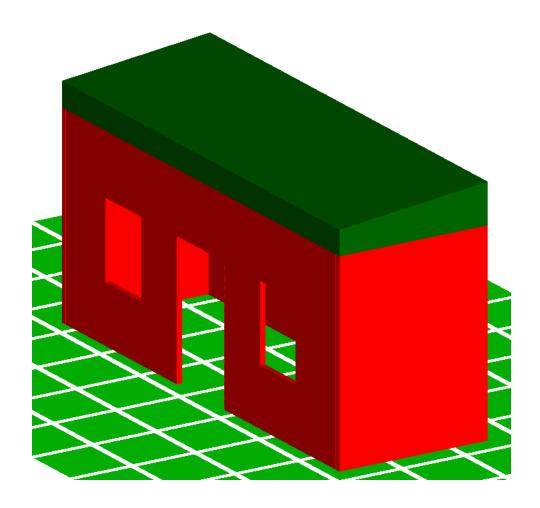
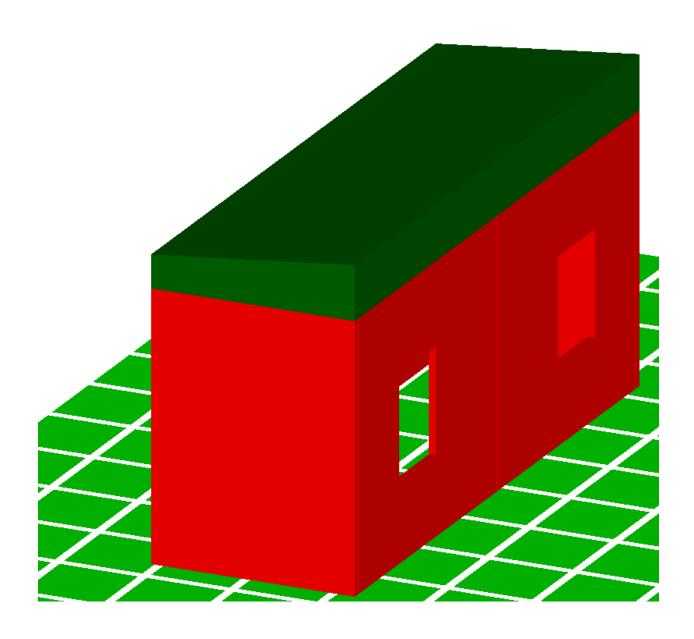


# 3D Views – Swagriha-R1









_			
Qty	WIDTH (M)	HEIGHT (M)	
1	1.2	2.1	D
4	0.9	1.2	W

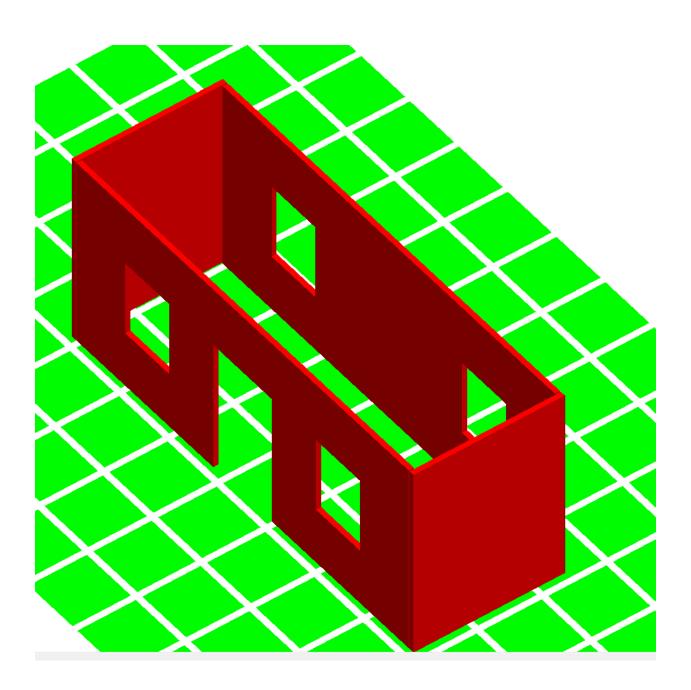






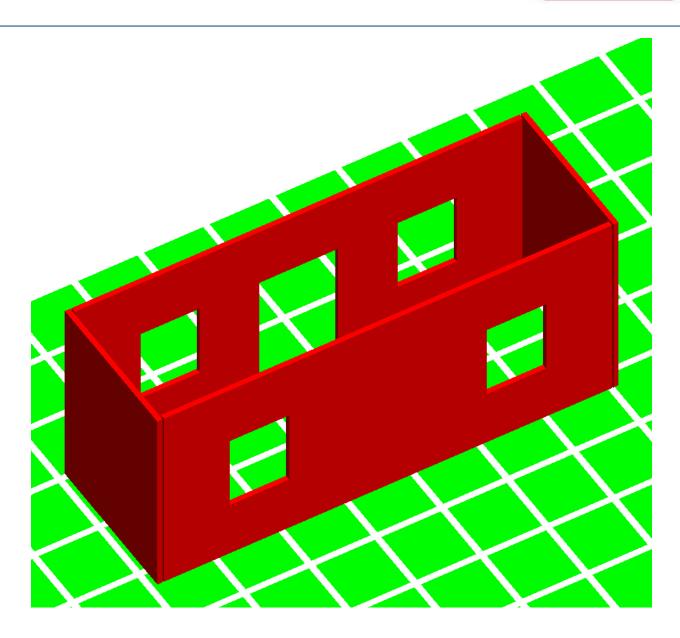






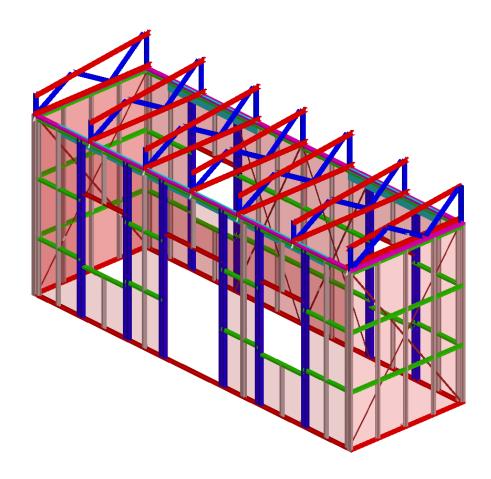






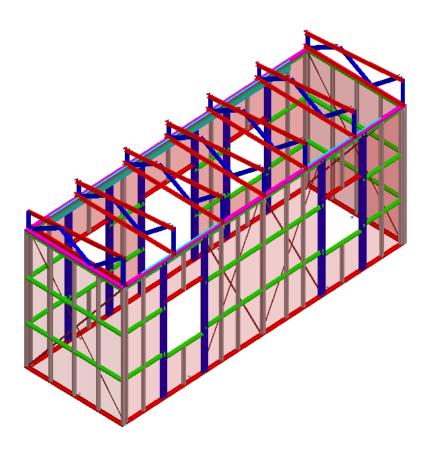


















### Name of the Organization:

Tata BlueScope Steel Pvt. Limited

#### **Project Title:**

Adapting Passive Design Strategies using Green Prefabricated Light Gauge Steel Frame construction technology (EZYBUILD by Tata BlueScope Steel) to achieve Net Zero Target

#### **Project Objective:**

The project intends to promote Green Prefabricated Recyclable material for construction and incorporating the design with Passive Heating/Cooling Strategies. Adapting a dry construction methodology will reduce water consumption demand during construction whereas Passive build design will reduce the load from electrical grid during building operation.

This will enable the end user to be more dependent on free/renewable energy thereby reducing the overall energy demand which will in return lead the nation towards achieving the Net Zero Target as envisioned by Indian PM in the Glasgow Summit.

## **Background and Context:**

Global Warming is no more just a textbook definition. It is clearly visible from reduced ice covers, increased water levels, increased CO2 levels, heat levels along with untimely shift in weather and climate. In a bid to overcome climate change and global warming, the adoption of net zero energy building practices in construction projects has become a viable measure of reducing energy consumption and CO<sub>2</sub> emissions in buildings.

For instance, in Upper Himalayan regions of India, most of the household roughly uses around 1-2lts of kerosene/day to fulfill its room-heating requirement. For every 100 houses in a village, each day 100-200ltrs of fuel is burnt which releases approximately 300kg of CO2 in the atmosphere.

To tackle this problem, passive solar prefabricated buildings can be constructed at higher altitudes which are able to keep themselves warm and use minimal amount of water to get constructed.

Moreover, at places such as Rajasthan, which is hit by extreme heat, proper ventilation system along with the best SRI (Solar Reflective Index) roofing material such as Tata BlueScope COLORBOND® (Surf Mist) can be opted with Green Prefabricated LGSF systems (EZYBUILD by Tata BlueScope Steel), thereby reducing total energy demand during construction as well as operation.

#### Benefits and Impact:

- 1. Recyclable Material (Light Gauge Steel Frame) is used for construction.
- 2. Fast track Construction.
- 3. Prefabricated Drywall Construction ensuring error free design execution.
- 4. Reduced Carbon Footprint of structure.
- 5. Harnessing of Renewable Energy for Building Operation.
- 6. 80% less water consumption demand as compared to traditional construction methodology.







