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Advanced Design and Building Information Modeling February

Your Name:	Anil Dipu
Name of Project:	Solar Roof Pod
Preference:	Green Architecture
Use of Passive Solar Strategies	
<p>The Solar Roof Pod is a project design in order to respond to the Urbanization and increase of Energy consumption. The Solar Roof Pod is located at the roof of a building that is located in New York City. By being located at the rooftop of buildings they can absorb more energy due to the exposure of the sun. Solar panels are quite rare in the New York since High rise towers block solar rays.</p>	
Use of Sustainable strategies	
<p>The Solar Roof Pod with the addition of Drainage and a Garden can provide vegetation as well as fresh air. Vegetation and plantation is useful in a temperate climate like New York City since vegetation blocks sunrays during the summer and allow sunrays during the winter. This design strategy is effective since the location of the garden is located at the perimeter of the Solar Roof Pod.</p>	
Use of Technology	
<p>The Solar Roof Pod's exterior solar panels are adjustable in response to excessive light from the sun. With this method we can control the amount of sunlight that goes into the structure. The windows of the Solar Roof Pod is another technological innovation since it has an Oxnilux which is transparent to people. The control of sunlight of the Solar Roof Pod means that they can get natural light from outside which means that they can conserve energy during the daytime.</p>	



Use of materials

The Solar Roof Pod consists of PV panels, Racking system, space frames, and evacuated tubes. Most of these materials are metal while consisting of glass panels to allow natural light to get in. The house is made of Solid blocks that are easy in customization. Due to its easy construction and design this house is effective since it is easy to repair or customized.

Photovoltaic strategy

This house photovoltaic panel generates 10.08 kW with solar cells absorbing sunlight in order to deliver the maximum amount of electricity. This house effectively uses its solar cells to absorb the necessary amount of electricity to power the house. The amount of energy this house produce consumes twice as much as a regular house. Since it is located in the rooftop we would gain the most amount of sunlight in the city.

What strategy would you copy? What is the greatest strength?

The used of the Bird Transparent glass is effective in terms of allowing natural light to penetrate the house. With natural light penetrating the house the indoor would replicate the outdoors with the addition of vegetation. Living inside the Solar Roof Pod feels like living outdoors.

What is the greatest weakness of the entry? What would you avoid?

According to the Floor plans of the Solar Roof Pod the Bathroom is located at the center of the House which means that it is accessible for occupants to travel from place to place. The access of bathroom provides occupants the convenience to use the restroom. Since the bathroom is centered people would know where to go.

Additional comments?

The incorporation of the garden provides an aesthetic appeal since we can incorporate nature into an urban community. It is useful for people to use roof gardens since gardening and farming is not quite common in the city.