Fall 2015

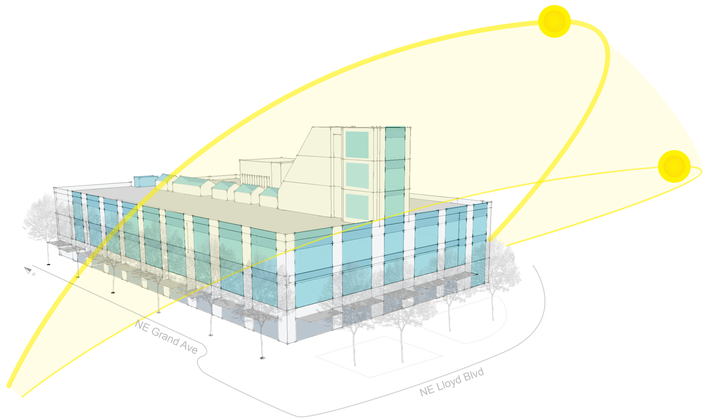
Optimizing User Comfort and Energy Efficiency at Portland Metro Office

Willy Chander
Portland State University

Yost Grube Hall Architecture

Kevin Chavez
Portland State University

Abby Cooper
Portland State University



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Portland State University + Yost Grube Hall Architecture

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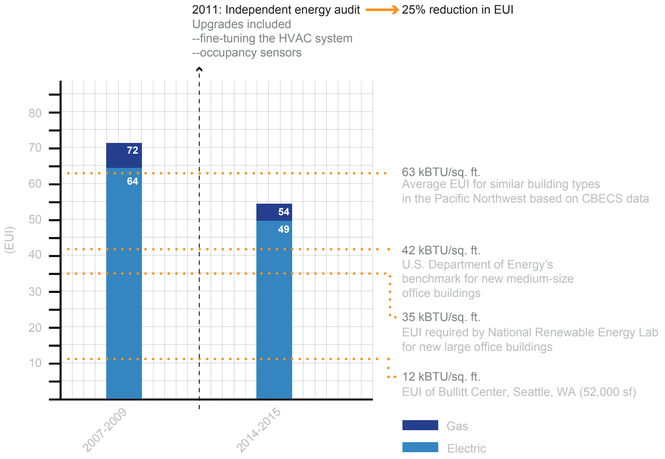

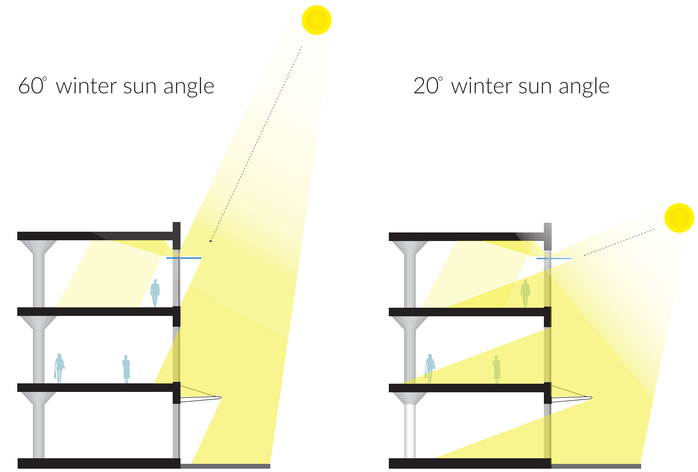

ANALYSIS

1. large windows on all aspects result in uncomfortable thermal and lighting conditions
2. a drop ceiling and high cubicle walls reduce daylight in the building

PROPOSAL

1. continue to reduce Metro EUI
2. utilize external shading to reduce solar heat gain and cooling loads
3. employ light shelves and remove drop ceiling to facilitate daylight