

ROXBURY TENANTS OF HARVARD

LEVINSON TOWER HEAT PUMP AND EXHAUST HEAT RECOVERY SYSTEM

location

Mission Hill in Boston

project team



BUILDING EVOLUTION CORPORATION

Achieve Performance & Durability Through A Holistic Approach™

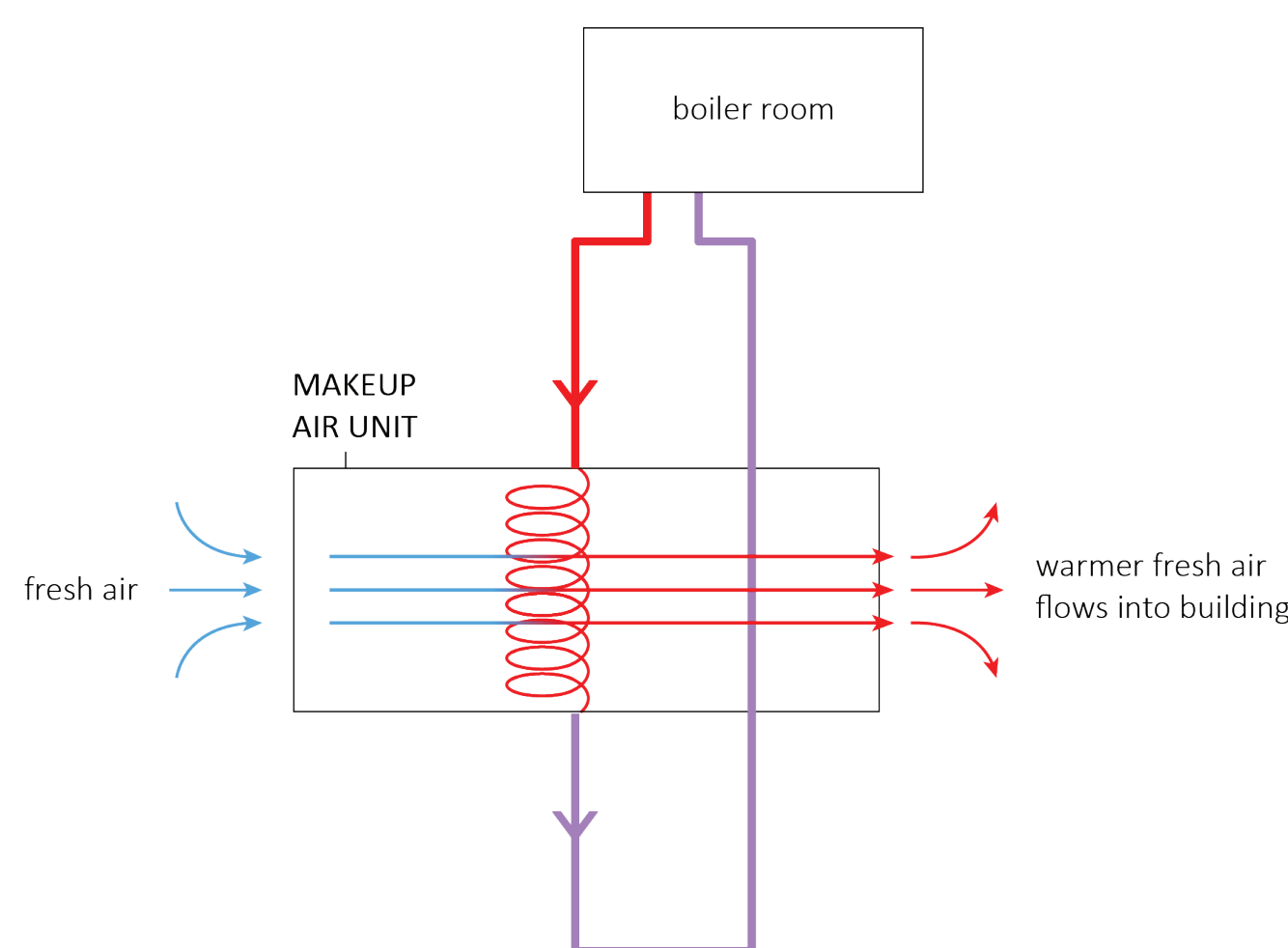


about

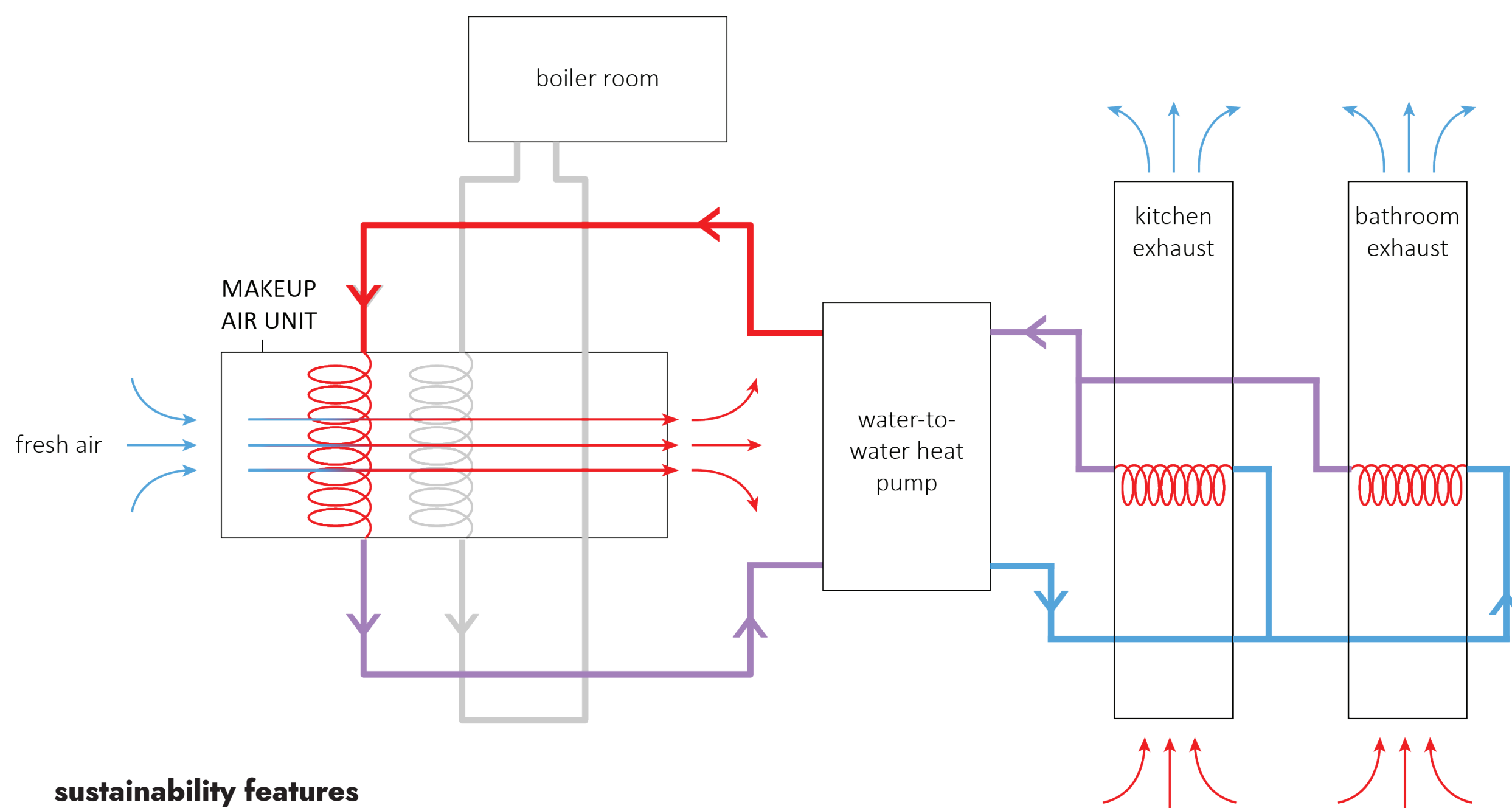
Roxbury Tenants of Harvard (RTH), a nonprofit, is one of the oldest grassroots tenant organizations in the country and is dedicated to defending the rights to quality, affordable housing for people of all races and cultures. RTH manages diverse communities and provides affordable housing to low- and moderate-income families for almost 50 years.

- o 1,114 apartments, townhomes, and multi-family homes
- o 775 apartments on Mission Hill in Boston
- o 27-story high rise
- o ~1,500 LMI residents
- o \$25,000 average household income
- o 22 buildings

existing heating and ventilation system



proposed heat pump and exhaust heat recovery system



sustainability features

The problem:

- o Meeting BERDO requirements
- o Wasted heat from rooftop exhaust fans
- o Poor indoor air quality from reduced fresh-air ventilation during cold snaps from dialed-back cold makeup air
- o Tenant discomfort during long cold snaps—central natural gas boiler plant inadequate

The investigation:

- o A deep energy retrofit study in spring 2025

Proposed solution:

- o Waste heat recovery from kitchen and bathroom ventilation stacks and put to use via a heat pump system to produce usable energy for all 775 apartments
- o Boiler exhaust heat recovery originating from the heating plant for all 775 apartments
- o Incorporation of future air-source or ground-source heat pump central heating system
- o Transparent bidding for subcontractors with M/WBE policy and utilization goal

Anticipated results:

- o Greenhouse gas emissions reduction of 537,781 kgCO₂e
- o Energy cost savings of \$132,336 per year
- o Brings 85% efficient boiler plant up to 95% efficiency
- o Displaces natural gas burning
- o Improves local and indoor air quality

certifications or other earned recognition

This project is a finalist for Boston's BERDO 2025 Equitable Emissions Investment Fund.

