

A Commercial Machine

Pixelet

The Pixelet building is a case in efficient design for productive commercial spaces, of architecture enabling a smooth orchestration of daily activities.

Architect's Note: Within the industrial context, this building is a refreshing change - whether in the high quality of surface finish, or in the attention to construction detail.

Courtesy: Text: Sahiba Gulati
Drawings & Images: AKDA



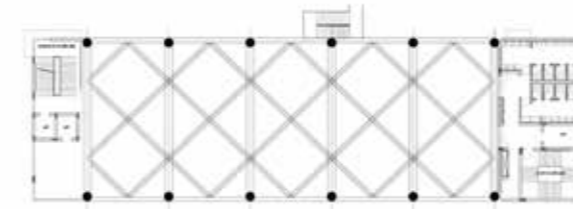
↑ Consolidating manufacturing in a single facility.



↑ Incorporating the local context into design.



↑ Plan.

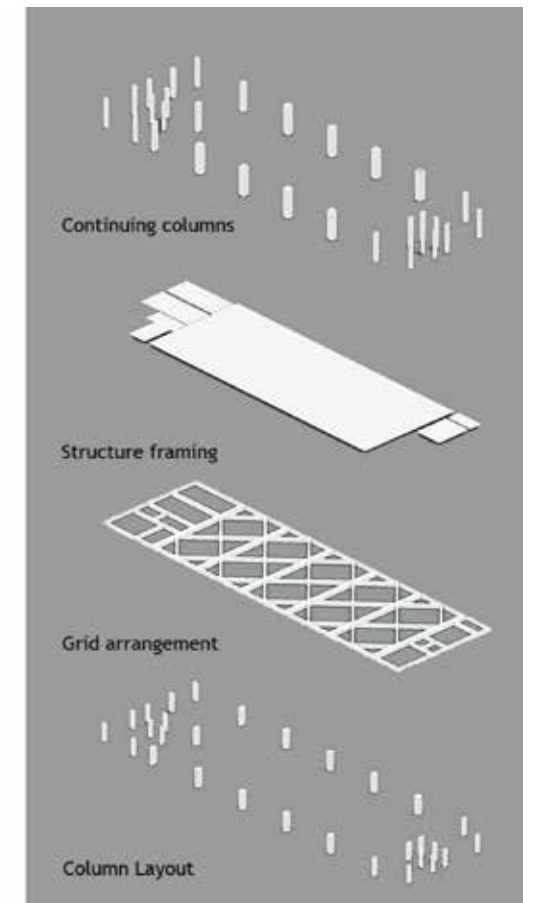


Structural Plan

Diagonal truss structure reduces the overall steel consumption of the building, thereby reducing the dead load of the structure.



Final Structure



Continuing columns

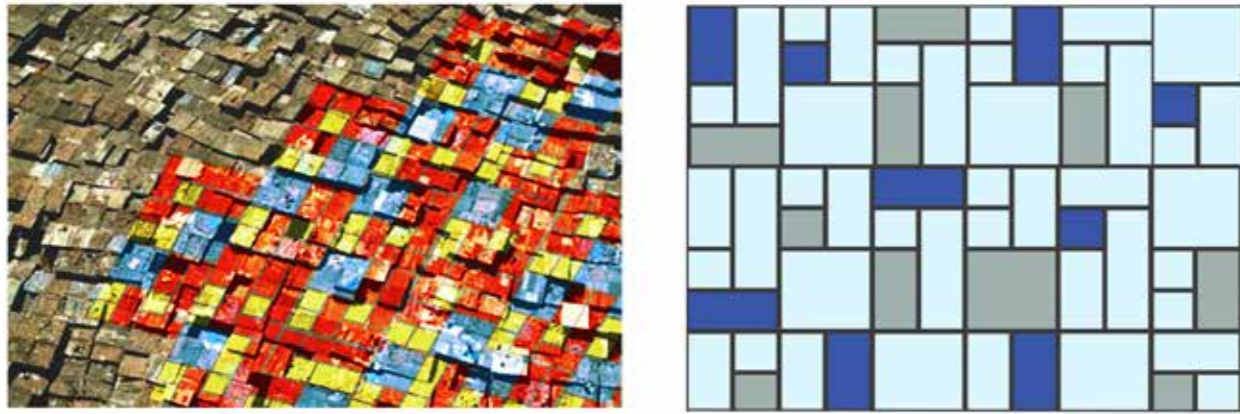
Structure framing

Grid arrangement

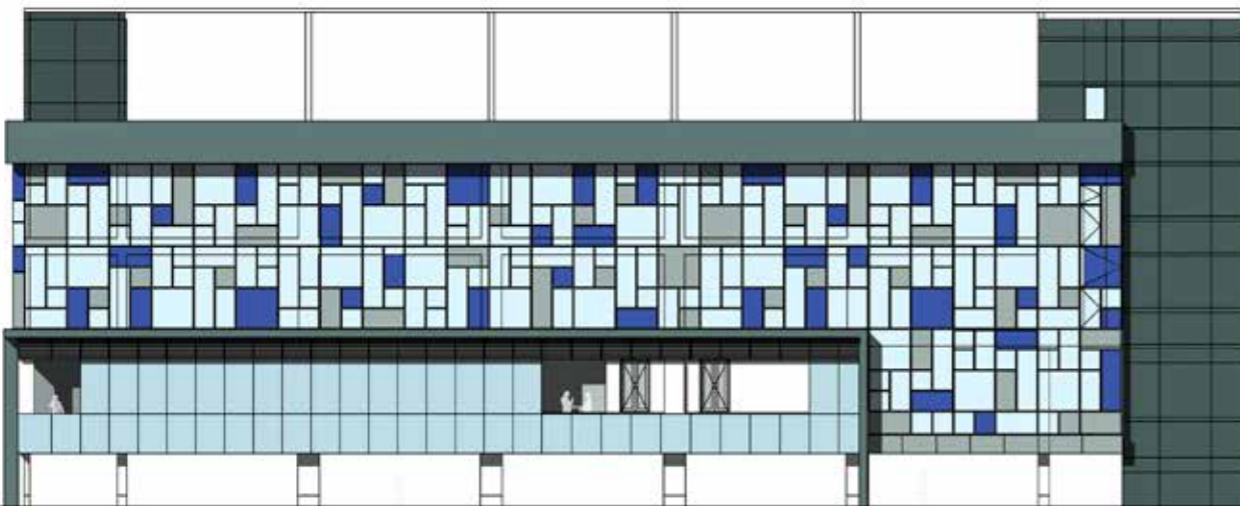
Column Layout

The Pixelet building designed by AKDA is a demonstration of how, the architecture of our everyday buildings, offices and commercial spaces can add value to an urban landscape. The industrial area of Kirti Nagar in Delhi is a frenzied cosmos. It bustles with labourers, and entrepreneurs who want to benefit from this easy availability of workforce in this central location within the city after having overcome initial challenges of a largely failed public infrastructure of roads, sewerage and water.

In this scenario, abutting the railway line, but separated from it by an informal settlement of ragpickers and garbage sorters, was a half-acre site, housing nothing but a disused cement godown that had to be turned into a manufacturing facility for export-oriented garments. Productivity focussed around the movement of materials from their raw state to the finished product and packaging had to be a prerogative of the design. Long-term maintenance would need to be limited and materials appropriate for a sustainable solution.



A geometric pattern was derived from the context of our site: A densely populated unauthorized settlement.



This pattern from the context was extrapolated into a layered pixel facade as the main elevation of the building.

↑ Façade Evolution.



↑ Limiting the columns to the periphery.

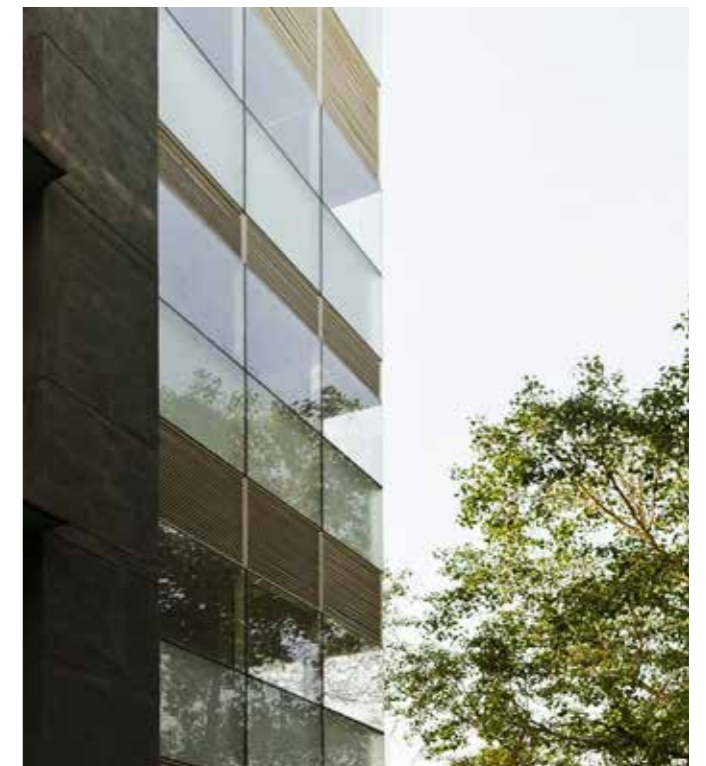


↑ A complex geometry as per organic pattern of the adjoining informal settlement.



↑ Column Free Floor Space.

The godown was done away with to capitalize on the new building regulations that allowed for the construction of nearly one lakh square feet of production space. Thus, two identical buildings were created for this purpose. The raw material enters the building through the 20,000 square feet basement, above which the building is divided into two blocks, as there are two production verticals. A diagrid system has been used to achieve column-free spaces throughout. The ground floor gets free vehicular movement, while the spacing of the columns along the periphery enables daylight to pour in through large windows. Circulation cores housed at either end of the building are equipped with ducts that provide cooled air to production floors, eliminating the need for air conditioning, thereby reducing electricity load.





↑ The Stripped Aluminium Ceiling.



A six thousand square foot office space sits on the ground floor. The prime feature of this all white office is its aluminium ceiling with LED strip lighting. The office also has a large showroom that opens to a garden terrace and a cafeteria in bright orange.

While all facades of the building had received a strictly climatic treatment, the road-facing North facade was allowed to have a glass front, designed with respect to the local context. The organic pattern of the adjoining formal settlement is reflected in the complex geometry created with varying sizes and colours of glass. "The different colors catch and reflect light differentially, yet harmonize into a uniform texture when seen from a distance," proclaim the architects. ■

FACT FILE:

Project	:	Pixelat
Location	:	Delhi, NCR
Architect	:	Amit Khanna
Design team	:	AKDA
Project Area	:	100000 Sq. Ft.
Structural Engineer	:	Space Consulting Engineers
Civil contractors	:	Adhunik Infrastructure
Initiation of Project	:	2014
Completion of project	:	2016