To achieve net zero performance, consideration of building orientation is important, but must be balanced with daylight access and so maintained glass. The scrim allows for privacy to be living spaces immediately adjacent to the daylighting provided by the high level of both unit types take advantage of the no greater than 25 feet in all units.

**ORIENTATION**

Units are designed to leave all spaces in close proximity to the exterior wall to increase access to daylight and facade through and windows operable windows - moves freely through the units - passively exhausts through bathrooms into light wells. All living units allow natural ventilation by cracking open the traditional double loaded corridor plan and introducing semi-enclosed light wells and allowing daylight and airflow to reach the light wells.

**HIGH PERFORMANCE ENVELOPE**

Floor, exterior walls, and elevated floors all receive mineral wool insulation. Window opening sizes on west, north, and south are consistent with the solar thermal panels on the roof, all of which combine to provide a very low energy solution. The podium is heated and cooled via in-slab radiant conditioning supplied by heat pumps for increased occupant comfort.

**RADIANT HEATING AND COOLING**

Perimeter baseboard radiators provide heat to all living units. In-slab hydronic loop provides radiant heating and cooling for both unit types. The hydronic system uses a 100% LED lighting minimizes lighting power density. Fans Creates air movement to lower perceived indoor temperature and augment air movement from convection. Fans are contained within the building envelope. Summer ventilation fans move two air exchanges per hour through the units - passively ventilated light wells.

**COLOR GRADATION FOR DAYLIGHT PENETRATION**

Darkening as they rise through the building, the unwanted effects of glare or heat gain are controlled. For residential uses, an east-west orientation would limit direct access to daylight for nearly half of the occupants. The shading scrim allows for the exterior light wells and allowing daylight and airflow to reach the light wells.

**COURTYARD**

The courtyard is the heart of the building, providing a central gathering space and a source of natural light for the units. The courtyard is surrounded by units, providing privacy and shelter from the elements.

**SITE PLAN**

The site plan shows the location of the building within the context of the existing neighborhood. The building is located on a corner lot, providing maximum visibility and access to both sides.

**ARCHITECTURE AT ZERO**

This project exemplifies the use of passive and active design strategies to achieve net zero energy performance. The building is designed to generate more energy than it consumes, using a combination of renewable energy sources and energy efficient design principles.