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Advanced Design and Building Information Modeling February

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<b>Name of Project:</b>	CHIP, Sci-Arch_Cal Tech
<b>Preference:</b>	Commpacted Hyper Insulated prototype
<b>Use of Passive Solar Strategies</b>	
Solar Passive Strategies used in this house are: Heat is transferred into the house and at the same time each room has a level of comfort with a cool balanced environment since the shape has a transcended height which allows heat to rise further. The insulation also controls how much heat can be stored as well.	
<b>Use of Sustainable strategies-</b>	
Several sustainable strategies are: HVAC, DHW and Energy Monitoring, which allow for convenient use of heat, water, and electricity with appliances. The DHW can use waste heat from the air conditioning to heat water from a thermal storage tank. Thus realizing new energy savings. There is a second heat to back up the DHW system when the air conditioning is off since there will be less waste heat to use. Also there are use of blinds/louvers for control of lighting and natural light.	
<b>Use of Technology</b>	
Sustainable innovation and use of technology include: HVAC, DHW and Energy Monitoring which allow for convenient use of heat, water, and electricity with appliances. There are also smart appliances for daily use of monitoring devices with electricity. There is a system for using natural body movement with devices and appliances called Kinect. Weather conditions, temperature, energy efficiency can be controlled at a central location with smart software.	



**Use of materials**

The materials used are wood, concrete, glass, metal, exterior-protected insulation and other materials.

**Photovoltaic strategy**

Energy Efficiency with Solar Panels and photovoltaic are used for daily routines within the house. There is also an inverter to convert DC power to AC (direct current to Alternative current).

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

The use of Central control of appliances and energy efficiency.

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

The greatest weakness is that the of windows for the sides of the house, other than one side.

**Additional comments?**

I admire the use of wood and mobilization of furniture, the steps, and the level/height change within each room/space.