

THE DESIGN OF THE PARK HAS 2 MAIN COMPONENTS, THE FOUR BASIC MODULES AND THE LAYERS IN WHICH THE MODULES ARE REPLICATED. EACH MODULE IS PYRAMIDAL IN SHAPE AND REPLICATES STRATEGICALLY TO HARNESS ONE PARTICULAR RESOURCE. FOR EXAMPLE THE MODULE FOR THE WIND PYRAMID, HARNESSES WIND TO MAINTAIN A COMFORTABLE TEMPERATURE AND TO REDUCE HUMIDITY BY ROTOR EFFECT AND TRAPPED LEE WAVES. ALL THESE MODULES ARE REPLICATED IN FOUR LAYERS. THE FIRST LAYER NURTURES BIODIVERSITY BY PROVIDING AREA FOR PLANTING LOCAL FLORA, BECAUSE PLANTS TAKE CARBON FROM THE AIR AND DEPOSIT IT BACK IN SOIL. IT IS A NON-OBTRUSIVE WAY OF TAKING ATMOSPHERIC CARBON AND SEQUESTERING IT BACK INTO THE SOIL. THE SECOND LAYER IS OF THE WIND PYRAMIDS THAT ARE DESIGNED TO CREATE ROTARY EFFECT BY TRAPPING LEE WAVES WHICH IN TURN WILL MAINTAIN THE TEMPERATURE TO A COMFORTABLE LEVEL. THE THIRD LAYER IS THE ETFE PYRAMID, ETFE TRANSMITS 95% LIGHT WHICH IS MUCH HIGHER THAN GLASS AND REDUCES HEAT GAIN IN COMPARISON.

NATURAL LIGHT IS CRUCIAL FOR THE HEALTH AND WELLBEING OF THE PLANTS IN LAYER ONE. ETFE CAN BE EASILY FRITTED OR 3D PRINTED FOR AN EASIER FABRICATION AND ASSEMBLY. THE FOURTH AND FINAL LAYER IS THE PHOTOVOLTAIC CELL LAYER. THIS IS THE POWERHOUSE OF THE ARTWORK, THE PYRAMIDAL SHAPE IN WHICH THE PV CELLS ARE ARRANGED WILL ACHIEVE THE MOST SUN AND AS WELL AS REFLECT THE SUNLIGHT TO AID THE SURROUNDING MODULES FOR A MUCH MORE EFFICIENT OUTCOME.

THE TRANSMISSION FOR ETFE ACROSS THE ULTRAVIOLET RANGE (320- 380NM) IS ALSO VERY GOOD (APPROX 83-88%) AND THEREFORE ALLOWS PLANTS AND VEGETATION UNDERNEATH TO THRIVE. THE FILM ABSORBS A LARGE PROPORTION OF INFRA RED LIGHT TRANSMITTED, A QUALITY WHICH CAN BE EXPLOITED TO IMPROVE BUILDINGS ENERGY CONSUMPTION.. ETFE FILM IS SELF-CLEANING (DUE TO ITS NONSTICK SURFACE) AND RECYCLABLE. WHILE A SINGLE PLY ETFE MEMBRANE HAS AN APPROXIMATE U VALUE OF 5.6 W/M2K, A STANDARD THREE LAYER CUSHION CAN ACHIEVE A U VALUE OF 1.96 W/MK A BETTER INSULATION VALUE THAN TRIPLE GLAZING WHEN USED HORIZONTALLY (GLAZING MANUFACTURERS FIGURES ARE FOR VERTICAL GLAZING WHICH CONSIDERABLY ENHANCES THE FIGURES). IT HAS A VERY HIGH CORROSION RESISTANCE AND STRENGTH OVER A WIDE TEMPERATURE RANGE.

