

# THE HIDE

## CENTRE OF ENVIRONMENTAL SAFEGUARDING

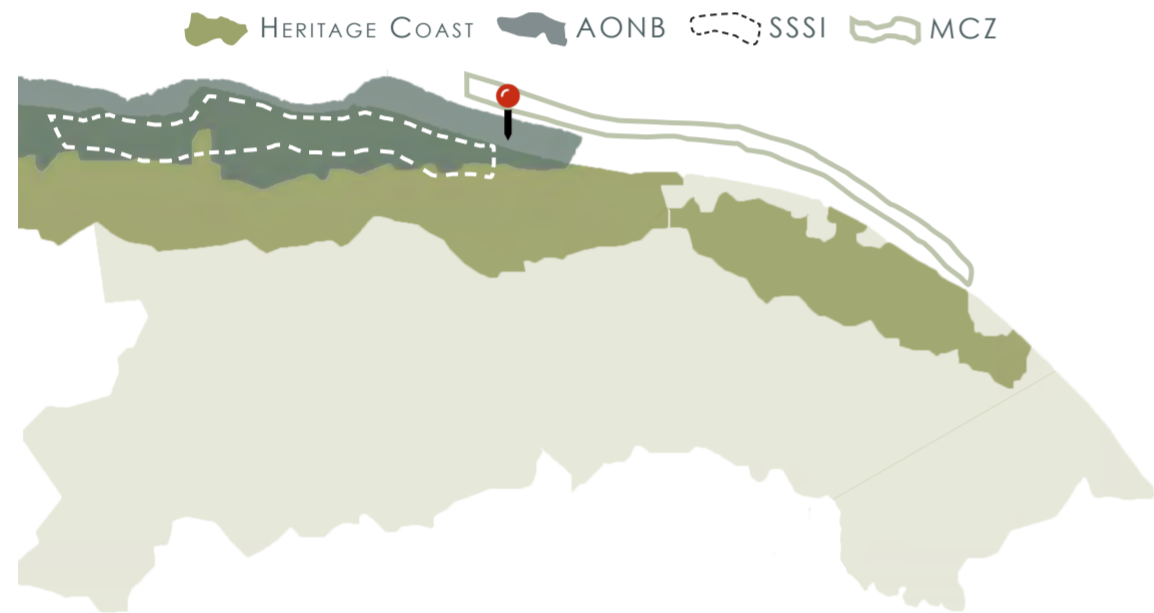
CLEY MARSH NATURE RESERVE, BEACH ROAD, NORTH NORFOLK

THE **CENTRE OF ENVIRONMENTAL SAFEGUARDING** IS THE LATEST ADDITION TO THE **UNIVERSITY OF EAST ANGLIA'S** WORLD-RENOWNED **RESEARCH FACILITIES**. STRATEGICALLY SITUATED AT THE HEART OF THE **NORTH NORFOLK COASTLINE**, 'THE HIDE' HAS BEEN **THOUGHTFULLY CRAFTED** TO FUSE THE UNIVERSITY'S **EXPERTISE IN LIFE SCIENCES** WITH A COMMITMENT TO PRESERVE THE **NATURAL BEAUTY** OF THE **CLEY MARSH NATURE RESERVE**, ADJACENT **CHALK REEF**, THE LARGEST IN THE WORLD & **MARINE CONSERVATION ZONE**, AND THE EXCEPTIONAL **DARK SKIES** THAT ARE **EMBLEMATIC** OF THE REGION'S STATUS AS AN **AREA OF OUTSTANDING NATURAL BEAUTY (AONB)**.

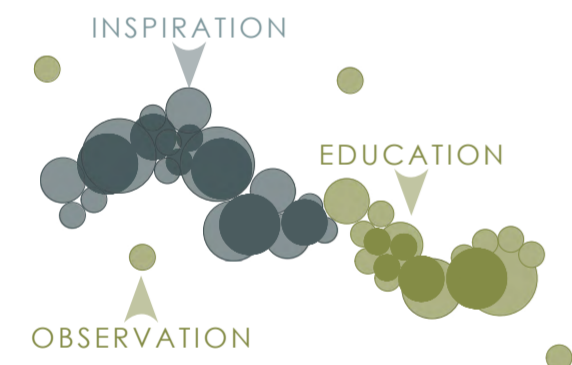
A **STEADY RISE IN TOURISM**, WHICH HAS SEEN AN **ADDITIONAL 5,000 VISITORS** TO THE MARSH NATURE RESERVE SINCE THE ONSET OF THE PANDEMIC, HAS **GALVANIZED** A COMMUNITY OF **INDEPENDENT BUSINESS OWNERS, WALKERS, PHOTOGRAPHERS, AND WILDLIFE ENTHUSIASTS** TO RALLY AROUND EFFORTS TO **SUSTAIN THIS DELICATE ENVIRONMENT**.

THIS **LOCAL INITIATIVE** HAS SINCE GROWN TO **ENCOMPASS NATIONAL ORGANIZATIONS**, INCLUDING THE **RNLI, MARINE CONSERVATION SOCIETY, NATIONAL WILDLIFE TRUST, AND THE UEA**. AFTER EXTENSIVE CONSULTATIONS, A **MANAGEMENT PLAN** THAT **INTEGRATES LOCAL EXPERTISE** WITH THE BROADER KNOWLEDGE OF **LARGE ORGANIZATIONS** WAS AGREED UPON. SUBSEQUENTLY, THE **CRITICAL IMPORTANCE** OF A **CENTRAL HUB** WAS RECOGNIZED THAT WOULD SERVE AS AN **EDUCATIONAL & INSPIRATIONAL BEACON** FOR SAFEGUARDING THE COASTLINE.

### NORTH NORFOLK COASTAL CHARACTER MAP

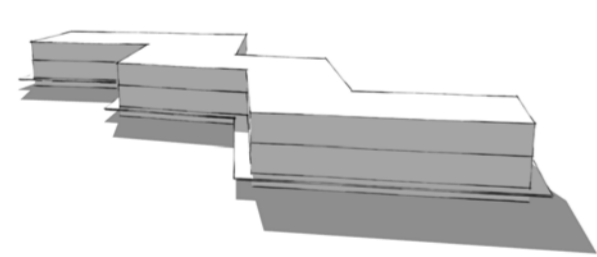


### SPATIAL PLANNING



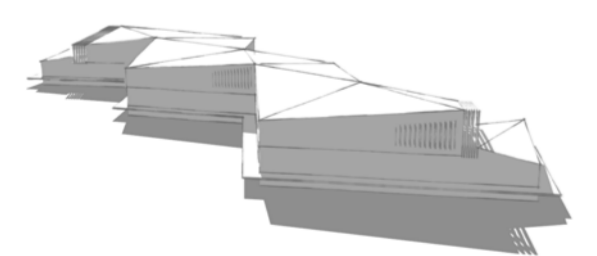
THE **UNDULATING PLAN** OF THE BUILDING IS AN EXPRESSION OF THE **IRREGULAR LINES** SEEN IN THE SURROUNDING LANDSCAPE WHERE THE WAVES OF THE NORTH SEA CRASH ONTO THE SHINGLE BANK AND THE RIVERS THAT MEANDER THROUGH THE MARSHLAND.

### INITIAL BLOCK MASS



THE **MULTIFACETED FORM** PROVIDED AN **ABUNDANT OPPORTUNITY** TO CREATE **PICTURESQUE VIEWS** OVER THE UNIQUE COASTAL LANDSCAPE FOR EACH OF THE **EDUCATIONAL ENVIRONMENTS** FOUND WITHIN 'THE HIDE'.

### DEVELOPED MASSING



DEVELOPING ON THE **UNDULATION** SEEN IN THE PLAN, THE **TRIANGULATING ROOF** REDUCES VISUAL IMPACT AND CREATES A **WINGED APPEARANCE** RELATING TO THE RARE BIRDS AND INSECTS THAT LIVE AND BREED IN THE COASTAL MARSHLAND.

### PROPOSED SITE MAP



### THE HIDE ON APPROACH, BEACH ROAD



### SEA BEARING ELEVATION FROM SAND & SHINGLE BANK



### BIOINFORMATICS STUDIO



### STUDY ZONE A



### ORIEL COASTAL VIEW



### ECOLOGICAL PRESERVATION & ENHANCEMENT



**COASTAL GRAZING MARSH** - LAND PREVIOUSLY USED FOR LIVESTOCK FARMING OFF THE REAR OF THE BEACH CAR PARK IS UTILISED FOR ITS HIGH AND COMPACT GROUND WITH A LACK OF EXISTING WILDLIFE.



**SPLASH STRIP & GREEN ROOF** - THE GROWTH OF CONTEXT-APPROPRIATE PLANTS SUCH AS THE YELLOW HORNED POPPY, ATTRACTS RARE SWALLOW-TAILED BUTTERFLIES BENEFITTING THE ECOSYSTEM.



**EXHIBITIONS** - EDUCATIONAL DISPLAYS FROM THE UNIVERSITY AND LOCAL GROUPS LIKE THE BSAC BRANCH 11 SCUBA TEAM, ARE TO INSPIRE THE PUBLIC IN A JOINT PRESERVATION ATTEMPT.



**LIGHTWEIGHT & LOCAL CONSTRUCTION** - THE FLINT, TIMBER FRAME AND RAMMED EARTH ARE LOCALLY SOURCED AND CAN BE CONSTRUCTED BY LOCAL CRAFTSMEN.



**PASSIVE RAFT FOUNDATION** - METICULOUSLY DETAILED WITH THE S.E. TO CONSIDERABLY REDUCE THE VOLUME OF CONCRETE WHILE AVOIDING EXCESSIVE DISRUPTION VIA A PILE FOUNDATION.

### SUNRISE FROM OBSERVATION POD 01



# THE HIDE

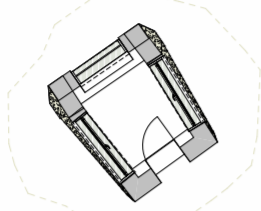
## CENTRE OF ENVIRONMENTAL SAFEGUARDING

CLEY MARSH NATURE RESERVE, BEACH ROAD, NORTH NORFOLK

### DARK SKY DESIGN



AS PART OF OUR APPROACH TO THE DARK SKIES POLICY WE DECIDED TO EMPHASISE THE BEAUTY OF EXPERIENCING THEM. THE 4 OBSERVATORIES AROUND THE SITE PROVIDE INTIMATE SPOTS FOR WALKERS, PHOTOGRAPHERS, WILDLIFE ENTHUSIASTS AND STAR-GAZERS, TO EXPERIENCE THE MANY WONDERS, DAY AND NIGHT, HELD WITHIN THE DELICATE LANDSCAPE.



### DESIGN INTEGRATION



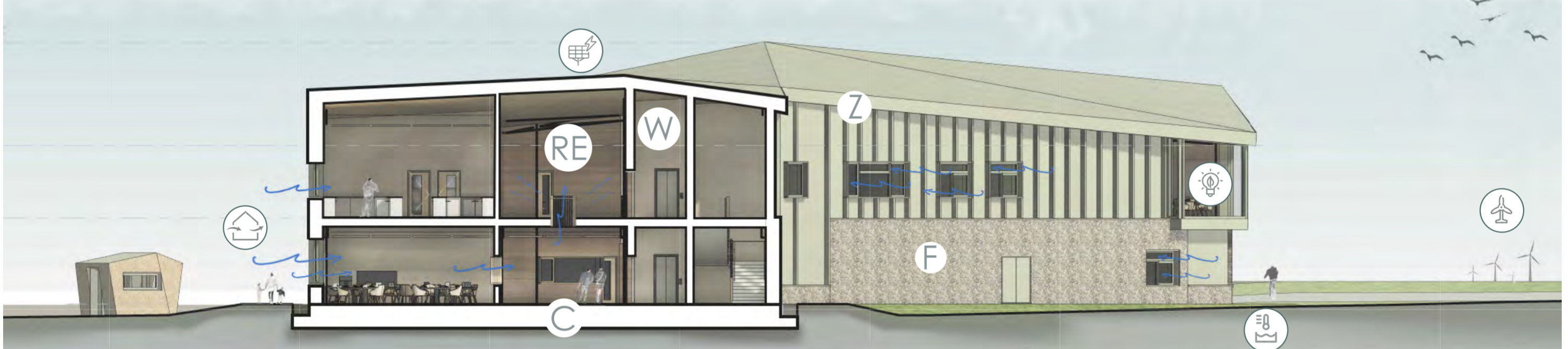
THE INTEGRATION OF LOCAL KNOWLEDGE WITH THAT OF INTERNATIONAL EXPERTISE IS APPARENT IN THE PROPOSALS APPROACH TO EDUCATION, PRESERVATION & CONSTRUCTION. THIS UNIFICATION IS MOST VISIBLE IN ITS EXTERNAL APPEARANCE WHERE TRADITIONAL FLINT MERGES WITH THE INTERNATIONALLY RESPECTED VMZ-ZINC CLADDING.

### GROUND FLOOR CONTEXTUAL PLAN

- |                                      |                       |                                |                             |
|--------------------------------------|-----------------------|--------------------------------|-----------------------------|
| 1 - ORGANISATION LED TEACHING SPACES | 5 - CHANGING PLACE    | 9 - PLANT                      | 13 - BIO-INFORMATICS STUDIO |
| 2 - OBSERVATION POINTS               | 6 - WC                | 10 - RECEPTION                 | 14 - OFFICE                 |
| 3 - CAFETERIA & KITCHEN              | 7 - SHOWER ROOMS      | 11 - STAIR CORES               | 15 - STAFF KITCHEN          |
| 4 - RETAIL STORE                     | 8 - EXHIBITION SPACES | 12 - UNIVERSITY TEACHING SPACE | 16 - SEATING AREA           |



### DESIGN IN SECTION



### MATERIAL SUSTAINABILITY



RAMMED EARTH WALLS LINE THE CENTRAL CHANNEL OF 'THE HIDE,' CHOSEN FOR THE MATERIALS HIGH THERMAL MASS, LOW G.W.P. (9.3KG CO<sub>2</sub> EQ/M<sup>3</sup>) AND UNIQUE STRATIFIED APPEARANCE, SOURCED FROM SURROUNDING SAND & CLAY SOILS.

A BY-PRODUCT OF THE IRON MAKING INDUSTRY, A 70% GGBS CEMENT SUBSTITUTE WAS USED IN THE INEVITABLE CEMENT BUILDING COMPETENCES FOR HOLDING LOWER L.C.I.A. RATING AND ITS WHITER APPEARANCE RESEMBLING THE CHALK REEF.



DESPITE HAVING A HIGH G.W.P. OF 12209.4KG CO<sub>2</sub> EQ/M<sup>3</sup>, VMZINC'S PIGMENT GREEN, DOUBLE-LOCK STANDING SEAM CLADDING SYSTEM WAS CHOSEN FOR IT DURABILITY AGAINST SALINE WATER EXPOSURE AND HARSH COASTAL WINDS.

SEAMLESSLY BLENDING INTO THE SAND AND SHINGLE BANK, EMBODYING THE COAST AT ITS CORE, THE LOCALLY ABUNDANT STONE HAS LOW EMBODIED CARBON AND IN ITS NATURAL FORM CAN WITHSTAND THE COASTAL ENVIRONMENT.



THE COPIOUS WOOD FIBROUS BUILDING COMPONENTS INCLUDING THE STIECO FLEX 036 INSULATION, FINSA SUPERPAN AIRTIGHT BOARD & TR-OLDTEK ACOUSTIC PANELS, BENEFIT HEALTHY & COMFORTABLE INDOOR ENVIRONMENTS.



### BUILDING SERVICE DESIGN



**NATURAL VENTILATION STRATEGY** - THE NARROW FORM, TOP HUNG WINDOWS, FLOOR VENTS, RAMMED EARTH AND GGBS CONCRETE, WITH THEIR HIGH THERMAL MASS, CREATED CONDITIONS THAT BENEFITED THE INTEGRATION OF THE NATURAL VENTILATION STRATEGY.



**WIND & TIDAL TURBINES** - THE NORTH SEA HERE PROVIDES OPTIMAL CONDITIONS FOR WIND AND TIDAL TURBINES WHICH EXIST CURRENTLY WITH POTENTIAL TO DEVELOP FURTHER. THE RESEARCH CARRIED OUT ON SITE LOOKS TO ENHANCE THE HARVESTING OF THESE OMNIPRESENT ENERGY SOURCES.



**SALINE WATER SOURCE HEAT PUMP** - THE HIGHLY EFFICIENT AND SUSTAINABLE HEATING AND COOLING SOLUTION UTILISES NATURAL WARMTH FROM THE SEA TO REGULATE THE BUILDINGS THERMAL COMFORT AT A CONSIDERABLY LOWER ENVIRONMENTAL AND ECONOMIC COST THAN TRADITIONAL HVAC SYSTEMS



**NATURAL LIGHTING STRATEGY** - OVERSIZED HIGH LEVEL WINDOWS FLOOD NATURAL LIGHT INTO ALL SPACES WITH INTERNAL GLAZING CARRYING THIS INTO THE CENTRAL CORRIDOR - A SUCCESSFUL GLAZING STRATEGY ALLOWING FOR A MOSTLY NATURAL LIGHTING SYSTEM WITH DAYLIGHT SENSOR AND MOVEMENT CONTROLLED LIGHTING USED WHERE REQUIRED,



**SOLAR PHOTOVOLTAIC TECHNOLOGIES** - THE ALIGNED RESEARCH PROJECT INVESTIGATED THE OPTIMAL INTEGRATION OF SPV TECHNOLOGIES INTO THE HIDES RENEWABLE ENERGY STRATEGY, WITH A TILT ANGLE OF 40° AND AZIMUTH ANGLE OF 3°, SIMULATED AS THE MOST EFFECTIVE SOLUTION, CADMIUM TELLURIDE PANELS ARE EXPECTED TO PRODUCE 29,205 KWH/YR.



### CONTEXTUAL PERSPECTIVE SECTION

