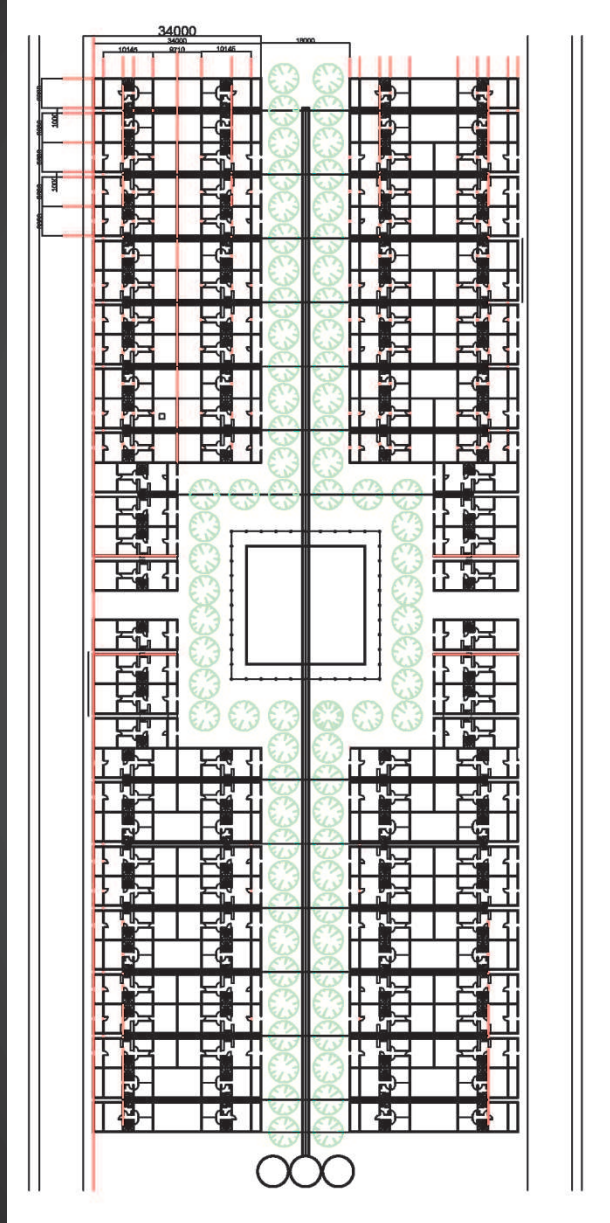


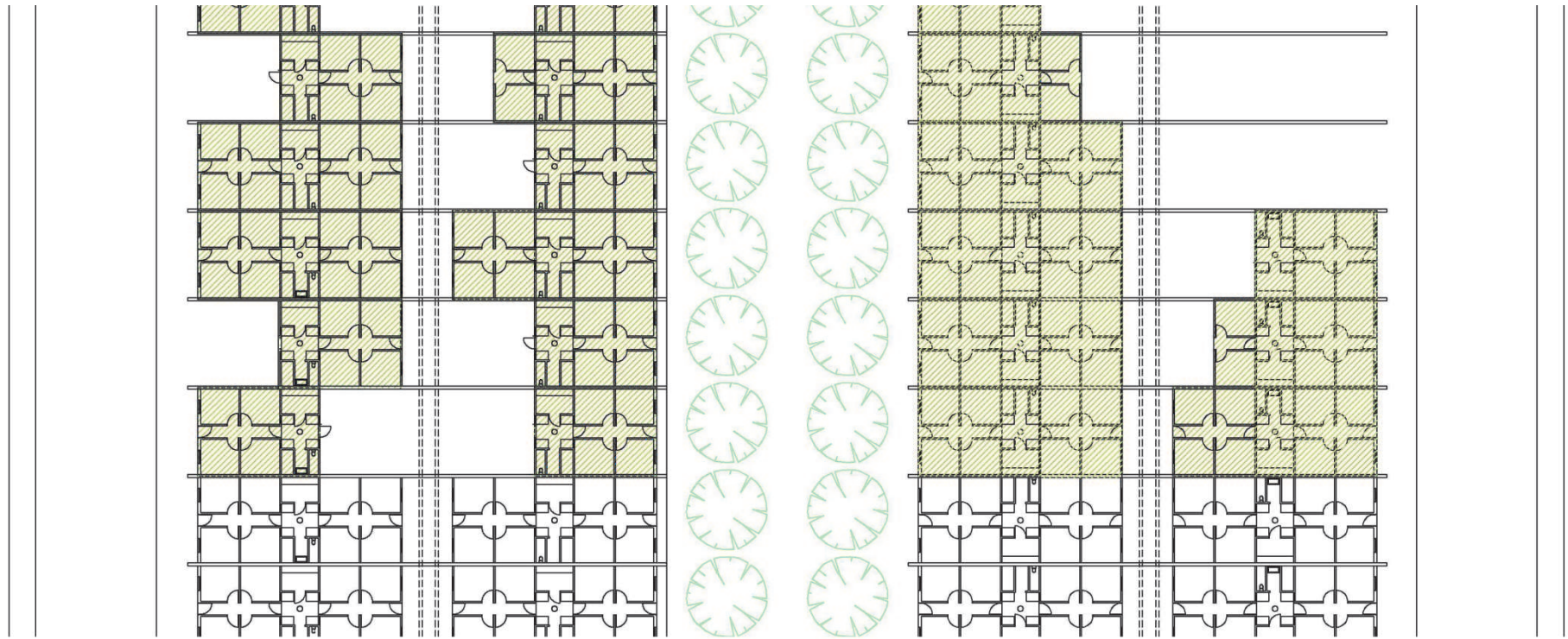
A new model village for Zimbabwe



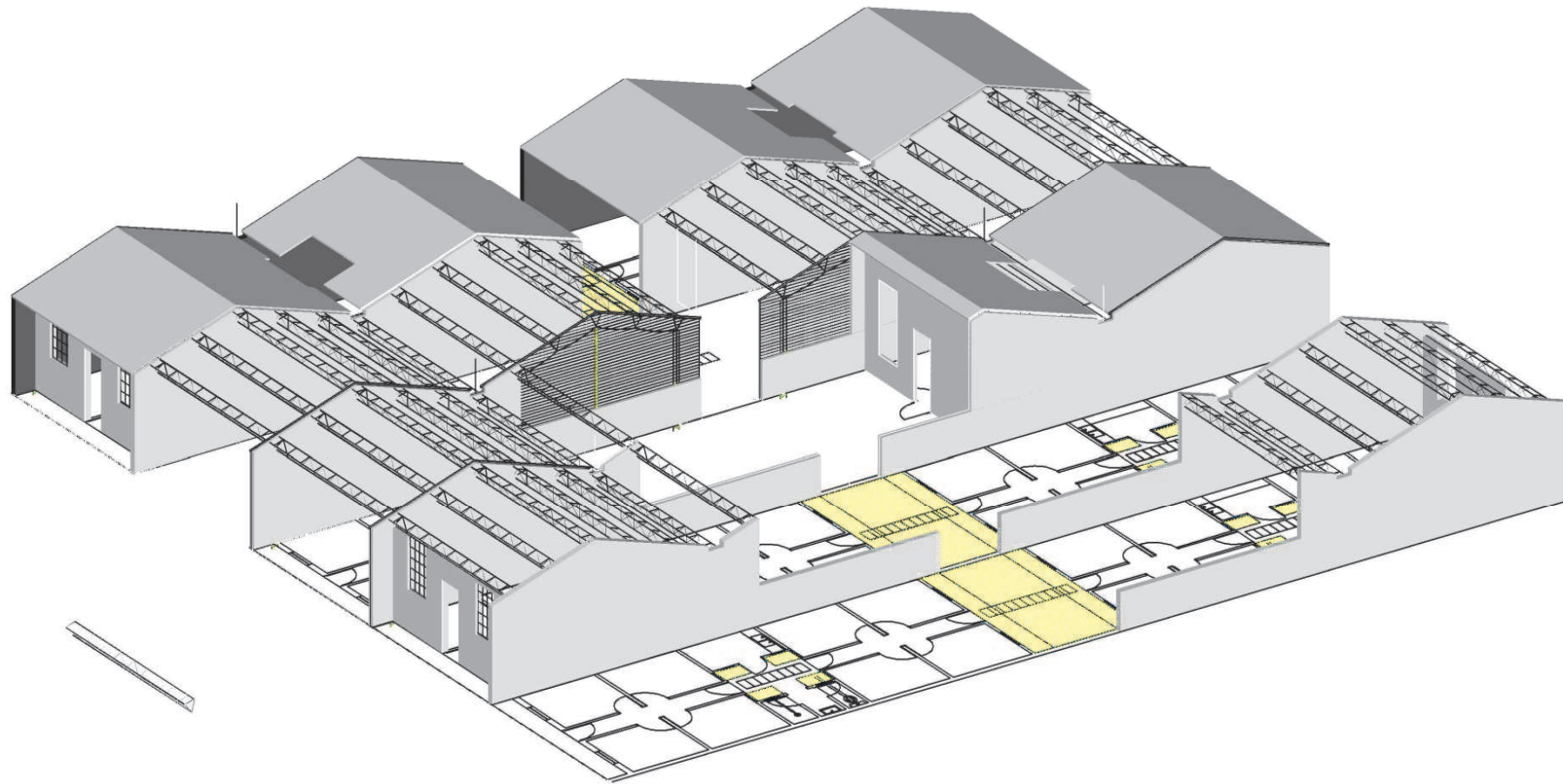
This model village when developed to its maximum could house over 560 people on a street which is only 200 meters long with community facilities and shops covering 18200 square meters. This number of people could support a community hall acting as an infants school during the day. At this density it could also facilitate a bio digester from human and some agricultural waste to supply the community with Methane gas for cooking.

Rain water would be stored for washing and for toilet flushing and for gardening . Hot water would be provided with roof mounted solar hot water geysers facing north. PV panels would provide lighting. External mains power would feed power outlets only where required.

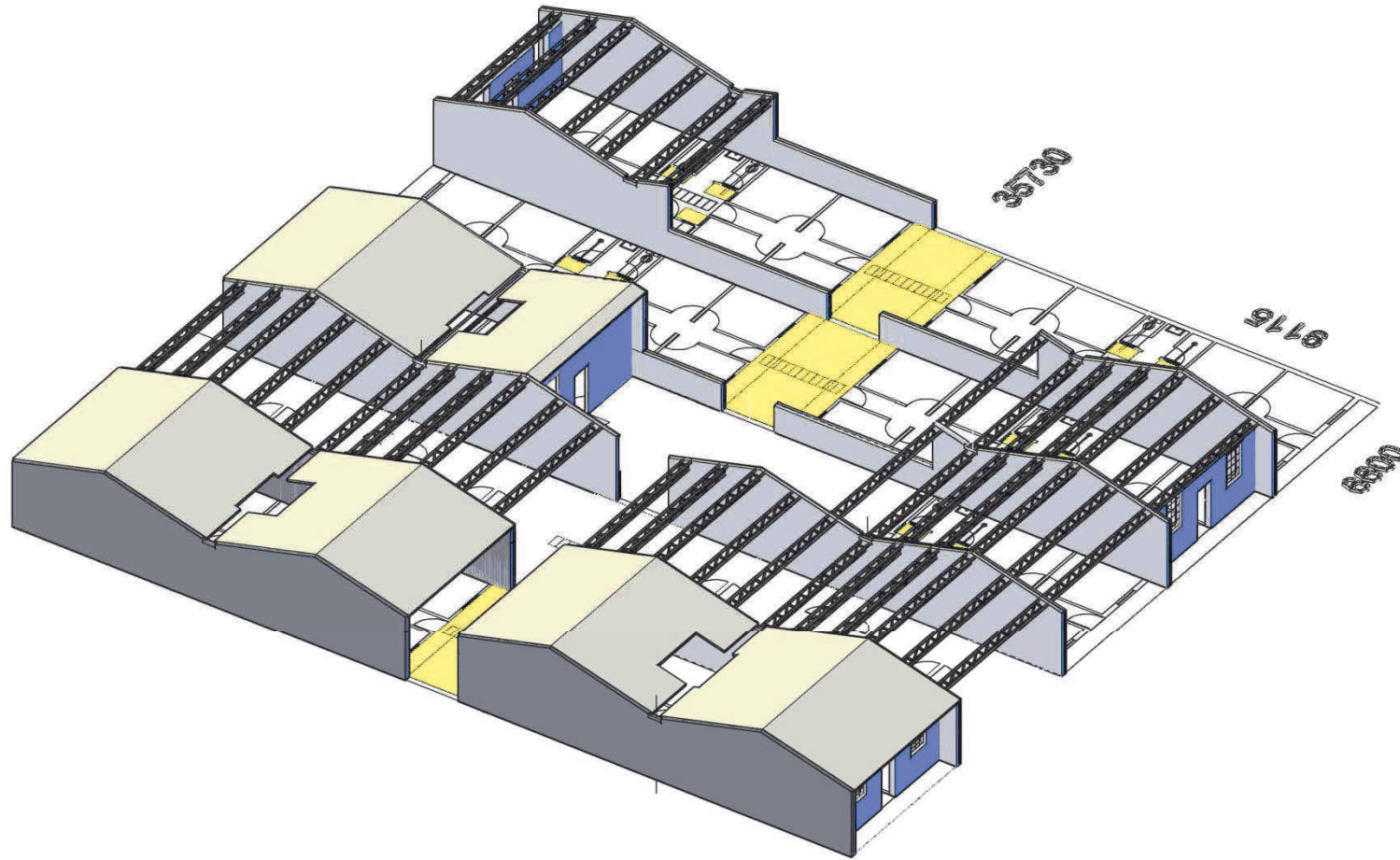
The development would follow stages to match the following economic growth. Vehicular access roads serves the two outsides while the middle road is pedestrian only



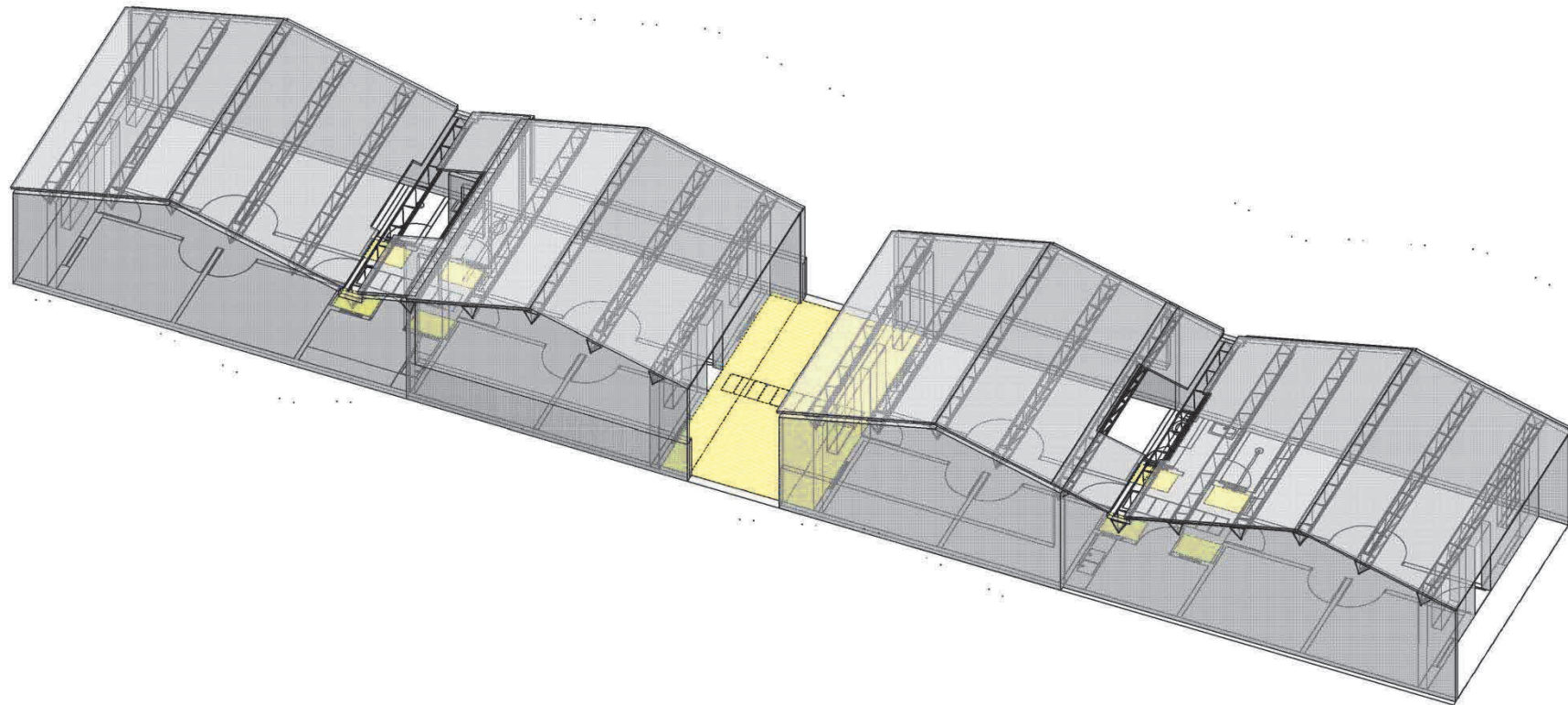
- The part of the village layout shown above shows the housing stands 6 meters X 34meters = 200 square meters which is the area of the local stand size used at present in Bulawayo. Shared walls are shown running horizontally across with one end accessed by vehicular roads and with the other end accessed from the central park avenue. Each site maybe developed in different ways but all have a central wayleave indicated by broken lines down the middle for service lines. No building is permitted over this area.



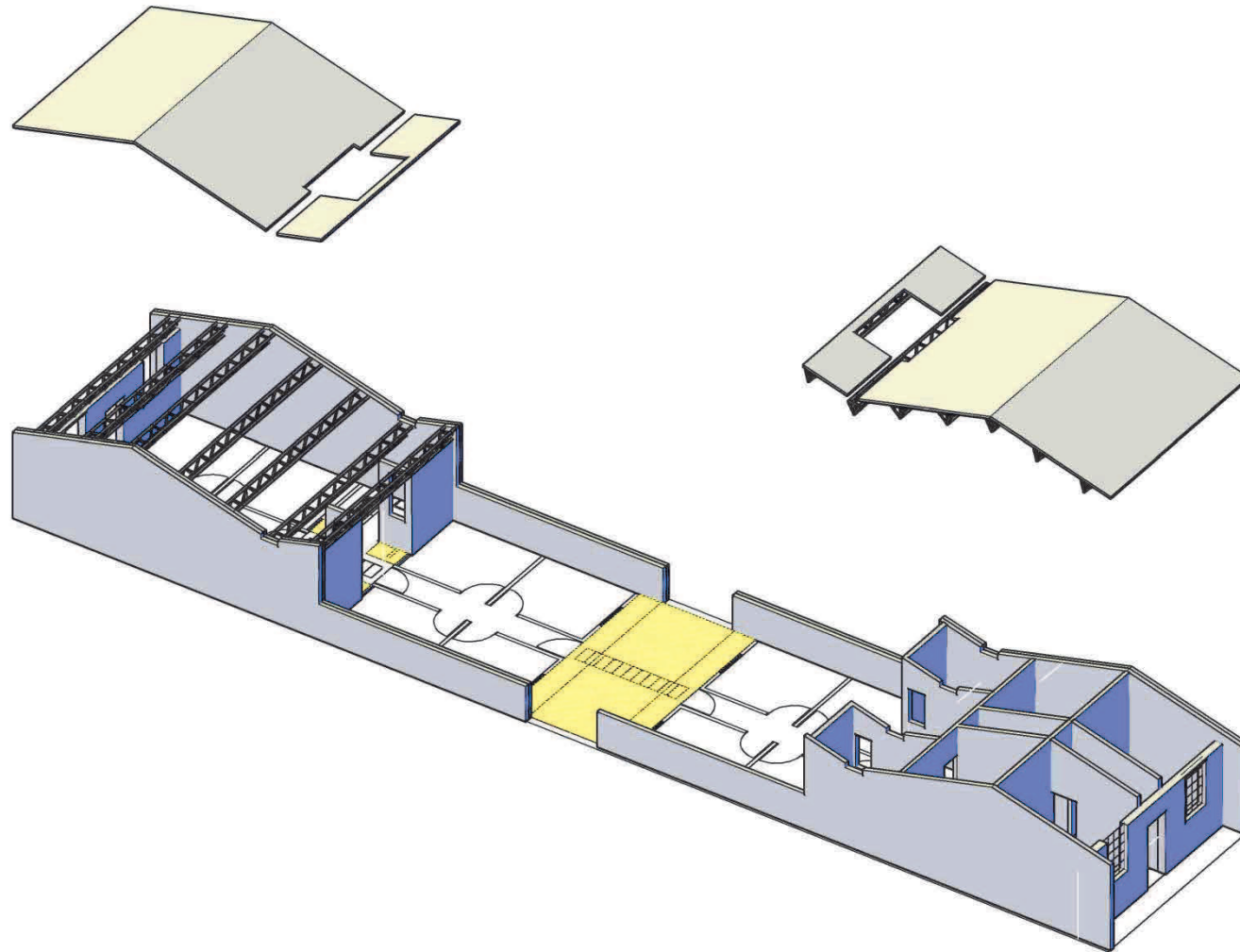
The above shows houses in various stages of development being built between shared walls. A central wayleave courtyard shown in yellow cannot be built on because this is to take common service lines of water, drainage, power etc. This means that there are two possible dwellings per 200m² stand. The present planning in Cowdray Park is one dwelling per 200m² stand. The owner could rent one out or sell it and live in the other.



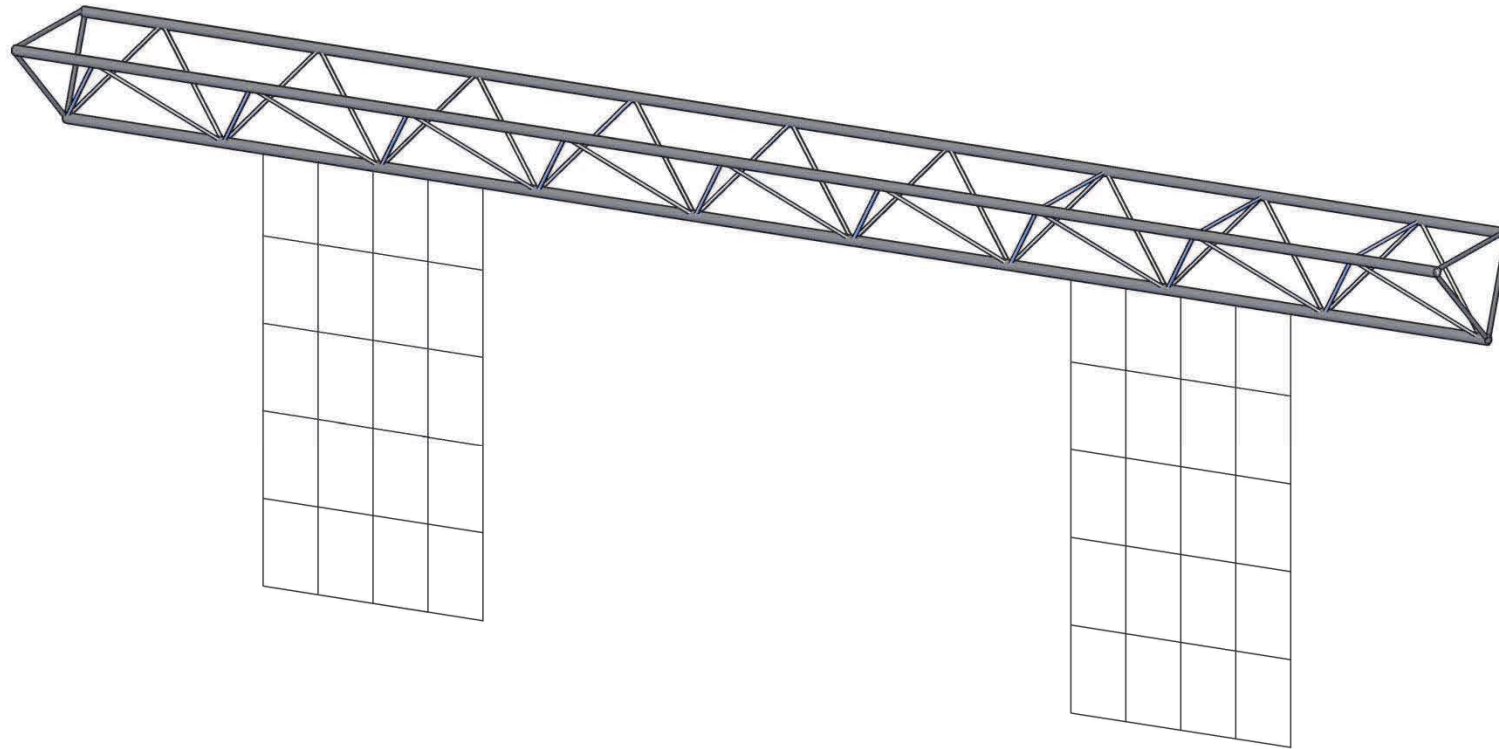
- View as above from the other side. Note the light steel lattice beams spanning between the shared walls to hold up the roof



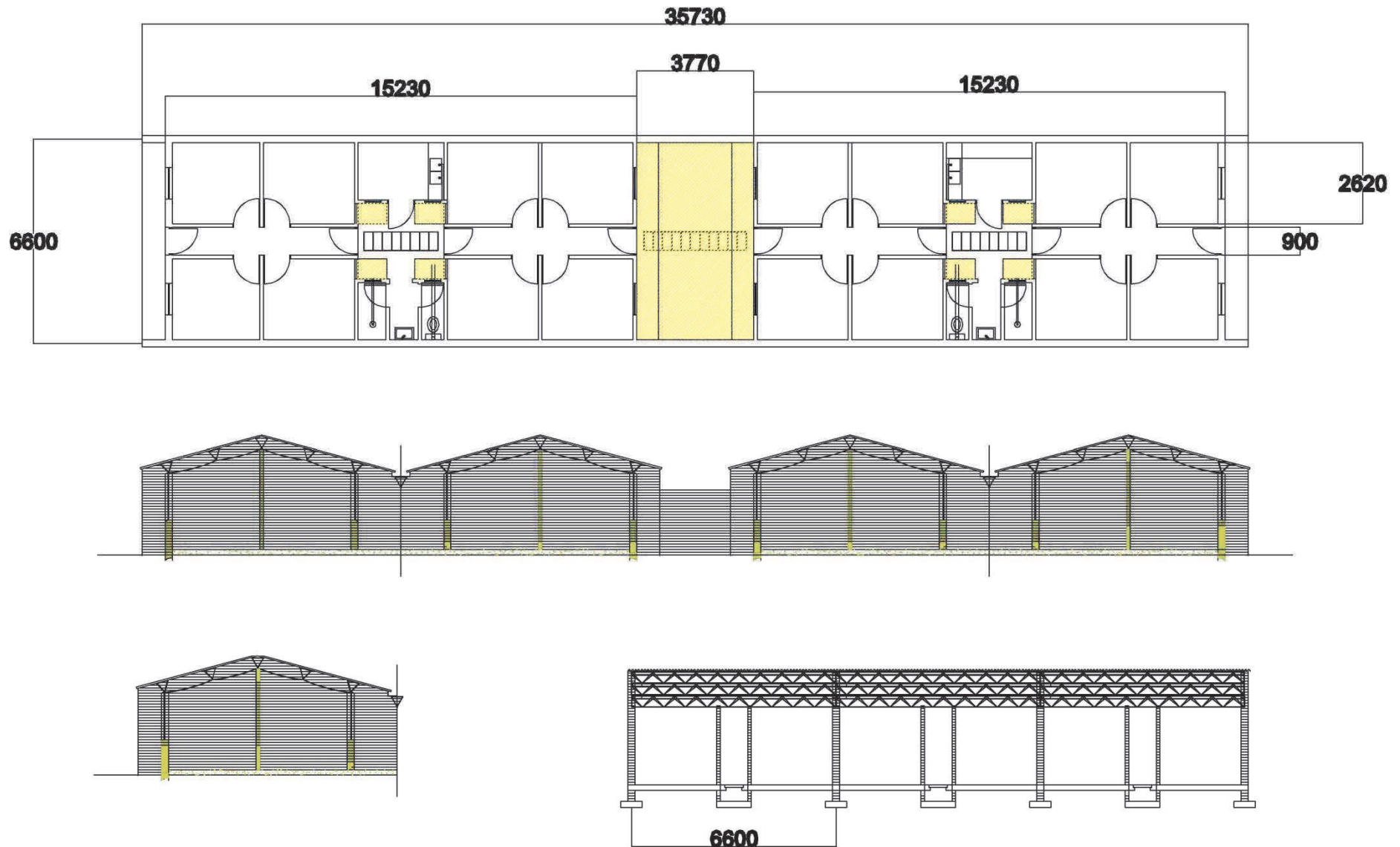
- This is a single story unit on a 200 square meter stand. It has a total of 16 x 8 square meter rooms with two kitchens and two bathrooms and two WC's. This is the maximum development on a single stand. The yellow courtyard in the centre separates the development into two dwellings with separate access from the streets at each end. The x-ray drawing shows the roof supports which allow the partition walls to be non-load bearing so that room arrangements can be change at any time . It is important to show that this full development has adequate light and ventilation to all rooms



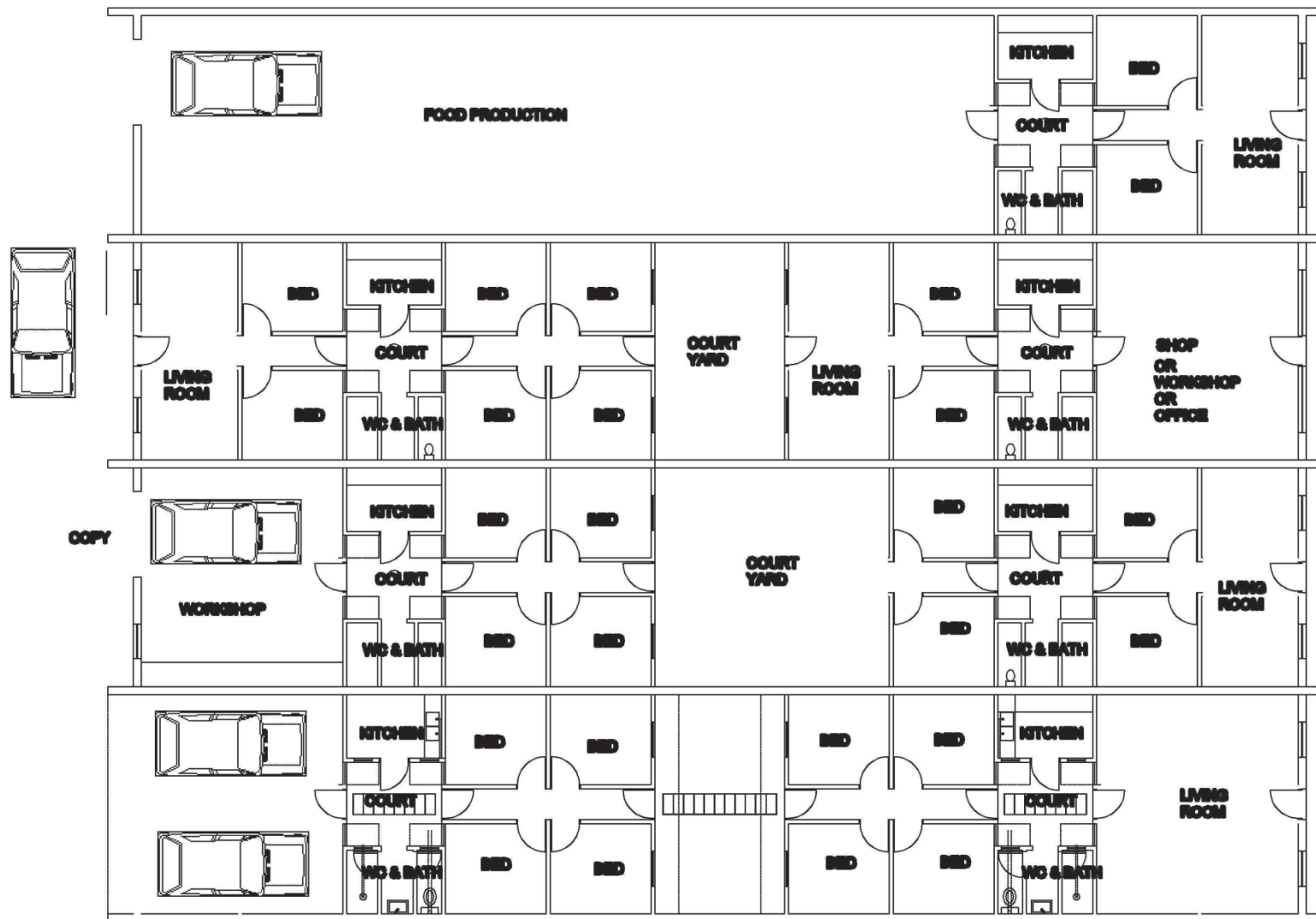
- The basic double unit could be one house to live in and one to rent out, each with potentially 4 rooms served by its own kitchen and bathroom. This might make economic sense if the bath rooms and kitchen walls only were built leaving the other walls and finishes to the occupant.



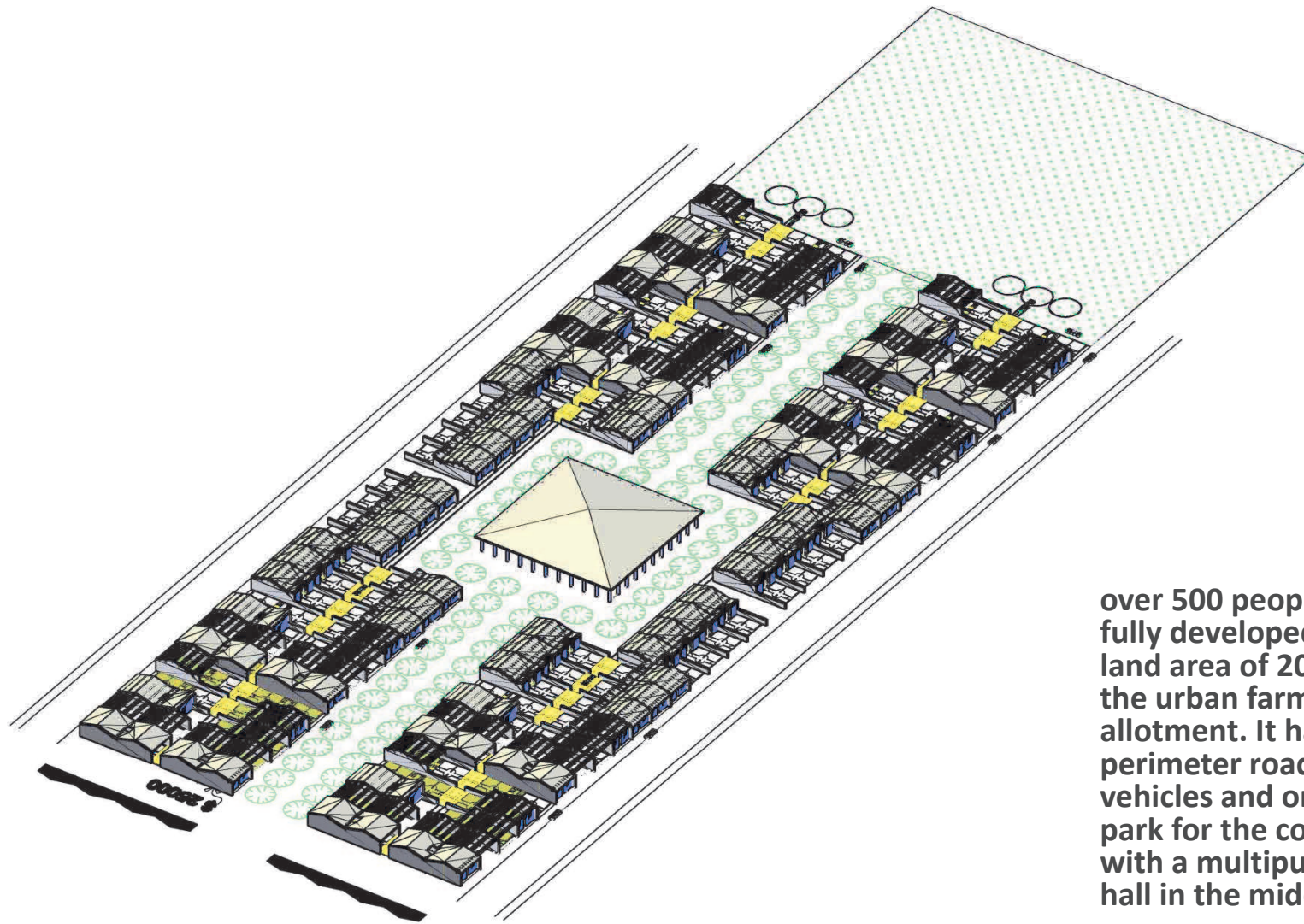
- The constructional system is based on this “spider” trussed purlin which is made from light gauge reinforcing steel and can span the 6600 between party walls. Thus no room partition walls need be structural allowing them to be built at any time by the occupants as required. Also the windows can hang off the trusses thus avoiding the need for concrete lintels.



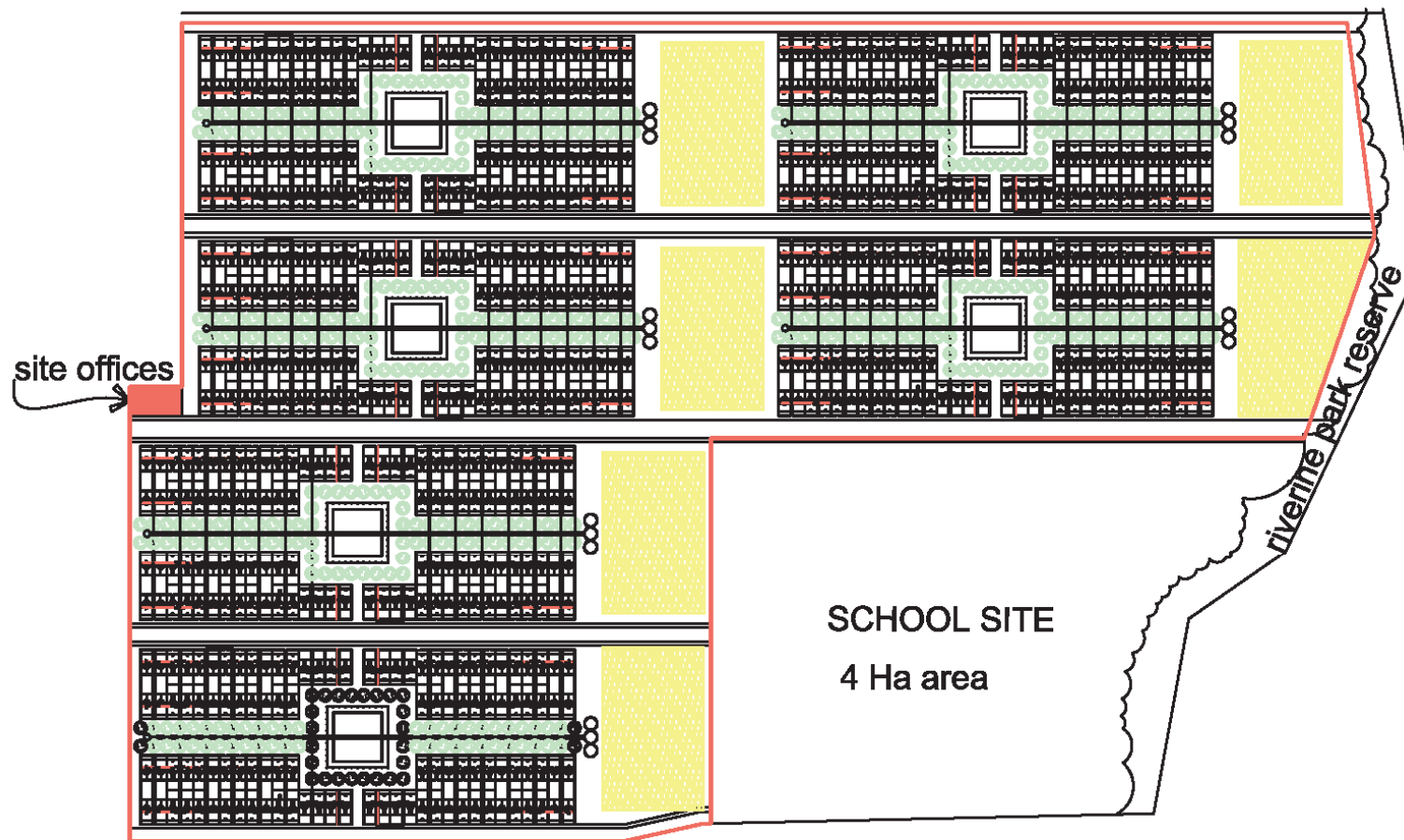
- Single story construction with spider purlins spanning between the shared walls. This is completely flexible in terms of what can be built at any one time.




- The system allows each owner to develop what ever combination is affordable, and is needed at any time as Individual requirements develop. The first time buyer could start with the minimum which is two walls and a roof and floor. The internal walls could be built later as affordable.



over 500 people when fully developed on a land area of 20 Ha plus the urban farming allotment. It has two perimeter roads for vehicles and one central park for the community with a multipurpose hall in the middle



17.5 hectares	Housing area	= 2.1 Ha
	Allotments area	= .67 Ha
	Total village area	= 2.8 Ha
	water storage and treatment area below allotment gardens. storage of 2000 cu meter per village of rain water underground	

- On the site under investigation in Cowdray Park Bulawayo there is room for six villages and a primary school