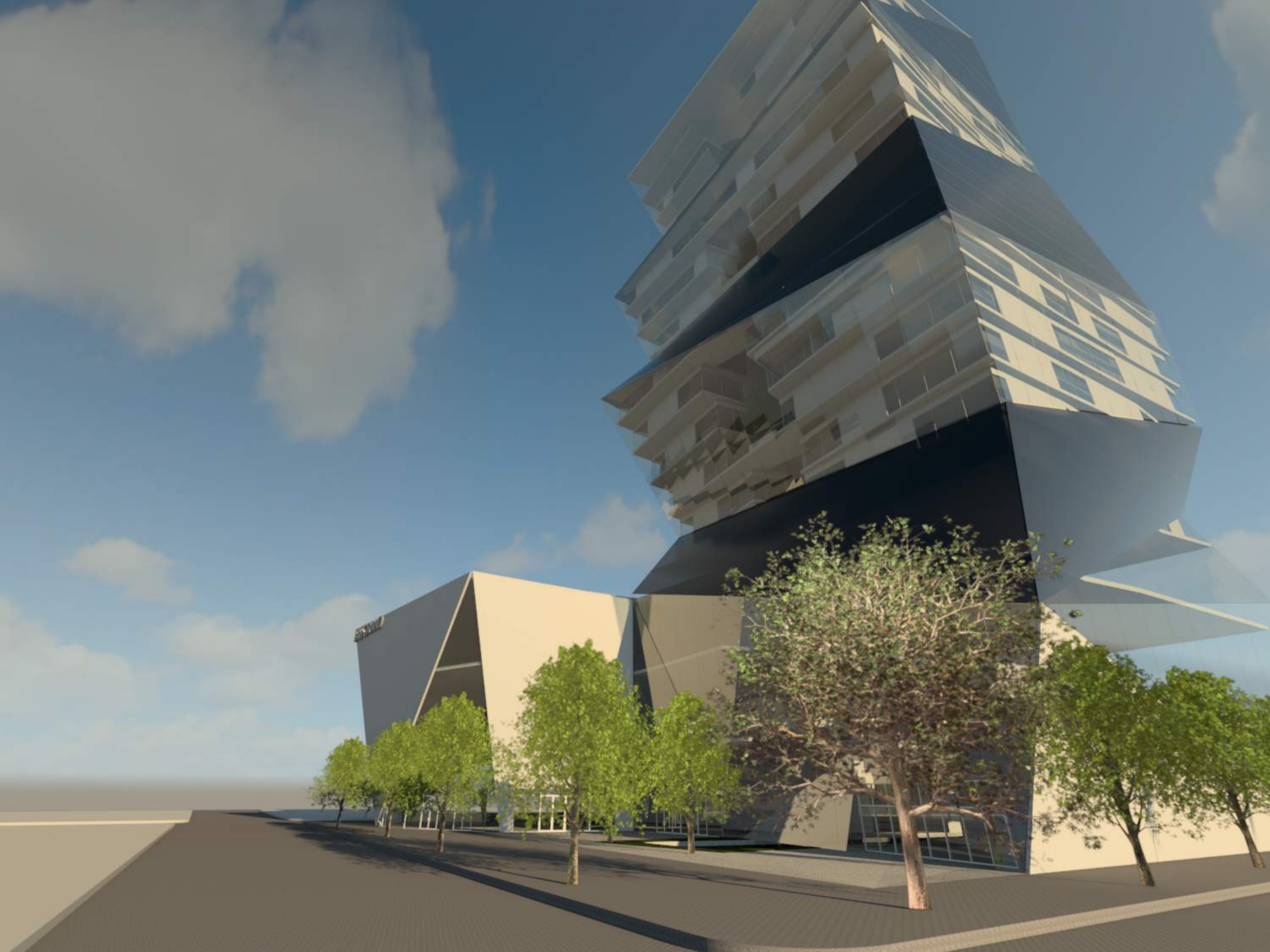
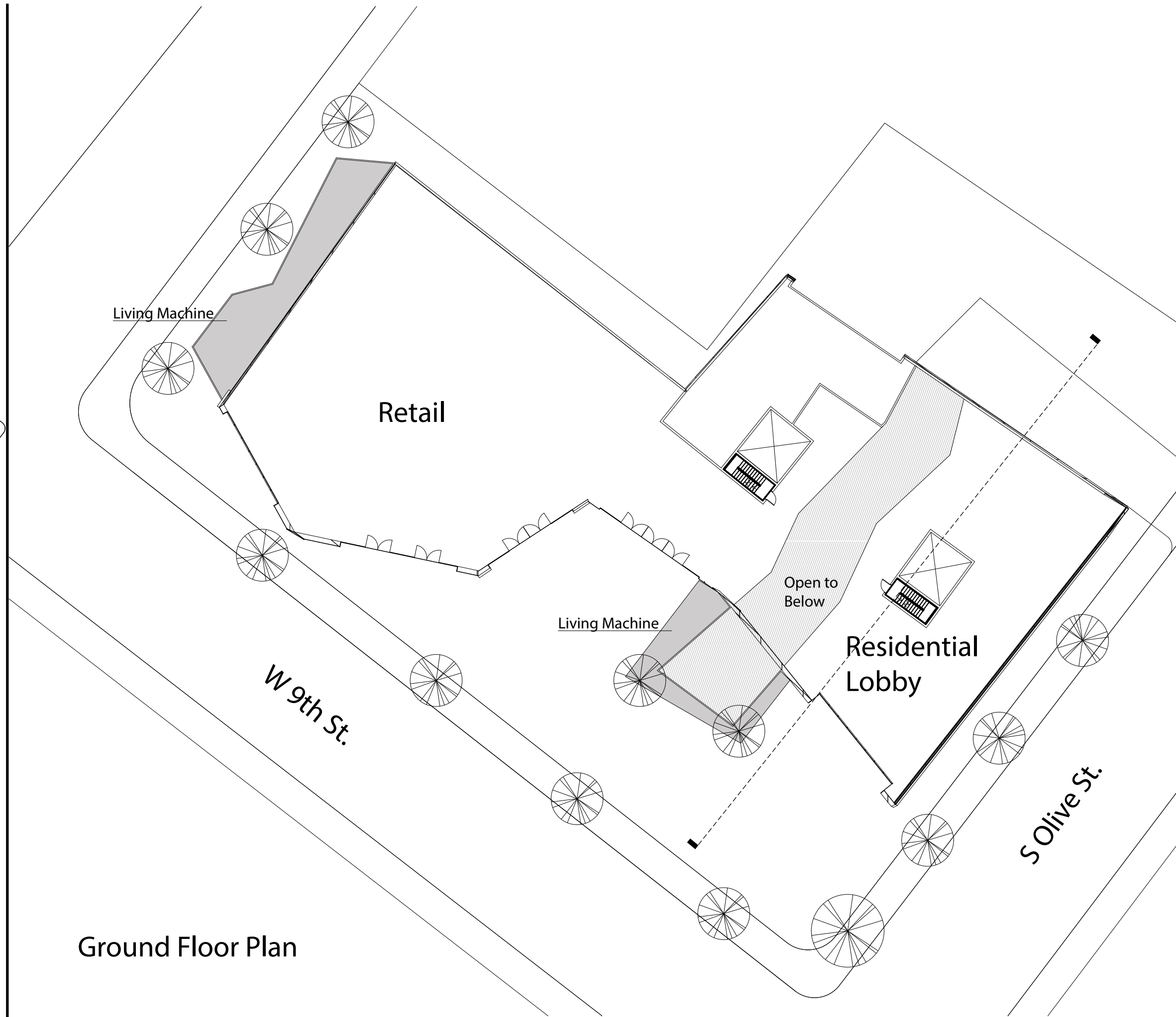
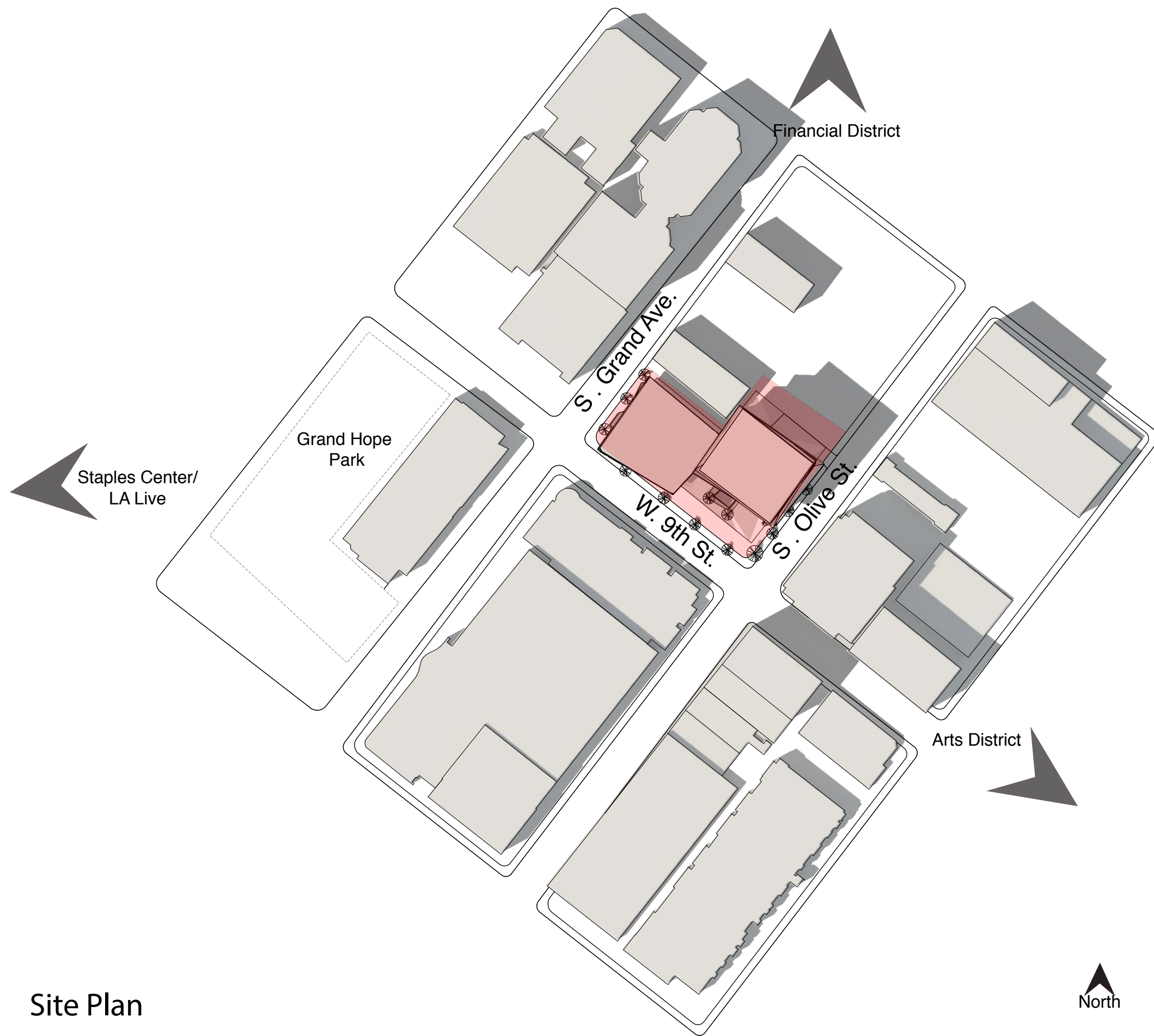
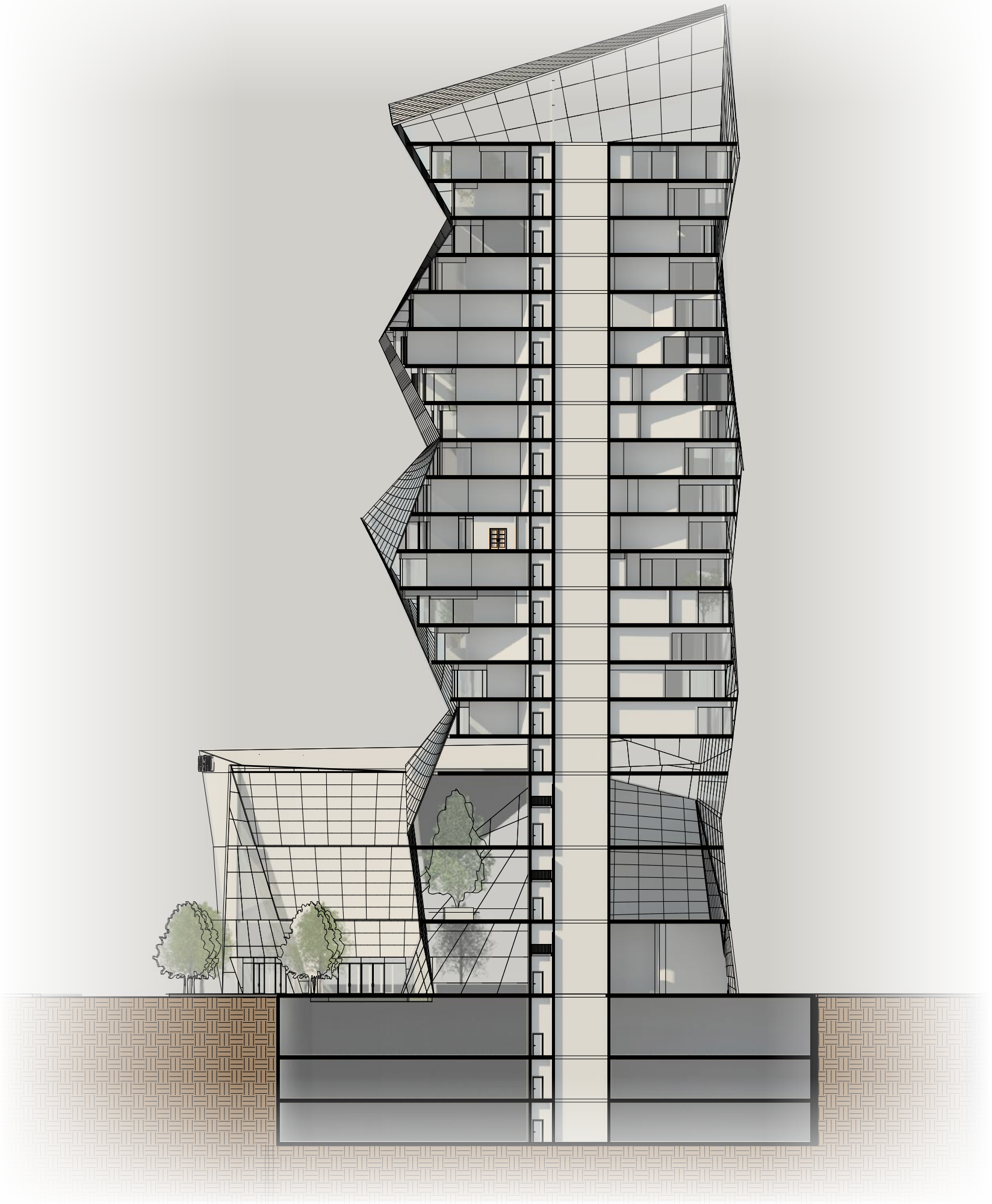
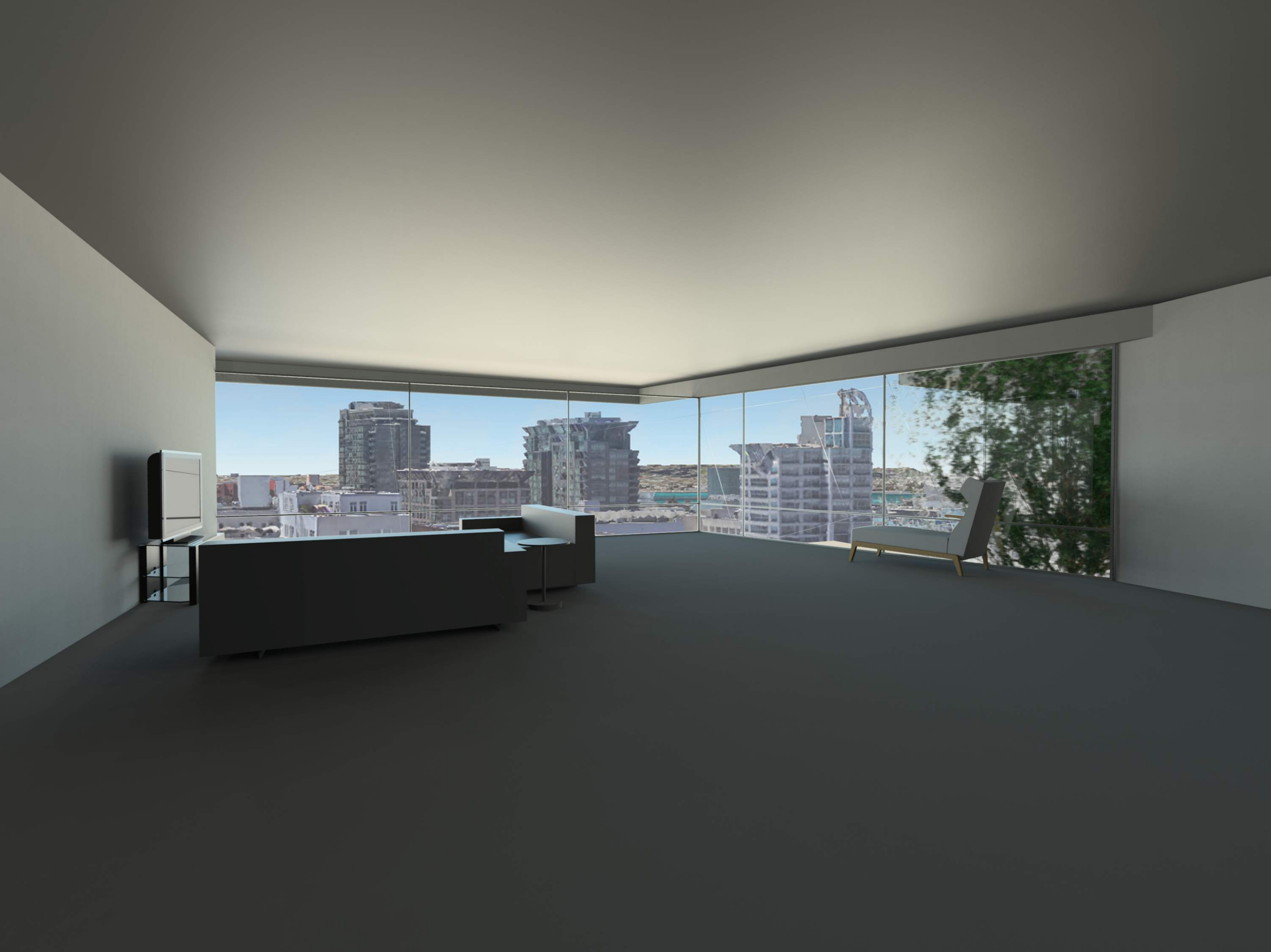


648 GRAND 648 GRAND













Optimumly Sloped
PV Facade system

Intergrated Gutters
Collect Rain Water



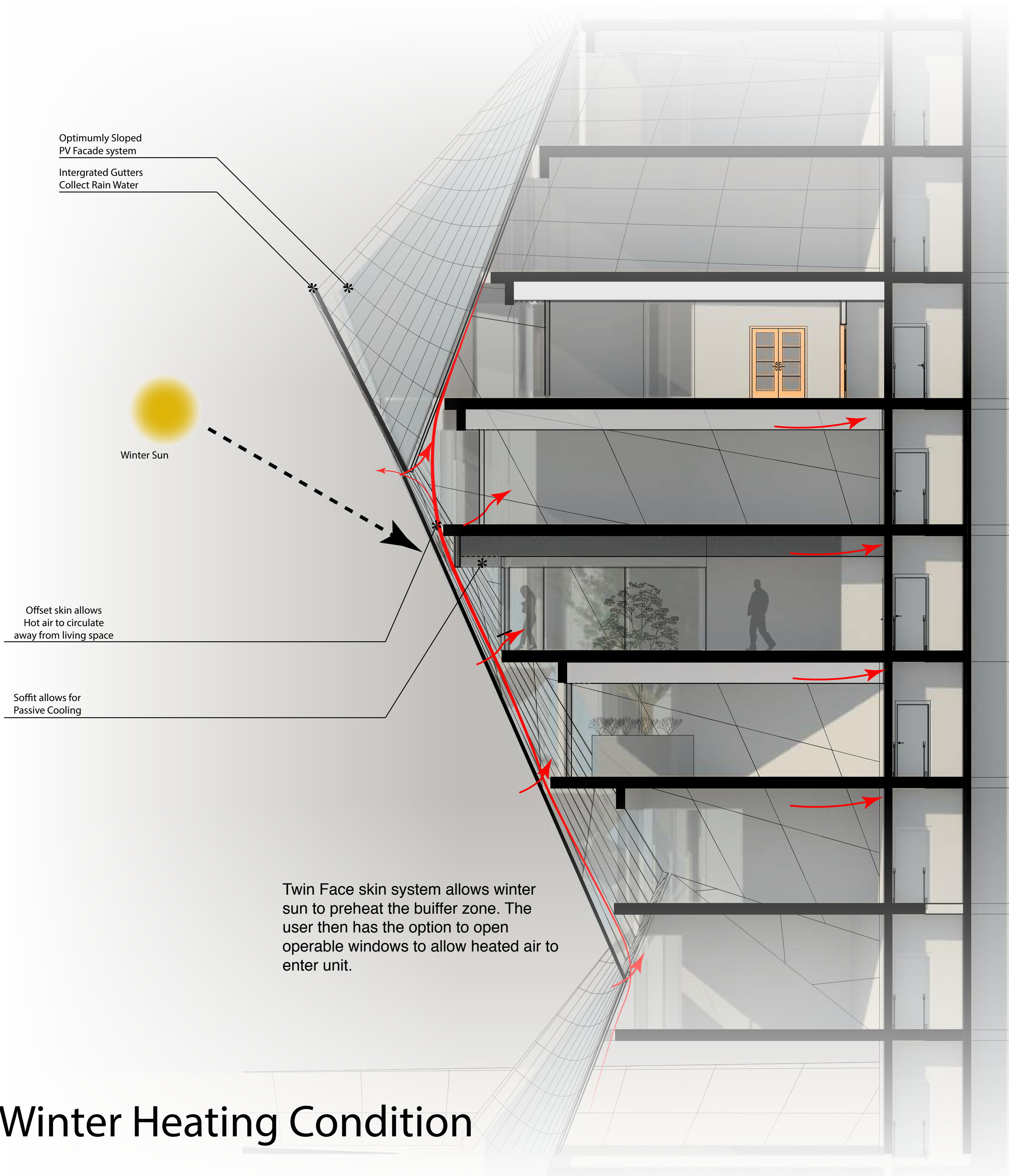
Winter Sun

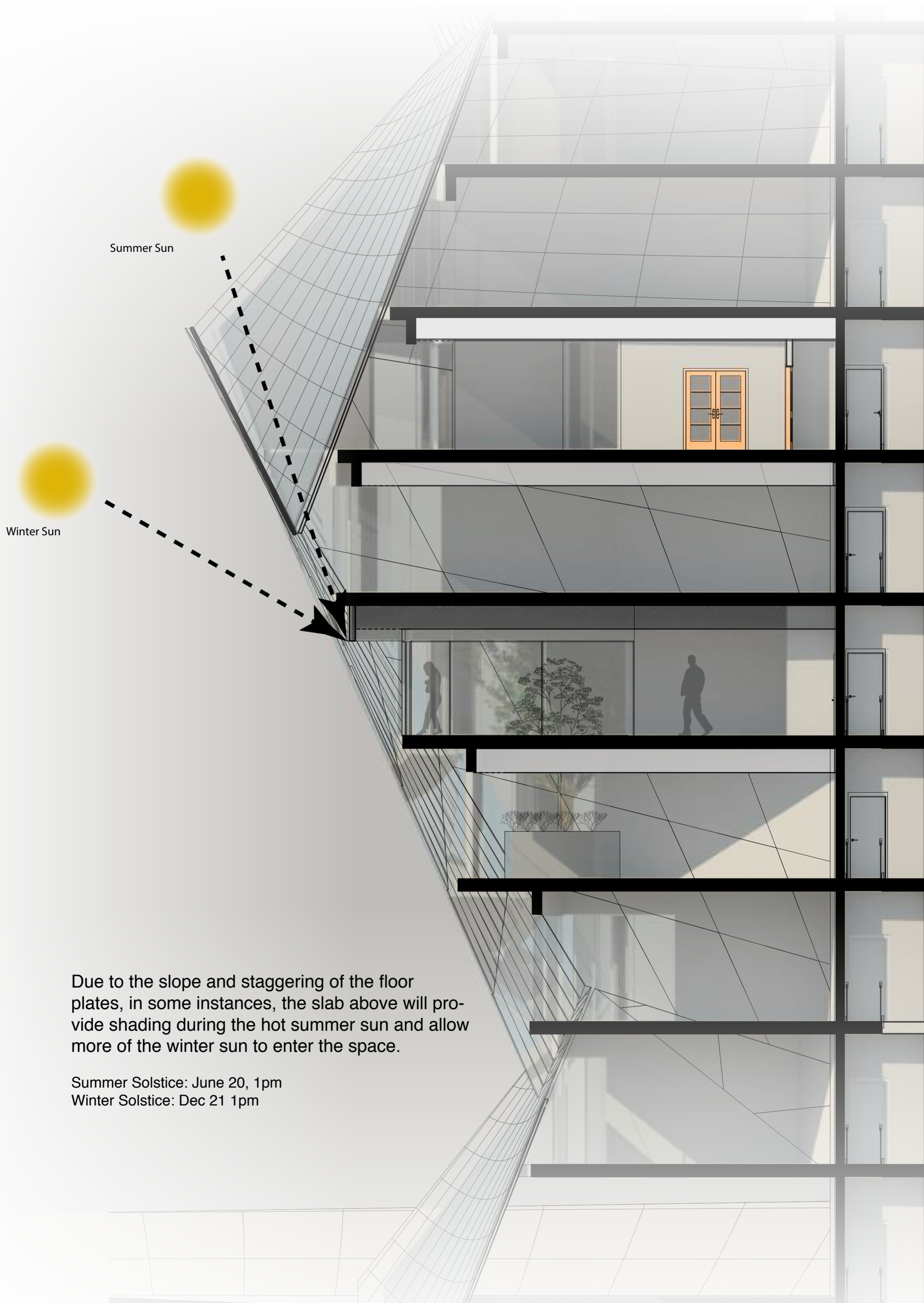
Offset skin allows
Hot air to circulate
away from living space

Soffit allows for
Passive Cooling

Twin Face skin system allows winter
sun to preheat the buiffer zone. The
user then has the option to open
operable windows to allow heated air to
enter unit.

Winter Heating Condition





Summer Sun

Winter Sun

Due to the slope and staggering of the floor plates, in some instances, the slab above will provide shading during the hot summer sun and allow more of the winter sun to enter the space.

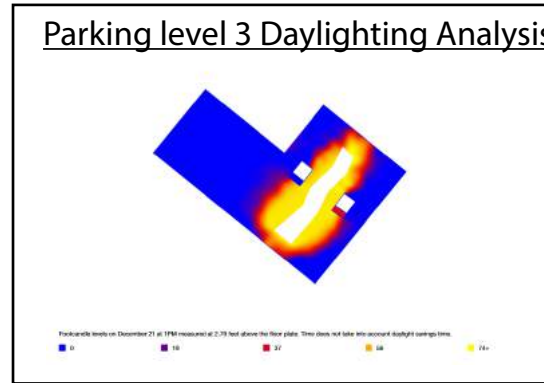
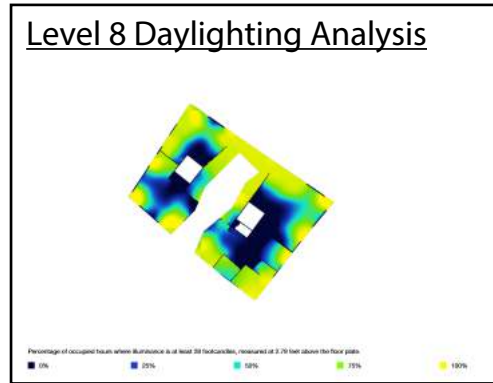
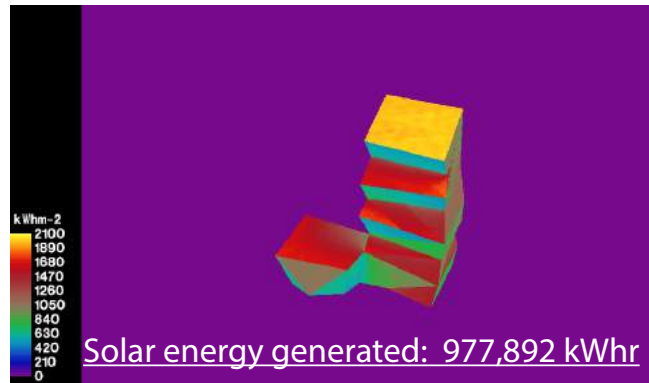
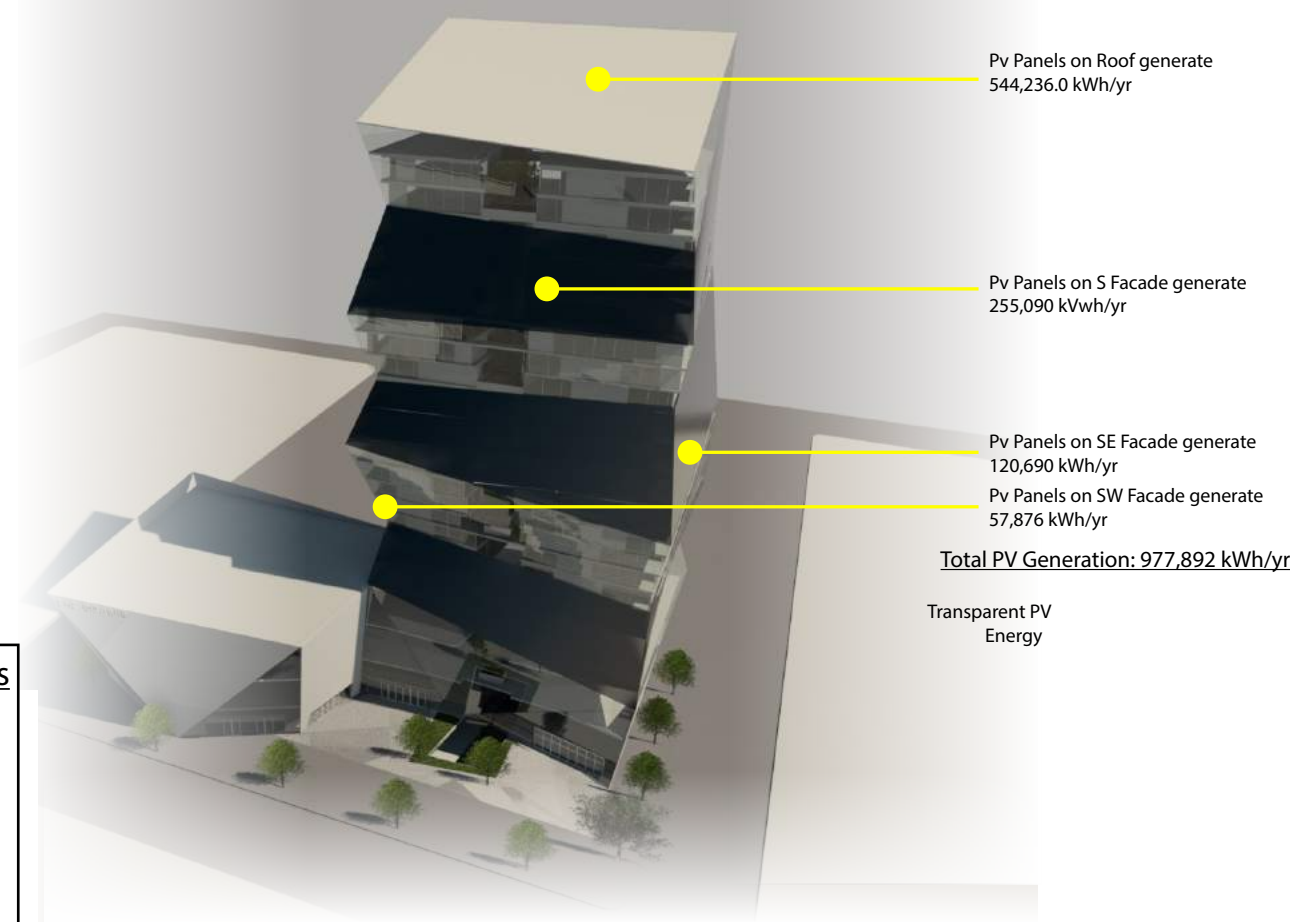
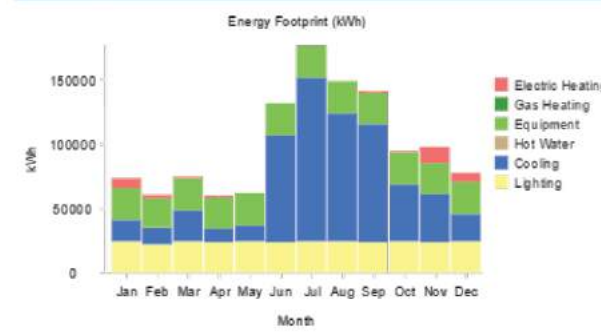
Summer Solstice: June 20, 1pm

Winter Solstice: Dec 21 1pm

Building Energy Calculations

Total Building Area: 38,132 m²
 Operational Energy:
 Electricity 1,051,009 kWhr yr
 EUI (before Renewable Energy) 28 kWhr/m² yr
 9 kBtus/ft² yr
 EUI After Renewable Energy: -2 kWhr/m² yr
 -1 kBtus/ft² yr
 Carbon Use Intensity: 11 kgs CO₂e/m²-yr
 2.3 lbs CO₂e /sf yr

Energy Footprint (kWh)



Total water used : 46,000 Gal

