NYS Climate Leadership and Community Protection Act (CLCPA)

New York's Nation-Leading Climate Targets

85% Reduction in GHG Emissions by 2050

100% Zero-emission Electricity by 2040

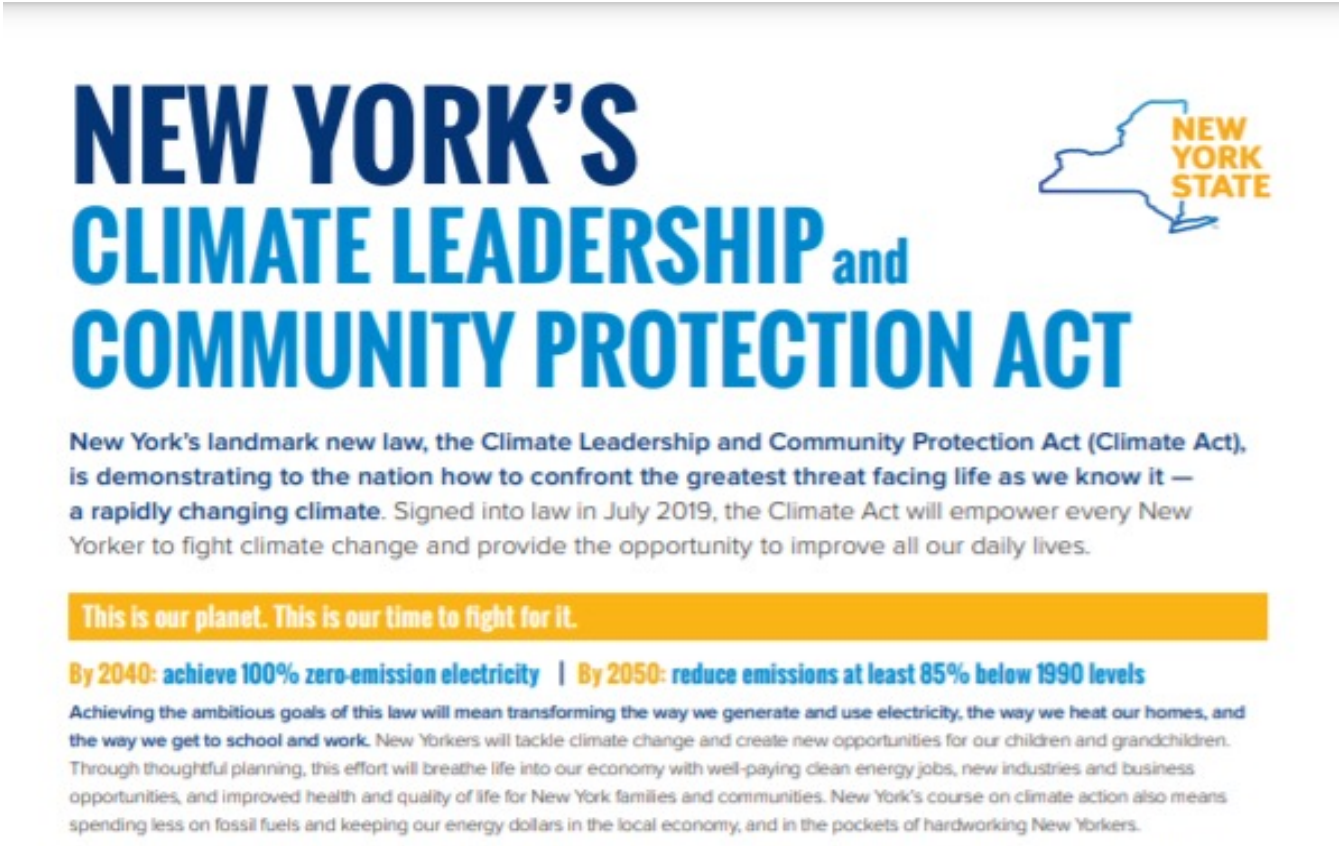
70% Renewable Energy by 2030

9,000 MW of Offshore Wind by 2035

3,000 MW of Energy Storage by 2030

6,000 MW of Solar by 2025

22 Million Tons of Carbon Reduction through Energy Efficiency and Electrification



NEW YORK'S
CLIMATE LEADERSHIP and
COMMUNITY PROTECTION ACT

NEW YORK STATE

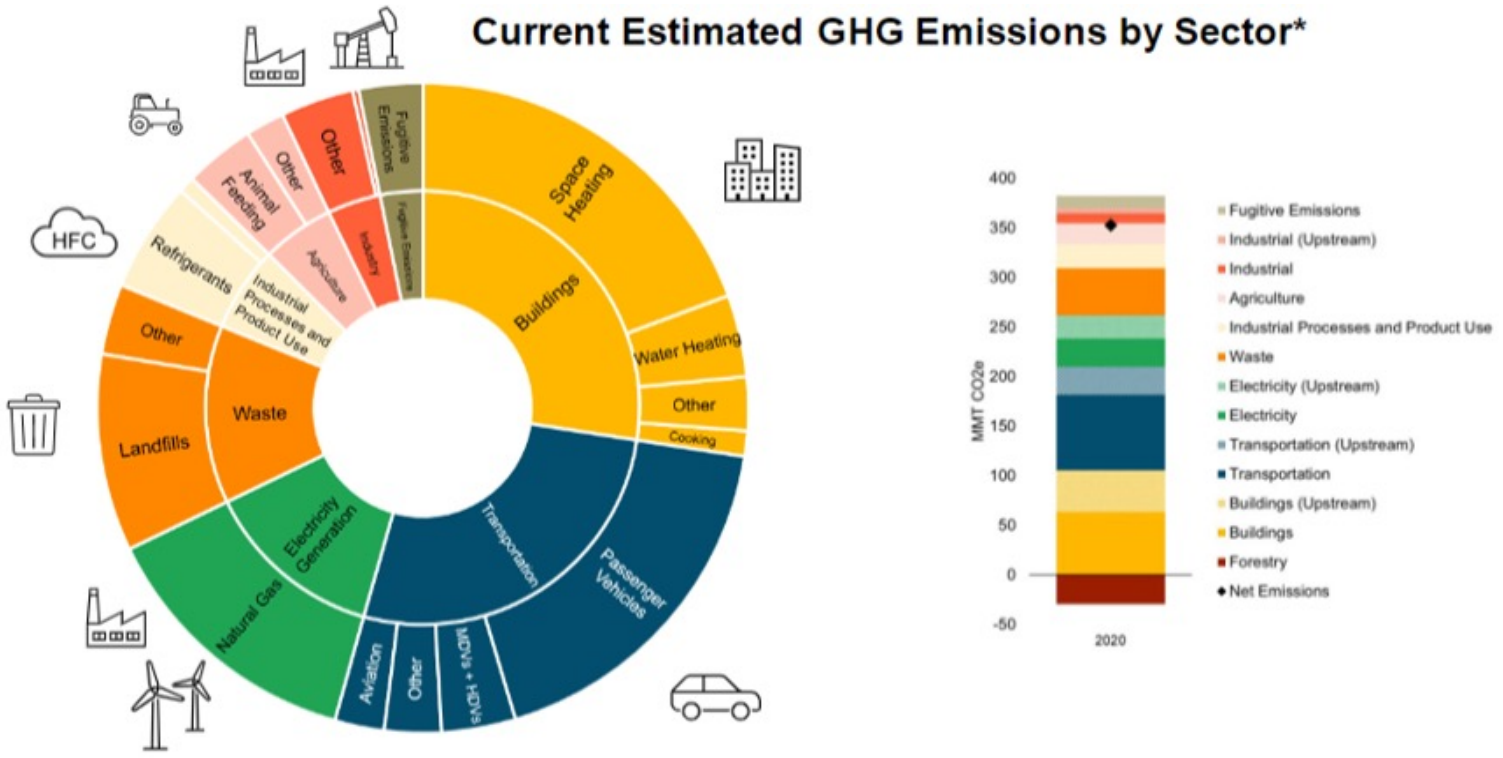
New York's landmark new law, the Climate Leadership and Community Protection Act (Climate Act), is demonstrating to the nation how to confront the greatest threat facing life as we know it — a rapidly changing climate. Signed into law in July 2019, the Climate Act will empower every New Yorker to fight climate change and provide the opportunity to improve all our daily lives.

This is our planet. This is our time to fight for it.

By 2040: achieve 100% zero-emission electricity | By 2050: reduce emissions at least 85% below 1990 levels

Achieving the ambitious goals of this law will mean transforming the way we generate and use electricity, the way we heat our homes, and the way we get to school and work. New Yorkers will tackle climate change and create new opportunities for our children and grandchildren. Through thoughtful planning, this effort will breathe life into our economy with well-paying clean energy jobs, new industries and business opportunities, and improved health and quality of life for New York families and communities. New York's course on climate action also means spending less on fossil fuels and keeping our energy dollars in the local economy, and in the pockets of hardworking New Yorkers.

Climate Leadership and Community Protection Act (CLCPA)

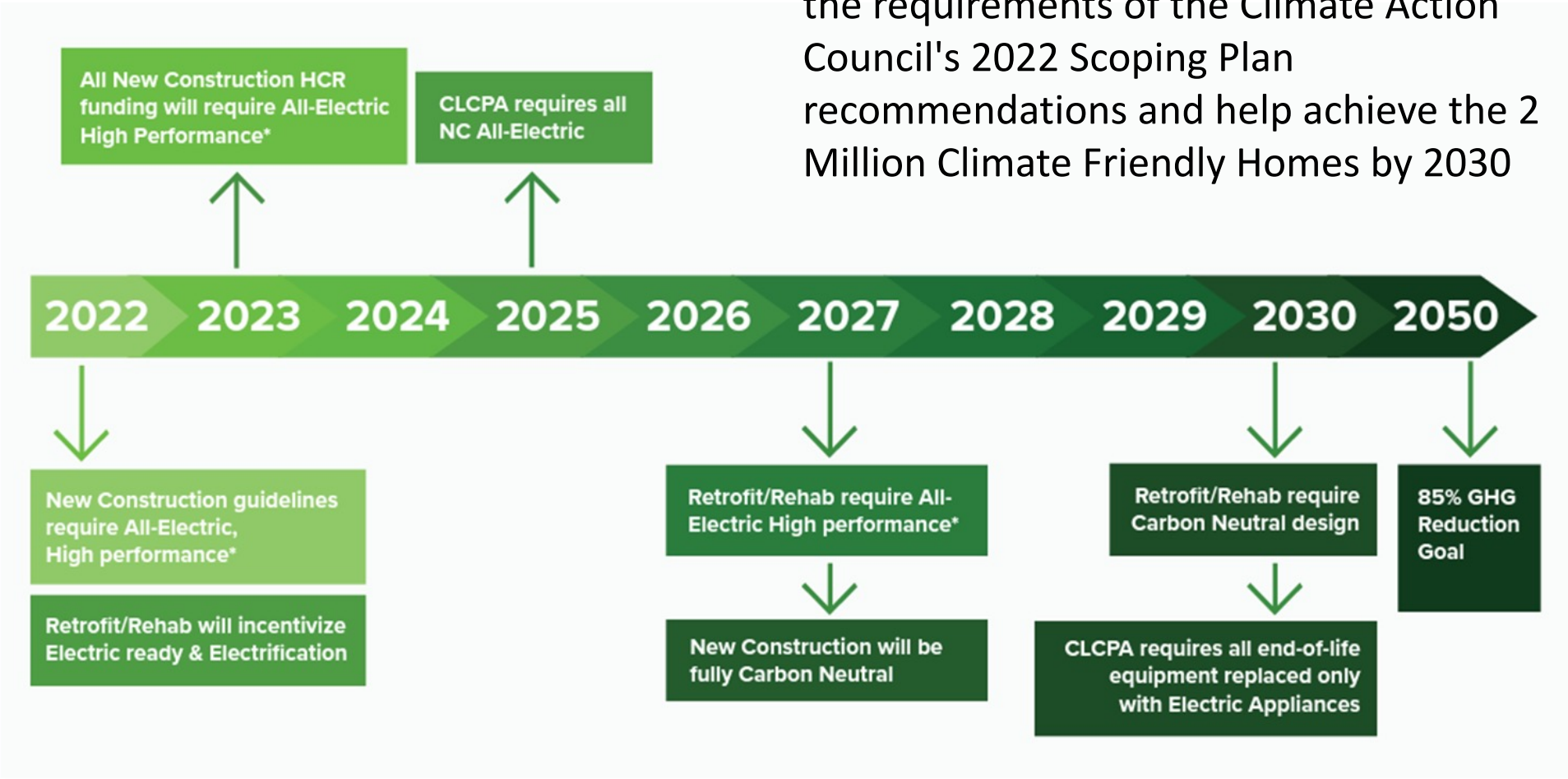


*Draft 2020 results in line with DEC CLCPA accounting including upstream emission factors, 20-year GWP, and estimates from NY PATHWAYS

HCR Sustainability Goals

Housing Alignment CLCPA

Ensure HCR's housing standards meet the requirements of the Climate Action Council's 2022 Scoping Plan recommendations and help achieve the 2 Million Climate Friendly Homes by 2030



Sustainability Unit: HCR Resources

Clean Energy Initiative (CEI): Provides additional funding to LIHTC projects reaching Stretch goals aligned with decarbonization & efficiency measures. CEI is funded through a partnership and commitment of $100M from NYSERDA

Climate Friendly Homes Fund (CFHF): Funded through the HTFC capital budget at HCR, this program will provide $250M to electrify 10,000 units of small multifamily programs. The program will be administered by the Community Preservation Corporation (CPC) and their community and CDFI partners.

Weatherization Assistance Program (WAP): Provides weatherization services to LMI households through a network of non-profit community action agencies. Funded through DOE and LIHEAP programs annually about $60M serving around 8,000 units

Technical Support: The Sustainability Unit provides support to HCR's F&D and SAMU teams for IPNA review, Sustainability Guidelines compliance, and other decarbonization scopes of work

NEW YORK STATE OF OPPORTUNITY. Homes and Community Renewal

Overview NYS CEI: Current Available Funding

Phase	New Construction	Adaptive Reuse	Existing Buildings
Funding	$5,500/unit Max Project awards: $1.375M NC Boost: $7,500/Unit, Max Project awards: $1.5M	Adaptive Reuse: $12,500/unit Max Project Award: $2.5M*	If all three eligible scopes are selected: $25,000/unit Max Project Award: $5.625M*
Eligible Projects	Meets ONE of the Stretch goals in Section 1 of the Sustainability Guidelines *(LEED BD+C Gold AND LEED Zero, PHI/PHIUS Certification, OR EGC+)*	Meets one of the stretch goals in Section 1 of the Sustainability Guidelines *(LEED BD+C Gold AND LEED Zero, PHI/PHIUS Certification, OR EGC+)*	Selects at least one of the eligible scope item: 1. Electrification of space heating 2. Electrification of DHW systems 3. Building Envelope & ventilation
Notes	Boost Eligibility: 1. <60 units AND >4 stories 2. Project team has not certified a passive at time of application 3. >20 stories above grade 4. Total energy cost is less than $1,000/unit (modeled)	*If SHPO designation, an Adaptive Reuse may follow the Existing Building term sheet, with a waiver, for funding and scope	*Details of each scope criteria on the next slide*
Requirements	All projects must pay into SBC (Systems Benefit Charge) through their local utility Cannot receive NYSERDA MPP, NC-H, or BOE funding for construction, Existing Buildings may not receive utility AMEEP funds when accepting CEI funds All CEI funding includes eligible amount of UP TO $1,000/unit for soft cost, as part of max award		

Existing Buildings Three Eligible Funding Goals

Phase	Goal 1: Electrification of Heating System	Goal 2: Electrification of DHW system	Goal 3: Building Envelope Improvement & Ventilation
Funding	**$8,500/unit max**	**$4,000/unit max**	**$12,500/unit max**
Scope of Work	Replace existing fossil-fuel (e.g., gas, oil, propane fired) based heating equipment or electric resistance baseboard systems with high-efficiency, all-electric heat pumps	Replace existing domestic hot water systems with high performance all-electric heat pump system	**Envelope:** Pursue Envelope Stretch Goals listed in Section 2 of the Existing Building Sustainability Guidelines (p23-24) **Ventilation:** Pursue Ventilation Stretch Goals listed in Section 2 of the Existing Building Sustainability Guidelines (p31)
Requirements	Required Building Envelope Conditions • A high-performance envelope is required when electrification of heating is being pursued.	Equipment must comply with the Adaptive Reuse Baseline Requirements for Domestic Hot Water equipment listed in Section 2 of the Existing Building Sustainability Guidelines (p 30	• Envelope improvements that contribute to an overall building envelope that is at least 15% more energy efficient than 2020 ECC • Implementation of an engineered natural ventilation system in compliance with ASHRAE 62.1 Section 6.4 Natural Ventilation Procedure • Existing buildings with natural ventilation systems installing through-wall exhaust fans in kitchen and bathrooms • Installation of energy recovery ventilator (ERV) or heat recovery ventilator (HRV) equipment

Climate Friendly Homes Fund

Eligible Use of Funds

- CFHF **hard costs** will cover systems upgrades and limited energy conservation measures to support:
  - Heating system replacement with high-efficiency heat pumps for heating and cooling
  - DHW system replacement with high-efficiency heat pump water heaters
- CFHF funds can be used to cover associated **engineering/consultant costs**, **originations fees**, **closing costs**, and **legal fees**
  - Proposed cost share for energy audit and scoping ahead of loan closing
    - Projects that close and move to construction would be reimbursed for their share of audit costs
  - Borrower will be responsible for benchmarking fees for a total of 5 years
- **Estimated available funding to cover hard costs: $18-$22k/unit**

Ineligible Use of Funds

- Solar PV or other on-site renewables
- Health & Safety or deferred maintenance items
- Energy efficiency measures outside of designated scope
- Cannot be combined with mortgage financing to fund additional updates

Program staff and partners will work with participants to identify incentives, rebates, and other sources of capital to cover ineligible scope items that improve building operations and further reduce carbon emissions

CLIMATE FRIENDLY HOMES FUND

The Climate Friendly Homes Fund (CFHF), administered by The Community Preservation Corporation, provides financing for existing, 5-50-unit buildings in New York State with a focus on replacing older and less energy-efficient systems with all-electric, high-performance heating, cooling, and hot water heating systems.

With $250 million in New York State funding, CPC and New York State Homes and Community Renewal aim to finance electrification retrofits in at least 10,000 units of multifamily housing that serve economically disadvantaged communities. These funds will empower small building owners to identify and execute a scope of work to improve the energy efficiency of their buildings and decrease their greenhouse gas emissions.

By catalyzing the adoption of new, energy-efficient technologies, the program will advance New York State and CPC's commitments to supporting multifamily building owners in their transition to a green economy and delivering the benefits of climate friendly homes to residents of low- and moderate-income neighborhoods.

In order to maximize impact and the reach of the program, CPC has identified like-minded green lending institutions, CDFIs, and other community-based partners to collaborate on the identification and screening of building

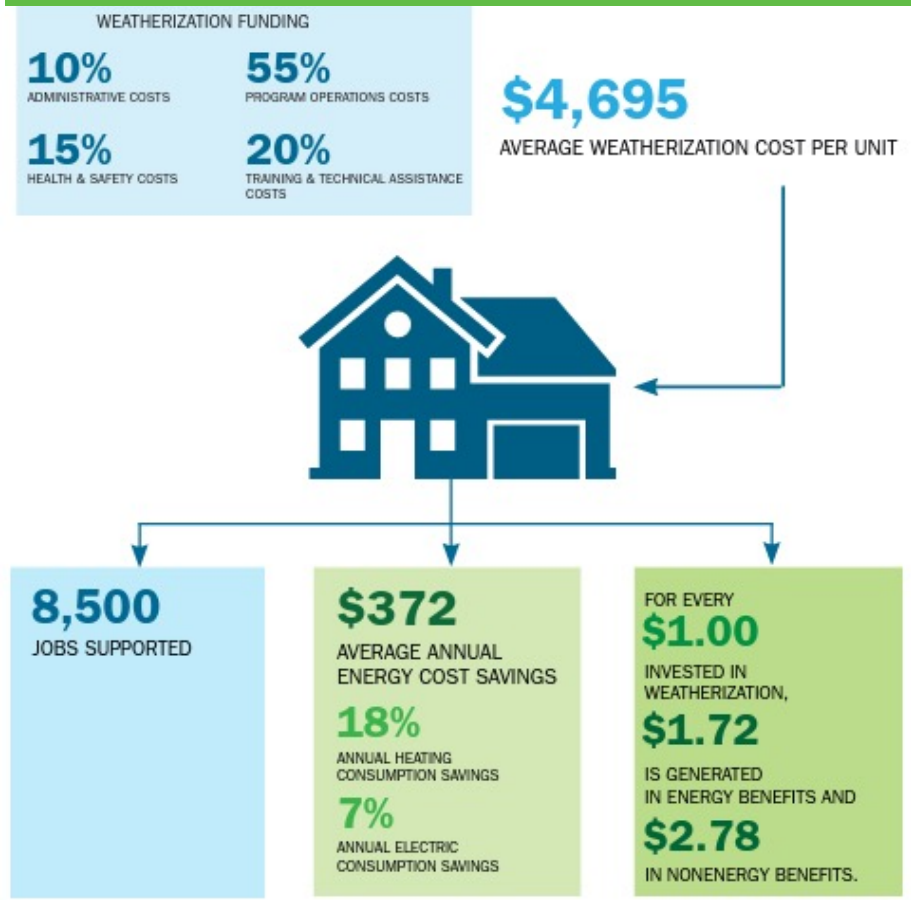
Program Summary

Program Size	**$250,000,000 f** **10,000 multifa**
Property Eligibility	Multifamily resi reductions thro either: 1. Regula 2. Locate defined (HUD) 3. Locate State's
Other Eligibility Requirements	1. Owner • • 2. Eligibl rental p • • 3. CPC o

	• The existing property uses either fuel oil, natural gas, propane or electric resistance for the primary space heating. • Existing building envelope performance; either via an existing I/PNA or a Property Condition Assessment completed by a consulting engineer engaged by Program Administrator to perform services in connection with Program and aligned with the States decarbonization goals. • Existing energy efficiency; based on average annual energy usage of most recent past 2 years • Existing owner and tenant meter structure • Date and scope of last major refinance
Payment Structure	• Property owners will receive funds in the form of a forgivable loan. No payments of principal or interest; fully forgiven after the loan term. • Property owner shall enter into a Promissory Note and Loan Agreement. • Property owner shall execute a Restrictive Covenant which shall impose certain requirements, and shall be recorded against the improved property. • Properties which are sold or refinanced without state written consent, which shall not be unreasonably delayed or withheld, within 10 years (or for projects with either: 15 units or less or, loan/grant amounts of $375,000 or less, 5 years) of receiving funding may trigger repayment of a portion of the funding, unless explicitly stated otherwise.
Security	Restrictive Covenant recorded against the property.
Loan Amount	Up to **$24,200 per unit**, which will cover the eligible scope of work and eligible program delivery costs (soft costs).
Term	**10 Years:** • Projects with 15+ units OR • Loan amounts greater than $375,000 **5 Years:** • Projects with less than 15 units OR • Loan amounts less than $375,000
Interest Rate	N/A
Loan Origination Fee	25 basis points of loan amount multiplied by number of years in servicing period (10 years, or for projects with either: 15 units or less or, loan amounts of $375,000 or less, 5 years) • Projects with 15 units or less or, loan amounts of $375,000 or less: Servicing fee to be paid in full by borrower at closing (calculated based on discounted cash flow analysis). • Projects with greater than 15 units or, loan amounts greater than $375,000: Borrower to be given two options for payment: ○ Option 1: Servicing fee to be paid in full by borrower at closing (calculated based on discounted cash flow). ○ Option 2: Servicing fee to be paid annually by borrower.
Reserves	Reserves will be established at loan closing from funds provided by the eligible building owner for the following: • Required benchmarking fees (3 years collected up front)

Weatherization Programs

Federal Weatherization Assistance Program



Weatherizing a home has multiple benefits. In addition to the main goal of creating a more energy-efficient dwelling, an investment in weatherization also has a positive impact on local employment and energy costs and generates energy and nonenergy benefits for the community.

Weatherization services improve existing homes building envelope through air sealing, HVAC improvements, & health and safety improvements

NYS Weatherization Assistance Program

- WAP+ LIHEAP funds for NYS WAP
- Our average cost per unit: $8,006/unit
- On average 7,000/units or homes a year
- Work on Single Family & Multifamily
- A network of 50 Subgrantees, or Community Action Agencies (Non-Profit community

NYSERDA EmPower Program

- Serves ~ 5,000 units a year, + new funding!
- Works with 1–4-unit homes
- Able to decarbonize properties through electrification

SHNNY 2023:

Local Law 97 & Affordable Housing:

[LL97 Guidance for Affordable Housing - HPD (nyc.gov)]

NYC Department of Housing Preservation & Development

Local Law 97 – Prescriptive Measures (updated)

Must implement or show compliance with all <u>applicable</u> measures:

- Adjusting temperature set points for heat and hot water
- Repairing visible heating system leaks
- Confirm heating systems are in good operating condition
- Temperature controls (TRV) or insulated radiator enclosures (all radiators or based on a survey of overheated apartments)
- Insulation of exposed pipes for heating and/or hot water
- Insulation of **steam** system condensate tank or water tank
- Heating system sensors & boiler controls for steam/ hydronic heating
- Replacement or repair of all **steam** traps as needed*
- **Steam** system master venting upgrades as needed*
- Installing timers on intermittent exhaust fans*
- Installing radiant barriers behind certain radiators*
- Ensure common area lighting installed between 2010 and 2024 comply w/ Energy Code in effect at the time of installation
- Confirm or fix weatherstripping/ caulking/ etc. in common area

LL97 PRESCRIPTIVE MEASURES: COSTS FOR AVG. DWELLING UNIT (1.5 BR - 700 sf)					
Scope	Cost/ DU	Incentives	Net Costs	Annual Savings/ DU	Payback (Years)
Low (e.g. non-steam building)	$1,540	$525	$1,015	$85	11.9
High (e.g. all PECMs required)	$4,620	$2,000	$2,620	$255	10.3
Average	**$3,080**	**$1,263**	**$1,818**	**$170**	**11.1**

NYC Department of Housing Preservation & Development

Local Law 97 – Meeting 2030 Limits

RANGE OF BUILDINGS	SAMPLE SCOPES TO MEET 2030 LIMITS	GHG REDUCTIONS
Buildings already performing close to 2030 targets	-Invest in maintenance -Install low flow fixtures -Air seal building -Heating distribution system upgrades	up to 29%
Buildings that are significantly underperforming	All of the above PLUS: -Roof insulation & air sealing -Upgrade to high efficiency heating equipment -Heating system controls & sensors -Lighting upgrades	29-48%
The worst performing buildings (the worst 20th percentile, many are oil buildings)	All of the above PLUS: -Install heat pump hot water heaters -Upgrade old windows	44-63%

Most buildings subject to the "2035 Pathway" will need to make deeper improvements to meet 2035 limits but won't need to electrify until after 2040 (see the Decarbonization Roadmap for further information)

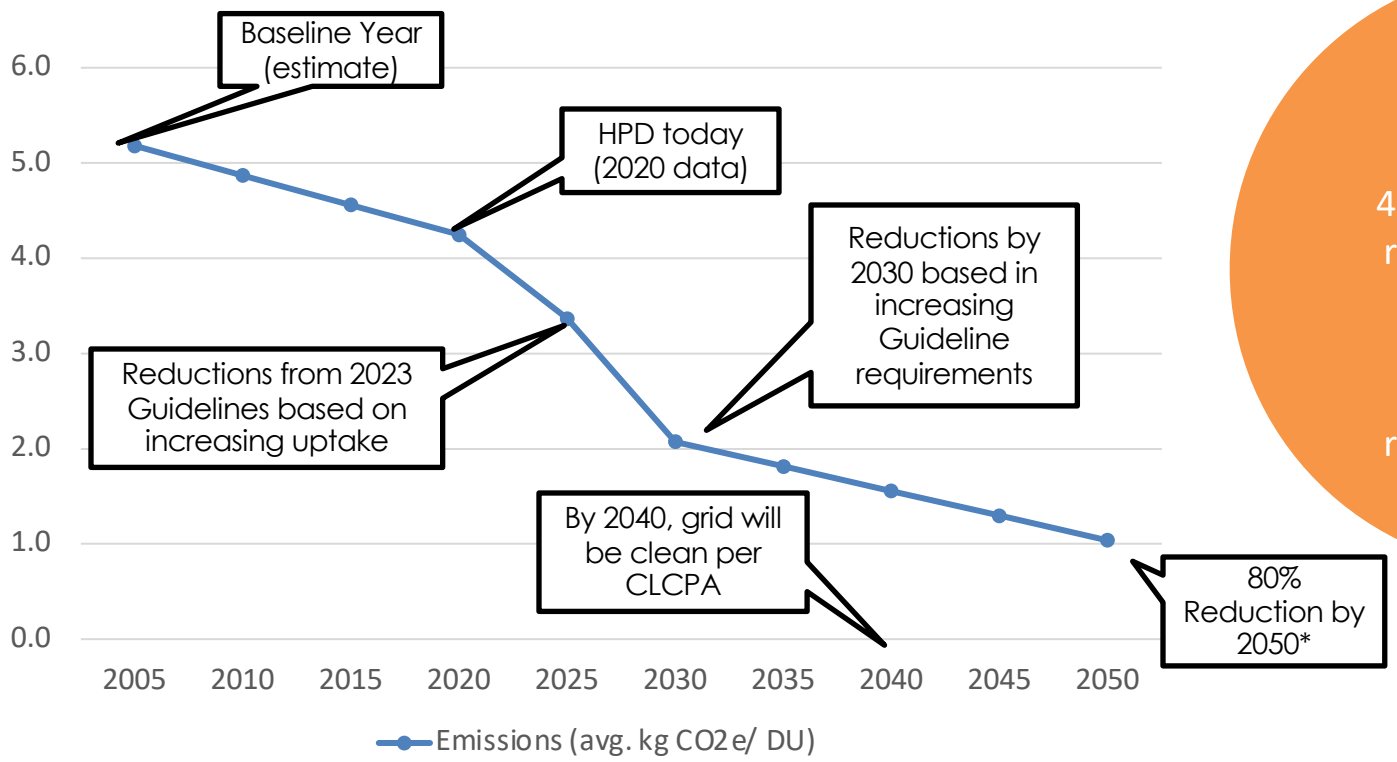
NYC Department of Housing Preservati & Development

Local Law 97 – Rules Coming

- Rules expected summer 2023
- Rules will include penalties for failure to report and for non-compliance
- Rules will include clarification of the PECMs
- Rules will likely include an alternative pathway for Article 321 (the Prescriptive Pathway)
- Rules will likely include a covered buildings list, or required documentation to prove status
- Rules will likely include information about change in compliance status

HPD's Design Guidelines

HPD's Plan for Decarbonization



OUTCOME:

40% Portfolio-wide reduction by 2030

Goal of an 80% Portfolio-wide reduction by 2050

NYC Department of Housing Preservation & Development

HPD's Design Guidelines

[Preservation Design - HPD (nyc.gov)]

[New Construction Design - HPD (nyc.gov)]

NYC Department of Housing Preservati & Development

Design Guidelines: Key Criteria

	CRITERIA	Mod Rehabs	Sub & Gut Rehabs	New Construction
1	**Core Requirements**	No 3rd Party Certification Meet 2030 LL97 targets Reach: Exceed LL97 requirements	EGC or LEED Gold or Above Meet longer term LL97 targets Reach: EGC+ and/or meet LL97 2050 targets	EGC or LEED Gold Meet 2050 LL97 targets* Reach: EGC+ and/or Passive House
2	**Resiliency**	New equipment above 2050s flood zone Cool roofs Reach: Cooling for Senior Housing	New equipment above 2050s flood zone Cooling for seniors* Reach: No residential uses below grade	Design to 2080's flood zone, Place of Refuge in Senior Housing Reach: Shaded open space for all buildings
3	**HVAC**	Limited Electrification* Clean/ seal balance existing ventilation Reach: Install mechanical ventilation	Strategic Electrification* New Performance Standards for HVAC Reach: Full electrification	Full Electrification* New Performance Standards for HVAC Reach: Geothermal/ Heat Recovery
4	**Envelope & Efficiency**	Prescriptive requirements	Covered by EGC	Covered by EGC
5	**Health & Wellness**	Prescriptive requirements Aging in place, accessibility	Most items covered by EGC Aging in place, accessibility	Covered by EGC New open space requirements
6	**Broadband**	Broadband in common areas	Broadband in common areas	Broadband required
7	**Operations**	Project manuals and staff/ resident training	Most items covered by EGC	Covered by EGC

**Signifies that a Design Waiver is available*

Financial Resources

HPD Pilot Funding Overview

Phase	$15 Million Future Housing Initiative: Phase 1	$24 Million Retrofit Electrification Pilot
Scope Requirements	All Projects must include: • All Electric Heating, Hot Water & Appliances AND • Certification w/ PHI/ PHIUS, ECG+ or LEED BD+C Gold & LEED Zero	Two Scopes available (may be combined): • Scope 1: Electrification of Hot Water Heating + Low Flow Fixtures + Pipe Insulation • Scope 2: Electrification of Space Heating + Roof & Window Upgrades + Air-Sealing. Ventilation Upgrades and Electric Cooking are encouraged but not mandatory.
Funding	• Base Funding: up to $5,500/unit • Base + Boost*: up to $10,000/ unit • Max per project: $1.375M • Max with Boost*: $1.5M *Boost Eligibility includes Prevailing Wage projects, difficult to develop sites, first-timers, etc.* *Additional innovation funds may be available*	• Scope 1 (DHW): up to $2,300/ unit • Scope 2 (Space Heating): up to $24,000/ unit • Scope 1+2: up to $26,300/ unit • Max per project: $1M* *Additional funds may be available for multi-building projects on oil*
Eligibility Requirements	• Competitive Application • Must be a project in HPD's pipeline • Must be closing within 1-2 years	• First-come-first-served • Must be a project in HPD's pipeline • Preference for 10 to 50-unit buildings on oil/ electric resistance or with equipment in flood zones • Scope 2 is only available for Sub Rehabs
Other Sources	All projects must pay into SBC (Systems Benefit Charge) through their local utility Projects must seek Clean Heat Funding where available Projects may not receive NYSERDA MPP, NC-H, BOE, or Low Carbon Pathways funding for construction or utility AMEEP funding (for any building that is part of a Pilot)	

HPD-NYSERDA Pilot Structure

PRE-DEFINED LOW CARBON SCOPES

New Construction: All Electric Passive House

Retrofits: Electric DHW and/or Space Heating

DIRECT GRANTS TO OWNERS:

Covers incremental cost of Low Carbon Scopes

Paid directly to owner during construction

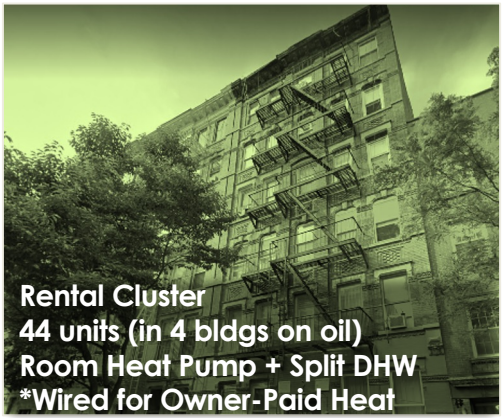
CAPACITY BUILDING:

Free Technical Support to Development Teams

Resources for owners, designers and residents

NYC Department of Housing Preservation & Development

HPD's Retrofit Electrification Pilot: Status



OUTCOME:

Closed Projects: 3 projects w/ 153 units

Current Pipeline: 26 buildings w/ 769 units

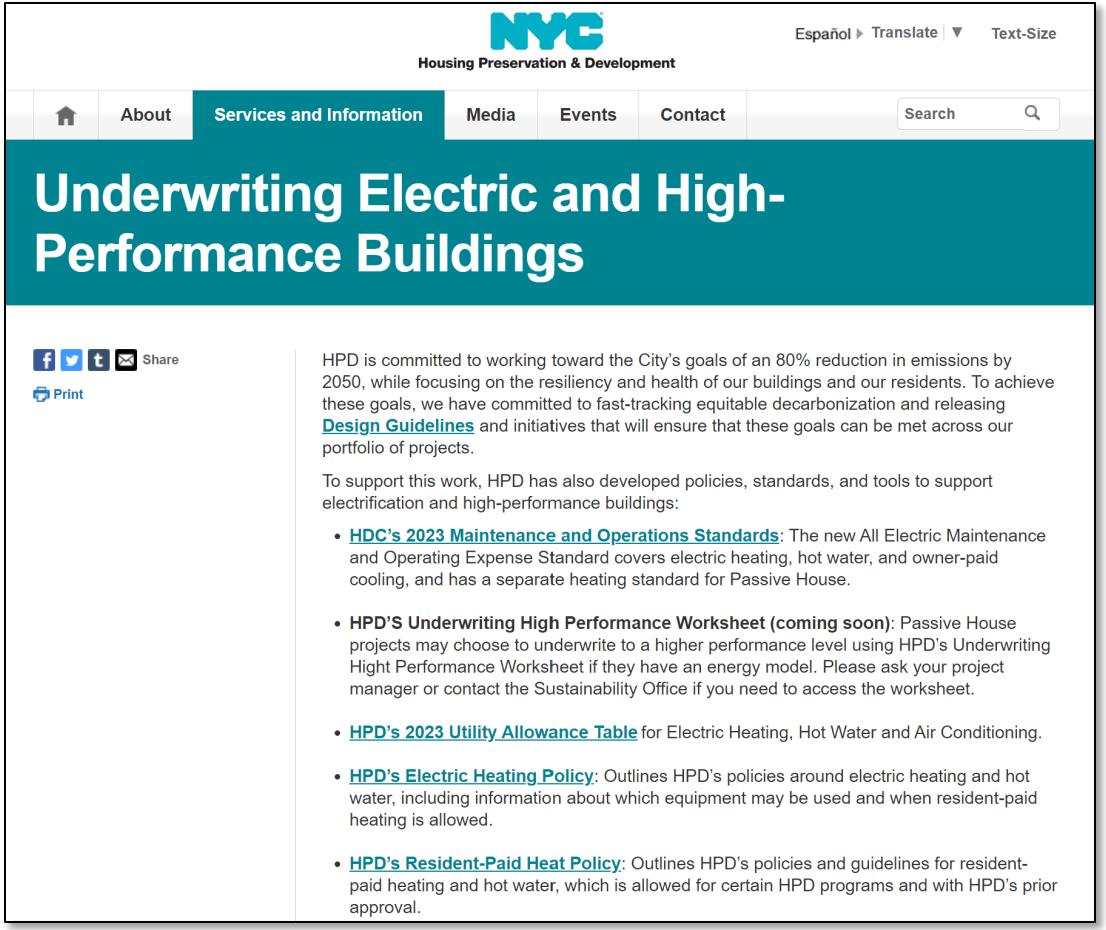
Target: Up to 1,500 units

Up to 3,000 tons GHG emissions abated

[HPD-NYSERDA Retrofit Electrification Pilot (nyc.gov)]

NYC Department of Housing Preservation & Development

Additional Resources



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Underwriting Electric and High-Performance Buildings

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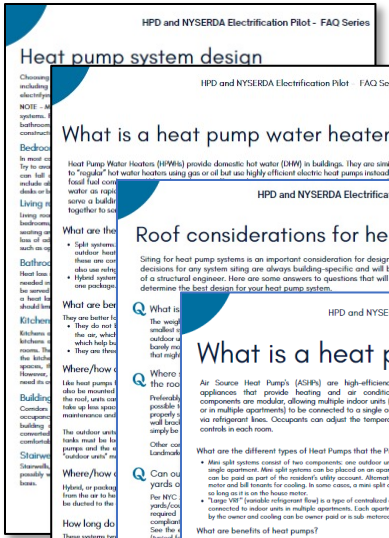
HPD is committed to working toward the City's goals of an 80% reduction in emissions by 2050, while focusing on the resiliency and health of our buildings and our residents. To achieve these goals, we have committed to fast-tracking equitable decarbonization and releasing Design Guidelines and initiatives that will ensure that these goals can be met across our portfolio of projects.

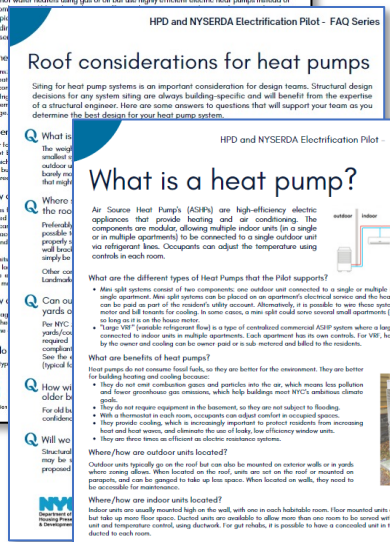
To support this work, HPD has also developed policies, standards, and tools to support electrification and high-performance buildings:

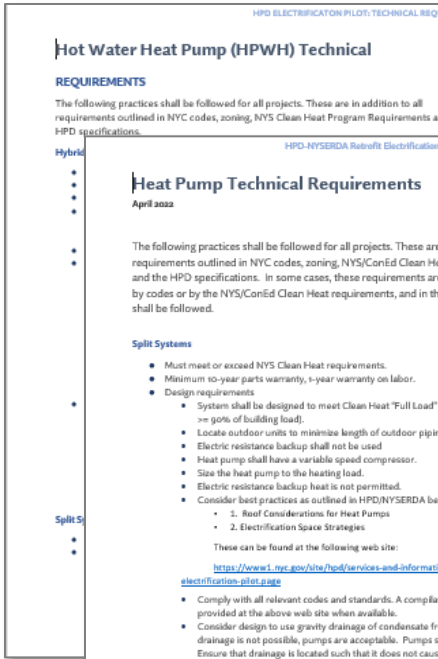
- HDC's 2023 Maintenance and Operations Standards: The new All Electric Maintenance and Operating Expense Standard covers electric heating, hot water, and owner-paid cooling, and has a separate heating standard for Passive House.
- **HPD'S Underwriting High Performance Worksheet (coming soon)**: Passive House projects may choose to underwrite to a higher performance level using HPD's Underwriting Hight Performance Worksheet if they have an energy model. Please ask your project manager or contact the Sustainability Office if you need to access the worksheet.
- HPD's 2023 Utility Allowance Table for Electric Heating, Hot Water and Air Conditioning.
- HPD's Electric Heating Policy: Outlines HPD's policies around electric heating and hot water, including information about which equipment may be used and when resident-paid heating is allowed.
- HPD's Resident-Paid Heat Policy: Outlines HPD's policies and guidelines for resident-paid heating and hot water, which is allowed for certain HPD programs and with HPD's prior approval.

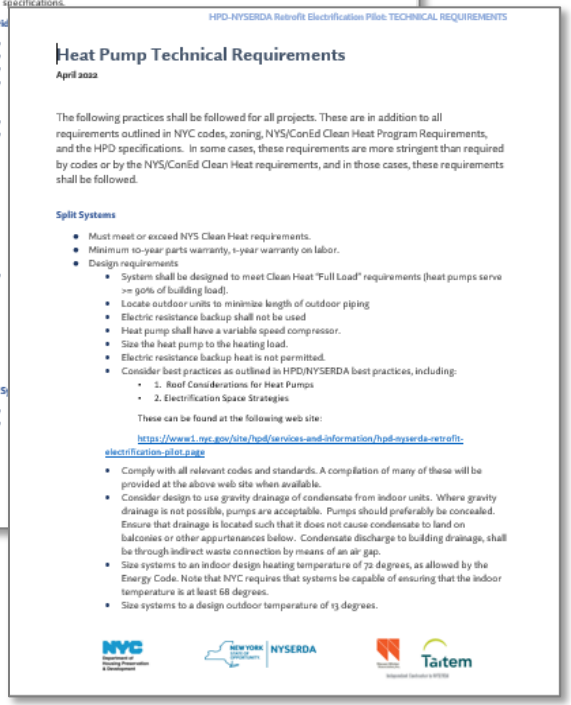
Additional Resources

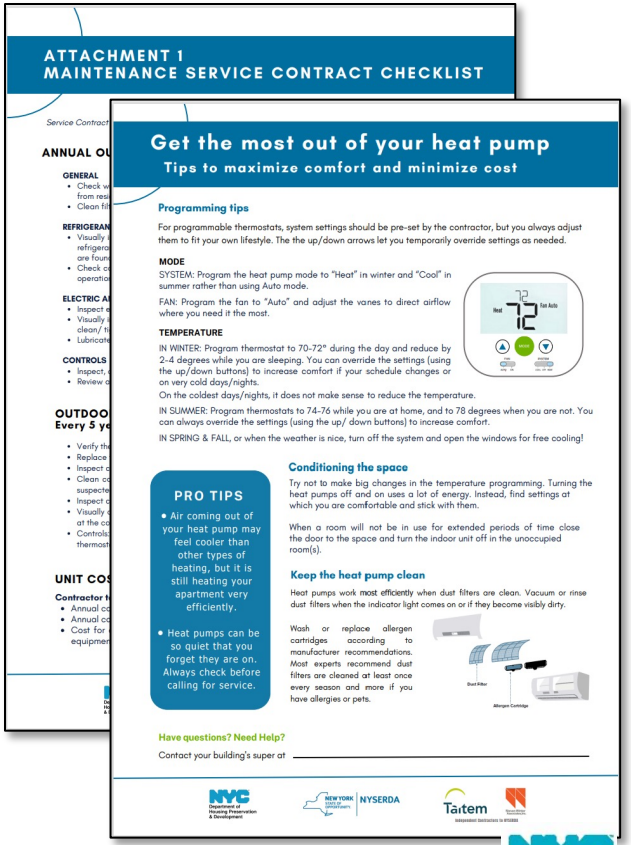
Retrofit Electrification Pilot: Tools & Resources







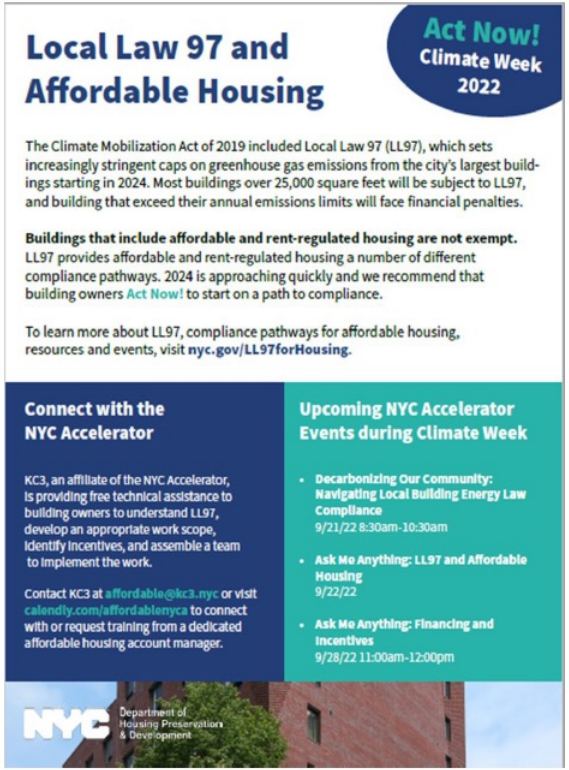




[HPD-NYSERDA Retrofit Electrification Pilot (nyc.gov)]

Department of Housing Preservation & Development

Local Law 97 – Act Now! Campaign w/ KC3



Local Law 97 and Affordable Housing

Act Now! Climate Week 2022

The Climate Mobilization Act of 2019 included Local Law 97 (LL97), which sets increasingly stringent caps on greenhouse gas emissions from the city's largest buildings starting in 2024. Most buildings over 25,000 square feet will be subject to LL97, and building that exceed their annual emissions limits will face financial penalties.

Buildings that include affordable and rent-regulated housing are not exempt. LL97 provides affordable and rent-regulated housing a number of different compliance pathways. 2024 is approaching quickly and we recommend that building owners Act Now! to start on a path to compliance.

To learn more about LL97, compliance pathways for affordable housing, resources and events, visit **nyc.gov/LL97forHousing**.

Connect with the NYC Accelerator

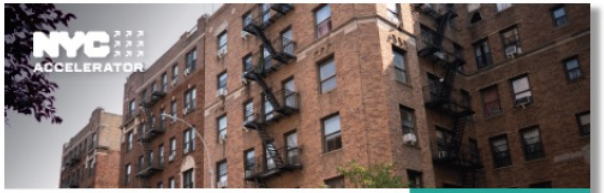
KC3, an affiliate of the NYC Accelerator, is providing free technical assistance to building owners to understand LL97, develop an appropriate work scope, identify incentives, and assemble a team to implement the work.

Contact KC3 at affordable@kc3.nyc or visit calendly.com/affordablenyca to connect with or request training from a dedicated affordable housing account manager.

Upcoming NYC Accelerator Events during Climate Week

- **Decarbonizing Our Community: Navigating Local Building Energy Law Compliance**
  9/21/22 8:30am-10:30am
- **Ask Me Anything: LL97 and Affordable Housing**
  9/22/22
- **Ask Me Anything: Financing and Incentives**
  9/28/22 11:00am-12:00pm

NYC Department of Housing Preservation & Development



Local Law 97 — Building Emissions

Under NYC Local Law 97 (LL97), buildings larger than 25,000 square feet must meet increasingly stringent carbon emissions caps starting in 2024. This law helps New York City reach its goal of carbon neutrality by 2050.

Understanding Alternative Compliance Pathways for Affordable Housing

LL97 provides several different compliance pathways for affordable housing buildings. This document focuses on Article 321, which provides an alternative compliance pathway for certain affordable housing buildings.* By 2024, covered buildings must meet one of the following conditions:

- The annual building emissions did not exceed the carbon limits for 2030–2034, (Report certified by a registered design professional due by May 1, 2025).
- The building implemented the applicable Prescriptive Energy Conservation Measures (ECMs) by December 31, 2024. (Report certified by a retro-commissioning agent due by May 1, 2025).

*Buildings in which more than 35 percent of units are rent regulated, regardless of whether they contain units with income restriction; HDFC cooperatives; and buildings that include HUD project-based assistance (e.g., § section 8, 202, 811, CoC), including buildings on NYCHA land that participate in the PACT/RAD program.

Learn more. Contact NYC Accelerator.
nyc.gov/accelerator | 212.656.9202
info@accelerator.nyc | linkedin.com/company/nycaccelerator
NYC Accelerator is a program of the NYC Mayor's Office of Climate and Sustainability

Prescriptive ECMs

1. Adjust temperature set points for heat and hot water
2. Repair heating system leaks
3. Maintain heating system
4. Install individual temperature controls or insulated radiator enclosures
5. Insulate heating and hot water pipes
6. Insulate steam system condensate tank or water tank
7. Install heating system sensors and boiler controls

Limited-Time Offer: NYC HPD Multifamily Buildings

Get help installing the measures required by Local Law 97 (LL97) today.

NYC Accelerator is partnering with Con Edison and the NYC Department of Housing Preservation & Development (HPD) to help HPD-financed buildings navigate LL97.

This is a limited-time offer.[1] Eligible buildings will receive incentives per dwelling unit and per measure installed. The incentives will be paid on a first-come, first-served basis. If you do not qualify for this offering, other multifamily incentives may still be available.

Measures	Building Heating System Type (Incentive Per Residential Unit) 1-Pipe Steam	2-Pipe Steam	Hydronic
Boiler Clean & Tune: Maintaining the heating system, including but not limited to ensuring that system component parts are clean and in good operating condition	$34	$45	$30
Thermostatic Radiator Enclosure (TRE): Insulating radiator enclosures with temperature controls	$800	$800	
Pipe Insulation: Insulating all pipes for heating and/or hot water	$100	$100	$100
Tank Insulation: Insulating all steam system condensate tanks and/or water tanks	$100	$200	
Energy Management Systems (EMS): Installing indoor and outdoor heating system sensors and boiler controls to allow for proper set-points	$280	$300	$350
Steam Traps: Replacing or repairing all steam traps so all are in working order	$500	$750	
Master Venting: Installing or upgrading steam system master venting at the ends of mains, large horizontal pipes, and tops of risers, vertical pipes branching off a main	$70	$40	
Common Area Lighting: Upgrading lighting to comply with the standards for new systems set forth in section 805 of the New York City Energy Conservation Code and/or applicable standards referenced in such energy code on or prior to December 31, 2024	$6	$6	$6
Air Sealing: Weatherizing and air sealing where appropriate, including windows and ductwork, with focus on whole-building insulation	Free	Free	Free
Insulation – Roof & Wall: Weatherizing and air sealing where appropriate, including windows and ductwork, with focus on whole-building insulation	$350	$350	$350
Unitary Controls: Installing timers on exhaust fans	$100	$100	$100

[1] Limited to three buildings per owner. If interested in submitting more than three buildings, all buildings must be under 100 units and are subject to review by Con Edison for acceptance on a case-by-case basis.

Learn more. Contact NYC Accelerator.
www.accelerator.nyc | 212.656.9202
info@accelerator.nyc | linkedin.com/company/nycaccelerator
NYC Accelerator is a program of the NYC Mayor's Office of Climate & Environmental Justice.

Building Eligibility Requirements

- NYC HPD-subsidized housing
- Buildings between 25,000 and 75,000 sq. ft.
- Buildings with 5+ units
- Con Edison gas customer
- Buildings subject to Article 321 of LL97, which includes:
  - Greater than 35% rent regulated units
  - HDFC co-op
  - Buildings with HUD project-based assistance (Section 8, 202, etc.), including buildings on New York City Housing Authority land that participate in the PACT/RAD program
  - Does not already comply with LL97 2030 limits
- Buildings that meet Con Edison's eligibility requirements

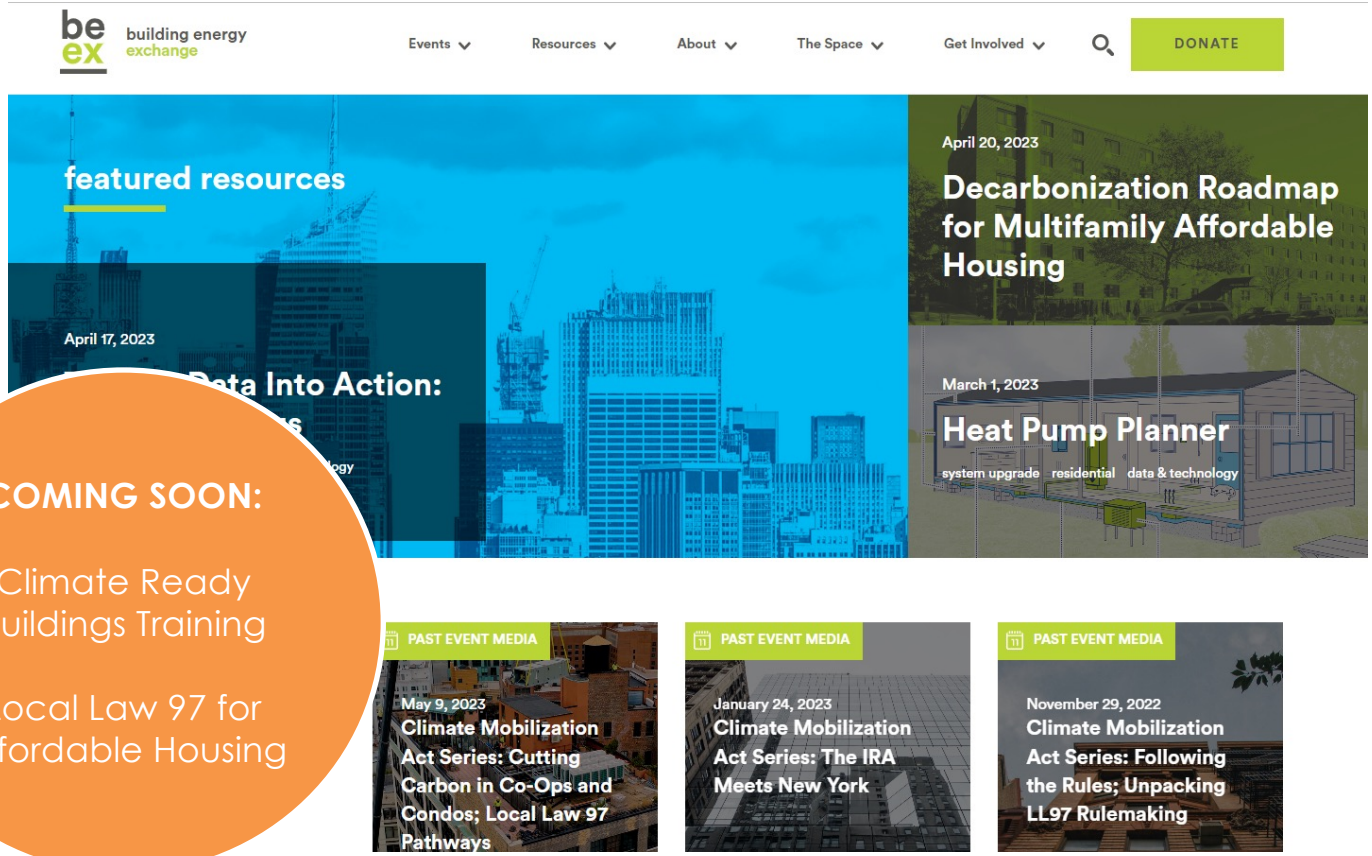
How It Works

- Contact NYC Accelerator to confirm eligibility
- Complete survey to identify which of the Prescriptive Energy Conservation Measures are applicable to your building
- Select a Participating Contractor to bid and install your package
- Submit your application to Con Edison and schedule a pre-inspection
- Install the package within two years of the preliminary offer letter from Con Edison and schedule a post-inspection
- Receive your incentive payment

Additional guidance on LL97 can be found on the Department of Buildings website: https://www1.nyc.gov/site/sustainablebuildings/requirements/affordable-housing.page

NYC Department of Housing Preservation & Development | conEdison

Collaboration w/ BE-Ex (and others)

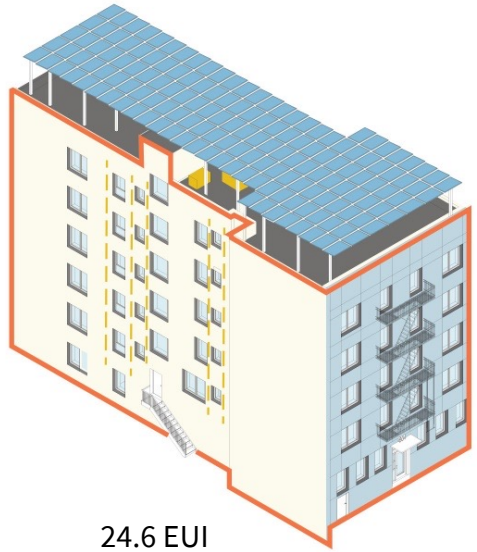



Sustainable,
Inclusive
Communities.
MAP

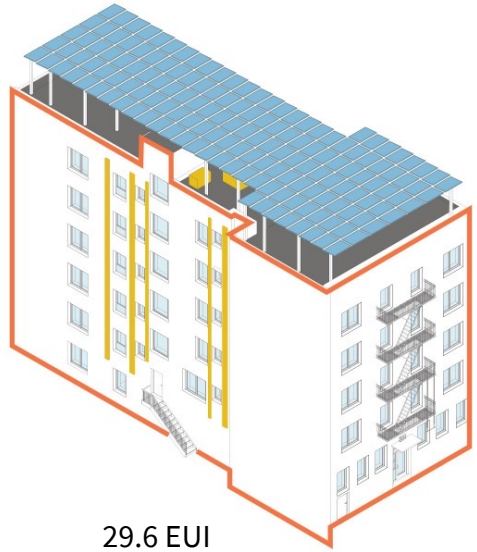

708

NYSERDA RetrofitNY Study

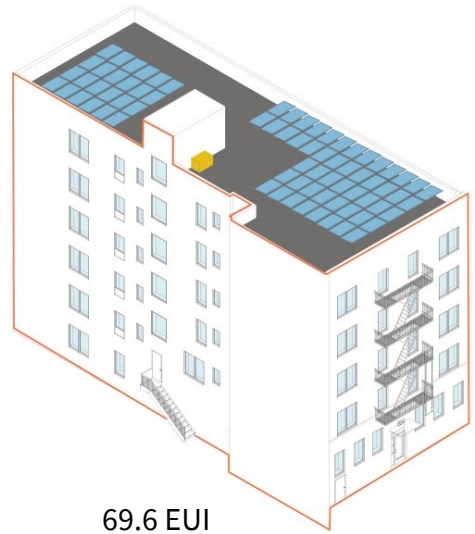
Efficiency Options:
Volmar Project



24.6 EUI



29.6 EUI



69.6 EUI

		1 **Most Efficient** Approaching Net Zero (EUI: 24.6, with solar: 15.4)	2 **NYSERDA RetrofitNY Proposal** Approaching Net Zero (EUI: 29.6, with solar: 20.4)	3 **Final Plan for Development** (EUI: 69.6, with solar: 65.3)
Building Envelope	Street Facade	Insulated panelized cladding system	Existing uninsulated brick walls	Existing uninsulated brick walls
	Sides and rear	Stone wool 6" EIFS	Existing uninsulated brick walls	Existing uninsulated brick walls
	Roof	R-30 Blown cellulose + R-16 Rigid insulation	R-30 Blown cellulose + R-16 Rigid insulation	R-30 Blown cellulose + R-16 Rigid insulation
	Air Tightness	2.33 ACH50	2.33 ACH50	5.12 ACH50
	Windows	Tilt & Turn Double glazed U-0.277 - SHGC 0.4	Tilt & Turn Double glazed U-0.277 - SHGC 0.4	Tilt & Turn Double glazed U-0.277 - SHGC 0.4 (AC panels)
Building Systems	Heating & Cooling	VRF	VRF	New steam boiler & Existing window ACs
	Ventilation	Central ERV with exterior risers (underneath insulation)	Central ERV with exterior risers	Natural ventilation
	DHW	Heat pump water heater	Heat pump water heater	Heat pump water heater
	Solar Array	Pergola 42 kW	Pergola 42 kW	Roof mounted 19.76 kW
	Lighting	LEDs + Daylight and occupancy sensors in common areas	LEDs + Daylight and occupancy sensors in common areas	LEDs + Daylight and occupancy sensors in common areas
	Stoves	Standard Electric	Standard Electric	Existing Gas
	Refrigerators	Energy Star	Existing	Existing

5 CORE PRINCIPLES OF HEALTHY, EFFICIENT, DURABLE, AND SUSTAINABLE BUILDINGS:

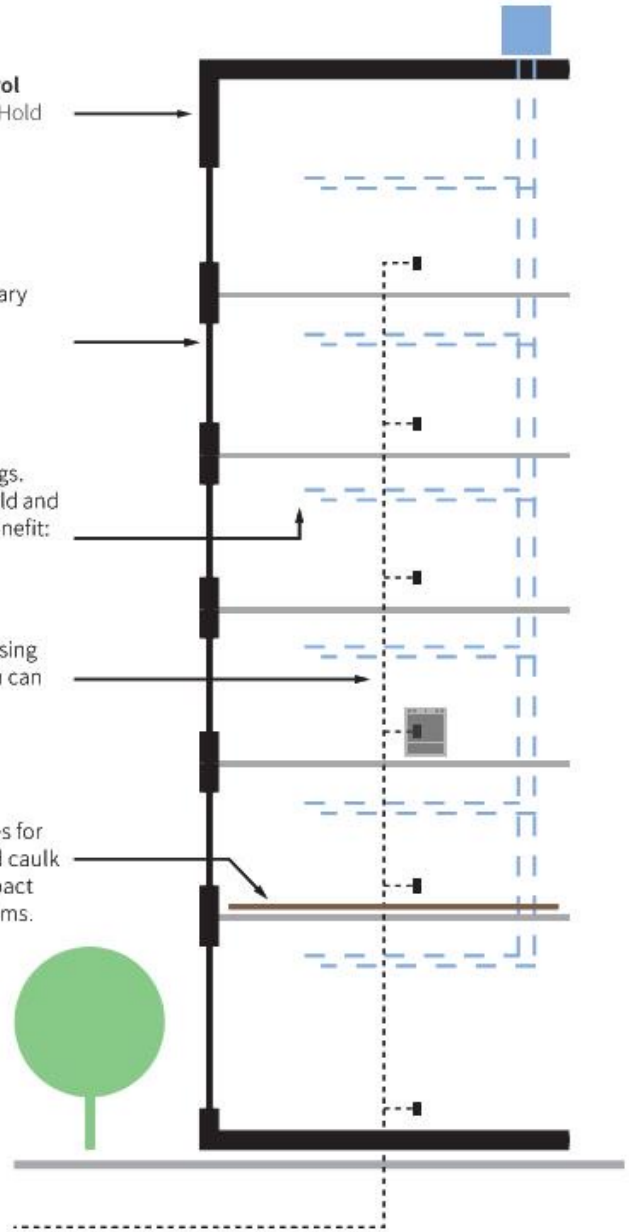
Continuous, Robust Thermal Control
Most basic level of energy efficiency. Hold on to the heat you've paid for.

Air Tightness
Next level of thermal control. Necessary to truly ensure energy efficiency.

Energy Recovery Ventilators
Fresh air is critical for air tight buildings. Without this measure owners risk mold and resident respiratory issues. Added benefit: recovers additional energy for use.

Efficient Electrification
If building an air tight structure and using technologies like ERVs, electrification can be cost effective for developers and healthier for residents.

Healthy Materials
There are good choices and bad ones for materials. Everything from paint and caulk to flooring and counter tops can impact the health of residents and ecosystems.



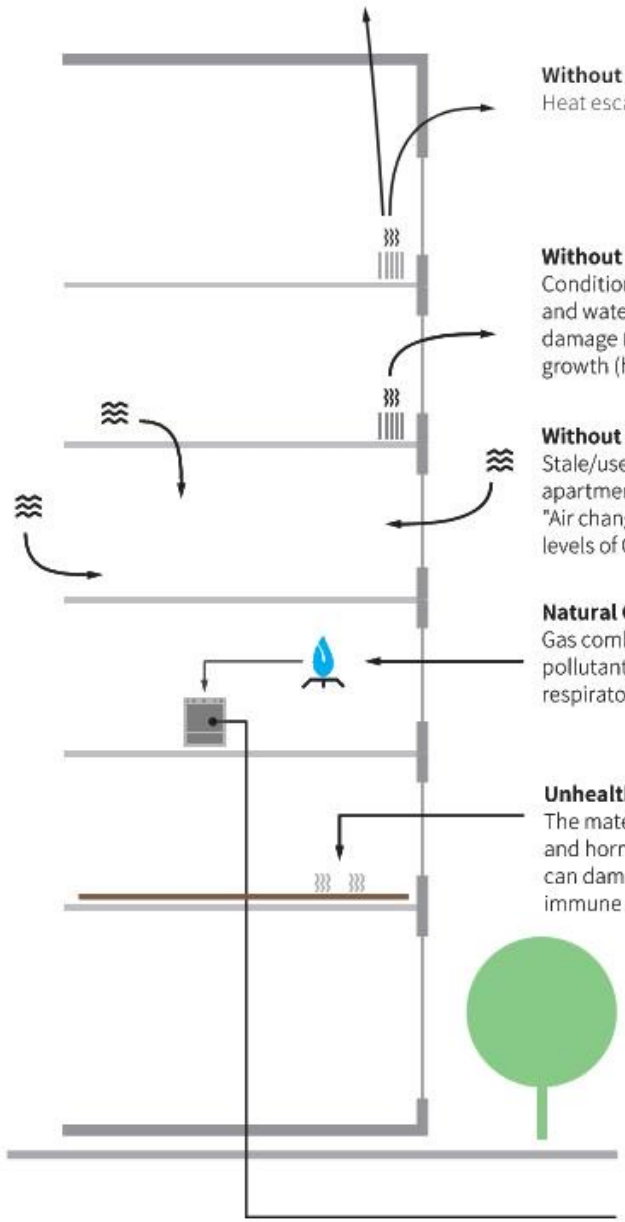
Without Thermal Control
Heat escapes through exterior.

Without Air Sealing
Conditioned air passes through exterior and water/moisture infiltrates causing damage (durability issues) and mold growth (health issues).

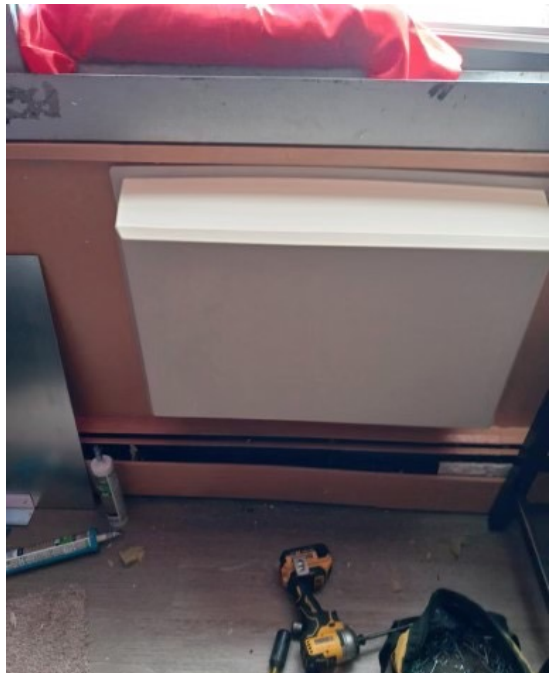
Without Fresh Air Supply
Stale/used air pulled from corridors, other apartments and through exterior walls. "Air change" not achieved. Unhealthy levels of CO2 and poor humidity control.

Natural Gas
Gas combustion produces a variety of pollutants which can lead to and worsen respiratory diseases.

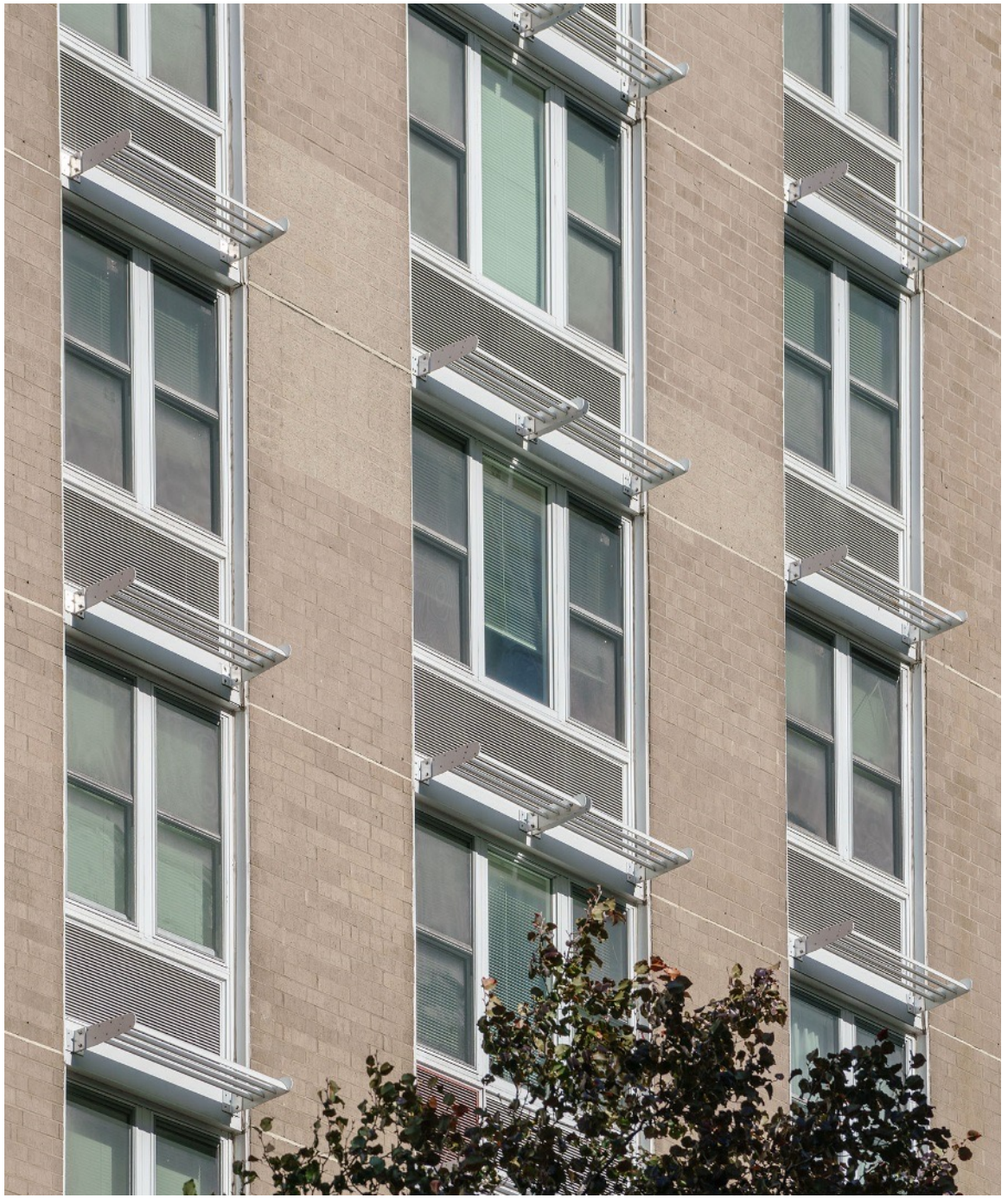
Unhealthy Materials
The materials leach or off-gas endocrine and hormone disrupting chemicals. They can damage lungs, hearts, nervous and immune systems.



Thermal Control and Air Tightness

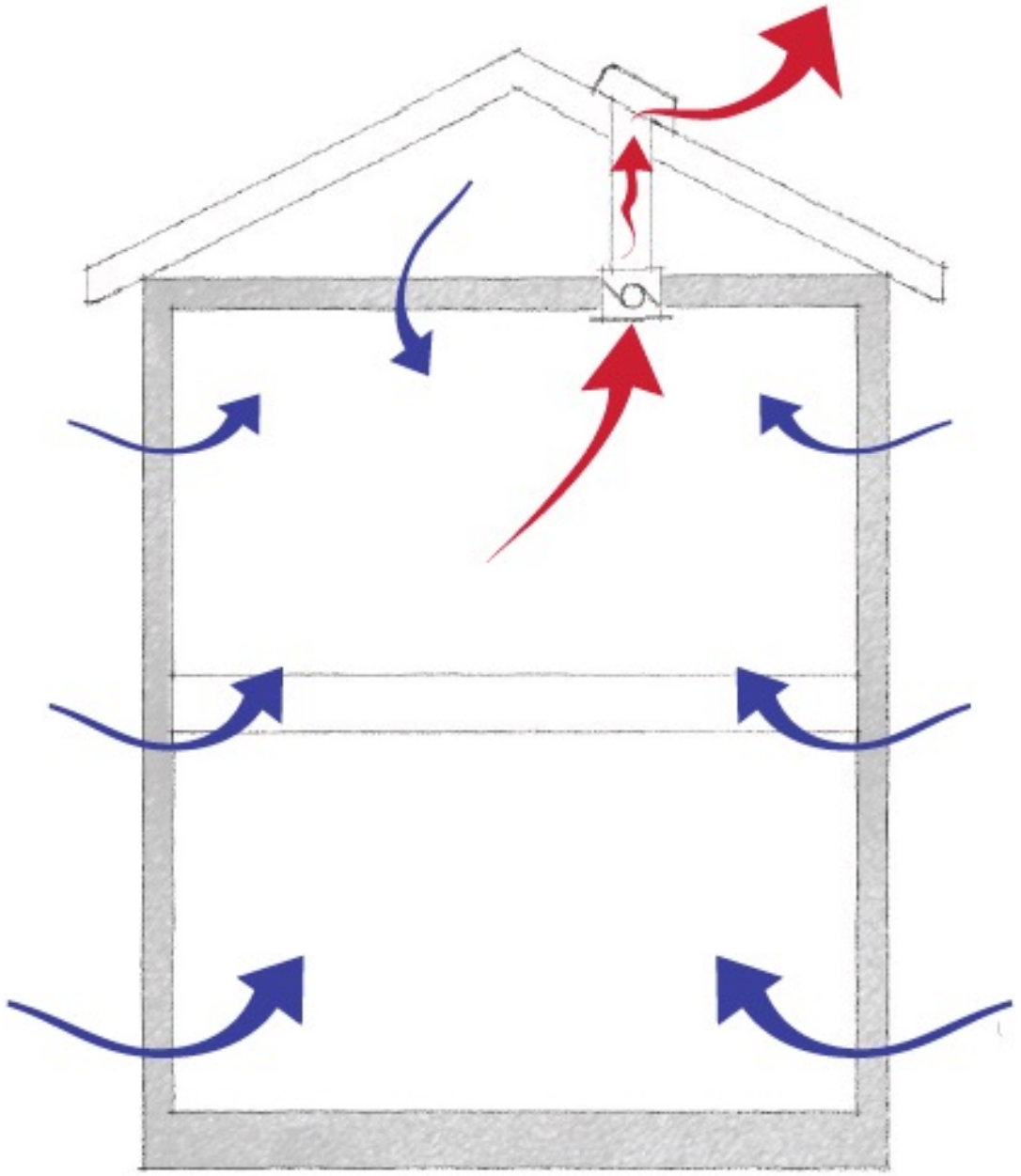


Thermal Control and Air Tightness



Energy Recovery Ventilation

Non-airtight enclosure with exhaust only ventilation means “fresh” air comes from leaky walls!



SOURCE: BUILDING SCIENCE CORP

Energy Recovery Ventilation

EXISTING (above)

Exhaust in-line fans from

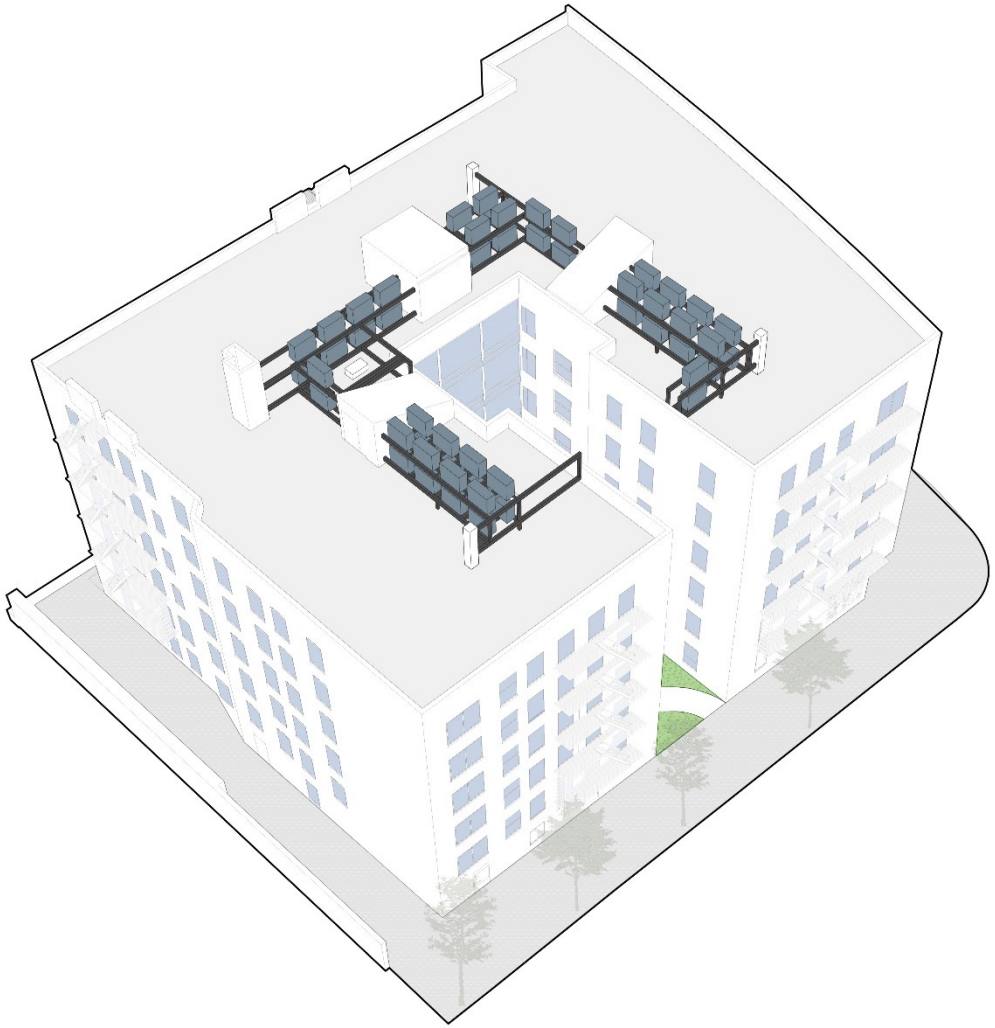
Kitchen, Baths + Corridors

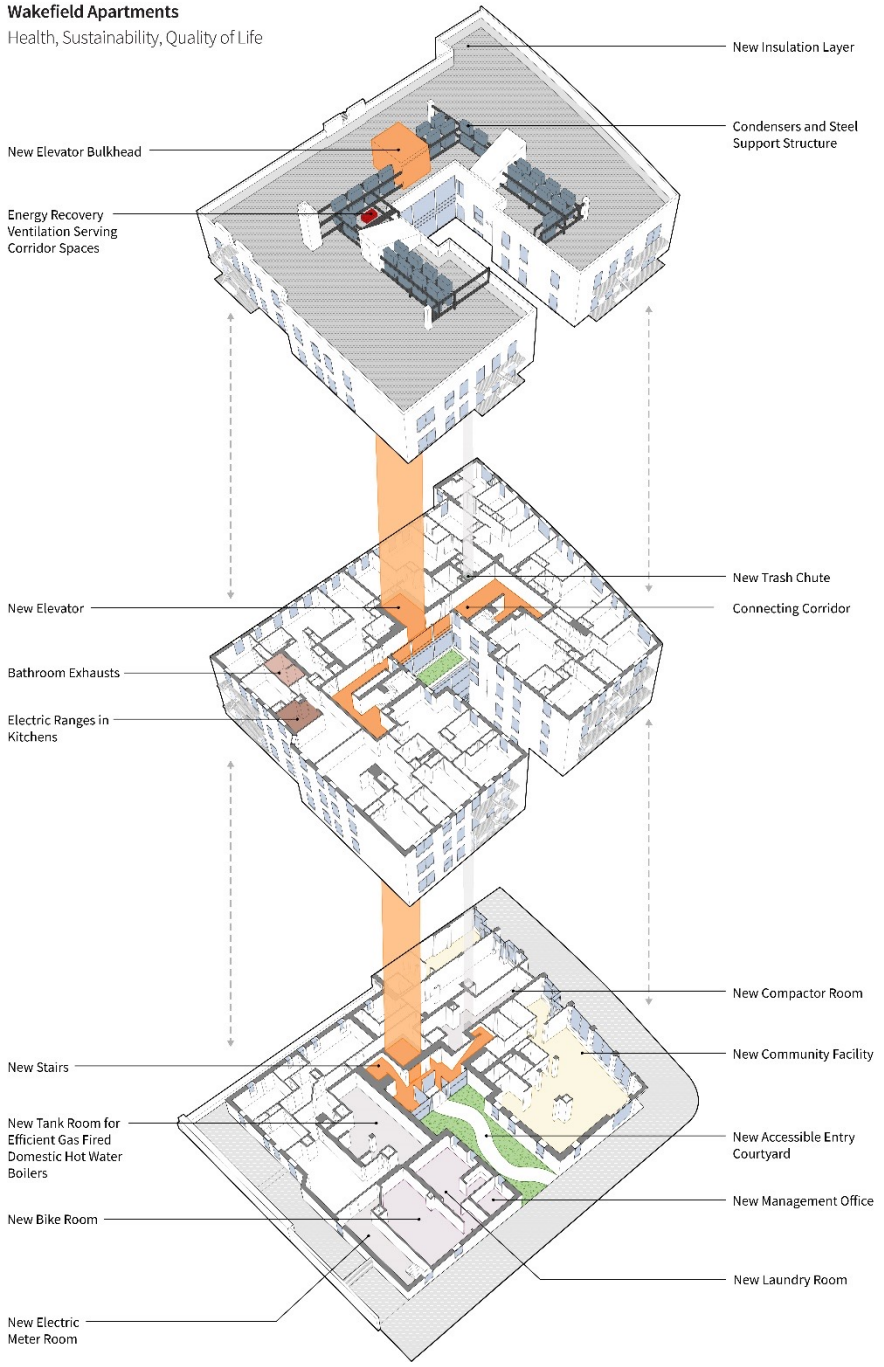
NEW (right)

ERV's on roof to serve corridor

(pressured hallways)

Electrification: Wakefield Apartments





Electrification: heating and cooling

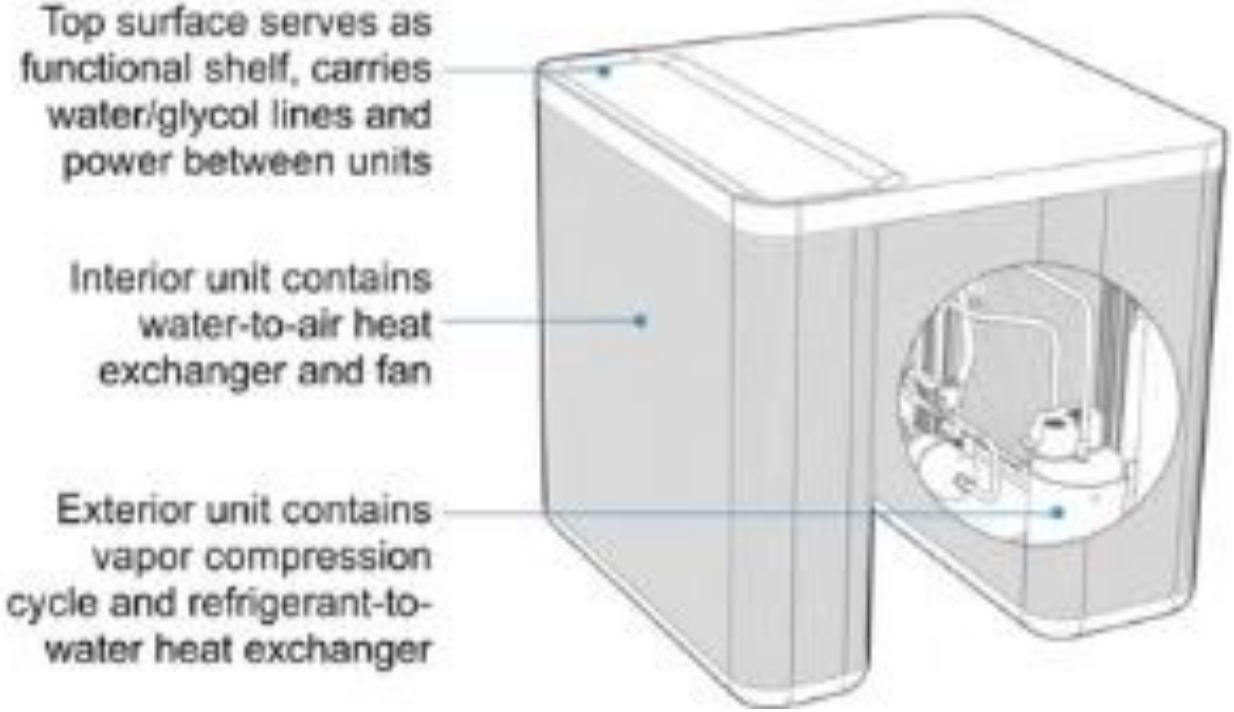
Through wall/window combined unit

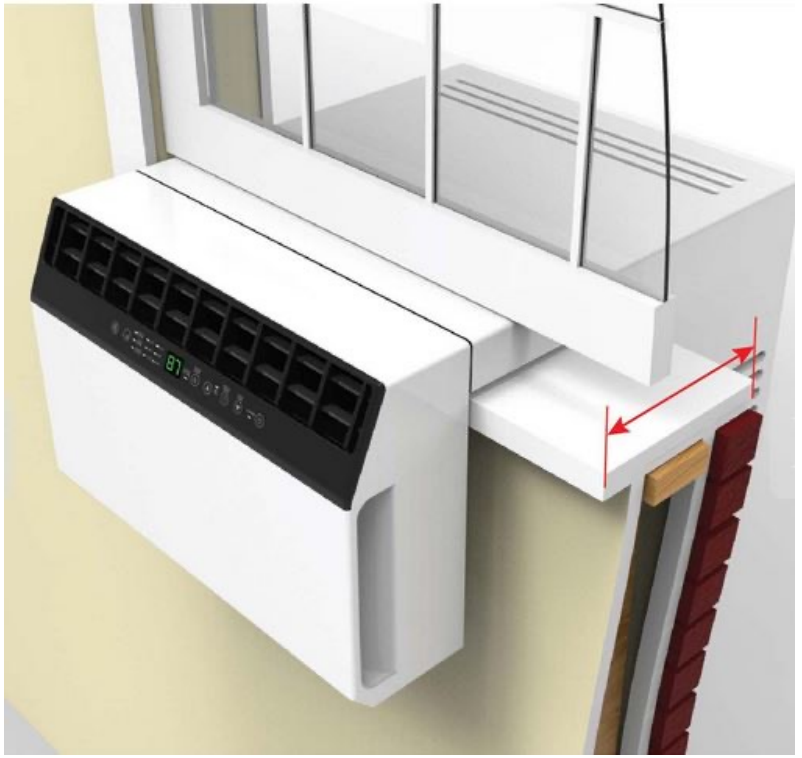
Electrification: heating and cooling

Condenser in existing sleeve + evaporator on wall

Electrification: air source heat pump to fan coil units

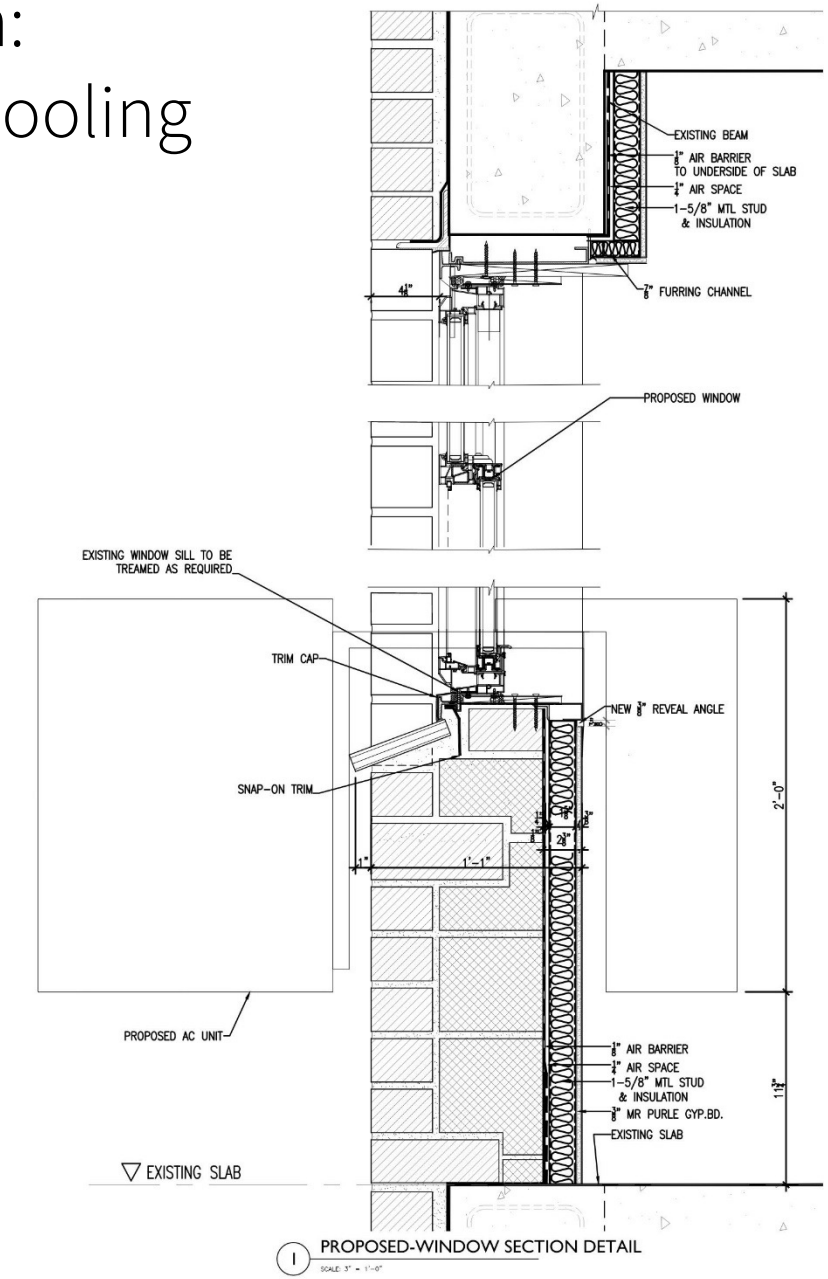
Electrification: heating and cooling



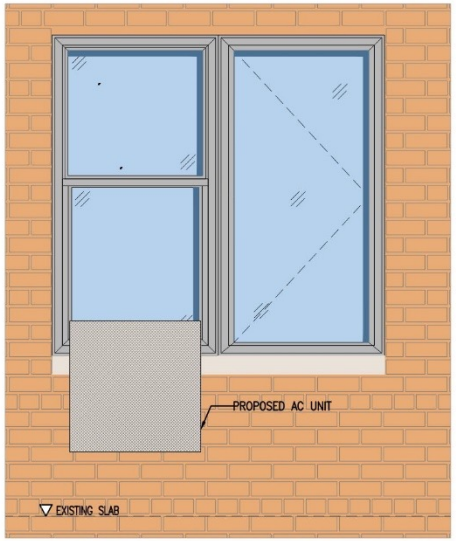


Saddle combined unit

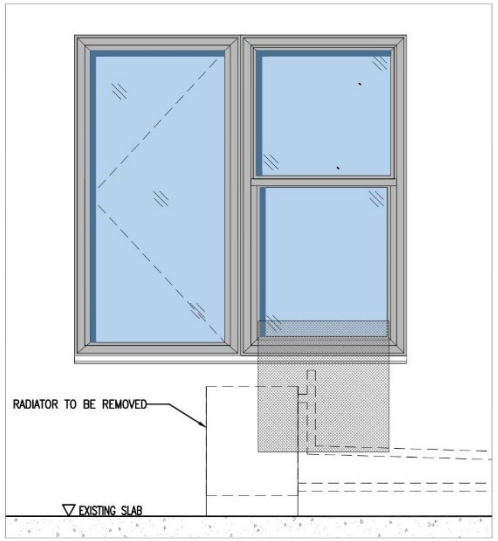
Electrification: heating and cooling



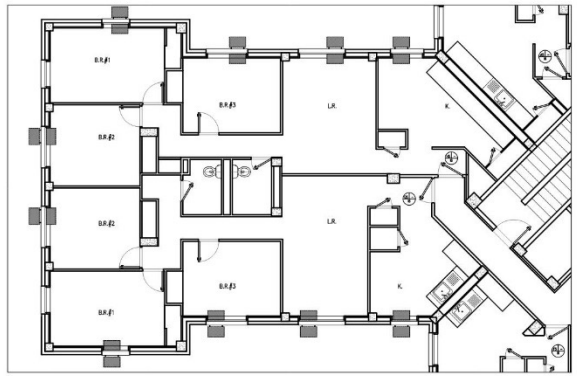
1 PROPOSED-WINDOW SECTION DETAIL



2 WINDOW EXTERIOR ELEVATION

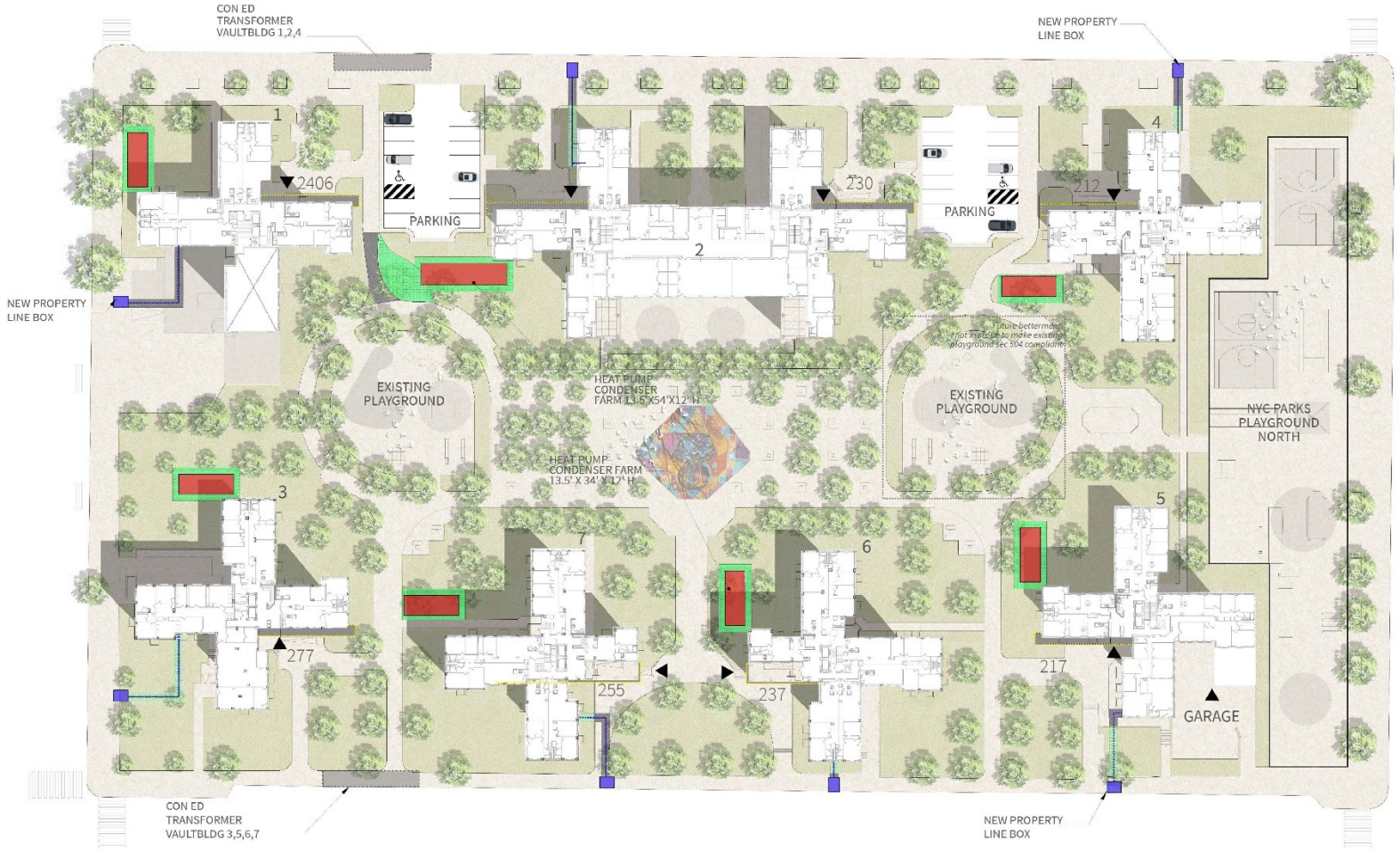


3 WINDOW INTERIOR ELEVATION



4 AC UNIT PLAN LOCATION

Electrification: domestic hot water

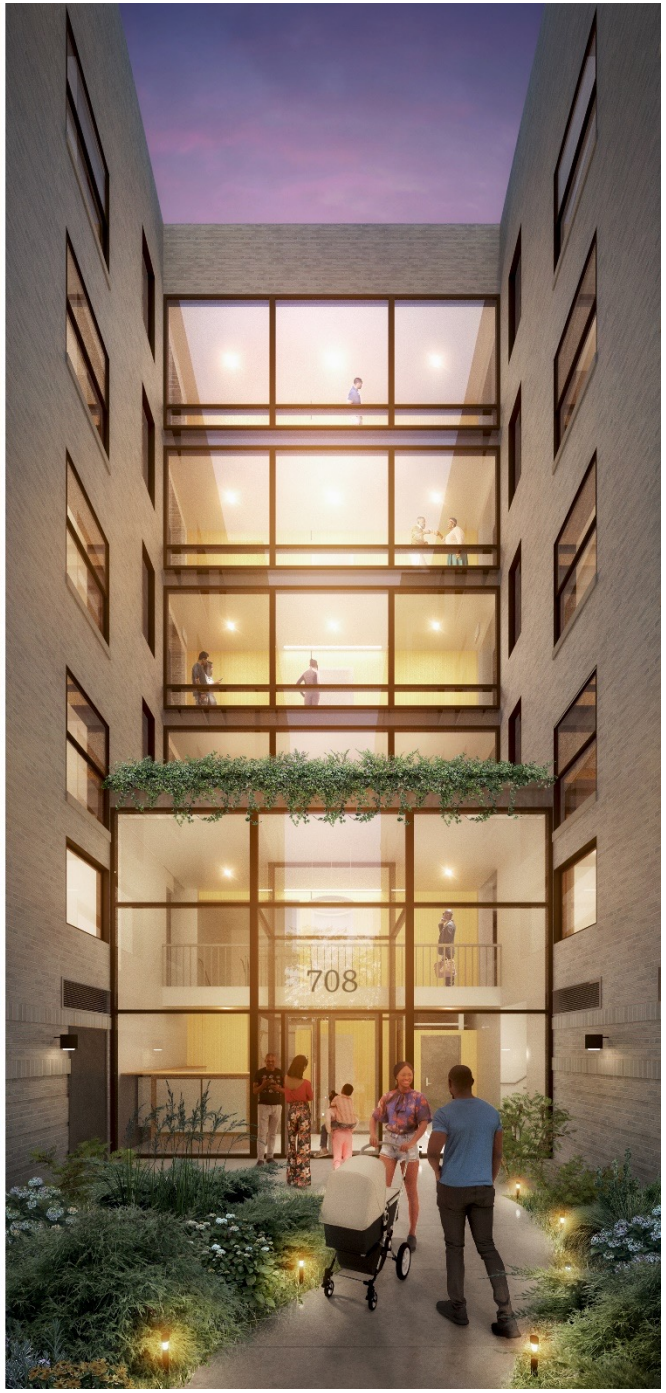


Electrification: stoves and indoor air quality

Sustainability, health and inclusivity

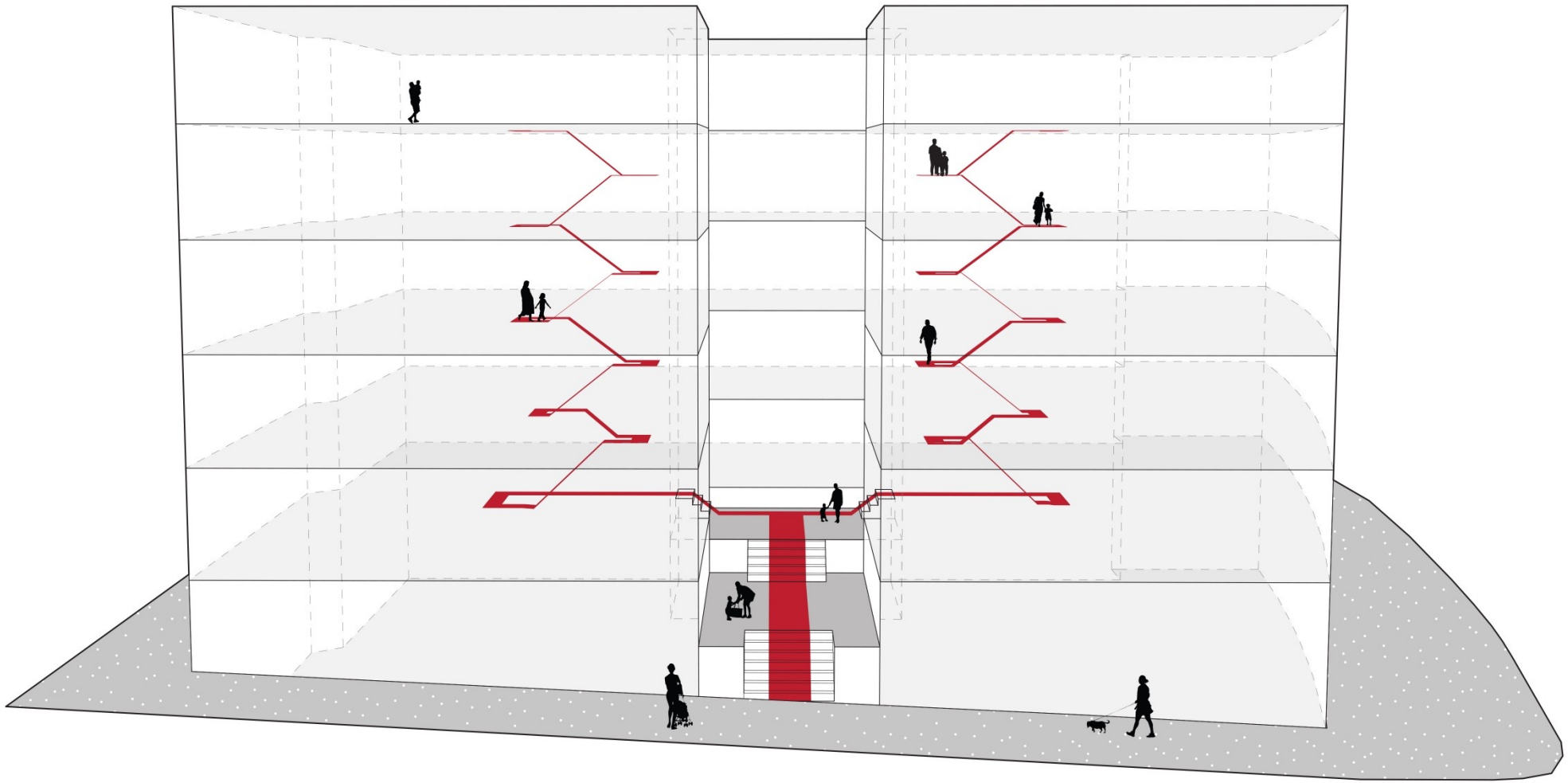
Wakefield Apartments

Existing entry on the left and proposed entry on the right .



Cluster 1

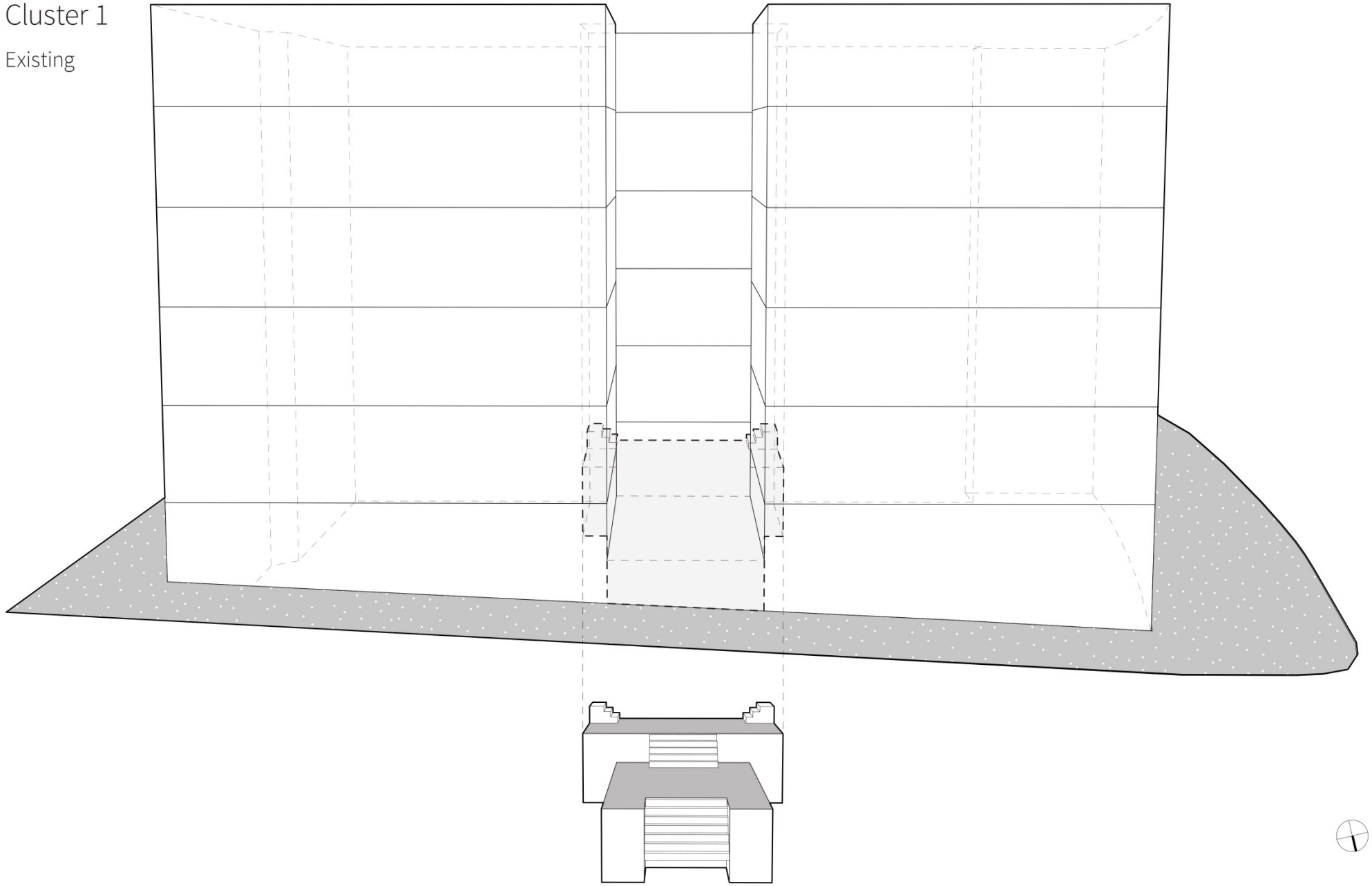
Existing



N

Cluster 1

Existing



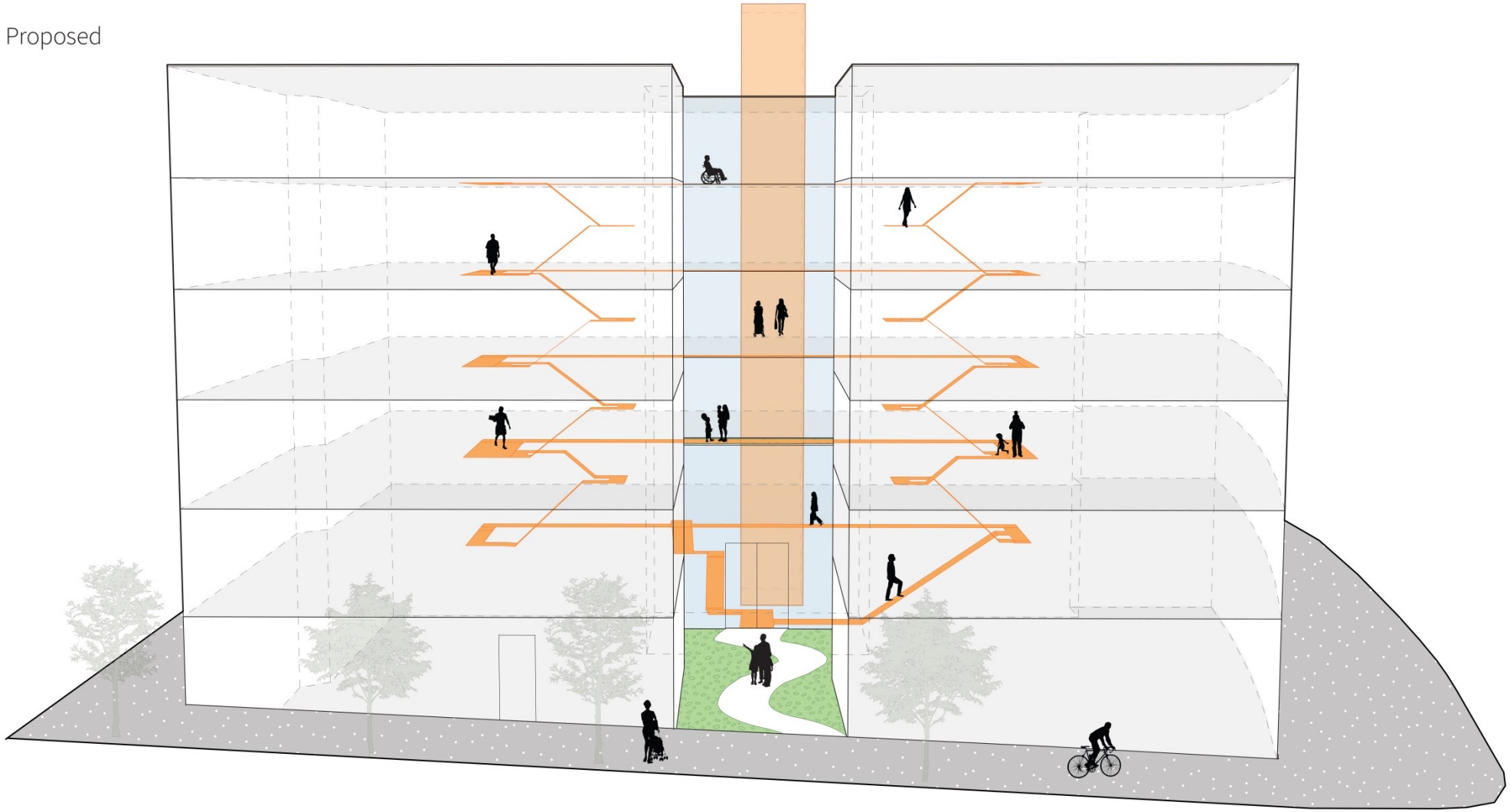
Cluster 1

Proposed

N

Cluster 1

Proposed



N

Existing
Ground Floor

1. Entry Courtyard
2. Residential Entrances
3. Residential Utility & Storage Rooms
4. Retail 1
5. Retail 2
6. Retail 3
7. Retail 4
8. Super's Unit
9. Existing Fuel Oil Boiler Room
10. Existing Fuel Oil Tank Room
11. Existing Meter Room

Proposed Ground Floor

1. Residential Courtyard
2. Residential Entrance
3. Residential Lobby
4. New Elevator
5. Management Office
6. Laundry Room
7. Bike Room
8. Community Room
9. Existing Retail
10. Social Serivces Offices
11. Super's Unit
12. New Compactor Room
13. New Tank Room
14. New Electric Meter Room

Recommendations: Modeling and Testing/Monitoring