LandEscape Farm Reception and Service Hub Integrated Heat & Power Smart Micro Grid DINING / STARGLAZING GLASS HOUSES Electricity from Large Arrays of PhotoVoltaic Solar Panels o Electricity Reticulated Around Whole of Site Via 6,500V Micro Grid Thermal Energy from a Combination of: o Solar Thermal Collectors SITE VIA LOCAL MIRCO GRID o Ultra High Efficiency / Near Zero Emissions Wood Gasification Boiler HOT WATER OUT TO LOADS o Ground Source Heat Pump Utilising excess PV Generated Electricity DINING / STARGLAZING GLASS HOUSES o Heat Recovery from In-Vessel Thermophilic Composter Heat Distributed to Loads (DHW & Space Heating) Via Underground District Heating Pipe Network DINING / STARGLAZING GLASS HOUSES ORNAMENTAL POND LANDESCAPE FARM COFFEE SHOP STARGLAZING GLASS HOUSES STAFF ACCOMMODATION CONTAINERISED SMALL COMMERCIAL STARGLAZING GLASS HOUSES 6 X 30,000ltr WATER TANKS GUEST RECEPTION / SITE OFFICE / STAFFROOM STARGLAZING GLASS HOUSES FIREFIGHTING TOILET BLOCKS SHELTER OLD SHEARER'S QUARTERS -POWER TO ELECTRICAL SWITCHBOARD ROAD TO EXISTING SHED E-BIKE / EV & CONSUMABLES
STORAGE WITH WORKSHOP &
SERVICE CENTRE FORMED BY
STRUCTURAL MATRIX OF
SHIPPING CONTAINERS BELOW BICYCLE CENTRE OFFICE / GALLERY /RETAIL ABOVE ACCESS TO CAMP HILL ROAD SOLAR PHOTOVOLTAIC ARRAY LANDESCAPE FARMS MICRO DISTRICT HEAT SCHEME 1. Heat from Boiler, Composter, Solar thermal and Heat pump to temperature stratified buffer tank. CAR PARKING BETWEEN TREES IN 2. Hot water from tank to various loads - DHW and space heating via hydronics and radiators. 3. Distribtion via insulated underground district heating pipes. ACCORDANCE 4. Return of cooled water from loads to thermal storage tank via same underground pipe network. 5. Heat distributed to buildings via individual heat exchanges. This is a closed loop indirect usage system.