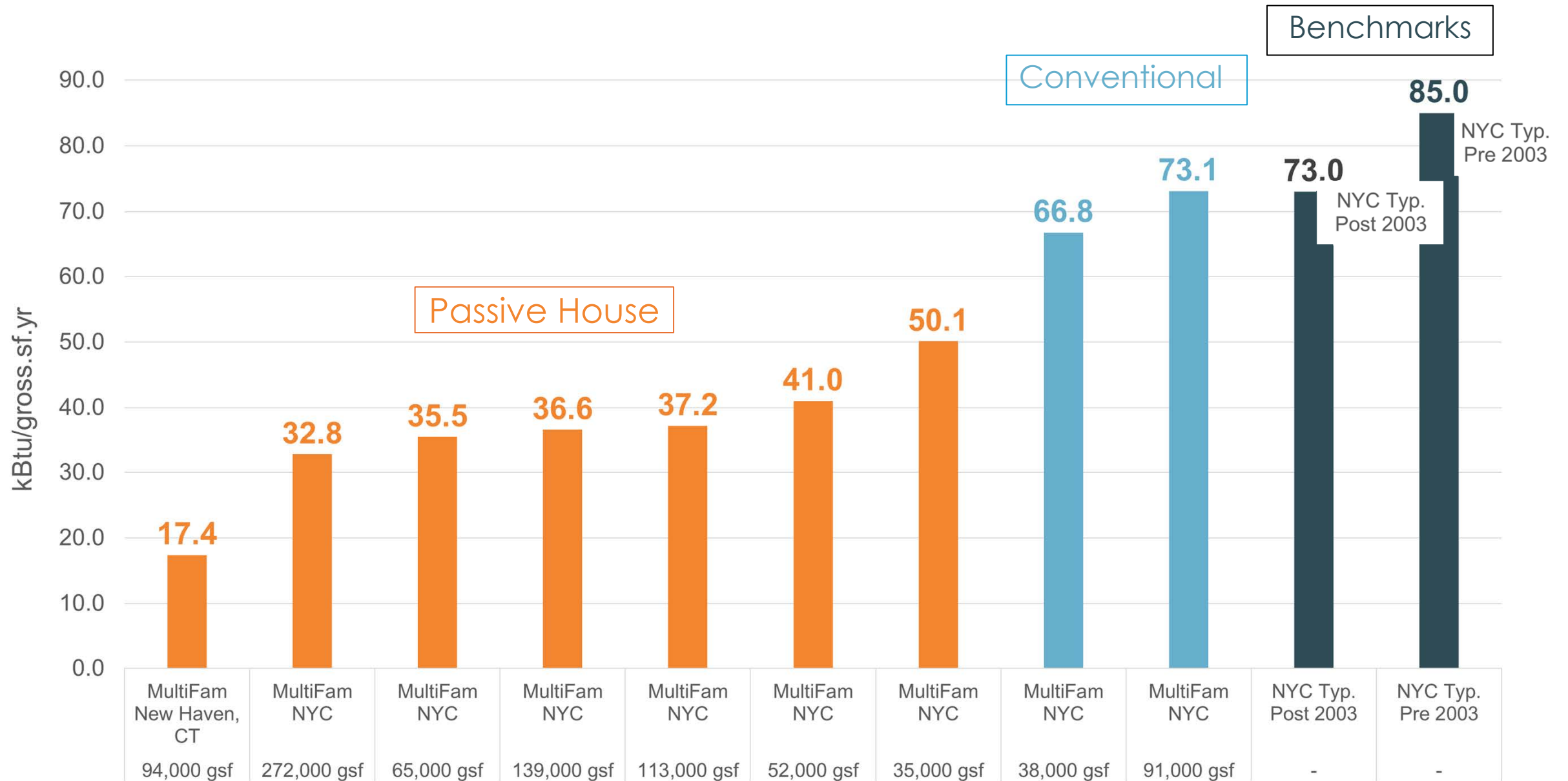
Financing/Investment

Financing/Investment

Better Long-Term Investment

- Future regulatory protection
- Lower carbon emissions
- Access to incentives and green financing
- Stronger ESG and mission alignment

Actual performance - Measured Site EUI (kBtu/gross sf.yr)



Financial Impacts

o First costs

- Improved windows
- Energy recovery ventilation
- Increased insulation

o Ongoing maintenance

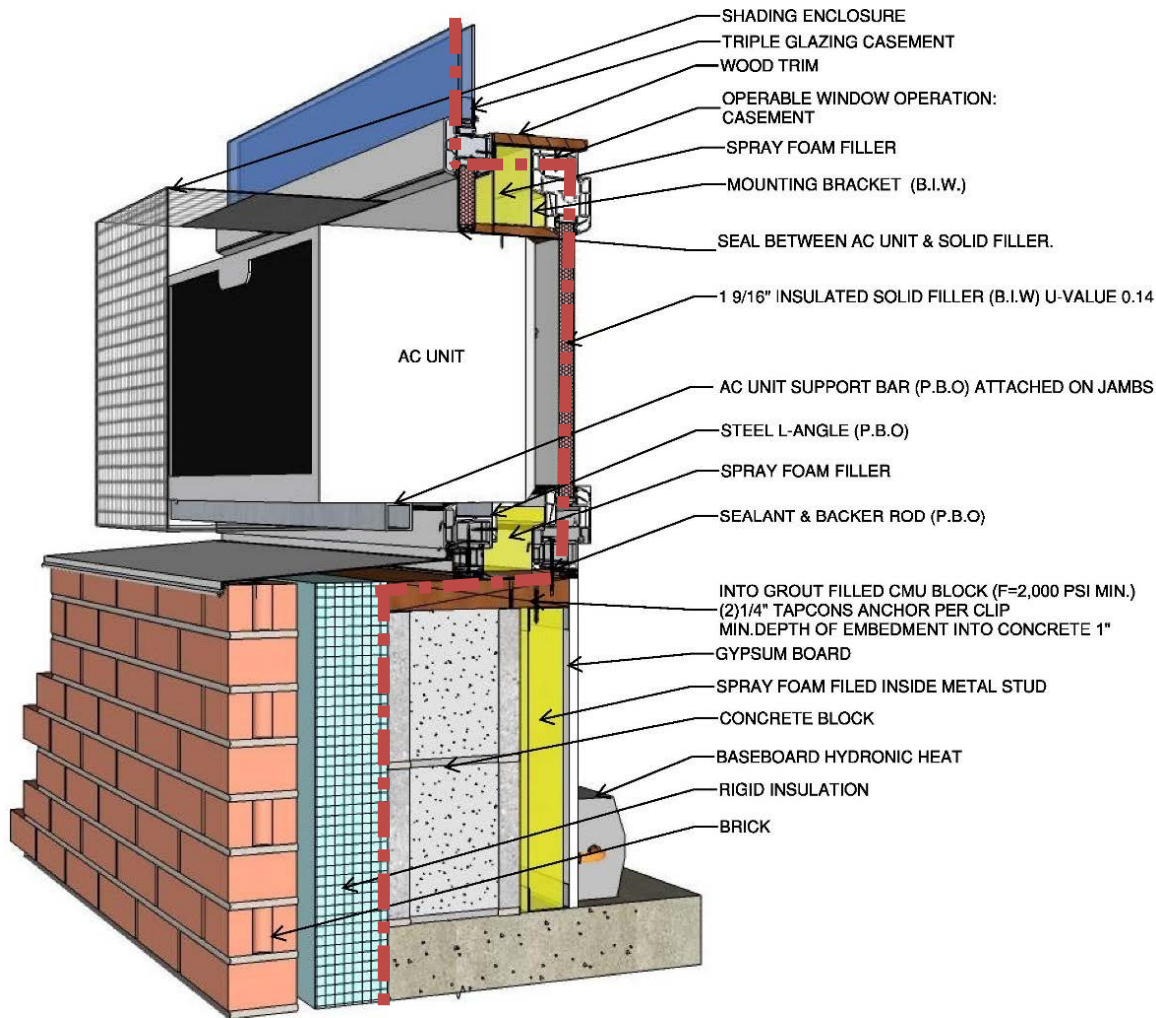
- ERV – filter cleaning and replacement
- Should see reduced building façade repairs – more durable envelope

o Ongoing utility and energy savings

- Peak demand reductions
- Monthly energy bill reductions



Innovation | Window A/Cs that meet Passive House Air Sealing

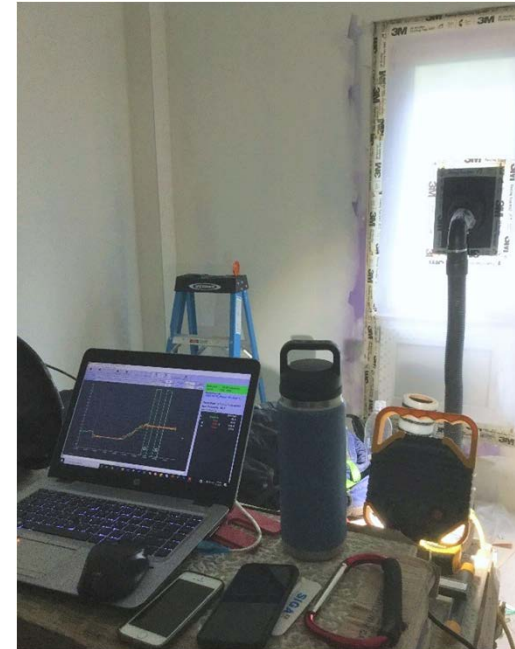


Meeting Passive House standards with conventional heating and cooling systems and off the shelf products, lowering cost and for ease of maintenance and operations.



Utilizing low-cost system of window AC that management and tenants are used to.

Working with window manufacturer to design airtight double window enclosure to seal AC in winter.



Testing and Verify air tightness.



Mapes Avenue, Bronx, NY

Funding/Incentives:

- NYSERDA Early Design
- NYSERDA Award of Excellence
- HPD/HCR
- FHLB
- RFP

Rental vs. Ownership

- If the developer is going to own the building for many years, savings make sense.
- If the developer is selling it, so he/she will not pay the utilities, it can encourage greenwashing.

Market vs. Affordable

New vs existing

Ultra Low Energy Building -ULEB

- Gives a 5% deduction in zoning floor area.

Certification

- Certifications
 - Passive House
 - New ASHRAE standard for Passive House
 - What needs to be certified
 - Energy Code
 - EGC
 - LEED
 - Difficulties
 - Changes to make it a positive result

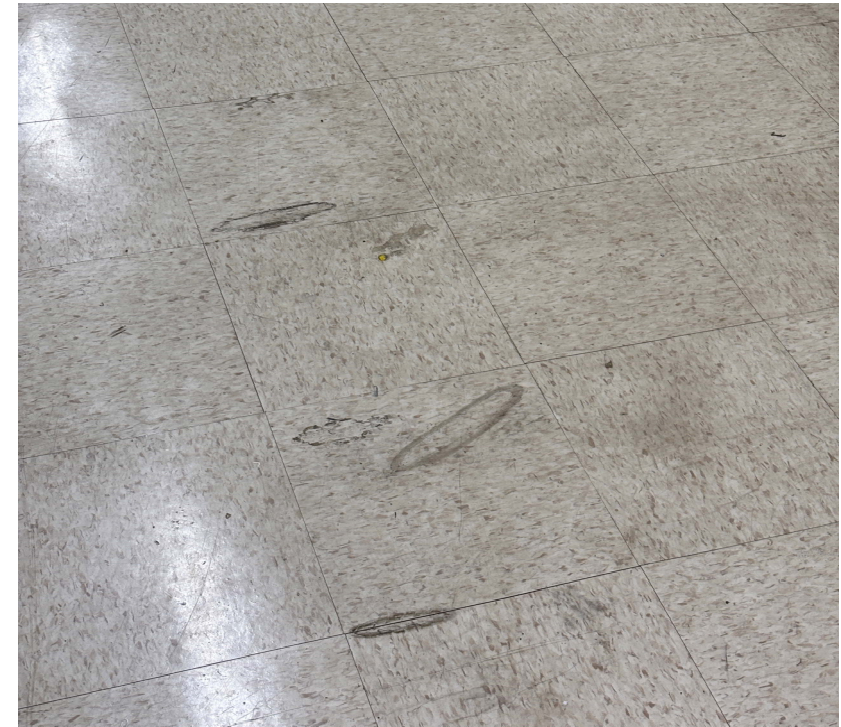
Maintenance

- If things last longer they have a smaller carbon footprint.

LVT vs Non-Vinyl Floor



Although vinyl has health issues with production, if it burns, it seems to be more durable than the bio-based flooring we and others have used. If you have to replace the flooring much more frequently, you have lost much of the advantages of the greener product.



Lessons Learned

- Share post-occupancy feedback from owners, O&M staff, occupants
- Share lessons learned – what to avoid



Questions



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Justin Stein, Executive Vice President - Bronx Pro Group

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Please fill out an evaluation for this session



or: nesea.org/eval

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