The UT SolarD SNAP House daylighting scheme relies on strategic placement, composition and versatility of openings to maximize natural light distribution and minimize unwanted heat gain, heat loss and glare.

**Placement**
To reduce morning and afternoon heat gain, a crucial consideration during Austin’s spring, summer, and fall months, we have placed window and door openings only on the north and south faces of the SNAP House. The south-facing sliding doors are shaded from the summer sun by an overhang of spaced-cell photovoltaic panels (allowing approximately 20% light transmittance) and by sliding sunshades made of reclaimed redwood. Clerestory strip windows face north to provide consistent interior daylighting with a minimum of solar gain. Glazing in the north ends of the Kitchen, Bedroom and Office SNAPs provides additional daylighting and opportunities for cross-ventilation. Finally, the skylight in the bathroom introduces additional daylight into the house’s private spaces.

**Composition**
Almost all of our doors and windows are triple-glazed, double low-e, and warm-edge spaced, preventing excessive heat gain and glare. The north-facing bedroom window is the only exception; in this case, the window’s orientation and position behind a wooden rainscreen lent itself to more light transmittance, requiring only double-glazing with a single low-e coating.
**Versatility**
The external sliding wooden sunshades, aesthetically integrated with the rainscreen facade, shelter the south-facing sliding doors from overwhelming heat gain and glare, yet can be moved aside to allow some passive heating during the winter. Transmittance-transformable electrochromic glass in the skylight gives the user control over excessive insolation with the turn of a switch. The same technology, installed in the front-door sidelight, offers a mechanism by which the inhabitants may instantly switch between visual privacy and openness.