

SUSTAINABLE RESIDENTIAL DESIGN

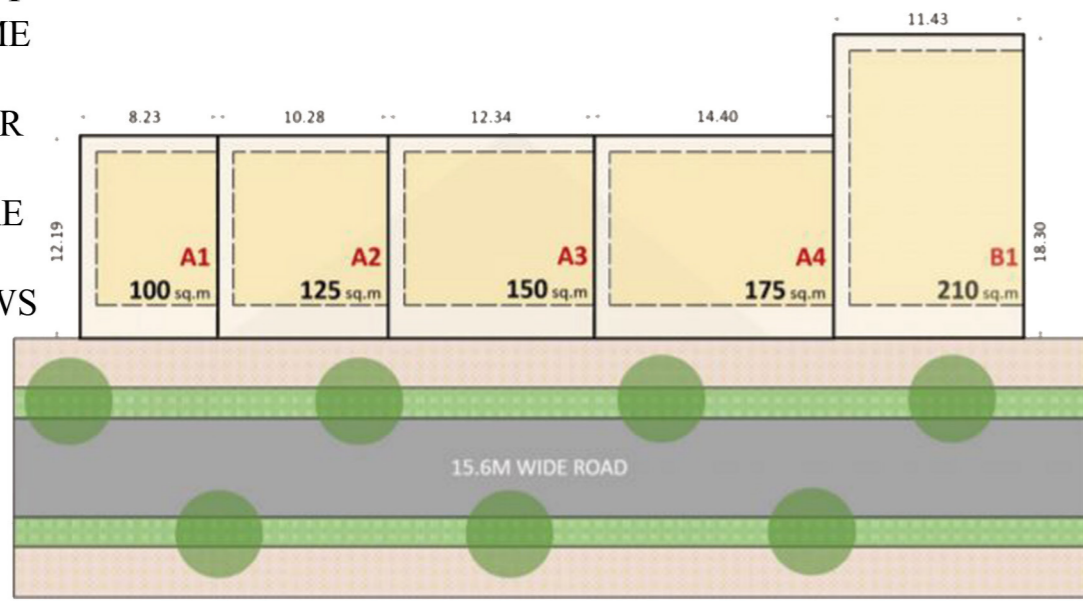
INTRODUCTION

"AMARAVATI" THE CITY OF HAPPY PEOPLES IS NOW GOING TO BE STATE CAPITAL OF ANDHRA PRADESH. THE CITY HAS A VAST AND VERY INTRINSIC CULTURE. THE CULTURE OF THE CITY DEPICTS THE PEOPLE AND ITS SOCIETY AND VICE VERSA.

THE CITY IS ENVISIONED TO BE INDIA'S MOST DEVELOPED AND GREEN CITY WHICH HAS EFFICIENT RESOURCE MANAGEMENT AND AN IDENTITY AND HERITAGE.

THE CITY HAS 5.2% LAND LEFT AFTER LAND POOLING SCHEME WHICH COMES UNDER RESIDENTIAL PART OF MASTER PLAN WHICH ARE BASICALLY LAND OF FARMERS. THESE ARE BROADLY CLASSIFIED INTO 5 PLOTS WHICH ARE AS FOLLOWS :

1. A1 : 100 SQ.M.
2. A2 : 125 SQ.M.
3. A3 : 150 SQ.M.
4. A4 : 175 SQ.M.
5. B1 : 210 SQ.M.



THE CITY IS TO BE DESIGNED FOR HAPPY PEOPLES. THE SPACES SHOULD BE DESIGNED IN SUCH A WAY THAT IT SHOULD ALSO EMBRACE THE MAIN ATTRIBUTE WHICH IS HAPPINESS OF THE CITY. THE SPACES SHOULD HAVE THE QUALITY OF AGGRANDIZEMENT OF INTERACTION, CULTURE OF THE "HAPPY PEOPLES". THE SPACES SHOULD ENHANCE THE CULTURE AND ART OF THAT PLACE BECAUSE WE ARE LIVING IN THE A VERY MODERN ERA AND FOR THE SAKE OF MODERNITY OF THAT PLACE IT IS NOT BUILDING SOMETHING COMPLEX BUT TO ACHIEVE ITS CULTURAL AND CONTEXTUAL RESPONSE, CALLED AS "CRITICAL REGIONALISM".



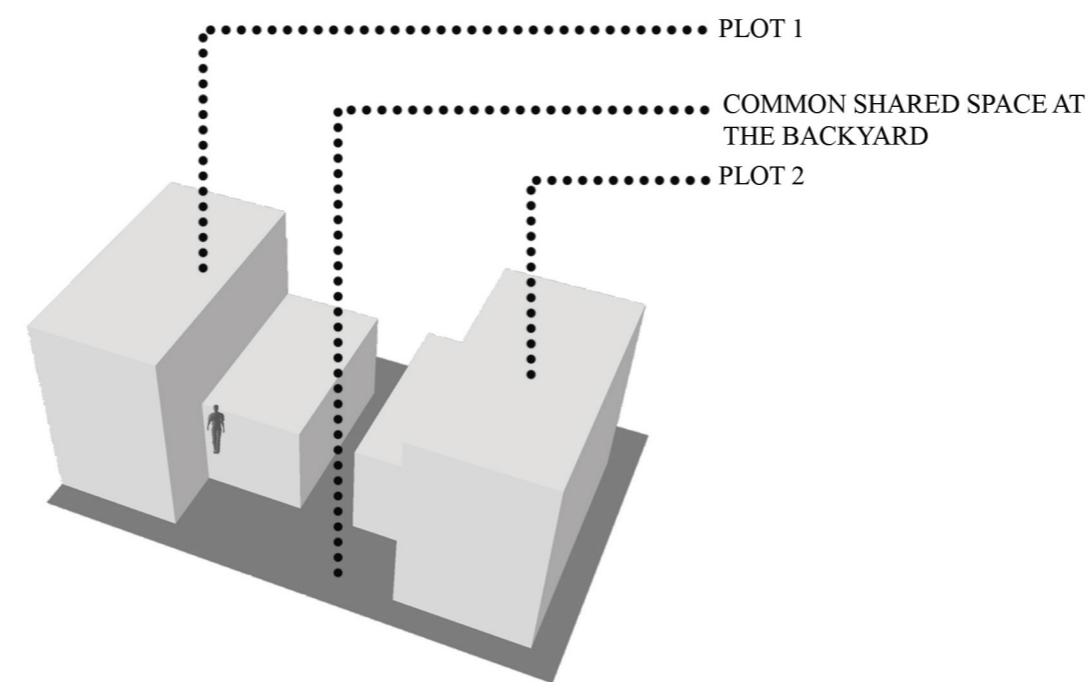
THE ELEVATION OF THE PLOTS WHEN WE SEE IT GIVES US NEW AND OUTSTANDING IDENTITY OF AMARAVATI AS A VISION OF DESIGN. THE PLOTS NEITHER RESEMBLES TOO MUCH OF THE OLD CONTEXT AND IT ALSO GIVES THE FEELING OF THE NATIVE CONTEXT.

DAY LIGHTING

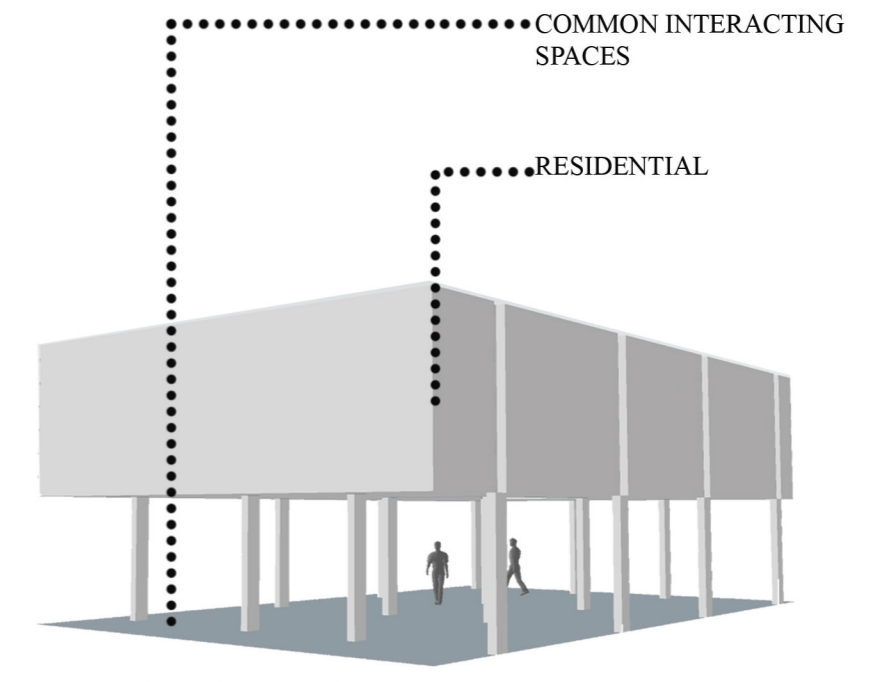


DESIGN APPROACH

SPATIAL ATTRIBUTES : ENVIRONMENTAL DESIGN

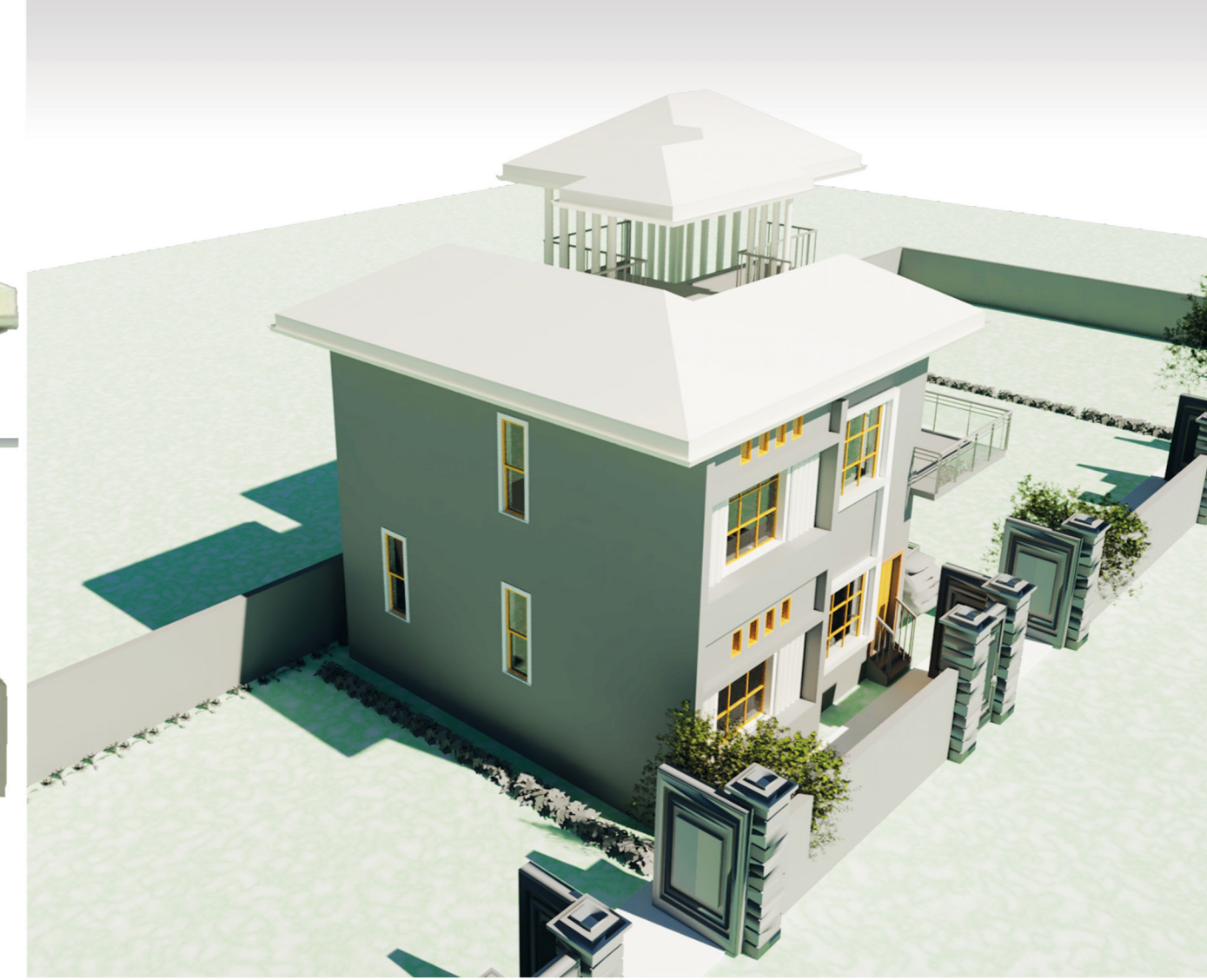
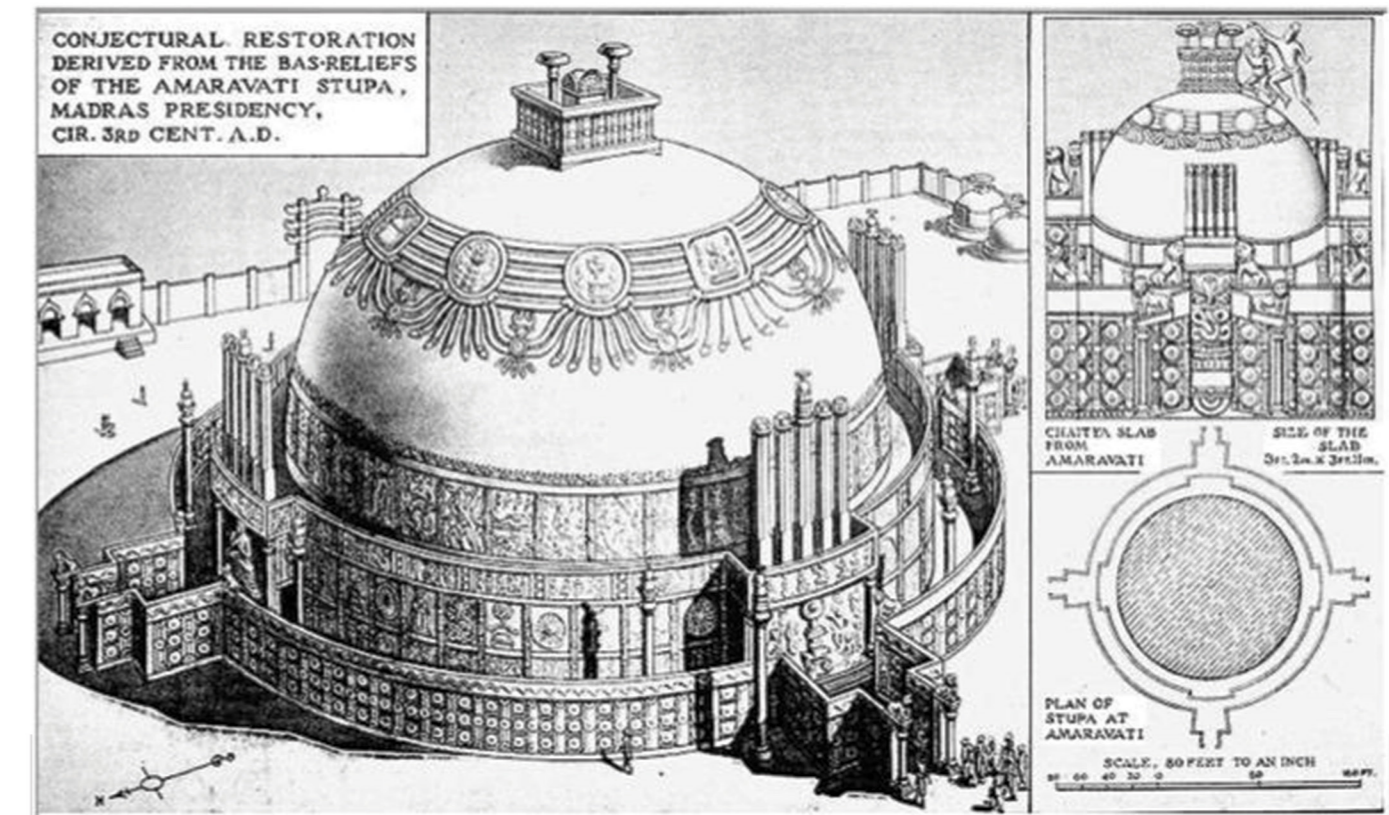
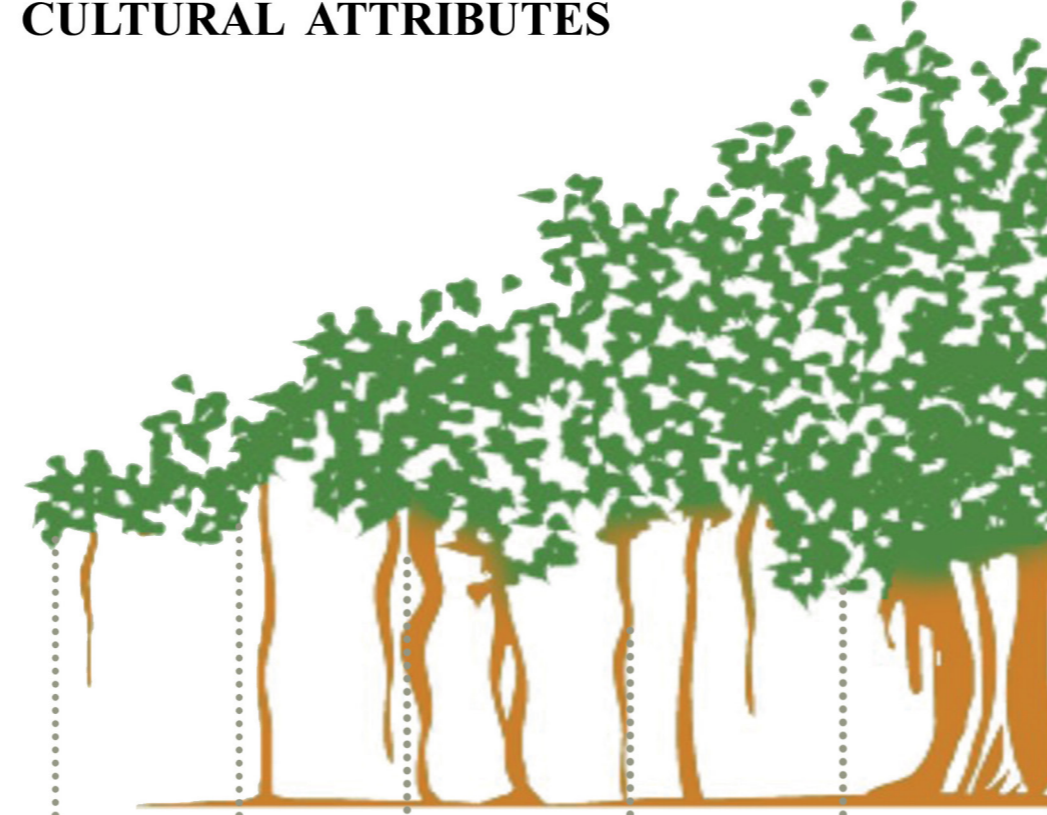


EMPHASIS ON HIERARCHY OF OPENNESS TO CLOSENESS OR VICE VERSA.



PROVOKES FEELING OF INTERACTION AND TRANSFER OF IDEAS WITH ENHANCING PRESTIGIOUS ART FORM.

CULTURAL ATTRIBUTES



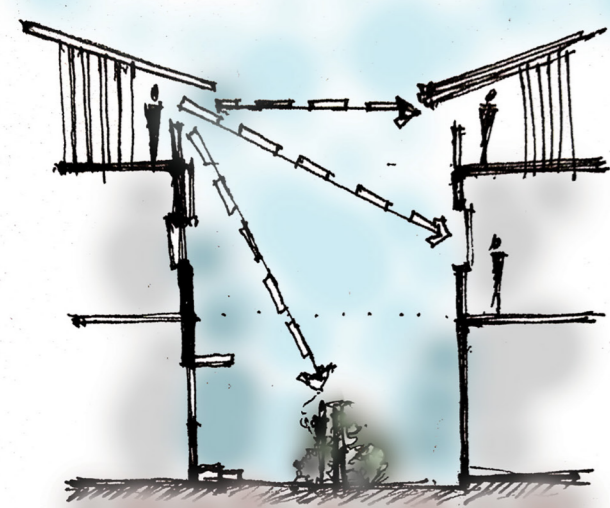
TANGIBLE ATTRIBUTES



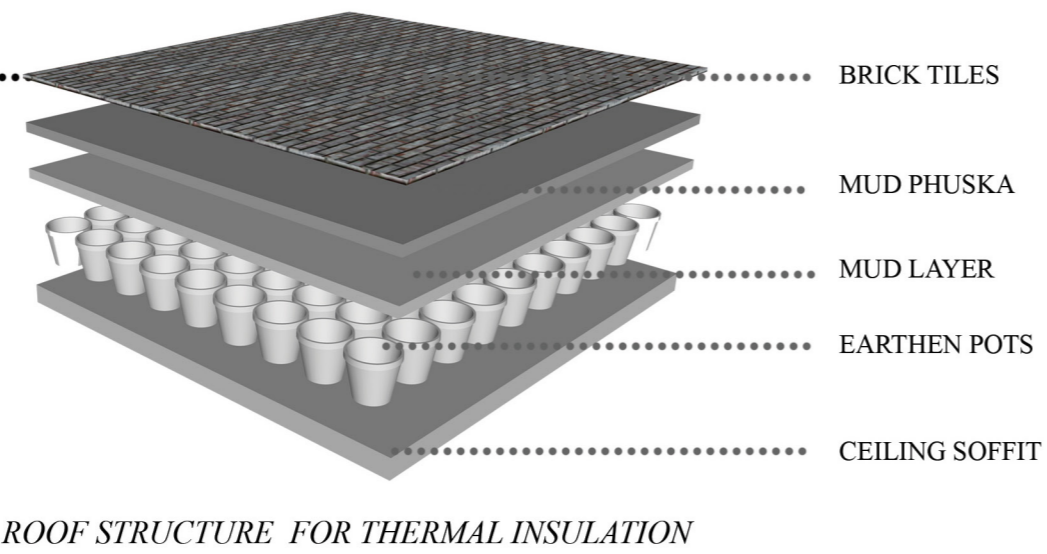
ENHANCEMENT IN NEIGHBOURHOOD RELATIONSHIP.



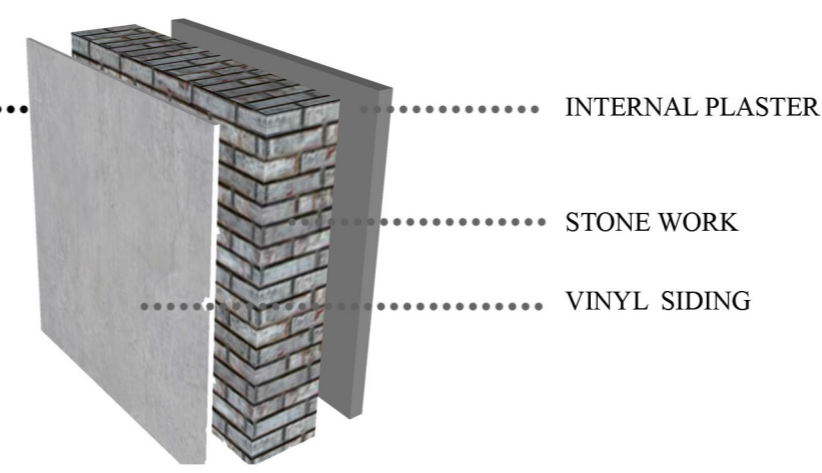
INTERACTION BY VISUAL CONNECTIVITY AND ALSO HELPFUL IN ENVIRONMENTAL DESIGN.



ROOF TO ROOF INTERACTION AND VISUAL CONNECTIVITY



ROOF STRUCTURE FOR THERMAL INSULATION



WALL INSULATION

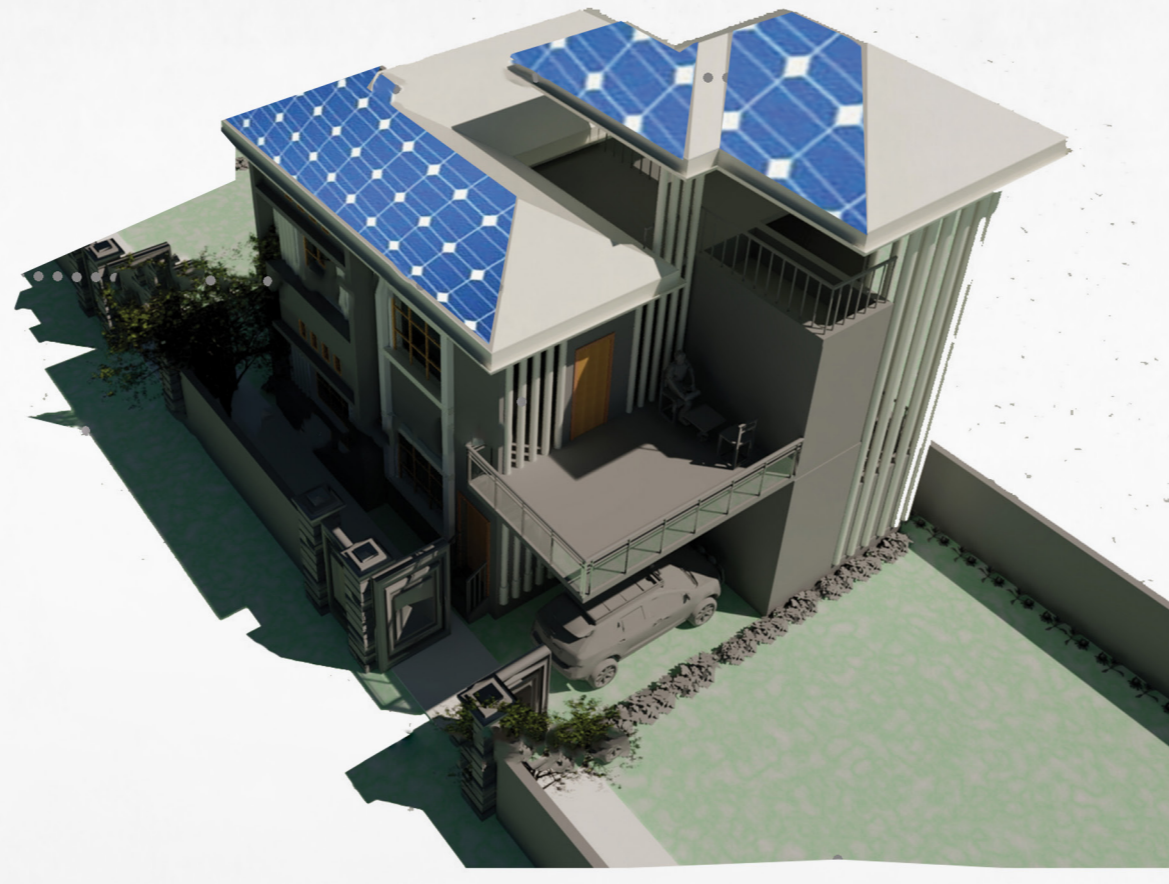


USE OF FIVE COLUMNS SET



CALCULATIONS

- INTRODUCTION OF SOLAR SYSTEM UNDER IPDS SCHEME
- 27.8 SQ.M AREA OF SOLAR PANEL GENERATES 2KWH PER DAY
- 1000KWH PER SQ.M OF SOLAR RADIATION IN A DAY
- 20% EFFICIENCY
- 7 HRS OF SUNLIGHT
- TOTAL ELECTRICITY GENERATED FOR 30 SQ.M OF PANEL PER DAY: 5X0.30X30: 45 UNITS



- SILENT ROOFTOP WIND TURBINES CAN GENERATE HALF OF THE HOUSEHOLDS ENERGY DEMAND.
- IT IS RENEWABLE CLEAN AND GREEN ENERGY.
- THE SLEEK WINDMILL YIELDS MORE ENERGY AND PRODUCES LESS NOISE, ALSO IS BIRD FRIENDLY.
- THE MAINTENANCE FREE TURBINE CAN ROTATE 360 DEG.
- IT WORKS IN VELOCITY AS LOW AS 0.9M/S TO AS HIGH AS 14M/S

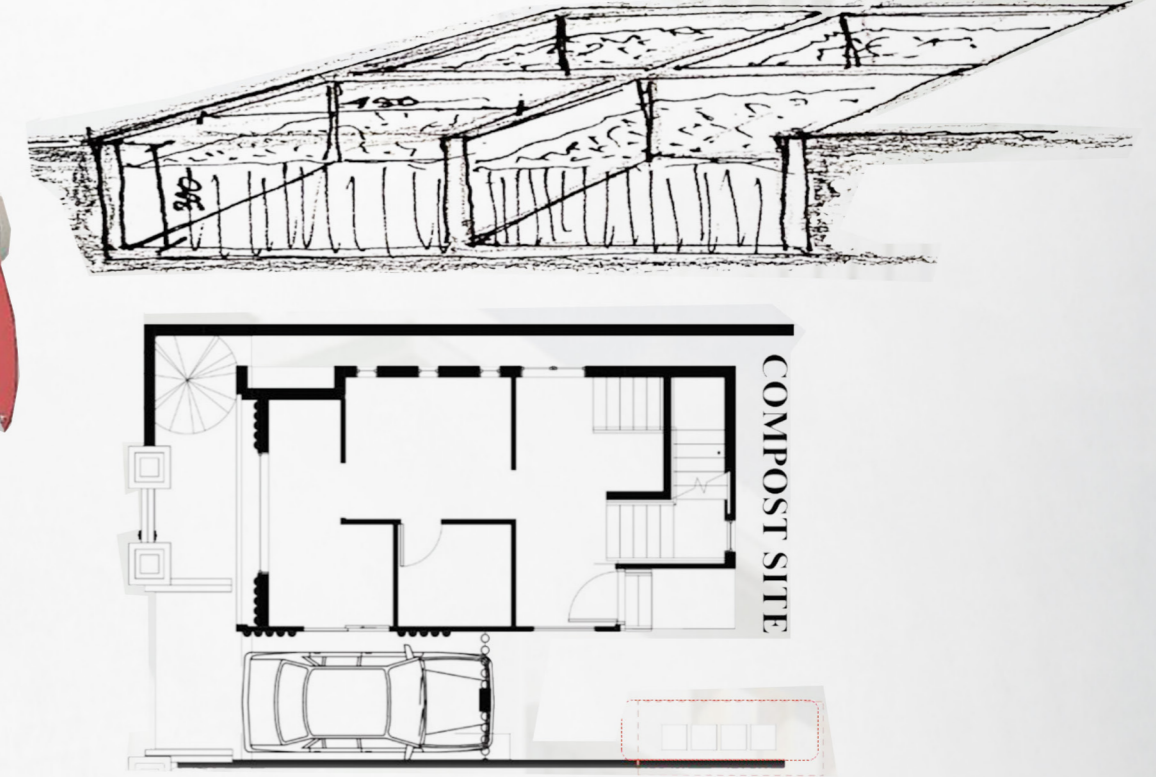
SOURCE: Renewex-2017 exhibition



VIEW



MICROTURBINE



UTILITY MANAGEMENT

PLOT A1



GROUND FLOOR PLAN

PLOT A2



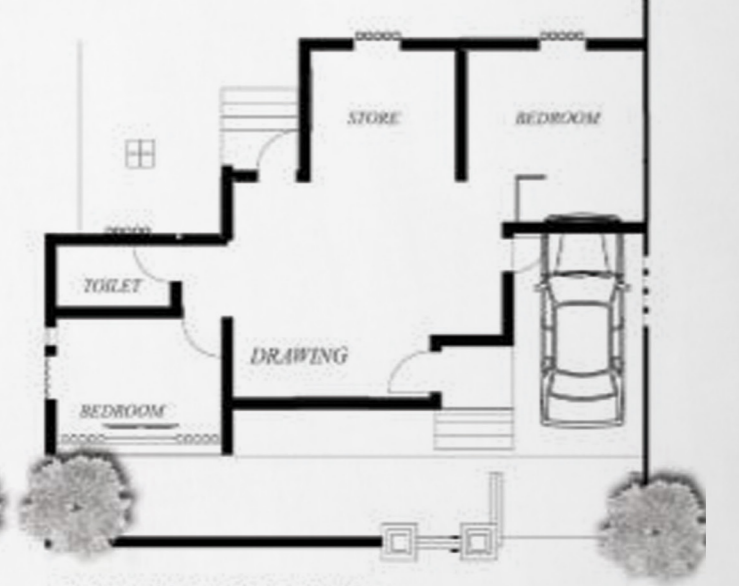
GROUND FLOOR PLAN

PLOT A3



GROUND FLOOR PLAN

PLOT A4



GROUND FLOOR PLAN

