

CASE STUDY

GKD METAL FABRICS

LEADING PROVIDER AND PIONEER OF ARCHITECTURAL METAL FABRIC



CLOSING THE CIRCUIT

Samsung America
Headquarters
San Jose, CA

PROJECT
PARTNERS:
NBBJ
Webcor Builders

CASE STUDY: GKD METAL FABRICS

Global architecture firm NBBJ completed the energy-efficient headquarters for technology powerhouse Samsung using the high-tech giant's brand positioning as inspiration for design elements throughout. The building features a 10-story tower, pavilion, and parking garage structure, creating a collaborative design for both employees and the community. Located in Silicon Valley, the headquarters houses the company's 2,000 employees, which encompass the R&D and sales departments.

The 1.1 million square-foot headquarters is enveloped in terracotta, white metal, and glass to not only reduce solar intake, but to also reduce energy and operating costs. The glass exterior allows for an influx of natural light to penetrate the interior, while trees and other foliage create a natural environment in the structure's centralized courtyard. The campus features fitness centers and cafes, some of which will be open to the public, according to the architects at NBBJ.

A main component of the design is the towering parking garage which features 36,000 square feet of screen-printed, GKD Omega 1520 metal mesh. GKD utilized CAD files to create custom stencils which were then used to screen print the color directly onto the metal mesh, a process pioneered by GKD Germany. Though this process had been realized in projects throughout Europe, Samsung marked the first application of screen-printed metal mesh in the United States. The inspiration for the screen-printed design which spans 70 mesh panels, was a circuit board to further underscore Samsung's position as a technology powerhouse. Omega was specified for its ability to receive a high-definition printed image and its transparency, which allows necessary ventilation without requiring alternative or active cooling sources.



According to the architects, one determining factor in selecting GKD to manufacture, engineer and install the façade, was its ability to be involved in the process from concept through completion, eliminating the need for third party engineering or installation. The project required an extensive amount of structural steel, which GKD was able to deliver given its in-house fabrication capabilities. Precision accuracy was a necessary component in estimating the exact field dimensions of the structural steel as all components were manufactured offsite and then shipped directly, ready for installation.

The GKD project team worked closely with Samsung, NBBJ and the city of San Jose to meet these project expectations, completing the project within strict time constraints and to the architect's exact specifications.

Due to several sustainable features, including optimal daylighting, natural ventilation, use of recycled water, low-flow water fixtures and LED lighting technology, the project received LEED Gold certification.

