



HEALTHCARE CENTER

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The healthcare center aims at improving access to medical facilities at a local, rural level for the surrounding communities. Built on a shoe-string budget, the building assumes a compact footprint, made linear for optimal daylighting and cross ventilation.

What is the project about?

The healthcare center aims at improving access to medical facilities at a local, rural level for the surrounding communities. The mission for the centre is to provide timely, competent medical intervention while avoiding expenditure incurred by long-distance travel to urban hospitals.

Built on a shoe-string budget, the building assumes a compact footprint, made linear for optimal daylighting and cross ventilation. Cost-saving strategies allowed for the construction of an additional multipurpose space within the available budget, taking shape as a stepped amphitheatre-like extension at the building entrance to host small gatherings related to public health awareness initiatives.

Split functions of the core clinic and waiting area are arranged as concentric layers to create a ‘building within a building’. The double-skin building concept is composed of the clinic building at the core: a conventional, weather-tight, sterile, secure, and easy-to-maintain structure built according to higher medical specifications. This inner building is wrapped by an innovative, low-cost outer skin that uses locally available materials and building skills, including woven grass thatch and random rubble masonry. The skin creates a shaded climatic buffer around the clinic, where a generous and airy *verandah* makes pleasant space for waiting.

The building is connected to the landscape that surrounds it by means of cultivated terraces, medicinal plant patches, and orchards, which celebrate and merge with the agricultural character of the site. An outer roof with a prominent central gutter and spout leading to a rainwater collection pond gives visual expression to water as a life-giving element and recalls folklore pertaining to the name of the place: *Devara Outhu Pallam*, meaning ‘God’s Spring – Village’.

Materials & Technologies

The ‘building within a building’ concept seamlessly integrates parameters of the functional program, climate, sustainable construction and aesthetics. The project was to be built at an extremely low cost, completed at about INR 800/sq ft, or approx 35% less than comparable conventional building costs.

A key innovation is the light outer skin ‘verandah’ that protects the clinic from the harsh, seasonal elements of nature outside. This employs an outer ‘inverted’ pitched roof and movable thatch panels, both supported by a composite steel and cement board structural frame that rests on a raised floor plinth. The verandah had to be built within a budget that was minimal, since the inner core clinic building, which was built to higher healthcare specifications, would consume a larger share of the monetary outlay. This was achieved by several construction strategies:

1. Multi-role Roof:

The lightweight corrugated galvanized steel ‘shade roof’ channels rainwater into the central concrete gutter (which also supports it) for collection, groundwater recharge and storage. The cost of conventional water + weatherproofing over the lower concrete roof is eliminated while creating an additional ‘in-between’ space that serves to house service units and piping, which are easy to access

and maintain.

2. Composite Structural Frames:

The unique portal type frames combine slender 65x65mm double steel angle sections that sandwich two structurally profiled 12mm thick fly ash cement fiber boards. This structural frame uses the strength and characteristics of each material to produce optimal efficiency and stiffness while using a minimal quantity of expensive steel.

3. Movable Thatch Panels:

In conjunction with natural cross-ventilation through the single banked structure, the outer screens composed of aromatic Vetiver grass thatch mats are designed to keep the interiors cool. A simple drip irrigation pipe is used to wet the panels in the hot dry summer; lowering internal temperatures and humidifying the air passing into the interior by means of evaporative cooling. The panels can be opened or closed depending on the degree of climatic protection required for the interior. The earth-toned panels also filter the abundant ambient dust prevalent in hot dry summers.

4. Plinth Retaining Walls:

The plinth wall is formed with small stone boulders cleared from the soil at the building site. The natural earthen texture of these rocks provides maintenance-free plinth protection—a perfect visual foil that absorbs dust/earth splash without looking “unclean”. On the other hand, it echoes the typical water-retaining terrace edge *bund* walls of the surrounding agricultural landscape, anchoring the building to its locale.

What is the impact?

By providing primary health care facilities at the level of a cluster of villages, unnecessary travel to urban hospitals is made unnecessary—also making a venue for public health program dissemination at the grass-roots level. An objective was also to create a prototype contemporary public facility, inspired by traditional architectural elements like the protective ‘verandah’, that would serve as a benchmark for construction in the local region. By employing a ‘hybrid’ construction team: a core group of skilled craftsmen brought from a few 100 km away and local workers, a good quality of workmanship was achieved while transferring the expertise to the local community.

Project Funded:

Commissioned by – Mercy Imondi (Mahalir Aran Trust) & Janet Rogers (VIA Design) with funds raised from individual donors in the UK.

Stakeholders Involved:

Mahalir Aran Trust – Client NGO
VIA Design, UK- Client partner
Manjunath & Co – Structural consultant
Vagish Naganur- Landscape consultant
P. Kumar Constructions – Civil contractor
Achu P enterprises- Electrical contractor

About Flying Elephant Studio:

We try and choreograph evocative, layered experiences through architecture while responding to pragmatic needs of program, site, and locale. Our approach employs bottom-up and top-down design strategies, moving in parallel from detail, to whole, and vice-versa. Materiality and ‘making’ occupy a significant space in our architectural sensibility. A thematic interest underlying our projects is to promote an intimate engagement with nature while facilitating a sense of urbanity and community. Flying Elephant Studio brings to the table fresh, inventive, and sensitive ways of observing and shaping our environment, subconsciously dissolving boundaries of architecture, urbanism, landscape, and infrastructure design.

Our strength lies in innovative conceptual thinking backed by demonstrated experience, skills, and technical expertise to competently translate ideas into reality. The diverse nature in building type, scale, and geographic location of our commissions secured over the past 25 years gives us a distinct professional versatility.

Links to read more:

[A link to the project.](#)